

# Construction Traffic Management Plan – Badgerys Creek Road Gate 9

## Western Sydney Airport – Surface and Civil Alignment Works

<b>Project Name</b>	Sydney Metro – Western Sydney Airport, Surface and Civil Alignment Works
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### Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
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01	28/04/2023				Issued for Construction
<b>Signature</b>					

## Distribution and Authorisation

### Document Control

The CPBUI JV Project Director is responsible for ensuring this plan is reviewed and approved. The Construction Manager is responsible for updating this plan to reflect changes to the project, legal and other requirements, as required.

The controlled master version will be maintained on Teambinder. All circulated hard copies are deemed to be uncontrolled.

### Amendments

The implementation of this Plan is under the authority of the CPBUI Delegated Authority Matrix. All Contract personnel will perform their duties in accordance with this Plan, supporting plans, and related procedures.

### Revision Details

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A	For external review
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## Abbreviations and definitions

Table 1 Abbreviations and definitions

Abbreviation	Description
CJP	Customer Journey Planning (formerly SCO)
CPB	CPB Contractors Pty Ltd
CPBUI JV	CPB Contractors Pty Limited and United Infrastructure Pty Limited Joint Venture
CTMP	Construction Traffic Management Plan
HML	Higher Mass Limit
HVNL	Heavy Vehicle National Law
IAP	Intelligent Access Program
LTC	Local Traffic Committees
OSOM	Oversize and/or over mass
PedMP	Pedestrian Management Plan
PMP	Project Management Plan
PMS	Project Management System
PkMP	Parking Management Plan
QR	Quick Response
RAV	Restricted Access Vehicle
ROL	Road Occupancy Licence
RSA	Road Safety Audit
SBT	Sydney Metro – Western Sydney Airport, Station Boxes and Tunnelling package
SCAW	Western Sydney Airport Surface and Civil Alignment Works package
SCO	Sydney Coordination Office (now CJP)
SSTOM	Sydney Metro – Western Sydney Airport, Stations, Systems, Trains, Operations and Maintenance package
SWTC	Scope of Work and Technical Criteria
TCG	Transport Coordination Group
TCP	Traffic Control Plan now known as Traffic Guidance Scheme
TfNSW	Transport for New South Wales
TGS	Traffic Guidance Scheme (formerly TCP)
TTLG	Traffic and Transport Liaison Group
UI	United Infrastructure Pty Limited
VMP	Vehicle Movement Plan
VMS	Variable message signs
WSA	Western Sydney Airport
WSI	Western Sydney International

# Part A Overview

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## 1. Introduction

### 1.1. Project Scope

The SMWSA Project involves the construction and operation of a new 23km metro rail line that extends from the existing Sydney Trains suburban T1 western line (at St Marys) in the north to the Aerotropolis (at Bringelly) in the south. The alignment includes a combination of tunnels and civil structures, including viaducts, bridges, and surface and open-cut troughs between the two tunnel sections. The Project also includes six new metro stations, and a stabling and maintenance facility and operational control centre at Orchard Hills. The SCAW package is the second major contract package to be procured for the Project. The successful and timely completion of the SCAW package is critical to the subsequent construction activities and ultimate completion of the entire Project.

#### 1.1.1. Surface, Civil and Alignment Works (SCAW) scope

The scope for the SCAW package includes approximately 10.6km of alignment up to the underside of track formation from Orchard Hills to the WSI airport. This includes approximately:

- 3.6km of viaduct
  - 400m of viaduct over Blaxland Creek
  - 660m of viaduct over the Patons Lane area and un-named creek
  - 2.5km of viaduct in the Luddenham Road area including across the Warragamba pipeline, at Luddenham Station, across Luddenham Road and across Cosgrove Creek
- 205m of bridges
  - An over rail bridge, approximately 180m long, over the proposed M12 Motorway
  - An over rail bridge, approximately 25m long, over the drainage swale on the WSI airport site
- 6.9km of at-grade alignment
  - 600m at Orchard Hills, south of Lansdowne Road
  - 1.6km alongside the stabling maintenance facility in Orchard Hills
  - 900m to the north of the Warragamba pipelines
  - 1.1km north of the proposed M12 motorway
  - 1.4km south of the proposed M12 Motorway on Elizabeth Drive
  - 1.3km within the Airport site from the northern boundary to the Airport Business Park Station
- Temporary and permanent access roads.

The scope of works can be seen on Figure 1, noting that the tunnel and station works are by others.

