

9 April 2020



Isaac Pinkerton
Richard Crookes Constructions
Level 3, Broadcast Way
Artarmon
NSW 2064

Dear Isaac

Jordan Springs Public School Parking and Traffic Occupancy Compliance Assessment

ptc. has been engaged by Richard Crookes Constructions to confirm that the constructed car park associated with Jordan Springs Public School located in 14-28 Cullen Avenue, Jordan Springs complies with the following Australian standards:

- Parking Facilities – Off-Street Parking (AS2890.1-2004);
- Parking Facilities – Off-Street Commercial Vehicle Facilities (AS2890.2-2018);
- Parking Facilities – Bicycle Parking (AS2890.3-2015); and
- Parking Facilities – Off-Street Parking for People with Disabilities (AS2890.6-2009).

Additionally, this letter has been prepared to confirm compliance with the relevant Conditions of Consent stipulated within the Development Consent with reference SSD9354 dated 5th September 2019. Specifically, our assessment addresses the following conditions:

Condition B31 Operational Access

Prior to the commencement of construction, the Applicant must submit design plans to the satisfaction of the relevant roads authority which demonstrate that the proposed accesses to the development are designed to accommodate the turning path of the largest vehicle required to access the site.

Condition B32 Operational Car Parking and Service Vehicle Layout

Within three months of the commencement of construction, compliance with the following requirements must be submitted to the satisfaction of the Certifying Authority:

- (a) all construction vehicles must enter and leave the Site in a forward direction;*
- (b) a minimum of 65 on-site carparking spaces including two accessible spaces for use during operation of the development and designed in accordance with the latest versions of AS2890.1 and AS2890.6; and*
- (c) the swept path of the longest vehicle entering and exiting the Site in association with the new work, as well as manoeuvrability through the Site, must be in accordance with AS2890.2.*

Condition D35 Bicycle Parking and End-of-Trip Facilities

Prior to the commencement of operation, compliance with the following requirements for secure bicycle parking and end-of-trip facilities must be submitted to the satisfaction of the Certifying Authority:

- (a) the provision of a minimum 60 bicycle parking spaces for staff, students and visitors; and*
- (b) the layout, design and security of bicycle facilities must comply with the minimum requirements of AS 2890.3:2015 Parking facilities - Bicycle parking, and be located in easy to access, well-lit areas that incorporate passive surveillance.*

Our assessment has been undertaken with reference to the site inspection conducted on the 7th of April 2020.

1. Car Park Assessment

ptc. has undertaken an assessment of the constructed car park and vehicular access arrangements with reference to the provisions contained in AS2890.1, AS2890.2, AS2890.3, and AS2890.6. Our assessment is outlined in Table 1.

There are a total of 65 at grade car parking spaces inclusive of 61 Class 1A car parking spaces and 4 Class 4 accessible car parking spaces provided. Moreover, there are a total of 60 bicycle parking spaces, with 44 located adjacent to the staff car park, easily accessible from the access driveway. 16 bicycle spaces are located within the school grounds, with an adjacent male and female amenity.

Table 1 - Compliance Assessment

Component	Requirement	Provided	Compliance	Notes
Class 1A Residential, Domestic and Employee Parking (AS2890.1, Condition B32)				
Space Length	5.4m	5.4m	✓	
Space Width	2.4m	2.4m	✓	
Aisle Width	5.8m (6.1m to a high wall)	6.2m (min)	✓	
Door Opening Area	300mm	300mm	✓	
Headroom	2.2m	n/a	✓	at grade car spaces
Accessible Parking (AS2890.6, Condition B32)				
Space Length	5.4m	5.4m	✓	
Space Width	2.4m	2.5m	✓	
Shared Area Width	2.4m	2.5m	✓	
Aisle Width	5.8m (6.1m to a high wall)	6.2m	✓	
Door Opening Area	300mm	300mm	✓	
Headroom	2.5m	n/a	✓	at grade car spaces
Path of Travel Headroom	2.2m	n/a	✓	at grade car park
General Car Park Requirements (AS2890.1, Condition B32)				
Aisle End-Treatment	1.0 m extension	n/a	✓	No blind aisles
Entry Driveway Width	5.5m	6.5m	✓	
Service Area (AS2890.2, Condition B31) and Special Needs Drop Off Assessment				
Access Driveway	Performance basis	-	✓	see notes 1 and 2
Bicycle Parking (AS2890.3, Condition D35)				
Space Length	1.8m	1.8m	✓	
Space Width	0.5m	0.5m	✓	
Aisle Width	1.5m	1.5m (min)	✓	

