CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Sydney Metro West – Western Tunnelling Package

Parramatta Site Establishment

August to December 2022

Document Reference #:	**SMWSTWTP-GLO-PTA-TF-PLN-000001**
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A	July 2022	Initial submission
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Action Type	Position	Name	Signature	Date Signed
Prepared by	Traffic Manager	S Lewis		12 Aug 22
Reviewed by	Project Manager	D Leaver		12 Aug 22
I hereby confirm this activity and all associated work, have been appropriately planned and the relevant resources are available to conduct the work in accordance with the agreed method. I hereby approve this activity to commence, as the stated controls applications are the most appropriate and are in accordance with the Risk Matrix.				
Approved by	Deputy Project Director	S Hussey		12 Aug 22

NOTES:

Once <u>all</u> signatures have been obtained, the Document Author is responsible for ensuring the signed and approved hard and soft copies are uploaded on to the project share drive or passed to the Responsible Person for filing.

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1 INTRODUCTION

1.1 Project Description

Sydney Metro is Australia's biggest public transport project, with the vision "to transform Sydney with a world-class metro." In 2024, Sydney will have 31 metro stations and more than 66 kilometres of new metro rail, revolutionising the way Australia's biggest city travels. By the end of the decade, the network will be expanded to include 46 stations and more than 113 kilometres of world-class metro for Sydney.

Sydney Metro West is a new 24-kilometre metro line with stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street in the Sydney CBD.

On completion in 2030, the Sydney Metro West project will support a growing city and deliver world-class metro services to more communities. This new underground railway will connect Greater Parramatta and the Sydney CBD.

This once-in-a-century infrastructure investment will transform Sydney for generations to come, doubling rail capacity between the two CBDs, linking new communities to rail services, and supporting employment growth and housing supply. The Sydney Metro West project is expected to create about 10,000 direct and 70,000 indirect jobs during construction.

The new 24-kilometre Sydney Metro West tunnel and excavation works for nine new stations will be delivered in three contracts—the Western Tunnelling Package (WTP), the Central Tunnelling Package (CTP) and the Eastern Tunnelling Package (ETP).

The Gamuda Australia and Laing O'Rourke Consortium (GLC) will deliver the Sydney Metro West (SMW) Western Tunnelling Package (WTP), which includes:

- Westmead Station box excavation, including temporary support, stub tunnels, partially mined station cavern and crossover cavern including permanent lining and support
- Parramatta Station, including excavation of station box and associated support
- Clyde Maintenance and Stabling Facility (MSF), including permanent dive structure, portal, spur running tunnels, spur tunnel junction cavern, bulk earthworks, civil structures, utilities corridor, road crossing and creek diversion
- Rosehill Services Facility, including shaft excavation, permanent lining and lateral support
- A precast segment manufacturing facility at Eastern Creek
- Demolition and site clearance works
- Tunnelling between Sydney Olympic Park (SOP) and Westmead. Tunnelling will be undertaken by placing the tunnel boring machines (TBMs) at the Rosehill Services Facility box and retrieved out at the SOP Station Box and then placed back at the Rosehill Services Facility and retrieved at the Westmead Station Box. No surface works are proposed at SOP except for the retrieval of the TBM.

1.2 Purpose

This Parramatta site specific Construction Traffic Management Plan (CTMP or this plan) has been developed by Gamuda Australia Laing O'Rourke (GLC) to identify the traffic management measures at the Parramatta worksite for site establishment associated with the Sydney Metro West Western Tunnelling Package (WTP Works).

Further Plans will be developed for the various phase of works as noted below:

- Parramatta Site Establishment – **THIS PLAN**
- Parramatta Site Operations - change of activities and vehicle numbers with new driveway built on George Street and a change to motorists egress from Macquarie Lane onto Smith Street and access to the Macquarie Lane car park via Macquarie Street, newly realigned Macquarie Lane – January 2023 to December 2024

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

This plan has been prepared in accordance with SSI 10038 Planning Approval Condition D85 and will be submitted to the Planning Secretary of the NSW Department of Planning, Environment and Industry for information prior to the commencement of any construction in the area identified and managed within this CTMP

1.3 Objectives

GLC are committed to striving to achieve the objectives as outlined in the CTMF and the environmental performance outcomes, namely:

1. Minimising disruption and maintaining safety for all road users including pedestrians, cyclists, motorists and public transport users and providers
2. Ensuring construction traffic access the arterial network as soon as practicable on route to and immediately after leaving the construction site
3. Minimising change to traffic operations and kerbside access
4. Minimising construction traffic generation during network peak periods, as outlined in the EIS
5. Maintaining access to properties, businesses, and utility providers/ maintainers
6. Remain incident and injury free to workers and members of the public
7. Working collaboratively with other stakeholders and other major projects to mitigate traffic and transport impacts

2 LOCALITY AND EXISTING CONDITIONS

The site is located in the Parramatta Central Business District (CBD) and is bounded by Macquarie Street to the south, premises on Church Street to the west, George Street to the north and Macquarie Lane to the east as shown on Figure 2-1

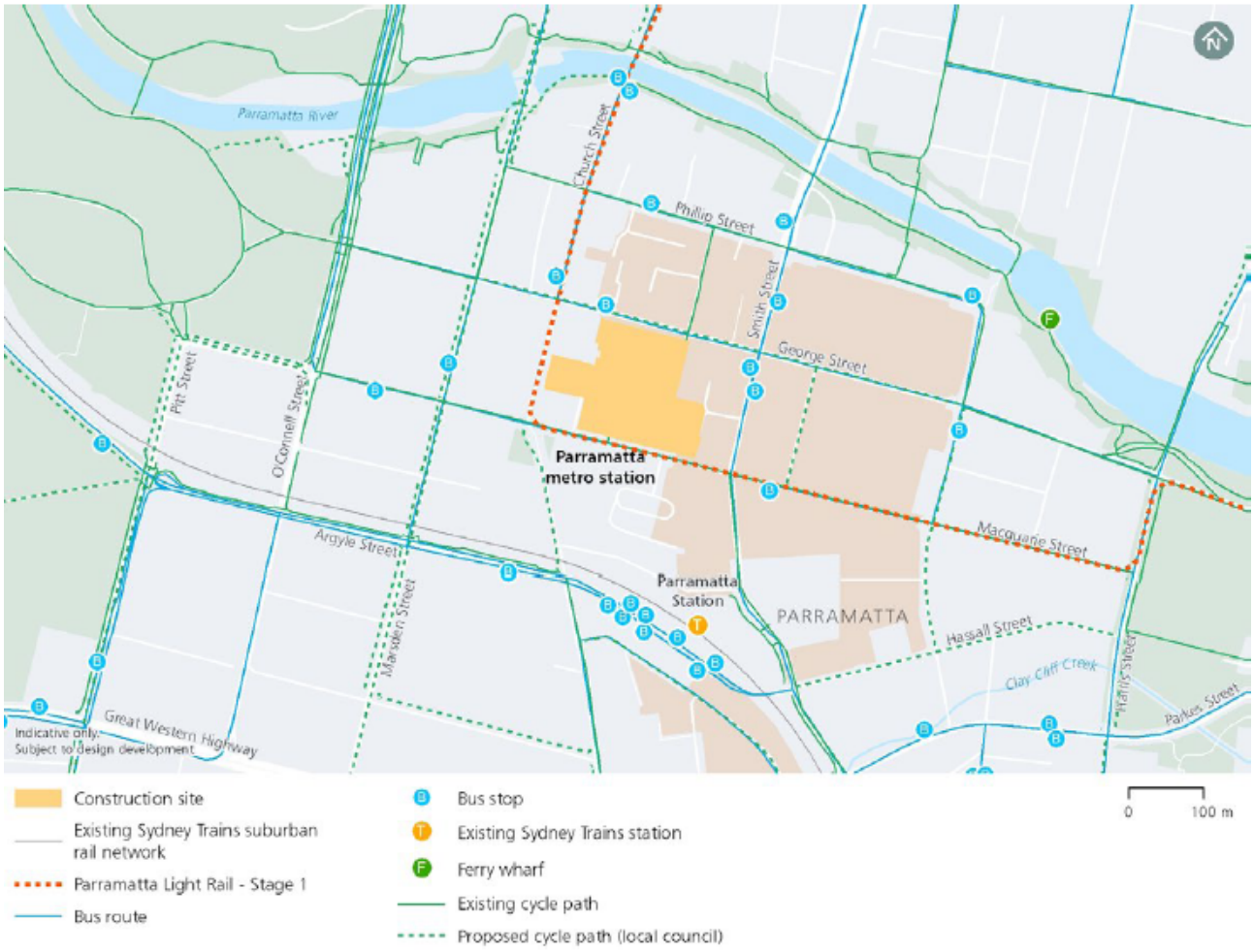


Figure 2-1: Site locality

The Parramatta site is located within the nominate construction zone, highlighted below and is situated in the central business district which is predominantly zoned for retail/ commercial refer to Figure 2-2.

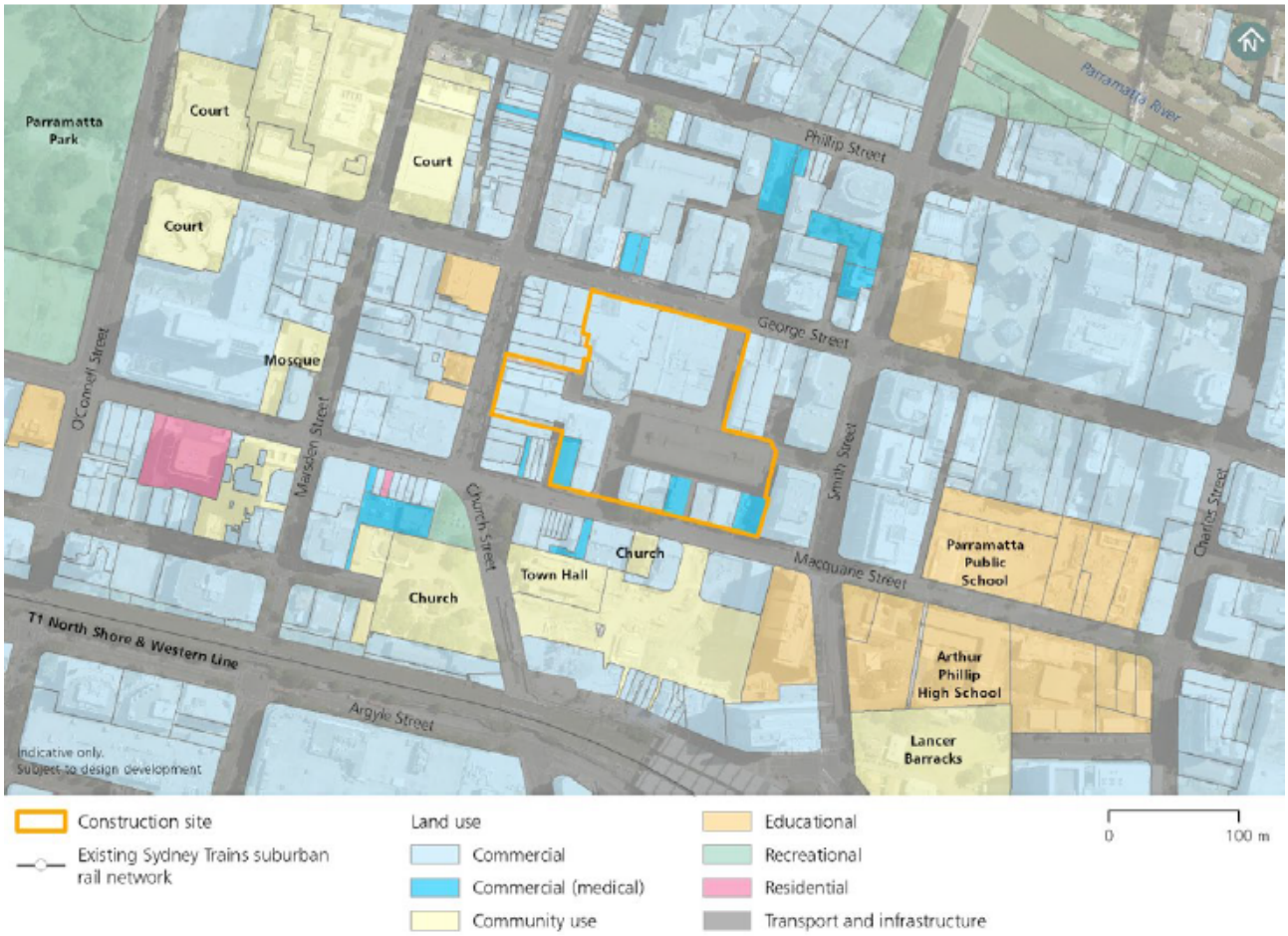


Figure 2-2: Existing land use zoning

A review of the existing sensitive receivers and their locations was undertaken by Sydney Metro West during the EIS development phase. The results of this review is shown below on Figure 2-3. A land use survey is included as part of the detailed Noise and Vibration Impact Statement (SMWSTWTP-GLO-1NL-NL000-PLN-000002). This is currently in draft and is being informed by construction from the EPA and other stakeholders. Throughout the construction period, this detailed Noise and Vibration Impact Statement will continue to evolve.

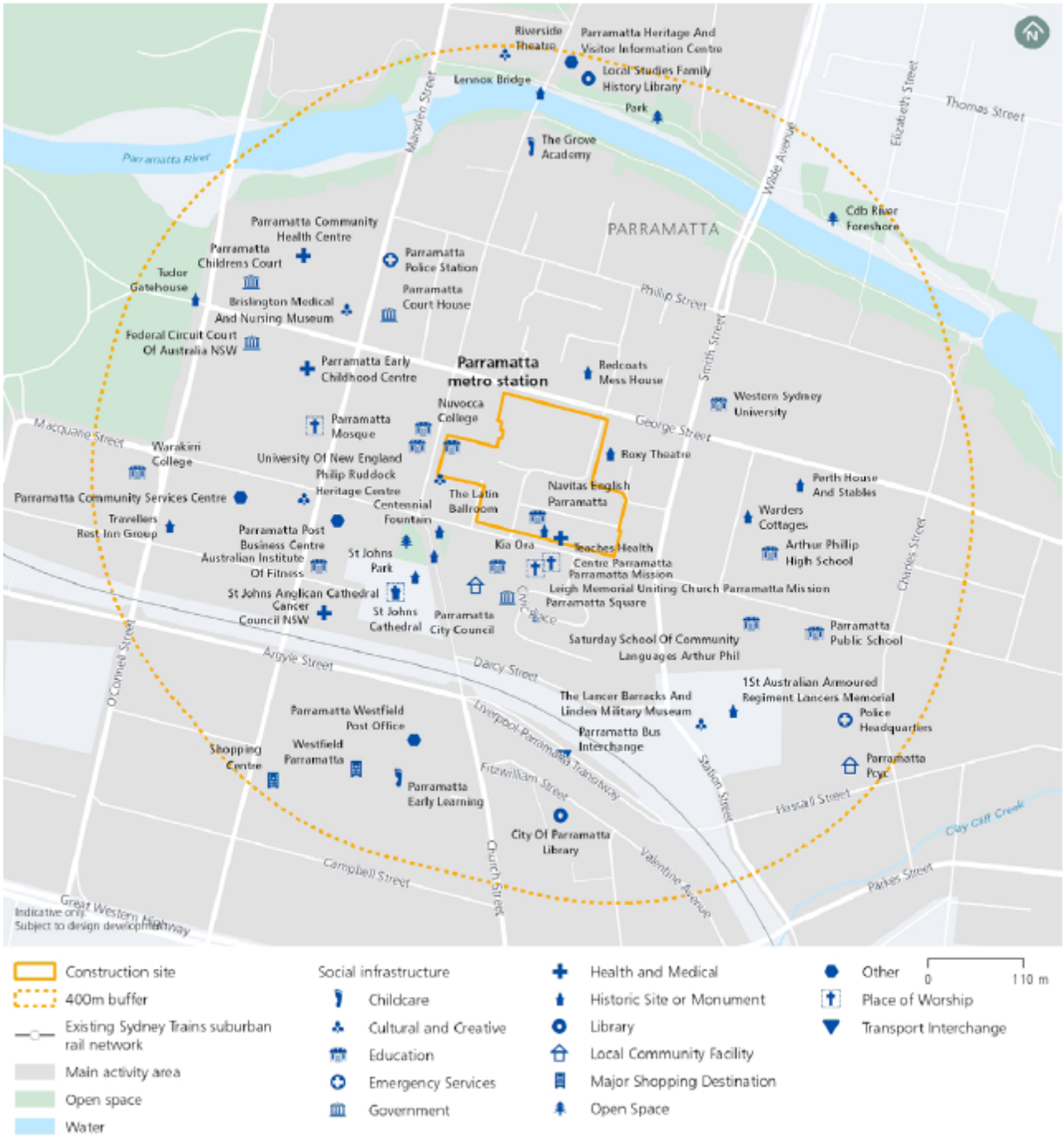


Figure 2-3: Existing sensitive receivers

As can be seen, surrounding the site there are a number of education facilities, places of worship and medical facilities.

There are a number of shared paths and cycle routes within and surrounding the Parramatta CBD as noted on Figure 2-4

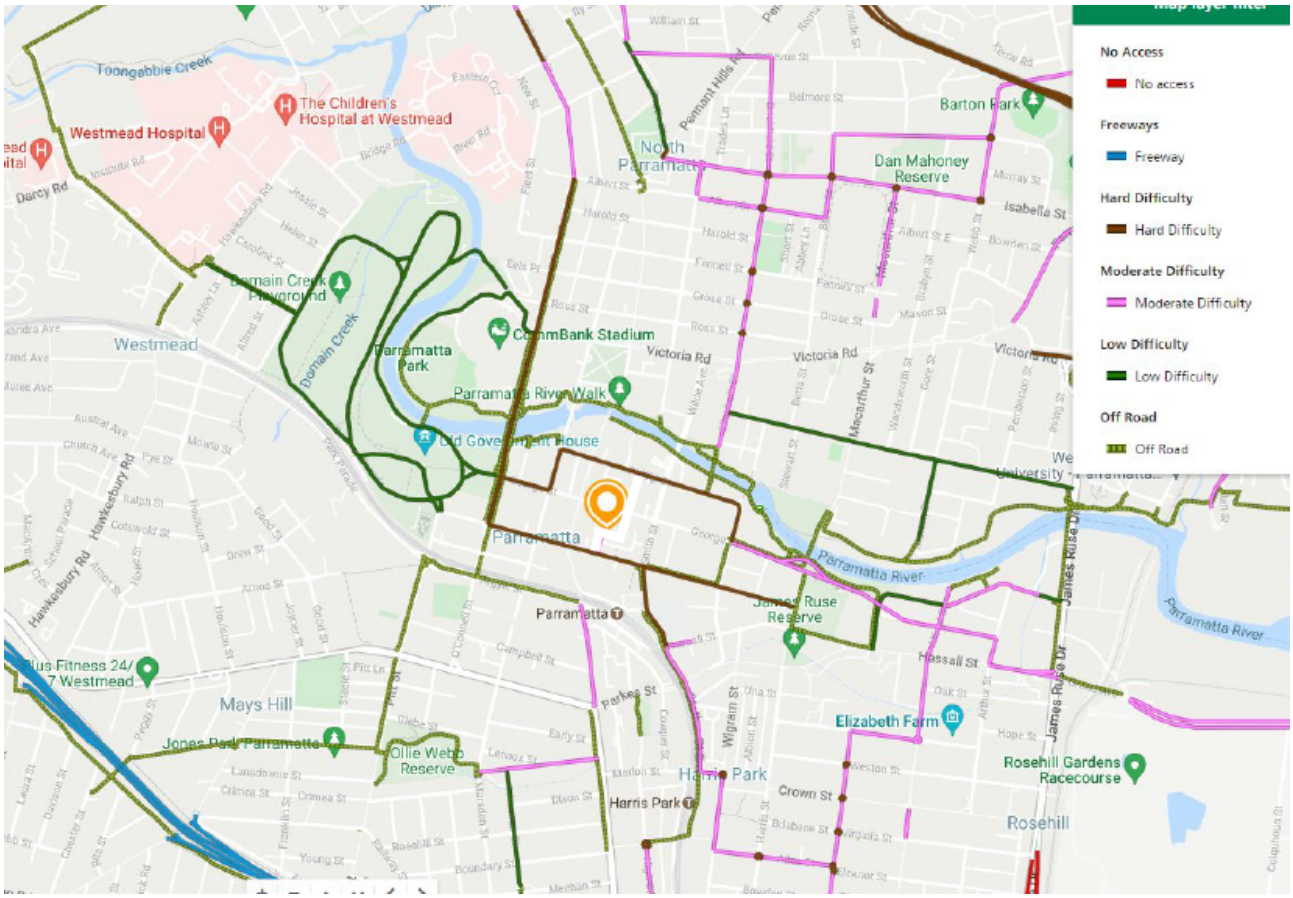


Figure 2-4:TfNSW Cycleway finder

There are no state road connecting to the site, there are regional roads to the east and west running north south typically, as noted on Figure 2-5.

