



Sydney Olympic Park Heavy Vehicle Route

SMWSTCTP-AFJ-OLP-TF-RPT-000001 Revision 02

Sydney Metro West – Central Tunnelling Package



DOCUMENT APPROVAL

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REVISION HISTORY

Rev:	Date:	Pages:	By:	Description:
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00	22/10/2021	All	Denis Fung	Submission to Sydney Metro and SOPA
01	29/11/2021	All	Denis Fung	For submission to DPIE
02	22/12/2021	All	Denis Fung	For submission to DPIE

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1. INTRODUCTION

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019. The Sydney Metro network also includes Sydney Metro City & Southwest, Sydney Metro West and Sydney Metro Western Sydney Airport. Sydney Metro West is a new 24 kilometre metro line between Westmead and the Sydney CBD (the Project). This infrastructure investment will double the rail capacity of the Greater Parramatta to Sydney CBD corridor with a travel time target between the two centres of about 20 minutes. The planning approvals and environmental impact assessment for Sydney Metro West has been split into a number of stages recognising the size of the project. This includes:

- Stage 1 – Concept and all major civil construction works including station excavation and tunnelling between Westmead and The Bays. Planning approval for this stage was granted in March 2021.
- Stage 2 – All major civil construction works including station excavation and tunnelling from The Bays to Sydney CBD
- Stage 3 – Tunnel fit-out, construction of stations, ancillary facilities and station precincts, and operation and maintenance of the Sydney Metro West line

Due to the Project's importance, the Project was declared to be Critical State Significant Infrastructure by the Minister for Planning and Public Spaces. An Environmental Impact Statement (EIS) (Jacobs/Arcadis, 2020) for the Concept and Stage 1 (herein referred to as the Project) was placed on public exhibition from 30 April 2020 to 26 June 2020. Submissions were received from government, agencies, organisations and the public in response to the project. A Submissions Report was prepared by Sydney Metro in response to submissions received during the exhibition period and an Amendment Report was prepared by Sydney Metro in 2020 as a result of continued design development and refinement. The Project was approved on 11 March 2021 (SSI 10038).

Stage 1 of the Project is being delivered under a number of packages in accordance with the Sydney Metro West Phasing Report. The packages include:

- Phase A – Power Enabling Works
- Phase B1 – Central Tunnelling Package (Civils Works)
- Phase B2 – Central Tunnelling Package (Tunnelling Works)
- Phase C – Parramatta, Westmead and Clyde Demolition Works
- Phase D – Greater Sydney Road Works
- Phase E – Existing Rail Corridor Enabling Works
- Phase F – Western Tunnelling

The Central Tunnelling Package (CTP) involves the design and construction of 11km of twin tunnels and underground station excavations from The Bays to Sydney Olympic Park.

This document has been prepared for the CTP for the proposal of heavy vehicles access on specific local roads within the Sydney Olympic Park not identified in Condition A1 of the Project Conditions of Approval (CoA) for Sydney Metro West, to access the CTP Sydney Olympic Park construction site.

2. PURPOSE AND SCOPE

This document has been prepared to address the Sydney Metro West Central Tunnelling Package (CTP) project Condition of Approval as shown in Table 1, which includes a cross reference to where the information has been addressed within this document.

TABLE 1 RELEVANT CONDITIONS OF APPROVAL

Project Planning Approval (dated 11 March (SSI 10038))		Where addressed
D84	The primary egress routes for spoil haulage trucks at Sydney Olympic Park metro station construction site must be determined in consultation with SOPA.	Section 4 Appendix C
D86	Local roads proposed to be used by Heavy Vehicles to directly access construction sites that are not identified in the documents listed in Condition A1 of this schedule must be approved by the Planning Secretary and be included in the CTMPs.	This document
D87	<p>All requests to the Planning Secretary for approval to use local roads under Condition D86 above must include the following:</p> <p>(a) a swept path analysis;</p> <p>(b) demonstration that the use of local roads by Heavy Vehicles for the CSSI will not compromise the safety of pedestrians and cyclists of the safety of two-way traffic flow on two-way roadways;</p> <p>(c) details as to the date of completion of the road dilapidation surveys for the subject local roads; and</p> <p>(d) measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during their peak operation times; and</p> <p>(e) written advice from an appropriately qualified professional on the suitability of the proposed Heavy Vehicle route which takes into consideration items (a) to(d) of this condition.</p>	<p>(a) Section 3.2 Section 3.4 Appendix A</p> <p>(b) Appendix B</p> <p>(c) Section 3.6</p> <p>(d) Section 3.7</p> <p>(e) Section 5</p>
TT6	All trucks would enter and exit construction sites in a forward direction, where feasible and reasonable.	Section 3.1 Section 3.3
TT7	Construction site traffic would be managed to minimise movements during peak periods	Section 3.8
TT24	<p>Coordination and consultation with the following stakeholders would occur, where required, to manage the interface of projects under construction at the same time:</p> <ul style="list-style-type: none"> • Transport for NSW including Transport Coordination • Department of Planning, Industry and Environment • Sydney Trains • NSW Trains • Sydney Buses • Sydney Water • Port Authority of NSW • Sydney Motorways Corporation • Emergency service providers • Utility providers <p>Construction contractors Coordination and consultation with these stakeholders would include:</p> <ul style="list-style-type: none"> • Provision of regular updates to the detailed construction program, construction sites and haul routes 	<p>Section 4.1</p> <p>Section 4.2</p> <p>Section 4.3</p>

Project Planning Approval (dated 11 March (SSI 10038))	Where addressed
<ul style="list-style-type: none"> • Identification of key potential conflict points with other construction projects • Developing mitigation strategies in order to manage conflicts. Depending on the nature of the conflict this could involve: <ul style="list-style-type: none"> ○ Adjustments to the Sydney Metro construction program work activities or haul routes or adjustments to the program activities or haul routes of other construction projects <p>Coordination of traffic management arrangements between projects</p>	

The scope will cover the heavy vehicle route to be taken within Sydney Olympic Park; swept path analysis; road safety analysis; dates of road dilapidation survey; any measures to avoid schools, aged care facilities, and child care facilities; and recommendation that the route is suitability of the proposed heavy vehicle route.

3. PROPOSED ROUTES

3.1 PROPOSE HEAVY VEHICLE ENTRY ROUTE

In addition to the approved EIS heavy vehicle routes, Acciona Ferrovia Joint Venture (AFJV) propose to use the following heavy vehicle route into the Sydney Olympic Park site (also shown in Figure 1):

- Australia Avenue (northbound)
- Sarah Durack Avenue (westbound)
- Olympic Boulevard (northbound)
- Herb Elliott Avenue (eastbound)

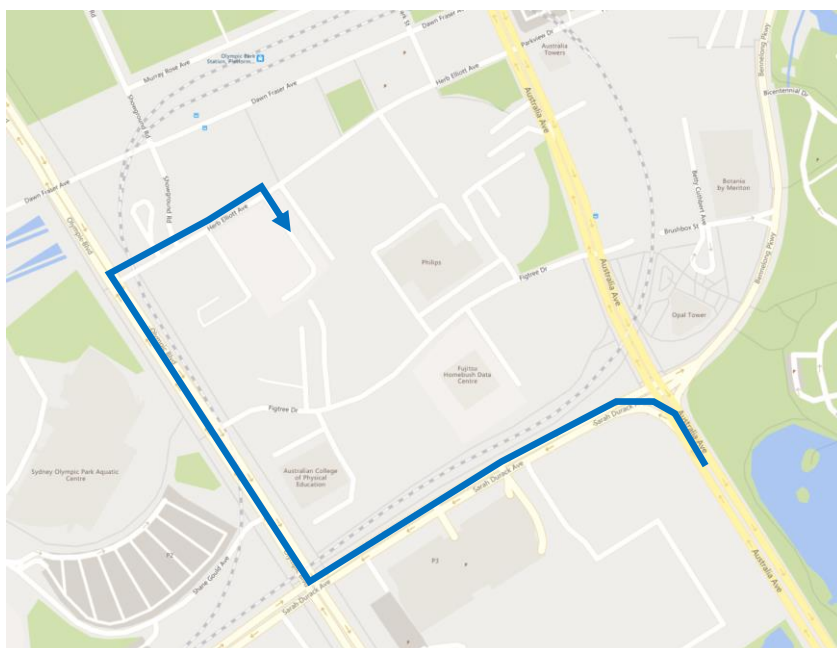


FIGURE 1 PROPOSE ADDITIONAL HEAVY VEHICLE ENTRY ROUTE TO SYDNEY OLYMPIC PARK SITE

Of those listed above, the following local roads were **not** identified in documents described in CoA A1 for access to the Sydney Olympic Park site:

- Sarah Durack Avenue (westbound)
- Olympic Boulevard (northbound)
- Herb Elliott Avenue (eastbound)

The use of these roads as construction site access has been identified in consultation with Sydney Olympic Park Authority (SOPA) as required under CoA D84. Evidence of this consultation will be included in the submission of this document to DPIE, as required in accordance with CoA A6.

To provide safe access to the work sites, all trucks are to enter sites in a forward direction, where feasible and reasonable.

3.2 SWEPT PATH ANALYSIS FOR HEAVY VEHICLE ENTRY ROUTE

A swept path analysis for the above three site access roads has been undertaken to determine the suitability of these roads for heavy vehicle use. This is included in **Appendix A**.

Swept path analysis shows that the proposed heavy vehicle entry route is suitable for 19m prime mover and semi-trailer, and 19m truck and dog type vehicles.

One-off and special oversize deliveries will be managed under a separate process with National Heavy Vehicle Regulator. Oversize or overweight vehicles movements will comply with the National Heavy Vehicle Regulator (NHVR) where it has the authority to limit the time and route the oversize/overweight vehicle must use.

3.3 PROPOSE HEAVY VEHICLE EXIT ROUTE

In addition to the approved EIS heavy vehicle route, AFJV proposed to use the following heavy vehicle route to exit the Sydney Olympic Park site (also shown in Figure 2):

- Figtree Drive (westbound)
- Olympic Boulevard (southbound)
- Sarah Durack Avenue (eastbound)
- Australia Avenue (southbound)

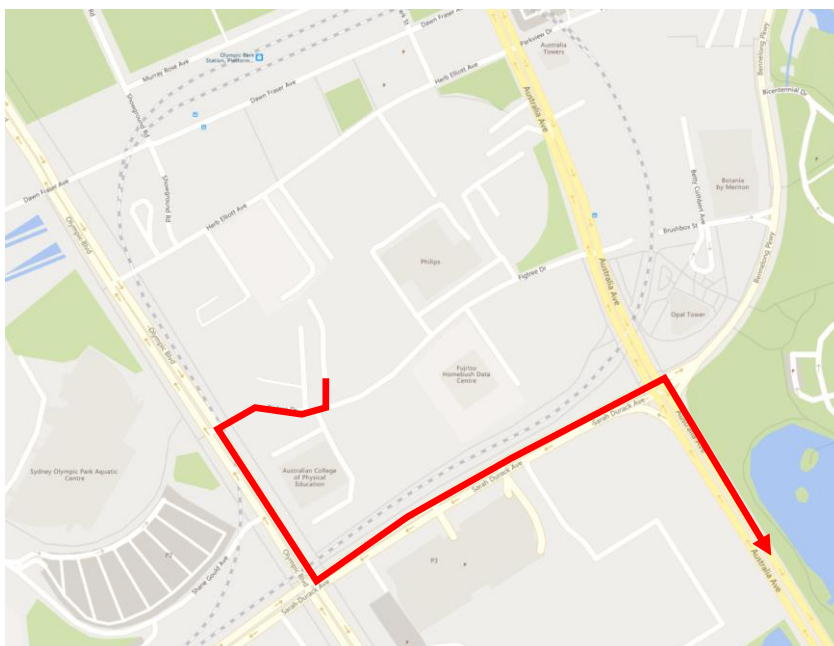


FIGURE 2 PROPOSE ADDITIONAL HEAVY VEHICLE EXIT ROUTE FROM SYDNEY OLYMPIC PARK SITE

Of those listed above, the following local roads were **not** identified in documents described in CoA A1 for access to the Sydney Olympic Park site:

- Figtree Drive (westbound)
- Sarah Durack Avenue (eastbound)

To provide a safe exit to the work sites, all trucks are to exit sites in a forward direction, where feasible and reasonable.

3.4 SWEPT PATH ANALYSIS FOR HEAVY VEHICLE EXIT ROUTE

A swept path analysis for the above two site exit roads has been undertaken to determine the suitability of these roads for heavy vehicle use. This is included in **Appendix A**.

Swept path analysis shows that the proposed heavy vehicle exit route is suitable for 19m prime mover and semi-trailer, and 19m truck and dog type vehicles. This covers the general vehicle size that would be used by AFJV for spoil haulage and deliveries. One-off and special oversize deliveries will be manage under a separate process with Sydney Olympic Park.

3.5 ROAD SAFETY AUDIT OF THE HEAVY VEHICLE ROUTE

A road safety audit was complete for the proposed heavy vehicle entry route and exit route. Detail findings and response is included in **Appendix B**. In summary, there were no high risk items identified, and all medium risk items were considered 'improbable' in likelihood. As such, the proposed entry and exit routes are acceptable routes for heavy vehicles.

3.6 ROAD DILAPIDATION SURVEY

Road dilapidation survey was completed in November 2021 (Sydney Metro, Transport for NSW, SOPA) as described in CoA D88. A copy of the dilapidation report with the photo/video records was distributed to Sydney Olympic Park Authority in accordance with CoA D87(c) on 3 December 2021.

3.7 IMPACT TO SCHOOL, AGED CARE, OR CHILDCARE

Sarah Durack Avenue has footpath on both sides. The road is flanked by a train line on the northern side while the southern side is the P3 carpark. The residential property on the corner of Sarah Durack Avenue and Olympic Boulevard does not have any shops fronting Sarah Durack Avenue.

Along Olympic Boulevard between Sarah Durack Avenue and Herb Elliott Avenue, the eastern side contains a wide footpath and indented bus bay with no property frontage. Along the western side there is a wide footpath and indented bus bay and access to the Sydney Olympic Park Aquatic Centre.

Along Figtree Drive, there is a footpath on both sides of the street. NSW institute of Sport is located east of the Sydney Olympic Park Station site, while a private company is located immediate opposite of the construction site.

Herb Elliott Avenue is within the original EIS route with footpath on both sides and with Ibis Hotel and the Abattoir Heritage Precinct located on the north side of Herb Elliott Avenue.

There are no schools, aged care, or childcare facilities along the proposed heavy vehicle entry and exit route. The road safety audit have not identified any high risk items along the proposed route.

3.8 CONSTRUCTION TRAFFIC MANAGEMENT

Construction traffic volumes would be minimised during peak periods, and special events, where possible.

Table 3.1 shows the proposed construction traffic volumes involving light vehicles and heavy vehicles accessing the construction sites on a typical day. The construction traffic generation is no more than what has been allowed for in the EIS construction traffic volumes for each site.

