

Transport Access Program 3 | Footbridge St Marys MCC

150511-STM-PM-PLN-00015: Construction Traffic and Pedestrian Management Plan Document

revision and history

Document details	
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B	25/05/2023		Juan Sandoval	Paul Szubert	David Brockie
Signature sign off					

Distribution and Authorisation

Distribution

The master-controlled plan will be held within Laing O'Rourke's document management system, for access by personnel as required.

Issue, revision and re-issue

This plan has been prepared in accordance with the relevant requirements. The initial issue of this plan has been reviewed by the relevant discipline leader and endorsed for use on the TAP3 Station Upgrades Managing Contractor Contract. This plan will be submitted to Transport for New South Wales (TfNSW) before the start of work on site.

Revisions of this plan may be required throughout the duration of the contract to reflect changing circumstances or identified opportunities for improvement. Revisions will be proposed by the relevant personnel and reviewed, developed and finalised in conjunction with TfNSW.

Revisions of this plan must not reduce the scope or level of management control. Revisions may result from:

- Management review
- Changes to the standard system
- Internal or external audit
- TfNSW feedback or non-conformance reports
- Legislative changes
- Improvement initiatives and process changes within Laing O'Rourke
- Lessons learned.

Initial updates to this plan will be issued alphabetically for review. Once approved by TfNSW, subsequent updates will be numbered consecutively and transmitted to holders of controlled copies.

Updates to this plan and any other sub-plans will be provided to TfNSW for comment, review and approval within five days of amendment. Amendments will be clearly illustrated in the document.

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Abbreviations and definitions

Table 1: Abbreviations and definitions

Abbreviation	Expanded text
AGTTM	Austrroads Guide to Temporary Traffic Management
CEMP	Construction Environmental Management Plan
CoR	Chain of Responsibility
CSSI	Critical State Significant Infrastructure
CCTMP	Construction Traffic Management Plan (This Document)
CJM	Customer Journey Management
CJP	Customer Journey Planning
DDA	Disability Discrimination Act 1992
DPE	Department of Planning and Environment
EB	Eastbound
EIS	Environmental Impact Statement
FPA	Federal Planning Approval
LTC	Local Traffic Committee (Councils)
MCoA	Ministers Condition of Approval
NB	Northbound
OPLINC	Online Planned Incident System (ROLs)
PMP	Pedestrian Management Plan
RASS	Radar Activated Speed Signs
REMM	Revised Environmental Management Measures
ROL	Road Occupancy Licence
ROP	Road Occupancy Permit (Councils)
SB	Southbound
SZA	Speed Zone Authorisation
TCG	Traffic Control Group
TfNSW	Transport for New South Wales
TGS	Traffic Guidance Scheme
TMC	Transport Management Centre
TTLG	Traffic, Transport Liaison Group
VMP	Vehicle Movement Plan
VMS	Variable Message Sign
VSLS	Variable Speed Limit Sign

WB	Westbound
CMP	Contract Management Plan
PPE	Personal protective equipment
RMS	(TfNSW) Roads and Maritime Services
TAP3	Transport Access Program

1. Introduction

1.1 Project Background

The Transport Access Program (TAP) is a NSW Government initiative delivering safe, modern and accessible public transport infrastructure for the Sydney rail network. The initiative includes improvements to the public transport customer experience by providing equitable access and modern facilities in and around station precincts for persons with limited mobility, parents with prams, improvements to station amenity, as well as incorporating additional staff and customer facilities.

The Sydney Metro – Western Sydney Airport project comprises a new 23km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south, with the rest of Sydney's public transport network via St Marys to the north. The Project includes six new metro stations along the route including one at the Western Sydney Aerotropolis, two at the new Airport site, one at Luddenham, Orchard Hills, and St Marys.

This project will deliver design, procurement, construction, commissioning and integration of upgrades to existing stations on the Sydney rail network, including at St Marys (Figure 1)



Figure 1 – St Marys station on the Sydney rail network

TAP3 works will provide facilities that:

- Are inviting and safe for customers to use
- Contribute to Commonwealth *Disability Discrimination Act* (DDA) related targets through Disability Standards for Accessible Public Transport (DSAPT) compliance upgrades (including associated customer benefits derived from DSAPT compliance)

- Are compliant with current standards of safety, access and amenity
- Are easy to operate and maintain by the Operator/Maintainer

Provide safe, direct and continuous access paths within the site boundary between transportation mode change locations, accessible parking, passenger boarding points and other key facilities.

1.2 Location and Scope of work proposed

St Marys Station is located on the T1 Western Line, approximately 47km west of Central Station, in the City of Penrith. The station is bound by Harris Street to the north and Station Street to the south. The station has a S170 heritage listing, and comprises two island platforms with access from both sides of the station via an overbridge. The Footbridge St Marys package scope of works includes:

- Construction of a new intermodal footbridge at the eastern end of the station, connecting the existing Sydney Trains St Marys Station to the proposed Sydney Metro St Marys Station, with a new Northern Portal providing access to Harris St to the north.
- Construction of four new 27-person lifts providing step-free access from the footbridge to the existing station platforms.
- Construction of four new escalators for access from the footbridge to the existing station platform.
- Construction of two new staircases for access to the existing station platforms.
- Construction of the Northern Portal, providing access from the footbridge to Harris St via a new staircase and one 33-person lift.
- Construction of a three-storey Sydney Trains facilities building adjacent to the Northern Portal, including a new electrical main switch room, HVAC, communications room, and station staff facilities.
- Provision of new fire safety systems for the facilities building, lifts and footbridge.
- Regrading of platforms for accessible path, localised to the proposed works.
- Replacement of existing platform tactiles
- Installation of new canopies to the proposed stairs, escalators, and footbridge.
- Alterations and additions to the existing lighting on Harris St to suit the new entry.
- Hard and soft landscaping to station entrance and surrounds.

Figure 2 below provides the location of the works.

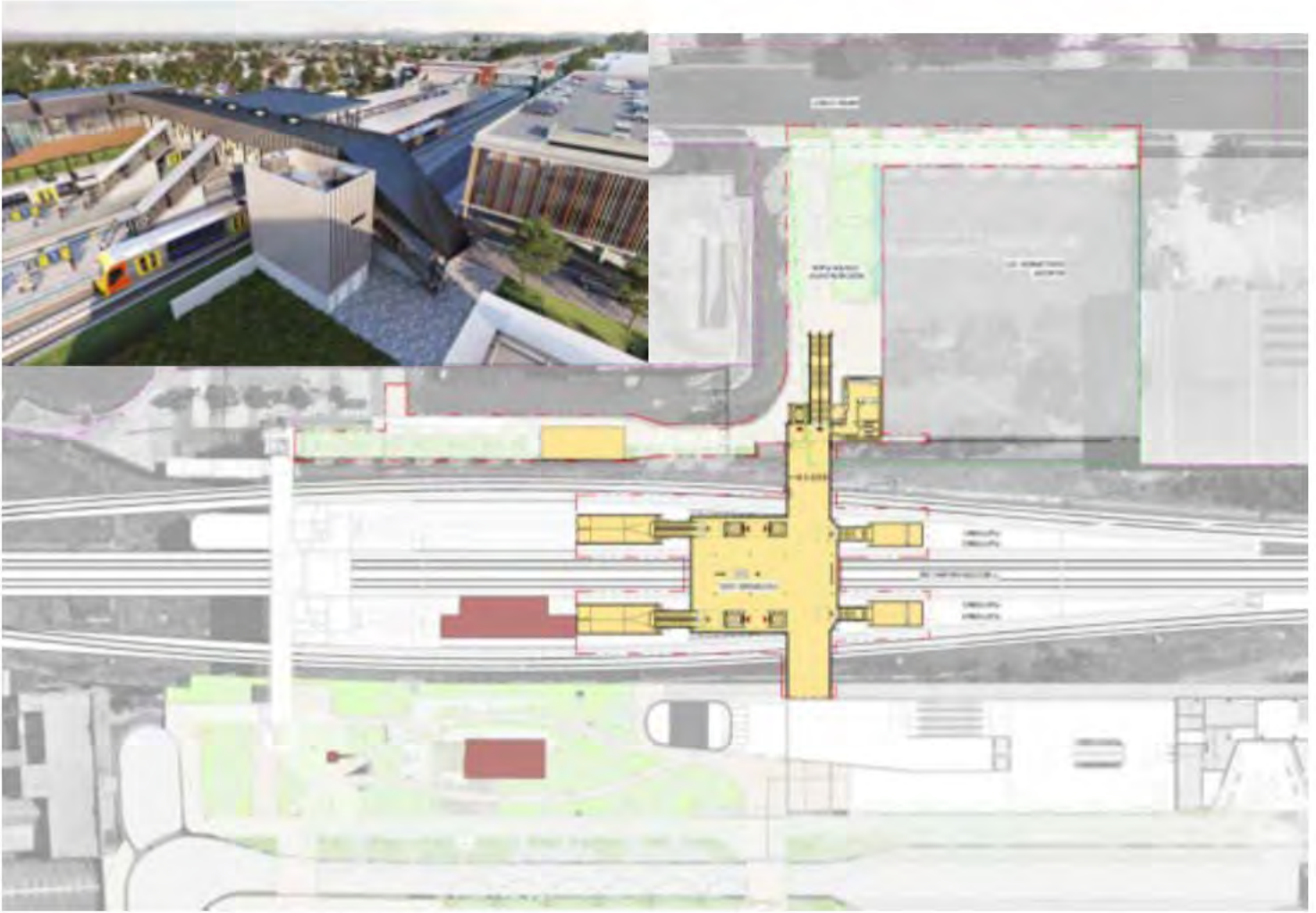


Figure 2 – Footbridge St Marys indicative proposed footbridge construction

1.2.1 Objectives

The primary objectives and principles of this CCTMP are to ensure that construction impacts are minimised and are within the scope permitted of relevant planning approvals. This includes:

- Keep traffic delays to a minimum
- Minimise disruption to businesses
- Minimise disturbance to the environment
- Ensure traffic impacts are within the scope permitted by Local Council and CJP
- Ensure the safety of employees, contractors, members of the public and all road users

To achieve these objectives Laing O'Rourke will:

- Ensure the design and operation of any proposed temporary traffic management measures are carefully planned, coordinated and implemented.
- Meet pedestrians, cyclists and vehicle drivers' expectations with a high level of safety and service in using the existing road and pedestrian network.

This requires efficient, effective and reliable traffic management strategies to be in place that:

- Follow the CTMF hierarchy of access.
- Achieve uniform traffic throughput.
- Minimise changes to pedestrian and cycle routes and movement.
- Ensure reliable and consistent travel times.
- Provide clear information to allow drivers and other road users to make appropriate decisions in relation to their journey.
- Minimise potential road safety risk, especially for pedestrians and cyclists.
- Understands the impacts of the Project and identifying appropriate methods to mitigate these impacts.
- Strategic advanced planning of the traffic management.
- Taking an approach to traffic management that minimises traffic disruption.
- Ongoing stakeholder engagement and communication.

1.2.2 Compliance

This plan has been prepared to be compliant with the following legislative and other requirements:

Legislation

The main legislation relevant to traffic management for the Project includes:

- Environmental Planning and Assessment Act 1979
- Roads Act 1993
- Road Transport (Safety and Traffic Management) Act 1999
- Roads Regulation 2008.
- Disability Discrimination Act 1992

Guidelines and standards

The main guidelines, specifications and policy documents relevant to this CCTMP include:

- Transport for NSW Traffic Control at Worksites Manual version 6.1 (2022)
- Australian Standard 1742.3-2009 Traffic control devices for works on roads
- Transport for NSW Road Occupancy Manual (2018)
- AUSTROADS Guide to Road Safety - Parts 1-7

Contractual

The main contractual documents relevant to this CTMP include:

- Western Sydney Airport – Ministers Conditions of Approval
- Sydney Metro Construction Traffic Management Framework

1.3 *Date and Time*

Laing O'Rourke proposes to implement Footbridge St Marys on April 2023, or as agreed with TfNSW./CJP. Following implementation, construction activities will occur during the approved construction hours of, unless subject to variation under project Environmental and Community Controls:

- 0700-1800 Monday to Friday and
- 0800-1300 on Saturday.

Traffic Management and Implementation

2. Footbridge St Marys

2.1 Existing conditions

2.1.1 General Site Description

The site is located on the southern side of Harris Street, adjacent St Marys Railway Station's northern commuter car park and borders the T1 Western line rail corridor along its southern boundary. Surrounding land use is primarily industrial. Given the commuter car park and public transport facilities and commercial and industrial land uses, the area would generate substantial pedestrian traffic during commuter peak periods. The commuter car park has direct access to the station so would avoid the compound and the bus zone and 5 minutes parking area would also avoid the compound area. Therefore, it is believed that even though the area would generate substantial pedestrian traffic a majority would avoid the compound area.

Main interface would be to commuters who walk from parking on Harris St itself and workers in the surrounding industrial complexes. Road user traffic would be expected to be high during morning and afternoon peaks due to drop off area and school on Forrester Road and would be the preference for northern residents and further travel north and westbound.

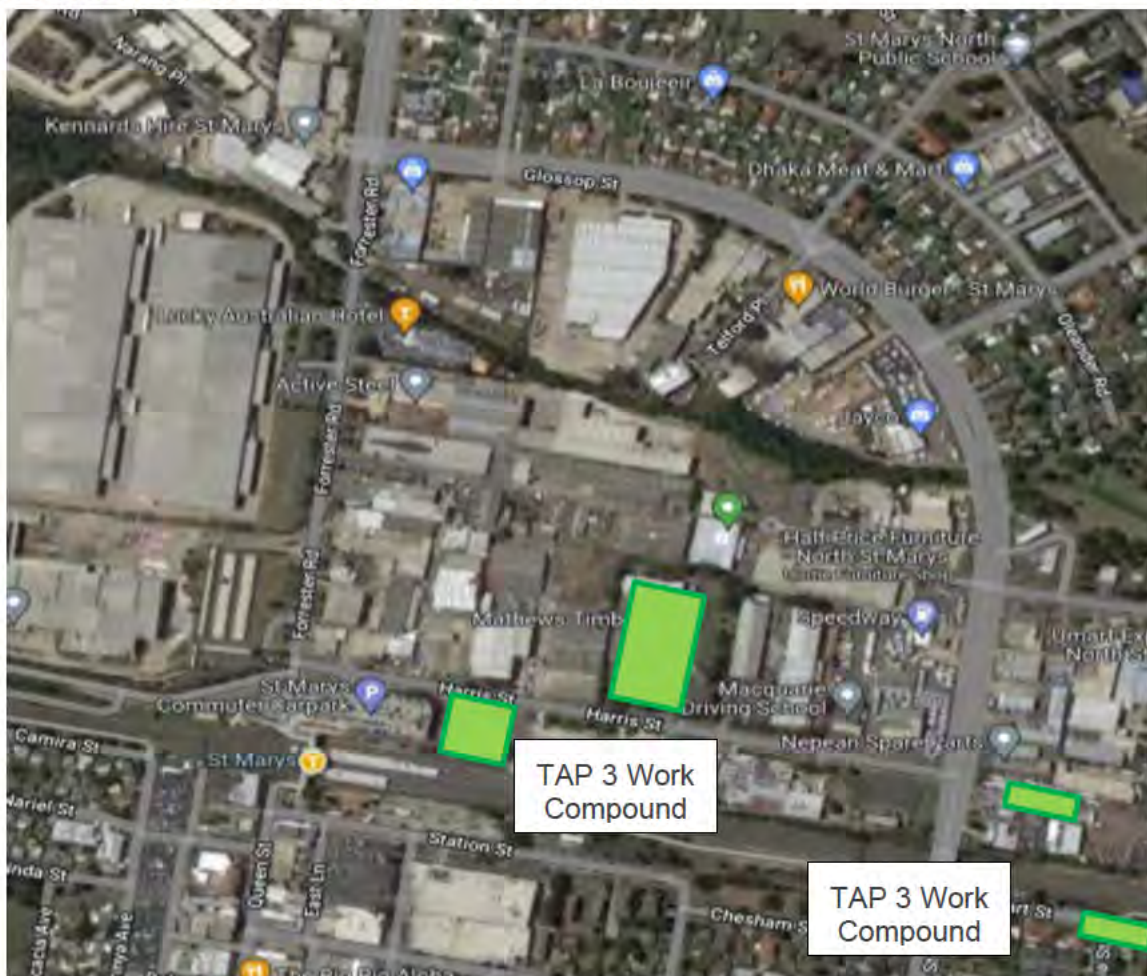


Figure 3 – Area Map Overview

2.1.2 Existing road network

Impacted road on the existing road network are summarised below in table 1. Main impact on these roads is haulage only with some minor short term traffic managements for access on some deliveries to the compound area.

Table 2: Existing Road Network Summary.

Road	From	To	Classification	Speed	Lanes
Harris Street	Glossop Street	Forrester Road	Local (Penrith)	50km/h	2 – (1EB & 1WB)
Forrester Road	Harris Street	Glossop Street	Local (Penrith)	50km/h	Primarily 2 (1 NB & 1 SB with SB RTL)
Glossop Street	Great Western Highway	Forrester Road	Regional (7167)	60km/h	4 (2 NB & 2 SB divided)
Hobart Street	Glossop Street	Australia Street	Local (Penrith)	50km/h	2 – (1EB & 1WB)

2.1.2.1 Harris Street

Harris Street is a local road that runs east west and connects with both Glossop Street and Forrester Road. It is a two-way road with one lane in each direction and is an approved heavy vehicle route. Unrestricted parking is permitted on both sides of the road. It has a sign posted speed limit of 50 km/h and an on-road cycle facility along its length. Adjacent land use is primarily commercial.

2.1.2.2 Forrester Road

Forrester Road is a Regional Road north of Glossop Street and a local road south of Glossop Street. It runs north-south extending north from St Marys Station. The section from St Marys Station up to Glossop Street is a two-way undivided road with one lane in each direction. Unrestricted parking is permitted along the eastern side of the road, and it has a sign posted speed limit of 50 km/h.

A school zone area extends approximately from just north of the Harris Street intersection for 220m to #75 Forrester Road.

2.1.2.3 Glossop Street

Glossop Street is a Regional Road with intersections with both Harris Street and Forrester Road. Glossop Street functions as a collector road generally aligned in a north-south direction. It connects to the Great Western Highway in the south and Forrester Road in the north. Glossop Street is a divided carriageway with two lanes in each direction and has a sign posted speed limit of 60 km/h. It is a public transport route with bus stops on both sides of the road.

2.1.2.4 Hobart Street

Hobart Street is a local road that runs east west and connects with both Glossop Street and Australia Street. It is a two-way road with one lane in each direction. Unrestricted parking is permitted on both sides of the road. It has a sign posted speed limit of 50 km/h and an on-road cycle facility along its length. Public Transport Network

2.1.3 Rail

Train lines operating within the St Marys Station facility is the T1 Western Line.



Figure 4 – T1 Western Line Map

A brief summary of the T1 western line is shown in table 2 below.

Table 3: T1 Western Line Summary.

T1 Western Line						
Direction	Day	First Service (St Marys)	Weekday AM Peak 7AM-9AM	Weekday PM Peak 4PM-6PM	Last Service (St Marys)	General frequency
Emu Plains or to Richmond City	Mon-Fri	03:22	16 services	8 services	00:25	≈5-10min peak ≈10-15min off peak
	Sat	03:55			00:08	≈10-15mins
	Sun/Pub.Hol	03:55			23:38	≈15mins
City to Emu Plains or Richmond	Mon-Fri	04:51	8 services	9 services	02:10	≈5-10min peak ≈10-15min off peak
	Sat	05:57			02:13	≈10-15mins
	Sun/Pub.Hol	05:57			01:27	≈15mins

Data obtained from the “St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW” shows that:

- Approximately 10,000 passengers proceed through station entry/exits each weekday
- AM peak period of 6AM-10AM shows greatest movement through station
- Low movements through station between 8PM-5AM

These movements are shown below in figures 6 and 7 also obtained from “St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW”

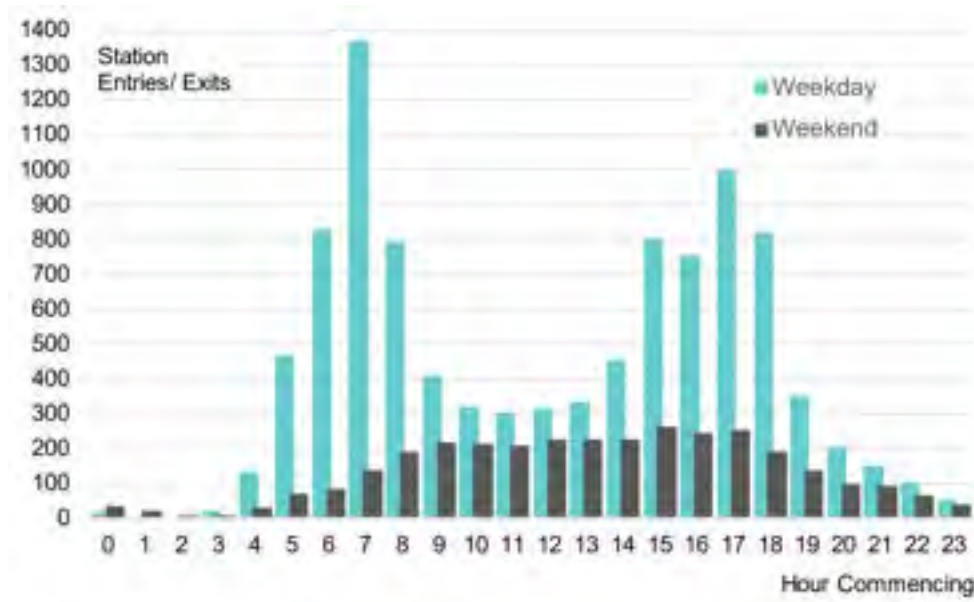


Figure 5 – T1 Hourly station entry/exit (Source: St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW)

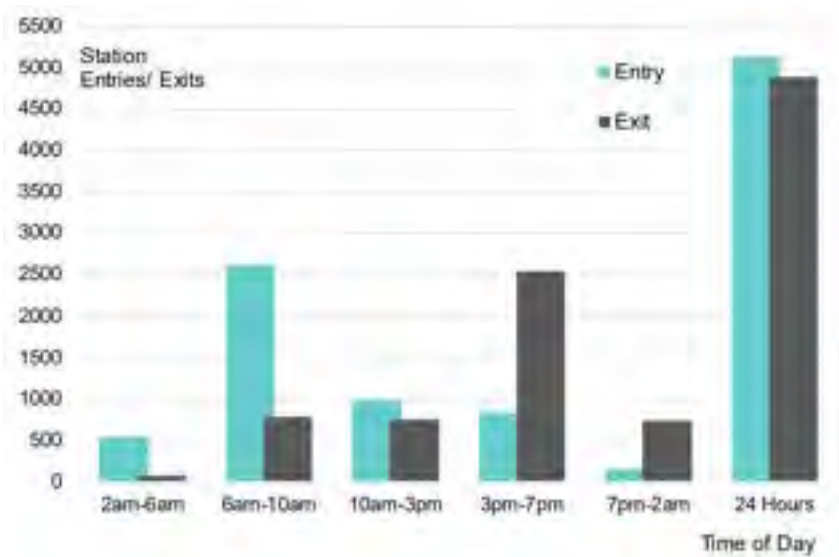



Figure 6 – Peak and Off-Peak station entry/exit (Source: St Marys Station Commuter Car Park Expansion Traffic, Transport and Access Impact Assessment Prepared by Mott MacDonald for Transport for NSW)

2.1.4 Buses

Twelve (12) bus routes operate through the St Marys interchange of which two (2) operate in the northern part of the interchange, which primarily provide local coverage and operate at low frequency. The two (2) northern interchange routes are summarised in table 1 and figure 2 below.

A taxi rank exists on Forrester Road south of the bus stop which has the capacity for 3 ranked taxis. Current bus route has been checked in TfNSW busways in order to reflect the most updated bus route and road closures established by previous stakeholders.

Table 4: Bus Routes, St Marys

Route	Description	Operator	Key Roads
759	St Marys via Mount Druitt via Ropes Crossing 	Busways	Station Street, Lethbridge Street, Phillip Street, Glossop Street, Forrester Road, Gidley Street

All other routes and services are south of the station and this project will have no effect on these services, stops or routes.



Figure 7 – Greater Western Sydney Bus Network Map - Busways. (Source: Transport NSW)

2.1.5 Pedestrian and cyclist routes

Primary focus on pedestrian and cyclist routes is along Harris Street and Forrester Road.

A sealed footpath is present only on the southern side of Harris Street, but pedestrian thoroughfare also uses the northern side. Forrester Road has sealed footpaths on both sides of the road.

Cyclist assessment shows no dedicated cycleways, but low to moderate difficulty by utilising existing roads north of St Marys Station as on-road shared lanes.

The existing bicycle network and pedestrian paths are shown in Figures 8 and 9 below.



Figure 8 - Existing Pedestrian Pathways

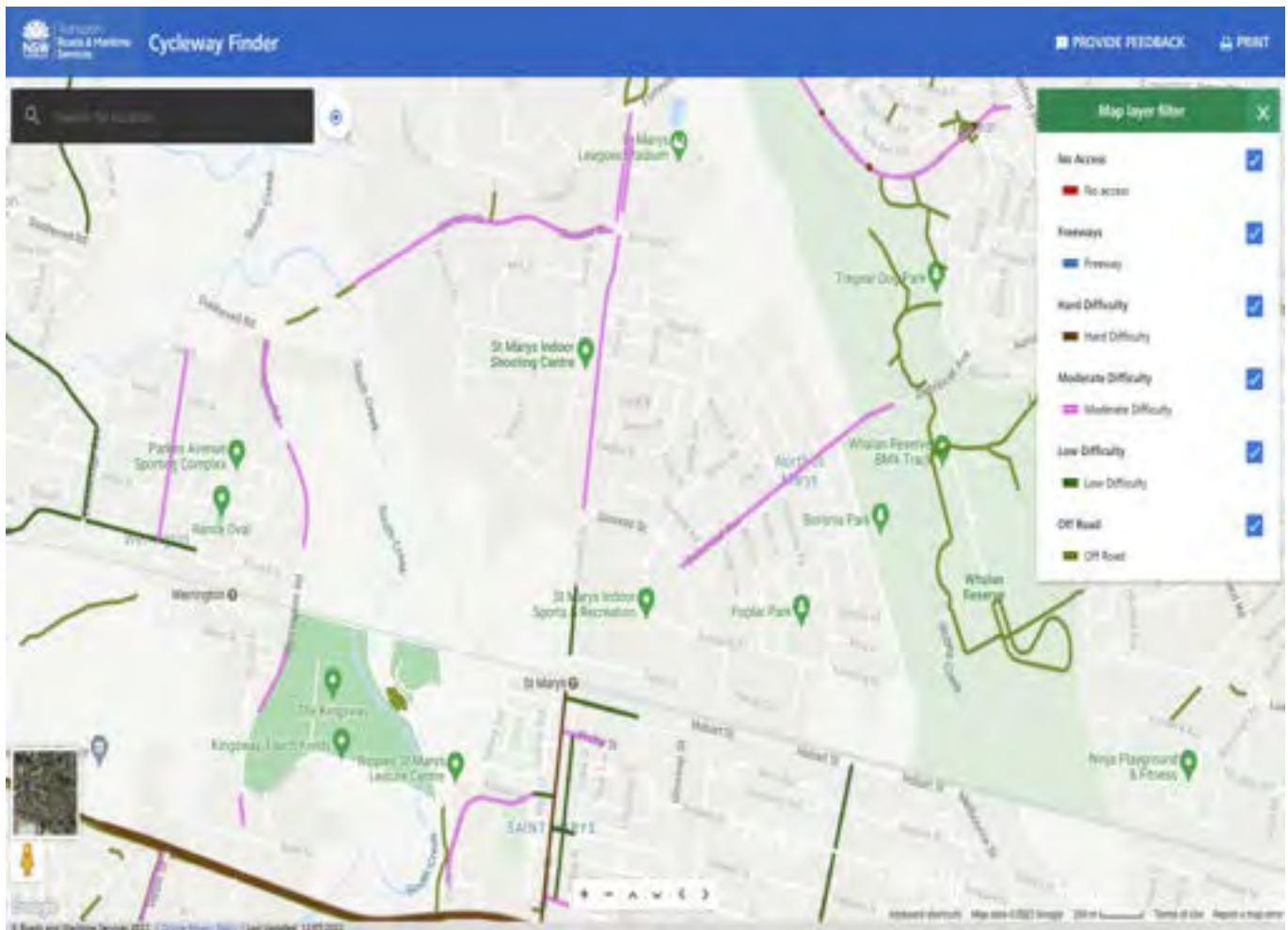


Figure 9 Existing cyclist routes for St Marys Station

2.1.6 *Parking*

The existing parking areas and restrictions around St Marys Station are shown in figure 10 below.



Figure 10 - Greater parking restrictions around St Marys Station (Source: EIS)

Table 2 below assesses the parking areas and restrictions north of St Marys Station only around proposed compound and work area on Harris Street.

Table 5 - Parking assessment north of St Marys Station

Street/Road	From	To	Side of St	Type	Total
Harris Street	Glossop Street	Forrester Road	South	Unrestricted	54
			North		55
St Marys Station Commuter Car Park			South	Various	≈750
Forrester Road	Harris Street	Glossop Street	East	Unrestricted	26
Hobart Street	Glossop Street	Sydney Street	South	Unrestricted	≈40
			North		≈60
Forrester Road	Harris Street	St Marys Rail Perimeter	All	Bus Zone	2
				Taxi Zone	3
				P5 minute	9
				Mobility	1
Area total					≈985
On Street Total					235
Note: Bus Zone, Taxi zone, P5 minute and mobility spaces excluded from total.					

2.2 Proposed conditions

2.2.1 Construction Traffic Generation

Vehicles of various sizes are expected to attend the worksite including but not limited to light vehicles, tipper trucks, concrete trucks during construction hours. The largest vehicles regularly accessing the site will be a 12.5m heavy rigid truck, oversize vehicles may access the site to deliver construction equipment and will subject to obtaining a permit from the National Heavy Vehicle Regulator prior to accessing site. Proposed EIS construction vehicle ingress/egress for the proposed work zone area is estimated as per to be 216 light vehicles (utes/staff) and 10 heavy vehicles (MRV, HRV and AVs) per day. TAP 3 – Laing O’Rourke project estimates that 50 light vehicles and 10 heavy vehicle will be accessing during non peak hours or school times to the proposed construction gates. The following distribution construction vehicle between in compounds is presented in Figure 11.



Figure 11 – Proposed construction vehicle access distribution .

All construction vehicles associated with this project are required to adhere to specific criteria relating to conditions of approval.

This criterion includes:

- That all construction vehicles would enter and exit construction sites in a forward direction, where feasible and reasonable. Where this is not possible traffic management must be in place under approved CTMP's, TGS's and Road Occupancy approvals.
- Construction vehicles will be managed to minimise movements during peak periods and in school zones. HV deliveries will be instructed via toolbox /prestart to ingress/egress on the proposed site during non-peak hours and current school times.
- Any construction vehicles that are required to move around the site will not be permitted to park or queue within the surrounding road network unless permission has been approved. Arrival of vehicles will be staggered to prevent queuing of vehicles related to the Project.
- Construction vehicles must not continuously idle or queue on any roads and any marshalling required will also avoid sensitive land users which will be advised in site inductions.

In addition:

- Vehicles must have rotating beacons that must be activated on approach and departure from work sites
- Heavy vehicles used for spoil must be identified / marked with project number and company.
- Radio or phone ahead to ensure works sites are open and accessible
- Always give way to pedestrians
- Clearly signal intentions by indicating to traffic streams to enter or depart work sites.

- Construction traffic records on real time will be implemented as part of Laing O'Rourke proposed strategies
- Monitoring records will be maintained as part of Laing O'Rourke construction traffic generation
- Delivery of material that is required to be delivered outside of standard construction hours in Condition E41 to directly support tunnelling activities can be executed except between the hours 10:00 pm and 7:00 am to/ from the Orchard Hills ancillary facility.

The proposed construction access /traffic control management to the construction compound has been illustrated in **Appendix 5** Proposed implementation TGS.

2.2.2 Material Haulage / Site Traffic

The proposed stage does consider haulage activity controlled by traffic controllers on site, during working hours. Daily heavy vehicle ingress/egress volumes will be as per previously mentioned section 2.2.1.

Figure 12 depicts the proposed haulage route for heavy vehicles accessing the proposed construction access as part of this CTMP implementation. 12.5 m construction vehicles will be require to access to the proposed laydown area on Hobart St using the existing local roads (Brisbane St - Australia St). HVLR report assessing local roads no included as part of the CoAs e105-106 has been addressed in order to provide access to the proposed work / laydown areas.

The proposed heavy vehicle turn paths are presented in **Appendix 2** Traffic Staging Plan.

Copy of the HVLR report included in this report as an **Appendix 7** Heavy Vehicle Load Report (HVLR)



Figure 12 – Proposed Heavy Haulage route.

2.2.3 Barrier Selection & Design

The TfNSW-approved barriers selected for future compounds and laydown areas are concrete. Laing O'Rourke will assess and monitor if the deflection zone reduction is required for future works behind barriers.

2.2.4 Speed Limit Strategy

A 40km/h 'Road Work' speed zone will be adopted on Harris St & Hobart St eastbound/westbound lanes. Proposed speed reduction is presented in **Appendix 2** Traffic Staging Plan.

2.3 Assessment of Construction Impacts

2.3.1 Impact on Traffic Flow

Minimum impact on Traffic flow is expected as a part of this CTMP implementation. The Traffic Management Strategy for this project primarily involves short-term and intermittent traffic controls to manage larger vehicle movements and deliveries. As the site is fully contained within a hoarded area and heavy vehicle movements are infrequent, an intricate Traffic Management Strategy is not required. Laing O'Rourke will assess and identify improvement opportunities for the road network intersections (Glossop St / Forrester Rd & Glossop St / Great Western Highway intersections) ensuring adequate level of service on peak hours. Proposed construction traffic generation mentioned on section 2.2.1 will not have a detrimental effect on the current level of service of the close by traffic intersections.

Any changes or impacts on the current level of service of the roads will be analyzed and presented to CJP via TTLG and CCTMP submission.

The proposed construction access at Footbridge St Marys has been illustrated in **Appendix 2** Traffic Staging Plan.

2.3.2 Impact on Pedestrians and Cyclists

No impact is expected for pedestrians and cyclists as a part of this CTMP implementation.

Existing pedestrian and cycle routes will be maintained throughout the duration of construction. Intermittent stoppages of pedestrians and cyclists will be required to manage ingress and egress of heavy vehicles which will be infrequent. The TCP/TGS for this operation is provided in **Appendix 5**

Proposed implementation TGS. Any changes or impacts on the current pedestrian footpath/ service will be analyzed and presented to CJP via TTLG and CTMP submission.

2.3.3 Impact on Public Transport

There is no impact expected for bus services as a part of this CTMP implementation. Any proposed Bus stop closure/ relocation or bus route change will be consulted in advance with relevant stakeholders and CJP.

2.3.4 Impacts on Parking

Impact on current parking conditions is expected to be low and provide sufficient off-street parking spaces for commuters/ users and construction workers. Any changes on current on-site & multi-deck parking conditions will require approval from the council with local stakeholders/ residents also being consulted with TfNSW /CJP prior to activities commencing. A designated construction parking area inside of the proposed TAP3 -Laing O'Rourke compounds will be designated and implemented for workforce construction vehicles. On street parking on roads/streets previously mentioned will not be permitted as part of this CTMP implementation.

As part of Laing O' Rourke's strategy, encouragement of the use of public transport and carpool/ridesharing, will be explained to the workforce in order to avoid the use of street parking. Previously mentioned commute options will be reminded during the toolbox/prestart meetings during the construction phase the of TAP3 project.

2.3.5 *Impact on Existing Local Access*

There is no impact on local access as a part of this CTMP implementation. Access to all residents and businesses will be maintained at all times as part of this CTMP. Any changes to local access will be made in consultation with relevant stakeholders /CJP. Any impacts or proposed alternate access will be consulted with the community and stakeholders as per mention on section 5 of this CTMP.

2.3.6 *Management of cumulative impacts*

Cumulative traffic impacts will be assessed ensuring vehicle management from surrounding developments and station sites. Laing O'Rourke will interface with a number of other contractors and stakeholders that may have works impacting the roads at the same time.

Through interface meetings, Laing O'Rourke will work to minimise cumulative impacts and combine traffic management sites where possible.

In addition, other cumulative impacts may include, but are not limited to:

- Bus stop and associated facilities relocation and service rerouting
- Short and long-term works zones on roads adjacent to the construction site
- Mail zone and associated facilities relocation
- Short and long-term works within the road reservation
- Regulatory, advisory and other signage changes and modifications
- Parking management, including on and off street and remote parking and access
- Heavy vehicle movements
- Special event management.
- Liaison with adjacent projects / stakeholder will be coordinated for any proposal

2.3.7 *Impact on Emergency Services*

Emergency Services share the on-road conditions with other vehicles. Emergency services will be routinely consulted and informed of up-coming works, site access changes, lane and road closures. There are no foreseeable impacts to Emergency Services.

2.3.8 *Impact on Major Events*

There is no impact expected for major events as a part of this CTMP implementation. If any special events are planned, works will be coordinated with those events and any specific road closures. Any modifications required to haulage routes due to special events, emergencies or road closures, will be made in consultation with relevant stakeholders /CJP.

2.3.9 *Road Safety Audits (impacts)*

A road safety audit will be conducted for this Construction Traffic Management Plan by a suitably qualified and independent auditor with a Level 3 certification and another auditor with Level 2 or higher certification. Where road safety deficiencies/impacts are identified through these audits, the relevant design/implementation will be amended to address the deficiencies/impacts, where required. The road safety audit is provided in **Appendix 3** Road Safety Audit.

3. Traffic Control Devices

3.1 Signage and Line marking

Laing O'Rourke will provide and install signage as per the Traffic Staging Plans presented in **Appendix 2** Traffic Staging Plan.

The Site Manager/Supervisor will ensure:

- All road signs are used with approved stands or erected on posts set into the ground, where permitted by the relevant authorities
- All signs are placed in the most advantageous position, having regard for the nature of the hazard and the warning being conveyed, to provide the maximum visual impact for approaching drivers.

Where signs are erected on posts set into the ground, the following applies:

- On kerbed roads, signs should be located back from the face of the kerb not less than 300mm and no more than 1m. On urban roads that are not kerbed, the distances given for rural areas above should apply. The height of the sign should be about 2.5m above the kerb or footpath to reduce the interference from parked cars.
- Where the signs are erected on temporary stands for short-term work, they should be erected on the road shoulder in un-kerbed areas no closer than 600mm to the running lane. In kerbed areas, the provisions outlined above for post-mounted signs shall be followed.

3.2 Intelligent Transport System Devices

As part of Laing O'Rourke / TAP 3 planning process, a variable message strategy (if required) has been included as part of this CTMP implementation. The proposed VMS strategy is presented in **Appendix 6** VMS strategy.

3.3 Traffic Signal Modifications

No impact is expected on traffic signals as a part of this CTMP implementation.

4. Mitigation

Table 6 below identifies traffic risks and mitigation strategies to be implemented as part of this CTMP.

Table 6: Traffic Risks.