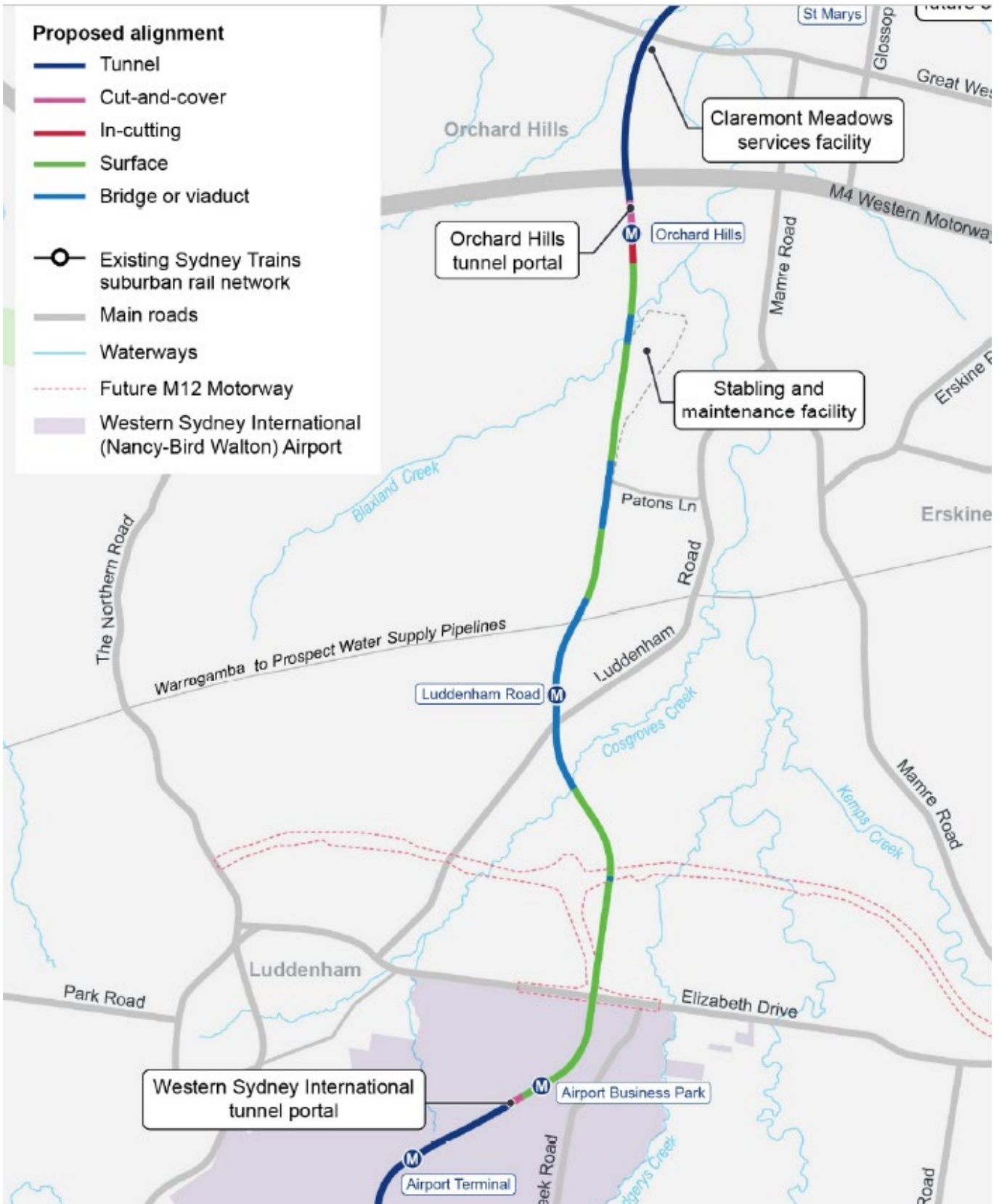


Figure 1: Surface Civil and Alignment Works

## 1.2. Plan Purpose and Objectives

The Badgerys Creek Road Construction Traffic Management Plan Gate 9 (CTMP or this plan) has been developed by CPB Contractors, United Infrastructure Joint Venture (CPBUIJV) to identify the traffic management measures at the Badgerys Creek Road access point for all phases of works associated with the Sydney Metro Western Sydney Airport Surface Civils and Alignment Works (SCAW works).

The plan sets out the traffic management initiatives that will be deployed to minimise disruption and ensure the safety of the wide range of stakeholders potentially affected by the SCAW works including but not limited to motorists, pedestrians, cyclists, public transport users, local residents, property owners, business owners and workers/ staff.

This plan has been prepared in accordance with the Construction Traffic Management Framework, SSI 10051 Planning Approval Condition E103 and will be submitted to the Planning Secretary of the NSW Department of Planning and Environment for information prior to the commencement of activities noted in the CTMP.

The key objectives of this plan are to ensure:

- The provision of a safe environment for road users, pedestrians, cyclists and workers
- Any impact on road users is kept to a minimum.
- Access is maintained for the local community, transport operators and commercial developments.
- Works are staged on key parts of the network to maintain levels of service.
- The SCAW package is represented as a proactive member of relevant local traffic coordination groups.
- Road users, local businesses, local Councils, Emergency Services, stakeholders and local communities are informed to changed traffic conditions, and
- There is sufficient advance warning of changes to normal traffic conditions.



## 2. Locality and existing conditions

The site is located on the western side of Badgerys Creek Road, refer to Figure 2.



Figure 2: Badgerys Creek Road access point



The existing access and egress points are left in/ left out, as shown on Figure 3



Figure 3: Existing access and egress restrictions

The road network surrounding the access points are as noted on Figure 4.

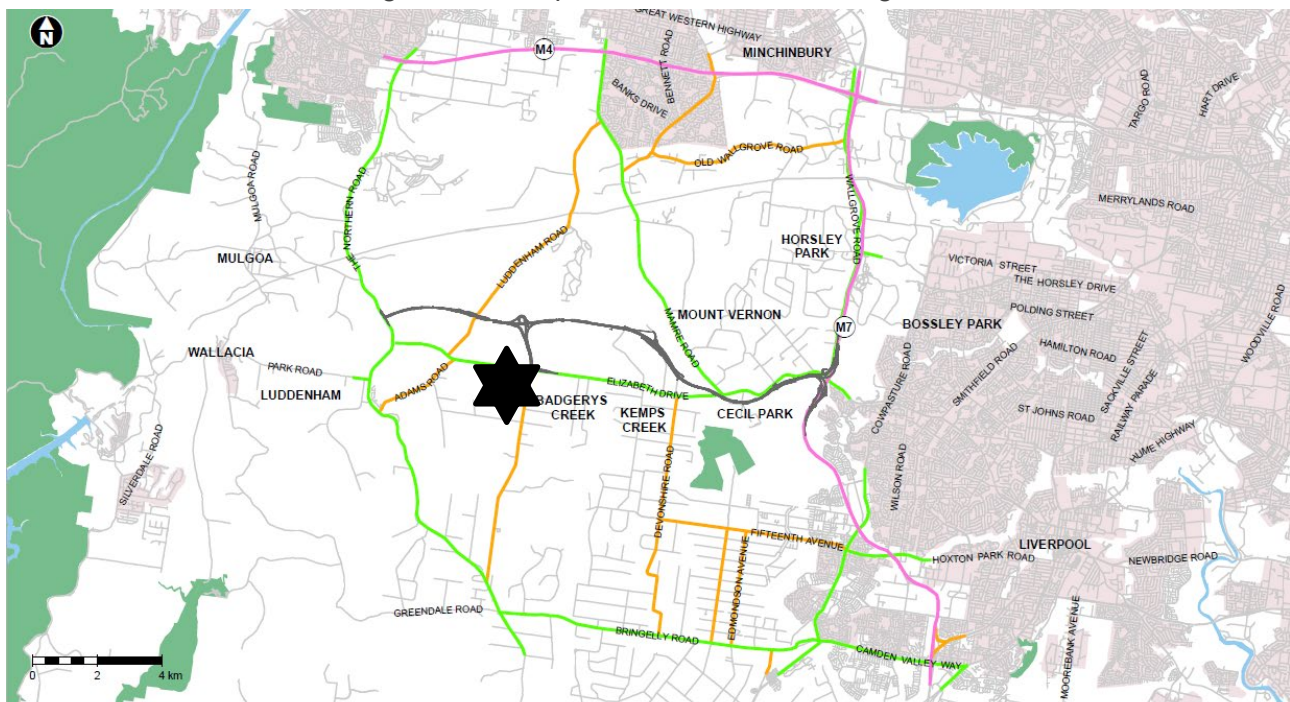


Figure 4 Road network surrounding the project

## 2.1. Badgerys Creek Road, Badgerys Creek

Badgerys Creek Road is a regional road. Regional roads typically fall under council care with control of the road exercised between Council and TfNSW with TfNSW agreement required for any regulatory changes. It should be noted that Badgerys Creek Road is controlled by the Western Sydney Airport Co between Elizabeth Drive and Badgerys Creek. Badgerys Creek Road runs in a north-south direction. Badgerys Creek Road terminates to the north at Elizabeth Drive and to the south at The Northern Road. It has a speed limit of 80km/hr in the southern section but this is reduced near the access point. There is no on street parking along Badgerys Creek Road. There are no existing off road cycle facilities along Badgerys Creek Road, refer to Figure 5.

