CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Sydney Metro West – Western Tunnelling Package

Westmead Site Establishment

ISSUE DATE: 16 MAY 2022

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Action Type	Position	Name	Signature	Date Signed
Prepared by	Traffic Manager	S Lewis		11 May 22
Reviewed by	Senior Project Manager	H Griffiths		13 May 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		16 May 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

Sydney Metro West (SMW) is a new underground railway connecting Greater Parramatta and the Sydney CBD. It will provide fast connections between greater Sydney's two major business centres as well as providing better access to the growing business and entertainment precincts in Olympic Park and Pyrmont, the health and medical research hub at Westmead and the future business and tourism site at The Bays.

SMW is being delivered in a number of packages. The Western Tunnelling Package (WTP) is an enabling package for SMW. It involves 9km of twin railway tunnels between Sydney Olympic Park and Westmead as well as:

- 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
- Sydney Olympic Park including concrete lining and TBM retrieval.

The project alignment is shown on Figure 1-1.

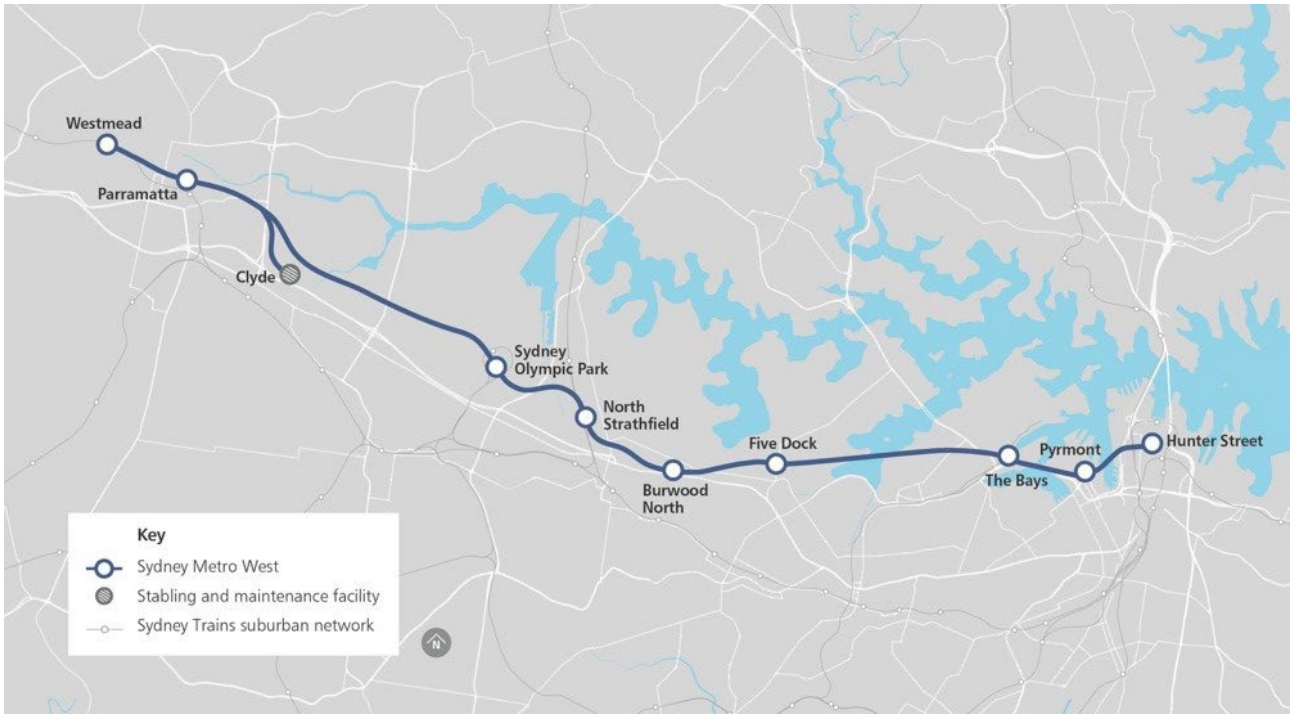


Figure 1-1: Project alignment

1.1 Purpose

This Westmead site specific Construction Traffic Management Plan (CTMP or this plan) has been developed by Gamuda Laing O'Rourke (GLC) to identify the traffic management measures at the

Westmead worksite for site establishment associated with the Sydney Metro West Western Tunnelling Package (WTP Works).

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 SBT works including but not limited to motorists, pedestrians, cyclists, public transport users, local residents, property owners, business owners and workers/ staff.

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

- Westmead Site Establishment – THIS PLAN
- Westmead Utility Works - depending on the outcomes of the investigation works detailed in this CTMP
- Westmead Site Operations Stage 1 – change of activities and vehicle numbers
- Westmead Site Operations Stage 2 – use of the Local Area Works for final access/ egress arrangements.

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 and Environment for information prior to the commencement of any construction in the area identified and managed within this CTMP

1.2 Objectives

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

a) Minimising disruption to pedestrian, cyclists, motorists and public transport users and providers
b) Ensuring construction traffic access the arterial network as soon as practicable on route to and immediately after leaving the construction site
c) Minimising change to traffic operations and kerbside access
d) Minimising construction traffic generation during network peak periods, as outlined in the EIS
e) Maintaining access to properties, businesses, and utility providers/ maintainers
f) Remain incident and injury free to workers and members of the public
g) Working collaboratively with other stakeholders and other major projects to mitigate traffic and transport impacts

2 LOCALITY AND EXISTING CONDITIONS

The site is located south of the health precinct in Westmead and is bounded by Hawkesbury Road to the west, Bailey Street to the south, Hassall Street to the east and Alexandra Avenue to the north, as shown on Figure 2-1.

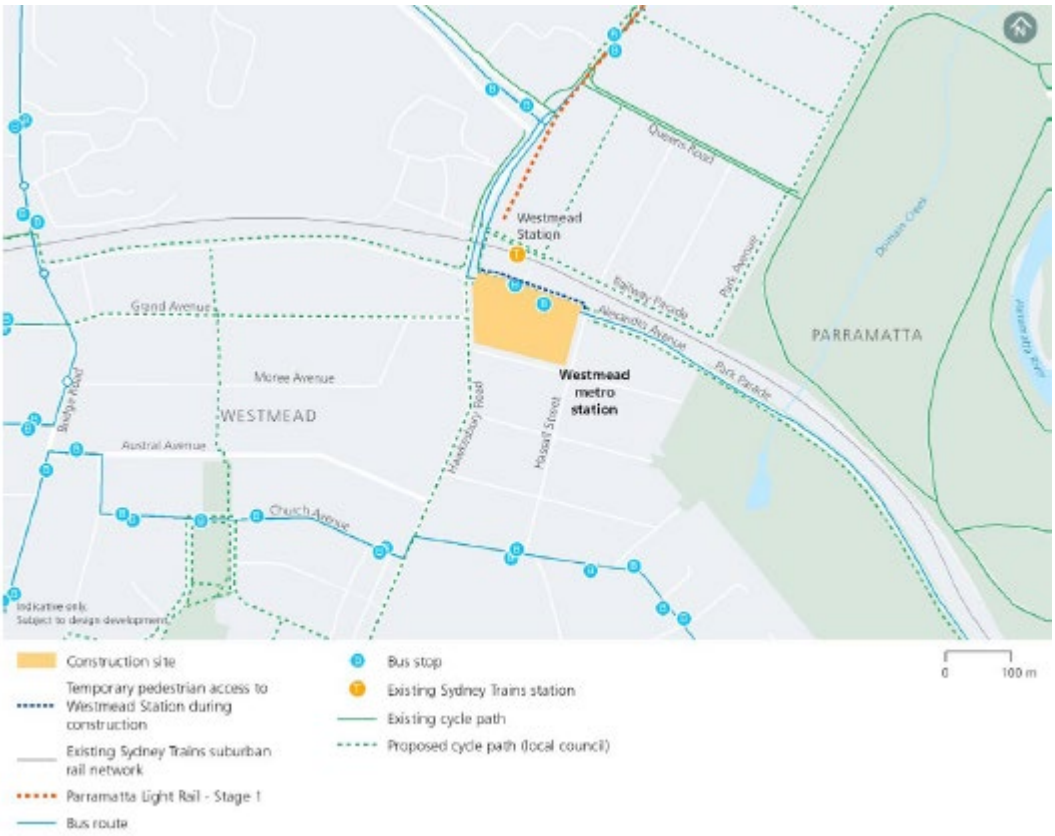


Figure 2-1: Site locality

The Westmead site is located within the nominated construction zone, highlighted below and is predominantly zoned for medium density residential refer to Figure 2-2.

Figure 14-2: Westmead metro station construction site – Existing land uses

Figure 2-2: Existing land use zoning

A review of the existing sensitive receivers and their locations was undertaken by Sydney Metro during the EIS development phase. The results of this review is provided on Figure 2-3. It is noted that no aged care facilities are located near the Westmead site. However, there are a number of child care facilities to the north and southwest of the site. As previously noted educational facilities are found to the north and south west.

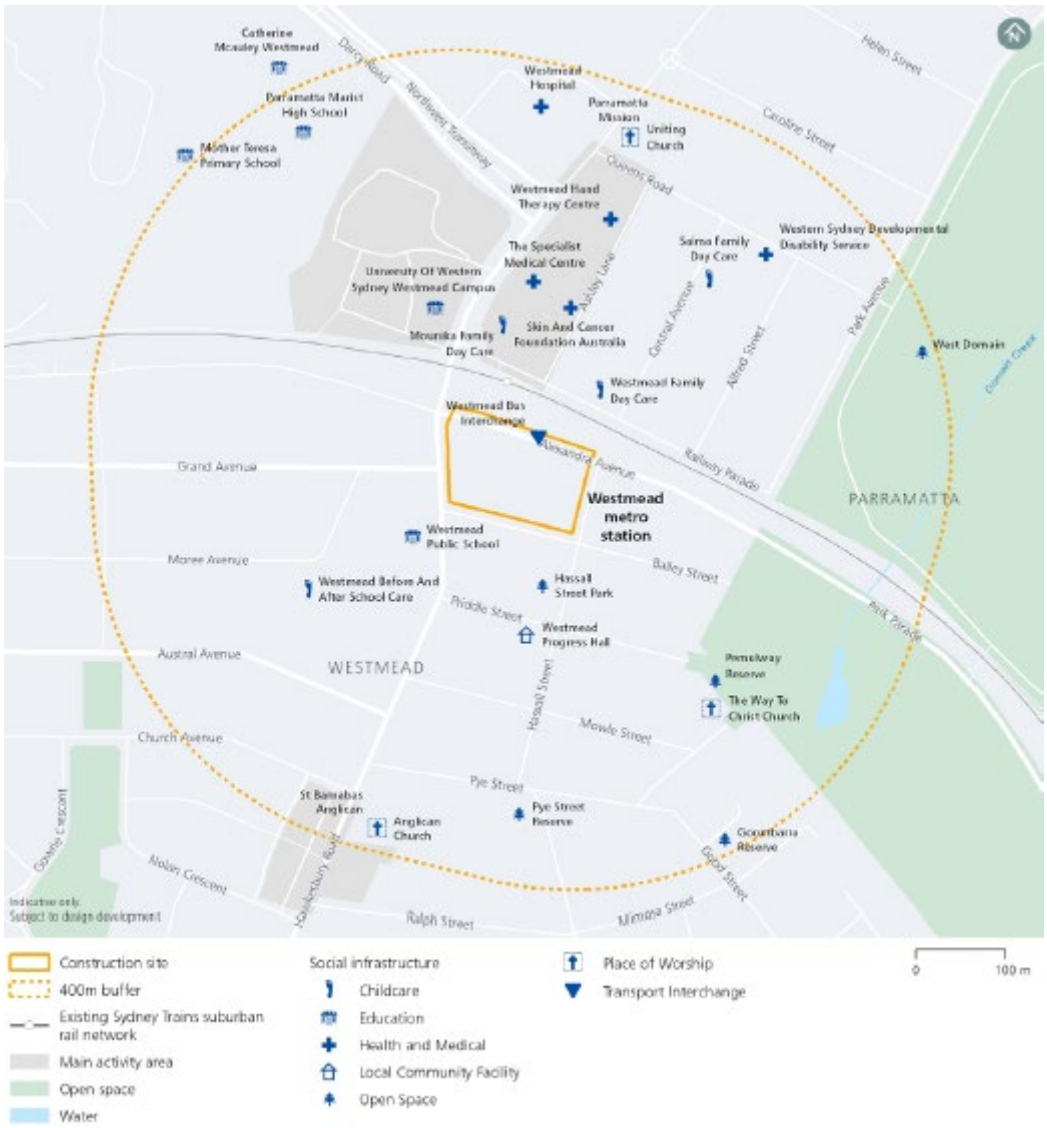


Figure 2-3: Existing sensitive receivers

Shared path and cycle network is shown on Figure 2-4. It is noted that there are no shared path or cycle routes adjacent to the site.

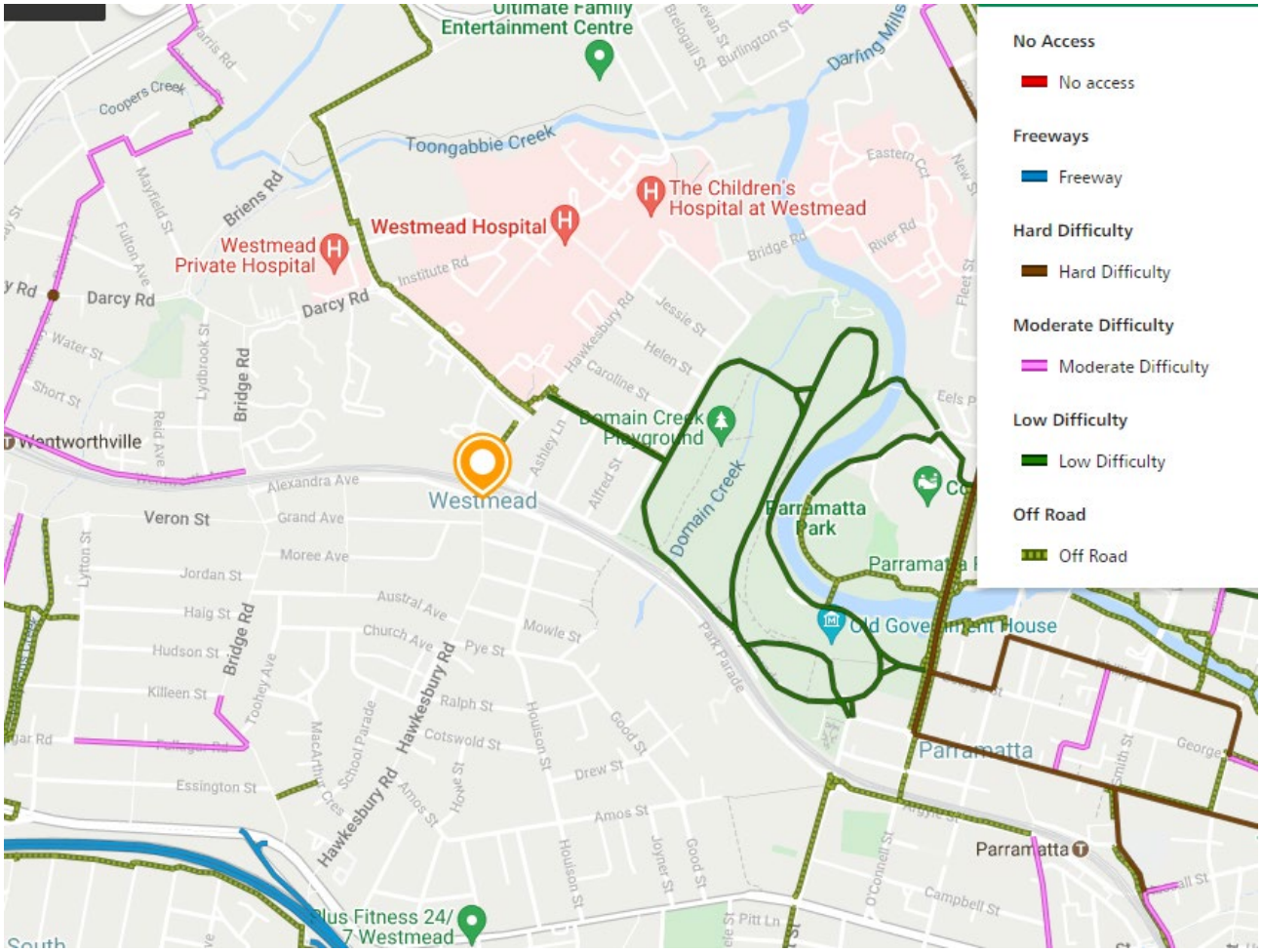


Figure 2-4 Existing shared path and cycleways (source: TfNSW Cycleway finder)

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

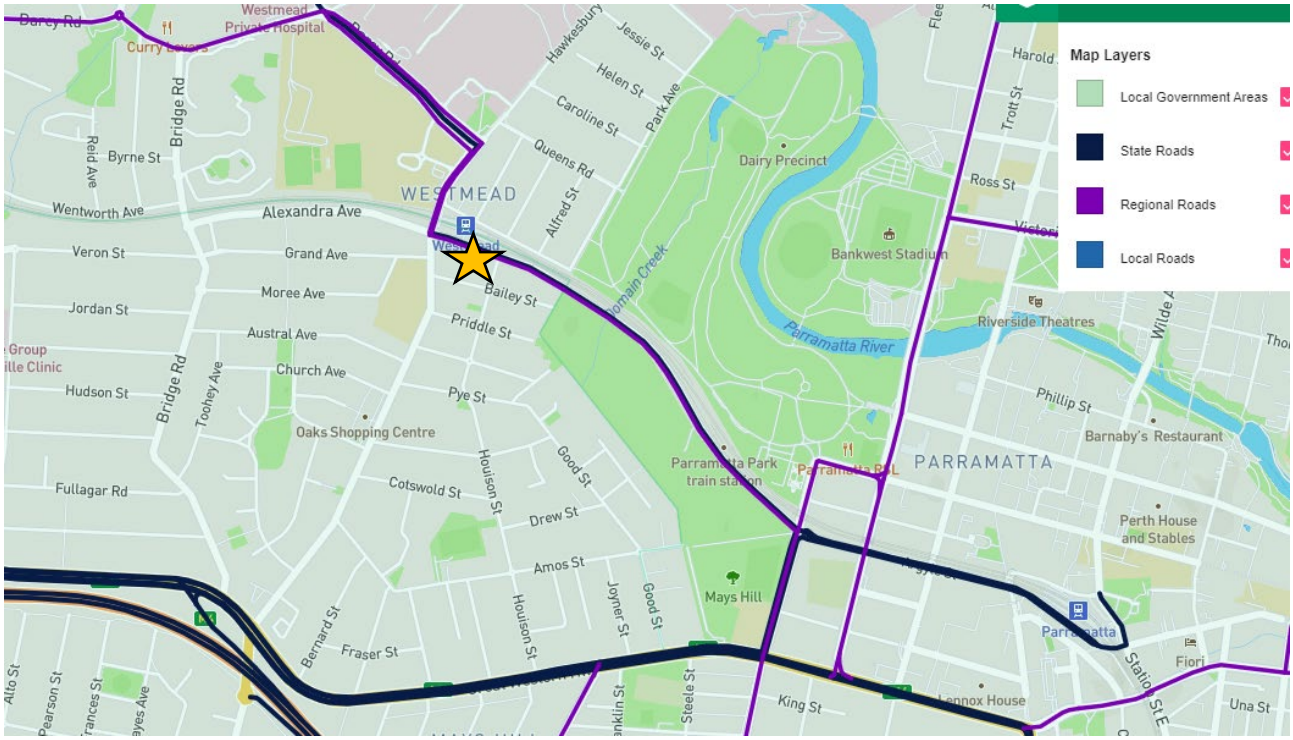


Figure 2-5: TfNSW [Road Network Classification]

