Pitt Street Station Sydney Metro, Station Delivery Deed

Construction Traffic Management Plan

Prepared for:

CPB Contractors

20 October 2021

The Transport Planning Partnership

Pitt Street Station Sydney Metro, Station Delivery Deed

Construction Traffic Management Plan

Client: CPB Contractors

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1 Project Information

1.1 Introduction

The New South Wales (NSW) Government through Transport for NSW (TfNSW) is implementing *Sydney's Rail Future*, a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of commuters in the future.

Sydney Metro is a new standalone rail network identified in *Sydney's Rail Future*. The Sydney Metro network consists of Sydney Metro Northwest (previously known as the North West Rail Link) and Sydney Metro City & Southwest.

The proposed Sydney Metro City & Southwest (SMC&SW) comprises two core components:

- The Chatswood to Sydenham project, which involves the construction and operation of an underground rail line approximately 15.5 kilometres long inclusive of new stations between Chatswood and Sydenham.
- Upgrades to the 13.5 km rail line and existing stations from Sydenham to Bankstown.

The Sydney Metro works at Pitt Street is to be undertaken as part of the Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400). Part of the construction and operation of the SMC&SW rail line and new stations include integrated developments above the stations, providing commercial and residential towers. The Sydney Metro Stations construction is referred to as the Integrated Station Development (ISD) and the developments above the Stations is referred to as the Over Station Developments (OSD).

CPB Contractors has been contracted by Pitt Street Developer North Pty Ltd and Pitt Street Developer South Pty Ltd for the Design & Construction of the Pitt Street OSD. The North OSD and South OSD are proposed to be completed in conjunction with the Pitt Street ISD being undertaken as part of the CSSI, and includes:

- North OSD: The North Over Station Development is a State Significant Development (SSD 10375) and forms part of the Pitt Street ISD (North Site). Located above the northern entrance of the Pitt Street Metro Station, with frontages on Pitt Street, Park Street and Castlereagh Street, the Pitt Street North OSD comprises a 39-storey mixed-use hub containing commercial and retail uses. There would be 200 bicycle parking spaces, 40 car parking bays, and service bays to accommodate courier vehicles, waste collection vehicles, and Metro Station maintenance vehicle.
- South OSD: The South Over Station Development is a State Significant Development (SSD 10376) and forms part of the Pitt Street ISD (South Site). Located above the Southern entrance of the Pitt Street Metro Station on Bathurst Street, with frontages on Pitt Street and Bathurst Street, the Pitt Street South OSD comprises a 39-storey residential tower consisting of 234 apartments with residential amenities (pool, gym, co-working etc.) and retail facilities. There would be 184 resident bicycle spaces, 24 visitor bicycle spaces, and service bays to accommodate courier vehicles, waste collection vehicles, and Metro Station maintenance vehicle.

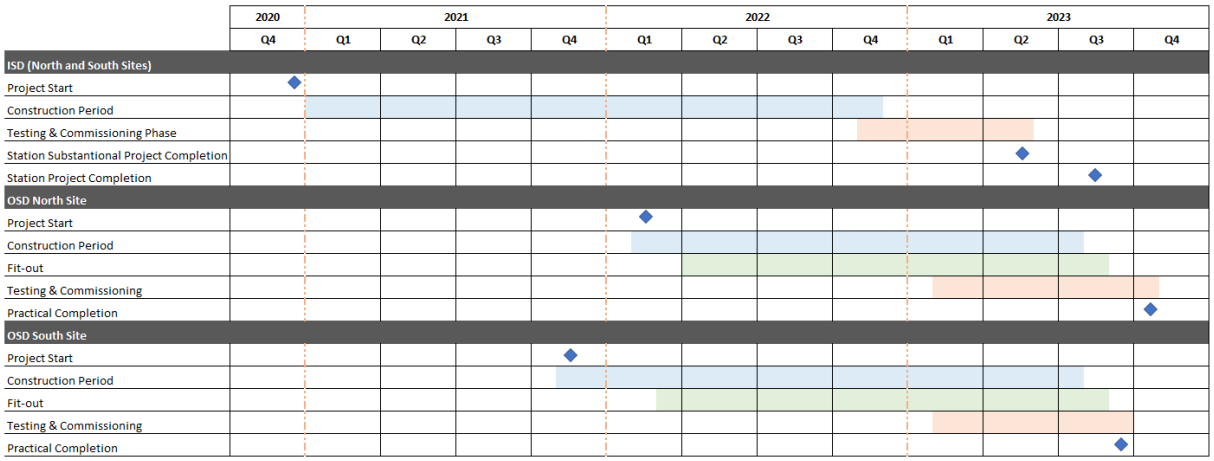
This amendment to the Construction Traffic Management Plan (CTMP) has been developed to account for the requirements of the North OSD and South OSD construction works across the North Site and South Site within the Pitt Street precinct.

CPB Contractors is referred in the CTMP as the Project Team.

1.2 Project Timeline Overview

An overview of the project timeline for the Integrated Station Development with the North OSD and South OSD is provided as follows:

- ISD: Works are to be carried out over a duration of 32 months with construction having commenced in Q4, 2020 and station project completion to be achieved in Q3, 2023.
- North OSD: Works are to be carried out over a duration of 22 months with construction to commence in Q1, 2022 and practical completion to be achieved in Q4, 2023.
- South OSD: Works are to be carried out over a duration of 22 months with construction to commence Q4, 2021 and practical completion to be achieved in Q3, 2023.



2 Objectives

2.1 CTMP Objectives

This CTMP has been prepared in-line with the Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval (CoA) E82 which requires that a CTMP is prepared for each construction site and submitted to Roads and Maritime Services (RMS) for approval following Sydney Coordination Office endorsement.

The objective of this CTMP is to detail the traffic management procedures to be implemented to ensure that the works required for the station construction works at the site would be undertaken safely, while minimising the impact of the works on pedestrians, cyclists, traffic and public transport in the vicinity of the site.

This CTMP and the associated traffic staging plan, traffic management plan, vehicle movement plan, and pedestrian movement plan comply with the Sydney Metro documents outlined in Section 4.

The proposed Works Zones will require a Works Zone Application and to City of Sydney. Works Zone Applications must be presented to the Local Pedestrian, Cycling and Traffic Calming Committee (LPCTCC) for approval.

The primary traffic and pedestrian management objectives and principles are to:

- provide an appropriate, convenient and safe environment for pedestrians.
- maintain existing levels of safe public transport access.
- retain, as far as possible, existing kerb space for parking, loading and buses.
- restrict heavy vehicle movements to designated routes to/ from the site.
- manage and control heavy vehicle activity in the vicinity of the site.
- minimise disruption to traffic operation, road users, pedestrians, cyclists and access to adjoining properties.
- maximise safety for workers by applying low exposure work methods, education and installing appropriate traffic controls.
- works to be carried out in accordance with approved hours of work.

2.2 Report Structure

This report has been structured as follows:

- Section 3 provides project details and contact persons.
- Section 4 confirms this CTMP has been prepared in accordance with the legislative requirements, guidelines and standards.
- Section 5 describes the existing transport context and concurrent construction works.
- Section 6 details the consultation process with the stakeholders and various agencies.
- Section 7 presents a risk assessment that focuses on the safety risk for employees working around live traffic
- Section 8 provides an overview of the proposed construction methodology.
- Section 9 assesses the impacts due to construction works.
- Section 10 recommends the mitigation measures.
- Section 11 details the incidents and complaints management.
- Section 12 states the employees' agreement to work to this CTMP in its entirety.

3 Project Details

3.1 Project Name and Address

Sydney Metro City & Southwest - Chatswood to Sydenham.

Pitt Street Metro Station Development Deed at North Site and South Site

3.2 Project Duration

Project Start Date: 18 December 2020 - 01 February 2021

Project Completion Date: 31 August 2023

3.3 Program Director

Name: Con Kerpiniotis

Phone: 0427 459 278

3.4 Site Supervisors

CPB Contractors nominates the following site supervisors who would be responsible for maintenance of traffic control devices during and outside normal working hours, and attendance at traffic incidents where required to do so by the Police and emergency services. These contact details would be provided to the Police.

Name: Stephen Montgomery (Logistics Manager North)	Phone: 0418 296 163
Name: Trevor Ford (Site Manager South)	Phone: 0427 959 013

3.5 Client Contact

Name: Alex Zeidan	Phone: 0459 200 000

4 Legislative Requirements, Guidelines and Standards

This CTMP has been prepared in-line with the requirements as outlined in the documents listed in Table 4.1 which pertain to the preparation of a CTMP.

Table 4.1: Overview of the Legislative Requirements, Guidelines and Standards

Document/ Guide	Summary	Specific Requirements
Principal's General Specifications G10 - Traffic and Transport Management SM ES-ST-217, Sydney Metro Integrated Management System	It contains the traffic and transport management requirements that are to be met by the Contractor during the performance of the Contractor's Activities, including the management of the impacts of the Contractor's Activities.	The Construction Traffic Management Plan (CTMP) should include any traffic staging arrangements, and inclusion of traffic control plan, vehicle movement plans, pedestrian movement plans, and parking management plans. A road occupancy license to be obtained for occupancies that occur on-road.
Construction Traffic Management Framework – City & Southwest Chatswood to Sydenham Contracts, Version 2.5, 18 December 2018, Transport for NSW	It provides an outline of the traffic management requirements and processes required for the preparation of the CTMP in terms of contents, principles and objectives, contractual requirements, Revised Environmental Mitigation Measures (REMM) and other obligations of the SSI Planning Approval.	The site specific CTMP should include the proposed traffic and parking management measures which are developed in consultation with the Sydney Coordination Office, Roads and Maritime, Sydney Light Rail Team within TfNSW, and City of Sydney. It includes any relevant correspondence with stakeholders (e.g. bus operators) where applicable. It also includes the Traffic Control Plan (TCP) for the specific works and RMS and SCO imperatives outlined in Appendix C of the CTMF.
Critical State Significant Infrastructure, Sydney Metro City & Southwest Chatswood and Sydenham, Conditions of Approval, Modification 6 – February 2019	It lists administrative conditions for the critical state significant infrastructure including the establishment of Traffic and Transport Liaison Group (TTLG), traffic, transport and pedestrian access, and construction traffic and access.	Ongoing consultation with TTLG regarding the traffic and management measures during the development of the CTMP. The CTMP should include efficient and safety site access, erection and maintenance of hoarding, cumulative construction vehicle management, bus facilities, signage changes, parking management, heavy vehicle management, emergency and property access, user and passenger safety, incidence response, monitoring of transport and access impacts etc.
Sydney Metro Principal Contractor Health and Safety Standard – 29 May 2018	It sets out requirements for compliance with WHS and Rail Safety legislation as well as good management systems practice that collectively contribute to the delivery of the Sydney Metro program.	The CTMP should include a procedure for working on or near public roads, and manage risks associated with working in and around live traffic in accordance with legislation, RMS controls. Australian Standards and Sydney

Document/ Guide	Summary	Specific Requirements
		Metro Construction Traffic Management Framework.
Revised Mitigation Measures Allocation, Tunnel and Station Excavation, Revision 2.0.	It provides a list of specific mitigation measures in relation to construction traffic and transport.	The CTMP should include mitigation measures to manage construction traffic and transport impacts.
City of Sydney Standard Requirements for Construction Traffic Management Plans and Standard Requirements for Construction Traffic Management Plan Report	The document details specific requirements during the demolition, excavation and construction works to be undertaken within the City of Sydney area.	The CTMP should include, site access locations, truck movements, traffic control measures, road user priority and TCP etc.
Road and Maritime Services Guide to Traffic Control at Worksites Version 4, 2010.	This Guide must be used on all RMS road work sites, and is also encouraged to be used on non-RMS sites. Standard TCPs can be used at work sites for which the plan meets all requirements, where appropriate, the standard TCP could be modified with strict limits to suit site conditions.	The TCP should show signs and devices arranged to warn traffic and guide it around, or past a work site. It is to detail the location, spacing and sizes of all signs and devices, parking delineation, any containment or safety fencing and pedestrian routes etc.
Australian Standard AS1742.3-2002 – Manual of uniform traffic control devices, Part 3, traffic control devices for works on roads.	It provides a set of uniform practices for the signing and delineation of construction and maintenance works which will promote the safety of both workers and road users at the work site.	Any temporary traffic control devices must be installed in accordance with AS 1742.3:2009.

4.1 Approvals and Procedures

This CTMP is to be provided to the Sydney Coordination Office, Roads and Maritime/ Transport for NSW, Sydney Metro and City of Sydney for commentary. Feedback from the authorities has been incorporated into the latest revision of this CTMP.

4.2 CTMP Principles

This CTMP has been developed with the following principles in mind to ensure:

- the provision of a safe environment for road users and workers.
- the hierarchy of access given to the following order, with incidents & emergency services given top priority, followed by events (special and unplanned), pedestrians, bicycles and buses etc.
- the overall impact on road users is kept to a minimum.
- access is maintained for the local community, transport operators and commercial developments.
- road users and local communities are regularly informed in relation to changed traffic conditions.

4.3 Compliance to the Legislative Requirements, Guidelines and Standards

Compliance tables against the relevant requirements are shown in Table 4.2 through to Table 4.8 with a reference of where the information is provided in this CTMP.

The Conditions of Consent for the North OSD and South OSD proposals are presented in Table 4.9 and Table 4.10, respectively.

Table 4.2: Compliance to Principal's General Specifications G10 - Traffic and Transport Management

Heading	Requirement	Reference in this TMP
2.1	(a) The Contractor must construct the Project Works and construct and remove the Temporary Works with the least possible obstruction to pedestrians, cyclists, public transport services and road traffic.	Section 8.4
	(b) The Contractor must undertake all work necessary to provide for the safe movement of pedestrians, cyclists, public transport services and road traffic and the protection of persons and property around the Construction Site and all other areas affected by the Project Works, the Temporary Works and the Contractor's Activities.	Sections 10.1 to 10.4
	(c) The Contractor must prepare and submit the Construction Traffic Management Plan and, where required, all Traffic Control Plans to the Principal's Representative and each relevant Authority and obtain all necessary Approvals from the relevant Authority for temporary pedestrian, cyclist, public transport service and road traffic arrangements, including the installation of and changes to any regulatory traffic control devices, road or thoroughfare.	Section 10.3
	(d) The Contractor must also obtain all necessary Approvals from each relevant Authority to enable it to direct traffic and to appoint Traffic Controllers to provide for the safe movement of pedestrians, cyclists, public transport services and road traffic and the protection of persons and property around the Construction Site.	Section 4.1
	(e) The Contractor must conform to the requirements of all relevant Authorities, the RMS Traffic Control at Worksites Manual, AS 1742.3 Manual of uniform traffic control devices Part 3: Traffic control devices for works on roads and this Principal's Specification G10, when planning and carrying out traffic and transport management.	Section 4 & throughout the CTMP
	(f) The Contractor must conform to applicable vulnerable road user initiatives required by the Principal and relevant Authority to enhance pedestrian, cyclist and motorist safety in the vicinity of construction sites. These may include measures such as deployment of speed awareness signs in conjunction with variable message signs, blind spot and other construction vehicle devices, Metro project specific heavy vehicle driver training and shared experience educational events.	Section 10.11
	(g) The Contractor must not reduce or adversely impact road network traffic capacity and traffic flow efficiency, except after hours, where approved.	Section 8.4
2.2	(a) Details of any traffic staging arrangements associated with each proposed construction stage, including Traffic Staging Plans, and the time periods during which each stage will be in operation	Section 8.2 & 8.5
	(b) Traffic Control Plans (TCP), including provision for cyclists, and any specific traffic control arrangements associated with the conditions of approval of the ROL. The TCP sets out the specific traffic and transport management arrangements to be implemented at specific locations during the construction of the Project Works and Temporary Works	Section 10.3

Heading	Requirement	Reference in this TMP
	(c) Vehicle Movement Plans (VMP) showing the preferred travel paths for vehicles to enter, leave or cross the through traffic stream. A VMP is a diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP may be combined with or superimposed on a TCP.	Section 8.7, Appendix C & Appendix D
	(d) Pedestrian Movement Plans (PMP) showing the allocated travel paths for workers or pedestrians around or through the work site. A PMP may be combined with or superimposed on a TCP.	Section 8.5, 10.3, 10.4 & Appendix D
	(e) Parking Management Plans (PMP) that identify parking requirements and on and offsite parking arrangements and associated impacts; remote parking arrangements and associated access between sites and public transport nodes; alternate parking arrangements for displaced parking, and communication and parking management measures. For any proposed kerbside use impacts in the CBD a proposal for relocation of impacted users is required.	Section 10.2
	(f) Provision of access to adjoining properties and side roads affected by the construction.	Section 9.9
	(g) Copies of any ROL and approvals from other relevant authorities obtained.	N/A
	(h) Design drawings for any temporary roadways and detours, including alignment and surface levels, pavement widths, pavement cross-sections and drainage.	N/A
	(i) Names and contact details of nominated personnel responsible for attendance at traffic incidents where required to do so by the Police and emergency services, and for maintenance of traffic control devices and temporary roadways outside normal working hours. Provide confirmation that these details have been provided to the Police.	Section 3.1
2.3	The TCP must show, where applicable and appropriate, the following details: (a) Types and locations of permanent regulatory (R series) and warning (W series) signs. (b) Types and locations of temporary signs (T series) including advance warning signs and variable message signs (VMS). (c) Locations of permanent and temporary traffic signals. (d) Locations of any required Traffic Controllers. (e) Locations and lengths of taper and safety buffer areas. (f) Locations of safety barrier systems including end terminals. (g) Pedestrians and cyclists paths. (h) Locations of entry and exit gates to work areas, individually numbered and signposted. (i) Details of access to adjoining properties, car parking areas, and side roads. (j) Pavement marking details, including types of delineation required, turning arrows, stop/holding lines and other road markings, types and positions of raised pavement markers and other delineation devices. (k) Locations of temporary lighting.	Section 10.3 & Appendix D
2.4	The Traffic Staging Plans must show, where applicable and appropriate, the following details: (a) Lane configurations on existing and new (temporary and permanent) pavements, indicating any departures from existing traffic lanes. (b) Intersection layouts and temporary traffic signal arrangements. (c) Working areas and pedestrian and cyclist paths. (d) Access to residential properties, local businesses and community facilities. (e) Pavement markings. (f) Drainage system, both temporary and permanent, including any pollution control measures.	Section 8.5

Heading	Requirement	Reference in this TMP
	(g) Utility services and their impact on the Project works, temporary works and Contactor's activities. (h) If removal of pavement markings is required, details of the proposed methods for removal, the estimated durations to carry out the removal, and if necessary, any proposed measures to restore the road surface.	
2.5	Road Occupancy Licenses	Separate application will be made by the contractor.
3.1	Traffic Control Devices The Contractor must supply and install the following, and remove them when the devices are no longer required: • regulatory traffic control devices • temporary speed zoning signs • portable and temporary fixed traffic signals • public transport service related portable and temporary fixed regulatory and advisory signage Public transport service portable and temporary fixed regulatory and advisory signage must be legible, of a high standard and similar to that used in permanent situations to the satisfaction of the Principal.	Section 10.3 & 10.5
3.2	Roads and Property Accesses – The Contractor must at all times provide safe and convenient passage for vehicles, pedestrians and cyclists along, to and from roads and property. Contractor's Activities that affect the use of areas around the Construction Site and existing accesses must not be undertaken without providing adequate alternative provisions, as required by all relevant Authorities and affected property owners, and to the prior satisfaction of the Principal's Representative.	Section 9.8
3.3	Traffic Controllers – The Contractor must advise the Principal's Representative of the names of proposed traffic controllers and their traffic controllers' certificate numbers and expiry dates.	Section10 .3
3.4	Opening Temporary Roadways and Detours to Traffic – All signposting, pavement marking, safety barriers and portable or temporary traffic signals must be completed before the opening of temporary roadways to traffic, pedestrian and cyclist route changes and public transport facility changes.	N/A
3.5	Maintenance – The Contractor is responsible for the maintenance of temporary pedestrian and cyclist thoroughfares and detours, temporary public transport facilities and temporary roadways and detours and must ensure the thoroughfares and road surfaces are kept safe for pedestrians, cyclists and traffic. Any potholes or other failures must be repaired without delay and within 2 days of the occurrence of the pothole or failure.	Section 10.1
3.6	Removal – Upon completion of the Project Works all temporary pedestrian and cyclist thoroughfares and detours, temporary public transport facilities and temporary roadways and detour arrangements must be removed, and the area restored to at least the state which existed prior to the commencement of the Contractor's Activities.	Table 10.1
4.1	The Contractor must make the following pedestrian traffic management measures: (i) Existing longitudinal pedestrian footpaths will be maintained either in their current form, or on an alternative adjacent alignment. Wherever possible works on footpaths (where required) will be scheduled to occur outside of peak pedestrian times.	Section 10.4
	(ii) Where construction works require full or partial occupation of the existing footpath, the Contractor must temporarily narrow footpaths around the worksite or to divert pedestrians to adjacent footpaths via safe crossing facilities with the appropriate barriers and signage. Any diversions may require pedestrian demand modelling and must be agreed with the relevant Authorities.	N/A

Heading	Requirement	Reference in this TMP
	(iii) Footpath widths are to allow two-way pedestrian traffic that meets the pedestrian demand and has sufficient space provided to accommodate prams, strollers and wheelchairs without requiring temporary widening from their existing width prior to construction commencement. Narrowing of footpath width if required is to be approved by the relevant authorities.	Section 9.4 & 10.4
	(iv) Access to public transport facilities must be made available for customers at all times. Where excavation works and associated works limit accessibility to a facility, the Contractor must provide safe and secure temporary access incorporating handrails and other infrastructure where required. All temporary works must be in accordance with relevant standards.	N/A
	(v) Access to shops must be available for the public during business hours. Where excavation works limit accessibility to a shop during business hours, the Contractor must provide safe and secure temporary access incorporating handrails where required. All temporary works must be in accordance with relevant standards.	N/A
	(vi) Access to residences must be available at all times. Where excavation works limit accessibility to a residence, the Contractor must provide safe and secure temporary access incorporating handrails where required. All Temporary Works must be in accordance with relevant standards	N/A
	(vii) The Contractor must provide additional traffic control at locations where there is an interaction between pedestrians and construction vehicles.	Section 10.3 & 10.4
	(viii) Existing transverse pedestrian movements must be maintained at existing pedestrian crossing facilities using existing traffic control signals or controlled by traffic controllers, unless approved otherwise.	Section 10.4
	(ix) All mid-block transverse pedestrian crossings must be maintained by the Contractor during construction of the Works.	Section 10.4
4.2	Cycle Routes – Where the Sydney Metro Works will impact cycling routes, the Contractor must provide alternative cycle routes. The Contractor must consult with local bicycle user groups, local communities, and relevant authorities regarding any proposed alternative route. The Contractor must submit that proposal and summaries of that consultation for approval by TfNSW and RMS prior to implementation.	Cycle routes not affected by Pitt Street Project
5	Road Safety Audit – All Road Safety Audits will be undertaken in accordance with the RMS 'Guidelines for Road Safety Audit Practices (2011), with reference to current practices outlined in Austroads Guide to Road Safety Part 6 Road Safety Audit (2009) and the Sydney Metro Principal Contractor H&S Standard. Road safety audits shall be undertaken with due consideration to the high levels of pedestrian activity in the Sydney and North Sydney CBD environments.	Section 10.6 & Appendix E

Table 4.3: Compliance to Construction Traffic Management Plan Framework

Heading	Requirement	Reference in this TMP
2.1	General Traffic Management Approach Minimum disruption to pedestrians, cyclists and motorists.	Section 10.1 to 10.4
	Ensure Sydney Metro City & Southwest construction traffic accesses the arterial network as soon as practicable on route to and immediately after leaving the construction site.	Section 8.7
	Keeping Sydney moving	Throughout this CTMP
	Buses run on time with no disruption to routes and stops, where possible.	Section 10.2
	Minimise changes to traffic operation and kerbside access.	Section 10.2
	Maintain access for adjoining properties.	Section 9.8
	Minimise construction traffic generation during network peak periods.	Section 8.6
	Safe provision for vehicular and pedestrian traffic must be made at all work sites.	Section 10.1 to 10.4
	Delays to traffic in the immediate vicinity of work sites should be minimised as much as practicable.	Section 8.8
	Minimise construction traffic generation during network peak periods. It is an RMS operational imperative that the capacity and efficiency of the network is not reduced during peak periods.	Section 8.6
	Works should be coordinated so that road users do not encounter a series of delays in quick succession and such that the cumulative impact of multiple closures does not lead to unexpected congestion.	Noted.
	Implement appropriate operational and other measures to ensure the safety of vulnerable road users.	Section 10.3 to 10.5
	Access for residents and businesses is to be maintained.	Section 9.8
	Road users should be kept informed about: • The location of works. • Forecast travel delays they are likely to experience. • Suitable alternative routes, if available. • Timing of any works, including dates and times, to enable informed decisions by the road user regarding times and routes of travel.	Section 10.8
	The project should present a professional and helpful interface with road users during all parts of the construction process.	N/A
	Consideration of the above for road users should include potential impacts on pedestrians and cyclists.	Section 9.4 & 10.4
	Safe provision for cyclists must be made at all work sites.	Section 9.4
	Public transport users should also be kept informed of changes due to construction.	Section 10.8
2.2	Traffic Management Strategy a) The provision of directional signage and line marking to direct and guide drivers and pedestrians past work sites and to suitable alternative routes (if required) on the surrounding road network.	Traffic Control Plan in Appendix D
	b) Notification of proposed changes and duration using newspapers (local or majors), radio, project website, social media and direct community engagement (as required).	Section 10.8

Heading	Requirement	Reference in this TMP
	c) On-going or direct co-ordination with TMC and SCO, to mitigate congestion and provide rapid response should incidents or increased congestion occur as a direct result of the works.	Section 6
	d) Management and coordination of construction vehicle access to and from the work sites across pedestrian paths. The type of traffic management to be employed will be dependent on, and adjusted according to, the volume of pedestrians, passing traffic and the volume of construction vehicle activities for the site. The types of management could include manual supervision, physical barriers, temporary/portable traffic signals (where approved by RMS, BDA or council) or modification to existing traffic signals (where approved by RMS).	Section 10.1 to 10.5
	e) Ensuring that access to existing properties and businesses is maintained during the period of the works, or suitable alternative.	Section 9.8
	f) Retain existing on-street parking and restrictions, as far as is practicable.	Section 9.7
2.3	Hierarchy of Access The site specific CTMPs will be required to be developed on the basis of the following hierarchy of access: (1) Incidents & emergency services access, (2) Events (Special and unplanned), (3) Pedestrians, (4) Cycles, (5) Public transport – buses, (6) Service vehicles, (7) Coaches, (8) Taxis, (9) Kiss and Ride, and 10) Private cars (Shoppers/short stay, commuters).	Section 9
3.3.2	Construction Traffic Management Plan A contract-wide Construction Traffic Management Plan (CTMP) will be prepared by contractors, covering the full special extend of their works and multiple sites. The CTMP will comply with the Traffic Control at Worksites Manual (RMS), relevant Australian Standards, Principal's General Specifications G10 – Traffic and Transport Management and, where relevant, the RMS Work Authorisation Deed (WAD) documentation. This will allow fulfilment of the WAD requirement for a Traffic Management and Safety Plan (TMSP) subject to RMS review and approval. In addition, site specific CTMPs will be prepared and implemented having regard to the REMMs documented in Chapter 11 of the Chatswood to Sydenham Submissions and Preferred Infrastructure Report, October 2016. Construction traffic and transport REMMs are listed in Table 4.5	Throughout this CTMP
3.3.3	Site-specific CTMP Contractors will also prepare more detailed site-specific CTMPs. These will be developed by the contractor for each work site and identify proposed heavy vehicle routes, traffic and parking management measures. These plans will be developed in consultation with the TTLG and TCG meetings.	This CTMP. Section 6.1, 8.7, 8.8
	Site specific CTMPs will details construction works sites, access points, relevant signage, parking changes (if required), bus stop relocations (if required), proposed heavy vehicle routes, traffic and parking management measures, relevant correspondence with stakeholders (e.g. bus operators, Australia Post, business owners) and all traffic management and mitigation measures required to impellent any proposed works.	Section 9
	It must also include Traffic Control Plans (TCP), Vehicle Movement Plans (VMP), Pedestrian Movement Plans (PMP), Parking Management Plans and Traffic Staging Plans for the specific works, unless otherwise agreed in writing with the Principal's Representative and relevant Authorities. The Parking Management Plan will also provide details regarding onsite and off-site staff parking arrangements, including any proposed busing to and from worksites. All TCPs prepared for construction activities will be developed in accordance with Australian Standard AS1742.3 and RMS Traffic Control at Worksites Manual. TCPs must be prepared by a person who has completed and passed the Prepare a Work Zone Traffic Management Plan training course and has current certification to the required level. All work sites and related TCPs will be implemented in compliance with the ROL issued by the TMC for the approved times and appropriate standards. ***additional requirements	Section 10.3, Appendix C & Appendix D

Heading	Requirement	Reference in this TMP
4.1	Traffic and Transport Liaison Group TTLG includes representatives from Sydney Metro Delivery Office, Transport for NSW (including Centre for Road Safety; Sydney Light Rail; Metro Bus & Ferry Planning and Development; Freight Strategy & Planning), RMS, TMC, Sydney Coordination Office, Port Authority of NSW, Barangaroo Delivery Authority (BDA), Department of Planning and Environment, Sydney Motorway Corporation (WestConnex), NSW Police, NSW Fire & Rescue, NSW Ambulance Service, Local Council (depending on worksite locations), Lane Cove Council, Willoughby Council, North Sydney Council, City of Sydney Council, Inner West Council, State Transit Authority, Sydney Metro Contractor(s).	Section 6
4.11	Other Organisations Other organisations may be asked to attend the TTLG and/or receive relevant information depending on the matters under discussion or consideration.	Section 6
4.2	Traffic Control Group TCG includes representatives from Sydney Metro Contractor, Sydney Metro Delivery Office, Transport for NSW, RMS, TMC, Sydney Coordination Office and Local Councils.	Section 6
5.1	Communication with Existing Businesses and Residents Owners and operators of potentially affected properties and businesses will be consulted throughout the delivery of the Project and notified well in advance of any works that may potentially disrupt access to their property. Residents, property owners and businesses in the surrounding area will also be notified prior to the start of works. The proposed works and changes should also be advertised in the public notices section of newspapers (as required).	Section 10.8
5.2	Notification of Traffic Changes or Disruptive Works Activity specific communications strategies are required to be developed prior to any traffic event. These strategies should include details of the work, impacts and proposed mitigation measures. In addition to the strategy, activity-specific notifications will need to be developed and issued to directly impacted properties prior to works commencing. Notification of proposed changes should also be included on the Project website. Other communication methods that may be implemented could include, but are not limited to: • Doorknocks. • Letterbox drops. • Advertising (newspapers). • Social media updates. • Radio.	Section 10.8
5.3	Responsibilities The contractor's Stakeholder and Community Manager will be responsible for ensuring a system is in place to advise the Sydney Metro City & Southwest Project Communications Team, the TTLG and other key stakeholders each time proposed changes are to be made to traffic arrangements. Advice will include information about the changes to the traffic operation, anticipated delays to traffic, any changes to the times and duration of the work, and any other potential major disruptions.	Section 6
5.4	Roadside Messaging Appropriate signposting, whether static or Variable Message Signs (VMS), should be located and installed to provide for the easy and safe passage of vehicles, pedestrians and cyclists. This also includes public transport users accessing facilities such as bus stops. The installation of signs will be detailed within the relevant CTMP. Any signposting should be placed in accordance with relevant guidelines and standards. Messages should be clear and easily interpreted by drivers, pedestrians and cyclists, and should not create a safety hazard. The proposed location of any VMS would require the approval of the road authority.	Section 10.3 & Appendix D

Heading	Requirement	Reference in this TMP
6.2	Approvals	This CTMP will be sent to TMC for approval.
6.4	Road Occupancy License Process Whenever it is proposed to occupy or close a lane or road during the construction program for each of the sites, the closure will require the contractor to apply for a Road Occupancy Licence (ROL) from TMC and/or Council. ROLs are issued by the TMC for approved times, following endorsement by the SCO, for RMS State roads or locations on Regional or local roads within 100 metres of traffic signals. It should be noted that due to the critical nature of the potential traffic impacts for local roads within the Sydney and North Sydney CBDs that applications for ROLs on streets within these areas will be required to be submitted to TMC.	Separate application will be made by the contractor.
6.6	Special Event Coordination During the Project, special consideration and traffic planning will need to be undertaken for each of the sites to address the road user needs during programmed special events. It should also include the response to ad hoc events that may occur with minimal notice, including marches, protests and other public events. Sydney Metro City & Southwest contractors will be responsible for identifying special events that occur in the area of the work site, incorporating known special events into the construction program and detailing responses and contingencies in the CTMP for each site. This coordination will occur through the Sydney Coordination Office, approved event registers of councils, the TCG and the TTLG. During development of the site specific CTMPs the proposed traffic management measures must take account of major and regular events to ensure that proposals do not impede or impact on these events.	Section 9.2
6.7	Adjustments to Traffic Signals Any temporary or permanent works that impact on the operation of, or require the reconstruction or adjustments to, traffic signals require close consultation with RMS and approval of the traffic signal design plans, prior to the commencement of any work. This will require entering in to a Works Authorisation Deed (WAD) with RMS.	No Changes are proposed to traffic signals under this CTMP
6.8	Over-size or Over-mass Vehicle permits	Section 8.4
6.9	Adjustments to bus routes and stops – Any proposed adjustments or relocation of bus stops to facilitate construction works require the prior approval of TfNSW, CCO and affected bus operators in consultation with local councils prior to submitting an ROL application to TMC.	Section 9.5 & 10.2
6.10	Adjustments to Australia Post Boxes or Other Roadside Furniture	Section 9.8
6.11	Council Traffic Committees Where possible, the contractor should endeavour to secure all necessary Council approvals under delegation so as to avoid the need for approvals to be secured through the Local Traffic Committee and Council meetings. Matters that may need to be considered by the Local Traffic Committee include: • establishment of a kerbside 'Work Zone' on a local or regional road • CTMPs • other changes to parking restrictions • road closures.	Section 6
6.12.1	Dilapidation surveys	Section 8.11
7.1	Haulage Routes Details of any proposed routes for heavy vehicle access will be developed in consultation with the relevant state or local government authority and detailed	Section 8.8

Heading	Requirement	Reference in this TMP
	in the appropriate section of the site-specific CTMP. Condition E88 then requires the CTMP to be approved by RMS following endorsement by SCO and the relevant roads authority. Where haulage routes differ from the primary and secondary routes shown in the EIS/Submissions Report/PIR, the contractor will undertake a review and where necessary document these in the contract wide and site-specific CTMPs and provide a justification for these changes in accordance with E88.	
7.2	Management of Heavy Vehicle Movements Vehicle and pedestrian access to each work site, including the locations of entries, exits, turning restrictions, slip lanes, traffic signals, signage and other site management requirements will be established in line with the requirements of the Project approvals and in consultation with RMS, SCO, BDA and councils.	Section 6, 10.1 to 10.5
7.3	Work Zones and Heavy Vehicle Marshalling Applications for a 'Works Zone' will be undertaken by the contractor to the relevant authority.	Section 2.1
7.4	Construction/Demolition Vehicle Types To minimise the number of heavy vehicle movements on the road network, the selection of vehicle size will consider the number of movements required, the impact of the quantity of vehicles on road and pedestrian movements, road geometry and safety.	Section 8.4
7.4.1	Worker Access and Parking The assumption for all site specific CTMPs is that there will be no provision, either on the road or within the work site, for worker parking. Workers should be encouraged to use public transport in travelling to and from the work sites.	Section 8.9
7.4.2	Construction Consolidation Centre/Depot To mitigate the potential impact of construction traffic the provision of a centralised Project centre should be considered. This centre could receive deliveries and arrange for combining of loads and materials for distribution to the various worksites. This may be incorporated into the truck marshalling and logistics facility and should address the intent of planning condition E89.	N/A
7.4.3	Driver training	Section 10.11
7.4.4	Chain of Responsibility and Heavy Vehicle National Law All necessary heavy vehicle approvals and permits (e.g. over-size, over-mass, etc.), must be obtained from the relevant road manager.	Section 8.8, Separate application will be made by the contractor.
8.1.1	Policy and Responsibilities When temporary or construction speed limits are required, the contractor will be required to make the necessary application to either RMS for classified roads or the local council for unclassified roads. This application will need to be submitted prior to the proposed implementation time to allow for processing and authorisation.	N/A
8.1.2	Traffic Control Techniques There are a number of traffic control methods that can be used at worksites that must be selected in accordance with the hierarchy of controls to ensure safety risks to workers (including traffic controllers) and the public are minimised So Far As Is Reasonably Practicable (SFAIRP). These include: • Temporary road deviations. • Linemarking with raised pavement markers to delineate proposed diversion. • Other traffic control devices as provided in the RMS' Traffic Control at Work Sites manual. • Portable traffic signals to control traffic flows if lane closures are required. • Directional and information signposting to direct or advise drivers. This can include Variable Message Signs (VMS), directional arrows or static signs.	Section 10.3

Heading	Requirement	Reference in this TMP
	• The use of traffic cones, water filled barriers or other physical devices to delineate the required route. Refer also to the Sydney Metro Principal Contractor Health and Safety Standard. For longer term works, where traffic management devices are in place for an extended length of time, regular inspections are to be carried out by the Contractor's Construction Manager. This is to ensure that the controls in place continue to provide safe traffic management. All controls are to comply with the current RMS guidelines.	
8.1.3	Approved clothing for work personnel	Section 8.4, 8.10, 10.1
8.1.4	Plant and equipment Any plant used and working near traffic or pedestrians is to be suitably highlighted with physical protection and appropriate warning signs provided to ensure public safety.	Traffic Control Plans in Appendix D
8.2	Frequency of Inspections For long term (i.e. longer than one shift) traffic management road inspections will be carried out regularly to ensure the safe movement of traffic and the protection of persons and property through and/or around the work site.	Section 10.10 & 10.11
8.2.1	Inspections of roadwork traffic management schemes Three main types of inspections to be carried out: a) Pre-start and pre-close down inspections of short-term traffic control. b) Weekly inspections of long-term traffic control. c) Night inspections of long-term traffic control.	Section 10.10
8.3	Emergency Incident Planning An Incident Management Plan for on-road incidents, or incidents that impact on the public transport network should be submitted to the TMC Emergency Transport Operation section for review and comment.	Section 9.1, 9.3 & Incident Management Plan
8.3.1	Accidents/ Incidents and Complaints The contractor's ROL register will maintain records of traffic accidents and incidents reported at work sites. Any complaints received regarding traffic delays at work sites should be referred to the Principal. The contractor will be required to table the register, upon request, at TCG meetings.	Section 11
8.3.2	Chemical spills and leaks Sydney Metro City & Southwest staff and contractors are to be instructed not to approach flammable or hazardous substances until NSW Fire and Rescue have declared the site safe. In such cases the contractor will close the roadway at a safe distance until Fire and Rescue arrives and issues appropriate instructions.	Section 9.3
8.4	Traffic Controllers and Temporary Traffic Signals The use of traffic controllers and/or temporary traffic signals to control traffic at worksites is to be in accordance with the RMS' Traffic Control at Work Sites Manual and the Sydney Metro Principal Contractor Health and Safety Standard. VMS will be used in accordance with documented RMS procedures and guidance. The placement of temporary VMS is to consider pedestrian safety and disabled access needs when placed on footpaths. A ROL may be required when a portable VMS is proposed to be located in a parking or loading bay.	Section 10.3
9.1	Worksites (i) Details of the proposed erection and maintenance of hoardings, scaffolds and associated structures shall be documented in the CTMP.	Separate application will be made by the contractor.
	(ii) The CTMPs will identify the boundaries and detail the footpath and road controls, detail the movement of construction traffic in and out of the worksite. The site specific CTMPs will consider these interactions and the impacts of gantries, etc. on the road and footpaths.	Section 8.4 & 8.5

Heading	Requirement	Reference in this TMP
9.2	Hoardings Consideration will be given to ensuring sight lines for side roads, vehicle accesses, signposting, and traffic signals are maintained. The presentation of the hoarding, the branding and visual aspects of the hoarding are to be in line with City of Sydney policies, and TfNSW/Sydney Metro requirements.	Section 8.10
9.3	Site Security, Site Access and Signage The issues to be considered in determining the location of site accesses are: safety of travelling public, safety of construction workers and equipment, impact on local communities in terms of safety, noise and road damage, ease of access for emergency vehicles, and site security. The worksites will have appropriate arrangements to discourage entry without approval and minimise vandalism. All access points to worksites will have lockable gates. Appropriate information signs will be provided at worksites to identify the Project and contact persons. Contractors will be required to develop and prepare Security Management Plans based on the site-specific security threats (hazards) identified. Requirements for Security Management Plans are outlined in Sydney Metro Principal Contractor Health and Safety Standard.	Section 8.4 & 10.1
9.4	Pedestrian Security/Safety/Lighting Any hoardings or other structures on the site boundaries will have lighting in accordance with current standards, particularly where existing street lighting is removed or obscured as a result of the site works. In those locations where this occurs, supplementary lighting is to be provided to meet the current standards. Discussions will be carried out with the relevant authority if the coverage or otherwise of CCTV cameras is impacted by the works.	Section 8.10
9.5	Management of risks to vulnerable road users – The Contractor is to adopt applicable vulnerable road user safety measures as per the SM PS-ST-221 Sydney Metro Principal Contractor Health and Safety Standard. Such measures include, but are not limited to: • The deployment of speed awareness signs in conjunction with variable message signs • Heavy vehicles equipped with systems to improve vehicle safety, visibility and the detection of vulnerable road users • Mandatory completion of Sydney Metro City & Southwest project specific Heavy Vehicle Driver Introduction Training • Contractor engagement in shared experience educational events. Where worksites have an impact on footpaths, consideration will be given to the requirements of all pedestrians and especially vulnerable road users (school children, elderly and mobility impaired). DDA requirements will be adopted with kerb ramps or other measures provided at road crossings. Footpath widths are required to allow for two-way pedestrian traffic allowing for prams/strollers and wheelchairs. Where high numbers of vulnerable road users are using a footpath, special provision and design consideration may be required to mitigate any impacts.	Section 9.4, 10.5 & 10.11
10.2.3	Road Safety Audits Sydney Metro City & Southwest and/or its contractors will undertake Road Safety Audits for CTMPs, to be submitted with the CTMP. Regular safety audits of work zones are also to be undertaken to ensure all worksite safety arrangements are in place. These audits will be additional to the daily inspections by the site staff. Particular attention will be given to WHS guidelines, work areas adjacent to the road, movement of construction traffic, vehicle speeds and all warning devices or systems	Section 10.6 & Appendix E

Table 4.4: Compliance to Critical State Significant Infrastructure Conditions of Approval

Heading	Requirement	Reference in this TMP
E75	The CSSI must be designed, constructed and operated with the objective of integrating with existing and proposed road and related transport networks and minimising adverse changes to the safety, efficiency and, accessibility of the networks, and facilitate an improved level of service in relation to permanent and operational changes. Detailed design and assessment of related traffic, parking, pedestrian and cycle accessibility impacts and changes shall be undertaken: (a) in consultation with, and to the reasonable requirements of the Traffic and Transport Liaison Group(s) established under Condition E77;	Section 6
	(b) in consideration of existing and future demand, connectivity (in relation to permanent changes), performance and safety requirements;	Chapter 5 and Chapter 9
	(c) to minimise and manage local area traffic impacts;	Section 10.1 to 10.5
	(d) to ensure access is maintained to property and infrastructure; and	Chapter 9
	(e) to meet relevant design, engineering and safety guidelines, including Austroads, Australian Standards, and RMS (RTA) requirements.	Section 4 & 10.3
	Copies of civil, structural and traffic signal design plans shall be submitted to the Relevant Road Authority for consultation before the commencement of the relevant works.	N/A
E76	Permanent road works, including vehicular access, signalised intersection works, and works relating to pedestrians, cyclists, 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 Traffic and Transport Liaison Group before the completion and use of the subject infrastructure and must be made available to the Secretary upon request.	N/A
E77	The Proponent must establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during construction and operation of the CSSI. Management measures must be coordinated with and approved by the RMS following endorsement by the Sydney Coordination Office and consultation with the Relevant Roads Authority. The TTLG must comprise representatives from the Relevant Road Authority(ies) (including the RMS, relevant Councils, and the Barangaroo Delivery Authority as appropriate), transport operators (including bus and taxi operators), emergency services and Port Authority of NSW as required. The TTLG must be consulted on to inform the preparation of the Construction Traffic Management Plan(s) and Interchange Access Plan(s).	Section 6
E78	The Proponent must undertake supplementary analysis and modelling as required by the TTLG to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations, public including changes to and the management of pedestrian, bicycle and public transport networks transport services, pedestrian and cyclist movements. Revised traffic management measures, must be incorporated into the Construction Traffic Management Plan(s), Interchange Access Plan(s) and Station Design and Precinct Plan(s).	Noted – to be advised by the TTLG
E79	The Proponent must consult with the Relevant Road Authority regarding the use of any weight restricted road by heavy vehicles.	Section 8.7
E80	The Proponent must minimise truck movements during peak periods within commercial centres. Peak periods are 7am to 10am and 4pm to 7pm Monday to Friday.	Section 8.6
E81	The Proponent must prepare and implement a Construction Traffic Management Framework (CTMF). The CTMF must be prepared in consultation with TTLG(s) and submitted to the Secretary for approval no later than one (1) month before the commencement of construction (or within any other timeframe agreed with the Secretary). The CTMF will set out	This CTMP

Heading	Requirement	Reference in this TMP
	the approach to managing issues across the CSSI and include but not be limited to:	
	(a) Construction site access, including the efficient and safe egress and ingress of vehicles, consistent relevant Austroads, Australian Standards and RMS requirements;	Section 8.4
	(b) the erection and maintenance of hoardings, scaffolds and associated structures on roads;	Separate application will be made by the contractor.
	(c) short- and long-term lane and road closures including those associated with plant, crane and other operations between the road reservation and construction site;	Addressed in separate TMPs
	(d) cumulative construction vehicle management from surrounding developments;	Section 9.10
	(e) bus stop and associated facilities relocation and service rerouting;	Section 9.5
	(f) short and long term works zones on roads adjacent to the construction site;	Section 8.5
	(g) mail zone and associated facilities relocation;	Section 9.8
	(h) short and long term works within the road reservation;	N/A
	(i) regulatory, advisory and other signage changes and modifications;	Section 10.2 & 10.3
	(j) parking management, including on and off street and remote parking and access;	Section 10.2
	(k) heavy vehicle management, the restriction (unless otherwise approved) of heavy vehicles to certain routes and the minimisation of heavy vehicle traffic in peak traffic periods;	Section 8.6 & 8.7
	(l) special event management;	Section 9.2
	(m) the retention and reinstatement of emergency and property access;	Section 9.8
	(n) the retention of user and passenger safety, including pedestrians, cyclists, public transport users, including at stops and related facilities;	Section 9.4 & 9.5
	(o) incident response planning around construction worksites; and	Section 9.1
	(p) monitoring of transport and access related impacts attributable to the CSSI.	Section 10.11
E82	Construction Traffic Management Plans (CTMPs), consistent with the CTMF required in Condition E81, must be prepared for each construction site in consultation with the TTLG(s), and submitted to the RMS for approval following Sydney Coordination Office endorsement before construction commences at the relevant construction site.	Section 4.1 & 6
E83	Where construction results in a worsening of the matters identified in Condition E81(a)-(o), the Proponent must review the measures identified in the CTMPs in consultation with the TTLG(s), as relevant. Any changes to the CTMPs must be submitted to the RMS for approval following Sydney Coordination Office endorsement and implemented	Section 10.8
E84	Notwithstanding the above, the Proponent must investigate opportunities to maximise spoil removal by non-road methods and schedule final track laying as soon as practicable following completion of tunnelling with a view to transporting materials and equipment for station fit-out, systems and commissioning by rail to minimise truck movements in town centres and the Sydney CBD. The findings of the investigation must be reported to the	N/A

Heading	Requirement	Reference in this TMP
	Secretary before commencement and before completion of tunnel spoil generation as relevant. A decision to not adopt spoil haulage or materials delivery by non-road methods must be demonstrated to the satisfaction of the Secretary.	
E85	Heavy vehicle haulage must not use local roads unless no feasible alternatives are available	Section 8.7
E86	During construction, measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses. Such arrangements must be outlined in the Business Management Plan required in Condition E64 and implemented as required. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Chapter 6, and Section 8.4, Sections 9.4 to 9.9
E86.1	Construction traffic is not to use Elliot Street, North Sydney except where required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm.	N/A
E87	Permanent road works, including vehicular access, signalised intersection works, and works relating to pedestrians, cyclists and public transport users will be subject to safety audits demonstrating consistency with relevant design, engineering and safety standards and guidelines. Safety audits must be included within each relevant CTMP and carried out in consultation with the TTLG before the completion and use of the subject infrastructure and must be made available to the Secretary on request.	N/A
E88	Details of haulage routes and heavy vehicle sizes to transport material to and from any construction site must be specified in the Construction Traffic Management Plan(s) and be approved by the RMS following endorsement by Sydney Coordination Office and consultation with the TTLG(s).	Section 8.7
E89	The Proponent must implement traffic and transport management measures with the aid of a truck marshalling and logistics facility located within close proximity to the Sydney and North Sydney CBDs. The facility must be operational in advance of tunnel spoil generation. Details of the facility must be documented in the Ancillary Facilities Management Plan required by Condition A16.	Section 8.8
E89.1	Access to basement car parking to properties off Randle Lane must be maintained at all times except in consultation with affected occupiers and agreement with affected owners for alternative parking, storage or other forms of compensation.	N/A
E90	A Road Dilapidation Report must be prepared for local roads proposed to be used by heavy vehicles for the purposes of the CSSI before the commencement of use by such vehicles. Copies of the Road Dilapidation Report must be provided to the Relevant Council within three (3) weeks of completing the surveys and no later than one (1) month before the use of local roads by heavy vehicles.	Section 8.11
E91	If damage to roads occurs as a result of construction of CSSI, the Proponent must either (at the landowner's discretion): (a) compensate the landowner for the damage so caused. The amount of compensation may be agreed with the landowner; or	Section 8.11
	(b) rectify the damage so as to restore the road to at least the condition it was before construction commenced as identified in the Road Dilapidation Report(s).	Section 8.11

Table 4.5: Compliance to Revised Environmental Mitigation Measures

Heading	Requirement	Reference in this TMP
T1	Ongoing consultation would be carried out with (as relevant to the location) the Sydney Coordination Office, Roads and Maritime Services, Sydney Trains, NSW Trains, the Port Authority of NSW, Barangaroo Delivery Authority, local councils, emergency services and bus operators in order to minimise traffic and transport impacts during construction.	Section 6
T2	Road Safety Audits would be carried out at each construction site. Audits would address vehicular access and egress, and pedestrian, cyclist and public transport safety.	Section 10.6 & Appendix E
T3	Directional signage and line marking would be used to direct and guide drivers and pedestrians past construction sites and on the surrounding network. This would be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.	Shown on Traffic Control Plans in Appendix D. Separate TMPs have been prepared for road closures as part of crane works, which include VMS strategy.
T4	In the event of a traffic related incident, co-ordination would be carried out with the Sydney Coordination Office and / or the Transport Management Centre's Operations Manager.	Section 9.3
T5	The community would be notified in advance of proposed road and pedestrian network changes through media channels and other appropriate forms of community liaison.	Section 10.9
T6	Vehicle access to and from construction sites would be managed to ensure pedestrian, cyclist 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 10.1 to 10.5
T7	Additional enhancements for pedestrian, cyclist and motorist safety in the vicinity of the construction sites would be implemented during construction. This would include measures such as: • Use of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers • Community educational events that allow pedestrians, cyclists or motorists to sit in trucks and understand the visibility restrictions of truck drivers, and for truck drivers to understand the visibility from a bicycle; and a campaign to engage with local schools to educate children about road safety and to encourage visual contact with drivers to ensure they are aware of the presence of children • Specific construction driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking • Use of In Vehicle Monitoring Systems (telematics) to monitor vehicle location and driver behavior • Safety devices on construction vehicles that warn drivers of the presence of a vulnerable road user located in the vehicles' blind spots and warn the vulnerable road user that a vehicle is about to turn.	Section 10.1 & 10.5
T8	Access to existing properties and buildings would be maintained in consultation with property owners.	Section 9.8
T9	All trucks would enter and exit construction sites in a forward gear, where feasible and reasonable.	Section 8.4 & Appendix C
T10	Any relocation of bus stops would be carried out by Transport for NSW in consultation with Roads and Maritime Services, the Sydney Coordination	N/A

Heading	Requirement	Reference in this TMP
	Office (for relevant locations), the relevant local council and bus operators. Wayfinding and customer information would be provided to notify customers of relocated bus stops.	
T11	For special events that require specific traffic measures, those measures would be developed in consultation the Sydney Coordination Office (for relevant locations), Roads and Maritime Services, Barangaroo Delivery Authority (for relevant locations) and the organisers of the event.	Section 9.2
T12	Construction sites would be managed to minimise construction staff parking on surrounding streets. The following measures would be implemented: • Encouraging staff to use public or active transport • Encouraging ride sharing • Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable. Transport for NSW would work with local councils to minimise adverse impacts of construction on parking and other kerbside use in local streets, such as loading zones, bus zones, taxi zones and coach zones.	Section 8.9
T13	Construction site traffic would be managed to minimise movements in the AM and PM peak periods.	Section 8.6
T14	Construction site traffic immediately around construction sites would be managed to minimise movements through school zones during pick up and drop off times.	N/A
T19	Where existing parking is removed to facilitate construction activities, alternative parking facilities would be provided where feasible and reasonable.	Section 9.7 & 10.2
T20	Alternative pedestrian routes and property access would be provided where these are affected during the construction of the power supply routes.	N/A in this CTMP. Shall be applicable during footpath upgrades at final stage of construction works. At this point, works shall be completed via a ROL.
T21	The potential combined impact of trucks from multiple construction sites would be further considered during the development of Construction Traffic Management Plans.	Section 5.7
T22	Where existing footpath routes used by pedestrians and / or cyclists are affected by construction, a condition survey would be carried out to confirm they are suitable for use (e.g. suitably paved and lit), with any necessary modifications to be carried out in consultation with the relevant local council.	Section 9.4
T23	Specific station management measures would be implemented during pedestrian movement Phase 2. This would include strategies such as encouraging passengers to exit platforms at the closest stair case or escalator, signage and marshalling of passengers waiting to board to minimise those waiting adjacent to hoarding and to direct passengers so that that there is even distribution along the platform.	N/A
T27	Detailed construction planning would be coordinated with the Sydenham to Bankstown project and the Temporary Transport Strategy arrangements to minimise impacts on the traffic and transport network.	N/A

Table 4.6: Compliance to City of Sydney Standard Requirements for Construction Traffic Management Plan

Heading	Requirement	Reference in this TMP
1	Details of routes to and from site and entry and exit points from site – site specific	Section 8.4 & 8.7
2	Details of roads that may be excluded from use by construction traffic i.e. roads with load limits, quiet residential streets or access/turn restricted streets – site specific	Section 8.4 & 8.7
3	The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.	Section 8.7 & 10.11
4	All vehicles must enter and exit the site in a forward direction (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	Section 8.4 & Appendix C
5	Trucks are not allowed to reverse into the site from the road (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	Section 8.4 & Appendix C
6	The Applicant must provide the City with details of the largest truck that will be used during the demolition, excavation and construction. NOTE: No dog trailers or articulated vehicles (AV) to be used (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	Section 8.4 & 8.6
7	Oversize and over-mass vehicles are not allowed to travel on Local Roads (unless approval for a one-off occasion is obtained from the City's Traffic Operations Unit). Requests to use these vehicles must be submitted to the City 28 days prior to the vehicle's scheduled travel date.	Section 8.8
8	No queuing or marshalling of trucks is permitted on any public road.	Section 8.8
9	Any temporary adjustment to Bus Stops or Traffic Signals will require the Applicant to obtain approval from the STA and RMS respectively prior to commencement of works.	Section 2.1
10	All vehicles associated with the development shall be parked wholly within the site. All site staff related with the works are to park in a designated off-street area or be encouraged to use public transport and not park on the public road.	Section 8.9
11	All loading and unloading must be within the development site or at an approved "Works Zone".	Section 8.4
12	The Applicant must apply to the City's Traffic Works Coordinator to organise appropriate approvals for Work Zones and road closures.	Separate application will be made by the contractor.
13	The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for partial road closures.	Separate application will be made by the contractor.
14	The Applicant must apply to the Transport for NSW's Transport Management Centre for approval of any road works on State Roads or within 100m of Traffic Signals and receive an approved Road Occupancy Licence (ROL). A copy of the ROL must be provided to the City.	Separate application will be made by the contractor.
15	The Applicant must apply to the City's Construction Regulation Unit to organise appropriate approvals for temporary driveways, cranes and barricades etc.	Separate application will be made by the contractor.
16	The Applicant must comply with development consent for hours of construction.	Section 8.3
17	All Traffic Control Plans associated with the CTMP must comply with the Australian Standards and Roads and Maritime Services (RMS) Traffic Control at Work Sites Guidelines.	Section 10.3

Heading	Requirement	Reference in this TMP
18	Traffic Controllers are NOT to stop traffic on the public street(s) to allow trucks to enter or leave the site. They MUST wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction site - the vehicles already on the road have right-of-way.	Section 10.3
19	Pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering BUT you must NOT stop pedestrians in anticipation i.e. at all times the pedestrians have right-of-way on the footpath not the trucks.	Section 10.3
20	Physical barriers to control pedestrian or traffic movements need to be determined by the City's Construction Regulations Unit prior to commencement of work.	N/A
21	The Applicant must obtain a permit from the City's Construction Regulation Unit regarding the placing of any plant/equipment on public ways.	Separate application will be made by the contractor.
22	The Applicant must apply to the City's Building Approvals Unit to organise appropriate approvals for hoarding prior to commencement of works.	Separate application to be made by the contractor
23	The CTMP is for the excavation, demolition and construction of building works, not for road works (if required) associated with the development. Any road works will require the Applicant or the contractor to separately seek approval from the City and/or RMS for consideration. Also, WorkCover requires that Traffic Control Plans must comply with Australian Standards 1742.3 and must be prepared by a Certified Traffic Controller (under RMS regulations).	Section 4
24	Please note that the provision of any information in this CTMP will not exempt the Applicant from correctly fulfilling all other conditions relevant to the development consent for the above site.	Section 4

Table 4.7: Compliance to Sydney Metro Principal Contractor Health and Safety Standard