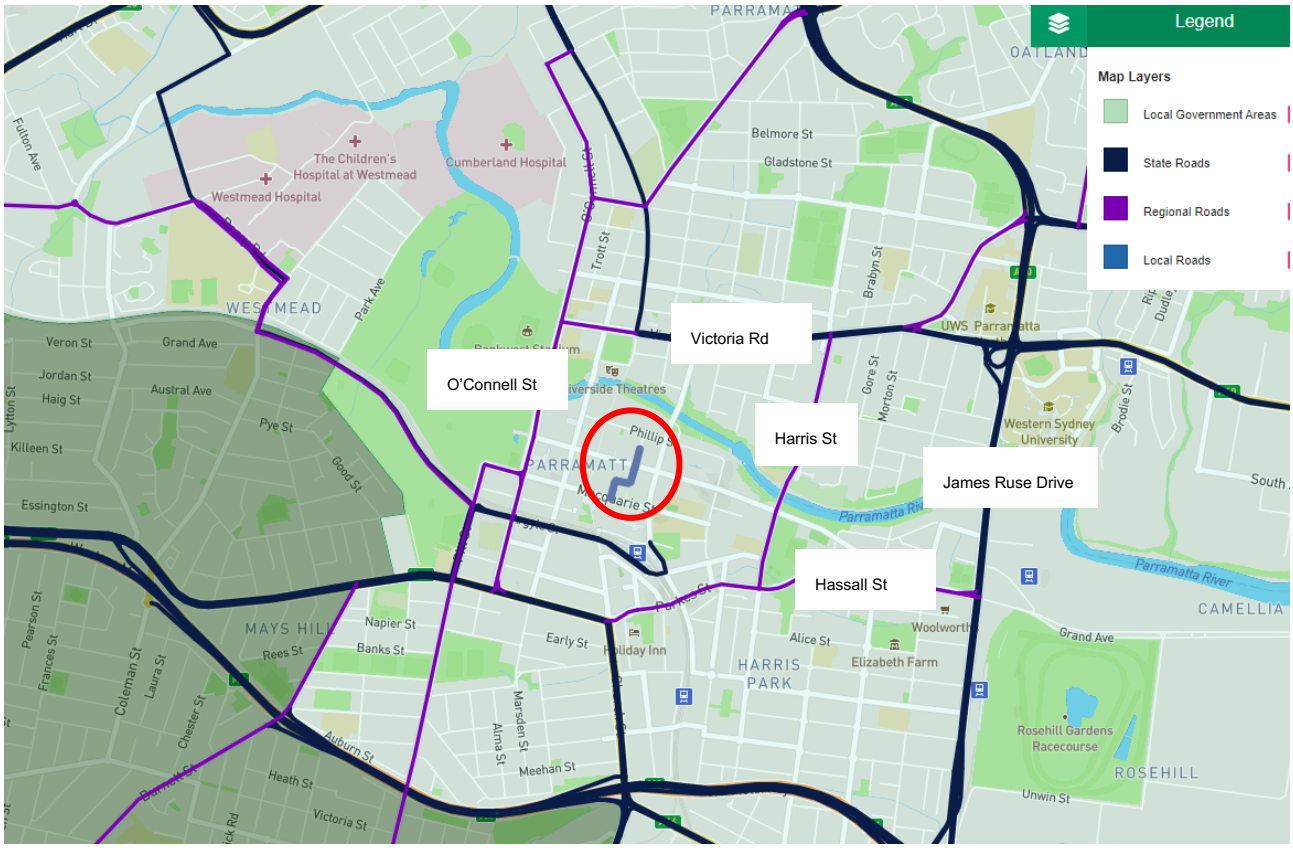


Figure 2-5: TfNSW Road Network Classification

The area of Parramatta does not allow for the use of Performance Based Standard vehicles. The PBS network surrounding Parramatta is shown on Figure 2-6

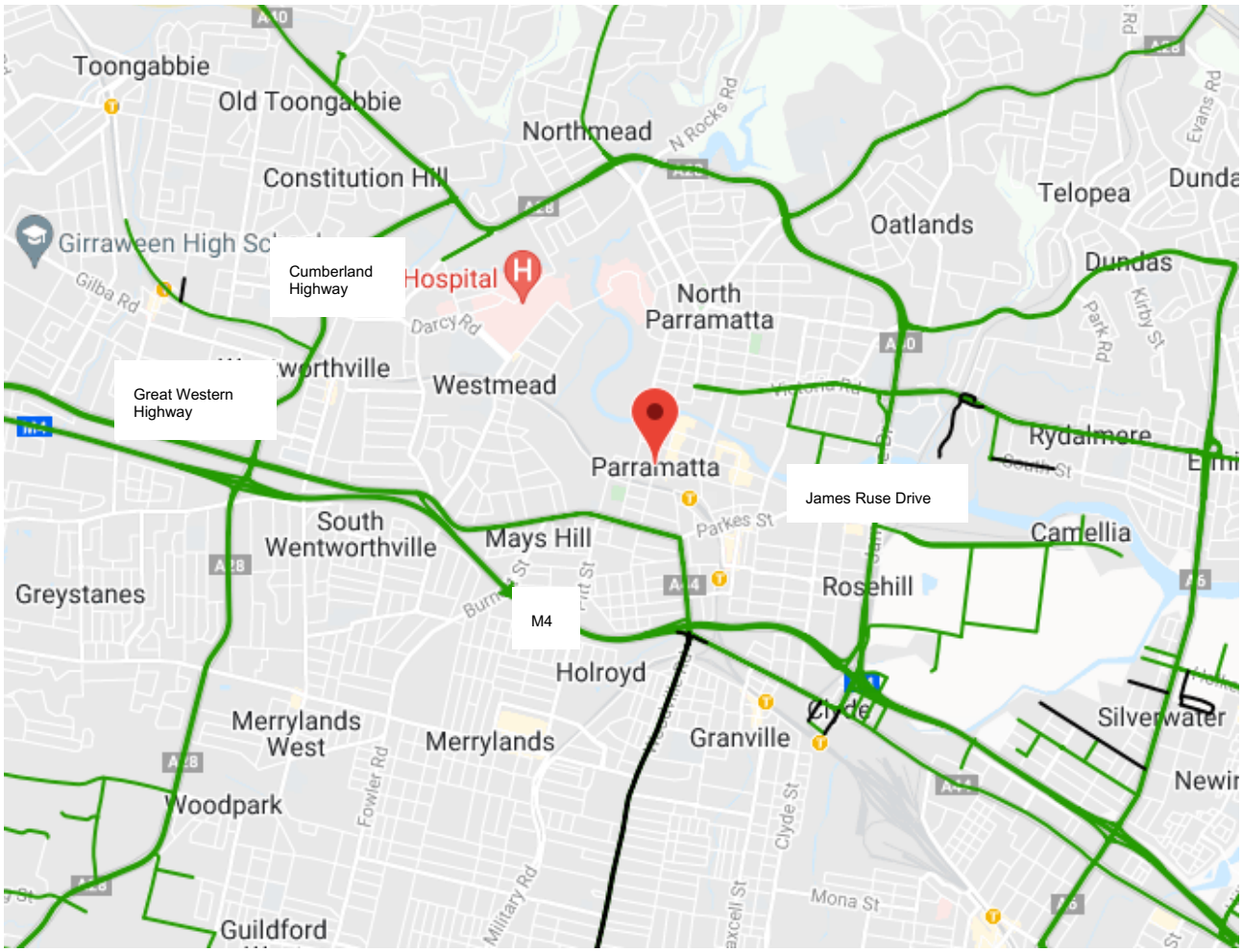


Figure 2-6: TfNSW recognised PBS routes

With the construction of the Parramatta Light Rail, a transitway has been declared within the Parramatta CBD, refer to Figure 2-7 and Figure 2-8.

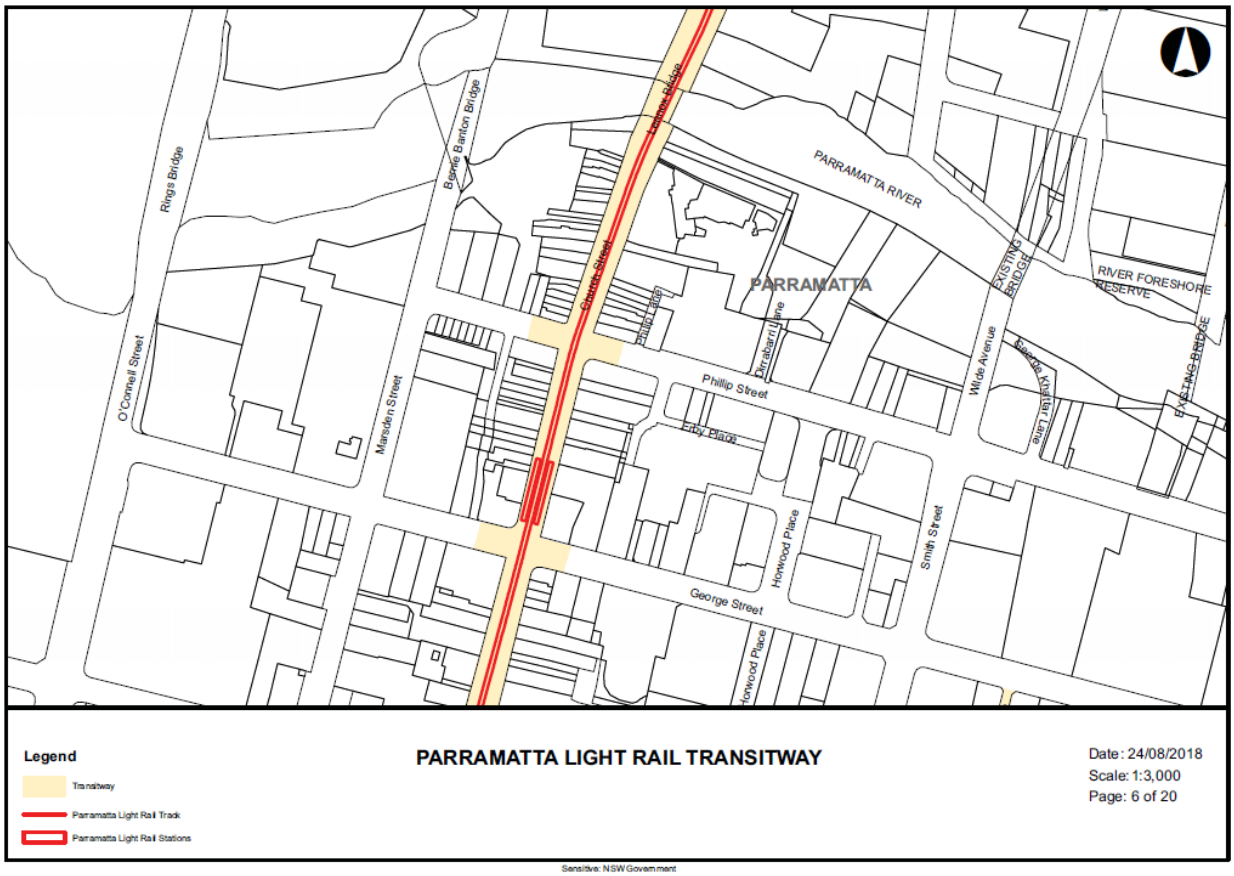


Figure 2-7: Church Street transitway

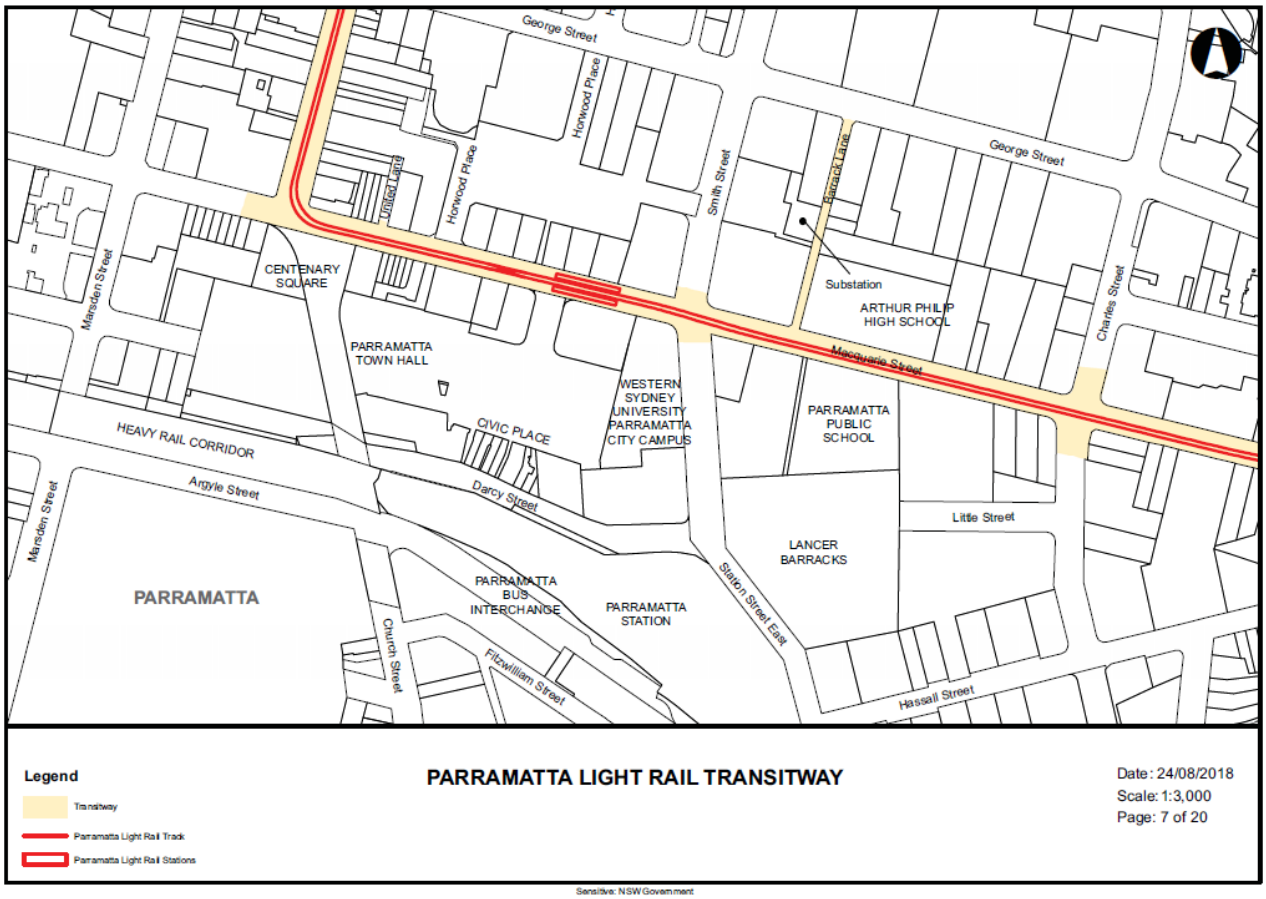


Figure 2-8: Macquarie St Transitway

2.1 George Street

George Street is a local road under the care and control of the City of Parramatta Council. It starts at O'Connell Street in the west and ceases at Arthur Street to the east. George Street runs in an east west direction. The speed limit is 40km/hr between O'Connell Street and Harris Street and is 50km/hr outside of these locations, refer to Figure 2-9.

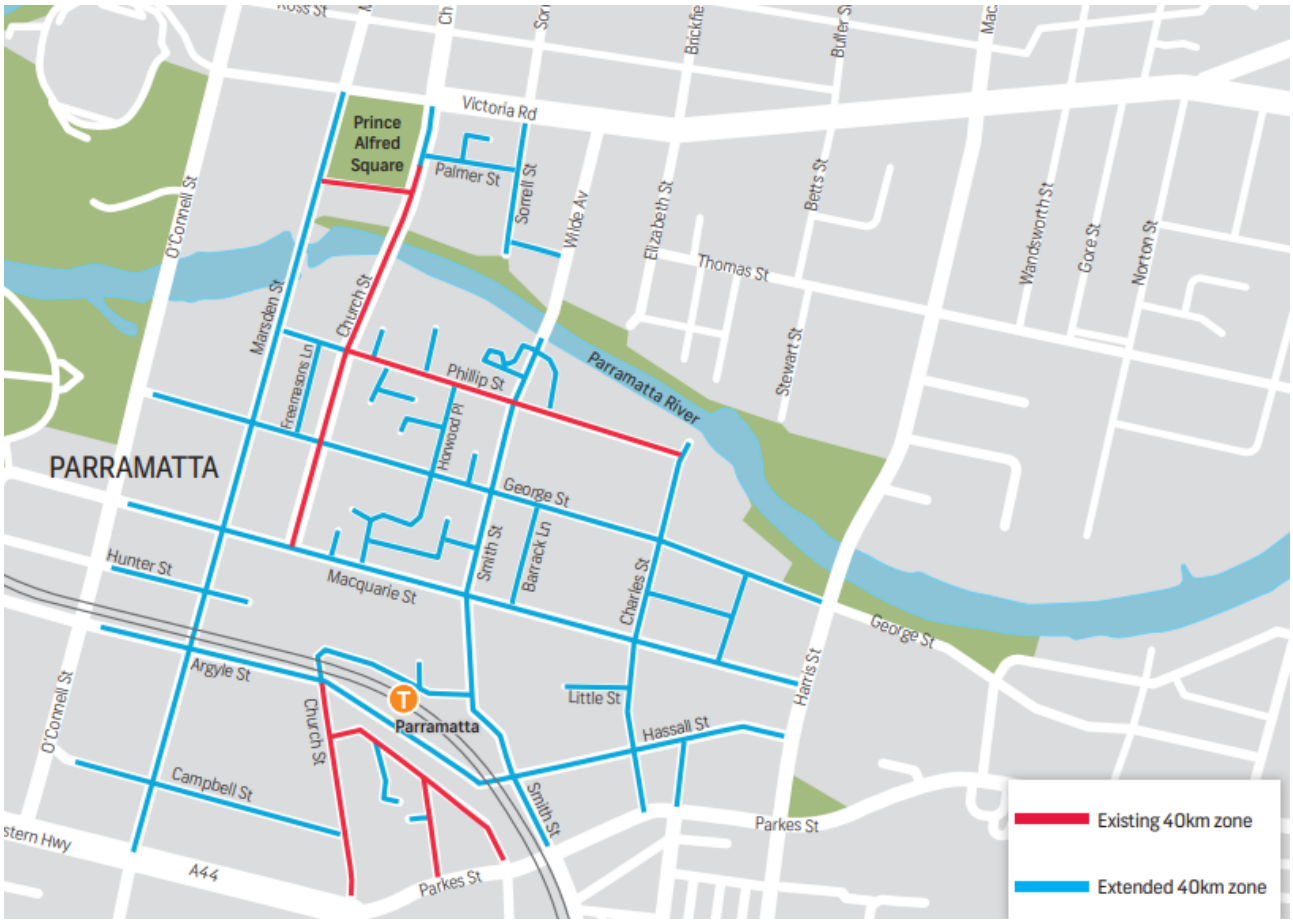


Figure 2-9: Parramatta CBD 40km speed zones (source: City of Parramatta)

The street serves as the main 'high' street of Parramatta. The Justice precinct is located to the west of the site, with Eat Street (the main café/ restaurant area) along Church Street.

Traffic signals exist at a number of intersections along George Street including:

- O'Connell Street
- Marsden Street
- Church Street
- Smith Street
- Charles Street and
- Harris Street

Footpaths are generally provided along all streets within the Parramatta CBD. George Street is also noted as a moderate to difficult cycle route between Charles Street and Arthur Street, as shown on Figure 2-4.

Bus stops are located on both sides of George Street between Church Street and Smith Street as shown on Figure 2-10. No other routes are serviced by these bus stops.

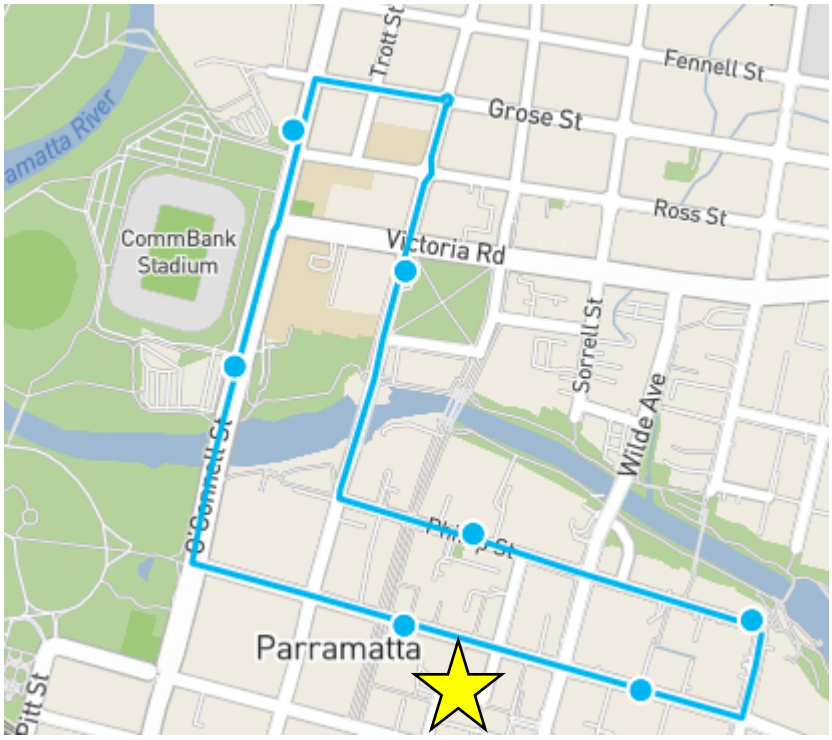


Figure 2-10: Route 900 bus stops on George Street

Parking is typically time restricted with the Parramatta CBD, as noted on Figure 2-11.

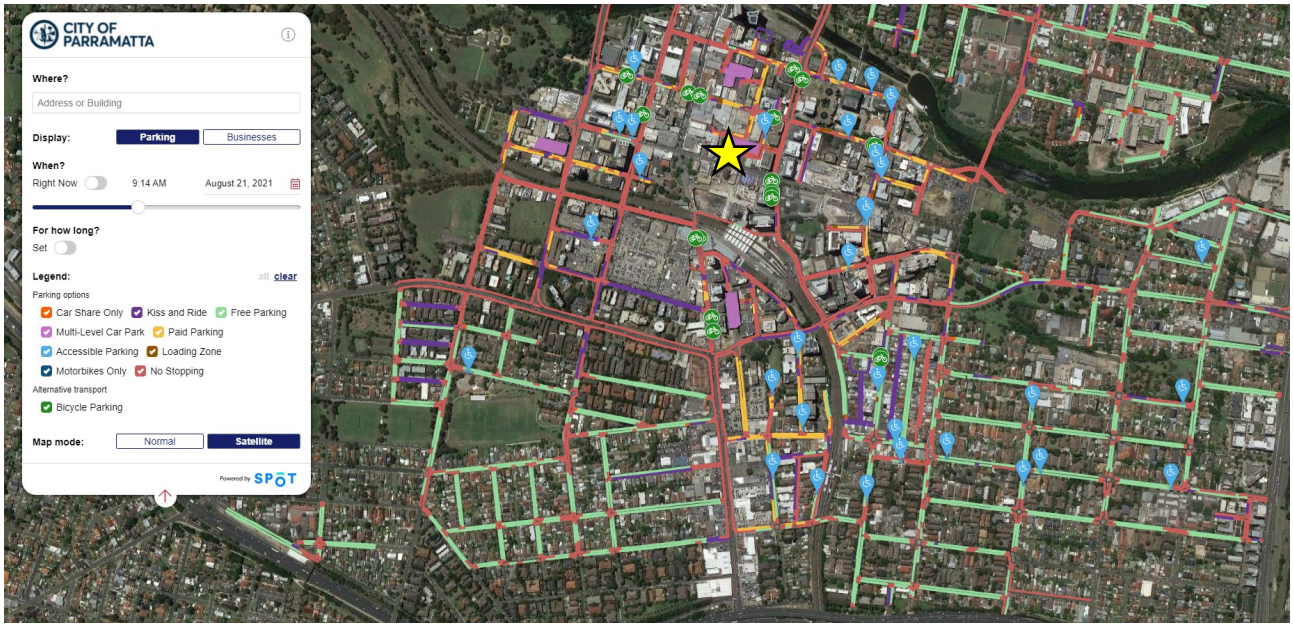


Figure 2-11: Parking restrictions in the Parramatta CBD

2.2 Church Street

Church Street sections between Parramatta Square to Darcey Street (Parramatta rail lines) and between the rail line through to the Great Western Highway are a local road under the care and control of the City of Parramatta Council. Between Factory Street and Macquarie Street Church St is a declared transitway, refer to Figure 2-7. Outside of these locations, Church Street is a state road, refer to Figure 2-5. It starts at North Rocks Road and ceases at the Parramatta rail lines. It then restarts south of the rail line and continues onto the Great Western Highway. Church Street runs in a north south direction. The speed limit is 40km/hr within the local road section.