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

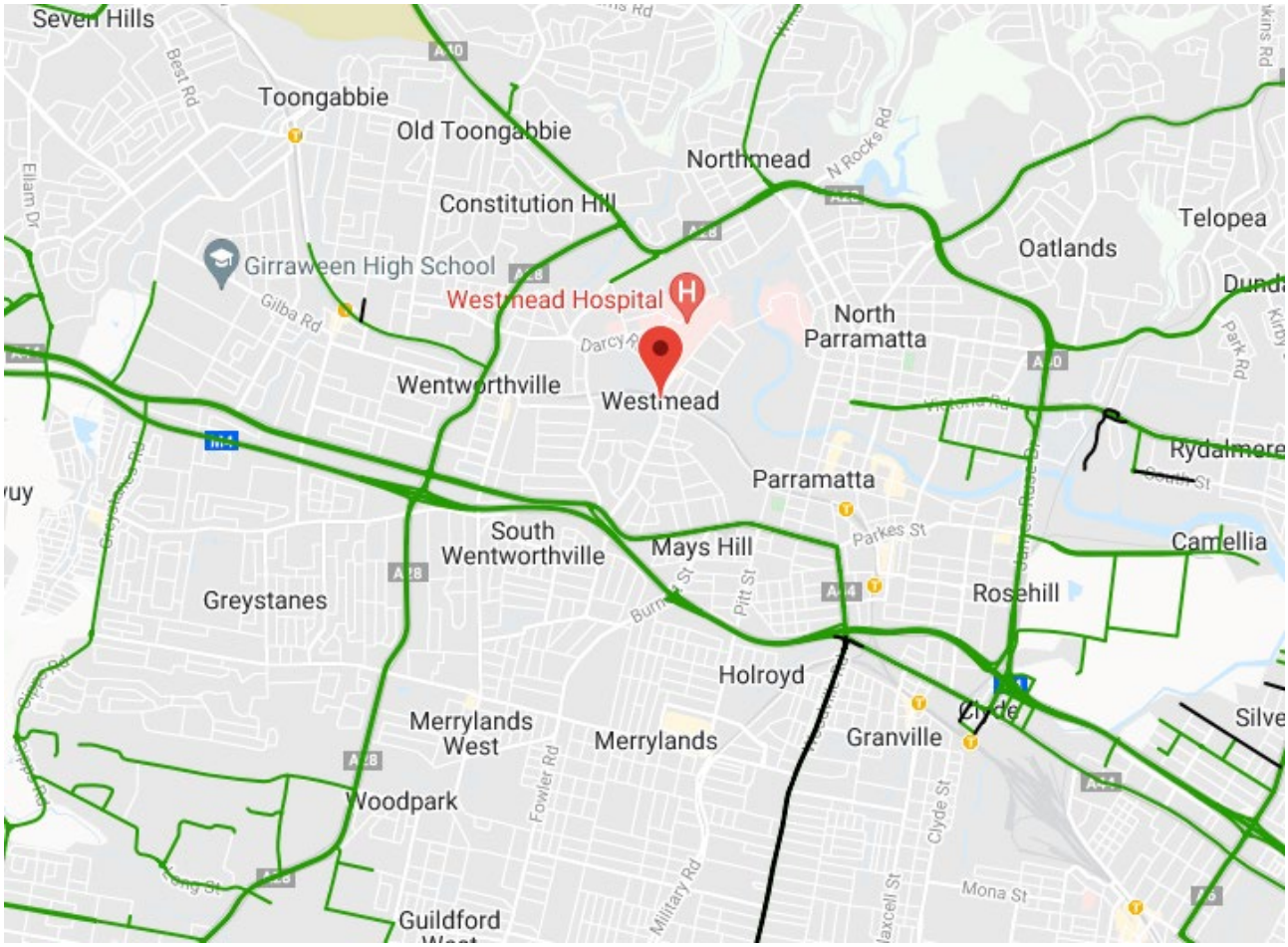


Figure 2-6: TfNSW recognised PBS routes

2.1 Alexandra Avenue

Alexandra Avenue is a regional road. Regional roads typically fall under council care with control of the road exercised between Council and TfNSW, with TfNSW agreement required for changes. Alexandra Avenue comes under Cumberland Council from the western boundary of Pemulwuy Reserve. Alexandra Avenue is a continuation from Park Parade which commences in Parramatta. Alexandra Avenue typically runs in an east west direction. The speed limit is 50km/hr. This street has extensive parkland on the southern side and is bordered by the rail corridor to the north. A small section of residential area is located between Hawkesbury Road and Pemulwuy Reserve. Residential area is located between Hawkesbury Road and Pemulwuy Reserve.

Footpaths are provided on both sides of the road. Signalised pedestrian crossings are provided at the intersection of Alexandra Avenue and Hawkesbury Road, Priddle Street and Hawkesbury Road near the site. The shared path and cycle network does not exist near the site, as shown on Figure 2-4.

Pedestrian access to Westmead rail station is provided directly from Alexandra Avenue, refer to Figure 2-7.

Figure 2-7: Westmead rail station pedestrian access off Alexandra Avenue

Bus lanes exist on Alexandra Avenue between Hawkesbury Road and west of Hassall Street. A dedicated bus lane also exists from east of Pemulwuy Reserve for southbound buses.

Bus stops are located on Alexandra Avenue to the west of Hassall Street as shown on Figure 2-8.

Figure 2-8: Alexandra Avenue bus stop locations

The bus stops service the routes as noted in Table 2-1.

Table 2-1: Bus services operating on Alexandra Avenue

Bus route	Between		Service start and finish
660	Castlewood	Parramatta	0545-1945
661	Blacktown	Parramatta	0518-2330
662	Castle Hill	Parramatta	0530-2215
663	Rouse Hill Station	Parramatta	0600-1940
664	Rouse Hill Station	Parramatta	0540-midnight
665	Rouse Hill Station	Parramatta	0520-0200
705	Blacktown	Parramatta	0615-2300
708	Constitution Hill	Parramatta	0935-1415
711	Blacktown	Parramatta	0500-midnight
712	Westmead Children's Hospital	Parramatta	0645-1900

Sydney Trains access to the rail corridor is provided on Alexandra Avenue near the Hassall Street intersection, refer to Figure 2-9.

Figure 2-9: Rail corridor access gate

Parking is generally unrestricted along Alexandra Avenue with No Stopping provided at intersections and on Alexandra Avenue between Hassall Street and Hawkesbury Road in both directions and No Stopping along the northern kerb between Hassall Street and Pitt Street to the east. Parking restrictions for the site and surrounding area is shown on Figure 2-10.

Figure 2-10: Existing parking restrictions surrounding the site

2.2 Hassall Street

Hassall Street at the site location is a local road under the care and control of Cumberland Council. It commences at Alexandra Avenue and terminates at Pye Street, Westmead. The speed limit is 50km.hr. time restricted parking is provided along Hassall Street with No Stopping provided at intersections, refer to Figure 2-10. Residential area is located to the southern of the previous commercial retail area, approximately 30m south of the Alexandra Avenue intersection. It is noted that this commercial/ retail area was demolished by the Sydney Metro demolition contractor.

Footpaths exist on both sides of the street. A signalised crossing is provided across Hassall Street at its intersection with Alexandra Avenue. Pedestrian refuge/ roundabout splitter islands are provided at all intersections that cross Hassall Street. No shared cycle paths or on road routes are

noted along Hassall Street, refer to Figure 2-4. No bus stops or services operate along Hassall Street.

2.3 Hawkesbury Road

Hawkesbury Road is a regional road between Alexandra Avenue and Darcy Road and a local road between Alexandra Avenue and the Great Western Highway and comes under the care and control of Cumberland Council. It commences at the Great Western Highway and terminates at Hainsworth Street, Westmead. It generally runs north to south. Time restricted parking is provided along Hawkesbury Road as well as No Stopping restrictions as noted on Figure 2-10. A school zone is in operation between north of Astral Avenue and north of Grand Avenue. A number of commercial and medical services are located on Hawkesbury Road between Alexandra Avenue and Bailey Street.

Footpaths exist on both sides of the street. Signalised pedestrian crossings are provided at the intersections of:

- Alexandra Avenue/ Hawkesbury Road
- Priddle Street/ Hawkesbury Road
- Great Western Highway/ Hawkesbury Road

No bus stops are provided on Hawkesbury Road, however, route 700 does cross Hawkesbury Road at Pye Street, refer to Figure 2-11.

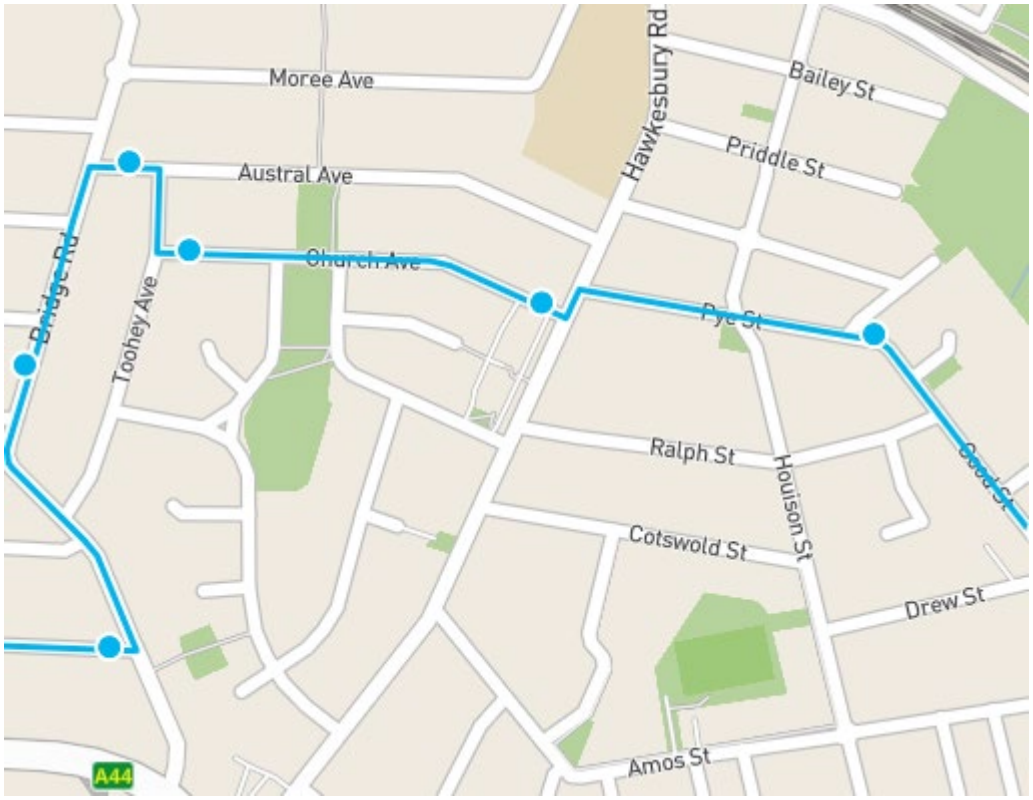


Figure 2-11: Route 700 Blacktown to Parramatta

2.4 Bailey Street

Bailey Street is a local road under the care and control of the Cumberland Council. It starts at Pemulwuy Reserve and terminates at Hawkesbury Road, Westmead. The speed limit is 50km/hr. Time restricted parking is provided along Bailey Street as well as No Stopping restrictions as noted on Figure 2-10. The residential area is located on the southern side of Bailey Street between Hawkesbury Road and the reserve and on the northern side between Hassall Street and the reserve. The northern side of Bailey Street between Hassall Street and Hawkesbury Road has been demolished by the Sydney Metro West demolition contractor. No public transport services operate along Bailey Street. Footpaths are provided on both sides of the street.

3 SITE ESTABLISHMENT

Time: June 2022 through to October 2022

Duration: 4 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 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
    - Establishment of spoil shed
    - Temporary water connection adjacent to Bailey Street
    - Temporary sewer connection adjacent to Alexandra Avenue

3.1.1 Utility investigations

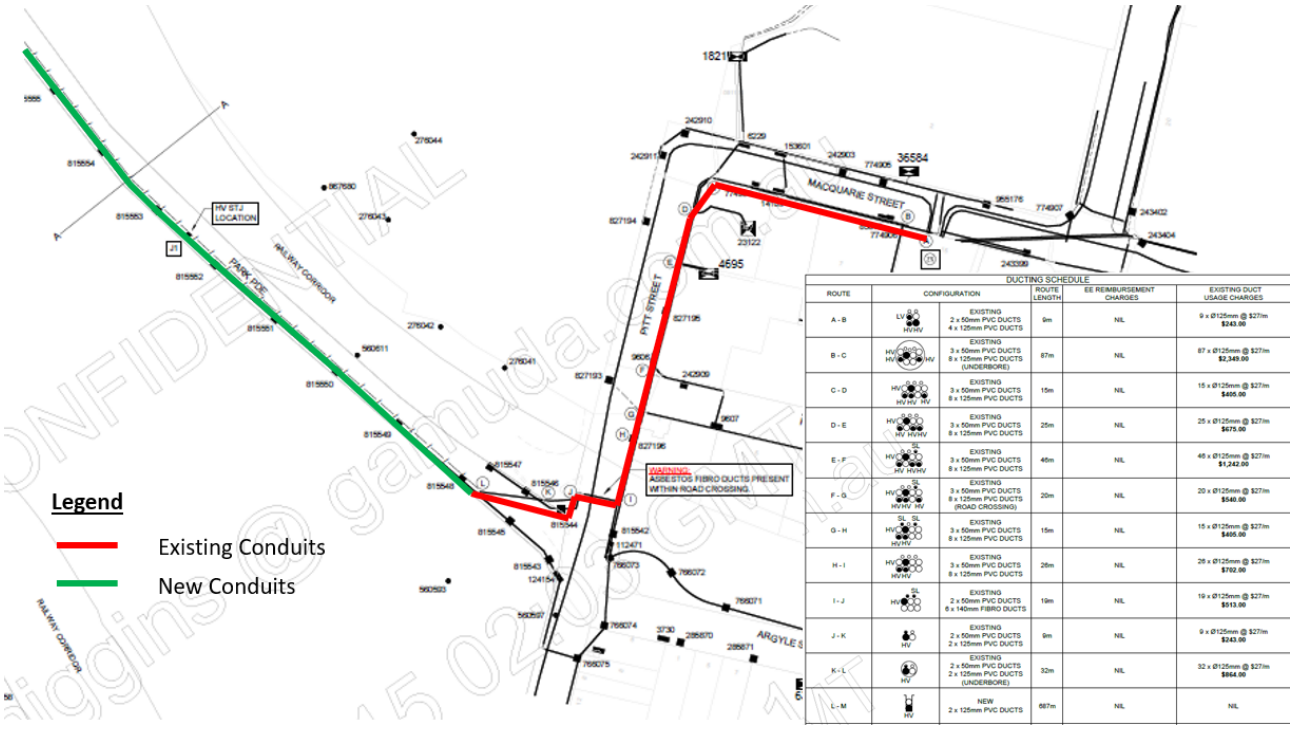
In order to define the location of existing utilities more accurately within our digital model, GLC need to undertake additional site investigations to supplement the current information contained in the model. The current information ranges in accuracy from low - Class D (indicative from Dial Before You Dig drawings) through to high – Class A (positively identified utility with survey pick up). In order to ensure we can operate safely around existing services and to ensure the planned utility adjustments can be performed as per the design, we need to validate the location of the existing services within the planned areas of work. These investigations will be undertaken as early as possible to inform the proposed design and planned works

The investigations will be performed on utilities generally located behind the back of kerb. The works will include potholing and positively identifying the utility through non-destructive excavation. Where this is not possible (due to the location of the utility or depth) we will trace the utility with ground penetrating radar. The works will be conducted during standard working hours. The established work zone will only be on a single side of the street at a time and generally the length of the work zone will be about 150m, depending upon the number of utilities in the search area and the scope that can be undertaken in a given shift. All disturbed ground will be made good at the completion of each shift.

The following locations have been identified as requiring further utility investigations:

3.1.1.1 Alexandra Avenue/ Park Parade

Utility investigation is required along Park Parade/ Alexandra Avenue to support the incoming HV power supply. As noted on Figure 3-1 the existing conduit run is along Macquarie Street and Pitt Street, Parramatta. The conduit run crosses across Park Parade to the southern side.



ROUTE	CONFIGURATION		ROUTE LENGTH	EE REIMBURSEMENT CHARGES	EXISTING DUCT USAGE CHARGES
A - B	LV HV HV	EXISTING 2 x 50mm PVC DUCTS 4 x 125mm PVC DUCTS	9m	NIL	9 x Ø125mm @ $27/m $243.00
B - C	HV HV HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS (UNDERBORE)	87m	NIL	87 x Ø125mm @ $27/m $2,349.00
C - D	HV HV HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS	15m	NIL	15 x Ø125mm @ $27/m $405.00
D - E	HV HV HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS	25m	NIL	25 x Ø125mm @ $27/m $675.00
E - F	HV HV HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS	46m	NIL	46 x Ø125mm @ $27/m $1,242.00
F - G	HV HV HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS (ROAD CROSSING)	20m	NIL	20 x Ø125mm @ $27/m $540.00
G - H	SL SL HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS	15m	NIL	15 x Ø125mm @ $27/m $405.00
H - I	HV HV	EXISTING 3 x 50mm PVC DUCTS 8 x 125mm PVC DUCTS	26m	NIL	26 x Ø125mm @ $27/m $702.00
I - J	HV SL	EXISTING 2 x 50mm PVC DUCTS 6 x 140mm FIBRO DUCTS	19m	NIL	19 x Ø125mm @ $27/m $513.00
J - K	HV	EXISTING 2 x 50mm PVC DUCTS 2 x 125mm PVC DUCTS	9m	NIL	9 x Ø125mm @ $27/m $243.00
K - L	HV	EXISTING 2 x 50mm PVC DUCTS 2 x 125mm PVC DUCTS (UNDERBORE)	32m	NIL	32 x Ø125mm @ $27/m $864.00
L - M	HV	NEW 2 x 125mm PVC DUCTS	687m	NIL	NIL

Figure 3-1: HV Power supply route – eastern end

Once on the southern side, the current design occupies the westbound traffic lane, refer to Figure 3-2. Discussions have been held with the utility providers on the feasibility of installing the conduit witin the existing footpath, however, advice has been received that this is not feasible due to a highly congested utility runs that occupy the footpath space.

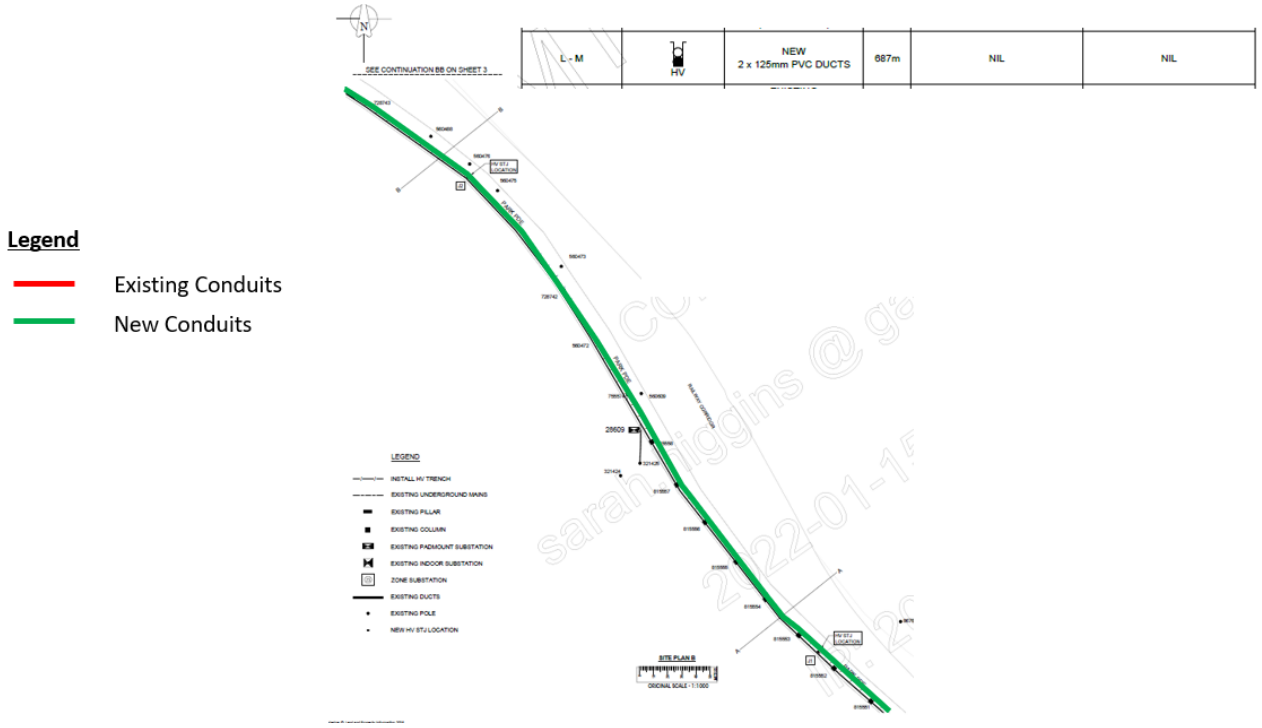


Figure 3-2: New conduit installation along Park Parade/ Alexandra Avenue

At the eastern end of Park Parade, near the intersection of Pitt Street, potholing is required to confirm the existing conduits are fit for purpose. These works would take 1 shift and will require the occupation of the footpath and adjacent traffic lane on the corner of Pitt Street and Park Parade (#7) requiring pedestrians to be diverted to the eastern side of Pitt Street. Access to Parramatta Park would be via the signalised crossing of Macquarie Street and O'Connell Street. Traffic accessing Parramatta would be directed to turn from the bus lane on Park Parade onto Pitt Street.

Pothole #6 would require the occupation of the footpath and westbound kerb side lane on Park Parade and the kerbside lane on Pitt Street. Pedestrians would be provided a suitable temporary surface to access the bus stop, located approximately 70m west of Pitt Street on the southern side of Park Parade. Refer to Figure 3-3 for indicative locations and Appendix B for the Traffic Guidance Schemes associated with the works.

Figure 3-3: Eastern end of Park Parade and Pitt Street

Along Alexandra Avenue, more potholing is required as nominated on Figure 3-4. The potholing will be confined to the existing westbound lane and will be undertaken at night over 150m lengths. It is anticipated that these works would be completed in 7 nights, non-consecutive.