Notes:

1. A swept path assessment of the service area for a typical 12.5m Heavy Rigid Vehicle (HRV) was performed to demonstrate servicing / waste collection. Refer to TP-010. We confirm that the service area has been constructed according to the latest CC drawings, thus able to accommodate the swept paths of a typical 12.5m HRV, as demonstrated in TP-010.
2. A special needs drop off space is provided within the service area. The service area and special needs drop off is located at the southern boundary of the site accessed via Cullen Avenue. This space is enclosed by fencing and an access gate. The swept path assessment for these movements are demonstrated and illustrated in TP-010 and TP-011. We confirm that the service area has been constructed according to the latest CC drawings.
3. Condition B32(a) and B32(c) has been addressed and confirmed during CC stage, demonstrating the access of the largest construction vehicle accessing the site, and is not part nor relevant to this assessment.

2. Conclusion

Based on our assessment, we confirm that the constructed car park and service area are in accordance with AS2890.1, AS2890.2, AS2890.6, and conditions highlighted within the development consent or have been assessed on a performance basis.

Kind regards,



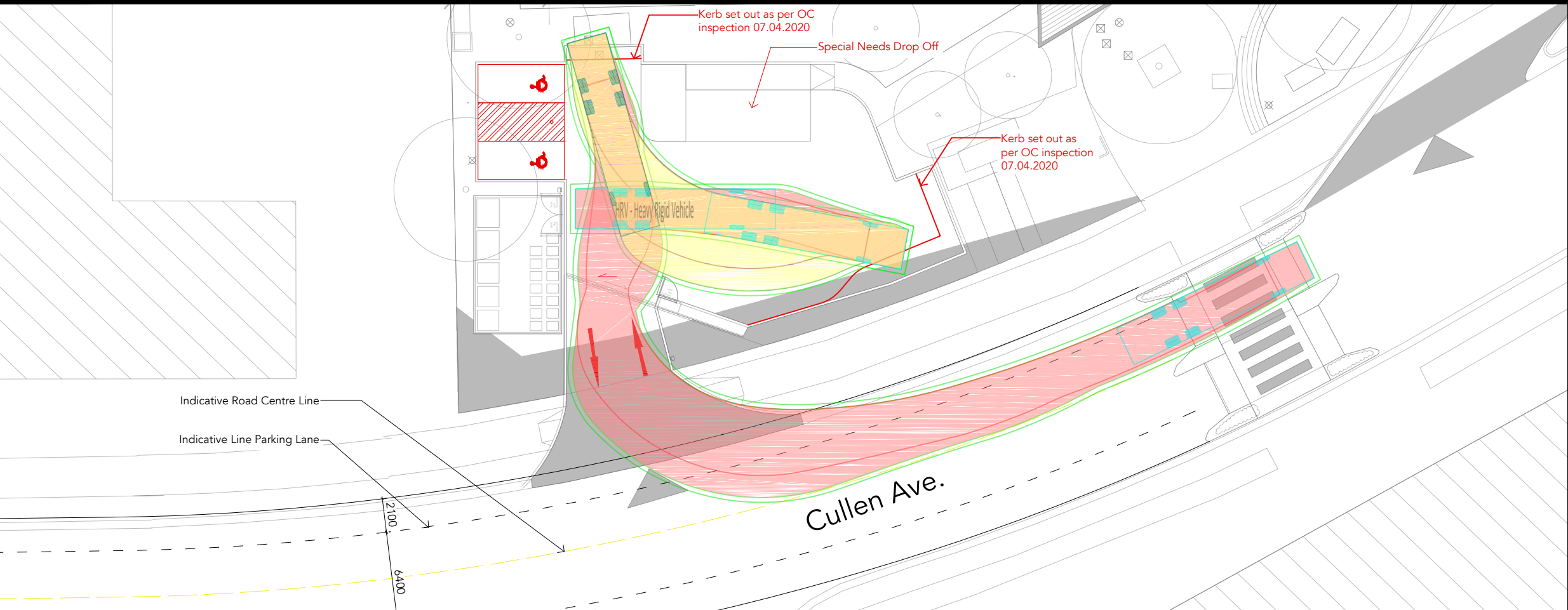
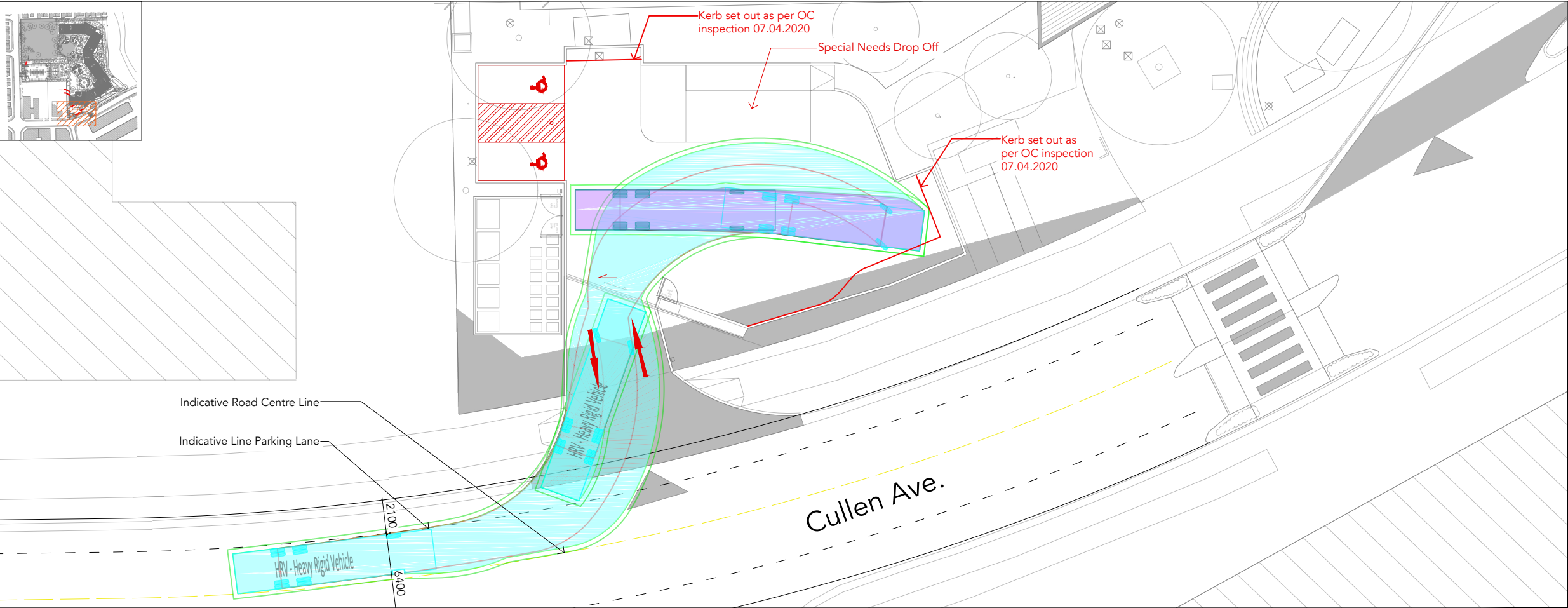
Dave Salangsang
Traffic Engineer



Steve Wellman
Senior Traffic Engineer

Document Control: Prepared by *DS* on *9 April 2020*. Reviewed by *SW* on *9 April 2020*.