Traffic signals exist at a number of intersections along Church Street including:

- North Rocks Road
- Barney Street
- Dunlop Street
- Factory Street
- Pennant Hills Road
- Grose Street
- Victoria Road
- Phillip Street
- George Street
- Macquarie Street
- Campbell Street
- Parkes Street
- Raymond Street
- M4 Motorway and
- Great Western Highway

There is no public transport operating along Church Street, however, it is the route of the Parramatta Light Rail which is due to open in 2023. The route of the light rail through the Parramatta CBD is shown on Figure 2-12, below.

Figure 2-12: Parramatta Light Rail route

No parking is provided along Church Street between George Street and Macquarie Street. Further north and south of this area, the parking is generally restricted. Footpaths are provided on both sides of the street.

2.3 Macquarie Street

Macquarie Street is a local road between Pitt Street and Church Street under the care and control of the City of Parramatta council. Macquarie Street is a declared transitway between Church Street and Harris Street., refer to Figure 2-8. It starts at Pitt Street and ceases at Harris Street. Macquarie Street runs in an east west direction. Th existing speed limit is 40km/hr between O'Connell Street and Harris Street and 50km/hr between O'Connell Street and Pitt Street. No public transport operates along Macquarie Street. However, the opening of the light rail will see services operating along Macquarie Street between Church Street and Harris Street, refer to Figure 2-12 above.

Parking is time restricted west of Church Street but Macquarie Street is generally closed to traffic, east of Horwood Place. Macquarie Street has footpaths on both sides of the street. The northern footpath between Horwood Place and Smith Street is currently closed by Sydney Metro's demolition contractor.

2.4 Smith Street

Smith Street is a local road under the care and control of the City of Parramatta Council. It starts at Wilde Avenue and ceases Station Street. Smith Street generally runs in a north south direction. The speed limit is 40km/hr. Parking is generally restricted due to the presence of bus lanes along Smith Street in both directions.

A number of bus routes operate along Smith Street as noted in Table 2-1.

Table 2-1: Smith Street bus routes

Bus route	Between		Service start and finish
500N	Parramatta	Sydney CBD	0130-0523
501	Parramatta	Central Station	0515-0915
521	Parramatta	Eastwood	0605-1841
523	Parramatta	West Ryde	0550-1919
524	Parramatta	Ryde	0520-1934
525	Parramatta	Strathfield	0540-2325
546	Parramatta	Epping	0629-2155
549	Parramatta	Epping	0500-2215
550	Parramatta	Macquarie Park	0415-0350
552	Parramatta	Oatlands	0956-1432
600	Parramatta	Hornsby	0530-0342
601	Parramatta	Rouse Hill	0505-0025
603	Parramatta	Rouse Hill	0712-1925
604	Parramatta	Dural	0525-2358
606	Parramatta	Winston Hills	0550-2349

Bus route	Between		Service start and finish
609	Parramatta	North Parramatta (Loop)	0600-1923
625	Parramatta	Pennant Hills	0545-1920
706	Parramatta	Blacktown	0537-2135

2.5 Horwood Place

Horwood Place was previously a local road under the care and control of the City of Parramatta Council; however, Sydney Metro purchased the area. Horwood Place starts at Macquarie Street and ends at Phillip Street. The section owned by Sydney Metro is between Macquarie Street and George Street. The speed limit within the Sydney Metro site is 20km/hr, the public road section is 40km/hr as noted on Figure 2-9. Public parking has been removed from the non-public road. Public vehicle access is provided from Macquarie Street through to George Street. The existing footpaths on Horwood Place are not open to the general public with pedestrians using the Church Street, Macquarie Street, Smith Street and George Street footpaths.

2.6 Macquarie Lane and car park

Macquarie Lane was previously a local road under the care and control of the City of Parramatta Council; however, Sydney Metro purchased the area. Macquarie Lane starts from the rear of 76-78 Smith Street and ends at Smith Street. There is a small car park off Macquarie Lane which is also owned by Sydney Metro.

3 SITE ESTABLISHMENT

Time: August through to December 2022

Duration: 5 months

The site establishment works will consist of the following:

- Service investigations/ relocations/ protection/ termination and temporary site connections including:
    - Site investigations to verify the location of existing utilities
- Installation of site boundary fencing and noise hoarding
- Installation of temporary facilities such as amenities and office blocks
- Works internal to site including:
    - Establishment of internal haul roads
    - Establishment of internal car parking facilities
    - Service connections
    - Establishment of hard stand for laydown areas
    - Piling platform
    - Establishment of environmental controls including:
        - Sediment controls/ environmental controls
        - Wheel washes
        - Noise monitoring equipment
        - Ground monitoring equipment
        - Survey controls
    - Installation of water treatment plant
- Service works including:
    - New sewer crossing on George Street
    - New storm water drain along Macquarie Lane, Smith Street and George Street
    - Water main works in Macquarie Street at Horwood Place

3.1 Working hours

The standard construction hours for the project are as noted in the Ministerial Conditions of Approval (MCoA D35) are:

a) 7AM to 6PM Monday to Friday
b) 8AM to 6PM Saturdays and
c) at no time on Sundays or public holidays

3.2 Utility Works

There are two sets of utility works that need to be undertaken prior to full occupation of the site.

- Storm water line installation from Macquarie Lane to George Street and
- Power supply along George Street

The utility works are shown on Figure 3-1.

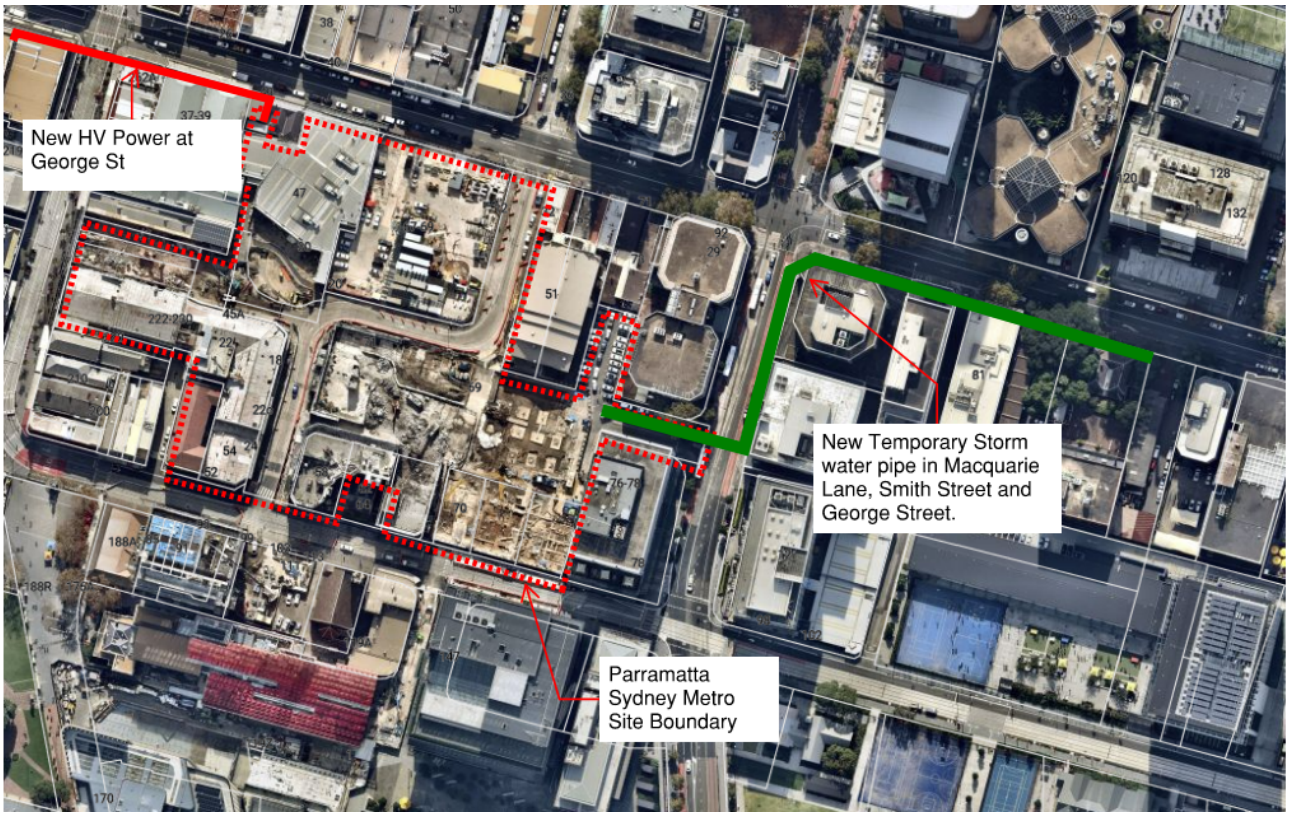


Figure 3-1: Utility works surrounding the site

3.2.1 Storm Water Line Install from Macquarie Lane to George Street

Timing: September 2022 to November 2022

GLC is required to install a new storm water pipe from our site to the nearest storm water manhole that discharges to the downstream side of the Charles Street Weir. The water pipe will allow GLC to discharge treated water from the site. The discharge pipe will need to be installed in 3 different roads, which are Macquarie Lane, Smith Street and George Street. The design for this line is still being developed but a potential install methodology is considered below for each road.

3.2.1.1 Macquarie Lane

Macquarie Lane is a small side street which provides access to the loading area for 25 Smith Street and a car park at the rear of the Roxy Theatre. The new storm line will be installed on the southern side of Macquarie Lane and the northern side will be made two way providing access to the car park and 25 Smith Street, refer to Figure 3-2. It is proposed to undertake median modifications to cater for the swept paths into and out of the car park and 25 Smith Street loading

dock area at the eastern end. It is proposed that the works in Macquarie Lane occur during normal daytime working hours.

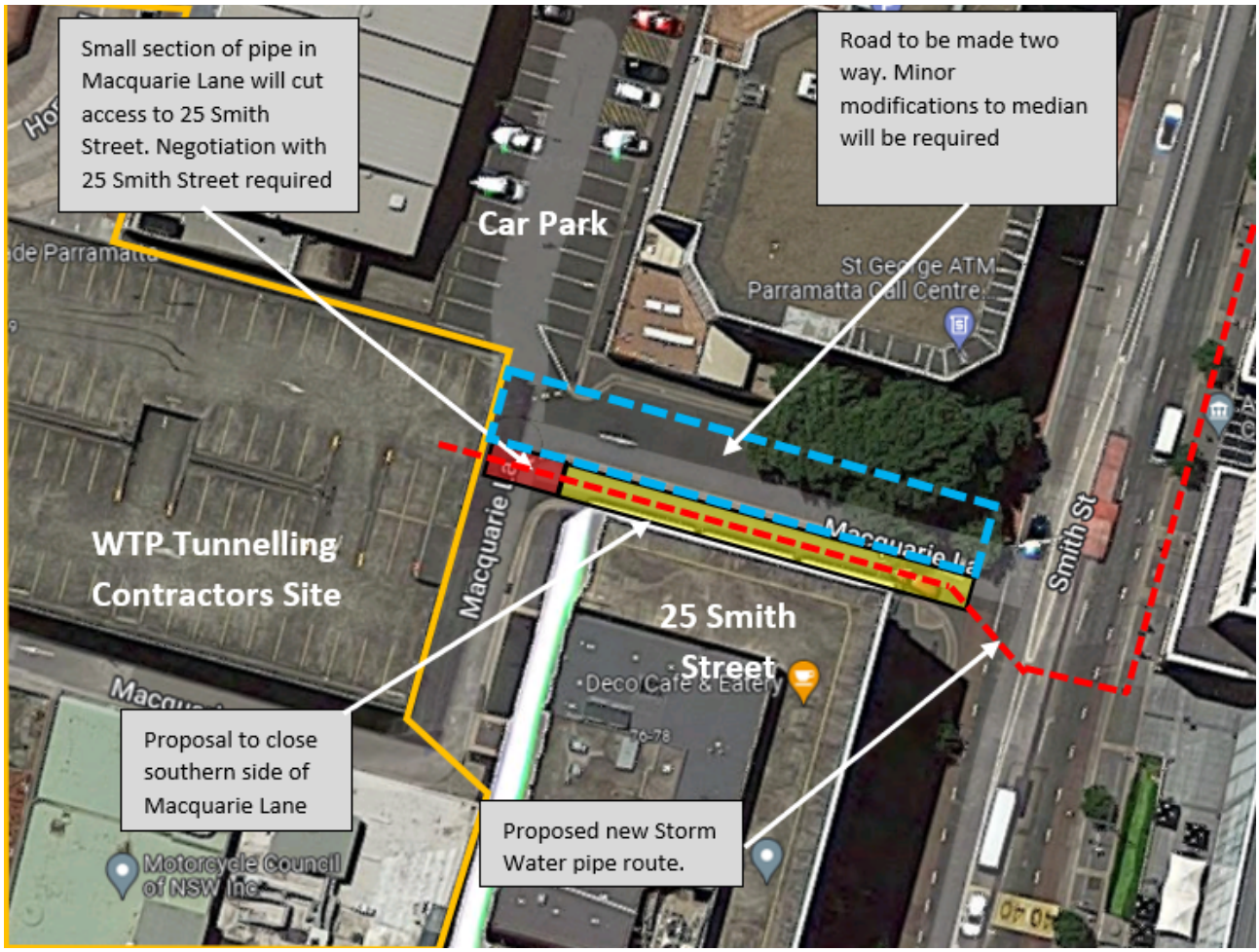


Figure 3-2: Macquarie Lane works

3.2.1.2 Smith Street

A road crossing from Macquarie Lane to the eastern footpath on Smith Street is required. The remainder of the pipe in Smith Street can be installed in the eastern footpath of Smith Street to the corner of George Street. The works may be undertaken as follows.

1. Carry out service search and validation at the proposed Smith Street crossing on night works.
2. GLC will carry out the installation of the road crossing during night works competing installation of the pipe across the road one lane at a time. Road plates will be used to ensure the road is reopened in both directions to public traffic during prior to the AM peak.

It is expected the road investigation works and pipe crossing could be completed in a 2-3 week window. Works in the footpath will also be undertaken during night working hours with pedestrian diversions in place. GLC is anticipating opening a 20m section of footpath at a time before moving onto the next section. The run to George Street is approximately 95m long. It is expected to be able to complete a 20m section in a 3 day window and thus the total duration of the works in Smith Street footpath is 3 weeks.

A closure of the bus lane on the southbound carriageway on Smith Street will be required to facilitate delivery of materials and removal of spoil during night working hours. The staging approach to these works can be seen on Figure 3-3.

Figure 3-3: Staged works along Smith Street

3.2.1.3 George Street

A short section of storm pipe is also required to be installed from the corner of Smith Street and George Street to the connection pit to the east on George Street. In a similar manner to Smith Street this pipe will be installed in the footpath during night working hours. An indicative methodology is below and refer to Figure 3-4.

1. Works in the footpath are likely to have to be undertaken during night working hours. GLC is anticipating opening a 20m section of footpath at a time before moving onto the next section.
2. The run on George Street is approximately 140m long. It is expected to be able to complete a 20m section in a 3 day window and thus the total duration of the works in George Street footpath is 3 weeks.
3. A closure of one westbound lane on George Street on nights to facilitate delivery of materials and removal of spoil will be required to support the above methodology. Pedestrians will be managed by diversion into the parking lane.

Figure 3-4: Proposed staging along George Street

3.2.2 Power supply along George Street

GLC is required to install a new conduit along the George Street footpath between the construction site and west of the Church Street intersection, as noted on Figure 3-5.

Figure 3-5: New power supply route

To gain access to the footpath, the parking lane along George Street will be closed in stages.

Stage 1 will see the parking lane and pedestrian footpath closed between the construction site and Church Street. Pedestrian diversions will be in place between Church Street and Smith Street. Stage 2 will be across the Church Street intersection using existing conduits previously installed under the light rail track with pedestrians diverted into the shared zone area to the south of George Street. Stage 3 will be from the Church Street intersection through to the connection point. Pedestrians will be directed to cross George Street at Marsden Street to the northern side of George Street via signage and traffic controllers, as denoted on the TGS provided in Appendix B

The works include saw cutting and removal of the existing footpath in sections. GLC will use NDD to remove fill to a 600-800mm depth and install conduit before backfilling and reinstating the footpath. These works are proposed to be carried out over the course of three weeks at night.

3.3 Operating Conditions

Vehicle access to and from the construction site will be managed to maintain pedestrian, cyclists and motorist safety. At the Parramatta site, pedestrian management will be in place to facilitate heavy vehicle movements.

Vehicle access into the site for both light and heavy vehicles is proposed via Macquarie Street into Horwood Place with egress onto George Street. This will be a temporary arrangement until access and egress can be established from George St and will be detailed in the site operations CTMP, refer to Figure 3-6 for the site establishment phase of works.

Figure 3-6: Vehicle access/ egress Parramatta site

3.3.1 Impact on traffic flow

The EIS for the Sydney Metro West Stage 1 project, noted for light vehicles that the site establishment phase of the works would have distinct peak travel periods, typically prior to post the standard construction hours and that light vehicle numbers would be fairly constant over the work day, refer to Figure 3-7

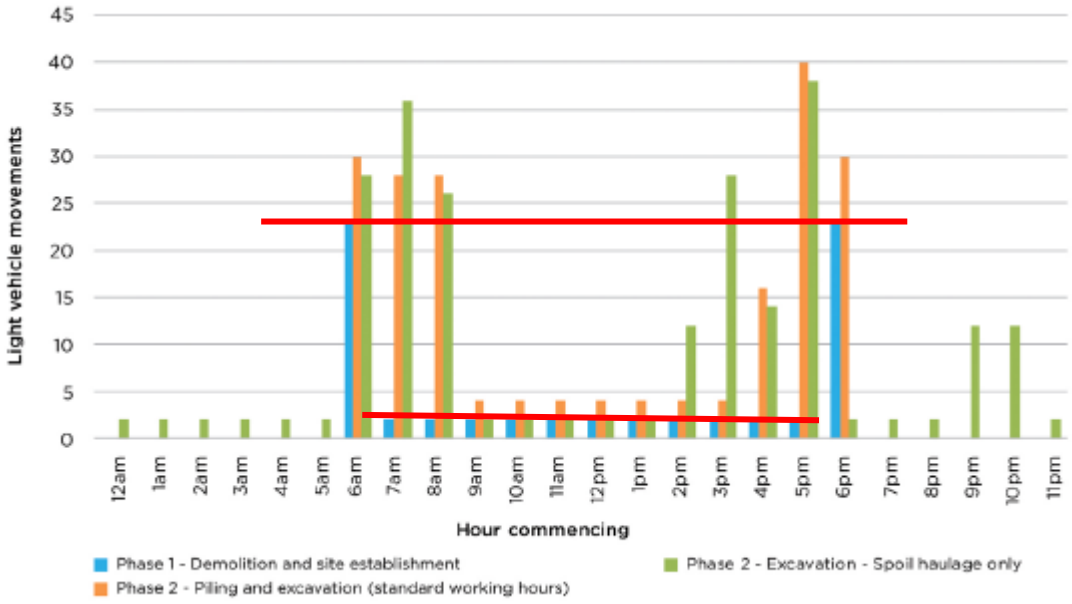


Figure 3-7: EIS light vehicle movements

For heavy vehicle movements, the EIS predicted movements were reduced during the AM and PM peak periods and evenly spread over the course of the rest of the work day, refer to Figure 3-8.

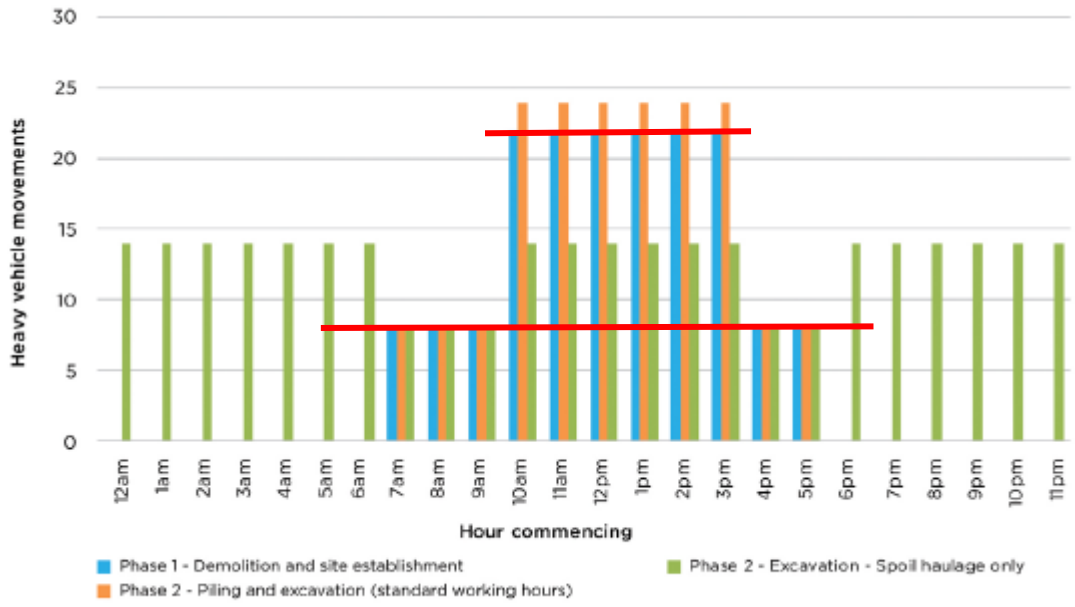


Figure 3-8: EIS hourly heavy vehicle movements (source: EIS Chapter 10 page 10-13)

A comparison of traffic volumes during the site establishment is provided in Table 3-1.