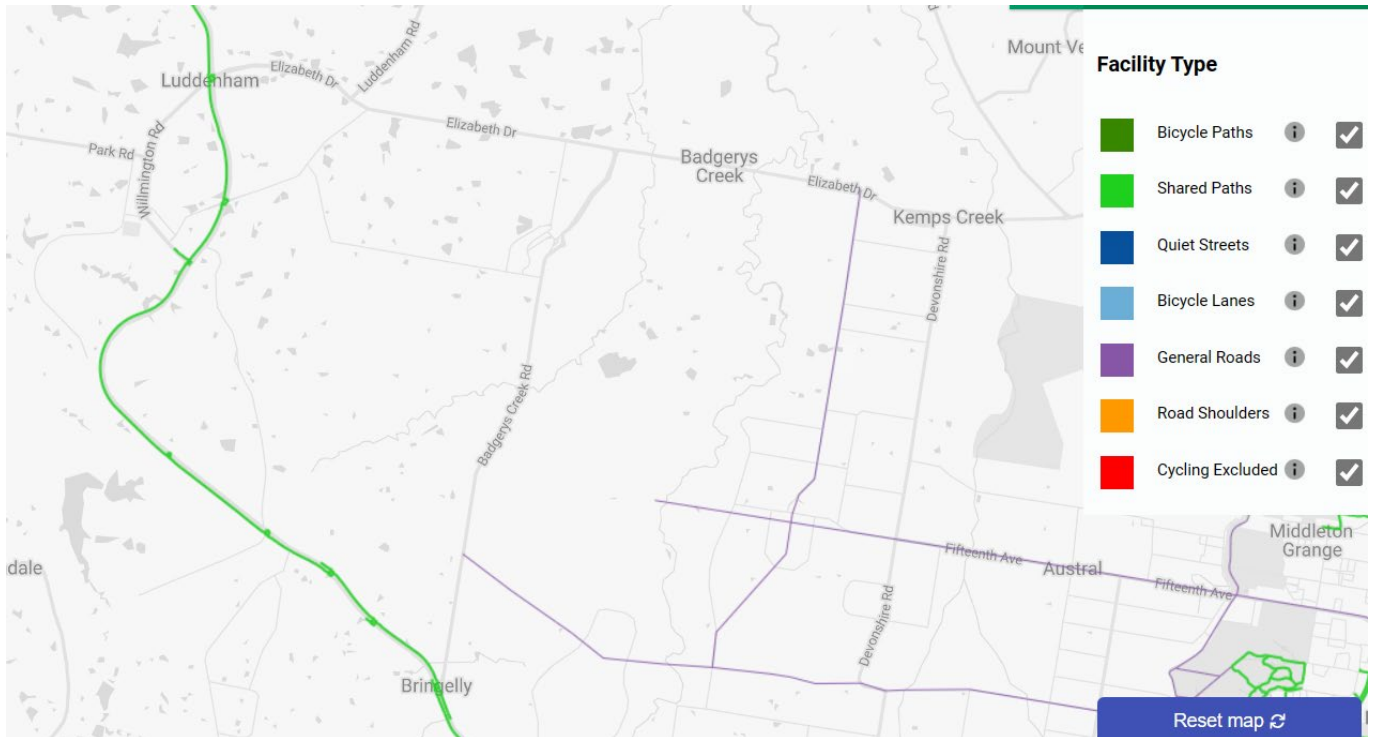


Figure 5: Existing cycle network

There are footpaths provided on Badgerys Creek Drive between Elizabeth Drive and the old Badgerys Creek Road. There are two bus stops on Badgerys Creek Road serviced by route 801 that operates two (2) services between Badgerys Creek and Liverpool Station in the AM peak between 0715 and 0900 and four (4) services between 1625 and 1900.



### 3. Site works

Duration: approximately 18 months

Timing: March 2023 -July 2024

#### 3.1. Works required

Works to be undertaken during the site main works include:

- Minor earthworks
- Internal access road construction
- Minor revegetation
- Drainage
- Pilling
- Delivery and installation of Super T Girders
- Minor FRP works

Works will generally be undertaken between the hours of 7AM-6PM Monday to Friday and 8AM-1PM Saturday.

#### 3.2. Operating conditions

Vehicles will enter and exit the site via Badgerys Creek Road. Vehicles will travel from The Norther Road and turn left into Badgerys Creek Road. They will access the site via a left turn in and left turn out. Once they get to the intersection of Elizabeth Drive, all vehicles will turn left to access The Northern Road.

The indicative site layout is shown on Figure 6 below.