Heading	Requirement	Reference in this TMP
11.19	a) Traffic Management Plans (TMPs) must be developed by a person that holds the RMS approved Prepare Work Zone Traffic Management Plan certificate of competence.	Appendix D
	b) Where there is a risk of workers from being struck by live traffic, temporary road closures and detours must be considered as the first option to eliminate the hazard of moving traffic.	Section 7
	c) Unless it can be reasonably justified through a risk assessment, temporary traffic signalling devices must be used to control traffic movements as per AS1742.3 and mitigate the risks to workers (including traffic controllers) of being struck by moving traffic.	Section 7
	d) Where the use of traffic controllers is deemed reasonably practicable, traffic controllers must hold an RMS approved Traffic Controller's license (formerly known as the Blue Card – Stop/Slow bat).	Section 7 & 8.4
	e) Unless approved in writing by the PC's Project Director, traffic controllers and workers on the road must be provided with physical protection from the risk of being struck by out-of-control vehicles using preferably road safety barriers compliant to AS3845 accepted by RMS for use on NSW Roads (and compliant with AS 3845), or engineer-certified crash attenuators (e.g. Truck and Trailer Mounted Attenuators) fitted to shadow vehicles.	Chapter 7
	f) Where crash attenuators are used they must be used in accordance with the National Guidelines for the use of Truck and Trailer Mounted Attenuators.	N/A
	g) All signage must be installed in accordance with the relevant TCP/TCGS and must be inspected at the frequency specified in the CTMP.	Appendix D
	h) In addition to the minimum required PPE as specified in the section of this Standard, entitled Personal Protective Equipment (PPE), Traffic Controllers must wear high visibility clothing with trousers fitted with double-reflective stripes or reflective boot covers in accordance with Section 8 of AS 4602.	Section 8.4
	i) Sufficient traffic controller workers must be engaged so that the traffic controllers may rotate and have breaks.	Section 8.4 & Appendix D
	j) Traffic controllers working at night must carry illuminated wands to direct traffic.	Section 8.4

Table 4.8: Compliance to City of Sydney Standard Requirements for Preparing a CTMP Report

Heading	Requirement	Reference in this TMP
1	Details of the project including site location, scope of works, general breakdown of activities and hours of operation.	Section 5.1, 8.2 & 8.4
	Surrounding traffic environment showing State, Regional and Local Roads, road network configuration and use, public transport facilities and existing parking restrictions	Section 5.2, 5.4 to 5.6
2	Truck routes to and from the site utilising State and Regional Roads – map of the routes must be provided	Section 8.7
	The largest vehicle that will be used during construction in accordance with the City's CTMP Standard Requirements	Section 8.4
	Frequency of truck movements	Section 8.6
	Demonstrate using swept path diagrams how trucks enter, circulate and exit the site or Works Zone in a forward direction	Appendix C
	Works Zones will need to be considered if trucks cannot enter or exit the site in a forward direction at all times	N/A
	Demonstrate using swept path diagrams how trucks will navigate to and from the site along the nominated truck route	Section 8.7
	Provide a plan showing where vehicles stand to load and unload, where plant will stand, location of storage areas for equipment, materials and waste, location of Works Zones (if required) and location of cranes (if required)	Section 8.5
	The approvals of Works Zones and Road Closures (to install cranes) is a separate process that requires Traffic Committee endorsement	Separate application and TMP for crane works
3	Provide details of the impact of the works on residents, businesses, pedestrians, cyclists, local traffic and emergency services and management of staff parking.	Section 9.8, 9.4, 9.9, 9.1, 8.8
4	Include Swept Path drawings for vehicles entering, circulating and exiting the site and Works Zones in appendices.	Appendix C
-	Include Traffic Control Plans (done by RMS accredited traffic controller) for any diversions or Traffic Management relating to vehicles accessing the site in appendices.	Section 10.3 & Appendix D
-	Include the City's CTMP Standard Requirements. (There are some parts of the requirements that are in red and will need to be completed on a site-specific basis) in appendices.	Table 6 & Appendix A

Table 4.9: Compliance to Pitt Street North Over Station Development SSD-10375 Conditions of Approval

Heading	Requirement	Reference in this TMP
Part B – Prior to Issue of Construction Certificate		
B30	Prior to the commencement of construction, the Applicant must submit to the Certifying Authority evidence that sufficient off-street parking has been provided for heavy vehicles and for site personnel, to ensure that construction traffic associated with the development does not utilise on-street parking or public parking facilities.	Sections 8.4 & 8.9
B34	Plans demonstrating compliance with the following traffic and parking requirements shall be submitted to the satisfaction of the Certifying Authority prior the issue of the issue of the relevant Construction Certificate:	N/A - This condition relates to the operation phase of development. This CTMP has been prepared in relation to the development construction phase.
	all vehicles should enter and leave the subject site in a forward direction;	
	all vehicles are to be wholly contained on site before being required to stop;	
	parking associated with the proposal (including driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) should be in accordance with AS 2890.1-2004, AS/NZS 2890.6:2009 and AS 2890.2-2002;	
	appropriate pedestrian advisory signs are to be provided at the egress from parking areas;	
	all works/regulatory signposting associated with the proposed developments shall be at no cost to the relevant roads authority; and	
	the swept path of the longest vehicle (including garbage trucks) entering and exiting the Site, as well as manoeuvrability through the subject Site, shall be in accordance with AUSTROADS.	
B42	Prior to the issue of any Construction Certificate the Applicant shall demonstrate, to the satisfaction of the Sydney Coordination Office within TfNSW, the following:	N/A - This condition relates to the operation phase of development. This CTMP has been prepared in relation to the development construction phase.
	loading and servicing facilities within the subject site adequately accommodate the forecast demand of the development (including long dwell time service vehicles) so as to not rely on the kerbside restrictions to conduct the development's business, including any necessary provision of greater loading bay capacity; and	
B43	Prior to the issue of any Construction Certificate or any works, whichever is the earlier, the Applicant shall:	-
	amend, or prepare an addendum to, the Construction Pedestrian and Traffic Management Plan (CPTMP) applicable to the CSSI approval (CSSI 7400) to apply to the development. The amended CPTMP must be prepared in consultation with the Sydney Coordination Office within TfNSW, and submitted to the Planning Secretary and Certifying Authority; or	Throughout this Plan.
	Prepare a final CPTMP in consultation with the Sydney Coordination Office within TfNSW. The CPTMP needs to specify matters including, but not limited to, the following:	The CTMP (this plan, applicable to the CSSI 7400 approval) has been amended to apply to the OSD development.
	a description of the development;	Section 1.1

Heading	Requirement	Reference in this TMP
	location of any proposed work zone(s);	Section 8.4
	details of crane arrangements including location of any crane(s) and crane movement plan;	Section 8.13
	haulage routes;	Section 8.7
	proposed construction hours;	Section 8.3
	predicted number of construction vehicle movements, detail of vehicle types and demonstrate that proposed construction vehicle movements can work within the context of road changes in the surrounding area, noting that construction vehicle movements are to be minimised during peak periods;	Section 8.4, 8.6 and 10.1
	construction vehicle access arrangements;	Section 8.4
	construction program and construction methodology, including any construction staging;	Sections 8.1, 8.2 & 8.5
	a detailed plan of any proposed hoarding and/or scaffolding;	Section 8.4
	measures to avoid construction worker vehicle movements within the precinct;	Sections 8.9
	consultation strategy for liaison with surrounding stakeholders, including other developments under construction and Sydney Metro City and Southwest;	Section 10.8
	identify any potential impacts to general traffic, cyclists, pedestrians, bus services within the vicinity of the site from construction vehicles during the construction of the proposed works. Proposed mitigation measures should be clearly identified and included in the CPTMP; and	Chapter 9
	identify the cumulative construction activities of the development and other projects within or around the development site, including the Sydney Metro City and Southwest and private development. Proposed measures to minimise the cumulative impacts on the surrounding road network should be clearly identified and included in the CPTMP.	Section 9.10
	Submit a copy of the final development specific CPTMP to Sydney Coordination Office within TfNSW for endorsement;	Noted.
	Provide the builder's direct contact number to small businesses adjoining or impacted by the construction work and the Transport Management Centre and Sydney Coordination Office within Transport for NSW to resolve issues relating to traffic, public transport, freight, servicing and pedestrian access during construction in real time. The Applicant is responsible for ensuring the builder's direct contact number is current during any stage of construction; and	Noted.
	A copy of the final development specific CPTMP must be submitted to the Planning Secretary and Certifying Authority.	Noted.
Part C – Prior to Commencement of Works		
C17	Prior to commencement of any lighting installation, evidence must be submitted to the satisfaction of the Certifying Authority that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS4282-2019 Control of the obtrusive effects of outdoor lighting.	N/A within this CTMP. Addressed in separate documentation prepared by contractor.
Part D – During Construction		
D9	The Applicant must ensure the requirements of the Construction Environmental Management Plan, Construction Pedestrian Traffic Management Plan, Construction Noise and Vibration Management Sub-Plan, Air Quality Management Plan and Construction Waste Management Plan required by Part B of this consent are implemented during construction.	Noted.
D11	The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the subject site or surrounding residential precincts outside of the construction hours of work outlined under this consent.	Section 8.3

Heading	Requirement	Reference in this TMP
D18	All construction vehicles are to be contained wholly within the Site, except if located in an approved on street work zone, and vehicles must enter the Site before stopping.	Section 8.4
D19	A Road Occupancy Licence must be obtained from the relevant transport authority for any works that impact on traffic flows during construction activities.	Separate application will be made by the contractor.
D20	The public way must not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances. Non-compliance with this requirement will result in the issue of a notice by the Planning Secretary to stop all work on site.	Section 8.4 & 8.9, Appendix C
D22	All vehicles involved in the excavation and / or demolition process and departing from the property with materials, spoil or loose matter must have their loads fully covered before entering the public roadway.	N/A - No excavation and/or demolition works proposed as part of the OSD construction.
D23	Prior to the commencement of work, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the Site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.	Section 10.1

Table 4.10: Compliance to Pitt Street South Over Station Development SSD-10376 Conditions of Approval

Heading	Requirement	Reference in this TMP
Part B – Prior to Issue of Construction Certificate		
B28	Prior to the commencement of construction, the Applicant must submit to the Certifying Authority evidence that sufficient off-street parking has been provided for heavy vehicles and for site personnel, to ensure that construction traffic associated with the development does not utilise on-street parking or public parking facilities.	Sections 8.4 & 8.9
B37	Plans demonstrating compliance with the following traffic and parking requirements shall be submitted to the satisfaction of the Certifying Authority prior the issue of the issue of the relevant Construction Certificate:	N/A - This condition relates to the operation phase of development. This CTMP has been prepared in relation to the development construction phase.
	all vehicles should enter and leave the subject site in a forward direction;	
	all vehicles are to be wholly contained on site before being required to stop;	
	parking associated with the proposal (including driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) should be in accordance with AS 2890.1-2004, AS/NZS 2890.6:2009 and AS 2890.2-2002;	
	appropriate pedestrian advisory signs are to be provided at the egress from parking areas;	
	all works/regulatory signposting associated with the proposed developments shall be at no cost to the relevant roads authority; and	
	the swept path of the longest vehicle (including garbage trucks) entering and exiting the Site, as well as manoeuvrability through the subject Site, shall be in accordance with AUSTROADS.	
B46	Prior to the issue of any Construction Certificate the Applicant shall demonstrate, to the satisfaction of the Sydney Coordination Office within TfNSW, the following:	N/A - This condition

Heading	Requirement	Reference in this TMP
	loading and servicing facilities within the subject site adequately accommodate the forecast demand of the development (including long dwell time service vehicles) so as to not rely on the kerbside restrictions to conduct the development's business, including any necessary provision of greater loading bay capacity; and	relates to the operation phase of development. This CTMP has been prepared in relation to the development construction phase.
B47	Prior to the issue of any Construction Certificate or any works, whichever is the earlier, the Applicant shall:	-
	amend, or prepare an addendum to, the Construction Pedestrian and Traffic Management Plan (CPTMP) applicable to the CSSI approval (CSSI 7400) to apply to the development. The amended CPTMP must be prepared in consultation with the Sydney Coordination Office within TfNSW, and submitted to the Planning Secretary and Certifying Authority; or	Throughout this Plan.
	Prepare a final CPTMP in consultation with the Sydney Coordination Office within TfNSW. The CPTMP needs to specify matters including, but not limited to, the following:	The CTMP (this plan, applicable to the CSSI 7400 approval) has been amended to apply to the OSD development.
	a description of the development;	Section 1.1
	location of any proposed work zone(s);	Section 8.4
	details of crane arrangements including location of any crane(s) and crane movement plan;	Section 8.13
	haulage routes;	Section 8.7
	proposed construction hours;	Section 8.3
	predicted number of construction vehicle movements, detail of vehicle types and demonstrate that proposed construction vehicle movements can work within the context of road changes in the surrounding area, noting that construction vehicle movements are to be minimised during peak periods;	Section 8.4, 8.6 and 10.1
	construction vehicle access arrangements;	Section 8.4
	construction program and construction methodology, including any construction staging;	Sections 8.1, 8.2 & 8.5
	a detailed plan of any proposed hoarding and/or scaffolding;	Section 8.4
	measures to avoid construction worker vehicle movements within the precinct;	Sections 8.9
	consultation strategy for liaison with surrounding stakeholders, including other developments under construction and Sydney Metro City and Southwest;	Section 10.8
	identify any potential impacts to general traffic, cyclists, pedestrians, bus services within the vicinity of the site from construction vehicles during the construction of the proposed works. Proposed mitigation measures should be clearly identified and included in the CPTMP; and	Chapter 9
	identify the cumulative construction activities of the development and other projects within or around the development site, including the Sydney Metro City and Southwest and private development. Proposed measures to minimise the cumulative impacts on the surrounding road network should be clearly identified and included in the CPTMP.	Section 9.10

Heading	Requirement	Reference in this TMP
	Submit a copy of the final development specific CPTMP to Sydney Coordination Office within TfNSW for endorsement;	Noted.
	Provide the builder's direct contact number to small businesses adjoining or impacted by the construction work and the Transport Management Centre and Sydney Coordination Office within Transport for NSW to resolve issues relating to traffic, public transport, freight, servicing and pedestrian access during construction in real time. The Applicant is responsible for ensuring the builder's direct contact number is current during any stage of construction; and	Noted.
	A copy of the final development specific CPTMP must be submitted to the Planning Secretary and Certifying Authority.	Noted.
Part C – Prior to Commencement of Works		
C18	Prior to commencement of any lighting installation, evidence must be submitted to the satisfaction of the Certifying Authority that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS4282-2019 Control of the obtrusive effects of outdoor lighting.	N/A within this CTMP. Addressed in separate documentation prepared by contractor.
Part D – During Construction		
D9	The Applicant must ensure the requirements of the Construction Environmental Management Plan, Construction Pedestrian Traffic Management Plan, Construction Noise and Vibration Management Sub-Plan, Air Quality Management Plan and Construction Waste Management Plan required by Part B of this consent are implemented during construction.	Noted.
D11	The Applicant must ensure construction vehicles (including concrete agitator trucks) do not arrive at the subject site or surrounding residential precincts outside of the construction hours of work outlined under this consent.	Section 8.3
D18	All construction vehicles are to be contained wholly within the Site, except if located in an approved on street work zone, and vehicles must enter the Site before stopping.	Section 8.4
D19	A Road Occupancy Licence must be obtained from the relevant transport authority for any works that impact on traffic flows during construction activities.	Separate application will be made by the contractor.
D20	The public way must not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances. Non-compliance with this requirement will result in the issue of a notice by the Planning Secretary to stop all work on site.	Section 8.4 & 8.9, Appendix C
D22	All vehicles involved in the excavation and / or demolition process and departing from the property with materials, spoil or loose matter must have their loads fully covered before entering the public roadway.	N/A - No excavation and/or demolition works proposed as part of the OSD construction.
D23	Prior to the commencement of work, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the Site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.	Section 10.1

5 Existing Transport Conditions

5.1 Site Location

The subject site consists of two sites, namely:

- North Site – DP 1255509 Lot 20, bound by Pitt Street, Park Street and Castlereagh Street.
- South Site – DP 1255507 Lot 10, at the corner of Bathurst Street and Pitt Street
- Adits and caverns – DP 1232510 Lot 153.

5.2 Surrounding Road Network

The road network surrounding the subject sites comprises local streets in the CBD road network having a 40 km/h speed zone. These streets are described herein while an aerial photo of the subject sites and the surrounding local road network is shown in Figure 5.1.

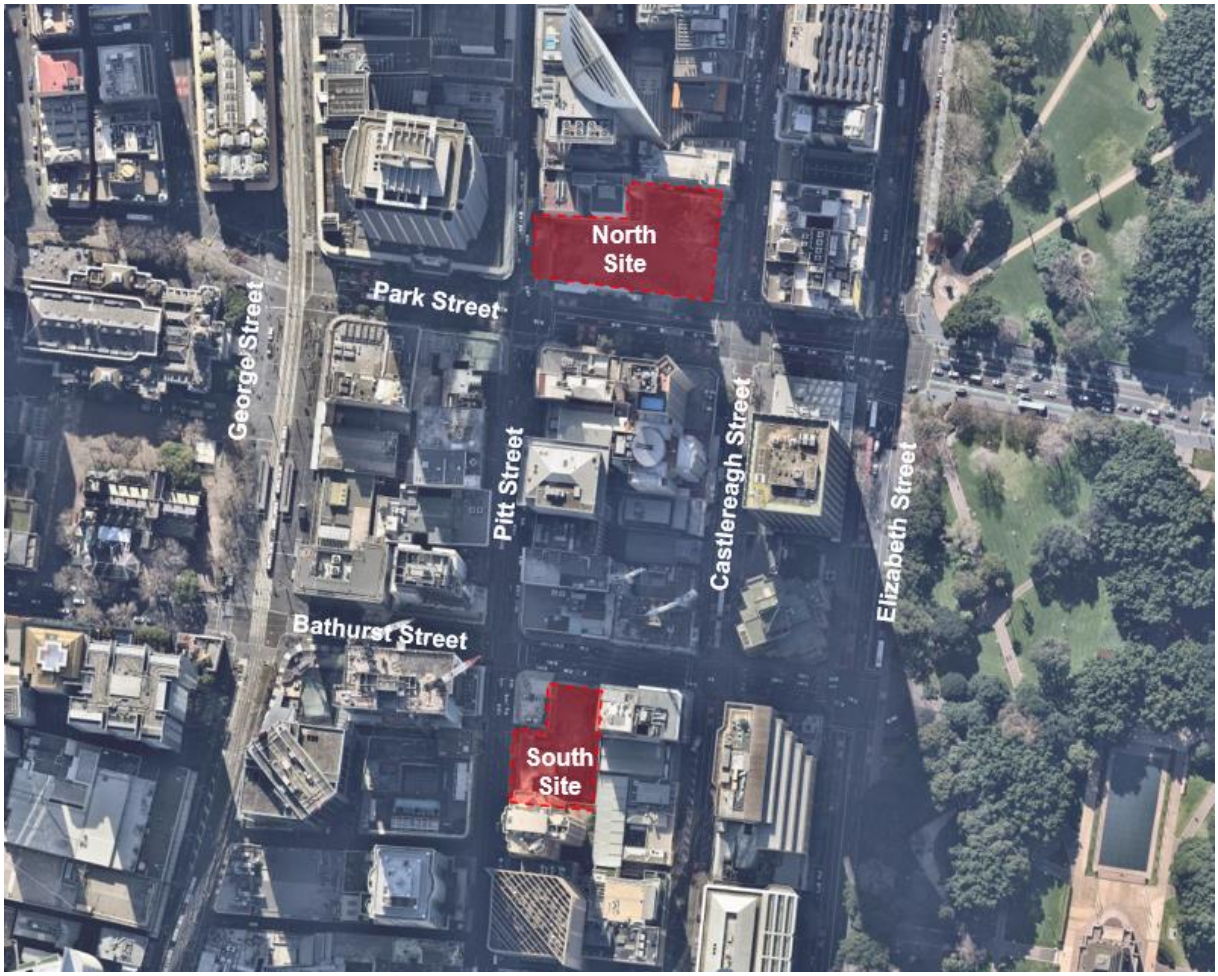
Pitt Street is configured as one-way street in the northbound direction. Near the North Site, Pitt Street has two traffic lanes with restricted off-street parking or loading zones on both sides of the street. Around the South Site, it has four traffic lanes with restricted parking and loading zones provided within kerbside lanes on both sides of the street. It runs in the north-south direction along the western boundary of the North Site and South Site. In the vicinity of the subject sites, marked pedestrian crossings are provided on all approaches at intersections with Pitt Street.

Castlereagh Street operates as a one-way street in the southbound direction. It has four trafficable lanes with two kerbside lanes used for parking and the two middle lanes used for through traffic movements. One of the middle lanes operates as a bus lane. Wide footpaths exist on both sides of the street and marked pedestrian crossings provided on all approaches at junctions near the subject sites. Castlereagh Street forms the eastern boundary to the North Site only.

Park Street is a two-way street with traffic flow in the east-west direction. Near the subject site, there are bus stops located on both sides of Park Street. The street is configured having two eastbound lanes (including a Bus Lane) and three westbound lanes (including two Bus Lanes). Wide footpaths are provided on both sides of the street and marked pedestrian crossings provided at all nearby signalised intersections.

Bathurst Street is a one-way street in the eastbound direction which forms the northern boundary of the South Site It has three traffic lanes and indented restricted parking or loading zones in kerbside lanes on both sides of the street. Wide footpaths are provided on both sides of the street and marked pedestrian crossings provided at all nearby signalised intersections.

Figure 5.1: Subject Site and Surrounding Road Network



Basemap source: Nearmap, viewed online on 03/09/2020

5.3 Traffic Volumes

A summary of the peak hourly traffic volumes on the surrounding road network as documented in the Sydney Metro EIS is provided in Table 5.1.

Table 5.1: Existing Traffic Volumes

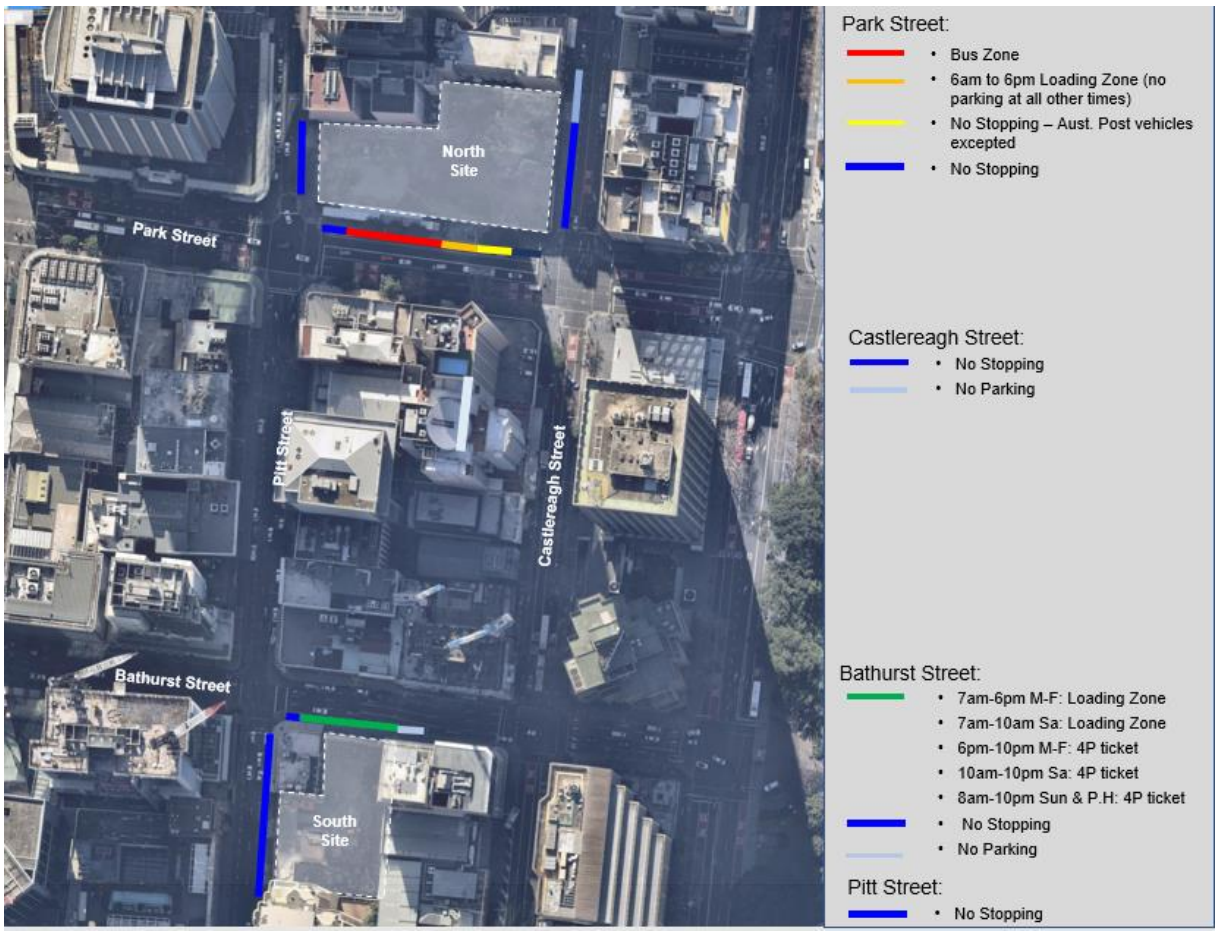
Road	Direction	AM Peak Hour (Two-way movements)	PM Peak Hour (Two-way movements)
Castlereagh Street between Park Street and Bathurst Street	Southbound	300	490
Pitt Street between Bathurst Street and Park Street	Northbound	530	480
Park Street between Castlereagh Street and Pitt Street	Eastbound	170	270
	Westbound	610	530
Bathurst Street between Castlereagh Street and Pitt Street	Eastbound	1,110	1,120

Reference: Sydney Metro EIS

5.4 Kerbside Uses

A summary of kerbside uses surrounding the subject sites and time restrictions pertaining to parking and loading on these streets are shown in Figure 5.2.

Figure 5.2: Kerbside Uses



5.5 Pedestrian and Cyclist Facilities

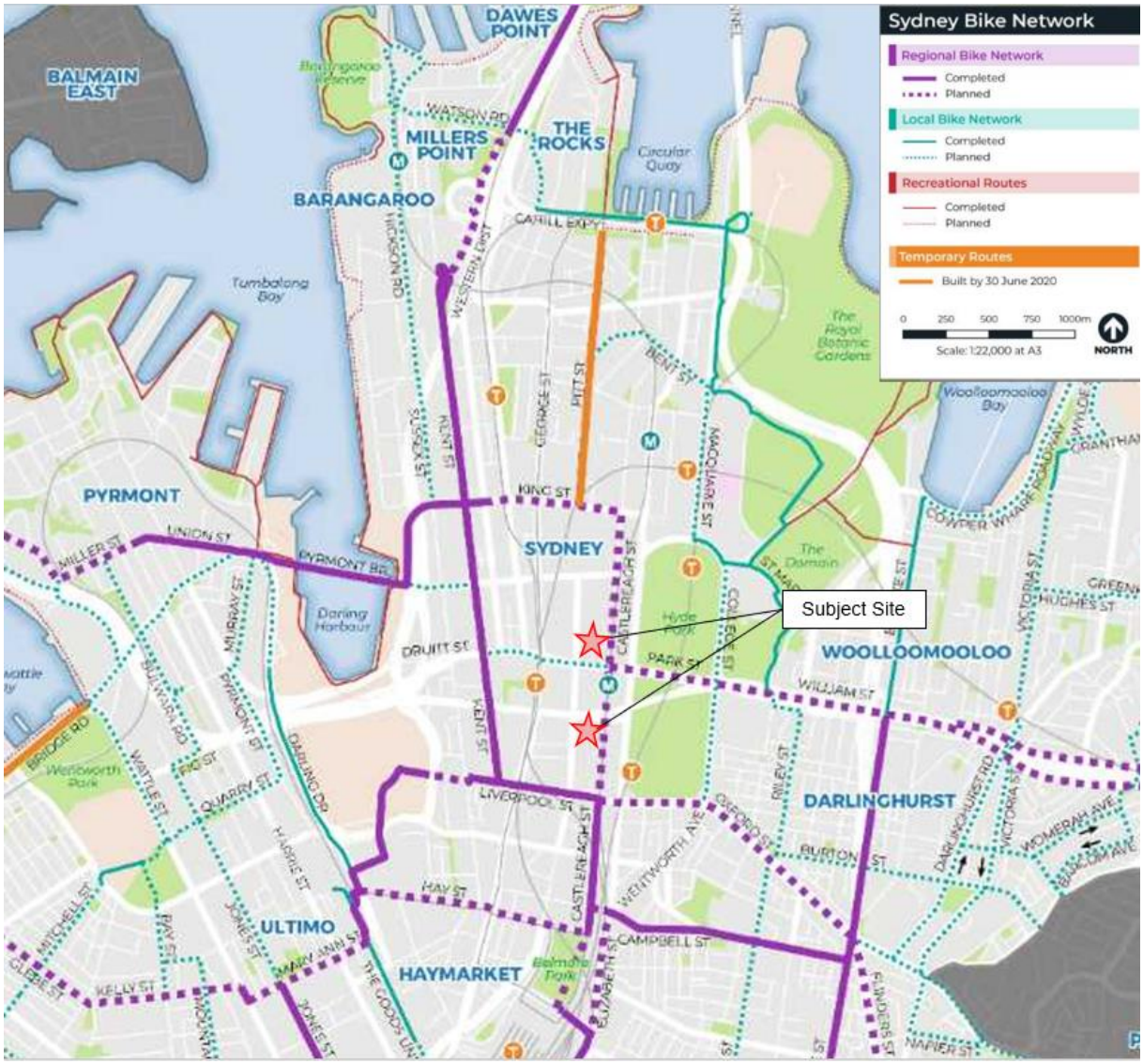
Well established pedestrian paths are provided on both sides of all roads in the vicinity of the subject site. The paths surrounding the subject site provide a good level of connectivity in the area and vary in width between 4m and 5.5m.

Signalised pedestrian crossing facilities are provided at the intersections immediately surrounding the subject sites, respectively, as follows:

- Park Street with Pitt Street
- Park Street with Castlereagh Street, and
- Bathurst Street with Pitt Street.

Surrounding the site, the nearest bicycle routes are located on Castlereagh Street as shown in Figure 5.3. It is noted that City of Sydney has installed six temporary cycleways to prioritise cycling as a transport mode in response to the recent COVID -19 pandemic. However, these routes which are highlighted in orange below, are located some distance away from the subject site (e.g. on Pitt Street, north of King Street).

Figure 5.3: Existing Bicycle Network



Basemap source: City of Sydney, viewed online 30/06/2020

5.6 Public Transport Services

Bus Services

The surrounding local road network is served by a number of bus routes operated by Sydney Buses, linking Sydney CBD with various suburbs across Sydney. Regular services are provided with a frequency of 10–20 minutes for each service during the AM and PM peak periods. Bus routes in the vicinity of the site are shown in Figure 5.3.

A bus lane is provided on Park Street and Castlereagh Street. These bus lanes operate in the southbound direction. The bus lane on Castlereagh Street operates between 6:00am-8:00pm Monday to Friday, and 10:00am-6:00pm on Saturday, Sunday and public holidays.

Train Services

The closest train station is Town Hall Station which has a station exits located on George Street near Park Street and Bathurst Street approximately 150m walking distance from the North Site and South Site. Town Hall Station is the second busiest station following Central Station. However, during the AM commuter peak period (6.00am-9.30am) it has the highest number of patrons exiting the station.

Light Rail

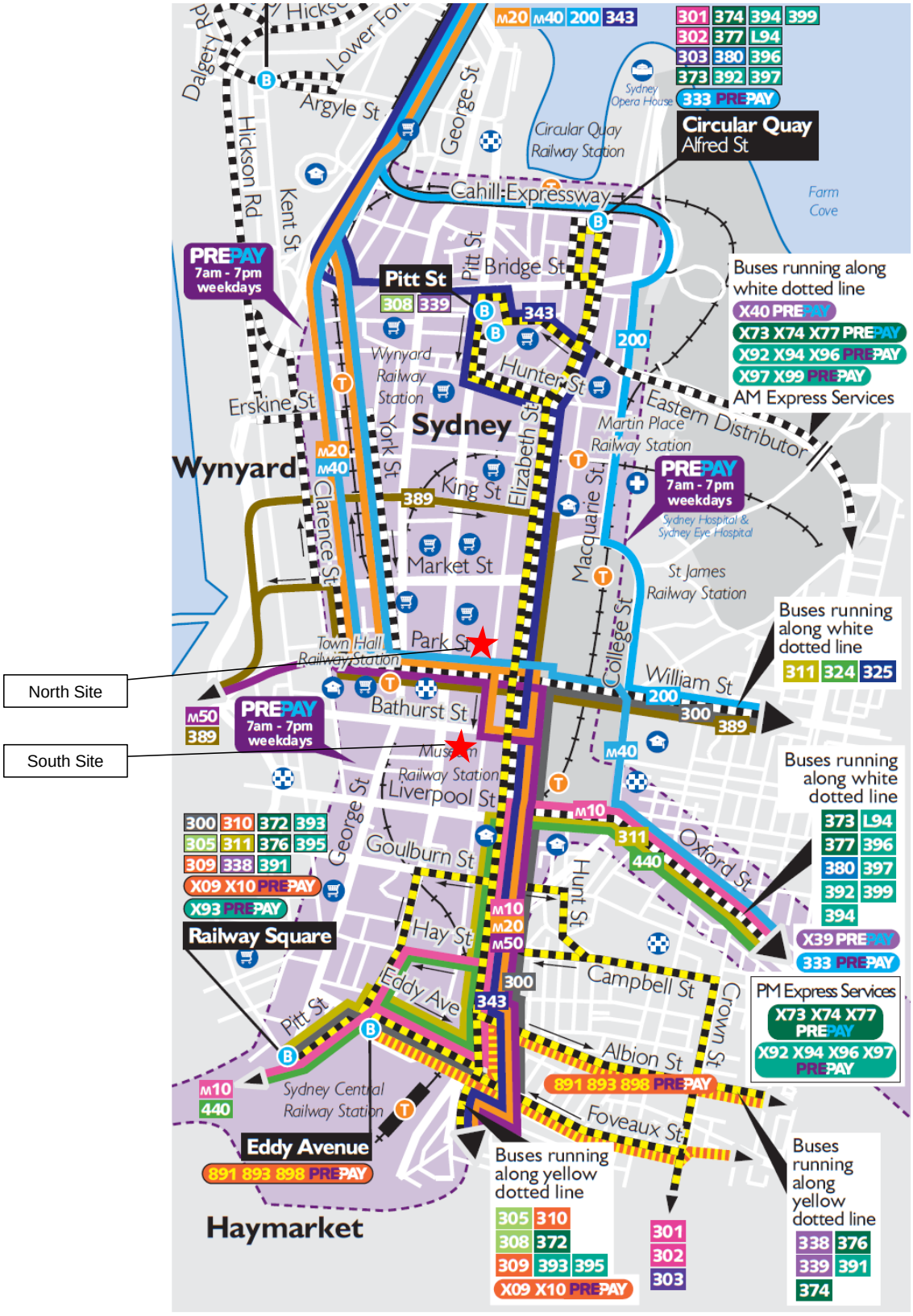
Town Hall (QVB) light rail stop is located on George street between 200-250m walking distance from the project site. this stop is served by the L2 Randwick to Circular Quay and L3 Kingsford lines. Services for each line are provided every 8 minutes in peak periods and 10-12 minutes in off-peak periods. The location of the light rail stop within context of the site is shown in Figure 5.5.

Taxi Services

According to City of Sydney's website, the nearest taxi rank and taxi stop are located on Pitt Street and Bathurst Street, near the South Site. The website states that the taxi rank and taxi stop are located on Pitt Street east side. However, a site inspection was carried out on 30 June 2020 which identified a Taxi Zone to be located on the west side of the street as indicated in Figure 5.6.

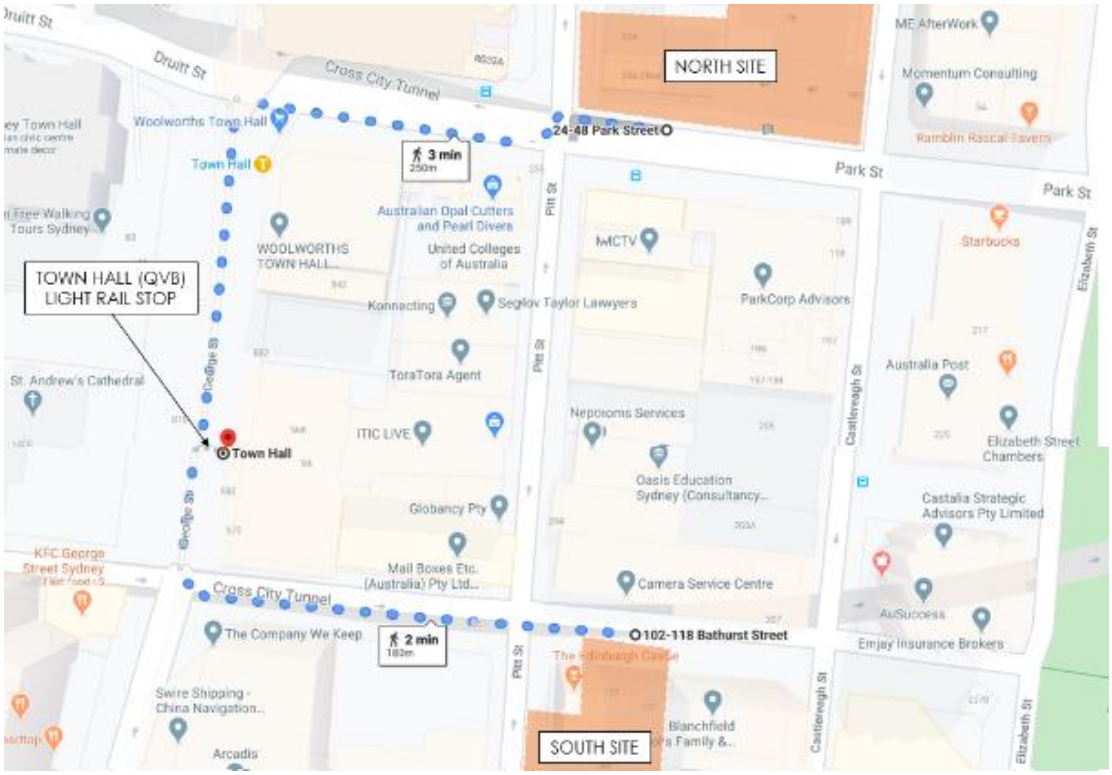
There was no taxi rank and taxi stop observed on the east side of Pitt Street.

Figure 5.4: Existing Bus Network



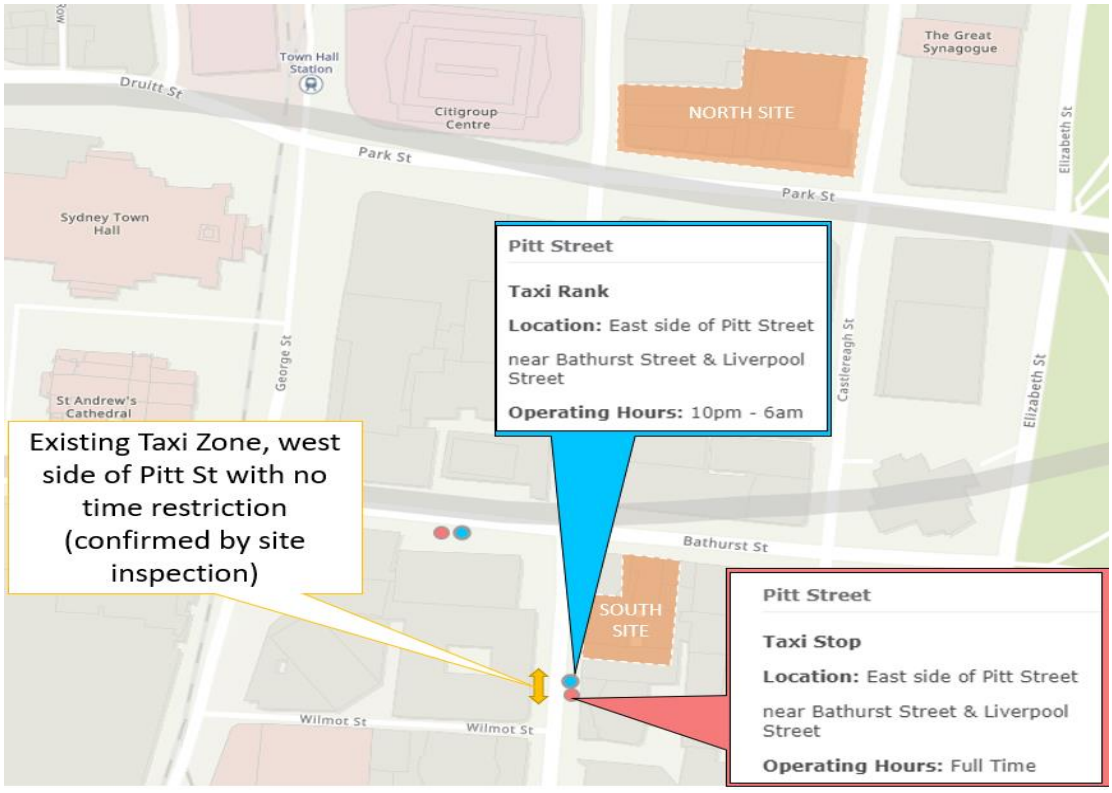
Source: Transport for NSW

Figure 5.5: Light Rail



Basemap Source: Google Maps, viewed online 20/06/2020

Figure 5.6: Existing Taxi Ranks



Source: City of Sydney, date viewed online 30/06/2020

5.7 Concurrent Construction Projects

Major projects under construction that are likely to overlap with the proposed construction works of the Pitt Street SDD project include the following:

- Martin Place Integrated Station Development (ISD) (2019 – December 2023)
- Central Station (2019 – August 2023)
- The Greenland Centre, 115 Bathurst Street (complete in December 2020)
- 116 Bathurst Street
- 201 Elizabeth Street
- 338 Pitt Street.

City of Sydney's online development tracker and NSW Department of Planning, Industry and Environment's Major Projects website have been reviewed for details on construction-related traffic volumes. Table 5.2 presents a summary of the construction traffic generation of the above projects. Construction information for some projects has not been made available online. As a result, construction traffic volumes for these sites have been assumed to be similar to the construction site at 338 Pitt Street on the basis that they are non Sydney Metro construction projects as contained in Table 5.2.

Table 5.2: Estimated Construction Traffic Generation of Concurrent Projects

Concurrent Project	Max. Daily Construction Traffic Estimate	Peak Hourly Construction Traffic Estimate
Martin Place Integrated Station Development	93 veh/day	15 veh/hr on average across construction project duration
Central Station Main Works	80 veh/day	24 veh/hr
The Greenland Centre, 115 Bathurst Street	68 veh/day	Not available. Assume 6 veh/hr based on 11-hr workday.
116 Bathurst Street	Not available. Assume 20 veh/day	Not available. Assume 2 veh/hr
201 Elizabeth Street	Not available. Assume 20 veh/day	Not available. Assume 2 veh/hr
338 Pitt Street	20 veh/day	2 veh/hr

6 Stakeholder Consultation

6.1 During Development of CTMP

Traffic Control Group (TCG) and Traffic and Transport Liaison Group (TTLG)

On 19 May 2020, the Project Team held a meeting with City of Sydney to discuss the proposed work zone arrangements surrounding the project site. City of Sydney advised that the work zone arrangement must avoid the removal of mature trees and, where possible, have minimal impact to other trees. Notably on Pitt Street and Park Street at the North Site, work zones have been modified such that tree removal would not be required; on Pitt Street the work zone has been reduced in length, and on Park Street the work zone has been relocated to the kerbside lane as opposed to with the wide footpath.

The Project Team attended TCG meetings held on 2 June and 16 June 2020 with Sydney Coordination Office (SCO), TfNSW, City of Sydney, Transport management Centre (TMC), Sydney Metro and CPB Contractors to present the proposed work zone and site access arrangements, and construction vehicle volumes.

SCO advised that the Park Street work zone must avoid impacting the existing bus zone located on the north side of Park Street. It is proposed to implement a work zone in place of the existing loading zone and mail zone immediately east of the bus zone.

Once the station structure at the North Site reaches street level, a vehicle crossing into the site will be proposed off Park Street. The driveway would be situated in the bus zone and work zone. To minimise impacts to bus operation, it is proposed to utilise this driveway outside of peak periods, and mainly at night time. This arrangement was discussed at the TCG meeting held on 16 June 2020.

During the TCG meeting on 2 June, the presentation covered the proposed layout of work zones on Castlereagh Street and Pitt Street with regard to the nearby traffic signals. The work zones are proposed to be setback from the intersection stop line to enable sufficient queueing distance at the traffic signals. SIDRA modelling analysis was undertaken to identify the average right-turn queue lengths at both locations which was used to define the commencement of the work zones. The proposed setback of work zones on Castlereagh Street and Pitt Street is discussed in detail in Section 8.4 while the TCG presentation slides have been included in Appendix B. No objections were raised by the TCG on the proposed arrangement.

Meeting minutes for TCG meetings are contained in Appendix B.

The Project Team also attended the TTLG which was held on 24 June 2020 to present the proposed work zone and site access arrangements, and construction vehicle volumes. Comments were received from the SCO, to include the construction information in the revised CTMP, and from Council to advise on impacts to pedestrians. CPB replied that there would be no impacts to pedestrians, and interfaces between pedestrians and vehicles would be managed by traffic controllers.

Consultation with Australia Post

A work zone is proposed alongside the existing Park Street post boxes, and therefore, it is proposed to relocate the boxes in front of 150 Castlereagh Street. The kerbside space adjacent to the post boxes is currently signposted as *No Stopping Aust. Post Vehicles Excepted.*

A survey of this spaces was undertaken on Thursday 18 June between 6am-6pm to identify the frequency and duration of stay of Australia Post vehicles accessing this space. The results of the survey were provided to Australia Post by email. An analysis of the survey results is presented in Section 9.8 of this report.

Australia Post was consulted by email regarding the proposal to relocate the Pitt Street post boxes to Castlereagh Street. Australia Post has agreed to the proposal and has advised that once Mail Zone signage on Castlereagh Street has been installed Australia Post shall relocate the post boxes.

Email correspondence with Australia Post has been included at the end of Appendix B.

Consultation with Castlereagh Boutique Hotel and Edinburgh Castle Hotel (and any other adjoining properties)

CPB Contractors consulted with the Castlereagh Boutique Hotel and City of Sydney on 22 July 2020 regarding the intention to extend the work zone on Castlereagh Street to the north past the Hotel frontage. The Castlereagh Boutique Hotel and City of Sydney raised no objections to the proposal as per correspondence provided in Appendix B.

CPB Contractors has also considered the needs of the Hotel operation and use of this kerbside space for hotel guest set down and pick up, hotel deliveries and emergency vehicle access. CPB intends to liaise with City of Sydney to remove paid on-street loading/ parking spaces to create a new hotel set down/ pick-up area to the north of the work zone. The location of the work zone extension and removal of paid parking space are further described in Section 8.4.

Consultation with Edinburgh Castle Hotel has occurred regarding the accommodation of deliveries to the hotel. It is proposed to accommodate hotel deliveries within the front portion of the Pitt Street work zone as agreed in the correspondence provided in Appendix B. Such arrangement is discussed in Section 8.4.

CPB will utilise an online booking system for construction vehicle deliveries which will also be used to book in deliveries for the Edinburgh Castle Hotel as required. As agreed by Edinburgh Castle Hotel and CPB, both parties will communicate regularly to coordinate the respective deliveries.

Separately, it is noted that the CSSI Condition of Approval E75 is not triggered and not applicable to this project due to no permanent or operational changes to traffic, parking, pedestrian and cycle accessibility being undertaken as part of the Pitt Street Project and this CTMP.

6.2 Post CTMP Approval

Nil at this stage.

7 Risk Assessment

This section presents a risk assessment that focuses on the safety risk for workers, including site personnel and traffic controllers, working around live traffic. The risk ratings used in this analysis are based on the consequence and likelihood criteria presented in Table 7.1 and risk matrix provided in Table 7.2. These criteria and matrix have been adopted from the Sydney Metro Principal Contractor Health and Safety Standard Appendix C.

Table 7.1: Consequence & Likelihood Criteria

Consequence Table

Rating	C6	C5	C4	C3	C2	C1
Descriptor/Impact Area	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
Health and Safety (Injury and Disease)	Illness, first aid or injury not requiring medical treatment.	Illness or minor injuries requiring medical treatment.	Single recoverable lost time injury or illness, alternate/restricted duties injury, or short-term occupational illness.	1-10 major injuries requiring hospitalisation and numerous days' lost, or medium-term occupational illness.	Single fatality and/or 10-20 major injuries/permanent disabilities/chronic diseases.	Multiple fatalities and/or >20 major injuries/permanent disabilities/chronic diseases.

Likelihood Table

Qualitative Expectation	Quantitative Frequency	SM Probability Analysis	LIKELIHOOD		
Expected to occur frequently during time or activity of project	10 times or more every year	>90%	Almost Certain	L1	
Expect to occur occasionally during time or activity of project	1-10 times every year	75-90%	Likely	L2	
More likely to occur than not during time of activity occur or project	Once each year	50-75%	Possible	L3	
More likely not to occur than occur during time of activity of project	Once every 1 to 10 years	25-50%	Unlikely	L4	
Not expected to occur during the time of activity or project	Once every 10 to 100 years	10-25%	Rare	L5	
Not expected to ever occur during time of activity or project	Less than once every 100 years	<10%	Alost Unprecedented	L6	

Source: SM PS-ST-221 Sydney Metro Principal Contractor Health and Safety Standard v2.0

Table 7.2: Risk Matrix

Risk Rating A – Very High B – High C – Medium D – Low			Consequence					
			Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
Likelihood	Almost certain	L1	C	B	B	A	A	A
	Likely	L2	C	C	B	B	A	A
	Possible	L3	C	C	B	B	A	A
	Unlikely	L4	C	C	B	B	B	A
	Rare	L5	D	C	C	B	B	A
	Almost unprecedented	L6	D	D	C	C	B	B

Source: SM PS-ST-221 Sydney Metro Principal Contractor Health and Safety Standard v2.0

The combination of likelihood and severity generates a risk index between A (very high) to D (low). Risk evaluation must be concluded by identifying whether or not action is required based on the risk acceptability criteria presented in Table 7.3. Table 7.4 identifies the risks related to personnel working around live traffic on this project.

Table 7.3: Risk Acceptability Criteria

Class A – Very High	Risks that significantly exceed the risk acceptance threshold and need urgent and immediate attention.
Class B – High	Risks that exceed the risk acceptance threshold and require proactive management.
Class C – Medium	Risks that lie on the risk acceptance threshold and require active monitoring.
Class D – Low	Risks that are below the risk acceptance threshold and do not require active management.

Source: SM PS-ST-221 Sydney Metro Principal Contractor Health and Safety Standard v2.0

Table 7.4: Risk Assessment

Potential Hazards	Consequence	Likelihood	Risk Rating	Controls Implemented	Revised Risk Rating
Traffic on Surrounding Roads					
Traffic controller exposure to road rage/ aggression	Insignificant	Unlikely	C	Traffic controllers will not approach or halt drivers unexpectedly which could have caused drivers to react aggressively due to suddenness. Vehicles already on the road would have the right of way. As such every vehicle leaving the site must wait until a suitable gap in traffic allows them to exit under the direction of qualified traffic and pedestrian controllers.	D
Traffic controller being struck or injured by vehicle running off the road	Major	Rare	B	Surrounding streets are signposted and linemarked as 40km/h (due to the CBD-wide 40km/h speed limit). Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians. Personnel will be instructed to be cautious of their surroundings and report any errant driver behaviour to Police that is observed on surrounding streets. Drivers travelling at speeds above the enforceable speed limit would be breaking the law, and is a matter to be dealt with by the local area command (police) that patrol surrounding streets.	C
Pedestrian being struck by vehicle at the marked crossing at Castlereagh Street – Park Street intersection west approach	Major	Rare	B	By law, pedestrians shall cross the road on a green pedestrian signal only which is when traffic is stopped. Notwithstanding this, to mitigate the risk of a collision between an oncoming vehicle and a pedestrian at the marked crossing, a dedicated traffic controller is proposed at the Park Street work zone to marshal incoming and outgoing heavy vehicles, and shall monitor the work zone with respect to the nearby crossing. In addition, the Park Street work zone is proposed to operate outside of commuter peak periods when the traffic volumes are reduced. The proposed hours of operation for the Park Street work zone are as follows:	C

Potential Hazards	Consequence	Likelihood	Risk Rating	Controls Implemented	Revised Risk Rating
				• 10am to 3pm – Monday to Friday, and 8pm to 5am for special deliveries. • 8am to 1pm – Saturday • No work zone operation on Sunday and public holidays.	
Fatigued Workers (Site Personnel/ Traffic Controllers)					
Occurrence of micro-sleeps therefore more likely for incidents to occur	Insignificant	Unlikely	C	At morning toolbox talks, the Site Supervisor will look out for unrested site personnel and refuse entry to site for employees who are not fit for work. Throughout work shifts, breaks and rest periods will be allocated to site personnel in-line with awards and enterprise agreements required by the Work Health and Safety Act 2011.	C
Less attentive/ reduced concentration therefore more likely to make mistakes	Insignificant	Unlikely	C	Breaks and rest periods will be allocated to site personnel in-line with awards and enterprise agreements required by the Work Health and Safety Act 2011.	C
Prolonged exposure to noise	Insignificant	Unlikely	C	Site personnel will be equipped with PPE, including ear protection (e.g. ear plugs). Also, breaks and rest periods will be allocated to site personnel in-line with awards and enterprise agreements required by the Work Health and Safety Act 2011.	C
Fatigued Drivers					
Less attentive/ reduced concentration therefore more likely to make mistakes	Insignificant	Unlikely	C	Site personnel/ traffic controllers will be equipped with PPE, including high visibility clothing and footwear which will enhance visibility to motorists. Traffic controllers will be equipped with reflective Stop/Slow bat and illuminated wand which would be visible in daytime and night time conditions. Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians. Personnel will be instructed to be cautious of their surroundings and report any errant driver behaviour to Police that is observed on surrounding streets.	C
Occurrence of micro-sleeps therefore more likely for incidents to occur	Insignificant	Unlikely	C	Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians. Personnel will be instructed to be cautious of their surroundings and report any errant driver behaviour to Police that is observed on surrounding streets. Driver fatigue is a matter to be dealt with by the local area command (police) that patrol surrounding streets.	C

Potential Hazards	Consequence	Likelihood	Risk Rating	Controls Implemented	Revised Risk Rating
Night works					
Drivers are slower to react to signage, site personnel/ traffic controllers, plant etc.	Minor	Rare	C	Site personnel/ traffic controllers will be equipped with PPE, including high visibility clothing and footwear which will enhance visibility to motorists. Traffic controllers will be equipped with reflective Stop/Slow bat and illuminated wand which would be visible in daytime and night time conditions. Work areas and site accesses will be well-lit by lighting installed on hoardings and portable light towers. Existing street lighting will be relied upon for lighting of adjacent roads. Surrounding streets are signposted and linemarked as 40km/h (due to the CBD-wide 40km/h speed limit).	D
Lower traffic volumes may lead to higher vehicle speeds on surrounding roads	Major	Rare	B	Surrounding streets are signposted and linemarked as 40km/h (due to the CBD-wide 40km/h speed limit). Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians. Personnel will be instructed to be cautious of their surroundings and report any errant driver behaviour to Police that is observed on surrounding streets. Drivers travelling at speeds above the enforceable speed limit would be breaking the law, and is a matter to be dealt with by the local area command (police) that patrol surrounding streets.	C
Motorists' behaviour on surrounding roads may be impacted by drugs and alcohol	Major	Rare	B	Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians. Personnel will be instructed to be cautious of their surroundings and report any errant driver behaviour to Police that is observed on surrounding streets. Drivers travelling under the influence of drugs and alcohol would be breaking the law, and is a matter to be dealt with by the local area command (police) that patrol surrounding streets.	C
Visibility is reduced for workers, increasing human reaction time if an incident occurs	Insignificant	Unlikely	C	Work areas and site accesses will be well-lit by lighting installed on hoardings and portable light towers. Existing street lighting will be relied upon for lighting of adjacent roads.	D

Potential Hazards	Consequence	Likelihood	Risk Rating	Controls Implemented	Revised Risk Rating
Environmental factors					
Vehicle stopping distance increased on wet roads, reducing recovery opportunity for the driver of an errant vehicle	Moderate	Unlikely	B	Surrounding streets are signposted and linemarked as 40km/h (due to the CBD-wide 40km/h speed limit). It is presumed that surrounding streets have been speed limited appropriately having consideration for various road conditions (dry, wet, day, night etc.). As a general road rule, drivers are also advised to slow down in wet weather conditions.	C
Poor lighting decreases visibility for drivers and workers which makes it harder to identify and react to hazards.	Minor	Rare	C	Site accesses and work areas will be well-lit by lighting installed on hoardings and portable light towers. Existing street lighting will be relied upon for lighting of adjacent roads.	D

In light of the above implemented controls, safety risks for site personnel and traffic controllers working around live traffic are significantly reduced. Without controls, risk rating range between B and C levels (i.e. high to medium). The introduction of controls would reduce risk ratings to between C and D levels (i.e. medium to low).

A shift in risk ratings are achievable due to the implementation of control measures as follows:

- Allocation of breaks and rest periods to site personnel in-line with in-line with awards and enterprise agreements required by the Work Health and Safety Act 2011.
- Provision of PPE, including high visibility clothing and footwear, reflective Slow/ Stop bats, illuminated wands for traffic control, and ear protection.
- Provision of lighting in work areas and at site accesses.
- Presence of Supervisorial oversight of workers who are fatigued and not fit for work.
- Site personnel/ traffic controllers will stand clear of trafficable areas unless when required to manage traffic and pedestrians momentarily.
- Personnel will move cautiously and diligently while working around live traffic, and be aware of atypical driver behaviour. Where errant driver behaviour is observed on surrounding streets, personnel will report to Police who would take action to mitigate errant behaviour.
- Use of stop/ slow to manage site personnel and traffic controller interaction with live traffic, where required.

In-line with Table 7.3, hazards with a D level risk rating are below the risk acceptance threshold and do not require active management while those with a C rating will be actively monitored by the Project Manager and Site Supervisor.

Safety risks for site personnel and traffic controllers working near live traffic would be either mitigated or managed using controls identified in Table 7.4. As addressed by this risk assessment, the use of traffic controllers is reasonably practicable, and thus, temporary traffic signalling devices would not be required.

Site personnel/ traffic controllers will stand on the footpath, clear of roadways and driveways unless when required to manage traffic and pedestrians momentarily. The implementation of controls as per in Table 7.4 would reduce the risk of a worker being struck by an errant vehicle from B to C. These controls would be actively monitored by the Project Manager and Site Supervisor to ensure that safety risks are maintained to a low level using controls required by CPB Safety Essentials.

8 Methodology

8.1 Description

The scope of works covered by this CTMP includes construction of the Integrated Station Development and Over Station Development at the Pitt Street precinct sites. The Pitt Street precinct consists of a North Site, South Site, and Adits and Caverns.