Risks		Mitigation Strategy
Emergency access	Service	<ul style="list-style-type: none"> - Emergency Service access will be available. UHF channels clearly visible at site access gates.
Worker safety risk with mobile compounds/ passing vehicles		<ul style="list-style-type: none"> - Laing O'Rourke safety essentials (live traffic) to be reinforced in prestart/ toolbox meetings.
Motorists unaware of the proposed Footbridge St Marys works		<ul style="list-style-type: none"> - Compliant retroreflective street signage will be installed to highlight site operation. - Existing line marking to be removed and new line marking provided. - Proposed VMS strategy will be implemented (if required) in order to inform motorists driving on Glossop St and Forrester Rd.
Entering into proposed construction access by a member of the public.		<ul style="list-style-type: none"> - At entry points into the construction access, supplementary "authorised vehicles excepted" and "no entry " signs will be installed as part of this implementation. - At entry points into the work site, the access gate shall always remain closed and managed by a traffic controller or spotter when construction vehicles are required to access the site
Movement of plant and equipment in and out of the proposed construction access.		<ul style="list-style-type: none"> - Vehicle Management Plan in place with swept path compiled for vehicles to show adequate vehicle travel paths. - Clear line of sight to be always maintained around the proposed construction access. - Advance truck warning /construction signs to be installed close to the proposed construction gates in order to warn motorists of the proposed entry/exit of construction vehicles. - Traffic Controller present at gates to assist with the truck movements during construction works as required. - Construction vehicle movement decals will be implemented on site in order to inform pedestrians of construction vehicle movements at the designated ingress/access construction gates.

5. Communication Strategy

A comprehensive campaign will be launched to inform the public of the Laing O'Rourke /TAP 3 works and to try and influence travel behaviour and trip planning. The TAP3 engagement strategy aims to inform and engage community and relevant stakeholders (CJP /TfNSW & Councils) in a constructive, transparent and fair process. To ensure this occurs, detailed and timely information will be provided to TfNSW comms team to assist with fulfilling the consultation and notification requirements, and incorporation into similar notifications for any relevant, adjoining works. This communication strategy has been created following the appendix B1 (Overarching Community Communication Strategy)

Prior to undertaking any works associated with partial closure of any road or footpath or any other interaction with transport infrastructure, the following stakeholders must be appropriately considered for consultation in relation to the road occupancy to ensure that all requirements are addressed.

As part of the disseminating of the CTMP to the greater travelling public, the Laing O'Rourke Communication team will provide TfNSW content to be distributed for the media forms outlined in **Table 7**.

Table 7: Proposed communication

Communication Method	Footbridge St Marys
Community notice (including notification to local business and residents)	✓
Precinct update – e update	
Email	✓
Internet (whtbl@transport.nsw.gov.au.nsw.gov.au or livetraffic.com.au)	
Community information centre	
On-site brief	
Newspaper (Local)	
Radio advertising	
Variable Message Signs (if required)	✓
Advanced warning signs	✓
Local business open signs	

Penrith Council/CJP being a key stakeholders will be forwarded a copy of this CTMP and will be routinely consulted via TCG /TTLG Sydney metro meeting and informed of up-coming works, site access changes, lane and road closures.

6. Emergency Details

6.1 Key Contacts

Table 8 below provides a listing of key contacts available for this CCTMP.

Table 8: Emergency contact details

Name	Role	Contact Details
Martin Bibb	Project Leader	
David Brockie	Project Manager	
Liem Ngo	Community and Stakeholder Manager	
Emma McAndrew	Environmental Manager	
Sonita Thomas	Site WHS/Safety Manager	
Mark Tadic	Nominated Traffic Control Site Manager By Laing O'Rourke	

6.2 Site Access Emergency Procedure – General

In the event of an emergency occurring on site, the Area/ Site Manager and Safety Manager will respond to the issue as per the Emergency Response Plan. Further details including the location of incident response plant and materials on site, emergency services access routes, work site evacuation routes and muster points will be covered in the Construction Method Statement for each work area/ site.

When traffic controllers are on site they will assist in the response to the best of their ability and as directed by the Area/ Safety Manager.

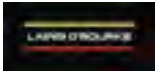
6.3 Traffic Incident Management and Reporting

Any traffic incidents occurring on roadways adjacent to the licensed construction area will be managed in accordance with the project Traffic Incident Response Plan. Where a breakdown or emergency services are required to attend site, it is proposed that TfNSW Field Operations will assist with the management of incidents, within the licensed area once construction begins, as required by the CJM or Emergency Services. Future non-compliance/actions (CSSI) will be notified and reported to relevant stakeholders as part of Laing O'Rourke's communication strategy and incident management /reporting.

It is proposed that TfNSW Field Operations will provide support to emergency service agencies and road authorities in the management of emergencies and unplanned incidents on roadways approaching and within the licensed area and will assist in the restoration of normal traffic conditions. The types of emergencies or unplanned incidents that may occur include, but not limited to, traffic incidents, vehicle breakdown, motor vehicle fire, adverse weather, hazards within road reserve, traffic congestion, pavement failure, contraflow vehicle, pedestrian and cycle incident and anti-social behaviour. In the event of a traffic and transport related incident the primary (first) point of contact for incident management is CJM. CJP will also be informed of the incident via CJM.

6.4 NSW Police and Emergency Services

The NSW Police and relevant Emergency Services are invited to comment on the initial submission of this CTMP. Emergency access will always remain available for emergency responders under lights and sirens. This is highlighted in **Appendix 4** Local Access Plan (LAP).



Appendices

Appendix 1 Compliance to Baseline Conditions and Mitigation Measures

Table 9: Ministers Conditions of Approval (CoAs)

Condition Classification	Reference	Description	Document Reference
Independent Environmental Audit	A36	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020).	This document
Incident and Non-compliance Notification and Reporting – Non-compliance Notification	A45	A non-compliance notification must identify the CSSI (including the application number for it), set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 6.3
Identification of Workforce	A46	All Heavy Vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and application number to enable immediate identification by a person viewing the Heavy Vehicle standing 20 metres away.	Section 2.2.1 & Appendix 7
Provision of Electronic Information	B1	The Overarching Community Communication Strategy as provided in the documents listed in Condition A1, or updated Strategy must be implemented for the duration of the work. Should the Overarching Community Communication Strategy be updated, a copy must be provided to the Planning Secretary for information.	Section 5
Noise and Vibration - Construction Work Hours	E38	Work must only be undertaken during the following hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 1:00pm Saturdays; and (c) at no time on Sundays or public holidays.	Section 1.3
Noise and Vibration - Variation to Work Hours	E41	Notwithstanding Conditions E38 and E39 work may be undertaken outside the hours specified in the following circumstances: (a) Safety and Emergencies, including: (i) for the delivery of materials required by the	Section 1.3 Section 2.2.1

		<p>NSW Police Force or other authority for safety reasons; or</p> <p>(ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or</p> <p>(b) Low impact, including:</p> <p>(i) construction that causes LA eq(15 minute) noise levels:</p> <ul style="list-style-type: none"> • no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, and • no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); and <p>(ii) construction that causes:</p> <ul style="list-style-type: none"> • continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or • intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006); or <p>(c) By Approval, including:</p> <p>(i) where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or</p> <p>(ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E42; or</p> <p>(iii) negotiated agreements with directly affected residents and sensitive and user(s); or</p> <p>(d) By Prescribed Activity, including:</p> <p>(i) tunnelling and ancillary support activities (excluding cut and cover tunnelling and surface works not directly supporting tunneling) are permitted 24 hours a day, seven days a week; or</p> <p>(ii) grout batching at the Orchard Hills construction site is permitted 24 hours per day, seven days per week; or</p> <p>(iii) delivery of material that is required to be delivered outside of standard construction hours in Condition E38 to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Orchard Hills ancillary facility; or</p> <p>(iv) haulage of spoil generated through tunnelling is permitted 24 hours per day, seven days per week except between the hours of 10:00 pm and 7:00 am to / from the Orchard Hills construction</p>	
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		<p>site; or (v)works within an acoustic enclosure are permitted 24 hours a day,seven days a week where there is no exceedance of noise levels or intermittent vibration levels under Low impact circumstances identified in Condition E41(b), unless otherwise agreed with the Planning Secretary; or (vi)tunnel and underground station box fit out works are permitted 24hours per day, seven days per week. On becoming aware of the need for emergency work in accordance with (a)(ii) above, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work. Notes: 1.Tunnelling does not include station box excavation. 2.Tunnelling ancillary support activities includes logistics support and material handling and delivery</p>	
Socio-Economic, Land Use and Property Condition Survey	E86	<p>The Proponent, where liable, must rectify any property damage caused directly or indirectly (for example from vibration or from groundwater change) by the work at no cost to the owner. Alternatively, the Proponent may pay compensation for the property damage as agreed with the property owner. Rectification or compensation must be undertaken within 12 months of completion of the work identified in Condition E84 unless another timeframe is agreed with the owner of the affected surface or sub-surface structure or recommended by the Independent Property Impact Assessment Panel (IPIAP).</p>	Section 5
Traffic and Transport	E103	<p>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.</p>	This document
Traffic and Transport –	E104	<p>The locations of all Heavy Vehicles used for spoil haulage must be monitored in real time and</p>	Section 2.3.1 &

Management of Heavy Vehicle Movements		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 2.2.1 Section 2.2.2 Appendix 7
Traffic and Transport – Management of Heavy Vehicle Movements	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.	Section 2.2.1 & Section 2.2.2 Appendix 7
Traffic and Transport – Management of Heavy Vehicle Movements	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.	Appendix 2 Appendix 7
Traffic and Transport – Road Dilapidation	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.	Appendix 7 (Dilap report)
Traffic and Transport – Road Dilapidation	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	Appendix 7 (Dilap report)

		least the condition it was in pre-work as identified in the Road Dilapidation Report.	
Traffic and Transport - Parking and Access Management	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 land use(s); (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.	Section 2.3.4 Section 2.3.1 Section 2.2.2 Section 2.3.2 Section 2.2.2
Traffic and Transport - Property Access	E110	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 2.3.5 & Section 5
Traffic and Transport - Property Access	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 2.3.5
Traffic and Transport - Property Access	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 2.3.5 & Section 5
Traffic and Transport - Property Access	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 2.3.5
Traffic and Transport - Property Access	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 avoided, alternative pedestrian, cyclist and vehicular	Section 2.3 & Section 5

		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.	
Traffic and Transport - Pedestrian and Cyclist Access	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.	Section 2.3.2
Traffic and Transport - Road Traffic and Safety	E116	A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CCTMP.	Section 5

Table 10: Revised Environmental Mitigation Measures (REMMs)

Condition Classification	Reference	Description	Document Reference
Traffic and Transport - Construction	TT1	Construction Traffic Management Plans would 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 document
Traffic and Transport - Construction	TT2	The Construction Traffic Management Plan for St Marys would be developed to ensure existing transport interchange infrastructure continues to operate effectively within the St Marys station precinct would be developed in consultation with the Traffic and Transport Liaison Group.	This document Section 5
Traffic and Transport - Construction	TT4	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 2.3.9
Traffic and Transport - Construction	TT5	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 2.3.2 & Appendix 1
Traffic and Transport - Construction	TT6	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 1.3
Traffic and Transport - Construction	TT9	A construction worker car parking strategy for St Marys would be prepared in consultation with Penrith City Council and Transport for NSW prior to the commencement of construction. The strategy would seek to: • minimise overall demand for construction worker car parking through initiatives such as use of other project construction worksites in combination with	Section 2.3.4

		shuttle buses, car-pooling and encouraging the use of public transport • minimise potential use of on-street car parking by construction workers The construction worker car parking strategy would be implemented throughout construction	
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Table 11: Environmental Impact Statement (EIS)

Condition Classification	Reference	Description	Document Reference
Chapter 8	8.9.7	The proposed indicative access to the construction sites are shown in the site layout figures presented in Section 8.7 . The indicative temporary access and egress to constructions sites would be subject to confirmation by the construction contractor(s) through the Construction Traffic Management Plans which would be prepared in accordance with the Construction Traffic Management Framework (refer Appendix G (Construction Traffic Management Framework)). Further information relating to construction traffic impacts and mitigation is provided in Chapter 9 (Transport).	Section 2.2.1 & Section 2.2.2 Appendix 2
Chapter 8	8.9.7	<p>Table 8-6 St Marys</p> <ul style="list-style-type: none"> • minor temporary localised modifications to Harris Street to facilitate access for construction vehicles entering and exiting the Harris Street construction site • permanent removal of the at-grade commuter car park on Harris Street (around 130 to 140 car park spaces). This car park would be retained during the start of construction and would be permanently closed when the extension of the existing multi-deck commuter car park (subject to separate approval) is completed <p>At St Marys, works to extend the existing multi-deck commuter car park are proposed (subject to separate approval) and would be completed prior to the occupation of the at-grade commuter car park on Harris Street for the purposes of construction of the project. Commuter parking spaces removed by the project during construction would be accommodated nearby in conjunction with the extension of the multi-deck commuter car park. Some construction vehicles may need to temporarily use Lethbridge Street to access Phillip Street until heavy vehicle routes have been established within the construction footprint.</p> <p>existing footpath on Harris Street would be</p>	Section 2.3.2 Section 2.3.4 Appendix 2

		<p>temporarily affected by the movement of construction vehicles into the proposed construction site access point. Pedestrian access would be maintained through local traffic controls</p> <ul style="list-style-type: none"> • pedestrian access to Station Street would be temporarily blocked during construction. Pedestrian access to St Marys Station would be maintained through diversions via Queen Street • pedestrian access to residential properties on Station Street would be maintained through local traffic controls. 	
Chapter 9	9.5.1	<p>During construction of the project, it is anticipated that access would generally be maintained for local vehicles, pedestrians and cyclists, however, some temporary diversions may be required, and space may be constrained. Some temporary delays may also be experienced due to obstruction by construction vehicles. These potential impacts would be experienced by pedestrians, cyclists and vehicles accessing properties within the local network.</p> <p>Access to the existing St Marys Station would be maintained during construction. Access to properties near the project would be maintained at all times except where properties are proposed to be acquired or used for the project.</p> <p>In St Marys, access to East Lane would be maintained during construction. Access under normal conditions would be maintained along Chesham Street.</p> <p>Access would also be maintained for emergency, delivery and waste collection vehicles during the construction period of the project albeit that in some locations waste bins may need to be temporarily relocated to areas accessible for collection by the waste collection service.</p>	<p>Section 2.1</p> <p>Section 2.2</p> <p>Section 6</p> <p>Appendix 4</p>
Chapter 9	9.5.1	<p>On-street and off-street parking</p> <p>During construction, some on-street parking would be temporarily or permanently unavailable. In particular, the St Marys town centre is likely to experience potential impacts during construction.</p>	Section 2.3.4

		<p>In total, about 435 car parking spaces are temporarily impacted within the St Marys precinct and the road network immediately surrounding the station during the construction period. This includes about 310 off-street parking spaces and 125 on-street parking spaces, comprising both restricted and unrestricted spaces. These car parking spaces are generally used for on-street parking by the retail and commercial establishments in this area as well as by commuters using the St Marys Station.</p> <p>At St Marys additional parking would be provided by extending the existing multi-level commuter car park on Harris Street by two additional levels (subject to separate approval) and is proposed to be in place prior to the removal of the Harris Street at-grade commuter car park. These spaces would replace the commuter car parking spaces lost as a result of the construction of the project.</p> <p>The car parking survey undertaken by Sydney Metro in 2019 indicates there is existing on-street and off-street capacity within the town centre at St Marys to accommodate the temporary loss of car parking spaces.</p> <p>Outside of the St Marys precinct, construction of the project is not anticipated to impact on-street parking arrangements, given the existing land uses in the remaining precincts largely comprise greenfield and rural lands. In these precincts, available on-street car parking is limited and largely consists of informal parking.</p> <p>Construction worker parking Some construction worker parking would be provided at construction sites however it will not meet the demand based on the construction workforce. Construction worker parking would be managed in accordance with the Construction Traffic Management Framework (Appendix G).</p>	
Chapter 9	9.5.1	<p>The introduction of additional heavy vehicles to the network during construction has the potential to result in safety impacts to pedestrians, cyclists and other motorists, especially where there is an</p>	<p>Section 2.3.2 Appendix 2</p>

		<p>increased likelihood for interaction.</p> <p>Existing pedestrian and cycle infrastructure within the traffic study area is primarily limited to areas adjacent to construction sites at St Marys, Claremont Meadows and Orchard Hills. Pedestrian access to St Marys Station would be maintained at all times during construction. During rail possessions, access may be temporarily altered to facilitate construction activities. Construction works may potentially restrict access to pedestrian facilities and cycle routes surrounding the station but in these circumstances access to the station would be maintained through temporary diversions. These temporary diversions may result in increased travel distances for pedestrians and cyclists seeking to access the station.</p> <p>Pedestrian access to residential properties along Station Street would be maintained via local traffic control measures. Construction vehicle access to the new Harris Street construction site may potentially impact the existing footpath on Harris Street and local traffic control measures would be provided to maintain pedestrian access.</p>	
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Appendix 2 Traffic Staging Plan

LOCATION PLAN:



ST MARYS TAP 3 - PEDESTRIAN FOOTBRIDGE CONSTRUCTION STAGING PLANS ST MARYS - PENRITH



ST MARYS - LOCALITY PLAN

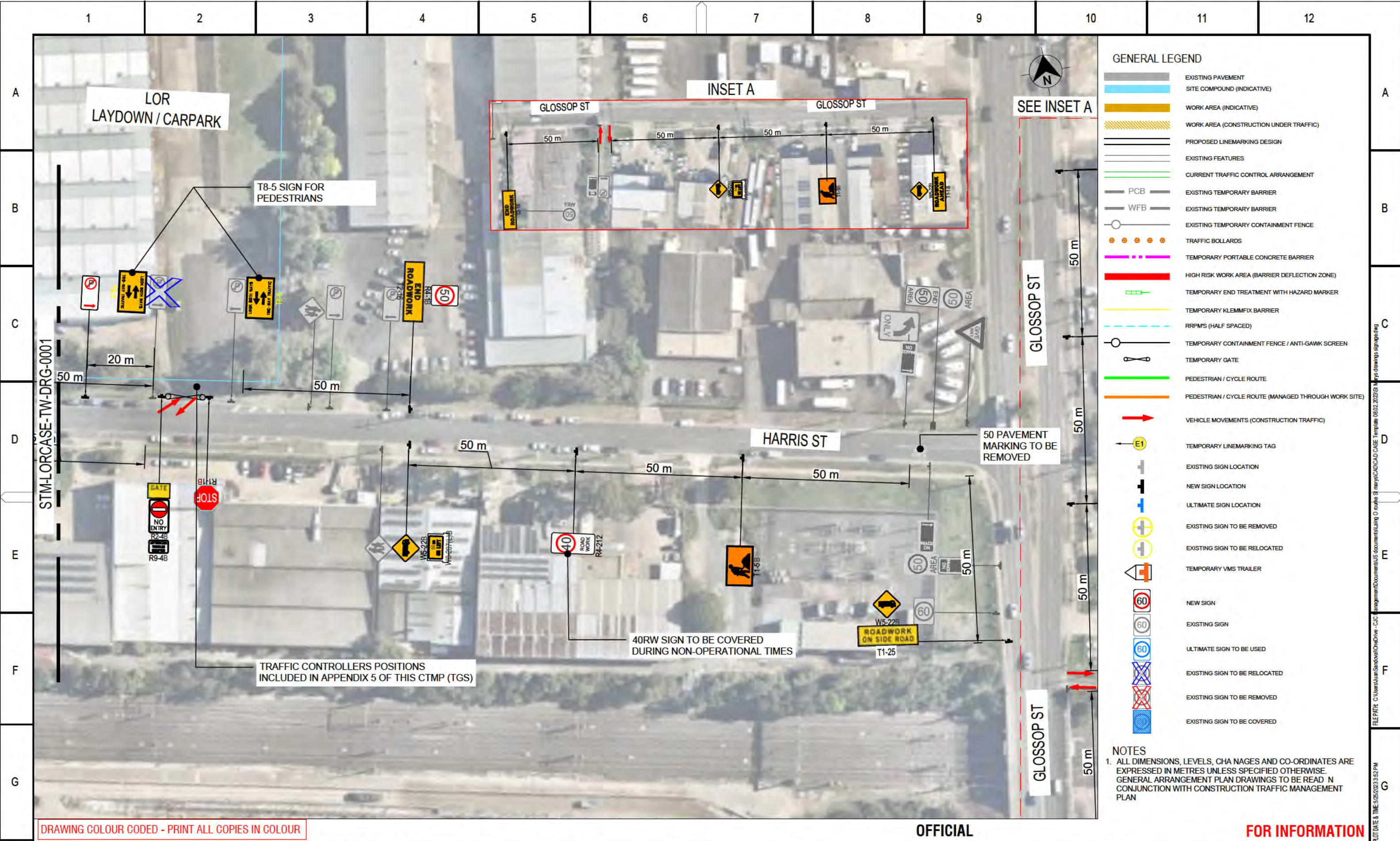
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A	GENERAL			BARRIERS			G10 SPECIFICATION			DRAINAGE			A					
B	<div>1. ALL DIMENSIONS ARE IN METRES.</div> <div>2. LEVELS ARE IN METRES WITH RESPECT TO THE AUSTRALIAN HEIGHT DATUM (AHD).</div> <div>3. NORTH REPRESENTS MAP GRID OF AUSTRALIA (ZONE 56) ORIENTATION.</div> <div>4. ALL SURFACE WATER FLOWS TO BE MANAGED ALONG WITH CONSTRUCTION SITE WATER USING TEMPORARY DRAINAGE MEASURES.</div> <div>5. EROSION AND SEDIMENTATION CONTROL TO BE IN ACCORDANCE WITH THE PROJECT ENVIRONMENTAL MANAGEMENT PLAN & PROGRESSIVE EROSION & SEDIMENT CONTROL PLAN (PESCP) FOR THE AREA.</div> <div>6. THIS PACKAGE OF WORKS TO BE READ IN CONJUNCTION WITH THE ASSOCIATED DESIGN REPORT AND SAFETY IN DESIGN RISK REGISTER.</div> <div>7. THIS TRAFFIC CONTROL PLAN HAS BEEN PREPARED USING THE CURRENT TCAWS.</div> <div>8. ON SITE RISK ASSESSMENT TO BE UNDERTAKEN PRIOR TO SETTING UP TCP.</div> <div>9. THIS TCP TO BE IMPLEMENTED BY AN ACCREDITED PERSON - "IMPLEMENT TRAFFIC MANAGEMENT PLAN".</div> <div>10. IMPLEMENTATION SEQUENCE (UNLESS MODIFIED):<div>10.1.ADVANCED WARNING AND REGULATORY SIGNS</div><div>10.2.REMAINING SIGNS, INCLUDING END WORK ZONE</div><div>10.3.REMOVAL BY REVERSE SEQUENCE.</div></div> <div>11. TRAFFIC MANAGEMENT PERSONNEL TO ATTEND TOOLBOX TALK AND STARTUP MEETING.</div> <div>12. NOMINATED TRAFFIC OFFICER = LAING O'ROURKE</div> <div>13. TCP DESIGNER = JUAN SANDOVAL</div> <div>14. WORKER SYMBOLIC SIGNS TO BE REMOVED OR COVERED WHEN WORKERS HAVE LEFT THE SITE OR ARE NO LONGER VISIBLE TO TRAFFIC.</div>			<div>1. BARRIER END TREATMENTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE TFNSW LIST OF APPROVED/ACCEPTED TEMPORARY SAFETY BARRIER END TREATMENT LIST.</div> <div>2. <u>BARRIERS: CONCRETE</u><div>-BARRIER MAY DEFLECT UP TO 1.27m SO SHOULD BE CONSIDERED AS A SAFETY BARRIER GIVEN THEY WILL BE USED TO PROTECT WORK AREAS SUCH AS EXCAVATIONS;</div><div>-A SAFE EXCLUSION ZONE BEHIND TEMPORARY BARRIERS IS TO BE DELINEATED BY EITHER FRANGIBLE BOLLARDS OR FLAGGING (TO BE DETERMINED BY LAING O'ROURKE AREA ENGINEER) TO ENSURE THE CONSTRUCTION TRAFFIC, AND WORKERS DO NOT ENCROACH ON THIS ZONE.</div></div> <div>3. <u>BARRIERS: WATER FILLED</u><div>WATER FILLED BARRIERS USED AS A DELINEATION DEVICE ONLY MUST:</div><div>-BE AT LEAST 0.5m FROM EDGE LINE;</div><div>-BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS;</div><div>-NOT BE USED TO PROTECT EXCAVATIONS GREATER THAN 500mm DEEP THAT ARE CLOSER THAN 2.5m TO THE EDGE LINE.</div></div> <div>4. THE EXTENT OF THE SITE OF WORKS IS SHOWN INDICATIVELY AND LOCATIONS OF ENDS OF BARRIERS ARE APPROXIMATE ONLY.</div> <div>5. AS THE SITE OF THE WORKS MAY VARY DURING THE PERIOD OF USE OF THIS TEMPORARY WORKS PLAN THE REQUIRED LENGTH OF NEED AND THE LOCATION OF THE ENDS OF BARRIERS MUST BE DETERMINED FOR EACH CHANGE TO THE SITE OF THE WORKS.</div> <div>6. CONSIDERATION SHOULD BE GIVEN TO THE NEED TO PROTECT WORKERS BY THE PROVISION OF A CONTAINMENT FENCE AT A LATERAL CLEARANCE EQUAL TO THE DYNAMIC DEFLECTION OF THE BARRIER IN A CRASH AND WHERE GATING END TERMINALS ARE USED TO DEFINE THE RUN-OUT AREA.</div> <div>7. CONTRACTOR TO ENSURE THE DRAINAGE SLOTS IN ALL TEMPORARY CONCRETE BARRIERS ARE KEPT FREE DRAINING.</div> <div>8. IN EVERY INSTANCE SAFETY BARRIERS WILL BE DESIGNED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS, TFNSW APPROVED PRODUCT REQUIREMENTS, AND BEST PRACTICE PRINCIPLES. HOWEVER IT IS NOTED THAT THE PROJECT IS IN A HIGHLY CONSTRAINED ENVIRONMENT WHERE STANDARDS AND MINIMUM REQUIREMENTS ARE UNLIKELY TO ALWAYS BE MET. IN THESE CIRCUMSTANCES THE TRAFFIC MANAGEMENT DESIGNER AND ENGINEER WILL COLLABORATE WITH THE CONTRACTOR TO DEVELOP THE MOST PRACTICAL SOLUTION WHICH WILL INCLUDE OPTIONS ANALYSIS AND RISK ASSESSMENT.</div>			<div>1. ENSURE PROVISION FOR CONTINUITY OF SERVICES SUCH AS WASTE COLLECTION AND MAIL DELIVERY (CL1.4.3, D&CG10).</div> <div>2. ACCESS TO BE MAINTAINED TO PROPERTIES AT ALL TIMES.</div> <div>3. SITE TO COMPLY WITH TFNSW TRAFFIC CONTROL AT WORKSITES MANUAL (TCAWS, VERSION 6.1, NOVEMBER 2022).</div> <div>4. LAING O'ROURKE TO ENSURE ROAD OCCUPANCY LICENSING AND SPEED ZONE AUTHORISATION APPROVALS ARE IN PLACE PRIOR TO IMPLEMENTATION.</div> <div>5. ACCESS TO AFFECTED BUS STOPS TO BE MAINTAINED AND PEDESTRIAN AND CYCLIST PROVISION TO BE MAINTAINED DURING CONSTRUCTION.</div> <div>6. SITE TEMPORARY DESIGNS AND TRAFFIC CONTROLS TO BE INSTALLED IN ACCORDANCE WITH TFNSW D&C G10, TCAWS AND AS1742.3.</div> <div>7. SITE ACCESS POINTS MUST HAVE A VEHICLE MOVEMENT PLAN DEVELOPED FOR THEIR USE, AND DISSEMINATED TO WORKERS PRIOR TO OPERATION.</div> <div>8. ROAD SAFETY AUDIT TO BE CONDUCTED ON DESIGN DRAWINGS AND ONCE IMPLEMENTED ON SITE IN ACCORDANCE WITH D&C G10 .</div>			<div>1. CONTRACTOR RESPONSIBLE FOR INSTALLING CONTROLS TO MAINTAIN SEDIMENT AND EROSION CONTROL AS PER THE PROJECT SPECIFIC E.S.C.P. PLANS.</div>			B					
C													C					
D													D					
E													SERVICES			<div>1. REMOVE ALL REDUNDANT LINEMARKING IN ACCORDANCE WITH TFNSW SPECIFICATION R145 (IF REQUIRED).</div> <div>2. ALL GUIDEPOSTS, LINEMARKING & RRPM'S TO BE IN ACCORDANCE WITH THE TFNSW DELINEATION MANUAL, AND TCAWS.</div> <div>3. TEMPORARY RAISED PAVEMENT MARKERS TO BE CONSTANTLY MONITORED FOR THE DURATION OF THEIR IMPLEMENTATION, AND REPLACED AS REQUIRED.</div>		
F	<div>1. CONTRACTOR TO DETERMINE THE LOCATION, DEPTH AND EXTENT OF UTILITY SERVICES PRIOR TO COMMENCEMENT OF ANY WORK ON THE SITE.</div> <div>2. NO WORK TO BE CARRIED OUT WITHIN 3m OF ANY EXISTING SERVICES WITHOUT PRIOR RECORDED CONSULTATION WITH THE RELEVANT AUTHORITY (REFER TO LAING O'ROURKE PERMIT AS REQUIRED).</div> <div>3. UTILITY INFORMATION SHOWN ON THE PLANS AS PROVIDED BY LAING O'ROURKE.</div> <div>4. THE PRESENCE OF A UTILITY SERVICE, ITS SIZE AND LOCATION SHOULD BE CONFIRMED BY FIELD INSPECTION, PRIOR TO THE COMMENCEMENT OF ROADWORKS AND THE RELEVANT UTILITY PLANS OBTAINED BY DIALING PH 1100 OR FAX 1300 652 077 (DIAL BEFORE YOU DIG). CAUTION SHOULD BE EXERCISED WHEN WORKING IN THE VICINITY OF ALL UTILITY SERVICES.</div> <div>6. THE CONTRACTOR IS TO CONTACT NETWORK INTEGRITY (1800 810 443) FOR ONSITE LOCATION AND CO-ORDINATION OF TELSTRA UTILITY RELOCATION WORKS.</div> <div>7. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE INCURRED TO EXISTING UTILITY SERVICES AS A RESULT OF THE EXECUTION OF THE WORK UNDER THE CONTRACT.</div>											F						
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H	<div>DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR</div> <div>REFERENCES:THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED.SCALE:CLIENT:NSW GOVERNMENTTransport for NSWPREPARED FOR:LAING O'ROURKECASELevel 8, 96 Berry Street, North SydneyNSW 2060, AustraliaTel: 61 2 8259 0349DRAWN — J.SANDOVAL — 23/05/2023DESIGNED — J.SANDOVAL — 23/05/2023ORG CHECK — P.SZUBERT — 23/05/2023DESIGN CHECK — P.SZUBERT — 23/05/2023APPROVED — P.SZUBERT — 23/05/2023PROJECT MNGR — P.SZUBERT — 23/05/2023</div> <div>ST MARYS - PENRITHHARRIS ST BETWEEN GLOSSOP ST TO FORRESTER RDPACKAGE 01TAP 3 - PEDESTRIAN FOOTBRIDGETEMPORARY WORKSTRAFFIC PLANFILE No. 0001PART SHEET: OF A1STATUS: IRORG No. STM-LORCASE-TW-DRG-0000REV E VER - EDMS No. AMD No.</div>												H					
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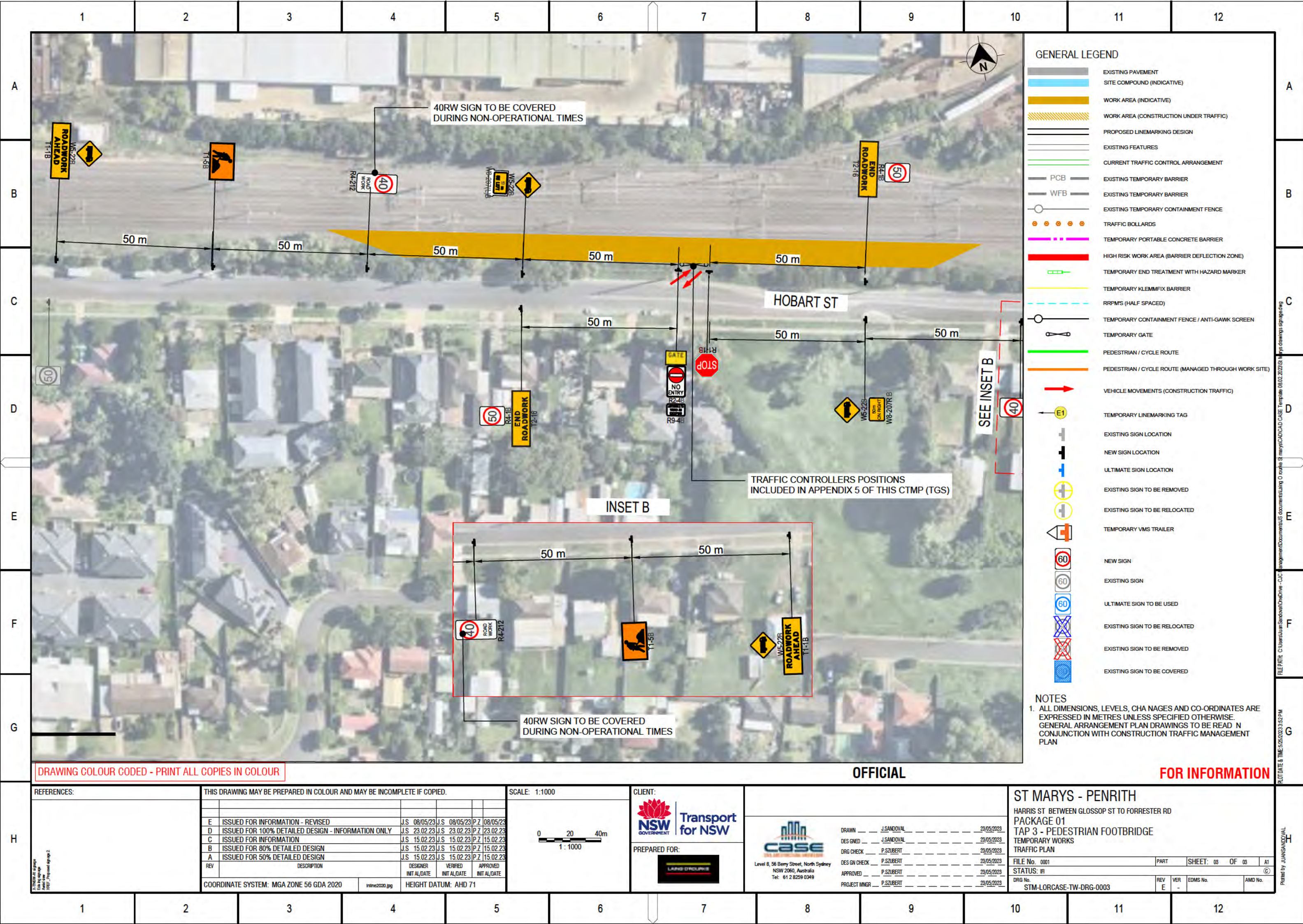


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LOCATION PLAN:



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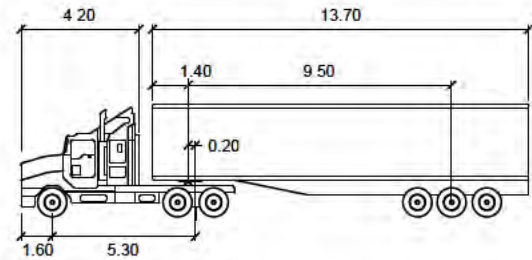
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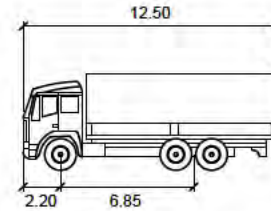
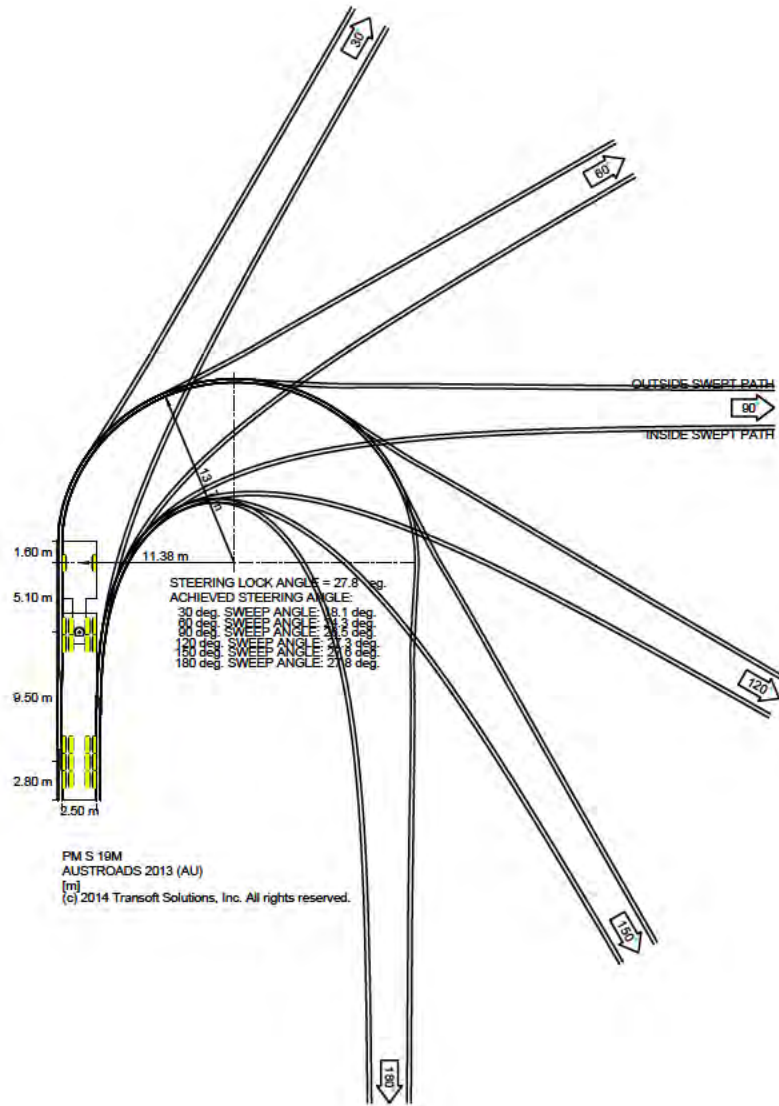
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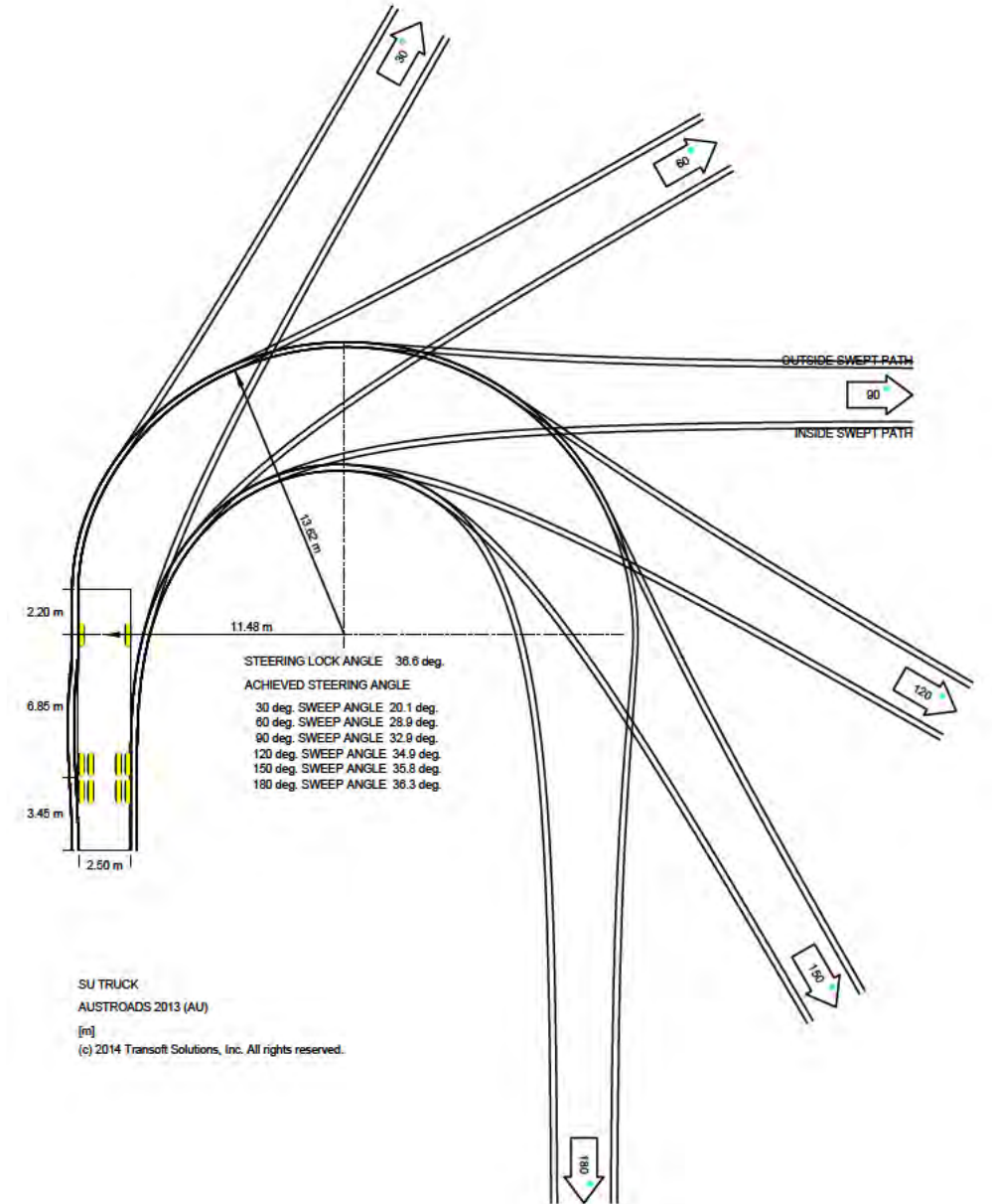
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						PROJECT MGR: P.SZUBERT 23/05/2023									