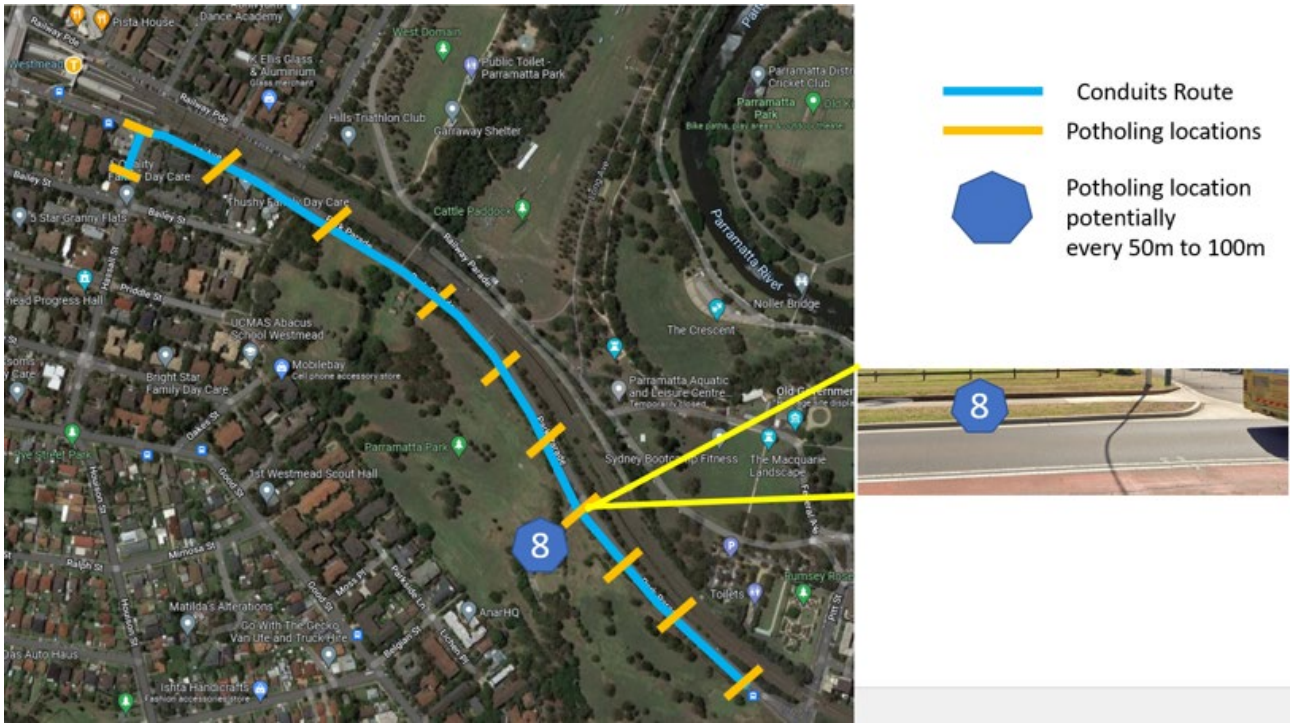


Figure 3-4: Indicative potholing locations along Park Parade/ Alexandra Avenue

The works will require westbound traffic to occupy the eastbound bus lane, as shown on Figure 3-5 and Figure 3-6. Works would be planned to occur from east to west reducing our occupation of the bus lane progressively every shift.

Figure 3-5: Existing eastbound bus lane

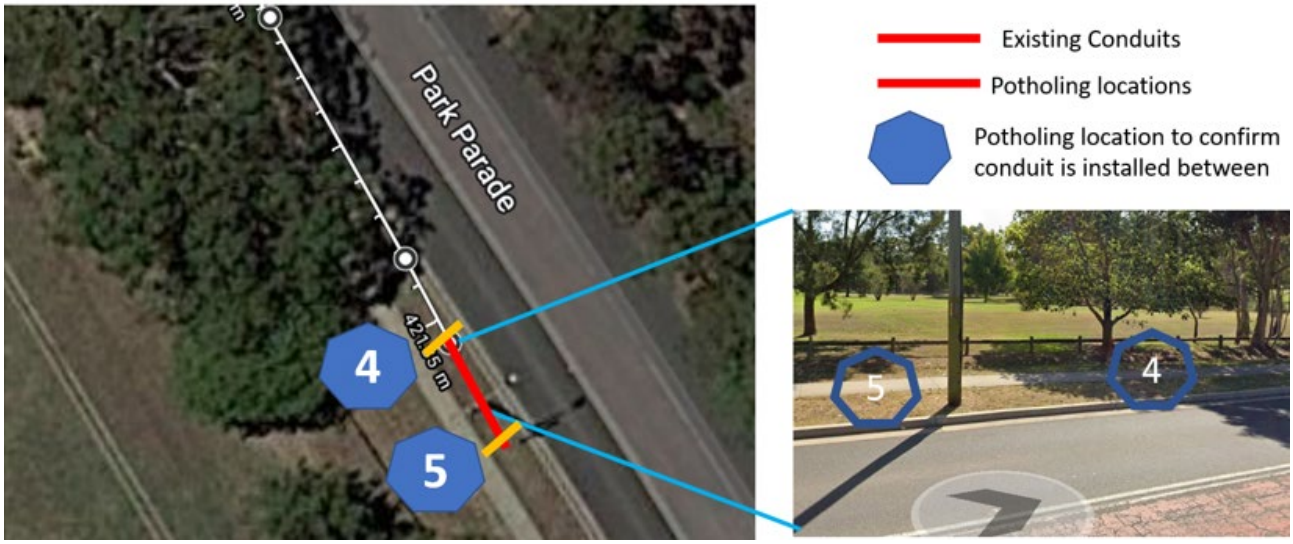


Figure 3-6: Potholing locations

Potholing is also required along Alexandra Avenue from Hassall Street through to 125m east, as noted on Figure 3-7. These works are to confirm that the conduits are installed and fit for purpose.

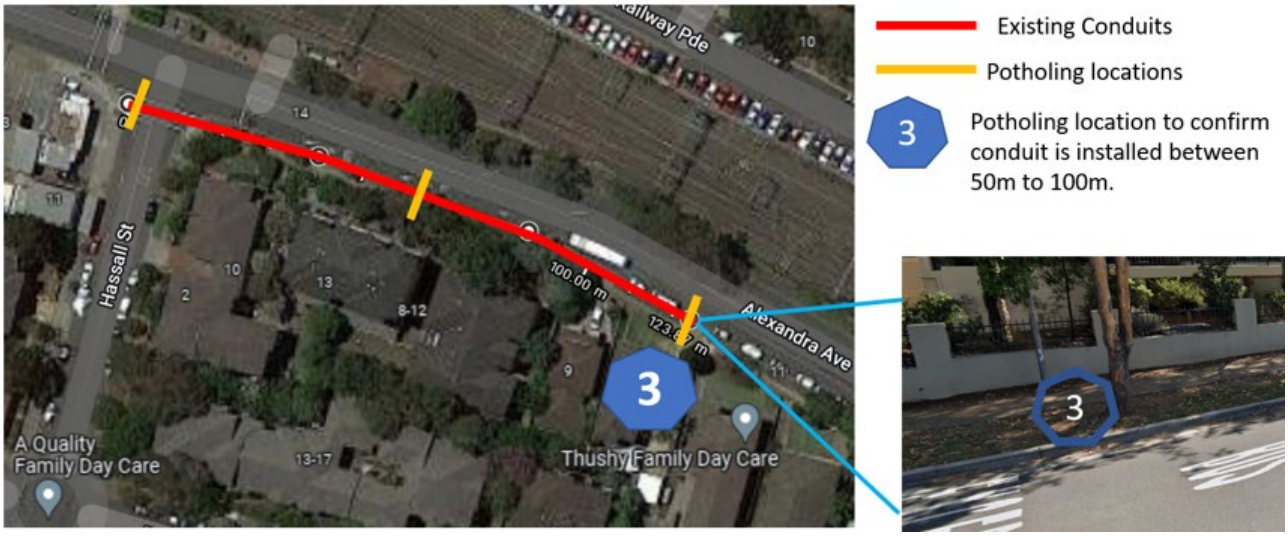


Figure 3-7: Conduit investigations

At the western end of the works, parking is currently unrestricted and 15 spaces would need to be occupied for one shift, refer to Figure 3-8.

Figure 3-8: Unrestricted parking on Alexandra Avenue

3.1.1.2 Hassall Street

Utility investigation is required along Hassall Street across the site frontage on the western side of Hassall Street to support the incoming HV power and temporary utility connections, as nominated on Figure 3-9.

Figure 3-9: Indicative potholing locations along Hassall Street

Pothole #2 works will require the occupation of the footpath and kerbside lane on both Hassall Street and Alexandra Avenue. Pedestrians will be managed through the site to maintain access to the existing bus stop to the west of Hassall Street on Alexandra Avenue. Pedestrian access will also be maintained to the existing pedestrian crossing across Hassall Street. Access to Westmead rail station will be via the existing signalised crossing at Hawkesbury Road.

Pothole #1 will require the occupation of the existing parking lane on Hassall Street and the closure of the western footpath on Hassall Street. As all businesses have been demolished at this location the temporary removal of the parking will have minimal impact. The closure of the western footpath will require pedestrians to be detoured to the eastern side of Hassall Street via the existing signalised crossing at the intersection of Alexandra Avenue and via the pedestrian splitter island at Bailey Street. The relevant Traffic Guidance Schemers are provided in Appendix B.

3.2 Operating Conditions

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

Vehicle access into the site for heavy vehicles is proposed via Park Parade and Alexandra Avenue with egress proposed via Alexandra Avenue/ Hawkesbury Road, refer to Figure 3-10. Existing driveways will be used to access and egress the site.

Figure 3-10: Vehicle access/ egress Westmead site

3.2.1 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 3-11.

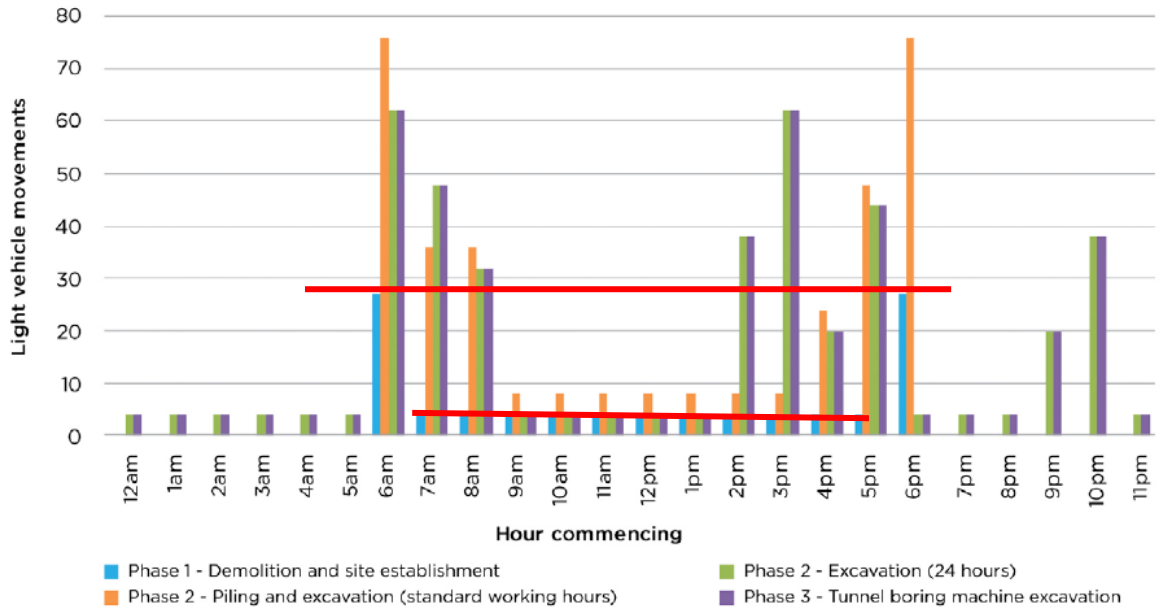


Figure 10-2: Hourly light vehicle movements at the Westmead metro station construction site

Note: Movement means a one way movement. A truck entering and then leaving a work site represents 2 movements.

Figure 3-11: 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 3-12.

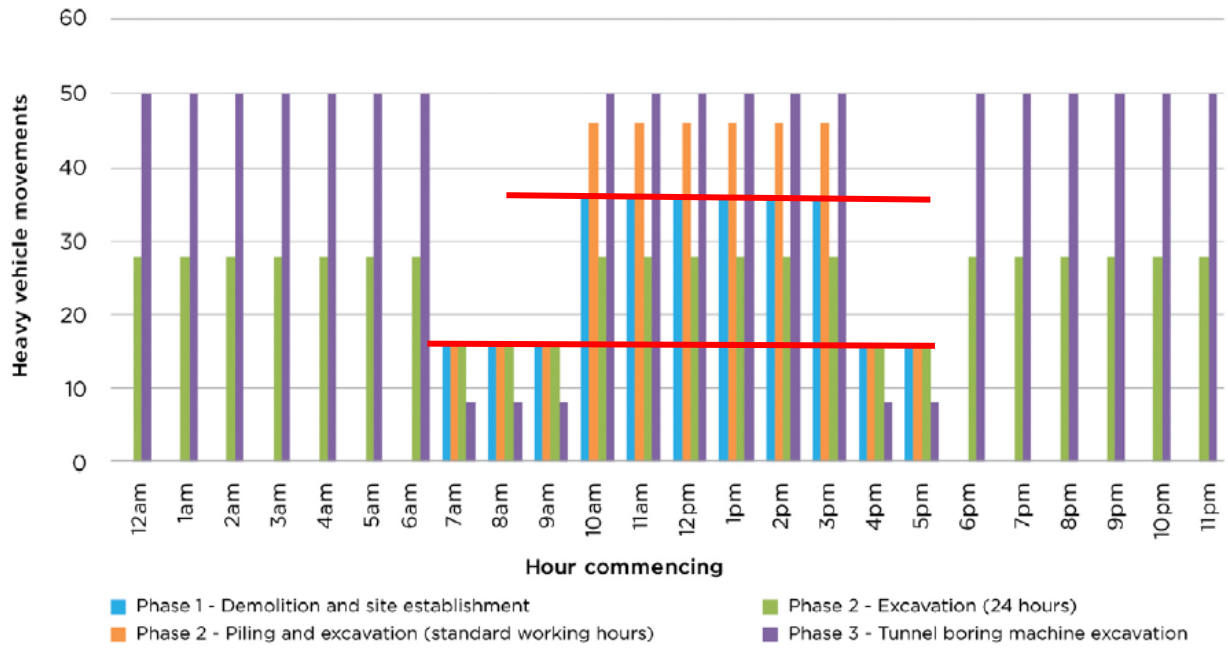


Figure 10-3: Hourly heavy vehicle movements at the Westmead metro station construction site

Note: Movement means a one way movement. A truck entering and then leaving a work site represents 2 movements.

Figure 3-12: 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 vehicle movements (numbers) per hour

Time	EIS Light	GLC Light	EIS Heavy	GLC Heavy
0600-0700	28 (14)	28 (14)	0	0
AM and PM peaks	6 (3)	6 (3)	18 (9)	10(5)
Between the AM and PM peak	6 (3)	6 (3)	36 (18)	10(5)

3.2.2 Impact on public transport

There will be impacts on the existing bus route along Park Parade due to the potholing investigation works. These impacts include occupation of the eastbound Bus Lane at night by westbound traffic to allow the closure of the westbound lane along Park Parade. The works will commence at the eastern end to reduce our overall occupation of the Bus Lane, progressively as the works move west.

Further impacts to bus operations will be at the intersection of Pitt Street and Park Parade for pothole works #7 where the occupation of the adjacent traffic lane on Park Parade will require general public vehicles to share the bus lane to turn left onto Pitt Street. Again, these works are scheduled to occur at night.

Access to bus stops will be maintained, however, some pedestrian diversions will be required to gain access to the stops.

3.2.3 Impact on active transport

There are a number of locations where impacts to pedestrian paths are required.

As noted in the relevant sections of this CTMP, the potholing works, pedestrians will be either managed through the worksite or detoured via existing signalised crossings.

The works near the intersection of Pitt Street and Park Parade, will require the diversion of pedestrians via existing signalised pedestrian crossings and the works on Park Parade near the intersection of Pitt Street will see pedestrians diverted through the adjacent park lane to gain access to the existing bus stop, refer to section 3.1.1.1.

In the Westmead area, pedestrians will be diverted via nominated crossing points, especially in relation to the Hassall Street works, refer to section 3.1.1.2.

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 will be placed on either side of the existing driveways to be used.

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.

3.2.4 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.

3.2.5 Impact on parking

Short term works associated with the utility investigations and connections will temporarily impact parking. Parking along Alexandra Avenue, south of Hassall Street will be unavailable for approximately one (1) shift. Parking on Hassall Street on the western side will be temporarily removed for one (1) shift during utility investigations.

3.2.6 Cumulative impacts

There are a number of adjacent construction sites within close vicinity of the GLC works. Parramatta Light Rail work site is located to the north of the existing rail line. Works are also ongoing for the works within the rail corridor by TfNSW's contractor. 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).

3.3 Special events

There are no known special events that will impact the site. 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)

What's On | Cumberland City Council (nsw.gov.au)

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

3.4 Staff transport and parking

All staff parking during the site establishment phase of the works will be catered for within the site.

3.5 Identified works requiring further approvals

3.5.1 Traffic Guidance Schemes (TGS)

Works that have been identified as requiring TGS are:

- Pedestrian management to manage the interaction between pedestrians and heavy vehicles.
- Pedestrian diversions associated with the utility investigation works
- Lane closures associated with the utility investigation works
- Parking lane closures associated with the utility investigation 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.

3.5.2 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 Cumberland 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 Cumberland Council requirements. For any works where parking is temporary impact, GLAAC 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 Cumberland Council website. The ROP will also be accompanied by a ROL. Details on the permits required are found at Cumberland Council.

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 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. GLC will provide sufficient onsite parking for heavy vehicles associated with the works. This will ensure that vehicles are not idling or queuing on state, regional and local roads. In the event that vehicles are unable to be accommodated, vehicles will be directed to the Clyde site as an extended marshalling facility. Given the amount of space available at the Clyde site there is no requirement for any further marshalling facilities.

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 including the intersection of Alexandra Avenue and Hawkesbury Road where there is no red arrow hold. Drivers will be instructed to not turn left until pedestrians have completed their crossing.

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 Hawkesbury Road and Bailey Street, however, this route is based on a right turn into Bailey Street, which is not favoured. The EIS also notes the egress out of site via Hawkesbury Road, refer to Figure 4-1.

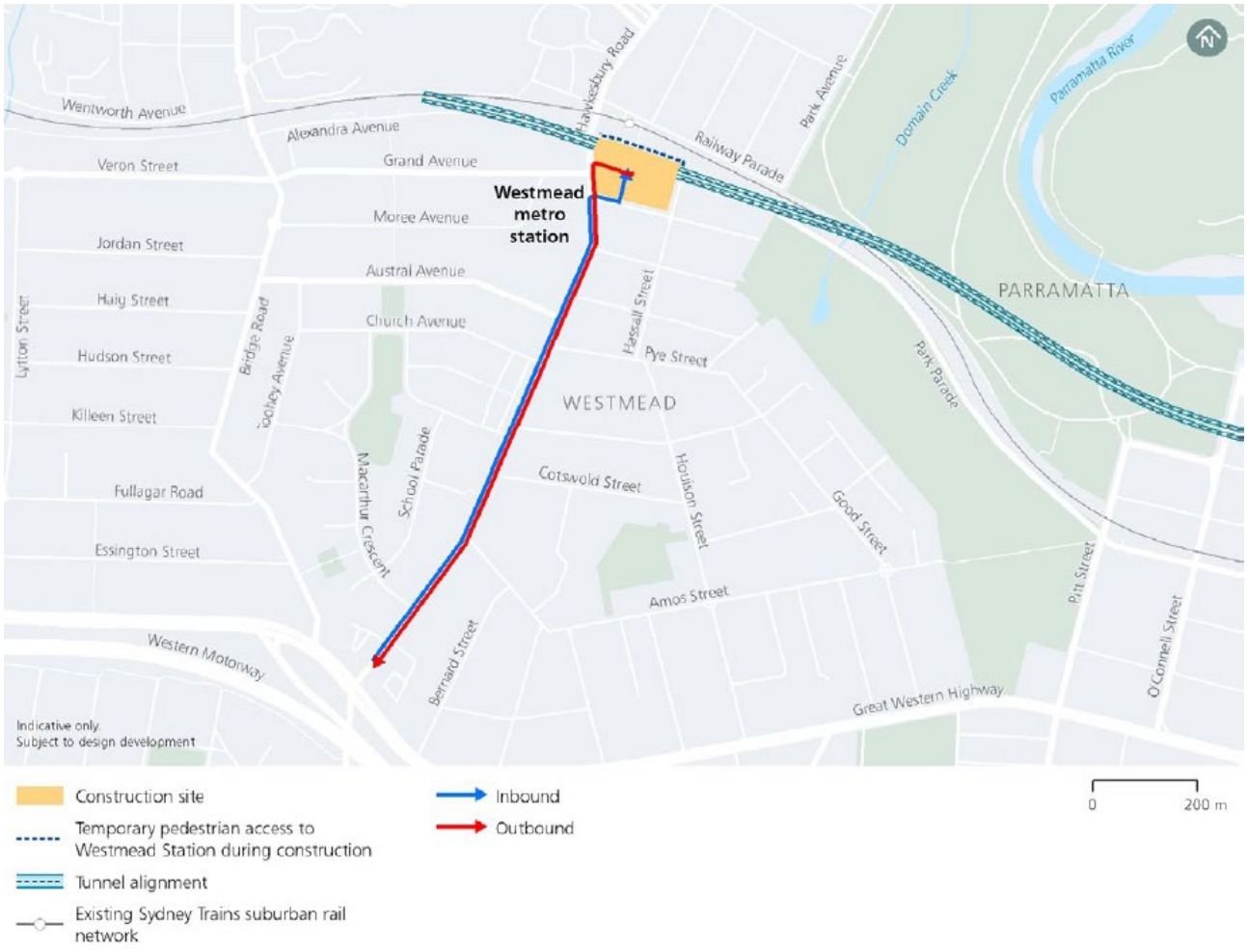


Figure 4-1: EIS nominated heavy vehicle routes

The route proposed into the site is via Park Parade/ Alexandra Avenue, refer to Figure 3-10. The egress route will follow the EIS route.