Key construction phases of the project would be carried out as described in the Construction and Site Management Plan prepared by CPB. Work would generally follow this sequence:
Integrated Station Development:

- Detailed excavation or north site and south site.
- North and South station structure construction.
- Station Platform Structure and Trackway Component Construction.
- North, south and platform station Fitout.
- Interface Contractor Fitout.
- Testing and Commissioning.
- Handover

Over Station Development:

- OSD Structure Construction
- Building Fit-out
- Testing & Commissioning

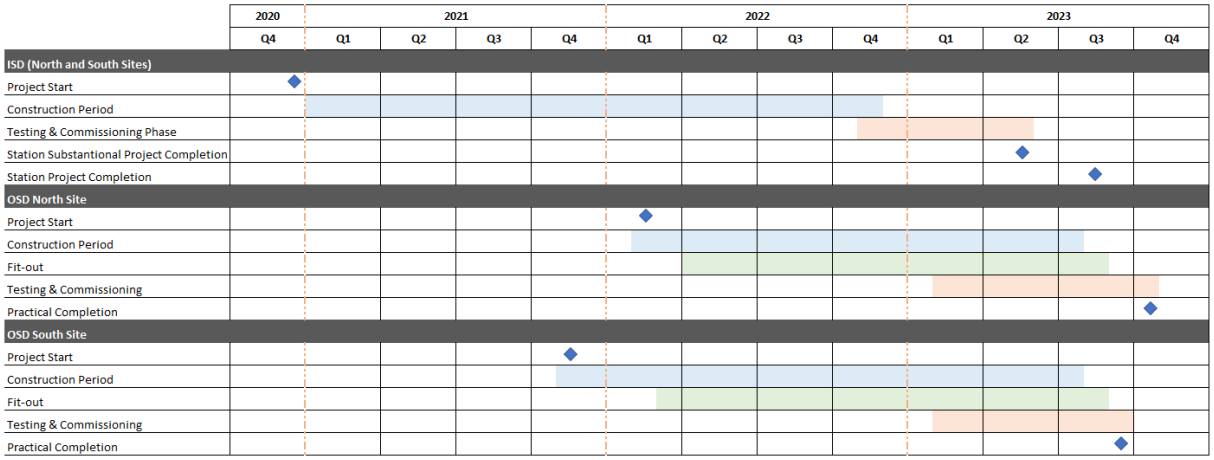
8.2 Duration and Staging of Works

The project timeline forecast for the Integrated Station Development with the North OSD and South OSD is provided as follows:

- ISD: Works are to be carried out over a duration of 32 months with construction having commenced in Q4, 2020 and station project completion to be achieved in Q3, 2023.
- North OSD: Works are to be carried out over a duration of 22 months with construction to commence in Q1, 2022 and practical completion to be achieved in Q4, 2023.
- South OSD: Works are to be carried out over a duration of 22 months with construction to commence Q4, 2021 and practical completion to be achieved in Q3, 2023.

A program of the project timeline is presented in Figure 8.1

Figure 8.1: Construction Timeline



8.3 Hours of Operation

Construction activities relating to the ISD and OSDs during the normal works period shall be undertaken during the approved hours:

- 7.00am to 6.00pm – Monday to Friday.
- 8.00am to 1.00pm – Saturday.
- No works on Sunday and public holidays.

Where required, special approval for out of hours works would be sought through application of the relevant permits to allow work outside of the standard construction days and time.

Construction works and construction vehicles (including concrete agitator trucks) shall not arrive at the sites or surrounding residential precincts outside of the approved construction hours of work as outlined above.

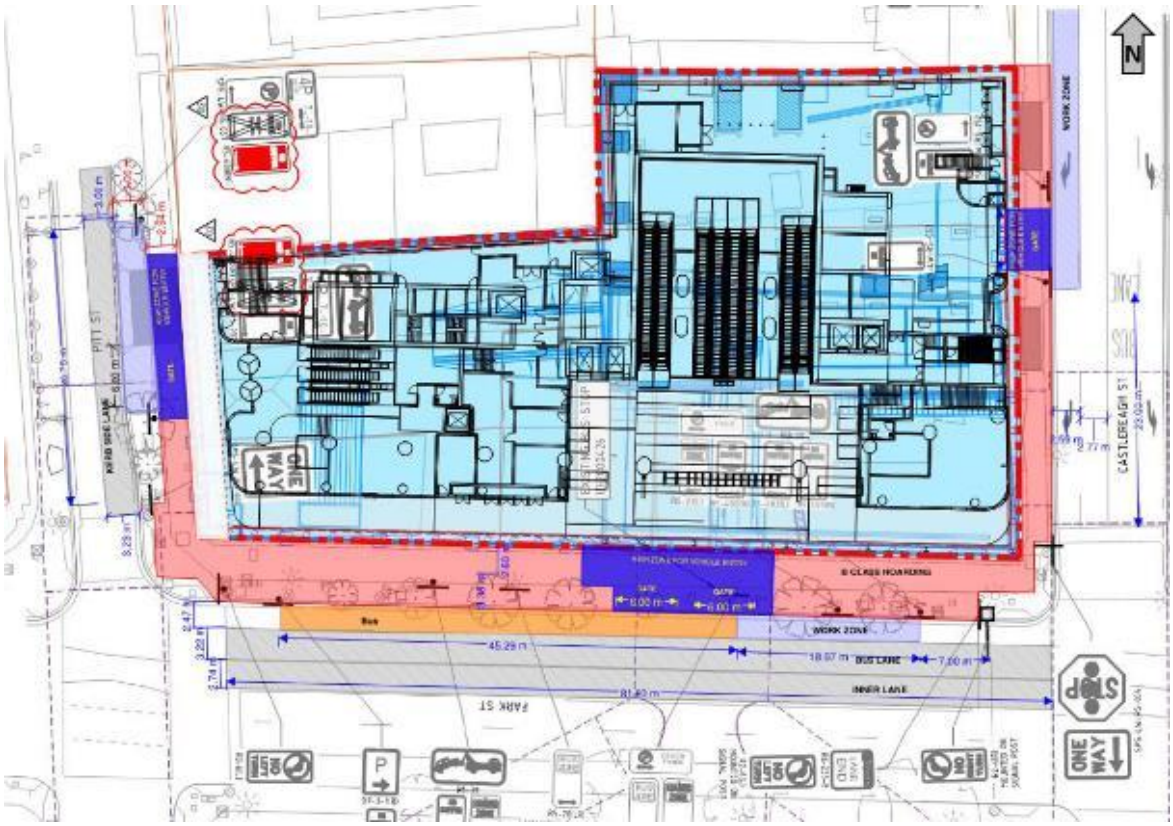
8.4 Work Zones and Site Access

North Site

Work zones are proposed on Pitt Street, Park Street and Castlereagh Street alongside the North Site frontage. A vehicle crossing is proposed off each of these streets into the site, however, driveways would not be in use until the structure reaches ground level.

The general work zone and site access arrangement at the North Site is shown in Figure 8.2, and street-specific arrangements are explained thereafter.

Figure 8.2: North Site General Arrangement

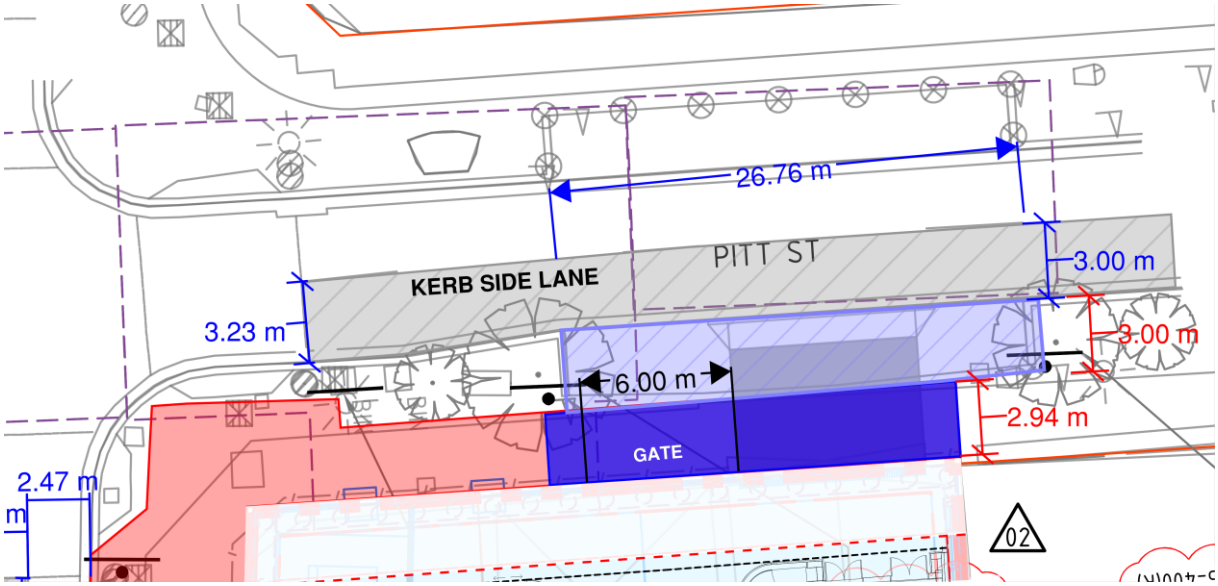


A work zone is proposed on Pitt Street east side, to the north of Park Street. It would be indented and provided off the roadway which would allow for two traffic lanes on Pitt Street to be maintained at all times. The work zone would be situated between the existing trees and would span for a length of 18.4m; tree removal would not be required.

Once the structure reaches street level, a vehicle crossing would be proposed off Pitt Street into the site. In this later stage of the construction development, the driveway would have a width of 6m.

The proposed arrangement in Pitt Street is shown in Figure 8.3.

Figure 8.3: Pitt Street North

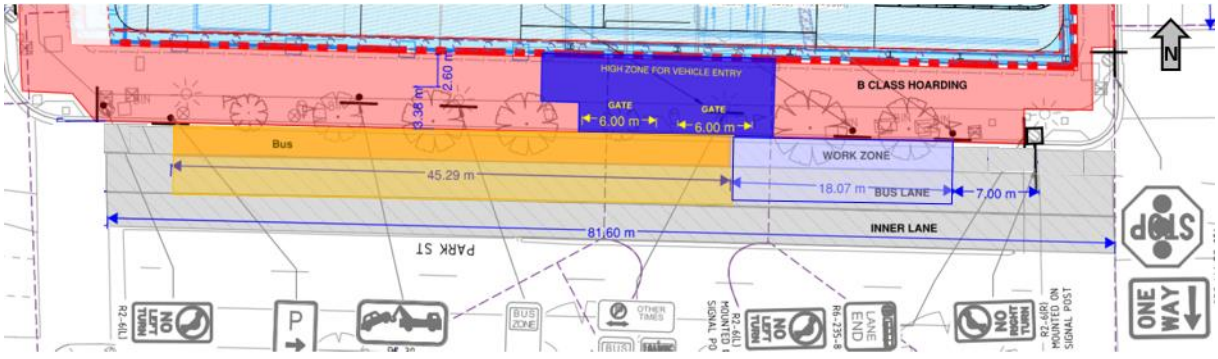


A work zone is proposed on Park Street north side, between Pitt Street and Castlereagh Street. The work zone would extend for a length of 18m in the kerbside lane. It would replace the existing *Loading Zone* and *No Stopping Aust. Post Vehicles Excepted* in the eastern portion of Park Street. The front of the work zone would be set-back 7m from the traffic signals (Park Street-Castlereagh Street).

A vehicle crossing is proposed off Park Street once the structure reaches street level. The driveway crossing would be 6m wide in two locations on Park Street to enable trucks to enter and exit in a forward direction. Given the recent changes to lane configuration on Park Street, construction vehicles entering/exiting via the driveways would be required to cross one Bus Lane only which is low risk compared to the previous configuration which was two lanes. This arrangement has been discussed with SCO at the TCG meeting held on 16 June 2020 where there were no objections raised.

The proposed work zone and site access arrangement is shown in Figure 8.4.

Figure 8.4: Park Street



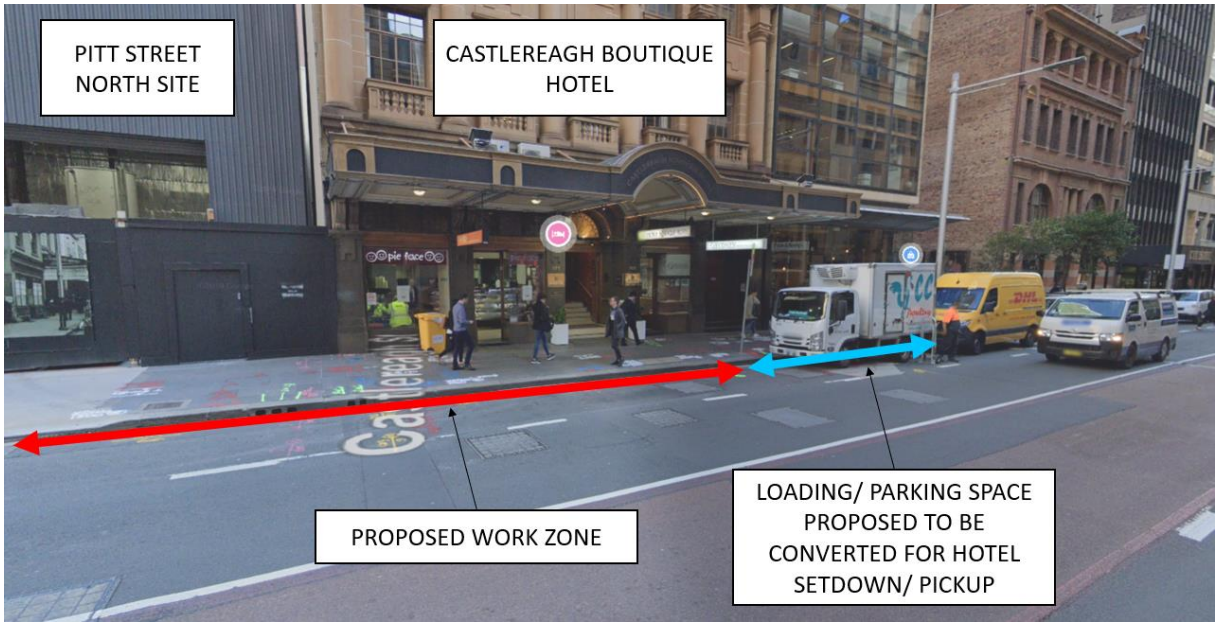
A work zone is proposed on Castlereagh Street west side, north of Park Street. It would be situated in the kerbside lane which is a dedicated right-turn lane onto Park Street. SIDRA intersection modelling of the traffic signals at Park Street with Castlereagh Street in existing conditions has been undertaken to identify an appropriate setback distance for the work zone from the signals. The setback would accommodate traffic queues associated with the right-turn movement. Based on the average traffic queue length in peak periods being 23m, the work zone would be set back from the traffic signals by this distance as a minimum. The length of the work zone would be 30m, of which the northern 10m would be located within the *No Parking* space in front of the Castlereagh Street Boutique Hotel.

The Castlereagh Boutique Hotel is being consulted regarding use of the existing *No Parking* space in front of the hotel site. CPB Contractors consulted with the Castlereagh Boutique Hotel and City of Sydney on 22 July 2020 regarding the intention to extend the work zone on Castlereagh Street to the north past the Hotel frontage. The Castlereagh Boutique Hotel and City of Sydney raised no objections to the proposal as per correspondence provided in Appendix B.

CPB Contractors has also considered the needs of the Hotel operation and use of this kerbside space for hotel guest set down and pick up, hotel deliveries and emergency vehicle access. CPB intends to liaise with City of Sydney to remove paid on-street loading/ parking spaces to create a new hotel set down/ pick-up area to the north of the work zone. As of 14 January 2021, CPB has not yet invoked the use of No parking space in front of the hotel, and will arrange with Council for the acquisition of paid parking spaces when required as agreed in the correspondence.

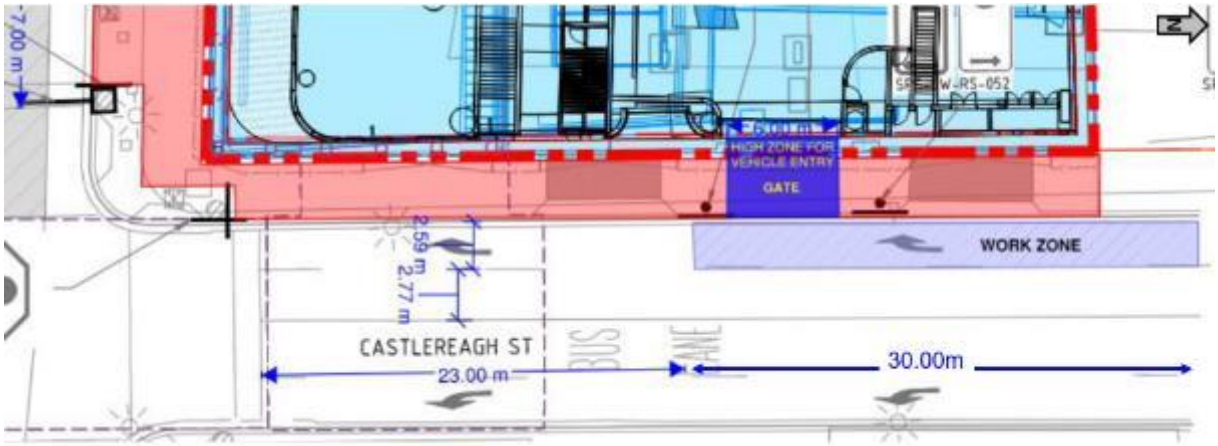
The location of the Castlereagh Boutique Hotel and the proposed kerbside conversions at the site frontage are shown in Figure 8.5

Figure 8.5: Castlereagh Boutique Hotel



Once the structure reaches street level, a vehicle crossing would be proposed off Castlereagh Street into the site. In this later stage of the construction development, the driveway would have a width of 6m. The proposed arrangement on Castlereagh Street is shown in Figure 8.6.

Figure 8.6: Castlereagh Street

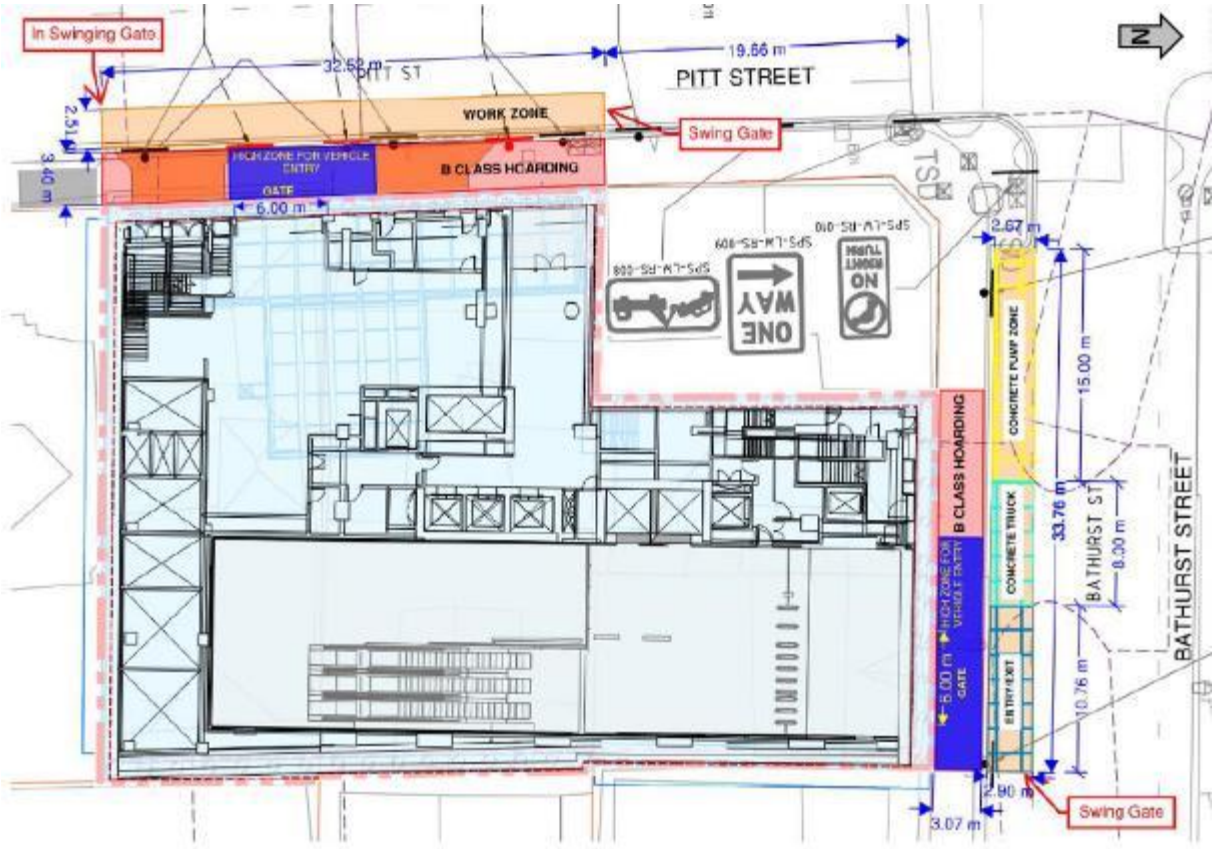


South Site

Work zones are proposed on Pitt Street and Bathurst Street alongside the South Site frontages. A vehicle crossing is proposed off Pitt Street into the site, however, the driveway would not be in use until the structure reaches ground level. Once the structure reaches street level, a vehicle crossing would be proposed off Bathurst Street into the site for large escalator deliveries at night, the vehicle crossing is not intended for other use.

The general work zone and site access arrangement at the South Site is shown in Figure 8.7.

Figure 8.7: South Site General Arrangement

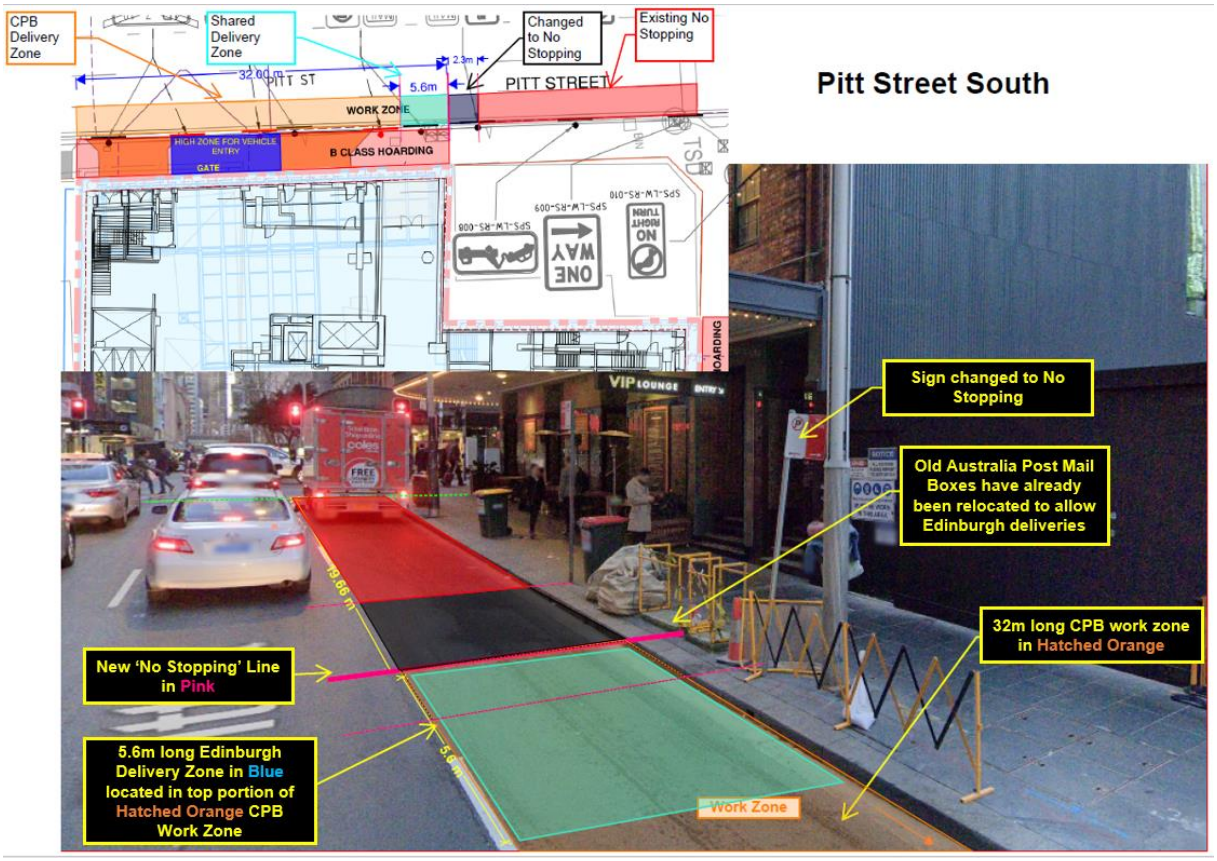


A work zone is proposed on Pitt Street east side, south of Bathurst Street. It would be situated in the kerbside lane which is a dedicated right-turn lane onto Bathurst Street. Like on Castlereagh Street, SIDRA intersection modelling of the traffic signals at Pitt Street with Bathurst Street in existing conditions has been undertaken to identify an appropriate setback distance for the work zone from the signals. Based on the average traffic queue length in peak periods being 18m, the work zone would be set back from the traffic signals by this distance as a minimum. The length of the work zone would be 32.5m.

Consultation with Edinburgh Castle Hotel has occurred regarding the accommodation of deliveries to the hotel. It is proposed to accommodate hotel deliveries within the front portion of the Pitt Street work zone as agreed in the correspondence provided in Appendix B. Such arrangement is illustrated in Figure 8.8.

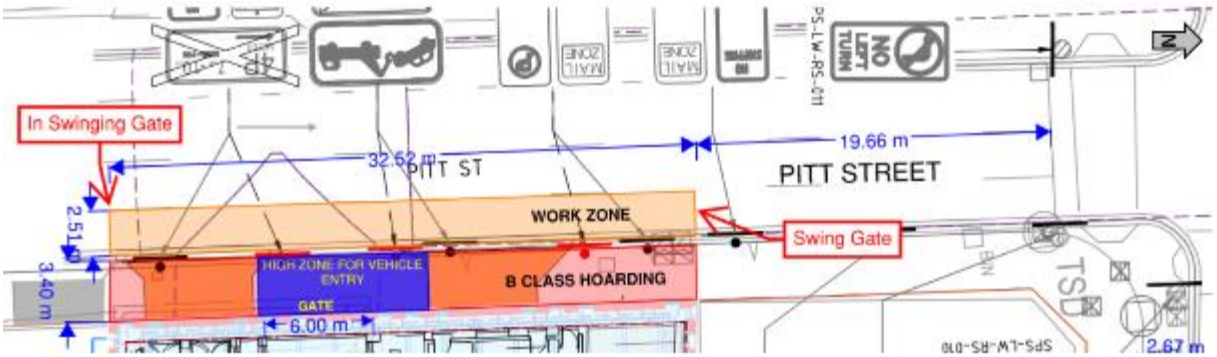
CPB will utilise an online booking system for construction vehicle deliveries which will also be used to book in deliveries for the Edinburgh Castle Hotel as required. As agreed by Edinburgh Castle Hotel and CPB, both parties will communicate regularly to coordinate the respective deliveries.

Figure 8.8: South Site General Arrangement



Once the structure reaches street level, one vehicle crossing would be proposed off Pitt Street leading to the internal loading dock of the building. The proposed arrangement on Pitt Street south is shown in Figure 8.9.

Figure 8.9: Pitt Street South



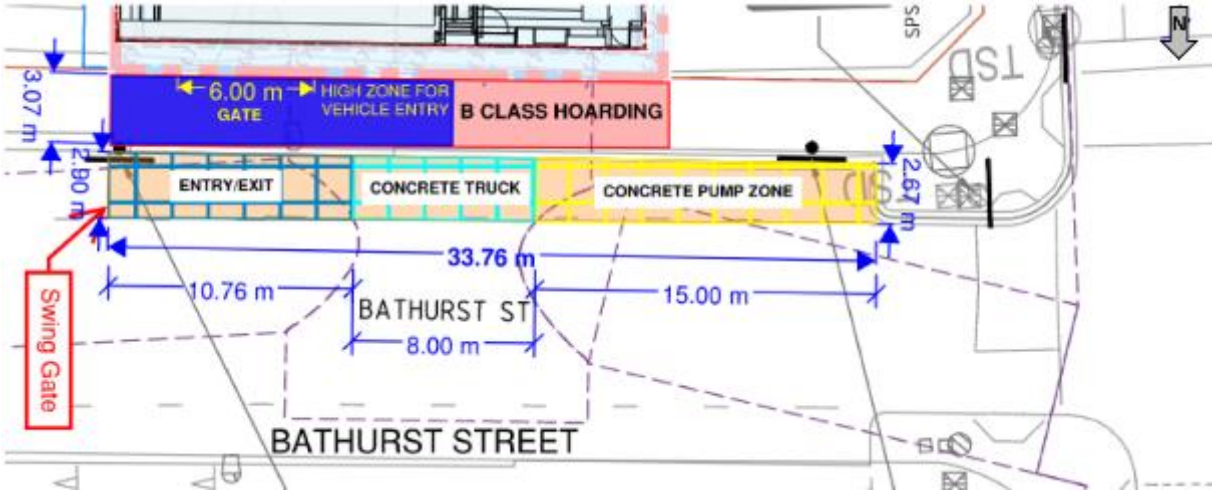
To have safe working width for workers in the work zone, line marking of traffic lanes on Pitt Street south of Bathurst Street are proposed to be amended such that the eastern kerbside lane is widened from 2.45m to 2.9m (additional 450mm width) which will accommodate the work zone. All other through traffic lanes are proposed to be reduced in width from 3.2m to 2.7m to accommodate the kerbside lane widening. Conceptual drawings of the proposed changes on Pitt Street South are provided in Appendix F.

It is noted that changes to the line marking changes for Pitt St south are conceptual at this stage and will require further coordination between CPB Contractors and the relevant stakeholders when applying for work zone and hoarding permits.

A work zone is proposed on Bathurst Street south side, west of Pitt Street. The work zone would be located within the indented kerbside lane, and would have a length of 33.8m.

Once the structure reaches street level, a vehicle crossing would be proposed off Bathurst Street into the site for large escalator deliveries at night time, the vehicle crossing is not intended for other use. The driveway would be 6m in width. The proposed arrangement on Bathurst Street is shown in Figure 8.10

Figure 8.10: Bathurst Street

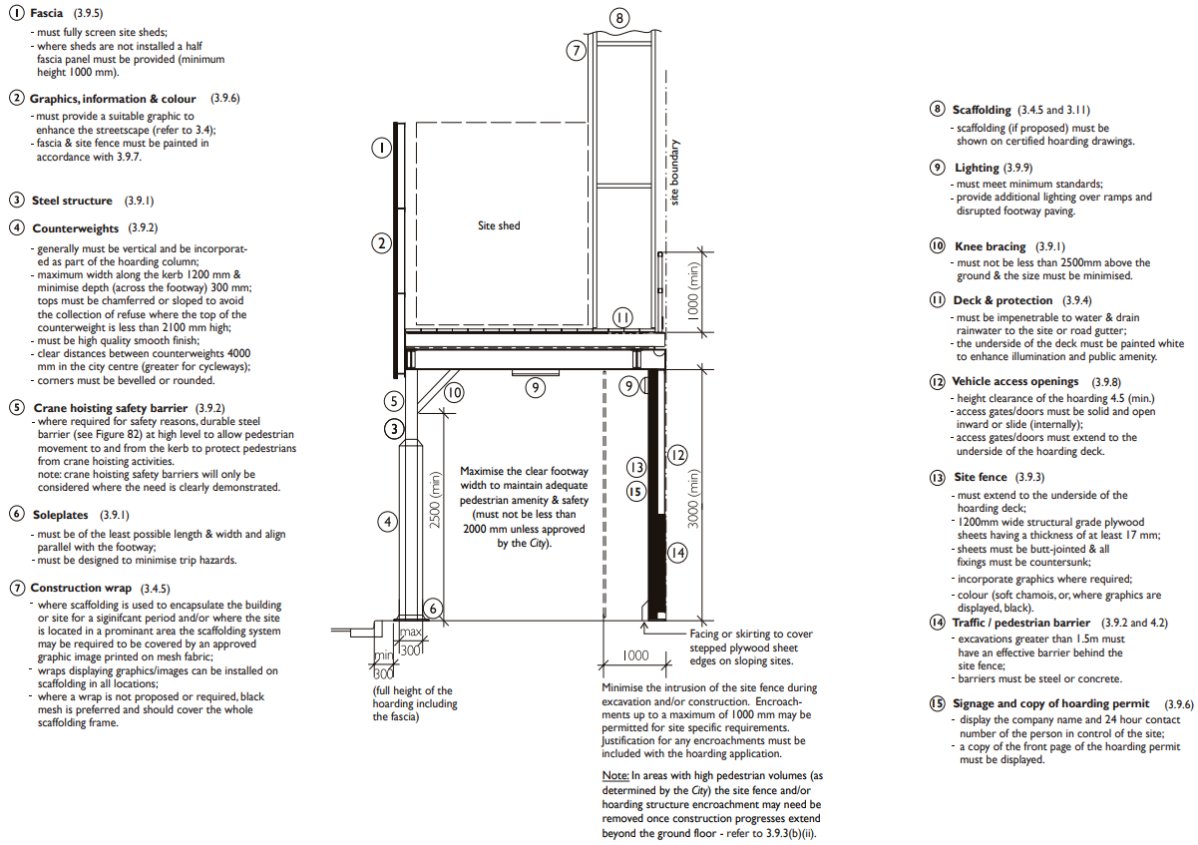


Similar to Pitt Street South, safe working width for workers in the work zone is required in the work zone on Bathurst Street which is currently 2.1m in width. It is proposed to implement a Class B hoarding configuration with a 2.0m internal clearance and no cantilever on the road. In this scenario, the footpath width would be reduced by approximately 800mm, which increases the width of the kerbside lane up to 2.9m. With this, the 2.0m pedestrian walkway clearance would remain compliant with City of Sydney's Guidelines for Hoardings & Scaffolding as per Figure 8.11.

The hoarding arrangements during construction of the ISD will remain in place during construction of the OSDs.

Conceptual drawings of the proposed changes to the footpath and kerbside lane on Bathurst Street are provided in Appendix F. These plans are conceptual at this stage and will require further coordination between CPB Contractors and the relevant stakeholders when applying for work zone and hoarding permits.

Figure 8.11: Guidelines for B-Class Hoardings



Qualified traffic controllers would be located at each work zone and driveway to assist truck ingress movements while manoeuvring into the work zone (specifically, for shorter work zones such as Pitt Street North) and egress movements by finding suitable gaps in the traffic stream. The road network capacity would not be reduced as the proposed access points are provided close by to signals which would generate sufficient gaps in traffic to enable heavy vehicles to safely exit the work zones and sites.

Once site access driveways are to be in use, visibility towards pedestrians approaching from the both directions would exceed the 55m desirable sight distance requirement as per AS2890.1:2004. Under any circumstance, pedestrian movements on the footpath across the site access would be managed by traffic controllers and concertina gates (as detailed in Section 8.10). No permanent sight obstruction is located within this sight distance. Therefore, it is deemed as satisfactory.

The largest construction vehicle to access the North Site and South Site would be a rigid heavy vehicle with an overall length up to 8.6m. The largest vehicles to access the on-street work zones on a daily basis would be a 12.5m heavy rigid vehicle. Over the duration of the project, the largest vehicle to travel to the sites would be a 19m semi-trailer and 150 to 350-tonne mobile crane. Articulated vehicles (including semi trailers) are not permitted in the CBD unless accepted under a separate approval sought by an Oversize & Over Mass Vehicle Permit Application.

Swept path plans showing these vehicles adequately accessing the sites and work zone are provided in Appendix C.

Work Zone Hours of Operation

As discussed in the TCG meeting, the operation hours of work zones are proposed as follows:

- 6.30am to 6.00pm – Monday to Friday.
- 7.30am to 1.00pm – Saturday.
- No work zone operation on Sunday and public holidays.

An exception to the above is the Park Street work zone which will operate outside of commuter peak periods to minimise impact to buses on Park Street. The proposed hours of operation of the Park Street work zone are as follows:

- 10.00am to 3.00pm – Monday to Friday, and 8.00pm to 5.00am for special deliveries.
- 8.00am to 1.00pm – Saturday.
- No work zone operation on Sunday and public holidays.

The Park Street work zone hours were discussed at the TCG meeting held on 16 June 2020.

The public way, which includes the carriageway and footpath, shall not be obstructed by any materials, vehicles, refuse skips or the like. All construction-related equipment associated with the ISD and OSDs construction works would be contained wholly within the site, and delivery vehicles would utilise the approved work zones and loading docks on-site (to be constructed as part of the final build).

8.5 Traffic Staging Plans

Traffic staging plans for the North Site and South Site are shown in Figure 8.12 and Figure 8.13.

Figure 8.12: Stage 1N Indicative Traffic Staging Plan

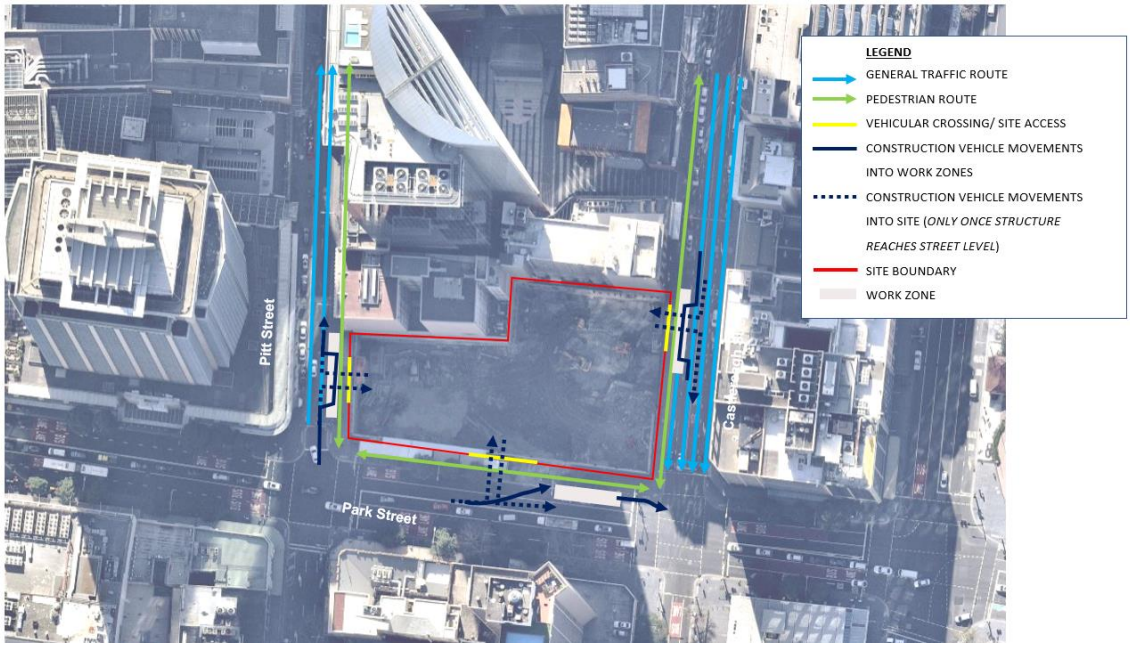
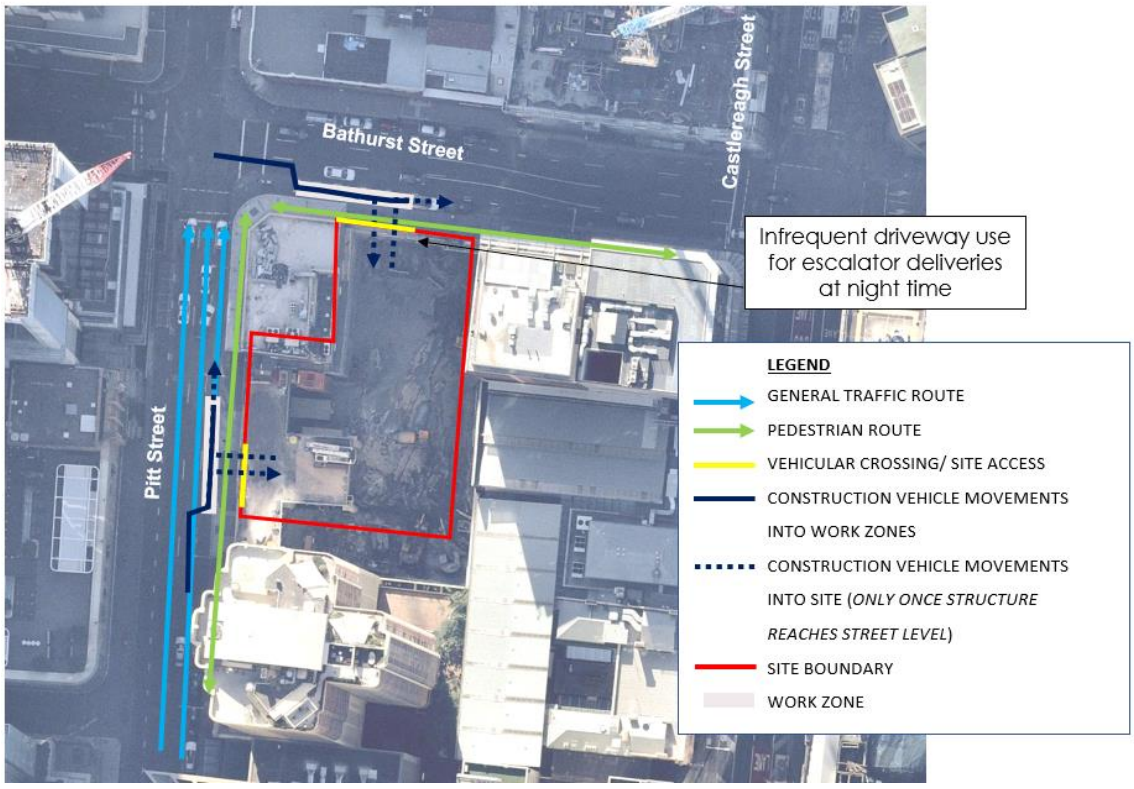


Figure 8.13: Stage 1S Indicative Traffic Staging Plan



8.6 Traffic Generation

Collectively, the North ISD and South ISD are expected to generate up to 28 heavy vehicles per hour (i.e. 56 heavy vehicle movements per hour). These vehicles will consist of deliveries for the station subcontractors, Interface Contractors and nominated subcontractors. Traffic generation associated with the project during all periods of the day would be distributed to the North Site and South Site as follows:

- North Site:
    - To Pitt Street North – 4 trucks per hour
    - To Castlereagh Street – 6 trucks per hour
    - To Park Street - 6 trucks per hour
- South Site:
    - To Pitt Street South – 8 trucks per hour
    - To Bathurst Street – 4 trucks per hour.

The abovementioned site-generated traffic volumes are based upon the use of all work zones at full capacity. For example, the Pitt Street North work zone can accommodate four concrete trucks per hour on the basis that the work zone can physically store one truck at a time and each truck requires up to 15 minutes per delivery.

Each truck generates one inbound movement and one outbound movement in the same hour.

As the ISD project nears completion the associated construction traffic generation would reduce, at which point the OSD construction activities and traffic generation would ramp up.

At the North Site, construction works associated with the ISD and OSD would occur simultaneously starting in Q1, 2022 until Q4, 2023. Together, both construction projects would generate up to 16 heavy vehicles per hour.

At the South Site, ISD and OSD construction activities would occur simultaneously starting in Q4, 2021 until Q4, 2023. Combined, both construction projects would generate up to 12 heavy vehicles per hour.

The collective construction traffic generation of the North Site and South Site ISD with OSDs would not exceed 28 heavy vehicles per hour. This is in-line with the former ISD construction (only) which was assessed to be generating up to 28 heavy vehicles per hour. A summary of heavy vehicle numbers as forecasted across the ISD and OSD construction projects is presented in Figure 8.14. Comparatively, there would be no changes to the traffic impacts since as a result of the OSD projects commencing at each site.

Figure 8.14: Construction Vehicle Movements

	2020	2021												2022												2023												2024		
	Q4	Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1		
North Site Traffic Generation:																																								
ISD Construction (veh/ hour)	16	16	16	16	16	16	16	16	16	16	16	16	16	16	12	10	8	6	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
OSD Construction (veh/ hour)															4	6	8	10	12	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	4	4			
Work Zone Capacity:																																								
Pitt Street Work Zone (veh/ hour)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Castlreagh Street Work Zone (veh/ hour)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Park Street Work Zone (veh/ hour)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Max Capacity (veh/ hour)	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
South Site																																								
ISD Construction (veh/ hour)	12	12	12	12	12	12	12	12	12	12	12	10	10	10	10	8	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
OSD Construction (veh/ hour)												2	2	2	2	4	6	8	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	4	4			
North Site Traffic Generation:																																								
Pitt Street Work Zone (veh/ hour)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Bathurst Street Work Zone (veh/ hour)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Max Capacity (veh/ hour)	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**

An assessment of the construction traffic impacts (above) is presented herein.

The existing operation of the intersections nearby the subject site have been assessed using SIDRA Network version 8.0, a computer-based modelling package which assesses intersection performance under prevailing traffic conditions. SIDRA calculates intersection performance as a level of service (LoS). SIDRA provides analysis of the operating conditions which can be compared to the performance criteria set out in Table 8.1.

Table 8.1: Level of Service Criteria for Intersection Operation

Level of Service	Average Delay (seconds per vehicle)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	good operation	good operation
B	15 to 28	good with acceptable delays and spare capacity	acceptable delays and spare capacity
C	29 to 42	satisfactory	satisfactory, but accident study required
D	43 to 56	operating near capacity	near capacity and accident study required
E	57 to 70	at capacity, at signals, incidents will cause excessive delays, roundabouts require other control mode	at capacity, requires other control mode
F	Greater than 71	unsatisfactory with excessive queuing	unsatisfactory with excessive queuing; requires other control mode

Source: Roads and Maritime Guide to Traffic Generating Developments, 2002

SIDRA modelling for existing conditions and the construction period has been undertaken to assess the impact of additional vehicle trips on the surrounding road network. The key junctions which have been assessed include the signalised intersections of Park Street-Castlereagh Street (near the North Site) and Pitt Street-Bathurst Street (near the South Site).

In order to assess pre-COVID traffic conditions, SIDRA modelling has been based on a combination of the following data:

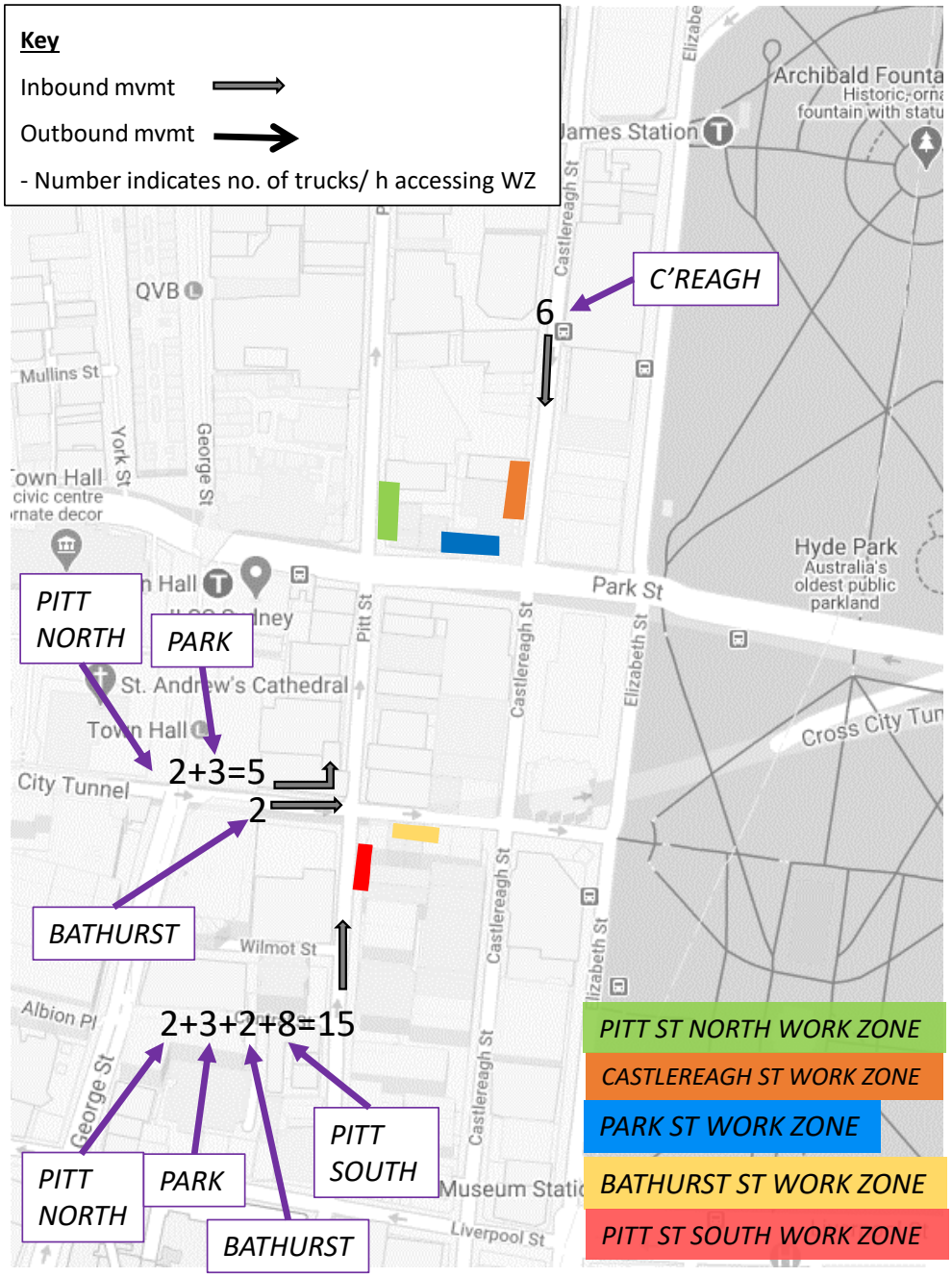
- 2020 SCATS traffic counts to obtain current traffic flows,
- Historic traffic turning movement counts for directional splits of traffic for shared movements obtained from 2018 (since SCATS data does not provide direction splits for shared through and turn lanes),
- Historic pedestrian counts (from 2018), and
- RMS SCATS signal phasing data from March 2020 (pre-COVID).

The weekday peak periods which have been modelled using SIDRA are as follows:

- Park Street-Castlereagh Street: 8:15am to 9:15am / 5pm to 6pm, and
- Pitt Street-Bathurst Street: 8am to 9am / 5pm to 6pm.

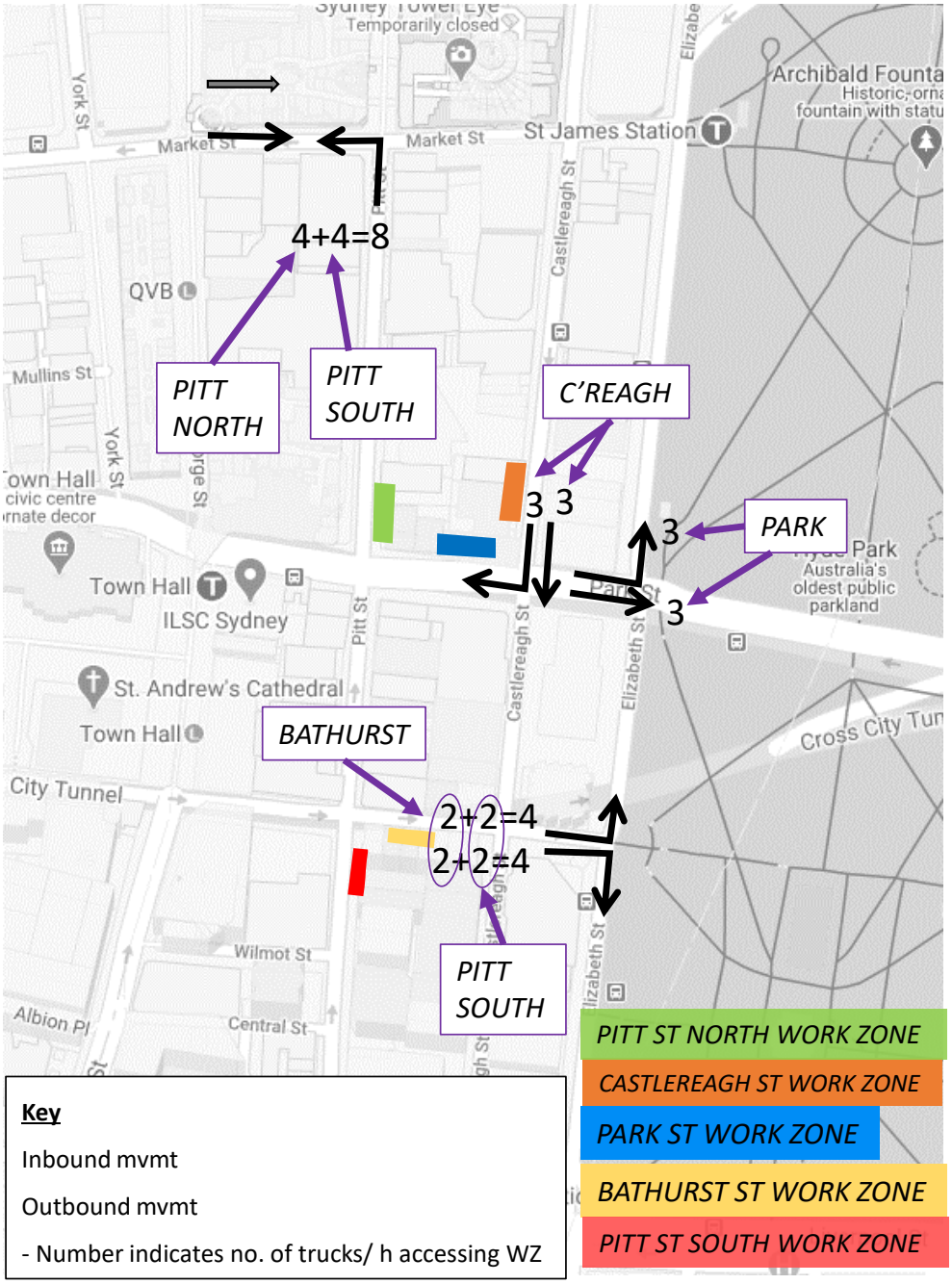
The directional split of construction vehicles travelling to/from each of work zone is illustrated in Figure 8.15 and Figure 8.16, while the SIDRA modelling results are provided in Table 8.2.

Figure 8.15: Inbound Construction Vehicle Movements



Total inbound movements = 28 vehicles per hour

Figure 8.16: Outbound Construction Vehicle Movements



Total outbound movements = 28 vehicles per hour

Table 8.2: SIDRA Modelling Results

Intersection	Existing (Base)				Future (With Construction)			
	Demand Flow	Average Delay (seconds per vehicle)	Level of Service	Degree of Saturation	Demand Flow	Average Delay (seconds per vehicle)	Level of Service	Degree of Saturation
Pitt – Bathurst (signalised)								
AM	1772	18	B	0.44	1794	19	B	0.45
PM	1808	18	B	0.68	1830	19	B	0.73
Park - Castlereagh (signalised)								
AM	1689	25	B	0.66	1700	25	B	0.69
PM	1417	28	B	0.78	1429	28	B	0.79

The key findings of the SIDRA intersection modelling of existing conditions and future conditions are as follows:

- Intersection levels of service would continue to operate at an acceptable level of service B,
- Average delay per vehicle would experience marginal change (+1 second at Pitt Street-Bathurst Street signals), and
- Degree of saturation is relatively similar, with any changes equivalent to or less than 5% (Pitt Street-Bathurst Street PM peak change from 0.68 to 0.73).

Overall, an additional 28 heavy vehicles (56 heavy vehicle movements) distributed throughout the road network would not have a negative impact at the modelled junctions.

To alleviate any other impacts due to construction vehicles in the CBD, CPB proposes to implement a Logistics Management System, such as Voyage Control or similar, to manage truck movements at work zones, and crane and hoist coordination via a booking system. The System provides real-time visibility of vehicle locations when travelling to site and away from site, allows directions to be provided to drivers by the contractor, and permits tracking of vehicle arrival and departure times. This way, CPB is able to manage construction vehicles and activities, and avoid causing negative impacts to the surrounding road network.

The above-mentioned construction traffic volumes would have a reduced long-term impact on the surrounding road network as it would enable the works to be completed in-line with the construction program. Notwithstanding this, the construction traffic volumes could be reduced at any time if required or for specific occasions. Consultation between CPB and key stakeholders, including SCO, TfNSW and Sydney Metro, would be carried out at such times.

8.7 Haulage Routes

Construction vehicle haul routes are provided in accordance with the location of the proposed work zones. Where the proposed haul routes deviate from the haul routes presented in the EIS, justification has been provided herein. Construction vehicles generated by the ISD and OSDs would utilise the proposed haulage routes.

The proposed haul routes utilise the east-west haulage routes as presented in the Sydney Metro EIS. Furthermore, this CTMP includes haulage options to northern and southern areas of the Sydney Metropolitan as well as eastern and western areas, which is required for the supply of materials for the station construction and fit-out. As described herein and as shown in Figure 8.17 to Figure 8.19, the east-west routes would form the primary haul routes and north-south form the secondary haul routes.

Table 8.3: Haul Routes to/from Park Street

	Proposed Route Description	Corresponds with EIS
Arrivals		
Primary Routes	From East: from William Street continue onto Park Street, turn left onto Elizabeth Street, turn right onto Liverpool Street, turn right onto Pitt Street, turn right onto Park Street.	Yes.
	From West: from the Western Distributor, take Bathurst Street exit, head east on Bathurst Street, turn left onto Pitt Street, turn right onto Park Street.	Yes.
Secondary Routes	From North: from the Harbour Bridge continue onto the Western Distributor, take the Bathurst Street exit, turn left onto Bathurst Street, turn left onto Pitt Street, turn right onto Park Street.	Yes. Utilises route from the West, and other major aerial roads (Harbour Bridge and Western Distributor).
	From South: from the Eastern Distributor, exit onto William Street, continue onto Park Street, turn right onto Pitt Street.	Yes. Utilises route from the East, and other major aerial roads (Eastern Distributor and M5 Motorway).
Departures		
Primary Routes	To East and South: head east on Park Street towards William Street, and the Eastern Distributor and M5 Motorway.	Yes.
Secondary Routes	To North: head east on Park Street towards William Street, turn left onto Palmer Street, turn right onto Sir John Young Crescent and continue north onto M1 Motorway.	Partially. The EIS had not considered a work zone on Park Street adjacent to the North Site.
	To West: head east on Park Street, turn left onto Elizabeth Street, turn left onto Market Street and head west onto the Western Distributor.	No. The EIS had not considered a work zone on Park Street adjacent to the North Site.