PM S 19M	meters
Tractor Width	: 4.20
Trailer Width	: 13.70
Tractor Track	: 1.60
Trailer Track	: 5.30
Lock to Lock Time	: 1.40
Steering Angle	: 0.20
Articulating Angle	: 0.20



SU TRUCK	meters
Width	: 12.50
Track	: 2.20
Lock to Lock Time	: 6.85
Steering Angle	: 36.6

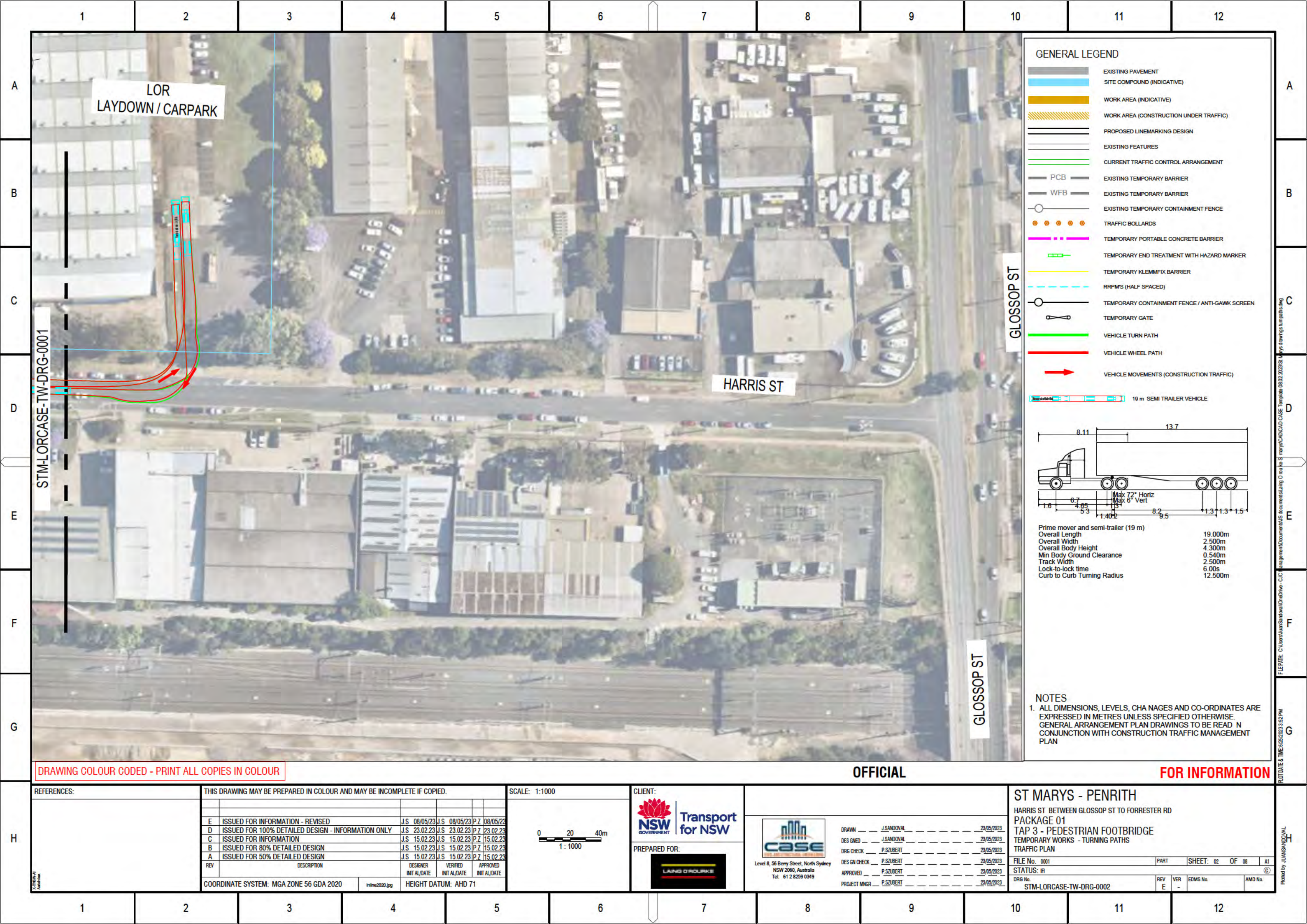


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HEIGHT DATUM: AHD 71

ST MARYS - PENRITH

HARRIS ST BETWEEN GLOSSOP ST TO FORRESTER RD

PACKAGE 01

TAP 3 - PEDESTRIAN FOOTBRIDGE

TEMPORARY WORKS - TURNING PATHS

TRAFFIC PLAN

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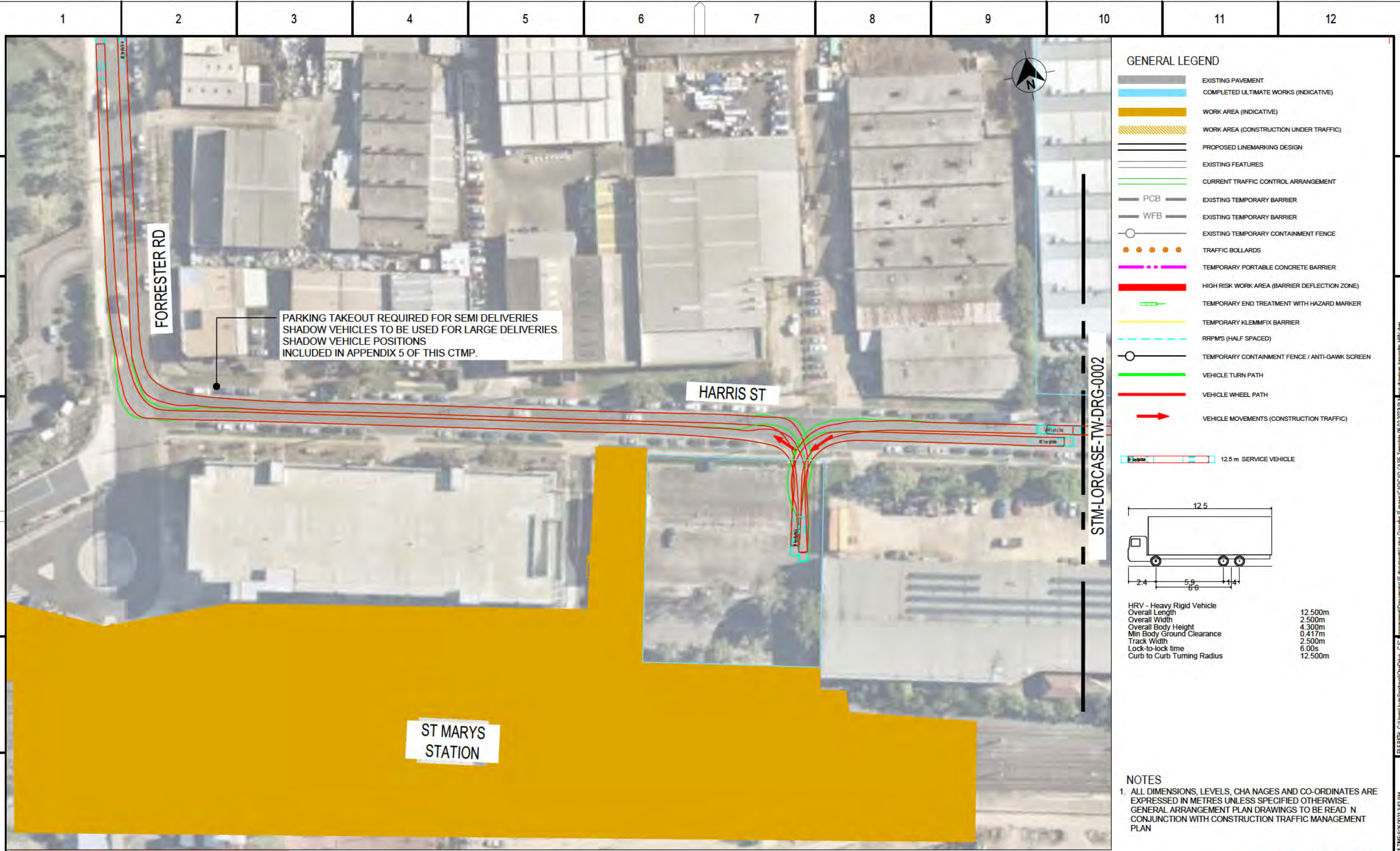
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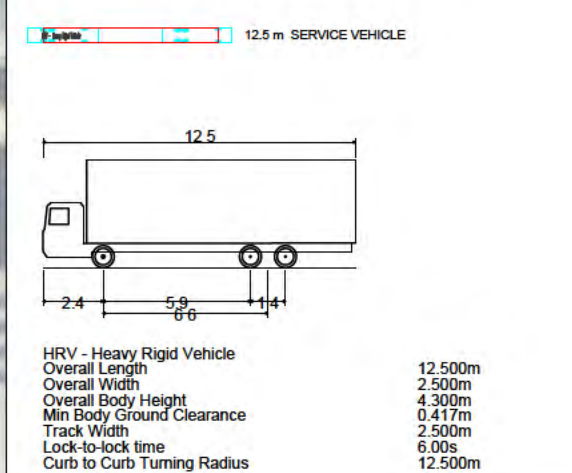
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- GENERAL LEGEND
- EXISTING PAVEMENT
 - COMPLETED ULTIMATE WORKS (INDICATIVE)
 - WORK AREA (INDICATIVE)
 - WORK AREA (CONSTRUCTION UNDER TRAFFIC)
 - PROPOSED LINEMARKING DESIGN
 - EXISTING FEATURES
 - CURRENT TRAFFIC CONTROL ARRANGEMENT
 - PCB EXISTING TEMPORARY BARRIER
 - WFB EXISTING TEMPORARY BARRIER
 - EXISTING TEMPORARY CONTAINMENT FENCE
 - TRAFFIC BOLLARDS
 - TEMPORARY PORTABLE CONCRETE BARRIER
 - HIGH RISK WORK AREA (BARRIER DEFLECTION ZONE)
 - TEMPORARY END TREATMENT WITH HAZARD MARKER
 - TEMPORARY KLEMMFIX BARRIER
 - RRPM'S (HALF SPACED)
 - TEMPORARY CONTAINMENT FENCE / ANTI-GAWK SCREEN
 - VEHICLE TURN PATH
 - VEHICLE WHEEL PATH
 - VEHICLE MOVEMENTS (CONSTRUCTION TRAFFIC)



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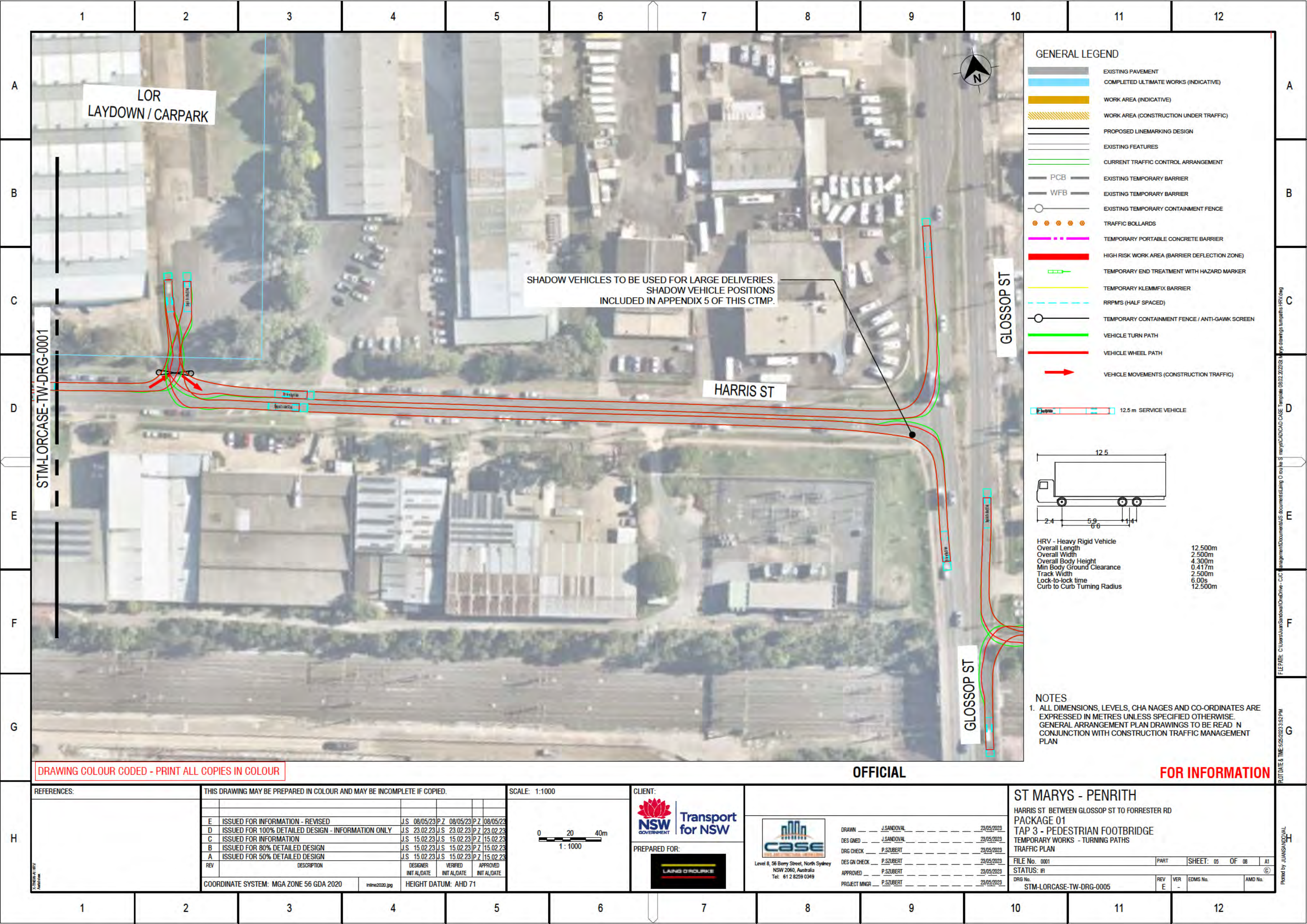
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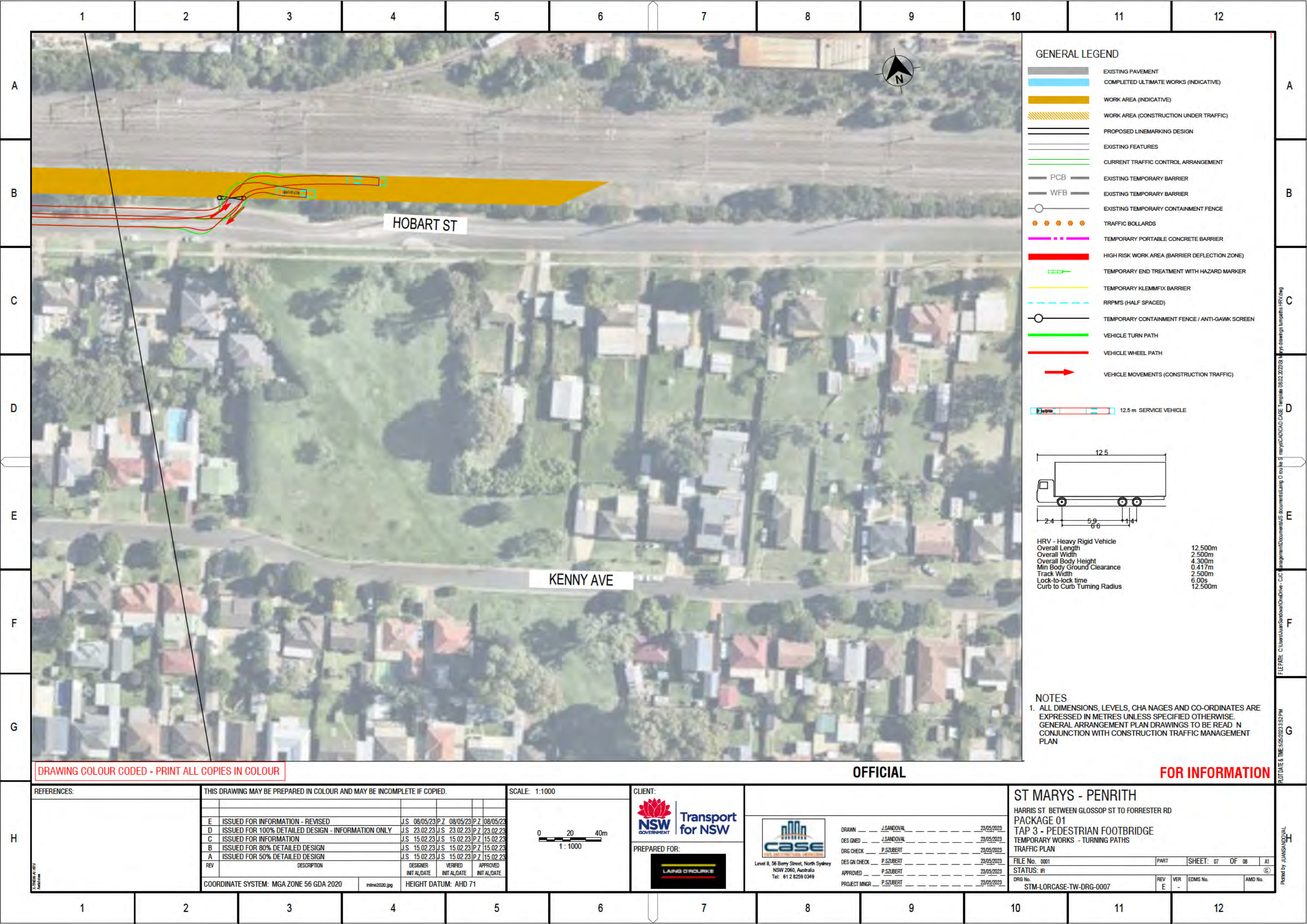


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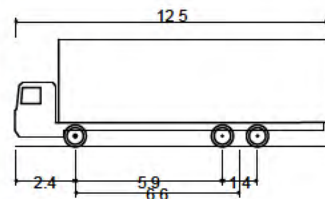
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GENERAL LEGEND

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- VEHICLE WHEEL PATH
- VEHICLE MOVEMENTS (CONSTRUCTION TRAFFIC)

12.5 m SERVICE VEHICLE



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

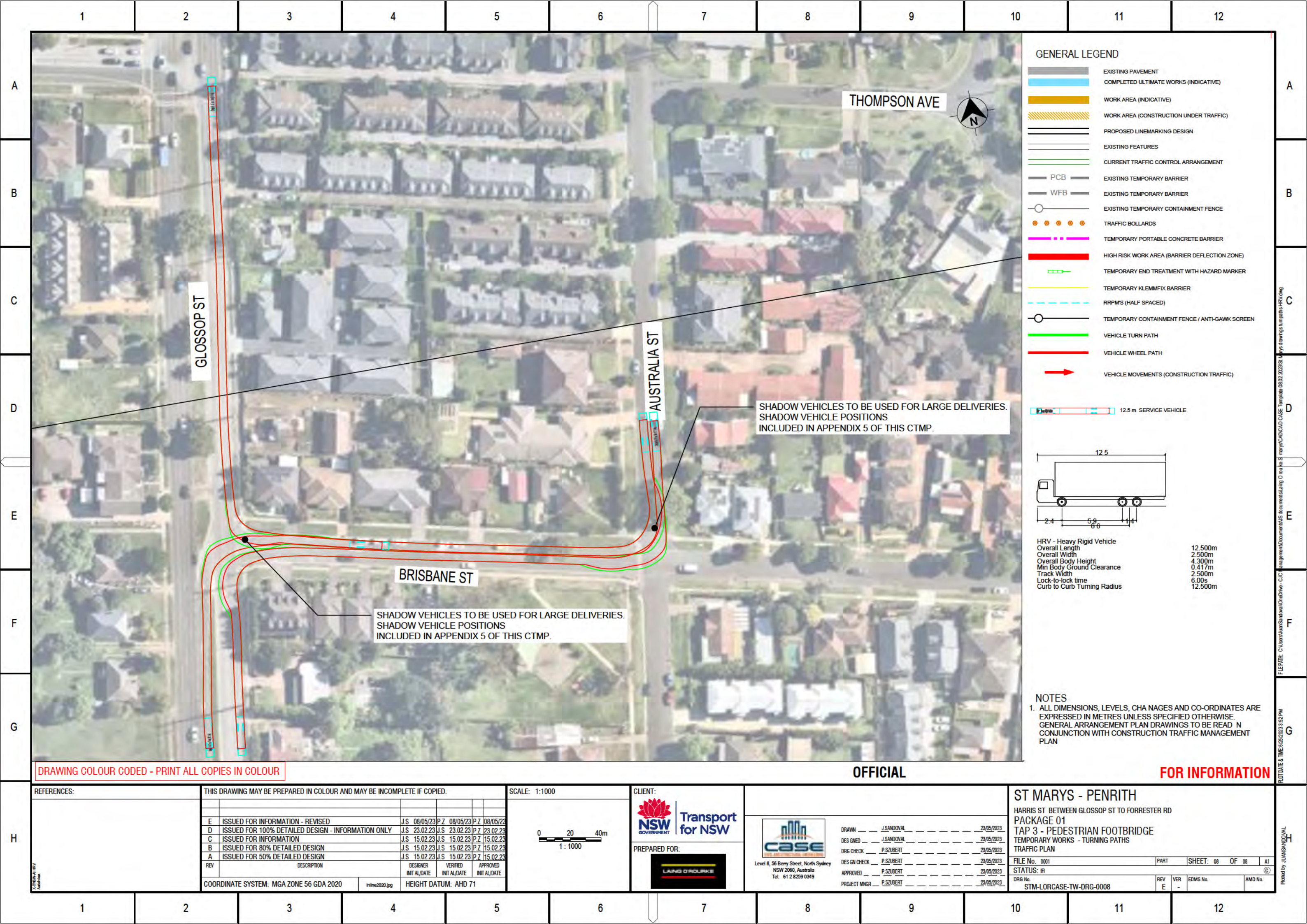
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Appendix 3 Road Safety Audit



Sydney Metro West Sydney Airport Enabling Works – St Marys TAP 3 Pedestrian Footbridge

Design CTMP Road Safety Audit Report

February 2023



Samsa Consulting Pty Ltd
Transport Planning & Traffic Engineering
ABN: 50 097 299 717
46 Riverside Drive, Sandringham, NSW 2219, AUSTRALIA
Phone: (+61) 414 971 956
E-mail: alansamsa@gmail.com
Skype: alan_samsa
Web: www.samsaconsulting.com

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EXECUTIVE SUMMARY

This report details an independently undertaken road safety audit of the design CTMP for the Sydney Metro West Sydney Airport Enabling works, specifically the TAP 3 pedestrian footbridge at St Marys rail station.

While a number of minor risk road safety issues were identified, the principal concern of the audit team relates to the following issue:

- For both left-in and left-out movements at the construction site access as well as the left-turn movement into Harris Street from Glossop Street, longer vehicles will need to utilise the opposite travel lanes, which is undesirable.

1. Introduction

1.1 Background

The Sydney Metro – Western Sydney Airport project comprises a new 23-km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south, with the rest of Sydney’s public transport network via St Marys to the north. The Project includes six new metro stations along the route including one at the Western Sydney Aerotropolis, two at the new Airport site, and one each at Luddenham, Orchard Hills and St Marys.

Enabling works at the existing St Marys railway station are required to prepare for the for the construction of the new Metro Station at St Marys. The Enabling Works component has been awarded to, and will be undertaken by, Transport for Tomorrow (TfT). Case Traffic Solutions (CTS) are preparing construction traffic management plan (CTMP) documentation for the works

1.2 Subject Project Works

The St Marys footbridge package scope of works includes:

- Construction of a new intermodal footbridge at the eastern end of the station, connecting the existing Sydney Trains St Marys Station to the proposed Sydney Metro St Marys Station, with a new Northern Portal providing access to Harris St to the north.
- Construction of four new 27-person lifts providing step-free access from the footbridge to the existing station platforms.
- Construction of four new escalators for access from the footbridge to the existing station platform.
- Construction of two new staircases for access to the existing station platforms.
- Construction of the Northern Portal, providing access from the footbridge to Harris St via a new staircase and one 33-person lift.
- Construction of a three-storey Sydney Trains facilities building adjacent to the Northern Portal, including a new electrical main switch room, HVAC, communications room, and station staff facilities.
- Provision of new fire safety systems for the facilities building, lifts and footbridge.
- Regrading of platforms for accessible path, localised to the proposed works.
- Replacement of existing platform tactiles
- Installation of new canopies to the proposed stairs, escalators, and footbridge.
- Alterations and additions to the existing lighting on Harris St to suit the new entry.
- Hard and soft landscaping to station entrance and surrounds.

The location of the subject project area is shown in *Figure 1* following.



Figure 1: St Marys TAP 3 Project Area

The primary objectives and principles of the CTMP are:

- Keep traffic delays to a minimum.
- Minimise disruption to businesses.
- Minimise disturbance to the environment.
- Ensure traffic impacts are within the scope permitted by Local Council and CJP.
- Ensure the safety of employees, contractors and road users.

This road safety audit report details an independently undertaken road safety audit of the design CTMP for the Sydney Metro West Sydney Airport Enabling works, specifically the TAP 3 pedestrian footbridge at St Marys rail station. The road safety audit was undertaken by *Samsa Consulting Pty Ltd*, Transport Planning & Traffic Engineering Consultants.

1.3 Report Structure

The remainder of this report is presented as follows:

Chapter 2 describes details of the audit undertaken including the methodology, administration and documentation audited.

Chapter 3 details the road safety issues identified and audit findings.

Chapter 4 provides a formal audit statement.

2. Audit Details

2.1 Audit Methodology

A road safety audit is "... a formal examination of a future road or traffic project or an existing road, in which an independent, qualified team reports on the project's crash potential and safety performance" (Austroads 2009).

This audit followed a standard practice in identifying road safety related issues of a design CTMP. It involved a desktop assessment of the design CTMP documents with reference to any background issues on site during previous day and night inspections.

The road safety audit focussed on road safety issues such as temporary warning signage and linemarking, delineation, work site accesses, pedestrian facilities, sight distances, appropriateness of traffic control for the predicted traffic volumes, and overall road legibility adjacent and through proposed work zones (amongst other issues).

The scope of the audit is in accordance with the requirements in Austroads' "Guide to Road Safety, Part 6" and is structured around prompt lists provided in that manual as well as RTA's "Accident Reduction Guide – Part 2: Road Safety Audits".

An audit entry meeting was held with the CTS Senior Traffic Engineer prior to the audit, where background information on the design CTMP and project area were discussed.

The site inspections were undertaken on Friday 17 February 2023. An audit exit meeting was held at the completion of the road safety audit report.

2.2 Audit Administration

CTS Project Director: Paul Szubert

CTS Senior Traffic Engineer: Juan Sandoval

Road Safety Auditors: Alan Samsa (*RMS Accredited Level 3 Lead Road Safety Auditor*)
(Auditor ID: RSA-02-0056)

Carolyn Samsa (*RMS Accredited Level 3 Lead Road Safety Auditor*)
(Auditor ID: RSA-02-0585)

2.3 References & Documentation Audited

- Austroads "Guide to Road Design Part 3: Geometric Design (Edition 3.4)", February 2021
- Austroads "Guide to Road Design Part 4: Intersections and Crossings – General (Edition 2.1)", February 2021
- Austroads "Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Edition 3.1)", February 2021
- Austroads "Guide to Road Safety, Part 6: Road Safety Audit (Edition 6.0)", January 2022
- RTA "Accident Reduction Guide – Part 2: Road Safety Audits", 2005
- RTA "Road Safety Audit Technical Direction TD2003/RS03, Version 2", August 2005
- RTA "Delineation Guidelines: Parts 1 to 19 & Appendices A & B", assorted dates

- RTA “*Guidelines for Road Safety Audit Practices – Part 1: Road Safety Audit*”, July 2011
- Standards Australia “*AS 1742.1 – 2003: Manual of uniform traffic control devices, Part 1: General introduction and index of signs*”, 2003
- Standards Australia “*AS 1742.3 – 2009: Manual of uniform traffic control devices, Part 3: Traffic control for works on roads*”, 2009
- Transport for NSW “*Traffic Control at Work Sites, Technical Manual – Issue 6.0*”, 14 September 2020
- Transport for Tomorrow / Case Traffic Solutions “*Harris Street Between Glossop Street to Forrester Road, Package 01 TAP 3 – Pedestrian Footbridge, Temporary Works, Traffic Plan (Dwg No’s STM-LORCASE-TW-DRG-0000 to 0002)*”, 15/02/2023
- Transport for Tomorrow / Case Traffic Solutions “*Harris Street Between Glossop Street to Forrester Road, Package 01 TAP 3 – Pedestrian Footbridge, Temporary Works – Turning Paths, Traffic Plan (Dwg No’s STM-LORCASE-TW-DRG-0001 to 0002)*”, 15/02/2023

3. Identified Road Safety Issues

The audit of the design CTMP focussed on providing an independent identification of potential safety hazards, regardless of current practices, standards and operations, to allow CTS and T&T to identify remedial measures as part of the Project preparation.

In categorising and prioritising identified road safety issues, a risk assessment process was adopted. Risk assessment is the overall process of risk identification, analysis and evaluation. Preliminary risk ratings for each identified road safety issue are assessed based on subjective professional judgement by the Road Safety Audit team with guidance from *Section 10.5* of Austroads' *Guide to Road Safety, Part 6: Road Safety Audit*. The Austroads' document provides an indication of the level of risk and what response may be appropriate. The identified road safety issue is first categorised based on its likely frequency of occurrence and severity ('likelihood' and 'consequence' of crash potential) – refer to *Figures 3.1* and *3.2* below (extracted from the Austroads' document).

Crash frequency	Description
Frequent (F)	Once or more per week
Probable (P)	Once or more per year but less than once per week
Occasional (O)	Once every five to ten years
Improbable (I)	Less than once every ten years

Figure 3.1: Likely Frequency of Issue

Severity	Description	Examples
Catastrophic (C)	Likely multiple deaths	<ul style="list-style-type: none"> High-speed, multi-vehicle crash on a freeway Car runs into crowded bus stop Bus and petrol tanker collide Collapse of a bridge or tunnel
Serious (S)	Likely death or serious injury	<ul style="list-style-type: none"> High or medium-speed vehicle / vehicle collision High or medium-speed collision with a fixed roadside object Pedestrian struck at high speed Cyclist is hit by a car
Minor (M)	Likely minor injury	<ul style="list-style-type: none"> Some low-speed vehicle collisions Cyclist falls from bicycle at low speed Left-turn rear-end crash in a slip lane
Limited (L)	Likely trivial injury or property damage only	<ul style="list-style-type: none"> Some low speed collisions Pedestrian walks into object (no head injury) Car reverses into post

Figure 3.2: Likely Severity of Issue

An appropriate risk rating is then selected from the risk categories in the risk matrix with a preferred treatment approach for each risk rating (refer to *Figures 3.3 and 3.4* below, both extracted from Austroads).

	Frequent (F)	Probable (P)	Occasional (O)	Improbable (I)
Catastrophic (C)	Intolerable (I)	Intolerable (I)	Intolerable (I)	High (H)
Serious (S)	Intolerable (I)	Intolerable (I)	High (H)	Medium (M)
Minor (M)	Intolerable (I)	High (H)	Medium (M)	Low (L)
Limited (L)	High (H)	Medium (M)	Low (L)	Low (L)

Figure 3.3: Risk Matrix

Risk	Suggested treatment approach
Intolerable (I)	Must be corrected
High (H)	Should be corrected or the risk significantly reduced, even if the treatment cost is high
Medium (M)	Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high
Low (L)	Should be corrected or the risk reduced, if the treatment cost is low

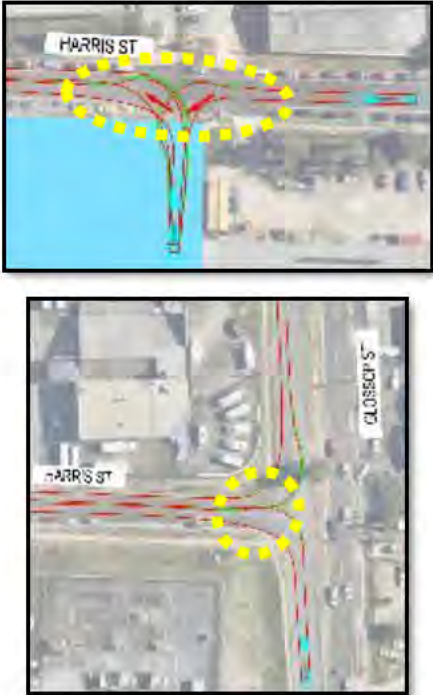
Figure 3.4: Treatment Approach

This report may provide recommendations about possible remedial measures in response to identified deficiencies. Any remedial actions recommended are based on current standards and practices. However, it should be noted that it is ultimately the responsibility of *CTS / Tft* to determine how to respond to each identified road safety deficiency.

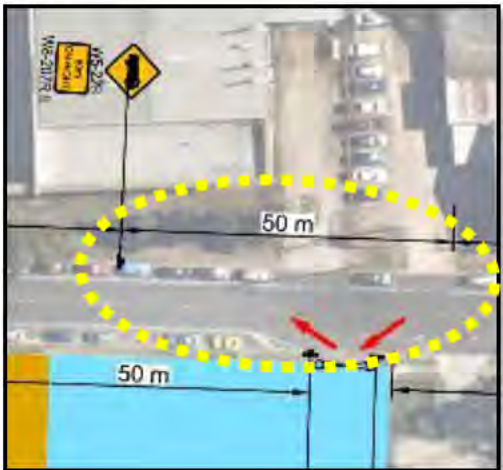
The audit of the design CTMP identified a number of potential road safety issues. The safety audit process requires that the road safety issues identified during an audit be acknowledged by the Audit Team and accordingly responded to by *CTS / Tft*. The issues are characterised according to their risk, and detailed in *Table 3.1* following.

It should be noted that not all road safety issues identified may necessarily be within the scope of the design area. This is because while the scope of the audit is generally within the project area described earlier, to complete a full audit of the project, the approaches and transitions to the project area were also audited to identify potential issues that may affect road safety within the project area. Therefore, some road safety issues that are outside the project area may be the responsibility of the relevant controlling road authority.

Table 3.1: Identified Road Safety Issues

No.	Description of Road Safety Issue	Risk Rating	For completion by CTS / TfT		
			Response	Action by	Close-Out Date
1.	<p>For both left-in and left-out movements at the construction site access as well as the left-turn movement into Harris Street from Glossop Street, longer vehicles will need to utilise the opposite travel lanes, which is undesirable and may require controlled traffic management.</p> 	Medium	Traffic controllers will assist with the proposed ingress and egress of construction vehicles into the proposed work zone area/compound. Laing O'Rourke / nominated traffic control company will coordinate future deliveries and HV movements close to the close traffic intersection.	Laing O'Rourke /TAP3	20/02/2023

For completion by CTS / TtT

No.	Description of Road Safety Issue	Risk Rating	Response	Action by	Close-Out Date
2.	<p>For the eastbound approach along Harris Street, the advance 'construction vehicles turning' sign incorrectly indicates '60 m on Right' with the site access being significantly less than 50 m downstream. Moreover, this signage may be superfluous because the drawings appear to indicate left-in / left-out only movements from the site access, which would not affect eastbound travel.</p> 	Low	Noted. Drawing updated showing signage relocated.	CASE	20/02/2023

			<i>For completion by CTS / TfT</i>		
No.	Description of Road Safety Issue	Risk Rating	Response	Action by	Close-Out Date
3.	The issue of sun-glare during certain periods of the year at sunrise and sunset may be applicable to the general east-west alignment along the Harris Street approaches to the subject work site access. Consequently, the temporary traffic conditions including signage and delineation may be difficult to sight due to sun glare.	Low - Medium	Laing O'Rourke /TAP3 will assess and check if further line marking refresh / RRPM installation and signage maintenance are required in order to avoid sun-glare issues on site.	Laing O'Rourke /TAP3	20/02/2023

4. Formal Audit Statement

This road safety audit has been undertaken by *Samsa Consulting Pty Ltd*, using the references and documentation detailed previously and site inspections of the subject project area during daylight and night conditions.

While the road safety audit may provide recommendations about possible remedial measures in response to identified road safety issues, it is ultimately the responsibility of *CTS / TfT* to determine how best to respond to each identified safety issue.

The road safety audit has been undertaken for the sole purpose of identifying any safety-deficient features and road safety risks of the design CTMP. Every effort was made to ensure that all relevant road safety issues were considered and the findings are the opinion and judgement of the audit team.