TABLE 3.1: DAILY CONSTRUCTION TRAFFIC VOLUMES (TWO-WAY MOVEMENT) DURING PEAK ACTIVITY

Site	AM Peak Hour			PM Peak Hour		
	Heavy Vehicle	Light Vehicle	Total	Heavy Vehicle	Light Vehicle	Total
Sydney Olympic Park Station	8	40	48	8	46	54

4. CONSULTATION

4.1 CONSULTATION WITH SOPA

This document will be provided for consultation with SOPA. Evidence of this consultation and confirmation of the proposed routes will be provided in **Appendix C**.

4.2 TRAFFIC AND TRANSPORT LIAISON GROUP (TTLG)

AFJV has been undertaking consultation and communication with stakeholders in regard to traffic management. A communication strategy is being developed with stakeholders and the site-specific CTMPs outline consultation activities during the works. The community will be notified of any current and upcoming construction works and traffic arrangement that have the potential to impact on stakeholders, community and businesses, prior to them occurring.

A community communications strategy is being developed (in consultation with Sydney Metro) to notify stakeholders that may be affected by changes to transport, access and local traffic arrangements. The community communications and strategy are being prepared in accordance with the General Specification requirements (Section 5.1.10). Once prepared, the community communications strategy will be forwarded to TfNSW for approval.

A Traffic and Transport Liaison Group (TTLG) will be established to discuss with stakeholders in relation to the proposed construction activities, upcoming works and related traffic and transport implications.

AFJV Traffic Manager is to participate in monthly TTLG meetings throughout the project, or at an agreed frequency. The Traffic Manager is a member of the TTLG and acts as the authorised representative for the Project in matters related to traffic and transport. The Traffic Manager provides the relevant information relating to the Project to the group.

AFJV consult with all relevant stakeholders prior to the commencement of any works. Potential stakeholders for this Project include:

- Sydney Metro
- Transport for NSW including:

- Centre for Road and Maritime Safety
- Metro Bus and Ferry Planning and Development
- Greater Sydney Planning and Programs
- Freight Strategy and Planning
- Customer Journey Planning
- Sydney Trains
- Port Authority of NSW
- Infrastructure NSW
- Department of Planning, Industry and Environment
- NSW Police
- NSW Fire and Rescue
- NSW Ambulance Service
- Inner West Council
- City of Canada Bay Council
- Burwood Council
- Parramatta City Council
- Bus operators
- Sydney Olympic Park Authority
- Concord Oval Redevelopment

4.3 TRAFFIC CONTROL GROUP (TCG)

Sydney Metro to establish Metro West wide TCG and the Traffic Manager will attend on behalf of AFJV and meet weekly, fortnightly or as agreed. TCG members typically include the Project Traffic Manager and representatives from TfNSW, SM, and where required Councils and SOPA.

The TCG is to discuss and agree on any and traffic and transport related issues associated with the Project. It is the TCG where decisions and changes are made on CTMPs, traffic management issues as they relate to the project work.

5. PROFESSIONAL QUALIFICATION

The author of this document – Denis Fung, is a qualified traffic engineer with twenty years of experience and consider the proposed heavy vehicle route to be suitable for use under CoA D87.

6. APPROVAL

Following consultation with SOPA, this document will be finalised (where changes have been identified as being required) and provided to the Planning Secretary for approval in accordance with CoA D86

Approved local roads will be included in the Construction Traffic Management Plans (CTMPs) required under CoA D85, which will also be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed under each CTMP.

7. CONCLUSION

Swept path analysis have shown that there are no swept path clashes with the proposed heavy vehicle route. Road safety audits had identified no high risk items and medium risk items have improbable likelihood. Road dilapidation surveys (required under CoA D87(c)) will be completed in November 2021 prior to any heavy vehicle usage on the proposed local roads described in this document. Finally, there are no schools, aged care facilities or childcare facilities along the proposed heavy vehicle route. Therefore, the proposed heavy vehicle entry and exit route is considered suitable for use and is recommended for approval.

APPENDIX A SWEPT PATH ANALYSIS

VEHICLE ENTERING



SARAH DURACK AVENUE

AUSTRALIA AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Prime mover and semi-trailer (19 m)

Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - AUSTRALIA AVENUE AND SARAH DURACK INTERSECTION 19m SEMI-TRAILER

DWG No.	21319CAD002 FIGURE 1		
DATE STAMP 20 SEPTEMBER 2021			
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

VEHICLE ENTERING



SARAH DURACK AVENUE

AUSTRALIA AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Truck and Dog Trailer 19m
Overall Length 19000mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 427mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - AUSTRALIA AVENUE AND SARAH DURACK INTERSECTION 19m TRUCK-AND-DOG

DWG No.	21319CAD002		
	FIGURE 2		
DATE STAMP	20 SEPTEMBER 2021		
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

VEHICLE ENTERING



OLYMPIC BOULEVARD

SARAH DURACK AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Prime mover and semi-trailer (19 m)

Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

Filename: 21319CAD000-21319-Swept Path SOPA.dwg Date: 20 September 2021

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - SARAH DURACK AVENUE AND OLYMPIC BOULEVARD INTERSECTION 19m SEMI-TRAILER

DWG No.	21319CAD002 FIGURE 3		
DATE STAMP 20 SEPTEMBER 2021			
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

VEHICLE ENTERING



OLYMPIC BOULEVARD

SARAH DURACK AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Truck and Dog Trailer 19m
Overall Length 19000mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 427mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21

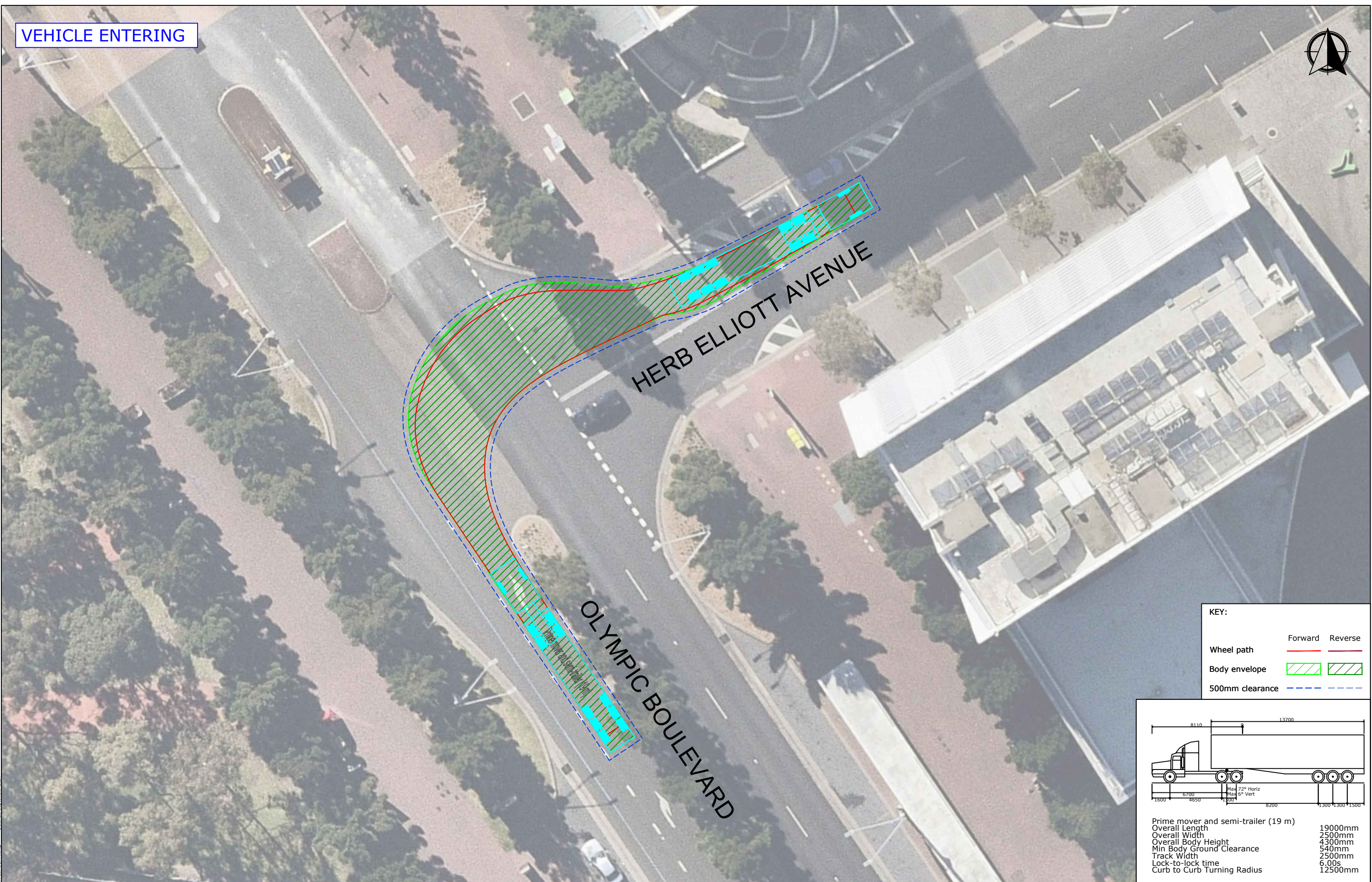


PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - SARAH DURACK AVENUE AND OLYMPIC BOULEVARD INTERSECTION 19m TRUCK-AND-DOG

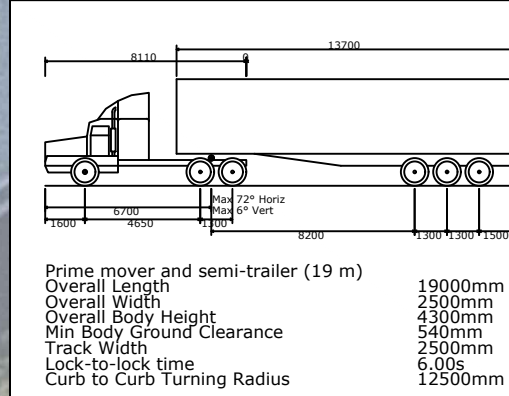
DWG No.	21319CAD002 FIGURE 4		
DATE STAMP 20 SEPTEMBER 2021			
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

Filename: 21319CAD002-210920-Swept Path SOPA.dwg Date: 20 September 2021

VEHICLE ENTERING



KEY:		
	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



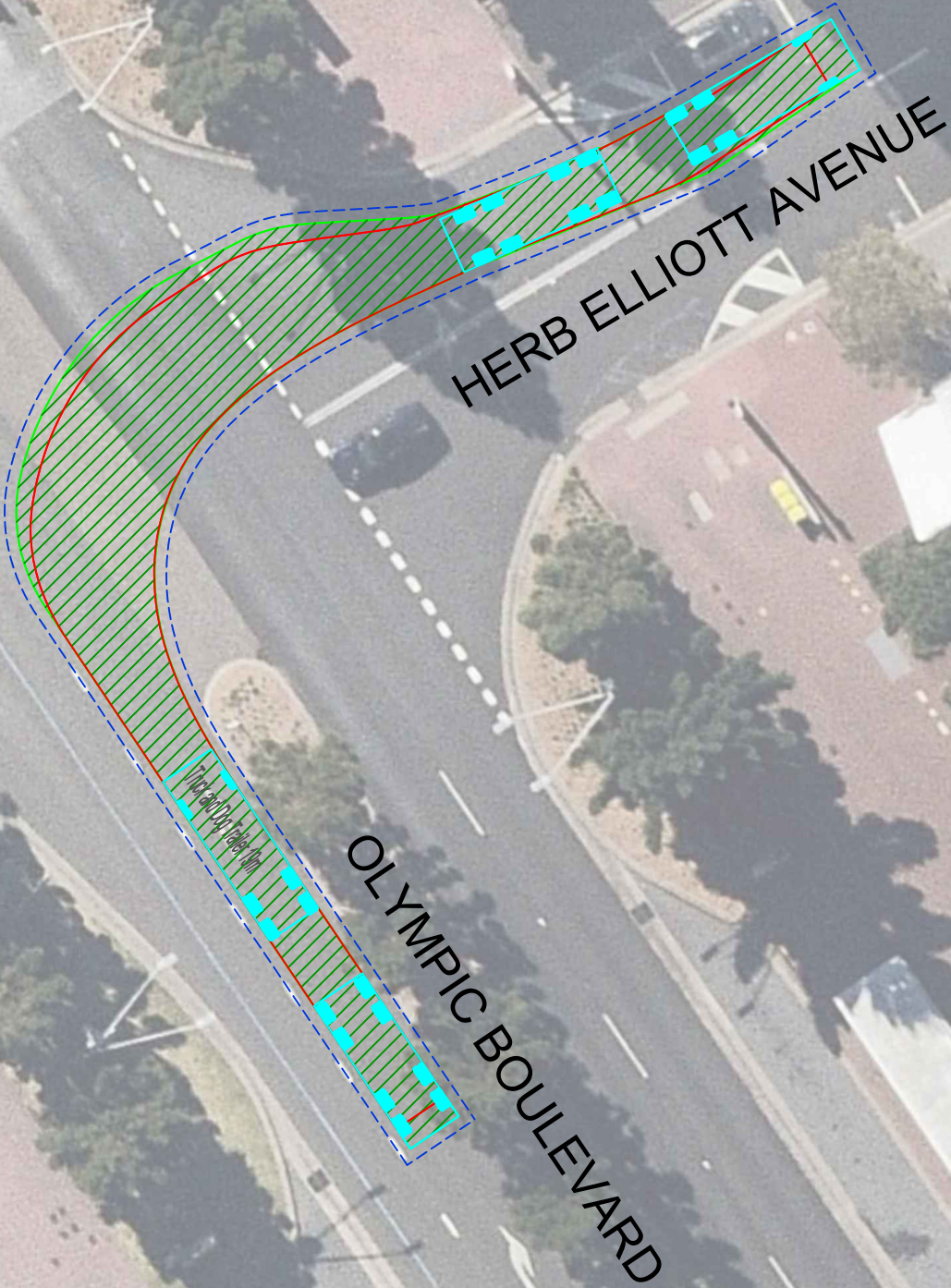
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



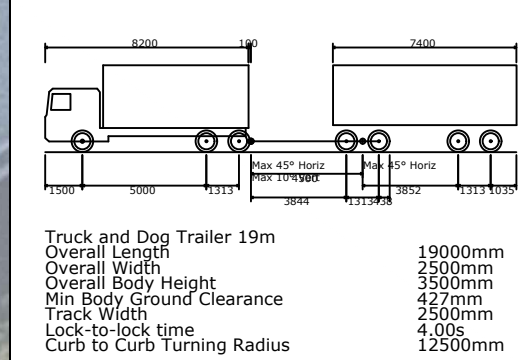
PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - OLYMPIC BOULEVARD AND HERB ELLIOTT AVENUE INTERSECTION 19m SEMI-TRAILER	