Attachment 1 Compliance Assessment and Swept Path Analysis



COMMENTS

A3

Vehicle Profiles

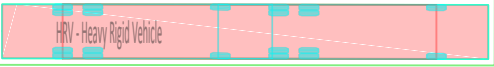
Access Forward



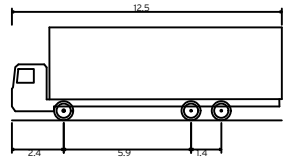
Access Reverse



Egress Forward



Egress Reverse



HRV - Heavy Rigid Vehicle
Overall Length 12.500m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.417m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12.500m



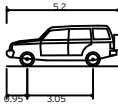
Access



Egress



Reverse



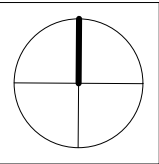
B99 Vehicle (Realistic min radius) (2004)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.878m
Min Body Ground Clearance 0.272m
Track Width 1.840m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 6.250m

The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

ptc.

Suite 102, 506 Miller Street,
Cammeray NSW 2062
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
7	14.01.20	Revised Kerb Set Out	DS	-					
6	10.09.19	For CC Compliance	DS	SW					
5	09.07.19	For discussion	DS	SW					
4	01.07.19	For discussion	DS	SW					
3	14.06.19	Revised	DS	SW					
2	07.06.19	Revised	DS	SW					
1	06.04.19	Review	DS	SW	8	09.04.20	As per OC inspection 07.04.2020	DS	SW



PROJECT:
Jordan Springs Public School

DRAWING TITLE:
Special Needs Drop-Off & Service Zone
HRV Ingress & Egress Swept Path
Analysis