18 February 2023

ALAN SAMSA

*RMS Accredited Road Safety Auditor: Level 3 Lead Auditor
(Auditor ID: RSA-02-0056)*



18 February 2023

CAROLYN SAMSA

*RMS Accredited Road Safety Auditor: Level 3 Lead Auditor
(Auditor ID: RSA-02-0585)*

Appendix 4 Local Access Plan (LAP)

LOR-LAP-001-REV01

Legend

- Barrier
- Construction access
- Construction compund
- Emergency access
- General traffic



LAING O'ROURKE - TAP 3
LAP ST MARYS - Construction vehicle access

LAING O'ROURKE

Appendix 5 Proposed implementation TGS

SHUTTLE / ALTERNATE FLOW	Yes/No/NA	L/hood & Conseq.	Risk Rating	If NO. Why Not ? (Justify)	Controls - What has been done?	L/hood & Conseq.	Residual Rating
Are escape routes present, clear and safe to use?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	L3 + C3	H		Constantly monitor escape route. Supervisor Team Leader to monitor as well.	L5 + C3	M
Is a PTC in place where the speed is >45km/h?	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	L3 + C3	H	Short Term operation on low volume road. Works is expected to take 30-60 mins which will take longer to install and removed PTC.	Constantly monitor. If volumes increase change to PTC is to be considered. If works is going to take longer than change to PTC is recommended.	L5 + C3	M
Is traffic speed reduced to at least 60km/h?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are 4 cones placed 4m apart along the centre line approaching the control point?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A				Traffic Controllers must confirm prior to commencing operation		
Is "Prepare to Stop" and required "Traffic Symbolic" sign installed correctly?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A				Traffic Controllers must confirm prior to commencing operation		
Does sight distance of at least 150m exist to and from traffic control station/point?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	L4 + C3	M	Sight distances of approximately 150m in each direction	Traffic Controllers to constantly monitor traffic flow and build up and to adjust priority of flow if required. Supervisor to also monitor and coordinate as required.	L5 + C3	M
Is adequate lighting present?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			Traffic Controllers to check and assess suitability of existing lighting	Temporary lighting to be used if required		
Has possible end of queue issues been assessed?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	L4 + C2	M		Traffic Controllers to constantly monitor traffic flow and build up and to adjust priority of flow if required. Supervisor to also monitor and coordinate as required.	L5 + C2	L


GENERAL

Does TGS define minimum clearances of workers to live traffic?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are "Worker Symbolic" signs shown in advance of workers that are visible to traffic?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are signs at correct distances?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are taper lengths compliant?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Is transition between tapers shown on TGS where applicable?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Is buffer area shown on TGS and least 30m in length?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	L4 + C3	M		Traffic Controllers must monitor and make any adjustments as required	L5 + C2	L
Does TGS show work vehicle access and egress?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Does TGS clearly indicate pedestrian movements and are they suitable?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Does TGS consider cyclists and are they suitable?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are impacts on traffic managed?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are public transport locations shown and are accessible/managed?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						

DETOURS

Are detour routes suitable?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Is access to residential and business properties maintained?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Are detour signs located at decision points?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Can roads and intersections accommodate traffic volumes on the detour route?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						
Can turn movements be conducted safely?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A						

Risk ratings		Commencement		TGS Verification Checklist		TGS Verified by:	
Risk ratings		Commencement		(have below items been addressed) Yes/No/NA Comments			
Traffic Volumes				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		PWZTMP:	
Predicted queue lengths				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		Signature:	
Shoulder widths				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		Date:	
Sight distances				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		Time:	
Existing infrastructure				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		25/05/2023	
Transport Services				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		11:25 AM	
Pedestrian generators				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			
Appropriate site access				<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A			

 <p>THIS TGS IS DESIGNED BASED ON TCAMS MANUAL VERSION 6.1 2022, AS 1742.3 AND APPLICABLE AUSTRALIAN GUIDES TO TEMPORARY TRAFFIC MANAGEMENT</p>	CLIENT	LAING O'ROURKE	TGS DRAWN BY:	TGS APPROVED BY: P. SZUBERT	TGS/PLAN NAME		TGS-01-LOR-ST MARYS-TAP3	
	PROJECT	TAP 3	PWZTMP:	PWZTMP: TCT1008290	DATE	REVISION	AUTH. BY	REVISION DESCRIPTION
	LOCATION	ST MARYS	SIGNATURE:	SIGNATURE: P. SZUBERT				
	WORKS DESCRIPTION	STOP /SLOW OPERATIONS	GENERAL NOTES		CLEARANCES and SPEED ZONES			
			<p>* PLAN TO BE INSTALLED, MONITORED AND REMOVED AS PER TCAMS SECTIONS 6.4 AND 7.10 AND SVMS.</p> <p>* GENERAL INSPECTIONS OF PLAN TO BE CONDUCTED AS PER TCAMS SECTION 8.1, OF MINIMUM TWICE PER SHIFT WITH PREFERENCE OF CHECKS EVERY 2 HOURS.</p> <p>* SIGNS AND DEVICES TO BE PLACED AND MONITORED AS PER TCAMS SECTION 6.</p>		<p>* CLEARANCES OF WORKERS AND PLANT MUST BE MONITORED AT ALL TIMES AND IN ACCORDANCE WITH TCAMS SECTION 4.3</p> <p>* SPEED ZONES MUST BE MONITORED AND MAINTAINED AT ALL TIMES IN ACCORDANCE WITH TCAMS SECTION 4.5.</p> <p>* ALL WORKS MUST BE CONDUCTED UNDER APPROVED LICENSING REQUIREMENTS FOR ROAD OCCUPANCIES AND SPEED REDUCTIONS.</p>			
SCALE		NOT TO SCALE		PAGE	Risk Assessment			



THIS TGS IS DESIGNED BASED ON TCAWS
MANUAL VERSION 6.1 2022, AS 1742.3 AND
APPLICABLE AUSTROADS GUIDES TO
TEMPORARY TRAFFIC MANAGEMENT

CLIENT	LAING O'ROURKE	TGS DRAWN BY: PWZTMP: SIGNATURE:	TGS APPROVED BY: P. SZUBERT PWZTMP: TCT1008290 SIGNATURE: P. SZUBERT	TGS/PLAN NAME		TGS-01-LOR-ST MARYS-TAP3 TGS-02-LOR-ST MARYS-TAP3	
PROJECT	TAP 3			DATE	REVISION	AUTH. BY	REVISION DESCRIPTION
LOCATION	ST MARYS	GENERAL NOTES	CLEARANCES and SPEED ZONES				
WORKS DESCRIPTION	STOP /SLOW OPERATIONS	* PLAN TO BE INSTALLED, MONITORED AND REMOVED AS PER TCAWS SECTIONS 6.4 AND 7.10 AND SWMS.	* CLEARANCES OF WORKERS AND PLANT MUST BE MONITORED AT ALLTIMES AND IN ACCORDANCE WITH TCAWS SECTION 4.3				
		* GENERAL INSPECTIONS OF PLAN TO BE CONDUCTED AS PER TCAWS SECTION 8.1, OF MINIMUM TWICE PER SHIFT WITH PREFERENCE OF CHECKS EVERY 2 HOURS.	* SPEED ZONES MUST BE MONIOTRED AND MAINTAINED AT ALL TIMES IN ACCORDANCE WITH TCAWS SECTION 4.5.				
		* SIGNS AND DEVICES TO BE PLACED AND MONITORED AS PER TCAWS SECTION 6.	* ALL WORKS MUST BE CONDUCTED UNDER APPROVED LICENSING REQUIREMENTS FOR ROAD OCCUPANCIES AND SPEED REDUCTIONS				
				SCALE	NOT TO SCALE	PAGE	Risk Assessment

TGS-01-LOT- TAP 3


Legend

- Barrier
- Construction access
- Construction compund
- PTCD (porta boomgate)
- Shadow vehicle for heavy vehicles movements
- Traffic Controller (Traffic)

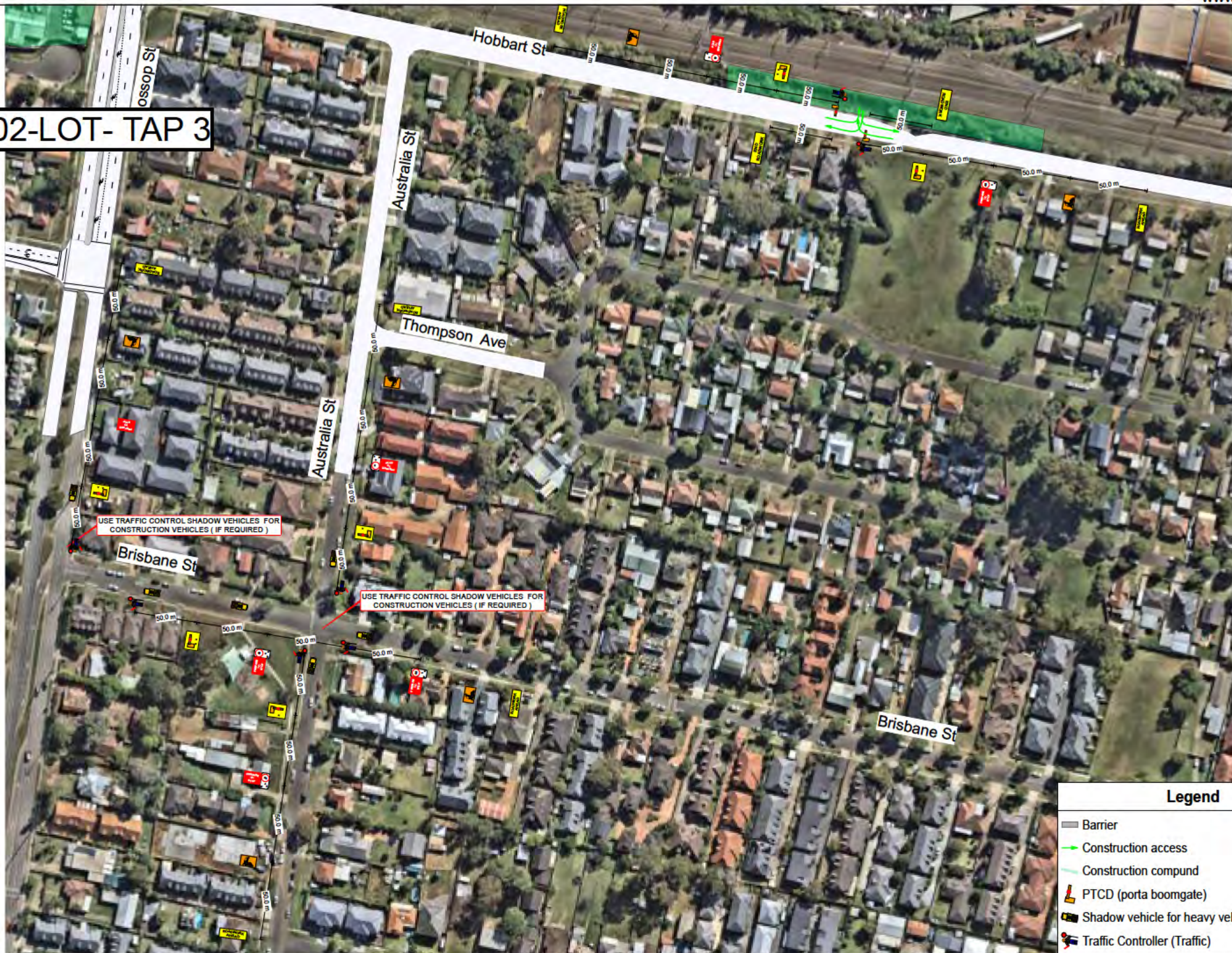








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MANUAL VERSION 6.1 2022, AS 1742.3 AND
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TEMPORARY TRAFFIC MANAGEMENT

CLIENT	LAING O'ROURKE	TGS DRAWN BY PWZTMP	TGS APPROVED BY P. SZUBERT PWZTMP TCT1008290	TGS/PLAN NAME		TGS-01-LOR-ST MARYS-TAP3	
PROJECT	TAP 3	SIGNATURE	SIGNATURE P. SZUBERT	DATE	REVISION	AUTH. BY	REVISION DESCRIPTION
LOCATION	ST MARYS	GENERAL NOTES		CLEARANCES and SPEED ZONES			
WORKS DESCRIPTION	STOP /SLOW OPERATIONS	<p>* PLAN TO BE INSTALLED, MONITORED AND REMOVED AS PER TCAWS SECTIONS 6.4 AND 7.10 AND SWMS.</p> <p>* GENERAL INSPECTIONS OF PLAN TO BE CONDUCTED AS PER TCAWS SECTION 6.1, OF MINIMUM TWICE PER SHIFT WITH PREFERENCE OF CHECKS EVERY 2 HOURS.</p> <p>* SIGNS AND DEVICES TO BE PLACED AND MONITORED AS PER TCAWS SECTION 5.</p>		<p>* CLEARANCES OF WORKERS AND PLANT MUST BE MONITORED AT ALL TIMES AND IN ACCORDANCE WITH TCAWS SECTION 4.3</p> <p>* SPEED ZONES MUST BE MONITORED AND MAINTAINED AT ALL TIMES IN ACCORDANCE WITH TCAWS SECTION 4.5.</p> <p>* ALL WORKS MUST BE CONDUCTED UNDER APPROVED LICENSING REQUIREMENTS FOR ROAD OCCURANCES AND SPEED REDUCTIONS.</p>			
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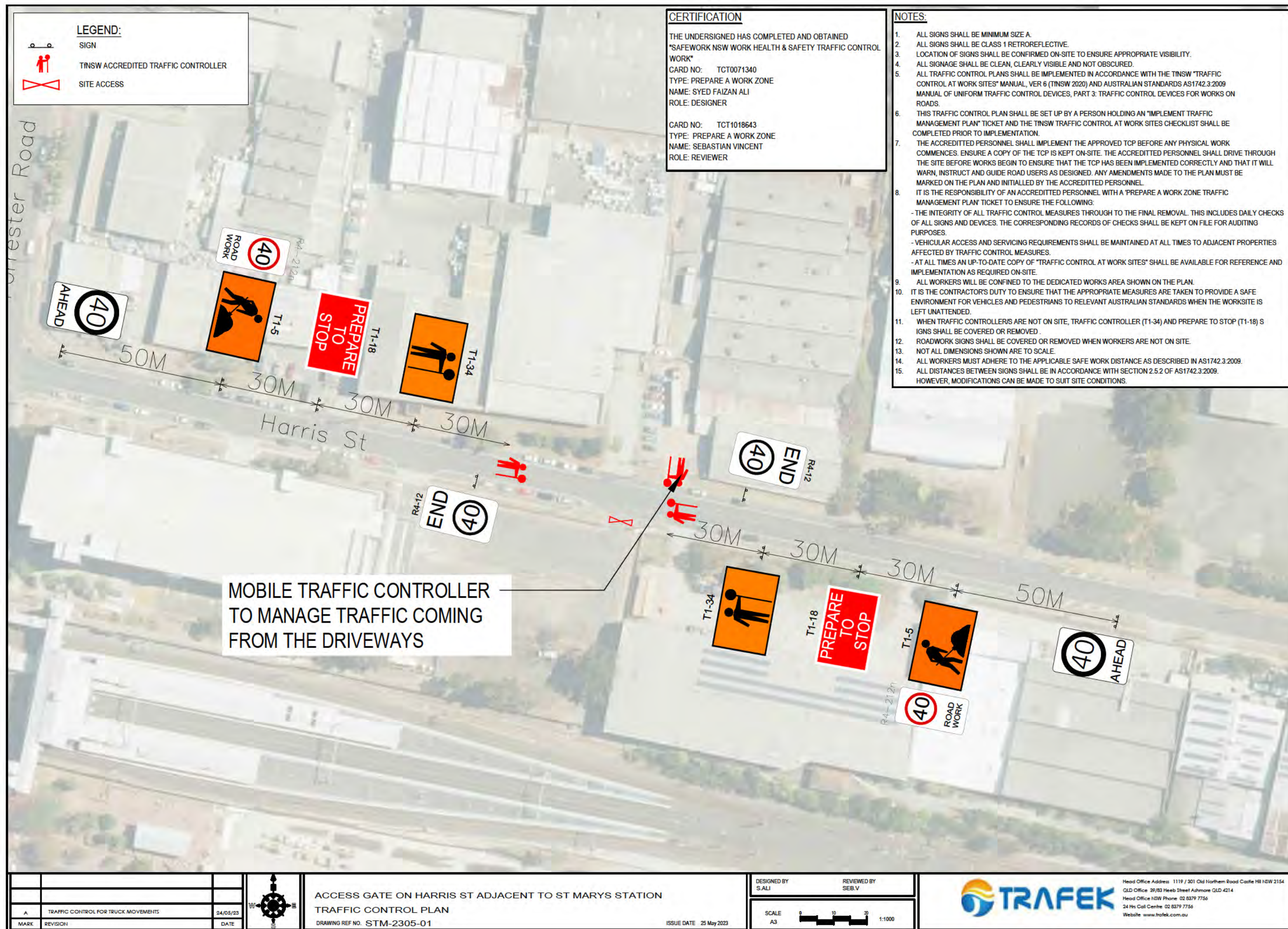
THIS TGS IS DESIGNED BASED ON TCAWS
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TEMPORARY TRAFFIC MANAGEMENT



Legend		
	Barrier	
	Construction access	
	Construction compound	
	PTCD (porta boomgate)	
	Shadow vehicle for heavy vehicles movements	
	Traffic Controller (Traffic)	

TGS-01-LOR-ST MARYS-TAP3		
AUTH. BY	REVISION DESCRIPTION	

PAGE		Risk Assessment



LEGEND:

SIGN

TNSW ACCREDITED TRAFFIC CONTROLLER

SITE ACCESS

TRAFFIC CONES

CERTIFICATION

THE UNDERSIGNED HAS COMPLETED AND OBTAINED
"SAFEWORK NSW WORK HEALTH & SAFETY TRAFFIC CONTROL
WORK"

CARD NO: TCT0071340

TYPE: PREPARE A WORK ZONE

NAME: SYED FAIZAN ALI

ROLE: DESIGNER

CARD NO: TCT1018643

TYPE: PREPARE A WORK ZONE

NAME: SEBASTIAN V NCENT

ROLE: REVIEWER

NOTES:

1. ALL SIGNS SHALL BE MINIMUM SIZE A.

2. ALL SIGNS SHALL BE CLASS 1 RETROREFLECTIVE.

3. LOCATION OF SIGNS SHALL BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.

4. ALL SIGNAGE SHALL BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.

5. ALL TRAFFIC CONTROL PLANS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE TNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 6 (TNSW 2020) AND AUSTRALIAN STANDARDS AS1742.3:2009

6. THIS TRAFFIC CONTROL PLAN SHALL BE SET UP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC MANAGEMENT PLAN" TICKET AND THE TNSW TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.

7. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES. ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY AMENDMENTS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.

8. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" TICKET TO ENSURE THE FOLLOWING:

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- VEHICULAR ACCESS AND SERVICING REQUIREMENTS SHALL BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.

- AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHALL BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.

9. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.

10. IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS WHEN THE WORKSITE IS LEFT UNATTENDED.

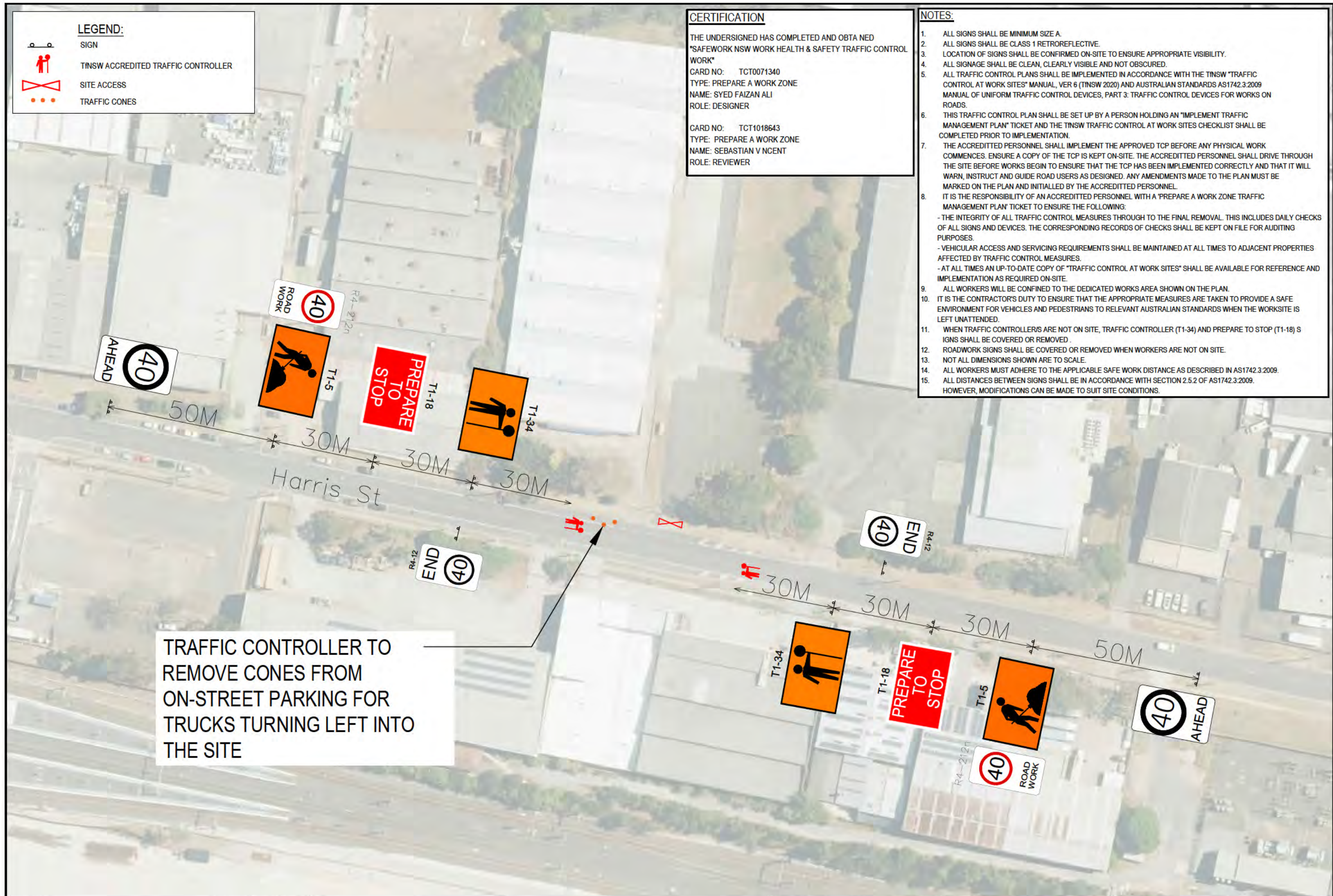
11. WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE, TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS SHALL BE COVERED OR REMOVED.

12. ROADWORK SIGNS SHALL BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.

13. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.

14. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.

15. ALL DISTANCES BETWEEN SIGNS SHALL BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



MARK

REVISION

DATE

24/05/23

DATE

ACCESS GATE ON HARRIS ST ADJACENT TO RBS RECYCLING

TRAFFIC CONTROL PLAN

DRAWING REF NO. STM-2305-02

DESIGNED BY

S.ALI

REVIEWED BY

SEB.V

SCALE

A3

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TRAFAEK

Head Office Address: 1119 / 301 Old Northern Road Castle Hill NSW 2154
QLD Office: 39/83 Heeb Street Ashmore QLD 4214
Head Office NSW Phone: 02 8379 7756
24 Hrs Call Centre: 02 8379 7756
Website: www.trafek.com.au

SIGN

TNSW ACCREDITED TRAFFIC CONTROLLER

SITE ACCESS

LEGEND:

CERTIFICATION

THE UNDERSIGNED HAS COMPLETED AND OBTAINED "SAFework NSW WORK HEALTH & SAFETY TRAFFIC CONTROL WORK"

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ROLE: DESIGNER

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- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.

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15.

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A.	TRAFFIC CONTROL PLAN FOR TRUCK MOVEMENTS	24/05/23
MARK	REVISION	DATE

INTERSECTION OF HARRIS ST AND GLOSSOP ST

TRAFFIC CONTROL PLAN

DRAWING REF NO. STM-2305-03

ISSUE DATE

25 May 2023

DESIGNED BY

S.ALI

REVIEWED BY

SEB.V

SCALE

A3

01020

1:1000



Head Office Address: 1119 / 301 Old Northern Road Castle Hill NSW 2154

QLD Office: 39/83 Heeb Street Ashmore QLD 4214

Head Office NSW Phone: 02 8379 7756

24 Hrs Call Centre: 02 8379 7756

Website: www.trafeek.com.au

LEGEND:

SIGN

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SITE ACCESS

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CARD NO: TCT0071340

TYPE: PREPARE A WORK ZONE

NAME: SYED FAIZAN ALI

ROLE: DESIGNER

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- NOTES:
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5. ALL TRAFFIC CONTROL PLANS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE TNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 6 (TNSW 2020) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.

6. THIS TRAFFIC CONTROL PLAN SHALL BE SET UP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC MANAGEMENT PLAN" TICKET AND THE TNSW TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.

7. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES. ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY AMENDMENTS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.

8. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" TICKET TO ENSURE THE FOLLOWING:

- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.

- VEHICULAR ACCESS AND SERVICING REQUIREMENTS SHALL BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.

- AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHALL BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.

9. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.

10. IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS WHEN THE WORKSITE IS LEFT UNATTENDED.

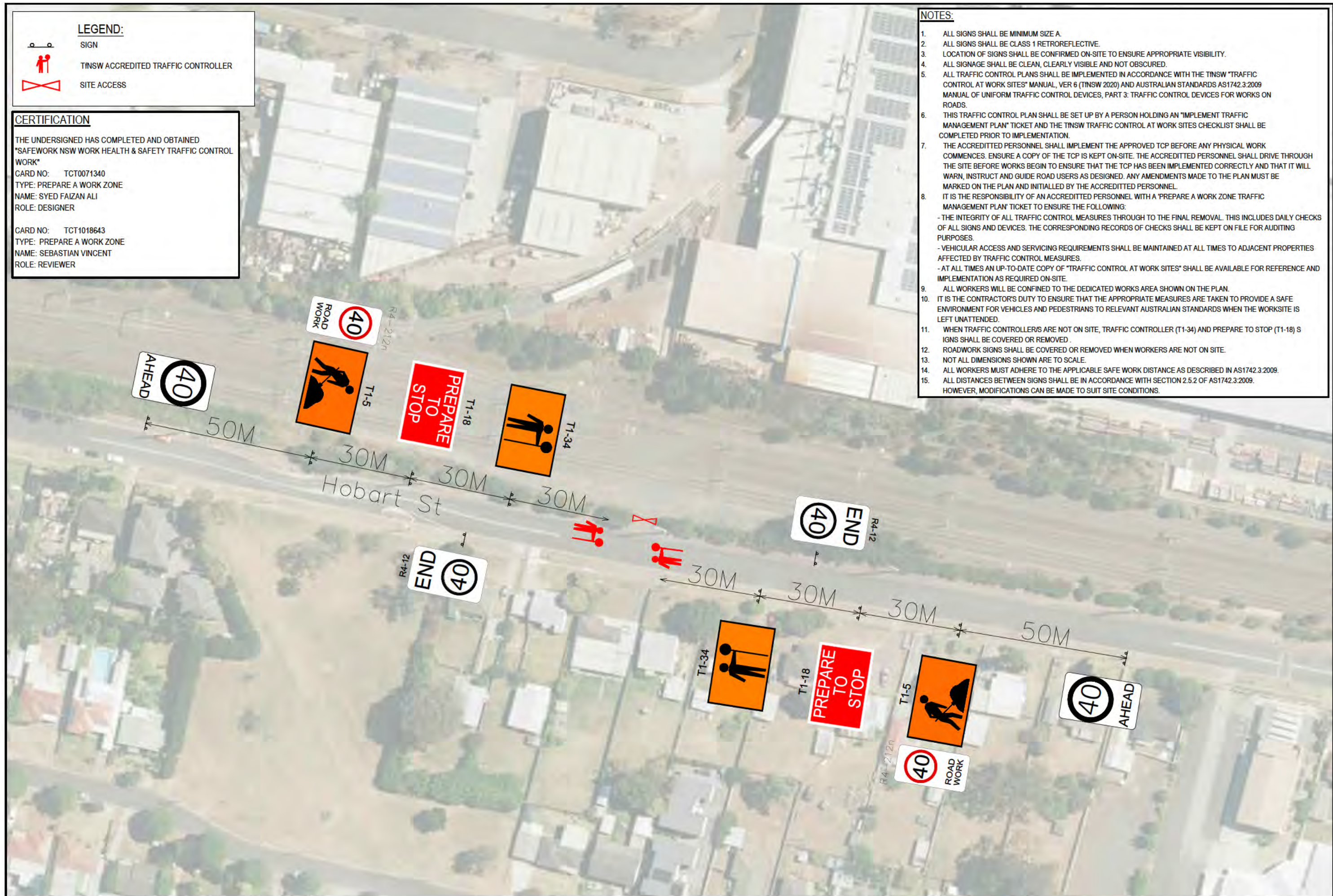
11. WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE, TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS SHALL BE COVERED OR REMOVED.

12. ROADWORK SIGNS SHALL BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.

13. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.

14. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009.

15. ALL DISTANCES BETWEEN SIGNS SHALL BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.



LEGEND:

SIGN

CERTIFICATION

THE UNDERSIGNED HAS COMPLETED AND OBTAINED
"SAFEWORK NSW WORK HEALTH & SAFETY TRAFFIC CONTROL
WORK"

CARD NO: TCT0071340
TYPE: PREPARE A WORK ZONE
NAME: SYED FAIZAN ALI
ROLE: DESIGNER

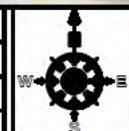
CARD NO: TCT1018643
TYPE: PREPARE A WORK ZONE
NAME: SEBASTIAN VINCENT
ROLE: REVIEWER

NOTES:

1. ALL SIGNS SHALL BE MINIMUM SIZE A.
2. ALL SIGNS SHALL BE CLASS 1 RETROREFLECTIVE.
3. LOCATION OF SIGNS SHALL BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
4. ALL SIGNAGE SHALL BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
5. ALL TRAFFIC CONTROL PLANS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE TNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 6 (TNSW 2020) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
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MARK	REVISION	DATE
A	TRAFFIC CONTROL PLAN FOR TRUCK MOVEMENTS	24/05/23



TRUCK MOVEMENTS ON BRISBANE ST, AUSTRALIA ST & GLOSSOP ST

TRAFFIC CONTROL PLAN

DRAWING REF NO. STM-2305-05

ISSUE DATE 25 May 2023

DESIGNED BY
S.ALI

REVIEWED BY
SEB.V

SCALE
A3

1:1000



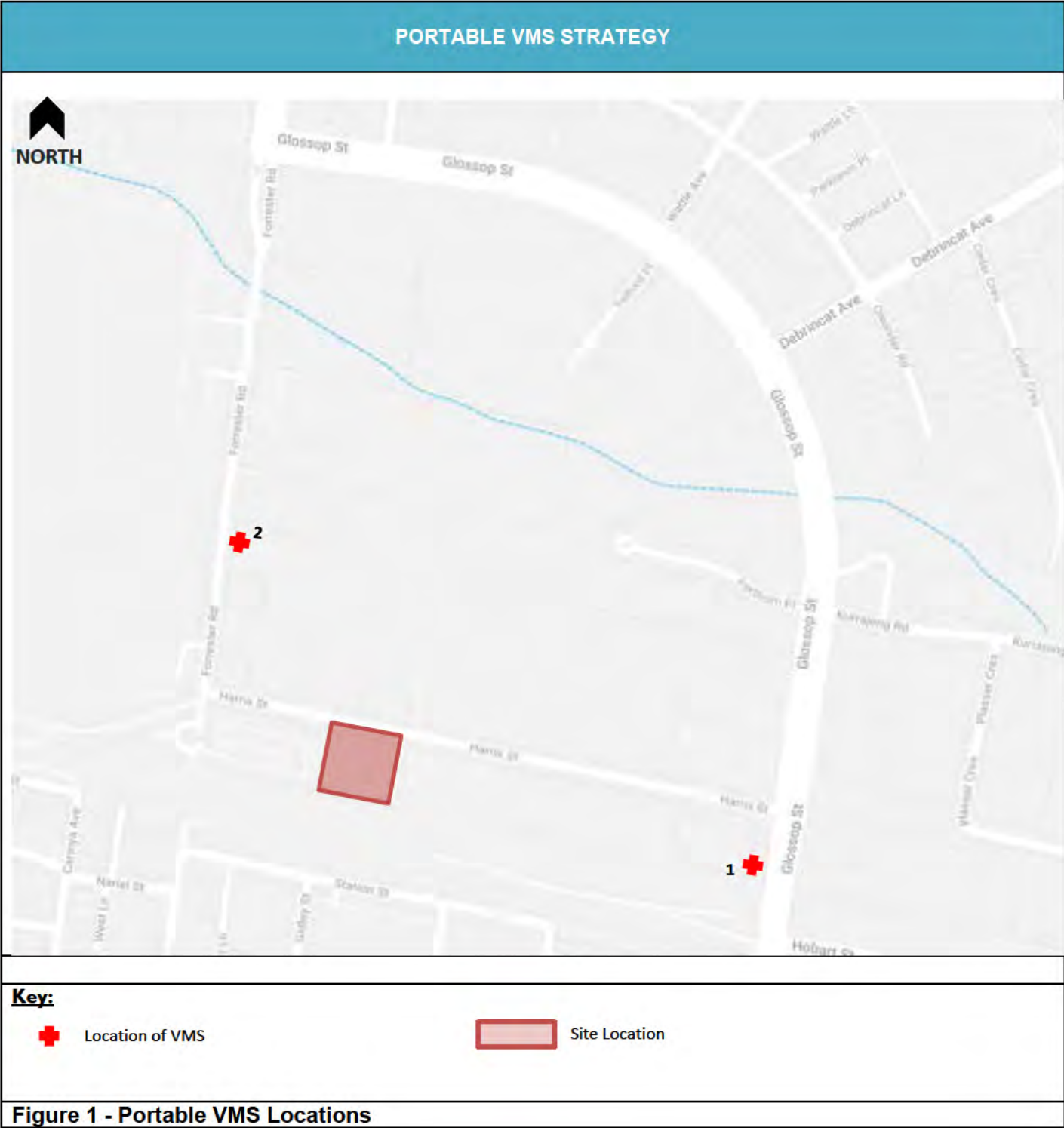
Head Office Address: 1119 / 301 Old Northern Road Castle Hill NSW 2154
QLD Office: 39/83 Heeb Street Ashmore QLD 4214
Head Office NSW Phone: 02 8379 7756
24 Hrs Call Centre: 02 8379 7756
Website: www.trafer.com.au

Appendix 6 VMS strategy

Portable VMS Strategy

TAP 3 footbridge works / St Marys
Project manager/ engineer: David Brockie
Traffic Engineer: Juan Sandoval
Rev #: 00
Date: 23/02/2023

Strategy Dates: TBC



1. Glossop St northbound lanes

Pre-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1

HARRIS ST
ROAD
WORKS

Message 2

(DAY)
(DATE)
(TIME)

During-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1

HARRIS ST
ROAD
WORKS

Message 2

USE
CAUTION

Location Photo:



Notes:

To be located on the western shoulder of Glossop St facing northbound traffic.
After Glossop St rail bridge.
Size **C** VMS Board to be provided.

2. Forrester Rd southbound lanes

Pre-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1	Message 2
HARRIS ST ROAD WORKS	(DAY) (DATE) (TIME)

During-Occupation: 0:00AM DATE to 0:00AM DATE

Message 1	Message 2
HARRIS ST ROAD WORKS	USE CAUTION

Location Photo:



Notes:

To be located on the eastern shoulder / parking spot of Forrester Rd facing southbound traffic.
After 65-67 Forrester driveway.
Size **C** VMS Board to be provided.

Appendix 7 Heavy Vehicle Load Report (HVLR)

Transport Access Program 3 | Footbridge St Marys MCC

Heavy Vehicle Load Report for Use of Local Roads

revision and history

Document details	
Title	Heavy Vehicle Load Report for Use of Local Roads
Client	Transport for New South Wales
Planned commencement date	January 2023
Estimated completion date	November 2025

Document revision history and sign off

Revision	Date	Revision Description	Prepared	Reviewed	Approval
B	25/05/2023		Juan Sandoval	Paul Szubert	David Brockie
Signature sign off					

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Abbreviations and definitions

Table 1: Abbreviations and definitions

Abbreviation	Expanded text
AGTTM	Austrroads Guide to Temporary Traffic Management
CEMP	Construction Environmental Management Plan
CoR	Chain of Responsibility
CSSI	Critical State Significant Infrastructure
CCTMP	Construction Traffic Management Plan (This Document)
CJM	Customer Journey Management
CJP	Customer Journey Planning
DDA	Disability Discrimination Act 1992
DPE	Department of Planning and Environment
EB	Eastbound
EIS	Environmental Impact Statement
FPA	Federal Planning Approval
LTC	Local Traffic Committee (Councils)
MCoA	Ministers Condition of Approval
NB	Northbound
OPLINC	Online Planned Incident System (ROLs)
PMP	Pedestrian Management Plan
RASS	Radar Activated Speed Signs
REMM	Revised Environmental Management Measures
ROL	Road Occupancy Licence
ROP	Road Occupancy Permit (Councils)
SB	Southbound
SZA	Speed Zone Authorisation
TCG	Traffic Control Group
TfNSW	Transport for New South Wales
TGS	Traffic Guidance Scheme
TMC	Transport Management Centre
TTLG	Traffic, Transport Liaison Group
VMP	Vehicle Movement Plan
VMS	Variable Message Sign
HVLR	Heavy Vehicle Local Road Report

WB	Westbound
WSIA	Western Sydney International Airport
CMP	Contract Management Plan
PPE	Personal protective equipment
RMS	(TfNSW) Roads and Maritime Services
TAP3	Transport Access Program
TCP	Traffic Control Plan
TfNSW	Transport for New South Wales
TMC	(TfNSW) Transport Management Centre
CCTMP	Construction Traffic Management Plan
UV	Ultraviolet

1. Introduction

1.1 Project Background

The Transport Access Program (TAP) is a NSW Government initiative delivering safe, modern and accessible public transport infrastructure for the Sydney rail network. The initiative includes improvements to the public transport customer experience by providing equitable access and modern facilities in and around station precincts for persons with limited mobility, parents with prams, improvements to station amenity, as well as incorporating additional staff and customer facilities.