DWG No.	21319CAD002 FIGURE 5	
DATE STAMP	20 SEPTEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

VEHICLE ENTERING



KEY:		
	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



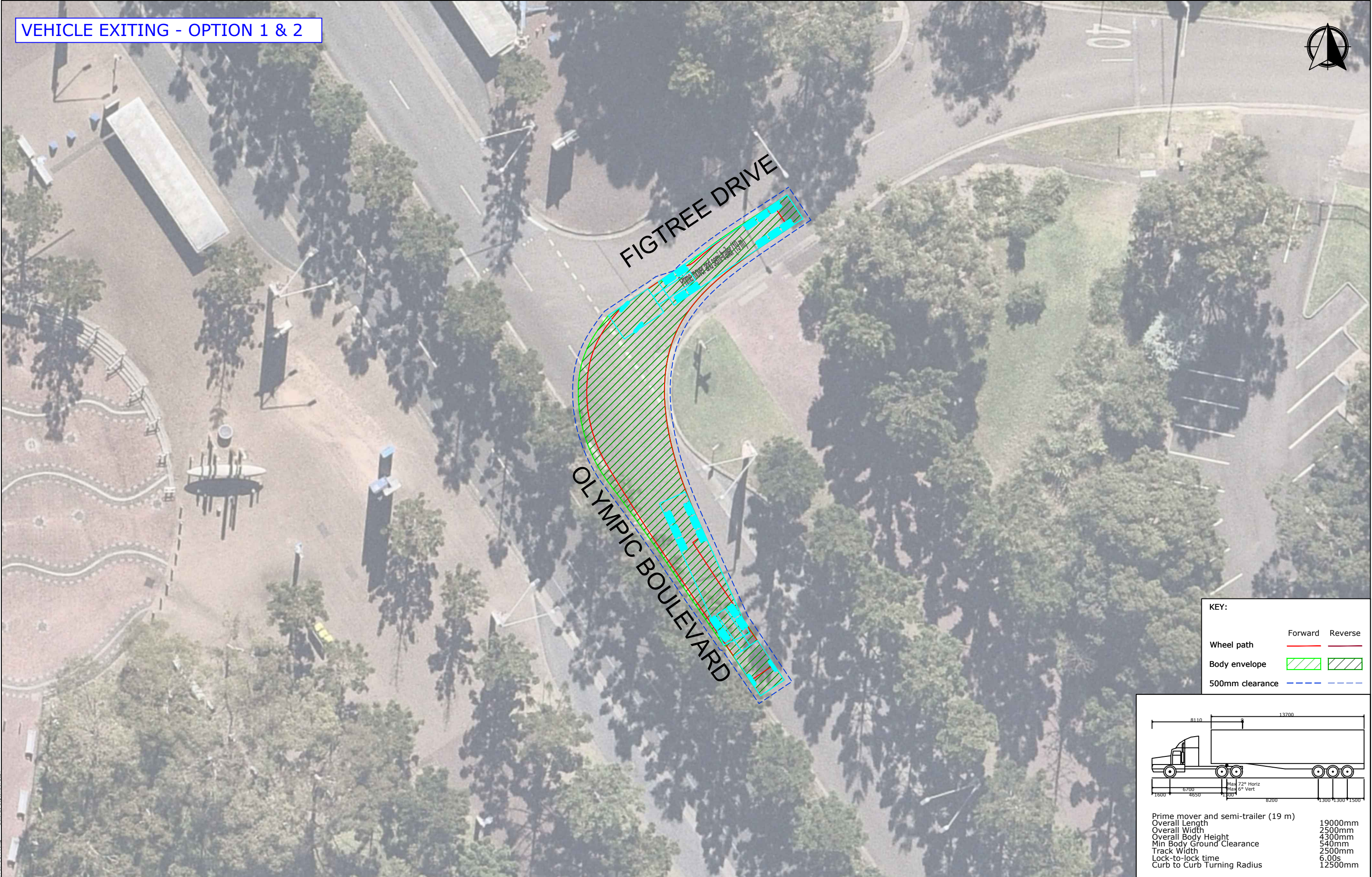
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A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



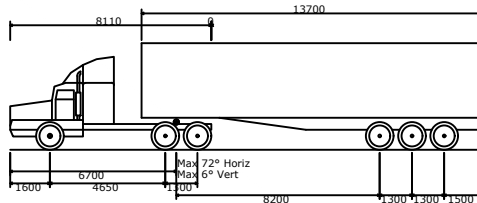
PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - OLYMPIC BOULEVARD AND HERB ELLIOTT AVENUE INTERSECTION 19m TRUCK-AND-DOG

DWG No.	21319CAD002
FIGURE 6	
DATE STAMP	20 SEPTEMBER 2021
PROJECT No.	21319
SCALE	1:250 @ A3
REV.	A

VEHICLE EXITING - OPTION 1 & 2



KEY:		
	Forward	Reverse
Wheel path	<div></div>	<div></div>
Body envelope	<div></div>	<div></div>
500mm clearance	<div></div>	<div></div>



Prime mover and semi-trailer (19 m)	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



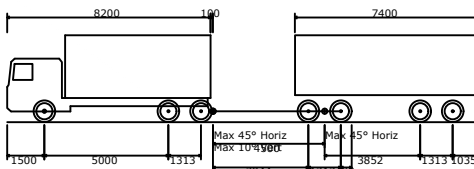
PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
	TITLE SWEPT PATH ANALYSIS - OLYMPIC BOULEVARD AND FIGTREE DRIVE INTERSECTION 19m SEMI-TRAILER	

DWG No. 21319CAD002 FIGURE 7	
DATE STAMP 20 SEPTEMBER 2021	
PROJECT No. 21319	SCALE 1:250 @ A3
REV. A	

VEHICLE EXITING - OPTION 1 & 2



KEY:		
	Forward	Reverse
Wheel path	<div></div>	<div></div>
Body envelope	<div></div>	<div></div>
500mm clearance	<div></div>	<div></div>



Truck and Dog Trailer 19m	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	3500mm
Min Body Ground Clearance	427mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12500mm

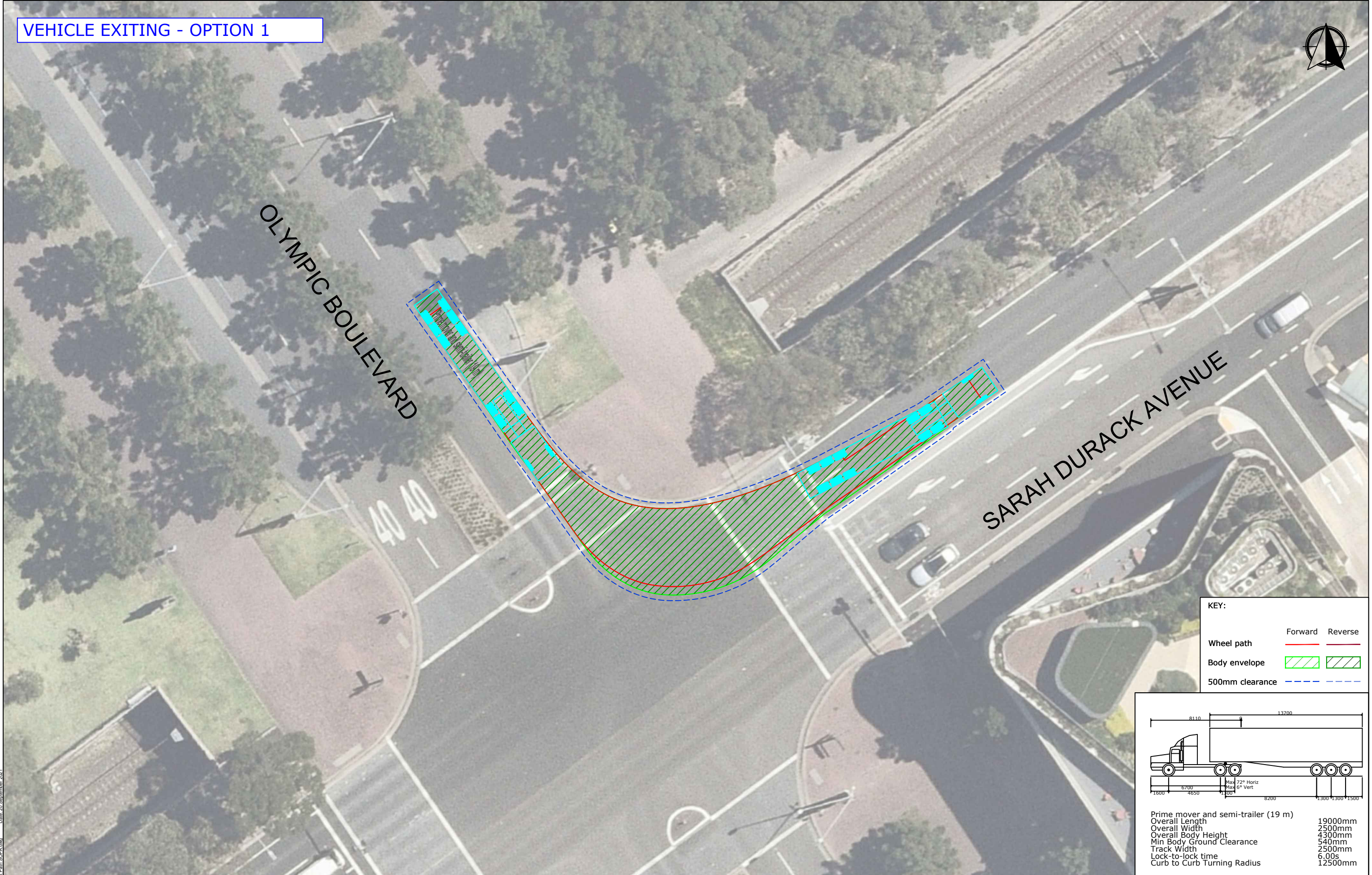
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT		SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE		SWEPT PATH ANALYSIS - OLYMPIC BOULEVARD AND FIGTREE DRIVE INTERSECTION 19m TRUCK-AND-DOG	

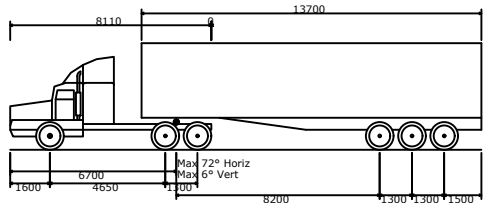
DWG No.		21319CAD002 FIGURE 8	
DATE STAMP		20 SEPTEMBER 2021	
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

VEHICLE EXITING - OPTION 1



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Prime mover and semi-trailer (19 m)	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

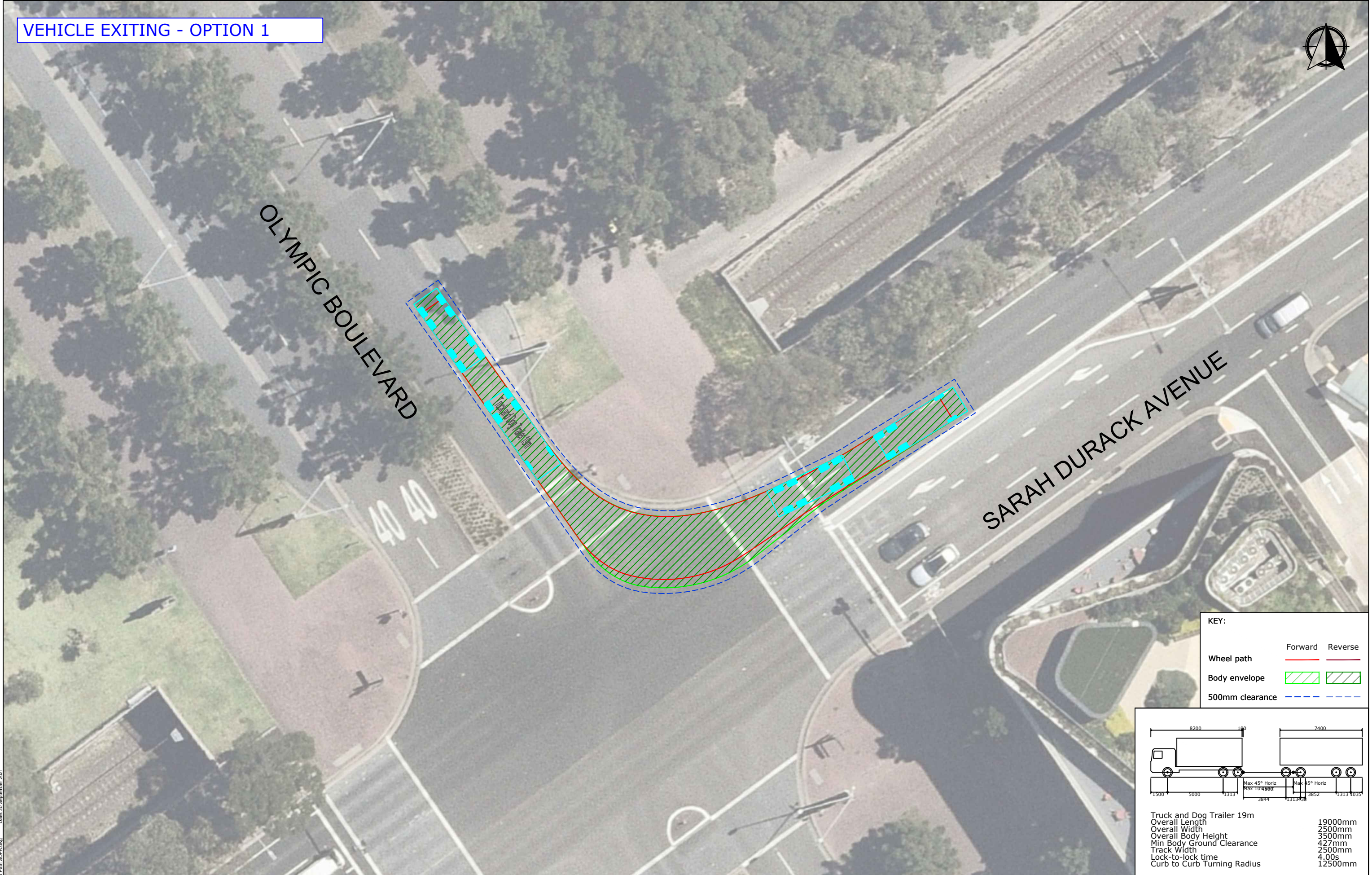
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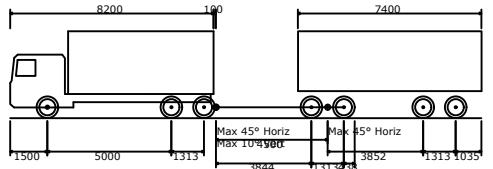
DWG No.		21319CAD002	
		FIGURE 9	
DATE STAMP			
20 SEPTEMBER 2021			
PROJECT No.		SCALE	REV.
21319		1:250 @ A3	A