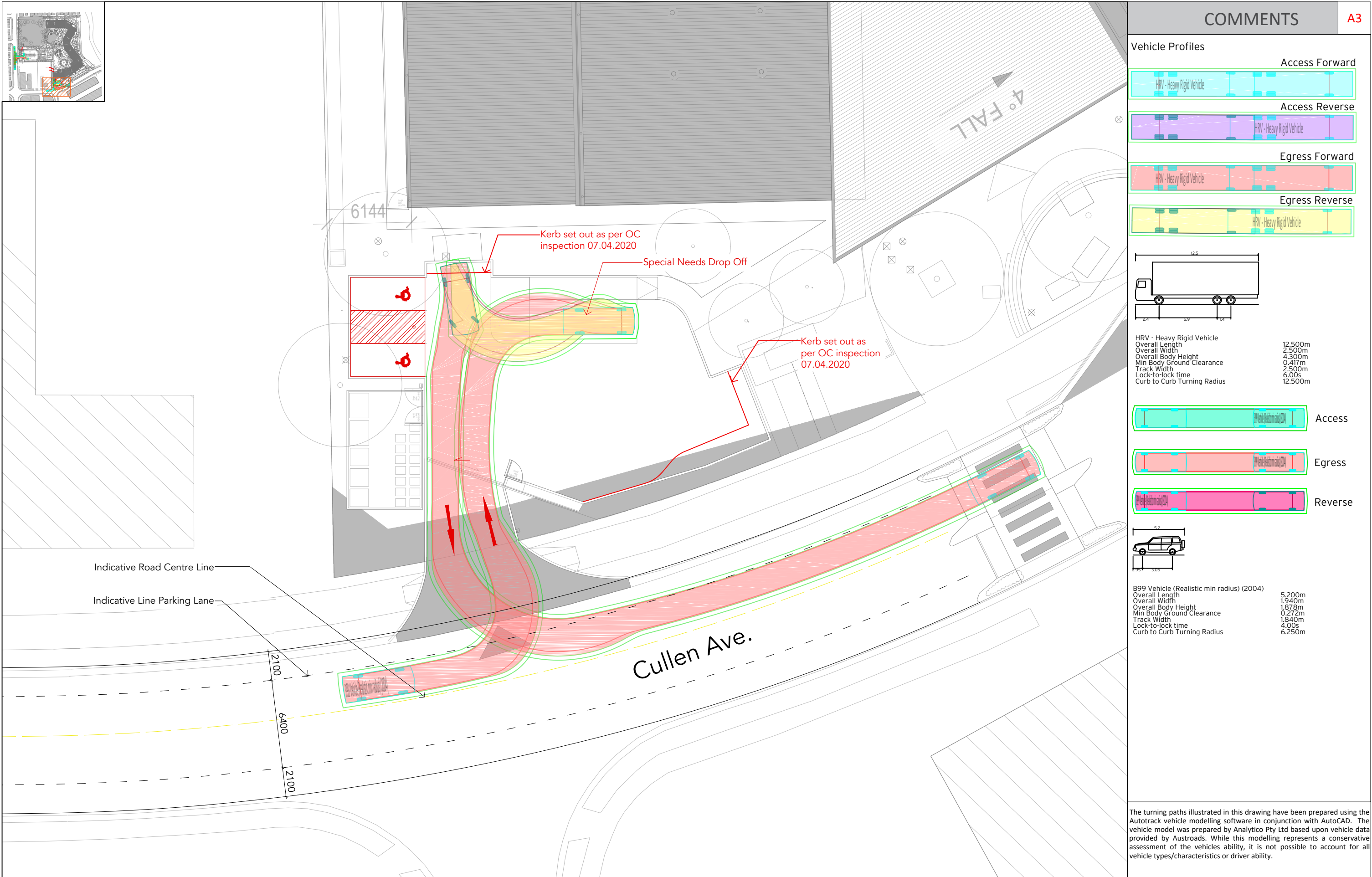
CLIENT: Richard Crookes

DRG. #: TP-010

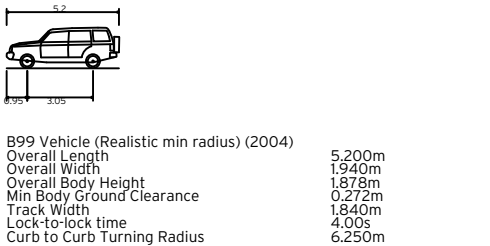
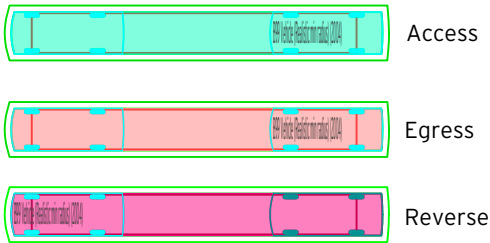
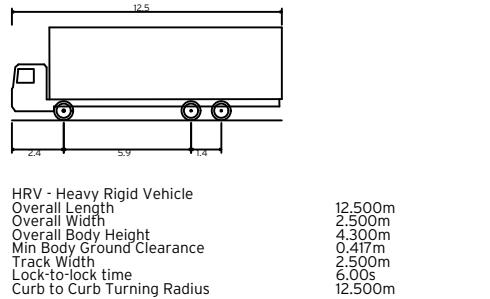
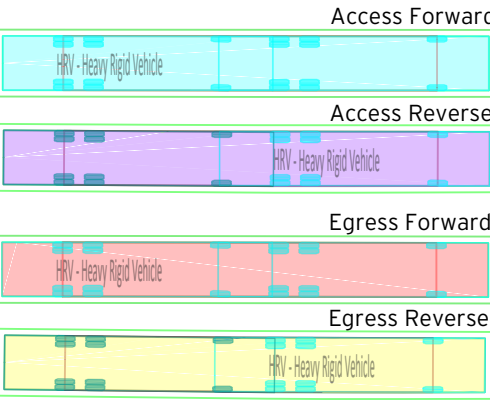
PROJECT #: 2587

SCALE: NTS

REV: 8



Vehicle Profiles

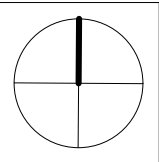


The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.



Suite 102, 506 Miller Street,
Cammeray NSW 2062
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
7	14.01.20	Revised Kerb Set Out	DS	-					
6	10.09.19	For CC Compliance	DS	SW					
5	09.07.19	For discussion	DS	SW					
4	01.07.19	For discussion	DS	SW					
3	14.06.19	Revised	DS	SW					
2	07.06.19	Revised	DS	SW					
1	06.04.19	Review	DS	SW	8	09.04.20	As per OC inspection 07.04.2020	DS	SW



PROJECT:
Jordan Springs Public School

DRAWING TITLE:
Special Needs Drop-Off & Service Zone
B99 Ingress & Egress Swept Path
Analysis