Table 8.4: Haul Routes to/from Pitt Street North

	Proposed Route Description	Corresponds with EIS
Arrivals		
Primary Routes	From East: from William Street continue onto Park Street, turn right onto Pitt Street.	Partially. Amended from EIS to provide more direct route to Pitt Street work zone, instead of additional distance travelled via Elizabeth Street, Liverpool Street and Pitt Street south.
	From West: from the Western Distributor, take Bathurst Street exit, head east on Bathurst Street, turn left into Pitt Street, and head north on Pitt Street.	Yes.
Secondary Routes	From North: from the Harbour Bridge continue onto the Western Distributor, take the Bathurst Street exit, turn left onto Bathurst Street, turn left onto Pitt Street, and head north on Pitt Street.	Yes. Utilises route from the West, and other major aerial roads (Harbour Bridge and Western Distributor).
	From South: from the Eastern Distributor, exit onto William Street, continue onto Park Street, and turn right onto Pitt Street.	Yes. Utilises route from the East, and other major aerial roads (Eastern Distributor and M5 Motorway). The largest vehicle to enter the Pitt Street work zone would be a 12.5m HRV. A swept path analysis has been undertaken which shows that a HRV would be able to adequately undertake the right-turn movement from Park Street to Pitt Street (which is contained in Appendix C).
Departures		
Primary Routes	To West: head north on Pitt Street, turn left onto Market Street, and head west onto the Western Distributor.	No. The EIS had not considered a work zone on Pitt Street adjacent to the North Site. Since Pitt Street is one-way northbound, the haul route would utilise Market Street as part of the exit route.
Secondary Routes	To North: head north on Pitt Street, turn left onto Market Street, turn right onto Clarence Street, head north onto the Western Distributor and continue towards the Harbour Bridge.	No. The EIS had not considered a work zone on Pitt Street adjacent to the North Site.
	To East and South: head north on Pitt Street, turn left onto Market Street, turn left onto Sussex Street, turn left onto Bathurst Street, turn left onto Elizabeth Street and turn left onto Liverpool Street.	Partially. The EIS haulage routes had not considered a work zone on Pitt Street adjacent to the North Site. Since Pitt Street is one-way northbound, the haul route would utilise Market Street as part of the exit route. The remaining section of the exitr route utilises Bathurst Street, Elizabeth Street and Park Street which is in-line with the EIS.

Table 8.5: Haul Routes to/from Castlereagh Street

	Proposed Route Description	Corresponds with EIS
Arrivals		
Primary Routes	From East and South: from William Street continue onto Park Street, turn right onto College Street, continue onto St James Road, turn right onto Market Street, and turn left onto Castlereagh Street.	Yes.
Secondary Routes	From North: from the Harbour Bridge continue onto Cahill Expressway, turn left onto Macquarie Street, turn right at St James Road, turn left onto Market Street, turn left onto Castlereagh Street and turn right into the site.	Yes.
	From West: from the Western Distributor, take King Street exit, head east on King Street, turn right onto Castlereagh Street and turn right into the site.	No. The EIS had not considered a route from the western direction. Some heavy vehicle contractors will be based in Western Sydney and would travel to the site via the M4 Motorway and Western Distributor.
Departures		
Primary Routes	To West: turn right onto Park Street, head west on Druitt Street and continue west onto the Western Distributor.	Yes. Also, the exit route presented in the EIS indicates a right turn from Castlereagh Street to Park Street. The swept path analysis for this movement is contained in Appendix C.
Secondary Routes	To North: turn left onto Park Street/ William Street, turn left onto Palmer Street, turn right onto Sir John Young Crescent and continue north onto M1 Motorway.	Partially. Utilises Park Street/ William Street. However, the EIS had not considered a route to the northern direction. Some heavy vehicle contractors will be based in North-Western Sydney and would travel from the site via the M2 Motorway.
	To East and South: turn left onto Park Street towards William Street, and the Eastern Distributor and M5 Motorway.	Yes.

Table 8.6: Haul Routes to/from Pitt Street South

	Proposed Route Description	Corresponds with EIS
Arrivals		
Primary Routes	From East and South: from William Street, turn left at Elizabeth Street, turn right at Liverpool Street, and turn right onto Pitt Street.	Yes.
	From West: from the Western Distributor, take the Bathurst Street exit, continue east on Bathurst Street, turn right onto Elizabeth street turn right at Liverpool Street, and turn right onto Pitt Street.	No. The EIS had not considered a route from the western direction. Some heavy vehicle contractors will be based in Western Sydney and would travel to the site via the M4 Motorway and Western Distributor.
Secondary Routes	From North: from the Harbour Bridge continue onto Cahill Expressway, turn left onto Macquarie Street, turn right at St James Road, turn left onto Elizabeth Street, turn right onto Liverpool Street, and turn right onto Pitt Street.	Yes.
Departures		
Primary Routes	To East and South: turn right onto Bathurst Street, turn left onto Elizabeth Street, turn right onto William Street, and exit towards the Eastern Distributor and M5 Motorway.	Yes.
	To West: head north on Pitt Street, turn left onto Park Street/ Druitt Street and continue west onto the Western Distributor.	Yes.
Secondary Routes	To North: turn right onto Bathurst Street, turn left onto Elizabeth Street, turn right onto Park Street/ William Street, turn left onto Palmer Street, turn right onto Sir John Young Crescent and continue north onto M1 Motorway.	Partially. Utilises Park Street/ William Street. However, the EIS had not considered a route to the northern direction. Some heavy vehicle contractors will be based in North-Western Sydney and would travel from the site via the M2 Motorway.

Table 8.7: Haul Routes to/from Bathurst Street

	Proposed Route Description	Corresponds with EIS
Arrivals		
Primary Routes	From East and South: from William Street, turn left at Elizabeth Street, turn right at Liverpool Street, turn right onto Pitt Street, and turn right onto Bathurst Street.	Yes.
	From West: from the Western Distributor, take the Bathurst Street exit, and continue east on Bathurst Street.	Yes.
Secondary Routes	From North: from the Harbour Bridge continue onto Cahill Expressway, turn left onto Macquarie Street, turn right at St James Road, turn left onto Elizabeth Street, turn right onto Liverpool Street, turn right onto Pitt Street, and turn right onto Bathurst Street.	Yes.
Departures		
Primary Routes	To East and South: head east on Bathurst Street, turn left onto Elizabeth Street and turn right onto William Street, and exit towards the Eastern Distributor and M5 Motorway.	Yes.
	To West: head east on Bathurst Street, turn left onto Elizabeth Street, turn left onto Park Street/ Druitt Street and continue west onto the Western Distributor.	Yes.
Secondary Routes	To North: turn left onto Elizabeth Street, turn right onto Park Street/ William Street, turn left onto Palmer Street, turn right onto Sir John Young Crescent and continue north onto M1 Motorway.	Partially. Utilises Park Street/ William Street. However, the EIS had not considered a route to the northern direction. Some heavy vehicle contractors will be based in North-Western Sydney and would travel from the site via the M2 Motorway.

Figure 8.17: Haulage Route – Pitt Street North and Park Street

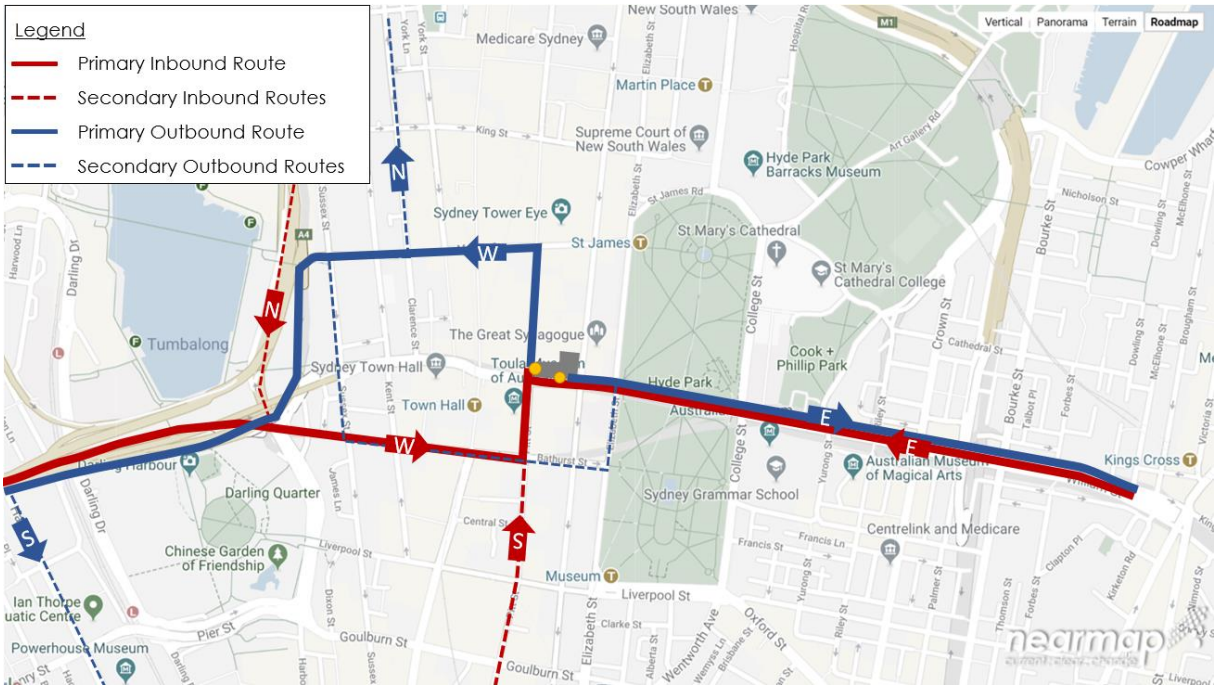


Figure 8.18: Haulage Route – Castlereagh Street

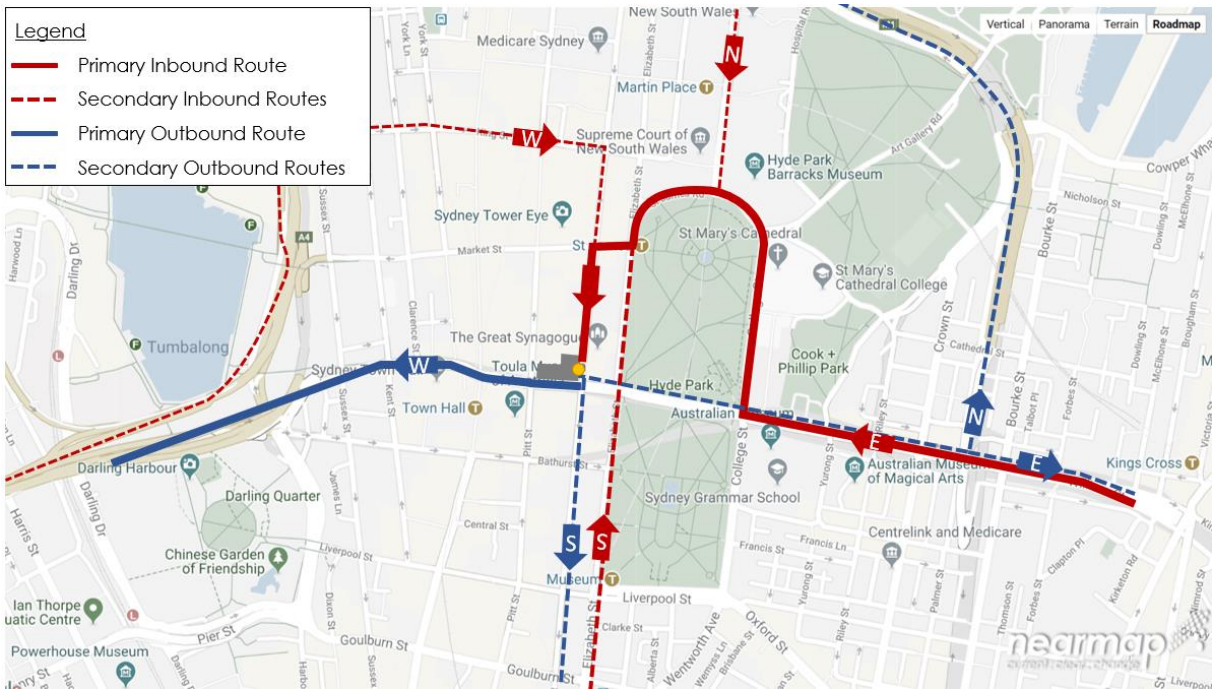
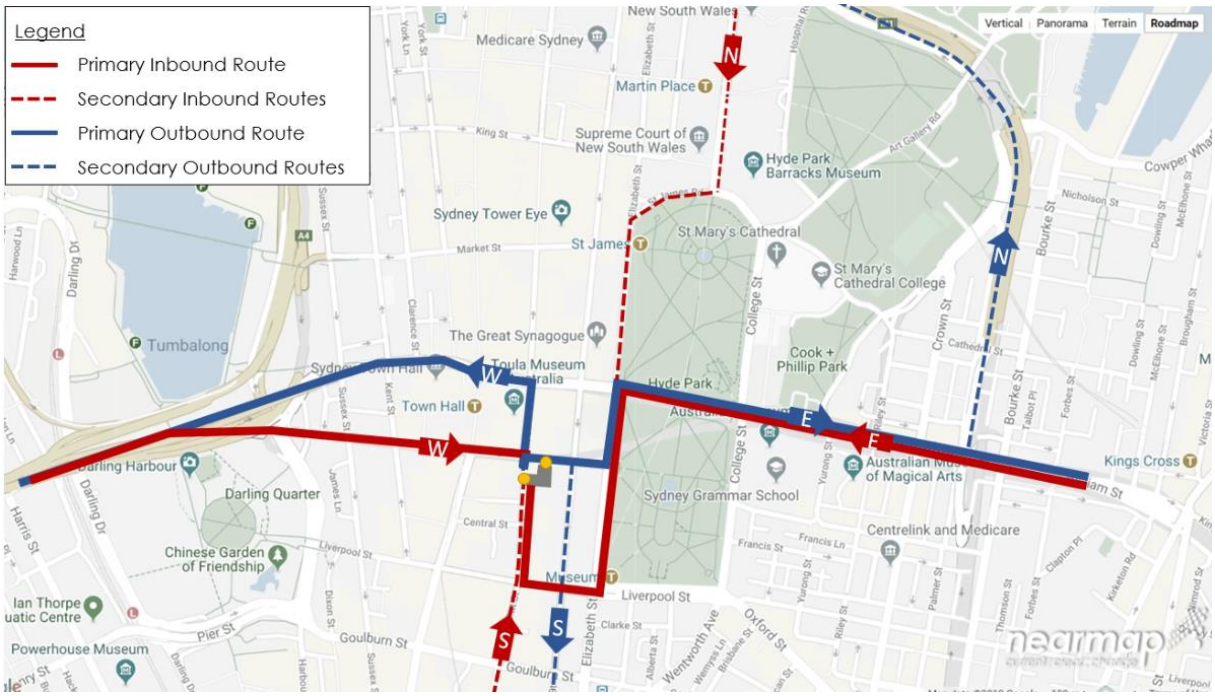


Figure 8.19: Haulage Route – Pitt Street and Bathurst Street



North Site and South Site

The impact caused by abovementioned haulage routes has been assessed quantitatively with SIDRA modelling and is deemed to be minor. Based on amended construction vehicles volumes (as discussed at the end of Section 8.6), the greatest number of heavy vehicles passing through any intersection along these haulage routes would be 20 vehicles which would occur at the intersection of Pitt Street-Bathurst Street. On average, this would equate to one vehicle movement every 3 minutes. As per the EIS, this intersection currently operates at a Level of Service B in the AM and PM peak periods, and an additional vehicle movement every 3 minutes would not impact the intersection level of service as shown by the SIDRA modelling results for the construction period (Table 8.2).

In the EIS, it is mentioned that due to the proximity of the site access to the traffic signals at Park Street the right turn movement from Castlereagh Street into Park Street would be unable to accommodate construction vehicles. Previously, the EIS had considered heavy vehicles exiting the site by turning right out of the site to Castlereagh Street. However, it is proposed that heavy vehicles are to use the work zone in the kerbside located at the site frontage on Castlereagh Street. A swept path analysis has been undertaken to assess this turning movement which illustrates that a 12.5m heavy rigid truck would be able to adequately undertake this turn. The swept path is shown in Figure 8.20 and Appendix C.

Figure 8.20: Castlereagh Street to Park Street Swept Path

It is noted that the roads travelled have no weight restrictions. CPB Contractors would consult with TfNSW and SCO regarding the use of any weight restricted road by heavy vehicles where required to be used.

8.8 Traffic Management

Truck movements to and from the subject site would be scheduled to minimise traffic disruption on the surrounding road network. This would comprise the following measures:

- Heavy vehicles equipped with systems to improve vehicle safety, visibility and the detection of vulnerable road users.
- Oversized and/or over-mass vehicles would be transported to/from the site in strict accordance with Roads and Maritime guidelines and City of Sydney requirements, subject to one-off approval, to minimise traffic disruption during normal business hours. Articulated vehicles (including semi trailers) are not permitted in the CBD unless accepted under a separate approval sought by an Oversize & Over Mass Vehicle Permit Application. This Application would be submitted via the National Heavy Vehicle Regulator (NHVR) Portal < https://www.nhvr.gov.au/about-us/nhvr-portal > prior to the proposed start date of works.
- Haulage routes would be designated and communicated to all truck drivers to ensure truck movements to/from the site are as efficient as possible.

- The loading and unloading of trucks would be planned to ensure each individual truck haulage capacity is fully utilised reducing the number of truck movements.
- Where possible, reduce trucking during AM and PM network peak periods.
- CPB Contractors would implement a Logistics Management System, such as Voyage Control or similar, to manage work zones, and crane and hoist coordination via a booking system. The System provides real-time visibility of vehicle locations when travelling to site and away from site, allows directions to be provided to drivers by the contractor, and permits tracking of vehicle arrival and departure times. This way, CPB is able to manage construction vehicles and activities, and avoid causing negative impacts to the surrounding road network.

8.9 On-site Parking

Vehicles associated with the subject site must not park in any on-street parking spaces. On-site parking would not be made available for employees working on the project. Staff would be encouraged to use public transport when travelling to/from the site, hence minimising traffic impacts on the surrounding road network.

Construction vehicle movements would be limited to the minimum required for transportation of equipment and materials as needed for construction works to occur. As such, vehicle movements made by workers within the precinct would be avoided.

All vehicles associated with the site would be parked wholly within the site in designated off-street parking areas, and deliveries would occur using on-street work zones (see Section 8.4).

8.10 Pedestrian and Cyclist Management

B-class hoarding would be erected over the footpath on Pitt Street, Park Street, Castlereagh Street and Bathurst Street to provide overhead protection to pedestrians and maintain pedestrian thoroughfare during the construction period. Details relating to B-class hoarding installation would be provided in a separate application and CTMP by CPB. Relevant permits required for hoarding installation to be undertaken would be sought prior to any works taking place.

Pedestrian access would be maintained along all footpaths surrounding the subject sites. Qualified traffic controllers with approved clothing would be in place to manage and control pedestrian movements. Concertina gates would be used to manage pedestrian movements at the vehicular crossing.

Pedestrian concertina gates would extend across the footpath on both sides of the vehicular crossing to temporarily contain pedestrians when the vehicular access is in use. When the vehicular crossing is not in use the pedestrian concertina gates would be opened and pedestrian activity along the footpath would be available.

Traffic controllers would not stop pedestrians in anticipation. Pedestrians have the right-of-way at all times. Pedestrians may be held only for short periods by the pedestrian concertina gate to ensure safety when trucks are entering and leaving the site.

Cyclists travelling on surrounding streets would not be affected by the construction works. Cyclists would be required to follow the traffic controller's directions as are other road users.

8.11 Dilapidation Survey

A dilapidation survey of the surrounding infrastructure would be undertaken by the Project Team at the commencement and completion of each stage to distinguish a relevant baseline. Detailed photographic records of the following areas would be noted to identify existing defects prior to works to assist in identifying damage possibly related to the works:

- Footpaths along Pitt Street, Park Sstreet, Castlereagh Street and Bathurst Street surrounding the subject site where Class B hoardings are to be erected.
- Section of the roadway on Pitt Street and Castlereagh Street extending approximately 30m from either side of the nominated access points of both sites for heavy vehicles.

Copies of the Road Dilapidation Report would be provided to City of Sydney within three weeks of completing the surveys and no later than one month before the use of local roads by heavy vehicles.

If damage to roads occurs as a result of construction activities and haulage operations, the Project Team would either (at the landowner's discretion):

- compensate the landowner for the damage caused. The amount of compensation may be agreed with the landowner, or
- rectify the damage so as to restore the road to at least the condition it was before construction works commenced as identified in the Road Dilapidation Report.

Dilapidation reports have been completed and submitted to City of Sydney as per correspondence contained in Appendix B.

8.12 COVID-19

All site staff are practising social distancing. Workers are washing and sanitising hands regularly.

In-line with social distancing measures to minimise the spread of COVID-19, traffic controllers would monitor and advise pedestrians to social distance when being held for a short period of time, control measured will be monitored on a regular basis and adjusted in the event that government regulations change, the necessary changes will be made.

8.13 Crane Details

As part of the OSD construction works at the North Site, there will be four tower cranes set-up on-site. The general sequence would be as follows

- Two tower cranes TC1 & TC2 to commence construction which are already in place and used for station construction below
- Two additional cranes TC3 & TC4 added to bring total number of Cranes to Four
- TC1 and TC2 to be dismantled after a period of time once TC3 & TC4 up and running
- Two cranes TC3 & TC4 to remain for the majority of OSD North Works.

A full scale crane indicating the crane set-up on-site and crane movement plan is contained in Appendix G.

As part of the OSD construction works at the South Site, there will be a single crane set-up on-site. The crane will be generally positioned at the centre of the site as per the current location of the existing crane on-site. The location of the crane set-up on-site and crane movement are shown on a full scale plan contained in Appendix G.

9 Assessment of Impacts

Impacts due to construction works have been assessed in the following hierarchy of access in-line with the CTMP Framework set out by Sydney Metro:

- Incidents & emergency services access
- Special events
- Unplanned events
- Pedestrians and cyclists
- Public transport – buses
- Service vehicles – loading zone
- Mail zones
- Coaches – N/A
- Taxis – N/A
- Kiss and Ride – N/A
- Private cars (Shoppers/short stay, commuters) – on-street parking.

9.1 Impacts to Incidents and Emergency Service Access

An Emergency Response Plan is being developed by CPB Contractors which would incorporate standard operating procedures for managing incidents and access for emergency services.

In the event of a traffic and transport related incident the primary point of contact for incident management is the Transport Management Centre. The Sydney Coordination Office would also be informed of the incident.

Access to the subject site and neighbouring sites by emergency vehicles would not be affected by the works as the road and footpath frontage would be unaffected. Emergency protocols on the site would include a requirement for suitably accredited site personnel to assist with emergency access from the street.

Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

Liaison shall be maintained with the police and emergency services agencies throughout construction and a 24-hour contact would be made available for 'out of hours' emergencies and access.

CPB Contractors would assist with emergency access on surrounding streets as part of the emergency protocols on-site.

Thus, there would be no adverse impacts on the provision of existing emergency vehicle access to other neighbouring properties as a result of the proposed construction activities.

A fortnightly TCG meeting is held with SCO and Emergency Services personnel to discuss upcoming major construction work and traffic changes as part of the Sydney Metro project. CPB Contractors would liaise with SCO and other key stakeholders should any works involve lane/road closures and/or intersection changes.

9.2 Impacts to Special Events

Major special events that would be held in Sydney CBD in proximity to the construction works include, but are not limited, to those provided in Table 9.1. Most of the events in Table 9.1 occur annually, therefore, the dates and affected areas associated with each event are assumed to be similar in successive years (up to the completion of construction works in August 2023).

Table 9.1: Planned Special Events Surrounding the Subject Site

Month	Event	Affected Streets Surrounding the Subject Site
Thursday 25 April	Anzac Day Parade	Bent Street, Bligh Street, Castlereagh Street, Elizabeth Street, Hunter Street, King Street
Sunday in May	Mothers' Day Classic	Macquarie Street, College Street, Mrs Macquarie Road, The Royal Botanic Garden
May/June	Vivid Sydney	Sydney CBD, Circular Quay
July	Reserve Forces Day	Macquarie Street
Sunday in September	Sydney Running Festival	Bent Street, Hunter Street, Phillip Street, Macquarie Street
Sunday in October	Sydney Spring Cycle	Cahill Expressway
Sunday in November	Bloody Long Walk	Macquarie Street
December / January	Sydney New Years Eve	Sydney CBD
January	Australia Day	Circular Quay
February/ March	Chinese New Year Festival	Circular Quay, Haymarket

At the time of preparation of this CTMP, COVID-19 social distancing measures have been enforced by the NSW Government and are expected to remain in place for at least the next few months. As has been the case in 2020 thus far, community gatherings and special events have been cancelled. On this basis, it is expected that many, if not all, of the abovementioned special events during this period would be cancelled. Such measures may also impact forthcoming special events.

It is considered that some restrictions may be imposed on site access and work zone arrangements during future special events once restrictions are eased. This will be evaluated at the beginning of 2021 or once special events are permitted to recommence. CPB Contractors will work closely with SCO, TfNSW and City of Sydney to determine the necessary agreed plan during special events.

In the case that all events would go ahead as they did in 2019, the below analysis has been prepared.

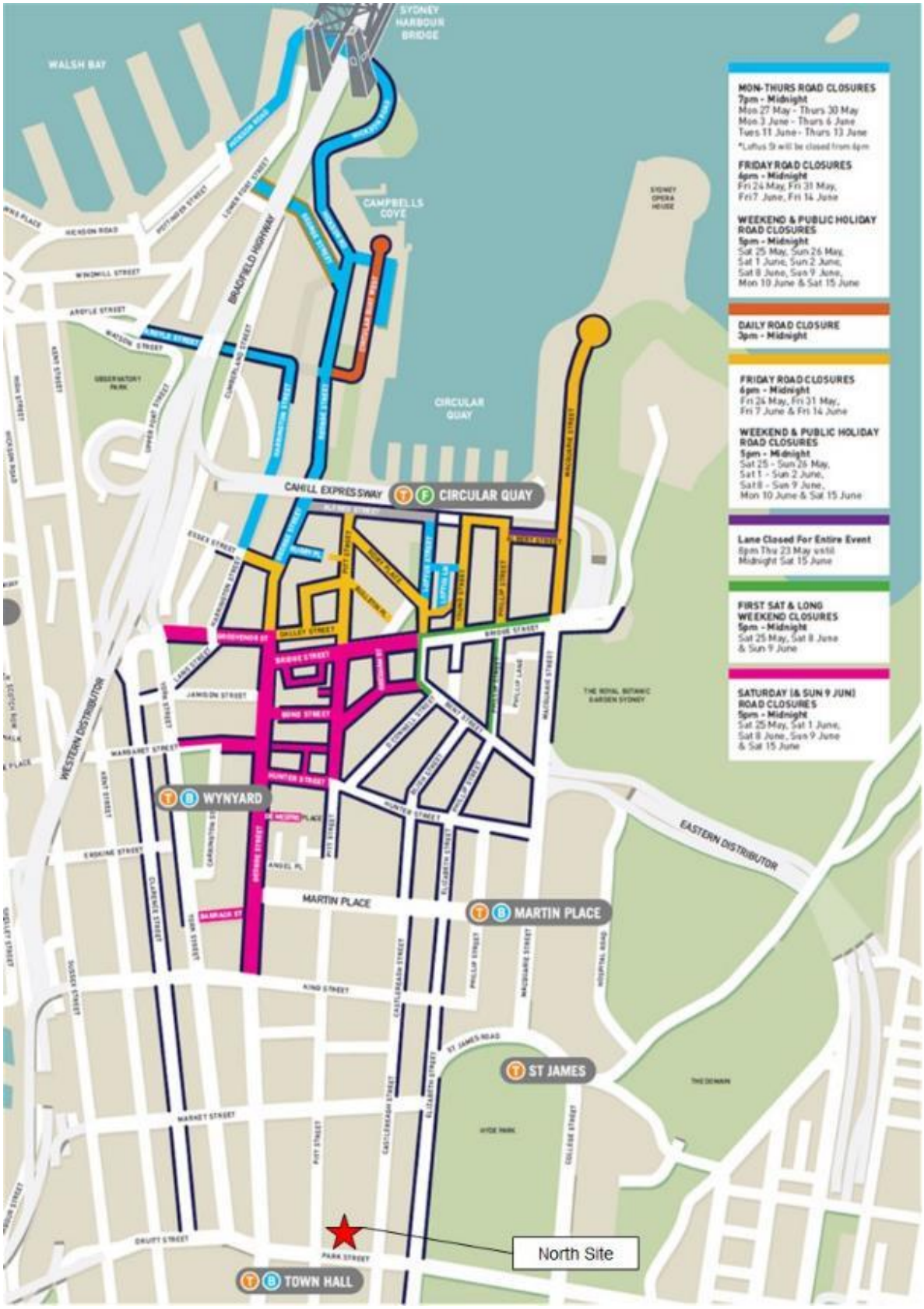
Roads and Maritime's Special Events Management guidelines identify the following classes of special events:

- Class 1: an event that impacts major traffic and transport systems and there is significant disruption to the non-event community.
- Class 2: is an event that impacts local traffic and transport systems and there is low scale disruption to the non-event community.
- Class 3: is an event with minimal impact on local roads and negligible impact on the non-event community.
- Class 4: is an event conducted entirely under Police control (but is not a protest or demonstration).

The above are Class 1 and 2 events which occur on Sundays and public holidays and do not coincide with construction works that are scheduled to occur Monday to Saturday (i.e. non-public holidays). Exceptions to this include Vivid Sydney and Chinese New Year events as they generally last for a few weeks with most major events taking place in the evening in the Sydney CBD, Circular Quay and Haymarket areas.

As per Vivid Sydney 2019, any road closures associated with the event in 2020 (and successive years) are expected to take place on weekends between 5.00pm-12.00am. Such road closures do not coincide with the proposed construction vehicle haulage routes and would not be expected to impact access to the subject site. Road closures associated with Vivid Sydney are shown in Figure 9.1.

Figure 9.1: Vivid 2019 Road Closures



Basemap Source: Vivid Sydney flyer 2019, viewed online on 19/11/2019

Roads and Maritime's traffic management measures proposed for Sydney New Years Eve 2019 will involve a staggered programme for closing all roads in the CBD. Streets surrounding the North Site will be closed from 7.00pm on 31 December while streets surrounding the South Site will be closed from 11.00pm. Therefore, the proposed haulage operation would not affect the event in any way as trucks would not operate after 6.00pm on weekdays and 1.00pm on Saturdays.

Figure 9.2: New Year's Eve 2019 Road Closures

Source: City of Sydney New Year's Eve website, viewed online 19/11/2019

A review of City of Sydney's registered events indicate no other events are anticipated to occur in the vicinity that would be impacted by the haulage operation nor site access.

City of Sydney has a policy of not permitting works that would cause disruption to the retail core of the city in the lead up to Christmas and post-Christmas period. Works that would have a significant impact on pedestrian paths and station accesses should be minimised during these periods and/or additional and increased interface supervision between the site and the adjoining pedestrian network. Given that the subject sites are not located within the retail core, it is anticipated the construction works and haulage operation would not impact on the pedestrian network in the retail core during this busy period. It is also acknowledged that retail trading hours are extended during this period, thus construction activities between mid-December and early January would be considered on a case-by-case basis.

It is acknowledged that ad hoc events may occur with minimal notice, including marches, protests and other public events. Impacts of special events in the CBD are not limited to the event area and immediate side streets. Many events involve relocating transport services such as buses and taxi zones temporarily. The Project Team would continue to identify special events that might be impacted by the proposed haulage activities during the course of the construction works, and subsequently incorporating the known special events into the

construction program and to detail responses and contingencies in the CTMP. This coordination would occur through the Sydney Coordination Office, approved event registers of Councils, the TCG and the TTLG.

Construction works at the subject site would be scheduled outside special event periods where possible, given the majority of the special events occur on Sundays and public holidays as listed in Table 9.1. Where unavoidable, liaison would occur with event organisers of Class 1 and 2 events, and the Sydney Coordination Office, Roads and Maritime and the organisers of the event to provide appropriate management of heavy vehicle movements to manage potential impacts to event goers, the general public and the construction works. This may involve measures such as temporary adjustment to haulage routes, working hours or potentially stopping works for the duration of the event.

9.3 Impacts to Unplanned Events

The Project Team would provide support to emergency service agencies and road authorities in the management of emergencies and unplanned incidents on roadways approaching and within the subject site area and would assist in the restoration of normal traffic conditions.

The types of emergencies or unplanned incidents that may occur include, but not limited to:

- Traffic crashes
- Hazardous material spillage
- Chemical spills and leak
- Power failure and bomb threats
- Terrorist attack
- Inclement weather conditions, including flooding and major storm events
- Fire
- Police operations
- Anti-social behaviour
- Structural damage to a rail line, building, road tunnel or bridge
- Construction type incidents involving closure of a lane, or footpaths.

The Safety Manager has an Emergency Response Plan which would incorporate standard operating procedures for managing emergencies and unplanned incidents.

In the event of a traffic and transport related incident the primary point of contact for incident management is the Transport Management Centre. The Sydney Coordination Office would also be informed of the incident.

In case of flammable or hazardous substances, site personnel would be instructed not to approach these substances until NSW Fire and Rescue have declared the site safe. CPB Contractors would close the roadway at a safe distance until Fire and Rescue arrives and issues appropriate instructions.

CPB Contractors shall also co-ordinate with TMC and Sydney Coordination Office should incidents occur.

9.4 Impacts to Pedestrians and Cyclists

During construction, pedestrian access adjacent to the sites along Pitt Street, Park Street, Castlereagh Street and Bathurst Street would be maintained and all footpaths would be kept clear and trafficable at all times.

Qualified traffic controllers would be located at proposed site access points to separate pedestrian and vehicle movements. No negative impacts are anticipated to be imposed on pedestrians. Pedestrians have the right-of-way at all times. Pedestrians may be held only for short periods (approximately 30 seconds) by the pedestrian concertina gate to ensure safety when trucks are entering and leaving the site.

Cycle access would be maintained in surrounding street during construction works. Haulage vehicles would not impose adverse impacts on cyclists travelling along these streets nor any other local streets.

Where existing pedestrian and cyclist routes used are affected by construction, a condition survey would be carried out to confirm they are suitable for use (e.g. suitably paved and lit), with any necessary modifications to be carried out in consultation with City of Sydney.

9.5 Impacts to Bus Zones and Services

A work zone is proposed on the north side of Park Street, east of the existing Bus Zone. The work zone would cause no impact to the existing bus stop as the full length of the bus zone would be retained. Trucks would enter the work zone immediately, and not be permitted to idle in the adjacent Bus Lane. This would be managed by a dedicated traffic controller, and monitored by CPB and associated stakeholders throughout the project to ensure no impact on the bus operation.

9.6 Impacts to Taxis

There is a Taxi Zone on Pitt Street west side opposite the South Site. Notwithstanding the proximity to the site, the proposed construction works would not cause any impact to taxi services.

It is noted that the space in front of the Castlereagh Boutique Hotel is signposted as No Parking, and may be used by taxis to pick-up/set-down passengers. The work zone on Castlereagh Street is proposed to utilise this space; CPB Contractor's Community and Stakeholder Manager is in the process of engaging the Hotel with Sydney Metro to discuss the project works and specifically the proposed work zone on Castlereagh Street.

9.7 Impacts to On-Street Parking and Loading Zones

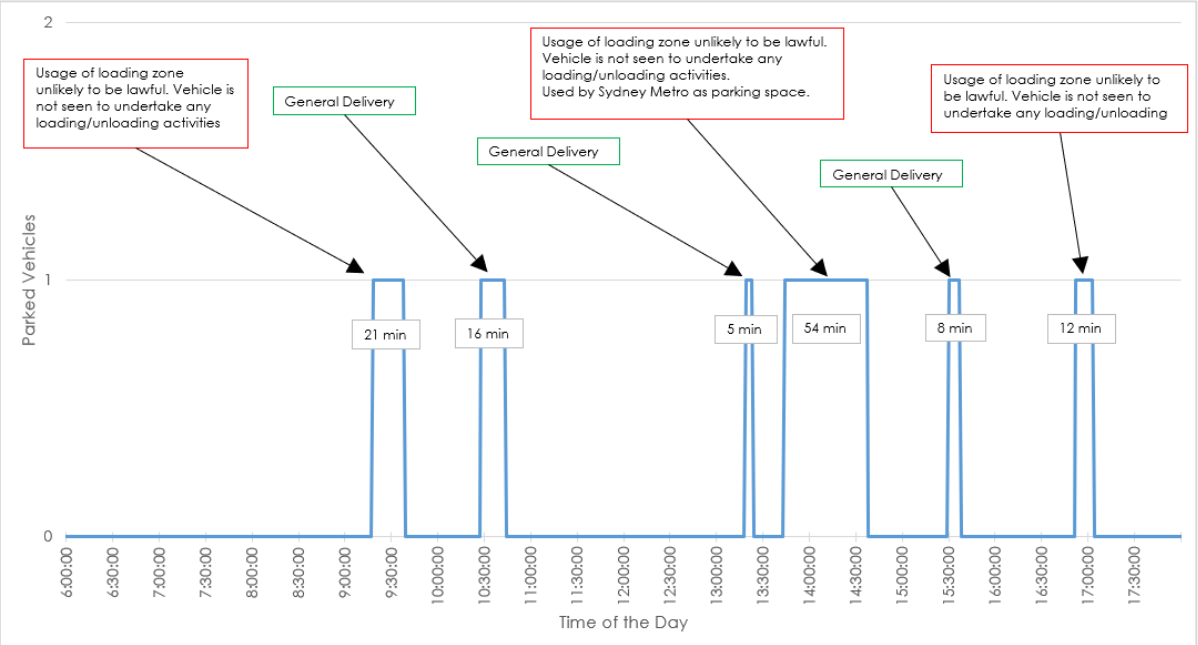
Pitt Street North

The work zone proposed on Pitt Street North would replace an existing No Stopping space, and therefore, would not result in any impact to on-street parking or loading zones.

Park Street

A work zone is proposed on the north side of Park Street which would replace the existing Loading Zone which currently operates between 6am-6pm. A survey of the loading zone was undertaken on Thursday 18 June between 6am-6pm to identify the frequency and duration of stay of vehicles. The results of the survey are shown in Figure 9.3.

Figure 9.3: Park Street Loading Zone Occupancy



The key findings of the survey are summarised as follows:

- 50% of vehicles using the loading zone are suspected to be doing so "unlawfully" . i.e. for activities not relating to loading/ unloading, and
- Having consideration for only those vehicles which used the loading zone "lawfully", the loading zone was accessed three times across the day and for a total duration of 29 minutes, which is considered to be a low occupancy rate across a 12 hour period.

According to City of Sydney's website for loading zones, there are multiple nearby loading zones which could be used instead of the Park Street loading zone. Nearby loading zones are shown in Figure 9.4. The loading zones nearest to the site operate 6am-6pm Monday to Friday and 6am-10am on Saturday which covers the same weekday period as the Park Street loading zone.

Since there is so few vehicles using the loading zone at present, the conversion of the Park Street loading zone to a work zone would not result in any negative impacts to delivery/ service vehicles in the vicinity. Furthermore, these deliveries/ service vehicles typically parked for a short period of time, namely, 5 minutes, 8 minutes, and 16 minutes. Therefore, the relocation of these delivery vehicles per day to surrounding loading zones would not be expected to cause any noticeable impacts to the capacity of nearby loading zones.

Figure 9.4: Nearby Loading Zones

Basemap Data Source: City of Sydney, accessed online on 19/06/2020

Castlereagh Street

The work zone proposed on Bathurst Street would be located within an existing No Stopping space. As mentioned previously, CPB Contractors intends to extend the work zone on Castlereagh Street to the north past the Castlereagh Boutique Hotel frontage. CPB Contractors has considered the needs of the Hotel operation and use of this kerbside space for hotel guest set down and pick up, hotel deliveries and emergency vehicle access. Therefore, CPB intends to liaise with City of Sydney to remove one paid on-street loading/ parking space to create a new hotel set down/ pick-up area to the north of the work zone.

Given that there are several existing on-street loading/ parking spaces located on Castlereagh Street, the conversion of one space for hotel guest set down and pick up would have minimal impact to loading and parking in the vicinity.

Pitt Street South

The work zone proposed on Pitt Street South would be located within an existing No Stopping space, and therefore, would not result in any impact to on-street parking or loading zones.

Bathurst Street

The Bathurst Street work zone is proposed in place of an existing loading zone and 4P on-street parking which can accommodate 4-5 cars/ small vans. Given that there are several nearby loading zones in the vicinity, the removal of the Bathurst Street loading zone would not impact delivery and service vehicles in the vicinity. It is noted that CPB Contractors will work with The Edinburgh Castle Hotel on the corner of Pitt Street and Bathurst Street to ensure its delivery and service needs are met.

There are two nearby car parks within short walking distance of Bathurst Street, namely, Wilson Car Park on Wilmot Street and Secure Parking at 255 Elizabeth Street. These car parks offer secure off-street car parking during weekdays and weekends (Secure Parking). On this basis, there would be close alternative parking options in place of Bathurst Street. Therefore, the removal of 5 car parking spaces would not have a negative impact on the surrounding businesses.

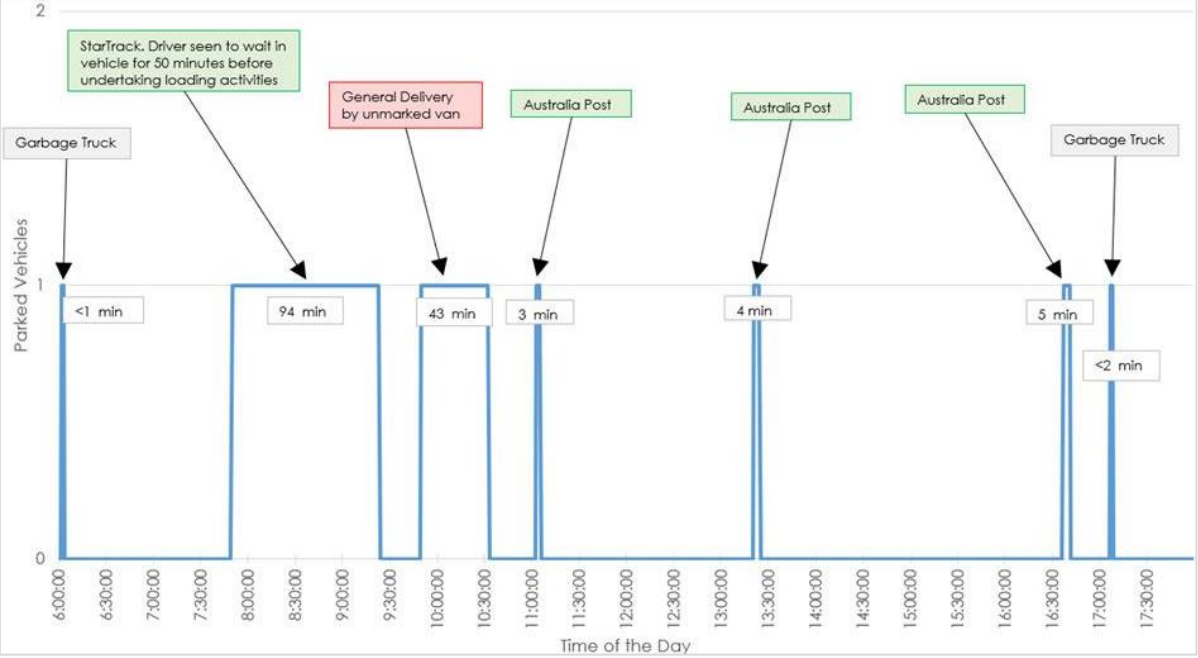
9.8 Impacts to Mail Zones

A work zone is proposed on the north side of Park Street within the exiting *No Stopping Aust. Post Vehicles Excepted*. This space is located directly east of the Park Street loading zone as described in Section 9.7. There are two Australia Post boxes (red and yellow boxes) located beside the *No Stopping Aust. Post Vehicles Excepted* section.

The work zone at this location would be required for the majority of the construction period (i.e. 32 months starting December 2020).

A survey of the *No Stopping* area was undertaken on Thursday 18 June between 6am-6pm to identify the frequency and duration of stay of Australia Post vehicles accessing this space. The survey results are presented in Figure 9.3.

Figure 9.5: Park Street Australia Post Box Access



The key findings of the survey include:

- For the majority of occurrences, Australia Post vehicles (which include Star Track) accessed this space.
- Notably, the Star Track vehicle was parked for 50 mins before delivering parcels, and all up, was there for 1.5 hours. The amount of time parked within the space seems peculiar, and is assumed to be a-typical.
- Having consideration for typical or average use of this space, the post boxes were emptied three times during the survey period by Australia Post vans for a short period each time (3-5 minutes).
- Waste collection of the council kerbside bin occurs twice during the day, for 1-2 minutes per collection. (The garbage bin would be removed as part of the work zone application).

It is appreciated that these post boxes could be key post boxes in the CBD. Therefore, CPB Contractors has consulted with Australia Post regarding the relocation of these post boxes to Castlereagh Street (as discussed in Chapter 6).

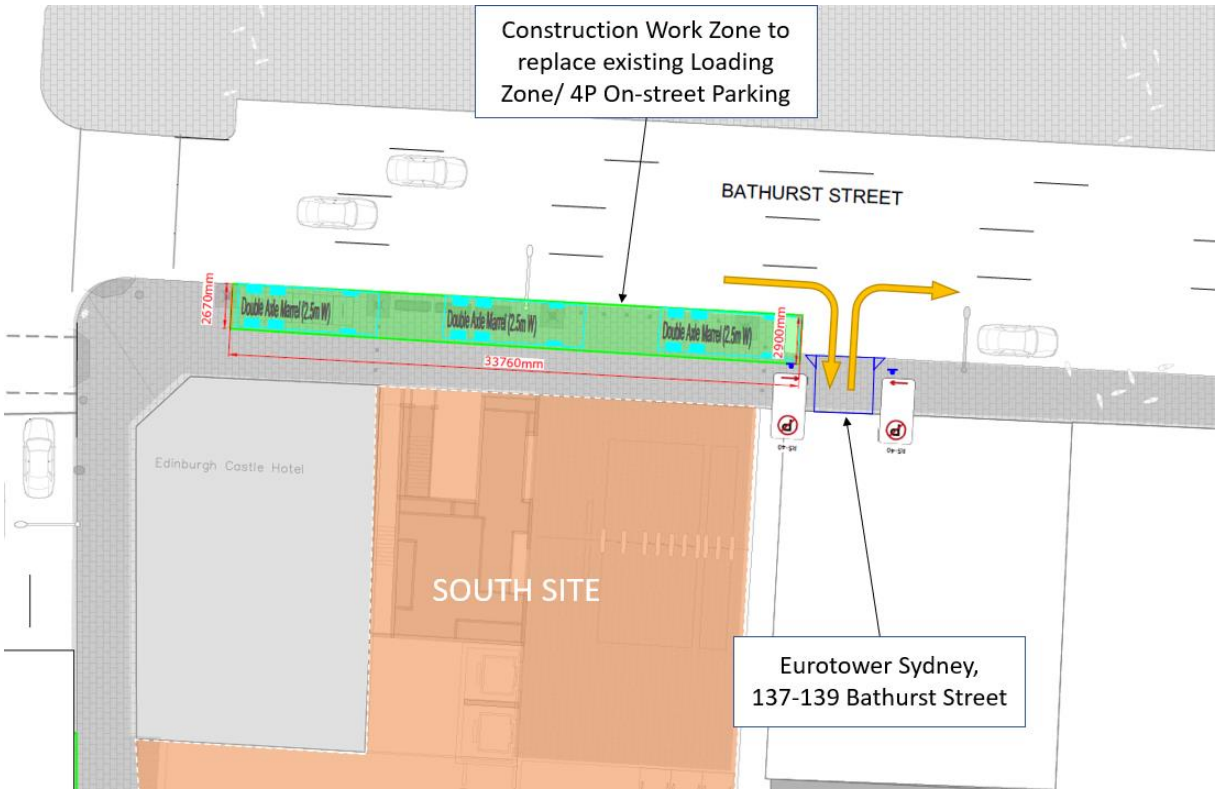
9.9 Impacts to Adjacent Properties

Access to adjacent properties would be maintained at all times for both pedestrians and vehicles as per existing conditions.

Surrounding the North Site, there are no property driveways located near the construction work zones/ site access driveways. Surrounding the South Site, EuroTower Sydney and Princeton Apartments have driveways located on Bathurst Street and Pitt Street, respectively, near the proposed on-street work zones. Notwithstanding this, driveways to these properties would be unaffected by the work zones and access to these properties will be maintained at all times.

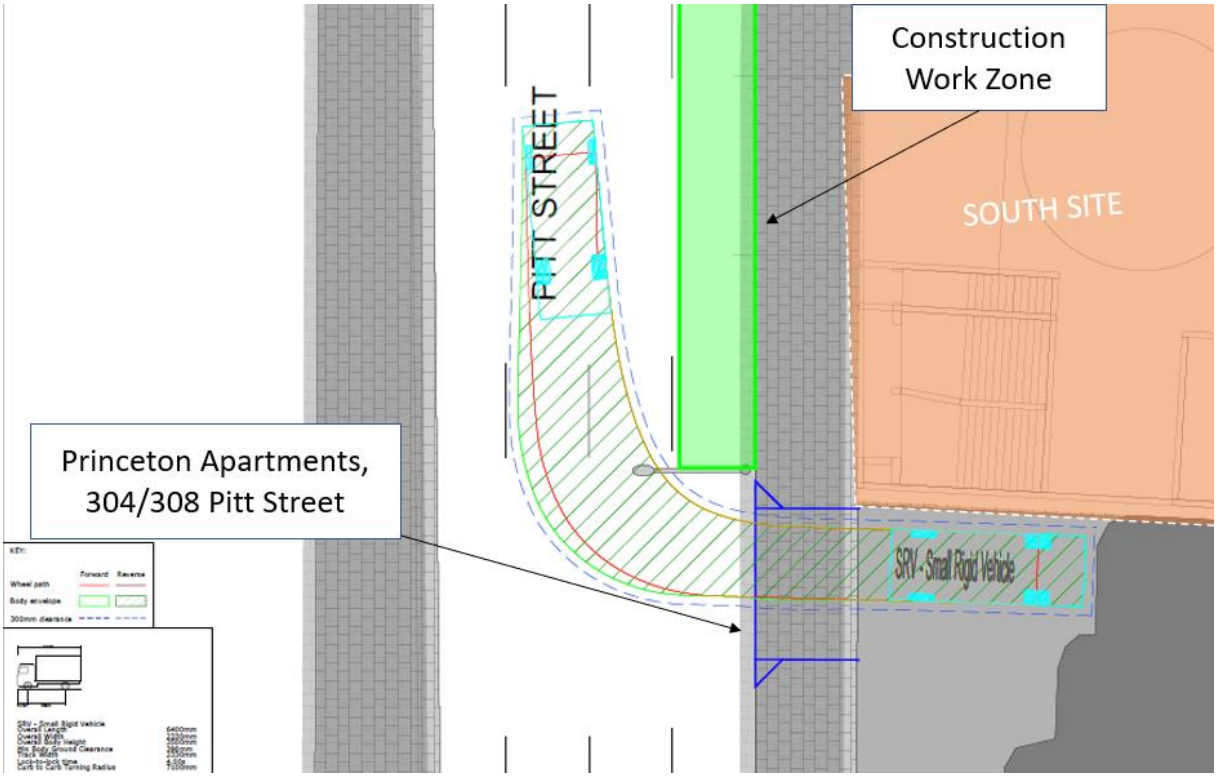
The proposed work zone on Bathurst Street would replace the existing loading zone/ 4P on-street parking in the kerbside lane to the west of the EuroTower Sydney access driveway. Vehicles shall continue to enter and exit the driveway by turning right-in (from Lane 2) and right-out (Bathurst Street is one-way eastbound) with no impact caused by the work zone. This arrangement is shown in Figure 9.6. It is noted that the driveway to the EuroTower also services the NSW Fire and Rescue. This driveway is occasionally used by the commanders who may be required to leave under lights and sirens to attend an emergency. Therefore, vehicular access into and out of the EuroTower driveway will be maintained at all times.

Figure 9.6: Bathurst Street Neighbouring Driveway



The work zone on Pitt Street South will be located to the north of the Princeton Apartments access driveway (which has a headroom clearance of 3.6m). A swept path analysis of a 6.4m SRV has been undertaken for the egress movement from the Princeton Apartments driveway. It shows that the SRV could turn right-out of the driveway (Pitt Street is one-way northbound) without being impeded by the construction work zone. This swept path is shown in Figure 9.7, and has been included in Appendix C.

Figure 9.7: Pitt Street South Neighbouring Driveway



9.10 Cumulative Construction Traffic Impacts

In terms of cumulative impacts, Figure 9.8 shows the location of construction projects which will operate concurrently with the Pitt Street ISD and OSD projects. Haulage routes used by vehicles accessing surrounding construction sites may partially overlap with those used to access the subject sites. Construction projects having the most common haulage routes would be those sites located in the immediate vicinity on Pitt Street, Bathurst Street and Castlereagh Street, namely:

- 201 Elizabeth Street
- 115 Bathurst Street
- 116 Bathurst Street, and
- 338 Pitt Street.

Comparatively, the Martin Place ISD and Central Station Main Works projects are situated further away from the subject sites. Furthermore, these projects typically have several access points due to the large size of the site and sometimes utilise multiple compounds. Therefore, impacts due to construction vehicles associated with these projects typically would be disbursed throughout the road network and would have less of a concentrated or cumulative impact with vehicles travelling to/from the subject sites.

Figure 9.8: Location of Concurrent Construction Projects

Table 9.2: Traffic Generation of Other Major Project Constructions

Project	Common Haulage Route Sections (Local Roads)	Peak Hourly Construction Traffic Estimate
Pitt Street ISD and OSD (this CTMP)	• Elizabeth Street • Castlereagh Street • Pitt Street • Liverpool Street • Park Street/ Druitt Street • Market Street	28 vehicles/ hour
The Greenland Centre, 115 Bathurst Street		6 vehicles/ hour
116 Bathurst Street		2 vehicles/ hour
201 Elizabeth Street		2 vehicles/ hour
338 Pitt Street		2 vehicles/ hour
Total		**Subject sites: 28 veh/ hour** **Nearby sites: 12 veh/ hour** **Total: 40 veh/ hour**

Whilst these projects are anticipated to overlap, cumulative traffic generation would not last the entire duration of the construction works at the subject sites. Therefore, the above cumulative traffic generation presented in Table 9.2 is considered to be conservative.

As detailed in Section 8.6, SIDRA modelling for existing conditions and the subject site construction period has been undertaken to assess the impact of additional vehicle trips on the surrounding road network. Pitt Street ISD construction vehicles were added to the existing traffic volumes, which already considered construction vehicle movements associated with nearby projects as they were operational at the time of the data collection.

The SIDRA modelling results shows that an additional 28 heavy vehicles (56 heavy vehicle movements) distributed throughout the road network would not have a negative impact at nearby signalised junctions.

Notwithstanding this, CPB Contractors proposes to implement a Logistics Management System to manage truck movements at work zones, and crane and hoist coordination via a booking system. This way, CPB can alleviate impacts due to construction vehicles in the CBD and avoid causing any potential negative impacts to the surrounding road network.

10 Mitigation Measures

10.1 General Traffic Management Mitigation Measures

The effective management of traffic and the provision of a safe road environment are paramount to the success of this project. Measures that can be applied to minimise traffic disruptions are generally divided in four categories: design, isolation of work areas, work methods and road occupancy planning. To achieve these objectives, various measures would be applied which are discussed herein.

Table 10.1: Construction Works

Management & Mitigation Measures	Person Responsible
Traffic controllers with approved clothing shall be provided to guide and control pedestrians on the footpath while trucks are entering/exiting the site.	PM & Site Supervisor
Concertina gates would be used to close the footpath on either side of the driveway to control pedestrian movements whenever a truck is entering/ exiting the site.	Site Supervisor & Traffic Controllers
Designated heavy vehicle routes would be nominated and monitored to minimise impacts on the road network and vehicle kilometres travelled. These routes would be communicated to truck drivers. Where practicable, these routes shall involve using arterial roads such as the Eastern Distributor in preference to city streets.	PM & Site Supervisor
Transportation of materials would be managed to maximise vehicle loads and minimise vehicle movements, where practicable.	Site Supervisor
In addition to relevant Australian Standards and Roads and Maritime guidelines, all traffic management shall also conform to WorkCover NSW Code of Practice for Working Near Traffic and Mobile Plant.	PM & Environmental Officer
All traffic control plans shall comply with AS1742.3:2002 Traffic Control Devices for Works on Roads and Roads and Maritime's Traffic Control at Work Sites.	Environmental Officer & PM
General signposting would be displayed on the hoardings with the appropriate warning signs.	Site Supervisor
Clean-up crews, including street sweepers, would be available to manage material spills.	Site Supervisor
Dust suppression measures would be used to control dust levels when trucks are being loaded on-site.	PM & Site Supervisor
If required, a wheel wash would be set up at the egress points from the site.	Site Supervisor
All loads except loads carrying metals (steel reinforcement, black iron, heavy steel, etc.) would be covered prior to leaving site.	Site Supervisor
Pedestrian and cyclist thoroughfares and road surfaces are kept safe for pedestrians, cyclists and traffic. Any potholes or other failures must be repaired without delay and within two days of the occurrence of the pothole or failure.	PM & Site Supervisor
Pedestrian management measures to be implemented to minimise impacts on pedestrian movement and maintain pedestrian safety (refer to TCP).	PM
General public access to surrounding areas including commercial, retail and residential properties would be maintained during construction.	PM & Site Supervisor
Hoardings would be utilised to separate pedestrians and site vehicle movements and to provide overhead protection.	PM & Site Supervisor
Constant traffic control shall be provided at the site access point to manage the interface between pedestrians and cyclists and site vehicle movements.	PM & Site Supervisor

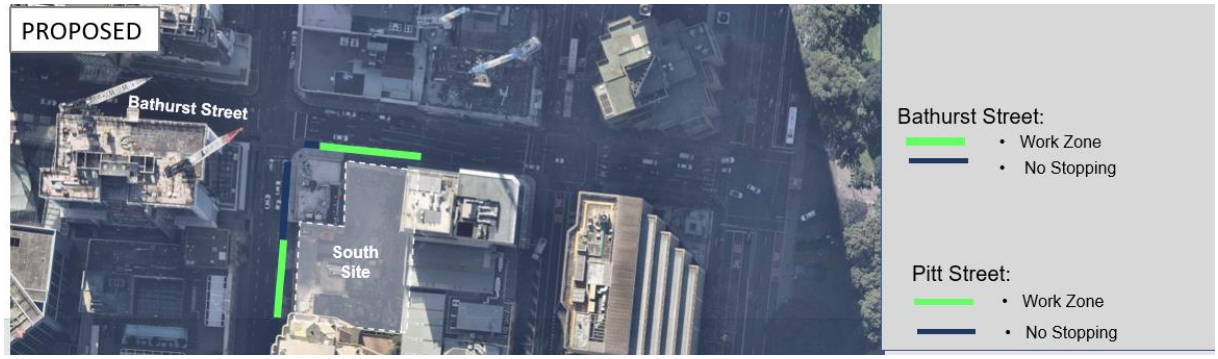
Management & Mitigation Measures	Person Responsible
Appropriate signage and hoarding will be installed to guide pedestrians and cyclists across the site access driveway.	PM & Site Supervisor
To provide for the safe movement of cyclists, project boundaries would be clearly defined through hoarding and/or fencing to separate site activities from cyclists. Cyclists are to travel as per the existing conditions in the general traffic lane in Castlereagh Street.	PM & Site Supervisor
Upon completion of the works, vehicular crossings would be removed and footpath restored to at least the state which existed prior to the commencement of the works.	PM & Site Supervisor
Upon completion of the temporary weekend works, temporary pedestrian detours, temporary public transport facilities and kerbside lane restored to at least the state which existed prior to the commencement of the works.	PM & Site Supervisor

10.2 Parking/ Loading/ Mail Zone/ Bus Zone Signage

Proposed kerbside uses and associated signage surrounding the North Site and South Site are illustrated in Figure 10.1 and Figure 10.2, respectively.