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:

a) 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
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 pickup, weekend periods and during special events
d) Consultation with affected stakeholders utilising exiting 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 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 resident parking schemes already exist, off road parking facilities must be provided for the project workforce

h) Mechanisms for monitoring, over appropriate intervals (not less than six (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 hubs 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 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) 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 4-1 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 sydneymetrowest@transport.nsw.gov.au
- Mailing address Sydney Metro West, PO BOX K659, Haymarket, NSW 1240

Table 4-1:Proposed community notifications

Notification	Applicable?
Newsletters	Yes
Construction email updates	Yes
Fact sheets	Yes
Site signage	Yes
GLC website	Pending
Sydney Metro 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 4-2.

Table 4-2: Stakeholder consultation details

Stakeholder	Date	Consultation type
Traffic Control Group	5 May 2022	Presentation
Customer Journey Planning	16 May 2022	Submission of CTMP
Sydney Metro West	16 May 2022	Submission of CTMP
Cumberland Council	16 May 2022	Submission 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, Cumberland 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 4-3.

Table 4-3: 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 4-4.

Table 4-4: Site contacts

Name	Position	Organisation	Contact #	Email
Daniel Kelly	Logistic Manager	GLC	0437 315 649	Daniel.kelly@laingorourke.com.au
Gary Marshall	Superintendent	GLC	0419 382 572	gary.marshall@gamuda.com.au
Andy Thompson	Surface Works Construction Manger	GLC	0423 479 033	andy.thompson@gamuda.com.au
Peter McCabe	Stakeholder Manager	GLC	0439 707 101	peter.mccabe@gamuda.com.au

A COMPLIANCE TABLES

Table 4-5: 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 3.2.4
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 3.2.4
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 3.2.5
	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 3.2.3
	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: 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	Appendix D

Requirement	Details	Where addressed
	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	
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

Requirement	Details	Where addressed
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 3.2.4
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
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 3.2.3
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 4-6: 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 3.2.4
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 3.2.3
TT5	Road safety	Additional enhancements for pedestrian, cyclist and motorist safety near the construction sites would be 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	Appendix C
		• 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

Requirement	Impact/ issue	Details	Where addressed
		• 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	Not applicable to the site establishment works
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	Appendix D

Requirement	Impact/ issue	Details	Where addressed
		• Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable	
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 Not applicable to the site establishment works
TT13	Bus priority	Opportunities to improve bus priority along the temporary detour at Westmead metro station construction site would be investigated during detailed design	Not applicable to the site establishment works
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	Not applicable to the site establishment works
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 3.2.3
TT17	Impacts on special events	During major special events, impacts to the transport and traffic network would be reduced by, (as necessary) • 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	Section 3.3

Requirement	Impact/ issue	Details	Where addressed
		• 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 3.2.4
TT19	Construction vehicle impacts	Traffic control measures required at the Parramatta metro station construction site access on George Street would be determined in consultation with Transport for NSW	Applicable to Parramatta site as noted in the REMM
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 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	Section 6

Requirement	Impact/ issue	Details	Where addressed
		• 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 TGS/ VMP/ PMP

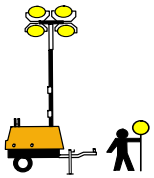
Table 4-7: TGS/VMP/PMP

TGS#	Location	Between		Time of Day	Traffic control	Works	Impacts
LOR-WMD-PIT-TGS-012	Pitt Street	At Park Parade		Night	Pedestrian and traffic diversion	Potholing works item 7	Works to be undertaken at night due to traffic lane closure and pedestrian diversion
LOR-WMD-TGS-PAR-011	Park Parade	Pitt Street	West of Pitt St	Night	Lane closure on Park Parade and Pitt Street	Potholing works item 6	Works to be undertaken at night due to traffic lane closure and pedestrian diversion
LOR-WMD-TGS-PAR-013 to 18	Park Parade	Pitt Street	Hassall Street	Night	Lane closure on Park Parade and westbound traffic on existing Bus Lane	Potholing works along Park Parade	Works to be undertaken at night due to bus lane closure
LOR-WMD-TGS-HAS--010	Hassall Street	Alexandra Avenue	Bailey Straeet	Day	Parking lane closure	Potholing works item 1	Minor as works are located clear of traffic lanes. Pedestrian detour to eastern side of Hassall Street outside of commute and school bell times
LOR-WMD-TGS-HAS--009	Alexandra Avenue	At Hassall Street intersection		Night	Lane closures on Hassall Street and	Potholing works item 2	Works to be undertaken at night due to traffic lane closure

TGS#	Location	Between		Time of Day	Traffic control	Works	Impacts
					Alexandra Avenue with pedestrian diversion in place		and pedestrian diversion
TGS-PED-ALL-1101	All			During working hours	Pedestrian management	Heavy Vehicle access/ egress across footpaths	Intermittent stop of pedestrians during heavy vehicle movements at footpath locations

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

Pedestrian signage to be implemented to provide safe passage around worksite



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

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

Dimension 'D'
As Per TfNSW TCaWS Issue 6.0 :

Speed Limit (km/H)	Dimension D (m)
50 km/H	50 m
60 km/H	60 m
70 km/H	70 m
80 km/H	80 m
90 km/H	90 m
100 km/H	100 m
110 km/H	110 m

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

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.

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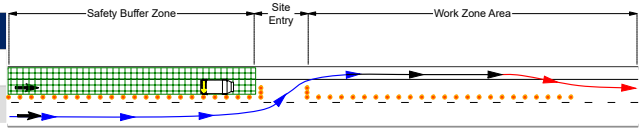

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- Traffic Controllers are to ensure that no local traffic follows work vehicles in the work area
- Above diagram is depicting a Lane 1 Closure. Set-up is to be mirrored in case of a median lane closure.

TGS Installation Date:

Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

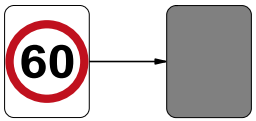
Expiry Date or Issue Date: _____

Signature: _____

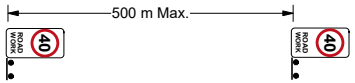
Date: _____

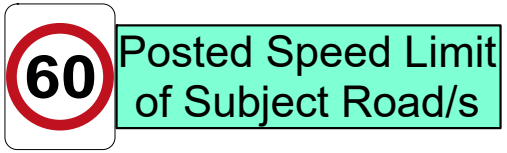
TGS Field Notes:

Existing Speed Signs to be covered with opaque material, if a Roadwork Speed Limit is enforced



Speed Reduction Signage to be repeated at a distance of 500m max. if a Roadwork Speed Limit is enforced





REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-PAR-PAR-0012	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Park Parade & Pitt Street**	**Gamuda / Laing O'Rourke JV**		SIGNATURE	~~Gcocker~~	SIGNATURE		SIGNATURE	
01	**TGS Amended 04/05/22**	SUBURB	**Parramatta**	ROL REQUIRED	Y ☒ N ☐	DATE	**27/04/2022**	DATE		DATE	
02	**TGS Amended 10/05/22**	WORK LOCATION	**Eastbound**	SZA REQUIRED	Y ☒ N ☐	CERTIFICATE #	**TCT0027509**	CERTIFICATE #		CERTIFICATE #	

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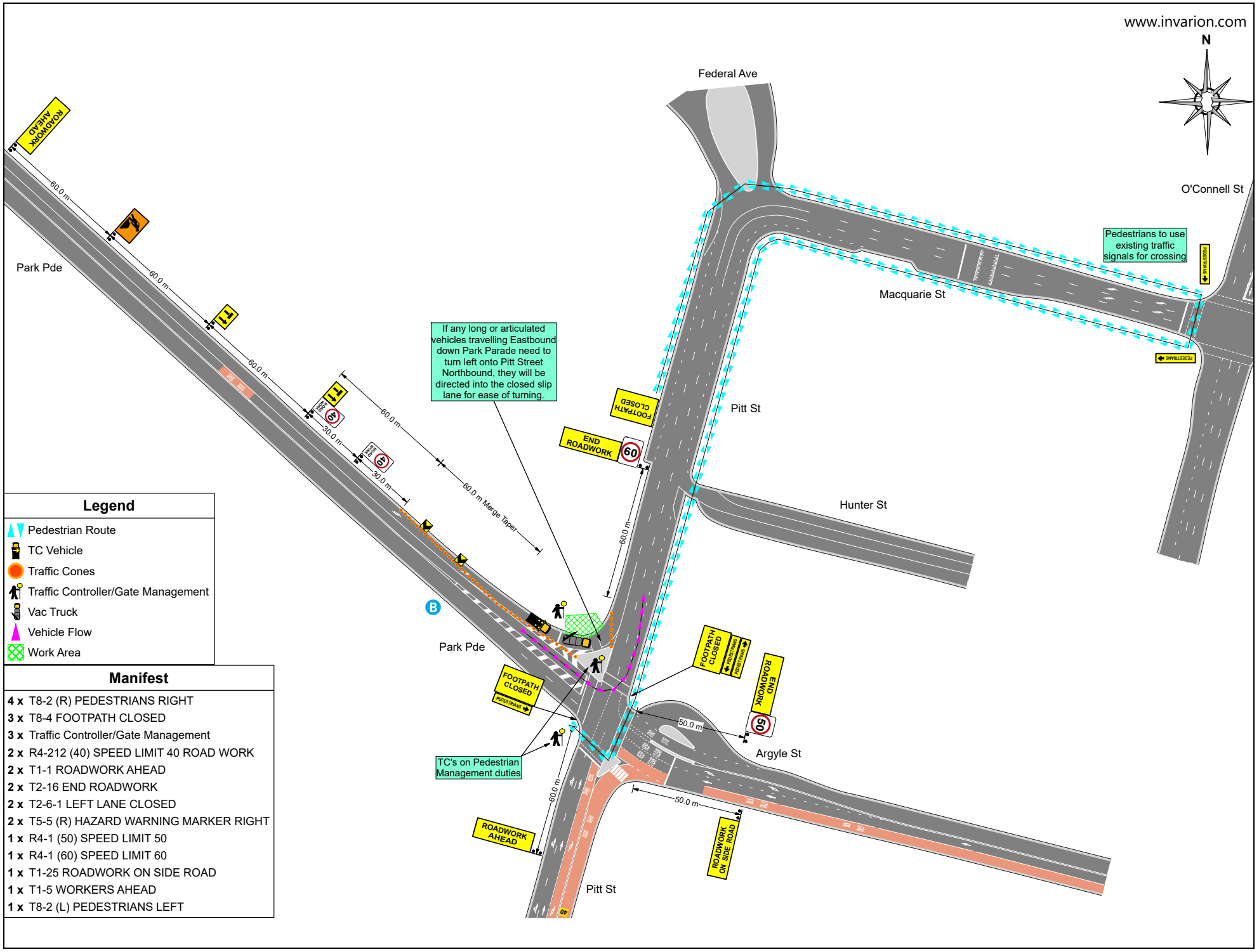


Legend

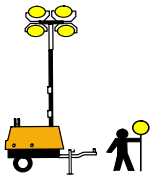
- Pedestrian Route
- TC Vehicle
- Traffic Cones
- Traffic Controller/Gate Management
- Vac Truck
- Vehicle Flow
- Work Area

Manifest

4 x T8-2 (R) PEDESTRIANS RIGHT
3 x T8-4 FOOTPATH CLOSED
3 x Traffic Controller/Gate Management
2 x R4-212 (40) SPEED LIMIT 40 ROAD WORK
2 x T1-1 ROADWORK AHEAD
2 x T2-16 END ROADWORK
2 x T2-6-1 LEFT LANE CLOSED
2 x T5-5 (R) HAZARD WARNING MARKER RIGHT
1 x R4-1 (50) SPEED LIMIT 50
1 x R4-1 (60) SPEED LIMIT 60
1 x T1-25 ROADWORK ON SIDE ROAD
1 x T1-5 WORKERS AHEAD
1 x T8-2 (L) PEDESTRIANS LEFT

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

Pedestrian signage to be implemented to provide safe passage around worksite



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

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

Dimension 'D'
As Per TfNSW TCaWS Issue 6.0 :

Speed Limit (km/H)	Dimension D (m)
50 km/H	50 m
60 km/H	60 m
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80 km/H	80 m
90 km/H	90 m
100 km/H	100 m
110 km/H	110 m

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

Adjusting or Modifying A TGS:

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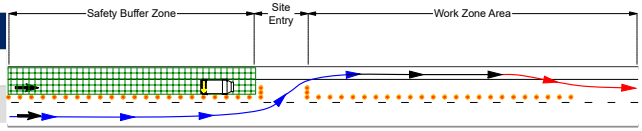

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TGS Installation Date:

Date: _____

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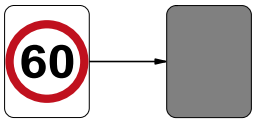

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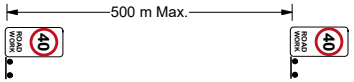

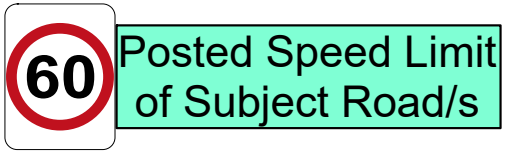

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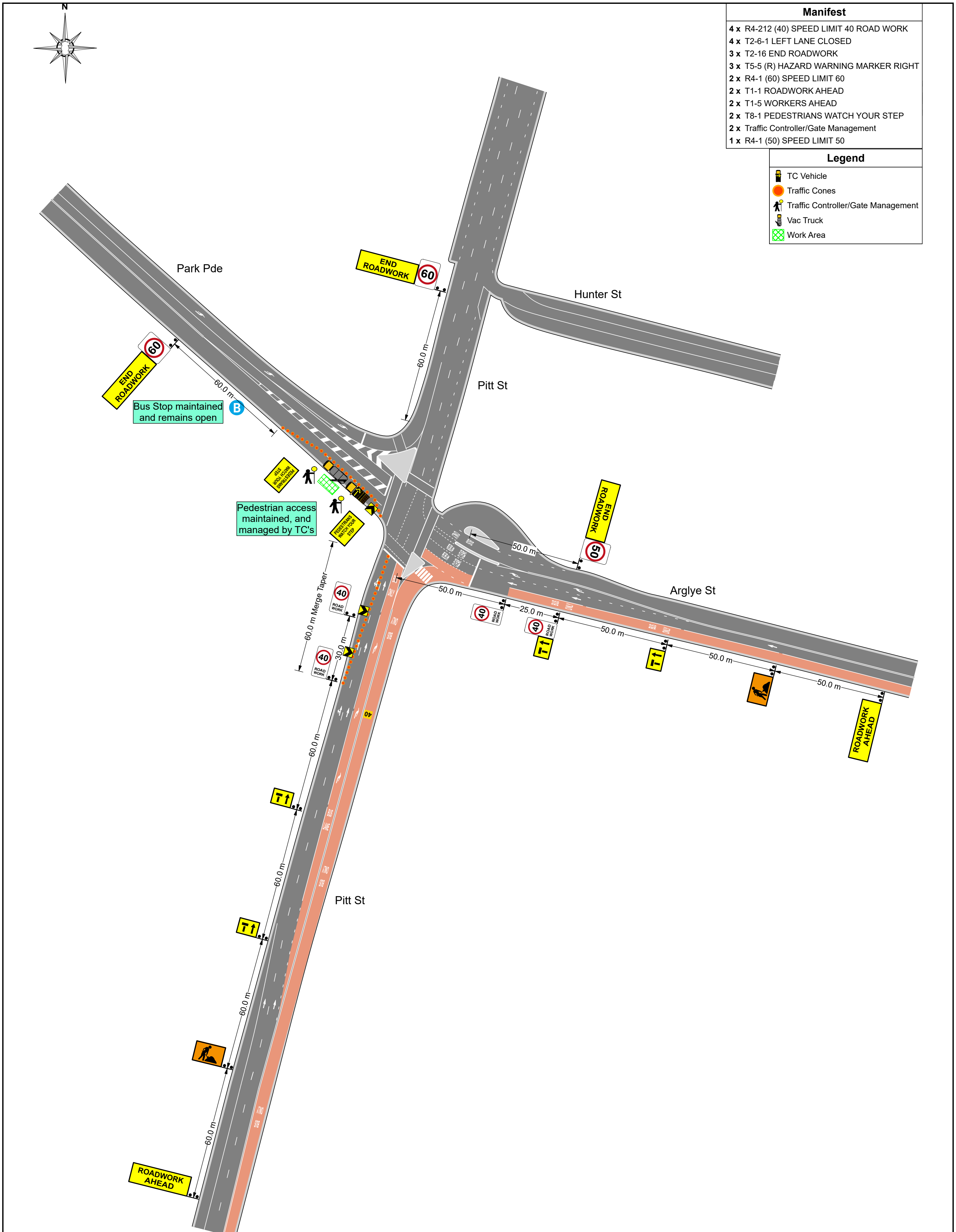

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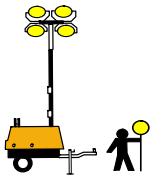

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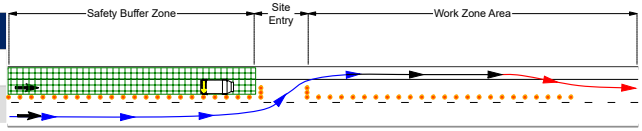

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Date: _____

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Full Name: _____

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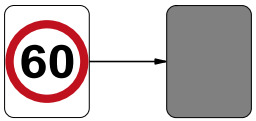

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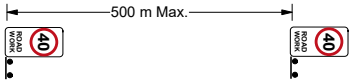

