

Our Ref: CEB06857:ASJ  
Contact: Andy Johnston

19 March 2018

EDQ  
1 William Street  
**Brisbane QLD 4000**

Attention: Genaea Keith

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

**Approval no: DEV2017/864**

**Date: 2 May 2018**



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Dear Genaea,

### **CARSELDINE URBAN VILLAGE - STAGE S RESPONSE TO FURTHER ISSUES - TRAFFIC MATTERS**

Cardno has been commissioned by Economic Development Queensland (EDQ) to provide traffic and transportation advice in relation to the proposed Carseldine Urban Village (CUV) development, which forms Precinct 1 of the greater Fitzgibbon Priority Development Area (PDA). Stage S, the first of the Precinct 1 stages, is proposed to be redeveloped as a revitalised sports and recreation precinct.

On Thursday, October 5, 2017, further issues were received in relation to the Stage S application. Since the receipt of the further issues letter, amendments to the Stage S design have been made in response to discussions with the Department of Transport and Main Roads regarding the bus corridor. As a result, an amended transport statement has been prepared to reflect the updated plans. The amended statement is attached with this letter.

This letter provides a response to the further issues raised in relation to the traffic aspects, itemised as follows:

- > Demonstrate how the temporary access road has adequate sight lines for a right turn movement from the existing internal road to the new temporary road.
- > Confirm proposed road designs are compliant with the design standards contained in the Fitzgibbon Development Scheme; Cardno TIA and the Calibre Engineering Services Report indicate different functional layouts for the east-west road adjoining the park. Please ensure all technical reports are consistent and show the same layouts.
- > Continue to liaise with TMR to resolve issues relating to proposed encroachment into the proposed busway corridor.

This letter provides a response to each item below, with the item reproduced for ease of reference.

*Demonstrate how the temporary access road has adequate sight lines for a right turn movement from the existing internal road to the new temporary road.*

#### Cardno Response

##### *Minimum Gap Sight Distance*

For the right turn movement from the existing road to the new temporary road, the critical sight distance is governed by the minimum gap sight distance (MGSD). The minimum sight distances are outlined in Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.

Referring to Table 3.6 in Part 4A, the relevant variables are as follows:

- > Movement: right turn from major road
- > Critical gap: 4 seconds
- > Follow up headway: 2 seconds

> 85<sup>th</sup> percentile speed of approaching vehicle: assumed 50km/h, conservative estimate based on road geometry and speed reduction measures (speed bump)

Figure 1-1 indicates the selection process for the MGSD requirements outlined in the Austroads guide.

Figure 1-1 Minimum Gap Sight Distance Requirement

**Table 3.6: Table of minimum gap sight distances ('D' metres) for various speeds**

Critical gap acceptance time (t <sub>a</sub> ) (secs)	85 <sup>th</sup> percentile speed of approaching vehicle (km/h)										
	10	20	30	40	50	60	70	80	90	100	110
4	11	22	33	44	55	67	78	89	100	111	122
5	14	28	42	55	69	83	97	111	125	139	153
6	17	33	50	67	83	100	117	133	150	167	183
7	19	39	58	78	97	117	136	155	175	194	214
8	22	44	67	89	111	133	155	178	200	222	244
9	25	50	75	100	125	150	175	200	225	250	275
10	28	56	83	111	139	167	194	222	250	278	305

Source: Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections, Table 3.6

Based on these parameters, it is determined that the minimum gap sight distance is 55m.

The sight distance drawing CEB06857-SK14-A enclosed demonstrates that sufficient sight distance (in excess of 55m) is provided for right turning vehicles turning into the proposed temporary access. Some vegetation maintenance is required for the overgrown bushes on the eastern verge of the road to maintain clear sight lines, as illustrated on Figure 1-2.

Figure 1-2 Existing Internal Road (view from right turning vehicle into temporary road looking north)



Source: Google Street View via Nearmap

However, in terms of the road geometry, sufficient sight distance is provided for vehicles turning right into the temporary access road.

*Safe Intersection Sight Distance*

In terms of the safe intersection sight distance (SISD) from the minor road, the values outlined in Austroads Guide to Road Design Part 4A Table 3.2 were referred to. The site specific parameters adopted include the following:

- > Design speed: 50km/h
- > Reaction time: 2 seconds
- > Observation time: 3 seconds
- > Coefficient of deceleration: 0.36 (cars on wet sealed roads)

Figure 1-3 indicates the selection process for the SISD requirements outlined in the Austroads guide.

Figure 1-3 Safe Intersection Sight Distance Requirement

**Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S < L)**

Design speed (km/h)	Based on safe intersection sight distance for cars <sup>(1)</sup> $h_1 = 1.1; h_2 = 1.25, d = 0.36^{(2)}$ ; Observation time = 3 sec					
	$R_T = 1.5 \text{ sec}^{(3)}$		$R_T = 2.0 \text{ sec}$		$R_T = 2.5 \text{ sec}$	
	SISD (m)	K	SISD (m)	K	SISD (m)	K
40	67	4.9	73	6	–	–
50	90	8.6	97	10	–	–
60	114	14	123	16	–	–
70	141	22	151	25	–	–
80	170	31	181	35	–	–
90	201	43	214	49	226	55
100	234	59	248	66	262	74
110	–	–	285	87	300	97
120	–	–	324	112	341	124
130	–	–	365	143	383	157

Source: Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections, Table 3.2

Based on these parameters, it is determined that the safe intersection sight distance is 97m.

The sight distance drawings CEB06857-SK12-A and CEB06857-SK13-A demonstrate that sufficient sight distance (in excess of 97m) is provided at the proposed temporary access. Similar to Figure 1-2, vegetation maintenance is required for the overgrown bushes on the eastern verge of the road to maintain clear sight lines.

Confirm proposed road designs are compliant with the design standards contained in the Fitzgibbon Development Scheme; Cardno TIA and the Calibre Engineering Services Report indicate different functional layouts for the east-west road adjoining the park. Please ensure all technical reports are consistent and show the same layouts.

Cardno Response

Development Scheme Cross Section

The east-west road adjoining the park is classified as a Residential Park Esplanade in the Fitzgibbon Development Scheme. The Development Scheme identifies the road reserve width as 21m however the cross section indicates that the road components add up to 22.5m. This is illustrated on Figure 1-4.

Cardno Traffic Impact Assessment Cross Section

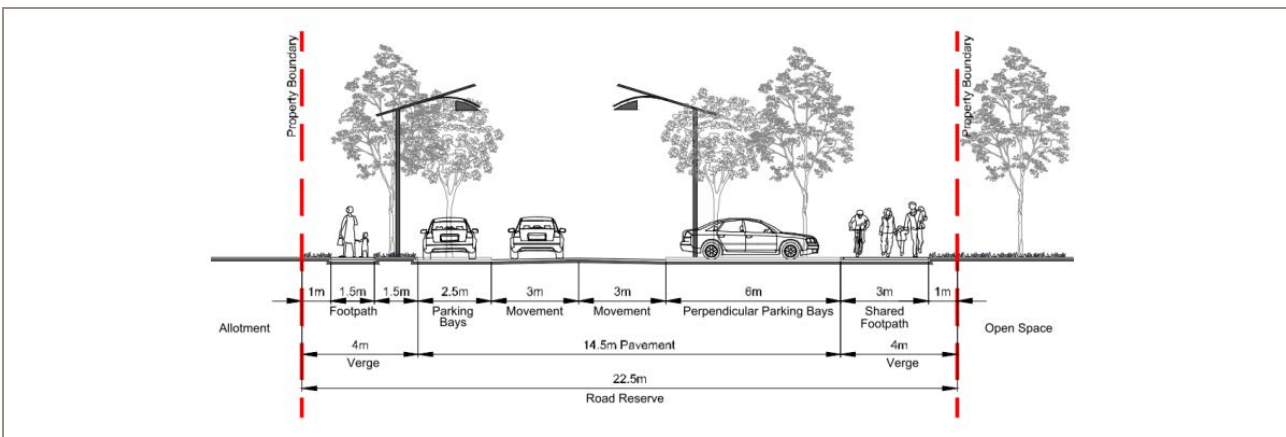
The Cardno TIA presented the cross sections prepared by RPS. This proposed a generally consistent cross section with that outlined in the Development Scheme, however with a slight change to the multi-use/shared path width from 4m to 3m with a 1m landscaped strip. Overall, the road reserve width (22.5m) is consistent with the Development Scheme. The proposed cross section is outlined in Figure 1-5.