Figure 10.1: Changes to Kerbside Uses – North Site

Figure 10.2: Changes to Kerbside Uses – South Site



10.3 Traffic Control Plan

TCPs illustrate the arrangement of signage and devices to manage traffic at worksites during construction. The preparation of TCPs for the North Site and South Site consider the following:

- Warning signage for vehicles and pedestrians at the site access to alert them of the presence of heavy vehicle traffic generated by the works, to warn/ inform drivers of changes to the usual road conditions, and to guide drivers through the worksite.
- Qualified traffic controllers to manage pedestrian and control activity at proposed site accesses.
- The movement of trucks to/ from the site access would be under normal traffic conditions.
- Pedestrians and all passing vehicles shall maintain priority at all times.
- Clear definition of the work site boundary to be provided by erection of hoarding around site boundaries adjacent to roads.
- All signage would be clean, clearly visible and not obscured.
- All vehicle movements generated by construction works would be minimised, where possible, during peak periods.

TCPs have been prepared in accordance with AS1742.3 and Roads and Maritime's Traffic Control at Work Sites Manual. It has been designed by qualified personnel with current "Select/Modify Traffic Control Plans", "Design & Inspect Traffic Control Plans" license, and/or possess the "prepare work zone traffic management plan" certification.

Construction vehicles would access the North Site and South Site in a forward direction only. To achieve this the following traffic management measures would be undertaken:

- No queuing or parking shall be permitted in any public road.
- Qualified traffic controllers be located at the site access points.
- Truck drivers to follow call ahead/ radio-in protocols to inform site personnel/ traffic controller when the vehicle is en route to site for immediate access to the site.
- When a truck is entering or leaving the site, pedestrian gates would be used to close the footpath on either side of the driveway to control pedestrian movements.
- Vehicles already on the road would have the right of way. As such every vehicle leaving the site must wait until a suitable gap in traffic allows them to exit under the direction of qualified traffic and pedestrian controllers.
- Pedestrians shall only be held for short periods of time to allow trucks to enter and exit from the site. Pedestrians have the right-of-way on the footpath and would not be stopped in anticipation.

Advanced warning signs would be installed in Pitt Street, Park Street, Castlereagh Street and Bathurst Street on the approach to the site. All signs would be placed in accordance with relevant guidelines and standards. Messages shall be clear and easily interpreted by drivers and should not create a safety hazard.

Traffic control plans for the North Site and South Site are included in Appendix D.

10.4 Pedestrian Access Management

Pedestrian crossing movements and facilities are to be maintained at all nearby signalised intersections on Pitt Street, Park Street, Castlereagh Street and Bathurst Street.

B-class hoarding is proposed around the perimeter of the North Site and South Site at interfaces with the footpath. B-class hoarding would provide overhead protection above the pedestrian footpath on Pitt Street, Park Street, Castlereagh Street and Bathurst Street. All hoardings would feature lighting to ensure pedestrian safety at night, and would remain until the risk of falling objects has been removed and then would be replaced with A-Class hoarding to enable civil footpath works to occur. Footpath widths under the B-class hoarding would allow two-way pedestrian flow in-line with Austroads requirement to provide sufficient space to accommodate prams and wheelchairs.

Suitable signage including the "Watch for Pedestrians" signs would be provided at egress points for construction vehicles to maintain pedestrian safety when pedestrians travel across the proposed vehicular crossings.

TCPs in Appendix D show the location of traffic controllers at the subject site. Based on NSW Road Rules drivers must give way to pedestrians crossing the road into which their vehicles are turning. Qualified traffic controllers with a "Stop-Slow" bat would manage and control vehicle movements at driveway locations in Pitt Street and Castlereagh Street. In addition, traffic controllers would be located at the on-street work zone in Bathurst Street to assist construction vehicles accessing the work zone.

Traffic controllers located at site accesses would be notified by two-way radio whenever there is a heavy vehicle approaching and leaving the subject site. The traffic controllers would ensure the safe and efficient movement of pedestrians across the site access.

Cyclist access and safety would be managed as would general traffic in streets near the site access points.

10.5 Additional Enhancement for Road User Safety

Additional enhancements for pedestrian, cyclist and motorist safety in the vicinity of the subject site are to be implemented during construction works. These measures include:

- Specific heavy driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking.
- Safety devices on heavy vehicles that warn drivers of the presence of a vulnerable road user located in the vehicles' blind spots and warn the vulnerable road user that a vehicle is about to turn.

10.6 Road Safety Audit

A Road Safety Audit has been conducted independently on this CTMP and associated TCPs in accordance with the RMS 'Guidelines for Road Safety Audit Practices (2011), with reference to current practices outlined in Austroads Guide to Road Safety Part 6 Road Safety Audit (2009) and the Sydney Metro Principal Contractor H&S Standard. The road safety audit has been undertaken with due consideration to the high levels of pedestrian activity in the Sydney CBD environments.

The Road Safety Audit report is contained in Appendix E of this report.

In accordance with the RMS guidelines the auditors do make suggested actions or recommendations to mitigate the road safety risks that have been identified in the audit. Nor is it the responsibility of the audit team to assess whether the mitigation measures proposed by the project manager or road designer are deemed appropriate or effective. This is the responsibility of the project sponsor (RMS Guide to Road Safety Audit Practice page 1:17).

While every effort is made to identify all the road safety risks the audit team cannot guarantee that the road is 'safe'. However, by addressing the audit findings it is considered that road safety would be improved. It is therefore acknowledged that any review of the proposed measures is not standard road safety audit practice.

Notwithstanding, the lead auditor has reviewed the proposed mitigation measures as requested by the project manager. In particular, the item deemed high risk in regard to a loading zone within 7m of the approach of a signalised pedestrian crossing. This would reduce the mutual sight distance between approaching traffic and pedestrians on the crossing. The mitigation measures proposed are to provide a traffic controller at the intersection to monitor pedestrian activity and avoid loading during commuter peaks. It is considered by the lead auditor that these measures are likely to reduce the risk rating from High to Medium at this location.

10.7 Contingency Plans

The Project Team would develop contingency plans for all traffic control operations. Incidents may include late finishing road work, equipment breakdowns, poor weather conditions, and unplanned incidents. The table below briefly outlines the various actions, in respect to traffic management, which would be applied for these types of incidents.

Table 10.2: Contingency Plans

Management & Mitigation Measures	Person Responsible
Late Finishing Road Work	• In the event of late finishing road works, priority would be to make the road trafficable and then to remove all controls as soon as possible. The TMC is to be notified as soon as the possibility of late finishing work has been identified, and updated accordingly. • Where possible, cease work, remove restrictions and reprogram activity. Where works cannot be removed, monitor traffic flows and modify traffic controls / resources. • Expedite completion of works.
Equipment Breakdown	• Notify the TMC immediately, and update accordingly. • Where possible, cease work and remove restrictions. • Where works cannot be removed, source replacement equipment, make safe, or utilise another work method. • Modify traffic control and monitor traffic flows. • Consider use of Variable Message Sign (VMS) in consultation with City of Sydney.
Poor Weather Conditions	• Access risk / hazards, if necessary, postpone and reprogram works. • If works proceed, modify traffic control and source additional equipment to enhance safety. • Notify the TMC immediately and update accordingly.\ • Continue to monitor conditions, and if necessary, cease work and remove restrictions.
Unplanned Incidents	• Notify the TMC immediately, update accordingly. • Where possible, cease work and remove restrictions. • Modify traffic control and manage site until emergency services / RMS arrive. • Support emergency services / Roads and Maritime, as required. • When instructed by TMC, recommence works.

In the case that the construction works result in worsening of the traffic conditions, the Project Team shall review the measures identified in the CTMP in consultation with the TTLG. Any changes to the CTMP shall be submitted to Roads and Maritime for approval following Sydney Coordination Office endorsement.

10.8 Consultation and Communications

In association with TfNSW, the Project Team for both ISD and OSD construction projects would undertake proactive consultation and communication with the community, road authorities, Council, emergency service agencies, adjoining properties and key stakeholders in regard to the following but not limited to:

- Changes due to construction,
- The location of works,
- Forecast travel delays they are likely to experience,
- Suitable alternative routes, if available, and
- Timing of any works, including dates and times, to enable informed decisions by the road user regarding times and routes of travel.

All external communication with the community including businesses shall follow the guidelines set out in the Sydney Metro City & Southwest Overarching Community Communication Strategy. The community must be notified of any current and upcoming works and traffic arrangements that have the potential to impact stakeholders and the community prior to them occurring. A Community and Communication Strategy has been developed by the Project Team to notify stakeholders that may be affected by changes to transport, access and local traffic arrangements.

For example, owners and operators of the neighbouring properties and businesses would be notified in advance of construction works by means of letterbox drop.

Any comment, feedback, complaint can be made to the Project Manager and Site Supervisors via the contact details listed in Section 3.4 and 3.5, and shall be recorded in accordance with the Community and Communication Strategy (refer to Section 11).

10.9 Implementation of Corrective Actions

Corrective actions would be implemented when inspections indicate a non-conformance with the objectives of this TMP. The specific type of action undertaken would relate to the issue causing non-conformance with respect to the desired management outcomes.

These corrective actions would be determined in consultation with City of Sydney, the Project Manager, Senior Environmental Officer and the appointed TfNSW representative. Where regulatory authorities are involved they would also be included in any consultation.

To ensure the rectification of any non-conformance within an appropriate timeframe, activities must cease until the situation is under control, or reappraisal of the action plan is completed and additional control measures introduced.

10.10 Site Inspections and Record Keeping

The following inspections would be undertaken to ensure that conditions accord with those stipulated in the plan and there are no potential hazards:

- Pre-start and pre-close down inspections of short-term traffic control.
- Weekly inspections of long-term traffic control (i.e. more than one shift).
- Night inspections of long-term traffic control.

Any possible adverse impacts would be recorded and dealt with if they arise.

10.11 Staff Training

Site Induction

All staff employed on the site (including sub-contractors) would be required to undergo a site induction.

The induction would include approved access routes to/from the subject site for site staff and delivery vehicles as well as standard environmental, WH&S, driver protocols and emergency procedures.

All personnel employed on the Sydney Metro City & Southwest construction stages would perform their duties in accordance with the requirements of this CTMP and in compliance with the manuals and procedures outlined, and any specific Project Plans or instructions.

Driver Training/ Induction

Heavy vehicle drivers shall be made fully aware the worksite traffic management arrangements and site access requirements including specific heavy driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking. Driver training would take into account current best practice and information including Cycle Awareness Training.

All drivers would take the mandatory Sydney Metro City & Southwest project specific Heavy Vehicle Driver Introduction Training through CPB Logistics Management System

11 Complaint Management

The ROL register would maintain records of traffic accidents and incidents reported at work sites. Any complaints received regarding traffic delays at work sites would be referred to the Project Team and will be shared with the Stakeholder and Community Liaison Manager and recorded in accordance with the Community and Consultation Strategy. Upon request, the register may be required to be provided at meetings with Traffic Control Groups. The person in charge of the work site would be responsible for dealing with complaints regarding safety issues.

Refer to CPB Community Communications Strategy Plan Complaint Management System (SMCSWSPS-CPB-ALL-CL-PLN-000001).

12 CTMP Sign-on Sheet

Project No: N01070

Project Name: Sydney Metro City & Southwest - Chatswood to Sydenham.

Pitt Street Station Delivery Deed at North Site and South Site

Client: Sydney Metro

Note: You are signing to say you understand and will work to this Traffic Management Plan in entirety. Do NOT sign if you are not comfortable, do not understand or are unqualified / untrained to undertake the works outlined in this Traffic Management Plan, if you feel you cannot sign then talk to the site supervisor and he/she shall find alternative tasks for you.

Name	Company	Signature	Traffic Management Ticket No.	Date

Appendix A

City of Sydney CTMP Standard Requirements

APPENDIX A

The City of Sydney
Standard Requirements for Construction Traffic Management Plan

The Applicant or contractor undertakes to follow and abide by the following requirements at all times during the demolition, excavation and construction works at PITT STREET INTEGRATED STATION DEVELOPMENT CSSI 15_7400

1. Details of routes to and from site and entry and exit points from site – site specific

2. Details of roads that may be excluded from use by construction traffic i.e. roads with load limits, quiet residential streets or access/turn restricted streets – site specific

3. The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.

4. All vehicles must enter and exit the site in a forward direction (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

5. Trucks are not allowed to reverse into the site from the road (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

6. The Applicant must provide the City with details of the largest truck that will be used during the demolition, excavation and construction.

   NOTE: No dog trailers or articulated vehicles (AV) to be used (unless specific approval for a **one-off occasion** is obtained from the City's Construction Regulation Unit).

7. Oversize and over-mass vehicles are not allowed to travel on Local Roads (unless approval for a **one-off occasion** is obtained from the City's Traffic Operations Unit). Requests to use these vehicles must be submitted to the City 28 days prior to the vehicle's scheduled travel date. For more information please contact the National Heavy Vehicle Regulator (NHVR) on 1300 696 487 or www.nhvr.gov.au.

8. No queuing or marshalling of trucks is permitted on any public road.

9. Any temporary adjustment to Bus Stops or Traffic Signals will require the Applicant to obtain approval from the STA and RMS respectively prior to commencement of works.

10. All vehicles associated with the development shall be parked wholly within the site. All site staff related with the works are to park in a designated off street area or be encouraged to use public transport and not park on the public road.

11. All loading and unloading must be within the development site or at an approved "Works Zone".

12. The Applicant must apply to the City's Traffic Works Co-ordinator to organise appropriate approvals for Work Zones and road closures.

13. The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for partial road closures.

14. The Applicant must apply to the Transport for NSW's Transport Management Centre for approval of any road works on State Roads or within 100m of Traffic Signals and receive an approved Road Occupancy Licence (ROL). A copy of the ROL must be provided to the City.

15. The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for temporary driveways, cranes and barricades etc.

16. The Applicant must comply with development consent for hours of construction.

17. All Traffic Control Plans associated with the CTMP must comply with the Australian Standards and Roads and Maritime Services (RMS) Traffic Control At Work Sites Guidelines.

18. Traffic Controllers are NOT to stop traffic on the public street(s) to allow trucks to enter or leave the site. They MUST wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction site - **the vehicles already on the road have right-of-way.**

19. Pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering BUT you must NOT stop pedestrians in anticipation i.e. **at all times the pedestrians have right-of-way on the footpath not the trucks**.

20. Physical barriers to control pedestrian or traffic movements need to be determined by the City's Construction Regulations Unit prior to commencement of work.

21. The Applicant must obtain a permit from the City's Construction Regulation Unit regarding the placing of any plant/equipment on public ways.

22. The Applicant must apply to the City's Building Approvals Unit to organise appropriate approvals for hoarding prior to commencement of works.

23. The CTMP is for the excavation, demolition and construction of building works, not for road works (if required) associated with the development. Any road works will require the Applicant or the contractor to separately seek approval from the City and/or RMS for consideration. Also WorkCover requires that Traffic Control Plans must comply with Australian Standards 1742.3 and must be prepared by a Certified Traffic Controller (under RMS regulations).

24. Please note that the provision of any information in this CTMP will not exempt the Applicant from correctly fulfilling all other conditions relevant to the development consent for the above site.

Appendix B

Consultation and Correspondence

TCG Meeting Minutes

Meeting Notes – Draft

Sydney Metro City & Southwest - Traffic Control Group - Amended

Date	Tuesday 02 June 2020	**Time**	8:00 am – 9:30 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Philip Brogan PAB Chris Blanchard CB Santi Botross SBo Stephen Brown SB Sergeij Cantillo SC Martin Carey MC Andrey Collantes AC Berin Gordon BG Bernard Grace BGr Ken Hind KH Garry Hitchcox GHi Wayne Johnson WJ Daniel Kelly DK Abdullah Khan AK Michaela Kemp MK James Mann JM Carl Mella CM Nick Papanikolaou NP Frankie Passarelli FP Vidushi Sahni VS Sajid Shaikh SS Sarah Su SSu Alex Zeidan AZ	SM SM CPB TTPP Cox Arch. L Lease CPB SM L O'Rourke SM SM TTPP L O'Rourke TSE North Syd Cl. SM S Roads CPB SCO SCO SM CPB SM	Traffic & transport Pitt St ISD P Dir. Pitt St ISD contractor Traffic & transport Pitt St ISD contractor V Cross ISD contractor Pitt St ISD contractor Traffic & transport SSJ contractor Traffic & transport Traffic & transport Pitt St ISD contractor Central contractor TSE contractor Traffic & transport M Place contract mgt Metro interface Pitt St ISD contractor Traffic & transport Traffic & transport SSJ contract mgt Pitt St ISD contractor Pitt St contract mgt
Apologies	Gordon Farrelly GF Mong Sim MS	Willoughby Cl. S Connect	

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		
2.	**Actions arising from the previous meeting**		
	Linewide - Crows Nest - ~~Stage 4 Rev F~~ CTMP updates to be detailed and presented to TCG in regards to re-opening Clarke Lane and closing Hume St (for three weeks). *(19/5/20 – to be presented after TTLG)* Linewide - MS to clarify in the CTMP what the volume of general traffic is today in Randle Lane.	MS (Open) MS (Open)	

Agenda Item No.	Action / Decision	Action By	Due Date
	Linewide - MS to provide more detail (for the CTMP) in the draft TCPs including barrier types, work proximity to live traffic, distances for signs, taper lengths etc. *(19/5/20 – Revised CTMP to be submitted early June 2020)* Linewide - MS to include in revised CTMP that Commonwealth St route subject to change Waterloo - CM asked re Botany Road - changes for bus stop and driveway may need to be done under WAD. Sydney Roads to confirm. Waterloo - GR would prefer Botany Rd access to be exit driveway turning left to go south. Would need to look at swept paths to see if manageable. RM to review TSE (Martin Place) - GR advised that in response to the Martin Place RSA, there may be a need for the TSE contractor to modify water filled barriers along Castlereagh Street at the Martin Place intersection. ~~BG to discuss with JM~~GR to advise.	MS (Open) MS FL RM ~~BG~~GR	
3.	**City & Southwest - SSJ**	**BGr**	
	BGr spoke to the attached slides: • Pedestrian swap on Sydenham Road target 3 June 2020, not stopping traffic at Gleeson Ave/Railway Pde intersection. • Burrows Ave AFC linemarking – delayed. • Southern plaza – comments being assessed • George St drainage end of June 2020, three weeks work, staged TCP's tabled. CTMP lodged 29/5/20, minor changes. • Mid-block signalised crossing - defects addressed, inspection today, commission soon. • Culvert and Northern station works overview. • CTMP update provided. • Extension scope Bankstown line, working on methodology for high voltage trenching. • Updated traffic application status. • Garnet Road closure – 27 July 2020 – contra flow lane closure on either side proposed.		
4.	**City & Southwest – TSE**	**AK**	
	AK spoke to the attached slides: Victoria Cross: • Miller St stormwater lane closures for 12 and 19 June 2020. • ROLs approved, CTMP addendum submitted for new dates. • VMS installed this Friday. • Plant demobilisation method being developed. • Plant demob full road closure of Denison St on WE 2, 9 and 16 October 2020. Crane in Denison St. • Traffic control in Berry St to reverse crane into Denison St. • 2 options, load in Denison St or load in Berry St.		

Agenda Item No.	Action / Decision	Action By	Due Date
	JC asked about impact on closing of street on adjoining properties. AK replied will liaise with other buildings re access. JC asked how many movements? AK replied 8-10 across weekend. CM asked if all three weekends required. AK some as contingency, hope to do all in one weekend. CM asked about parking of floats. AK replied would park in parking lane on southern side of Berry St outside site. CM agreed it was acceptable to park in Berry St parking lane. BG asked how Sydney Roads want to proceed. JC indicated that council permit would be required for Denison St plus apply for LTC approval for road closure. Would need concise addendum to CTMP. AK asked if preference to option 1 or 2. JC responded preference would be load in Denison St. CM has concerns with reversing floats into Denison St so would need to check with Network and Safety Services. MK does not have a preference, whatever minimises impact of the work. Pitt St: • Plant demobilisation. Crane on Castlereagh St, scheduled for WE 7/8 August 2020 and contingency for next 2 weekends, full closure of Castlereagh St, outlined detours for buses and traffic, local access maintained. • Close two bus stops, slight impact on third, stops can be relocated to Elizabeth St. • To be presented to July 2020 LTC. FP says need to close Martin Place stop as well, has a plan for this process, take offline and work with TSE. • Alternative option for loading from Pitt St or Park St, larger crane would be required on Park St, obstructions. • Pitt St crane outriggers would impact footpath, tree trimming required GR agreed that Castlereagh St seems to be the better option for the crane placement. FP no issues with Castlereagh St location, can make it work. Marrickville: • Metro shopping centre development proposed design changes to streets, including one way and modification of bus routes, submitted to Council. Marrickville Metro works may impact TSE works. AK noted that TSE is not across all the details from the development contractor but there might be traffic changes in the area not related to TSE. Meeting SCO and bus operators to discuss ~~these measures and~~bus route changes and its impacts on TSE scheduled for next week. CTMP's -		

Agenda Item No.	Action / Decision	Action By	Due Date
	• possible extension of CTMP's required for some sites to December to line up the dates with the current handover dates. - CM said if CTMP issued with update on dates will be able to approve quickly. GR will have to review arrangement at each site to identify any potential conflicts with other contracts. Martin Place: • Martin Place tower crane demobilisation, scheduled for 10 July 2020 and contingency for 31 July 2020. JC asked if Pitt St could be done on same date as Martin Place~~Pitt St~~. AK replied - would need to confirm with the team. ~~that is not possible.~~ • AK noted that GR had asked at the TTLG if TSE Martin Place crane demob and Lendlease crane setup can be done under the same closure. It would not be possible as TSE is~~P~~ planning for 4 crane mobilisations and demobilisations over weekend, would be safer and more efficient to do separately. BG asked about CTMP approvals for Martin Place and Miller St. JC to advise after meeting.		
5.	**City & Southwest – Central**	**DK**	
	DK spoke to the presentation slides • CoS has given approval for right turn into SYAB for pre-cast entry for existing CTMP. GR notes that SCO will not support right turn in during the day. SCO may consider right turn access at night, requires CTMP addendum (times, dates, number of trucks durations etc). • CTMP addendum 12 – Approved date was 2 April 2020, date pushed back to 11 July 2020. Addendum for change of date to be submitted. CM asked if already have approval. DK to confirm. • Transformer delivery to Lee St TCP tabled • Kurri to Central route for delivery of roof components outlined. • CTMP issued Friday for initial comments before formal submission • Steel deliveries commence end of June 2020. Cassettes from mid July 2020. Proposed route tabled. • Steel deliveries 2 x 26m x3.5m loads and 10 x 19m x3m, total 12. • Roof Cassettes 6 x 4.8-5.2m wide loads and 35 x 3m-4.8m wide, total 41. • Deliveries start 9-11 July 2020 over 13 occasions and completed by 17-20 Dec 2020. Some may be impacted by Christmas blockage period. • All deliveries at night (12-5am).		

Agenda Item No.	Action / Decision	Action By	Due Date
	VS asked that any OSOM deliveries take into account cumulative issues with Westconnex movements (Sept, Oct, Nov 2020). DK to action. • TCP's submitted as part of CTMP Rev 7, outlined again. 26mx3m impact two lanes for left turn into SYAB, under ROL 11.30pm-5am, swept paths tabled. CM noted swept paths show possible impact on opposing lanes, may need traffic control. DK to review and advise. • Proposed truck swept paths, 19m x 5.2m, 26m x 4.5m. Have approved ROL for June so want to do trial, any other requirements. No objections from JC and CM. GR asked DK to consult with CoS OSOM group. • Chalmers St footpath closure proposal tabled. • Need to close path under hoarding for potholing for Ausgrid and divert peds to cycle lane, start 9 June 2020 for approx. 2 weeks. Outlined signposting. • 12-15 holes required. JC and GR noted that SCO would not support the cycle lane proposal and asked that for proposals such as this more detailed plans be provided. DK to review for possible night works only and also undertake weekday and weekend pedestrian and cycle counts to support the proposed traffic mgt. methodology to be documented in a TCP and CTMP addendum.		
5.	**City & Southwest – Pitt Street ISD**	**NP**	
	NP spoke to the attached slides: North site - station and commercial tower: • Start works 19 Dec to 1 Feb 2020. • Station completion August 2023 and then minor OSD fitout work. • SIDRA modelling undertaken to support a case for increased peak period truck movements. • Average queue lengths for dedicated right turn lanes identified for work zone proposals South site – residential: • Work zones proposed in Pitt and Bathurst Streets. • Consulted with CoS re hoarding and B class hoarding with high bay entries. • Bathurst St, taking up existing parking spaces for concrete pumping and loading. Consulted with Edinburgh Hotel. GR asked about current kerbside restrictions and hotel loading impacts. NP noted that Hotel loads on Bathurst St. Will co-ordinate with hotel for their loading needs. JC said to ensure this is included in CTMP.		

Agenda Item No.	Action / Decision	Action By	Due Date
	North site: • Looking at work zones and access on each frontage (including Park St) , B class hoarding to all frontages. • Park St – proposal to relocate bus stop to western end of site, closer to adjacent bus stop, assist vision for approaching buses to stop. • Work zone at eastern end, easier exit to travel onto Elizabeth St. PAB noted that Appendix C of the CTMF states that "SCO does not support the use of on-street parking zones by trucks, without prior approval." JC and GR noted that SCO does not support a work zone on Park Street because of its impact on public transport operations. Experience has shown that trucks often park in the bus zones with adverse impacts. NP asked if making the bus zone longer would assist ? GR says it would not assist but a night time Park St work zones may be a possibility. Castlereagh St: • Work zone would partially sit in front of Masonic hotel, Hotel consultation ongoing. • Implementing online construction delivery management including real time advice re truck movements and occupation of work zone. GR asked if the contractor had applied the system elsewhere in the Sydney CBD ? and NP noted that it had been applied to some hospital projects. GR asked what happens if a truck driver arrives unscheduled and NP said he would be sent back to the depot. • Traffic demand study undertaken • Looked at work zones and type of trucks, max duration of delivery and assessed impact. Identified max truck throughput per hour. PAB asked if the volumes were 22 trucks in and 22 trucks out per hour. SB replied yes. • Modelled with truck movements as identified and LOS will remain the same with Av delay only increased by a few seconds. GR asked about truck routing noting that the contractor should look at the EIS routes. GR does not want to impact other key intersections as a result of the proposed outbound movements. JC asked if the contractor is confident that the sites can service these forecast truck volumes and frequencies. SB and NP advised that they will be able to. NP checked the EIS routes and will reflect those in the CTMP. • Temp road closures - 5-6/2/21, one each for south and north sites. Can they occur at the same time or separate.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• To load excavators and other material into site and then to erect tower crane. • Pitt St south of Bathurst St, send residents south to Liverpool St. GR - need to facilitate local access with any closure. Cumulative impacts of all road closures will need to be considered. • North site - close Castlereagh St for tower crane installation • Park St - to erect tower crane, retain two way traffic flow. But could be used to erect both tower cranes and not require Castlereagh St closure. GR said would prefer to do closures on weekends and major concrete works should be scheduled over a weekend to reduce impacts on public transport customers where possible. PAB asked if the CTMP will document the case for an increase in truck movements during peaks. NP agreed it would.		
6.	**Other matters**		
6.1	PAB advised that Michael Holmes of Sydney Metro is undertaking a HV safety review of the Martin Place ISD contractor under the HV National Law, Chain of Responsibility and the Metro Health and Safety Spec. PAB has asked Michael to bring any future audits to the attention of the TCG.		
7.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 16 June 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes – Draft

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 16 June 2020	**Time**	8:00 am – 9:30 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Philip Brogan PAB Stephen Brown SB Andrey Collantes AC Jake Coles JC Paul Enright PE Berin Gordon BG Bernard Grace BGr Elizabeth Harrison EH Ken Hind KH Garry Hitchcox GHi Daniel Kelly Abdullah Khan AK Michaela Kemp MK Sam Laporte SL Ryan Madden RM James Mann JM Carl Mella CM Kevin O'Neill KO Nicholas Papanikolaou NP Frankie Passarelli FP Giovanny Ramirez GR Vidushi Sahni VS Sajid Shaikh SS Mong Sim MS Sarah Su SSu Alex Zeidan AZ	SM SCO CPB SCO SM SM L O'Rourke SCO SM SM L O'Rourke TSE North Syd Cl. L O'Rourke JHG SM S Roads TSE CPB SCO SCO SCO SM S Connect CPB SM	Traffic & transport Traffic & transport Pitt St contractor Traffic & transport Waterloo contract mgt Traffic & transport SSJ contractor Traffic & transport Traffic & transport Traffic & transport Central contractor TSE contractor Traffic & transport Central contractor Waterloo contractor M Place contract mgt Metro interface TSE contractor Pitt St ISD contractor Traffic & transport Traffic & transport Traffic & transport SSJ contract mgt Linewide contractor Pitt St ISD contractor Pitt St contract mgt
Apologies	Gordon Farrelly GF	Willoughby Cl.	

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Agenda Item No.	Action / Decision	Action By	Due Date
	Linewide - MS to clarify in the CTMP what the volume of general traffic is today in Randle Lane. *(16/06/20 – revised CTMP submitted)*	Closed	
	Linewide - MS to provide more detail (for the CTMP) in the draft TCPs including barrier types, work proximity to live traffic, distances for signs, taper lengths etc. *(19/5/20 – Revised CTMP to be submitted early June 2020)*	Closed	
	Linewide - MS to include in revised CTMP that Commonwealth St route subject to change *(16/06/20 – revised CTMP submitted)*	Closed	
	Waterloo - CM asked re Botany Road - changes for bus stop and driveway may need to be done under WAD. Sydney Roads to confirm. *(16/06/20 – CM advised that SM and TfNSW P&P have had a meeting over the formal agreement for works and in process of determining resolution)*	Closed	
	Waterloo - GR would prefer Botany Rd access to be exit driveway turning left to go south. Would need to look at swept paths to see if manageable. RM to review *(16/06/20 – Amended arrangement for access proposed – see Item 5 below)*	Closed	
	TSE (Martin Place) - GR advised that in response to the Martin Place RSA, there may be a need for the TSE contractor to modify water filled barriers along Castlereagh Street at the Martin Place intersection. BG to discuss with JM *(16/06/20 – GR advised will be reviewing CTMP's as submitted and advise of any potential issues)*	Closed	
3.	**City & Southwest - Central**	**DK/SL**	
	DK/SL spoke to the attached slides: • SYAB CTMP submitted regarding swept paths for large vehicles CM asked if Saturday day or nights for deliveries and DK said prior approval allows 10am-4pm Saturday. CM noted that the conditional approval does not support right turns into SYAB. CM said P&P would review to advise if day use is not suitable. • Lee St transformer delivery comments received, updated and submitted today. TCP tabled, 19m trailer under traffic control and reverse into driveway • CTMP Addendum 11 - roof deliveries - updated and resubmitted on 10 June 2020. First deliveries on 23 June 2020 & hoping to get approval soon. • Trial done for turn into SYAB, 19m x 5.4m cassette vehicle did not cross centreline when turning left into SYAB. • 26m x 5.4m crossed centreline. Revised TCP provides for closure of one lane on opposite side to temp stop vehicles while entering (at night) about 20-30 seconds per movement, about 5-10 deliveries per night.		

Agenda Item No.	Action / Decision	Action By	Due Date
	CM asked if northbound lane will be closed at night and DK said yes, with traffic stopped during actual truck entry. CM said P&P would return CTMP comments today. Randle Lane (SL): • Outline of CTMPs submitted, CTMP Add. 3 approved, Add. 5 approved, Add. 13 recently submitted and under review. Chalmers St (SLa) • Cycleway and footpath trenching avoided in short term, but will need to trench in mid 2021. Investigations ongoing. • Randle Lane closure for transformer replacement. Temp closure (by Sydney Trains) required at short notice to replace transformer. • SL asked what process is required by Sydney Trains to get approval for this work ? • JC to consider and advise.	**JC**	
4.	**City & Southwest – Linewide**	**MS**	
	MS spoke to the attached slides: Waterloo: • Waterloo rail delivery commencing 1 August 2020. • Rail coming from Newcastle, via Wentworth Ave and Botany Rd, turning right into site from Botany Road using all lanes. JC noted that the right turn would not be supported during the daytime. PE asked if RM of Waterloo contract had spoken with the Linewide contractor, RM said he had but that the access proposals do not align with the draft Waterloo CTMP. Consultation ongoing. MS to review access proposals and resubmit. Marrickville: • Marrickville rail deliveries via Bedwin Rd, left into Edinburgh St and into Gate 6, approx. 6 trucks per day from Aug 2020 over 2.5 months. Daytime access with traffic control proposed. • Alternative is to enter at Murray St. JC noted that the accesses as shown on the slides would not be supported during the daytime. MS to review access proposals and resubmit. BG asked if MS has spoken to TSE and MS noted that the area manager has spoken to TSE. AK highlighted that proposed TSE placement of barriers on Edinburgh St may impact swept path, barriers also run across Murray St Chatswood: • Rail possession 17-21 July 2020. • Concrete pumping from Hopetoun Ave, set up Saturday morning and finish by Sunday afternoon. Stop/slow control at Hopetoun Ave/Orchard Rd. Have applied for ROL.	**MS** **MS**	

Agenda Item No.	Action / Decision	Action By	Due Date
	• Brand St in Stop slow operation, ROL approved. JC asked if a briefing note will be provided for the proposed Marrickville and Waterloo works and MS said yes they will be submitted for both.	MS	
5.	**City & Southwest – Waterloo ISD**	**RM**	
	RM spoke to the attached slides: • CTMP to be submitted soon. • Looking at revised approach which avoids southern Botany Rd access and retains bus stop as existing. • Two separate driveways via Wellington St proposed. • Precast beams would only arrive at night and trucks reverse in, 2 deliveries per night, approx. 20 beams. Swept path details to be determined and traffic counts for inclusion in CTMP. CM asked which driveway would be the entry and RM said trucks would enter via the western driveway subject to swept path analysis. • Separate entry and exit off Botany Road at northern end of site with another entry/exit off Raglan St.		
5.	**City & Southwest – SSJ**	**BGr**	
	BGr spoke to the attached slides: • Outlined upcoming works (see slides) Burrows canopy: • Lift from Burrows Ave for last section of roof, maintain through traffic during week. • Crane placed Wednesday and lift on Saturday night 12-15 Aug 2020. Mid-block signalised crossing: • Temp marking plan submitted • Pedestrian swap once TCS commissioned Southern plaza: • RSA completed, close out comments and submit HV trench: • Detail design underway, 7 separate TCP's • To be placed in third traffic lane along Railway Pde. Refer to slides. Extension scope: • Pedestrian detours for footbridge closure. Ped counts carried out, TMP pending • Wairoa Ave footpath works approved by council 15/6/20.		
6.	**City & Southwest – Pitt St ISD**	**NP**	
	NP spoke to the attached slides: Park St Work Zone: • Existing bus area to be maintained. • Reduced Work Zone size WZ in Loading Zone and Mail Zone. Post boxes relocated to extend work zone in to Mail Zone. To start discussions		

Agenda Item No.	Action / Decision	Action By	Due Date
	with Australia Post regarding relocation of post boxes. • Work Zone proposed for Mon-Fri 10am-3pm and after hours + Sat 8am-1pm • Commissioning survey re loading zone usage. • Work Zone will be manned to ensure queuing doesn't occur into Bus stop. • Will continue to monitor for 3 months • Induction will include instruction on crossing Bus Lane to enter Work Zone • Implementing online traffic logistics monitoring • Gates in Bus Zone section will only be used at night around bus schedule, for deliveries • Road closures - 17/1/21 or 7/2/21 JC suggested NP be aware of the long lead times for LTC agenda items. NP noted that it is planned to go to the Oct 2020 LTC. • Options for temporary road closures • Park St (north site) and Pitt St(south site) or Castlereagh St (north site) and Pitt St (south site) • Park St - close eastbound lanes and one westbound lane, crane location flexible • Full closure of Pitt St and Castlereagh St with traffic management for local access JC noted that the Pitt and Castlereagh St closures could be done on the same weekend but the Park St closure would need to be separate to mitigate public transport impacts. NP to update CTMP's.		
7.	**City & Southwest - TSE**	**AK/KO**	
	AK spoke to the attached slides: Miller St concrete pours: • Currently all concrete pouring from McLaren St site, pumping up to 400m. • Lift shaft for south entry needs to be poured from south site • 10-11 trucks for delivery of concrete, daytime pumping from 10am-6pm with one truck per hour and 3 night pours • Propose to set up pump on footpath area on Miller St and propose to start 22/6 • Take out lane in Miller St to bring trucks in and out after clearway hours • No impact on Taxi zone, no impact on buses • Applying to council for permits JC asked about the residual width of footpath in Miller St and AK said it was planned to maintain existing 2.5m. MK asked if the truck could be parked in the kerbside lane and to pump across the footpath and KO noted that this would create OHS issues for the drivers. MK asked if the manoeuvring of trucks had been considered and AK noted that swept path assessment has		

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	been done. Pedestrian impacts much less than spoil trucks (10/hour v. 1/hour) MK asked that any permit applications include the swept paths.		
8.	**Other matters**		
8.1	FP outlined bus stop change protocols (originally agreed at TCG 9 Jan 2018)as follows: Changes to procedure highlighted below: 1. Contractor consults with SCO on the proposal (which in turn consults with Infrastructure and Services Group (TfNSW) and bus operators). **Contacts include:** Frankie Passarelli Frankie.PASSARELLI@tmc.transport.nsw.gov.au Elizabeth Harrison Elizabeth.Harrison@tmc.transport.nsw.gov.au Jim Niahos jim.niahos@tmc.transport.nsw.gov.au 2. Contractor modifies proposal, as required. **Based on SCO feedback.** 3. Contractor consults with Council(s). **Yes – after SCO feedback.** 4. Contractor documents bus stop change proposal in a CTMP. 5. Contractor tables proposal at TCG and submits CTMP. **Best to talk to SCO first** **6.** Contractor to obtain Traffic Committee approval. **Yes, no need for the Metro contractor to consult directly with Infrastructure and Services Group (TfNSW) or the bus operators, this will be done by Transport Coordination** 7. **Min lead times** – Transport Coordination and bus operators require a minimum of 4 weeks' notice should construction works necessitate re-routing a bus route. This is to allow the diversion route to be plotted on Opal system. Individual bus stop closures or relocations along the same route will require 10 days' notice.		
9.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 30 June 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 30 June 2020	**Time**	8:00 am – 9:00 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Philip Brogan PAB Stephen Brown SB Martin Carey MC Andrey Collantes AC Mark Dunn MD Bernard Grace BGr Ken Hind KH Garry Hitchcox GHi Michael Hodges MH Michaela Kemp MK Abdullah Khan AK Olga Krikelis OK Miles Leadbeater ML James Mann JM Andrew McDonald AMc Carl Mella CM Frankie Passarelli FP Sushane Perera SP Giovanny Ramirez GR Sajid Shaikh SS	SM Trans Coord. L Lease CPB L Lease L O'Rourke SM SM SM North Syd Cl. TSE SM L Lease SM L Lease P&P Trans Coord. T2M Trans Coord SM	Traffic & transport Traffic & transport V Cross contractor Pitt St contractor M Place contractor SSJ contractor Traffic & transport Traffic & transport Southwest contract mgt Traffic & transport TSE contractor Projects V Cross contractor M Place contract mgt M Place contractor Metro Interface Short term bus changes Southwest contractor Traffic & transport SSJ contract mgt
Apologies	David Banjac DB Paul Enright PE Fraser Leishman FL Ryan Madden RM Mong Sim MS Alex Zeidan AZ Alex Wilson AW		

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		
2.	**Actions arising from the previous meeting**		
	Central – Chalmers St – JC to provide information on requirements for closure of Randle Lane for transformer replacement if required. Linewide – Waterloo – MS to review proposal for delivery of rail to site via right turn from Botany Road and resubmit. *(30/06/20 – Revised TMP for night time rail delivery submitted for comment)*	Closed Closed	

Agenda Item No.	Action / Decision	Action By	Due Date
	Linewide – Marrickville – MS to review rail delivery route to site as proposed route would not be supported during the day. *(30/06/20 – TMP for revised route and night deliveries submitted for comment)*	Closed	
3.	**City & Southwest - Southwest**	**SP**	
	SP spoke to the attached slides: Intrusive utility investigation at Marrickville. Pedestrian management approach. • One piece of investigation to be done, at Marrickville along rail corridor footpath, access from Riverdale Ave. • Discussions ongoing with Sydney trains re investigations and reinstatement of footpath. • Diverting all pedestrians to nearby streets during work. JC asked when the works would occur and SP noted within the next two weeks subject to Sydney Trains agreement (one day shift only required). JC asked what volume of pedestrians use the footpath and SP noted that it is minimal.		
4.	**City & Southwest – Central**	**DK**	
	Nil report.		
5.	**City & Southwest – Victoria Cross ISD**	**MC/ML**	
	MC/ML spoke to the attached slides: Upcoming works including Mobilisation works in Q4 2020. • Proposing southbound lane closures on Miller St for mobile crane mgt (weeknights and weekends after 9pm). 350 and 500t mobile cranes. • Footpath closure and southbound lane closure, peds diverted at traffic signals, night works. • Mobilise excavators in Nov 2020 and erection of tower crane, overnight road closure. • B class hoarding installation includes single lane closures, then shed lifting (night works). • Excavation via Denison St, Nov 2020 to Feb 2021 and demob in late Feb 2021. • Looking at two nights to lift all machinery into the hole, least impact on ped and traffic. JC asked about duration as set-up, operation and demobilisation may take longer, and we need to minimise impact on Miller Street. ML noted that the 350t crane would have a 2 hour set up, and the distance from Miller dictates crane size. 500t crane required due to lift radius and has about a 3 hour set up. GR asked contractor to look at lifting from Denison St. ML noted it would require full closure of Denison St. GR feels it would be better for traffic mgt. MC noted that Miller St would still be required for tower crane installation. JC asked if that will that be daytime and ML said yes. MK is concerned about using Denison Street given resident impacts and access needs, and feels that if night		

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	works are to be done this should occur in Miller St on a weekend. MK noted 1 Denison St will be generating commercial tenant activity. GR noted that FP (short term bus changes) of Transport Coordination will need to consider the proposal. MC to provide more detail on detours and crane setup.		
6.	**City & Southwest – Martin Place ISD**	**MD/AMc**	
	MD spoke to the attached slides: • Semi-trailer reinforcement deliveries North Site, late August 2020 TC1 installation. • Bulk excavation ongoing, load out platform installed next month. • CTMP being updated for use of semi-trailers, planned for August 2020. • Comments on CTMP received. Have identified alternative haulage routes, rerun swept paths and a CBD trial proposed. • Plan to deliver 5-7am and leave by 7am. Revised route via King St to Macquarie St and to site. Will send through proposed routes. JC noted that any trial needs to be done at a time that minimises risk in the event of heavy vehicle issues or delays, earlier start in the evening preferred. GR asked if Council feedback has been received and If any concerns have been raised re use of semi-trailers in the CBD. AMc replied that informal feedback has been received and feels that Council has no major issues with semi-trailer use, subject to OSOM permit approval. CM asked about timing and AMc noted that daytime transport is planned avoiding the peaks (no capacity to store reinforcement on site). JC asked the contractor to reaffirm their agreement to daytime semi-trailer use in the CBD. PAB suggested the contractor look at the (City of Sydney) comments register appended to the CTMF. • CTMP to be submitted for use of Bligh St. • 2nd tower crane installed 22/23 August, using TC2A • Lane closure with relocation of peds, maintain access to 50 Martin Place and properties across Castlereagh St. JC asked that the detailed TCP be included in the CTMP.		
7.	**City & Southwest – SSJ**	**BGr**	
	BGr spoke to the attached slides: • Rail possession deliveries, 8/9 Aug 2020 • Precast deliveries for station • Possessions in August 2020. • Briefing with buses and Sydney Trains re possession bussing. Deliveries for station works, first week of August and 8/9 August possession • Crane placed in site but trucks stop on Sydenham Road, bus access will be accommodated.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• Jemena under bore of Hogan Ave planned for same rail possession weekend, Sydney Trains and Transport Coordination discussions ongoing. • Burrows St canopy works require lane closure in Burrows Avenue. • Mid-block crossing commissioning soon after defects resolved. • Southern plaza kerb work CTMP to be resubmitted this week. • RSA underway for 132kv under bore. • Hogan Ave staging tabled, traffic and access to be maintained. Stage 2 works mostly at night, Oct-Nov 2020. • Railway Parade trenching, detailed design underway. Consultation ongoing. • Temp relocation of gate 11. • CTMP update (see slides) • Garnet St on hold. Next works in August 2020. • Pedestrian bridge detours update. • Comments back on TMP's and resubmit today or tomorrow. • Tranche 1B CTMP to be submitted this week. CM noted that the P&P asset team don't support the Railway Parade trenching and require justification as to why an under bore is not feasible.. CM asked if the footbridge closures are submitted through the local traffic committee and BGr said he is awaiting Council confirmation. SB asked about the mid-block traffic signals commissioning and SS noted that an inspection is planned for tomorrow and CM noted that P&P would prefer a post weekend commissioning, not Thursday or Friday.		
8.	**Other matters**		
8.1	AK noted that the Marrickville Metro contractor has works impacting Sydney Steel Road, Edinburgh and other roads near the TSE site and is trying to get more information on potential impacts. AK feels TSE may be able to facilitate the works as they need to finish August or September 2020.		
9.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 14 July 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 14 July 2020	**Time**	8:00 am – 10:00 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Kevin Barry KB Philip Brogan PAB Stephen Brown SB Martin Carey MC Killian Cashin KC Andrey Collantes AC Ken Hind KH Garry Hitchcox GHi Will Jobling WJ Olga Krikelis OK James Mann JM Declan McGarry DMcG Carl Mella CM Nick Papanikolaou NP Vidushi Sahni VS Sajid Shaikh SS Mong Sim MS Sarah Su SS	SM SM Trans Coord. L Lease L O'Rourke CPB SM SM CPB SM SM TSE P&P CPB Trans Coord. SM S Connect CPB	Crows Nest contract Mgt. Traffic & transport Traffic & transport V Cross contractor SSJ contractor Pitt St contractor Traffic & transport Traffic & transport Martin Place contractor TSE contract mgt M Place contract mgt TSE contractor Metro interface Pitt St ISD contractor Traffic & transport SSJ contract mgt Linewide Pitt St ISD contractor
Apologies	David Banjac DB Mark Dunn MD Paul Enright PE Bernard Grace BG Daniel Kelly DK Abdullah Khan AK Myles Leabeater ML Ryan Madden RM Sushane Perera SP Giovanny Ramirez GR Alex Zeidan AZ Alex Wilson AW		

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		
2.	**Actions arising from the previous meeting**		
	No outstanding actions		
3.	**City & Southwest - Linewide**	**MS**	

Agenda Item No.	Action / Decision	Action By	Due Date
	MS spoke to the attached slides Crows Nest Works • Provided outline of revised truck route for rail delivery via North Sydney (see slide) • Special permit was required around Darling Harbour JC asked if can get around Alfred St roundabout. MS replied that has been checked and is possible CTMP status • Waterloo rail delivery CTMP resubmitted last Friday, comments addressed. • Meeting CoS this week re potential footpath damage JC said that for planned implementation date should think about ROL applications. Will have response back today from Transport Coordination re comments close out. MS noted that ROL applications lodged. JC said to let know if approval not received in a timely matter. Crow's Nest shed removal: • Resubmitted last week, covers rail delivery and shed removals. • Rail coming on 3 Aug. May require CTMP approved for rail delivery but shed removal can be a bit later as planned in December 2020. • Shed removal may involve TCS mods and will take time to agree to changes – justification report to avoid changes to TCS, doing report now. • CTMP approval required to meet 3 Aug rail delivery but perhaps a CTMP approval can be issued to condition or exclude the mid shed removal (planned for December 2020). Other: • Plan to submit CTMP this week. • To cover rail delivery and early works Surry Hills CTMP • Currently addressing comments for resubmission Southwest Traction substation – • Received comments from RMS but no others as yet.		
4.	**City & Southwest – SSJ - Sydenham**	**KC**	
	KC spoke to the attached slides: Works Update. • Sydenham Road pedestrian signals, defects close out continues, possible commissioning next week. • George St drainage works, start last week of July • Platform 1,2,3 deliveries Sydney Buses and S Trains consultation has occurred. ROL lodged for layover space. • Jemena underbore, updated CTMP submitted, planned for weekend possession 8-9 August. • Burrows canopy install, lane closure plan consulted with Sydney Buses. • Southern plaza, CTMP resubmitted. • 132 kv underbore, RSA underway, TCP presented to Sydney Buses.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• Railway Pde HV trench, early stages, bussing operations briefed, updating details. • New planned works - Gleeson Ave temp works, retaining wall in rail corridor, not impacting road. • Extension scope: Garnet Rd on hold, ped detour plans submitted to P&P and councils, Wairoa Pde ped diversion to start early August 2020 and Tranche 1b CTMP being updated.		
5.	**City & Southwest – TSE**	**DMcG**	
	DMcG spoke to the attached slides. Castlereagh St closure Review 10-13 July: • Castlereagh St, closure successful removal of tower crane, next closure 28-30 Nov 2020 for removal of crawler crane. JC said should submit to council earlier to allow sufficient approval time by LTC Blues Point: • Gantry removal impacts some parking spaces at Henry Lawson Pde. • Proposed closure of Castlereagh St at Pitt St proposed for 8 August 2020. JC said need ROL. Berry St works: • Crane setup at night for lifting into shaft, require 3 of 4 lanes for 24-27 July 2020, ROL submitted CTMP updates: • Vic Cross CTMP resubmitted. • Denison St closure submitted 9 July, proposed for Oct 2020. WJ noted plan to coordinate CBD tower crane going up for station for Oct. 2020 two weekends, one in Oct and one in Nov 2020. No issues with multiple weekend contingencies.	**DMcG**	
6.	**City & Southwest – Victoria Cross ISD**	**MC**	
	MC spoke to the attached slides: Upcoming works including Mobilisation works in Q4 2020. Miller St site establishment: • 350 t max size crane required from Miller St for loads. Proposed to occur on weeknights after 8pm • Weekend closure for lifting in tower crane • Outlined alternative bus route JC will provide contact details to provide preferred dates for buses Miller St footpath closure: • Closure from 8pm and implement from 9pm weeknights. • Outlined lifting schedule (slide 7) for weekday and weekend (slide 8) for tower crane install Utility works proposed • Miller St for stormwater, night or outside Clearway hours, subject to coordination with TSE.		