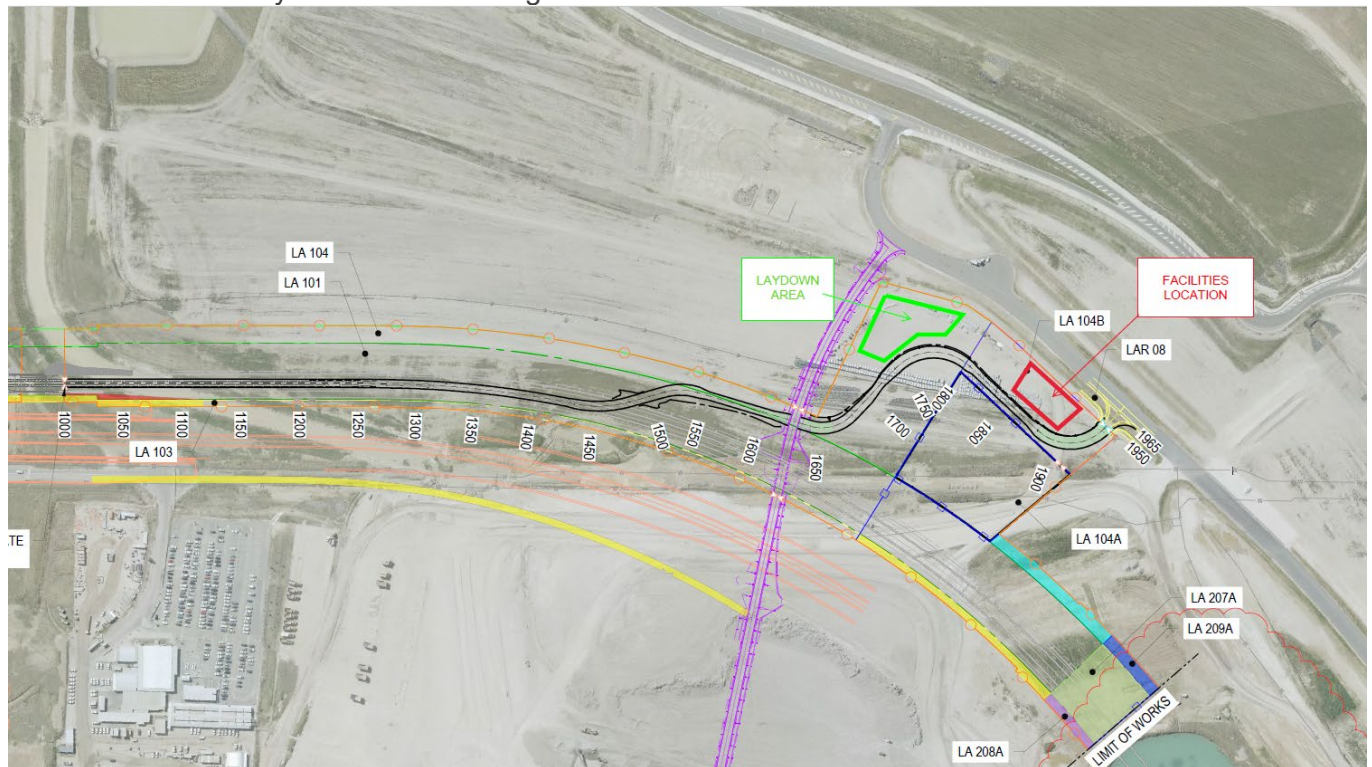


Figure 6: Indicative site layout

##### 3.2.1. Impact on traffic flow

The EIS indicative peak hour vehicle numbers associated with the site operations phase of works are provided in Table 2.

Table 2: EIS predicted vehicle numbers

	Vehicle Type	Peak construction movements <sup>1</sup>					
		AM PEAK <sup>2</sup>			PM PEAK <sup>3</sup>		
		IN	OUT	Total	IN	OUT	Total
Off airport construction corridor <sup>4</sup>	LV Staff	281	0	281	0	281	281
	LV Deliveries	4	4	8	4	4	8
	HV	29	29	58	29	29	58

CPBUI JV vehicle numbers are provided in Table 3 ..

Table 3: CPBUI JV vehicle numbers

	Vehicle Type	Peak construction movements <sup>1</sup>					
		AM PEAK			PM PEAK		
		IN	OUT	Total	IN	OUT	Total
Gates 9 Badgerys Creek	LV Staff	10	0	10	10	0	10
	LV Deliveries	1	1	2	1	1	2
	HV	3	3	6	3	3	6

Based on a standard 10 hour day there will be 2 heavy vehicle per hour maximum outside of the AM and PM peaks with light vehicle movements generally taking place prior to the commencement of the work day and at the end of the work day. The total of light vehicles assessing the site is as per Table 3, that is 12 per day. As noted the CPBUI JV vehicle numbers are below those predicted in the EIS.

### 3.2.2. Impact on public transport

There is no impact on public transport during these works as there are limited services that operate in the area, as noted in section 2.1. No bus stops or services will be affected by the works

### 3.2.3. Impact on active transport users

There are no existing cycles routes provided along Badgerys Creek Road. The existing footpaths will remain open.

### 3.2.4. Impact on property and utilities access

Access to residential-and commercial properties will be retained during the site establishment works and ancillary facilities (compounds) operations. Access for utility providers/ maintainers will not be impacted.

Any property access that is physically affected by the Project Works will be reinstated to at least an equivalent standard, in consultation with the landowner or alternative access provided in consultation with the landowner.

<sup>1</sup> Per hour

<sup>2</sup> AM peak as noted in the EIS 730-830AM

<sup>3</sup> PM peak as noted in the EIS 430-530PM

<sup>4</sup> Off airport includes Luddenham Road, Elizabeth Drive and Badgerys Creek Road sites

During construction, all reasonably practicable measures will be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, residences, businesses and affected properties. Disruptions will be avoided, where possible and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements will be developed in consultation with affected residents, businesses and affected property owners and implemented before the disruption. Adequate signage and directions to businesses will be provided before, and for the duration of, any disruption.

Existing property access would be maintained at all times.

Any changes to access arrangements or alternative access that are necessary during construction will be done in with consultation with the landowner. Any changes to access will provide the same equivalent pre-existing level of access unless agreed to by the land owner. Property access that is physically affected by the project will be reinstated to at least an equivalent standard, in consultation with the landowner.

### 3.2.5. Cumulative impacts

The EIS for the Sydney Metro Western Sydney Airport, Chapters 6 and 24 discuss the cumulative impacts of the various projects occurring within the vicinity of the Western Sydney Airport including:

- Western Sydney International Airport works and
- M12 Motorway works

The outcomes of that modelling and analysis notes:

**Aside for the cumulative impacts associated with the project, the road network impacted by the construction of the project is likely to experience growth in background traffic as a result of broader development of the Western Parkland City. This growth is anticipated to result in reduced performance at certain locations within the road network (even without the project and assuming there are no further upgrades to the network over this period, other than the approved projects).**

The shared access road located within the airport site, accommodates traffic associated with the construction of the Western Sydney Airport and also the construction of the Sydney Metro Western Sydney Airport including the Station Box and Tunnelling Contractor and the Surface Alignment and Civil Works.

Western Sydney Airport Contractors and Sydney Metro Contractors meet regularly to discuss construction activities and use of the shared access road to limit impacts to each other and reduce cumulative impacts to the surrounding road network where possible. CPBUI JV traffic numbers are very low compared to other contractors using the shared access road. Furthermore, Sydney Metro has eliminated traffic from precast yard activities on the airport land by utilising existing precast yards remote from the airport site. Where feasible CPBUI JV workforce will be based at the Elizabeth Drive site to limit light vehicle movements to the SCAW Badgerys Creek Road site.

### 3.3. Staff and labour parking

All vehicles associated with the works will park within the site.

### 3.4. Traffic Guidance Schemes

No traffic guidance schemes are required for the work site

### 3.5. Required Council approvals

Liverpool City Council, WSA Co and TfNSW are the approval authorities for access off Badgerys Creek Road.

## 4. Fleet management

Trucks to be used for the delivery of the SCAW works will be compliant with NSW legislation and standards including Heavy Vehicle National Legislation (HVNL). All heavy vehicle operations will be conducted in accordance with CPBUI JV Chain of Responsibility (CoR) Management Plan and the Principal's Contractors Safety Standard as noted in the Overarching TMP.

A combination of truck types will be used during the SCAW works including single unit trucks, semi-trailers, truck and dog combinations and low loaders, for example.

