Construction Traffic Management Plan Patons Lane – Gate 2

Western Sydney Airport – Surface and Civil Alignment Works

Project Name	Sydney Metro – Western Sydney Airport, Surface and Civil Alignment Works
Project Number	N81150
Revision Date	28/09/2022
Revision	01
Document Number	SMWSASCA-CPU-1NL-NL000-TF-PLN-000003

Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
A	08/08/2022	[redacted]	[redacted]	[redacted]	
B	30/08/2022	[redacted]	[redacted]	[redacted]	For review
C	08/09/2022	[redacted]	[redacted]	[redacted]	For approval
D	20/09/2022	[redacted]	[redacted]	[redacted]	For approval
01	28/09/2022	[redacted]	[redacted]	[redacted]	Issued for Construction
Signature		[redacted]			

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

Rev.	Details
A	First draft
B	TGS for gravel placement at site entry/ exit and updated to incorporate comments received
C	Revised to include possible use of Luddenham Road to the south for access and drawings show site
D	Revised to include mitigation measures
01	Issued for Construction

Table of contents

List of figures

List of tables

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

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 Derive
  - 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.

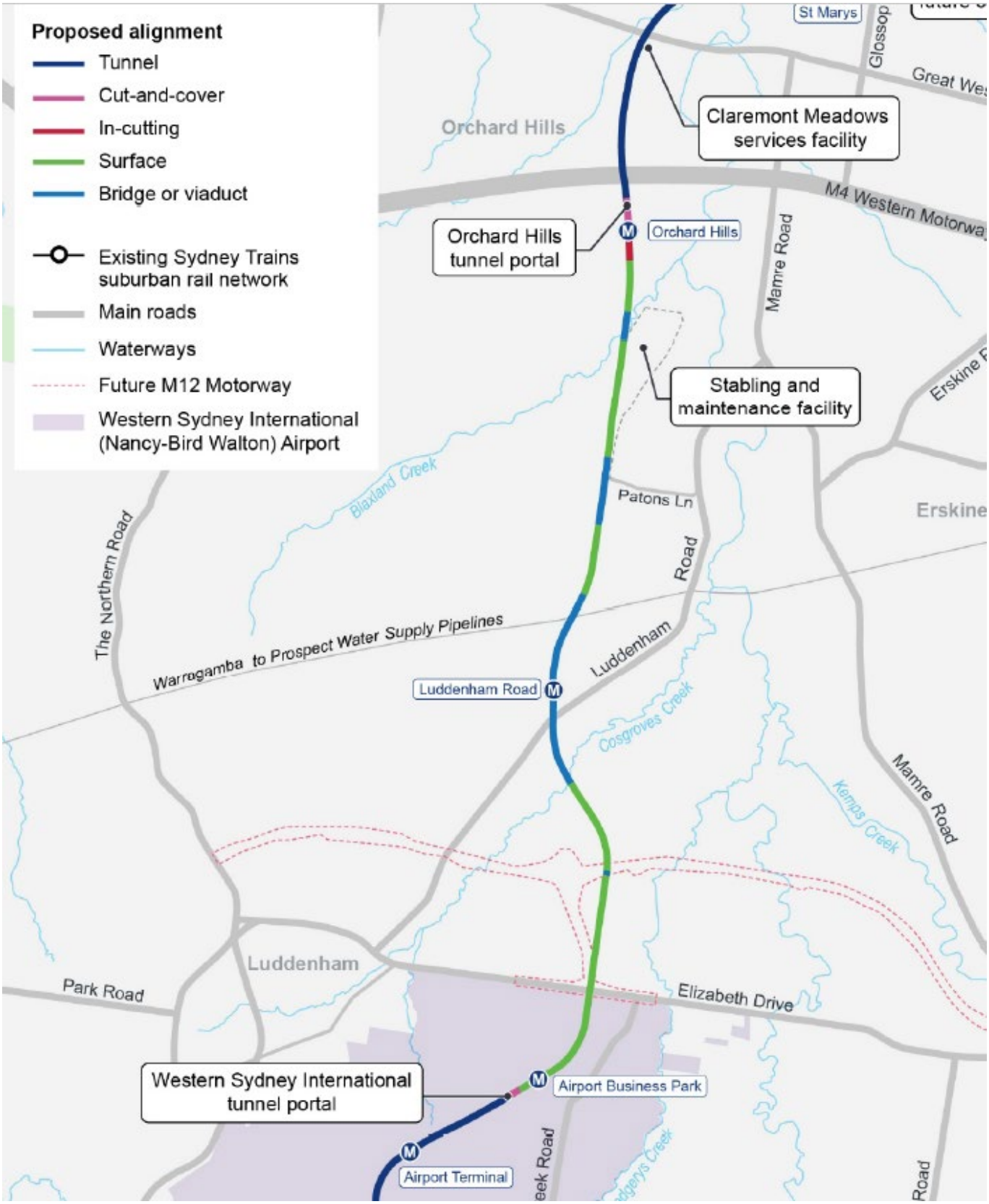


Figure 1: Surface Civil and Alignment Works

1.2. Plan Purpose and Objectives

The Patons Lane Construction Traffic Management Plan (CTMP or this plan) has been developed by CPB Contractors, United Infrastructure Joint Venture (CPBUI) to identify the traffic management measures at the Patons Lane worksite 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 Luddenham Road on Patons Lane and is adjacent to the BINGO waste centre. To the north of Patons Lane the stabling and maintenance facility is being developed for the Western Sydney Airport Metro, refer to Figure 2.