Figure 1-4 Fitzgibbon Development Scheme



Source: Urban Land Development Authority (ULDA), July 2011

Figure 1-5 RPS Proposed Cross Section



Source: RPS, July 2017

The deviation from the Development Scheme is considered to be minor and consistent with the intent of the proposed road corridor. The provision of a 3.0m wide shared path is consistent with Austroads guidance for path widths, which indicates a range of 3.0m to 4.0m for recreational paths.

*Calibre Cross Section Design*

The road design prepared by Calibre includes a 22.5m road reserve, consistent with the Development Scheme and the RPS proposed design. The key differences proposed by the Calibre design are outlined as follows:

- > Perpendicular on street parking is 5.4m long instead of 6.0m, as presented in the Development Scheme and the RPS proposed cross section. However, it is noted that this is in accordance with the Australian Standard AS2890.5 for on-street parking facilities which stipulates that a minimum of 5.4m space length is required.
- > Shared use path is 3m wide, consistent with the RPS proposed cross sections but not consistent with the Development Scheme (4m).

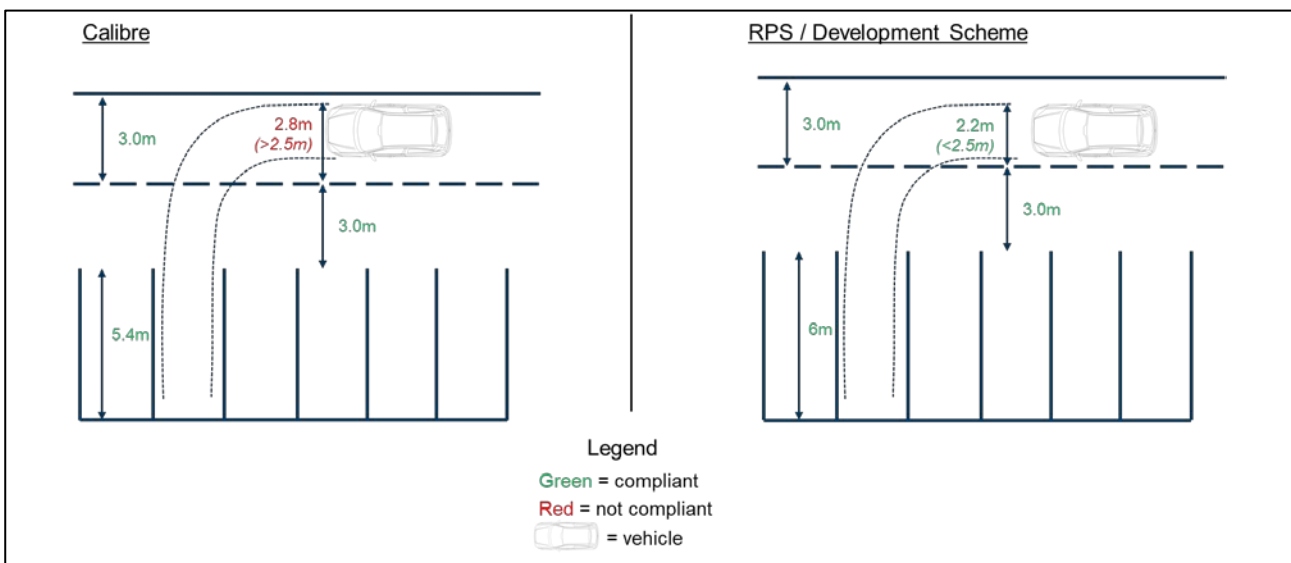
All designs (Development Scheme, RPS and Calibre) include two 3.0m wide travel lanes.

While AS2890.5 standard indicates the following standard:

- > minimum space length of 5.4m
- > manoeuvring space of 5.8m from the end of the space required for on-street angled (90°) parking
- > within the manoeuvring space, up to 2.5m encroachment into the adjacent travel lane permitted.

The difference between the Calibre and RPS designs is illustrated in Figure 1-6.

Figure 1-6 Comparison of On-street Parking Design



The Calibre design allows for 5.8m manoeuvring space as per the standard, however this requires encroachment of 2.8m into the adjacent travel lane which is greater than the allowable 2.5m.

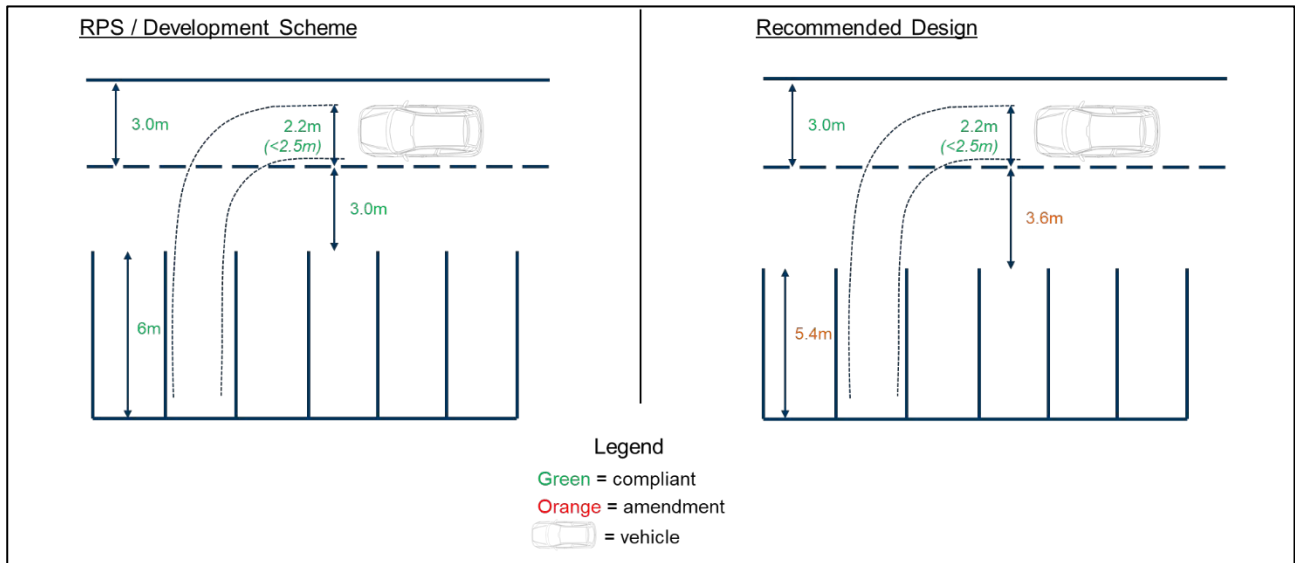
The RPS and Development Scheme designs provides an additional 0.6m manoeuvring space with the provision of 6m long bays, allowing for 2.2m encroachment into the adjacent lane, which is in accordance with AS2890.5. However, it is noted that the additional 600mm length provided within the bays should be allocated as road space to avoid the situation where vehicles park up to the edge of the space, minimising the manoeuvring space possible for other vehicles.

Therefore, Cardno recommends the following amendments be made to the final design of the road:

- > space length of 5.4m
- > 3.6m travel lane width for lane immediately adjacent to parking, this is an increase of 0.6m from the Development Scheme, RPS and Calibre designs.

This is illustrated on Figure 1-7. While these changes differ from the Development Scheme design and the RPS design, it maintains compliance with the AS2890.5 for on-street parking.

Figure 1-7 Recommendation for On-Street Parking Design



It is considered that the provision of on-street parking is appropriate in this situation given the lower order hierarchy of the street, closed catchment environment and slower speed function of this road. These factors contribute to the driver awareness and expectation for vehicles executing parking manoeuvres, and therefore, slower speed travel through this area is expected.