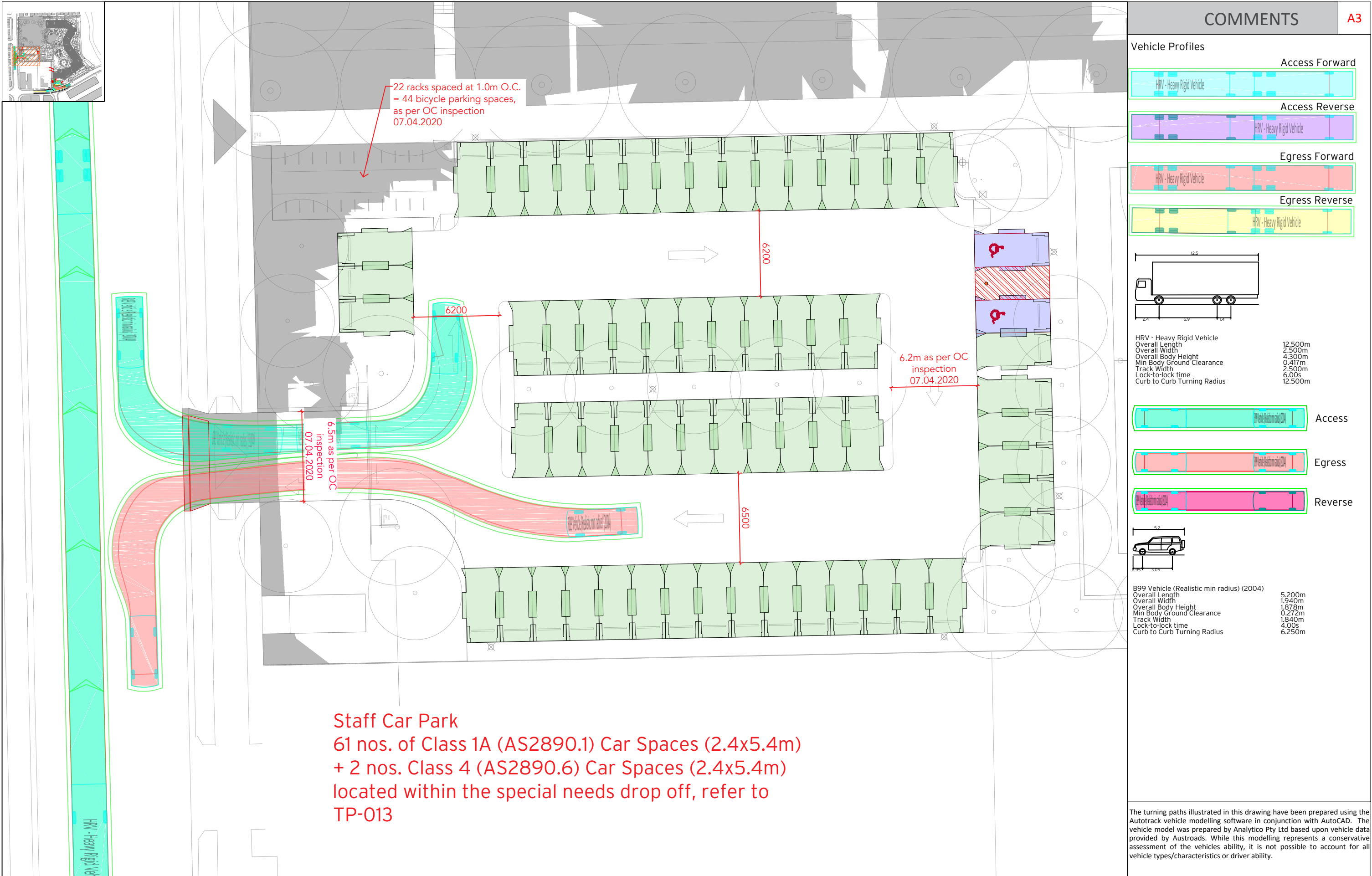
CLIENT: Richard Crookes

DRG. #: TP-011

PROJECT #: 2587

SCALE: 1 : 250

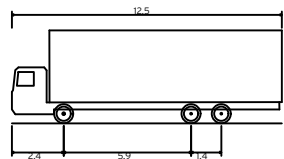
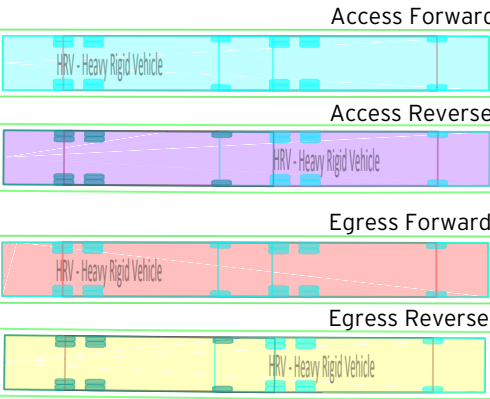
REV: 8



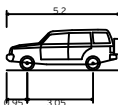
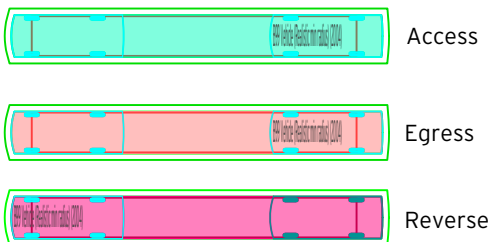
COMMENTS

A3

Vehicle Profiles



HRV - Heavy Rigid Vehicle
Overall Length 12.500m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.417m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12.500m



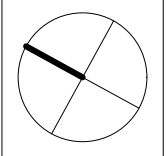
B99 Vehicle (Realistic min radius) (2004)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.878m
Min Body Ground Clearance 0.272m
Track Width 1.840m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 6.250m

The turning paths illustrated in this drawing have been prepared using the Autotrack vehicle modelling software in conjunction with AutoCAD. The vehicle model was prepared by Analytico Pty Ltd based upon vehicle data provided by Austroads. While this modelling represents a conservative assessment of the vehicles ability, it is not possible to account for all vehicle types/characteristics or driver ability.

ptc.

Suite 102, 506 Miller Street,
Cammeray NSW 2062
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED
7	14.01.20	Revised Kerb Set Out	DS	-					
6	10.09.19	For CC Compliance	DS	SW					
5	09.07.19	For discussion	DS	SW					
4	01.07.19	For discussion	DS	SW					
3	14.06.19	Revised	DS	SW					
2	07.06.19	Revised	DS	SW					
1	06.04.19	Review	DS	SW	8	09.04.20	As per OC inspection 07.04.2020	DS	SW