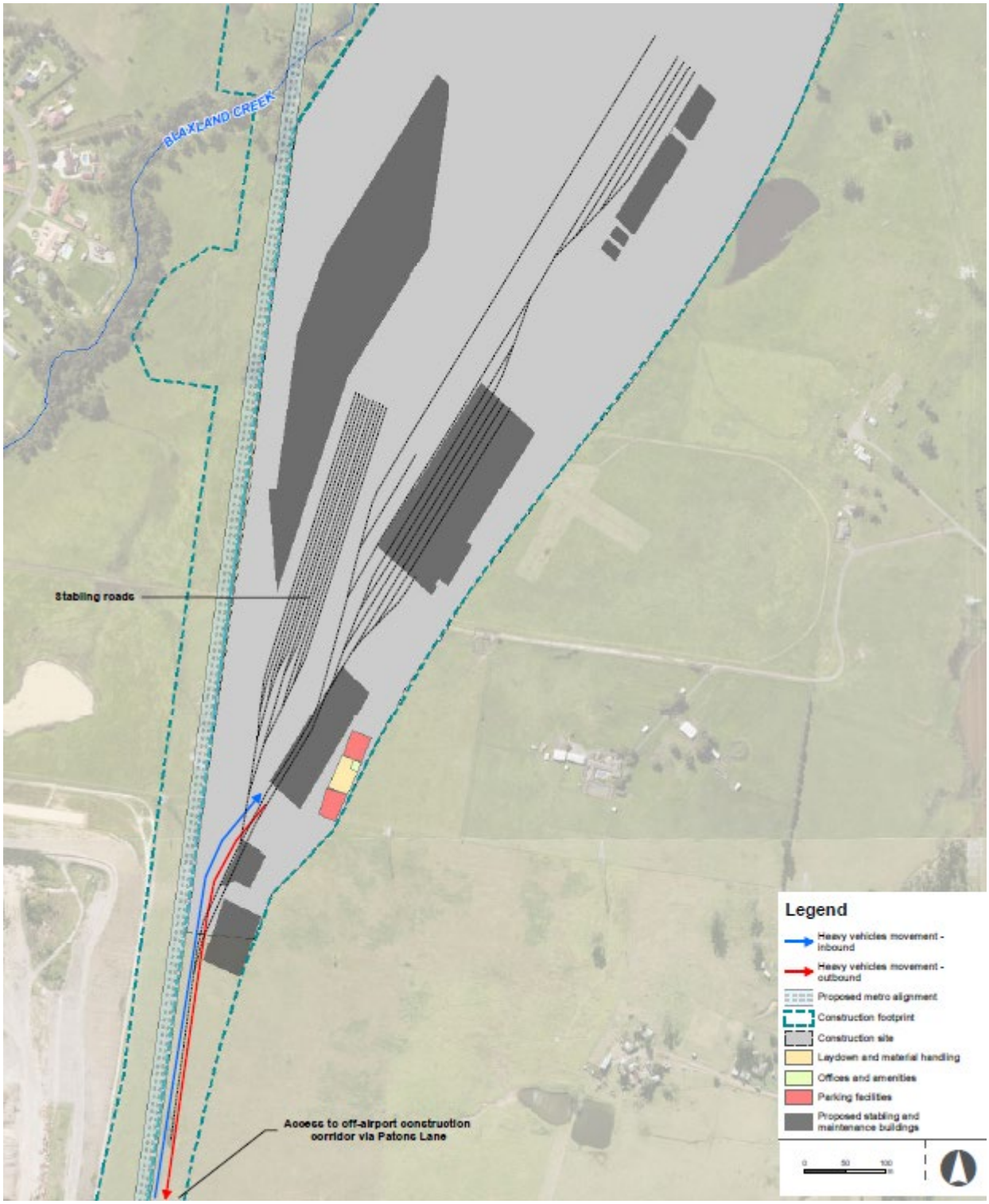


Figure 2 Stabling and Maintenance facility with access off Patons Lane

2.1. Patons Lane, Orchard Hills

Patons Lane is a local road under the care and control of Penrith City Council. Patons Lane runs in an east -west direction with a speed limit of 50km/hr. The road is gated at Luddenham Road, refer to Figure 3. There are no sealed footpaths, cycle routes or on street parking along Patons Lane. No public transport operates along Patons Lane.

Figure 3: Patons Lane to the west of Luddenham Road

Patons Lane terminates to the west of BINGO waste centre, refer to Figure 4. Patons Lane is not a public thoroughfare with the only volumes being associated with the operation of the waste centre.

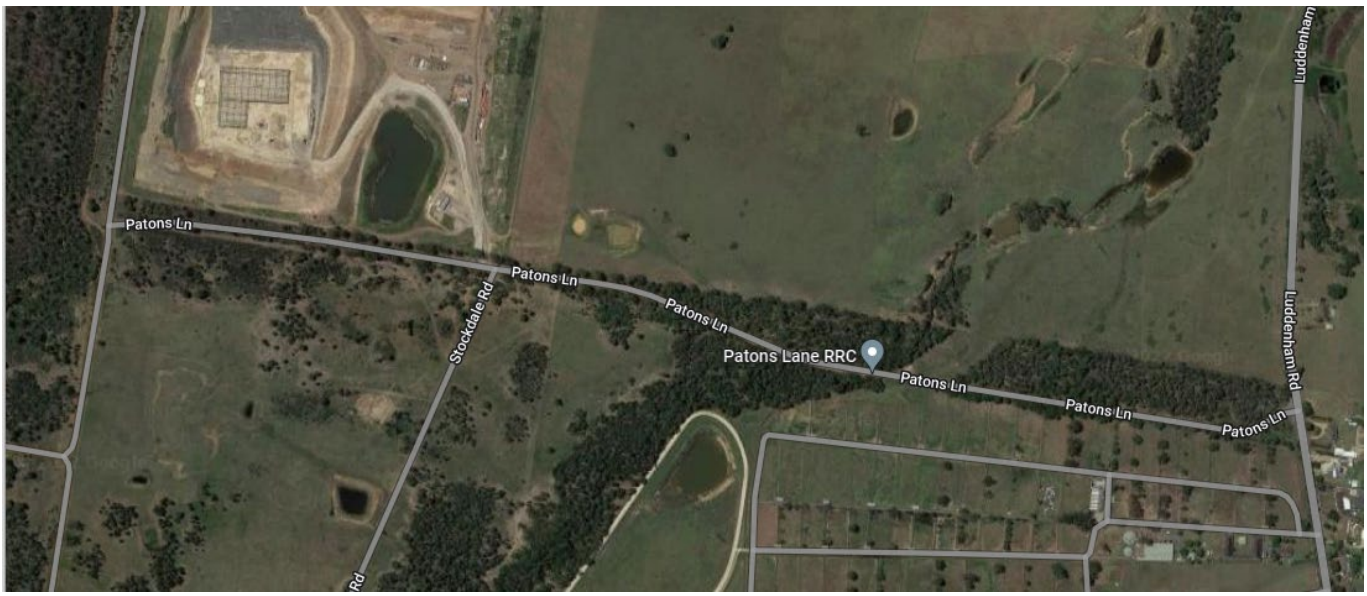


Figure 4: Patons Lane

There is a right turn bay for southbound traffic along Luddenham Road, refer to Figure 5

Figure 5: Right turn bay into Patons Lane

There is a right turn ban for vehicles over 5t from Patons Lane onto Luddenham Road southbound. This turn restriction was imposed on the recycling centre by the Land and Environment Court, refer to section 3.2.1 and Figure 6

Figure 6: Right turn restriction from Patons Lane onto Luddenham Road

3. Site early works

Duration: approximately 2 months
Timing: August 2022 to October 2022

3.1. Works required

Works to be undertaken during the site early works predominantly relate to the importation of sandstone and other materials to allow the commencement on the stabling and maintenance facility. All works are contained within the site. Other works to be undertaken include:

- Installation of fencing around the site
- Clearing and grubbing including site levelling
- Installation of environmental controls within the site including run off protection
- Installation of site services
- Site investigation works
- Construction of internal access roads
- Connection of internal access road to Patons Lane
- Installation of site sheds and amenities
- Earthworks including stockpiling

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 a temporary connection to Patons Lane approximately 1km west of Luddenham Road, noted as gate 1 on Figure 7. Movements into the site will be a right turn in and left turn out.