Table 3-1: Comparison of EIS and GLC Site Establishment vehicle movements (numbers) per hour

Time	EIS Light	GLC Light	EIS Heavy	GLC Heavy
0600-0700 and 1700-1800	24 (12)	10(5)	0	0
AM and PM peaks	4 (2)	4 (2)	8 (16)	4(2)
Between the AM and PM peak	4 (2)	2(1)	22 (11)	6(3)

3.3.2 Impact on public transport

Access to the bus stop on George Street will be maintained during the utility works. The occupation of the bus lane on Smith Street will occur nights and weekends, as per the approved ROL times and as noted in Appendix B. It is noted that there are no bus stops on the section of Smith Street where the water main works are occurring.

3.3.3 Impact on active transport

GLC will ensure that access to all utilities, properties and businesses will be maintained during works, unless otherwise agreed in advance with the owner (and tenant where appropriate). Any restoration of access will be agreed to with the property owners (and tenant where appropriate) prior to changes or work commencing.

GLC will provide public access at all times, including all required traffic management and wayfinding signage, to the rear of the properties and businesses on Church Street and George Street for customers entering and exiting through existing access ways; fire door access/egress and vehicles up to 12.5 m long. As this site will continue to change property owners and tenants will be kept up to date with all changes to access, both vehicle and pedestrian. All Community engagement and communications will be in line with Sydney Metro's OCCS.

During site establishment and construction, GLC will proactively plan to minimise impacts to nearby properties and businesses.

TfNSW have also implemented a Be truck aware campaign which aims to show road users, the challenges that truck drivers face every day. Truck aware decals as shown on Figure 3-9 will be installed at the locations shown on Figure 3-10.

Figure 3-9: Truck Aware decal

Figure 3-10: Truck Aware decal locations

During the sewer works on George Street, pedestrian diversions will be required, regardless of the methodology used. The pedestrian access from the Eat Street multi storey car park via Red Cow Lane will be closed during the works, with alternate access/ egress via Erby Place and/ or Horwood Place.

The main works along Smith Street will require an occupation of the eastern footpath between George Street and Macquarie Street with a diversion in place via the western side of Smith Street and the signalised pedestrian crossings at George Street and Macquarie Street.

GLC will not block or disrupt access across pedestrian or shared user paths at any time unless alternate access is provided which complies with the applicable standard.

3.3.4 Impact on properties and utilities

There will be no impact to existing properties during the site establishment works.

GLC will ensure that access to all utilities and properties will be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier. Where access is affected, GLC will reinstate the access to an equivalent standard within one month of the completion of works, or as agreed by the landowner or occupier. Access to the rear of Church Street properties will be retained for pedestrians.

GLC will provide public access at all times, including all required traffic management and wayfinding signage, to the rear of the properties and businesses on Church Street and George Street for customers entering and exiting through existing access ways; fire door access/egress and vehicles up to 12.5 m long. As this site will continue to change property owners and tenants will be kept up to date with all changes to access, both vehicle and pedestrian. All community engagement and communications will be in line with Sydney Metro's OCCS.
During site establishment and construction, GLC will proactively plan to minimise impacts to nearby properties and businesses.

3.3.5 Impact on parking

The parking within Horwood Place was previously removed by the demolition contractor. Parking will be removed temporarily on George Street for the George Street sewer main works, regardless of the methodology.

3.3.6 Cumulative impacts

There are a number of adjacent construction sites within close vicinity of the GLC works. Parramatta Light Rail is accessing and egressing via the Smith Street intersection. Holdmark uses Macquarie Street to enter the site with egress via Horwood Place.. Holdmark are doing development works on Macquarie Street, opposite Horwood Place. Regular contact will be maintained throughout the life of the project, through attendance at the Traffic Control Group (TCG) and Traffic and Transport Liaison Group (TTLG).

3.4 Special events

Special events previously held near the Parramatta site are:

- Parramatta Lanes Festival – typically scheduled for November
- Christmas including Carols from Parramatta
- New Year's Eve celebrations – various locations
- Australia Day – various locations around the CBD
- Parramatta Farmers Market held in Centenary Square
- NAIDOC week – July
- Various events at Commbank

GLC will continue to interrogate event websites that provide details on up and coming events such as:

NSW and Sydney Events - Destination NSW

NSW Events & Festivals | Official NSW Tourism Website (visitnsw.com)

City of Parramatta Events

What's On – CommBank Stadium (formerly Bankwest Stadium)

What's on in Sydney Australia - Events (experiencesydneyaustralia.com)

During major special events, defined in *Guide to Traffic and Transport Management for Special Events,* published by NSW Government (version 3.5 July 1, 2018) as a Class One event that has major impacts on the transport and traffic network, GLC will review options to limit our impact by:

- Minimising the level of construction activity and, if necessary, ceasing all construction activity
- Maintaining appropriate access to all areas within the event precinct
- Erection of hoardings, site fencing and gates at key locations with the construction site boundary, to permit pedestrian movements adjacent to the construction site and separate pedestrians from construction vehicles
- Scheduling deliveries to the construction site outside of special event periods

It is noted that Sydney Metro West representatives also attend the monthly Parramatta Events Group (PEG) meetings.

3.5 Staff transport and parking

There will be no onsite staff parking during the site establishment phase of the works. Parking will be available at the GLC's offices.

3.6 Traffic Guidance Schemes (TGS) identified works

Works that have been identified as requiring TGS are:

- Pedestrian management on George Street to manage the interaction between pedestrians and heavy vehicles.
- Utility works on:
    - George Street
    - Smith Street
    - Macquarie Street – between Marsden Street and Church Street (Tee connection removal works)

The TGS are contained within Appendix B.

The Road Occupancy Licenses (ROL) and Council permit applications will be lodged post the external review of the Construction Management Plan.

3.6.1 Road occupation and restoration

For any works that involve an occupation of the road/ footpath, a Road Occupancy License (ROL) will be sought from the Transport Management Centre (TMC) will be applied for prior to the submission of a ROL from the City of Parramatta Council. ROL through the TMC will be applied for a minimum of 10 business days from the proposed start date. Electronic lodgement of the ROL will be undertaken using TfNSW's OpLinc system.

Council permits will be lodged electronically in accordance with the City of Parramatta Council requirements. For any works where parking is temporary impact, GLC will ensure that the parking removal is staged to minimise the time of parking space occupation.

For any road opening required, the relevant Road Opening Permit (ROP) will be applied for through the existing City of Parramatta Council website. The ROP will also be accompanied by a ROL. Details on the permits required are found at City of Parramatta Council road permits.

A register of permits/ licenses will be maintained through the works period and can be tabled at the TCG, if requested.

4 Fleet Management

Trucks to be used on the project will be compliant with NSW legislation, Sydney Metro's Principal Contractor Health and Safety Standard, relevant Australian Design Rules and vehicle standards and the Heavy Vehicle National Legislation. All heavy vehicle operations will be conducted in accordance with GLC's Chain of Responsibility (CoR) Management Plan, including monitoring of compliance with nominated haulage routes.

A combination of truck types will be used during the site establishment works, with trucks being semi-trailers, truck and dog, 12.5m Single Unit trucks and low loaders. All trucks will enter and exit the site in a forward direction, where reasonable and feasible. Where there is a requirements to undertake reversing movements on the public road system, appropriate traffic control will be implemented.

Construction site traffic will be managed to minimise movements during peak periods and movements through school zones during pick up and drop off times. This will be achieved through scheduling of vehicles and staggered start and finish times. GLC will provide sufficient onsite parking for heavy vehicles. This will ensure that vehicles are not idling or queuing on public roads.

At the George Street end of Horwood Place there is approximately 60m of queuing space available ensuring that heavy vehicles can be accommodated on site. Where this is not possible GLC's heavy vehicle will be directed to the Clyde site, as noted above, until sufficient space is available. GLC will coordinate their daily truck movements with other users of Horwood Place.

4.1 Drivers and operators

Operator selection will be based on safety performance criteria. Operators and drivers will be required to have general construction industry induction cards and will be required to attend ongoing general project and site specific inductions.

All operators will be comprehensively trained with regard to community expectations and impacts from heavy vehicle movements through site inductions and attendance at the Sydney Metro Industry Curriculum (SMIT) – Safe Heavy Vehicle Introduction Skills which provides drivers with the knowledge, skills, motivation and confidence to drive heavy vehicles safely and professionally in an urban built up road environments, whilst undertaking a transport task required on the project. The training course focuses on low risk driver behaviours, shared the road safely with vulnerable road users and reinforces heavy vehicle driver knowledge and skill. The project and site inductions will have a particular focus on operator behaviour. The driver induction process will include safety awareness in relation to all road users, particularly pedestrians and cyclists along Macquarie Street and when exiting onto George Street.

4.2 Heavy vehicle routes and compliance

Generally, the heavy vehicle routes will be via arterial roads/ freeways/ tollways. Where possible the routes have considered the requirements of the Environmental Impact Statement (EIS). It is noted that the EIS for this site shows access via Macquarie Street, O'Connell Street and George Street, refer to Figure 4-1, however, this route is based on a right turn into site, which is not favoured until the traffic signals are installed on George Street at Horwood Place. The EIS also notes another route into site from Wilde Avenue/ Smith Street with a right turn onto George Street – however, this movement is a banned movement so it is not feasible. It is also noted that Horwood Place is one way from Macquarie Street through to George Street.

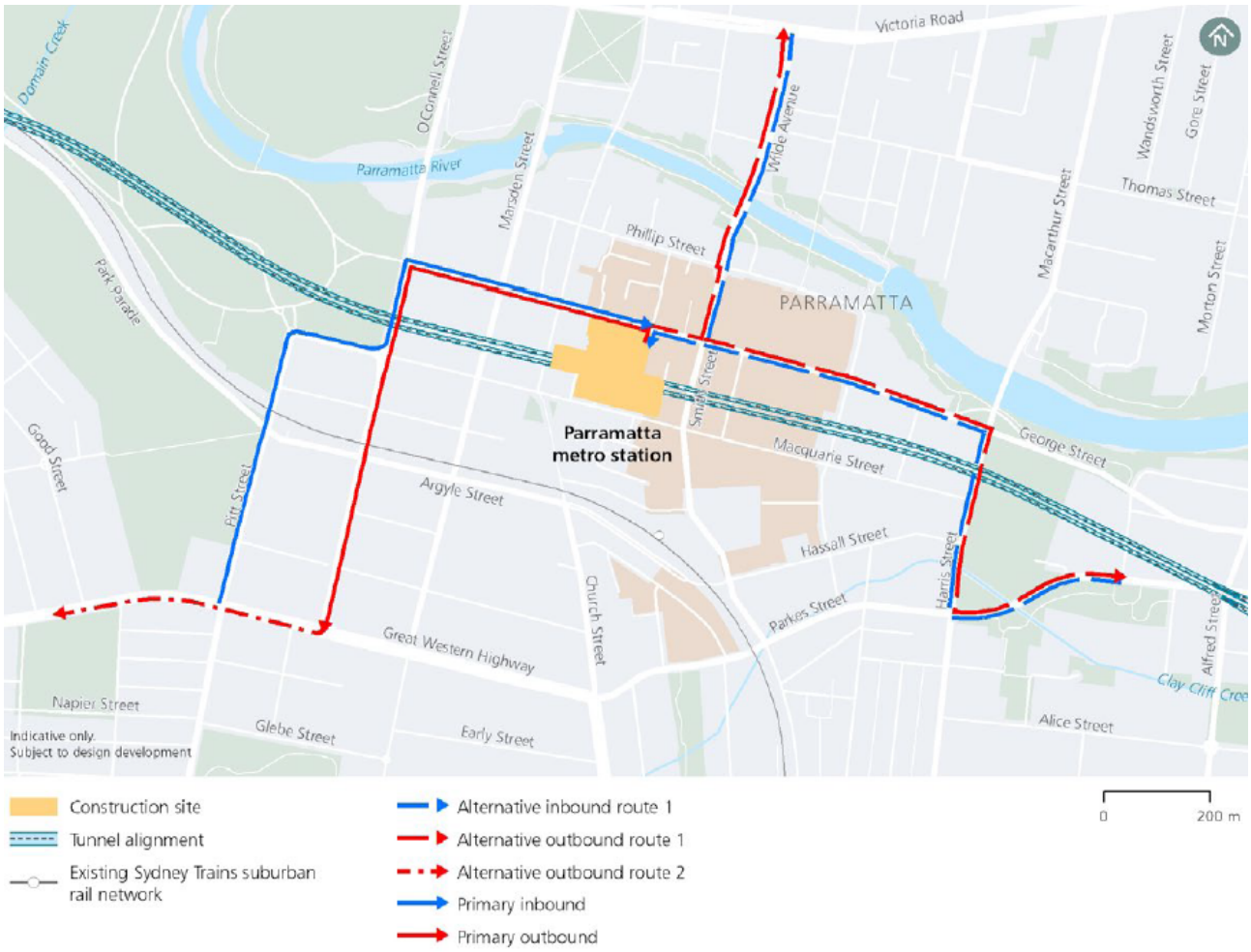


Figure 4-1: EIS nominated heavy vehicle routes

Therefore, the proposed routes into site are as Figure 3-6 – access via Macquarie Street onto Horwood Place and egressing via Horwood Place, left turn onto George Street, refer to Appendix C for the proposed routes to the closest motorway.

4.3 Permits / Over dimensional vehicles

Permit issue for vehicles greater than 4.5 tonnes is through the National Heavy Vehicle Regulator (NHVR). This applies to particular special purse vehicles (SPV) such as mobile cranes and other oversize/ over ass (OSOM) vehicles. At present, TfNSW is currently undertaking this permit issue.

For over dimensional vehicles, generally vehicles that are greater than 25m in length or 3,5m width require a pilot(s). Extremely long or wide vehicles will require an escort (fee payable). Permits will be applied for by the transport operator.

Oversize vehicles will be required at this site for the delivery of large plant and piling rigs. These deliveries will occur outside of peak hours. Contractors will manage their own permits.

5 MINISTERIAL CONDITIONS OF APPROVAL

There are a number of plans/ reports that are required under the Ministerial Conditions of Approval (MCoA) as noted in Appendix A and included in subsequent appendices of this CTMP.

5.1 Heavy Vehicle Local Road (HVLR) report

A Heavy Vehicle Local Road is to be provided to the Planning Secretary for approval, for use of local roads not identified in the EIS or other planning documents. The report includes 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).

Local roads that are proposed to be used include:

- Macquarie Street between O'Connell Street and Horwood Place

A copy of that HVLR will be provided in Appendix C.

5.2 Construction Parking and Access Strategy (CPAS)

A Construction Parking and Access Strategy is to be provided to the Planning Secretary for approval at least one (1) month before the commencement of construction that reduces the availability of existing parking. The approved strategy will be implemented before impacting on street parking. The CPAS identifies and provides mitigation measures to alleviate the impacts form on and off street parking changes during construction. The CPAS includes the following:

f) Achieving the requirements of MCoA D90 which includes:
    a) Minimise parking on public roads
    b) Minimise idling and queuing on state and regional roads
    c) Not carry out marshalling of construction vehicles near sensitive land user(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 CTMPs
g) Confirmation and timing of the removal of on and off street parking associated with construction of stage 1 of the CSSI
h) Parking surveys of all parking spaces to be removed or occupied by the project workforce to determine current demand during peak, off peak, school drop off and pickup, weekend periods and during special events
i) Consultation with affected stakeholders utilising exiting on and off street parking stock which will be impacted as a result of construction

j) Assessment of the impacts to on and off street parking stock taking into consideration occupation by the project workforce, outcomes of consultation with affected stakeholders and considering the impacts of special events

k) Identification of reasonable and practicable mitigation measures to manage impacts to stakeholders as a result of on and off street parking changes including but not necessarily limited to, staged removal and replacement of parking, provision of alternative parking arrangements, managed staff parking arrangements and working with relevant council(s) to introduce parking restrictions adjacent to work sites and compounds or appropriate residential parking schemes.

l) Where resident parking schemes already exist, off road parking facilities must be provided for the project workforce

m) Mechanisms for monitoring, over appropriate intervals (not less than six (6) months), to determine the effectiveness of implemented mitigation measures

n) Details of shuttle bus service(s) to transport the project workforce to construction sites from public transport hubs and off site car parking facilities, where these are provided, and between construction sites

o) Provision of contingency measures should the results of mitigation or monitoring indicate implemented measures are ineffective and

p) Provision of reporting of monitoring results to the Planning Secretary and relevant Council(s) at six (6) monthly intervals

A copy of that CPAS is provided in Appendix D.

5.3 Road dilapidation report

Road dilapidation reports will be provided for the local roads used by construction vehicles. These reports will be undertaken prior to the use of these roads. A copy of the report(s) will be provided to the relevant road authority within three (3) weeks of complement of the survey and no later than one (1) month before the road is used.

If damage to roads occurs as a result of heavy vehicle use associated with the construction works, GLC, will, at the relevant road authority's discretion:

- Compensate the relevant road authority for the damage so caused or
- Rectify the damage to restore the road to at least the condition it was in pre-work as identified in the road dilapidation report

A copy of the Road Dilapidation Report transmittal to the City of Parramatta Council is provided in Appendix D of the HVLR included in Appendix C of this CTMP.

6 COMMUNITY AND CONSULTATION

6.1 Communications and the community

Table 6-1 notes the notifications to be provided to the local community and travelling public for the site establishments works, associated with this CTMP.

Any enquiries, compliments or complaints will be directed to GLC's communications team via

- Information line 1800 612 173
- Email metrotunnelsGLC@transport.nsw.gov.au
- Mailing address Sydney Metro West, PO BOX K659, Haymarket, NSW 1240

Table 6-1:Proposed community notifications

Notification	Applicable?
Newsletters	Yes
Construction email updates	Yes
Fact sheets	Yes
Site signage	Yes
GLC website	Pending
Variable Message signs	Where required

6.2 Stakeholders

Various stakeholders will be consulted for further development of this CTMP. Stakeholder details that have been consulted are provided in Table 6-2.

Table 6-2: Stakeholder consultation details

Stakeholder	Date	Consultation type
Traffic Control Group	17th March 2022	Presentation
Customer Journey Planning	28th June 2022	Submission of CTMP
Sydney Metro West	28th June 2022	Submission of CTMP
City of Parramatta Council	28th June 2022	Submission of CTMP
Customer Journey Planning	20 July 2022	Resubmission of CTMP
Sydney Metro West	20 July 2022	Resubmission of CTMP
City of Parramatta Council	20 July 2022	Resubmission of CTMP
Customer Journey Planning	2nd August 2022	Resubmission of CTMP
Sydney Metro West	2nd August 2022	Resubmission of CTMP
City of Parramatta Council	2nd August 2022	Resubmission of CTMP
Customer Journey Planning	11th August 2022	Resubmission of CTMP
Sydney Metro West	11th August 2022	Resubmission of CTMP

Stakeholder	Date	Consultation type
City of Parramatta Council	11th August 2022	Resubmission of CTMP

6.2.1 Traffic and Transport Liaison Group (TTLG)

The TTLG has been established by Sydney Metro for the project, as required under MCoA D94. The TTLG consists of members from Sydney Metro, City of Parramatta Council and representatives from the Emergency Services. The development of this CTMP will occur in consultation with this group. The TTLG meets monthly.

Supplementary analysis and modelling as required by Sydney Metro and/ or the Traffic and Transport Liaison Group(s) will be undertaken to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations including changes to and the management of pedestrians, bicycle and public transport networks, public transport services, and pedestrian and cyclist movements. Any revised traffic management measures identified through the supplementary analysis and modelling will be incorporated into the CTMP.

6.2.2 Traffic Control Group (TCG)

A TCG has been established for the project by Sydney Metro. The TCG meets fortnightly and is comprised of Sydney Metro representatives, Council representatives and other project contractors.

6.2.3 Emergency Services

Relevant Emergency Services will be informed, in a timely manner of relevant activities proposed within this CTMP. The initial communication to these stakeholders will be via the TTLG. Regular updates will be provided to Emergency Services representatives noting changes to the road network, changes to road conditions and worksite access locations. This communication will be via emails and face to face discussions. Access to properties for emergency vehicles will be provided at all times.

7 OTHER CONSIDERATIONS

7.1 Road safety audits

Road safety audits will be undertaken during the development of the CTMP and upon implementation of the long term work site, refer to Appendix E.

7.2 Inspections and monitoring

Typical inspections and monitoring is as per Table 7-1 (source TfNSW's TCAWS)

Table 7-1: inspections and frequency

Stage	Activity	Purpose
Planning	TGS verification	To ensure that the TGS selected or designed is suitable for the works and location
During temporary traffic management	Weekly inspections	To ensure that the CTMP and relevant TGS are appropriate and operating safely, effectively and efficiently
	Shift inspection	To ensure that the TGS is implemented as designed. This includes at a minimum twice per shift and when: A. TGS is installed/ changed or updated B. At regular frequency after work commences (every 2 hours) C. Once aftercare arrangements have been installed, if required
	CTMP review	To ensure that the CTMP controls are achieving the required outcomes
	Road safety audits	To identify road safety crash potential and areas of risk that could lead to traffic crashes
Post completion	Post completion inspection	To ensure that the site has been demobilised as planned and is safe for opening to traffic

7.3 Emergency and incident management

In the event of an incident that has the potential to impact traffic or public transport, at sites managed by GLC, GLC will ensure that traffic control resources are provided. These resources include:

- Traffic control personnel
- Traffic control vehicle containing:
    - Barrier boards
    - Cones/ bollards
    - Flashing arrow
    - Signs
    - Spill kit

GLC will report all traffic incidents to Sydney Metro, the Transport Management Centre (13 17 00) and Customer Journey Planning.

7.4 On site contacts

Site contacts are provided in Table 7-2.