The location of all heavy vehicles used for spoil haulage will be monitored in real time and these records can be made available electronically to the Planning Secretary and the Environmental Protection Authority (EPA) upon request for a period of no less than one (1) year following the completion of construction.

There is sufficient room on site for all heavy vehicles required for the works. Therefore, marshalling facilities are not proposed for this site. Heavy vehicle will not idle or queue on roads surrounding the site.



### 4.1. Haulage routes

Generally, the haulage routes will be via arterial roads, freeways or tollways. The routes included in the EIS have been adopted for this site, refer to Figure 7. The routes include Elizabeth Drive, The Northern Road and Badgerys Creek Road. CPBUI JV will predominately use The Northern Road for access and egress. Heavy vehicles will be accessing the arterial network as soon as possible after leaving the construction sites.

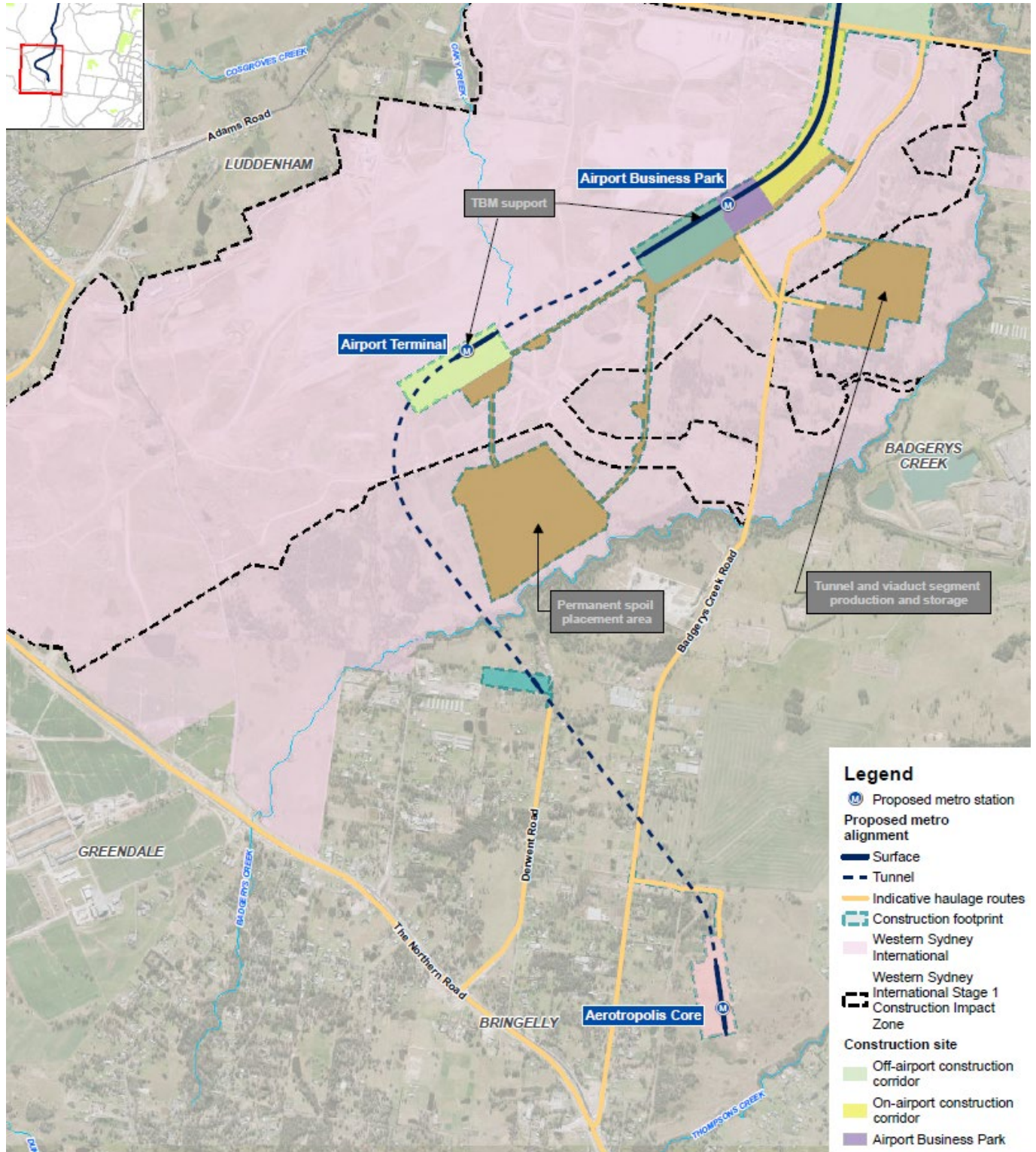


Figure 7: Gate 9 Construction routes



## 4.2. Road dilapidation report

As noted in the Ministerial Conditions of Approval, road dilapidation report has been prepared for local roads and provided to Liverpool City Council.

## 4.3. Permits for over-dimensional vehicles

Permit for vehicles greater than 4.5t through the National Heavy Vehicle Regulator (NVHR). This applies to particular special purpose vehicles (SPV) such as mobile cranes and other oversize/ over mass (OSOM) vehicles. TfNSW is currently undertaking this permit issue.

For over dimensional vehicles generally vehicles that are greater than 25m in length of 3.5m wide require a pilot(s). Extremely long or wide vehicles will require an escort, fee payable. Permits are generally applied for by the transport operator.

There is a requirement for over mass/ oversize vehicles during the works identified in this CTMP. Super T deliveries will be the subject of a separate CTMP.

## 5. Other matters

### 5.1. Road Safety Audits

Road safety audits will be undertaken during the development and implementation of the CTMP. The audit will be undertaken as noted in section 10 of the Construction Traffic Management Framework. A copy of the road safety audit is provided in Appendix B.

### 5.2. Communications and the community

CPBUI JV will be responsible for the dissemination of information to the community including affected residents, relevant councils, businesses and the public.

#### 5.2.1. Proposed communications

Typical timelines for the various notifications are:

- Community notices (notifications) issued at least seven (7) days prior to:
  - Start of work
  - New work with a new activity that has the potential to impact on stakeholders and the community
  - Handover of a construction site to a new contractor
  - Activities requiring notification to comply with relevant Environmental Protection License (EPL) usually out of hours works
- Precinct updates/ e-update (newsletters) – published 2 per year and for changes to planning approvals
- email and internet updates - done with publication and deliver to letterboxes of notifications and newsletters
- advertisement – published in advance of significant traffic management changes, detours, traffic disruptions
- advance warning signs – as noted in the CTMP where required.