VEHICLE EXITING - OPTION 1



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19m	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	3500mm
Min Body Ground Clearance	427mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12500mm

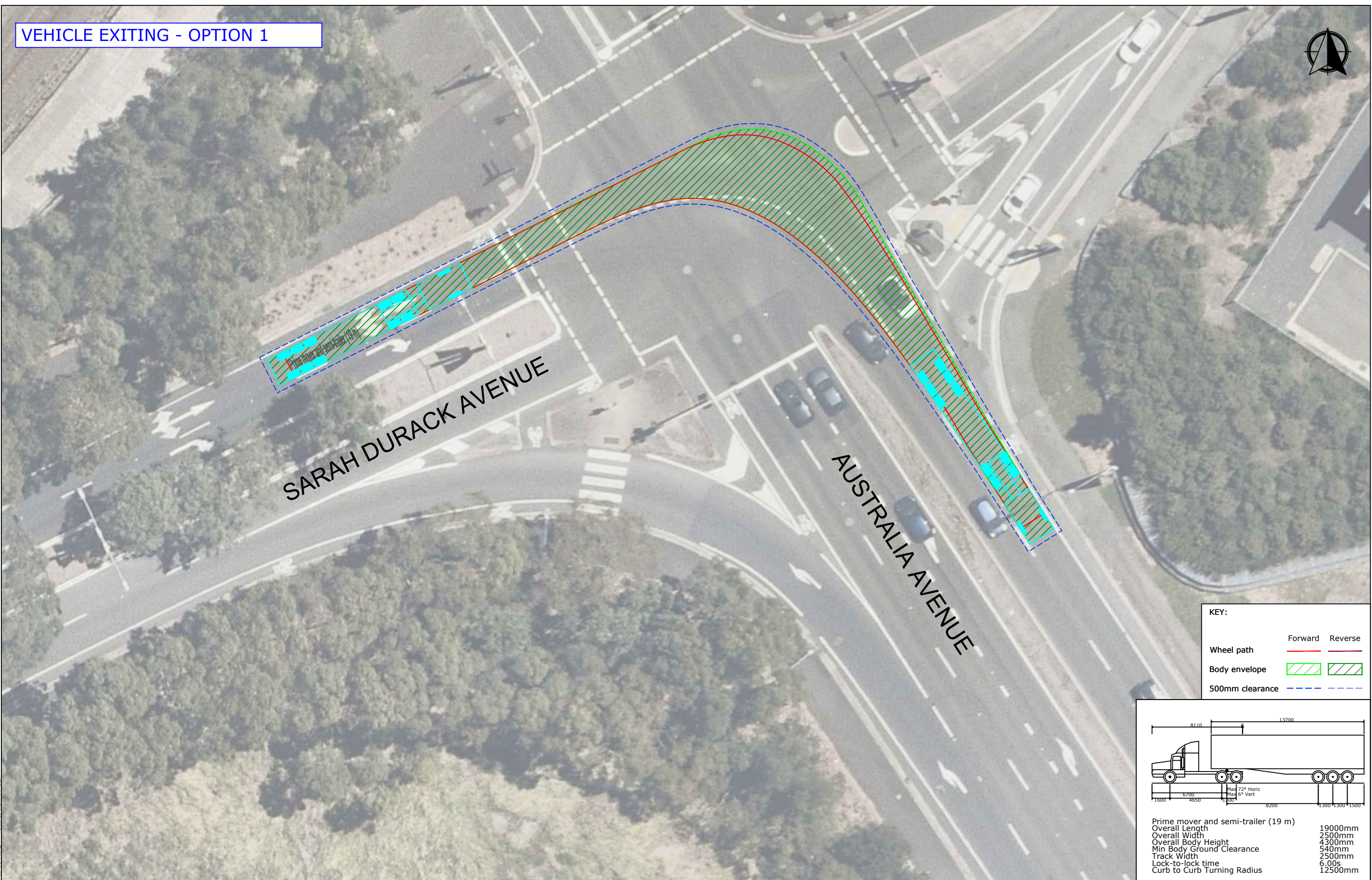
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - SARAH DURACK AVENUE AND OLYMPIC BOULEVARD INTERSECTION 19m TRUCK-AND-DOG

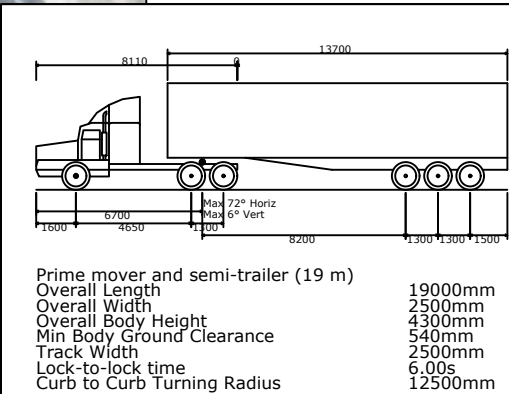
DWG No.	21319CAD002
FIGURE 10	
DATE STAMP	20 SEPTEMBER 2021
PROJECT No.	21319
SCALE	1:250 @ A3
REV.	A

VEHICLE EXITING - OPTION 1



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21

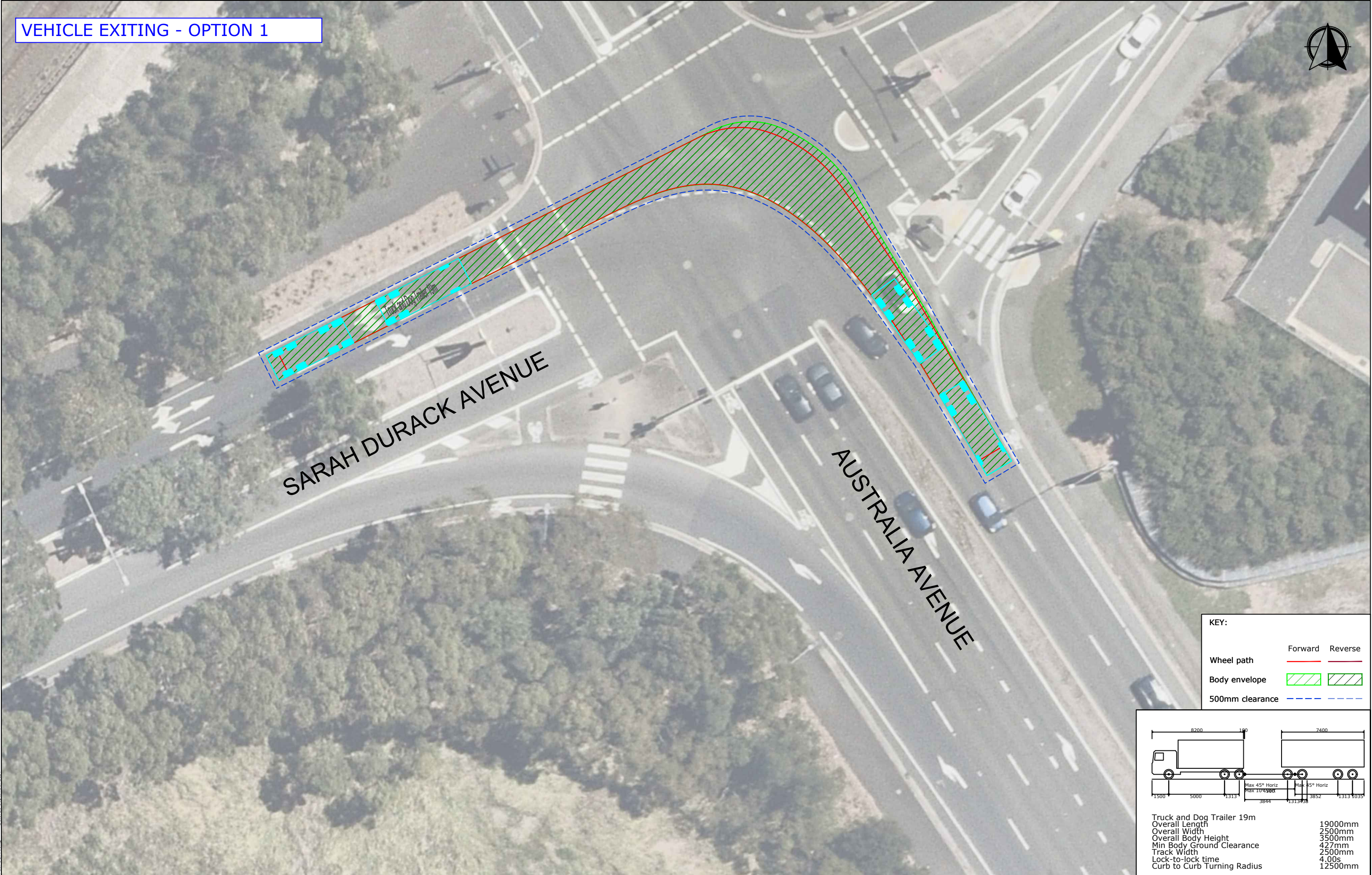


PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - AUSTRALIA AVENUE AND SARAH DURACK INTERSECTION 19m SEMI-TRAILER	

DWG No.	21319CAD002	
	FIGURE 11	
DATE STAMP	20 SEPTEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

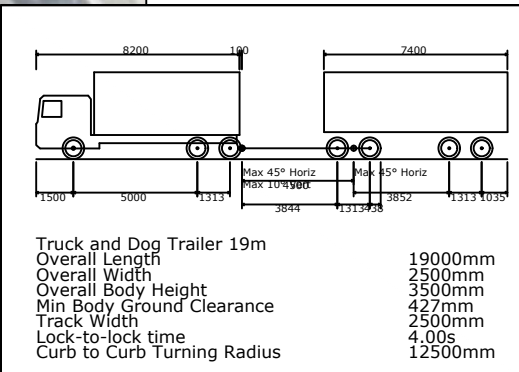
Filename: 21319CAD002-210920-Swept Path SOPA.dwg Date: 20 September 2021

VEHICLE EXITING - OPTION 1



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



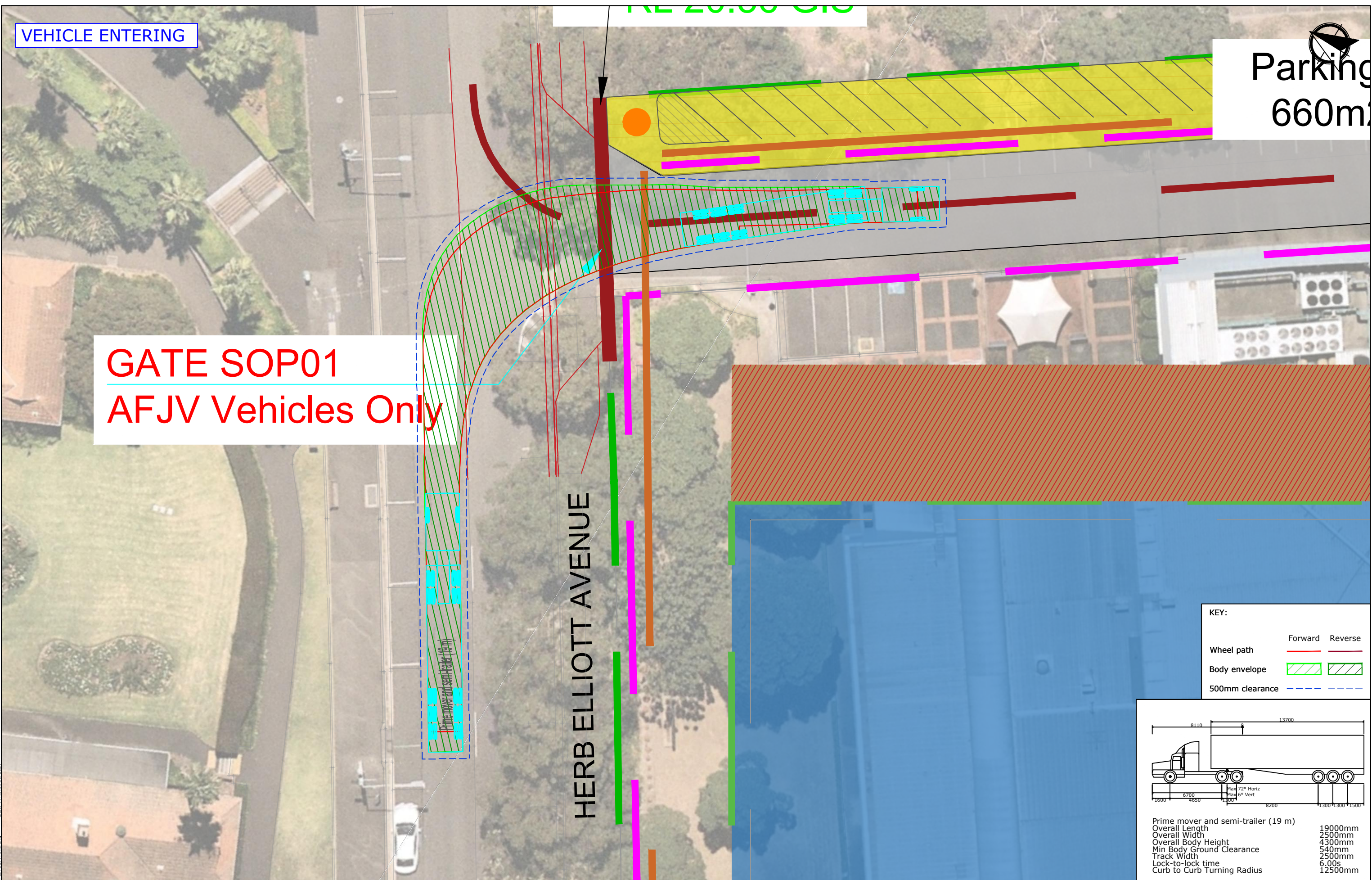
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	20/09/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - AUSTRALIA AVENUE AND SARAH DURACK INTERSECTION 19m TRUCK-AND-DOG

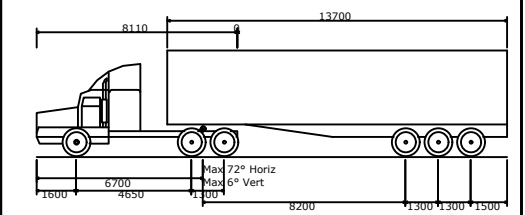
DWG No.	21319CAD002
FIGURE 12	
DATE STAMP	20 SEPTEMBER 2021
PROJECT No.	21319
SCALE	1:250 @ A3
REV.	A

Filename: 21319CAD002-21319-Swept Path SOPA.dwg Date: 20 September 2021



KEY:

Wheel path	Forward	Reverse
Body envelope		
500mm clearance		



Prime mover and semi-trailer (19 m)	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (EASTBOUND RIGHT TURN ENTRY INTO SITE) 19m SEMI-TRAILER	