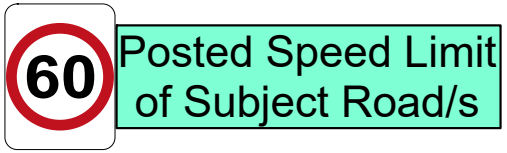

REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-PAR-PAR-0013	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Park Parade**	**Gamuda / Laing O'Rourke JV**		SIGNATURE		SIGNATURE		SIGNATURE	
01	**TGS Amended 10/05/22**	SUBURB	**Parramatta**	ROL REQUIRED	Y ☒ N ☐	DATE	**29/04/2022**	DATE		DATE	
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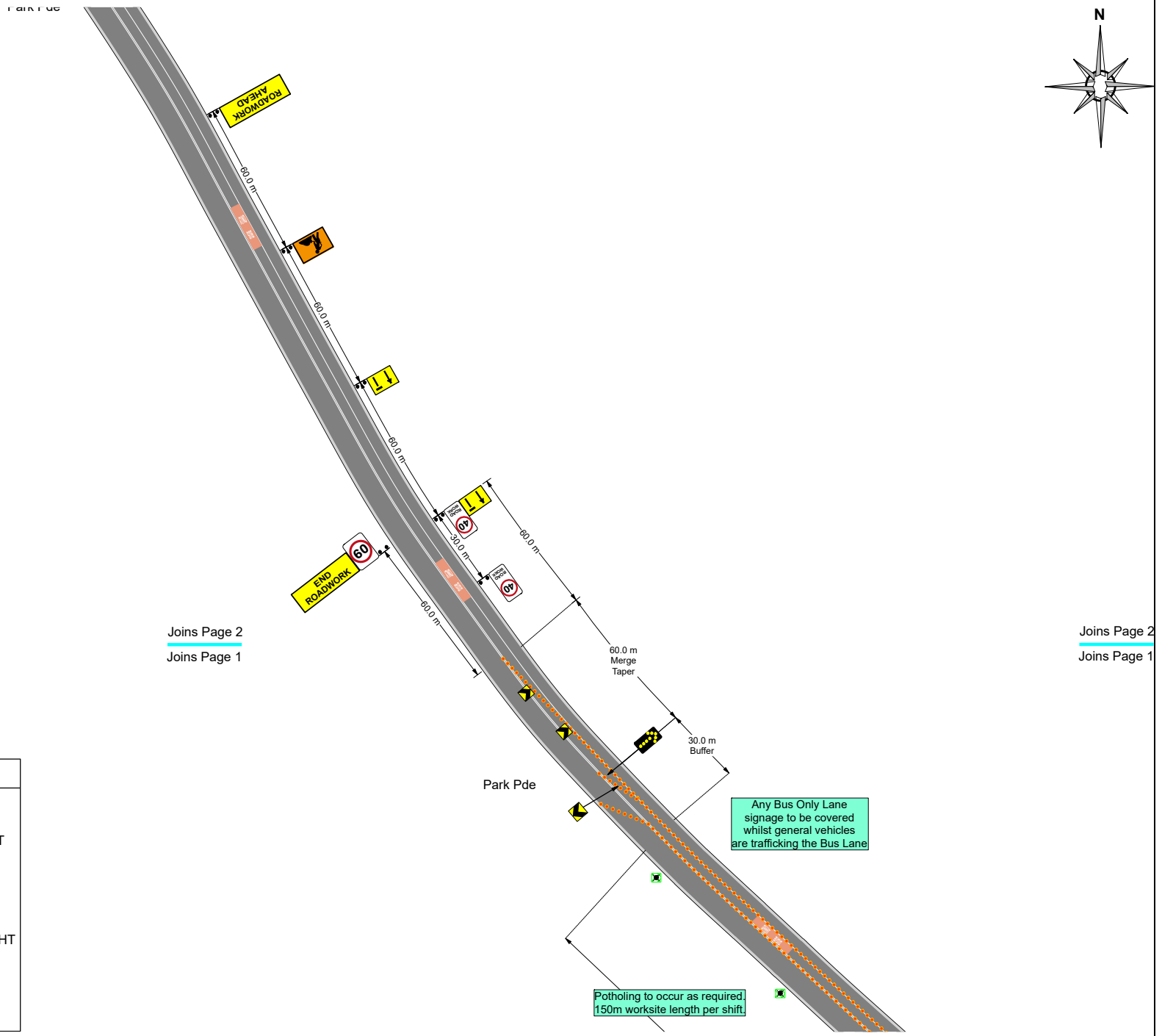

Legend

- Arrowboard (Single)
- Potholes
- TC Vehicle
- Traffic Cones
- Traffic Controller/Gate Management
- Vac Truck
- Work Area

Manifest

4 x	R4-212 (40) SPEED LIMIT 40 ROAD WORK
3 x	T1-5 WORKERS AHEAD
3 x	T5-5 (L) HAZARD WARNING MARKER LEFT
2 x	Lane Status (Ahead, Dead)
2 x	R4-1 (60) SPEED LIMIT 60
2 x	T1-1 ROADWORK AHEAD
2 x	T2-16 END ROADWORK
2 x	T5-5 (R) HAZARD WARNING MARKER RIGHT
2 x	Traffic Controller/Gate Management
1 x	Arrowboard (Single)
1 x	T1-25 ROADWORK ON SIDE ROAD
1 x	T2-24 ONE LANCE EACH WAY

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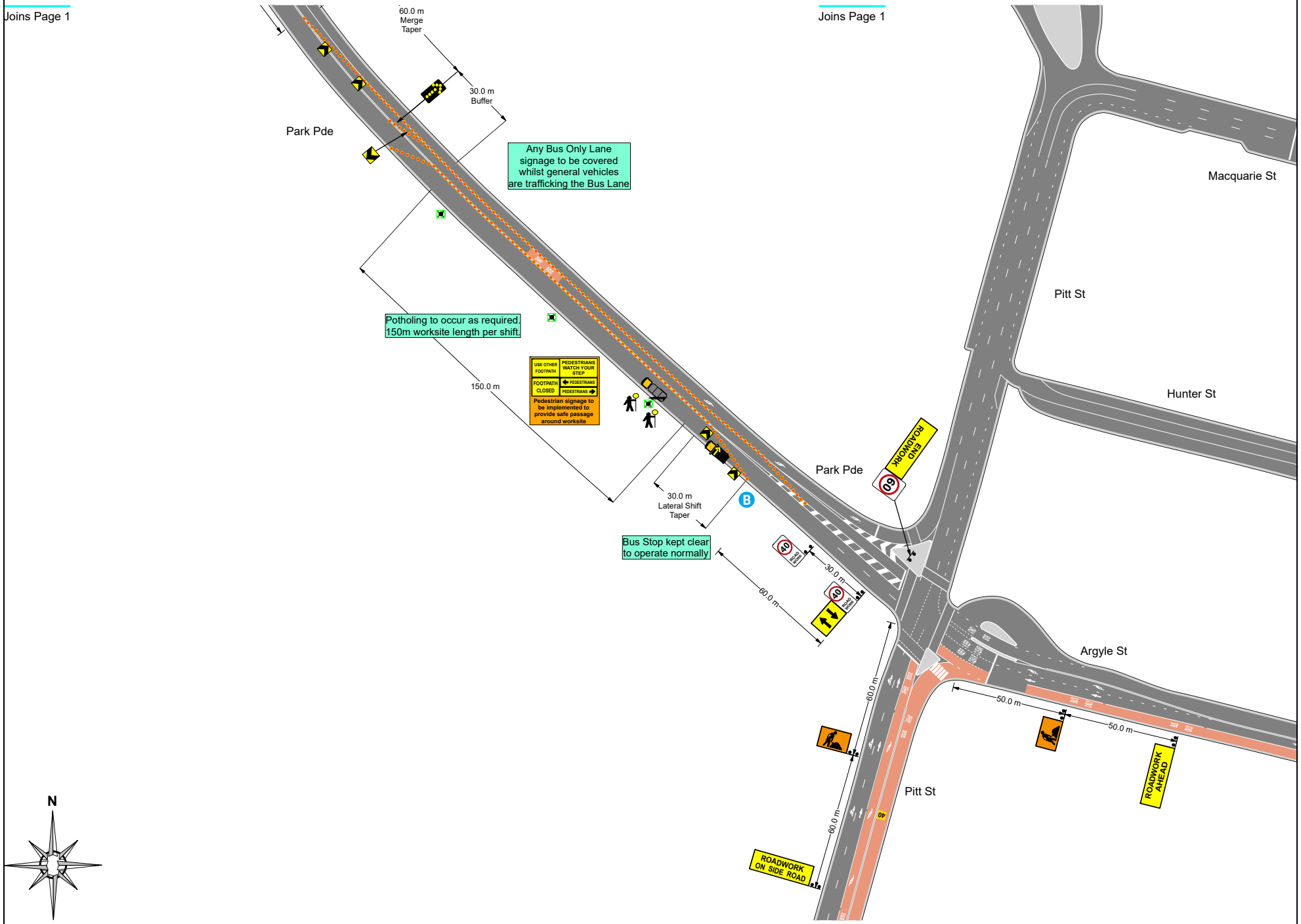

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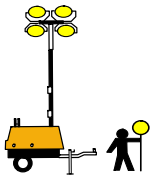
	PEDESTRIANS →

Pedestrian signage to be implemented to provide safe passage around worksite



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Dimension 'D'
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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

Dimension 'D'
As Per TfNSW TCaWS Issue 6.0 :

Speed Limit (km/H)	Dimension D (m)
50 km/H	50 m
60 km/H	60 m
70 km/H	70 m
80 km/H	80 m
90 km/H	90 m
100 km/H	100 m
110 km/H	110 m

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)		
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Tolerance	Positioning of signs, length of tapers or markings	Spacing of delineating devices
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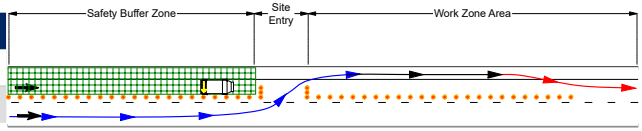

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Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

Expiry Date or Issue Date: _____

Signature: _____

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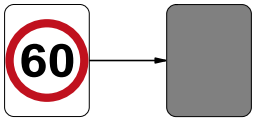
TGS Field Notes:

Existing Speed Signs to be covered with opaque material, if a Roadwork Speed Limit is enforced



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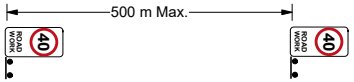

60 Posted Speed Limit of Subject Road/s

REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-PAR-PAR-0014	CLIENT:		DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	Initial TGS Drafted	ROAD NAME	Park Parade	Gamuda / Laing O'Rourke JV		SIGNATURE	Gcocker	SIGNATURE		SIGNATURE	
01	TGS Amended 10/05/22	SUBURB	Parramatta	ROL REQUIRED	Y ☒ N ☐	DATE	29/04/2022	DATE		DATE	
02		WORK LOCATION	Westbound	SZA REQUIRED	Y ☒ N ☐	CERTIFICATE #	TCT0027509	CERTIFICATE #		CERTIFICATE #	

GAMUDA Australia
LAING O'ROURKE

D&D Traffic Management
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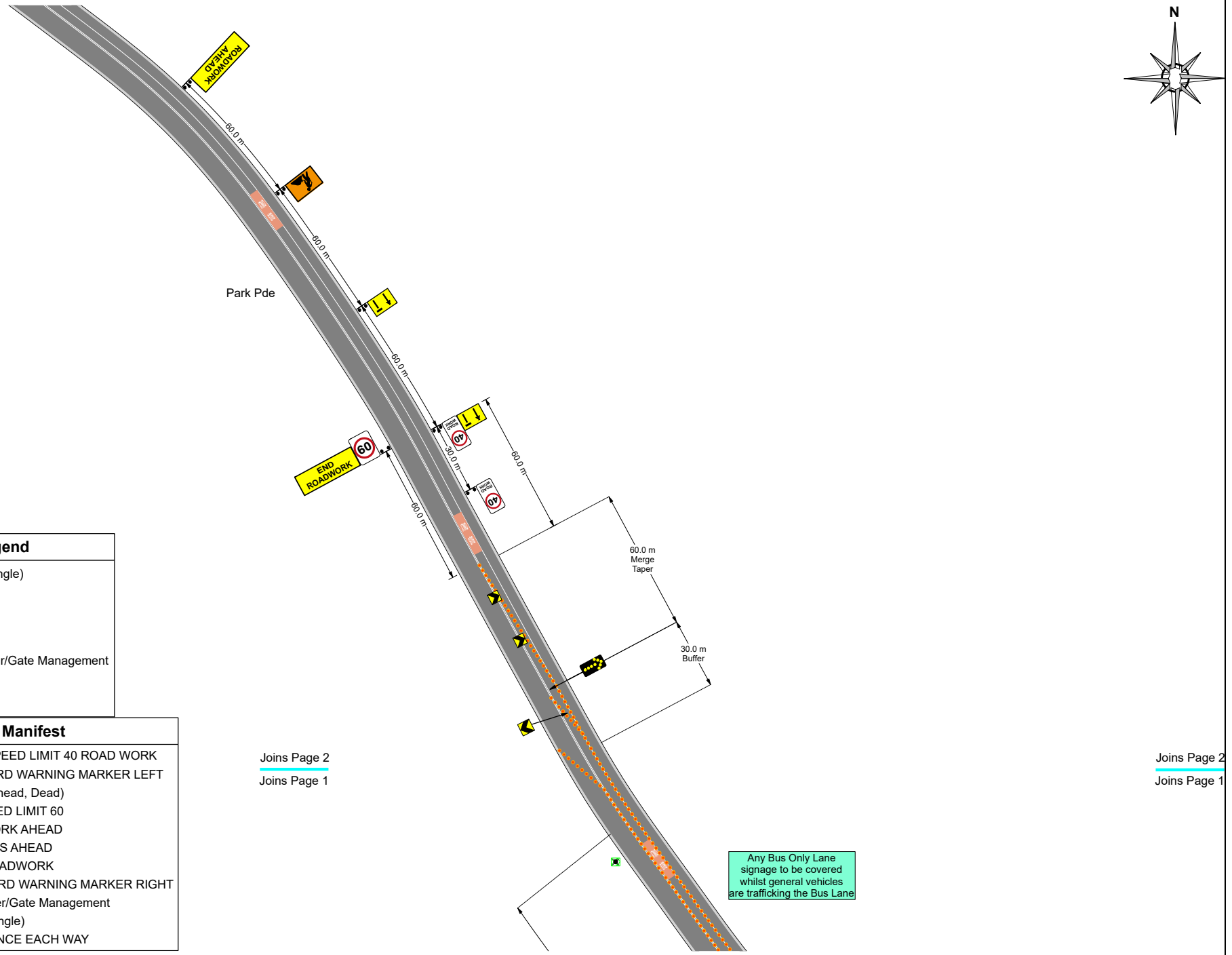

Legend

- Arrowboard (Single)
- Potholes
- TC Vehicle
- Traffic Cones
- Traffic Controller/Gate Management
- Vac Truck
- Work Area

Manifest

4 x R4-212 (40) SPEED LIMIT 40 ROAD WORK
3 x T5-5 (L) HAZARD WARNING MARKER LEFT
2 x Lane Status (Ahead, Dead)
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Joins Page 1

Joins Page 1

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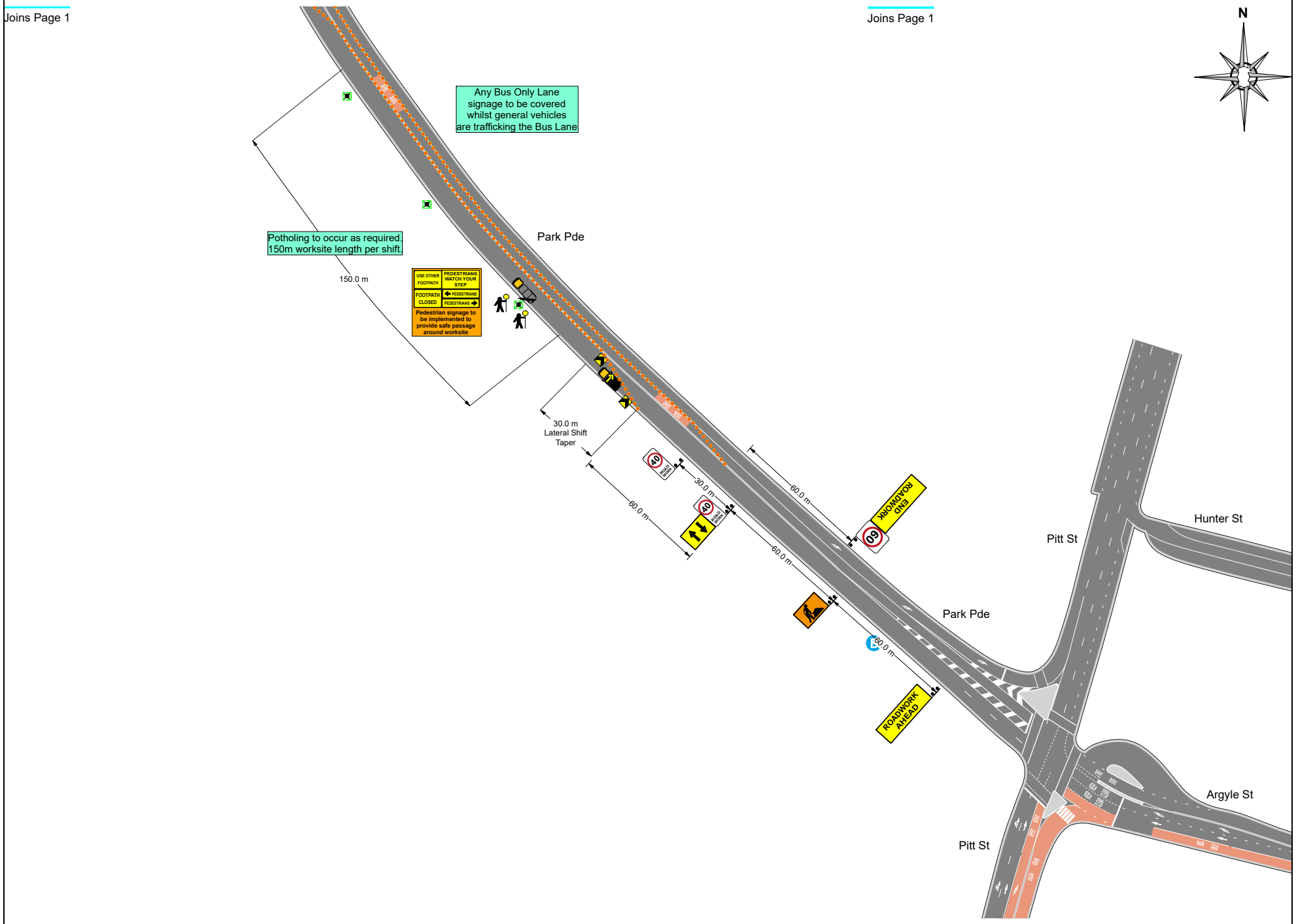

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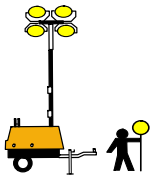

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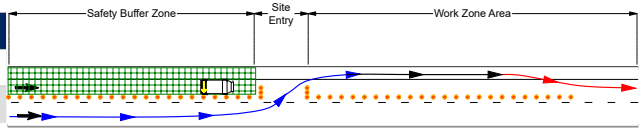

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Date: _____

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PWZTMP or TCT Number: _____

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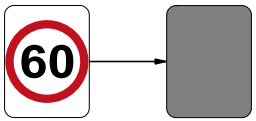

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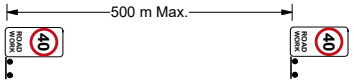

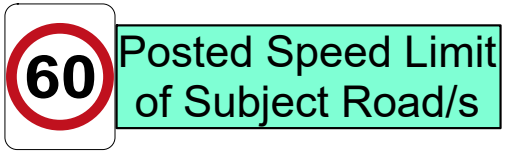

REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-PAR-PAR-0015	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Park Parade**	**Gamuda / Laing O'Rourke JV**		SIGNATURE		SIGNATURE		SIGNATURE	
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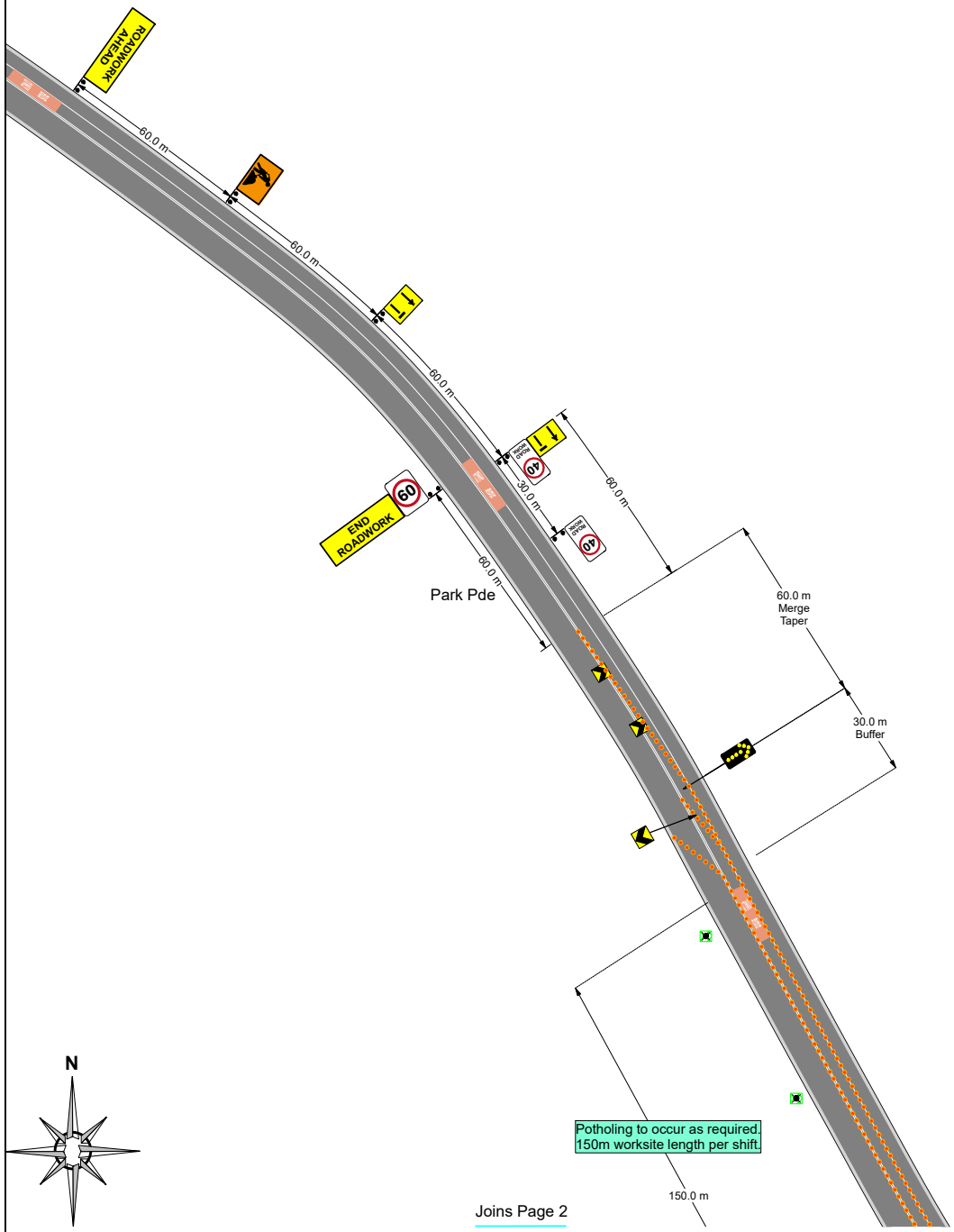