Table 4: Proposed communications

Notification	Site early works	Site operations
Community notice	Yes	Yes
Precinct update/ e-update	Yes	Yes
Email and internet	Yes	Yes
Print advertising	No	No
Advance warning sign(s)	No	No
Gate signs	Yes	Yes

#### 5.2.2. Travelling public

Where the SCAW works will impact on the travelling public, CPGUI JV will undertake the following communications:

- Public transport interruptions will be communicated via on site signage
- Motoring public will be forewarned of any changes including road closures, road changes and lane changes well in advance using appropriate signs including Variable Message Signs (VMS)
- Active transport users will be provided with advance warning signs

### 5.3. Stakeholders

There are a number of stakeholders consulted during the development of this CTMP. A copy of their review comments are provided in Appendix C. Table 5 provides an overview of the consultation undertaken for this CTMP.

Table 5: Consultation undertaken

Stakeholder	Consultation Type	Date
CJP	Submission of CTMP	20 <sup>th</sup> Feb 2023
Sydney Metro Western Sydney Airport project team	Submission of CTMP	20 <sup>th</sup> Feb 2023
Liverpool City Council	Submission of CTMP	20 <sup>th</sup> Feb 2023
TfNSW	Submission of CTMP	20 <sup>th</sup> Feb 2023
CJP	Resubmission of CTMP	28 <sup>th</sup> March 2023
Sydney Metro Western Sydney Airport project team	Resubmission of CTMP	28 <sup>th</sup> March 2023
Liverpool City Council	Resubmission of CTMP	28 <sup>th</sup> March 2023
TfNSW	Resubmission of CTMP	28 <sup>th</sup> March 2023
TfNSW	Resubmission of CTMP	14 April 2023
CJP	Resubmission of CTMP	14 April 2023

### 5.3.1. Traffic and Transport Liaison Group

The Traffic and Transport Liaison Group (TTLG) has been established by Sydney Metro Western Sydney Airport for the project, as required under MCoA E116. The TTLG consists of members from Sydney Metro Western Sydney Airport project team, Liverpool City Council, Penrith City Council, Customer Journey Planning, Western Sydney Airport Corporation (WSA Co), Western Parkland City Authority (WPCA), TfNSW's Planning and Programs, other contractors associated with the project and Emergency Services.

Further development of this CTMP will occur in consultation with this group. It is noted that this group meets monthly.

Supplementary analysis and modelling as required by Sydney Metro Western Sydney Airport and/ or the TTLG will be undertaken to demonstrate that construction traffic can be managed to minimise disruption to traffic networks operations including changes to the management of pedestrians, cyclists and public transport networks and services. Any revised traffic management measure will be incorporated into the CTMP.

### 5.3.2. Traffic Control Group

The Traffic Control Group (TCG) has been established by Sydney Metro Western Sydney Airport for the project. The TCG consists of members from Sydney Metro Western Sydney Airport project team, Liverpool City Council, Penrith City Council, Customer Journey Planning, Western Sydney Airport Corporation (WSA Co), Western Parkland City Authority (WPCA), TfNSW's Planning and Programs and other contractors associated with the project. The TCG meets fortnightly.

The purpose of the TCG is for open and honest technical discussion on the contractors proposed works, methodologies and traffic management plans. The TCG will:

- Provide feedback on proposals
- Guide CTMP and other document finalization prior to submission for review/ approval
- Guide coordination of works and traffic management activities on and off airport (local, regional and state roads)
- Assist in transport mitigation

## 5.4. Special events

When planning the works, CPGUI JV will identify special events which directly impact the works or haulage activities and will continue to interrogate event websites that provide details on forthcoming events such as:

- NSW and Sydney events - [Destination NSW](#)
- NSW events and festivals - [Visit NSW](#)

- Major events - [Penrith City Council Upcoming events](#)

## 5.5. Training

CPBUI JV will ensure that all personnel, including subcontractors are aware of the specific requirements of TfNSW’s customers, general public, residents and businesses, prior to attending site through the induction process and regular updates through tool box talks. Specific training will be provided to heavy vehicle drivers regarding the possible presence of pedestrians and cyclists and the increased risk of high speed run off the road and head on collision types due to the narrow road widths, high speeds and little to no shoulder availability.

## 5.6. Inspections and monitoring

The site will be monitored by the site supervisor. Any changes to signs and lines that impact on the public will be recorded. Daily monitoring will be undertaken during the site operating hours.

Traffic control used for pedestrian management, lane closures etc will need to provide records of the traffic control implemented. Any changes required to a traffic control set up will be authorised by a holder of a SafeWork NSW “Prepare a Work Zone Traffic Management Plan” or equivalent. Checklist for monitoring of the implemented CTMP are provided in Appendix D.

## 5.7. Site contacts

Table 6 provides the contact details for the works identified in this CTMP.

Table 6: Site contacts

Name	Position	Mobile#
[REDACTED]	Foreman	[REDACTED]
[REDACTED]	General Foreman	[REDACTED]

## 5.8. References

The following documents were used in the development of this CTMP:

- Construction Traffic Management Framework, Sydney Metro West and Sydney Metro Western Sydney Airport
- TfNSW’s Traffic Control at Worksites Manual v6.1
- Relevant AustRoads Guides and TfNSW Supplements
- Sydney Metro Principal Contractor Health and Safety Standard

## Part C Appendices

### Appendix A – Compliance Matrix

#### Sydney Metro Western Sydney Airport CSSI Infrastructure Approval (SSI 10051)

Project Planning Approval (SSI 10051)		
E103	Construction Traffic Management Plans (CTMPs) must be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTMP.	This plan
E104	The locations of all Heavy Vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one (1) year following the completion of construction.	Refer to Overarching CTMP
E105	Local roads proposed to be used by Heavy Vehicles to directly access ancillary facilities / construction sites that are not identified in the documents listed in Condition A1 must be approved by the Planning Secretary and be included in the CTMP.	Not applicable to this CTMP as all roads to be used are included in the EIS
E106	All requests to the Planning Secretary for approval to use local roads under Condition E105 above must include the following: (a) a swept path analysis; (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; (c) details as to the date of completion of the road dilapidation surveys for the subject local roads; and (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 (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.	Not applicable to this CTMP as all roads to be used are included in the EIS
E107	Before any local road is used by a Heavy Vehicle for the purposes of construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the Relevant Road Authority(s) within three (3) weeks of completion of the survey and at no later than one (1) month before the road being used by Heavy Vehicles associated with the construction of the CSSI.	Section 4.2
E108	If damage to roads occurs as a result of the construction of the CSSI, the Proponent must either (at the Relevant Road Authority's discretion): (a) compensate the Relevant Road Authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report.	Section 4.2
E109	Vehicles associated with the project workforce (including light vehicles and Heavy Vehicles) must be managed to: (a) minimise parking on public roads; (b) minimise idling and queueing on state and regional roads; (c) not carry out marshalling of construction vehicles near sensitive use	Section 4