DWG No. 21319CAD003 FIGURE 1	
DATE STAMP 14 NOVEMBER 2021	
PROJECT No. 21319	SCALE 1:250 @ A3
REV. A	

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021

VEHICLE ENTERING



Parking
660m

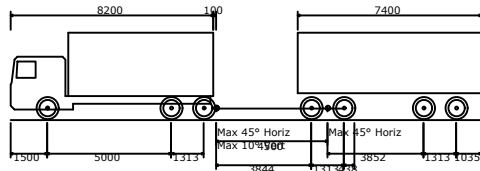
GATE SOP01

AFJV Vehicles Only

HERB ELLIOTT AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19m	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	3500mm
Min Body Ground Clearance	427mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT

SYDNEY METRO WEST
SYDNEY OLYMPIC PARK

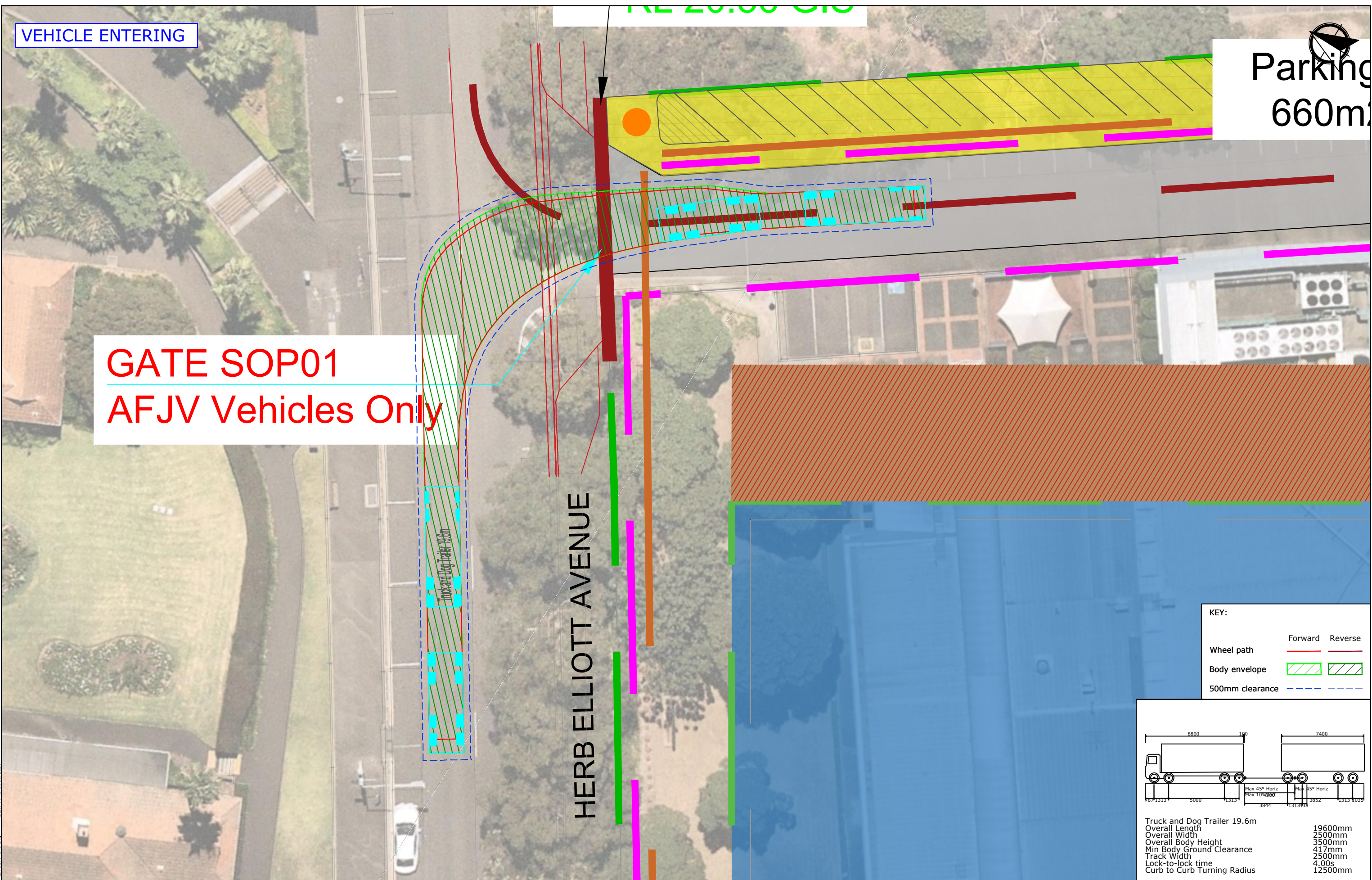
TITLE

SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (EASTBOUND RIGHT TURN ENTRY INTO SITE)
19m TRUCK-AND-DOG (TRI)

DWG No.	21319CAD003 FIGURE 2
---------	-------------------------

DATE STAMP
14 NOVEMBER 2021

PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

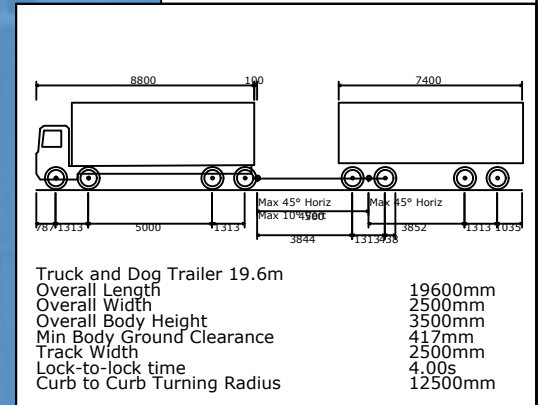


Parking
660m

GATE SOP01
AFJV Vehicles Only

HERB ELLIOTT AVENUE

KEY:		
Wheel path	Forward	Reverse
Body envelope		
500mm clearance		



REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (EASTBOUND RIGHT TURN ENTRY INTO SITE) 19.6m TRUCK-AND-DOG (QUAD)	

DWG No.	21319CAD003 FIGURE 3	
DATE STAMP	14 NOVEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

VEHICLE ENTERING



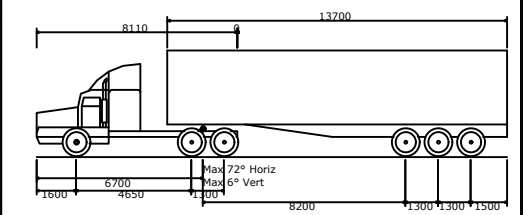
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Prime mover and semi-trailer (19 m)	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

GATE SOP01

Filename: 21319CAD0003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (WESTBOUND LEFT TURN ENTRY INTO SITE) 19m SEMI-TRAILER

DWG No.	21319CAD003 FIGURE 4	
DATE STAMP	14 NOVEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

VEHICLE ENTERING



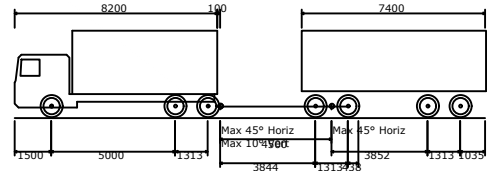
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19m	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	3500mm
Min Body Ground Clearance	427mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12500mm

GATE SOP01

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (WESTBOUND LEFT TURN ENTRY INTO SITE) 19m TRUCK-AND-DOG (TRI)

DWG No.	21319CAD003 FIGURE 5		
DATE STAMP 14 NOVEMBER 2021			
PROJECT No. 21319	SCALE 1:250 @ A3		REV. A

VEHICLE ENTERING



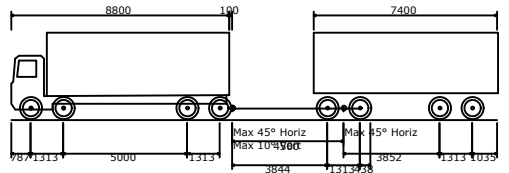
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19.6m
Overall Length 19600mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 417mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

DWG No. 21319CAD003	
FIGURE 6	
DATE STAMP 14 NOVEMBER 2021	
PROJECT No. 21319	SCALE 1:250 @ A3
REV. A	

GATE SOP01

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (WESTBOUND LEFT TURN ENTRY INTO SITE) 19.6m TRUCK-AND-DOG (QUAD)

VEHICLE EXITING



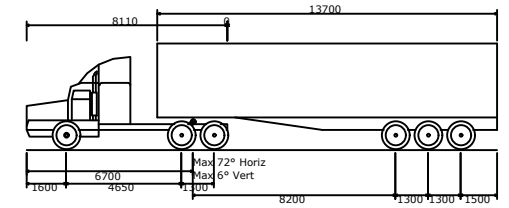
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Prime mover and semi-trailer (19 m)	
Overall Length	19000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

GATE SOP01

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (RIGHT TURN EXIT FROM SITE) 19m SEMI-TRAILER	

DWG No. 21319CAD003 FIGURE 7	
DATE STAMP 14 NOVEMBER 2021	
PROJECT No. 21319	SCALE 1:250 @ A3
REV. A	

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021

VEHICLE EXITING



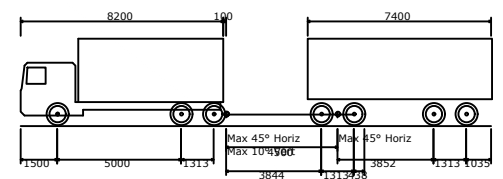
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19m
Overall Length 19000mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 427mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

GATE SOP01

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (RIGHT TURN EXIT FROM SITE) 19m TRUCK-AND-DOG (TRI)

DWG No.	21319CAD003 FIGURE 8		
DATE STAMP 14 NOVEMBER 2021			
PROJECT No. 21319	SCALE 1:250 @ A3	REV. A	

VEHICLE EXITING



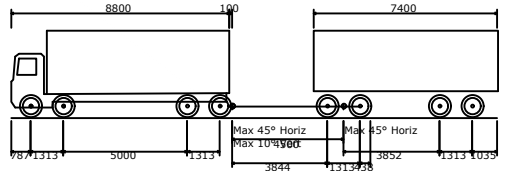
HERB ELLIOTT AVENUE

RL 20.56 GIS

Parking
660m²

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19.6m
Overall Length 19600mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 417mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

GATE SOP01

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (RIGHT TURN EXIT FROM SITE) 19.6m TRUCK-AND-DOG (QUAD)

DWG No.	21319CAD003 FIGURE 9		
DATE STAMP 14 NOVEMBER 2021			
PROJECT No. 21319	SCALE 1:250 @ A3		REV. A

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021

VEHICLE EXITING

Parking
660m

GATE SOP01
AFJV Vehicles Only

HERB ELLIOTT AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Truck and Dog Trailer 19m
Overall Length 19000mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 427mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

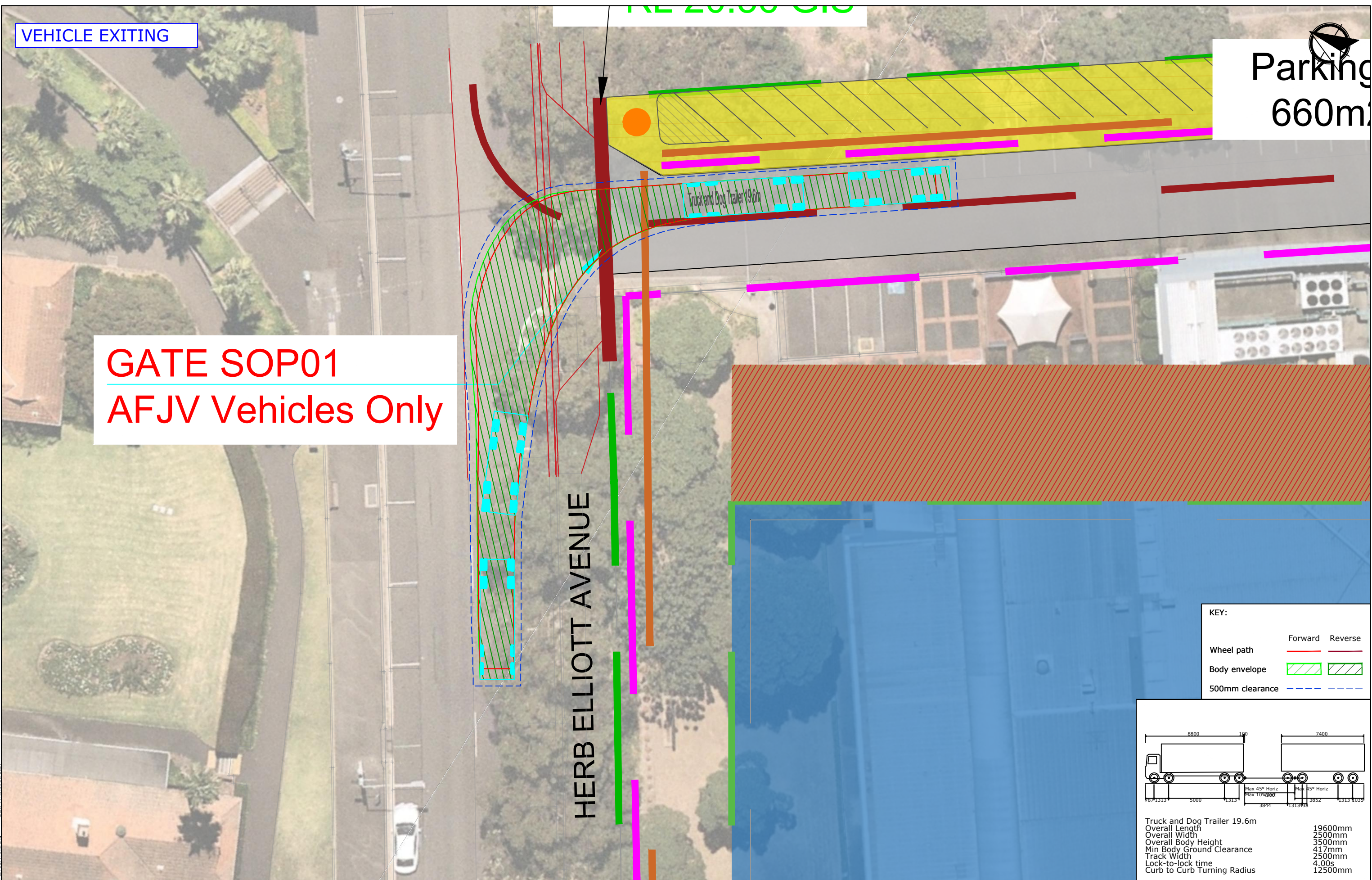
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (LEFT TURN EXIT FROM SITE) 19m TRUCK-AND-DOG (TRI)

DWG No.	21319CAD003 FIGURE 11		
DATE STAMP 14 NOVEMBER 2021			
PROJECT No.	SCALE	REV.	
21319	1:250 @ A3	A	

Filename: 21319CAD003-21114 Swept Path SOPA Site.dwg Date: 14 November 2021



VEHICLE EXITING

Parking
660m

GATE SOP01
AFJV Vehicles Only

HERB ELLIOTT AVENUE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

Truck and Dog Trailer 19.6m

Overall Length	19600mm
Overall Width	2500mm
Overall Body Height	3500mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	12500mm