Joins Page 2

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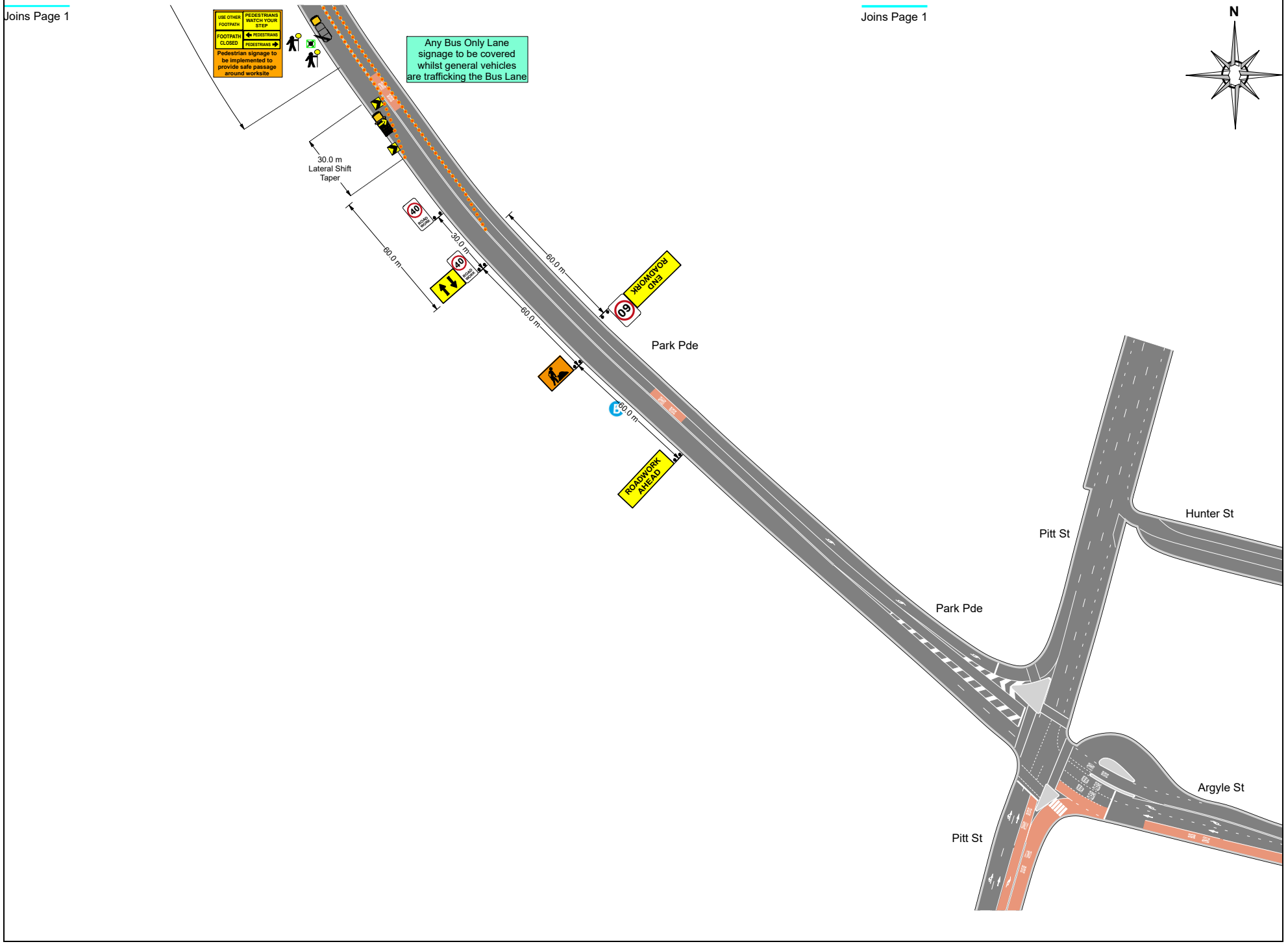
Joins Page 1



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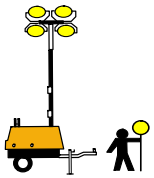

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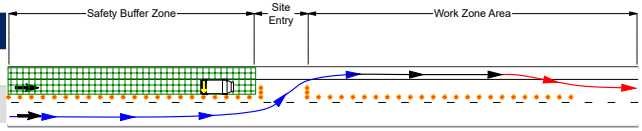

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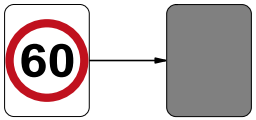

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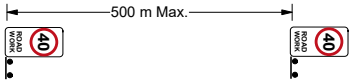

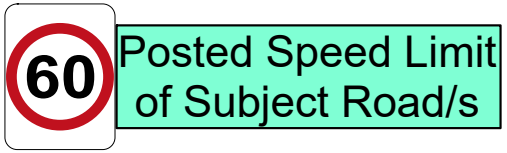

TGS Installation Date:

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 #	LOR-TGS-PAR-PAR-0016	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Park Parade**	**Gamuda / Laing O'Rourke JV**		SIGNATURE	Gcocker	SIGNATURE		SIGNATURE	
01	**TGS Amended 10/05/22**	SUBURB	**Parramatta**	ROL REQUIRED	Y ☒ N ☐	DATE	**29/04/2022**	DATE		DATE	
02		WORK LOCATION	**Westbound**	SZA REQUIRED	Y ☒ N ☐	CERTIFICATE #	**TCT0027509**	CERTIFICATE #		CERTIFICATE #	

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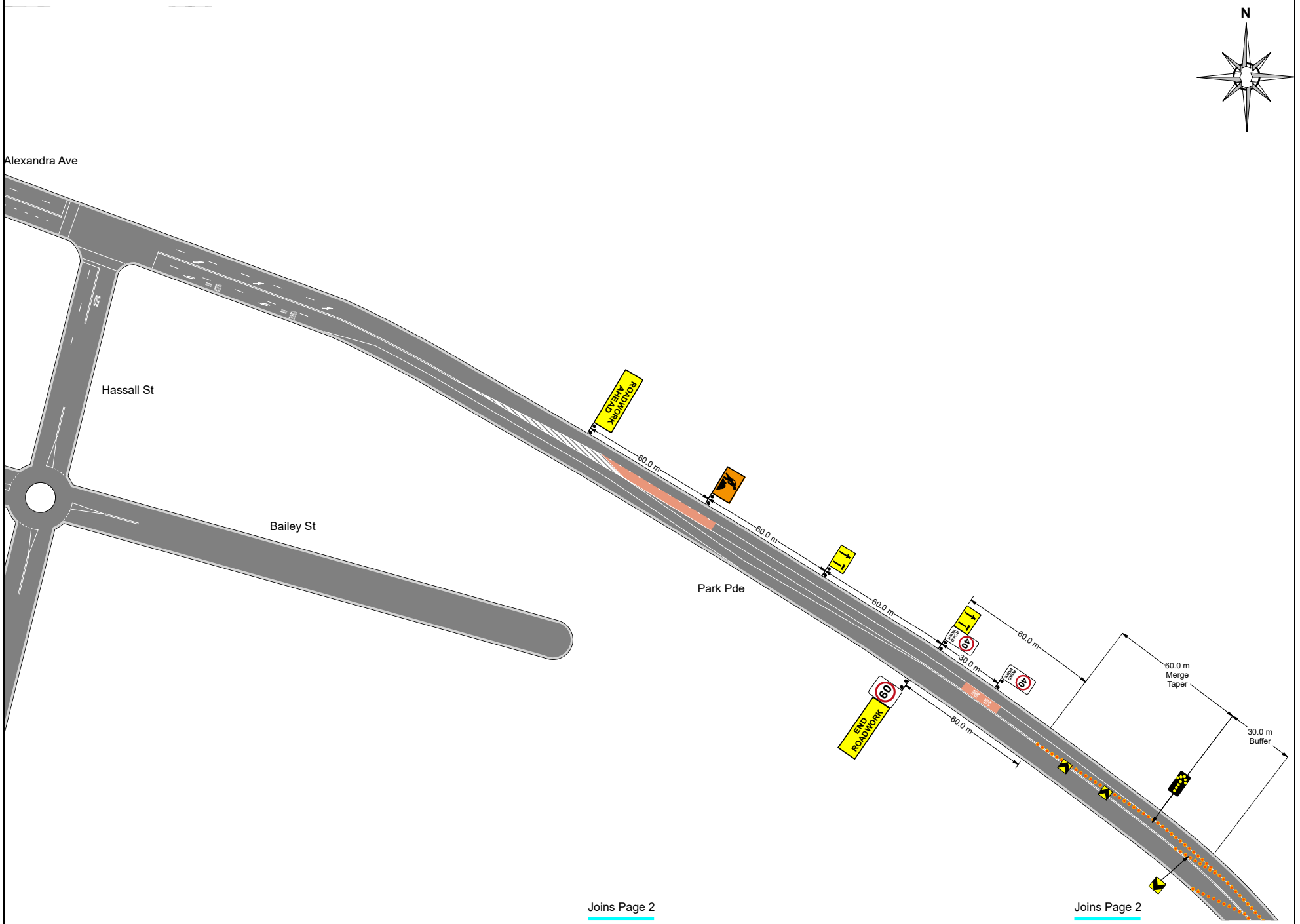

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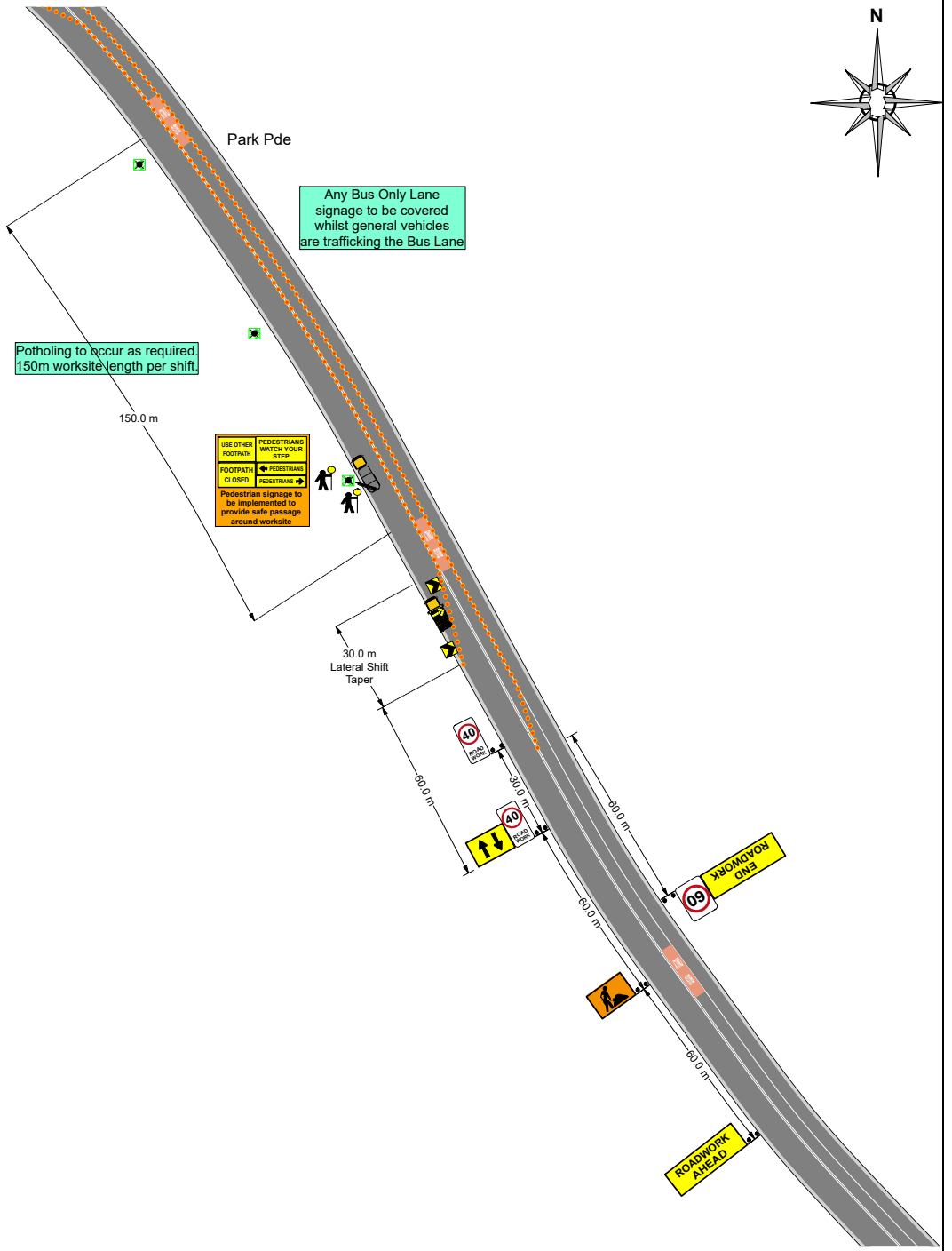
Joins Page 2

Joins Page 1

Joins Page 2

Joins Page 1



Legend

- Arrowboard (Single)
- Potholes
- TC Vehicle
- Traffic Cones
- Traffic Controller/Gate Management
- Vac Truck
- Work Area

Manifest

4 x R4-212 (40) SPEED LIMIT 40 ROAD WORK
3 x T5-5 (L) HAZARD WARNING MARKER LEFT
2 x Lane Status (Ahead, Dead)
2 x R4-1 (60) SPEED LIMIT 60
2 x T1-1 ROADWORK AHEAD
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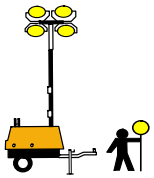
2 x Traffic Controller/Gate Management
1 x Arrowboard (Single)
1 x T2-24 ONE LANCE EACH WAY

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

Pedestrian signage to be implemented to provide safe passage around worksite



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Dimension 'D'
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Speed Limit (km/H)	Dimension D (m)
< 55 km/H	15 m
60 km/H	45 m
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Dimension 'D'
As Per TfNSW TCaWS Issue 6.0 :

Speed Limit (km/H)	Dimension D (m)
50 km/H	50 m
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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
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96 to 105	N/A	100	160
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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
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Edge Clearances for Cones/Bollards

Edge of traffic lane to:	Edge clearances
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- 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.

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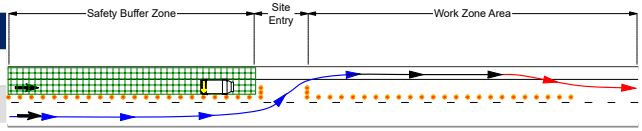
Site Entry and Exit Process



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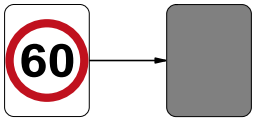
Existing Speed Signs to be covered with opaque material, if a Roadwork Speed Limit is enforced



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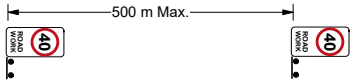

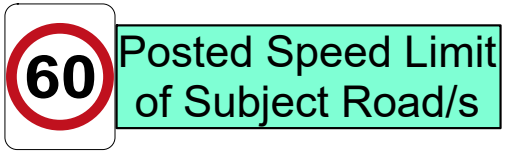

TGS Installation Date:

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 #	LOR-TGS-PAR-PAR-0017	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	Initial TGS Drafted	ROAD NAME	Park Parade	Gamuda / Laing O'Rourke JV		SIGNATURE	Gcocker	SIGNATURE		SIGNATURE	
01		SUBURB	Parramatta	ROL REQUIRED	Y ☒ N ☐	DATE	29/04/2022	DATE		DATE	
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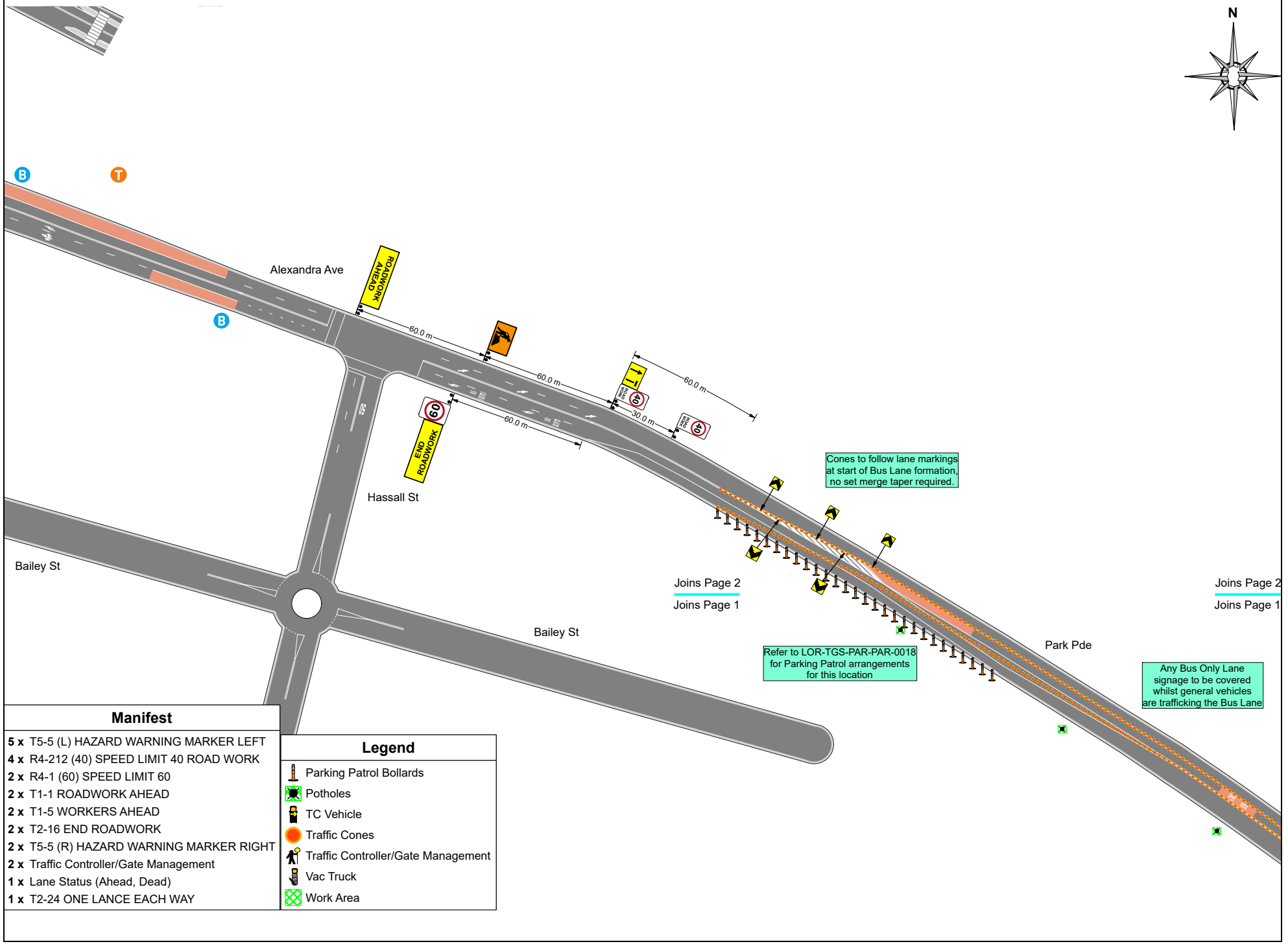

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- Parking Patrol Bollards
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Joins Page 1

Refer to LOR-TGS-PAR-PAR-0018 for Parking Patrol arrangements for this location

Park Pde

Any Bus Only Lane signage to be covered whilst general vehicles are trafficking the Bus Lane

Potholing to occur as required. 150m worksite length per shift.