The Sydney Metro – Western Sydney Airport project comprises a new 23km railway line that will link the new Western Sydney Aerotropolis business hub and Airport to the south, with the rest of Sydney’s public transport network via St Marys to the north. The Project includes six new metro stations along the route including one at the Western Sydney Aerotropolis, two at the new Airport site, one at Luddenham, Orchard Hills, and St Marys. This project will deliver design, procurement, construction, commissioning and integration of upgrades to existing stations on the Sydney rail network, including at St Marys (Figure 1)

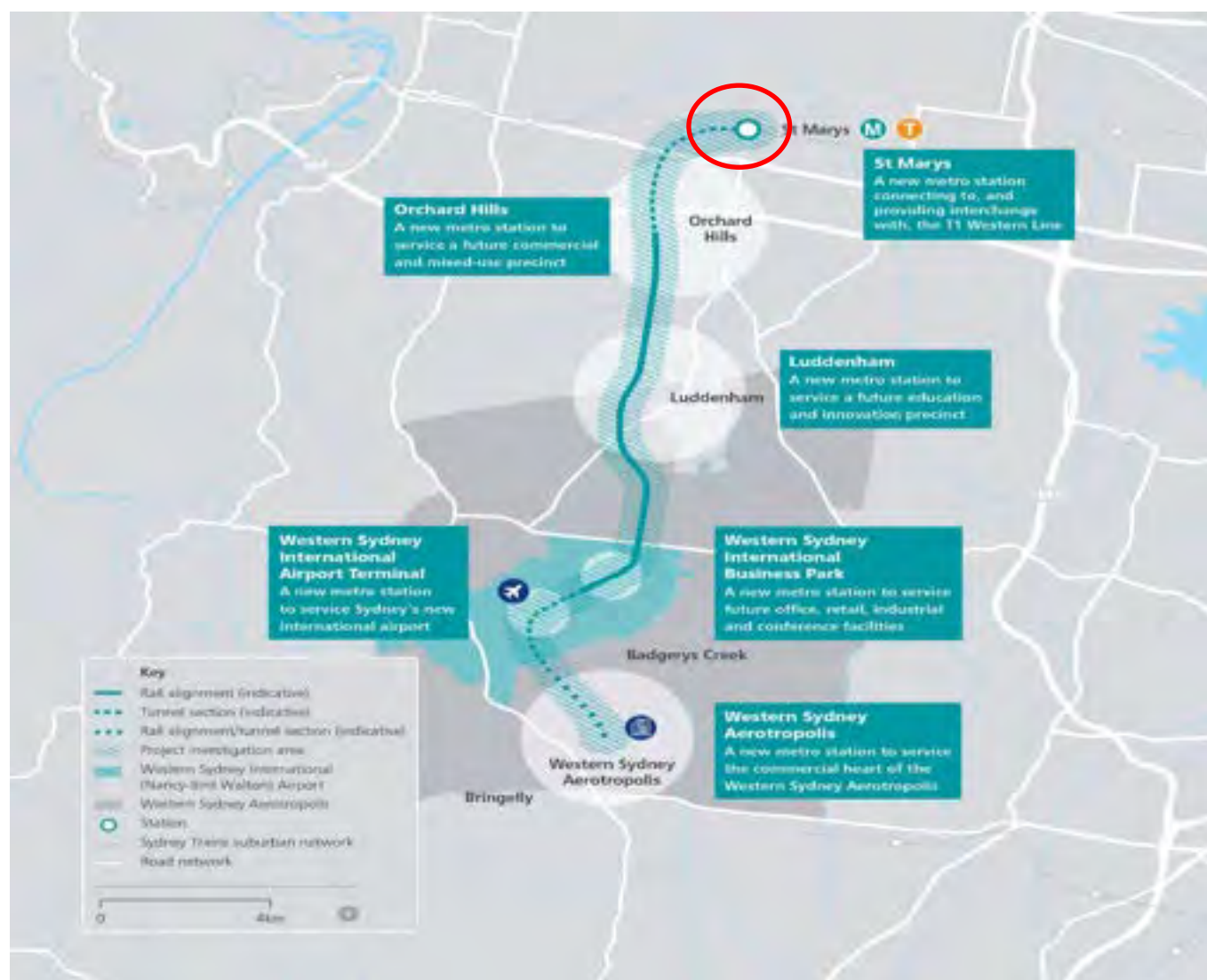


Figure 1 – St Marys station (TAP 3) on the Sydney rail network

1.2 Purpose

This Heavy Vehicle Local Report for use on Local Roads (HVLR) has been developed to address the Ministerial Conditions of Approval related to the Critical State Significant Infrastructure of Sydney Metro – Western Sydney Airport.

This HVLR identifies and assesses the heavy vehicle routes into the work areas and sites not identified in the Environmental Impact Statement (EIS). The road classification and the suitability of the routes is based on swept path analysis and adjacent land uses.



Figure 2 – EIS Indicative Approved Construction Vehicle Route

1.3 Scope of this HVLR

The scope of this report is for use of local roads by heavy vehicles required for the TAP 3 St Marys footbridge Works which includes Local Roads under Penrith City Council.

- Harris Street between Glossop Street and Forrester Rd
- Forrester Rd between Glossop Street and Harris Street
- Brisbane St between Glossop St and Sydney St
- Australia St between Brisbane St and Hobart St

- Sydney St between Brisbane St and Hobart St.
- Hobart St between Glossop St and Sydney St

The suitability of these routes will be assessed based on the Heavy Vehicle sizes that will be utilised by the enabling works, being elevated platform vehicles, 12.5m trucks and 19m semi-trailers. Assessment will be conducted on several factors which are:

- Swept Path Analysis (SPA)
- Road Dilapidation Surveys
- Road Safety
- Avoidance of Schools and School Zones where possible
- Avoidance of childcare and aged care centres

The outcome of this scope is the recommendation that the proposed routes are suitable for heavy vehicle use related to the Project only.

All specific works and Ministerial Conditions for use of Local Roads are covered under CTMP 150511-STM-PM-PLN-00015 (Appendix 1).

2. Proposed Routes and local roads

2.1 Proposed Routes and Local Roads

Although the EIS identified route of Glossop Street will be the primary access/egress to the work site, other Local Roads are required to be used to allow the works to be carried out. The below map and table indicates the Local Roads proposed to be used that are not listed or identified in the EIS or under Condition A1.

Table 2 – Local Roads proposed to be used

Street/Road name	From	To	Configuration	Parking	Approved B-double route	Road Classification	Speed Restriction
Harris Street	Glossop Street	Forrester Road	1 lane /each direction	Both sides	YES	Local	50km/h
Forrester Rd	Glossop Street	Harris Street	1 lane /each direction	Both sides	YES	Local	50km/h (40 km/h during school days)
Glossop Street	Harris Street	Forrester Road	2 lane /each direction	Both sides outside of AM/PM	YES	Regional	60km/h

Street/Road name	From	To	Configuration	Parking	Approved B-double route	Road Classification	Speed Restriction
				peak hours			
Hobart St	Glossop Street	Sydney Street	1 lane /each direction	Both sides	NO	Local	50km/h
Australia Street	Brisbane Street	Hobart Street	1 lane /each direction	Both sides	NO	Local	50km/h
Brisbane Street	Glossop Street	Australia Street	1 lane /each direction	Both sides	NO	Local	50km/h

The following figure (Figure 3) illustrates the proposed ingress /egress construction movements.

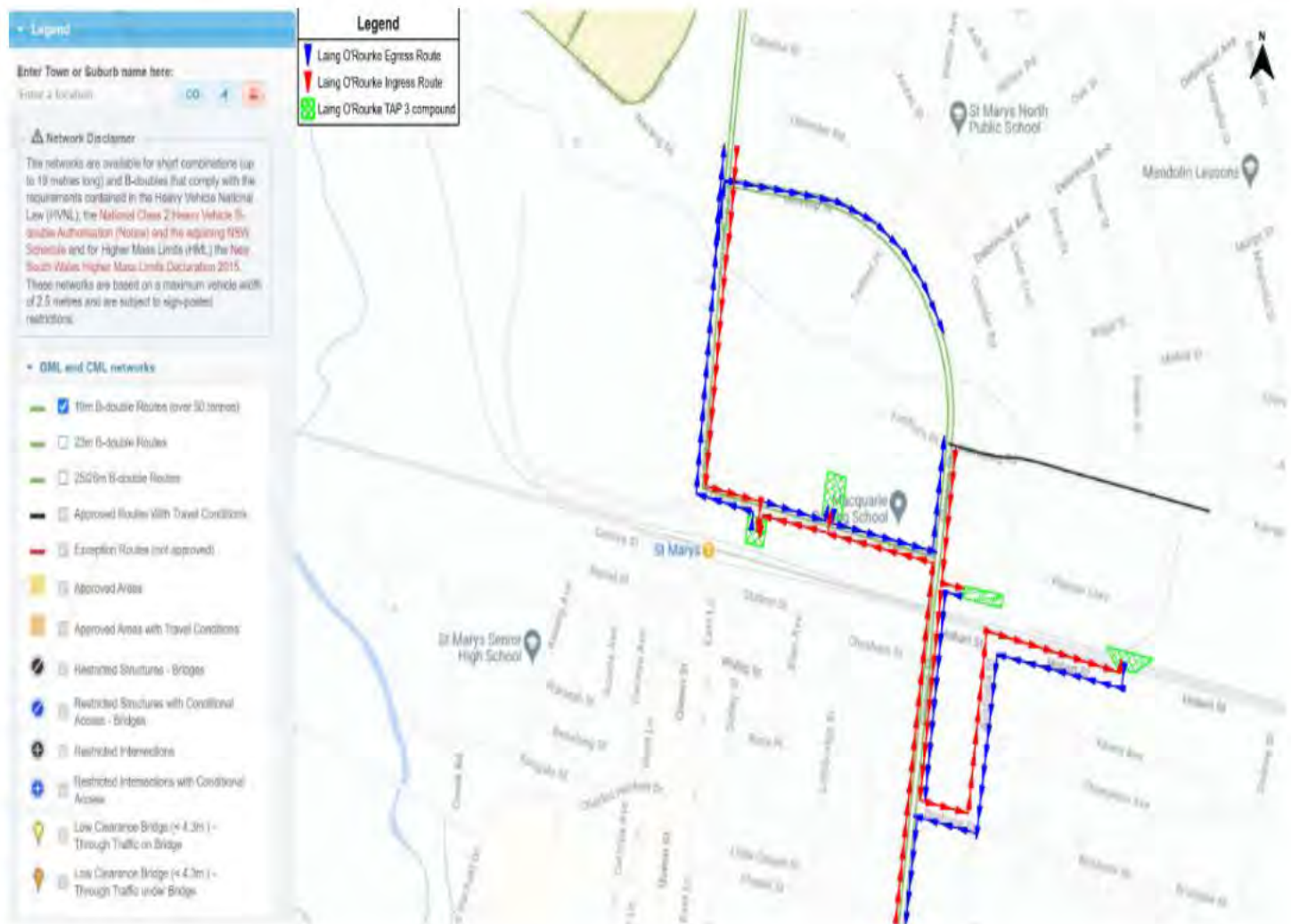


Figure 3 – Proposed Vehicle Route Map

2.2 Public Transport Network

There are bus stops located along the proposed route. There will be no impacts or effects on the bus transport network as a result of the proposed routes.

As works is located at the St Marys Station all access to the station will be maintained as per CTMPs. Vehicle access routes will be monitored to ensure no conflicts with St Marys station access.

2.3 Pedestrian and cyclist routes

The route is along an area of possible high pedestrian activity and on road cycle paths. The route along Harris Street, Hobart St and Glossop Street have been chosen as the most direct route and route with minimal exposure to possible pedestrians and cyclists conflicts.

2.4 School zone

Minor impact is expected school zones located on Forrester Rd or near the proposed route. Heavy Haulage vehicle's constant monitoring with traffic devices will be implemented in order to maintain speed reduction during school times on Forrester Rd northbound/southbound lanes.

2.5 Construction Traffic Generation

2.5.1 Construction Traffic Management

All construction vehicles associated with this project are required to adhere to specific criteria relating to conditions of approval.

This criteria includes:

- That all construction vehicles would enter and exit construction sites in a forward direction, where feasible and reasonable. Where this is not possible traffic management must be in place under approved CTMP's, TGS's and Road Occupancy approvals.
- Construction vehicles will be managed to minimise movements during peak periods and in school zones.
- Any construction vehicles that are required to move around the site will not be permitted to park or queue within the surrounding work area or streets unless permission has been approved. Arrival of vehicles will be staggered to prevent queuing of vehicles related to the Project.
- Construction vehicles must not continuously idle or queue on any roads and any marshalling required will also avoid sensitive land users which will be advised in site inductions.
- Construction vehicles should not obstruct any pedestrian crossings or footpaths, or shared user paths unless suitable alternatives are provided
- Construction vehicles will be managed to minimise movements during peak periods and in school zones. HV deliveries will be instructed via toolbox /prestart to ingress/egress on the proposed site during non-peak hours and current school times.

In addition:

- Construction vehicles must have rotating beacons that must be activated on approach and departure from work sites
- Radio or phone ahead to ensure works sites are open and accessible

- Give way to pedestrians at all times

Clearly signal intentions by indicating to traffic streams to enter or depart work sites

2.5.2 Construction Traffic Volumes

Construction traffic volumes would be minimised during peak periods, where traffic volumes may significantly increase. The construction traffic generation is no more than what has been allowed for in the EIS construction traffic volumes for the site. Construction traffic generation/ volume have been addressed in CTMP 150511-STM-PM-PLN-00015 section 2.2.

3. Dilapidation

3.1 Dilapidation report

Prior to the use of local roads by heavy vehicles associated with the works, a road dilapidation survey will be undertaken and provided to Sydney Metro – Western Sydney Airport and Penrith City Council at least one month prior to the use of the local roads and within 3 weeks of completion of the report. The road dilapidation surveys will be completed by March / April 2023 and the reports provided to Penrith City Council.

As per Condition of approval E 108, if damage to roads occurs as a result of the construction of Stage 1 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.

The dilapidation report is included as an appendix (Appendix 2).

4. Communication Strategy

A comprehensive campaign will be launched to inform the public of the Laing O'Rourke /TAP 3 works and to try and influence travel behaviour and trip planning. The TAP3 engagement strategy aims to inform and engage community and relevant stakeholders (CJP /TfNSW & Councils) in a constructive, transparent and fair process. To ensure this occurs, detailed and timely information will be provided to TfNSW comms team to assist with fulfilling the consultation and notification requirements, and incorporation into similar notifications for any relevant, adjoining works.

As part of the disseminating of the HVLR to the greater travelling public, the Laing O'Rourke Communication team will provide TfNSW content to be distributed for the media forms outlined in Table 3.

Table 3: Proposed communication

Communication Method	TAP3 Footbridge St Marys
Community notice (including notification to local business and residents)	✓
Precinct update – e update	
Email	✓
Internet (whtbl@transport.nsw.gov.au.nsw.gov.au or livetraffic.com.au)	
Community information centre	
On-site brief	
Newspaper (Local)	
Radio advertising	
Variable Message Signs (if required)	✓
Advanced warning signs	✓
Local business open signs	

Sydney Metro has established a Traffic Coordination Group (TCG), of which the Traffic Manager will attend the meetings fortnightly or as required. TCG includes representatives from TfNSW, Sydney Metro, and various required Councils. The TCG is to discuss and agree on any traffic and transport-related issues associated with the Project, of which this HVLR will be tabled.

Penrith Council being a key stakeholder will be forwarded a copy of this HVLR and will be routinely consulted and informed of up-coming works, site access changes, lane and road closures.

5. Summary

A review of swept paths has been reviewed and tabled (table 5) as per below:

Table 4: Turnpath summary

Swept Path / Drawing	Turn Path Description	Heavy Vehicles	Determination
STM-LORCASE-TW-DRG-0001	Harris Street Work Site ingress/egress	19m semi-trailer	Suitable <u>ONLY</u> with traffic control as required for managing ingress/egress construction vehicle movements
STM-LORCASE-TW-DRG-0002	Harris St / Glossop St	19m semi-trailer	Suitable <u>ONLY</u> with traffic control/shadow vehicles as required for managing left turn movements in/out of Harris St.
STM-LORCASE-TW-DRG-0003	Forrester Rd / Glossop St	19m semi-trailer	Suitable
STM-LORCASE-TW-DRG-0004	Harris Street Work Site ingress/egress	12.5m single unit truck	Suitable <u>ONLY</u> with traffic control as required for managing ingress/egress construction vehicle movements
STM-LORCASE-TW-DRG-0005	Harris St / Glossop St	12.5m single unit truck	Suitable <u>ONLY</u> with traffic control as required for managing ingress/egress construction vehicle movements
STM-LORCASE-TW-DRG-0006	Glossop St ingress/egress	12.5m single unit truck	Suitable <u>ONLY</u> with traffic control as required for managing ingress/egress construction vehicle movements
STM-LORCASE-TW-DRG-0007	Hobart St ingress/egress	12.5m single unit truck	Suitable <u>ONLY</u> with traffic control as required for managing intersections with shadow vehicles
STM-LORCASE-TW-DRG-0008	Glossop St Brisbane St / Australia St	12.5m single unit truck	Suitable <u>ONLY</u> with traffic control as required for managing ingress/egress construction vehicle movements

Swept path analysis have shown that there are some minor issues with some of the proposed heavy vehicle routes due to lane cross and works phasing.

Minor issues can be mitigated with traffic management and control will be present during all stages of the works prior to vehicle arrival. It is imperative that arrival times are known of vehicles over 12.5m so traffic management can accommodate the manoeuvres required to access required work sites /local roads.

Therefore, the proposed heavy vehicle route is considered suitable for use at all times for 12.5m vehicles, but vehicles over 12.5m up to 19m must have traffic management present and set-up before arrival for when semi-trailer travel inbound from Glossop Street / Forrester Road into Harris Street and for outbound from TAP 3 construction site (Harris St) to Forrester Road /Glossop Street.

As an appropriately qualified professional and having reviewed and compiled this document, I am satisfied that the requirements of condition E106 have been met, specifically noting:

- a) Swept path analysis of the surrounding local roads has been undertaken.
- b) The report identifies the local road environment, areas which may be problematic for larger vehicles and provides reasonable mitigations (either suggesting a more appropriate route or the use of short-term traffic control)
- c) The routes proposed in the report sufficiently avoid aged care facilities and ensure that school speed restriction on Forrester Road is followed during their peak operation.

It is therefore my conclusion that provided the mitigation measures are implemented, as noted in the report, the proposed heavy vehicle routes are suitable for the work.

Therefore, the proposed heavy vehicle route is considered suitable for use and is recommended for approval.

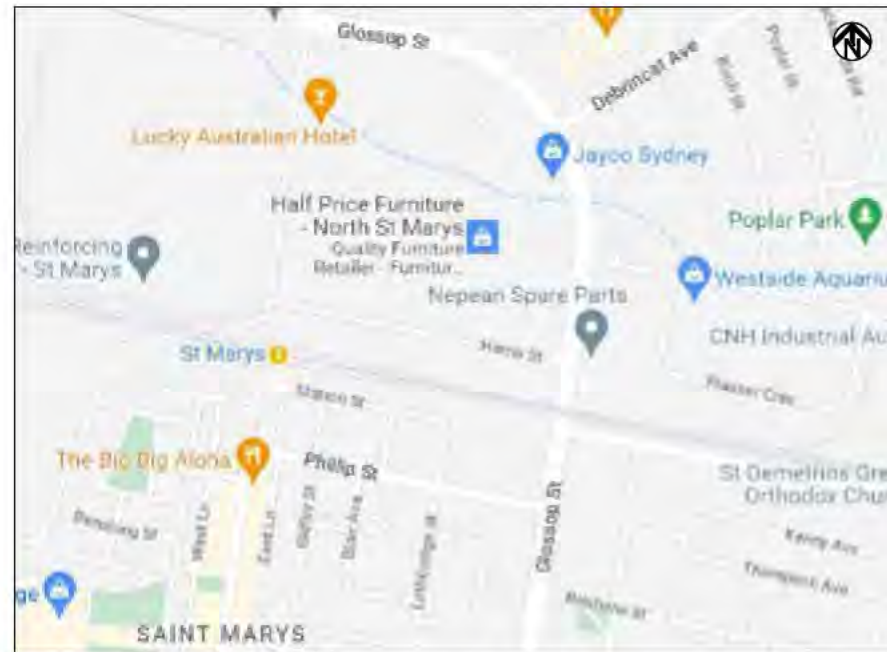
6. Appendices

Appendix 1 Traffic turning paths plan (Haulage routes)

LOCATION PLAN:



ST MARYS TAP 3 - PEDESTRIAN FOOTBRIDGE CONSTRUCTION VEHICLE TURN PATHS ST MARYS - PENRITH



ST MARYS - LOCALITY PLAN

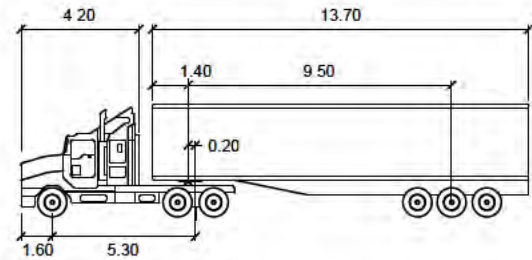
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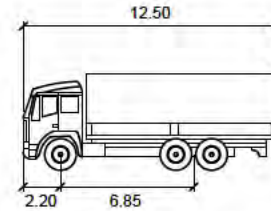
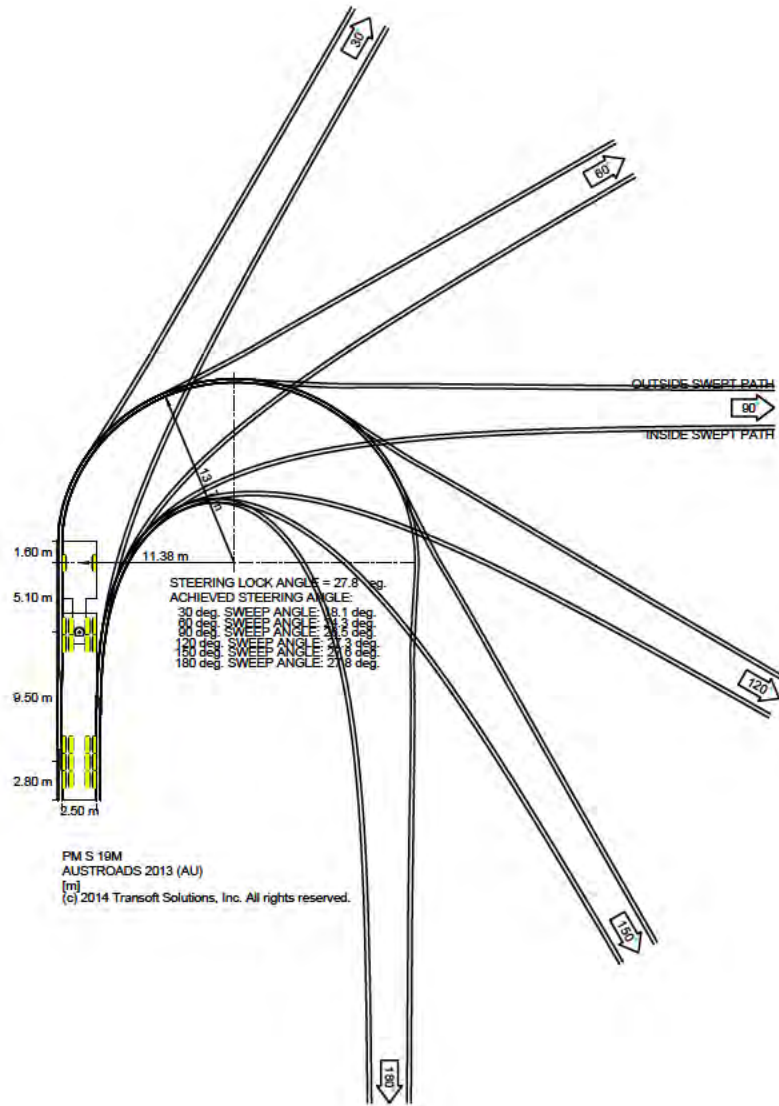
FOR INFORMATION

REFERENCES:	THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED.				SCALE:	CLIENT: <div></div>	<div> Level 8, 56 Berry Street, North Sydney NSW 2060, Australia Tel: 61 2 8259 0349</div> <div><div>DRAWN</div><div>J.SANDOVAL</div><div>23/05/2023</div></div> <div><div>DESIGNED</div><div>J.SANDOVAL</div><div>23/05/2023</div></div> <div><div>DRG CHECK</div><div>P.SZUBERT</div><div>23/05/2023</div></div> <div><div>DESIGN CHECK</div><div>P.SZUBERT</div><div>23/05/2023</div></div> <div><div>APPROVED</div><div>P.SZUBERT</div><div>23/05/2023</div></div> <div><div>PROJECT MGR</div><div>P.SZUBERT</div><div>23/05/2023</div></div>								
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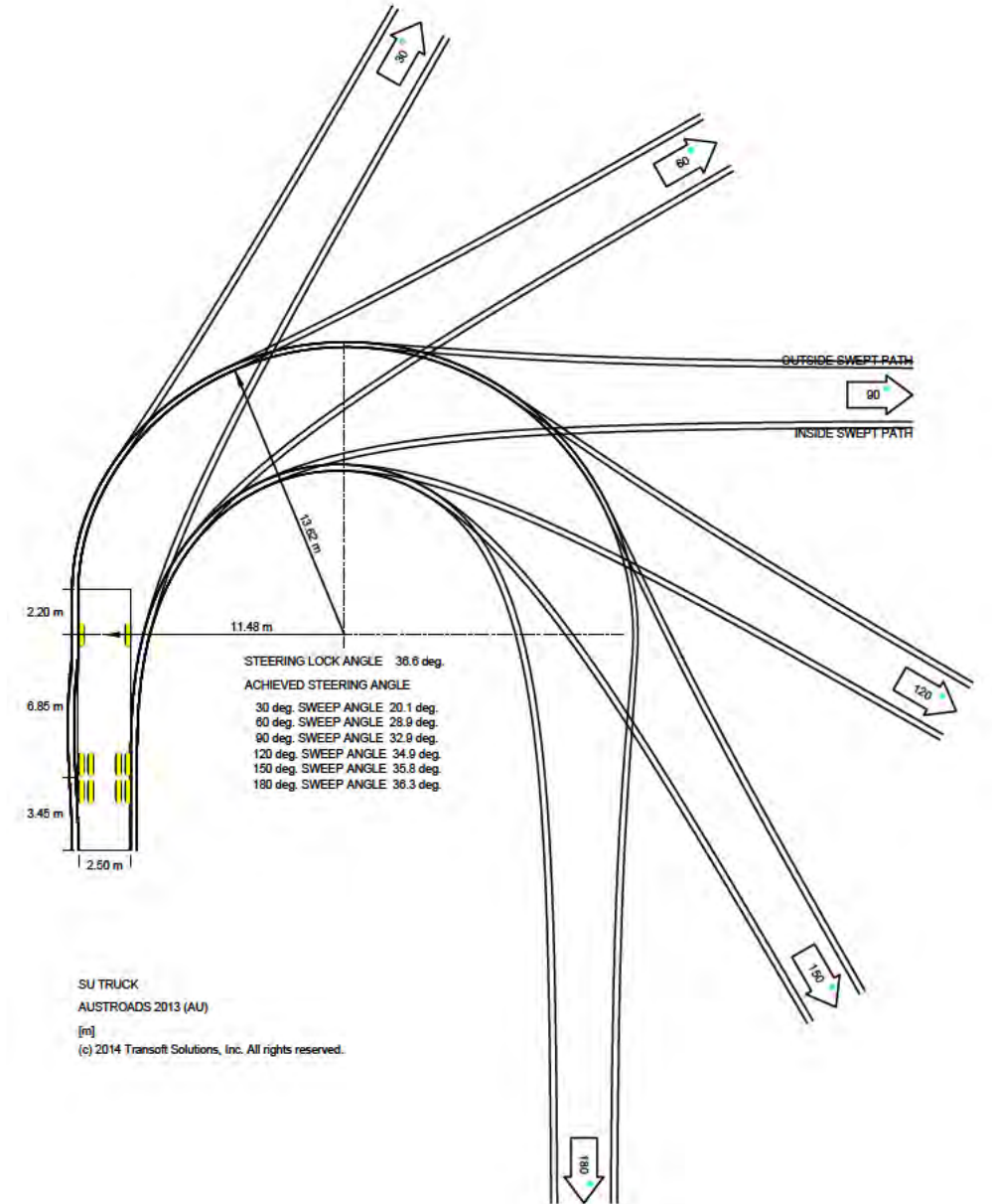
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DRG No. STM-LORCASE-TW-DRG-0000		REV E	VER -	EDMS No.	AMD No.



PM S 19M	meters	
Tractor Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.50	Steering Angle : 27.8
Tractor Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.50	



SU TRUCK	meters	
Width	: 12.50	
Track	: 2.20	
Lock to Lock Time	: 6.85	
Steering Angle	: 36.6	

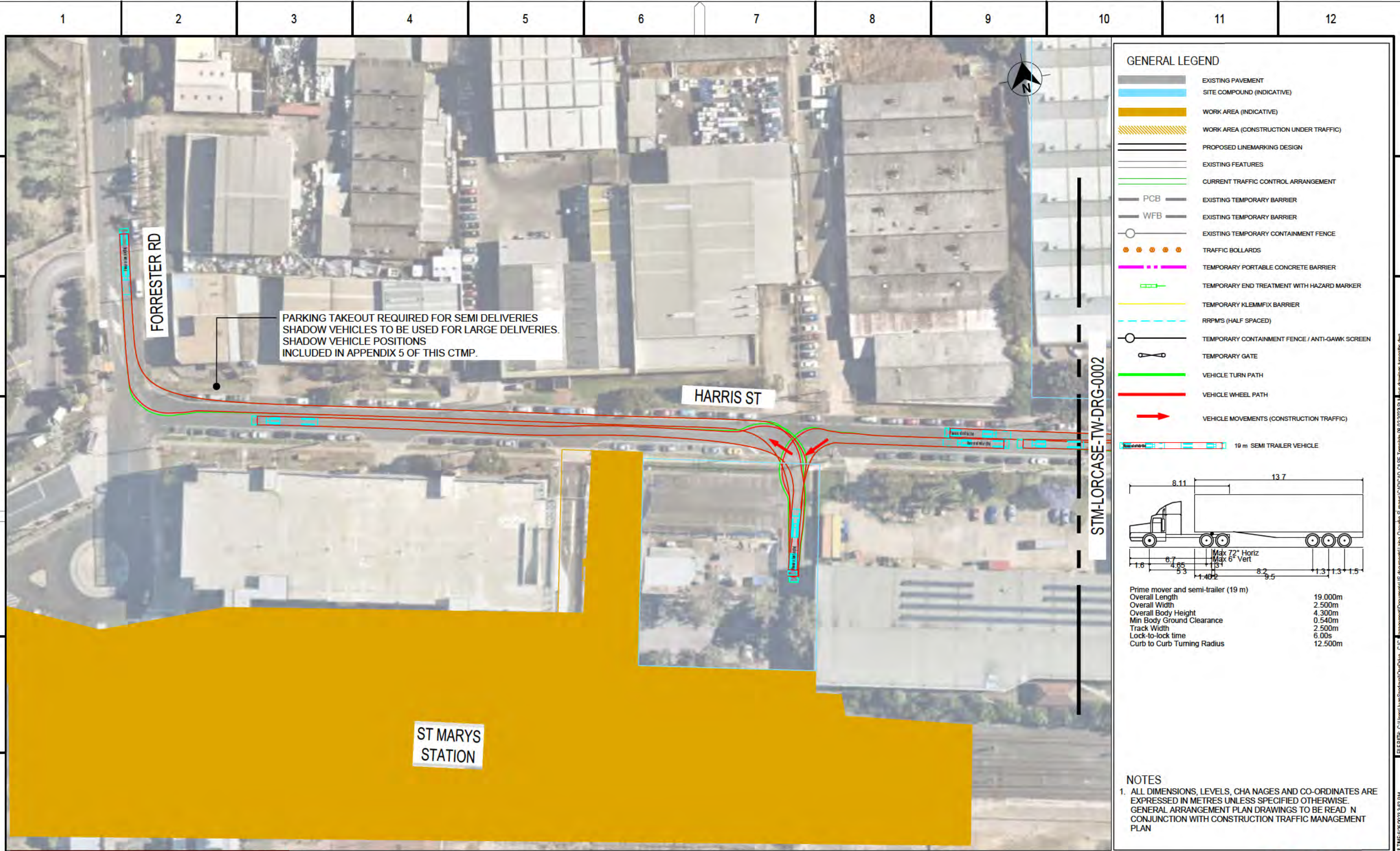


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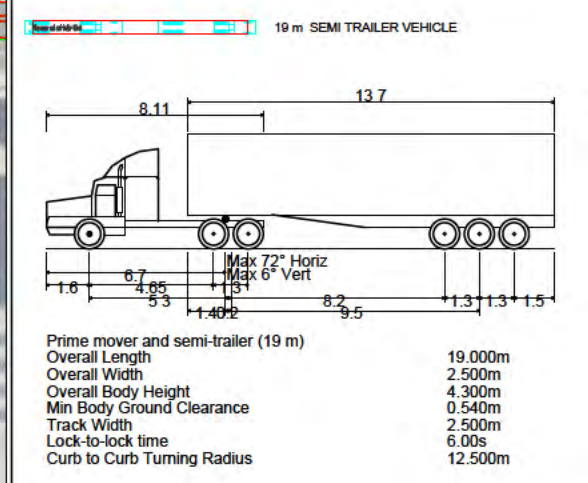
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			PREPARED FOR:	PACKAGE 01
				TAP 3 - PEDESTRIAN FOOTBRIDGE
				TEMPORARY WORKS
				TRAFFIC PLAN
				FILE No. 0001
				STATUS: IR
				REV E
				EDMS No.
				AMD No.
				STM-LORCASE-TW-DRG-0000



- GENERAL LEGEND
- EXISTING PAVEMENT
 - SITE COMPOUND (INDICATIVE)
 - WORK AREA (INDICATIVE)
 - WORK AREA (CONSTRUCTION UNDER TRAFFIC)
 - PROPOSED LINEMARKING DESIGN
 - EXISTING FEATURES
 - CURRENT TRAFFIC CONTROL ARRANGEMENT
 - PCB EXISTING TEMPORARY BARRIER
 - WFB EXISTING TEMPORARY BARRIER
 - EXISTING TEMPORARY CONTAINMENT FENCE
 - TRAFFIC BOLLARDS
 - TEMPORARY PORTABLE CONCRETE BARRIER
 - TEMPORARY END TREATMENT WITH HAZARD MARKER
 - TEMPORARY KLEMMFIX BARRIER
 - RRPM'S (HALF SPACED)
 - TEMPORARY CONTAINMENT FENCE / ANTI-GAWK SCREEN
 - TEMPORARY GATE
 - VEHICLE TURN PATH
 - VEHICLE WHEEL PATH
 - VEHICLE MOVEMENTS (CONSTRUCTION TRAFFIC)



NOTES

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								TAP 3 - PEDESTRIAN FOOTBRIDGE	
								TEMPORARY WORKS - TURNING PATHS	
								TRAFFIC PLAN	
								FILE No. 0001	
								STATUS: IF	
								REV E	
								STM-LORCASE-TW-DRG-0001	

DESIGNED	J. SANDOVAL	23/05/2023
DRG CHECK	P. SZUBERT	23/05/2023
DESIGN CHECK	P. SZUBERT	23/05/2023
APPROVED	P. SZUBERT	23/05/2023
PROJECT MGR	P. SZUBERT	23/05/2023