*Summary*

Therefore, the recommended changes to the cross section outlined in Figure 1-7 are proposed to override the RPS design and the Development Scheme design to ensure compliance with Australian Standards. The differences between the designs have been resolved to align with the recommended design to override the Development Scheme as an acceptable solution. This has been reflected in the updated RPS design.

*Continue to liaise with TMR to resolve issues relating to proposed encroachment into the proposed busway corridor*

**Cardno Response**

In discussions with TMR, the proposed busway corridor is planned for implementation at 2041. TMR has advised that once construction of the busway is nearing commencement, the land designated for the corridor will be resumed.

EDQ has acknowledged this and made allowance for this future planning by not locating any permanent facilities within the corridor zone. As a result, the sporting facilities have been reduced from the previous proposal. The amended transport statement enclosed provides an updated assessment for these changes.

Should you have any further queries please do not hesitate to contact Andy Johnston on 07 3877 6931.

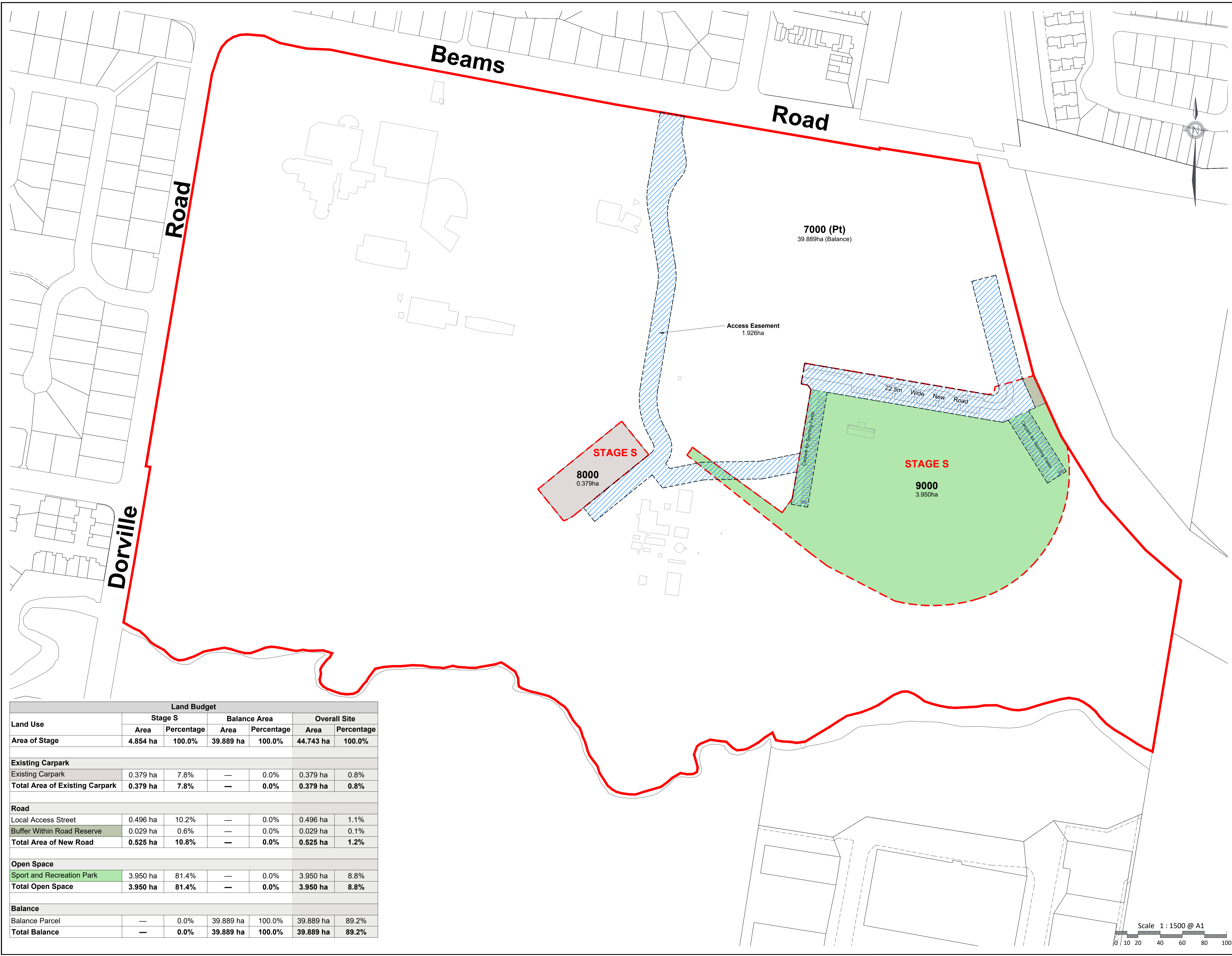
Yours sincerely,

Andy Johnston  
Team Leader - Traffic Engineering  
for Cardno  
Direct Line: +61 7 3877 6931  
Email: [andrew.johnston@cardno.com.au](mailto:andrew.johnston@cardno.com.au)

Enc: Stage S Plan  
Amended Transport Statement, Cardno  
Sight Line Drawings CEB06857-SK12-SK14-A

CARSELDINE URBAN VILLAGE -  
STAGE S

APPENDIX A  
STAGE S PLAN



**REVISION**  
 A: 12/07/2017 - Amend Access Easement  
 B: 27/07/2017 - Amend Lot 9000 Boundary  
 C: 31/07/2017 - Amend Access Easement  
 D: 03/08/2017 - Incorporation of Drainage Parcel  
 E: 04/08/2017 - Remove drainage  
 F: 07/03/2018 - Amend Lot 9000 Boundary  
 G: 19/03/2018 - Road pavement amendments

**Note:**  
 All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.  
 Dimensions have been rounded to the nearest 0.1 metres.  
 Areas have been rounded down to the nearest 5m<sup>2</sup>.  
 The boundaries shown on this plan should not be used for final detailed engineers design.  
**Source Information:**  
**Site boundaries:** Registered Survey Plans.  
**Adjoining information:** DCDB.  
**Contours:** QUT.

**Legend**  
 - Site Boundary  
 - Proposed Stage Boundary  
 - Access Easement

**CLIENT**  
**ECONOMIC DEVELOPMENT QUEENSLAND**

**PROJECT**  
**CARSELDINE URBAN VILLAGE**

**RECONFIGURATION OF LOT STAGE S - OVERALL PLAN**

Date: 19 MARCH 2018  
 Comp By: MD  
 Checked By: MD / DG  
 DWG Name: 128180-29 - ROL  
 Job Ref: 128180  
 Local Authority: ECONOMIC DEVELOPMENT QUEENSLAND

Locality: CARSELDINE  
 Scale: 1:1500 Sheet A1  
 Plan Ref: 128180-29 Rev G

**PLAN 1 OF 2**  
**RPS**  
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 ACN 140 292 762  
 ABN 44 140 292 762  
**Urban Design**  
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Land Use	Stage S		Balance Area		Overall Site	
	Area	Percentage	Area	Percentage	Area	Percentage
<b>Area of Stage</b>	<b>4.854 ha</b>	<b>100.0%</b>	<b>39.889 ha</b>	<b>100.0%</b>	<b>44.743 ha</b>	<b>100.0%</b>
<b>Existing Carpark</b>						
Existing Carpark	0.379 ha	7.8%	—	0.0%	0.379 ha	0.8%
<b>Total Area of Existing Carpark</b>	<b>0.379 ha</b>	<b>7.8%</b>	<b>—</b>	<b>0.0%</b>	<b>0.379 ha</b>	<b>0.8%</b>
<b>Road</b>						
Local Access Street	0.496 ha	10.2%	—	0.0%	0.496 ha	1.1%
Buffer Within Road Reserve	0.029 ha	0.6%	—	0.0%	0.029 ha	0.1%
<b>Total Area of New Road</b>	<b>0.525 ha</b>	<b>10.8%</b>	<b>—</b>	<b>0.0%</b>	<b>0.525 ha</b>	<b>1.2%</b>
<b>Open Space</b>						
Sport and Recreation Park	3.950 ha	81.4%	—	0.0%	3.950 ha	8.8%
<b>Total Open Space</b>	<b>3.950 ha</b>	<b>81.4%</b>	<b>—</b>	<b>0.0%</b>	<b>3.950 ha</b>	<b>8.8%</b>
<b>Balance</b>						
Balance Parcel	—	0.0%	39.889 ha	100.0%	39.889 ha	89.2%
<b>Total Balance</b>	<b>—</b>	<b>0.0%</b>	<b>39.889 ha</b>	<b>100.0%</b>	<b>39.889 ha</b>	<b>89.2%</b>