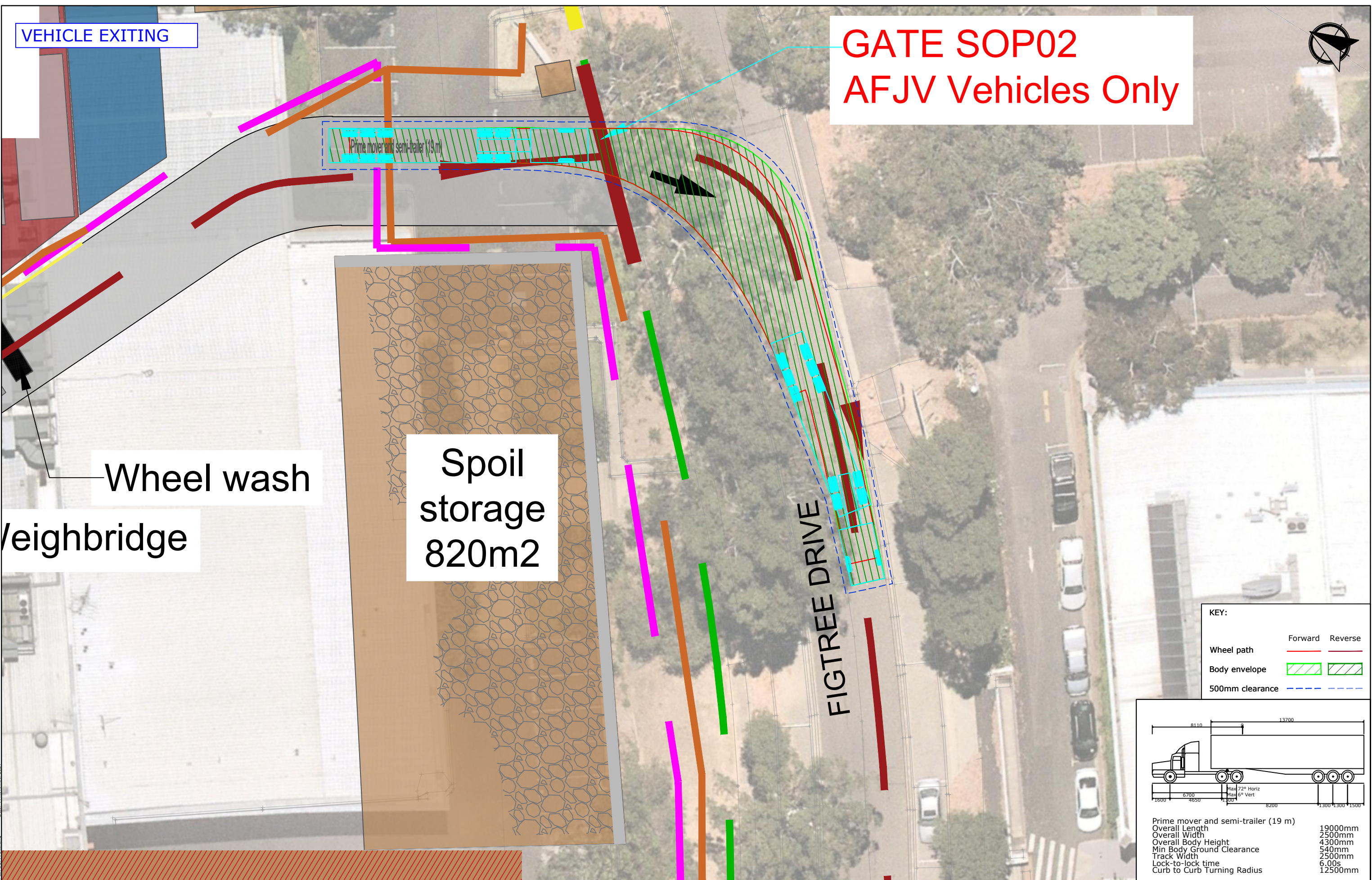
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK
TITLE	SWEPT PATH ANALYSIS - HERB ELLIOTT AVENUE (LEFT TURN EXIT FROM SITE) 19.6m TRUCK-AND-DOG (QUAD)

DWG No.			21319CAD003		
			FIGURE 12		
DATE STAMP					
14 NOVEMBER 2021					
PROJECT No.		SCALE		REV.	
21319		1:250 @ A3		A	

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021



VEHICLE EXITING

GATE SOP02
AFJV Vehicles Only

Prime mover and semi-trailer (19 m)

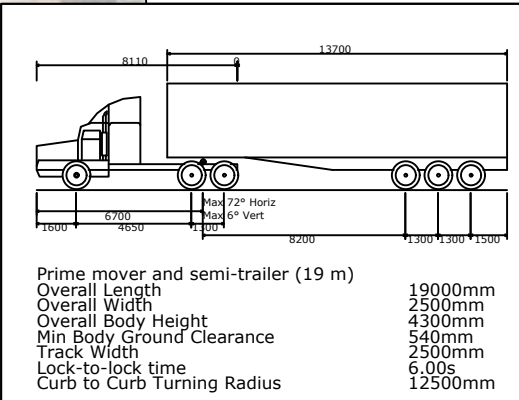
Wheel wash

weighbridge

Spoil storage
820m2

FIGTREE DRIVE

KEY:		
	Forward	Reverse
Wheel path	<div></div>	<div></div>
Body envelope	<div></div>	<div></div>
500mm clearance	<div></div>	<div></div>



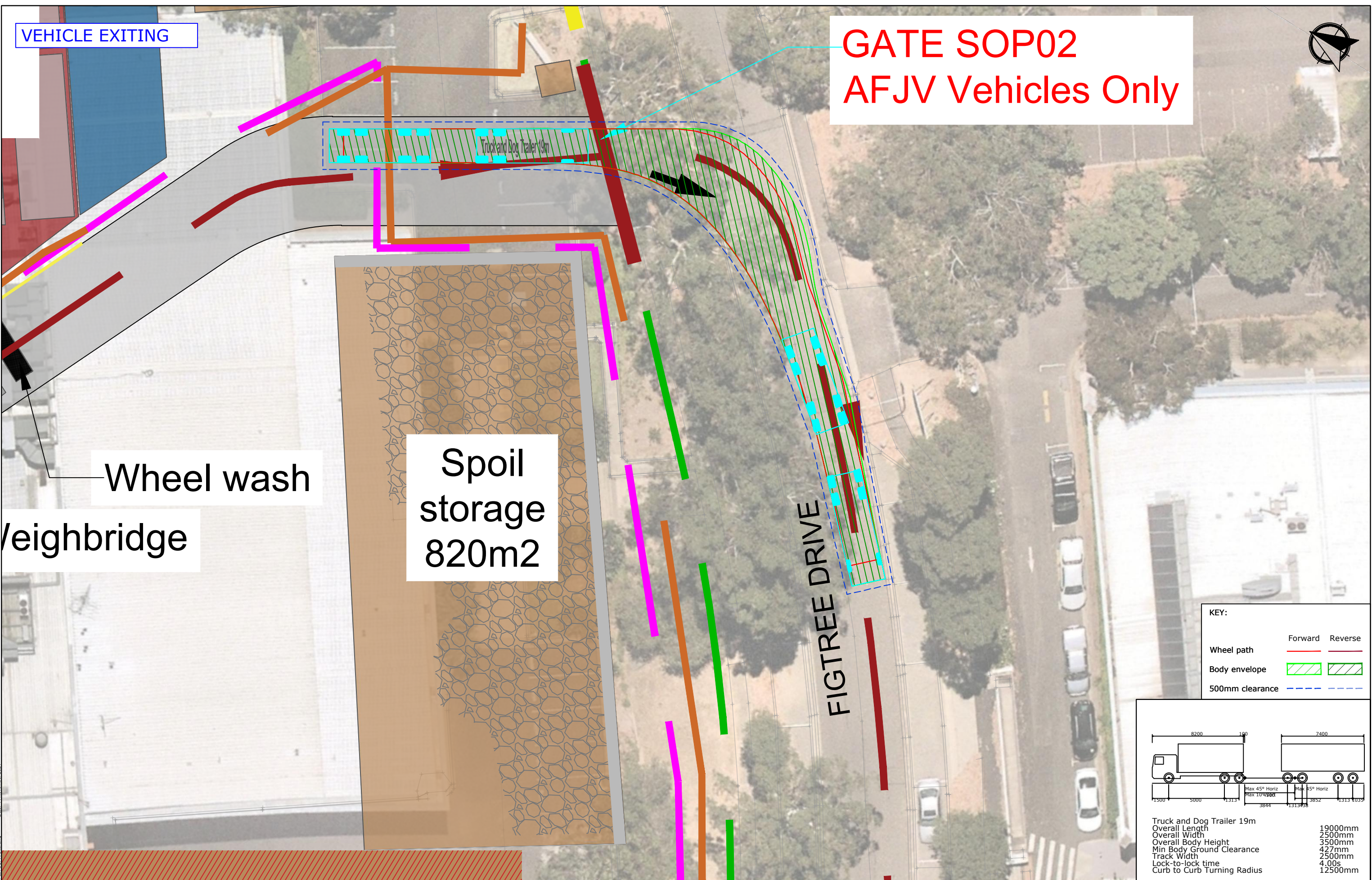
REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - FIGTREE DRIVE (RIGHT TURN EXIT FROM SITE) 19m SEMI-TRAILER	

DWG No.	21319CAD003 FIGURE 13	
DATE STAMP	14 NOVEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021



VEHICLE EXITING

GATE SOP02
AFJV Vehicles Only

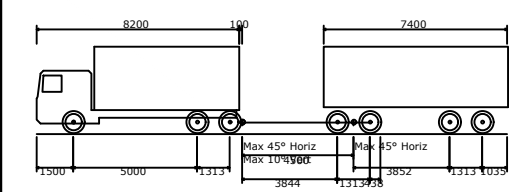
Wheel wash
weighbridge

Spoil storage
820m2

FIGTREE DRIVE

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		



Truck and Dog Trailer 19m
Overall Length 19000mm
Overall Width 2500mm
Overall Body Height 3500mm
Min Body Ground Clearance 427mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 12500mm

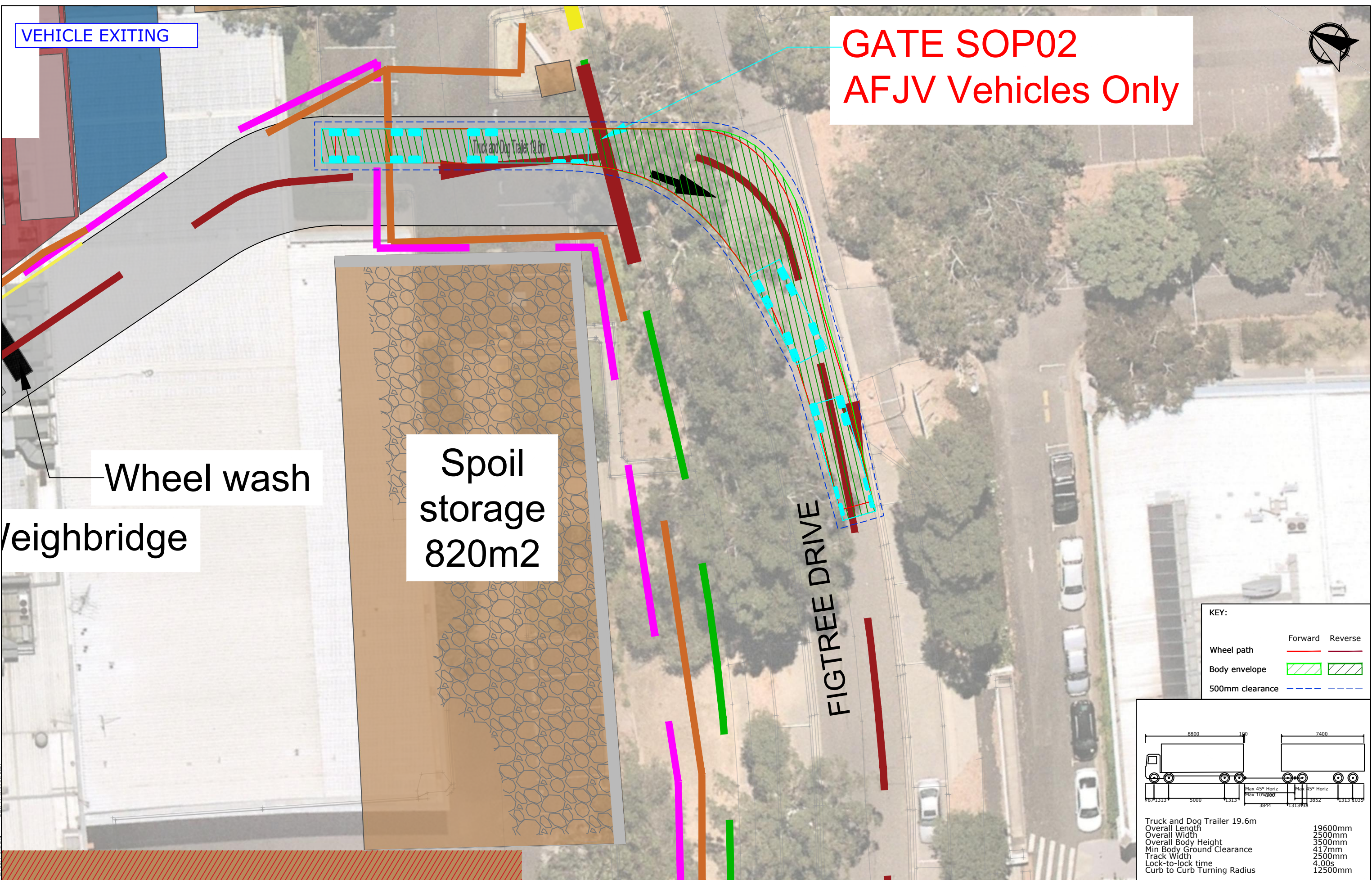
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A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21



PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - FIGTREE DRIVE (RIGHT TURN EXIT FROM SITE) 19m TRUCK-AND-DOG (TRI)	

DWG No.	21319CAD003 FIGURE 14	
DATE STAMP	14 NOVEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

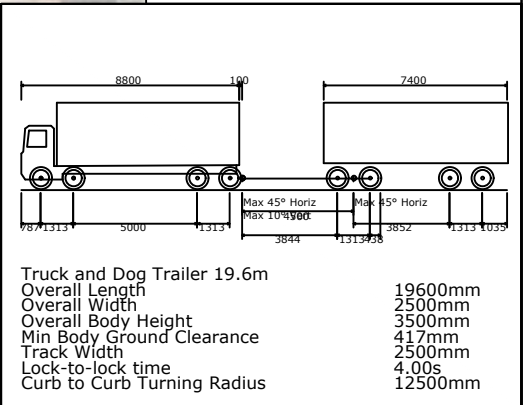
Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021