### Project Planning Approval (SSI 10051)

	(d) not block or disrupt access across pedestrian or shared user paths at any time unless alternate access is provided; and (e) ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the CTMP.	
E110	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 3.2.4
E111	The Proponent must maintain access to properties during the entirety of works unless an alternative access is agreed in writing with the landowner(s) whose access is impacted by the CSSI works.	Section 3.2.4
E112	Where construction of the CSSI restricts a property's access to a public road, the Proponent must, until their primary access is reinstated, provide the property with temporary alternate access to an agreed road decided through consultation with the landowner, at no cost to the property landowner, unless otherwise agreed with the landowner.	Section 3.2.4
E113	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier. Property access must be reinstated within one (1) month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier.	Section 3.2.4
E114	During construction, all reasonably practicable measures must be implemented to maintain pedestrian, cyclist and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian, cyclist and vehicular access, and parking arrangements must be developed in consultation with affected businesses and landowners and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Sections 3.2.3 and 3.2.4
E115	Safe pedestrian and cyclist access must be maintained around the St Marys construction site during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, a proximate alternate route which complies with the relevant standards, must be provided and signposted before the restriction or removal of the impacted access.	Not applicable to the SCAW scope of works
E116	A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CTMP.	Sydney Metro will establish the TTLG  Section 5.3.1
E117	Supplementary analysis and modelling as required by TfNSW and / or the Traffic and Transport Liaison Group(s) must be undertaken to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations including changes to and the management of pedestrian, bicycle and public transport networks, public transport services, and pedestrian and cyclist movements. Revised traffic management measures must be incorporated into the CTMP.	Section 5.3.1
E118	As part of Condition E117 the Traffic and Transport Liaison Group(s) is to identify opportunities to improve the intersection performance during operation at:	Not applicable to the SCAW scope of works

### Project Planning Approval (SSI 10051)

	<p>a) Queen Street/Great Western Highway/Mamre Road in St Marys;  b) Glossop Street/ Forrester Road in St Marys; and  c) Glossop Street / Great Western highway in St Marys.  Identified improvements must be implemented prior to the commencement of operation.</p>	
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### Sydney Metro Western Sydney Airport Environmental Impact Statement

#### Revised Environmental Management Measures (REMMs)

T1	Construction Traffic Management Plans would be prepared in accordance with the Construction Traffic Management Framework	This plan
T2	The Construction Traffic Management Plan for St Marys would be developed in consultation with the Traffic and Transport Liaison Group to ensure existing transport interchange infrastructure continues to operate effectively within the St Marys station precinct.	Not applicable to the SCAW scope of works
T3	Coordination with Western Sydney Airport and Transport for NSW would be undertaken through the Traffic and Transport Liaison Group to manage potential cumulative construction traffic impacts with M12 Motorway and Elizabeth Drive	Section 5.3.1
T4	Road Safety Audits would be carried out to address vehicular access and egress, and pedestrian, cyclist and public transport safety. Road Safety Audits would be carried out as per the guidelines outlined in Section 10 of the Construction Traffic Management Framework	Section 5.1
T5	Maintain access for pedestrians and cyclists around construction sites as per the guidelines outlined in the Construction Traffic Management Framework. Appropriate signage and line marking would be provided to guide pedestrians and cyclists past construction sites and on the surrounding network to allow access to be maintained	Section 3.2.3
T6	Access for construction vehicles to be planned as per the guidelines outlined in the Construction Traffic Management Framework. Construction site traffic would be managed to minimise movements during peak periods. Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety	Section 4

### Sydney Metro Western Sydney Airport Revised performance outcomes

#### Revised Performance outcomes - Transport

<p>Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed</p>	Safe and efficient routes are provided for pedestrians, cyclists, and road users at/ near construction sites	Not applicable to the SCAW scope of works
	Access to the existing St Marys Station is maintained while train services are operating	Not applicable to the SCAW scope of works
	Safe access to properties and businesses is maintained during construction, unless alternatives are agreed with property owners and businesses	Section 3.2.4
	Heavy vehicles access the arterial network as soon as practicable on route to, and immediately after leaving a construction site	Section 4.1
	The local community and relevant authorities are informed of transport, access and parking changes/ impacts to minimise inconvenience to the public	Section 5.2.1



## Appendix B – Haulage routes



Figure 8: From the Northern Road into site





Figure 9: From the site to The Northern Road

## Appendix C - Road Safety Audit



# Road Safety Audit Report

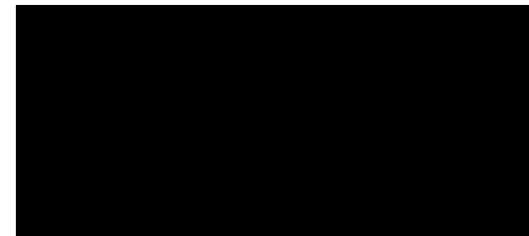
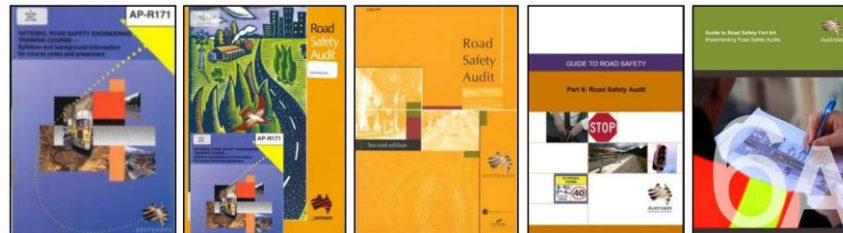
## Badgerys Creek Road Gate 9 CTMP



Practical  
Independent  
Specialised

<b>Road/Area</b>	Badgerys Creek Road		<b>Road Safety Audits Reference</b>	RSA-13720
<b>Traffic Stage/Phase</b>	Western Sydney Airport – Surface and Civil Alignment Works		<b>Report Date</b>	20 February 2023
<b>Audit Stage</b>	Desktop Traffic Guidance Scheme		<b>Lead Auditor Second Auditor</b>	[REDACTED]
<b>Client</b>	[REDACTED]		<b>TMP / Drawings</b>	Badgerys Creek Road Gate 9 Construction Traffic Management Plan (Document No: SMWSASCA-CPU-1NL-1NL000-TF-PLN-000008 Rev A)
<b>Client Contact</b>	[REDACTED]		<b>Report Provider</b>	Road Safety Audits


**Desktop TGS General Scope:** The scope of the audit is to assess the plans on their merits and in the context of the road environment, with standards and guidelines as a reference.