Level 8, 96 Berry Street, North Sydney	
NSW 2060, Australia	
Tel: 61 2 8259 0349	

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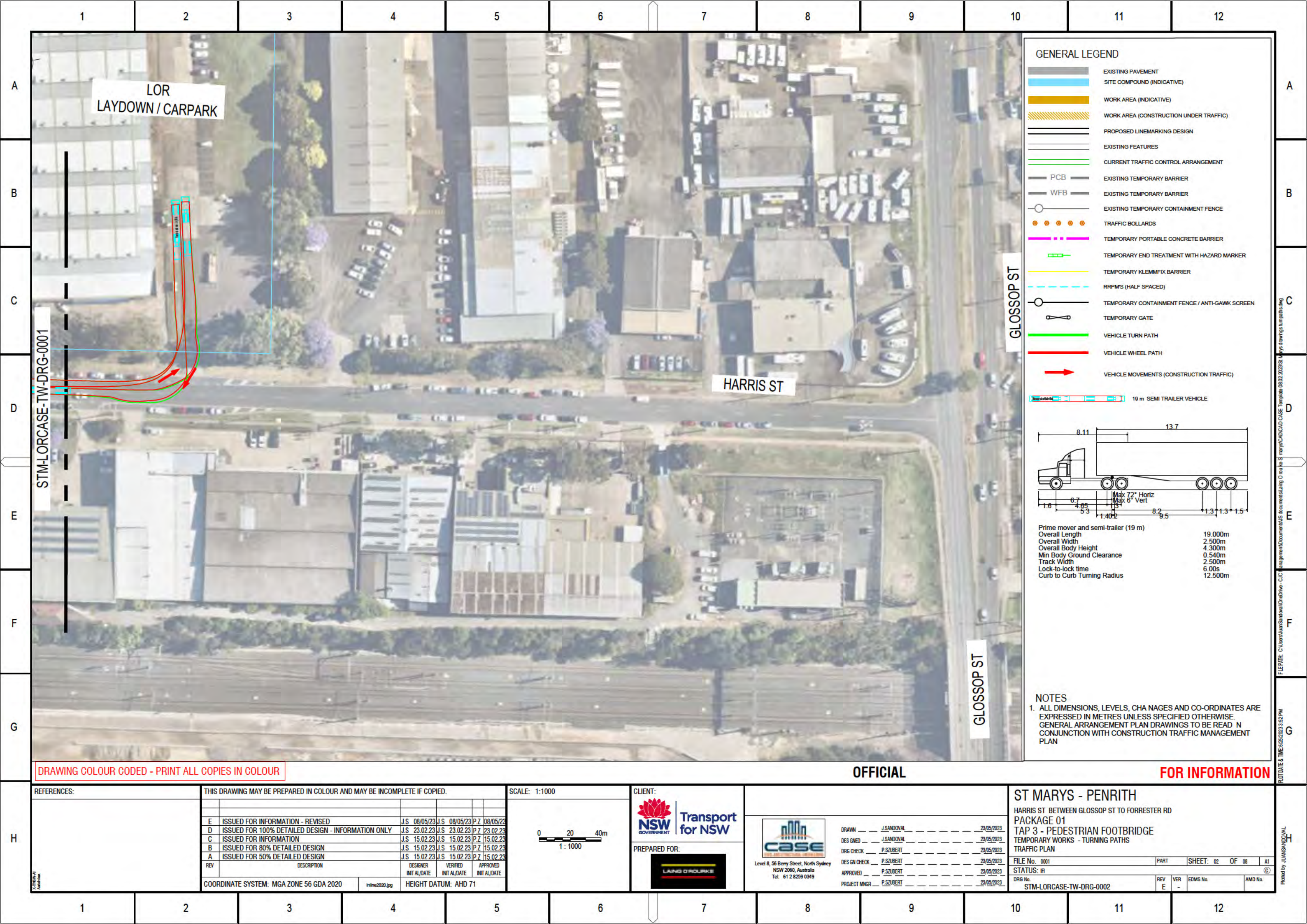
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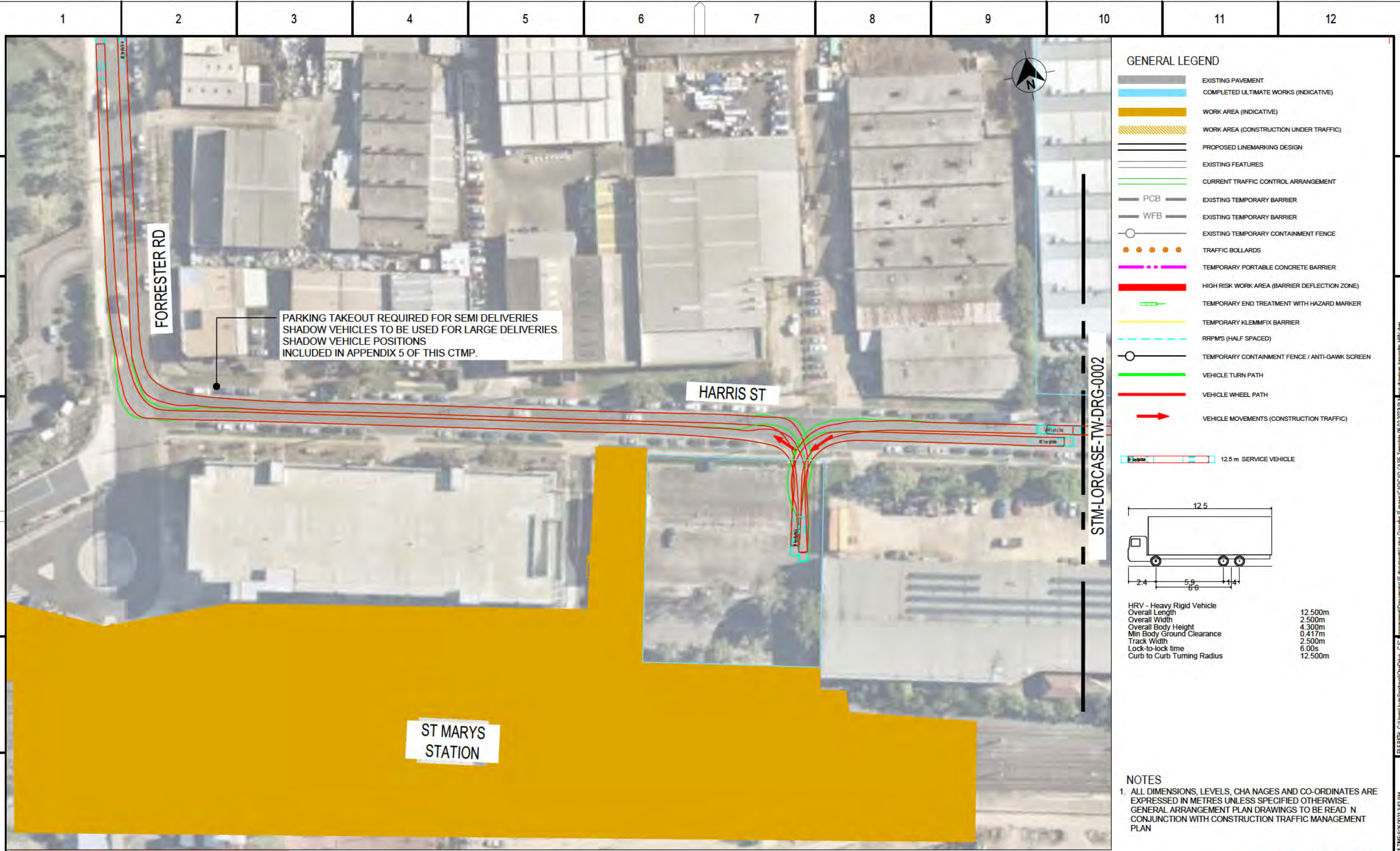
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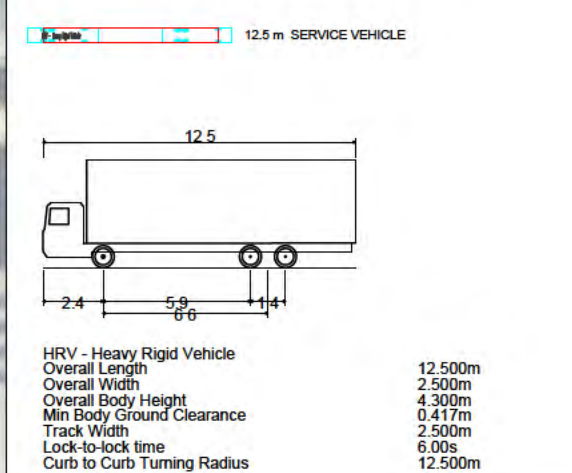
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FILE No. 0001	PART	SHEET: 01 OF 08	A1
STATUS: IF			
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- GENERAL LEGEND
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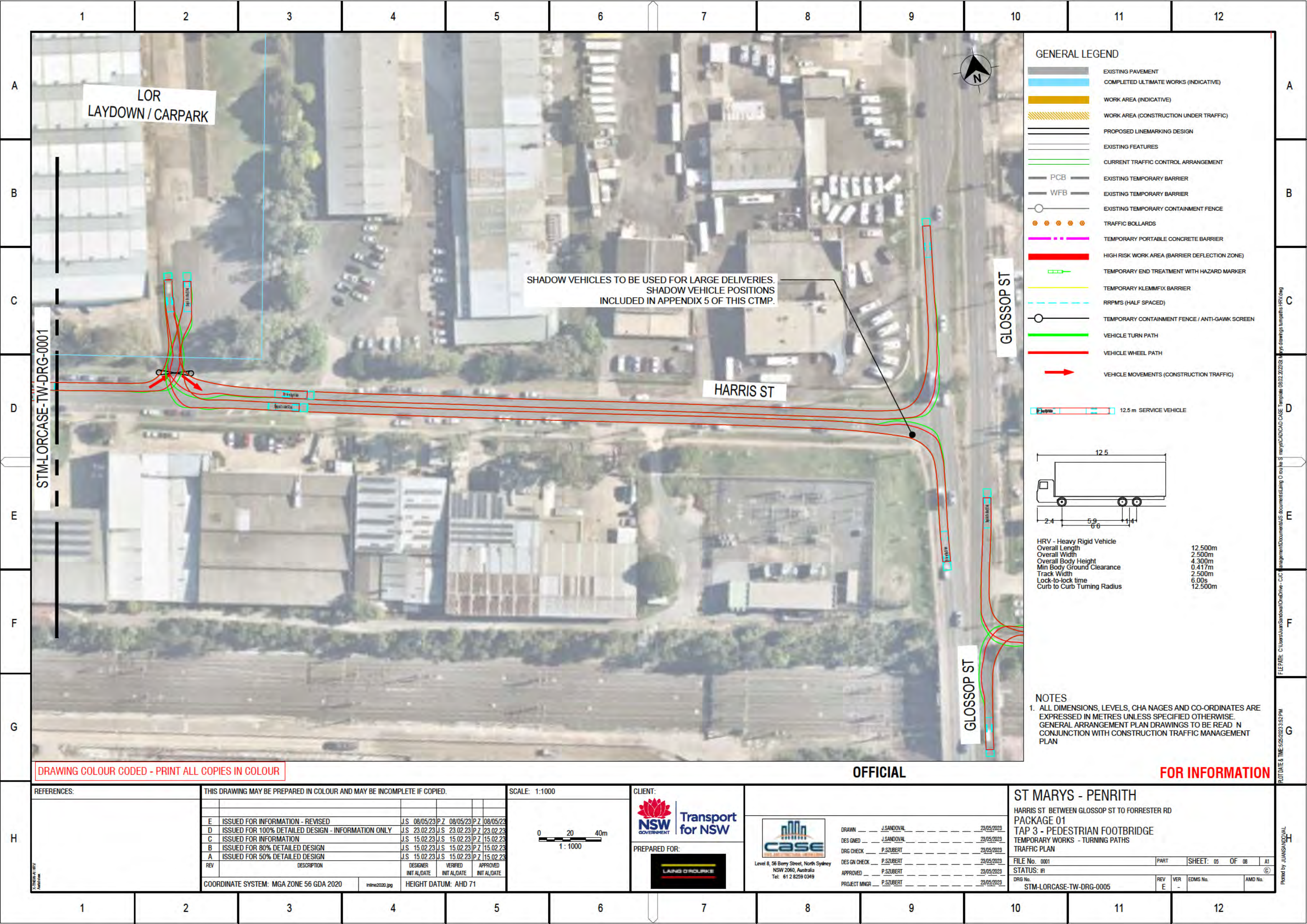
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DESIGN CHECK	P.SZUBERT	23/05/2023
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PROJECT MGR	P.SZUBERT	23/05/2023

COORDINATE SYSTEM: MGA ZONE 56 GDA 2020	HEIGHT DATUM: AHD 71
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CASE	

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PACKAGE 01	STM-LORCASE-TW-DRG-0004				
TAP 3 - PEDESTRIAN FOOTBRIDGE					
TEMPORARY WORKS - TURNING PATHS					
TRAFFIC PLAN					



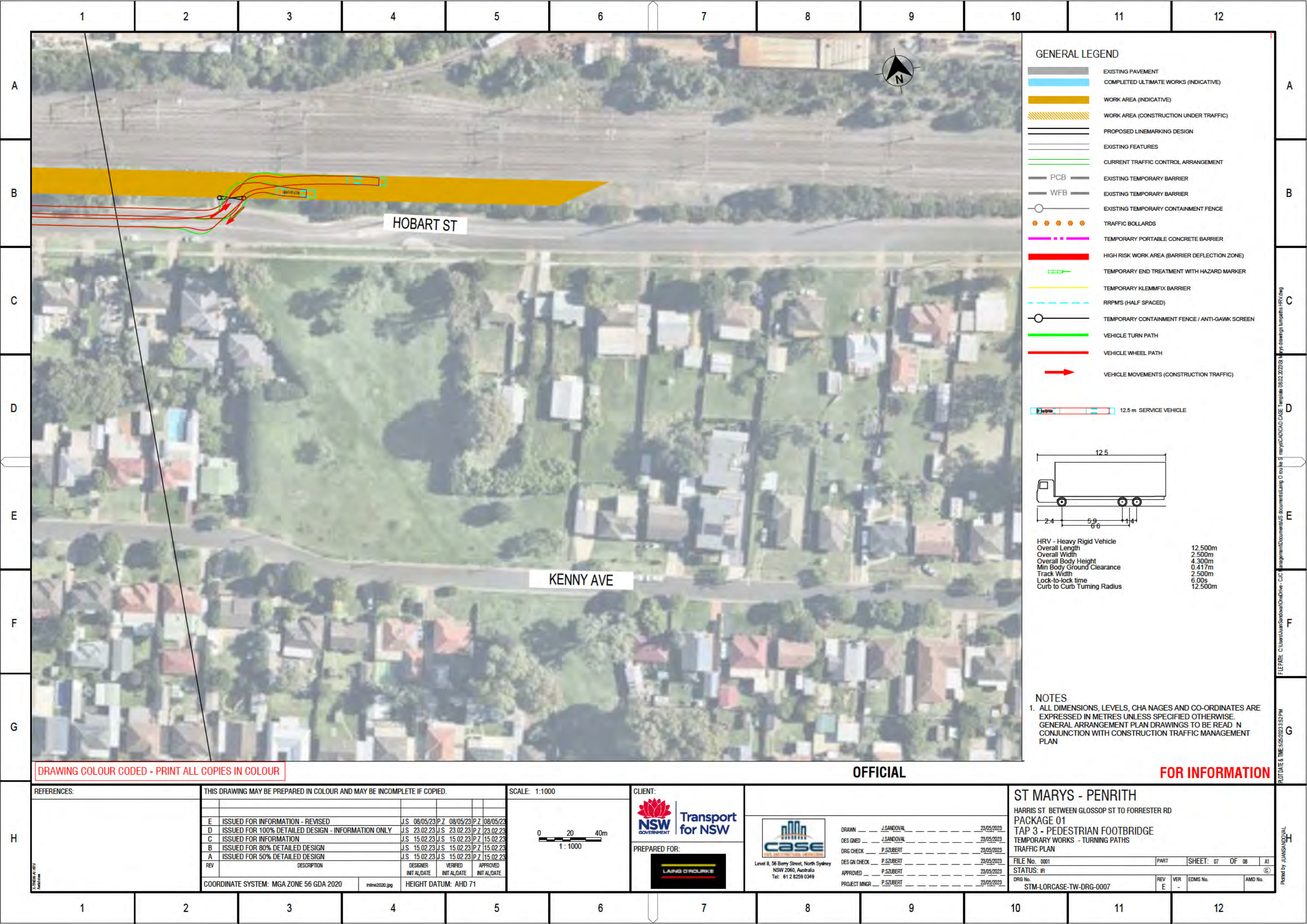


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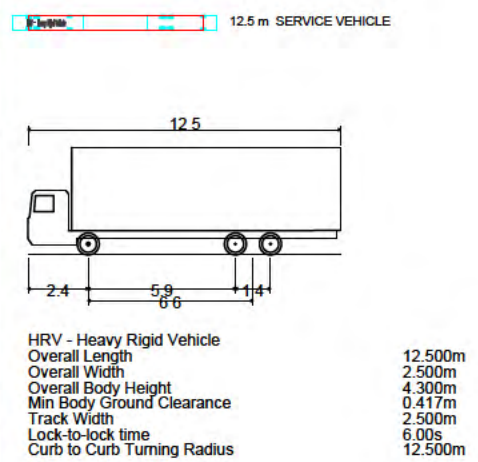
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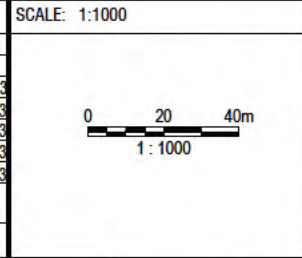
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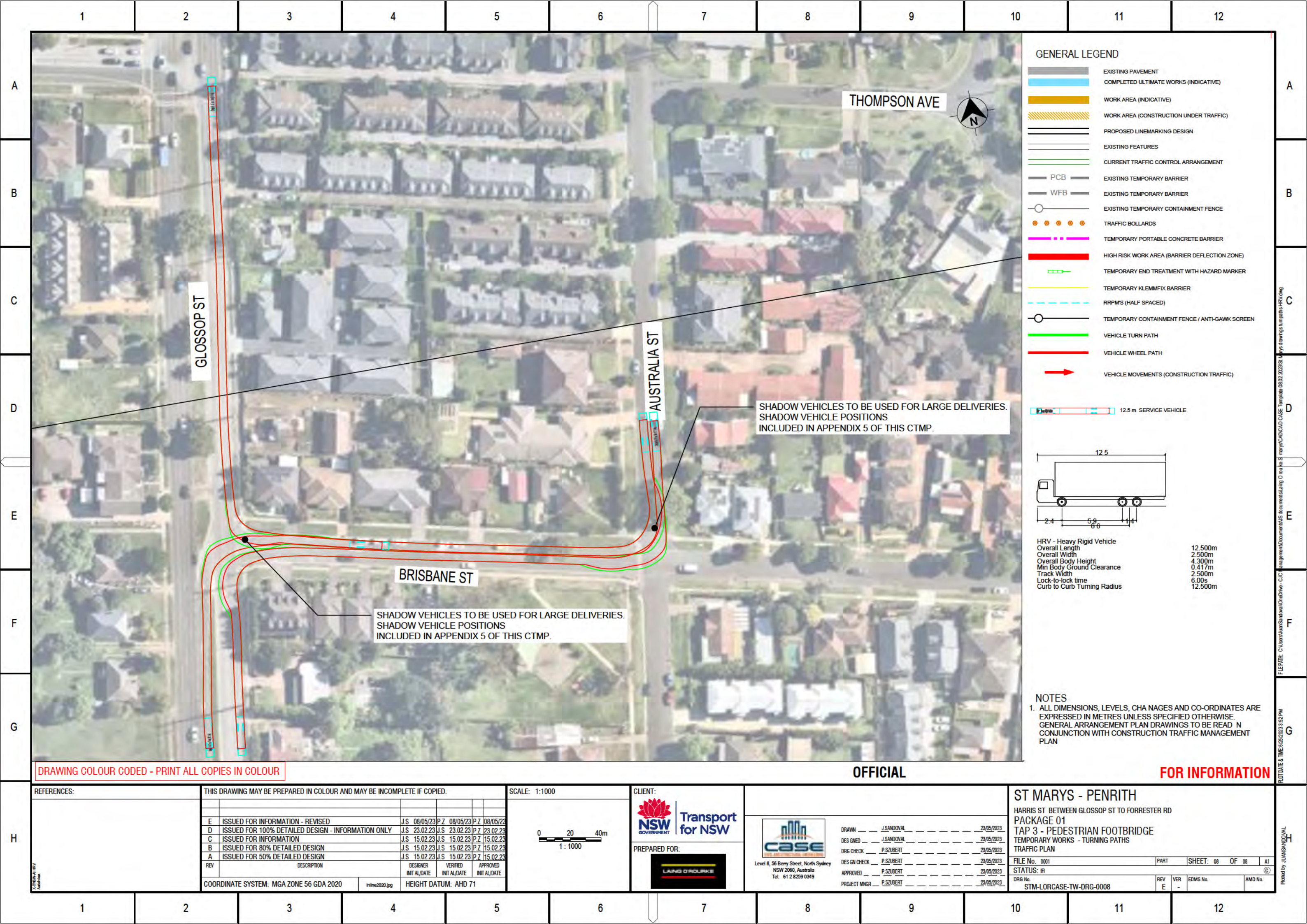
CLIENT:

PREPARED FOR:

DRAWN: J.SANDOVAL 23/05/2023			
DES GND: J.SANDOVAL 23/05/2023			
DRG CHECK: P.SZUBERT 23/05/2023			
DES GN CHECK: P.SZUBERT 23/05/2023			
APPROVED: P.SZUBERT 23/05/2023			
PROJECT MNGR: P.SZUBERT 23/05/2023			

ST MARYS - PENRITH
HARRIS ST BETWEEN GLOSSOP ST TO FORRESTER RD
PACKAGE 01
TAP 3 - PEDESTRIAN FOOTBRIDGE
TEMPORARY WORKS - TURNING PATHS
TRAFFIC PLAN

FILE No. 0001	PART	SHEET: 07 OF 08	A1
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Appendix 2 Dilapidation report



Footbridge St Marys

Harris Street & Forrester Road Dilapidation Survey

Inspection Date: 21st May 2023
Rev. 0



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1. Introduction

This dilapidation survey report is prepared for Transport for NSW and Sydney Metro Western Sydney Airport on the Penrith City Council assets of Harris Street and Forrester Road. The scope of the dilapidation survey report includes an unobtrusive visual inspection of the road assets. Photographic records of the visible defects are included in the Appendices of this report.

Further dilapidation surveys will be undertaken at Hobart Street, Brisbane Street, Australia Street and Sydney Street prior to the use of any Heavy Vehicles in conjunction with the Project.

2. Methodology

The following methodology was used to compile this condition report.

- Segment the area into workable areas.
 - Area 1: Council Assets - Harris Street eastbound (north)
 - Area 2: Council Assets - Harris Street westbound (south)
 - Area 3: Council Assets - Forrester Road entrance to ACFS facility
- Photograph the areas and identify any defects or cracks
- Where appropriate and possible use a crack width gauge
- Photograph the issues and provide a description.

3. Condition Summary

The inspections were undertaken in Harris Street where the full length of the street was documented on both sides, commencing from the north-western corner at the intersection with Forrester Road. There is typical wear and minor damage to the bitumen surface and consistent with normal use on the eastbound side, with the majority of damage being found within the parking bays or at entrances to properties. There is evidence of more significant damage on the westbound side, including the entrance to the hardstand carpark.

In some locations there have been resurfacing which has resulted in cracks at the join of those works to that of the pre-existing surface, particularly at Forrester Road.

The area in Forrester Road was inspected including the footpaths and roundabout. There is typical wear on surfaces as documented.

Particulars are noted against each photograph in the Appendices and colour coded orange where a detailed description of damage is provided.

4. Report Scope

4.1 Standards

This report is based on a Standard Property inspection as defined in Australian Standard AS 4349.2-2018.

The report is completed within the Limitations of the Standard (Clause 1.2) which states A report prepared in accordance with this Standard is not a certificate of compliance of the property within the requirements of the Act, regulation, ordinance, local law or by-law.

Purpose of Inspection (Clause 2.2), which states 'the purpose of the inspection is to provide technical information to the client, an owner prospective purchaser or other interested party regarding the condition of the property at the time of inspection.'

Scope of Inspection (Clause 2.3) which states Clause 2.3.1 – 'the inspection shall comprise visual assessment of the agreed areas of the property to identify all defects at the time of inspection.'



Areas for Inspection (Clause 2.3.2), states 'Safe and reasonable access may be a limiting factor in the definition of the scope of the inspection.'

Areas to be inspected (Clause 3.2) (3.2.1 General) which states 'the inspection shall include the building elements in accessible areas of the property, or as otherwise agreed in the inspection agreement.'

This report is not a warranty that defects do not exist in concealed areas.

4.2 Reliance on Visual Inspection

This Report is based on the results of a visual inspection, and we cannot therefore comment on faults, if any, which are below ground level, covered up, not fully accessible or which had not become apparent at the time of this inspection. The main areas of concern are noted in this report. We have not listed items which are considered petty or minor, nor have we commented where defects do not appear to exist.

The inspection did not include breaking apart, dismantling, removing or moving objects including personal possessions. The inspector cannot see other areas that are concealed or obstructed.

The inspector did not dig, gouge, force or perform any other invasive procedures.

This report does not and cannot make comment upon:

- defects that may have been concealed;
- the assessment or detection which may be subject to the prevailing weather conditions;
- whether or not services have been used for some time prior to the inspection and whether this will affect the detection other defects;
- site drainage (apart from surface water drainage);
- durability of exposed finishes;
- any area(s) or item(s) that could not be inspected by the contractor.

Accordingly, this report is not a guarantee that defects and/or damage does not exist in any inaccessible or partly accessible areas or sections of the property. It must be appreciated that this visual inspection and report can only address defects present and evident at the time of inspection and cannot extend to matters which subsequently materialise at a later stage or occur under different conditions or circumstances.

Appendix A – Photographic Record Area 1 – Harris Street (eastbound)



No. 001: Overview of Harris Street from the north-west corner at the intersection to Forrester Road. Survey began from this corner at 10m intervals, which are marked for distance reference.



No. 002: Western end of Harris Street as it abuts Forrester Road. There is a crack at the join in road surfaces at this intersection and minor damage present.



No. 003: View of building and footpath area on the northwest corner. The layback and kerbing are cracked and damaged



No. 004: 10m



No. 005: Gouge marks on the road surface



No. 006: 20m



No. 007: Gouge marks on the road surface



No. 008: 25m



No. 009: 30m. Gouge marks on the road surface



No. 010: 40m



No. 011: Gouge marks on the road surface at approx. 45m



No. 012: 50m. Gouge marks to road surface



No. 013: 60m. Repairs to road surface across width of street at approx. 62m



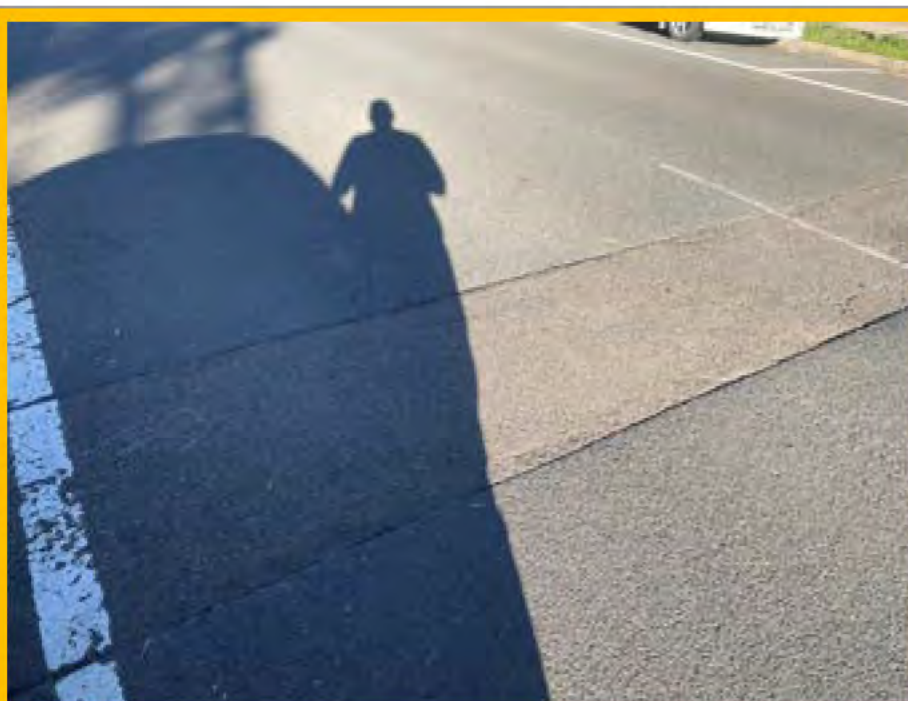
No. 014: 70m



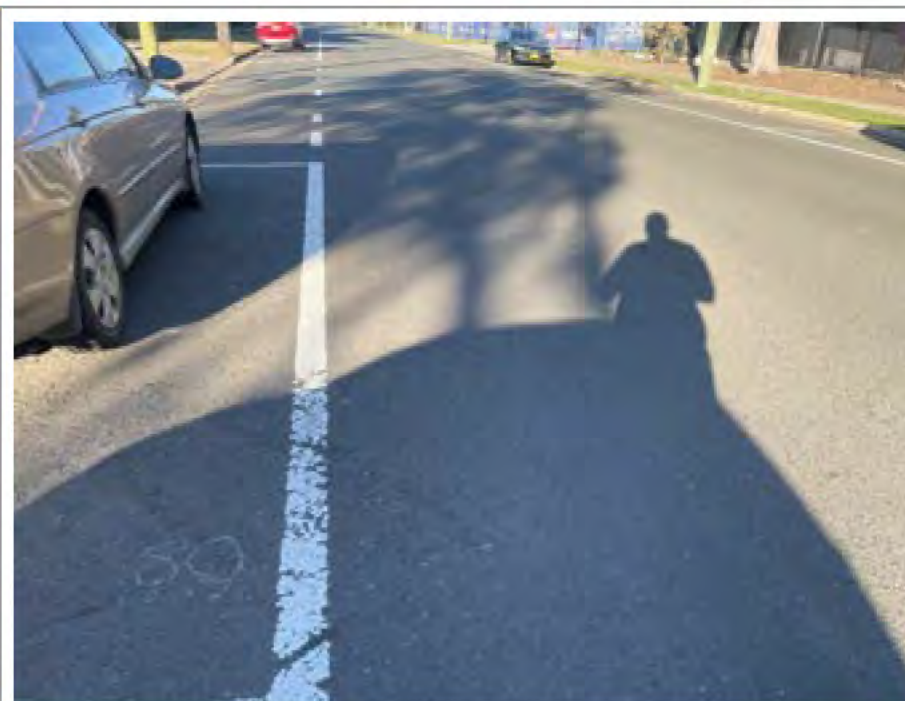
No. 015: 70m



No. 016: 75m. Repairs to road surface at kerblin



No. 017: Repairs to road surface across width of street at approx. 78m



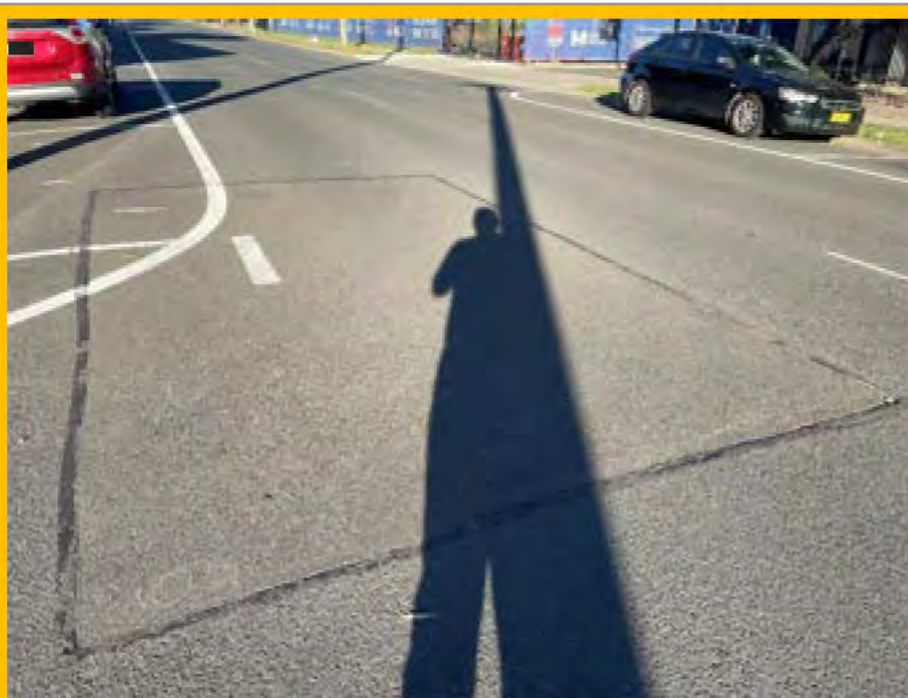
No. 018: 80m



No. 019: 90m



No. 020: 100m



No. 021: local repair to road surface from 103m to 108m



No. 022: 110m



No. 023: 120m



No. 024: 130m



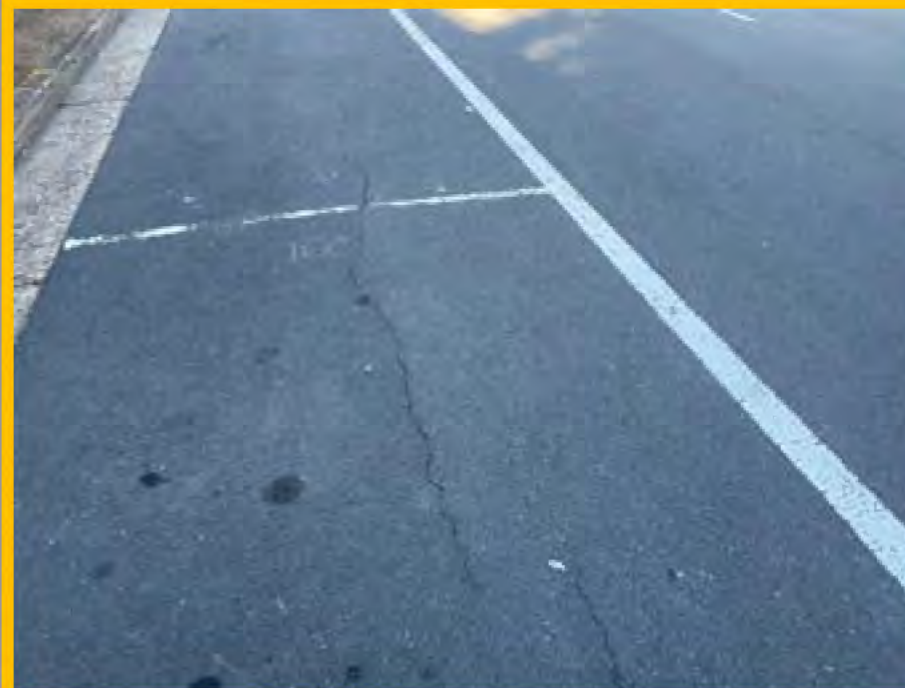
No. 025: Longitudinal cracking in road surface from approx. 135m to 140m



No. 026: 140m



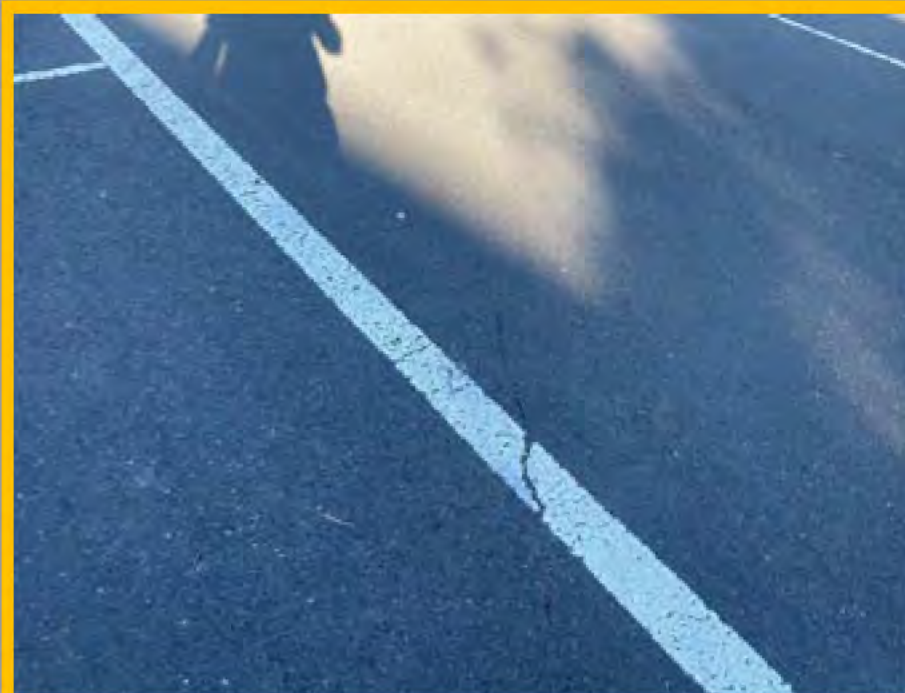
No. 027: Longitudinal cracking in road surface from approx. 150m to 158m



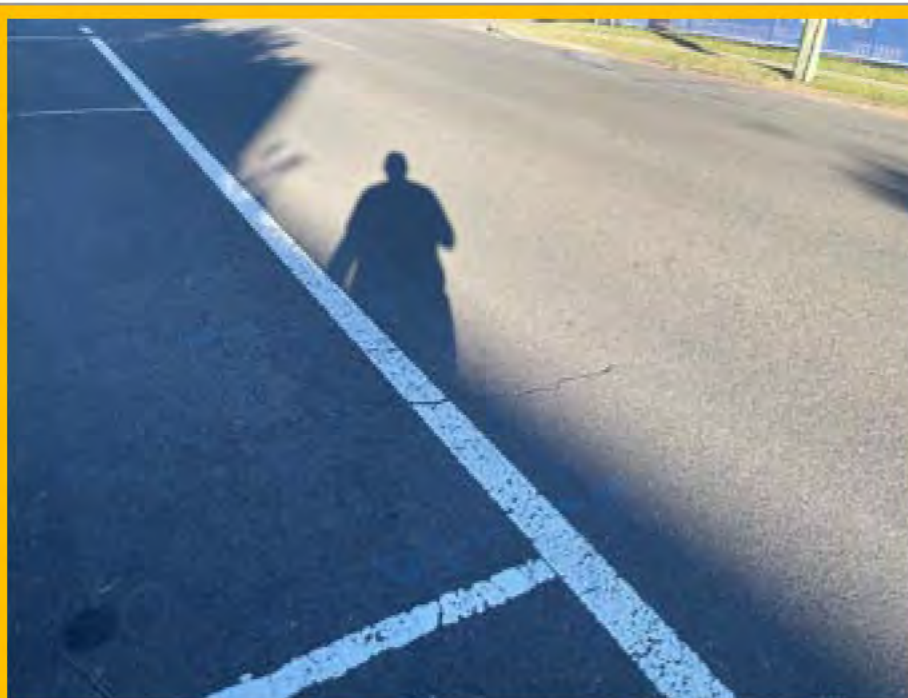
No. 028: Longitudinal cracking in road surface from approx. 158m to 163m



No. 029: 160m



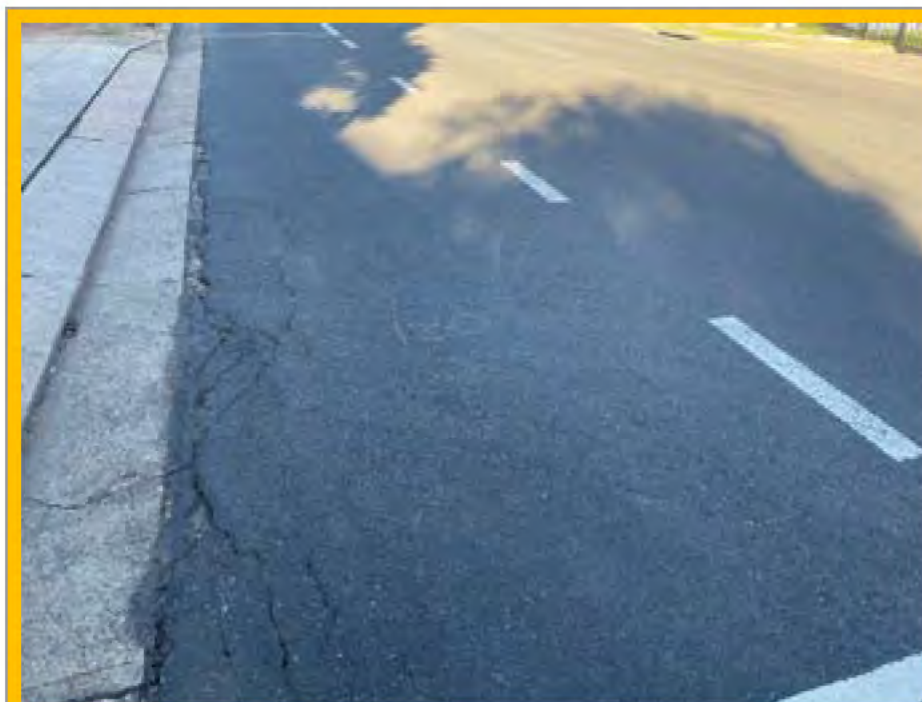
No. 030: Cracking in road surface at approx. 163m



No. 031: Lateral cracking from the kerb toward the centre of the road at approx. 168m



No. 032: 170m



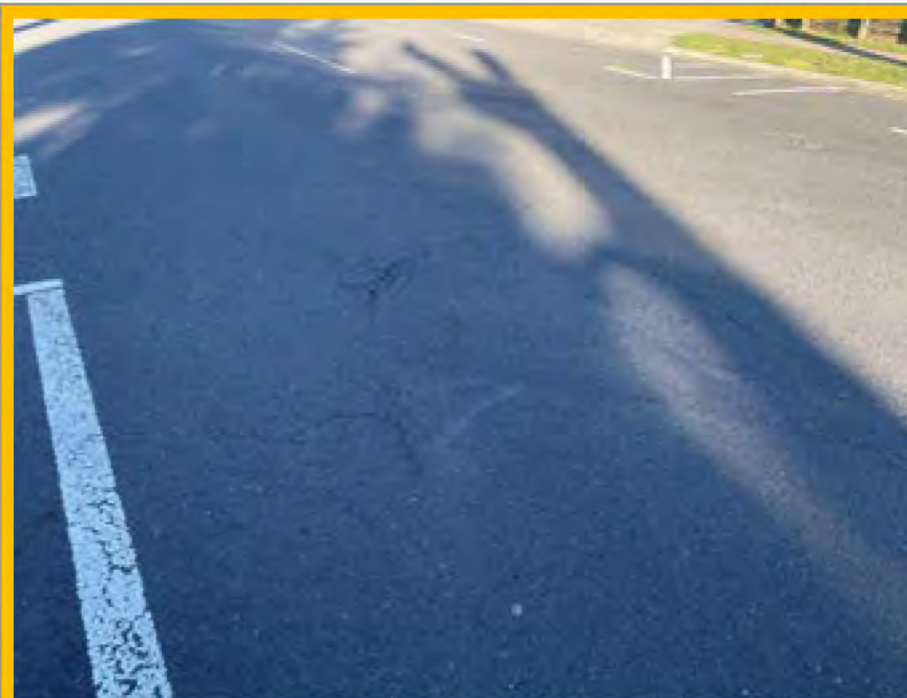
No. 033: damage at entrance to 25 Harris St (180m)