Scale 1 : 1500 @ A1  
 0 10 20 40 60 80 100



CARSELDINE URBAN VILLAGE -  
STAGE S

**APPENDIX B**  
AMENDED TRANSPORT STATEMENT

Our Ref CEB06857 Letter 2018 02 13

Contact Andy Johnston

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Australia

14 Feb 2018

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Locked Bag 4006  
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Attention: Genaea Mitchell

Phone: 61 7 3369 9822  
Fax: 61 7 3369 9722

Dear Genaea

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### **CARSELDINE URBAN VILLAGE – STAGE S Transport Statement - Amended**

Cardno has been commissioned by Economic Development Queensland (EDQ) to provide traffic and transportation advice in relation to the proposed Carseldine Urban Village (CUV) development, which forms Precinct 1 of the greater Fitzgibbon Priority Development Area (PDA).

Precinct 1 as the name suggests is the first of 8 precincts that form the Fitzgibbon PDA. The Queensland Government has developed a development scheme for the Fitzgibbon PDA detailing the proposed land uses, yields and internal road network for Precinct 1. The land uses include special purpose, mixed use centre, residential, civic and open space and bushland and open space. The mixed used areas comprise of residential, commercial and retail uses.

External roadworks outlined by the development scheme triggered by Precinct 1 include an upgrade of the Balcara Avenue and Beams Road intersection, an upgrade of the Beams Road and Dorville Road intersection and an upgrade of Beams Road and the site access intersection. The site falls within the Brisbane City Council local government area. Staging for Precinct 1 commences with Stage S and continues to Stage 5.

### **Existing Situation**

The proposed CUV development is bound by Beams Rd to the north, Dorville Rd to the west, the Caboolture and Redcliffe train line to the east and Cabbage Tree Creek to the south as depicted on Figure 1. The existing uses include a childcare centre, QUT testing facility and government precinct currently tenanted by the Department of Transport and Main Roads (TMR). This transport statement outlines the traffic, access and parking aspects of Stage S.

**Figure 1 Site Location and Existing Uses**



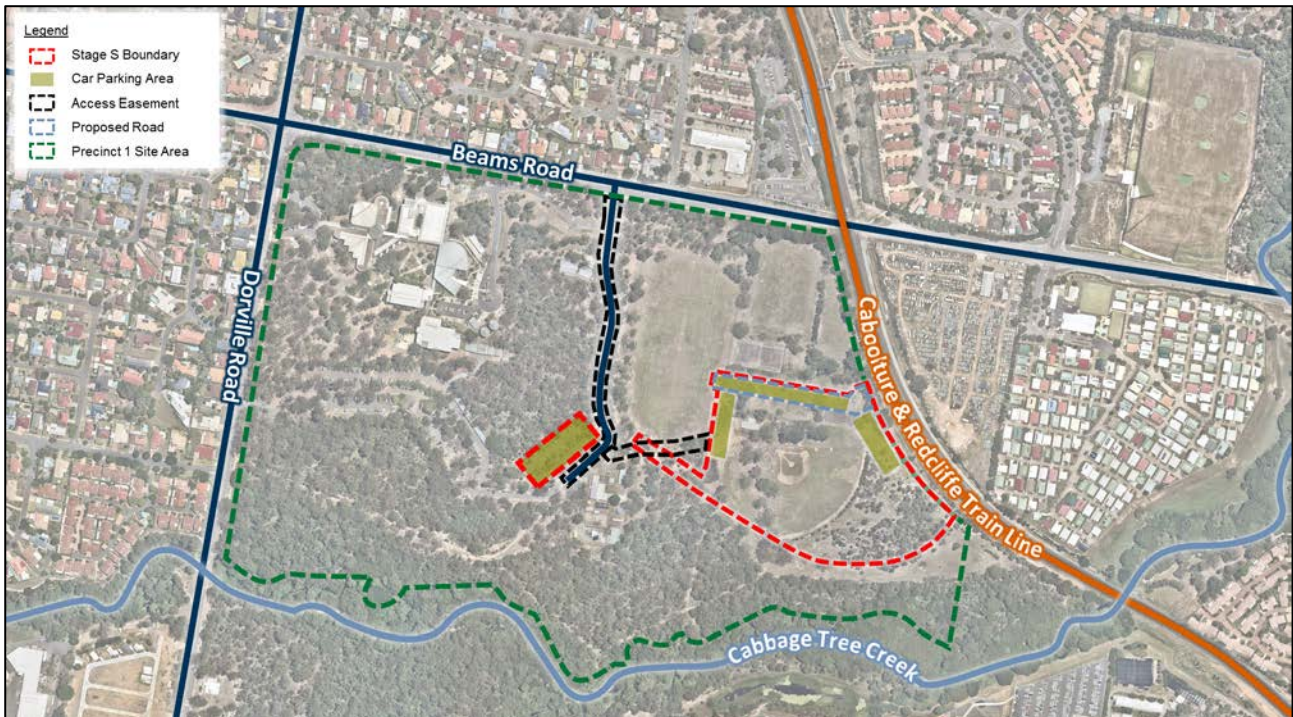
Source: Nearmap

### Development Proposal

As indicated on Figure 1, the site is currently accessed from both Beams Road and Dorville Road. Access for Stage S of Precinct 1 will be via the existing Beams Road access as shown on Figure 2. The existing Stage S site accommodates the following facilities:

- > Baseball fields;
- > Basketball courts;
- > Cricket nets; and
- > Change area;

Four parking areas are proposed for Stage S as indicated on Figure 2. The western parking area is an existing facility and will be retained throughout Stage S of Precinct 1. Additionally, the existing change area will be retained maintaining a close walking distance to the carparks in the sports field.

**Figure 2 Precinct 1 – Stage S**


Source: Nearmap

The redevelopment of Stage S proposes to replace the existing facilities with the following community facilities:

- > 3 Soccer fields;
- > 2 Tennis courts;
- > 2 Volleyball courts;
- > 1 Cricket pitch;
- > Dog exercise park;
- > BBQ shelter area;
- > Fitness area;
- > Play area; and
- > Change area

### Traffic Impact

The peak traffic generated by the Stage S development will occur outside the weekday AM and PM peak periods. As the land uses are designated for sporting facilities, the majority of traffic to and from Stage S will occur on weekends or after the PM peak hour period. Therefore, any peak trips generated by the site on the surrounding road network will be negligible.

### Car Parking Provision

Parking provision for the Stage S area has been reviewed in accordance with the Brisbane City Council's Transport, Access, Parking and Servicing Planning Scheme Policy (TAPS). The parking requirement for the Stage S proposal is outlined in Table 1.

**Table 1 Minimum Parking Requirement**

Land Use	Classification	Parking Rate	Playing Areas	Parking Requirement	Parking Provision
Soccer field	Outdoor sport and recreation, if a ground, such as football, cricket or hockey	50 spaces per field	3	150	
Tennis Court	Outdoor sport and recreation, if a tennis court	6 spaces per court	2	12	
Volleyball Court	Outdoor sport and recreation, if a court game other than tennis	20 spaces per court	2	40	275
Cricket Pitch	Park, if in the District zone precinct or a district park, where for informal recreation purposes such as picnic nodes and off-leash areas	10–20 spaces	1	20	
<b>Total</b>				<b>222 spaces</b>	<b>275 spaces</b>

Stage S proposes to provide 275 car parking spaces combined located across four parking areas within the Stage S boundary as indicated in Figure 2. In accordance with TAPS, the minimum parking required is 222 spaces based on the proposed land uses. Thus, there will be sufficient parking provided for the sports fields with 53 spaces surplus for use by future stages.