USE OTHER FOOTPATH | PEDESTRIANS WATCH YOUR STEP

FOOTPATH CLOSED | PEDESTRIANS

Pedestrian signage to be implemented to provide safe passage around worksite

30.0 m Lateral Shift Taper

60.0 m

40 ROAD WORKS

30.0 m

40 ROAD WORKS

60.0 m

60.0 m

60 END ROADWORK

Park Pde

60.0 m

ROADWORK AHEAD

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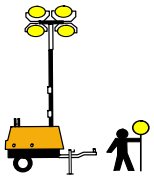

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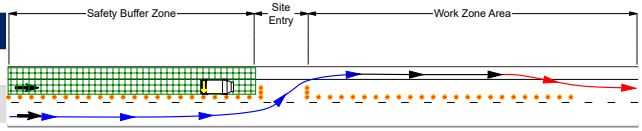

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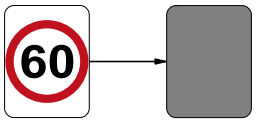

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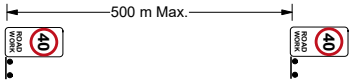

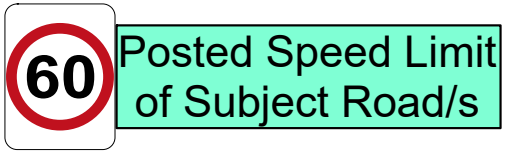

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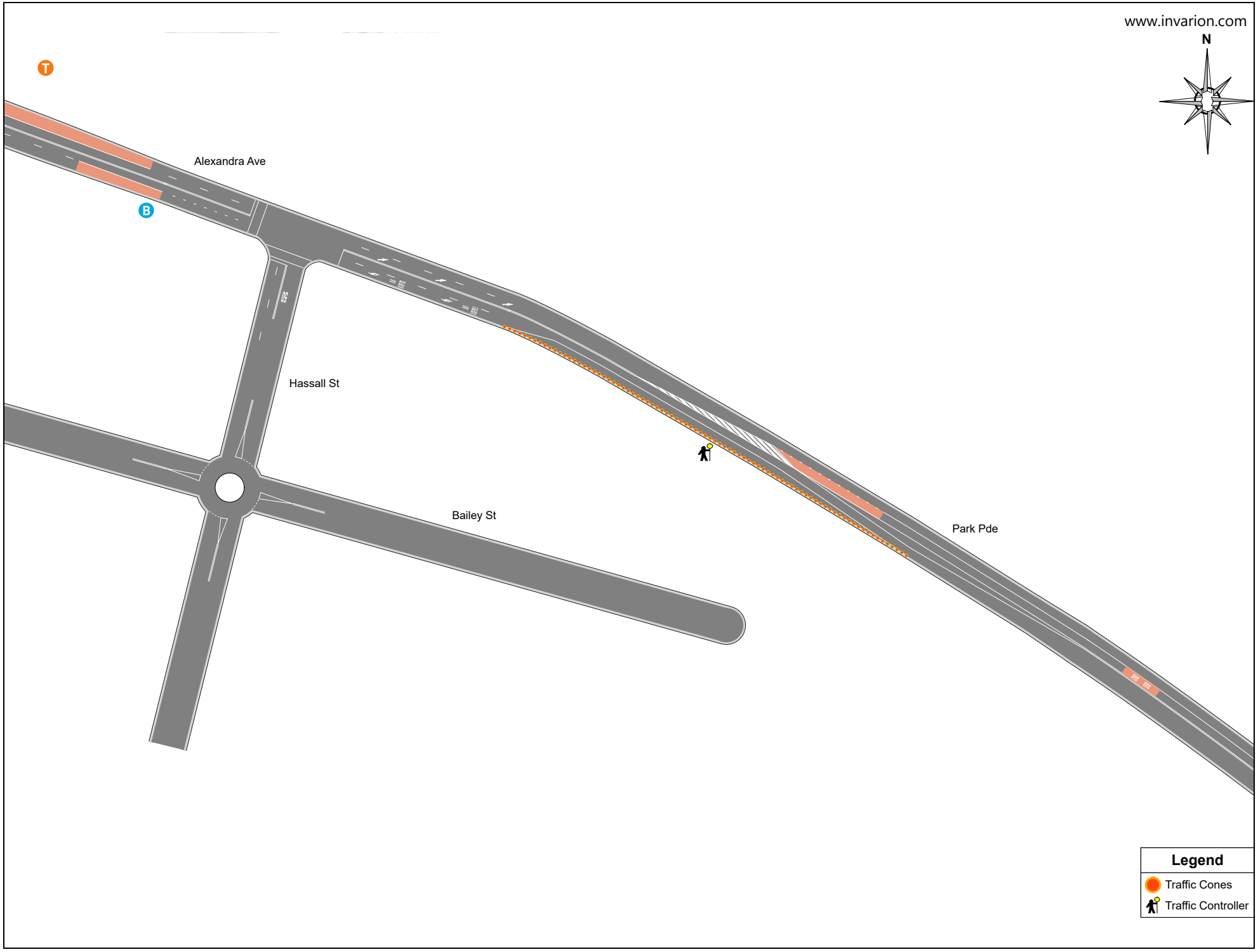
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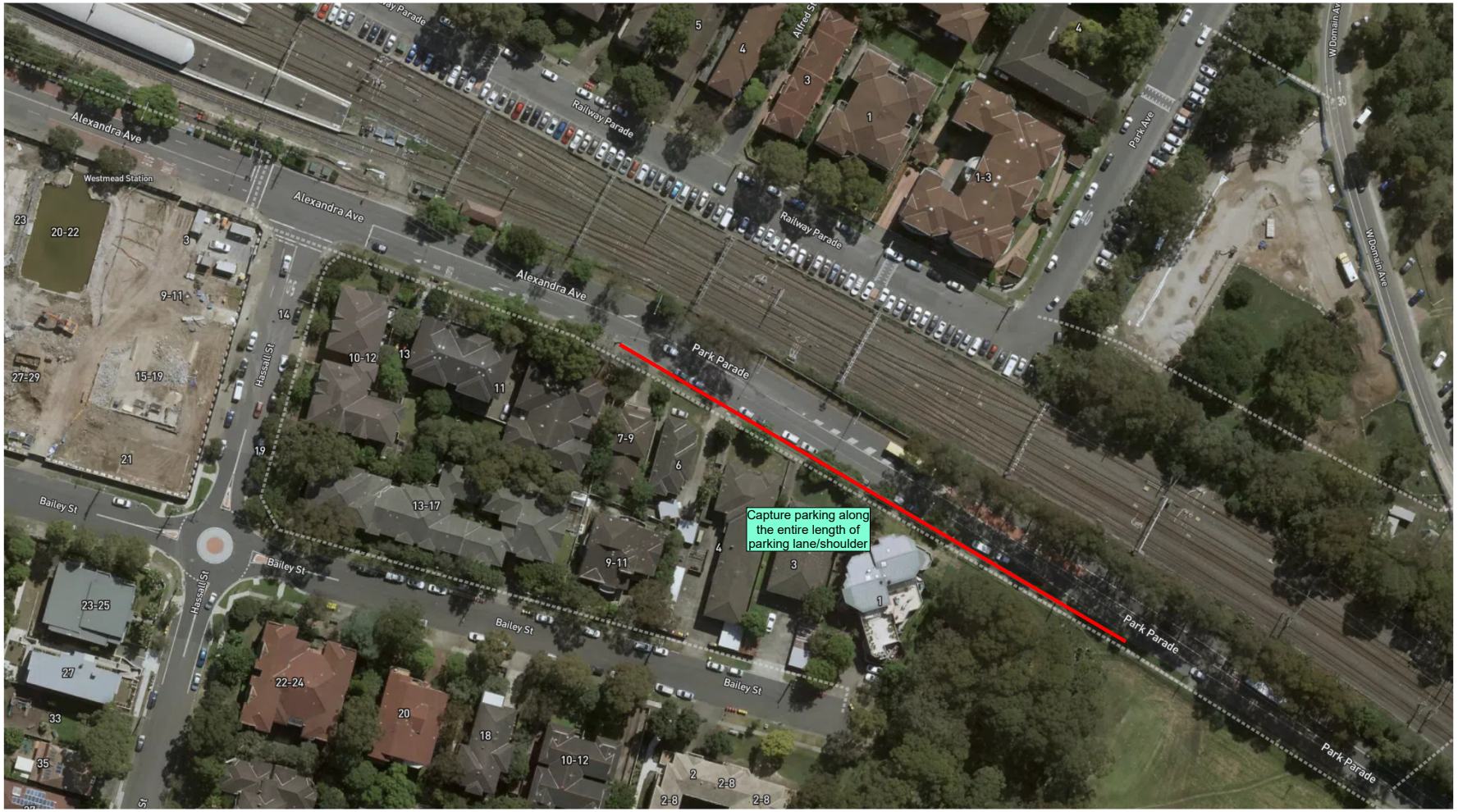
N
Alexandra Ave
Hassall St
Bailey St
Park Pde
Legend
Traffic Cones
Traffic Controller


N
Alexandra Ave
Railway Parade
Park Ave
W Domain Ave
Westmead Station
Hassall St
Park Parade
Bailey St
Capture parking along the entire length of parking lane/shoulder

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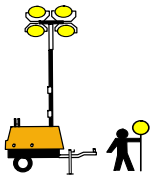

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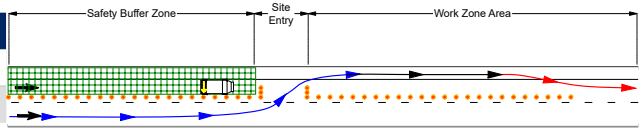

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Date: _____

TGS Modified By:

Full Name: _____

PWZTMP or TCT Number: _____

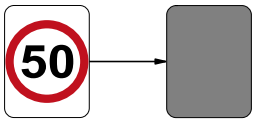
Expiry Date or Issue Date: _____

Signature: _____

Date: _____

TGS Field Notes:

Existing Speed Signs to be covered with opaque material, if a Roadwork Speed Limit is enforced



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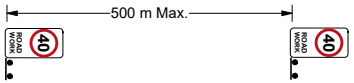

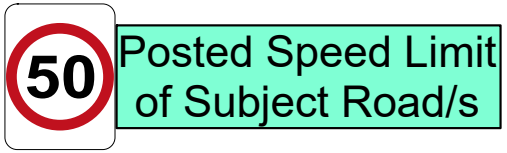

REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-WMD-HAS-0008	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Hassall Street & Alexandra Avenue**	**Gamuda / Laing O'Rourke JV**		SIGNATURE	Gcocker	SIGNATURE		SIGNATURE	
01	**TGS Amended 10/05/22**	SUBURB	**Westmead**	ROL REQUIRED	Y ☒ N ☐	DATE	**27/04/2022**	DATE		DATE	
02		WORK LOCATION	**North and Westbound**	SZA REQUIRED	Y ☒ N ☐	CERTIFICATE #	**TCT0027509**	CERTIFICATE #		CERTIFICATE #	

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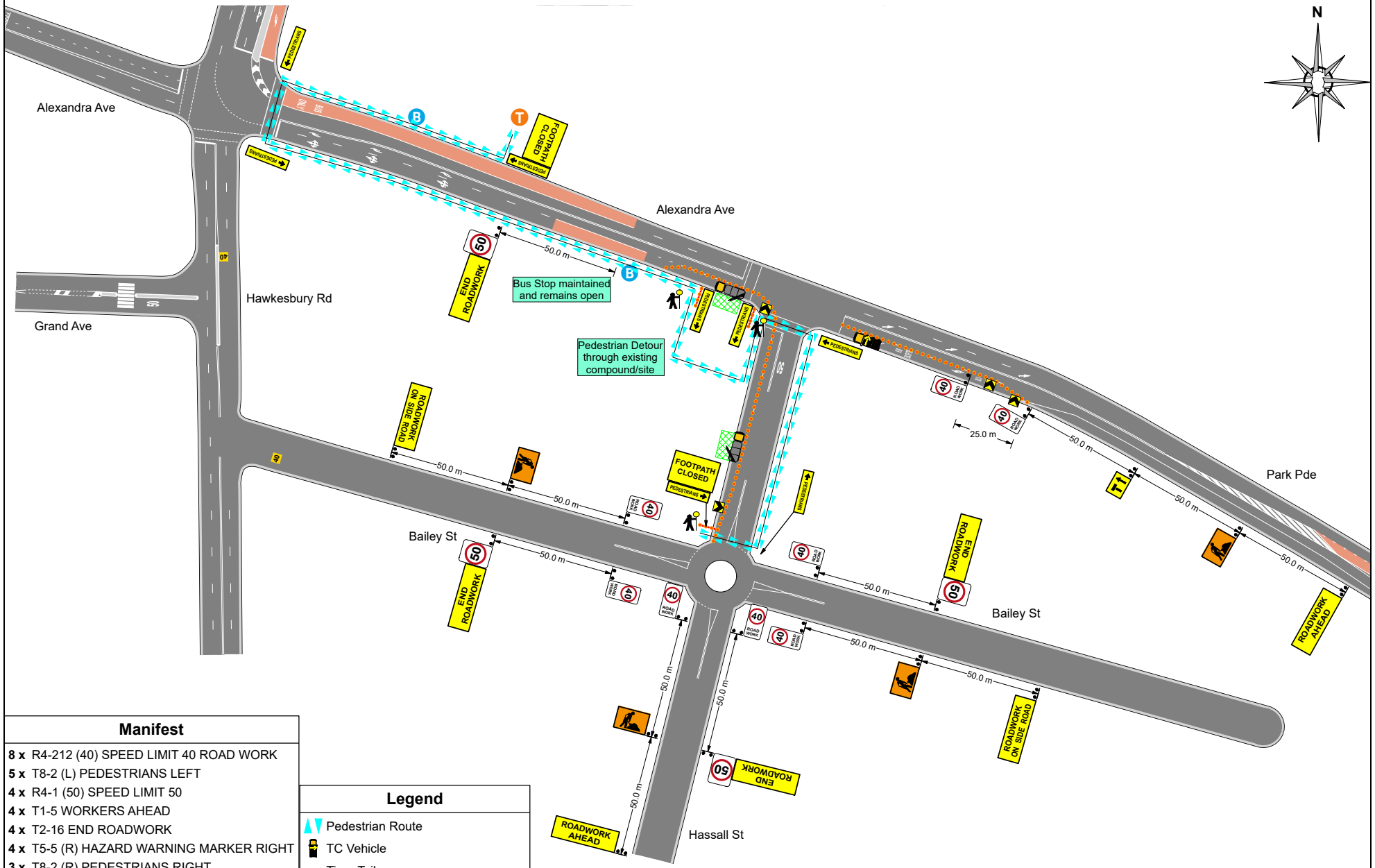


Manifest

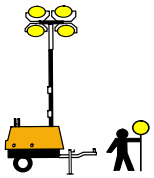
- **8 x** R4-212 (40) SPEED LIMIT 40 ROAD WORK
- **5 x** T8-2 (L) PEDESTRIANS LEFT
- **4 x** R4-1 (50) SPEED LIMIT 50
- **4 x** T1-5 WORKERS AHEAD
- **4 x** T2-16 END ROADWORK
- **4 x** T5-5 (R) HAZARD WARNING MARKER RIGHT
- **3 x** T8-2 (R) PEDESTRIANS RIGHT
- **3 x** Traffic Controller/Gate Management
- **2 x** T1-1 ROADWORK AHEAD
- **2 x** T1-25 ROADWORK ON SIDE ROAD
- **2 x** T8-4 FOOTPATH CLOSED
- **1 x** T2-6-1 LEFT LANE CLOSED

Legend

- Pedestrian Route
- TC Vehicle
- Tiger Tails
- Traffic Cones
- Traffic Controller/Gate Management
- Vac Truck
- Work Area

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

Pedestrian signage to be implemented to provide safe passage around worksite



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Dimension 'D'
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Speed Limit (km/H)	Dimension D (m)
< 55 km/H	15 m
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As Per TfNSW TCaWS Issue 6.0 :

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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
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56 to 65	30	30	60
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Tolerance	Positioning of signs, length of tapers or markings	Spacing of delineating devices
Minimum	10% less than the distances or lengths given	Nil
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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

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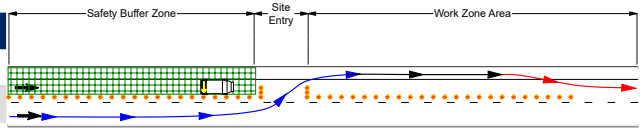

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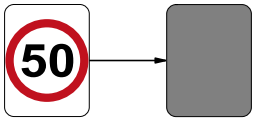

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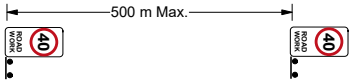

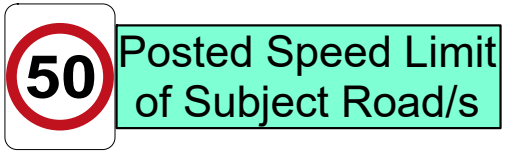

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PWZTMP or TCT Number: _____

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REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-WMD-HAS-0009	CLIENT:	GAMUDA Australia / LAING O'ROURKE	DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
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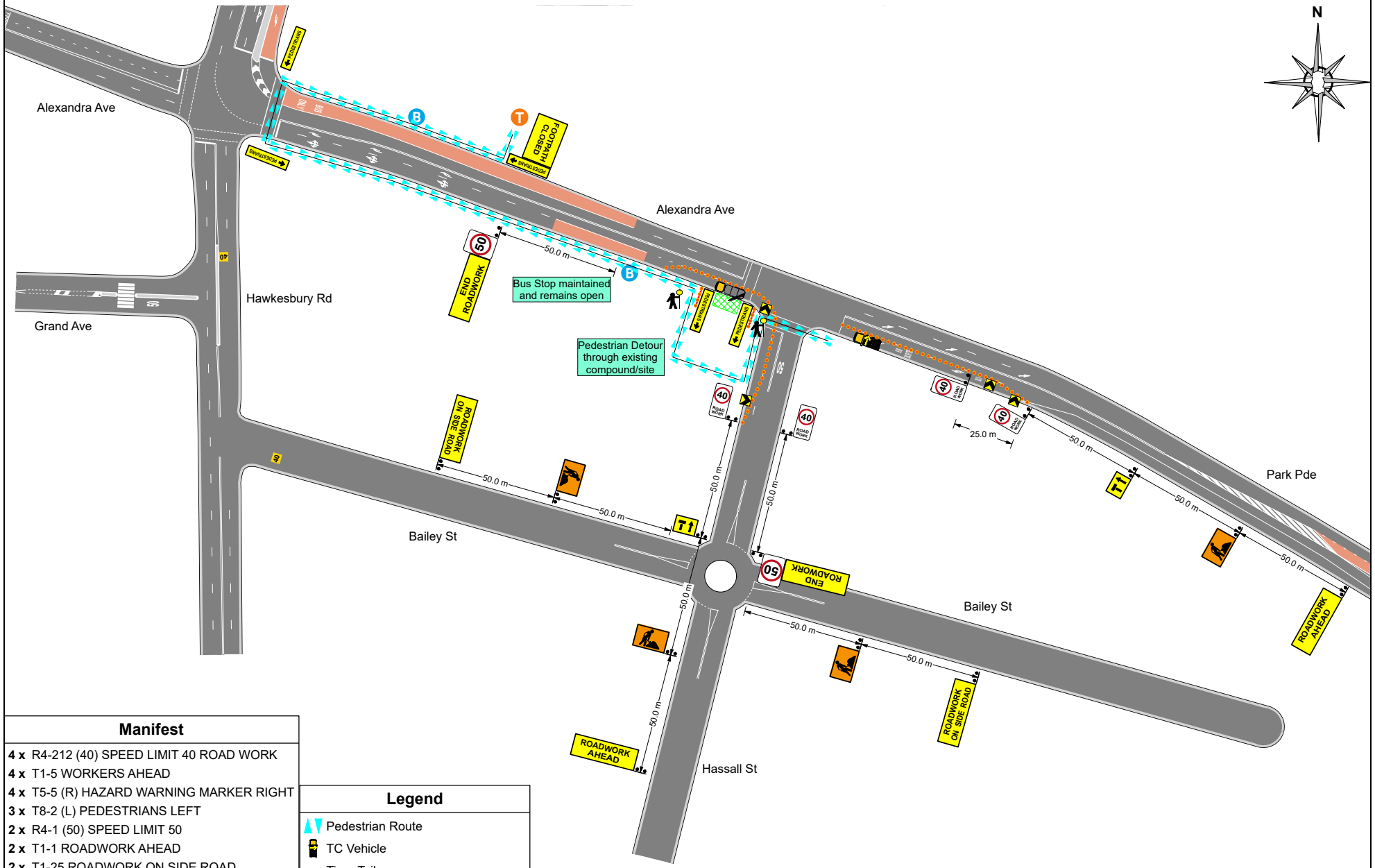

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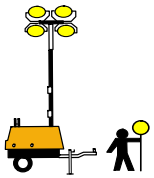

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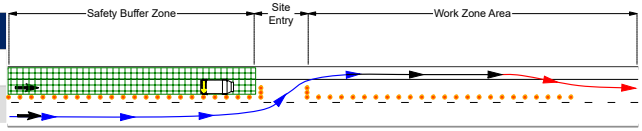

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Date: _____

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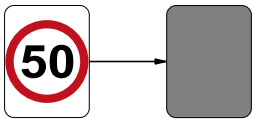

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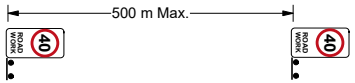