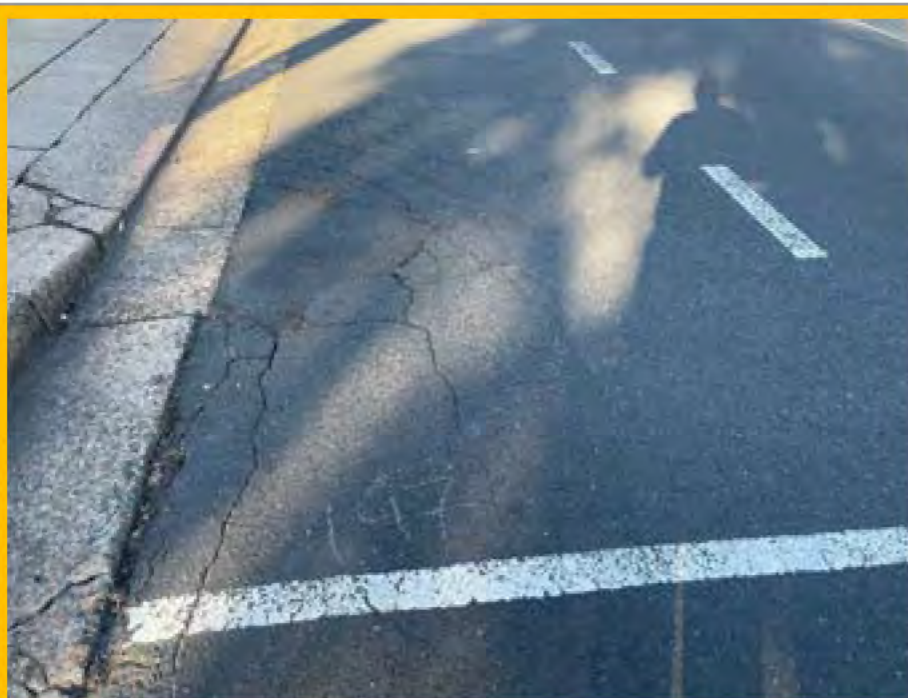
No. 034: 180m



No. 035: 190m



No. 036: cracking in surface at approx. 194, 195m



No. 037: damage radiating out from the layback at entrance to 21 Harris St (197m)



No. 038: 200m



No. 039: 210m



No. 040: 220m



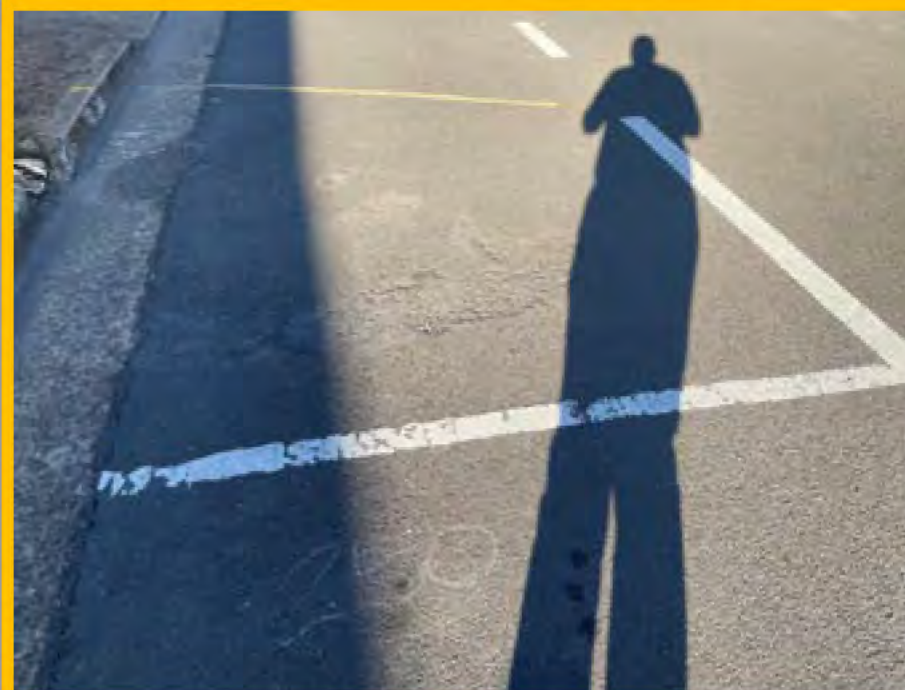
No. 041: 230m



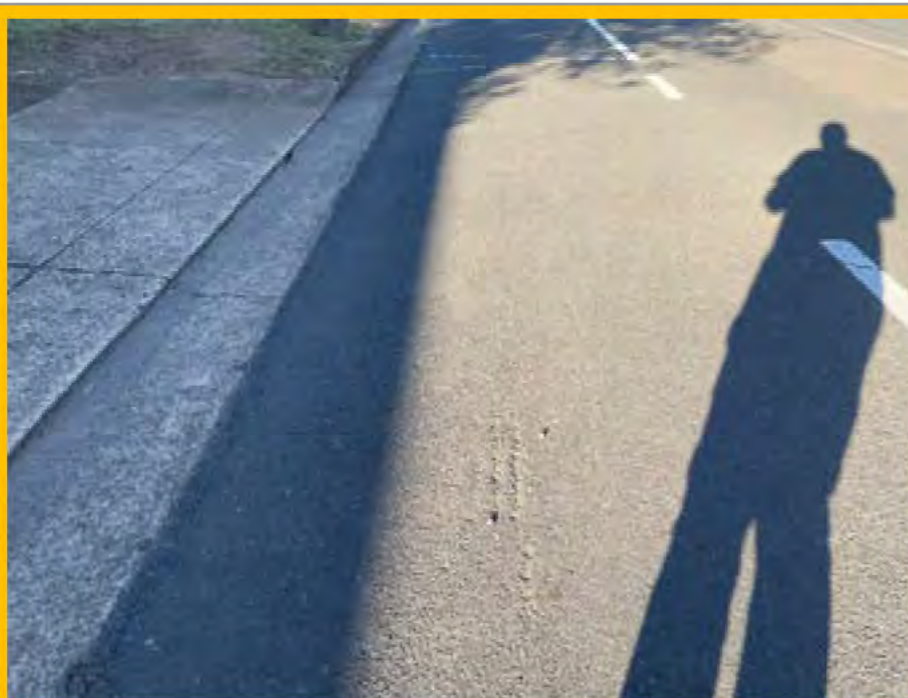
No. 042: 240m



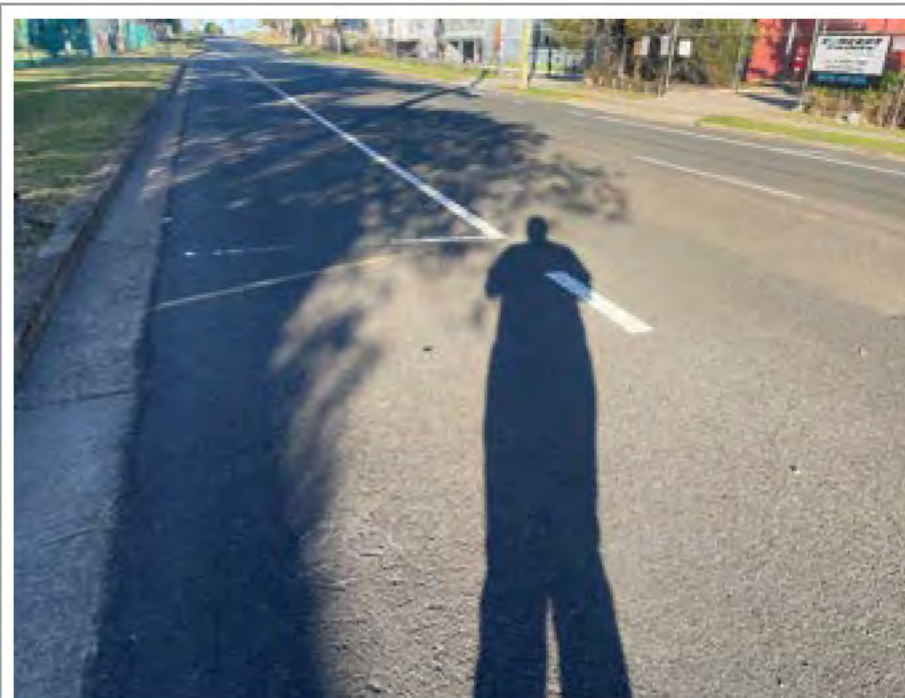
No. 043: 250m



No. 044: depression in surface at approx. 251m



No. 045: gouge marks in road surface at entrance to 19 Harris St (255m)



No. 046: 260m



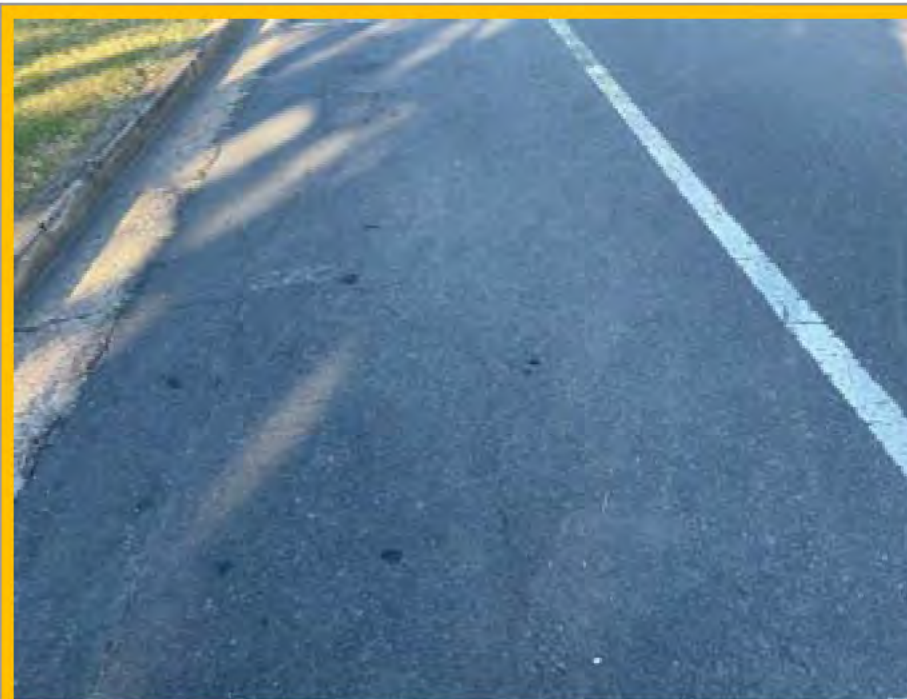
No. 047: cracking at repair to road surface from 261m to 265m



No. 048: cracking in surface at approx. 268m



No. 049: 270m



No. 050: cracking in surface from approx. 279m to 283m



No. 051: 280m. Cracking in surface from approx. 279m to 283m



No. 052: longitudinal cracking in surface from approx. 286m to 290m



No. 053: 290m



No. 054: longitudinal cracking from 293m to 300m



No. 055: longitudinal cracking from 298m to 310m



No. 056: 300m



No. 057: longitudinal cracking and damage at entrance to 19 Harris Street (from 298m to 310m)



No. 058: 310m



No. 059: lateral cracking at 315m



No. 060: 320m



No. 061: lateral cracking from kerbline to centre of road at approx. 323m



No. 062: 330m. Lateral cracking at kerbline



No. 063: 340m. lateral cracking at approx. 341m



No. 064: cracking from centre of road leading toward kerblines at approx. 344m to 352m



No. 065: 350m



No. 066: continuation of cracking leading to driveway



No. 067: damage to road surface at layback to 17 Harris St (356m to 364m)



No. 068: 360m. continuation of damage to road surface at driveway



No. 069: 370m



No. 070: 380m. Pothole in road at approx. 383m

	
<p>No. 071: 390m</p>	<p>No. 072: 400m</p>



No. 073: 410m



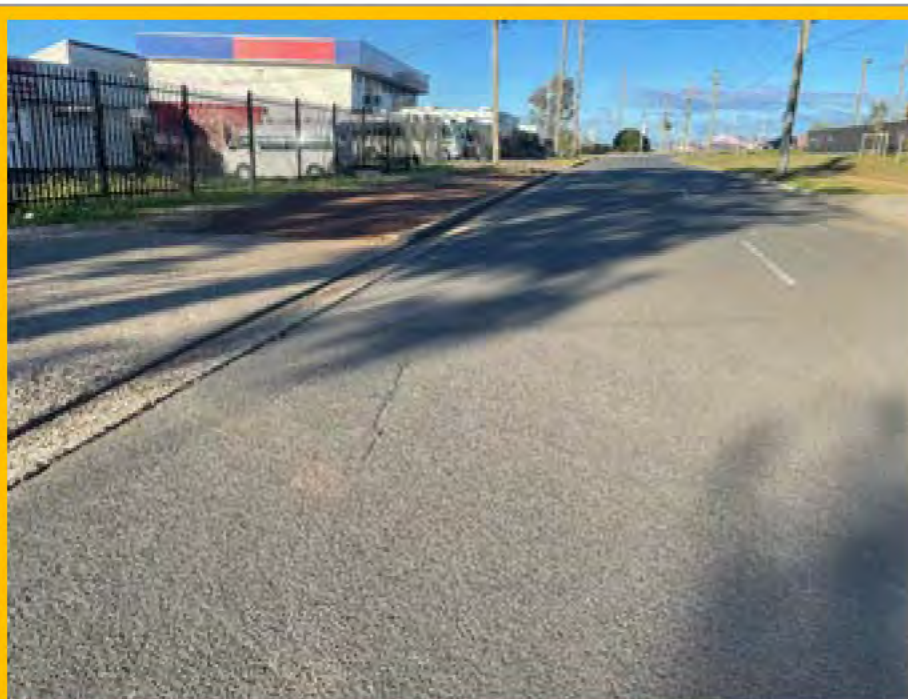
No. 074: 420m



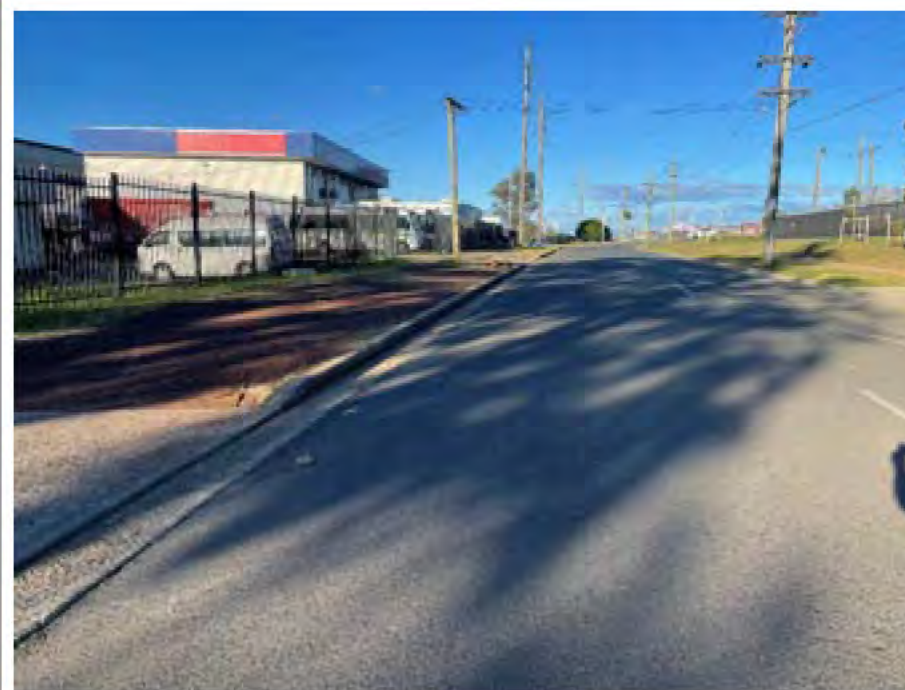
No. 075: 430m



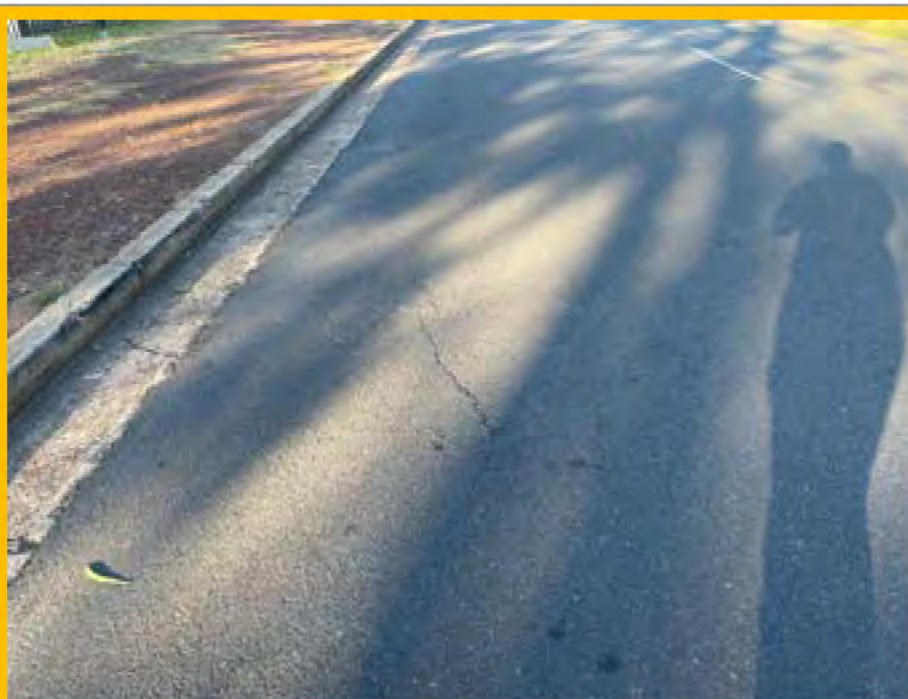
No. 076: 440m



No. 077: cracking parallel to layback at 7 Harris St



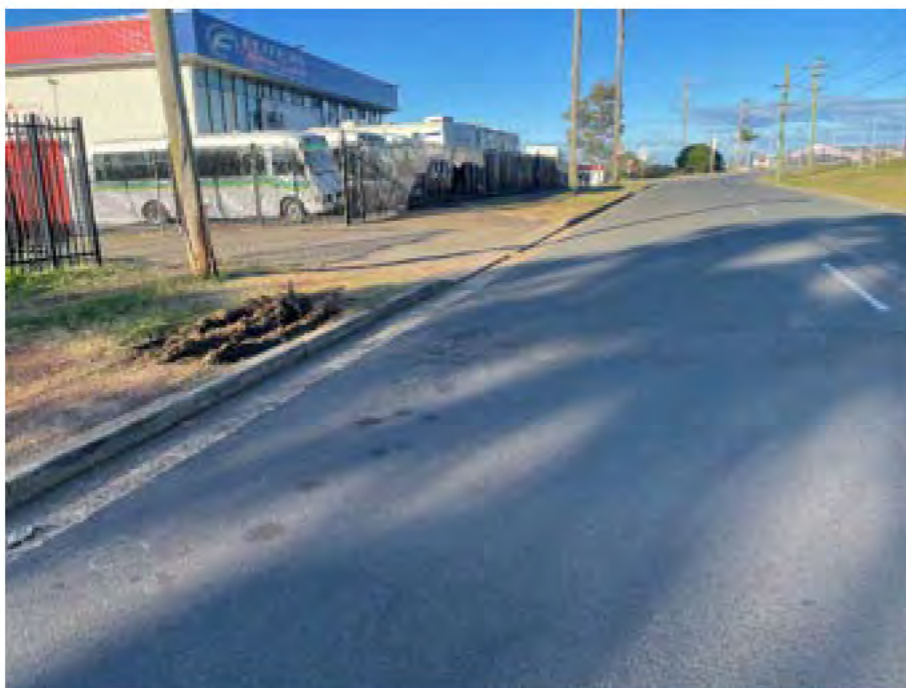
No. 078: 450m



No. 079: cracking in road surface at approx. 456m



No. 080: 460m



No. 081: 470m



No. 082: Repairs to road surface across width of street at approx. 474m



No. 083: 480m



No. 084: 490m



No. 085: 500m. Gouging to road surface at approx. 499m



No. 086: 510m



No. 087: 520m



No. 088: 530m



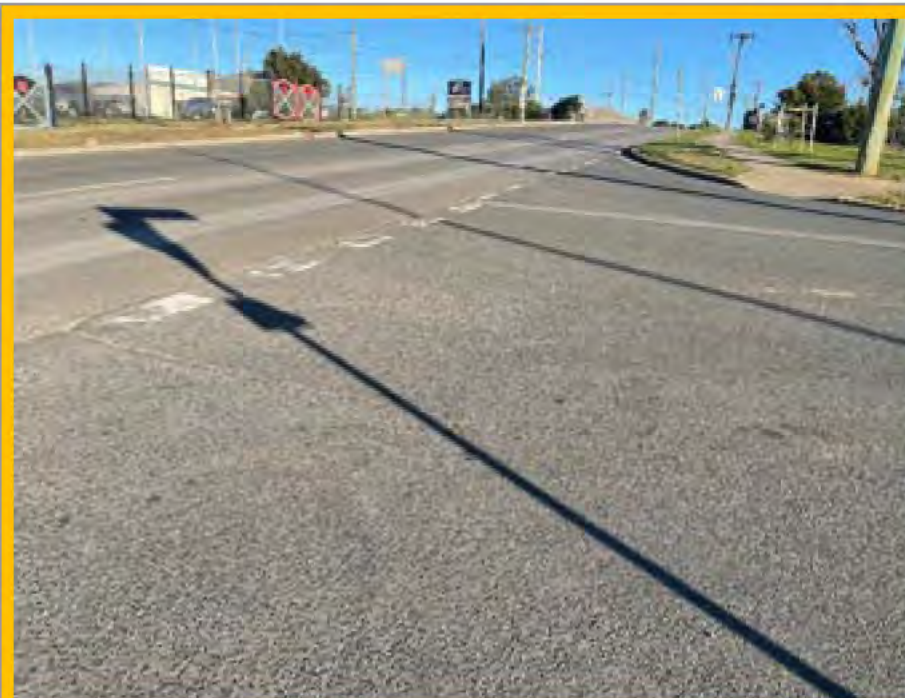
No. 089: 540m



No. 090: Cracking and damage to kerb line at corner at approx. 545m



No. 091: longitudinal cracking commencing approx. 3m from intersection at Glossop St



No. 092: Eastern end of Harris Street as it abuts Glossop St. There is a crack at the join in road surfaces at this intersection and minor damage present.

Appendix B – Photographic Record Area 2 – Harris Street (westbound)

	
<p>No. 001: Overview of Harris Street from the southeast corner at the intersection to Glossop Street. Survey began from this corner at 10m intervals which are marked for distance reference.</p>	<p>No. 002: varying cracks to the road surface 5m from southeast corner</p>



No. 004: 10m



No. 004: 20m



No. 005: 30m



No. 006: general deterioration at 30m and beyond, and gouge marks at approx. 35m



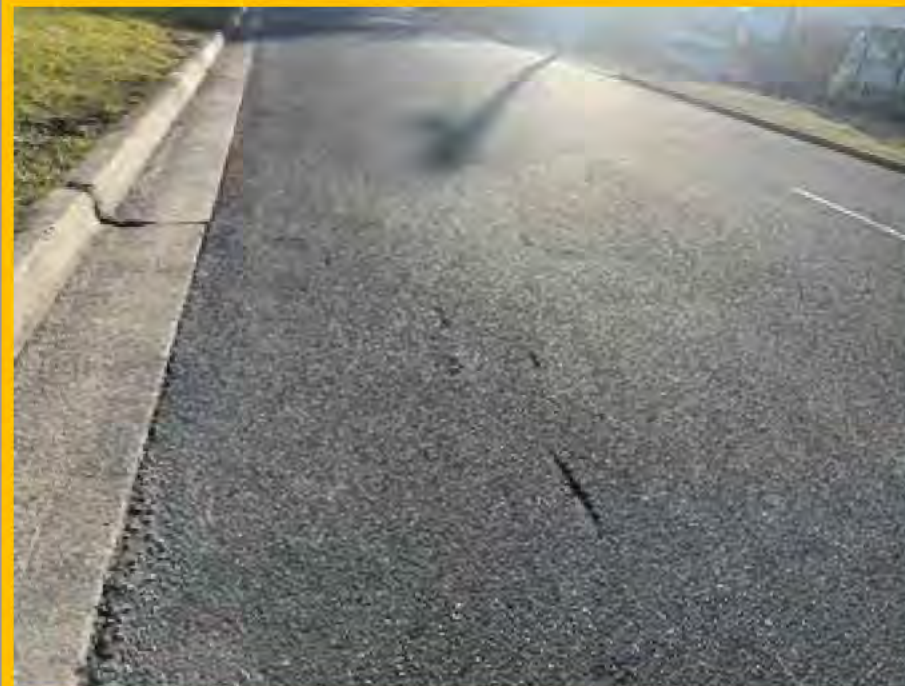
No. 007: 40m



No. 008: gouge marks at 44m



No. 009: gouge marks at 45-50m



No. 010: 50m. varying gouge marks between 50m and 60m



No. 011: lateral cracking extending from kerb line at 53m



No. 012: 60m. gouge marks present



No. 013: 70m



No. 014: repairs to road surface across width of street at approx. 78m



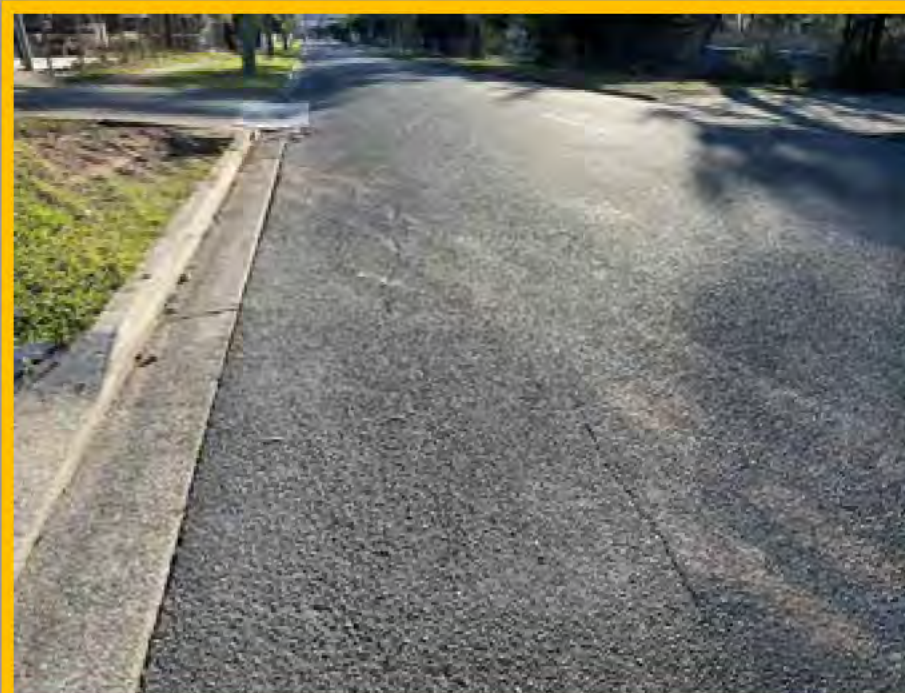
No. 015: repairs to road surface across width of street at approx. 78m



No. 016: 80m. crack adjacent to kerb line



No. 017: varying gouge marks from 85-90m



No. 018: 90m



No. 019: multiple longitudinal cracks from approx. 92m and beyond



No. 020: 100m. continuation of cracking. Significant damage to road surface and layback at 6 Harris St



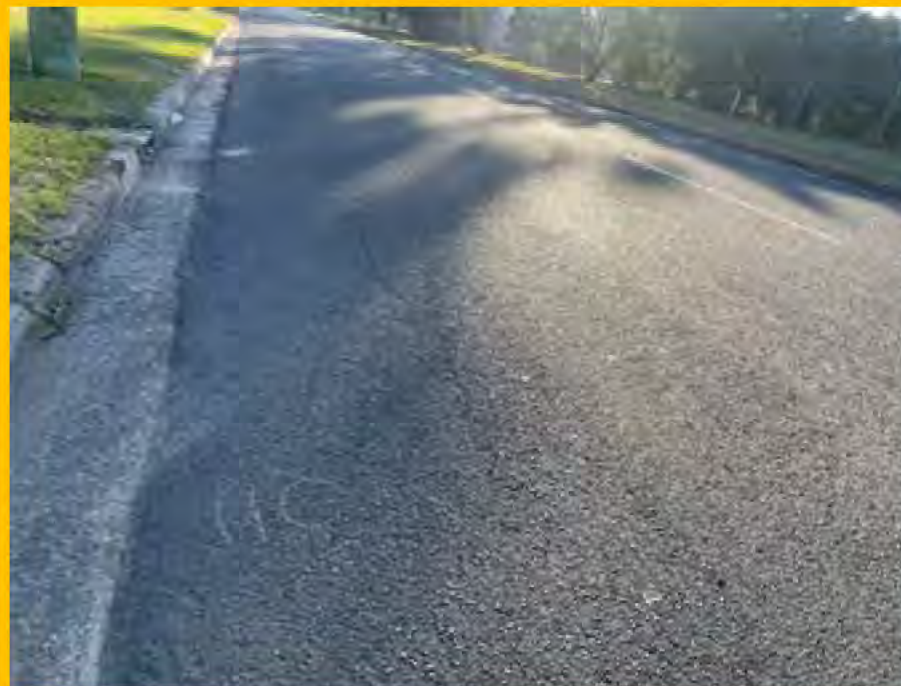
No. 021: damage at 6 Harris St



No. 022: continuation of cracking from 100m and beyond



No. 023: multiple gouge marks and cracking at approx. 104m



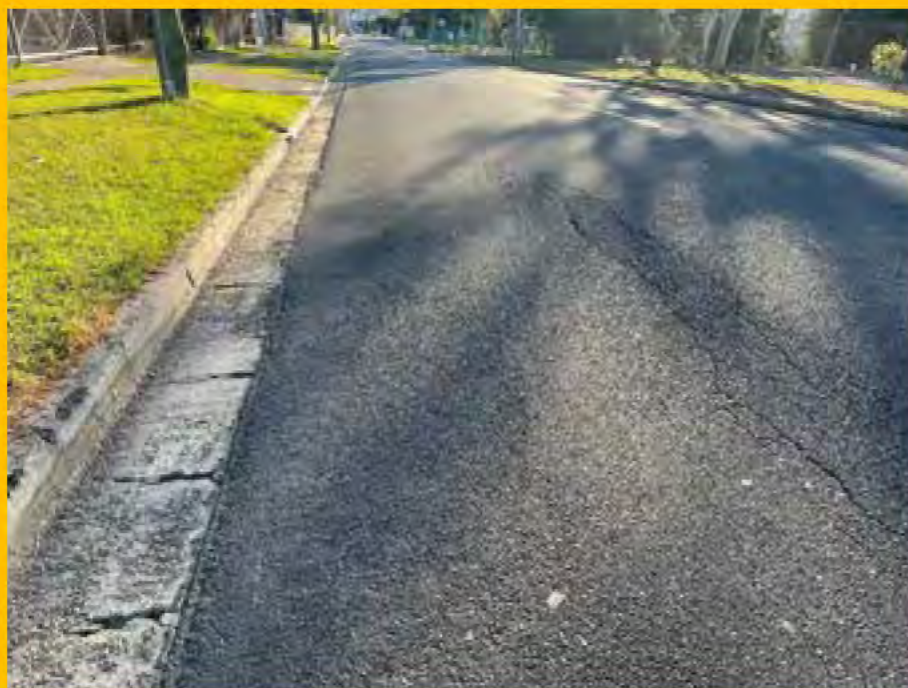
No. 024: 110m. longitudinal cracking continues



No. 025: continuation of cracking from 110-120m



No. 026: 120m. multiple cracks continuing from 120m and beyond



No. 027: 130m. indentation to road surface and cracking continues



No. 028: 140m. continued cracking



No. 029: multiple gouge marks from layback at 8 Harris St (approx. 145m)



No. 030: gouge marks at 8 Harris St



No. 031: gouge marks at 8 Harris St



No. 032: gouge marks at 8 Harris St



No. 033: gouge marks at 8 Harris St



No. 034: 150m. cracking to road surface extends to approx. 151m



No. 035: 160m



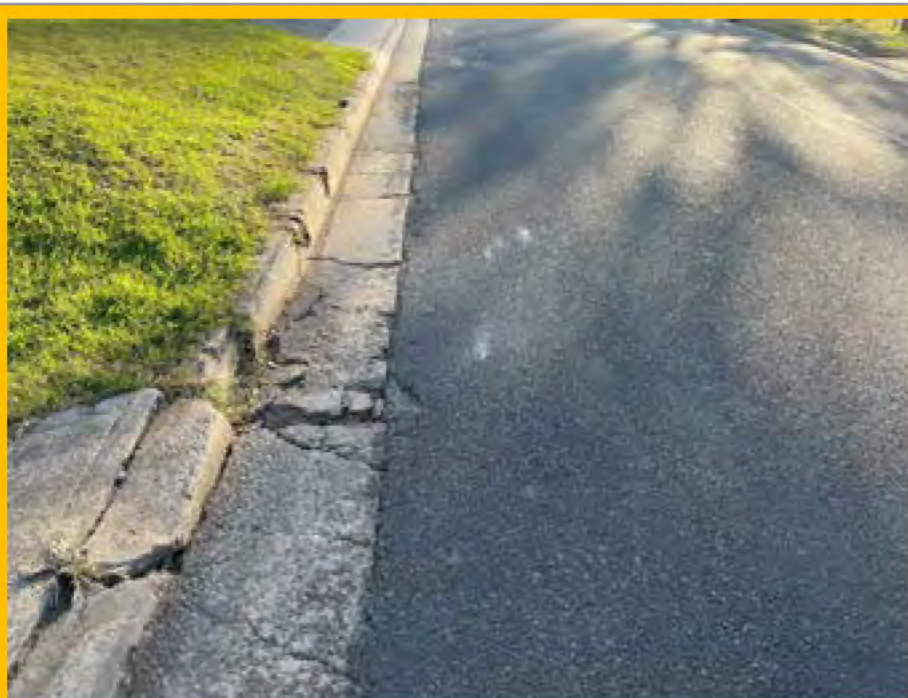
No. 036: 170m



No. 037: multiple indentations at approx. 177m



No. 038: 180m. gouge marks at layback to 12 Harris St extending to road centre



No. 039: damage at layback to 12 Harris St (approx. 183m)



No. 040: 190m



No. 041: deterioration and cracking to road surface from 190 to 193m at layback to 14 Harris St



No. 042: 200m. Gouge marks adjacent to eastern layback at 14-16 Harris St



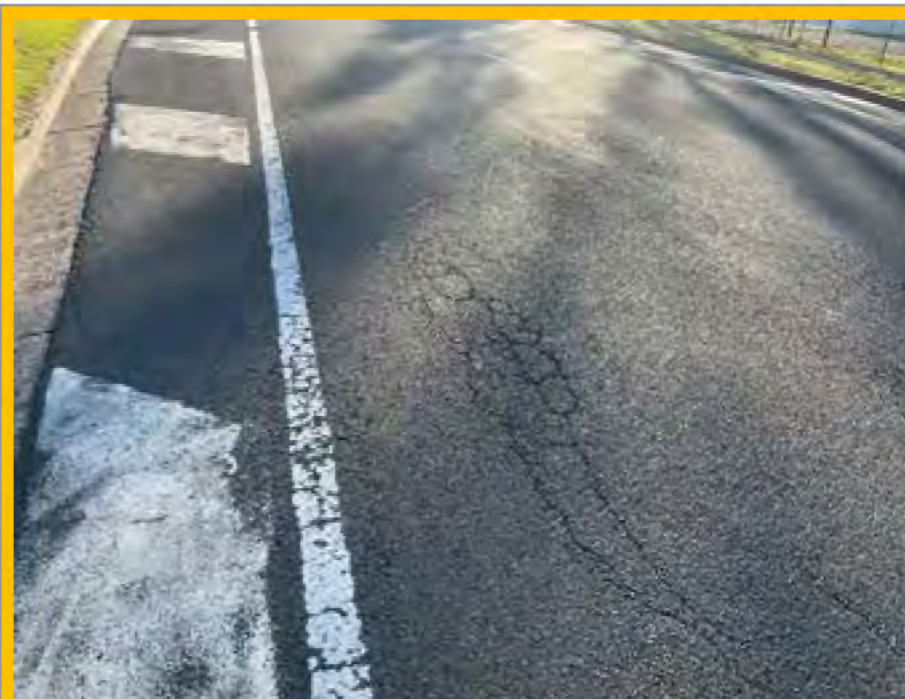
No. 043: longitudinal cracking at road centre at approx. 208m



No. 044: 210m



No. 045: cracking and deterioration of road surface from 210m to approx. 217m



No. 046: cracking and deterioration of road surface from 210m to approx. 217m



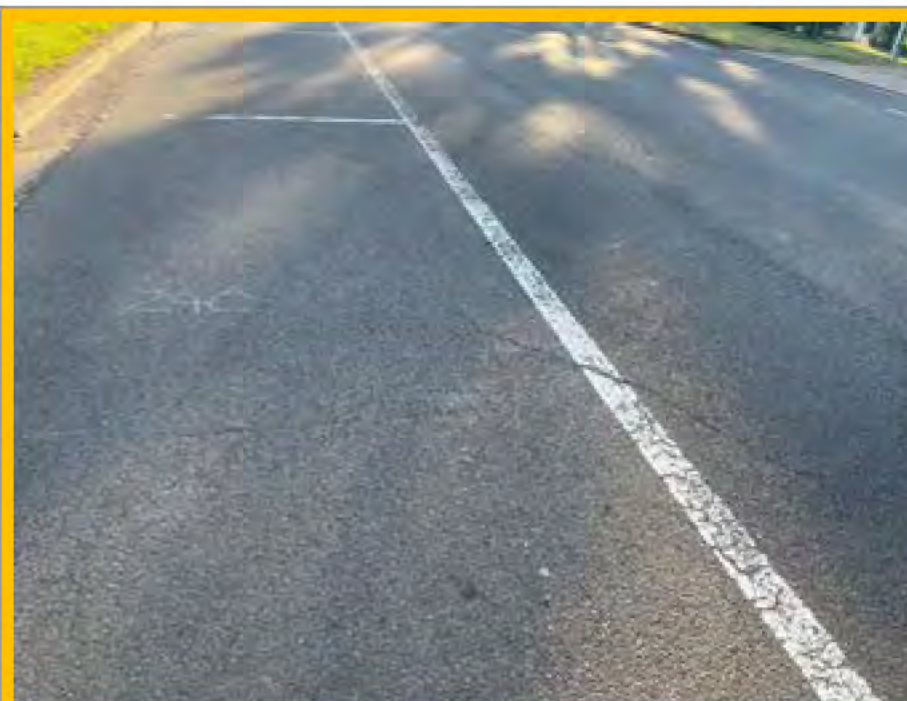
No. 047: 220m



No. 048: road surface repairs and pothole at approx. 229m



No. 049: 230m



No. 050: cracking to road surface at 239m



No. 051: 240m



No. 052: longitudinal crack in road centre at join in materials commences from approx. 240m and continues through to approx. 290m



No. 053: continuation of crack in road centre. Minor gouging in parking bay at approx. 245m