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	• Planned to commence late August through to early November 2020. • Early stages do not propose any reduction in ped access on Miller St. JC asked are ped works 24 hours, MC replied that yes, with ped control. JC said not included in CTMP submission but will require addendum. MC will provide updated plans and schedule, include as an appendix.	**MC**	
7.	**City & Southwest – Pitt St ISD**	**NP**	
	NP spoke to the attached slides: • Submitted CTMP last week. • Propose closure of Castlereagh on 17 Jan 2021 with 31 Jan 2021 as contingency. • Concurrent Castlereagh and Pitt St closures. North site: • Mobile crane set up, looking at routes for delivery • Identified property access impacted for Castlereagh St closure, speaking to landowners • Ped closures, peds diverted to eastern side JC asked are there ramps at that point and NP noted if not existing will be putting some in. • Two bus stops impacted by closure as bus services detoured. Intend to move stops north and south of closure. JC will provide contacts to consult re bus impacts South site: • Access to neighbouring properties from Liverpool St. • Checked swept paths at Goulburn St/Pitt St for delivery trucks. • Peds diverted to western side f Pitt St JC noted that submission for LTC should progress in parallel with CTMP.	**NP**	
8.	**Other matters**		
	DM noted the potential for Miller St stormwater works in first week of August 2020 and asked if the CTMP needs to be amended. JC said no, just send notification via Teambinder.		
9.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 28 July 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 28 July 2020	**Time**	8:00 am – 9:25 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Kevin Barry KB Philip Brogan PAB Stephen Brown SB Bernard Grace BG Ken Hind KH Garry Hitchcox GHi Michael Holmes Wayne Johnson WJ Daniel Kelly DK Michaela Kemp MK Olga Krikelis OK Van Le VL Fraser Leishman FL James Mann JM Andrew McDonald AM Declan McGarry DMcG Carl Mella CM John Nguyen JN Nick Papanikolaou NP Sushane Perera SP Giovanny Ramirez GR Vidushi Sahni VS Cameron Savage Sajid Shaikh SS Mong Sim MS Tim Sloan TS Angela Stead AS Luke Wilby	SM SM Trans Coord. L O'Rourke SM SM SM L Lease L O'Rourke North Syd Cl. SM City of Sydney P&P SM L Lease TSE P&P SM CPB T2M Trans Coord. Trans Coord. L Lease SM S Connect SM L O'Rourke TfNSW	Linewide contract Mgt. Traffic & transport Traffic & transport SSJ contractor Traffic & transport Traffic & transport Health & Safety M Place advisor Central contractor Traffic & transport TSE contract mgt Traffic & transport Metro Interface M Place contract mgt Martin Place contractor TSE contractor Metro interface V Cross contract mgt Pitt St ISD contractor Southwest contractor Traffic & transport Traffic & transport M Place contractor SSJ contract mgt Linewide Southwest contract mgt SSJ contractor Centre for Road Safety
Apologies	David Banjac DB Mark Dunn MD Paul Enright PE Abdullah Khan AK Myles Leabeater ML Ryan Madden RM Alex Zeidan AZ Alex Wilson AW		

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		

Agenda Item No.	Action / Decision	Action By	Due Date
2.	**Actions arising from the previous meeting**		
	No outstanding actions		
3.	**City & Southwest - Southwest**	**SP**	
	SP spoke to the attached slides Southwest Works: • Cornelia St and Urunga Pde. Wiley Park service building, water mains run through building site, potholing required on footpath and rail side to assess location. • Suction truck to be parked on footpath for both. • Will need to stop pedestrians along Stanlea Pde • Traffic controllers at each end • One shift only for work JC asked how much of a detour for pedestrians. SP noted that detour would be via Shadforth St and Lakemba St to Cornelia St. JC asked if any property access issues were likely. SP noted that there would be no access issues for residents. JC asked about the council land, and SP noted that the contractor will meet with Council Thursday.		
4.	**City & Southwest – Central**	**DK**	
	DK spoke to the attached slides: • Right turn into SYAB – CTMP Rev 4. Understand only at night, waiting on comments back, asked for this week. • P&P advised that Saturday nights would not be acceptable Eddy Ave hydrant works: • Need to tap into existing main on Eddy Ave. • Outlined works. Need to set up hoarded area – bring in vac truck – excavate – locate water mains – Sydney Water turn off at night and cut into pipe and install new valve & t-section. • No more than 10 vehicle movements per day, 2 tonne tipper for materials, outside of peak times, coordinating with light rail. • Want to start in 2-3 weeks' time, daytime outside peaks, preparing basic CTMP, contractor has approvals for closing of footpath. General discussion about the proposed works. Discussions with Light Rail and Sydney Trains ongoing. GR asked how trucks access the works site and DK noted that they will use emergency lane and mount footpath on Eddy Ave to reverse into the site. Height restrictions have been checked. Chalmers St hydrant: • Need to connect to main in Chalmers Street at eastern entrance to Metro, in footpath, 6 days working 24 hours. • Need to decide where to place vac truck to minimise impact for peds and cyclists.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• May park on footpath in front of hospital, direct peds onto cycle path and have cyclists walk around. • DK looking at same time as Eddy Ave but hope to start earlier. Propose working around the clock with noisy work in day, otherwise could take 10-12 days working only at night • General discussion about the proposed works. GR asked if could work at night. DK said noise is an issue for night works for excavating. VL agreed that noise could be an issue. JC suggested covering hole during day. DK replied hole too big to plate over during day as it is 4m long x 2m wide CM said there is concern about having pedestrians on green cycle path as per previous Network and Safety advice. DK noted that in that case the peds would need to be diverted to other side of the road. LW noted that he shares the concerns already expressed. GR suggested weekends only and backfill during week as has been done for light rail works. DK will investigate but suspects not as 1-2 days to excavate, then 2-3 days of backfilling. DK to check if works can be done on weekend and what diversions for pedestrians via traffic lights would involve.	**DK**	
5.	**City & Southwest – SSJ - Sydenham**	**BG**	
	BG spoke to the attached slides: Works Update. Refer to slides. • Sydenham Road pedestrian signals, possible commissioning today. • Underbore - updated TCP to show ped path on Hogan Ave and resubmitted. 132 kV underbore – hoping to submit CTMP today for comments. Goes for two months in Hogan Ave, most of October and November 2020 • HV trench to Railway Pde, CTMP under preparation, need to go back to bus operators • Temp works – Railway Pde/Gleeson Ave to be submitted soon. • Bus operations briefing, most items closed out • CTMP update Extension works: • Garnet St works still on hold • Ped detours in principle agreement from council • Wairoa Ave ped diversion TCP tabled, now diverting peds to other side of the street • Tranche 1B CTMP update Rev 9 to be submitted.		
6.	**City & Southwest – TSE**	**DMcG**	
	DMcG spoke to the attached slides: • Martin Place - proposing to maintain current arrangement to Nov 2020 or until increased ped		

Agenda Item No.	Action / Decision	Action By	Due Date
	volumes through the area require reinstallation of wings. • Monitoring each day would then reinstall if volumes increased – 5 day operation to reinstall wing JC asked how much longer and DMcG said Nov 2020 or when ped volumes increase. DMcG will update CTMP with the above. JC commented that CTMP will also need to talk about monitoring procedure. DMcG will update each week. FL commented that would have to provide target number which would trigger reinstallation. DMcG to update and send out this week. Castlereagh St stage 2: • Removal of barriers at crossing to previous arrangement. CTMP sent last week and asked if any comments. JC indicated yet to review but should not take too long. DMcG keen to progress. Marrickville: • Marrickville Metro works delayed so TSE pushing ahead. • Edinburgh Rd barrier installation starting 17 Aug 2020. • Bus stop mods on Edinburgh Rd late Aug early Sept 2020, currently used as layover, would remove shelter to do works. May need temporary layover space. • Underbore – starting launch pit at night and plate , underbore done over a weekend, date to be confirmed, how buses operate to be confirmed • Currently in discussion with buses to ensure access is available.		
7.	**City & Southwest – Linewide**	**MS**	
	MS spoke to the attached slides: Crows Nest truck route update • Checked turn path at Alfred St roundabout Elizabeth Street potholing work: • Trenching for conduit happening tonight and tomorrow night Reserve Rd trench BPS: • In addition to 33kV, need to do cutover for existing Ausgrid trench along Reserve Road, showed diagram, also relocate Sydney Water main as well. • Traffic staging under development. • Possible contra flow during work and local road closure when gets to Carlotta Ave. • Joint bay at southern end may require extended lane closure. • Currently programmed for mid-October		

Agenda Item No.	Action / Decision	Action By	Due Date
	JC asked if out of hours work. MS replied that believe to be night work but Carlotta Ave may be day work. Will be speaking with Willoughby Council. JC commented that works permitted depends on local access needs of businesses. • CTMP to be submitted in 4 weeks PAB asked about shed removal and Hume St, is it proposed to deliver any aspect of works by WAD. KB replied that does not form part of a WAD. CM noted that middle shed removal should be submitted as addendum to CTMP and confirm that traffic signals are not impacted. MS replied hope to submit this week.		
8.	**City & Southwest – Martin Place ISD**	**CS/AM**	
	MD spoke to the attached slides • Still operating through Bligh Street • CTMP approved for Castlereagh Street work zone • Use of semis under review. • Responding to comments, alternative haulage route to eliminate corners where issues • Deliveries to be off-peak. • 3 deliveries per day to north and 3 to south site • Want to do the trial run to test swept paths • Deliveries to start August 2020 General discussion about the use of semi-trailers for reinforcement deliveries. CM asked what approval has been received from CoS. Have discussed with J Faull. CS to forward to VL. PAB asked AM to address haulage route deviations / justification in the CTMP. LW noted that the trial will not guarantee safe movements and asked for further mitigations. WJ suggested some form of decals at intersections to be used to ensure peds stand back. LW replied would help VL noted the need to avoid lunch time peaks. CS replied will look at avoiding. WJ suggested some form of decals at intersections to be used to ensure peds stand back. LW replied would help. • Outlined original route, identified restricted intersections and provided swept paths for new route VL noted the Pitt St pop up cycle lane. CS said they will not impact. VL asked if smaller trucks ca be used rather than semi-trailers, CS noted that they could but with an increase in truck generation. VL asked that this justification be included in the CTMP. JC noted that the works will require monitoring and possible reversion to smaller trucks. JM asked what feedback is to be collected during the trial, WJ indicated a series of videos from inside and outside the vehicles. General overview of swept paths.	**CS**	

Agenda Item No.	Action / Decision	Action By	Due Date
	LW noted tight location at Spring St / Bent St with on street parking and narrow street. Hunter St / Castlereagh St also tight. • CS to do additional swept paths at Spring St / Bent St and update CTMP with swept paths. Also identify parking restrictions in place at time of transport. • CTMP to be submitted including use of Bligh St and takeover of south shaft in Dec 2020. 2nd tower crane installation: • Does not require full closure, one lane retained for traffic. In process of obtaining ROL's • Loadout platform operational from 2nd week of August 2020. • In and out from Castlereagh St with traffic control.	**CS**	
8.	**Other matters**		
	Nil other matters.		
9.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 11 August 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 11 August 2020	**Time**	8:00 am – 8:45 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Kevin Barry KB Philip Brogan PAB Haider Bukhari HB Paul Enright PE Kristian Fitzgerald KF Bernard Grace BG Ken Hind KH Garry Hitchcox GHi Michael Hodges MH Daniel Kelly DK Olga Krikelis OK Van Le VL Fraser Leishman FL Ryan Madden RM James Mann JM Andrew McDonald AM Quac Minh La QM Michael Milner MM Frankie Passarelli FP Sushane Perera SP Giovanny Ramirez GR Cameron Savage Sajid Shaikh SS Mong Sim MS Tim Sloan TS Angela Stead AS	SM SM SM SM SM L O'Rourke SM SM SM L O'Rourke SM City of Sydney P&P JHG SM L Lease P&P Ultegra Trans Coord. T2M Trans Coord. L Lease SM S Connect SM L O'Rourke	Linewide contract Mgt. Traffic & transport C Nest ISD Contract mgt. Waterloo contract mgt. SSJ contractor Traffic & transport Traffic & transport Southwest contractor mgt Central contractor TSE contract mgt Traffic & transport Metro Interface Waterloo contractor M Place contract mgt Martin Place contractor Metro interface C Nest utility works Short term bus changes Southwest contractor Traffic & transport M Place contractor SSJ contract mgt Linewide Southwest contract mgt Central contractor
Apologies	Carl Mella CM	P&P	

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		
2.	**Actions arising from the previous meeting**		
	No actions arising.		
3.	**City & Southwest - Southwest**	**SP**	
	SP spoke to the attached slides:		

Agenda Item No.	Action / Decision	Action By	Due Date
	• Update on Wiley Park water main investigation. • Day 1 one pit on road side of fence, one on rail side. • Stanlea Pde will remain open with traffic controllers to guide pedestrians. • Next 4 days non-intrusive works but will barricade around testing equipment. • Propose start on 24th August to 28th August, awaiting permits from council.		
4.	**City & Southwest – Crows Nest ISD (Utility Works)**	**MM/HB**	
	MM / HB spoke to the attached slides: • Utility works proposed along footpath on Pacific Highway. • Starting 24 August 2020, working south of Hume St to remove gas and water mains, 4-5 shifts of night works. • ASP works will commence on 7 Sept 2020 subject to Ausgrid approval. • Working with Linewide re rail deliveries, will be using same traffic control contractor. JC asked if ROLs applied for. MM replied waiting to hear back. • Noisy works will be done during the day outside of clearway hours. • Also works on western side of Pacific Highway, not all work zones will be occupied at once, progressive works area. FL asked about the works on the western side. For installation of new power poles on eastern side and stringing across to western side.		
5.	**City & Southwest – Linewide**	**MS**	
	MS spoke to the attached slides: • Rail deliveries started to Waterloo, second deliveries last night, no problems identified. • Crows Nest handed over to Linewide on 3 August, started site set up, rail deliveries start 7 September 2020. CTMP update: • Rail deliveries approved. • Reserve Rd bulk power supply being updated. • SMTF south update being actioned.		
6.	**City & Southwest – SSJ (Sydenham upgrade)**	**BG**	
	BG spoke to the attached slides: • General works update. • Southern plaza kerb works endorsed. • Revising TCPs to reduce time and combine works • 132 kV underbore submitted on 27th July 2020, expecting comments soon. • HV trench in Railway Pde, trying to resolve Ausgrid aspects. Will come back to P&P soon. • Gleeson Ave temporary works to be submitted soon.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• May St survey data points, ½ day work, TCP prepared for survey work, mostly on footpath with witches hats around survey stations. Submitted with last CTMP update. Work to occur week commencing 17 August 2020. • Bus operations overview. • Burrows Ave-Hogan Avenue kerb works to occur. CTMP update: • Extension scope (Garnet St works still on hold, ped detours to start in October 2020, and Wairoa Rd pedestrian diversion with Council). JC asked if Sydney Water are doing work for SSJ on Hogan Ave. BG doesn't think so but will check and respond to email.		
7.	**City & Southwest – Waterloo ISD**	**RM**	
	RM spoke to the attached slides: • Outlined existing layout on handover to ISD, will remain that way for next 2 months while Linewide working. • Will establish site sheds south of church, will be happening from end of August 2020. • Proposed access modifications as shown in slides, proposed for late September and October 2020. Botany Rd driveways will remain as is. • Cope St utility works, relocation of overhead and underground power to one trench on eastern side of Cope St, 20m section at a time and then progressively move along. Near bus stops will be done out of hours in conjunction with road crossings. • Proposing to adjust hoarding into Cope St carriageway as per PIR, to be discussed further with Council. • Looking for approval to site accesses, other access and hoarding change later on. JC asked if Council has reviewed CTMP and provided comments. RM has received some informal comments from Council but having a further meeting with Council. JC said once meeting has provided way forward to progress Council concerns, and responses to Councils comments, can be forwarded to P&P and TCO to enable conditional approval.	**NOTE**	
8.	**City & Southwest – Martin Place ISD**	**CS/AM**	
	CS/AM spoke to the attached slides: • Still using Bligh St access. Bulk excavation done. • CTMP update, currently under review, to include comments received, have adjusted swept paths and route, can do trial run if needed, pavement decals at turn locations included in CTMP • Will send through updated CTMP in next couple of days. Emailed copy to VL (Council) in advance. • Spring St considered but not suitable, reverted to Bligh St, can make it work. • Precinct wide CTMP to be submitted.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• 2nd tower crane, still planned for 23 August 2020, lane closures only, not full closure of Castlereagh St. • Loadout platform, will be finishing installation this week and in operation from 17 August 2020. JC had some feedback about trucks using bus layover on Bligh St. Requested CM to raise with contract team again. JM said if photo could be provided. JC to see as just been reported to TC. GR suggested rather than closing kerb lane on Bligh St on approach to Hunter St make left turn only. CS to action.	**CS** **CS**	
8.	**City & Southwest - Central**	**DK**	
	DK spoke to the attached slides • Right turn into SYAB, no comments received, JC to check if any comments. • Eddy Ave booster works, outlined works zones with works durations, Zone 1 – 7 days, Zone 2 - 12 days, start at same time as Zone 1, Zone 3 -3 days, Zone 4 - 3 days. Waiting for approval from Sydney Trains, Sydney Water approval received, coordinating with Sydney Trains and Light Rail. Will advise date to mobilise when determined • Outlined routes and works for underground and above ground. • Chalmers St still planning to set up outside hospital, won't impact cycle lane and will divert pedestrians to other side of Chalmers St. JC asked about duration of works. DK replied about 7 days, 24 hours a day.	**JC**	
9.	**Other matters**		
	No matters raised		
9.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 25 August 2020 at 8:00 am – 10:00am (Teams Videoconference).		

Meeting Notes

Sydney Metro City & Southwest - Traffic Control Group

Date	Tuesday 25 August 2020	**Time**	8:00 am – 8:45 am
Venue	Teams videoconference		
Chairperson	Jake Coles JC	**Agency**	**Discipline**
Attendees	Michael Acs MA David Bechara DB Philip Brogan PAB Stephen Brown SB Andrey Collantes AC Bernard Grace BG Ken Hind KH Garry Hitchcox GHi Michaela Kemp MK Olga Krikelis OK Van Le VL Fraser Leishman FL James Mann JM Declan McGarry DM Carl Mella CM Nick Papanikolaou NP Frankie Passarelli FP Sushane Perera SP Giovanny Ramirez GR Vidushi Sahni VS Sajid Shaikh SS Mong Sim MS Mosaval Tariq MT	SM tba SM Trans Coord. CPB L O'Rourke SM SM North Syd Cl. SM City of Sydney P&P SM TSE P&P CPB Trans Coord. T2M Trans Coord. Trans Coord. SM S Connect T2M	V Cross ISD contract mgt tba Traffic & transport Traffic & transport Pitt St contractor SSJ contractor Traffic & transport Traffic & transport Traffic & transport TSE contract mgt Traffic & transport Metro interface M Place contract mgt TSE contractor Metro interface Pitt St contractor Short term bus changes Southwest contractor Traffic & transport Traffic & transport SSJ contract mgt Linewide contractor Southwest contractor
Apologies			

Agenda Item No.	Action / Decision	Action By	Due Date
1.	**Welcome & Confirmation of Minutes**		
	Minutes of previous meeting were confirmed.		
2.	**Actions arising from the previous meeting**		
	No actions arising.		
3.	**City & Southwest – SSJ (Sydenham Upgrade)**	**BG**	
	BG spoke to the attached slides: • Outlined recent work and upcoming work. • George St and Burrows Ave works to commence next month.		

Agenda Item No.	Action / Decision	Action By	Due Date
	• Canopy installation on 14-15/9, 450t crane, ROL's secured. • Bus ops update provided. • Burrows Ave roof install done. • kerb works reduced scope. • CTMP update - Rev 7 comments received, to update some TCP's. Burrows Ave, comments received for 132kV and being actioned • Extension works - 24-25 Oct at Hurlstone Park CM reminded BG about the need to consult with the P&P Asset team re the HV trenching in Railway Pde. BG noted that the solution at the gate is being developed.	**BG**	
4.	**City & Southwest – Linewide**	**MS**	
	MS spoke to the attached slides: • Crows Nest rail delivery to commence 26 August 2020, aware that Sydney Metro utilities working on corner south of Hume St, to be co-ordinated with rail deliveries. JC if have ROL's for changed date. MS replied that yes, they have been obtained Artarmon substation: • Need to close footpath in Whiting St to provide temp footpath to connect to Reserve Rd and diverting pedestrians in Whiting St past site. • Options overview. Option A move pedestrians to other side of road, Option B divert pedestrians onto road with barriers. Option B preferred by TCG, keep pedestrians on same side of road as much as possible. • Reserve Rd footpath to be closed, divert pedestrians to other side of road at nearby traffic signals. Council requested not to close if not working. Duration of closure 5-6 weeks but may not be closed all the time. Reserve road trenching: • Outlined alignment of Ausgrid trenches and Sydney Water main trench. Staged. • Work mainly at night, some day saw cutting. • Detour traffic when trenching near centre of northbound lane. • Trench 2.6-2.8m deep but generally 1.8m. • Near Carlotta St plan to close northbound lanes. JC asked what businesses will be impacted? MS noted that contact has not been made as yet. JC suggested early contact preferable. • Second Reserve Road section also detour northbound traffic. • Third section at Dickson Ave intersection would be done with 3 way stop/slow. • North of Dickson Ave done as contra flow. • Will submit CTMP late this week or early next week.		

Agenda Item No.	Action / Decision	Action By	Due Date
	FL asked about day works sections. MS replied Carlotta Ave proposed during day, rest at night.		
5.	**City & Southwest – TSE**	**AK/DMcG**	
	AK/DMcG spoke to the attached slides: Pitt St north: • Concrete pour from Pitt St including kerb lane closure and pedestrian detour. • Concrete pump and agitator on footpath. • September dayshift, 10 shifts 10am-3pm. • Peds would be crossed over north of driveway and at Park St lights JC & CM asked about pedestrian volumes and DMcG replied that the pours would be brief and nights avoided. JC concerned about pedestrians volumes when closed. JC said apply for ROL, will be inspected to see if possible. If too many pedestrians then may need to be night work. Need to advise JC when first pour happening so that impacts can be observed on site. VL asked if pram ramp available for pedestrians to cross. DMcG said that there are 2 driveways to act as pram ramps. DMcG to send info to VL. Berry St crane lifts: • Initial proposal from Denison St not supported by North Sydney Council, now looking at Berry St lift and closure with 400t crane. • Would retain one eastbound lane at all times. • 10 lifts, Friday night to Sunday night. • DMcG asked if TMP or ROL required ? JC said to provide briefing note for works, doesn't require full CTMP. CM suggested a CTMP addendum. Martin Place - Castlereagh St closure: • Opportunity to do 30 October 2020, allows avoidance of clash with other contractors works. • Have submitted permit to Council and to present to LTC in Sept 2020. JC asked to ensure no clash with rescheduled special events. DMcG not aware of any clashes.	**DMcG** **DMcG**	
6.	**City & Southwest – Pitt St ISD**	**NP**	
	NP spoke to the attached slides: • CTMP submitted last month and comments received form all but Council. VL said will action this week. • Services survey being planned and will present further info at future meeting. • Done at night with partial closures using sucker truck. • Temp road closures to go to LTC. • Planning tower crane installation, north site installation will require closure of Park St, will consult further with council and Transport Coordination.		

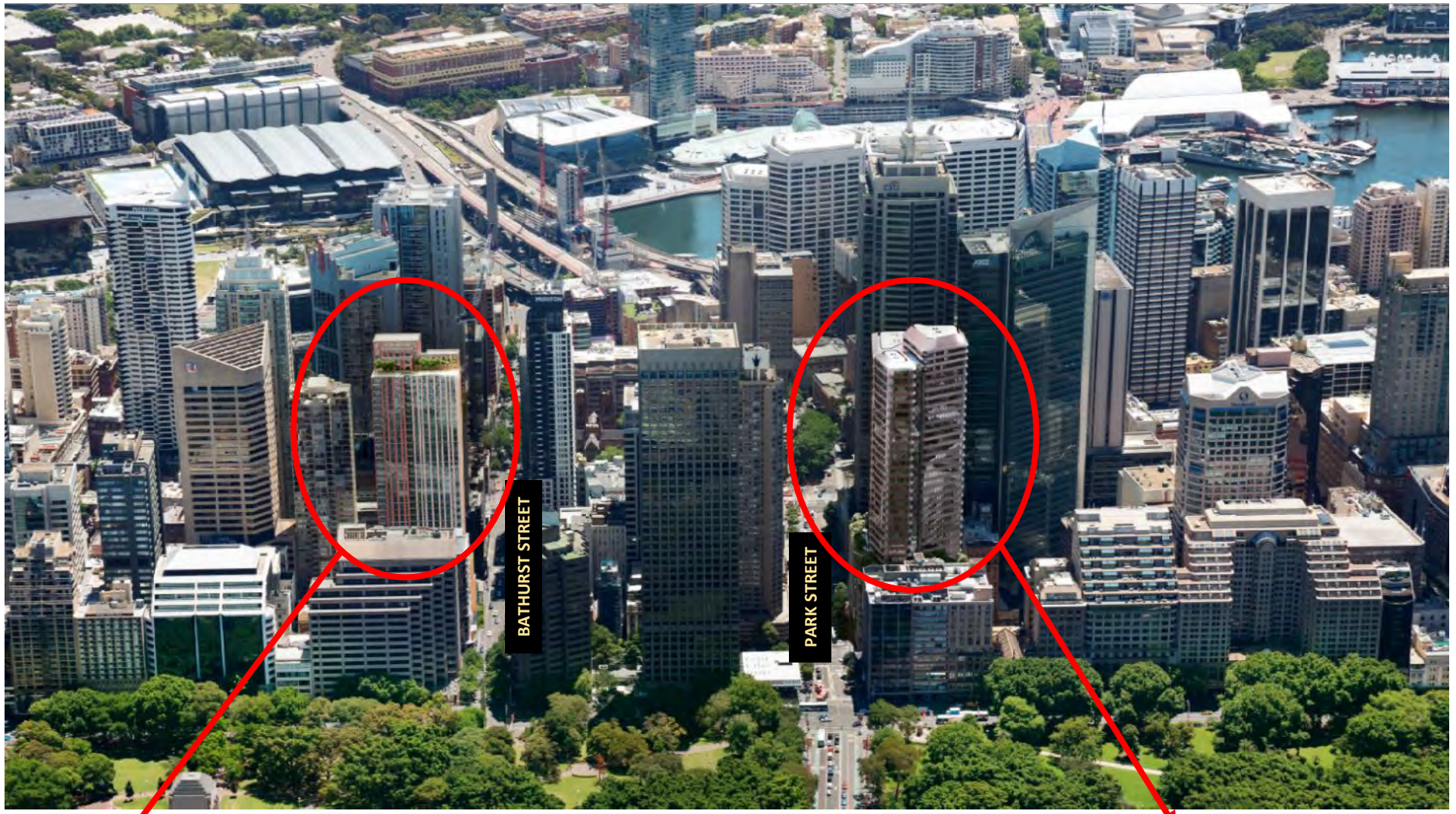
Agenda Item No.	Action / Decision	Action By	Due Date
	• Meeting with Josh and P&P, some linemarking changes occurring in Bathurst St, lane narrowed so won't be able to park concrete agitator. Requires slight reduction in footpath width to accommodate suitable standing lane width. JC when is Bathurst Street work planned? NP noted early 2021. Josh Fall and Ben Borger consulted on site. • Will be included in CTMP update.		
7.	**City & Southwest – Southwest**	**SP**	
	SP spoke to the attached slides: • Condition assessment of water mains at Wiley Park. • Works over 5 days with vac truck. • TCP in place will keep Stanlea Pde walkway open • All permits obtained. • Next few days in rail corridor. • Utility tracing at all 9 stations, Marrickville to Punchbowl. • Non-intrusive tracing. • TCPs for all areas where on road. • Next 3-4 weeks, meeting with Canterbury Council this Thursday, will meet soon with Inner West Cl. • Each TCP runs 2-3 hours at each site and 3-4 per day. • Traffic control will be in place during investigations on road • Propose all as day shift but if required can do at night.		
8.	**Other matters**		
	No matters raised		
10.	**Next Meeting:** The next TCG meeting is scheduled for Tuesday 8 September 2020 at 8:00 am – 10:00am (Teams Videoconference).		

TCG Presentation Slides (2 June 2020)

Pitt Street Integrated Station Development

Contents

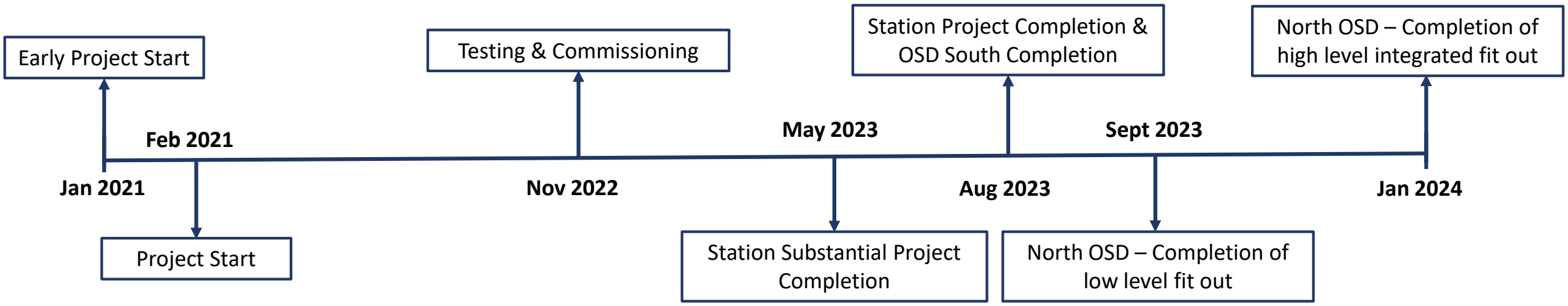
1. Project Overview



South Station and Tower (OSD)

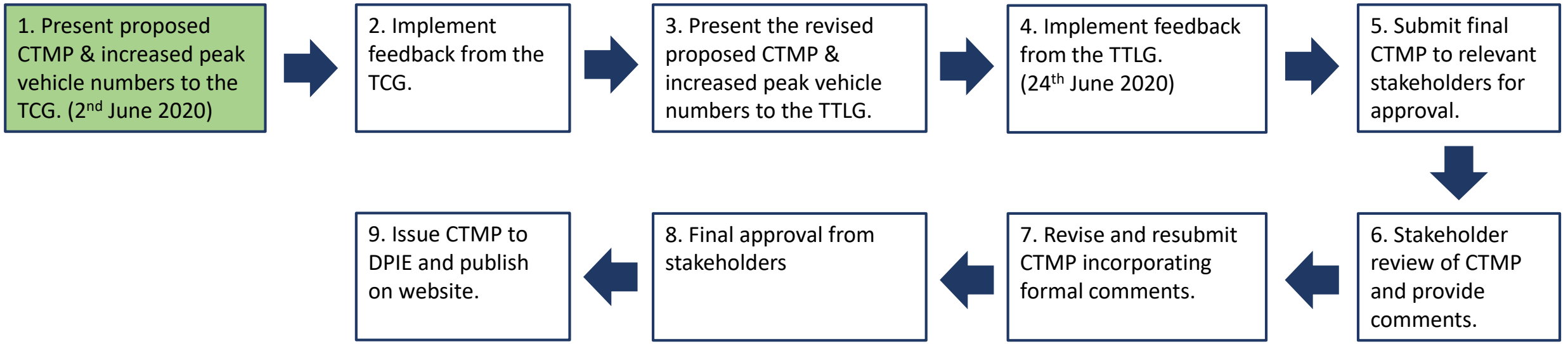
North Station and Tower (OSD)

1. Project Overview



- Project Start/Site Possession – 19 Dec 2020 to 1 Feb 2021.
- Testing & Commissioning Phase Commences – Q4 2022.
- Station Substantial Project Completion 31 May 2023.
- Station Project Completion – 31 Aug 2023.
- OSD South Completion – 30 Aug 2023
- OSD North Completion of low level fit out – 29 Sept 2023.
- OSD North Completion of high level integrated fit out – 15 Jan 2024.

2. Pathway to CTMP Submission and Approval



3. Analysis Undertaken to Date

Intersection Modelling

- SIDRA modelling undertaken at:
  - Park Street – Castlereagh Street (North Site)
  - Bathurst Street – Pitt Street (South Site)
- Data Source:
  - SCATS and IDM data obtained for weekday in March 2020 (pre-COVID). August 2018 turning movement surveys used to determine traffic directional split.
- Modelled scenarios:
  - Existing Conditions: March 2020
  - Future Conditions: Existing + construction traffic
- Weekday Road Network Peaks:
  - Park-Castlereagh: 8:15am-9:15am / 5pm-6pm
  - Pitt-Bathurst: 8am-9am / 5pm-6pm

Intersection	Existing Conditions			
	Demand Flow	Average Delay *(seconds per vehicle)*	Level of Service	Degree of Saturation
Park Street - Castlereagh Street (signalised)				
AM	1689	25	B	0.66
PM	1417	28	B	0.78
Pitt Street – Bathurst Street (signalised)				
AM	1772	18	B	0.44
PM	1808	18	B	0.68

3. Analysis Undertaken to Date

Kerbside Lane Queue Length

Lane Configuration

1 Dedicated left-turn lane
2 Bus Lane
3 Through traffic lane
4 Dedicated right-turn traffic lane

3. Analysis Undertaken to Date

Kerbside Lane Queue Length

<u>Lane Configuration</u>

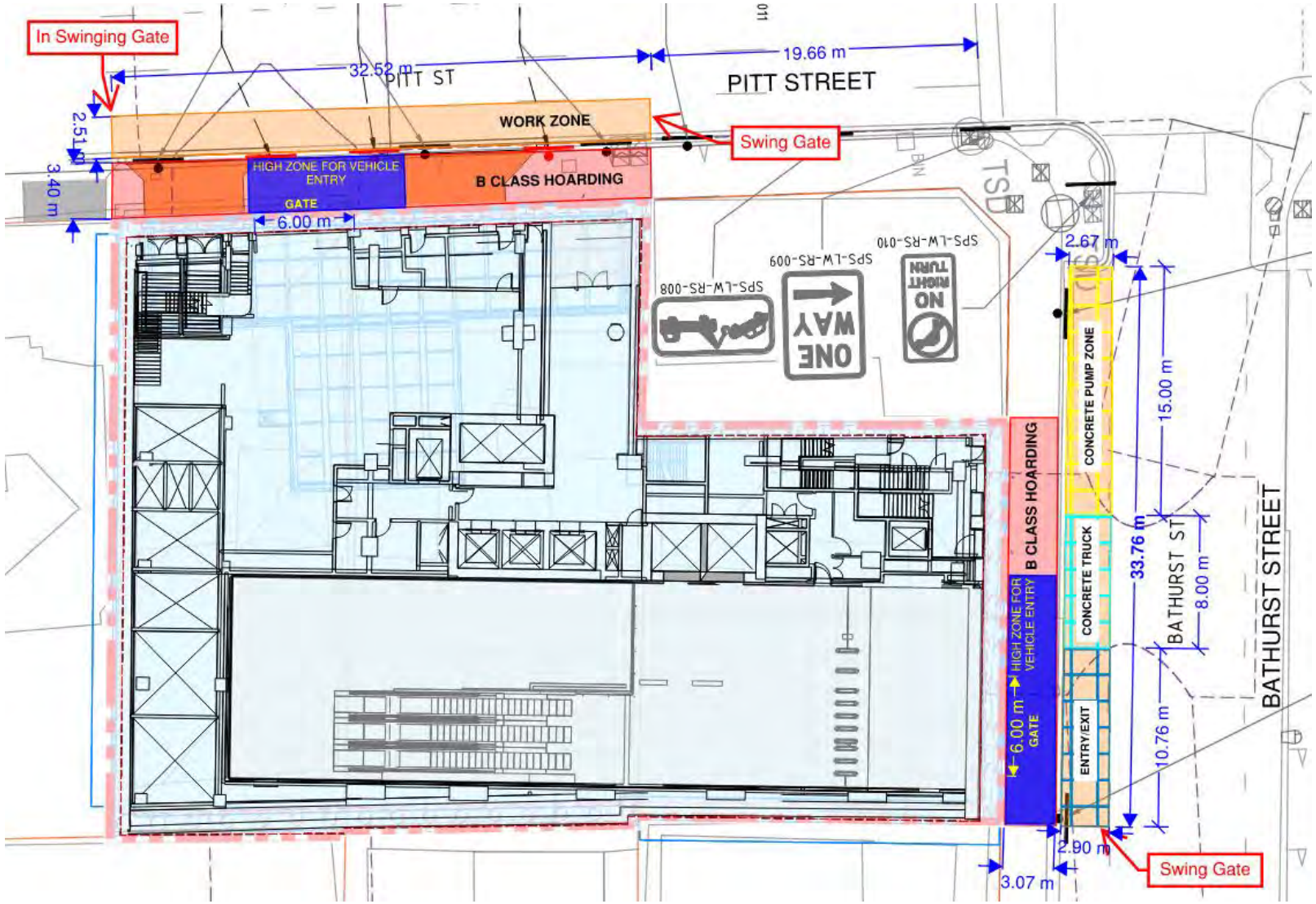
1 Indented parking lane
2 Through traffic lane
3 Through traffic lane
4 Dedicated right-turn traffic lane

4. Work Zones - South Site

- The South Site is a station from B04 to L06.
- Build to Rent (L07 To L38):
  - Mixture of 1, 2 and 3 bedroom apartments
  - Swimming Pool
  - Common facilities

4. Work Zones - South Site

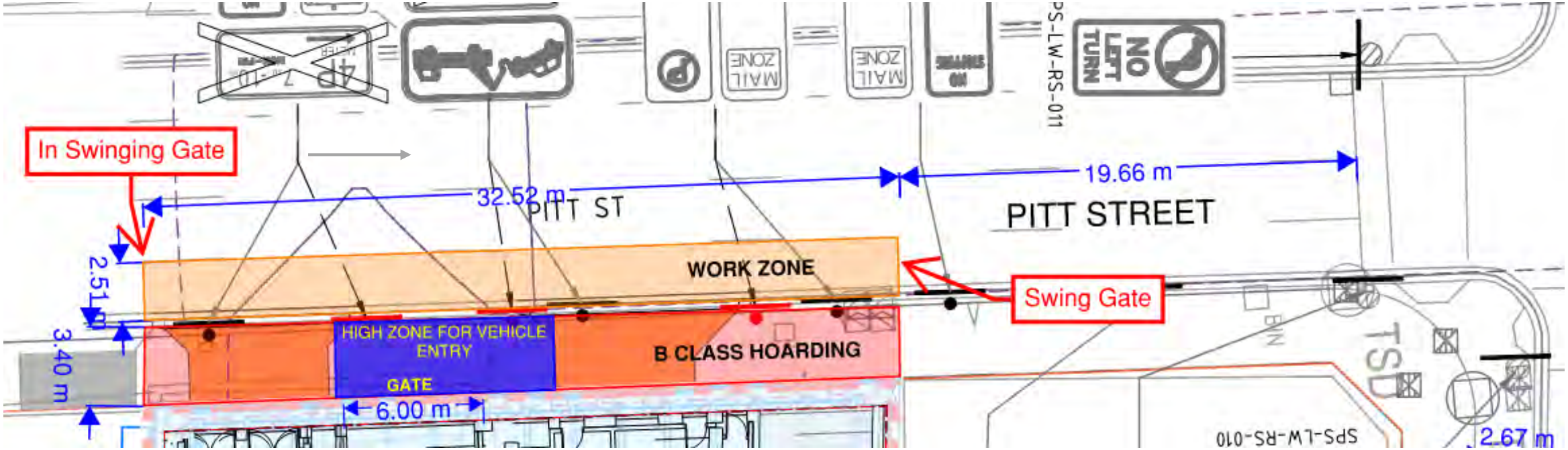
South Site – General Work Zone Arrangement



4. Work Zones - South Site

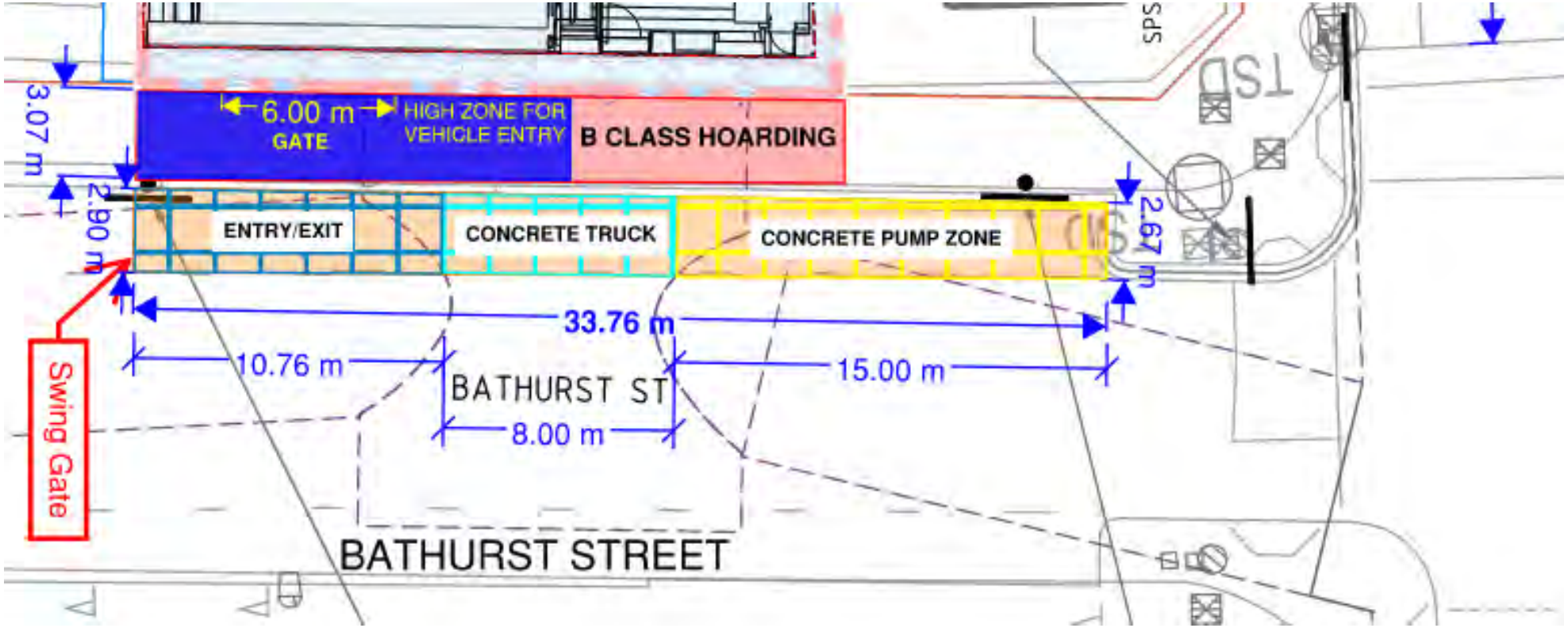
Pitt Street – Work Zone

- Queuing analysis completed by CPB on right hand turn into Bathurst Street ensuring average queue length (Peak) is maintained at all times.



4. Work Zones - South Site

Bathurst Street – Work Zone

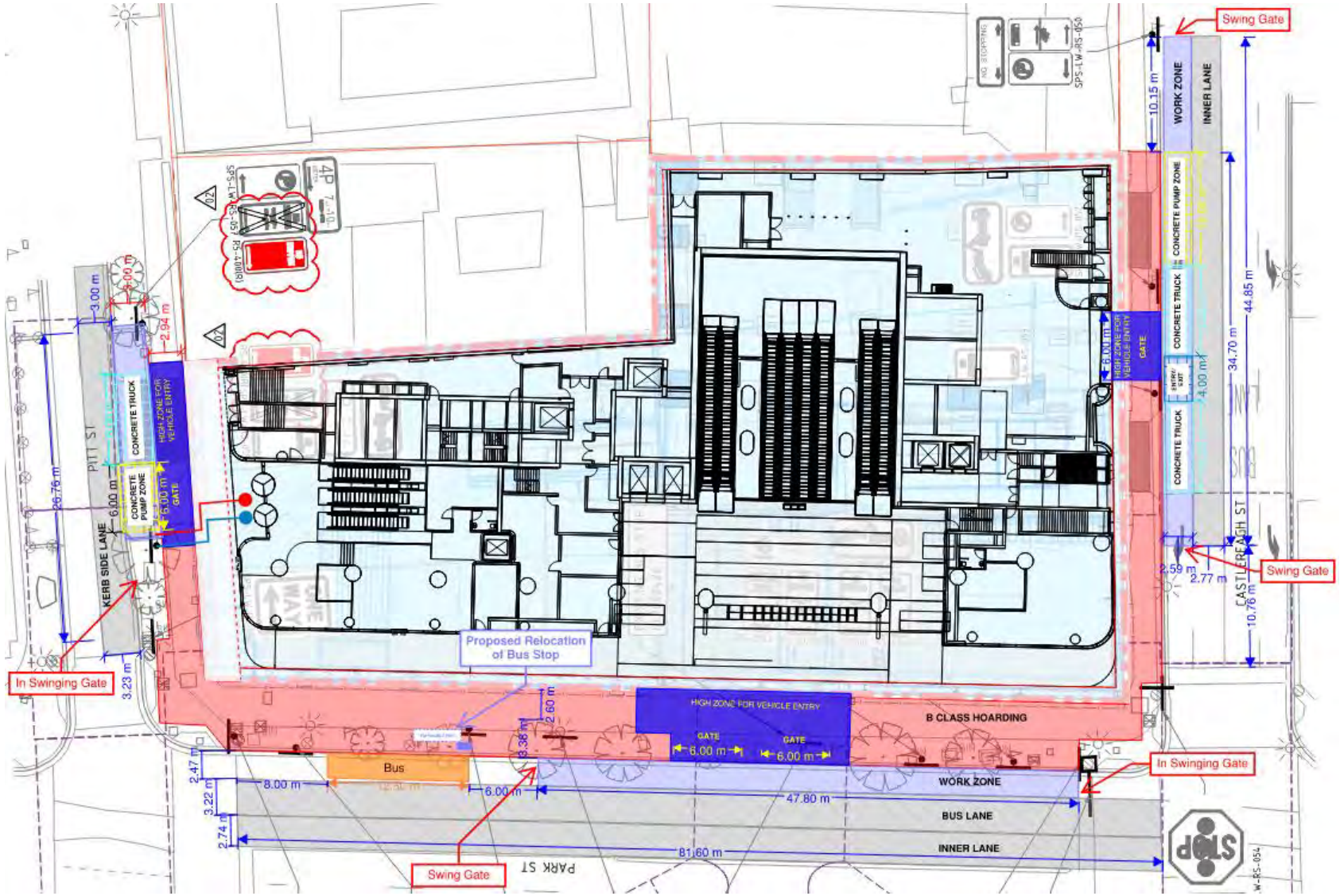


4. Work Zones - North Site

- The North Site is a station from B05 to L05.
- 32 Storey Commercial office tower.

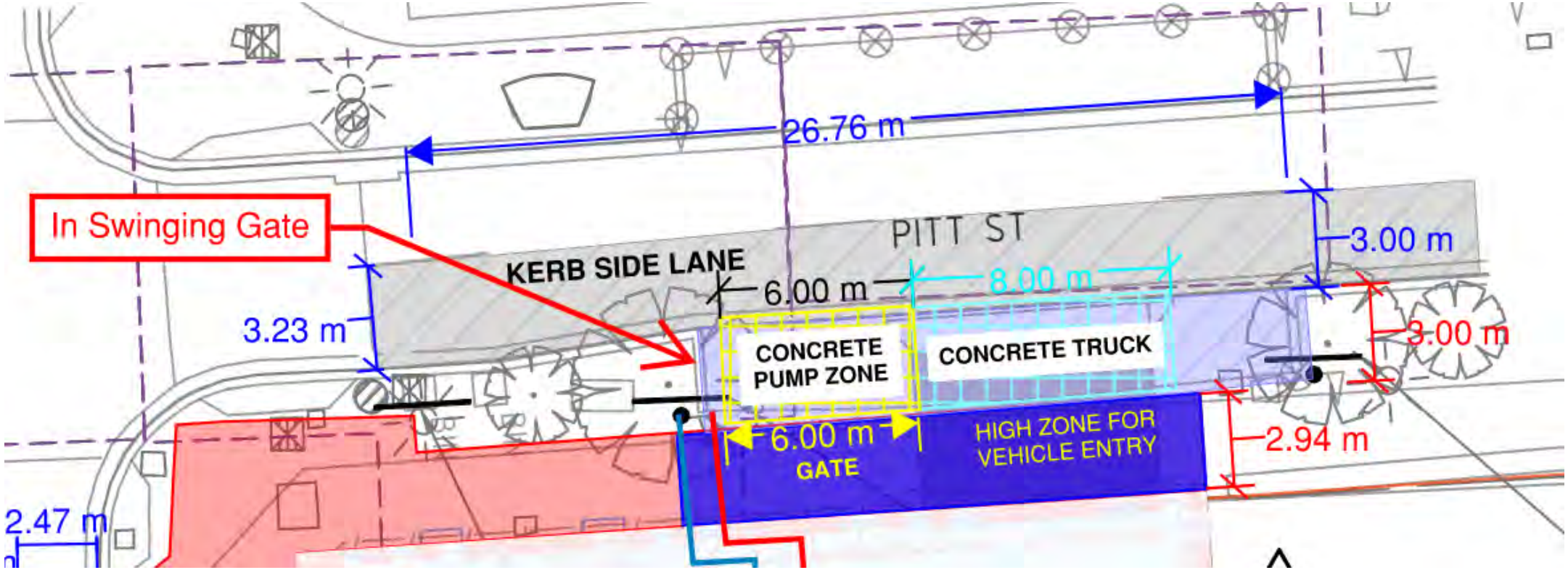
4. Work Zones - North Site

North Site – General Work Zone Arrangement



4. Work Zones - North Site

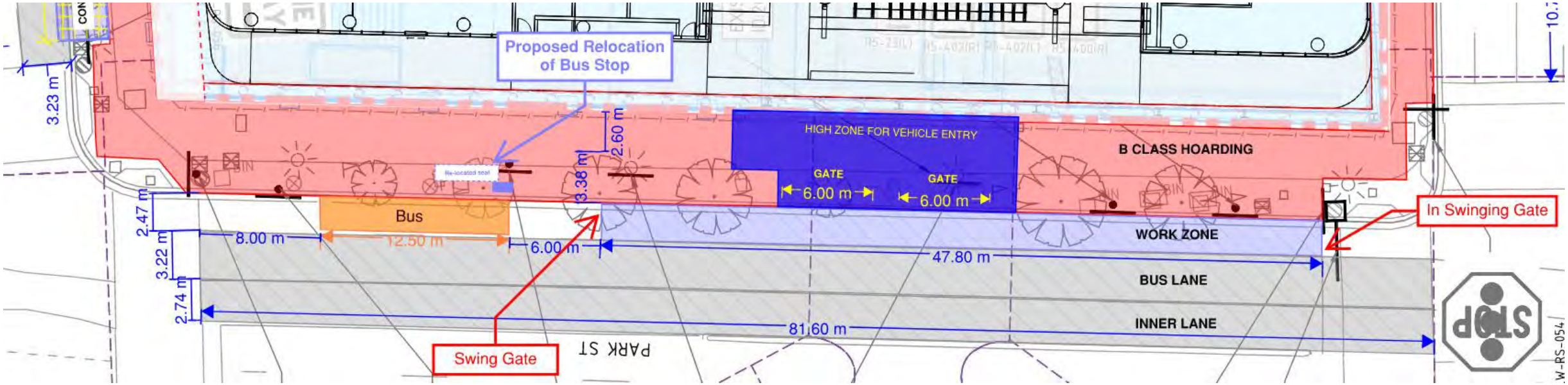
Pitt Street – Work Zone



4. Work Zones - North Site

Park Street – Work Zone

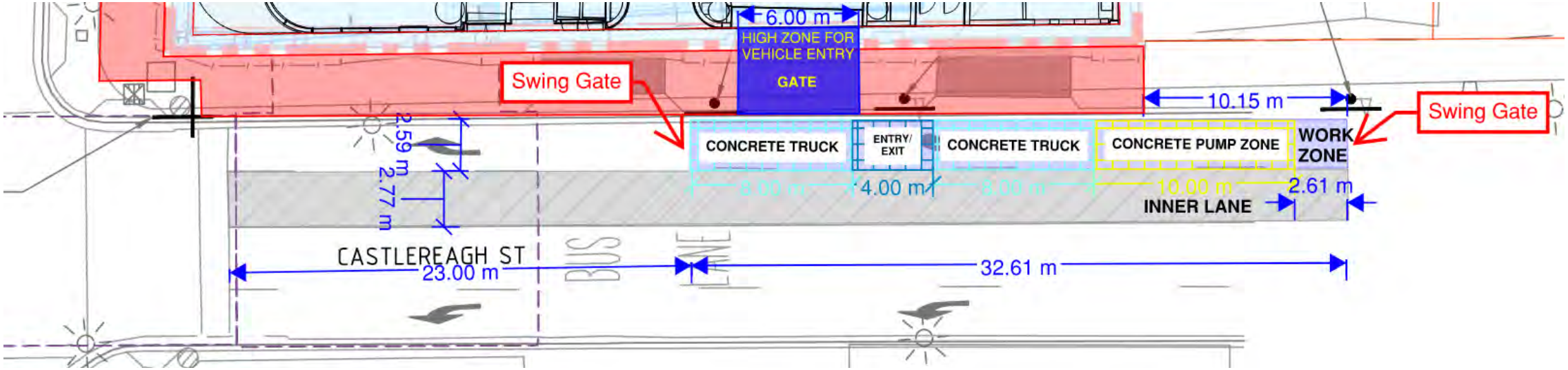
- Buses travelling eastbound from Druitt Street to Park Street can drive straight into the bus stop.
- Construction vehicles can exit the work zone to travel eastbound easier (i.e. eliminates weaving at Castlereagh Street traffic lights)



4. Work Zones - North Site

Castlereagh Street – Work Zone

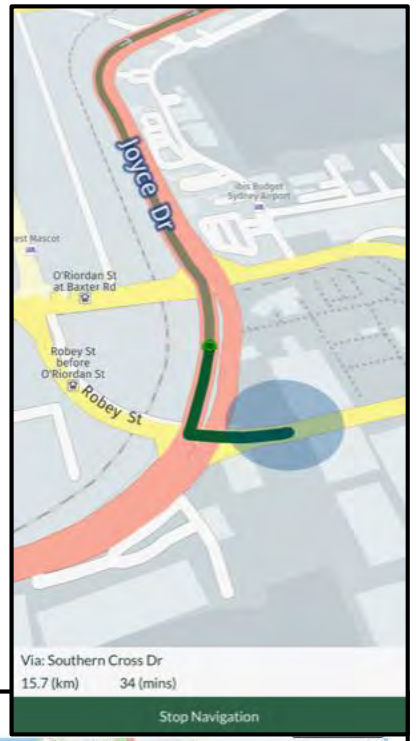
- Queuing analysis completed by CPB on right hand turn into Park Street ensuring average queue length (Peak) is maintained at all times.



5. Increase Traffic Demand (Peak Vehicle Allowance)

CPB Logistics Management System

- Manage work zone, crane and hoist coordination via booking system
- Restrict vehicle numbers and types based on time
- Vehicle called forward by CPB
  - Real time visibility of vehicle locations
  - Directions to drivers
- Vehicle tracked to construction site
- Vehicle departs and is tracked from site



5. Increase Traffic Demand (Peak Vehicle Allowance)

Capacity Assessment and Construction Traffic Generation

- Deliveries:

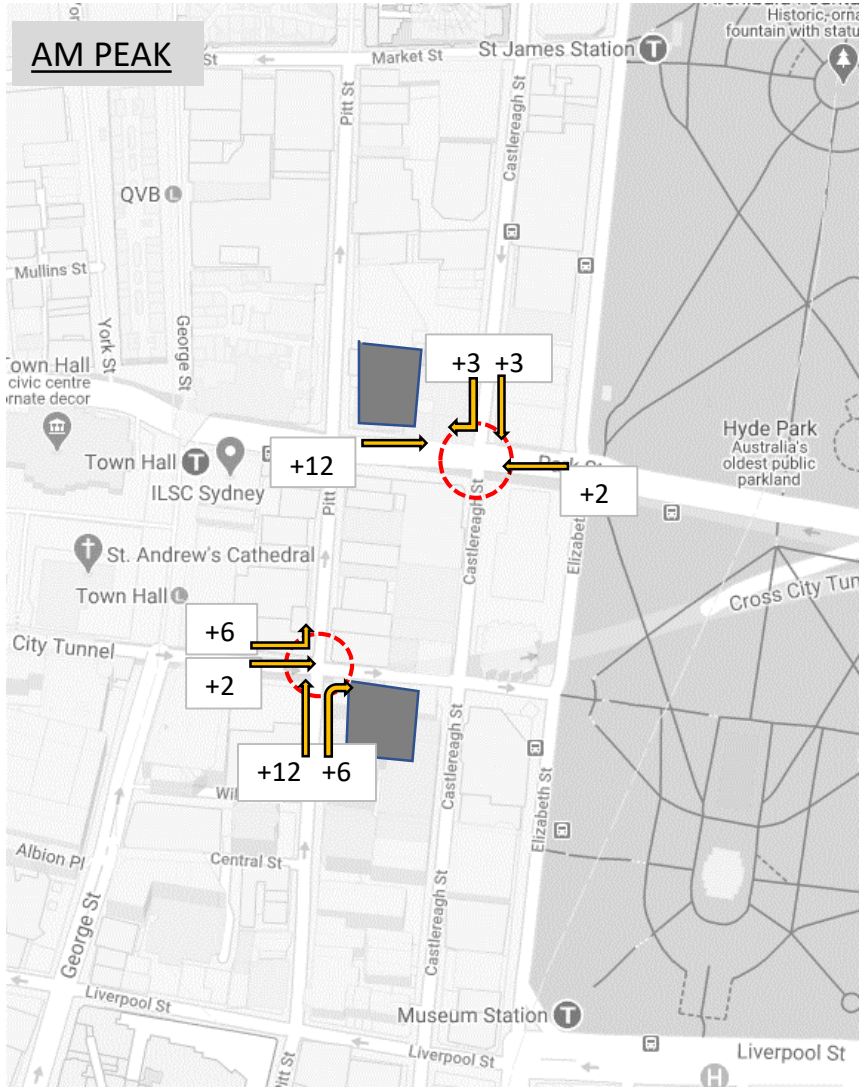
Vehicle	Activity	Duration (max.)
Concrete agitator	Concrete delivery to pump truck	15 min
Medium and heavy rigid trucks	Waterproofing, precast, false work, formwork, reo, façade, services, fitout	20 min
Medium and heavy rigid trucks	Block work, equipment, rubbish, fitout works	30 min

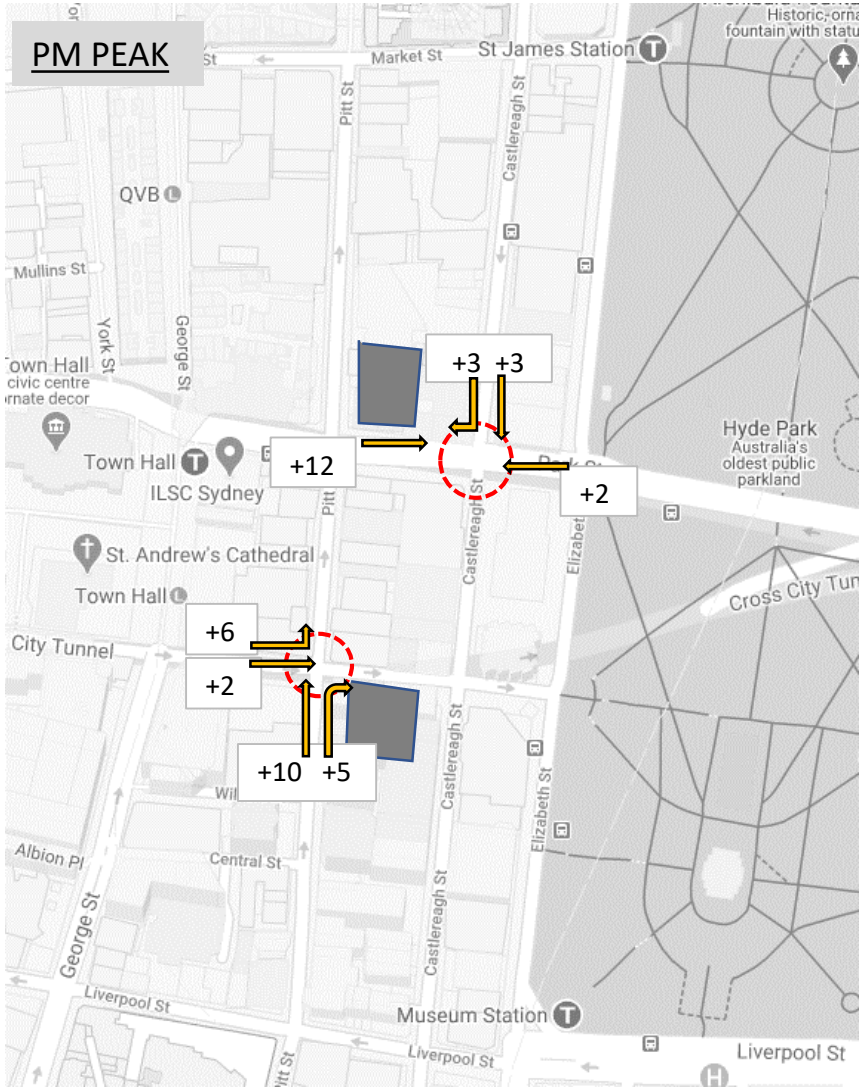
- Traffic generation
  - "Worst case" modelled. i.e greatest traffic generation possible using proposed work zone arrangement:

Peak	North Site	South Site	Combined (i.e. Whole Project)
AM	22 trucks	12 trucks	**34 trucks**
PM	22 trucks	9 trucks	**31 trucks**

5. Increase Traffic Demand (Peak Vehicle Allowance)

Construction Traffic Distribution





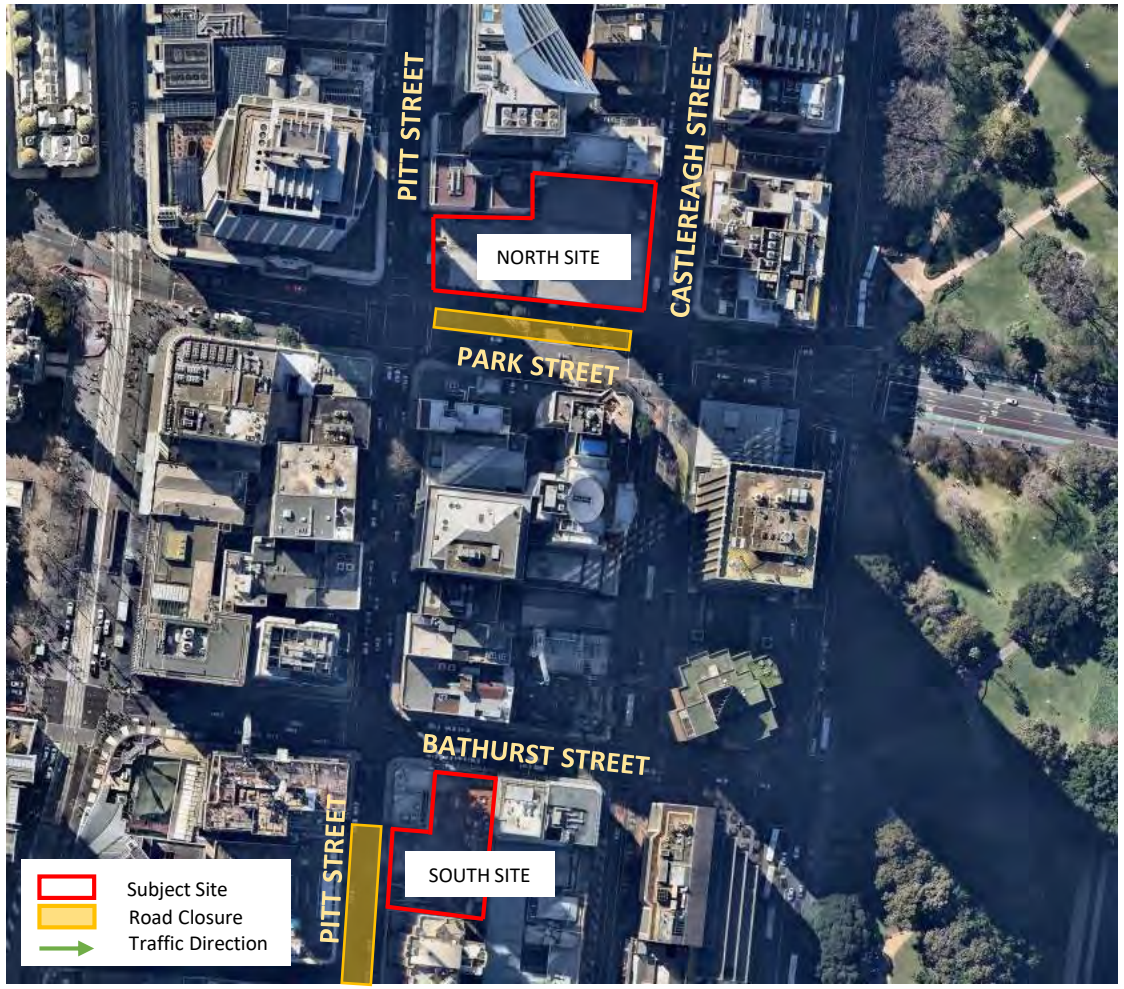
5. Increase Traffic Demand (Peak Vehicle Allowance)

SIDRA Intersection Modelling Results

Intersection	Existing Conditions				Future Conditions (With Construction)			
	Demand Flow	**Average Delay *(seconds per vehicle)***	**Level of Service**	**Degree of Saturation**	**Demand Flow**	**Average Delay *(seconds per vehicle)***	**Level of Service**	**Degree of Saturation**
Park Street - Castlereagh Street (signalised)								
AM	1689	25	B	0.66	1709	25	B	0.69
PM	1417	28	B	0.78	1437	28	B	0.79
Pitt Street – Bathurst Street (signalised)								
AM	1772	18	B	0.44	1798	19	B	0.45
PM	1808	18	B	0.68	1830	19	B	0.72

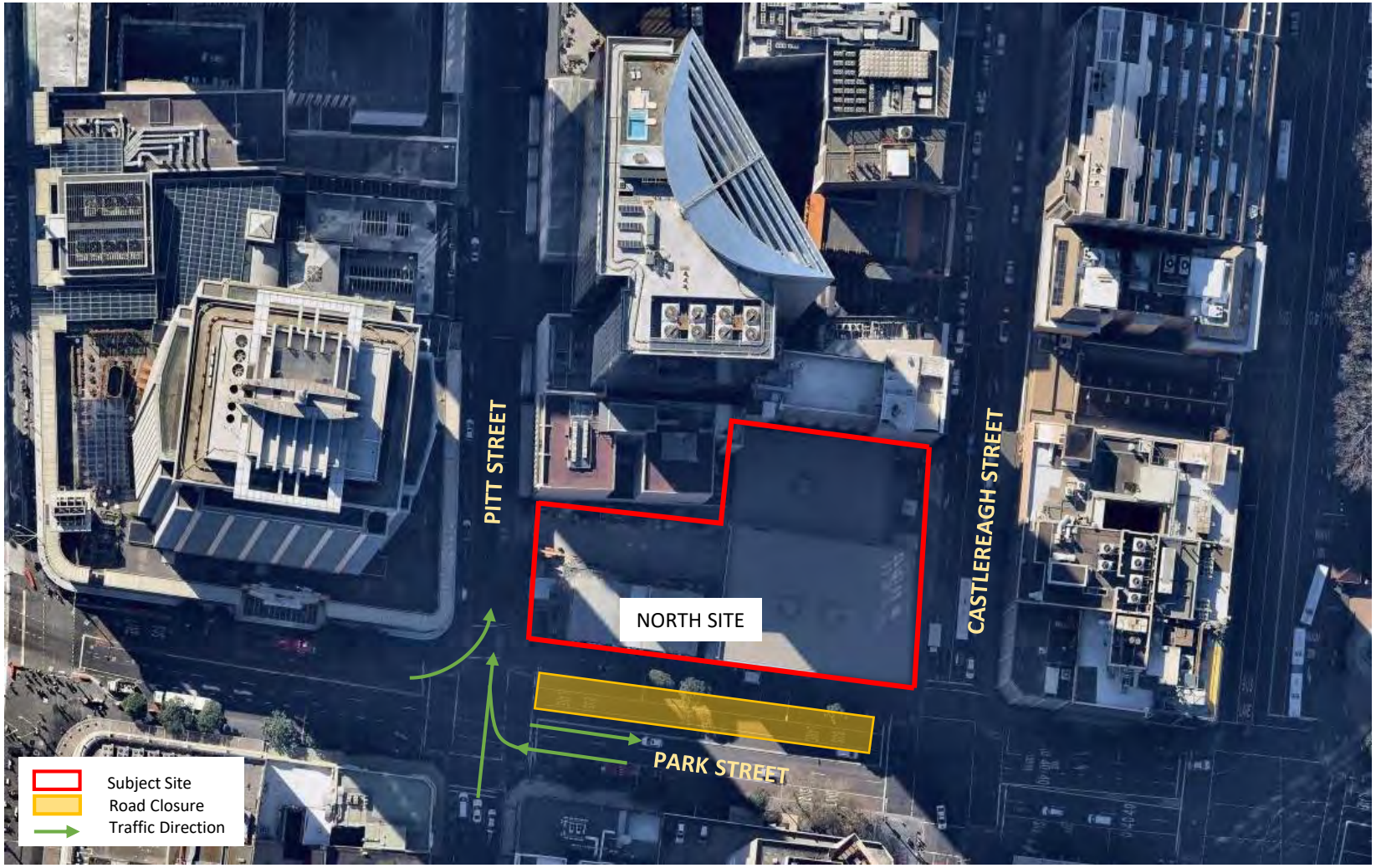
6. Project Start - Road Closures

- Temporary road closures



6. Project Start - Road Closures

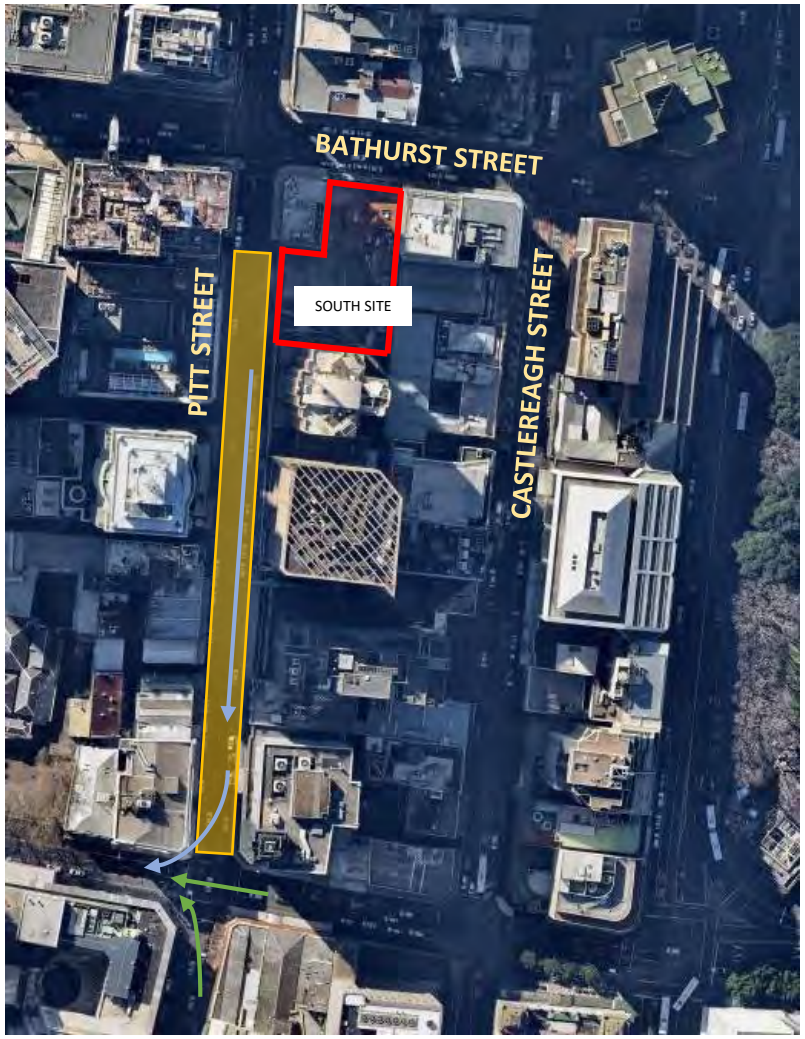
Park Street – Station North Site



6. Project Start - Road Closures

Pitt Street – Station South Site

- A portion of Pitt Street will be temporarily closed.