In addition, one disabled parking space per 50 regular parking spaces is to be provided, which equates to a minimum of six parking spaces for people with disabilities.

All car parking areas for Stage S will be within walking distance of the sports facilities. Parking areas are mostly considered to be off street parking except the on street parking on the proposed new road in Stage S indicated on Figure 2 which carries 57 spaces of 90 degree and parallel parking.

## Car Parking Design

Table 2 outlines the compliance with TAPS parking design standards.

**Table 2 Parking Design Compliance**

Design Criteria	Proposed Design	TAPS PSP Compliant	AS2890.1/AS2890.5 Compliant
Bay length – standard (5.4m)	6m	✓	✓
Bay width – sporting venues (2.5m)	2.5m	✓	✓
Bay width – People with Disability (2.4m plus 2.4m shared zone)	2.5m plus 2.5m shared zone	✓	✓
Aisle width (6.2m)	Min. 6.0m	✗	✓
Maximum gradient – People with Disability (2.5%)	Max. 2.5%	✓	✓
Disabled carparks (1 per 50 car parking spaces)	Min. 5	✓	✓
Continuous aisle length maximum (80m)	70m	✓	✓
Terminating aisle extension minimum (2m)	2.5m	✓	✓

As indicated the proposed design of the parking areas is generally in compliance with TAPS. While it is noted that the parking aisle width is not in accordance with TAPS standard, the AS2890.1 standard minimum of 5.8m is met which is considered appropriate. Each parking space is to be a minimum of 2.5m wide and 5.4m in length for sporting facilities.

TAPS outlines the minimum queuing provisions for each parking area. All parking areas except the existing parking area will be designed to carry a minimum of 2 queuing vehicles. Additionally, design service vehicle requirements in accordance with TAPS are defined in Table 3. Based on this, Stage S will require an RCV for its servicing requirements as Beams Road is a major road.

A swept path assessment has been completed for a BCC standard RCV, which demonstrates that the service vehicle can enter/ exit in a forward motion, and manoeuvre safely and efficiently through the site. Refer to drawing CEB06857-SK07-D. It is illustrated that the site is able to be safely serviced by an RCV.

**Table 3 Design Service Vehicle Requirement**

Development type	Design Vehicle		
	Occasional access	Regular access	
		Major Road	Minor Road
Outdoor sport and recreation	RCV	RCV	MRV

## Access

Access to the proposed CUV development for Stage S will be primarily through the existing Beams Road access. This access is an unsignalised intersection providing all movements for traffic ingress and egress. The access location is within 100m walking distance of the closest bus stops. As this is an existing access, the proposal is not deemed to compromise the safety of the existing road network. Furthermore, a temporary access road will connect the access easement to the car parking area until further stages are completed as illustrated in drawing CEB06857-SK15-B.

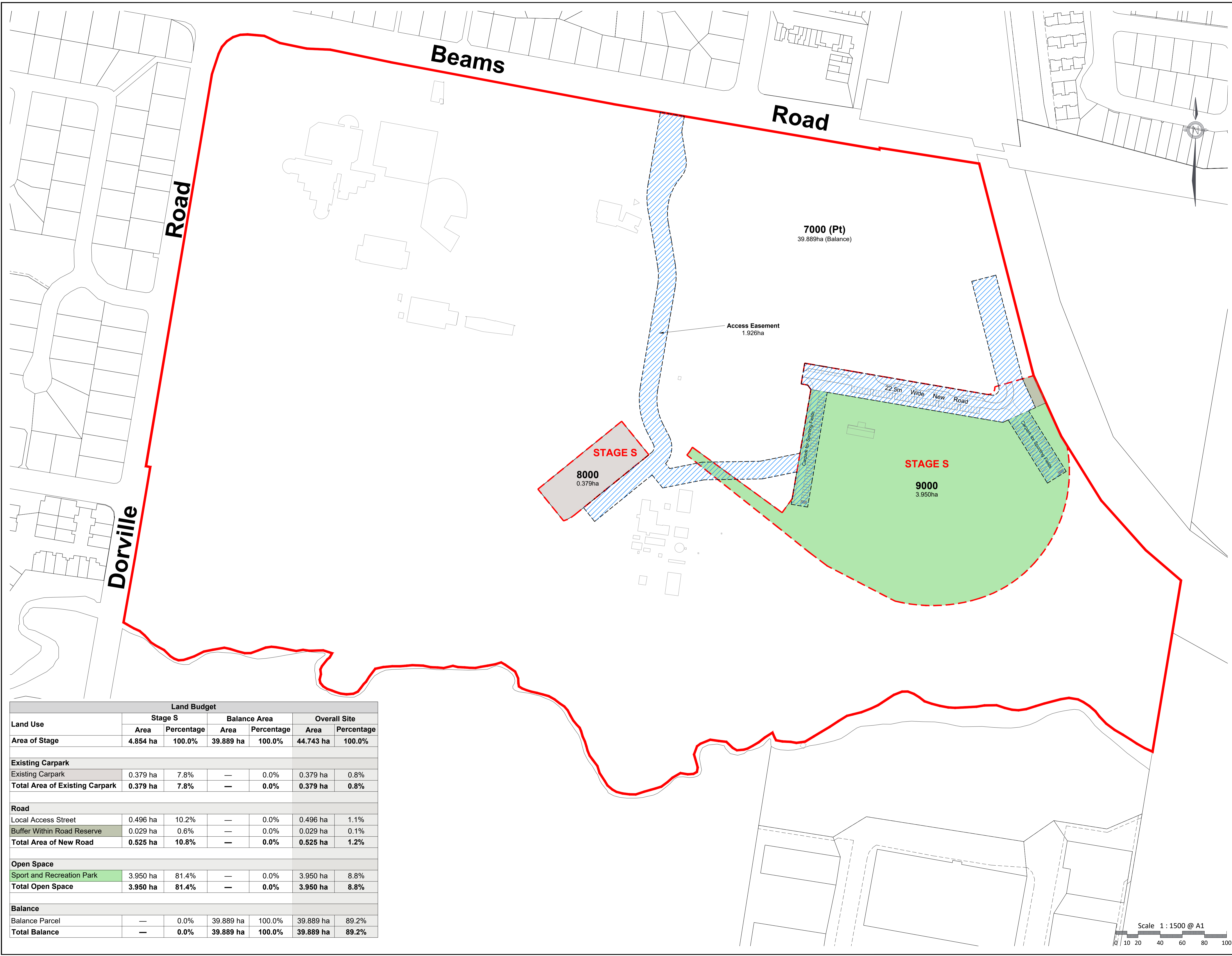
Pedestrian connections will be provided for movement through Stage S. A new pedestrian path is proposed to connect the existing western car parking area to the sporting facilities. This pedestrian path will be designed in accordance with TAPS minimum width of 2.4m for a high pedestrian use walkway. The main sporting areas will be connected by an existing path network.

It is considered that the car parking, access, and servicing aspects of the proposed Stage S of the Carseldine Urban Village development will meet minimum design requirements and will not compromise the safety or efficiency of the existing transport network.