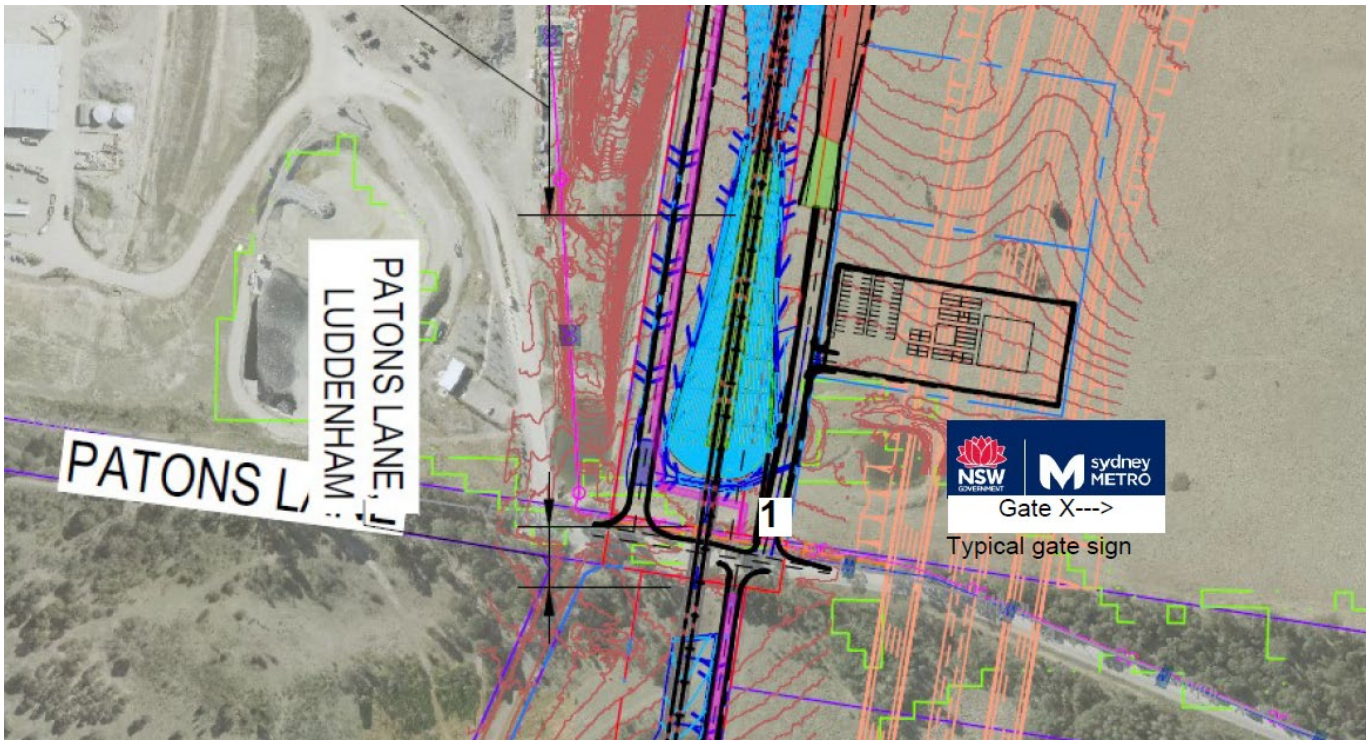


Figure 7: Early works site gate

3.2.1. Impact on traffic flow

There will be 120 truck and dog vehicles per day for the transportation of materials with a further 30 light vehicle per day. Based on a standard 11 hour day, this would mean 11 heavy vehicles per hour with light vehicle movements generally taking place prior to the commencement of the work day and at the end of the work day. The Patons Lane Landfill and Resource Recycling Centre operated by BINGO industries is limited to 250 heavy vehicle movements per day (source: Order Case #10928 of 2010 Land and Environment Court of NSW).

3.2.2. Impact on public transport

Two school buses use Luddenham Road one runs in the morning and the other in the afternoon. There is no impact on public transport.

3.2.3. Impact on active transport users

There are no existing footpaths or cycles routes provided along Luddenham Road or Patons Lane. All staff and subcontractors will be inducted and will receive the training as noted in section 6.5 of this CTMP.

3.2.4. Impact on property and utilities access

There are no impacts to property or utility access.

3.2.5. Cumulative impacts

The cumulative impacts are associated with the existing Waste Centre operations. Ongoing discussions will be held with BINGO during the works. The upgrade works on Mamre Road will also occur during the operation of this CTMP. CPBUIJV is currently liaising with Sydney Metro Western Sydney Airport SCAW representative for the commencement of coordination meetings with the project team and contractor.

3.3. Staff and labour parking

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

3.4. Traffic Guidance Schemes

One traffic guidance scheme is required for the work site:

- Stop slow on Patons Lane for gravel placement for initial access
- Stop slow on Patons Lane for driveway works

3.5. Required Council approvals

The CTMP will require Penrith City Council's approval

- A ROL will be required from Penrith City Council
- Driveway construction

4. Site main works

Duration: approximately 26 months
Timing: October 2022 -December 2024

4.1. Works required

Works to be undertaken during the site main works include:

- Development of the stabling and maintenance facility
- Viaduct construction including substructure and superstructure
- Connections to Patons Lane to allow north and south movement along the SCAW corridor

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

4.2. Operating conditions

Vehicles will enter and exit the site via temporary connection to Patons Lane, as noted on Figure 8.