PROJECT:
Jordan Springs Public School

DRAWING TITLE:
Staff Car Park B99 Ingress & Egress
Swept Path Analysis

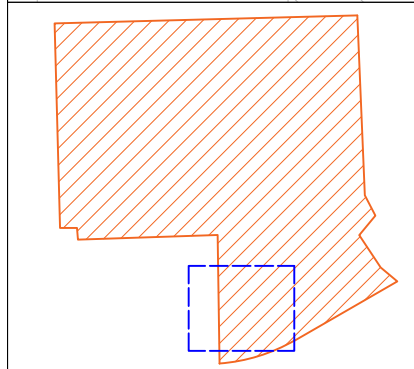
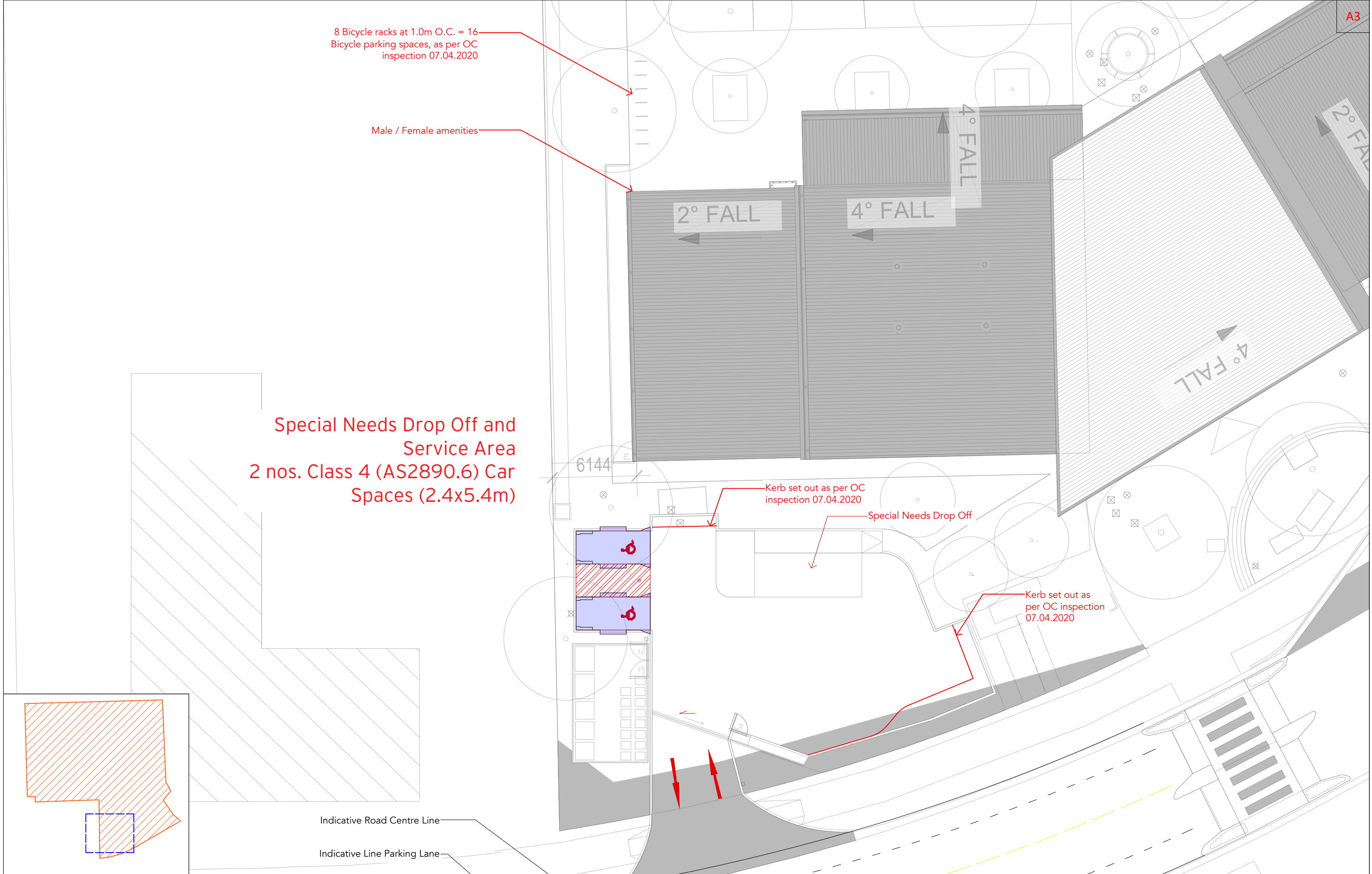
CLIENT: Richard Crookes

DRG. #: TP-012

PROJECT #: 2587

SCALE: 1 : 250

REV: 8



<div>ptc.</div> <div>Suite 102, 506 Miller Street, Cammeray NSW 2062</div> <div>t +61 2 8920 0800</div> <div>ptcconsultants.co</div>	REV	DATE	COMMENT	DRAWN	REVIEWED	REV	DATE	COMMENT	DRAWN	REVIEWED	<div></div>	PROJECT: Jordan Springs Public School	DRAWING TITLE: Special Needs Drop Off and Service Area	CLIENT: Richard Crookes		REV: 8
	7	14.01.20	Revised Kerb Set Out	DS	-										DRG. #: TP-013	
	6	10.09.19	For CC Compliance	DS	SW										PROJECT #: 2587	
	5	-	-	-	-										SCALE: 1 : 250	
	4	-	-	-	-											
	3	-	-	-	-											
	2	-	-	-	-											
	1	-	-	-	-	8	09.04.20	As per OC inspection 07.04.2020	DS	SW						