Yours faithfully

Andy Johnston  
 Team Leader – Traffic Engineering  
 For Cardno  
 +617 3877 6931

Enc: Revised Stage S Plan  
 Swept path drawing CEB06857-SK07-D  
 Swept path drawing CEB06857- SK15-B



REVISION  
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CLIENT **ECONOMIC DEVELOPMENT QUEENSLAND**

PROJECT **CARSELDINE URBAN VILLAGE**

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Locality: CARSELDINE  
 Scale: 1:1500 Sheet A1

Plan Ref: 128180-29 Rev G

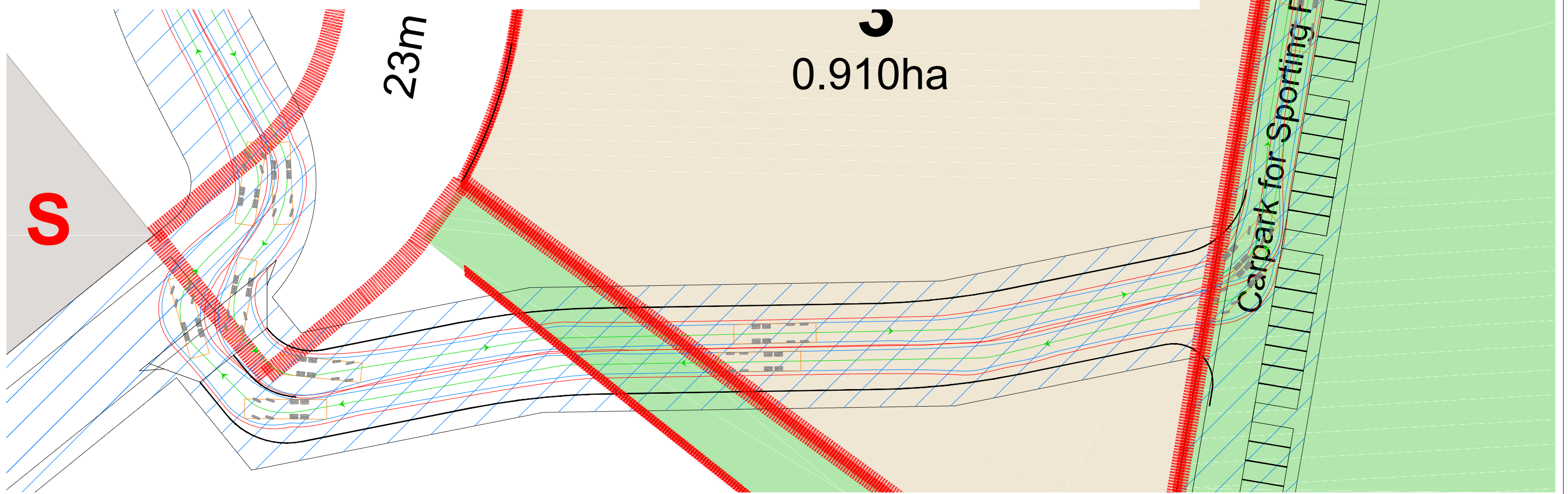
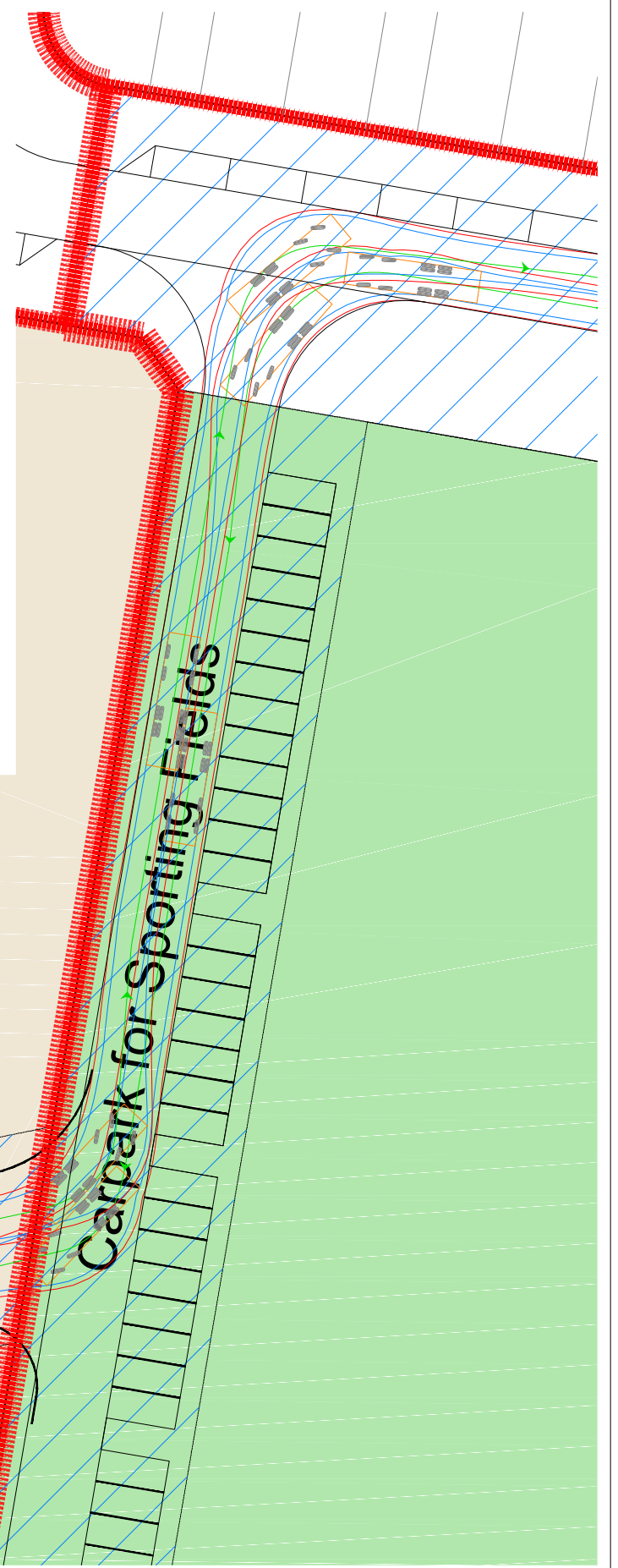
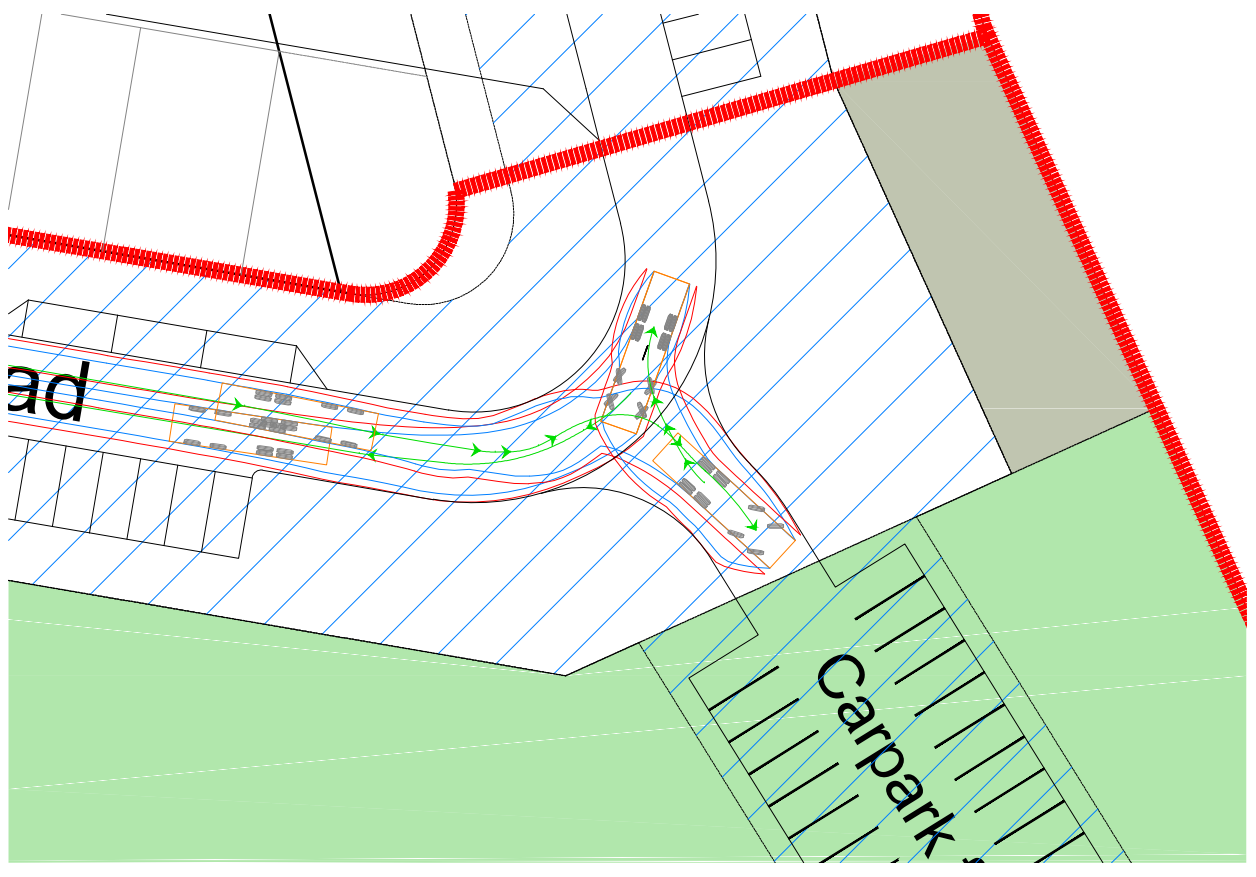
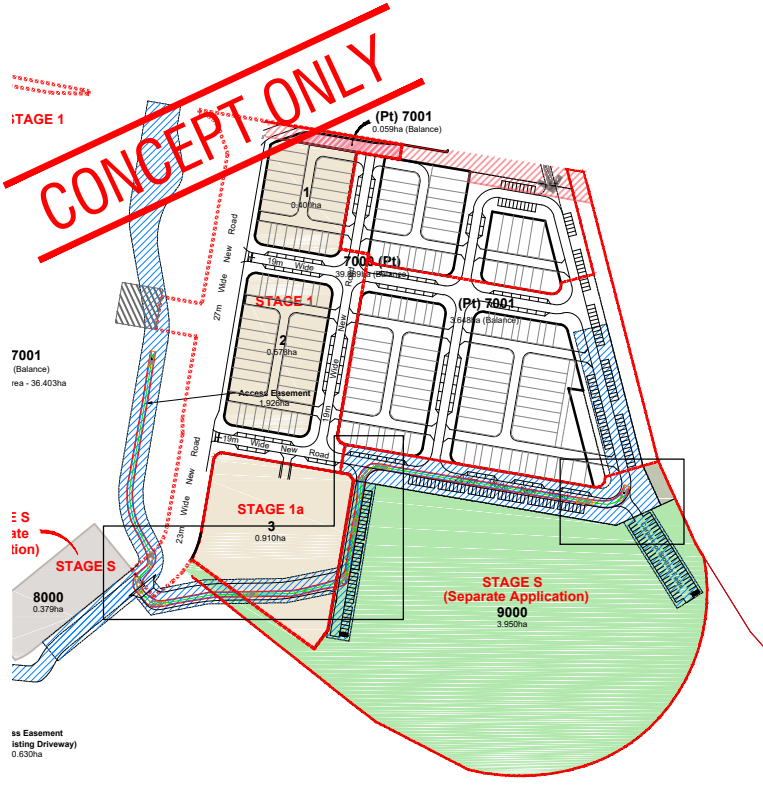
**PLAN 1 OF 2**  
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 ACN 140 292 762  
 ABN 44 140 292 762  
**Urban Design**  
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 455 Brunswick Street  
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Land Use	Stage S		Balance Area		Overall Site	
	Area	Percentage	Area	Percentage	Area	Percentage
<b>Area of Stage</b>	<b>4.854 ha</b>	<b>100.0%</b>	<b>39.889 ha</b>	<b>100.0%</b>	<b>44.743 ha</b>	<b>100.0%</b>
<b>Existing Carpark</b>						
Existing Carpark	0.379 ha	7.8%	—	0.0%	0.379 ha	0.8%
<b>Total Area of Existing Carpark</b>	<b>0.379 ha</b>	<b>7.8%</b>	<b>—</b>	<b>0.0%</b>	<b>0.379 ha</b>	<b>0.8%</b>
<b>Road</b>						
Local Access Street	0.496 ha	10.2%	—	0.0%	0.496 ha	1.1%
Buffer Within Road Reserve	0.029 ha	0.6%	—	0.0%	0.029 ha	0.1%
<b>Total Area of New Road</b>	<b>0.525 ha</b>	<b>10.8%</b>	<b>—</b>	<b>0.0%</b>	<b>0.525 ha</b>	<b>1.2%</b>
<b>Open Space</b>						
Sport and Recreation Park	3.950 ha	81.4%	—	0.0%	3.950 ha	8.8%
<b>Total Open Space</b>	<b>3.950 ha</b>	<b>81.4%</b>	<b>—</b>	<b>0.0%</b>	<b>3.950 ha</b>	<b>8.8%</b>
<b>Balance</b>						
Balance Parcel	—	0.0%	39.889 ha	100.0%	39.889 ha	89.2%
<b>Total Balance</b>	<b>—</b>	<b>0.0%</b>	<b>39.889 ha</b>	<b>100.0%</b>	<b>39.889 ha</b>	<b>89.2%</b>