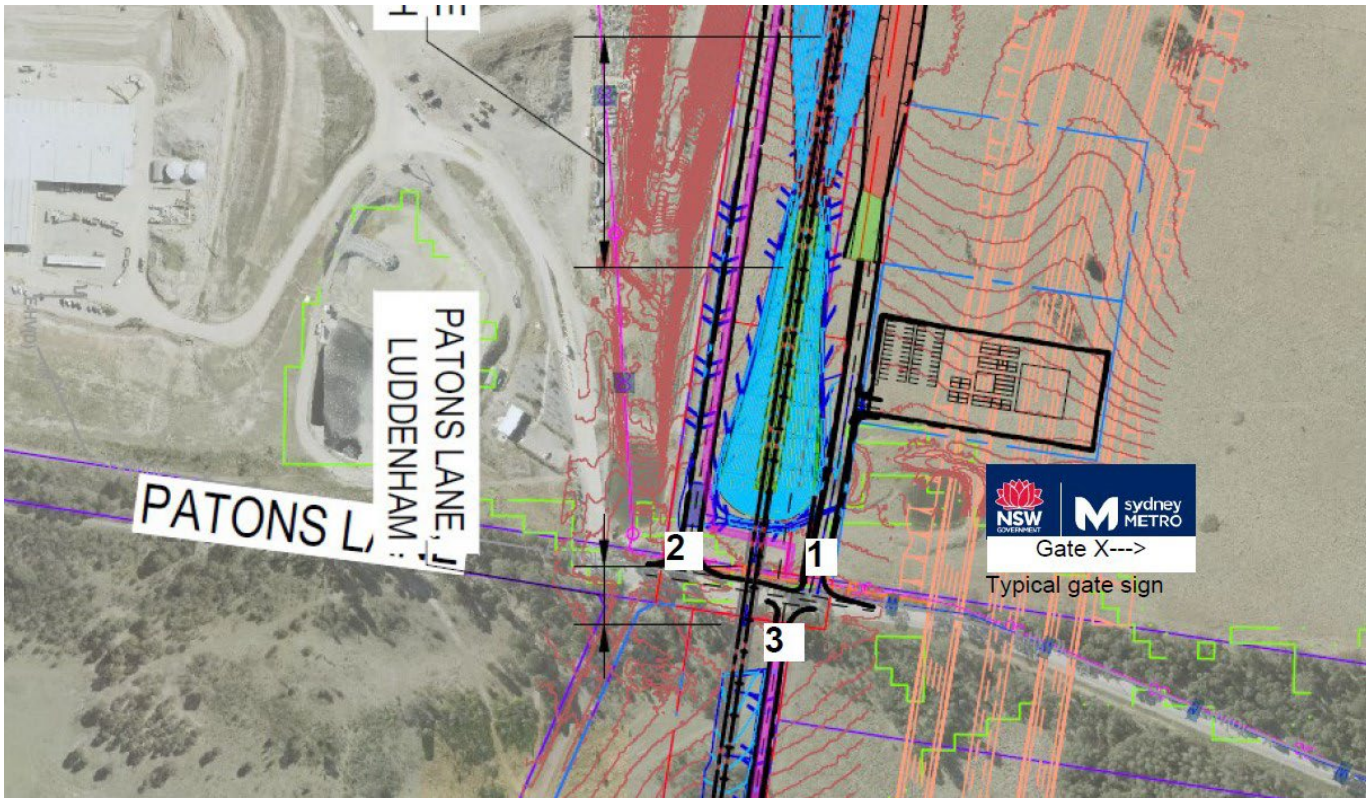


Figure 8: SCAW main works access points

4.2.1. 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					
		AM PEAK			PM PEAK		
		IN	OUT	Total			
	LV Staff	56	0	56	0	56	56

	Vehicle Type	Peak construction movements					
		AM PEAK			PM PEAK		
		IN	OUT	Total			
Stabling and maintenance facility	LV Deliveries	1	1	2	1	1	2
	HV	11	11	22	11	11	22

CPBUI JV vehicle numbers are provided

Table 3: CPBUI JV vehicle numbers

	Vehicle Type	Peak construction movements					
		AM PEAK			PM PEAK		
		IN	OUT	Total			
Stabling and maintenance facility	LV Staff	30	0	30	0	30	0
	LV Deliveries	10	0	10	0	10	0
	HV	10	10	20	10	10	20

There will heavy vehicle movements associated with the segment deliveries. Other heavy vehicle movements are for sandstone deliveries. There will approximately 30 light vehicles per day. Based on a standard 11 hour day, this would mean 10 heavy vehicles per hour with light vehicle movements generally taking place prior to the commencement of the work day and at the end of the work day (pre 0700 and post 1800). As noted the CPBUI JV vehicle numbers are similar to those predicted in the EIS.

During heavy vehicle movements in the AM and PM peak periods, CPBUIJV will provide a traffic controller with radio contact to monitor the intersection of Mamre Road and Luddenham Road. Where long queues are identified, vehicles accessing the site will be directed to access the site from the south along Luddenham Road. However, as noted in section 2.1, a right turn restriction does not allow the use of Luddenham Road from Patons Lane to the south out of Patons Lane, this restricts the movement out of Patons Lane to the north only and therefore, if queues are present at the intersection Luddenham Road and Mamre Road, CPBUI JV will limit the number of heavy vehicles until the queues dissipate.

4.2.2. Impact on public transport

No change to the site early works phase.

4.2.3. Impact on active transport users

No change to the site early works phase.

4.2.4. Impact on property and utilities access

No change to the site early works phase.

4.2.5. Cumulative impacts

No change to the site early works phase

4.3. Staff and labour parking

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

4.4. Traffic Guidance Schemes

Two traffic guidance schemes are required for the work site:

- Stop slow on Patons Lane for gravel installation at initial access/ egress points x 2
- Stop slow on Patons Lane for driveway works at access/ egress points x 2

4.5. Required Council approvals

The CTMP will require Penrith City Council's approval

ROL from Penrith City Council will be required

5. 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.

The 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.

5.1. 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 9. The routes include Luddenham Road from the M4 Motorway/ Mamre Road intersection and Luddenham Road from Elizabeth Drive. CPBUI JV will predominately use the M4/ Mamre interchange for material delivery, however, access is available from the south via Luddenham Road.