Table 7-2: Site contacts

Name	Position	Organisation	Contact #	Email
Daniel Kelly	Logistic Manager	GLC	0437 315 649	Daniel.kelly@glcwtp.com.au
David Leaver	Project Manager	GLC	0419 382 572	David.leaver@glcwtp.com.au
Andy Thompson	Surface Works Construction Manger	GLC	0423 479 033	Andy.thompson@glcwtp.com.au
Paige Moreno	Place Manager	GLC	0426 390 009	Paige.moreno@glcwtp.com.au

A COMPLIANCE TABLES

Table 7-3: Relevant Ministerial Conditions of Approval

Requirement	Details	Where addressed
MCoA D80	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier	Section 3.3.4
MCoA D81	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 time frame agreed with the landowner or occupier	Section 3.3.4
MCoA D85	Construction Traffic Management Plans (CTMPs) must be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTMP	This plan
MCoA D86	Local roads proposed to be used by Heavy Vehicles to directly access construction sites that are not identified in the documents listed in Condition A1 of this schedule must be approved by the Planning Secretary and be included in the CTMP	Appendix C
MCoA D87	All requests to the Planning Secretary for approval to use local roads under Condition D86 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) Measure 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	Appendix C

Requirement	Details	Where addressed
	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	
MCoA D88	Before any local road is used by a Heavy Vehicle for the purposes of construction of Stage 1 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 Stage 1 of the CSSI	Section 5.3 and Appendix C
MCoA D89	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	Section 5.3
MCoA D90	Vehicles associated with the project workforce (including light vehicles and Heavy Vehicles) must be managed to: a) Minimise parking on public roads	Section 3.3.5
	b) Minimise idling and queuing on state and regional roads	Section 4
	c) Not carry out marshalling of construction vehicles near sensitive land user(s)	Section 4
	d) Not block or disrupt access across pedestrian or shared user paths at any time unless alternate access is provided and	Section 3.3.3
	e) Ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the CTMP	Section 4.2
MCoA D91	A Construction Parking and Access Strategy must be prepared to identify and mitigate impacts resulting from on and off street parking changes during construction. The Construction Parking and Access Strategy must include, but not necessarily limited to:	Appendix D

Requirement	Details	Where addressed
	a) Achieving the requirement of Condition D90 above b) Confirmation and timing of the removal of on and off street parking associated with construction of Stage 1 of the CSSI c) Parking surveys of all parking spaces to be removed or occupied by the project workforce to determine current demand during peak, off peak, school drop off and pick up, weekend periods and during special events d) Consultation with affected stakeholder utilising existing on and off street parking stock which will be impacted as a result of construction e) Assessment of the impacts to on and off street parking stock taking into consideration, occupation by the project workforce, outcomes of consultation with affected stakeholders and considering the impacts of special events. f) Identification of reasonable and practicable mitigation measures to manage the impacts to stakeholders as a result of on and off street parking changes including but not necessarily limited to, staged removal and replacement of parking, provision of alternative parking arrangements, managed staff parking arrangements and working with relevant council(s) to introduce parking restrictions adjacent to work sites and compounds or appropriate residential parking schemes g) Where residential parking schemes already exist, off road parking facilities must be provided for the project workforce h) Mechanisms for monitoring, over appropriate interval (not less than 6 months) to determine the effectiveness of implemented mitigation measures i) Details of shuttle bus service(s) to transport the project workforce to construction sites from public transport bubs and off site car parking facilities (where these are provided) and between construction sites j) Provision of contingency measures should the results of mitigation or monitoring indicate implemented measures are ineffective and k) Provision of reporting or monitoring results to the Planning Secretary and Relevant Council(s) at six (6) monthly intervals	

Requirement	Details	Where addressed
MCoA D92	The Construction Parking and Access Strategy must be submitted to the Planning Secretary for approval at least one (1) month before the commencement of any construction that reduces the availability of existing parking. The approved Construction Parking and Access Strategy must be implemented before impacting on on-street parking and incorporated into the CTMPs	Section 5.2 and Appendix D
MCoA D93	During construction, all reasonably practicable measures must be implemented to maintain pedestrian, cyclists and vehicular access to, and parking in the vicinity of businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternate pedestrian, cyclists and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of any disruption	Section 3.3.4
MCoA D94	A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CTMPs	Section 6.2.1
MCoA D95	Supplementary analysis and modelling as required by Sydney Metro and/ or the Traffic and Transport Liaison Group(s) must be undertaken to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations including changes to and the management of pedestrians, bicycle and public transport networks, public transport services, and pedestrian and cyclist movements. Revised traffic management measures must be incorporated into the CTMPs	Section 6.2.1
MCoA D97	Permanent road works, including vehicular access, signalised intersection works, and works relating to pedestrians, cyclist and public transport users must be subject to safety audits, demonstrating consistency with relevant design, engineering and safety standards and guidelines. Safety audits must be prepared in consultation with the relevant Traffic and Transport Liaison Group before the completion and use of the subject infrastructure and must be made available to the Planning Secretary upon request	Not relevant to the CTMP – Refer to Design process

Requirement	Details	Where addressed
MCoA D98	Safe pedestrian and cyclist access must be maintained around construction sites 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 3.3.3
MCoA D99	Opportunities to maximise spoil material removal by non-road methods must be investigated and implemented where reasonably practicable to minimise movements by road	Not applicable to site establishment works

Table 7-4: Relevant Revised Environmental Management Measures

Requirement	Impact/ issue	Details	Where addressed
TT1	Changes to the network	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community liaison	Section 6
TT2	Traffic incidents	In the event of a traffic related incident coordination would be carried out with Transport for NSW including Transport Coordination and/ or Traffic Management Centre's Operations Manager	Section 7.3
TT3	Emergency vehicle access	Access to properties for emergency vehicles would be provided for at all times	Section 3.3.4
TT4	Road safety	Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclists and motorist safety. Depending on the location this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or on occasions police presence	Section 3.3.3
TT5	Road safety	Additional enhancements for pedestrian, cyclist and motorist safety near the construction sites would be	Appendix C

Requirement	Impact/ issue	Details	Where addressed
		implemented during construction. This would include measures such as: • Assessing the suitability of construction haulage routes through sensitive land use areas with respect to road safety	
		• Deployment of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers	Not applicable to site establishment works
		• Providing community education and awareness about sharing the road safely with heavy vehicles	Appendix C
		• Specific construction driver training to understand the route constraints, safety and environmental considerations such as sharing the road safety with other road users and limiting the use of compression braking	Appendix C
		• Requiring technology and equipment to improve vehicle safety, eliminate heavy vehicle blind spots and motor vehicle location and driver behaviour	Appendix C
TT6	Road safety	• All trucks would enter and exit construction sites in a forward direction, where reasonable and feasible	Section 4
TT7	Congestion	Construction site traffic would be managed to minimise movements during peak periods	Section 4
TT8	Congestion	Construction site traffic immediately around construction sites (WMS, PMS, BNS and FDS) would be managed to minimise vehicle movements through school zones during pick up and drop off times	Section 4
TT9	Congestion	Opportunities to minimise impacts at the Alexandra Avenue/ Bridge Road intersection would be determined in consultation with Transport for NSW	Applicable to Westmead site as noted in the REMM

Requirement	Impact/ issue	Details	Where addressed
TT10	Loss of parking	Where existing parking is removed to facilitate construction activities, consultation would occur with the relevant local council to investigate opportunities to provide alternative parking facilities	Section 6
TT11	Loss of parking	Construction sites would be managed to minimise the number of construction workers parking on surrounding streets by: • Encouraging workers to use public or active transport • Encouraging ride sharing • Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable	Appendix D
TT12	Change of bus stop locations	Any temporary closure or relocation of bus stops and kiss and ride facilities would be carried out in consultation with Transport for NSW including Transport Coordination (for relevant locations), the relevant local council and bus operators. Wayfinding and customer information would be provided to notify customers of relocated bus stops	Applicable to Westmead (WMS), North Strathfield (NSMS), Burwood North (BNS) and The Bays (TBS) only as noted in the REMM
TT13	Bus priority	Opportunities to improve bus priority along the temporary detour at Westmead metro station construction site would be investigated during detailed design	Applicable to Westmead site as noted in the REMM
TT14	Active transport	Pedestrian and cyclist access would be maintained during the temporary closure of Alexandra Avenue at Westmead. Wayfinding and customer information would be provided to guide pedestrians and cyclists to alternative routes	Applicable to Westmead site as noted in the REMM
TT15	Impacts on active transport	Where existing cyclists facilities, (eg: bicycle parking) would be temporary unavailable to facilitate construction activities, suitable replacements facilities would be provided for this duration	Section 3.3.3
TT17	Impacts on special events	During major special events, impacts to the transport and traffic network would be reduced by, (as necessary)	Section 3.4

Requirement	Impact/ issue	Details	Where addressed
		• Minimising the level of construction activity and, if necessary, ceasing all construction activity • Maintaining appropriate access to all areas within the event precinct • Erection of hoardings, site fencing and gates at key locations with the construction site boundary, to permit pedestrian movements adjacent to the construction site and separate pedestrians from construction vehicles • Scheduling deliveries to the construction site outside of special event periods	
TT18	Property access	Access to existing properties and buildings would be maintained in consultation with property owners	Section 3.3.4
TT19	Construction vehicle impacts	Traffic control measures required at the Parramatta metro station construction site access on Gorge Street would be determined in consultation with Transport for NSW	This CTMP
C11	Occurrence of cumulative impacts	Coordination and consultation with the following stakeholders would occur, where required, to manage the interface of projects under construction at the same time: • Transport for NSW including Transport Coordination • Department of Planning, Industry and Environment • Sydney Trains • NSW Trains • Sydney Buses • Sydney Water • Port Authority of NSW • Sydney Motorways Corporation • Emergency Services providers • Utility providers • Construction contractors	Section 6

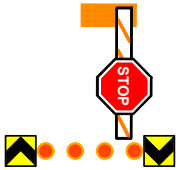
Requirement	Impact/ issue	Details	Where addressed
		Coordination and consultation with these stakeholders would include: • Provision of regular updates to the detailed construction program, construction sites and haul routes • Identification of key potential conflict points with other construction projects • Developing mitigation strategies in order to manage conflicts. Depending on the nature of the conflict this could include: – Adjustments to the Sydney Metro construction program work activities or haul routes or adjustments to the program activities or haul routes of other construction projects – Coordination of traffic management arrangements between projects	

B TRAFFIC GUIDANCE SCHEMES

TGS#	Location	Between		Time of Day	Traffic control	Works	Impacts
Macquarie Ln-001	Macquarie Lane	Macquarie Lane car park	Smith Street	Night	Stop/ slow to facilitate median removal	Water main works	Undertaken outside of peak hours to minimise impact on Smith Street
32097 (formerly Smith St-001)	Smith Street	Macquarie Lane	George Street	Night	Closure of southbound bus lane Closure of eastern footpath	Water main works	Impacts to bus operations during bus lane occupation Impacts to pedestrians during footpath closure with diversion via existing signalised crossings and use of western footpath along Smith Street
32097 (formerly Smith St-001)	George Street	Smith Street	Eastern extent of works	Night	Closure of No Stopping lane and southern footpath	Water main works	Reduction to a single lane on approach to signalised intersection with Smith Street Impacts to pedestrians during footpath closure with diversion via existing signalised crossings and use of northern footpath along George Street
George St-Stage 1	George Street	Horwood Place	Church Street	Night	Closure of the parking lane and footpath on the	Power supply	Parking removal and diversion for pedestrians

TGS#	Location	Between		Time of Day	Traffic control	Works	Impacts
					southern side of George Street		
George St Stage 2	George Street	Church Street		Night	Closure of kerb side lane across Church Street	Power supply	Diversion for pedestrians. Local traffic access to be managed
George St Stage 3	George Street	Church Street	West of Church Street	Night	Closure of the parking lane and footpath on the southern side of George Street		Parking removal and diversion for pedestrians
TGS-PED-ALL-1101	All				Pedestrian management	Heavy Vehicle access/ egress across footpaths	Intermittent stop of pedestrians during heavy vehicle movements at footpath locations

Four traffic cones are to be installed on the centre line at 4m spacing, with a T5-5(L) at both ends.
TC must remain 1.2m from live traffic and maintain a clear escape route at all times whilst operating PORTABOOM



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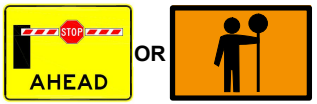
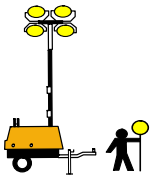
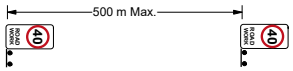


ALTERNATE SIGNAGE ARRANGEMENT

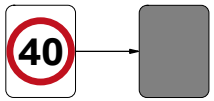


Light Towers to be used where required to illuminate TC's if lighting is insufficient.

Speed Reduction Signage to be repeated at a distance of 500m max.



Existing Speed Signs to be covered with opaque material.



Spacing of Cones/Devices

Purpose and usage	Speed zone of device location km/h	Maximum spacing m
On approach to a traffic controller position (centreline or edge line)	All cases	4
Merge tapers	55 to 75 greater than 76	9 12
Lateral shift tapers	55 to 75 greater than 76	12 18
Protecting freshly painted lines	56 to 75 greater than 75	24 60*
All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Recommended Taper Lengths

	Recommended taper length (m)		
Existing permanent speed limit (km/h)	Traffic control taper	Lateral shift taper	Merge taper
45 or less	15	15	15
46 to 55	15	15	30
56 to 65	30	30	60
66 to 75	N/A	70	115
76 to 85	N/A	80	130
86 to 95	N/A	90	145
96 to 105	N/A	100	160
Greater than 105	N/A	110	180

Allowable Tolerance on amending Spacings

Tolerance	Positioning of signs, length of tapers or markings	Spacing of delineating devices
Minimum	10% less than the distances or lengths given	Nil
Maximum	25% more than the distances or lengths given	10% more than the spacing shown

Edge Clearances for Cones/Bollards

Edge of traffic lane to:	Edge clearances
Line of traffic cones or bollards	• 0.5 m for traffic speeds less than 65 km/h • 1.0 m for traffic speeds greater than 65 km/h

Posted Speed Limit of Subject Road/s

Adjusting or Modifying A TGS:

ITCP Holder-

- ITCP qualified person must ensure that the TGS is implemented as approved. Minor adjustments can be completed in accordance with Section 7.10.3 Tolerances on positioning of signs and devices. Modifications will be recorded on the TGS checklist and a signed copy will be available on-site.

PWZTMP Holder-

- Modifications to a Site Specific TGS must be approved by the PWZTMP or relevant qualification holder, and must be supported by a TMP or risk assessment to ensure all TGSs considers and mitigate identified site-specific conditions and risks.
- If risk is identified during the implementation of the TGS and requires modification outside of the tolerance listed below, the works must be stopped until an updated TGS is drafted and approved by a PWZTMP qualified person prior to works recommencing. (refer to TCAWS 7.10.4).
- Any anomalies or inconsistencies found in the TGSs being used must be recorded and reported back to the TGS designer who is PWZTMP qualified.

Implementing A TGS:

- A TGS must be installed, maintained and removed in a planned and safe manner.
The implementation of a TGS must only be undertaken by an ITCP qualified person.
(Refer To TCAWS 7.10.1)
- Signs and traffic control devices must be installed in a sequence via GPS, survey, landmarks, side streets or chainage in accordance with TCAWS V6 Section 6.4 and AGTTM Section 6.2
- An implementation TGS should be provided if the risk of implementation is deemed high. The sequence of implementation should be determined as part of the drafting process in TGS or SWMS, rather than being determined on-site. (Refer To TCAWS 7.10.2)

Notes:

- This Traffic Guidance Scheme is developed by competent and experienced persons in accordance with the requirements outlined in the TfNSW TCAWS Issue 6.0, AS1742.3 and the Road Management Act 2004.
- Prior to implementation of the TGS, D&D Traffic Management will carry out an inspection and risk assessment.
- A signed copy of the SWMS will be available on-site at all times.
- A PWZTMP and/or ITCP qualified person must ensure the TGS is implemented, and the work area maintained as per attached TGS. Otherwise, any adjustment and modification will be captured in the shift paperwork.
- Pedestrian management is to be overseen by onsite crew and supported by a risk assessment. If additional signage (TCAWS 6.5.2 - Table 6.5) is required it is subject to modifying TGS criteria, see below.
- Signs to be installed on high legs if sight obstruction is present (for example behind guardrails/barriers, etc.)
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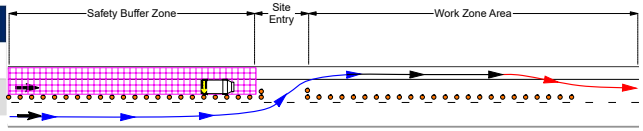
Site Entry and Exit Process



- Highlight entry point with double cones and leaving a small break as per above diagram.
- Prior to Entering Worksite, work vehicles shall:
  - Turn on beacons
  - Radio Traffic Management on approach to Site using nominated UHF channel
- Traffic Controllers are to ensure that no local traffic follows work vehicles in the work area
- Above diagram is depicting a Lane 1 Closure. Set-up is to be mirrored in case of median lane closures.

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5, and used for the positioning of advanced warning signage.

Speed Limit (km/H)	Dimension D (m)
< 55 km/H	15 m
60 km/H	45 m
> 65 km/H	Approach Speed

TGS Installation Date:

Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

Expiry Date or Issue Date: _____

Signature: _____

Date: _____

TGS Field Notes:

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE1	CLIENT:		DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY	
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST	GLC	GLC Civil Projects Pty Limited	SIGNATURE		SIGNATURE		SIGNATURE	
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE	
02		WORK LOCATION	MULTI LANE- - LATERAL SHIFT	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #	

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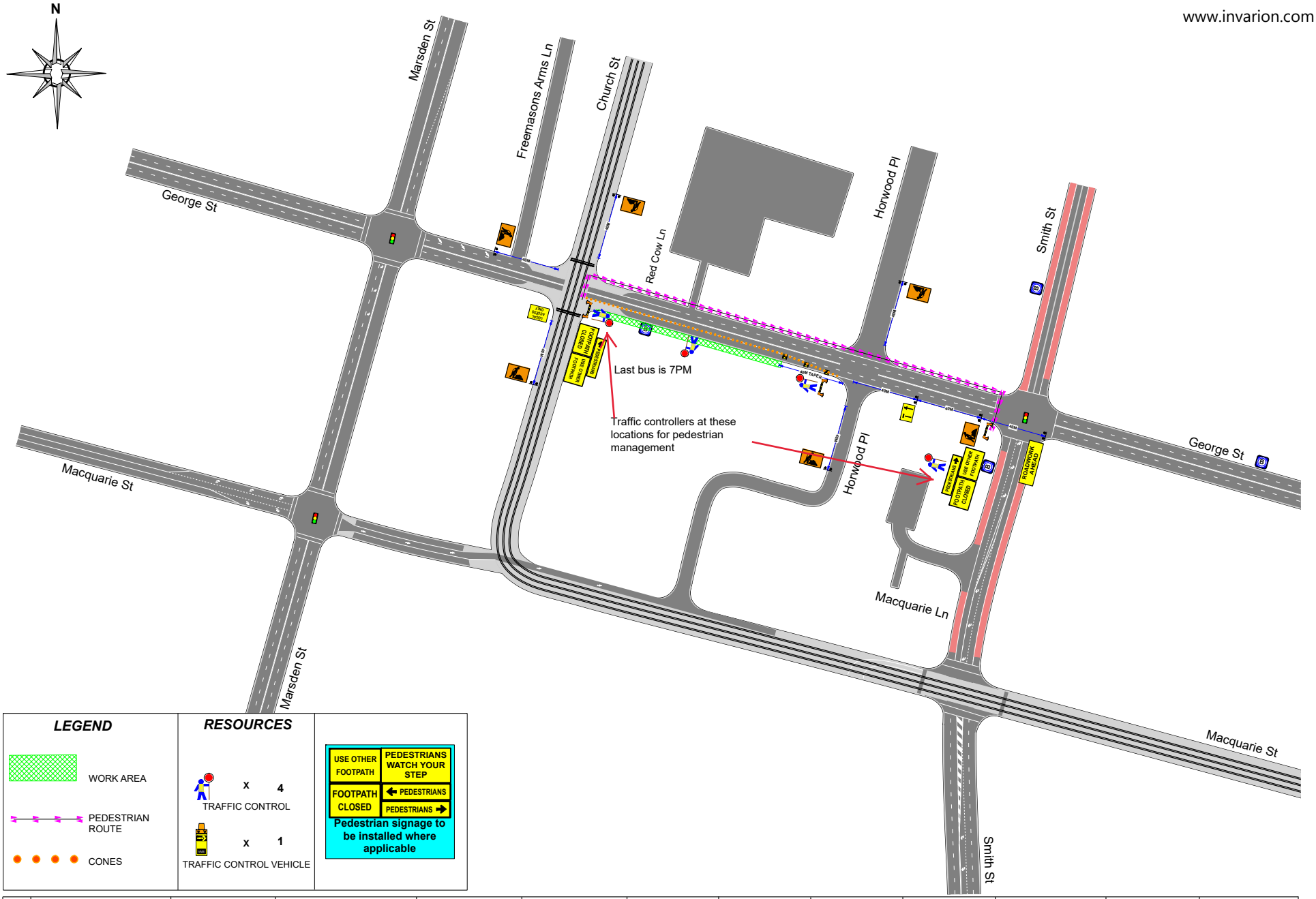

LEGEND

- WORK AREA
- PEDESTRIAN ROUTE
- CONES

RESOURCES

- x 4 TRAFFIC CONTROL
- x 1 TRAFFIC CONTROL VEHICLE

USE OTHER FOOTPATH	PEDESTRIANS WATCH YOUR STEP
FOOTPATH CLOSED	PEDESTRIANS ←
	PEDESTRIANS →

Pedestrian signage to be installed where applicable

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE1	CLIENT: GLC	GLC Civil Projects Pty Limited	DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY		Traffic Management
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST			SIGNATURE		SIGNATURE		SIGNATURE		
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE		Web: www.ddtraffic.com.au Email: sydney@dd-group.com.au Phone: 1300 597 622
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Notations

End of Queues and Avoiding Collisions

Refer to TfNSW TCWS Manual V6 Section 4.6 End-of-queue management regarding placement of "PREPARE TO STOP" signs, assessment of expected queue lengths and procedures for reducing end-of-queue collisions.

Defining "D"

Refer to TfNSW TCWS Manual V6 section 4.3.6 Sight distances, Table 7-2. Dimension D calculation based on speed zone AND section 7.10.3 Tolerances on positioning of signs and devices.

TfNSW TCWS Manual V6.1: Section 4.3.4 Minimum clearances of workers to traffic (Page 47)

Work must be planned and designed to provide maximum clearances to workers on foot and plant. When performing static work, the minimum allowable clearance of 1.5m must be maintained at all times between workers on foot, plant, and traffic. Where workers are closer than 1.5m to moving traffic a 30km/h speed zone should be installed.