No. 054: 250m



No. 055: continuation of crack in road centre



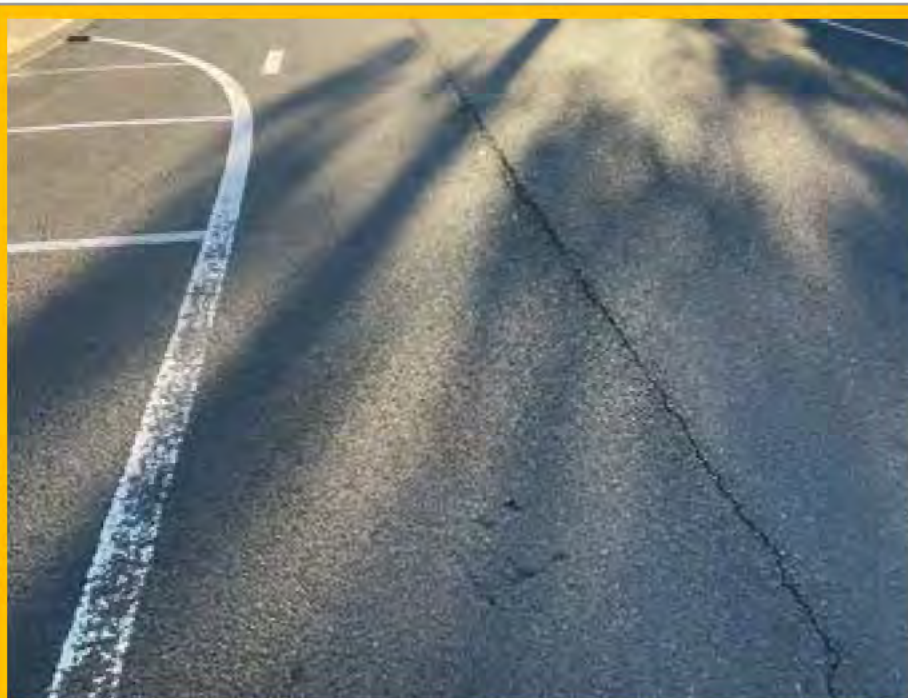
No. 056: 260m



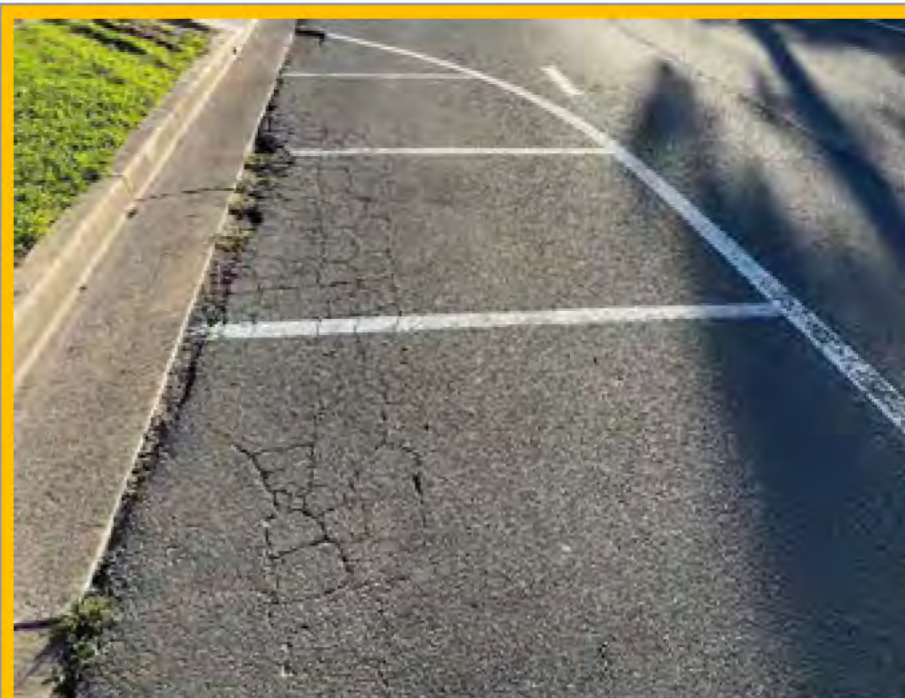
No. 057: cracking and deterioration of road surface at western layback to 14-16 Harris St



No. 058: continuation of crack in road centre



No. 059: continuation of crack and gouging in road surface at approx. 265m



No. 060: deterioration of road surface adjacent to kerb line from 265m to 270m



No. 061: 270m



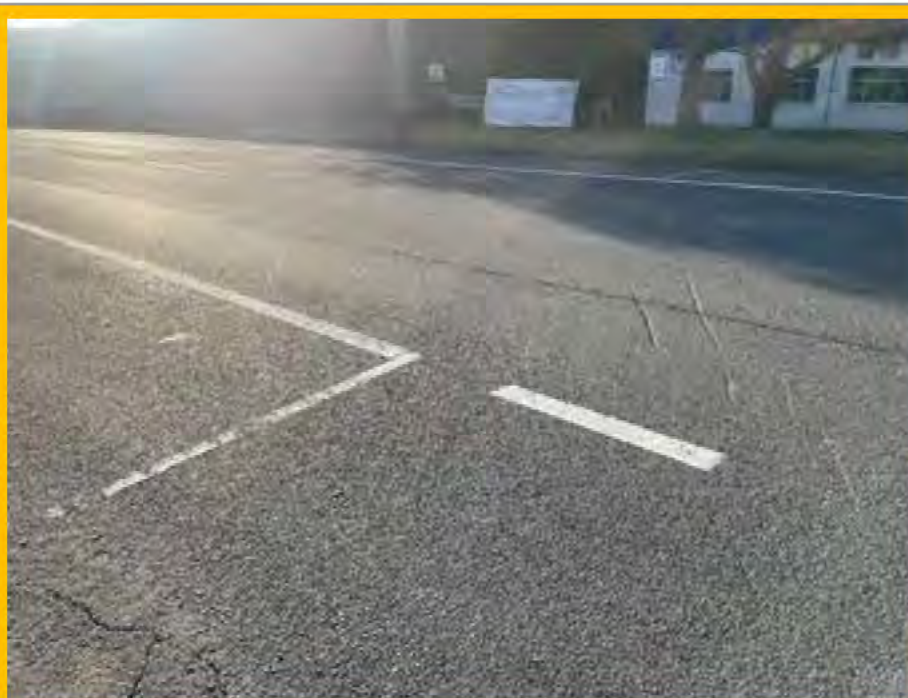
No. 062: damage to road surface at eastern layback to 24 Harris St



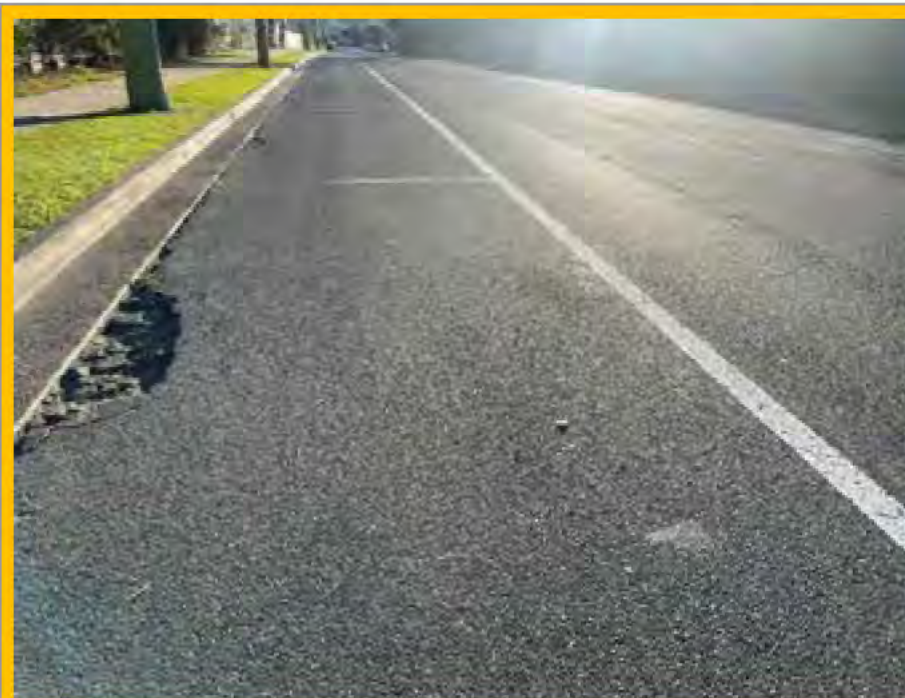
No. 063: continuation of crack in road centre



No. 064: gouge marks and damage to road surface at eastern layback to 24 Harris St (photo facing northeast)



No. 065: gouging toward road centreline at eastern layback to 24 Harris St (approx. 274m)



No. 066: 280m. Damage to road surface at kerb line at 281m



No. 067: Damage to road surface at kerb line



No. 068: continuation of crack in road centre



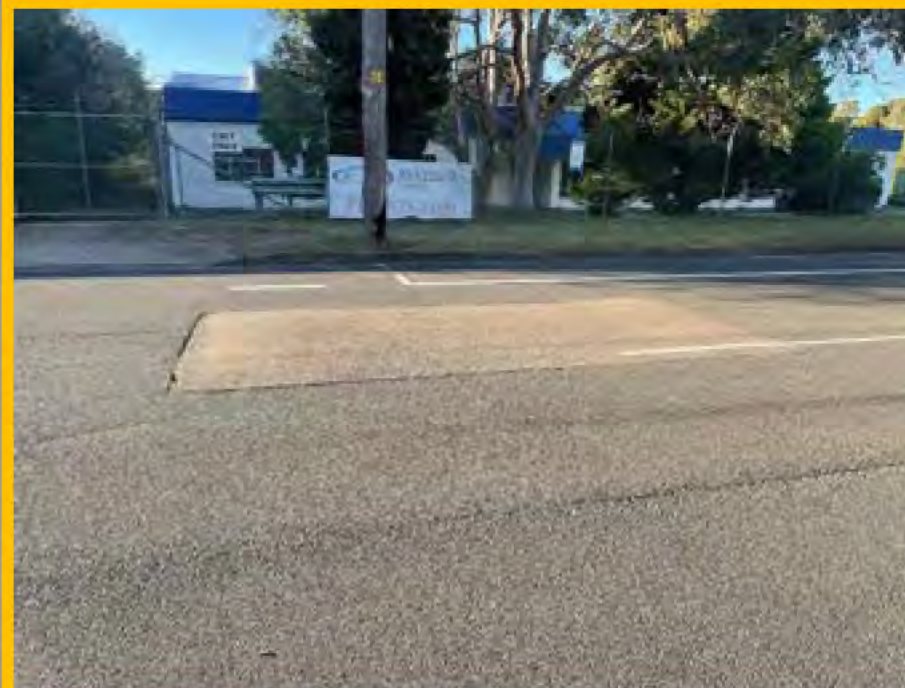
No. 069: continuation of crack in road centre



No. 070: damage to road surface at kerb line at approx. 287m



No. 071: 290m



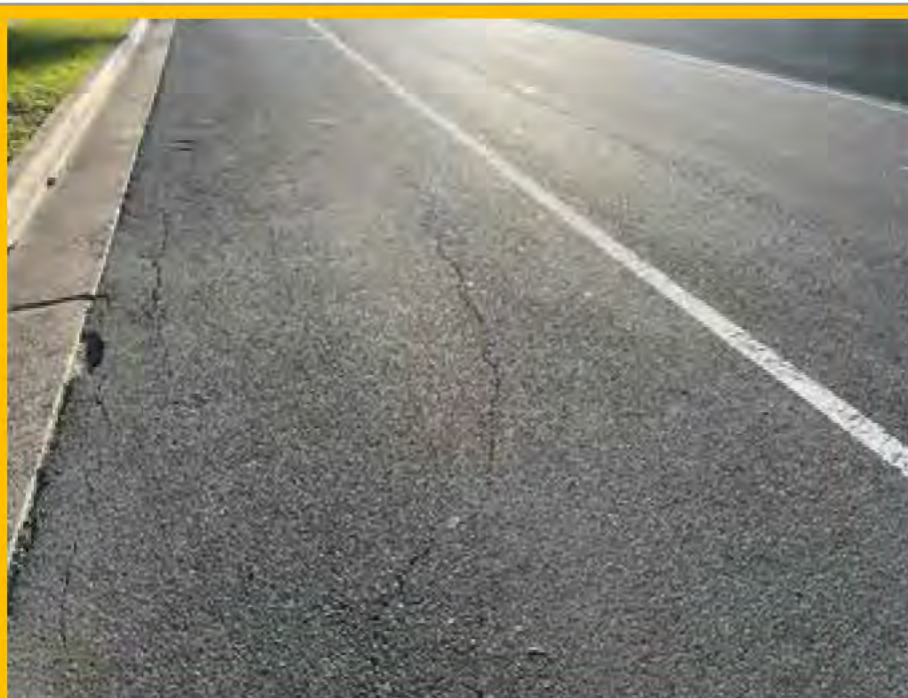
No. 072: cracking at repair to road surface at 290m (further detail included in photo No. 047 of Area 1)



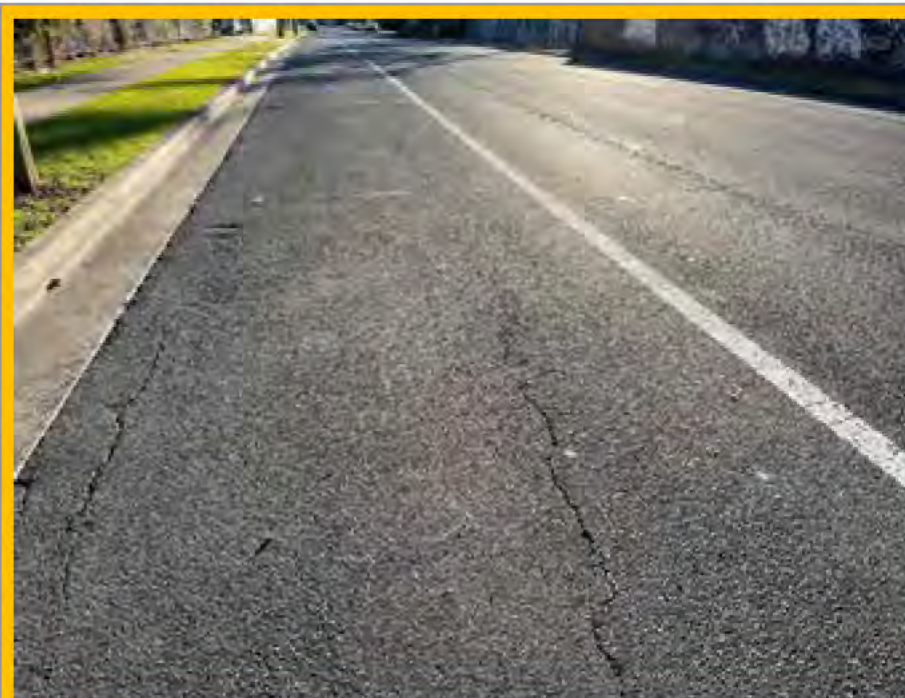
No. 073: damage to road surface at kerb line at approx. 293m



No. 074: cracking in road joint materials commences at approx. 297m



No. 075: damage at kerb line at 299m and cracking in parking bay road surface from 299m to 302m



No. 076: 300m. continuation of cracking in road surface in parking bay



No. 077: gouge marks in road surface at 304m



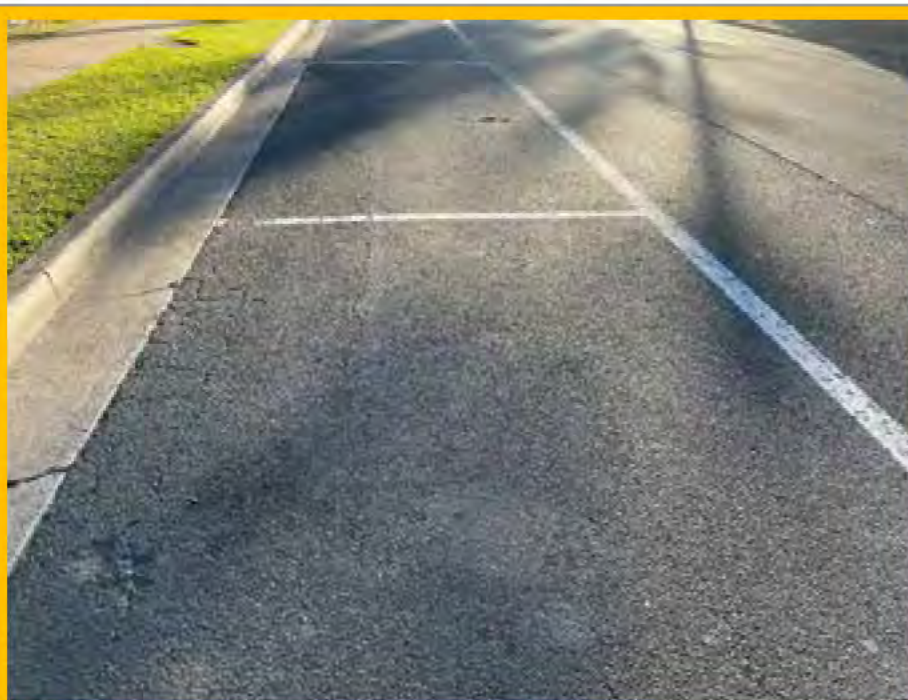
No. 078: various longitudinal cracking in parking bay road surface from 305m through to approx. 345m



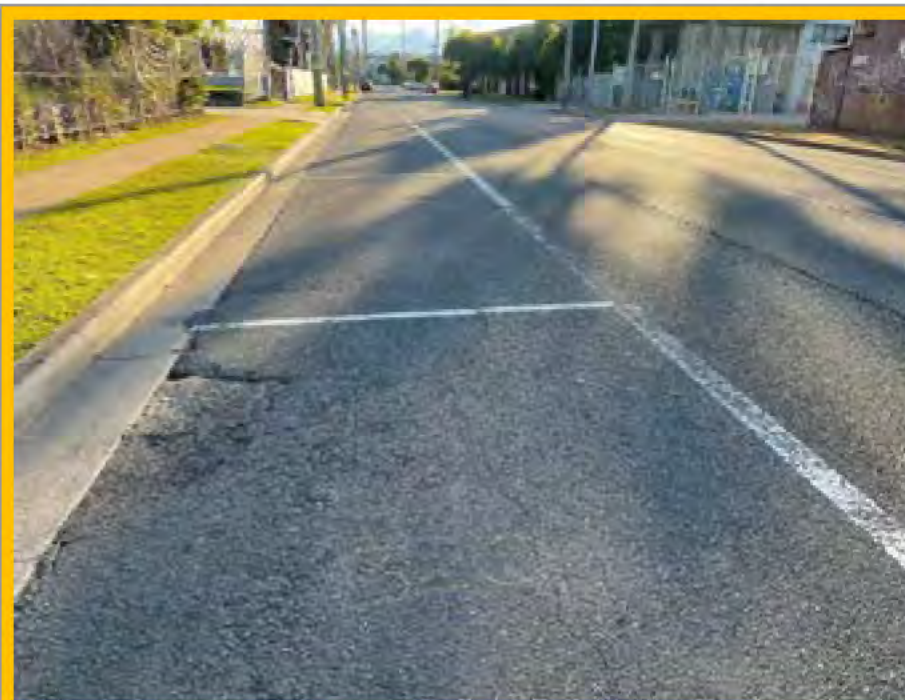
No. 079: 310m. continuation of parking bay surface cracks



No. 080: continuation of crack in road join materials



No. 081: continuation of parking bay surface cracks



No. 082: 320m. continuation of parking bay surface cracks



No. 083: repairs undertaken to damage on kerb line at 320m



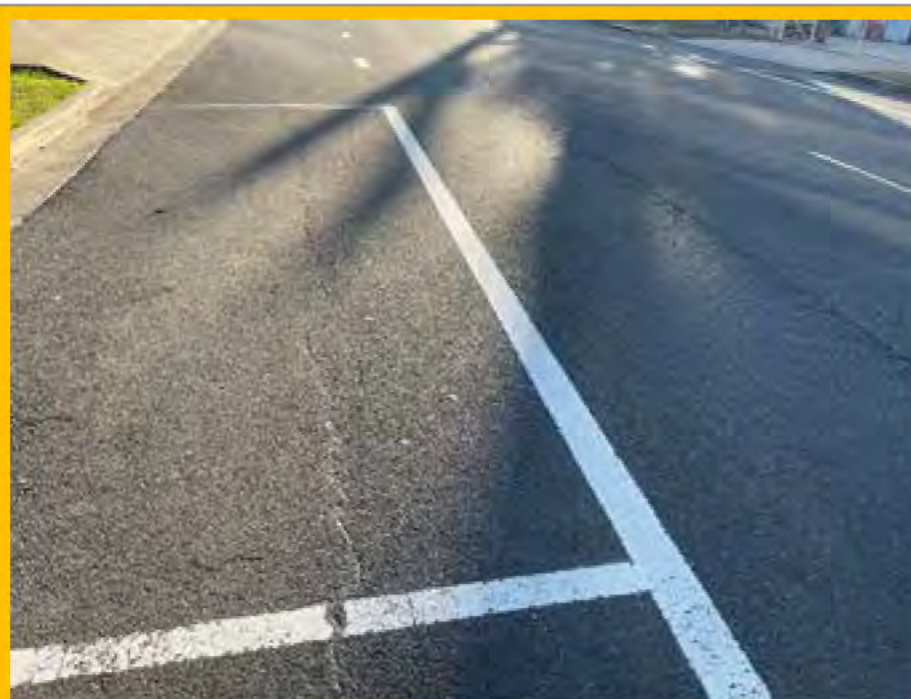
No. 084: continuation of crack in road join materials



No. 085: 330m. continuation of parking bay surface cracks



No. 086: continuation of crack in road join materials



No. 087: continuation of parking bay surface cracks



No. 088: 340m. continuation of parking bay surface cracks to 345m



No. 089: damage to kerb line at layback to western end of 24 Harris St



No. 090: 350m



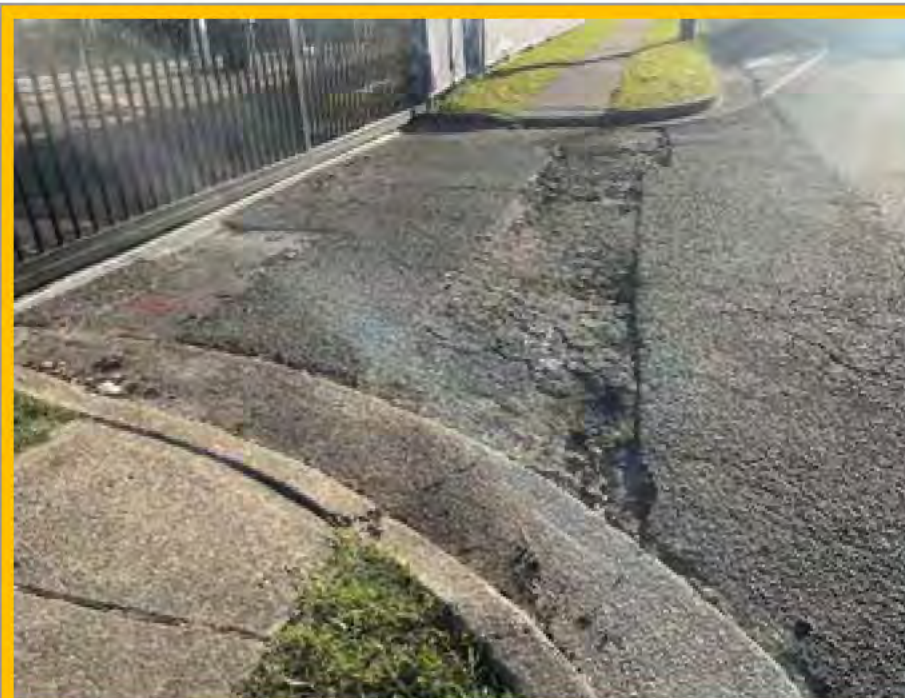
No. 091: damage and surface cracks at 355m



No. 092: overview of entry to the at grade station car park



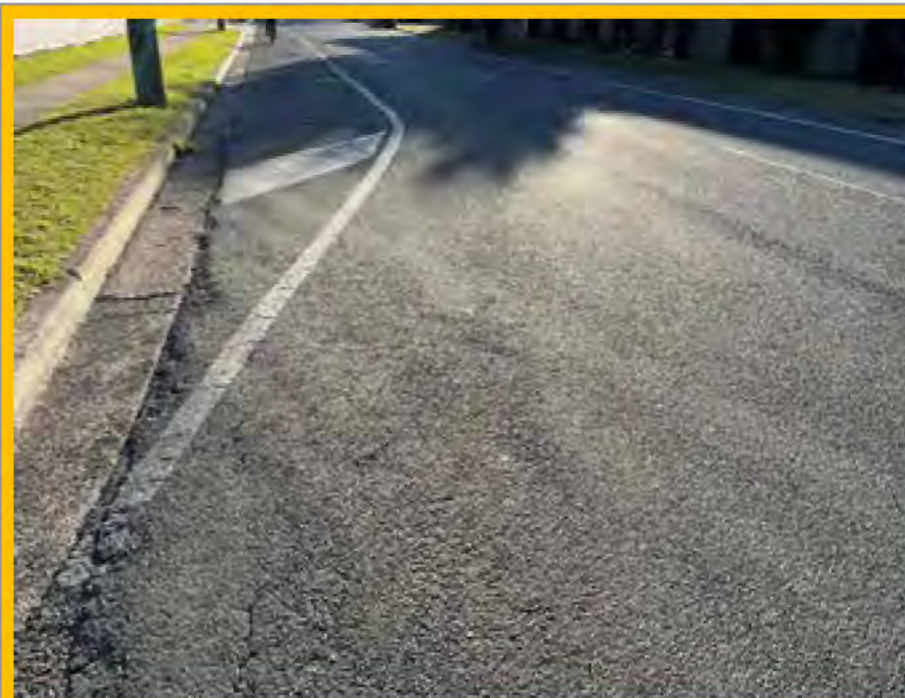
No. 093: 360m. Deterioration from the join in materials leading to car park



No. 094: significant damage to car park entrance



No. 095: deterioration of road surface repairs



No. 096: 370m. deterioration to road surface radiating west from car park entrance



No. 097: lateral cracking to road centreline at 375m



No. 098: 380m



No. 099: 390m



No. 100: depression at manhole cover at 395m



No. 101: crack in road join materials



No. 102: 400m



No. 103: 410m. deterioration of road surface in parking bays



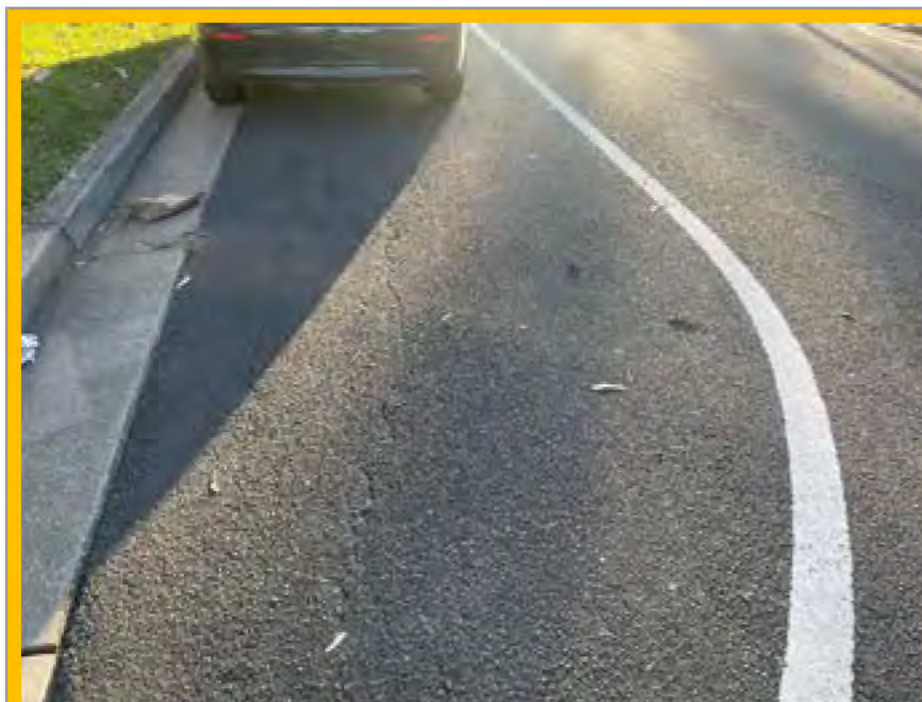
No. 104: crack commences at join in road materials at 415m



No. 105: 420m



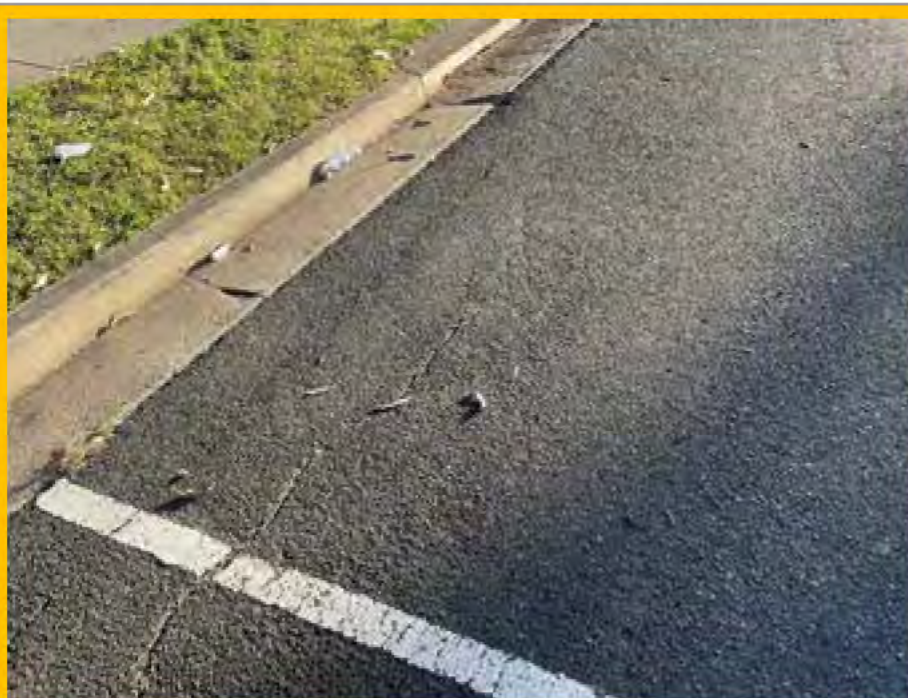
No. 106: 430m



No. 107: deterioration of road surface in parking bays at 436m



No. 108: 440m



No. 109: various cracks parallel to kerb line from approx. 445m



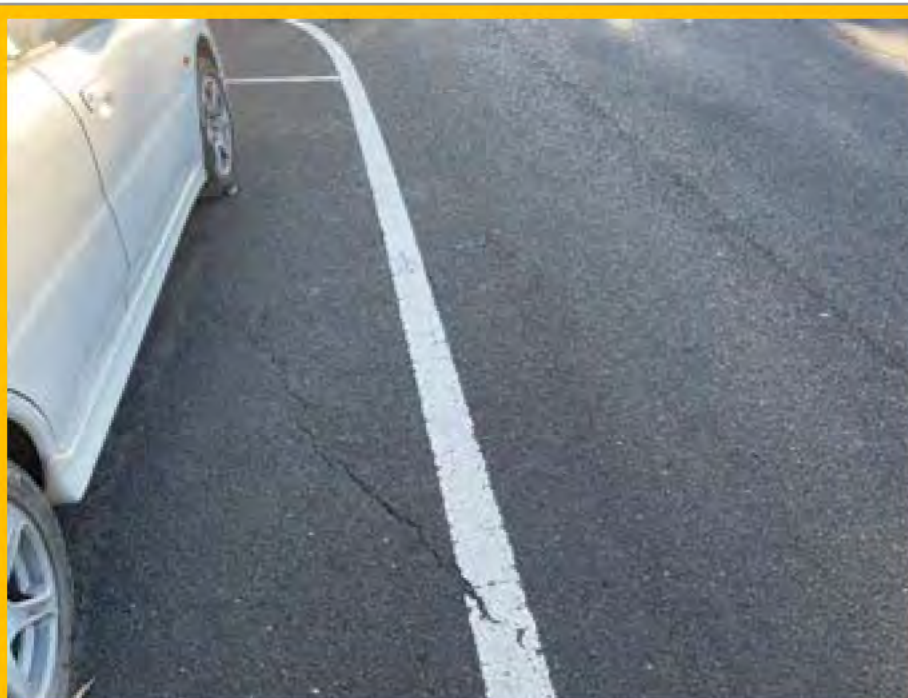
No. 110: 450m. lateral crack extends across full width of road



No. 111: lateral crack extends across full width of road



No. 112: 460m. crack in road surface toward parking bay at approx. 463m



No. 113: continuation of crack in parking bay road surface at approx. 465m



No. 114: 470m



No. 115: depressions and cracking in road surface repairs extending across full width of road at 472m



No. 116: deterioration of road surface at repair joints at 472m



No. 117: gouging to road surface at 476m



No. 118: 480m



No. 119: 490m



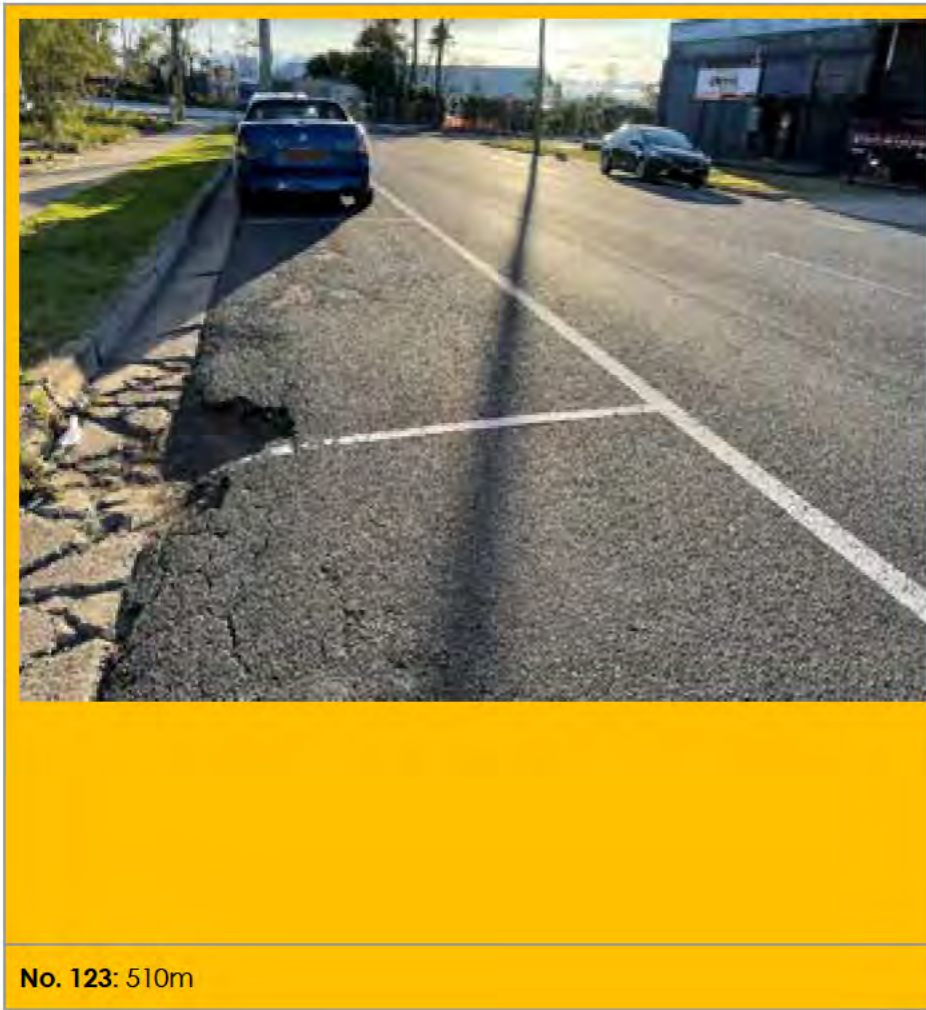
No. 120: cracking and repairs to road surface extending across full width of road at 491m

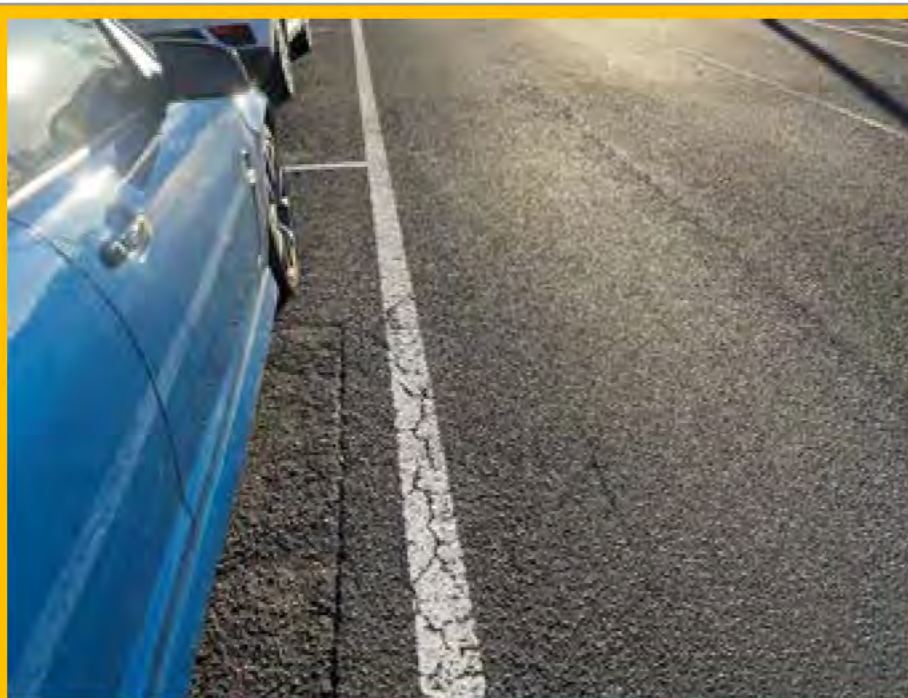


No. 121: 500m



No. 122: indentation in parking bay road surface at 503m





No. 125: 520m. repairs to road surface in parking bay



No. 126: 530m



No. 127: 540m



No. 128: cracking to road surface parallel to stormwater drain and at joins in road materials for previous repairs



No. 129: depression and cracking to road surface at joins in road materials for previous repairs

Appendix C – Photographic Record Area 3 – Forrester Road



No. 001: Deterioration to road surface from intersection to Harris Street across full width of Forrester Road, viewed from Harris St.



No. 002: Deterioration to road surface from intersection to Harris Street across full width of Forrester Road, viewed from ACFS/Pacific National facility entrance (2 Forrester Rd)



No. 003: damage to road surface at manhole cover



No. 004: deterioration and cracking of previous repairs to road surface



No. 005: deterioration and cracking of previous repairs to road surface

Appendix 3 Traffic professional assessment letter

Planning Secretary

23rd May 2023

Dear Sir/Madam,

RE: Advice on Heavy Vehicle Route Suitability – Footbridge St Marys works

I am writing to you to outline my advice in relation to the local road use by heavy vehicles associated with the Sydney Metro – Footbridge St Marys works. The works are for Transport for the Sydney Metro project.

In accordance with the Ministerial Conditions of Approval for the Project (MCoA E105), analysis of the local roads proposed to be used by Heavy Vehicles not identified in the documents listed in Condition A1 has been undertaken. The analysis and findings are contained in the document titled 'Heavy Vehicle Load Report for Use of Local Roads', Document - TAP3 Transport access program -Footbridge St Marys MCC.

Having reviewed this document, I am satisfied that the requirements of condition MCoA E105 - E106 have been met, specifically noting:

- a) Swept path analysis of the surrounding local roads has been undertaken.
- b) The report identifies the local road environment, areas which may be problematic for larger vehicles and provides reasonable mitigations (either suggesting a more appropriate route or the use of short-term traffic control)
- c) The report provides details of the road dilapidation survey
- d) The routes proposed in the report sufficiently avoid local roads past schools and aged care facilities during their peak operation, which is primarily due to the programming of the work, most activities being undertaken on weekends and at night.

It is therefore my conclusion that provided the mitigation measures are implemented, as noted in the report, the proposed heavy vehicle routes are suitable for the work.

If you require any clarification or further information, please do not hesitate to contact Paul Szubert in the first instance on 0429 895 923

Yours sincerely,

Paul Szubert | Director

P | +61 2 8259 0349

M | 0429 895 923

E | paul.s@case.international