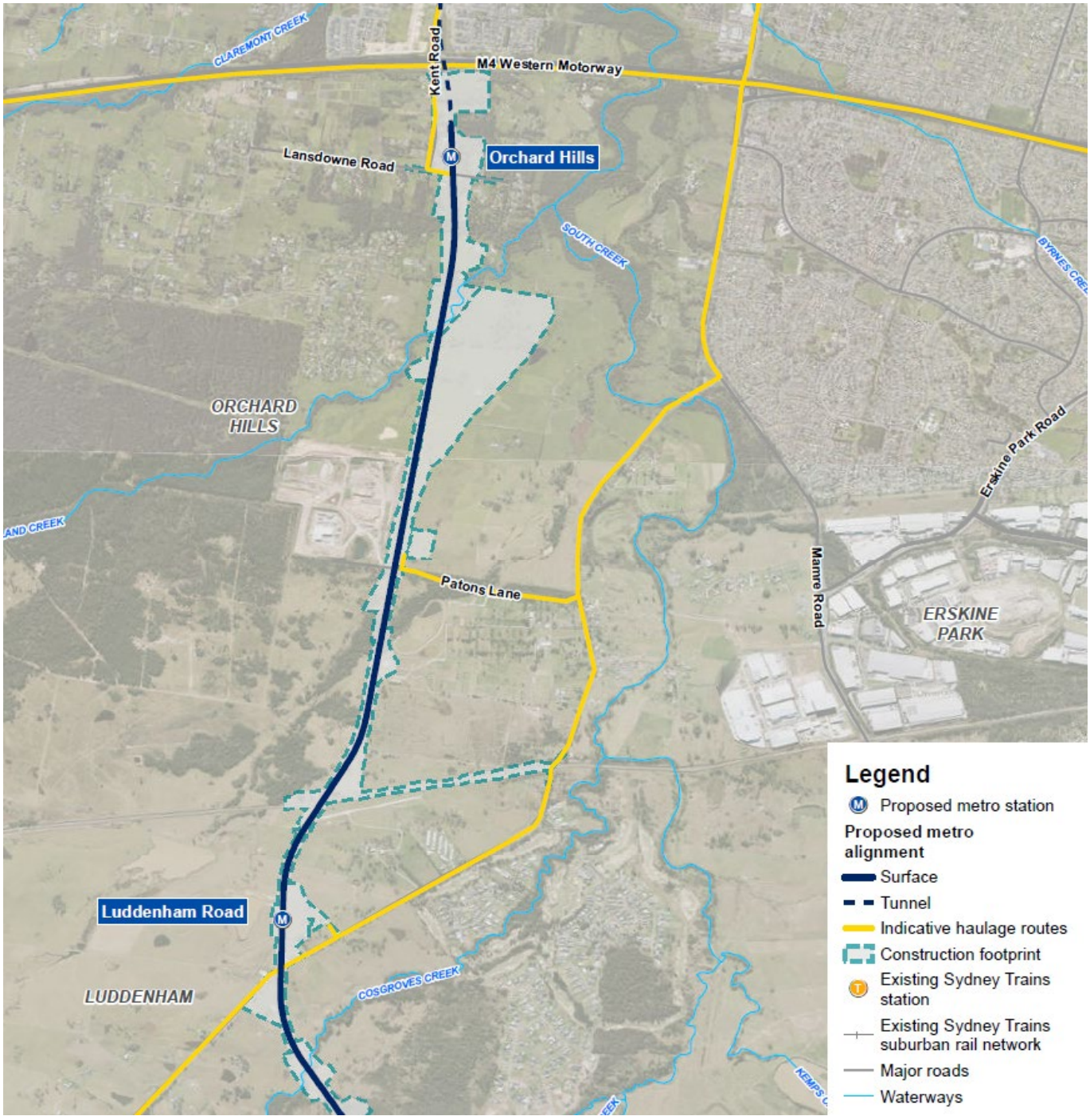


Figure 9: EIS haulage routes

5.2. Road dilapidation report

As noted in the Ministerial Conditions of Approval, a road dilapidation report will be prepared. A copy of that report will be provided to Council within three (3) weeks of completion of the survey and no later than one (1) month before the road is used by Heavy Vehicles associated with the project. Note that it is

not anticipated that any local road, open to the public will be used by heavy vehicles at this construction site.

5.3. 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 no requirement for over mass/ oversize vehicles during the works identified in this CTMP.

6. Other matters

6.1. 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.

6.2. 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.

6.2.1. 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

6.2.2. 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

6.3. 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
Traffic and Transport Liaison Group	Presentation	4th August. 22
CJP	Submission of CTMP	9th August 22
Sydney Metro Western Sydney Airport project team	Submission of CTMP	9th August 22
Penrith City Council	Submission of CTMP	9th August 22
TfNSW	Submission of CTMP	9th August 22
CJP	Resubmission of CTMP	30th August 22
Sydney Metro Western Sydney Airport project team	Resubmission of CTMP	30th August 22
Penrith City Council	Resubmission of CTMP	30th August 22
TfNSW	Resubmission of CTMP	30th August 22
Traffic and Transport Liaison Group	Presentation	1st Sept 22
CJP	Resubmission of CTMP	8th Sept 22
Sydney Metro Western Sydney Airport project team	Resubmission of CTMP	8th Sept 22
Penrith City Council	Resubmission of CTMP	8th Sept 22
TfNSW	Resubmission of CTMP	8th Sept 22
CJP	Resubmission of CTMP	20th Sept 22
Sydney Metro Western Sydney Airport project team	Resubmission of CTMP	20th Sept 22
Penrith City Council	Resubmission of CTMP	20th Sept 22
TfNSW	Resubmission of CTMP	20th Sept 22

6.3.1. 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.

6.3.2. 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

6.4. 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
- Upcoming events - Penrith City Council

6.5. 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.

6.6. 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.

6.7. Site contacts

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

Table 6: Site contacts

Name	Position	Mobile#
[redacted]	[redacted]	[redacted]

6.8. 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.	Section 5
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 5.2
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 5.2
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;	Sections 4.3, 5, 4.2.3 and 5.1

Project Planning Approval (SSI 10051)		
	(c) not carry out marshalling of construction vehicles near sensitive use (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 4.2.4
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 4.2.4
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 4.2.4
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 4.2.4
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.	Section 4.2.3
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 6.3.1
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 6.3.1

Project Planning Approval (SSI 10051)		
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: 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.	Not applicable to the SCAW scope of works

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	Section 6.8
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 6.3.1
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 6.1
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 4.2.3
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 6.8

Sydney Metro Western Sydney Airport Revised performance outcomes

Revised Performance outcomes - Transport		
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	Safe and efficient routes are provided for pedestrians, cyclists, and road users at/ near construction sites	Sections 4.2.1 and 4.2.3
	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 4.2.4
	Heavy vehicles access the arterial network as soon as practicable on route to, and immediately after leaving a construction site	Section 5.1

Revised Performance outcomes - Transport		
service are effectively managed	The local community and relevant authorities are informed of transport, access and parking changes/ impacts to minimise inconvenience to the public	Section 6.2

Appendix B – Traffic Guidance Schemes/ Drawings

TGS#	Location	Between		Time of day	Works	Expected duration	Traffic control	Impacts
WSA-TGS-A-PAT-EB-0001	Patons Lane	Luddenham Road	Site	Day	Driveway works	1 week for each driveway	Stop/ slow	Nil as this road is closed to the public
WSA-TGS-A-PAT-WB-0001	Patons Lane	Luddenham Road	Site	Day	Driveway works	1 week for each driveway	Stop/ slow	Nil as this road is closed to the public
SMWSASCA-CPU-SWD-EW150-RW-DRG-254111 and 254112	Site	Patons Lane	North of Patons Lane	All	Haul roads	For duration of project	NA	NA

Notes:
1: Local constraints may not allow signage and devices to be placed in accordance with this TGS. Signs and devices are to be positioned in accordance with tolerances shown in section 6.2 of the TCAWS Manual Version 6.0 2020.
2: This TGS is suitable for short term works.
3: This TGS is based on RMS TGS examples from TCAWS Manual Version 6.0 2020.
4: Patons Lane speed limit is limited to 50kph,
5: The value of speed limits displayed shall match the speed zone approval.
6: Ensure all approval requirements are met prior to commencing set up.
7: Cover all conflicting road signage where required.
8: If required cone spacing is to be no greater than 8m center's.
9: The site MUST comply with the TCAWS (Traffic Control at Worksites) Manual Version 6.0 2020 and AS 1742.3 (MUTCD) 2009.

Amendments:
All amendments to the TCP must be clearly documented on this plan. Amendments can only be made by the Traffic Control Supervisor holding a current PWZTMP card in consultation with the relevant project works supervisor.