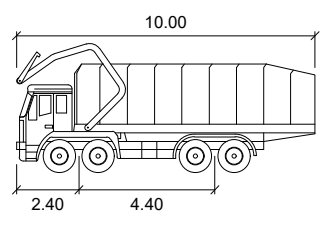
Scale 1 : 1500 @ A1  
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**CONCEPT ONLY**



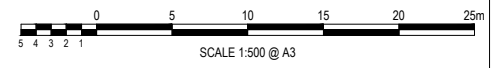
**SWEPT PATH LEGEND**

	VEHICLE BODY
	VEHICLE PATH
	VEHICLE CLEARANCE (500mm)
	VEHICLE



**RCV**

Width	: 2.50	meters
Track	: 2.50	
Lock to Lock Time	: 6.00	
Steering Angle	: 25.1	
Clearance Height	: 4.50	
Operating Clearance Height	: 6.10	



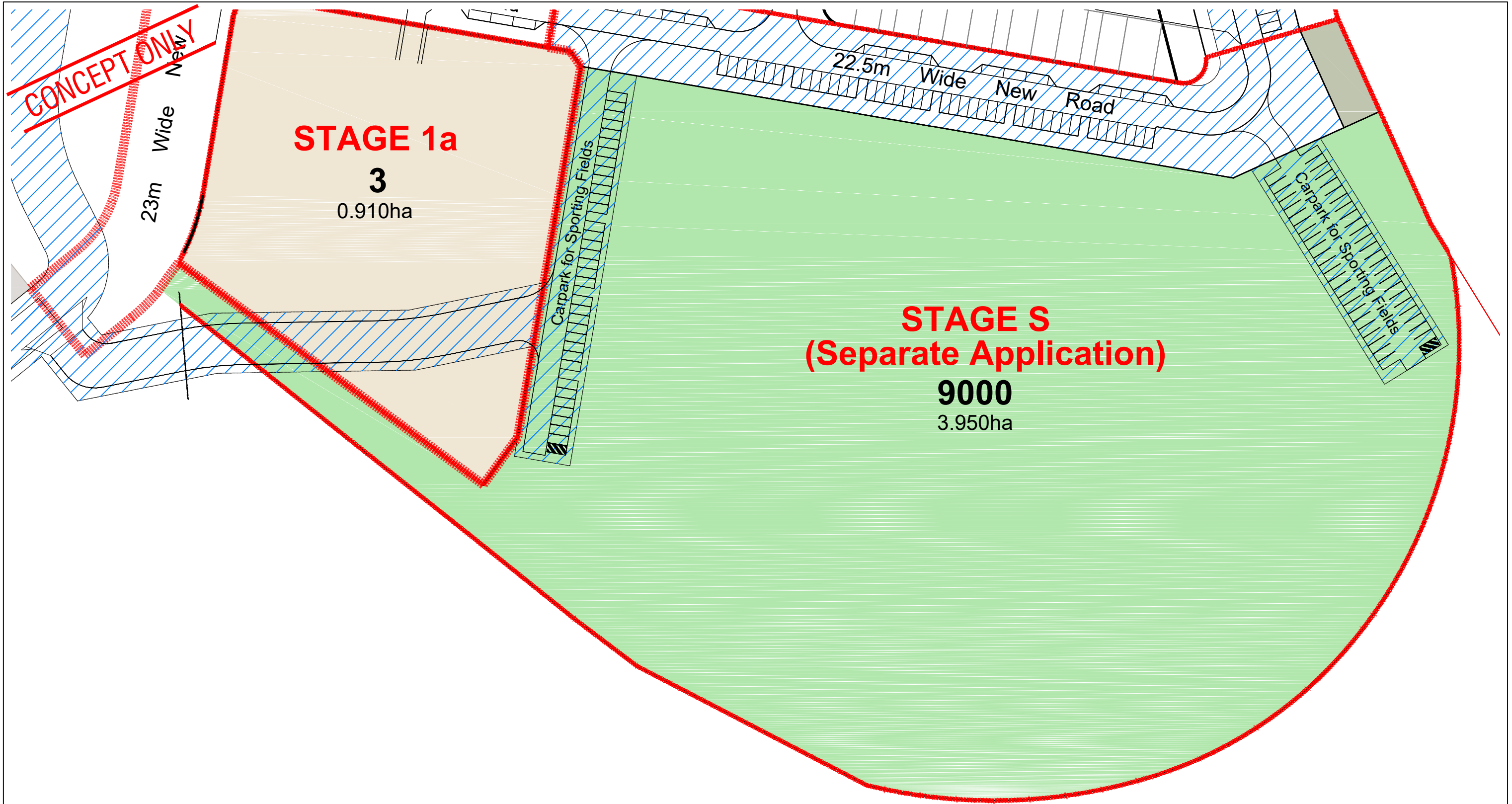
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**Carseldine Urban Village**  
 Beams Road / Balcara Avenue  
 Stage S  
 10.5 Refuse Collection Vehicle