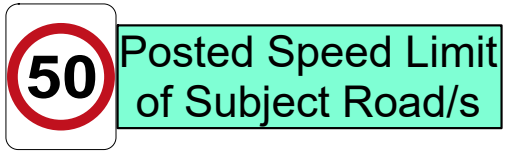

REV	REVISION DESCRIPTION	TGS PLAN #	LOR-TGS-WMD-HAS-0010	CLIENT:		DESIGNED BY	Gregory Cocker	APPROVED BY		IMPLEMENTED BY	
00	**Initial TGS Drafted**	ROAD NAME	**Hassall Street**	**Gamuda / Laing O'Rourke JV**	GAMUDA Australia / LAING O'ROURKE	SIGNATURE	~~Gcocker~~	SIGNATURE		SIGNATURE	
01	**TGS Amended 04/05/22**	SUBURB	**Westmead**	ROL REQUIRED	Y ☐ N ☒	DATE	**27/04/2022**	DATE		DATE	
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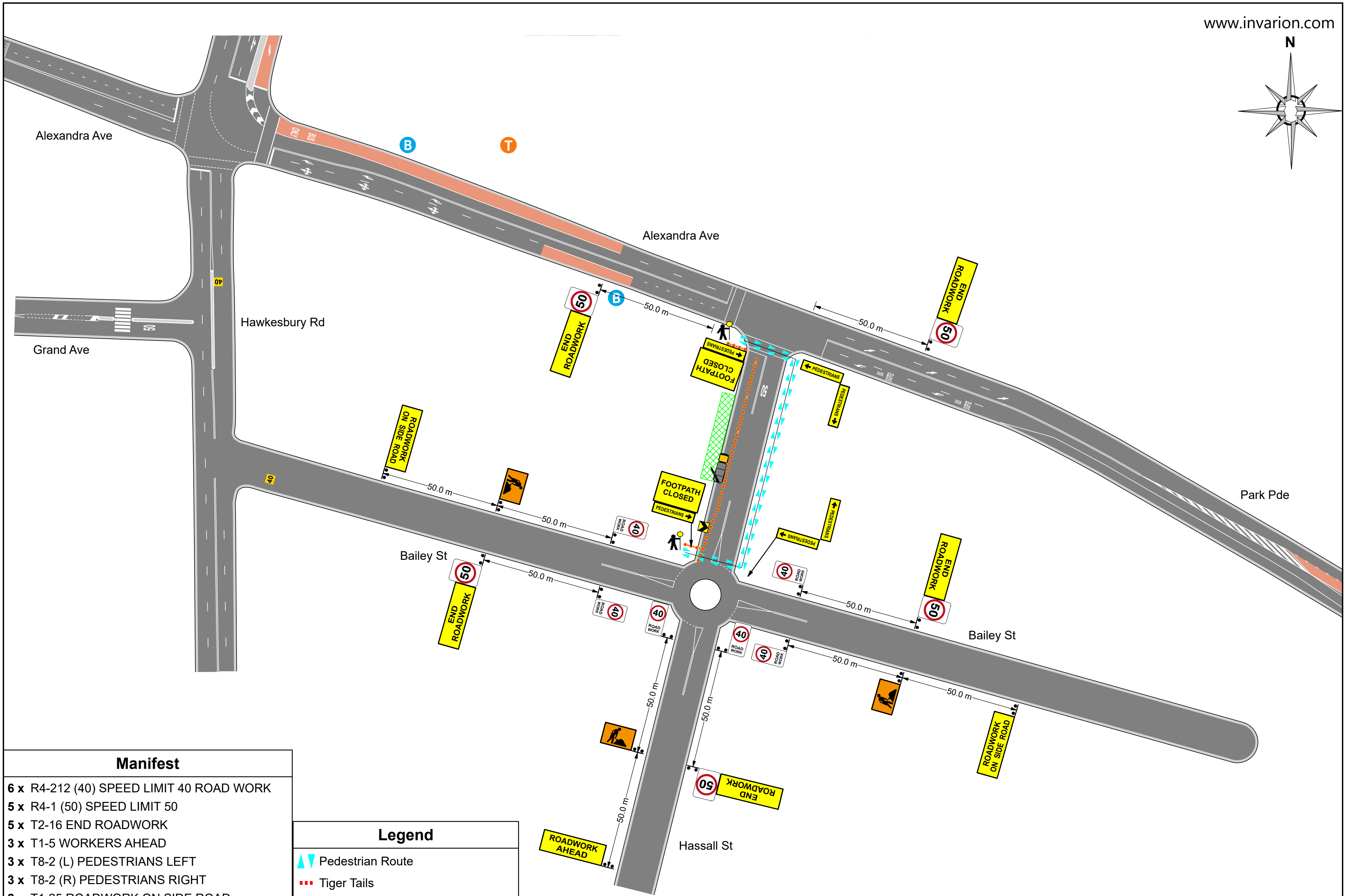

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Legend
Pedestrian Route
Tiger Tails
Traffic Cones
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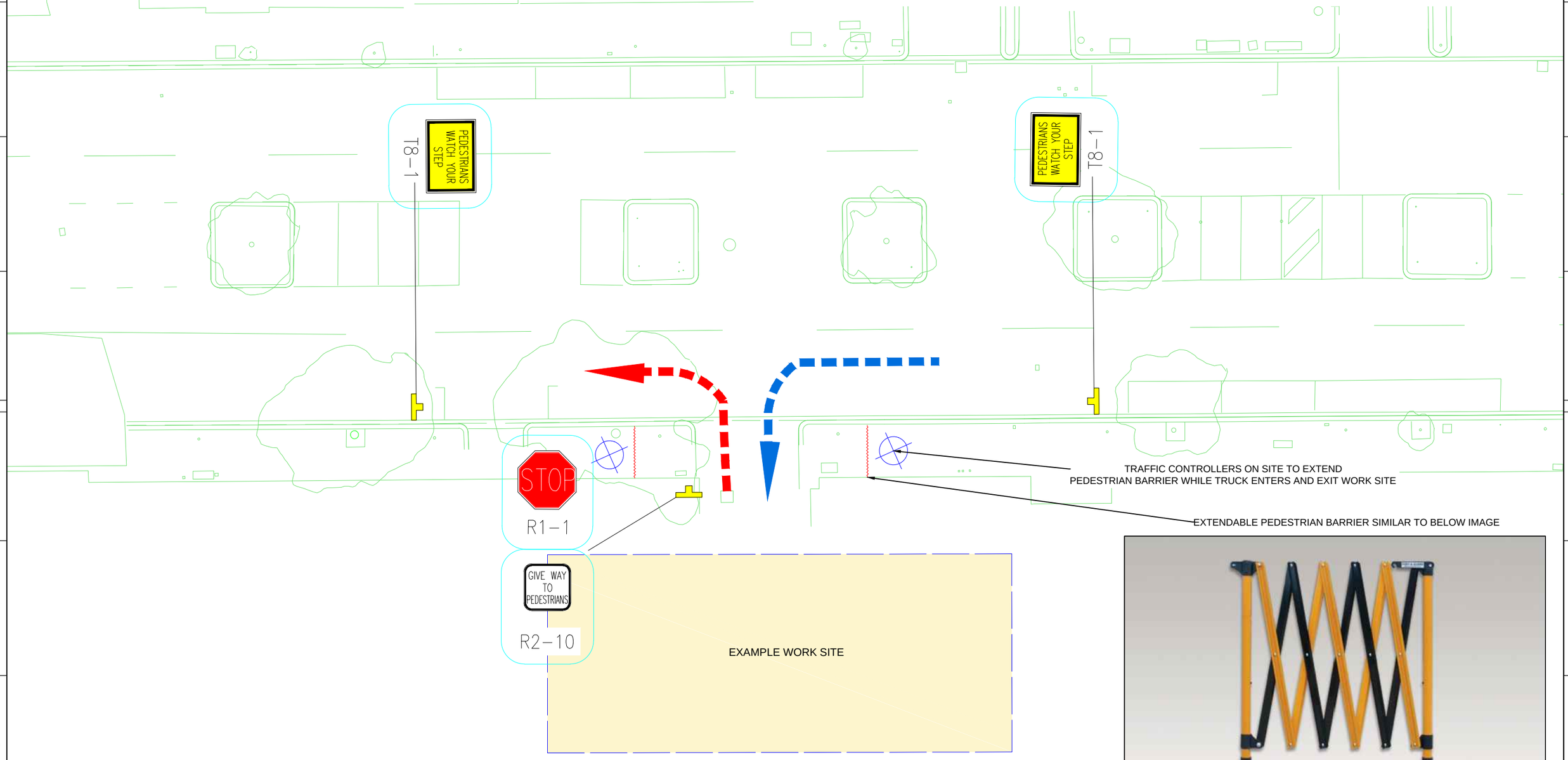
Vac Truck
Work Area

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

GAMUDA Australia | LAING O'ROURKE

CLIENT

NSW GOVERNMENT | sydney METRO

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

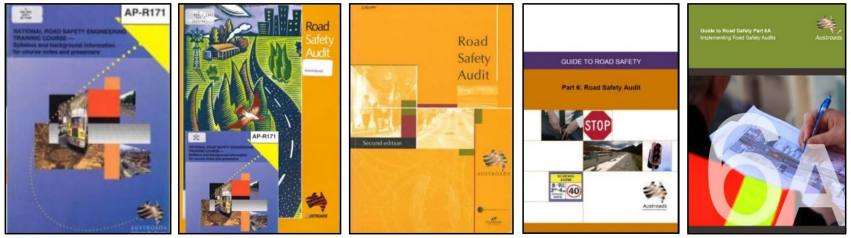
Road Safety Audit Report

Sydney Metro West – Western Tunnelling Package

Practical
Independent
Specialised

Road/Area	Alexander Avenue, Park Parade and Hassall Street		**Road Safety Audits Reference**	RSA-12542
Traffic Stage/Phase	Westmead Site Establishment		**Report Date**	11 May 2022
Audit Stage	*Desktop* Traffic Guidance Scheme		**Lead Auditor** **Second Auditor**	Raj Muthusamy (Level III RMS) Mike Game
Client	**Sue Lewis Consulting**		**TMP / Drawings**	Westmead Site Establishment CTMP, Doc. No.:SMWSTWTP-GLO-WMD-TF-PLN-000001, Rev Date 4 May 2022; D&D Traffic Management drawing numbers: LOR-TGS-PAR-PAR-0012 Rev 01, LOR-TGS-PAR-PAR-0011, Rev 01, LOR-TGS-PAR-PAR-OO13, Rev 00 (2 sheets), LOR-TGS-PAR-PAR-0014, Rev 00 (2 sheets), LOR-TGS-PAR-PAR-0015, Rev 00 (2 sheets), LOR-TGS-PAR-PAR-0016 Rev 00 (2 sheets), LOR-TGS-PAR-PAR-0017, Rev 00 (2 sheets), LOR-TGS-PAR-PAR-0018, Rev 00 (2 sheets), LOR-TGS-WMD-HAS-0009, Rev 00, LOR-TGS-WMD-HAS-0010, Rev 01. TGS-PED-ALL-1101 Rev B-00.
Client Contact	Sue Lewis		**Report Provider**	Road Safety Audits

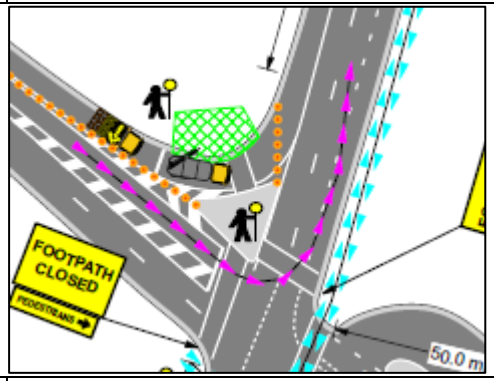
Desktop TGS General Scope: The scope of the audit is to assess the plans on their merits and in the context of the road environment, with standards and guidelines as a reference.

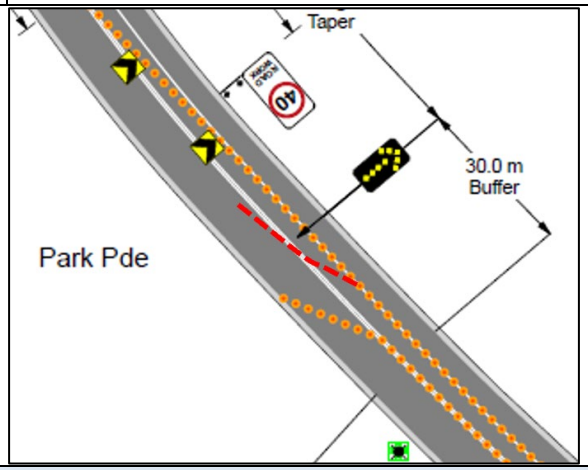


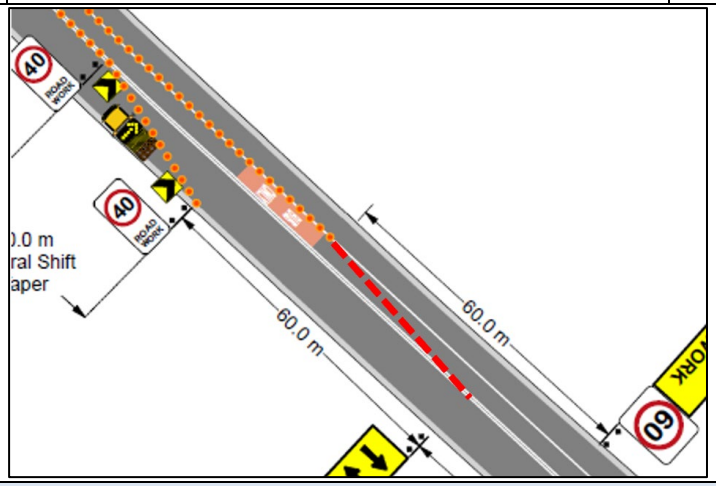
Raj Muthusamy
Senior Road Safety Auditor
CPEng, RPEQ, NER,
BE (Civil)

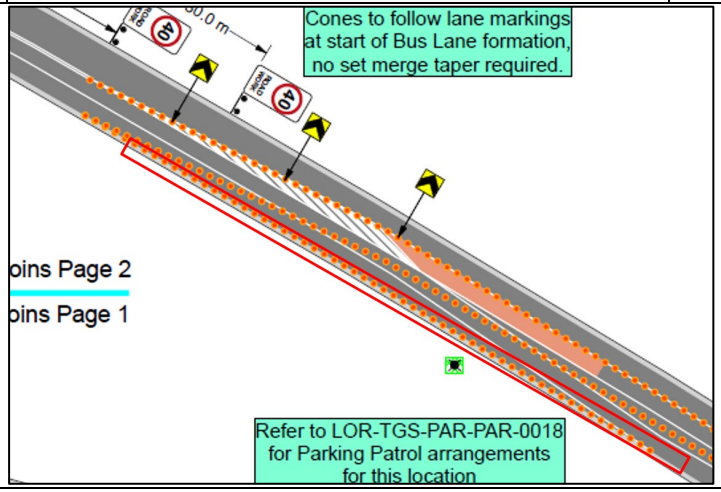
Mike Game
Road Safety Auditor
BE (Chem. Eng.), MBA

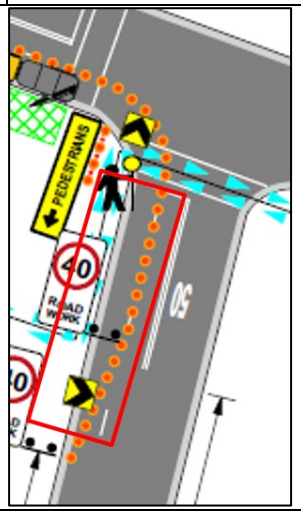
Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder:	
			Response[x]	**Status**[y]
General – applicable to all TGS's				
1.	**Roadworks Speed Limit** The proposed 40km/h roadworks speed limit is shown to occur at the start of the merge taper. Typically, the lower speed limit should be introduced in advance of the work zone.	Review and install the roadwork speed limit signs in advance of the work zone instead of at the start of the work zone. Risk: Low	The TCAWS manual section 4.5.5 notes that speed zones of less than 45km/hr must be restricted to an area immediately adjacent to the road workers	Closed
2.	**Conflicting Signs** It may be possible that Bus Only regulatory signs may be present on site, where general motorists are required to share the bus lane.	Ensure that all signage conflicting with the changed conditions be covered or removed. Risk: N/A	TGS amended	Closed
LOR-TGS-PAR-PAR-0012 Rev 01				
3.	**Traffic Controllers** Traffic controllers are shown but it is not obvious as to what their purpose is. It is likely that their role would be to assist pedestrian navigate past the work area.	Confirm the need and role of the traffic controller. Risk: N/A	TC are on pedestrian management duties	Closed

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
4.	**Turning Movement** It is not obvious if an articulated vehicle would be able to make the left turn from Park Parade into Pitt Street, given the closure of the left turn slip lane.	Review and confirm. Risk: Low	Note added to TGS that in the event an articulated vehicle approaches the worksite, they will be directed into the closed lane for the manoeuvre	Closed
				
5.	**Arrow Board** The closure of the left turn slip lane does not require drivers to merge or shift lanes. Therefore, the proposed arrow board directing drivers to merge right should not be installed as it could cause unnecessary confusion for drivers.	Omit arrow board. Risk: Low	TGS amended	Closed
LOR-TGS-PAR-PAR-0011, Rev 01				
6.	Refer to Audit point 1.	Refer to Audit point 1.	Refer to audit point 1 response	Closed
LOR-TGS-PAR-PAR-OO13, Rev 00				
7.	Refer to Audit point 1.	Refer to Audit point 1.	Refer to audit point 1 response	Closed

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
8.	**Lane Guidance** The trailer mounted arrow board is exposed to westbound traffic due to a lack of lane guidance past the trailer.	Install a row of cones past the trailer to guide westbound traffic past it. Risk: Low to Medium	TGS amended	Closed
				
LOR-TGS-PAR-PAR-0014, Rev 00				
9.	Refer to Audit point 1.	Refer to Audit point 1.	Refer to item 1 response	Closed
10.	Refer to Audit point 8.	Refer to Audit point 8.	TGS amended	Closed

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
11.	**Lane Guidance** There is ambiguity in relation to the permitted direction of traffic flow for westbound drivers at the start of the lane shift.	Extend the row of cones up to the centreline (red dashed line in the drawing below). Risk: Low to Medium	TGS amended	Closed
				
LOR-TGS-PAR-PAR-0015, Rev 00				
12.	Refer to Audit point 1.	Refer to Audit point 1.	Refer to Item 1 response	Closed
13.	Refer to Audit point 8.	Refer to Audit point 8.	TGS amended	Closed
14.	Refer to Audit point 11.	Refer to Audit point 11.	TGS amended	Closed
LOR-TGS-PAR-PAR-0016 Rev 00				
15.	Refer to Audit point 1.	Refer to Audit point 1.	TGS amended	Closed

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
16.	Refer to Audit point 8.	Refer to Audit point 8.	TGS amended	Closed
17.	Refer to Audit point 11.	Refer to Audit point 11.	TGS amended	Closed
LOR-TGS-PAR-PAR-0017, Rev 00				
18.	Refer to Audit point 1.	Refer to Audit point 1.	TGS amended	Closed
19.	Refer to Audit point 11.	Refer to Audit point 11.	TGS amended	Closed
20.	**Cones** The need for the row of cones along the southern side of the road is not obvious.	Review and omit if not required. Risk: N/A	TGS amended	Closed
				

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder: **Response**[x]	**Status**[y]
LOR-TGS-PAR-PAR-0018, Rev 00				
21.	This TGS does not appear to be complete. The need for the proposed row of cones along the southern side and the traffic controller is not obvious.	Review and clarify. Risk: N/A	This is to allow the parking to be removed through the work area – no change required	Closed
LOR-TGS-WMD-HAS-0009, Rev 00				
22.	Refer to Audit point 1.	Refer to Audit point 1.	A minor amendment has been included	Closed
23.	**Property Access/Egress** It is unclear as to how access/egress from the properties along the western side of Hassall Street is to be facilitated through the closed lane.	Review and clarify. Risk: Low to Medium	The properties on the western side of Hassall Street have been demolished	Closed
				

Sydney Metro West – Western Tunnelling Package Westmead Site Establishment				
	Audit Point	**Treatment Option**	**Sue Lewis Consulting** Responder:	
			Response[x]	**Status**[y]
LOR-TGS-WMD-HAS-0010, Rev 01				
24.	Refer to Audit point 23.	Refer to Audit point 23.	Refer to response to Item 23	Closed
TGS-PED-ALL-1101 Rev B-00				
25.	No road safety issues are identified.	Nil. Note only.	Noted	Closed

Explanatory Notes

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

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

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

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

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

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

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

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

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

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

Audit Coverage: The audit has attempted to balance the safety needs of all road users. As per Austroads guidelines, the suggestions provided have attempted to be realistic/feasible and commensurate with the actual risk posed. Suggestions are made from a safety perspective only, and are made in the absence of full project knowledge and design constraints.

RSA can provide a detailed risk assessment / issue evaluation report upon request. The audit raises potential safety risks noted / observed / anticipated by the audit team, and in particular the higher-risk issues. However, a road safety audit is undertaken by people, highly influenced by the experience, views and limitations of the individual team members. It is expected that the project team has competence to identify safety issues itself as the project progresses, and to ask the audit team further questions where necessary.

F STAKEHOLDER CONSULTATION

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