Name:_____

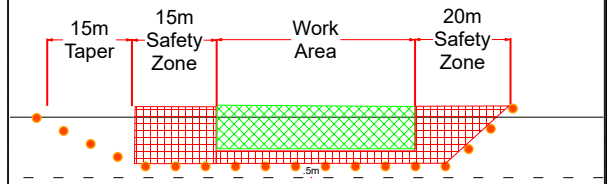
PWZTMP Card Number:_____

Exp Date: _____

Date:_____Sign:_____

Reason for modification:_____

Work Area Detail



Legend

- Cones
- Safety Zone
- Work Area

TGS DRAWN BY : [redacted]

PWZTMP : [redacted]

SIGNATURE : [redacted]

TGS APPROVED BY : [redacted]

PWZTMP : [redacted]

SIGNATURE : [redacted]

SCALE : NOT TO SCALE

Date : 26/08/2022

SHEET NUMBER 1

Issue : 1

PROJECT : Patons Ln Orchard Hills

TITLE : WSA-TGS-A-PAT-EB-0001 - Patons Ln

N

Notes:
1: Local constraints may not allow signage and devices to be placed in accordance with this TGS. Signs and devices are to be positioned in accordance with tolerances shown in section 6.2 of the TCAWS Manual Version 6.0 2020.
2: This TGS is suitable for short term works.
3: This TGS is based on RMS TGS examples from TCAWS Manual Version 6.0 2020.
4: Patons Lane speed limit is limited to 50kph,
5: The value of speed limits displayed shall match the speed zone approval.
6: Ensure all approval requirements are met prior to commencing set up.
7: Cover all conflicting road signage where required.
8: If required cone spacing is to be no greater than 8m center's.
9: The site MUST comply with the TCAWS (Traffic Control at Worksites) Manual Version 6.0 2020 and AS 1742.3 (MUTCD) 2009.

Amendments:
All amendments to the TCP must be clearly documented on this plan. Amendments can only be made by the Traffic Control Supervisor holding a current PWZTMP card in consultation with the relevant project works supervisor.

Name:_____

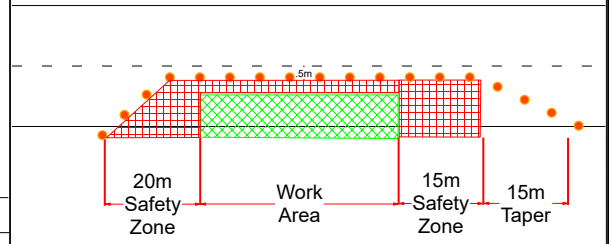
PWZTMP Card Number:_____

Exp Date: _____

Date:_____Sign:_____

Reason for modification:_____

Work Area Detail



Legend

- Cones
- Safety Zone
- Work Area

TGS DRAWN BY : [redacted]

PWZTMP : [redacted]

SIGNATURE : [redacted]

TGS APPROVED BY : [redacted]

PWZTMP : [redacted]

SIGNATURE : [redacted]

SCALE : NOT TO SCALE

Date : 26/08/2022

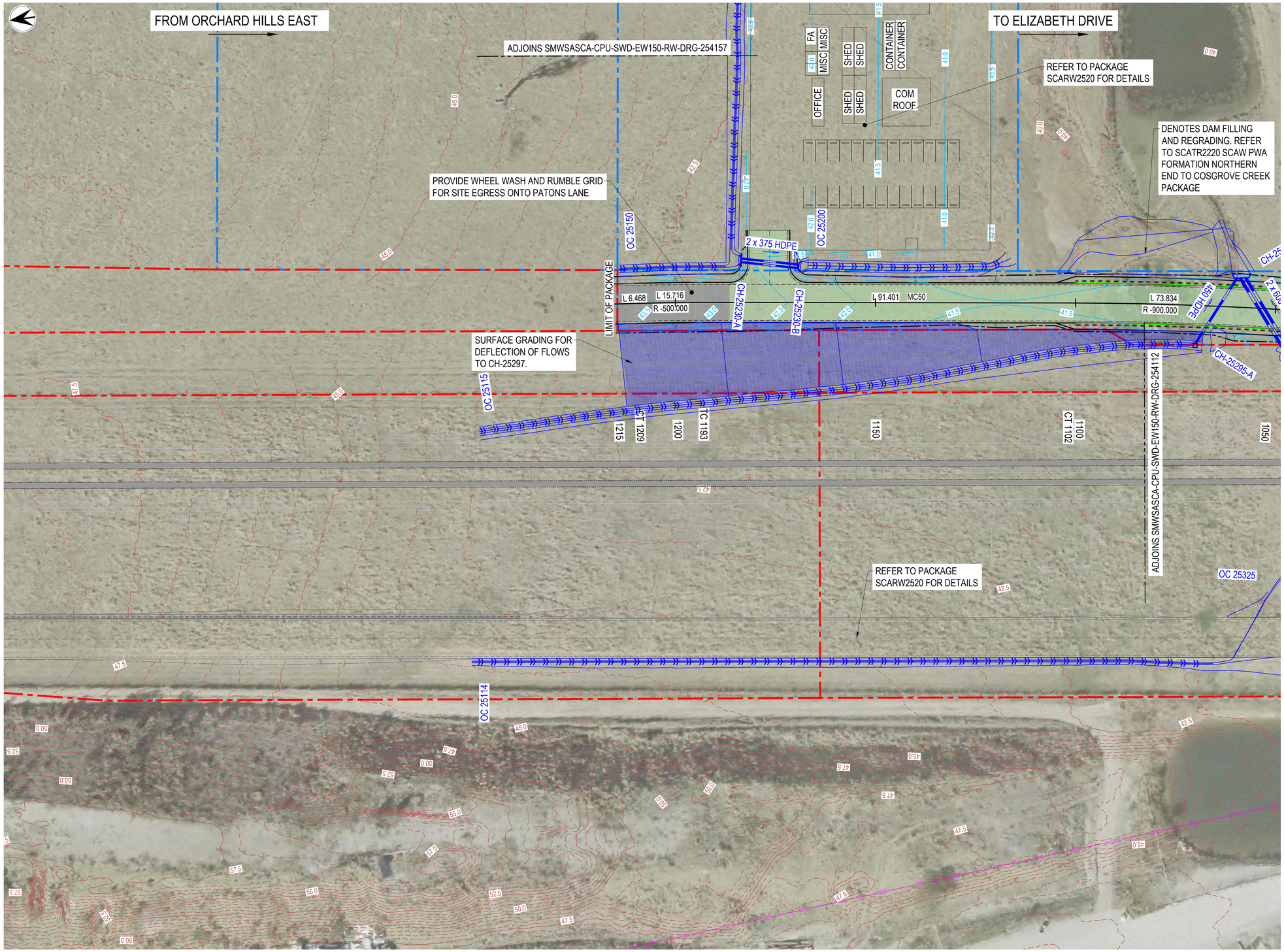
SHEET NUMBER 1

Issue : 1

PROJECT : Patons Ln Orchard Hills

TITLE : WSA-TGS-A-PAT-WB-0002 - Patons Ln

N



LAYOUT PLAN
SCALE 1:500

LEGEND

TEMPORARY SITE ACCESS ROAD ALIGNMENT

- TEMPORARY CONSTRUCTION HAUL ROAD AND ALIGNMENT CONTROL
- TEMPORARY CONCRETE BARRIER
- PAVEMENT TYPE T1
- PAVEMENT TYPE T2
- PAVEMENT TYPE T5
- BB DIVIDING LINE
- C1 CONTINUITY LINE
- E1 EDGE LINE
- TB GIVE WAY LINE
- GUIDE POSTS
- LINETYPE TAG
- SIGN SUPPORT LOCATION
- TRAFFIC SIGN