GATE SOP02
AFJV Vehicles Only

KEY:

	Forward	Reverse
Wheel path	—	—
Body envelope	 	
500mm clearance	 	



REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	DL	WJ	14/11/21

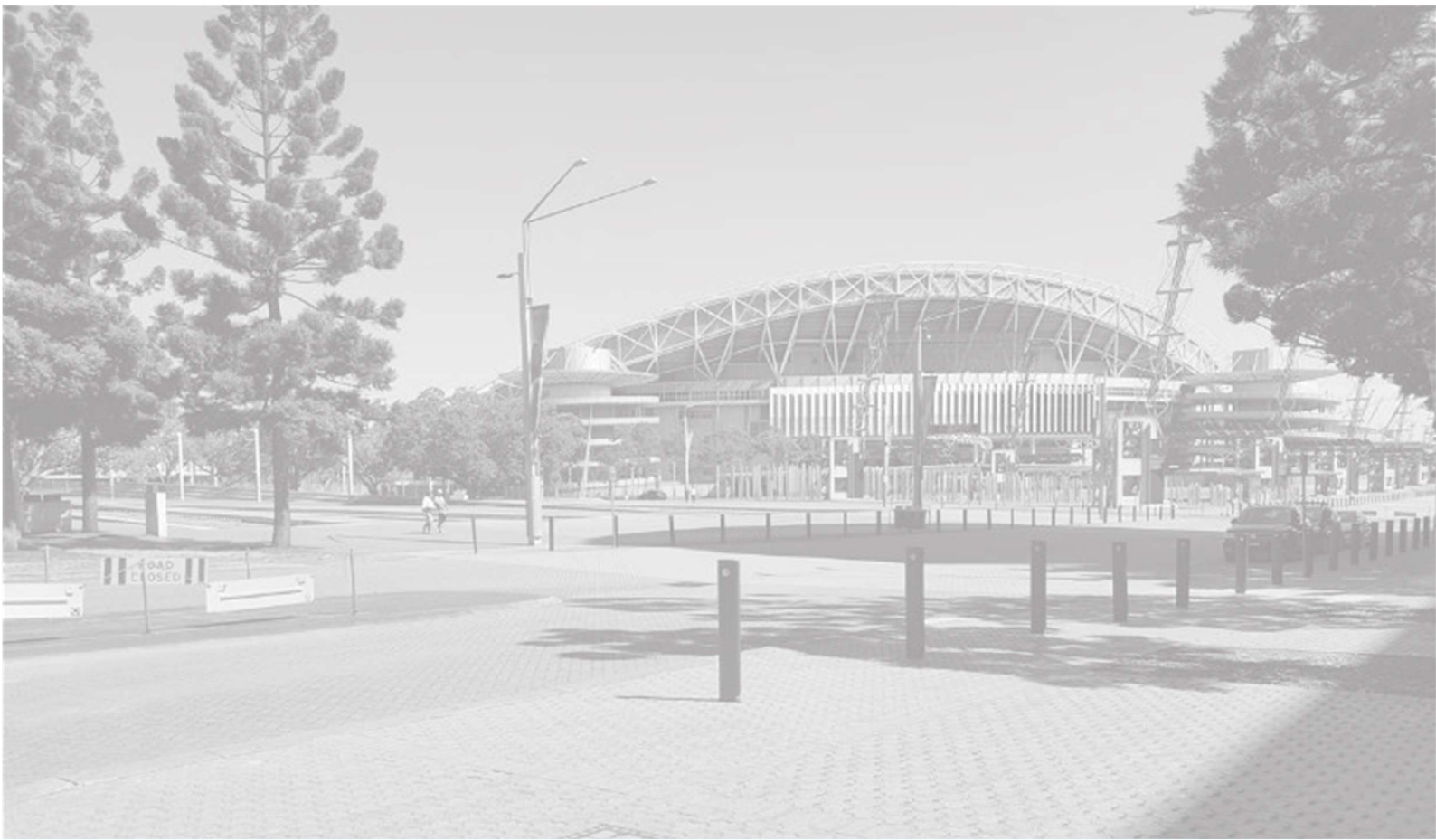


PROJECT	SYDNEY METRO WEST SYDNEY OLYMPIC PARK	
TITLE	SWEPT PATH ANALYSIS - FIGTREE DRIVE (RIGHT TURN EXIT FROM SITE) 19.6m TRUCK-AND-DOG (QUAD)	

DWG No.	21319CAD003 FIGURE 15	
DATE STAMP	14 NOVEMBER 2021	
PROJECT No.	SCALE	REV.
21319	1:250 @ A3	A

Filename: 21319CAD003-21114-Swept Path SOPA Site.dwg Date: 14 November 2021

APPENDIX B ROAD SAFETY AUDIT



Sydney Metro West Existing Conditions Road Safety Audit

Prepared for:
Acciona Ferrovial Joint Venture

5 October 2021

The Transport Planning Partnership

Sydney Metro West

Existing Conditions Road Safety Audit

Client: Acciona Ferrovia Joint Venture

Version: V01

Date: 5 October 2021

TPP Reference: 21319

Quality Record


Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	28/09/21	Santi Botross, Stephen Read	Stephen Read	Wayne Johnson	

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Table 4.2:	Road Safety Audit Findings	7

Figures

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APPENDICES

A. DESIGN DRAWINGS

1 Road Safety Audit Summary

Audited project:	Sydney Metro West – Sydney Olympic Park
Client:	Acciona Ferrovia Joint Venture
Project manager:	Denis Fung
Email address:	denis.fung@ctp-afjv.com.au
Telephone:	0428 925 639
Audit Team:	Stephen Read (level 3 lead road safety auditor) Santi Botross (level 2 road safety auditor)
Audit type:	Existing Conditions
Commencement meeting:	N/A
Audit date:	28 September 2021
Completion meeting:	Not required

The objective of this road safety audit is to examine and identify road safety concerns regarding the amended construction vehicle haul route associated with the construction of the Sydney Olympic Park metro station as part of the Sydney Metro West project. The amended route differs to the construction vehicle haul route proposed by the Environmental Impact Statement (EIS) for the Sydney Metro West project.

The findings of the road safety audit have been detailed in Section 4.3 of this report.

2 Introduction

2.1 Background

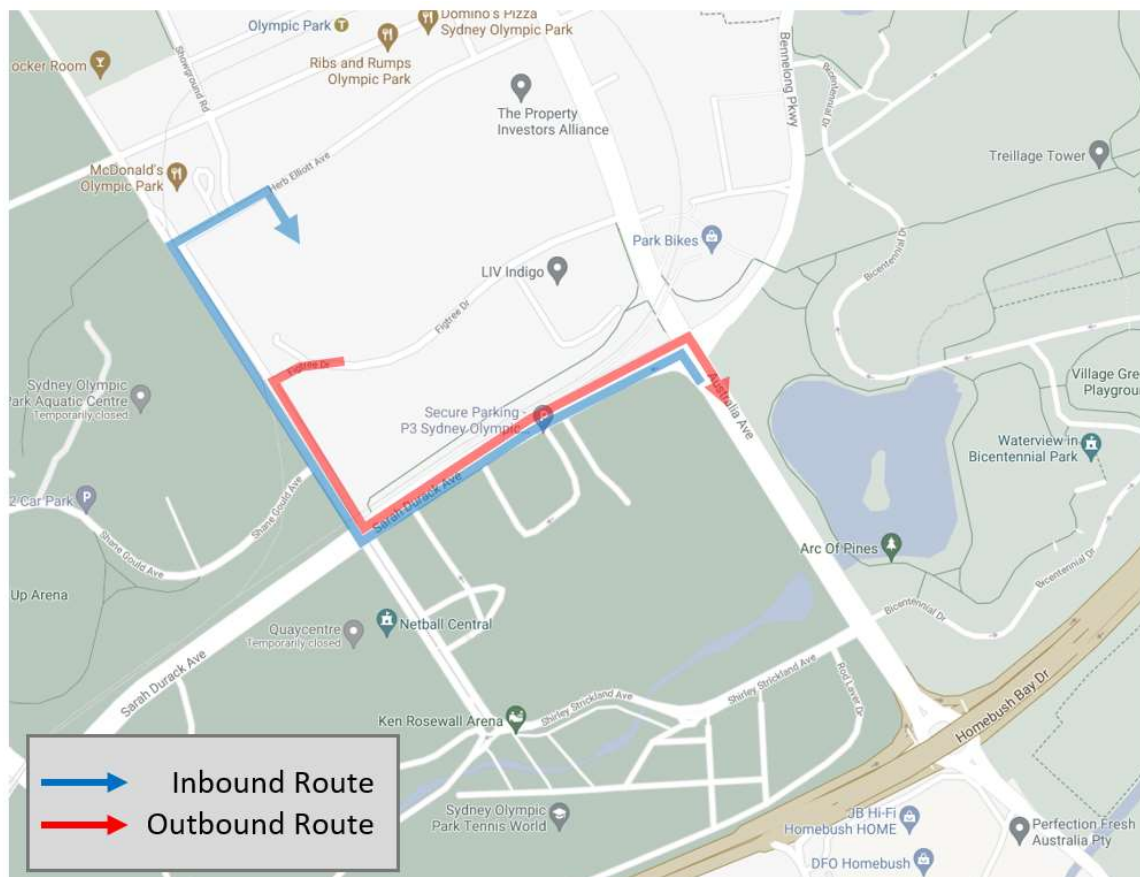
This report has been prepared on behalf of Acciona Ferrovia Joint Venture to present road safety audit findings that have been identified for the amended construction vehicle haul route associated with the construction of the Sydney Olympic Park metro station as part of the Sydney Metro West project. The amended route differs to the construction vehicle haul route proposed by the Environmental Impact Statement (EIS) for the Sydney Metro West project.

Specifically, the audit scope covered the following routes:

- **Inbound route:** from Australia Avenue, turn left onto Sarah Durack Avenue, turn right onto Olympic Boulevard, and then turn right onto Herb Elliott Avenue.
- **Outbound route:** from Figtree Drive, turn left onto Olympic Boulevard, turn left onto Sarah Durack Avenue, and then turn right onto Australia Avenue.

The scope of the road safety audit is shown in Figure 2.1.

Figure 2.1: Audit Scope



2.2 Audit Objective

The objective of this road safety audit is to examine and identify road safety concerns regarding the amended construction vehicle haul route associated with the construction of the Sydney Olympic Park metro station as part of the Sydney Metro West project.

2.3 Procedures and Reference Material

The procedures used are described in the following guidelines:

- Roads and Maritime Services' 2011 Guidelines for Road Safety Audit Practices
- Austroads Guide to Road Safety 2019: Part 6 Managing Road Safety Audits
- Austroads Guide to Road Safety 2019: Part 6A Implementing Road Safety Audits.

Austroads checklist was used by the audit team as a reference in this road safety audit. Key elements examined included:

- general topics – drainage, type and degree of access to development
- design issues
- intersections
- lighting, signs and delineation
- physical objects
- environmental constraints
- other matters including over size vehicles.

2.4 Audit Team

The RSA was carried out by the following team:

- Stephen Read (RSA-02-0652) – level 3 road safety auditor (lead auditor)
- Santi Botross (RSA-02-1016) – level 2 road safety auditor (team member).

Stephen and Santi are registered road safety auditors with the NSW Centre for Road Safety.

3 Road Safety Audit Program

3.1 Commencement Meeting

A formal meeting was not held.

3.2 Site and Field Audit

A site inspection was carried out on Tuesday 28 September 2021 in fine weather conditions during the daytime. This is in-line with the hours of construction which are proposed to be during the daytime period.

The vehicle route was driven, and adjacent pedestrian pathways were walked over in each direction to identify possible road safety concerns. Several photographs and video footage were taken.

3.3 Completion Meeting

Not required.

4 Road Safety Audit Findings

4.1 Introduction

Table 4.1 provides specific details of the audit findings and a risk rating as high, medium or low. The risk ratings have been based on the risk matrix presented in Table 4.1, which has been adopted from the standard Austroads Risk Matrix.

Table 4.1: Risk Matrix

	Likelihood	Highly probable	Occasional	Improbable
Severity				
Major		High	High	Medium
Moderate		High	Medium	Low
Minor		Medium	Low	Low

The terms in Table 4.1 are described below.

Likelihood:

- Highly probable: It is likely that more than one crash of this type could occur within a five-year period.
- Occasional: It is likely that less than one crash of this type could occur within a five-year period.
- Improbable: Less than one crash of this type could occur within a 10-year period.

Severity:

- Major: The crash is likely to result in a fatality or serious injuries
For example, high/medium speed vehicle collision, high/medium speed collision with a fixed object, pedestrian struck at high speed, and cyclist hit by car.
- Moderate: The crash is likely to result in minor injuries or large scale of property damage
For example, some slow speed vehicle collisions, cyclist falls, and rear end crashes.
- Minor: The crash is likely to result in minor property damage or many near miss crash events
For example, some slow speed collisions, pedestrian walks into object (no head injury), and car reverses into post.

Priority:

- High: Very important, and needs to be addressed urgently.
- Medium: Important, and needs to be addressed as soon as possible.
- Low: Needs to be considered as part of regular maintenance/planning program.

4.2 Responding to the Audit Report

As set out in the road safety audit guidelines, the responsibility for the road rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Neither is it the role of the auditor to agree to, or approve the project manager's responses to the audit.

The audit provides the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

4.3 Road Safety Audit Findings



The audit findings are documented in Table 4.2 which provides:



- specific details of the road safety issues identified during the audit
- a risk level rating for each of the road safety audit findings.

It should be acknowledged that positive attributes of the audited road section have not been discussed. Deficiencies that do not cause a safety problem are also not listed.

In-line with Roads and Maritime Services' best practice recommendations have not been included in the road safety audit findings.