Dilapidation Reports Correspondence

Santi Botross

From: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>
Sent: Wednesday, 18 November 2020 11:59 AM
To: Papanikolaou, Nicholas
Cc: Elise Webster
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Hi Nick,

Thank you for sending the new links; I have been able to download the files successfully.

I will forward the dilap reports to our properties team and will let you know if they have any comments/questions.

Regards,

Asad

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Wednesday, 18 November 2020 11:37 AM
To: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>
Cc: Elise Webster <EWebster@cityofsydney.nsw.gov.au>
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Asad,

Sorry try these links:

North:
https://drive.google.com/drive/folders/1BYI2BBCu7rslGFX3DyfIvpeYDfyxeThS?usp=sharing

South:
https://drive.google.com/drive/folders/1Ubdh2kMAGr7RE06NfMqPem9knRaZGS-a?usp=sharing

Can you confirm you can access this?

Thanks,
Nick

From: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>
Sent: Wednesday, 18 November 2020 11:31 AM
To: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Elise Webster <EWebster@cityofsydney.nsw.gov.au>
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Hi Nicholas,

As with the earlier email of yours, Elise and I are unable to access the document using the links you have provided.

You may need to add our emails into the CPB account as external users or use another file sharing service to send us the documents.

Regards,

Asad

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Wednesday, 18 November 2020 11:05 AM
To: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>
Cc: Elise Webster <EWebster@cityofsydney.nsw.gov.au>; Power, Sarah <Sarah.Power@cpbcon.com.au>; Eveleigh, Emma <Emma.Eveleigh@cpbcon.com.au>; Boustani, Chanelle <Chanelle.Boustani@cpbcon.com.au>
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Elise / Asad,

Please see below link of the Pitt Street Metro - Road Dilapidation Reports for the North Site.

Further to issuing this information to the City of Sydney, condition E90 states that the "*Road Dilapidation Report must be provided to the Relevant Council within 3 weeks of completing the survey and no later than 1 month before use of local roads*" . CPB wish to seek dispensation for the time component of this condition from City of Sydney, this is due to the nature of this type of project where there is a hand over from one contractor (TSE) to another (CPB) and it is not feasible to meet the requirements under the CSSI which would require for the previous contractor to finish their works and then enable us to complete our survey 1 month prior to use using these roads.

If you require anything further please let me know.

https://drive.google.com/drive/folders/1BYI2BBCu7rslGFX3DyfIvpeYDfyxeThS?usp=sharing

https://cpbcon-my.sharepoint.com/:f:/g/personal/nicholas_papanikolaou_cpbcon_com_au/ErR_Mz3lh-JPsAhi_HuuGD4BItuHfX6mSMDkoQpto3xe4w?e=LQ6uxD

Regards

Nicholas Papanikolaou
Area Manager

CPB CONTRACTORS

Level 2, 177 Pacific Highway, North Sydney, NSW 2060, Australia
T +61 2 9414 3466 **M** +61408932188
E Nicholas.Papanikolaou@cpbcon.com.au
cpbcon.com.au

A MEMBER OF THE CIMIC GROUP
CIMIC

From: Papanikolaou, Nicholas
Sent: Monday, 16 November 2020 5:59 PM
To: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>

Cc: Elise Webster <EWebster@cityofsydney.nsw.gov.au>
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Asad,

See below two different links:

https://cpbcon-my.sharepoint.com/:f:/g/personal/nicholas_papanikolaou_cpbcon_com_au/EsovxKZT_mlBgMkI32ohLIUBtFpqflHenT_zD3Q7eb14ig?e=oaeO4A

https://drive.google.com/drive/folders/1Ubdh2kMAGr7RE06NfMqPem9knRaZGS-a?usp=sharing

Please let me know if you can access either of these links.

Regards

Nicholas Papanikolaou
Area Manager

CPB CONTRACTORS

Level 2, 177 Pacific Highway, North Sydney, NSW 2060, Australia
T +61 2 9414 3466 **M** +61408932188
E Nicholas.Papanikolaou@cpbcon.com.au
cpbcon.com.au

A MEMBER OF THE CIMIC GROUP
CIMIC

From: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>
Sent: Monday, 16 November 2020 11:59 AM
To: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Elise Webster <EWebster@cityofsydney.nsw.gov.au>
Subject: RE: Pitt Street Metro - Road Dilapidation Report South Site

Hi Nicholas,

Elise and I have been unable to access the Pitt Street Metro - Road Dilapidation Reports for the South Site via the link provided in the email below.

Could you please check and re-send the link. Thank you.

Regards,

Asad

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Thursday, 12 November 2020 5:37 PM
To: Asad Rajbhoy <ARajbhoy@cityofsydney.nsw.gov.au>; Elise Webster <EWebster@cityofsydney.nsw.gov.au>
Cc: Eveleigh, Emma <Emma.Eveleigh@cpbcon.com.au>; Power, Sarah <Sarah.Power@cpbcon.com.au>; Boustani,

Chanelle <Chanelle.Boustani@cpbcon.com.au>
Subject: Pitt Street Metro - Road Dilapidation Report South Site

Elise,

Hope you are well. Please see below link of the Pitt Street Metro - Road Dilapidation Reports for the South Site and will send over the North one in the next few days.

Further to issuing this information to the City of Sydney, condition E90 states that the "*Road Dilapidation Report must be provided to the Relevant Council within 3 weeks of completing the survey and no later than 1 month before use of local roads*" . CPB wish to seek dispensation for the time component of this condition from City of Sydney, this is due to the nature of this type of project where there is a hand over from one contractor (TSE) to another (CPB) and it is not feasible to meet the requirements under the CSSI which would require for the previous contractor to finish their works and then enable us to complete our survey 1 month prior to use using these roads.

If you require anything further please let me know.

https://cpbcon-my.sharepoint.com/:f:/g/personal/nicholas_papanikolaou_cpbcon_com_au/EsovxKZT_mlBgMkI32ohLlUBtFpqflHenT_zD3Q7eb14ig?e=Cgr7Ut

Regards

Nicholas Papanikolaou
Area Manager

CPB CONTRACTORS

Level 2, 177 Pacific Highway, North Sydney, NSW 2060, Australia
T +61 2 9414 3466 **M** +61408932188
E Nicholas.Papanikolaou@cpbcon.com.au
cpbcon.com.au

A MEMBER OF THE CIMIC GROUP
CIMIC

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Australia Post Correspondence

From: Dixon, Shane <Shane.Dixon@auspost.com.au>
Sent: Tuesday, 7 July 2020 12:01 PM
To: Santi Botross
Cc: Papanikolaou, Nicholas; Wayne Johnson
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Thank you Santi.

Can you let me know when the signs have been installed and I shall have the boxes moved.

Regards,

Shane Dixon
Operations & Equipment Support
Network Planning NSW/ACT
Australia Post

Level 3 East Wing STRATHFIELD NSW 2135
2 Weeroona Rd Strathfield

T 0429360374

M 0429360374

E Shane.Dixon@auspost.com.au

From: Santi Botross [mailto:Santi.Botross@ttpp.net.au]
Sent: Tuesday, 7 July 2020 11:02 AM
To: Dixon, Shane <Shane.Dixon@auspost.com.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Hi Shane,

The post boxes would need to be relocated by December 2020.

Yes, the mail zone will be installed prior to the relocation.

Regards,

Santi Botross

Senior Traffic Engineer
p: +61 2 8437 7828 m: +61 400 777 170
a: Suite 402, 22 Atchison Street, St Leonards NSW 2065
w: www.ttpp.net.au e: Santi.Botross@ttpp.net.au

From: Dixon, Shane <Shane.Dixon@auspost.com.au>
Sent: Tuesday, 7 July 2020 8:28 AM
To: Santi Botross <Santi.Botross@ttpp.net.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Good morning Santi,

Could you please let me know when we are required to relocate these SPB's?

Will the mail zone be installed prior to the relocation? Once installed we can go ahead with the move.

Regards,

Shane Dixon
Operations & Equipment Support
Network Planning NSW/ACT
Australia Post

Level 3 East Wing STRATHFIELD NSW 2135
2 Weeroona Rd Strathfield

T 0429360374

M 0429360374

E Shane.Dixon@auspost.com.au

From: Santi Botross [mailto:Santi.Botross@ttpp.net.au]
Sent: Tuesday, 30 June 2020 2:41 PM
To: Dixon, Shane <Shane.Dixon@auspost.com.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: FW: Australia Post Boxes - Park Street, Sydney CBD

Hi Shane,

As I understand, the matter below has been forwarded to you.

Have you had a chance to review, and are you able to provide any comment on the proposed arrangement?

Regards,

Santi Botross
Senior Traffic Engineer
p: +61 2 8437 7828 m: +61 400 777 170
a: Suite 402, 22 Atchison Street, St Leonards NSW 2065
w: www.ttpp.net.au e: Santi.Botross@ttpp.net.au

From: Karpenko, Matthew <matthew.karpenko@auspost.com.au>
Sent: Tuesday, 30 June 2020 2:38 PM
To: Santi Botross <Santi.Botross@ttpp.net.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Hi Santi,

Shane Dixon is covering Steve's Role the at the moment – his email address is Shane.Dixon@auspost.com.au. Shane has your original email.

Regards

Matt

Matthew Karpenko
Operations Coordinator MyNetwork NSW/ACT/QLD/NT

Customer Excellence Team
Australia Post

2 Herbert St St Leonards NSW 2065

T 0437 276 889

M 0437 276 889

E matthew.karpenko@auspost.com.au

From: Santi Botross [mailto:Santi.Botross@ttpp.net.au]
Sent: Tuesday, 30 June, 2020 1:30 PM
To: Karpenko, Matthew <matthew.karpenko@auspost.com.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Hi Matt,

Have you heard from Steve regarding the matter below?

If you don't mind, are you able to provide Steve's email address?

Regards,

Santi Botross

Senior Traffic Engineer
p: +61 2 8437 7828 m: +61 400 777 170
a: Suite 402, 22 Atchison Street, St Leonards NSW 2065
w: www.ttpp.net.au e: Santi.Botross@ttpp.net.au

From: Karpenko, Matthew <matthew.karpenko@auspost.com.au>
Sent: Thursday, 25 June 2020 12:12 PM
To: Santi Botross <Santi.Botross@ttpp.net.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: RE: Australia Post Boxes - Park Street, Sydney CBD

Hi Santi,

Thank you for your email. I have forwarded your email to Steven Hatzi from Australia Post as I no longer work in the NSW SPB team. One of the team will respond to you soon

Kind Regards

Matt

Matthew Karpenko
Operations Coordinator MyNetwork NSW/ACT/QLD/NT
Customer Excellence Team
Australia Post

2 Herbert St St Leonards NSW 2065

T 0437 276 889

M 0437 276 889

E matthew.karpenko@auspost.com.au

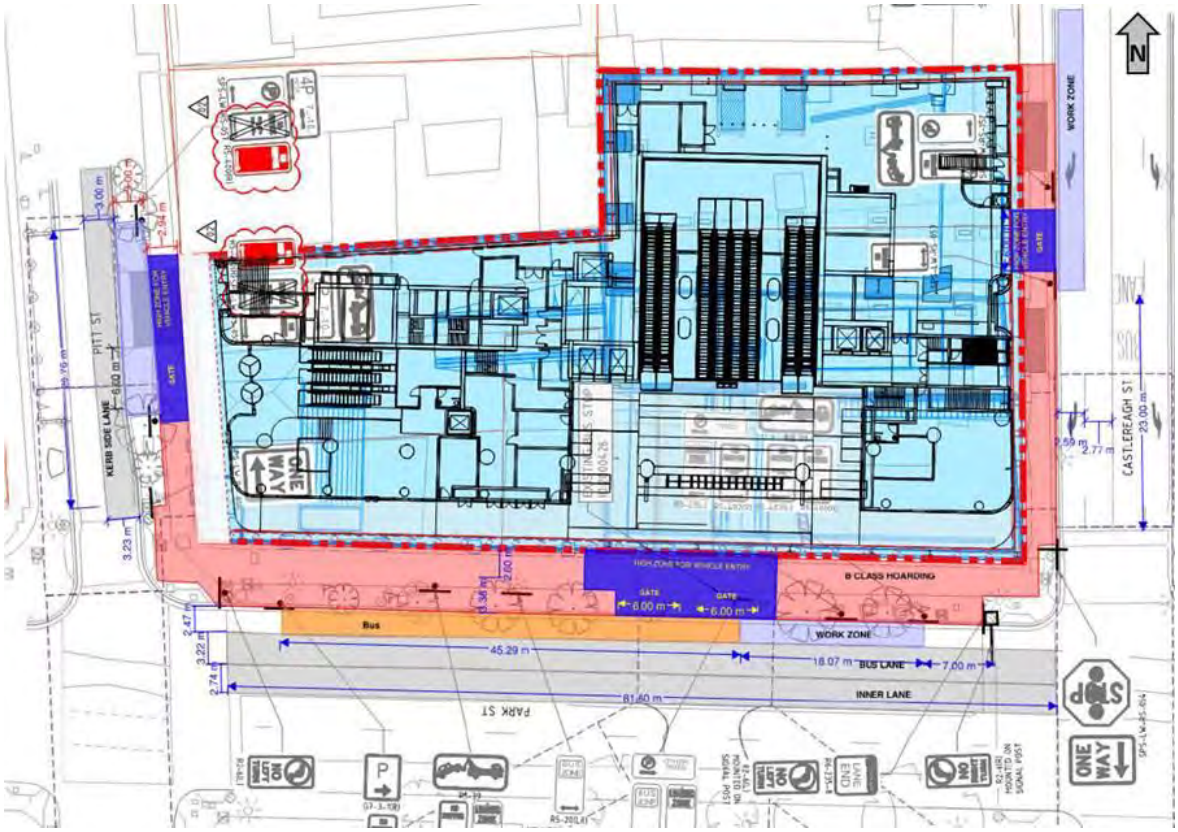
Australia Post

From: Santi Botross [mailto:Santi.Botross@ttpp.net.au]
Sent: Thursday, 25 June, 2020 11:01 AM
To: Karpenko, Matthew <matthew.karpenko@auspost.com.au>
Cc: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>; Wayne Johnson <Wayne.Johnson@ttpp.net.au>
Subject: Australia Post Boxes - Park Street, Sydney CBD

Morning Matt,

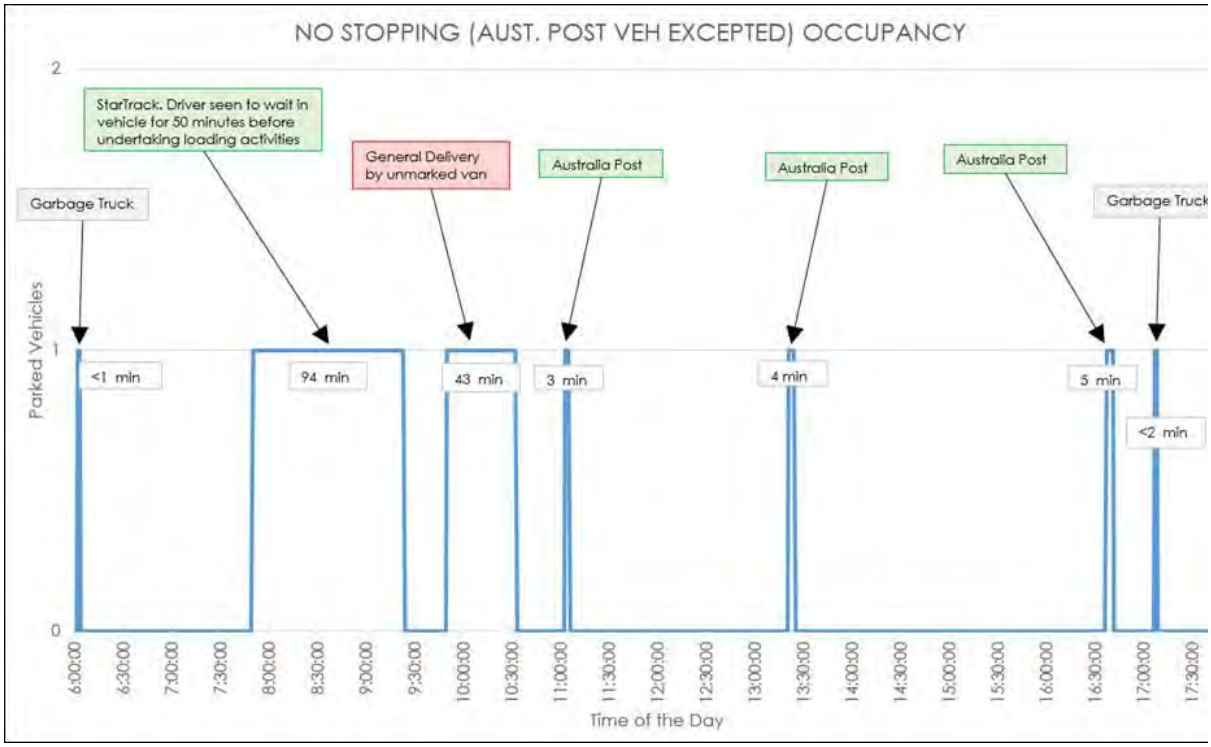
As part of the construction works for Sydney Metro Pitt Street, a work zone is to be proposed on Park Street. The work zone would occupy the existing section of kerbside lane which is signposted as *Loading Zone* and *No Stopping Aust. Post Vehicles Excepted.* Refer below for indicative layout of work zones around the site perimeter.

Notably, there are two Australia Post boxes (red and yellow boxes) located beside the *No Stopping Aust. Post Vehicles Excepted* section. The affected area on Park Street is also shown below.



The work zone at this location would be required for the majority of the construction period, that is, for 2.5 years between February 2021 and August 2023. For now, work zone operating hours are proposed outside of traffic peak periods. However, the intent is to extend the work zone hours to 24 hours a day Monday to Saturday.

A survey of the *No Stopping* area was undertaken on Thursday 18 June between 6am-6pm to identify the frequency and duration of stay of Aust. Post vehicles accessing this space. See below for a summary of the survey results.



Study findings show that:

- For the majority of occurrences, Australia Post vehicles (which include Star Track) accessed this space.

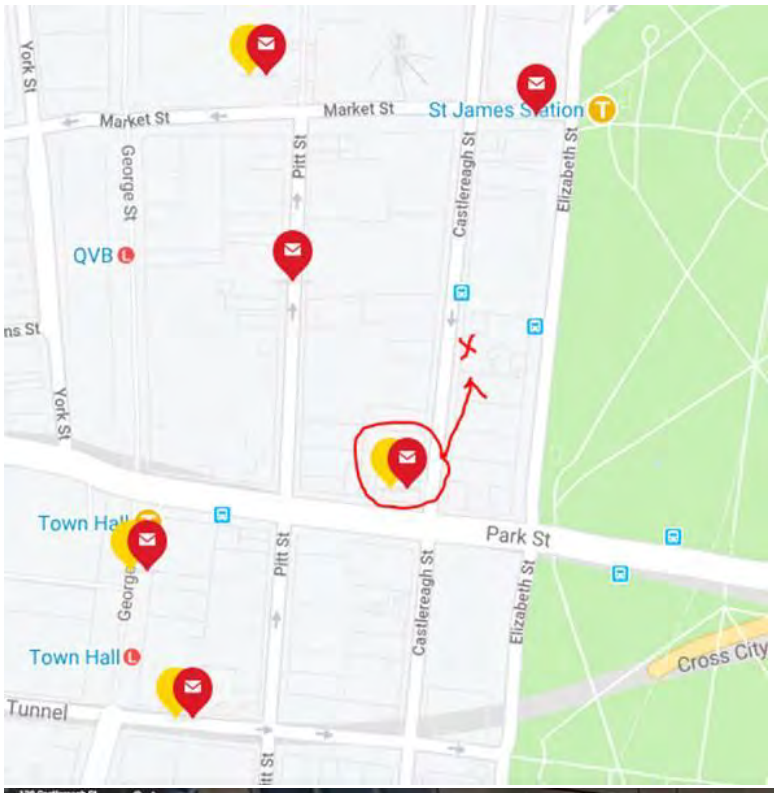
- Notably, the Star Track vehicle was parked for 50 mins before delivering parcels, and all up, was there for 1.5hrs. The amount of time parked within the space seems peculiar, and we assume might be a-typical.
- If we consider typical or average use of this space, the post boxes were emptied three times during the survey period (6am-6pm) by Aust. Post vans for a short duration each time (3-5 minutes).
- Waste collection of the council kerbside bin occurs twice during the day, for 1-2 minutes per collection. We expect that the bin would be removed in order to facilitate a work zone at this location.

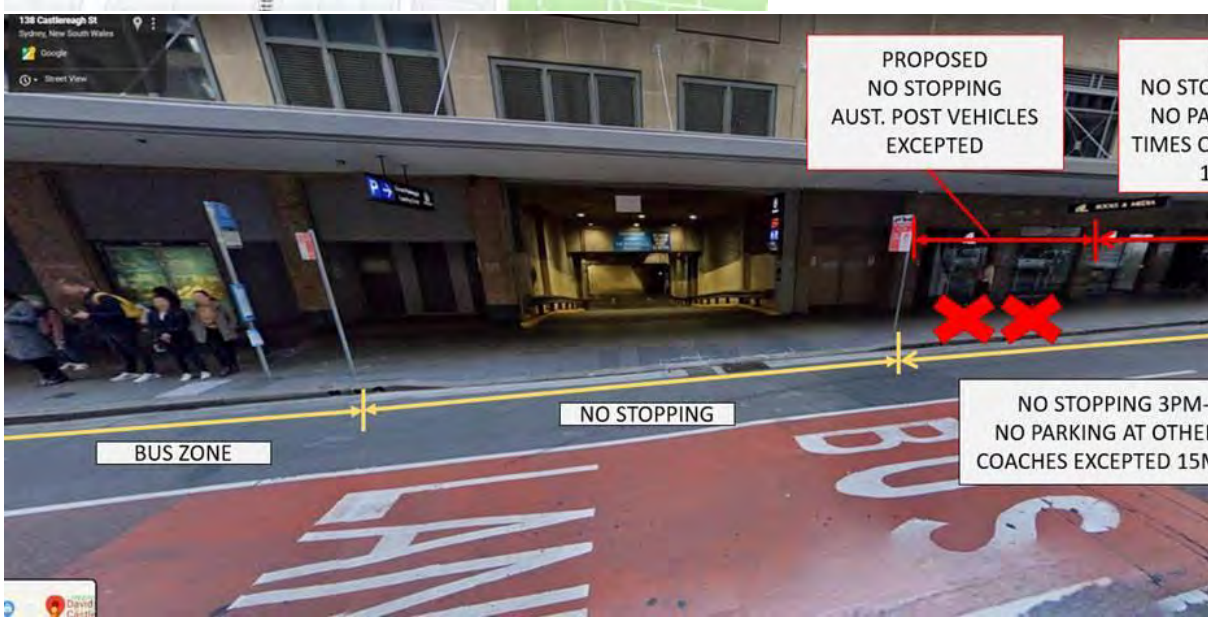
We appreciate that these post boxes could be key post boxes in the CBD. Therefore, if it is not viable to remove the boxes for the construction period, could suggest relocating them?

A potential location could be on Castlereagh Street as shown by the 'X' below. The boxes could be situated within the end section of an space which is currently signposted as *No Stopping 3pm-8pm and No Parking at Other Times Coaches Excepted 15 minute limit.* This signposted space is approximately 20 metres in length, which could accommodate a standard 14.5m coach and a 5.2m Aust. Post van (B99 vehicle) at one time.

Based on a typical short duration of stay, Aust. Post vehicles would not be expected to have a negative impact on traffic, coaches, and the STA bus stop that is located just to the north. Note, there is driveway separating the bus stop and the proposed pos box relocation zone as shown below.

Nearby Street Posting Boxes:





Can you please advise whether Australia Post considers the above a suitable arrangement?

If you have any queries, please do not hesitate to ask.

Kind regards,

Santi Botross

Senior Traffic Engineer
p: +61 2 8437 7828 m: +61 400 777 170
a: Suite 402, 22 Atchison Street, St Leonards NSW 2065
w: www.ttpp.net.au e: Santi.Botross@ttpp.net.au

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Edinburgh Castle Hotel Correspondence

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Thursday, 14 January 2021 9:48 AM
To: Santi Botross
Subject: FW: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)
Attachments: Pitt Street - Edinburgh Castle Hotel delivery Zone R3.pdf; Pitt Street - Edinburgh Castle Hotel delivery Zone R3.pdf

---

From: Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Sent: Saturday, 10 October 2020 9:16 AM
To: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>; Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>; Collantes, Andrey <Andrey.Collantes@cpbcon.com.au>
Subject: RE: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Hi Ganesh,

I have clarified with the Edinburgh Castle Hotel that the CPB Work Zone can remain 32m long and the portion of the CPB Work Zone before the new 'No Stopping' area can be shared between CPB and the Edinburgh.
Refer attached email thread and markup attached, which also includes expected Edinburgh delivery requirements..
CPB will also be using an online booking system for deliveries which we can also use to book in deliveries for the Edinburgh if required.

Thanks,
Chris

From: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>
Sent: Wednesday, 7 October 2020 3:58 PM
To: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>; Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Subject: FW: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Hi Nicholas,

Thanks for providing the additional information. I have a further query regarding the Works Zone proposal on Pitt Street. Please refer to the attached proposed Works Zone Plan for Pitt and Bathurst Streets and the WAD.

According to the WAD, the Hotel will use the current "No Parking" zone on Pitt Street for their deliveries whilst the loading zone on Bathurst Street is reallocated to Works Zone. This will not be feasible due to the following reasons:

- The "No Parking" zone on Pitt Street is 5.6 metres long. The proposed Works Zone on Pitt Street is 32 metres long which encroaches 3.3 metres onto the "No Parking" zone leaving only 2.3 metres of "No Parking" zone left.
- It will not be feasible to leave a 2.3 metre long "No Parking" zone and as such this area will be reallocated to "No Stopping".

To comply with the WAD, the current 5.6 metres “No Parking” zone should be retained. As such, the proposed Works Zone on Pitt Street should be reduced to 28.7 metres. This complies with the attached sketch “Pitt Street – Edinburgh Castle Hotel Delivery Zone”.

Could you please review the above and advise if the Works Zone on Pitt Street can be reduced to 28.7 metres.

Regards

Ganesh

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Tuesday, 6 October 2020 6:04 PM
To: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>; Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Subject: RE: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Ganesh,

Please see attached approval from The Edinburgh Castle Hotel for this work zone in front of there property.

We have agreed that deliveries for the pub would be in the Pitt Street Loading Zone.

Please let me know if you require any additional information.

Regards

Nicholas Papanikolaou
Area Manager

CPB CONTRACTORS

Level 2, 177 Pacific Highway, North Sydney, NSW 2060, Australia
T +61 2 9414 3466 **M** +61408932188
E Nicholas.Papanikolaou@cpbcon.com.au
cpbcon.com.au

A MEMBER OF THE CIMIC GROUP
CIMIC

From: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>
Sent: Friday, 2 October 2020 12:39 PM
To: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>
Subject: RE: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Hi Nicholas,

I have a query regarding your Works Zone application on Bathurst Street, Sydney. I have attached a plan of the proposal for your reference.

You have requested a 33.8 metre Works Zone on Bathurst Street. The Works Zone extends past the Metro Station site boundary onto the loading zone located in front of The Edinburgh Castle Hotel. The Hotel would require the use

of the loading zone for their deliveries. As such, if you need a 33.8 metre loading zone, could you please discuss with the Hotel management if they could schedule their deliveries outside of the Works Zone hours. Alternatively, you could also provide access to the Works Zone during the Works Zone hours to accommodate deliveries to the Hotel. Please advise on the outcome following your discussion with the Hotel management.

Regards

Ganesh

Ganesh Vengadasalam
Senior Traffic Engineer
City Infrastructure & Traffic Operations

CITY OF SYDNEY

Telephone: 02 9288 5941
cityofsydney.nsw.gov.au

From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Tuesday, 29 September 2020 4:44 PM
To: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>; Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Subject: TRIM CM: RE: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Ganesh,

The 32m will suffice to the boundary.

Thanks,
Nick

From: Ganesh Vengadasalam <GVengadasalam@cityofsydney.nsw.gov.au>
Sent: Friday, 25 September 2020 3:06 PM
To: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Cc: Claudia Calabro <CCALABRO@cityofsydney.nsw.gov.au>
Subject: Works Zone Query - Pitt Street, Sydney (Pitt Street South Metro Station)

Hi Nicholas,

I refer to your attached Works Zone application on the eastern side of Pitt Street, Sydney south of Bathurst Street. You had requested for a 32.5 metre Works Zone. Following a site visit, the site boundary of the construction site is 32 metres long.

Could you please confirm if you require a 32.5 metre Works Zone or a 32 metre Works Zone is suffice? I have attached a plan for your reference.

Regards

Ganesh

Ganesh Vengadasalam
Senior Traffic Engineer
City Infrastructure & Traffic Operations

CITY OF SYDNEY

Telephone: 02 9288 5941
cityofsydney.nsw.gov.au

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From: Papanikolaou, Nicholas <Nicholas.Papanikolaou@cpbcon.com.au>
Sent: Thursday, 14 January 2021 9:48 AM
To: Santi Botross
Subject: FW: Pitt Street South Station Work Zone Clarification Revision 2

From: Luke Rule <luke.rule@solotel.com.au>
Sent: Friday, 9 October 2020 6:51 PM
To: Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Subject: Re: Pitt Street South Station Work Zone Clarification Revision 2

Hi Chris,

Ah, understood. Then there'd definitely be deliveries Monday through to Thursday, most of them being smaller and of less than twenty minutes duration.

As you can imagine, deliveries themselves vary with trade so it would be difficult to pin anything near an exact schedule this far out but I imagine there'll be a line of communication and we'll advise of anything expected.

LUKE RULE
General Manager / Licensee

The Edinburgh Castle Hotel

T +61 2 9264 8616

294 Pitt Street

Sydney NSW 2000

Solotel.com.au

From: Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Sent: Friday, 9 October 2020, 6:44 pm
To: Luke Rule
Subject: RE: Pitt Street South Station Work Zone Clarification Revision 2

Sorry Josh,

Further update below and attached..

The No-Parking Zone will need to change to a No-Stopping Zone, this is because the No-Parking Zone as been reduced in size due the extended CPB Work Zone.
The council has advised the reduction in the No-Parking Zone size is not feasible (from 5.6m to 2.3m) for vehicles. All smaller deliveries can be by the CPB Work Zone too if this is acceptable with yourself and the Edinburgh team

Cheers
Chris

From: Luke Rule <luke.rule@solotel.com.au>
Sent: Friday, 9 October 2020 5:53 PM
To: Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Subject: RE: Pitt Street South Station Work Zone Clarification Revision 2

Hi Chris,

Thanks for the update. I'm happy with the changes as outlined.

Our major delivery days are across Tuesday and Wednesday. The major one of note is CUB kegs on a flatbed truck from 7am Wednesday morning, approximately taking an hour (assuming timely arrival). There is also a gas delivery Tuesday morning on a similar sized truck but the timing isn't consistent. There are also usually some smaller deliveries throughout the week, particularly Monday and Tuesday, but these are normally van-sized deliveries and are likely to fit in the no-parking with minimal disruption.

In summary, Wednesday mornings would be the key morning needing comminication for use of the work zone. Let me know if you need any further clarification.

Thanks,

LUKE RULE
General Manager/Licensee

The Edinburgh Castle Hotel

T +61 2 9264 8616
294 Pitt Street
Sydney NSW 2000

Solotel.com.au

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Australia's most diverse hospitality group.

From: Moulton, Chris <Chris.Moulton@cpbcon.com.au>
Sent: Friday, 9 October 2020 5:42 PM
To: Luke Rule <luke.rule@solotel.com.au>
Subject: Pitt Street South Station Work Zone Clarification Revision 2

Hi Luke,

Thanks for the phone call, as discussed, please see attached updated Pitt Street/Edinburgh Castle Deliver Zone arrangement which clarifies the agreement between the Edinburgh and CPB, and also differs slightly from the WAD.

Update includes clarity on the 5.6m Edinburgh Castle Delivery Zone being fully within the CPB Contractor Working Zone up to the existing 'No Parking' sign.
The CPB Pitt Street Station team will coordinate with the Edinburgh Castle to ensure Delivery Zone is available for Edinburgh deliveries. Can you please advise of any issues with this?

Can you please advise rough delivery times/days per week? My understanding is every Thursday or Wednesday morning? What time in the morning, and approximately how long is the duration of the delivery?

CPB will also remove the redundant post office plinth for the Edinburgh Castle.

Thanks a lot

Chris Moulton
Senior Project Engineer

CPB CONTRACTORS

Level 18, 177 Pacific Highway, North Sydney, NSW 2060, Australia
T +61291119046 **M** 0428 850 592
E Chris.Moulton@cpbcon.com.au
cpbcon.com.au

A MEMBER OF THE CIMIC GROUP
CIMIC

Appendix C

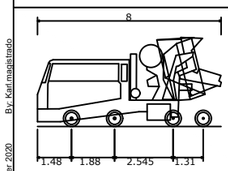
Swept Path Analysis

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.0m AGITATOR

DWG No. 19433CAD011
FIGURE 1

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

By: Kiel.magistrado
Date: 3 September 2020
Filename: 19433CAD011 - SWEPT PATH - 200903.dwg

VEHICLE ENTERING

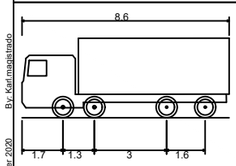
VEHICLE EXITING

PITT STREET

PITT STREET STATION

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.6m HOOK TRUCK

DWG No. 19433CAD011
FIGURE 2

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

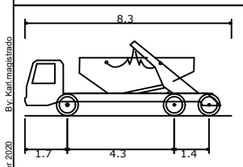
By: Kiet.maple.trado
Date: 3 September 2020
Filename: 19433CAD011 - SWEPT PATH - 200903.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.3m DOUBLE AXLE MARREL TRUCK

DWG No.	19433CAD011 FIGURE 3
DATE STAMP	03 SEPTEMBER 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

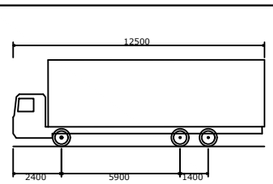
Filename: 19433CAD011 - SWEPT PATH - 200903.dwg Date: 3 September 2020 By: Kiet.magistrado

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 19433CAD011
FIGURE 4

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

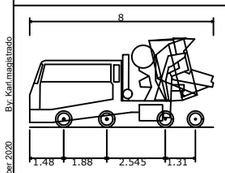
Filename: 19433CAD011 - SWEPT PATH - 200903.dwg Date: 3 September 2020 By: Kiet.maglistrado

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.0m AGITATOR

DWG No. 19433CAD007
FIGURE 5

DATE STAMP 03 SEPTEMBER 2020

PROJECT No. 19433 | SCALE 1:300 @A3 | REV. A

By: Karl.maistrado

Date: 3 September 2020

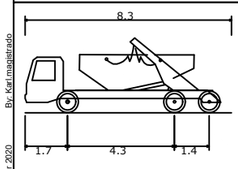
Filename: 19433CAD007 - SWEPT PATH - 200903.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel

Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	30/10/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD029
FIGURE 6

DATE STAMP 30 OCTOBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

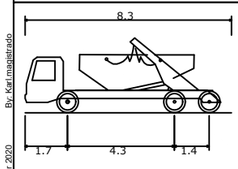
By: Karl.magistrado
Date: 30 October 2020
Filename: 19433CAD029 - SWEPT PATH - 291030.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel

Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	30/10/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD029
FIGURE 7

DATE STAMP 30 OCTOBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

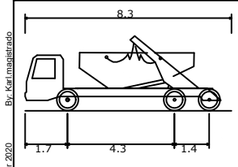
By: Karl.magistrado
Date: 30 October 2020
Filename: 19433CAD029 - SWEPT PATH - 291030.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	30/10/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.3m DOUBLE AXLE MARREL

DWG No.	19433CAD029 FIGURE 8
DATE STAMP	30 OCTOBER 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

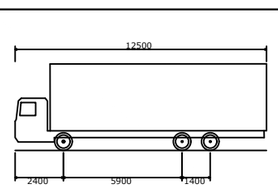
By: Karl.magistrado
Date: 30 October 2020
Filename: 19433CAD029 - SWEPT PATH - 291030.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

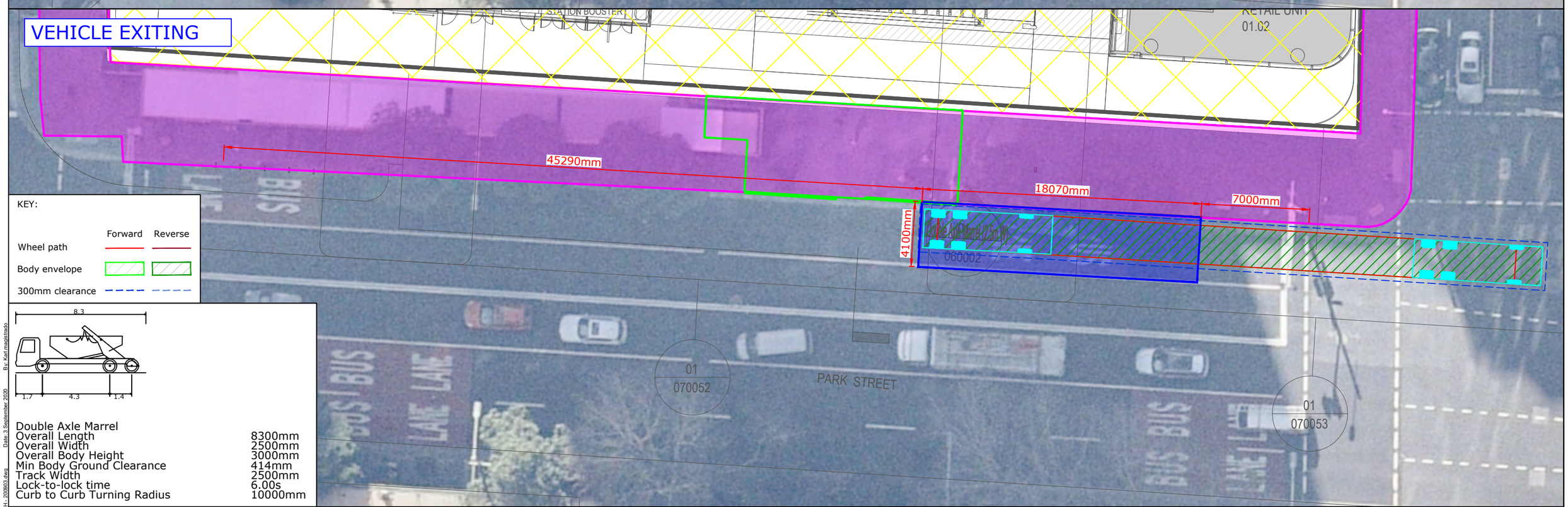
TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
AS2890.2 12.5m HEAVY RIGID TRUCK

DWG No.	19433CAD007 FIGURE 9
DATE STAMP	03 SEPTEMBER 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

By: Karl.magis@ttpp
Date: 3 September 2020
Filename: 19433CAD007 - SWEPT PATH - 200903.dwg

VEHICLE ENTERING

VEHICLE EXITING



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD014
FIGURE 10

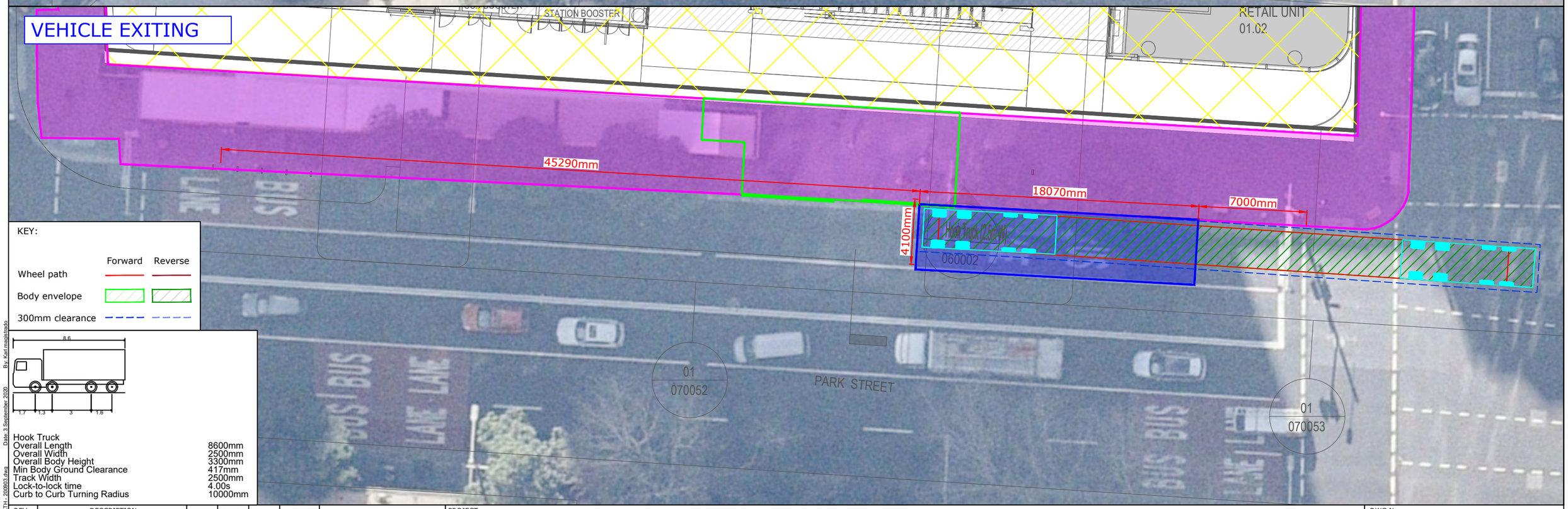
DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

By: Kaif.majidmado
Date: 3 September 2020
Filename: 19433CAD014 -SWEPT PATH - 200903.dwg

VEHICLE ENTERING

VEHICLE EXITING



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
8.6m HOOK TRUCK

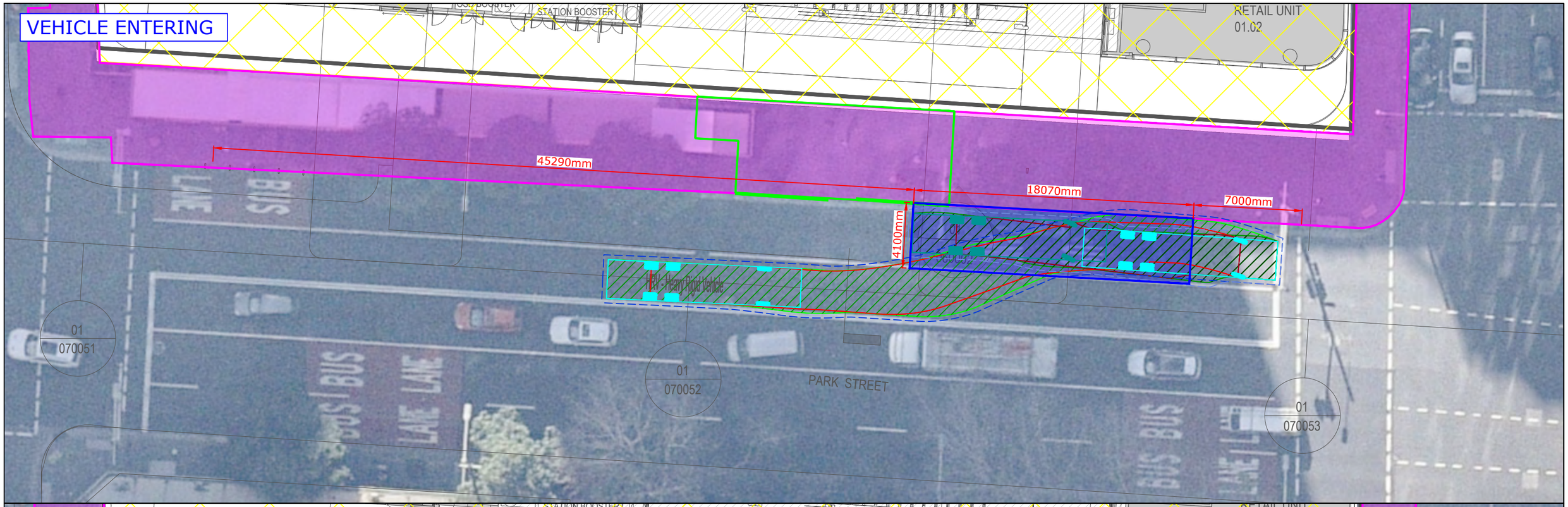
DWG No. 19433CAD014
FIGURE 11

DATE STAMP 03 SEPTEMBER 2020

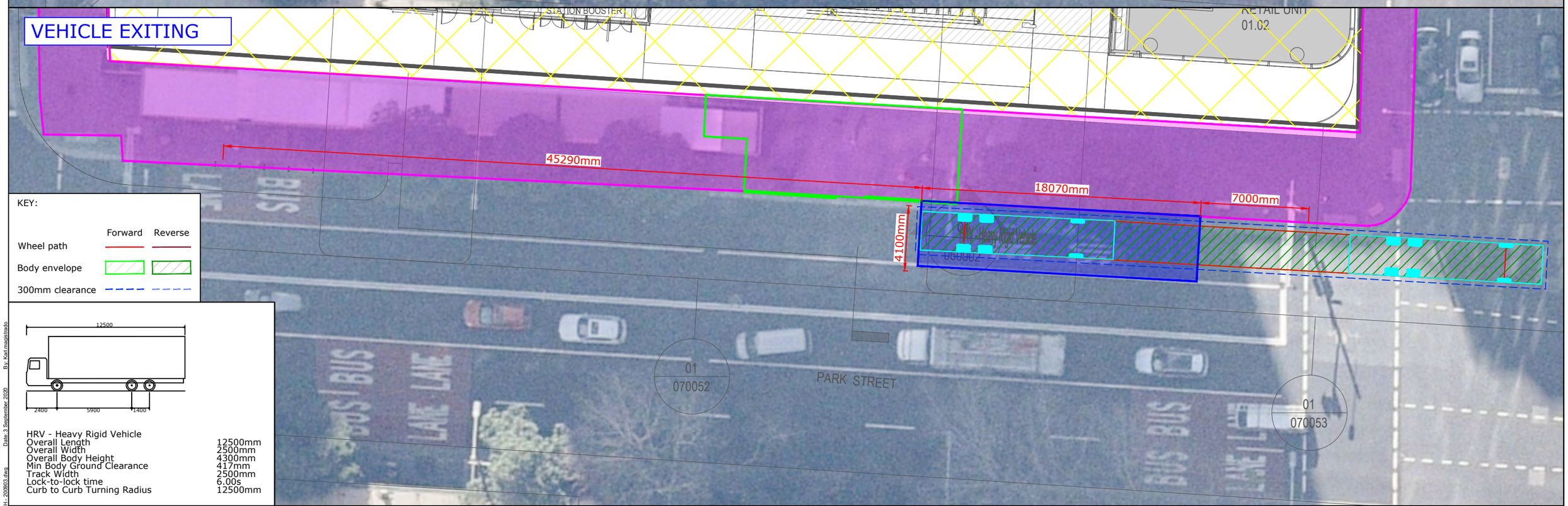
PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

By: Kiet.maistrado
Date: 3 September 2020
Filename: 19433CAD014 -SWEPT PATH - 200903.dwg

VEHICLE ENTERING



VEHICLE EXITING



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
AS2890.2 12.5m HEAVY RIGID TRUCK

DWG No. 19433CAD014
FIGURE 12

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

Filename: 19433CAD014 -SWEPT PATH - 200903.dwg Date: 3 September 2020 By: Karl magistrado

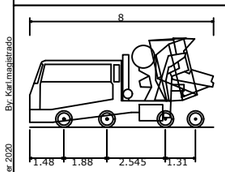
VEHICLE ENTERING

VEHICLE EXITING

19660mm
2700mm
2700mm
2900mm
32520mm
PITT STREET
2510mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

By: Karl.magistrado
Date: 3 November 2020
Filename: 19433CAD028 -SWEPT PATH - 201103.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT
PITT STREET STATION

TITLE
SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.0m AGITATOR

DWG No. 19433CAD028
FIGURE 13

DATE STAMP 03 NOVEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

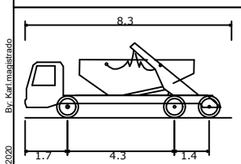
VEHICLE ENTERING

VEHICLE EXITING

19660mm
2700mm
2700mm
2900mm
32520mm
PITT STREET
ONE WAY

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

By: Karl.magistrado
Date: 3 November 2020
Filename: 19433CAD028 -SWEPT PATH - 201103.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT
PITT STREET STATION

TITLE
SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD028
FIGURE 14

DATE STAMP 03 NOVEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

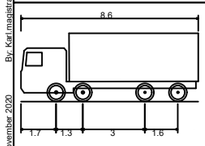
VEHICLE ENTERING

VEHICLE EXITING

2700mm
2700mm
2900mm
19660mm
32520mm
2510mm
PITT STREET

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.729m TRUCKMIXER

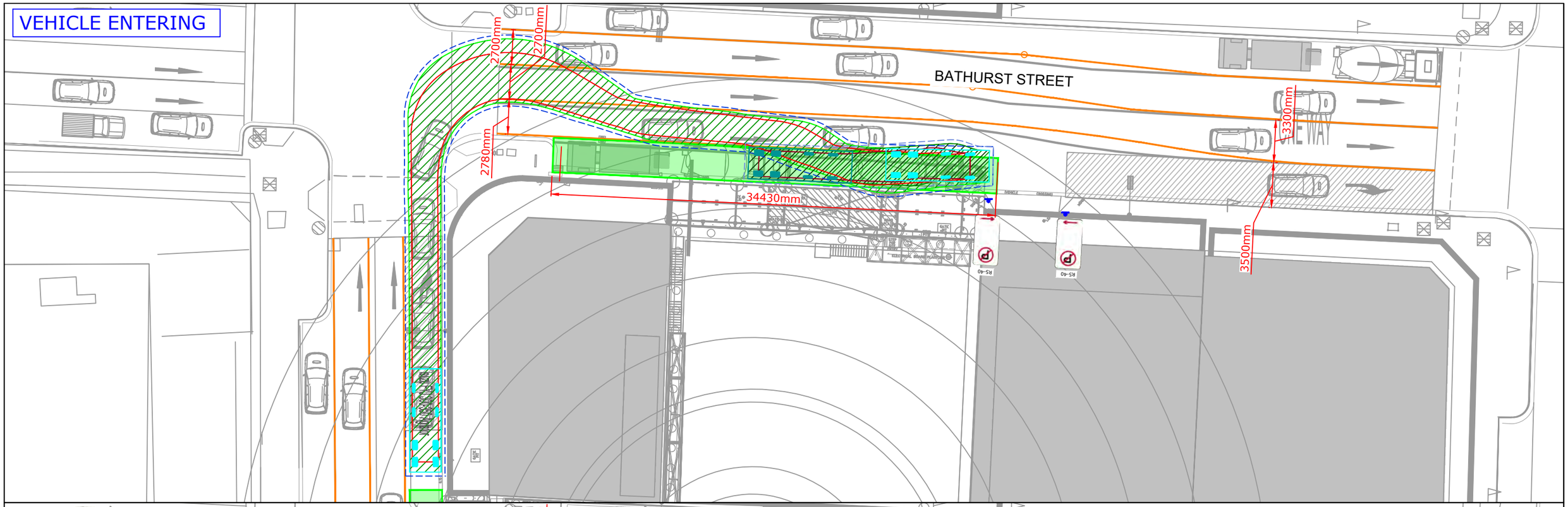
DWG No. 19433CAD028
FIGURE 15

DATE STAMP 03 NOVEMBER 2020

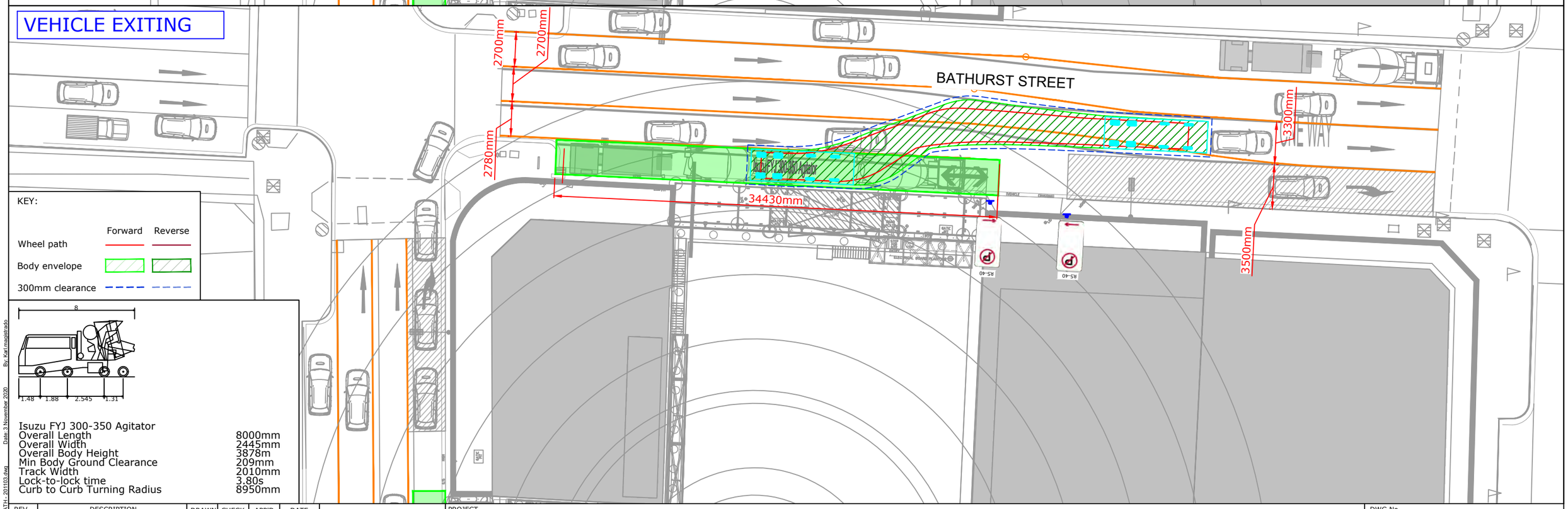
PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