GENERAL

- FUTURE INFRASTRUCTURE ALIGNMENT - BY OTHERS
- ELIZABETH DRIVE RAB LEG - BY OTHERS
- PROPOSED CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROJECT PERMANENT BOUNDARY
- TEMPORARY AREA BOUNDARY
- MAIN LINE TRACKS (TRACK AND SLAB DESIGN BY SSTOM CONTRACTOR)
- RAIL DESIGN

TEMPORARY DRAINAGE

- TEMPORARY DRAINAGE CHANNEL
- TEMPORARY DRAINAGE GRASS CHANNEL
- TEMPORARY DRAINAGE CULVERT
- TEMPORARY DRAINAGE RIPRAP
- CH-28040-B — CULVERT HEADWALL NODE ID
- OC 27910 — CHANNEL LABEL
- PROPOSED CHANNEL REGRADING

UTILITIES

- PROPOSED ELECTRIC
- PROPOSED ELECTRIC MAJOR TRANSPORT
- PROPOSED GAS MAIN
- EXISTING COMMUNICATION OPTIC FIBRE CONDUIT
- EXISTING ELECTRICITY HIGH VOLTAGE OVERHEAD
- EXISTING ELECTRIC OH HIGH VOLTAGE
- EXISTING ELECTRIC OH HIGH VOLTAGE (TO BE REMOVED)
- WATER MAIN

FOR CONSTRUCTION

REV.	AMENDMENT DESCRIPTION	R.D. Design by	T.W. Verified by	R.M. Approved by	Date
00	ISSUED FOR CONSTRUCTION	R.D.	T.W.	R.M.	26.08.22

SCALE: 1:500
5 0 10 20m
SCALE 1:500

A1 Original | Co-ordinate System: MGA2020 ZONE 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied | NOTE: Do not scale from this drawing.

CLIENT: NSW GOVERNMENT | sydney METRO

CPB CONTRACTORS | UNITED INFRASTRUCTURE | AHJV Aurecon Hatch Joint Venture | Tony Gee | COX | WOODS BAGOT | DP

AURECON HATCH JOINT VENTURE
CIVIL

DRAWN	[redacted]	26.08.2022
DESIGNED	[redacted]	26.08.2022
DRG CHECK	[redacted]	26.08.2022
DESIGN CHECK	[redacted]	26.08.2022
APPROVED	[redacted]	26.08.2022

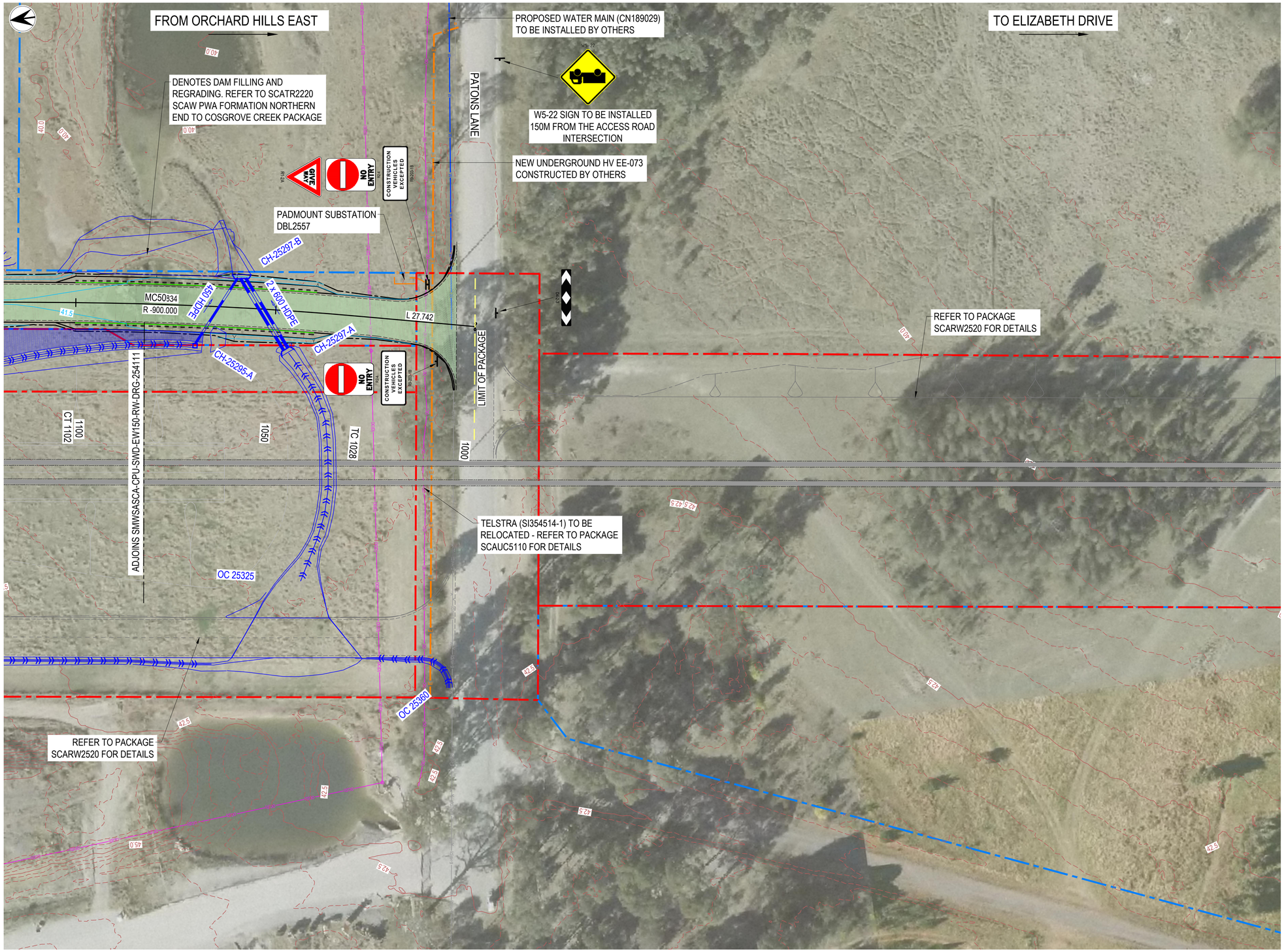
SYDNEY METRO WESTERN SYDNEY AIRPORT

SURFACE AND CIVIL ALIGNMENT WORKS
CIVIL
SCARW2540 SCAW SITE ACCESS AND HAUL ROADS PACKAGE #1
LAYOUT PLAN

FILE No: | SHEET: 1 OF 13 | ©
STATUS: FOR CONSTRUCTION | EDMS No:
DRG No: SMWSASCA-CPU-SWD-EW150-RW-DRG-254111 | REV 00 | VER