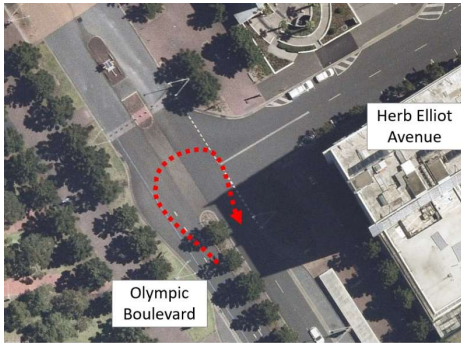
Table 4.2: Road Safety Audit Findings

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
1.	Australia Avenue – Sarah Durack Avenue	<p>There is a cycle lane marked within the road shoulder which significantly narrows at the left-turn slip lane from Australia Avenue to Sarah Durack Avenue. This results in cyclists having to share the travel lane with traffic, and namely, construction vehicles which have limited visibility towards cyclists.</p> <p>As observed on-site, this route is commonly utilised by cyclists. There is a risk of cyclists being struck by left turning trucks.</p>		Improbable	Major	Medium	<p>Entry route via Sarah Durack Ave will be used as an alternate route in addition to Australian Ave.</p> <p>Low heavy vehicle traffic volume will further reduce the likelihood of incidents.</p> <p>Briefing to driver to expect cyclists within the Sydney Olympic Park area.</p> <p>No road design changes proposed.</p>
2.	Sarah Durack Avenue	<p>As observed on-site, pedestrians cross the road along midblock to access the P3 car park. Evidently, this is an existing concern as seen by the signage on-site at the car park exit reminding pedestrians to cross at the signals. This could result in a person being struck by a vehicle, which would be more severe if it involved a heavy vehicle.</p>		Improbable	Major	Medium	<p>Pedestrian volume is due to COVID centre located in Sydney Olympic Park.</p> <p>SOPA has installed signage and place personnel to direct pedestrians to the signal crossing.</p> <p>During some special events (e.g. Easter Show) access to worksite will be via Australian Ave, thus avoiding this area.</p> <p>No road design changes proposed.</p>

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
							
3.	Figtree Drive	Sight lines between westbound vehicles on Figtree Drive and pedestrians at the southern kerb ramp are restricted by the curve in the roadway and overgrown roadside vegetation. This could lead to a vehicle-pedestrian collision, which could be exacerbated by the downward grade in travel lane on approach to the intersection and more heavy vehicles on this route.		Improbable	Major	Medium	<p>Low risk as trucks needs to slow down prior to turning onto Olympic Boulevard.</p> <p>Briefing to driver to expect pedestrians along Olympic Boulevard.</p> <p>During some special events (e.g. Easter Show) exit from worksite will be via Herb Elliott Ave and Australian Ave, thus avoiding this area.</p> <p>No road design changes proposed.</p>

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
							
4.	Figtree Drive	Truck and dog vehicles are avoided in some high pedestrian areas as the gap for the draw bar between the truck and trailer can sometimes be mistaken to be two separate vehicles. A pedestrian could try to cross over the draw bar and get hit by the trailer as it accelerates.		Improbable	Major	Medium	<p>Briefing to driver to expect pedestrians along Olympic Boulevard.</p> <p>During some special events (e.g. Easter Show) exit from worksite will be via Herb Elliott Ave and Australian Ave, thus avoiding this area.</p> <p>No road design changes proposed.</p>

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
5.	Olympic Boulevard	There are locations where there is a kerb ramp with pavement tactiles and varied pavement surface treatment (across the roadway) which could suggest to pedestrians that they have right-of way at this location. Any miscommunication/ misunderstanding between a motorist (including heavy vehicle driver) and pedestrian crossing the road could result in a collision. This severity of such incident occurring would be made worse if it involved a heavy vehicle.		Improbable	Major	Medium	Location north of Figtree Drive. This section of the road is not along the propose exit route. No road design changes proposed.
6.	Sarah Durack Avenue – Olympic Park Boulevard	The dedicated right-turn lane from Sarah Durack Avenue to Olympic Park Boulevard is approximately 30m in length. This would be able to accommodate a 19m heavy vehicle with one or two cars until the traffic would begin to protrude the adjacent through lane. This could impact road safety (as through traffic manoeuvres around the back of the queue) and intersection operation.		Occasional	Minor	Low	Entry route via Sarah Durack Ave will be used as an alternate route in addition to Australian Ave. Even if all heavy vehicles were to use Sarah Durack Ave, it will be approximately 1 heavy vehicle per 5min (approx.12 per hour) during peak period. The signal cycle time will be capable to allow vehicles to turn right without queuing. During some special events (e.g. Easter Show) exit from worksite will be via Herb Elliott Ave and Australian Ave, thus avoiding this area.

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
7.	Sarah Durack Avenue	The P3 car park shuttle bus stop is located on Sarah Durack Avenue, just before Olympic Boulevard. According to the Sydney Olympic Park website, the shuttle service travels between the P3 car park to Olympic Boulevard, presumably by turning right at the traffic signals (see figure). This could increase the probability of a side-swipe incident between an approaching heavy vehicle and a shuttle bus merging across to the far right lane.		Improbable	Minor	Low	No changes proposed. Low risk due to low volume of heavy vehicles. During some special events (e.g. Easter Show) exit from worksite will be via Herb Elliott Ave and Australian Ave, thus avoiding this area. No changes proposed.
8.	Olympic Boulevard – Herb Elliot Avenue	Despite there being No U-Turn signage at the intersection, vehicles were observed undertaking u-turns on Olympic Boulevard.			Note only		

5 Concluding Statement

The findings and opinions in the report are based on the examination of the specific road and environs, and might not address all concerns existing at the time of the audit.

The auditors have endeavoured to identify features of the road that could be modified in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe.

While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.



Stephen Read
Level 3 Lead Road Safety Auditor
The Transport Planning Partnership



Santi Botross
Level 2 Road Safety Auditor
The Transport Planning Partnership

Appendix A

Design Drawings

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au

APPENDIX C CONSULTATION EVIDENCE

RE: Heavy Vehicle Access Route

Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Thu 25/11/2021 8:59 AM

To: Denis Fung <denis.fung@ctp-afjv.com.au>

Cc: Corrine Porter <corrine.porter@ctp-afjv.com.au>; Tharmalingam Nambiran <Tharmalingam.Nambiran@sopa.nsw.gov.au>; John Ferguson <John.Ferguson@sopa.nsw.gov.au>; Stephen Kennett <Stephen.Kennett@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>

Denis,

Thank you for sending through the second heavy vehicle access route for Aust Ave, Sarah Durack, Olympic Bld, Herb Elliott & Figtree Drive. SOPA has reviewed and approves this route conditional on the previous information SOPA sent through based on the swept vehicle analysis for the entry/exit at Figtree and Herb Elliott.

I will send through further information shortly on SOPA's requirements for the operation of the heavy vehicle access route throughout the construction period. This will include but not limited to the following:

1. Confirmation the Aust Ave, Sarah Durack, Olympic Bld, Herb Elliott & Figtree Drive route will be the primary route.
2. Confirmation the Herb Elliott, Figtree Drive to Australia Ave route will be the secondary route activated in times of major events at SOP where Olympic Boulevard will be closed.
3. Details on the extent of the pre-commencement photographic dilapidation report.
4. Procedures for heavy route road maintenance requirements throughout the works.
5. Completion reinstatement requirements post construction works.

Regards Grant

Grant Sutcliffe

Senior Manager Capital Programs Delivery

Sydney Olympic Park Authority

(02) 9714.7862

Mb: 0418.699.758

Email: grant.sutcliffe@sopa.nsw.gov.au

From: Denis Fung <denis.fung@ctp-afjv.com.au>

Sent: Tuesday, 23 November 2021 1:33 PM

To: Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Cc: Corrine Porter <corrine.porter@ctp-afjv.com.au>

Subject: Re: Heavy Vehicle Access Route

Importance: High

Grant,

Could you advise if there are any comments on the HV access route report?

Thanks,



Denis Fung

Traffic Manager

Acciona Ferrovia Joint Venture

Sydney Metro West

Central Tunnelling Package

+61 428 925 639

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this email.

From: Denis Fung <denis.fung@ctp-afjv.com.au>

Sent: Wednesday, 17 November 2021 12:03 PM

To: Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Cc: Corrine Porter <corrine.porter@ctp-afjv.com.au>

Subject: Re: Heavy Vehicle Access Route

Grant,

Australia Ave access is covered as part of the approved EIS (page10-20, 21 of 39, Figure 10-25)

Thanks,



Denis Fung
Traffic Manager
Acciona Ferrovial Joint Venture

Sydney Metro West
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From: Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>
Sent: Wednesday, 17 November 2021 10:06 AM
To: Denis Fung <denis.fung@ctp-afjv.com.au>
Subject: Heavy Vehicle Access Route

Denis,

Working through the proposed Heavy Vehicle Access Route which is all looking good and I will provide a confirmation later this week. In looking forward you advised when we last spoke that the alternate route Australia Ave had already been submitted and that the Sarah Durack Olympic Bld was the outstanding issue. I can't locate a plan of the Australia Ave route and as such could you email across. The reason is I want to confirm within SOPA and advise afJV accordingly of the primary route and secondary route for major event mode so there is no confusion.

Please send across the Australia Ave route ASAP.

Thanks Grant

Grant Sutcliffe
Senior Manager Capital Programs Delivery
Sydney Olympic Park Authority
(02) 9714.7862
Mb: 0418.699.758
Email: grant.sutcliffe@sopa.nsw.gov.au

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Visit <https://clicktime.symantec.com/3XqejAjdxF9kpCiBrKa2yZF6H2?u=http%3A%2F%2Fwww.sydneyolympicpark.com.au%2Fregister>

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Visit <https://clicktime.symantec.com/36PQw4PdJiwZF2U7V3CDkWG7GS?u=http%3A%2F%2Fwww.sydneyolympicpark.com.au%2Fregister>

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RE: Heavy Vehicle Access Route

Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Wed 15/12/2021 9:20 AM

To: Denis Fung <denis.fung@ctp-afjv.com.au>

Cc: Corrine Porter <corrine.porter@ctp-afjv.com.au>

Denis,

SOPA has reviewed "Sydney Olympic Park Heavy Vehicle Route", Revision 00, dated 22/10/2021, and note that the submitted document includes:

1. swept path analyses,
2. consideration of the impact of the use of local roads on pedestrians and cyclists,
3. November as the nominated month for the road dilapidation survey
4. Consideration of safety and schools, aged care facilities and child care facilities
5. Comment from an experience traffic engineer

It would appear that the requirements of the consent, in particular Condition D87, in relation to the SOP Heavy Vehicle Route document have been met.

In addition, the document prepared addresses the requirements of Condition D87. Moreover, from the consent we can see that D86 requires that approval to be sought by the proponent from Planning Secretary.

SOPA requests that the CTMP be amended to include the route outlined in "Sydney Olympic Park Heavy Vehicle Route", Revision 00, dated 22/10/2021, as the PREFERRED route, with the route approved as part of the EIS being used only during event mode, as deemed by SOPA. Please confirm that this change can be actioned in the CTMP.

In addition to the above and in accordance with discussions to date, SOPA requires a detailed and comprehensive dilapidation report both photographic and video of existing roads and adjacent infrastructure as a base position for review and rectification requirements throughout and at the completion of the project.

Regards Grant

Grant Sutcliffe

Senior Manager Capital Programs Delivery

Sydney Olympic Park Authority

(02) 9714.7862

Mb: 0418.699.758

Email: grant.sutcliffe@sopa.nsw.gov.au

From: Denis Fung <denis.fung@ctp-afjv.com.au>

Sent: Wednesday, 17 November 2021 12:03 PM

To: Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Cc: Corrine Porter <corrine.porter@ctp-afjv.com.au>

Subject: Re: Heavy Vehicle Access Route

Grant,

Australia Ave access is covered as part of the approved EIS (page10-20, 21 of 39, Figure 10-25)

Thanks,



Denis Fung

Traffic Manager

Acciona Ferrovia Joint Venture

Sydney Metro West

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this email.

From: Grant Sutcliffe <Grant.Sutcliffe@sopa.nsw.gov.au>

Sent: Wednesday, 17 November 2021 10:06 AM

APPENDIX D DILAPIDATION REPORT TO SOPA



Document Transmittal



Transmittal No:	SMWSTCTP-AFJ-TX-000298
Contract No:	CTP - 00013/13033 - Central Tunnelling Works Design and Construction
Sub Contract:	
Date:	06 December 2021, 11:15 AM

Issued	Name
By	Orsolya Birkus (Acciona Australia and Ferrovial Australia Joint Venture)

Issued	Name
To	Steve Watson (Sydney Metro) ; Daniel Powrie (Sydney Metro)
Cc	Demi Tascas (Sydney Metro) ; Joseph Cruz (Sydney Metro) ; Farinaz Farid (Sydney Metro) ; Nicole Hendrie (Sydney Metro) ; David Wong (Sydney Metro) ; Marianonietta Bertinieri (Sydney Metro) ; Allan Cunningham (Sydney Metro) ; Luke Camilleri (Sydney Metro) ; Orsolya Birkus (Acciona Australia and Ferrovial Australia Joint Venture) ; Grant Andersen (Acciona Australia and Ferrovial Australia Joint Venture) ; Anthony Blackburne (Acciona Australia and Ferrovial Australia Joint Venture) ; Frank Mullane (Acciona Australia and Ferrovial Australia Joint Venture) ; Julio Sancho (Acciona Australia and Ferrovial Australia Joint Venture) ; Anne Andersen (Acciona Australia and Ferrovial Australia Joint Venture) ; James Hayward (Sydney Metro) ; Ian Webb (Sydney Metro) ; Abdullah Khan (Sydney Metro) ; Matthew Marrinan (Sydney Metro)

Reason for Issue	Issued for Information
Subject	Sydney Metro West - CTP - Project Planning Approval Condition D88 - Road Dilapidation Report - Sydney Olympic Park Authority

Dear Steve,

SMW-CTP D&C Deed

Contract No 00013/13033

Project Planning Approval Condition D88 - Road Dilapidation Report

The Tunnelling Contractor refers to the requirements of Project Planning Approval Condition D88 which requires a Road Dilapidation Report to be provided to the relevant road authority prior to any local road being used by a Heavy Vehicle for the purposes of construction.

Pursuant to the above requirement, please find enclosed the Road Dilapidation Report for the relevant Local Roads within the Sydney Olympic Park area. The Tunnelling Contractor notes that the enclosed report covers areas which are in addition to those relevant to Sydney Olympic Park Authority (SOPA). This report is provided for information only.

Would Sydney Metro please issue this correspondence and enclosed report to SOPA.

Regards,

Orsolya Birkus
Document Controller
Acciona Ferrovial Joint Venture

[Click here to download all Transmittal files.](#)

Item	Document No	Title	Rev	Sts	Type	Design Lots	Alt Doc No
1	SMWSTCTP-AFJ-1NL-CX-RPT-000002	Sydney Metro West - CTP - Pre Construction Road Dilapidation Report - File 1 of 5	00.01	S3	RPT		
2	SMWSTCTP-AFJ-1NL-CX-RPT-000003	Sydney Metro West - CTP - Pre Construction Road Dilapidation Report - File 2 of 5	00.01	S3	RPT		
3	SMWSTCTP-AFJ-1NL-CX-RPT-000004	Sydney Metro West - CTP - Pre Construction Road Dilapidation Report - File 3 of 5	00.01	S3	RPT		
4	SMWSTCTP-AFJ-1NL-CX-RPT-000005	Sydney Metro West - CTP - Pre Construction Road Dilapidation Report - File 4 of 5	00.01	S3	RPT		
5	SMWSTCTP-AFJ-1NL-CX-RPT-000006	Sydney Metro West - CTP - Pre Construction Road Dilapidation Report - File 5 of 5	00.01	S3	RPT		