Drawn T.Anang	Date 19/03/2017	Scale 1:500	Size A3
Drawing Number CEB06857 - SK07			Revision D





**CONCEPT ONLY**

**STAGE 1a**  
**3**  
0.910ha

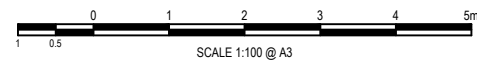
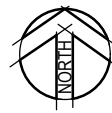
**STAGE S**  
**(Separate Application)**  
**9000**  
3.950ha

23m Wide New

22.5m Wide New Road

Carpark for Sporting Fields

Carpark for Sporting Fields



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Carseldine Urban Village Proposed Stage S Layout			
Drawn T.Anang	Date 19/03/2018	Scale 1:500	Size A3
Drawing Number CEB06857 - SK15			Revision B

CARSELDINE URBAN VILLAGE -  
STAGE S

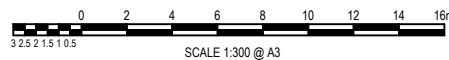
# APPENDIX C

SIGHT LINE DRAWINGS CEB06857-  
SK12-SK14-A

**CONCEPT ONLY**



97m SISD for 50km/h Design Speed



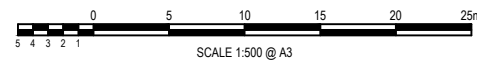
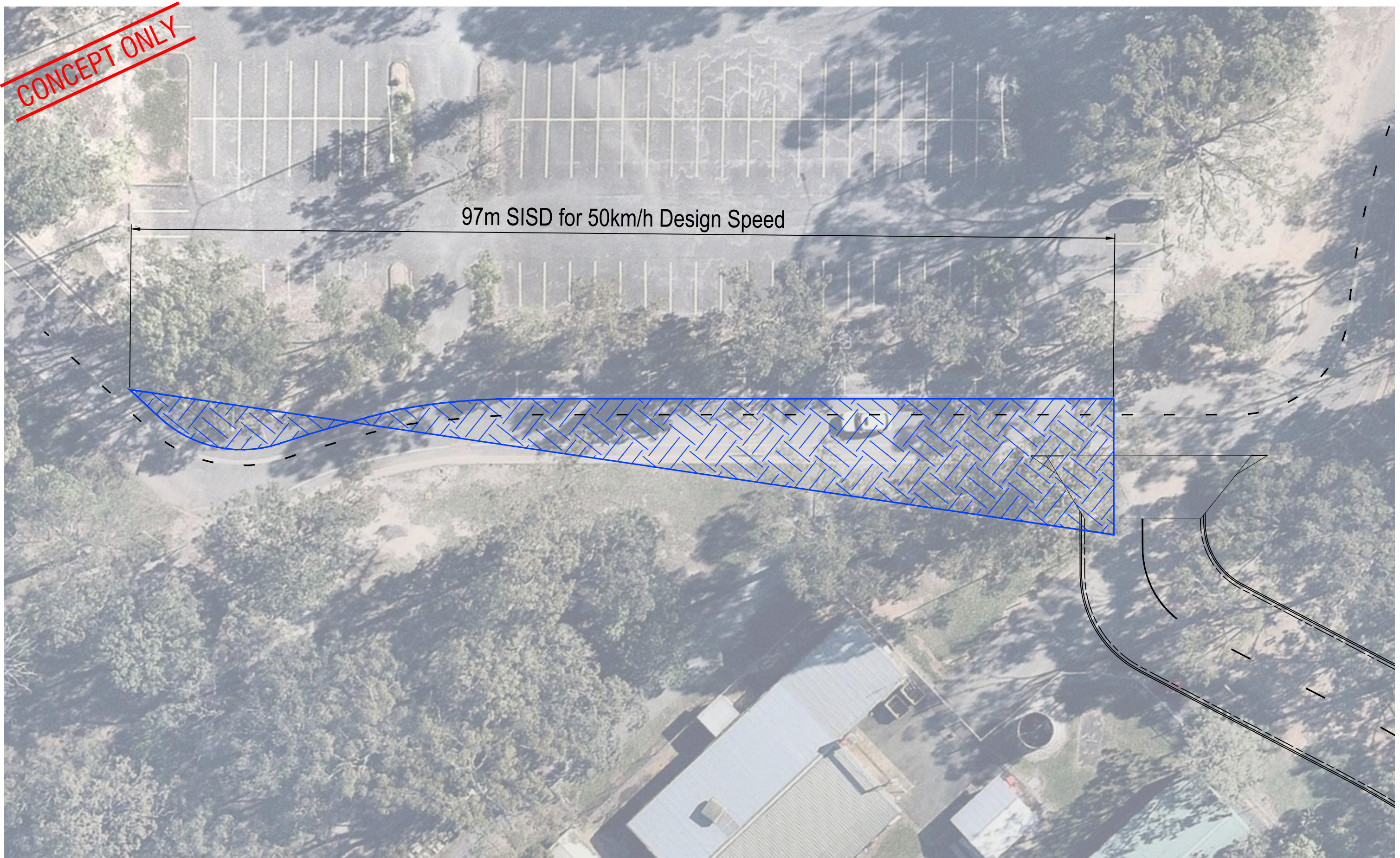
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<b>Carseldine Urban Village</b>			
Safe Intersection Sight Distance Review			
Proposed Stage S Access Intersection			
50km/hr Design Speed			
Drawn	Date	Scale	Size
T.Anang	08/02/2017	1:300	A3
Drawing Number			Revision
CEB06857 - SK12			A

**CONCEPT ONLY**

97m SISD for 50km/h Design Speed

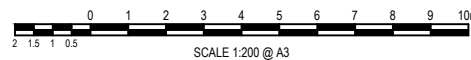


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<b>Carseldine Urban Village</b>			
Safe Intersection Sight Distance Review			
Proposed Stage S Access Intersection			
50km/hr Design Speed			
Drawn	Date	Scale	Size
T.Anang	08/02/2017	1:500	A3
Drawing Number			Revision
CEB06857 - SK13			A

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<b>Carseldine Urban Village</b>			
Minimum Gap Sight Distance Review			
Proposed Stage S Access Intersection			
50km/hr Design Speed			
Drawn	Date	Scale	Size
T.Anang	08/02/2017	1:200	A3
Drawing Number			Revision
CEB06857 - SK14			A