100mm AT FULL SIZE

Title block Revision: v6.1



LAYOUT PLAN
SCALE 1:500

LEGEND

TEMPORARY SITE ACCESS ROAD ALIGNMENT

- TEMPORARY CONSTRUCTION HAUL ROAD AND ALIGNMENT CONTROL
- TEMPORARY CONCRETE BARRIER
- PAVEMENT TYPE T1
- PAVEMENT TYPE T2
- PAVEMENT TYPE T5
- BB DIVIDING LINE
- C1 CONTINUITY LINE
- E1 EDGE LINE
- TB GIVE WAY LINE
- GUIDE POSTS
- LINETYPE TAG
- SIGN SUPPORT LOCATION
- TRAFFIC SIGN

GENERAL

- FUTURE INFRASTRUCTURE ALIGNMENT - BY OTHERS
- ELIZABETH DRIVE RAB LEG - BY OTHERS
- PROPOSED CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROJECT PERMANENT BOUNDARY
- TEMPORARY AREA BOUNDARY
- MAIN LINE TRACKS (TRACK AND SLAB DESIGN BY SSTOM CONTRACTOR)
- RAIL DESIGN

TEMPORARY DRAINAGE

- TEMPORARY DRAINAGE CHANNEL
- TEMPORARY DRAINAGE GRASS CHANNEL
- TEMPORARY DRAINAGE CULVERT
- TEMPORARY DRAINAGE RIPRAP
- CH-28040-B CULVERT HEADWALL NODE ID
- OC 27910 CHANNEL LABEL
- PROPOSED CHANNEL REGRADING

UTILITIES

- PROPOSED ELECTRIC
- PROPOSED ELECTRIC MAJOR TRANSPORT
- PROPOSED GAS MAIN
- EXISTING COMMUNICATION OPTIC FIBRE CONDUIT
- EXISTING ELECTRICITY HIGH VOLTAGE OVERHEAD
- EXISTING ELECTRIC OH HIGH VOLTAGE
- EXISTING ELECTRIC OH HIGH VOLTAGE (TO BE REMOVED)
- WATER MAIN

FOR CONSTRUCTION

REV.	AMENDMENT DESCRIPTION	R.D. Design by	T.W. Verified by	R.M. Approved by	Date
00	ISSUED FOR CONSTRUCTION				26.08.22

SCALE: 1:500
5 0 10 20m
SCALE 1:500

A1 Original | Co-ordinate System: MGA2020 ZONE 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied | NOTE: Do not scale from this drawing.

CLIENT: NSW GOVERNMENT | sydney METRO

CPB CONTRACTORS | UNITED INFRASTRUCTURE | AHJV Aurecon Hatch Joint Venture | Tony Gee | COX | WOODS BAGOT | JD

AURECON HATCH JOINT VENTURE
CIVIL

DRAWN	[redacted]	26.08.2022
DESIGNED	[redacted]	26.08.2022
DRG CHECK	[redacted]	26.08.2022
DESIGN CHECK	[redacted]	26.08.2022
APPROVED	[redacted]	26.08.2022

SYDNEY METRO WESTERN SYDNEY AIRPORT
SURFACE AND CIVIL ALIGNMENT WORKS
CIVIL
SCARW2540 SCAW SITE ACCESS AND HAUL ROADS PACKAGE #1
LAYOUT PLAN

FILE No: | SHEET: 2 OF 13 | ©
STATUS: FOR CONSTRUCTION | EDMS No:
DRG No: SMWSASCA-CPU-SWD-EW150-RW-DRG-254112 | REV 00 | VER

100mm AT FULL SIZE

Title block Revision: v6.1

Appendix C – Road Safety Audit

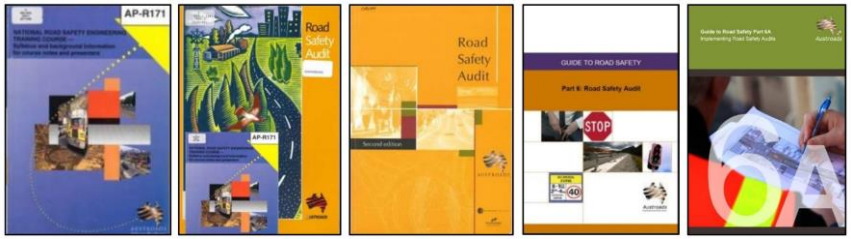
Road Safety Audit Report

Patons Lane CTMP

Practical
Independent
Specialised

Road/Area	Patons Lane		**Road Safety Audits Reference**	RSA-13063
Traffic Stage/Phase	Western Sydney Airport – Surface and Civil Alignment Works		**Report Date**	29 August 2022
Audit Stage	*Desktop* Traffic Guidance Scheme		**Lead Auditor** **Second Auditor**	[redacted]
Client	**Sue Lewis Consulting**		**TMP / Drawings**	Patons Lane Construction Traffic Management Plan (Document No: SMWSASCA-CPU-1NL000-TF-PLN-000003 Rev B)
Client Contact	[redacted]		**Report Provider**	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.



[redacted]

Senior Road Safety Auditor
CPEng, RPEQ, NER,
BE (Civil)

Senior Road Safety Auditor
CPEng, RPEQ, NER, BE (Civil),
BB (Bus. Admin.)

Patons Lane CTMP Western Sydney Airport – Surface and Civil Alignment Works				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder:	
			Response[x]	**Status**[y]
1.	No road safety issues are identified in relation to the CTMP and the intent for construction traffic to use the existing intersection treatment at Luddenham Road when turning in and out of Patons Lane.	Nil. Note only.	Noted	Closed
2.	No road safety issues are identified in relation to the proposed operation of the site. It is noted from the CTMP that the project will be consulting with Bingo waste centre to ensure potential conflicts are adequately mitigated.	Nil. Note only.	Noted	Closed
3.	No road safety issues are identified in relation to the proposed TMP as shown in drawings numbers WSA-TGS-A-PAT-EB-0001 & 0002 – Patons Ln (both Issue 1).	Nil. Note only.	Noted	Closed

Explanatory Notes

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.

[X]**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.

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

Language:
Austroads 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:

- 'Urgent': Needs immediate attention / changes as per RSA suggestion or similar.
- '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.
- '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.
- '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.
- 'Minor': Typically, a low road-safety consequence / compliance issues (to guidelines or plans) / administrative controls. Unlikely to increase risk of crash.
- '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. Austroads Guide to Road Safety – Road Safety Audit – (2019) 6 and 6A; 2. AS 1742.3 – 2019; 2. State specific codes and guidelines re: Traffic Control at Work Sites; and 3. Design: 1. Austroads guidelines and 2. state-specific supplements and technical publications as relevant.

Safe System: Austroads 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 Austroads 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

Appendix E – Inspection checklists