Other considerations to be undertaken in the specific Risk Assessment of working within 1.5m of passing traffic are to deploy VMS Radar Data Boards, Portable Speed Humps, Rumble Strips, Escort/Patrol Vehicle.

(TfNSW TCWS technical manual V6 section 7.6.6 Workers on foot. Also refer to Section 4.3.5 Protection of work area {Pge 47} and Table 4 Mandatory and recommended controls for protection of a work area {Pge 48}).

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Traffic Controllers

Refer to TfNSW TCAWS V6 Section 5.4.3 Requirements for traffic controllers. Table 5-11 provides the general requirements that must be applied when a traffic controller is used, including the use of a PTCD and also refer to TfNSW TCAWS V6 Section 6.6 Portable traffic control devices Subsection 6.6.1 General

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Refer to AUSROADS Temporary Traffic Management Guidelines Part 3 Static Worksites:

>Section 2.5.4 Sight distance (Page15)

Table 2.3: Recommended sight distances to a traffic control device

Figure 2.3: Appropriate sight distance

Termination Area

Traffic Control Risk Assessment undertaken prior to works commencing and as works progress to monitor the effectiveness and suitability of the END ROAD WORK sign placement and re-instatement of posted speed limits. Refer to the TfNSW TCAWS technical manual V6 Section 7.6.2.5 Termination Area and also refer to the AGTTM03-19 Part 3 Static Worksites: Section 4.9 Termination Area and "Table 4.5: Placement of termination signs" therein.

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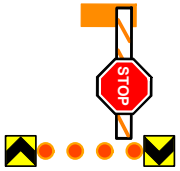

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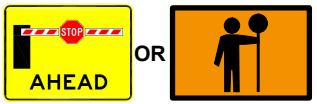

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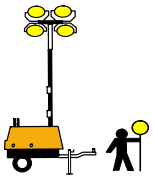

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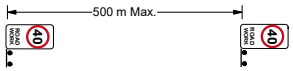

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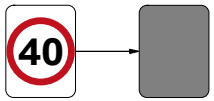

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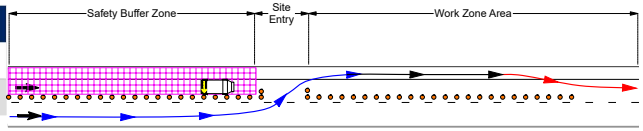

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Speed Limit (km/H)	Dimension D (m)
< 55 km/H	15 m
60 km/H	45 m
> 65 km/H	Approach Speed

TGS Installation Date:

Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

Expiry Date or Issue Date: _____

Signature: _____

Date: _____

TGS Field Notes:

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE2	CLIENT:		DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY	
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST	GLC	GLC Civil Projects Pty Limited	SIGNATURE		SIGNATURE		SIGNATURE	
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE	
02		WORK LOCATION	MULTI LANE- -LANE CLOSURE	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #	

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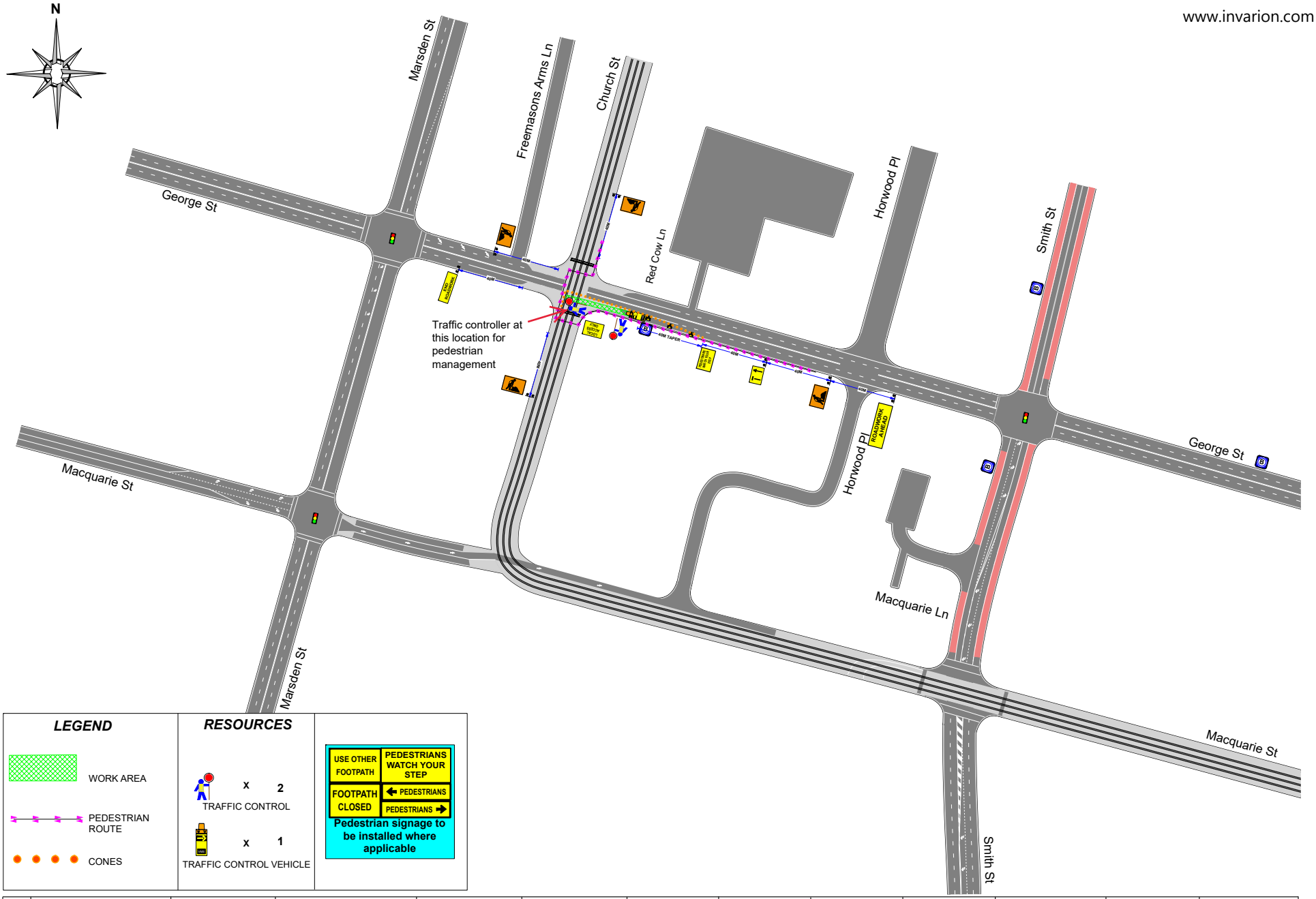

LEGEND

- WORK AREA
- PEDESTRIAN ROUTE
- CONES

RESOURCES

- x 2 TRAFFIC CONTROL
- x 1 TRAFFIC CONTROL VEHICLE

USE OTHER FOOTPATH	PEDESTRIANS WATCH YOUR STEP
FOOTPATH CLOSED	PEDESTRIANS ←
	PEDESTRIANS →

Pedestrian signage to be installed where applicable

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE2	CLIENT: GLC	GLC Civil Projects Pty Limited	DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY		D&D Traffic Management
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST			SIGNATURE		SIGNATURE		SIGNATURE		
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE		Web: www.ddtraffic.com.au Email: sydney@dd-group.com.au Phone: 1300 597 622
02		WORK LOCATION	MULTI LANE--LANE CLOSURE	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #		

Notations

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Other considerations to be undertaken in the specific Risk Assessment of working within 1.5m of passing traffic are to deploy VMS Radar Data Boards, Portable Speed Humps, Rumble Strips, Escort/Patrol Vehicle.

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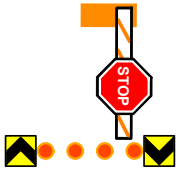
Termination Area

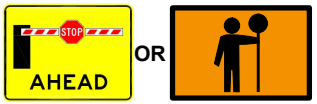
Traffic Control Risk Assessment undertaken prior to works commencing and as works progress to monitor the effectiveness and suitability of the END ROAD WORK sign placement and re-instatement of posted speed limits. Refer to the TfNSW TCAWS technical manual V6 Section 7.6.2.5 Termination Area and also refer to the AGTTM03-19 Part 3 Static Worksites: Section 4.9 Termination Area and "Table 4.5: Placement of termination signs" therein.

Field notes:

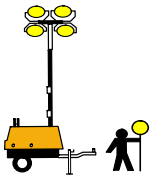
Four traffic cones are to be installed on the centre line at 4m spacing, with a T5-5(L) at both ends.
TC must remain 1.2m from live traffic and maintain a clear escape route at all times whilst operating PORTABOOM



Use of Stop/Slow bats requires a 2-up Fulton Hogan Management approval to be obtained prior to commencement of works, and completion of the required Stop/Slow Bat Approval Request Form. This must also be recorded in the Field Notes section and this TGS signed off as modified/approved.

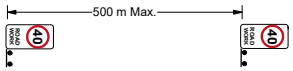


ALTERNATE SIGNAGE ARRANGEMENT

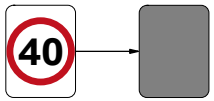


Light Towers to be used where required to illuminate TC's if lighting is insufficient.

Speed Reduction Signage to be repeated at a distance of 500m max.



Existing Speed Signs to be covered with opaque material.



Spacing of Cones/Devices

Purpose and usage	Speed zone of device location km/h	Maximum spacing m
On approach to a traffic controller position (centreline or edge line)	All cases	4
Merge tapers	55 to 75 greater than 76	9 12
Lateral shift tapers	55 to 75 greater than 76	12 18
Protecting freshly painted lines	56 to 75 greater than 75	24 60*
All other purposes	less than or equal to 55 56 to 75 greater than 76	4 12 18

Recommended Taper Lengths

	Recommended taper length (m)		
Existing permanent speed limit (km/h)	Traffic control taper	Lateral shift taper	Merge taper
45 or less	15	15	15
46 to 55	15	15	30
56 to 65	30	30	60
66 to 75	N/A	70	115
76 to 85	N/A	80	130
86 to 95	N/A	90	145
96 to 105	N/A	100	160
Greater than 105	N/A	110	180

Allowable Tolerance on amending Spacings

Tolerance	Positioning of signs, length of tapers or markings	Spacing of delineating devices
Minimum	10% less than the distances or lengths given	Nil
Maximum	25% more than the distances or lengths given	10% more than the spacing shown

Edge Clearances for Cones/Bollards

Edge of traffic lane to:	Edge clearances
Line of traffic cones or bollards	• 0.5 m for traffic speeds less than 65 km/h • 1.0 m for traffic speeds greater than 65 km/h

Posted Speed Limit of Subject Road/s

Adjusting or Modifying A TGS:

ITCP Holder-

- ITCP qualified person must ensure that the TGS is implemented as approved. Minor adjustments can be completed in accordance with Section 7.10.3 Tolerances on positioning of signs and devices. Modifications will be recorded on the TGS checklist and a signed copy will be available on-site.

PWZTMP Holder-

- Modifications to a Site Specific TGS must be approved by the PWZTMP or relevant qualification holder, and must be supported by a TMP or risk assessment to ensure all TGSs considers and mitigate identified site-specific conditions and risks.
- If risk is identified during the implementation of the TGS and requires modification outside of the tolerance listed below, the works must be stopped until an updated TGS is drafted and approved by a PWZTMP qualified person prior to works recommencing. (refer to TCAWS 7.10.4).
- Any anomalies or inconsistencies found in the TGSs being used must be recorded and reported back to the TGS designer who is PWZTMP qualified.

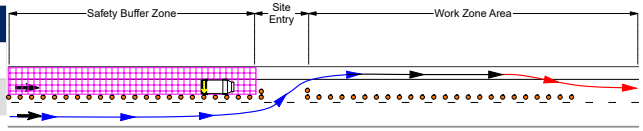
Implementing A TGS:

- A TGS must be installed, maintained and removed in a planned and safe manner.
The implementation of a TGS must only be undertaken by an ITCP qualified person.
(Refer To TCAWS 7.10.1)
- Signs and traffic control devices must be installed in a sequence via GPS, survey, landmarks, side streets or chainage in accordance with TCAWS V6 Section 6.4 and AGTTM Section 6.2
- An implementation TGS should be provided if the risk of implementation is deemed high. The sequence of implementation should be determined as part of the drafting process in TGS or SWMS, rather than being determined on-site. (Refer To TCAWS 7.10.2)

Notes:

- This Traffic Guidance Scheme is developed by competent and experienced persons in accordance with the requirements outlined in the TfNSW TCAWS Issue 6.0, AS1742.3 and the Road Management Act 2004.
- Prior to implementation of the TGS, D&D Traffic Management will carry out an inspection and risk assessment.
- A signed copy of the SWMS will be available on-site at all times.
- A PWZTMP and/or ITCP qualified person must ensure the TGS is implemented, and the work area maintained as per attached TGS. Otherwise, any adjustment and modification will be captured in the shift paperwork.
- Pedestrian management is to be overseen by onsite crew and supported by a risk assessment. If additional signage (TCAWS 6.5.2 - Table 6.5) is required it is subject to modifying TGS criteria, see below.
- Signs to be installed on high legs if sight obstruction is present (for example behind guardrails/barriers, etc.)
- Site Specific TGS is drafted for nominated works that is noted on the TGS. The TGS must be formally reviewed and signed off by a PWZTMP qualified person (a minimum of every 12 months from the drafted date) as per TCAWS 7.11.2. For details, refer to the title box below.
- D&D Traffic Management does not accept liability for the implementation of this TGS, when not directly involved in carrying out the subject works.

Site Entry and Exit Process



- Highlight entry point with double cones and leaving a small break as per above diagram.
- Prior to Entering Worksite, work vehicles shall:
  - Turn on beacons
  - Radio Traffic Management on approach to Site using nominated UHF channel
- Traffic Controllers are to ensure that no local traffic follows work vehicles in the work area
- Above diagram is depicting a Lane 1 Closure. Set-up is to be mirrored in case of median lane closures.

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5, and used for the positioning of advanced warning signage.

Speed Limit (km/H)	Dimension D (m)
< 55 km/H	15 m
60 km/H	45 m
> 65 km/H	Approach Speed

TGS Installation Date:

Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

Expiry Date or Issue Date: _____

Signature: _____

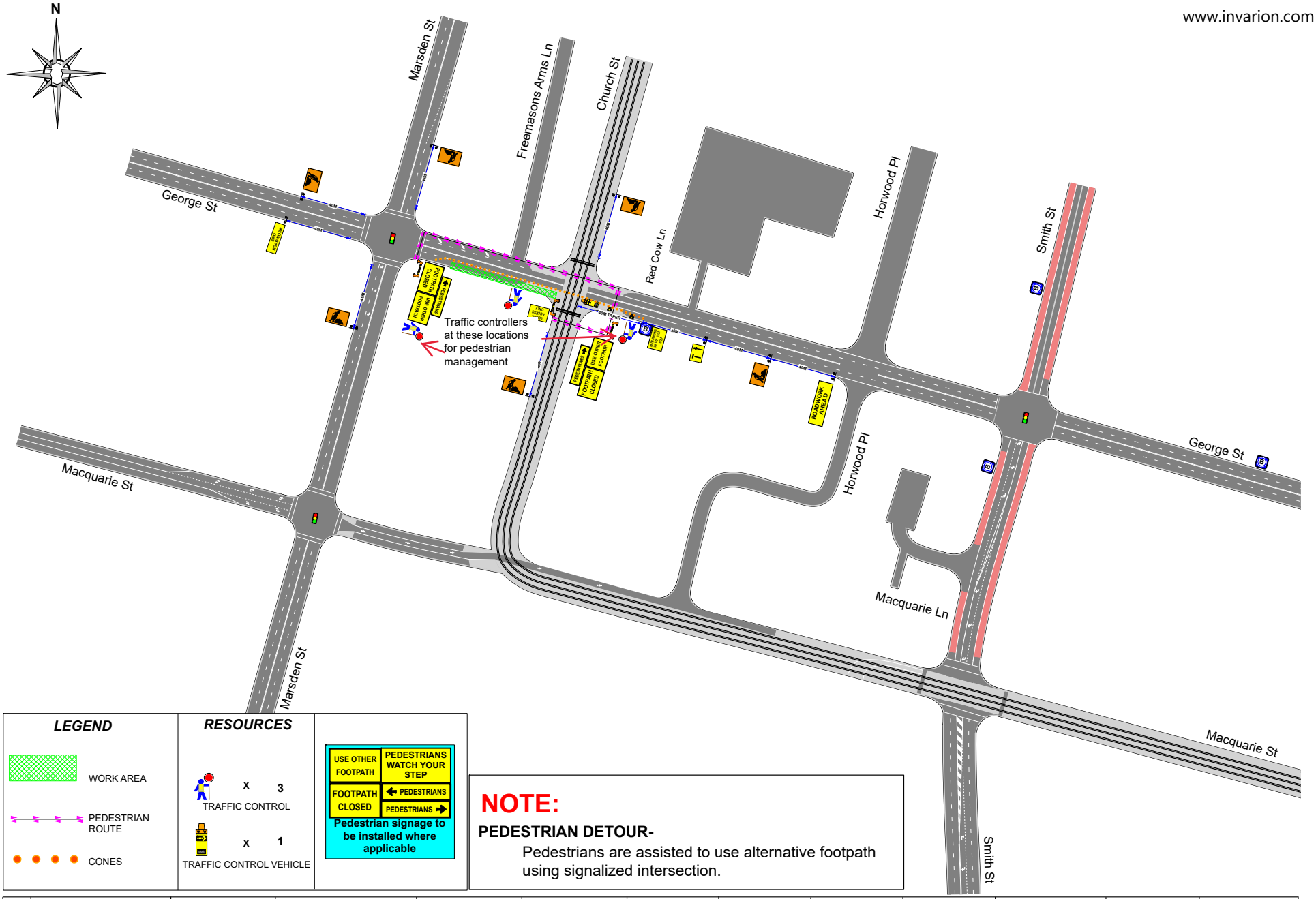
Date: _____

TGS Field Notes:

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE3	CLIENT:		DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY	
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST	GLC	GLC Civil Projects Pty Limited	SIGNATURE		SIGNATURE		SIGNATURE	
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE	
02		WORK LOCATION	MULTI LANE- -LANE CLOSURE	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #	

D&D Traffic Management
Web: www.ddtraffic.com.au
Email: sydney@dd-group.com.au
Phone: 1300 597 622

www.invarion.com



LEGEND

- WORK AREA
- PEDESTRIAN ROUTE
- CONES

RESOURCES

- x 3 TRAFFIC CONTROL
- x 1 TRAFFIC CONTROL VEHICLE

USE OTHER FOOTPATH	PEDESTRIANS WATCH YOUR STEP
FOOTPATH CLOSED	PEDESTRIANS ←
	PEDESTRIANS →

Pedestrian signage to be installed where applicable

NOTE:

PEDESTRIAN DETOUR-

Pedestrians are assisted to use alternative footpath using signalized intersection.

REV	REVISION DESCRIPTION	TGS PLAN #	GEORGE ST-STAGE3	CLIENT: GLC	GLC Civil Projects Pty Limited	DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY		Traffic Management
00	SUPPLIED TO CLIENT	ROAD NAME	GEORGE ST			SIGNATURE		SIGNATURE		SIGNATURE		
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y [X] N [ ]	DATE	21.06.2022	DATE	21.06.2022	DATE		Web: www.ddtraffic.com.au Email: sydney@dd-group.com.au Phone: 1300 597 622
02		WORK LOCATION	MULTI LANE- -LANE CLOSURE	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #		

Notations

End of Queues and Avoiding Collisions

Refer to TfNSW TCWS Manual V6 Section 4.6 End-of-queue management regarding placement of "PREPARE TO STOP" signs, assessment of expected queue lengths and procedures for reducing end-of-queue collisions.

Defining "D"

Refer to TfNSW TCWS Manual V6 section 4.3.6 Sight distances, Table 7-2. Dimension D calculation based on speed zone AND section 7.10.3 Tolerances on positioning of signs and devices.

TfNSW TCWS Manual V6.1: Section 4.3.4 Minimum clearances of workers to traffic (Page 47)

Work must be planned and designed to provide maximum clearances to workers on foot and plant. When performing static work, the minimum allowable clearance of 1.5m must be maintained at all times between workers on foot, plant, and traffic. Where workers are closer than 1.5m to moving traffic a 30km/h speed zone should be installed.

Other considerations to be undertaken in the specific Risk Assessment of working within 1.5m of passing traffic are to deploy VMS Radar Data Boards, Portable Speed Humps, Rumble Strips, Escort/Patrol Vehicle.

(TfNSW TCWS technical manual V6 section 7.6.6 Workers on foot. Also refer to Section 4.3.5 Protection of work area {Pge 47} and Table 4 Mandatory and recommended controls for protection of a work area {Pge 48}).

Other considerations to be undertaken in the specific Risk Assessment of working within 1.5m of passing traffic are to deploy VMS Radar Data Boards, Portable Speed Humps, Rumble Strips, Escort/Patrol Vehicle.

Traffic Controllers

Refer to TfNSW TCAWS V6 Section 5.4.3 Requirements for traffic controllers. Table 5-11 provides the general requirements that must be applied when a traffic controller is used, including the use of a PTCD and also refer to TfNSW TCAWS V6 Section 6.6 Portable traffic control devices Subsection 6.6.1 General

Sight distances

Refer to TfNSW TCWS Technical Manual V6.1:

>Section 5.4.5 Traffic control locations "When a traffic controller is utilized for operation of a PTCD or a STOP/SLOW bat, a sight distance of 1.5D must be allowed for." (Page 89).

>Section 5.4.3 Requirements for traffic controllers (Page 86) Table 5-11 General requirements for the use of a traffic controller. Specifically the "Visibility" and "Positioning" aspects therein.

Refer to AUSROADS Temporary Traffic Management Guidelines Part 3 Static Worksites:

>Section 2.5.4 Sight distance (Page15)

Table 2.3: Recommended sight distances to a traffic control device

Figure 2.3: Appropriate sight distance

Termination Area

Traffic Control Risk Assessment undertaken prior to works commencing and as works progress to monitor the effectiveness and suitability of the END ROAD WORK sign placement and re-instatement of posted speed limits. Refer to the TfNSW TCAWS technical manual V6 Section 7.6.2.5 Termination Area and also refer to the AGTTM03-19 Part 3 Static Worksites: Section 4.9 Termination Area and "Table 4.5: Placement of termination signs" therein.