### Badgerys Creek Road Gate 9 CTMP Western Sydney Airport – Surface and Civil Alignment Works

	Audit Point	Treatment Option	[REDACTED]	
			Response	Status
1.	No road safety issues are identified in relation to the CTMP and the intent for construction traffic to use Badgerys Creek Road (northbound carriageway) to access Gate 9 via the existing intersection in a left-in, left-out arrangement .	Nil. Note only.	Noted	Closed
				



## Explanatory Notes

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**Short Format:** This 'short format' report has been pioneered by RSA (Road Safety Audits) since 2008, initiated through requests by clients to assist their processes, for ease with stakeholders, and for timeliness. It is typically confined in use to construction traffic management and typically for discrete packages of plans / areas and often for large projects with repetitious small audit sections. The use of this format assumes that the reader/s know what a road safety audit is and how to respond to it.

**Projects:** Audit points are often raised in projects in relation to: 1. specific themes (e.g. the use of a safety barrier type), or 2. the treatment of particular locations. Once key issues have been initially raised, they will not necessarily be re-raised in future audits. This will depend on the issue, the RSA's perception of the client's assessment and understanding of the issue, and other factors. Therefore, discrete audits as part of a project should be read and actioned by a **project representative who is familiar with the audit history**.

**Responding:** Although the client receiving the report does not have to agree to the audit findings/suggestions, the issues and associated risks should be carefully considered. A written response should be made to all of the audit findings raised, then signed off by the responsible person from the project team.

**\*Response:** The responder should focus on and consider the **audit point**, regardless of whether the audit team's suggested treatment option is feasible / appropriate / agreed to.

**YStatus:** The status of the issue as it sits with the Project. i.e. 'actioned', 'closed', 'pending information / further guidance'.

### Language:

Austrroads Road Safety Audit Part 6 suggests that the organisation responding to the audit provides a risk assessment. However, RSA will at times offer a guide of 'high' 'medium' and 'low' risk, which is based on a professional appraisal of the risk ('severity' and 'frequency') for the responder to use as a guide. Other language commonly used and its intent is as follows:

- o **'Urgent':** Needs immediate attention / changes as per RSA suggestion or similar.
- o **'Recommend' / 'Serious' / 'Important':** Must be robustly reviewed. Most likely requires a change to avoid a high-risk road environment for one or more user groups.
- o **'Should' / 'Suggest' / 'Significant':** Based on the view of the RSA team the suggestion should be done, but it concedes that there could be reasons why inaction or alternative action may be preferred. Must be robustly reviewed by contractor and where relevant with key traffic engineering project stakeholders.
- o **'Review' / 'Consider':** RSA is raising an observation but has no *strong* opinion on the outcome and need for changes. Project should review because it's not an immediate and high risk and may not be immediately obvious to RSA the reasons for the practice / setup / behaviour. May need monitoring.
- o **'Minor':** Typically, a low road-safety consequence / compliance issues (to guidelines or plans) / administrative controls. Unlikely to increase risk of crash.
- o **'Note':** Little or no road safety significance. Typically added to give a complete picture of the design, site, context, analysis, auditors understanding.

**Intent of Issues Listing Order:** Audit points might be clustered according to location, theme, or time. When this is not done and the audit comprises an uncategorised list of points, the key issues are often discussed first. However, there is no official ordering of points, and they should all be read on their merits and on the basis of the language guide above.

**References:** 1. Austrroads Guide to Road Safety – Road Safety Audit – (2019) 6 and 6A; 2. AS 1742.3 – 2019; 3. State specific codes and guidelines re: Traffic Control at Work Sites; and 4. Design: 1. Austrroads guidelines and 2. state-specific supplements and technical publications as relevant.

**Safe System:** Austrroads GRS-RSA6A encourages practitioners to adopt safe system principles within the road safety audit. Safe system (roads) calls for a design to not allow serious injury and fatalities to occur for the expected road users and the typical crash types expected for that design type. This design-objective is considered within this road safety audit as a good practice objective. However, in practice, safe system-based analysis of risks and treatment options is typically not adopted for traffic management stage audits in the same way as it is in design stage audits.

**Process and Quality:** RSA's quality assurance process is based on its senior auditors having a rich experience base, but also utilises customised checklists designed for niche areas in traffic engineering/road design (e.g. safety barriers, pavement shaping, CBD traffic management), in conjunction with a four-layer audit process: 1. on-site inspection; 2. media and data capture and review; 3. specialist / second auditor input; and (where warranted) 4. secondary blinded reviews.

**Audit Coverage:** The audit has attempted to balance the safety needs of all road users. As per Austrroads guidelines, the suggestions provided have attempted to be realistic/feasible and commensurate with the actual risk posed. Suggestions are made from a safety perspective only, and are made in the absence of full project knowledge and design constraints. RSA can provide a detailed risk assessment / issue evaluation report upon request. The audit raises potential safety risks noted / observed / anticipated by the audit team, and in particular the higher-risk issues. However, a road safety audit is undertaken by people, highly influenced by the experience, views and limitations of the individual team members. It is expected that the project team has competence to identify safety issues itself as the project progresses, and to ask the audit team further questions where necessary.

## Appendix D – Stakeholder comments

DOCUMENT NO.	TITLE	VER	STATUS	NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT	
SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Traffic Management Plan, Badgerys Creek Rd - Gate 9	D.01	S3	08	9/03/2023	TFN		MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-		Should there be associated control strategy after the stated cumulative impacts? Please advise the daily volume of project-related light vehicles (staff & delivery) using Gate 9, as Table 3 indicates peak-only volumes.	Potential Non-Compliance	Y
								MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.01	28/03/2023	CPU		MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Sydney Metro is responsible for the Shared access protocolThe total light vehicle numbers has been included in the document	Potential Non-Compliance	Y	
								MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.01.01	3/04/2023	TFN		SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	According to Table 3, most of the staff movements (10 out of a total 12) will be arriving during peak periods. This seems to conflict with the information provided in the CTMP, which states that most of the workforce will arrive outside peaks (ie before 7am and after 6pm). Need clarification to reconcile the differences. A primary objective of the CTMP is to identify impacts and establish appropriate controls. Section 3.2.5 merely lists the impacts without advising how they will be managed. If Sydney Metro is responsible for managing the impacts, please consult with them and include the management strategy in the CTMP for review.	Potential Non-Compliance	Y	
								SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.01.01.01	14/04/2023	CPU		SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.01.01.02	17/04/2023	CPU		SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.01.01.03	18/04/2023	CPU		SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.02	14/04/2023	CPU		MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.03	17/04/2023	CPU		MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				08.04	18/04/2023	CPU		MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-	Control strategy included and section on light vehicles amended	Potential Non-Compliance	Y	
								MWSASCA-CPU-1NL-NL000-TF-PLN-000008	Section 3.2.5	-			Potential Non-Compliance	Y
				11	27/04/2023	TFN		SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	NA	NA	Please see attached CJP Approval for SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	Observation	Y	
								SMWSASCA-CPU-1NL-NL000-TF-PLN-000008	NA	NA		Observation	Y	