Field notes:

Adjusting / Modifying TGS:

ITCP Holder-

- ITCP qualified person must ensure that the TGS is implemented as approved. Minor adjustments can be completed in accordance with Section 7.10.3 Tolerances on positioning of signs and devices (Table below), Modifications will be recorded on the TGS checklist and a signed copy will be available on-site.

PWZTMP Holder-

- Modifications to a Site Specific TGS must be approved by the PWZTMP or relevant qualification holder, and must be supported by a TMP or risk assessment to ensure all TGSs considers and mitigate identified site-specific conditions and risks.

- If risk is identified during the implementation of the TGS and requires modification outside of the tolerance listed below, the works must be stopped until an updated TGS is drafted and approved by a PWZTMP qualified person prior to works recommencing. (refer to TCAWS 7.10.4)

- Any anomalies or inconsistencies found in the TGSs being used must be recorded and reported back to the TGS designer who is PWZTMP qualified.

Implementing A TGS

- A TGS must be installed, maintained and removed in a planned and safe manner. The implementation of a TGS must only be undertaken by an ITCP qualified person. (Refer To TCAWS 7.10.1)

- Signs and traffic control devices must be installed in a sequence via GPS, survey, landmarks, side streets or chainage in accordance with TCAWS V6 Section 6.4 and AGTTM Section 6.2

- An implementation TGS should be provided if the risk of implementation is deemed high. The sequence of implementation should be determined as part of the drafting process in TGS or SWMS, rather than being determined on-site. (Refer To TCAWS 7.10.2)

NOTES:

- This Traffic Guidance Scheme is developed by competent and experienced persons in accordance with the requirements outlined in the TCAWS Version 6.1, AS1742.3 and the Road Management Act 2004. Prior to implementation of the TGS, Lack Group will carry out an inspection and risk assessment. Signed copy of the SWMS will be available on-site at all times.

- This plan is developed in conjunction with vehicle and pedestrian movement plans access management and other measures.PWZTMP qualified person must ensure the TGS is implemented, maintained as per attached TGS. Otherwise, any adjustment and modification will be captured in the checklist and work pack.

- Pedestrian management is to be overseen by onsite crew and supported by a risk assessment. If additional signage (TCAWS 6.52 - Table 6.5) is required it is subject to modifying TGS criteria, see below.

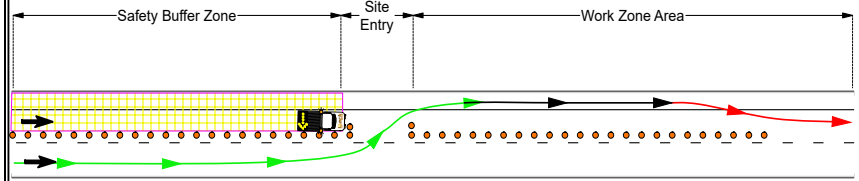
- All amendments will be outlined and recorded in a work pack and checklist.

- Signs to be installed on high legs if sight obstruction is present (for example behind guardrails/barriers .etc.)

- Site Specific TGS is drafted for nominated works that is noted on the TGS. TGS must be formally reviewed and signed off by PWZTMP qualified person (a minimum of every 6 months from the drafted date) as per TCAWS 7.11.2. Details refer to the amendment box below.

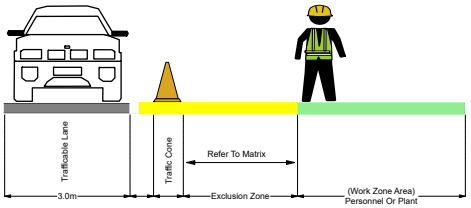
- Lack Group Traffic does not accept responsibility of this plan if it is implemented or modification by external parties.

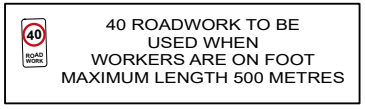
Site Entry and Exit Process

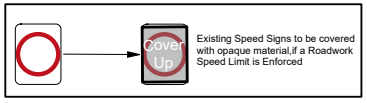


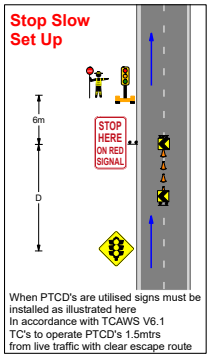
-Highlight entry point with double cones and leaving a small break,
-Prior Entering Worksite:
- Turn on the flashing lights
- Radio the traffic controller a minimum 100m prior
- If miss or fail above procedures, Traffic Controllers are to direct the vehicle to loop around and attempt re-entry.
- Traffic Controllers are to ensure that no local traffic follows work vehicles in the work area
- Flip the Setup for Fast Lane Closures

CROSS SECTION DIAGRAM









Traffic Guidance Scheme installation:

Date: ____/____/ 20

Traffic Guidance Scheme Installer:

Full Name: _____
ITCP Number: _____
Expire Date: ____/____/ 20
Signature: _____
Date: ____/____/ 20

Traffic Guidance Scheme Modifications:

Full Name: _____
PWZTMP Number: _____
Expire Date: ____/____/ 20
Signature: _____
Date: ____/____/ 20

TGS Modification Notes:

Site Inspection Date
Prior to Implementation: ____/____/ 20

Purpose and usage	Speed zone of device location Km/h	Maximum spacing m
On approach to a traffic controller position (centerline or edge line)	All cases	4
Merge tapers	55 to 75 greater than 76	9 12
Lateral shift tapers	55 to 75 greater than 76	12 18
Protecting freshly painted lines	55 to 75 greater than 76	24 60*
All other purposes	less than or equal 55 55 to 75 greater than 76	4 12 18

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

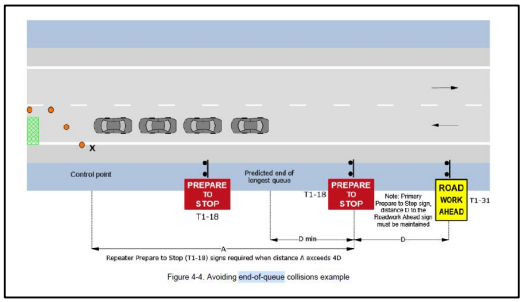


Figure 4-4. Avoiding end-of-queue collisions example

Taper Lengths

Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Merge taper
45 or less	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 105	N/A	110	180

Tolerances on positioning of signs and devices

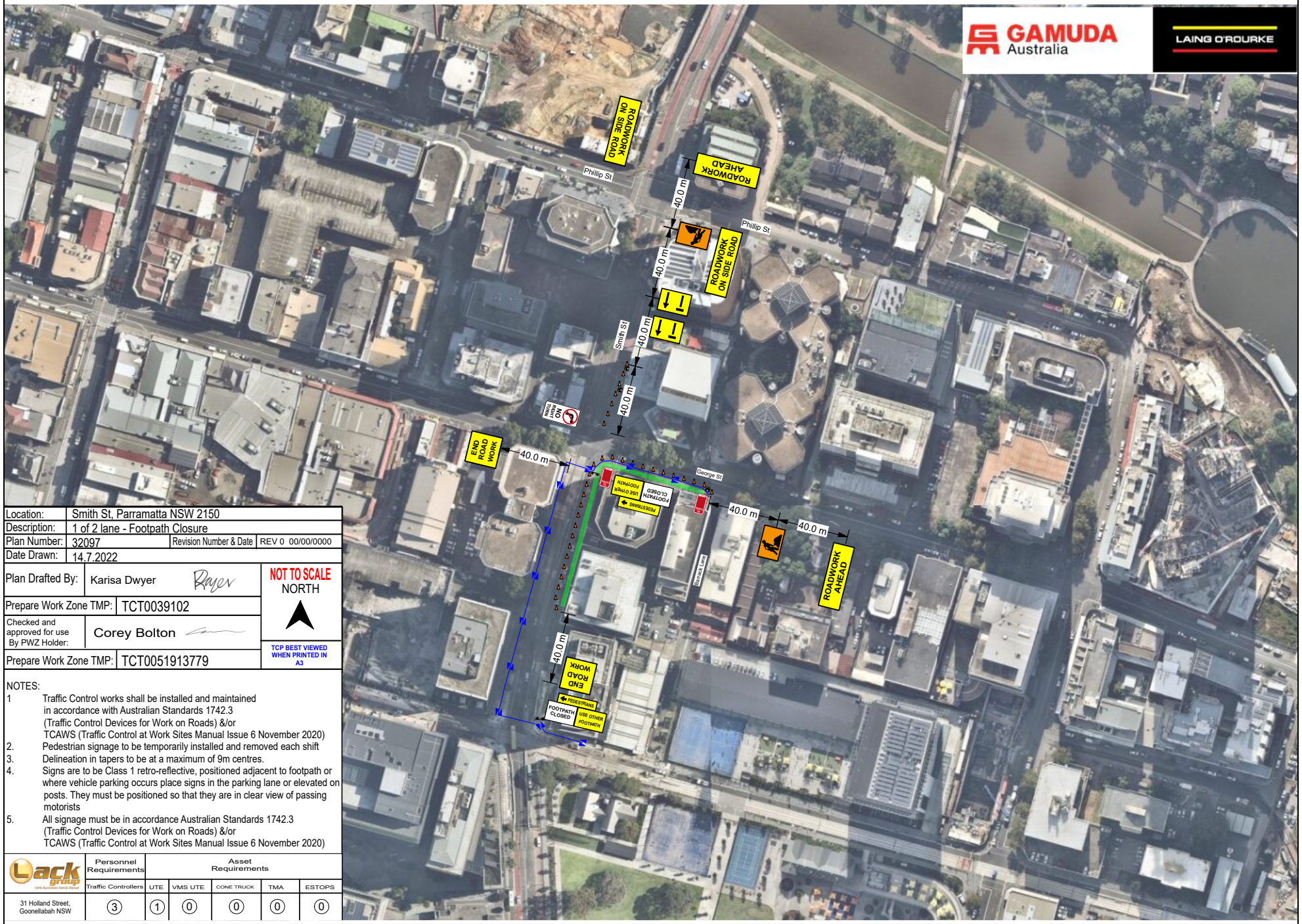
- Local constraints might not allow signs and devices to be placed exactly in accordance with the designed and approved TGS. Where a specific distance is provided for the longitudinal positioning of signs or devices with respect to other items or features, the tolerances to adjust are:

Tolerance	Positioning of signs, length of tapers or markings	Spacing of delineating devices
Minimum	10% less than the distances or lengths given	Nil
Maximum	25% more than distances or lengths given	10% more than the spacing shown

(Refer To TCAWS 7.10.3)

Clearances and spacing of signs and devices

- Clearances between the edge of traffic lane and delineating devices or a road safety barrier system must be in accordance with in Table 6-1. Clearances must be measured to the traffic side edge of delineating devices or barrier. This edge must also be the line from which clearances to the work area are measured for the purpose of determining treatments.

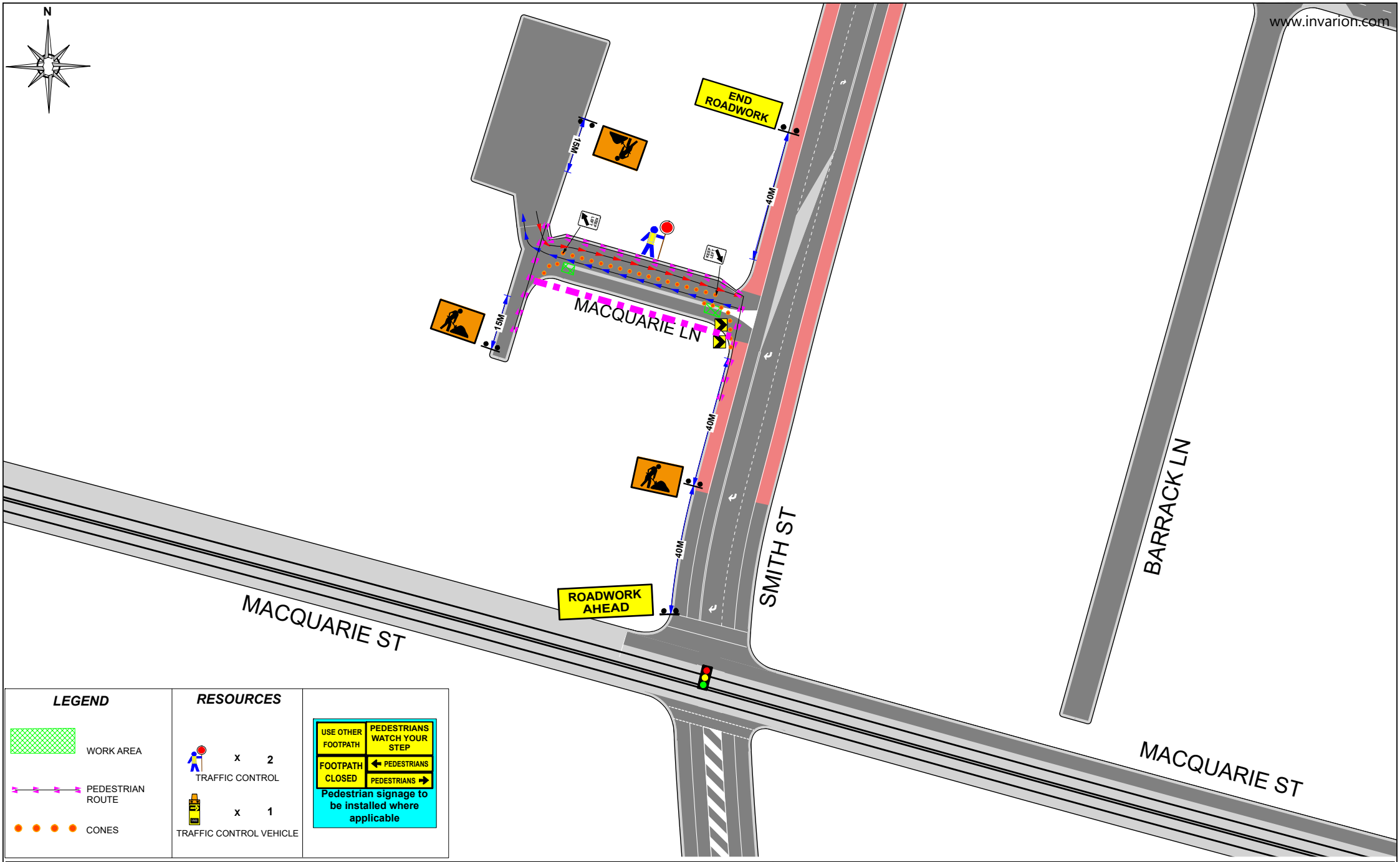


Location:	Smith St, Parramatta NSW 2150		
Description:	1 of 2 lane - Footpath Closure		
Plan Number:	32097	Revision Number & Date	REV 0 00/00/0000
Date Drawn:	14.7.2022		
Plan Drafted By:	Karisa Dwyer	NOT TO SCALE NORTH	
Prepare Work Zone TMP:	TCT0039102		
Checked and approved for use By PWZ Holder:	Corey Bolton	TCP BEST VIEWED WHEN PRINTED IN A3	
Prepare Work Zone TMP:	TCT0051913779		

NOTES:

1. Traffic Control works shall be installed and maintained in accordance with Australian Standards 1742.3 (Traffic Control Devices for Work on Roads) &/or TCAWS (Traffic Control at Work Sites Manual Issue 6 November 2020)
2. Pedestrian signage to be temporarily installed and removed each shift
3. Delineation in tapers to be at a maximum of 9m centres.
4. Signs are to be Class 1 retro-reflective, positioned adjacent to footpath or where vehicle parking occurs place signs in the parking lane or elevated on posts. They must be positioned so that they are in clear view of passing motorists
5. All signage must be in accordance Australian Standards 1742.3 (Traffic Control Devices for Work on Roads) &/or TCAWS (Traffic Control at Work Sites Manual Issue 6 November 2020)

	Personnel Requirements	Asset Requirements				
	Traffic Controllers	UTE	VMS UTE	CONE TRUCK	TMA	ESTOPS
31 Holland Street, Goonellabah NSW	3	1	0	0	0	0



LEGEND

- WORK AREA
- PEDESTRIAN ROUTE
- CONES

RESOURCES

- x 2 TRAFFIC CONTROL
- x 1 TRAFFIC CONTROL VEHICLE

USE OTHER FOOTPATH	PEDESTRIANS WATCH YOUR STEP
FOOTPATH CLOSED	PEDESTRIANS ←
	PEDESTRIANS →

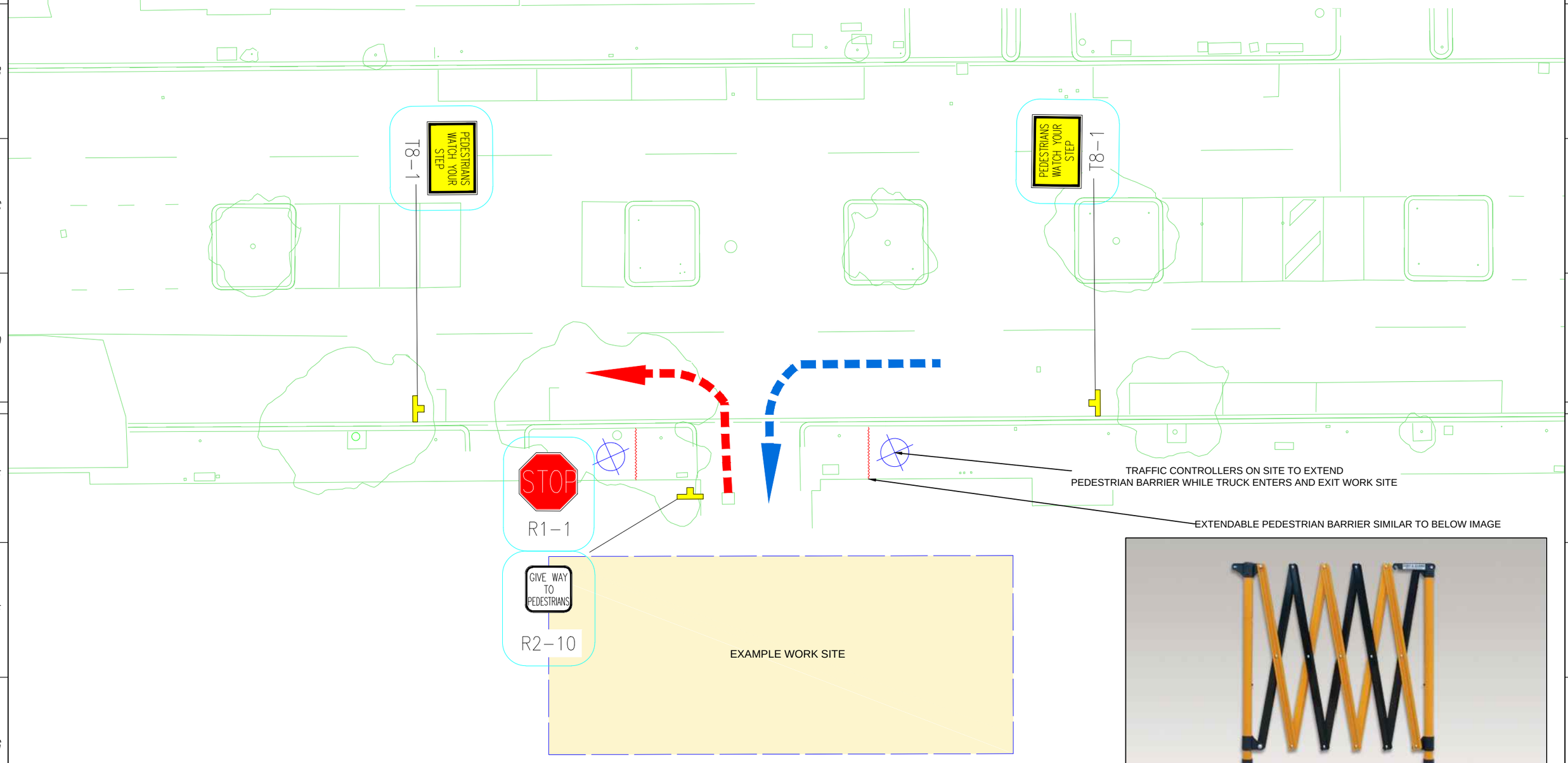
Pedestrian signage to be installed where applicable

REV	REVISION DESCRIPTION	TGS PLAN #	MACQUARIE LN-001	CLIENT:		DESIGNED BY	S. KOLIMI	APPROVED BY	SRIRAMYA YELAMANCHELI	IMPLEMENTED BY	
00	SUPPLIED TO CLIENT	ROAD NAME	MACQUARIE LN	SUE LEWIS CONSULTING		SIGNATURE		SIGNATURE		SIGNATURE	
01		SUBURB	PARRAMATTA	ROL REQUIRED	Y ☐ N ☒	DATE	17.06.2022	DATE	17.06.2022	DATE	
02		WORK LOCATION	MULTI LANE- - FOOTPATH & LS	ROAD SPEED(S)	40 KM/HR	CERTIFICATE #	TCT0065537	CERTIFICATE #	TCT0052143878	CERTIFICATE #	

Web: www.ddtraffic.com.au
Email: sydney@dd-group.com.au
Phone: 1300 597 622

GENERAL NOTES

- THIS TGS HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL 2020
- ALL SIGNAGE MUST BE PLACED TO NOT RESTRICT PEDESTRAIN PATH IN ACCORDANCE WITH THE TCAWS MANUAL V4 2010, SECTION 3.2.8
- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIREMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TGS.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT.
- THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V4 2010 EDITION AN A.S. 1742.3
- PEDESTRIANS WILL ONLY BE HELD FOR SHORT PERIODS WHILST THE TRUCKS ENTER/EXIT THE SITE AND WILL NOT BE UNDULY HELD BY TRAFFIC CONTROLLERS OUTSIDE OF IMMEDIATE VEHICLE MOVEMENTS



EXTENDABLE PEDESTRIAN BARRIER SIMILAR TO BELOW IMAGE

REV	BY	DATE	DESCRIPTION	APPD.
B-00	LS	19/03/2017	AMENDED AS PER COMMENTS	SL
A-01	LS	15/03/2017	UPDATED NOTES	SL
A-00	LS	19/02/2017	INITIAL DRAFT	SL

COORDINATE SYSTEM: | HEIGHT DATUM: | SCALE:

DRAWN BY: LS
DRW CHECK: SS
APPROVED: SL
IND REVIEW: N/A

PROJECT

CLIENT

SYDNEY METRO

TYPICAL PEDESTRIAN MANAGEMENT SHORT TERM STOP ON FOOTPATH

DRAWING No: TGS-PED-ALL-1101

SHEET 1 OF 1

REVISION B-00

Plot Date: 19 March 2017 - 1:20 PM

Cad File No: C:\Users\samue\OneDrive\FDConsulting\102-SUELEWISCONSULTING\10-DELTAGROUP\126-GENERICPEDESTRIANCLOSURE_VEHICLEACCESS\102-10-126-B-00.dwg

C HEAVY VEHICLE LOCAL ROAD REPORT

(Provided separately)

D CONSTRUCTION PARKING AND ACCESS STRATEGY

(Provided separately)

E ROAD SAFETY AUDIT REPORT

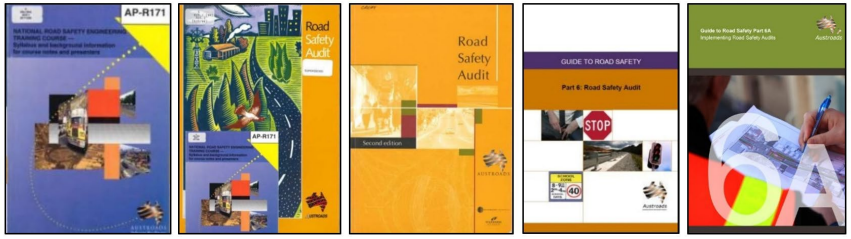
Road Safety Audit Report

Sydney Metro West – Western Tunneling Package

Practical
Independent
Specialised

Road/Area	George Street, Smith Street and Macquarie Street, Parramatta		**Road Safety Audits Reference**	RSA-12779
Traffic Stage/Phase	Parramatta Site Establishment		**Report Date**	27 June 2022
Audit Stage	*Desktop* Traffic Guidance Scheme		**Lead Auditor** **Second Auditor**	Raj Muthusamy (Level III RMS) Peter Harris (Level III RMS)
Client	**Sue Lewis Consulting**		**TMP / Drawings**	Parramatta Site Establishment CTMP, Doc. No.:SWMSTWTP-GLO-PTA-TF-PLN-000001, Rev A.01, Date 7 June 2022. Included following TGS: George St-001 to 003, Horwood Pl-001, Smith St-001, George St-Stage 1, George St-Stage 2, George St-Stage 3 & Macquarie Ln-001.
Client Contact	Sue Lewis		**Report Provider**	Road Safety Audits

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



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

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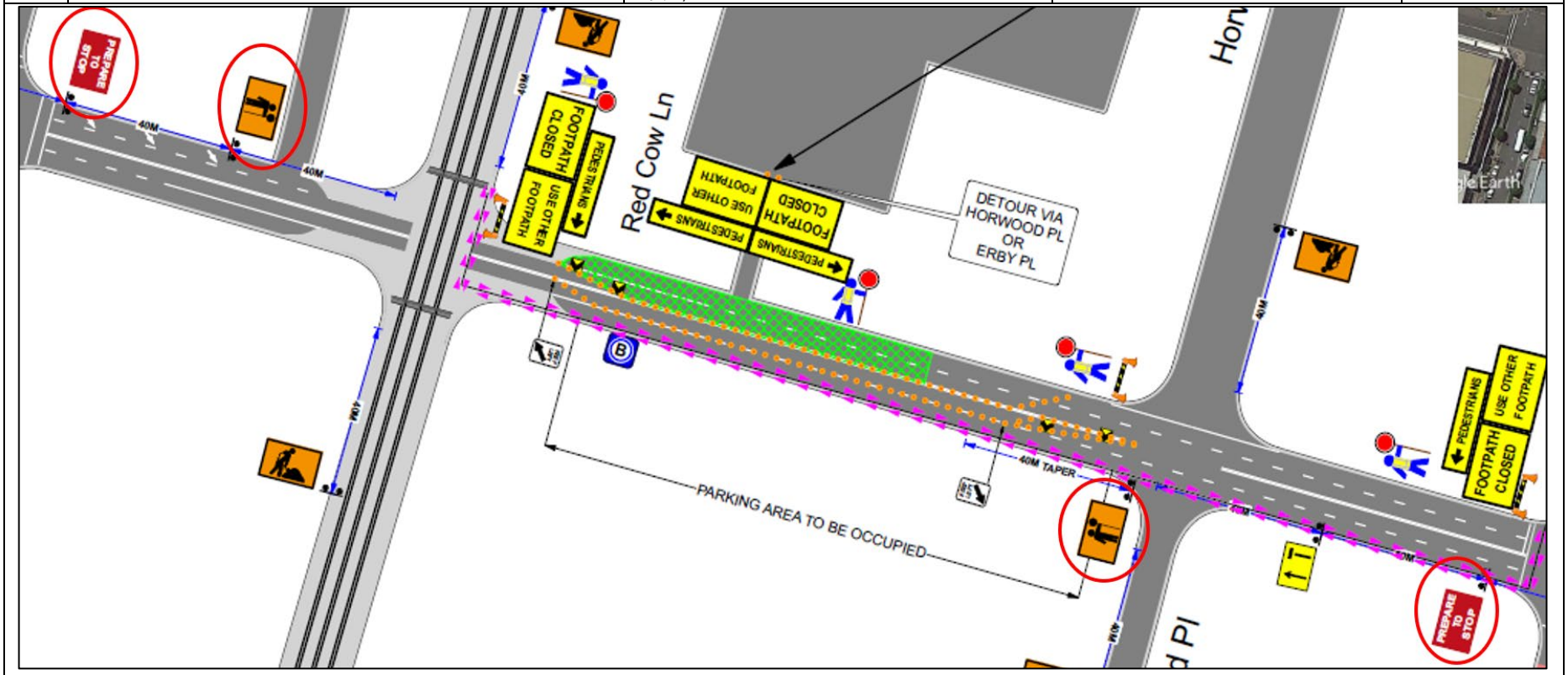
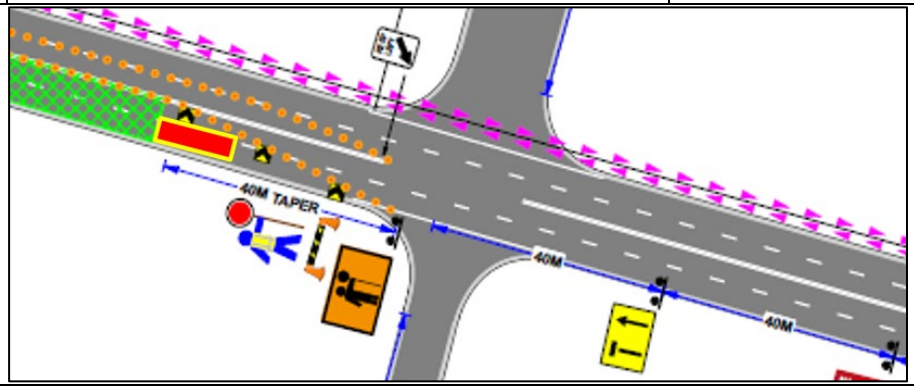
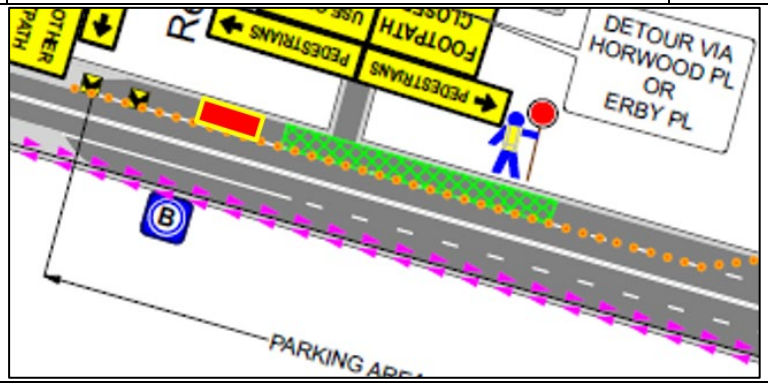
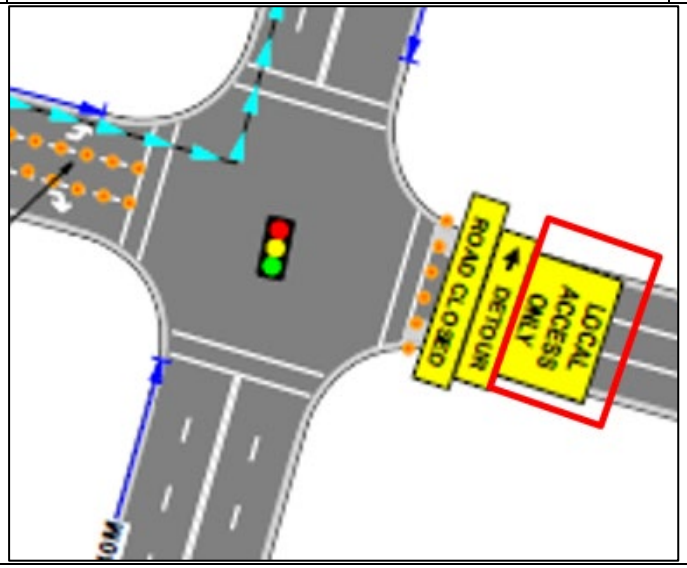
Senior Road Safety Auditor
CPEng, RPEQ, NER, BE (Civil),
BB (Bus. Admin.)

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
George St-001				
1.	**Traffic Controller** It is not obvious as to why traffic controllers are stopping traffic in both directions on approach to the work area.	Clarify need for traffic controllers to be actually stopping traffic. If they are not stopping traffic, omit the 'Prepare to Stop' and TC signs. Risk: N/A	TTGS amended	Closed

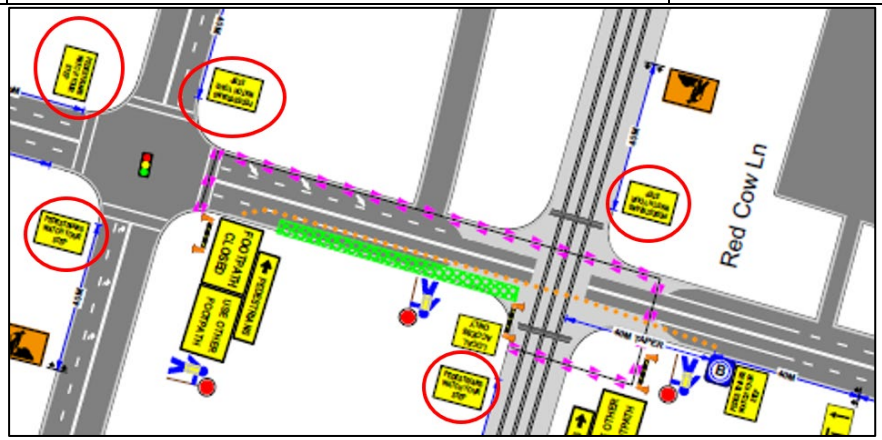


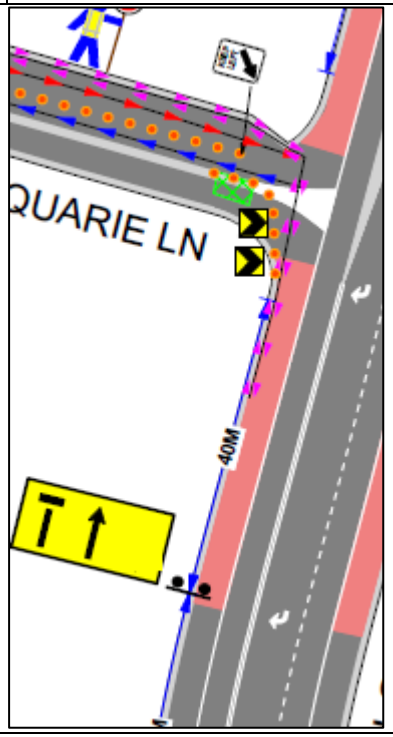
Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
George St-002				
2.	Same issue in relation to traffic controllers as audit point 1.	Refer to audit point 1. Risk: N/A	TGS amended	Closed
3.	**Shielding of Work Area** The work area is located at the end of the lane merge. There is potential for an errant vehicle to encroach into the work area if a driver is unable to merge.	Review. Consider parking a utility vehicle with flashing arrow board between the taper and the work area. Risk: Low to Medium	TGS amended	Closed
				

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder:	
			Response[x]	**Status**[y]
George St-003				
4.	**Shielding of Work Area** Approach to the work area is not shielded. It appears to be possible to locate a small vehicle on the approach side of the work area.	Review. Consider parking a utility vehicle with flashing lights on approach to the work area. An arrow board is not appropriate as the works are not affecting the traffic lane. Risk: Low	TGS amended	Closed
				

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
Horwood PI-001				
5.	**Signage** Macquarie Street is closed east of Marsden Street. The sign at the closure shows Local Access Only. It is not clear as to how local traffic will enter into closed section from the intersection. The same signage is also proposed at the eastern side at Smith Street intersection. Again, it is unclear as to how local access will be facilitated at the intersection.	Review and clarify intent of the proposed sign and how local access will be facilitated. Risk: Low	Discussions will be held with businesses prior to the closure to understand the access requirements along Macquarie Street and United Lane. GLC will request scheduling details to facilitate this local access	Ongoing
				

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder:	
			Response[x]	**Status**[y]
6.	**Signage** A detour sign with a right arrow is proposed to direct traffic from George Street into Horwood Place. This could result in general motorists following the detour signage from Macquarie Road to be incorrectly directed into Horwood Place. It is suggested that the detour sign with the right arrow be shifted to Smith Street.	Review and adjust detour signage accordingly. Risk: Low	No as this is the only way to access Horwood Place. A VMS has been installed on George Street instead of the detour sign	Closed
Smith St-001 & George St-Stage 1				
7.	No safety issues identified.	Nil. Note only.	Noted	Closed
George St-Stage 2				
8.	**Shielding of Work Area** Approach to the work area is not shielded. It appears possible to be able to park a small vehicle on the approach side of the work area.	Review. Consider parking a utility vehicle with flashing arrow board on approach to the work area. Risk: Low	TGS amended	Closed

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
George St-Stage 3				
9.	**Signage** It is noted that a significant number of warning signs advising pedestrians to watch their step are proposed. It is not obvious as to why these signs are required as the works do not seem to be affecting the footpath.	Review and omit the signs shown circled in red in the drawing below. Unnecessary signage just adds to visual clutter and their supports can be a trip hazard for pedestrians. Risk: Low	TGS amended	Closed
				
10.	**Pedestrian Detour** Pedestrians are directed to cross George east of Church Street.	Ensure temporary kerb ramps are provided to assist pedestrian over the kerb. Risk: Low	Note that this area is part of the signalised crossing	Closed

Sydney Metro West – Western Tunneling Package Parramatta Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
Macquarie Ln-001				
11.	**Signage** Lane status sign showing the closure of the kerbside lane is proposed. There appears to be no lane closure and as such the proposed lane status sign is not required.	Review and omit sign. Risk: Low	TGS amended	Closed
				

Explanatory Notes

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

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

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

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

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

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

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

Intent of Issues Listing Order: Audit points might be clustered according to location, theme, or time. When this is not done and the audit comprises an uncategorised list of points, the key issues are often discussed first. However, there is no official ordering of points, and they should all be read on their merits and on the basis of the language guide above.
References: 1. Austroads Guide to Road Safety – Road Safety Audit – (2019) 6 and 6A; 2. AS 1742.3 – 2019; 2. State specific codes and guidelines re: Traffic Control at Work Sites; and 3. Design: 1. Austroads guidelines and 2. state-specific supplements and technical publications as relevant.

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

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

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

F STAKEHOLDER CONSULTATION

(Provided in spreadsheet)

G INSPECTIONS AND CHECKLISTS

E.4 Shift / Daily TTM inspection checklist

Shift Inspections must be undertaken by a person holding the PWZTMP or ITCP qualification when a TGS is installed, changed or updated, to ensure the TGS is implemented as designed. This includes at a minimum, twice per shift (recommended every 2 hours). This form can also be used for inspecting 'Aftercare' arrangements.

Completed by:					
Name:		Signature:			
TMP Reference:		TGS Reference:			
Date:		Time/s	*Inspection 1*	*Inspection 2*	*Inspection 3*
			00-00	00-00	00-00

Drive through TGS inspection		*Inspection 1*	*Inspection 2*	*Inspection 3*
Have any adjustments been made to the approved TGS?		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If yes, provide details:	Are changes within tolerances? ***If no, TGS must be reviewed by a PWZTMP***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
	Have changes been approved? ***If no, TGS must be approved***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:				
Have all signs and devices been installed in accordance with approved TGS? ***If no, provide detail of action taken***		☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:				

Drive through TGS inspection	*Inspection 1*	*Inspection 2*	*Inspection 3*
Are PTCD positioned as prescribed in TGS? ***If no, provide detail of action taken***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			
Are manual traffic controllers clear of travel lane, have suitable escape route? ***If no, provide detail and reposition manual traffic controllers***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			
Are sign and devices in good condition, clearly visible to road users? ***If no, provide detail of action taken***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Are all signs mounted level and suitably clear of travel lanes? ***If no, provide detail of action taken***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Are conflicting or non-applicable signs covered or removed? ***If no, provide detail and remove or cover signs***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			

Drive through TGS inspection	*Inspection 1*	*Inspection 2*	*Inspection 3*
Is temporary delineation installed as prescribed i.e. straight line forming taper? ***If no provide details and rectify delineation***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Have site conditions changed due to shade, park vehicles, glare etc. ***If yes provide details and note if action is required***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Are registered trailers i.e. VMS / light towers; suitably clear of travel lanes and delineated? ***If no provide details and rectify location***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			
Are temporary speed zones operating as prescribed? ***If no provide details and discuss with work supervisor***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			
Are workers on foot / plant clearances been applied / observed? ***If no provide details and implement controls to rectify***	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A	☐ Yes ☐ No ☐ N/A
Comments or details of action taken:			

Post drive through confirmation	*Inspection 1*	*Inspection 2*	*Inspection 3*
Is TGS valid for the site activity and operating safely as intended? ***If no provide details and implement controls to rectify***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Is TGS is appropriate for the current traffic conditions? ***If no provide details and implement controls to rectify***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			
Have potential hazards identified in TGS been addressed? i.e. end-of-queue management ***If no provide details of additional hazards and controls required***	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Comments or details of action taken:			

Additional comments:

Reset forms - pages 278 to 281

E.5 Post completion inspection checklist

Completed by:			
Name:		Road name/Staging Plan number:	
Signature:		Date / time:	
ITCP or PWZTMP card number			

Drive through post completed inspection		
Item		**Comments / Action**
Have all work activities been completed?	☐ Yes ☐ No	
Has all plant and equipment been removed?	☐ Yes ☐ No	
Have all TTM signs and devices been removed?	☐ Yes ☐ No	
Has all TTM linemarking been obliterated?	☐ Yes ☐ No	
Have existing permanent speed limits been reinstated?	☐ Yes ☐ No	
Have all TTM site hazards been removed?	☐ Yes ☐ No	
Other	☐ Yes ☐ No	

Desktop post completion inspection		
Have all TGSs for completed tasks been retained?	☐ Yes ☐ No	
Have all TMP required documents been placed in relevant folders?	☐ Yes ☐ No	
Has TMP/TGS designer requested addition information post TTM removal?	☐ Yes ☐ No	
Is the road safe for opening to road users?	☐ Yes ☐ No	

Additional comments:

Reset forms - pages 282 to 283

E.3 Weekly TTM inspection checklist

Weekly inspections must only be carried out by a PWZTMP qualified person. Weekly inspections must be carried out when a site is first open and at least once every week thereafter.

Completed by:				
Name:		Signature:		
TMP Reference:		TGS Reference:		
Date:		Inspection type	☐ Pre-opening	☐ Weekly
Desktop review				
Is a copy of the location TMP and relevant TGS available? ***If no inspection must not be undertaken until documents are obtained***			☐ Yes ☐ No	
Details of TMP and TGS:				
Are the location TMP and relevant TGS approved? ***If no, work must be stopped until documents are approved***			☐ Yes ☐ No	
Comments or details of action taken:				
Site Inspection				
Inspection completed:	☐During the day ☐During the night			
Signs and devices positioned as prescribed and commanding attention? ***If no provide details and rectify signs***			☐ Yes ☐ No	
Comments or details of action taken:				

Site Inspection	
Sign sizes as prescribed? ***If no provide details and rectify signs***	☐ Yes ☐ No
Comments or details of action taken:	
Signs are mounted level and suitably clear of travel lanes? ***If no provide details and rectify signs***	☐ Yes ☐ No
Comments or details of action taken:	
Has temporary delineation been applied as prescribed, with permanent markings obliterated? ***If no provide details of action required to rectify delineation***	☐ Yes ☐ No
Comments or details of action taken:	
Are registered trailers i.e. VMS / light towers; suitably clear of travel lanes and delineated? ***If no provide details and rectify location***	☐ Yes ☐ No
Comments or details of action taken:	
Are temporary speed zones operating as prescribed? ***If no provide details and discuss with work supervisor***	☐ Yes ☐ No
Comments or details of action taken:	
Are PTCD positioned as prescribed in TGS? ***If no provide details of action required to rectify***	☐ Yes ☐ No
Comments or details of action taken:	

Site Inspection	
Are manual traffic controllers clear of travel lane, have suitable escape route? ***If no provide details of action required to rectify***	☐ Yes ☐ No
Comments or details of action taken:	
Are site accesses and egresses well defined and safe for work vehicles? ***If no provide details of action required to rectify***	☐ Yes ☐ No
Comments or details of action taken:	
Termination signs are suitably located? i.e. D downstream of last activity. ***If no provide details of action required to rectify***	☐ Yes ☐ No
Comments or details of action taken:	

Post site inspection confirmation		
Is worksite layout operating safely as intended? ***If no provide details and implement controls to rectify***		☐ Yes ☐ No
Comments or details of action taken:		
Has TMP identified and addressed key TTM risks? ***If no provide details and implement controls to rectify***		☐ Yes ☐ No
Comments or details of action taken:		
Have key TTM risks been addressed on site? ***If no provide details of additional hazards and controls required***		☐ Yes ☐ No
Comments or details of action taken:		
Have copies of Shift Inspections been sighted as completed as required? ***If no provide details and discuss with nominated rep completing Shift Inspections***		☐ Yes ☐ No ☐ N/A
Comments or details of action taken:		

Additional comments:

Reset forms - pages 273 to 277