By: Karl magistrado
Date: 3 November 2020
Filename: 19433CAD028 -SWEPT PATH - 201103.dwg

VEHICLE ENTERING



VEHICLE EXITING



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.0m AGITATOR

DWG No. 19433CAD028
FIGURE 16

DATE STAMP 03 NOVEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

By: Karl.magdirado
Date: 3 November 2020
Filename: 19433CAD028 -SWEPT PATH - 201103.dwg

VEHICLE ENTERING

BATHURST STREET

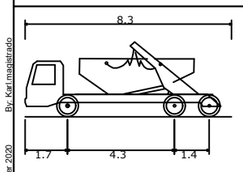
ONE WAY

2700mm
2700mm
2780mm
3300mm
3500mm
34430mm

Double Axle Marrel (2.5m W)

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

By: Karl.magistrado
Date: 3 November 2020
Filename: 19433CAD028 - SWEPT PATH - 201103.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT: PITT STREET STATION

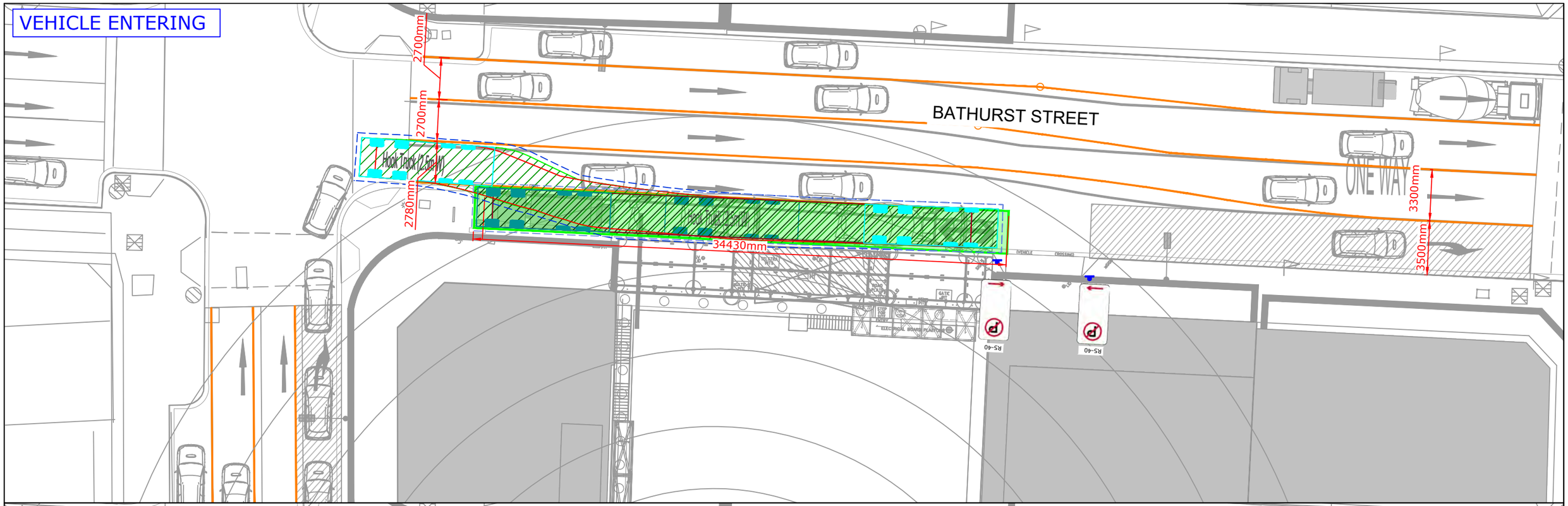
TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.3m DOUBLE AXLE MARREL

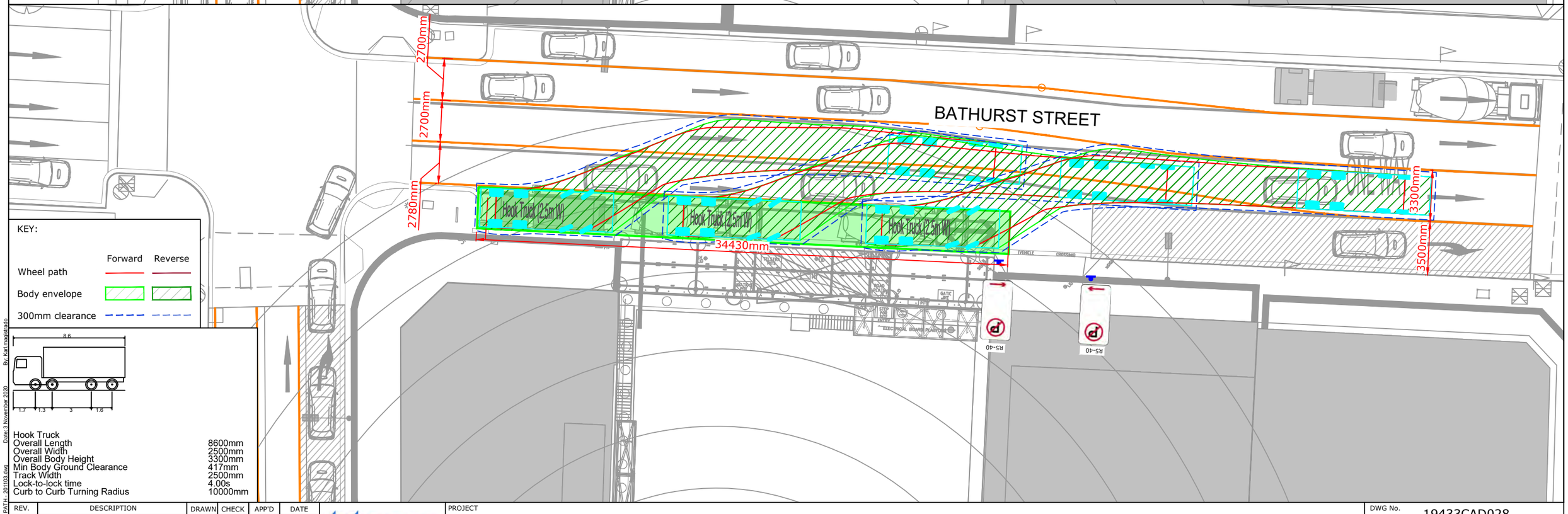
DWG No. 19433CAD028
FIGURE 17

DATE STAMP 03 NOVEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

VEHICLE ENTERING





KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.6m HOOK TRUCK

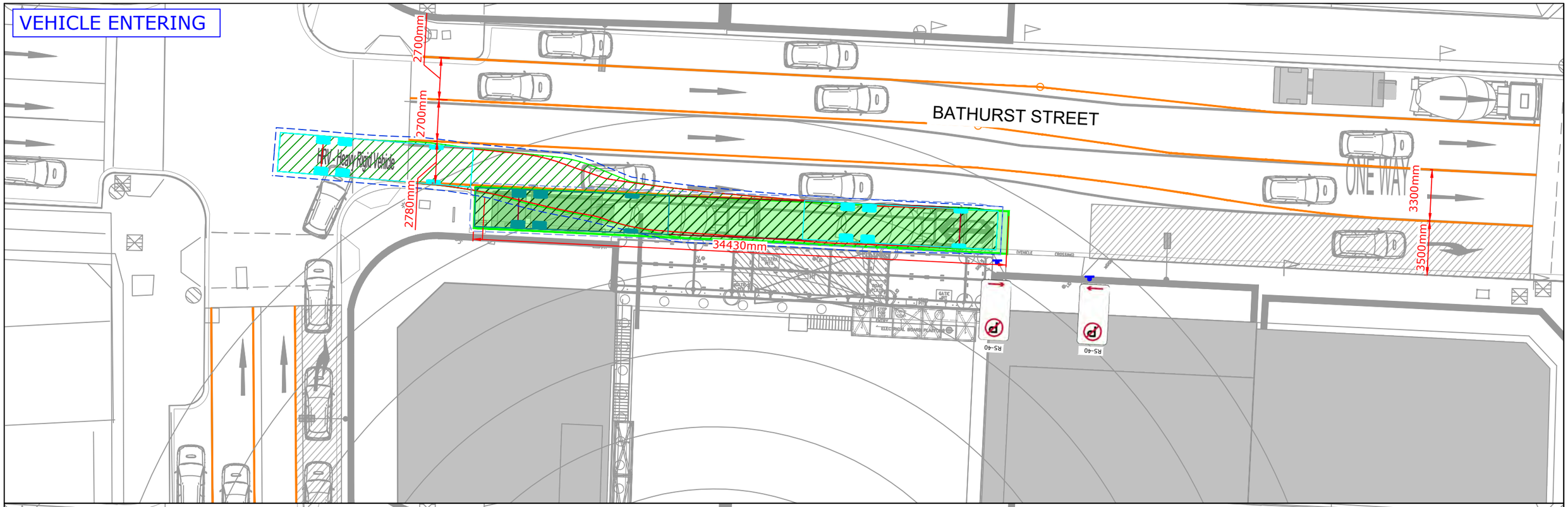
DWG No. 19433CAD028
FIGURE 18

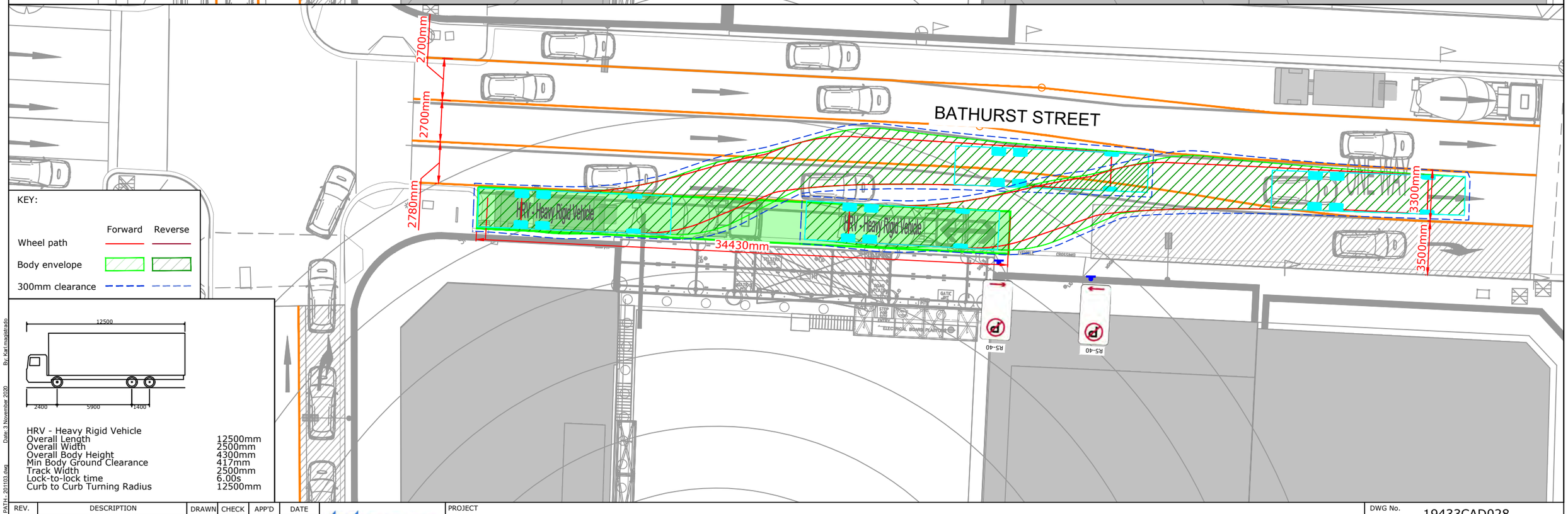
DATE STAMP 03 NOVEMBER 2020

PROJECT No. 19433 | SCALE 1:250 @A3 | REV. A

Filename: 19433CAD028 -SWEPT PATH- 201103.dwg Date: 3 November 2020 By: Karl.magistrado

VEHICLE ENTERING





KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/11/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 19433CAD028
FIGURE 19

DATE STAMP 03 NOVEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

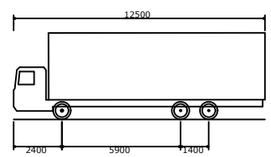
Filename: 19433CAD028 -SWEPT PATH- 201103.dwg Date: 3 November 2020 By: Karl.magistrado

CASTLEREAGH STREET

PARK STREET

KEY:

	Forward	Reverse
Wheel path		
Body envelope		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT

PITT STREET STATION

TITLE

SWEPT PATH ANALYSIS (CASTLEREAGH STREET - PARK STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 194333CAD01
FIGURE 20

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

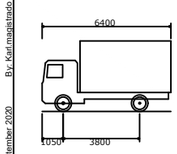
Filename: 194333CAD017-SWEPT PATH-200903.dwg
Date: 3 September 2020
By: Karl.magistrado

PITT STREET

SRV - Small Rigid Vehicle

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



SRV - Small Rigid Vehicle	
Overall Length	6400mm
Overall Width	2330mm
Overall Body Height	3500mm
Min Body Ground Clearance	398mm
Track Width	2330mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7100mm

By: Kiel.magistrado
Date: 3 September 2020
Filename: 19433CAD012 - SWEPT PATH - 200903.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT

PITT STREET STATION

TITLE

SWEPT PATH ANALYSIS - SOUTH SITE (PITT STREET)
AS2890.2m 6.4m SMALL RIGID VEHICLE

DWG No. 19433CAD012
FIGURE 21

DATE STAMP 03 SEPTEMBER 2020

PROJECT No.	SCALE	REV.
19433	1:100 @A3	A

Appendix D

Traffic Control Plans

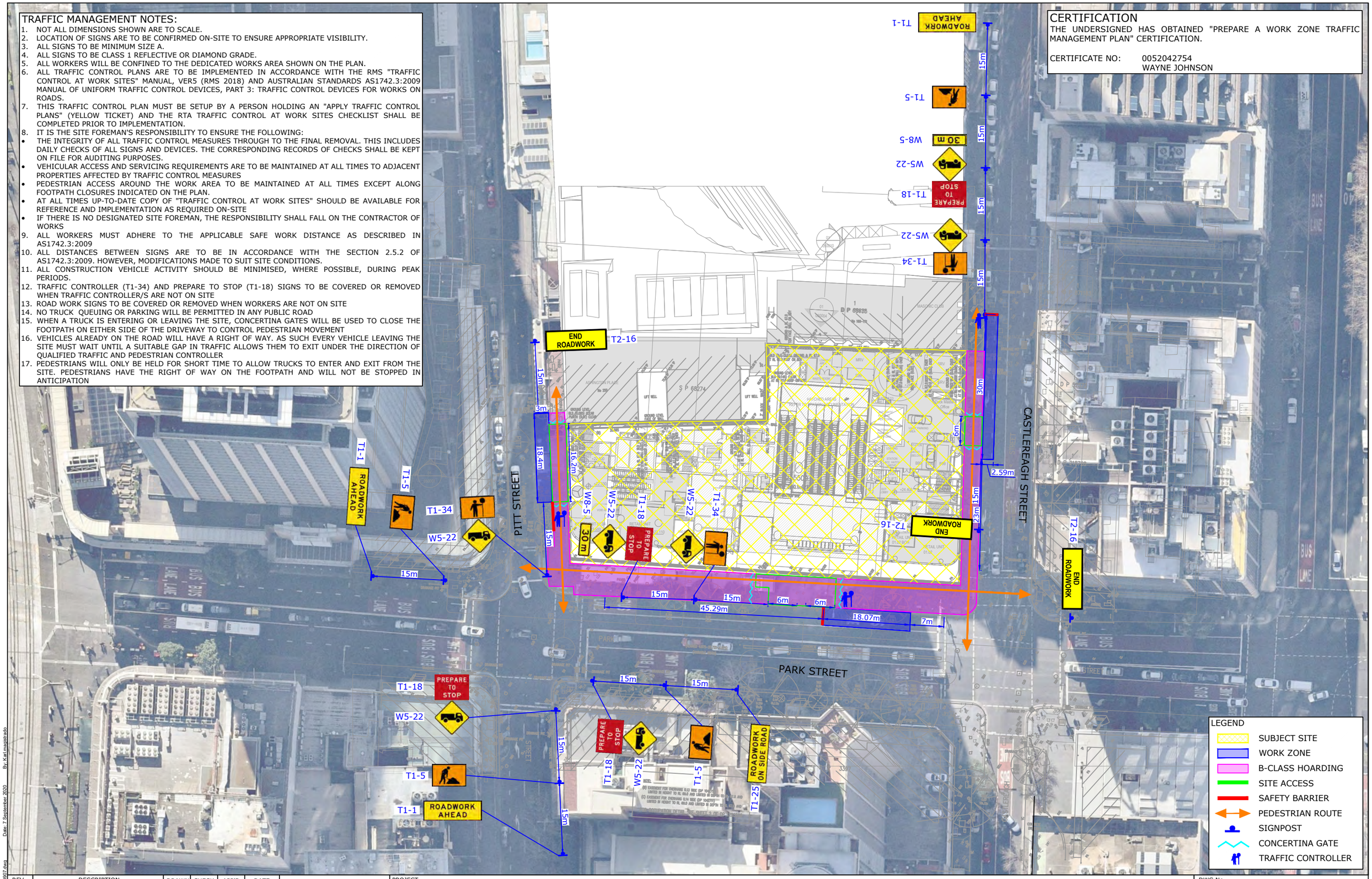
TRAFFIC MANAGEMENT NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER5 (RMS 2018) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE RTA TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
8. IT IS THE SITE FOREMAN'S RESPONSIBILITY TO ENSURE THE FOLLOWING:
   - THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
   - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
   - PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES EXCEPT ALONG FOOTPATH CLOSURES INDICATED ON THE PLAN.
   - AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
   - IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS
9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009
10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE
13. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE
14. NO TRUCK QUEUING OR PARKING WILL BE PERMITTED IN ANY PUBLIC ROAD
15. WHEN A TRUCK IS ENTERING OR LEAVING THE SITE, CONCERTINA GATES WILL BE USED TO CLOSE THE FOOTPATH ON EITHER SIDE OF THE DRIVEWAY TO CONTROL PEDESTRIAN MOVEMENT
16. VEHICLES ALREADY ON THE ROAD WILL HAVE A RIGHT OF WAY. AS SUCH EVERY VEHICLE LEAVING THE SITE MUST WAIT UNTIL A SUITABLE GAP IN TRAFFIC ALLOWS THEM TO EXIT UNDER THE DIRECTION OF QUALIFIED TRAFFIC AND PEDESTRIAN CONTROLLER
17. PEDESTRIANS WILL ONLY BE HELD FOR SHORT TIME TO ALLOW TRUCKS TO ENTER AND EXIT FROM THE SITE. PEDESTRIANS HAVE THE RIGHT OF WAY ON THE FOOTPATH AND WILL NOT BE STOPPED IN ANTICIPATION

CERTIFICATION

THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: 0052042754
WAYNE JOHNSON



LEGEND

- SUBJECT SITE
- WORK ZONE
- B-CLASS HOARDING
- SITE ACCESS
- SAFETY BARRIER
- PEDESTRIAN ROUTE
- SIGNPOST
- CONCERTINA GATE
- TRAFFIC CONTROLLER

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: TRAFFIC CONTROL PLAN
NORTH SITE

DWG No. 19433CAD001
FIGURE 1

DATE STAMP 03 SEPTEMBER 2020

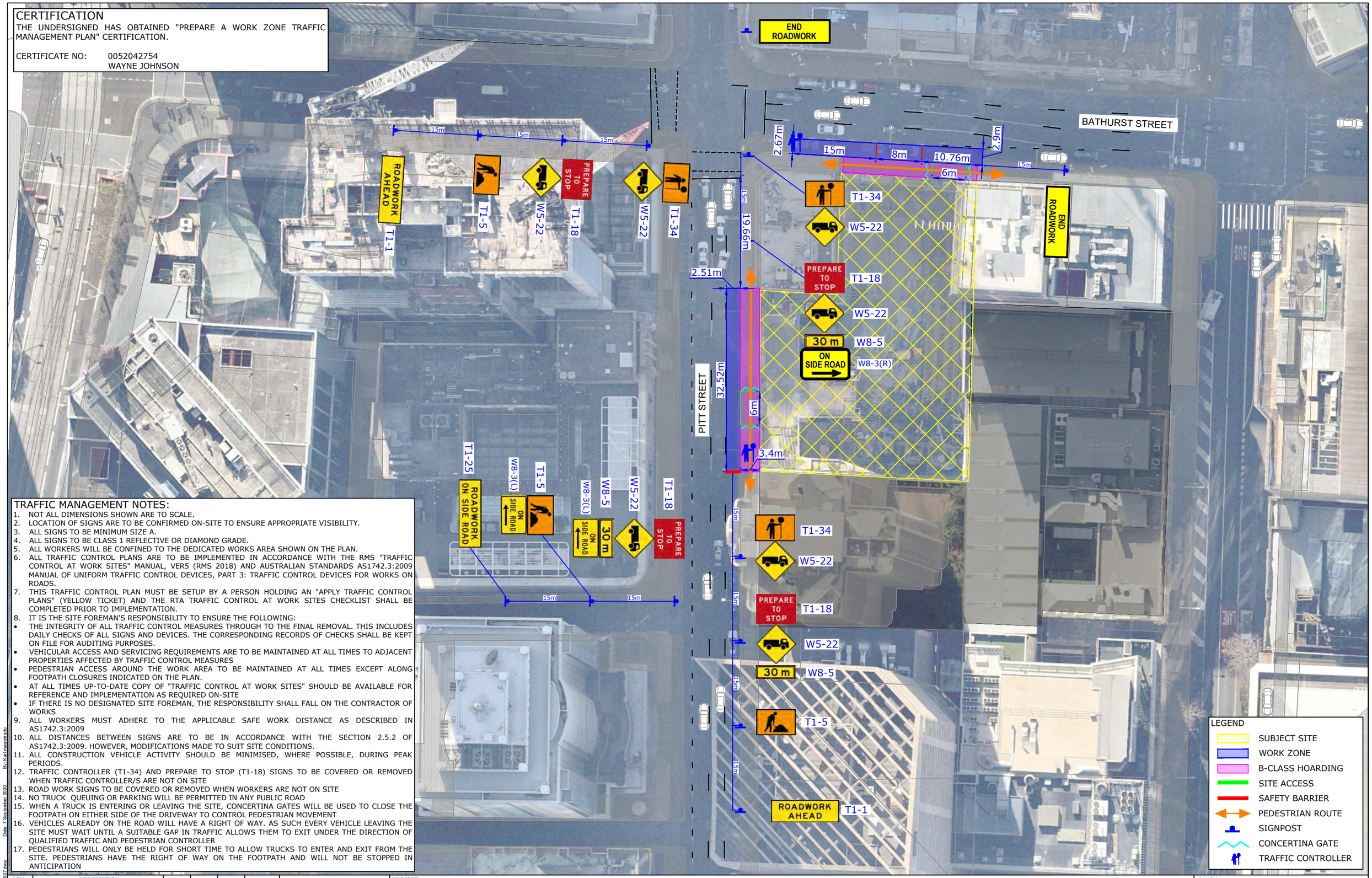
PROJECT No.	SCALE	REV.
19433	NTS	A

Filename: 19433CAD0013_TCP - 200907.dwg Date: 7 September 2020 By: K.art.master.rado

CERTIFICATION

THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: 0052042754
WAYNE JOHNSON



TRAFFIC MANAGEMENT NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER5 (RMS 2018) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
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   - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
   - PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES EXCEPT ALONG FOOTPATH CLOSURES INDICATED ON THE PLAN.
   - AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
   - IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS
9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009
10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE
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14. NO TRUCK QUEUING OR PARKING WILL BE PERMITTED IN ANY PUBLIC ROAD
15. WHEN A TRUCK IS ENTERING OR LEAVING THE SITE, CONCERTINA GATES WILL BE USED TO CLOSE THE FOOTPATH ON EITHER SIDE OF THE DRIVEWAY TO CONTROL PEDESTRIAN MOVEMENT
16. VEHICLES ALREADY ON THE ROAD WILL HAVE A RIGHT OF WAY. AS SUCH EVERY VEHICLE LEAVING THE SITE MUST WAIT UNTIL A SUITABLE GAP IN TRAFFIC ALLOWS THEM TO EXIT UNDER THE DIRECTION OF QUALIFIED TRAFFIC AND PEDESTRIAN CONTROLLER
17. PEDESTRIANS WILL ONLY BE HELD FOR SHORT TIME TO ALLOW TRUCKS TO ENTER AND EXIT FROM THE SITE. PEDESTRIANS HAVE THE RIGHT OF WAY ON THE FOOTPATH AND WILL NOT BE STOPPED IN ANTICIPATION

LEGEND

- SUBJECT SITE
- WORK ZONE
- B-CLASS HOARDING
- SITE ACCESS
- SAFETY BARRIER
- PEDESTRIAN ROUTE
- SIGNPOST
- CONCERTINA GATE
- TRAFFIC CONTROLLER

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	03/09/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: TRAFFIC CONTROL PLAN
SOUTH SITE

DWG No. 19433CAD001
FIGURE 2

DATE STAMP 03 SEPTEMBER 2020

PROJECT No. 19433 | SCALE NTS | REV. A

By: Karl.maidstrado
Date: 7 September 2020
Filename: 19433CAD0013 -TCP- 200907.dwg

Appendix E

Road Safety Audit

Pitt Street Station Sydney Metro Construction Road Works Road Safety Audit

Prepared for:

CPB Contractors

3 July 2020

The Transport Planning Partnership

Pitt Street Station Sydney Metro

Construction Road Works Road Safety Audit

Client: CPB Contractors

Version: V02

Date: 3 July 2020

TTPP Reference: 18228

Quality Record

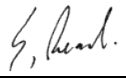
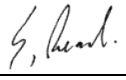
Version	Date	Prepared by	Reviewed by	Approved by	Signature
V 01	2/07/2020	S.Read	D.Lee	S.Read	
V 02	3/07/2020	S.Read	D.Lee	S.Read	

Table of Contents

Tables

APPENDICES

1 Road Safety Audit Summary

Audited project:	Pitt Street Station Sydney Metro Construction Traffic Management
Client:	CPB Contractors
Project manager:	Nicholas Papanikolaou
Email address:	Nicholas.Papanikolaou@cpbcon.com.au
Telephone:	T +61 2 9414 3466, M +61408932188
Audit Team:	Stephen Read (level 3 lead road safety auditor) Doris Lee (level 3 road safety auditor)
Audit type:	Construction Road Works
Commencement meeting:	Not required
Audit date:	2 July 2020
Completion meeting:	Not required

The objective of this road safety audit is to examine and identify road safety concerns regarding the construction traffic and construction management plan.

The findings of the road safety audit have been detailed in Section 4.3 of this report.

2 Introduction

2.1 Background

This report has been prepared on behalf of CPB Contractors to present road safety audit findings that have been identified for the construction works associated with the construction of the Pitt Street Integrated Station Development as part of the Sydney Metro project. The works are to be undertaken at two sites as shown in Figure 2.1.

Figure 2.1: Subject Site and Surrounding Road Network

2.2 Audit Objective

The objective of this Audit was to ensure that there are no fundamental flaws in the Traffic Control Plans in relation to road safety that will be costly to fix at a later date both in terms of cost and time.

2.3 Procedures and Reference Material

The procedures used are described in the following guidelines:

- Roads and Maritime Services' 2011 Guidelines for Road Safety Audit Practices
- Austroads Guide to Road Safety 2019: Part 6 Managing Road Safety Audits
- Austroads Guide to Road Safety 2019: Part 6A Implementing Road Safety Audits.

Austroads checklist was used by the audit team as a reference in this road safety audit. Key elements examined included:

- general topics – type and degree of access to development
- design issues
- intersections
- footpaths
- lighting, signs and delineation
- physical objects
- environmental constraints
- other matters including over size vehicles.

2.4 Audit Team

The RSA was carried out by the following team:

- Stephen Read (RSA-02-0652) – level 3 road safety auditor (lead auditor)
- Doris Lee (RSA-02-0128) – level 3 road safety auditor (team member).

Stephen and Doris are registered road safety auditors with the NSW Centre for Road Safety and are experienced in traffic engineering and design/ inspection of traffic management schemes.

3 Road Safety Audit Program

3.1 Commencement Meeting

A formal meeting was not held.

3.2 Site and Field Audit

A site inspection was carried out on Thursday 2 July 2020 in fine weather conditions.

The site was viewed to identify possible road safety concerns. Several photographs and video footage were taken.

3.3 Completion Meeting

Not required.

4 Road Safety Audit Findings

4.1 Introduction

Table 4.1 provides specific details of the audit findings and a risk rating as high, medium or low. The risk ratings have been based on the risk matrix presented in Table 4.1, which has been adopted from the standard Austroads Risk Matrix.

Table 4.1: Risk Matrix

Likelihood / Severity	Highly probable	Occasional	Improbable
Major	High	High	Medium
Moderate	High	Medium	Low
Minor	Medium	Low	Low

The terms in Table 4.1 are described below.

Likelihood:

- Highly probable: It is likely that more than one crash of this type could occur within a five-year period.
- Occasional: It is likely that less than one crash of this type could occur within a five-year period.
- Improbable: Less than one crash of this type could occur within a 10-year period.

Severity:

- Major: The crash is likely to result in a fatality or serious injuries

  For example, high/medium speed vehicle collision, high/medium speed collision with a fixed object, pedestrian struck at high speed, and cyclist hit by car.
- Moderate: The crash is likely to result in minor injuries or large scale of property damage

  For example, some slow speed vehicle collisions, cyclist falls, and rear end crashes.
- Minor: The crash is likely to result in minor property damage or many near miss crash events

  For example, some slow speed collisions, pedestrian walks into object (no head injury), and car reverses into post.

Priority:

- High: Very important, and needs to be addressed urgently.
- Medium: Important, and needs to be addressed as soon as possible.
- Low: Needs to be considered as part of regular maintenance/planning program.

4.2 Responding to the Audit Report

As set out in the road safety audit guidelines, the responsibility for the road rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Neither is it the role of the auditor to agree to, or approve the project manager's responses to the audit.

The audit provides the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

4.3 Road Safety Audit Findings

The audit findings are documented in Table 4.2 which provides:

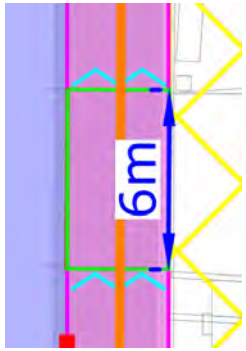
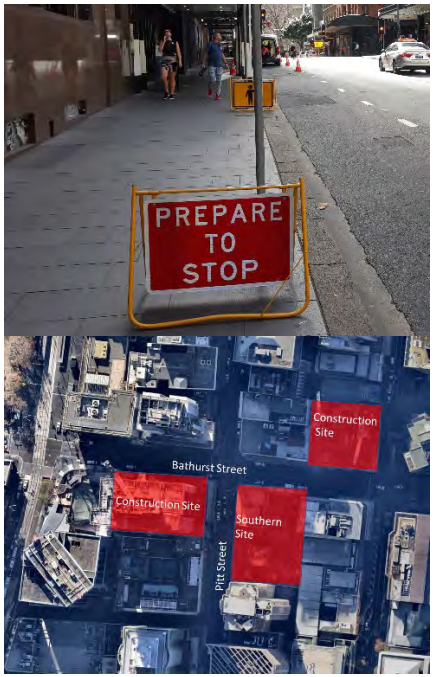
- specific details of the road safety issues identified during the audit
- a risk level rating for each of the road safety audit findings.

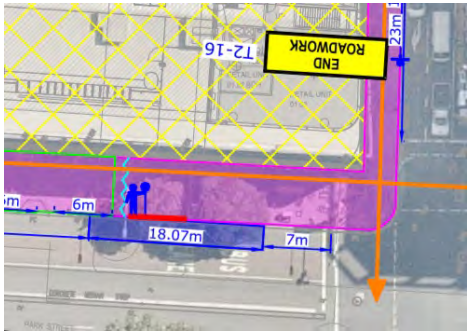
It should be acknowledged that positive attributes of the audited road section have not been discussed. Deficiencies that do not cause a safety problem are also not listed.

In-line with Roads and Maritime Services' best practice recommendations have not been included in the road safety audit findings.

Table 4.2: Road Safety Audit Findings

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
1.	Various locations	The TCPs show traffic controllers and prepare to stop signs on multi-lane roads on Pitt Street, Bathurst Street, Castlereagh Street and Park Street. Traffic controllers on multilane roads are not visible when the vehicle in the lane closest to the work zone have stopped. The sight distance restriction may increase the risk of collisions with trucks pulling out across two lanes.		Occasional	Minor	Low	A specific note shall be included in the driver induction to ensure that construction vehicles do not cross two lanes upon exiting the work zone.

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
2	Pedestrian footpaths Pitt Street, Bathurst Street, Castlereagh Street, Park Street.	The traffic control plans show concertina gates to close the pedestrian footpath during loading activities. This occurs on Pitt Street, Bathurst Street, Castlereagh Street, Park Street. The streets around the construction sites are heavily trafficked by pedestrians. Closure of the gates may cause congestion on the footpaths and encourage pedestrians to cross the street at uncontrolled locations increasing the risk of a pedestrian being struck by a car.		Improbable	Moderate	Low	Crossing will be in use once the structure reaches street level. When in use, crossings will be shut momentarily circa 20-30 seconds. CPB shall monitor crossings and minimise this where possible.
3	Southern Site Signage	There are two other construction sites in the vicinity of the southern site. These sites have their own signage on Pitt Street and Bathurst Street. It is likely that the cumulative effects of each site's signage will create conflicting messages and overwhelm drivers assessment of the risks. This may lead to driver complacency of the risks.		Improbable	Moderate	Low	At the time of construction at the south site, the site on the western end of Bathurst Street will be complete. CPB shall liaise with adjoining builder (Hutchison) to coordinate signage.

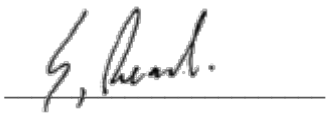
Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Designer Response
4	Park Street at Castlereagh Street	The work zone is located 7m from a signalised pedestrian crossing. This is likely to reduce the sight distance between vehicles in the bus lane and the crossing. Given this is a high pedestrian activity area and entertainment area there is a risk of an intoxicated pedestrian being struck by a vehicle that has not seen them step onto the road. Note: the traffic lane arrangement has been observed to have recently changed from three lanes reduced to two lanes in the eastbound direction. However, the function of each lane is unclear (bus lane or traffic lane) due to incomplete linemarking.	 	Occasional	Major	High	It is noted that the traffic lane arrangement within this section of Park Street was recently changed (sometime around 1 or 2 July 2020). Pavement linemarking is incomplete, therefore the future traffic lane arrangement is unclear. Once the changes are complete, sight distance shall be re-evaluated.
5	Park Street west of Pitt Street	There is no provision of regulatory roadwork ahead sign on Park Street eastbound to inform motorists of the upcoming works prior to Pitt Street. Risk of motorists not aware of the changed prevailing traffic conditions.		Improbable	Low	Low	Additional signage shall be included in updated TCP.

5 Concluding Statement

The findings and opinions in the report are based on the examination of the specific road and environs, and might not address all concerns existing at the time of the audit.

The auditors have endeavoured to identify features of the road that could be modified in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe.

While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.



Stephen Read
Level 3 Lead Road Safety Auditor
The Transport Planning Partnership

Doris Lee
Level 3 Road Safety Auditor
The Transport Planning Partnership

Appendix A

Audited Plans

TRAFFIC MANAGEMENT NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER5 (RMS 2018) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE RTA TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
8. IT IS THE SITE FOREMAN'S RESPONSIBILITY TO ENSURE THE FOLLOWING:

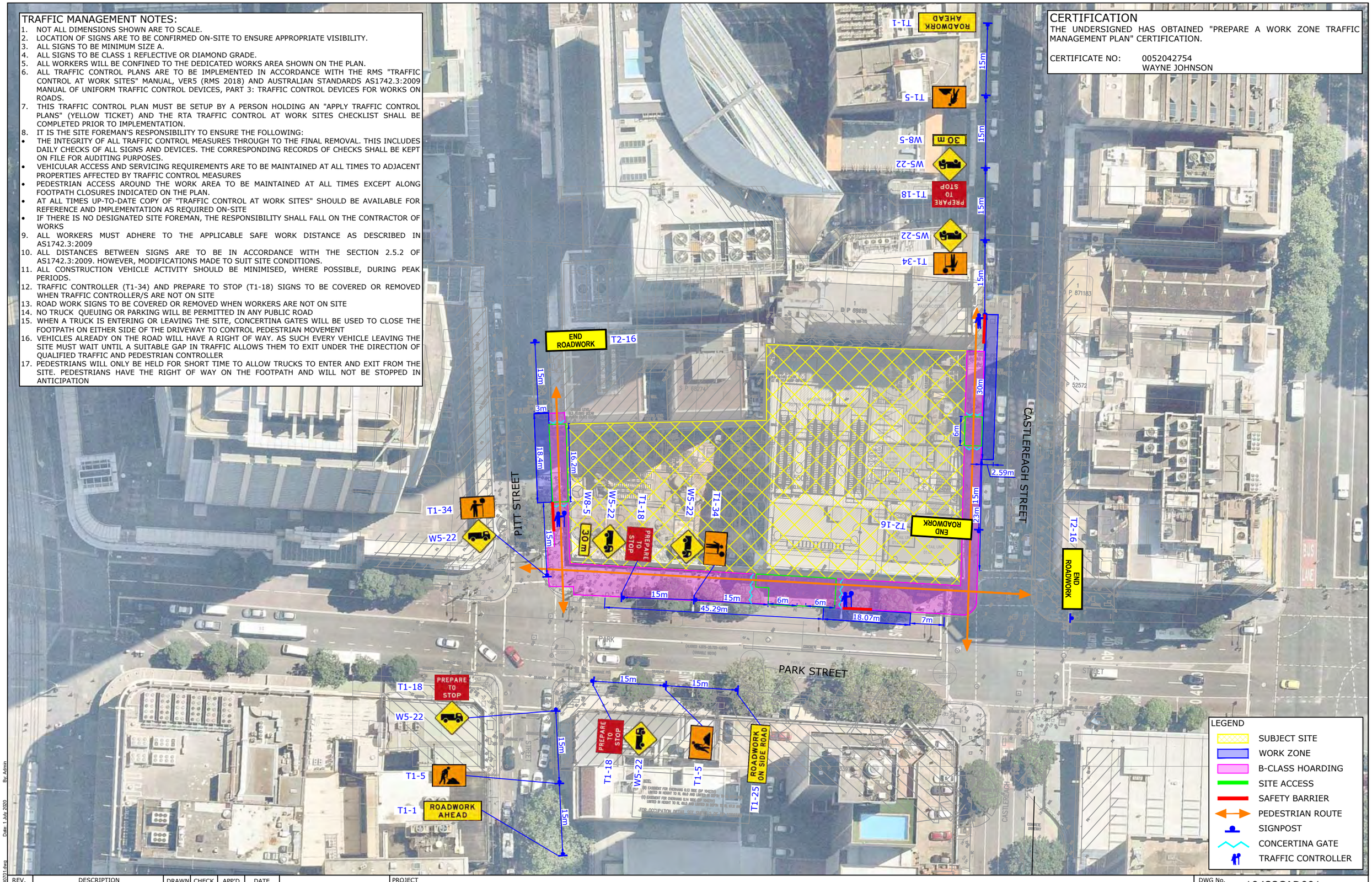
- THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
- VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
- PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES EXCEPT ALONG FOOTPATH CLOSURES INDICATED ON THE PLAN.
- AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
- IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS

9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009
10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE
13. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE
14. NO TRUCK QUEUING OR PARKING WILL BE PERMITTED IN ANY PUBLIC ROAD
15. WHEN A TRUCK IS ENTERING OR LEAVING THE SITE, CONCERTINA GATES WILL BE USED TO CLOSE THE FOOTPATH ON EITHER SIDE OF THE DRIVEWAY TO CONTROL PEDESTRIAN MOVEMENT
16. VEHICLES ALREADY ON THE ROAD WILL HAVE A RIGHT OF WAY. AS SUCH EVERY VEHICLE LEAVING THE SITE MUST WAIT UNTIL A SUITABLE GAP IN TRAFFIC ALLOWS THEM TO EXIT UNDER THE DIRECTION OF QUALIFIED TRAFFIC AND PEDESTRIAN CONTROLLER
17. PEDESTRIANS WILL ONLY BE HELD FOR SHORT TIME TO ALLOW TRUCKS TO ENTER AND EXIT FROM THE SITE. PEDESTRIANS HAVE THE RIGHT OF WAY ON THE FOOTPATH AND WILL NOT BE STOPPED IN ANTICIPATION

CERTIFICATION

THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: 0052042754
WAYNE JOHNSON



REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	01/07/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: TRAFFIC CONTROL PLAN
NORTH SITE

DWG No. 19433CAD001
FIGURE 1

DATE STAMP: 01 JULY 2020

PROJECT No.	SCALE	REV.
19433	NTS	A

Filename: 19433CAD0013 -TCP- 200701.dwg Date: 1 July 2020 By: Admin

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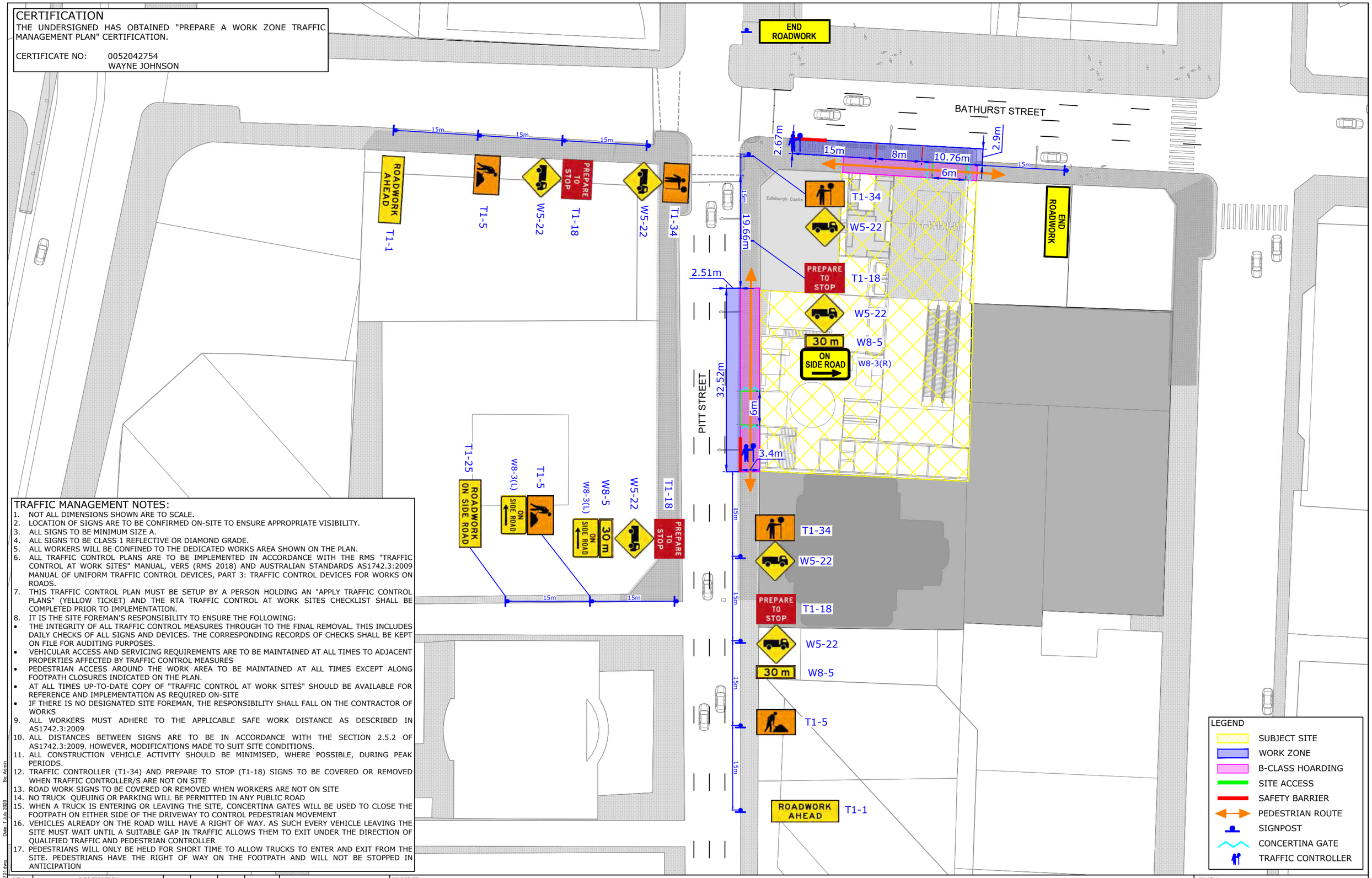

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REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	01/07/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: TRAFFIC CONTROL PLAN
SOUTH SITE

DWG No. 19433CAD001
FIGURE 2

DATE STAMP 01 JULY 2020

PROJECT No. 19433 | SCALE NTS | REV. A

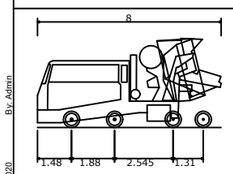
By: Admin
Date: 1 July 2020
Filename: 19433CAD0013 -TCP- 200701.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	19/06/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.0m AGITATOR

DWG No.	19433CAD011 FIGURE 3
DATE STAMP	19 JUNE 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

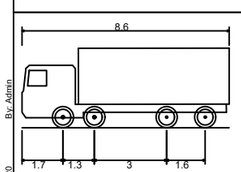
By: Admin
Date: 19 June 2020
Filename: 19433CAD011 - SWEPT PATH - 200619.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	19/06/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.6m HOOK TRUCK

DWG No. 19433CAD011
FIGURE 4

DATE STAMP: 19 JUNE 2020

PROJECT No. 19433 | SCALE 1:300 @A3 | REV. A

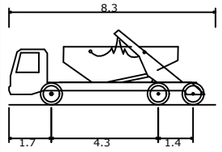
By: Admin
Date: 19 June 2020
Filename: 19433CAD011 - SWEPT PATH - 200619.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel

Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	19/06/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
8.3m DOUBLE AXLE MARREL TRUCK

DWG No.	19433CAD011 FIGURE 5
DATE STAMP	19 JUNE 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

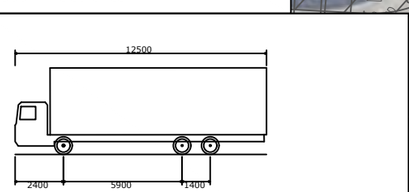
By: Admin
Date: 19 June 2020
Filename: 19433CAD011 - SWEPT PATH - 200619.dwg

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

By: Admin
Date: 19 June 2020
Filename: 19433CAD011 - SWEPT PATH - 200619.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	19/06/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PITT STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No.	19433CAD011 FIGURE 6
DATE STAMP	19 JUNE 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

VEHICLE ENTERING

VEHICLE EXITING

MASONIC CLUB

HERITAGE DISPLAY

MRV

B99

SRV

LOADING DOCK PLATFORM

+24.400

Dock Master Office

LADDER TO B1

AUTOMATIC PARKING PLATFORM

VALET PARKING AREA

STATION SUBSTATION VENTILATION

LOADING AREA

STATION ACC. HATCH (ABOVE)

STATION ACC. HATCH (BELOW)

EOT LIFT

EOT LOBBY

+24.200

RETAIL UNIT 01.02 BOH

RETAIL UNIT 01.02

CONCRETE PUMP

10150mm

10000mm

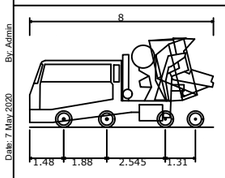
2590mm

23000mm

CASTLEREAGH STREET

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

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Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.0m AGITATOR

DWG No. 19433CAD007
FIGURE 7

DATE STAMP 07 MAY 2020

PROJECT No. 19433 | SCALE 1:300 @A3 | REV. A

Filename: 19433CAD007 - SWEPT PATH - 200508 -CASTLEREAGH.dwg
Date: 7 May 2020
By: Admin

VEHICLE ENTERING

VEHICLE EXITING

MASONIC CLUB

MRV

B99

SRV

SRV

LOADING DOCK PLATFORM

+24.400

Dock Master Office

AUTOMATIC PARKING PLATFORM

AUTOMATIC PARKING PLATFORM

VALET PARKING AREA

STATION SUBSTATION VENTILATION

LOADING AREA

STATION ACC. HATCH (BELOW)

STATION ACC. HATCH (ABOVE)

B99

B99

B99

EOT LIFT

EOT LIFT

UP

+24.400

+24.200

UP

CASTLEREAGH STREET

10150mm

10000mm

22460mm

2590mm

23000mm

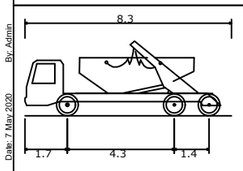
EOT LOBBY

RETAIL UNIT 01.02 BOH

RETAIL UNIT 01.02

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

By: Admin
Date: 7 May 2020
Filename: 19433CAD007 - SWEPT PATH - 200508 -CASTLEREAGH.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT

PITT STREET STATION

TITLE

SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.3m DOUBLE AXLE MARREL

DWG No.	19433CAD007 FIGURE 8
DATE STAMP	07 MAY 2020
PROJECT No.	19433
SCALE	1:300 @A3
REV.	A

VEHICLE ENTERING

VEHICLE EXITING

MASONIC CLUB

MRV

B99

SRV

LOADING DOCK PLATFORM

+24.400

Dock Master Office

LADDER TO B1

AUTOMATIC PARKING PLATFORM

VALET PARKING AREA

STATION SUBSTATION VENTILATION

LOADING AREA

STATION ACC. HATCH (ABOVE)

STATION ACC. HATCH (BELOW)

EOT LIFT

UP

EOT LOBBY

+24.200

RETAIL UNIT 01.02

RETAIL UNIT 01.02 BOH

CASTLEREAGH STREET

10150mm

10000mm

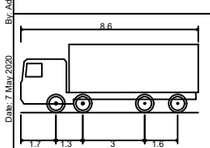
22460mm

2590mm

23000mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
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Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

By: Admin
Date: 7 May 2020
Filename: 19433CAD007 - SWEPT PATH - 200506 -CASTLEREAGH.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
8.6m HOOK TRUCK

DWG No. 19433CAD007
FIGURE 9

DATE STAMP 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

VEHICLE ENTERING

VEHICLE EXITING

MASONIC CLUB

CASTLEREAGH STREET

MRV

SRV

B99

LOADING DOCK PLATFORM

+24.400

Dock Master Office

AUTOMATIC PARKING PLATFORM

VALET PARKING AREA

STATION SUBSTATION VENTILATION

LOADING AREA

STATION ACC. HATCH (ABOVE)

STATION ACC. HATCH (BELOW)

EOT LIFT

EOT LOBBY

UP

+24.200

RETAIL UNIT 01.02 BOH

RETAIL UNIT 01.02

10150mm

10000mm

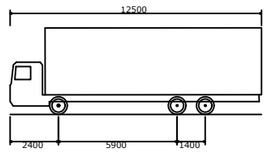
2460mm

2590mm

23000mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



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Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

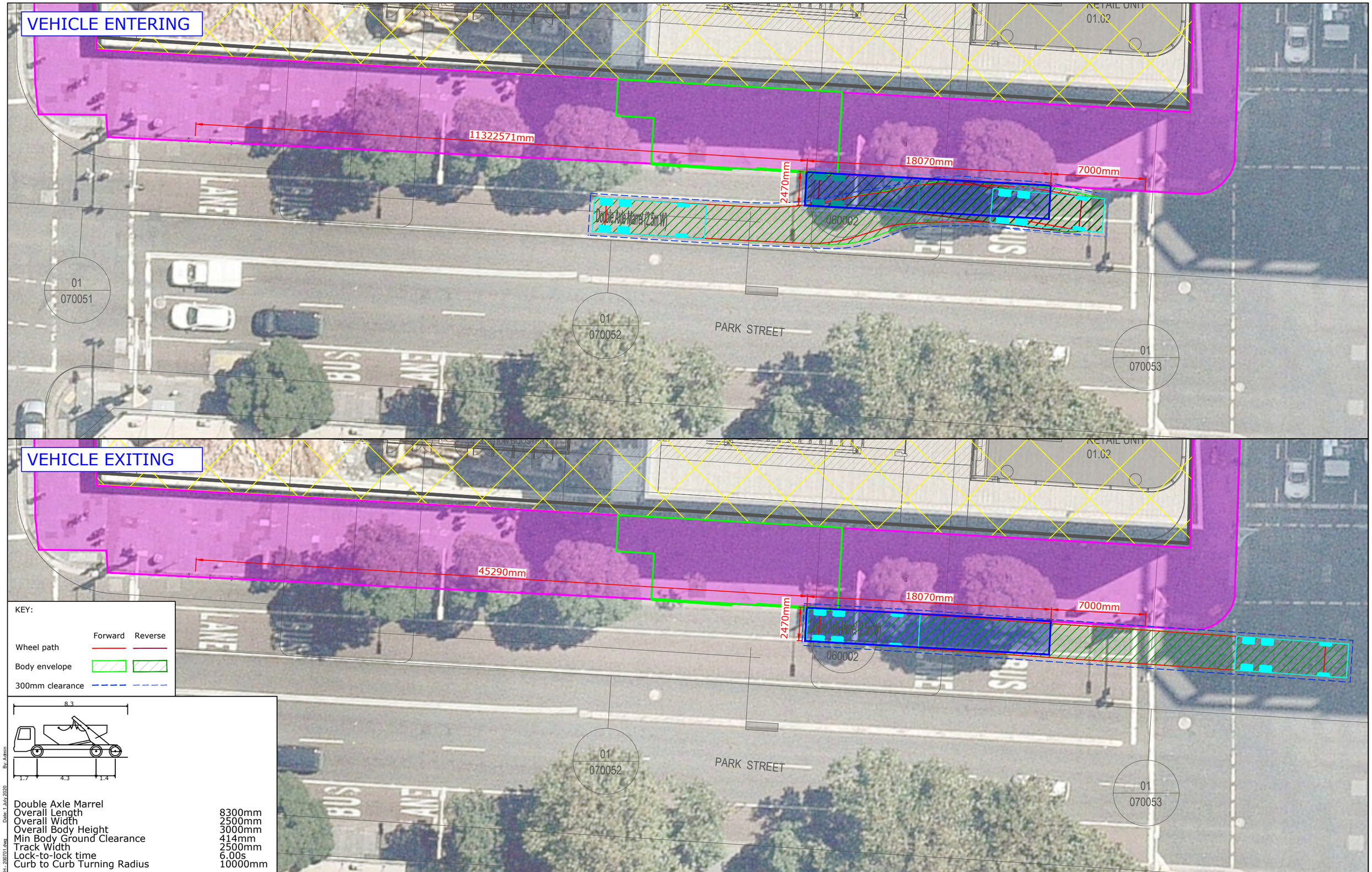
PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (CASTLEREAGH STREET)
AS2890.2 12.5m HEAVY RIGID TRUCK

DWG No.	
19433CAD007 FIGURE 10	
DATE STAMP	
07 MAY 2020	
PROJECT No.	SCALE / REV.
19433	1:300 @A3 / A

Filename: 19433CAD007 - SWEPT PATH - 200508 -CASTLEREAGH.dwg
Date: 7 May 2020
By: Admin

VEHICLE ENTERING



VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	01/07/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD001
FIGURE 11

DATE STAMP 01 JULY 2020

PROJECT No. 19433 | SCALE 1:250 @A3 | REV. A

By: Admin
Date: 1 July 2020
Filename: 19433CAD0014 -SWEPT PATH - 290701.dwg

VEHICLE ENTERING

45290mm

2470mm

18070mm

7000mm

Hook Truck (7.5m W)

060002

01
070051

01
070052

PARK STREET

01
070053

RETAIL UNIT
01.02

VEHICLE EXITING

45290mm

2470mm

18070mm

7000mm

Hook Truck (7.5m W)

060002

01
070052

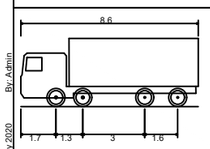
PARK STREET

01
070053

RETAIL UNIT
01.02

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	01/07/20

ttpp transport planning

PROJECT

PITT STREET STATION

TITLE

SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
8.6m HOOK TRUCK

DWG No. 19433CAD001
FIGURE 12

DATE STAMP 01 JULY 2020

PROJECT No. 19433

SCALE 1:250 @A3

REV. A

Filename: 19433CAD0014 -SWEPT PATH - 200701.dwg Date: 1 July 2020 By: Admin

VEHICLE ENTERING

VEHICLE EXITING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	01/07/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- NORTH SITE (PARK STREET)
AS2890.2 12.5m HEAVY RIGID TRUCK

DWG No. 19433CAD001
FIGURE 13

DATE STAMP 01 JULY 2020

PROJECT No. 19433 | SCALE 1:250 @A3 | REV. A

Filename: 19433CAD0014 -SWEPT PATH - 200701.dwg Date: 1 July 2020 By: Admin

VEHICLE ENTERING

VEHICLE EXITING

Edinburgh Castle Hotel

PITT STREET

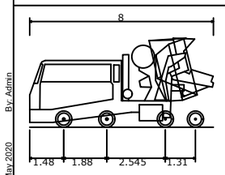
19660mm

32520mm

2510mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

By: Admin
Date: 7 May 2020
Filename: 19433CAD006 - SWEPT PATH - 200505 - PITT.dwg

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT

PITT STREET STATION

TITLE

SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.0m AGITATOR

DWG No. 19433CAD006
FIGURE 14

DATE STAMP 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

VEHICLE ENTERING

VEHICLE EXITING

Edinburgh Castle Hotel

PITT STREET

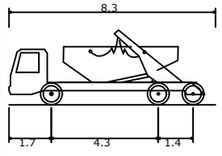
19660mm

32520mm

2510mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Double Axle Marrel

Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.3m DOUBLE AXLE MARREL

DWG No. 19433CAD006
FIGURE 15

DATE STAMP 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

Filename: 19433CAD006 - SWEPT PATH - 200505 - PITT.dwg Date: 7 May 2020 By: Admin

VEHICLE ENTERING

VEHICLE EXITING

Edinburgh Castle Hotel

PITT STREET

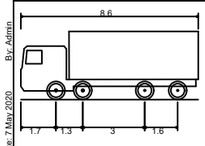
19660mm

32520mm

2510mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
8.729m TRUCKMIXER

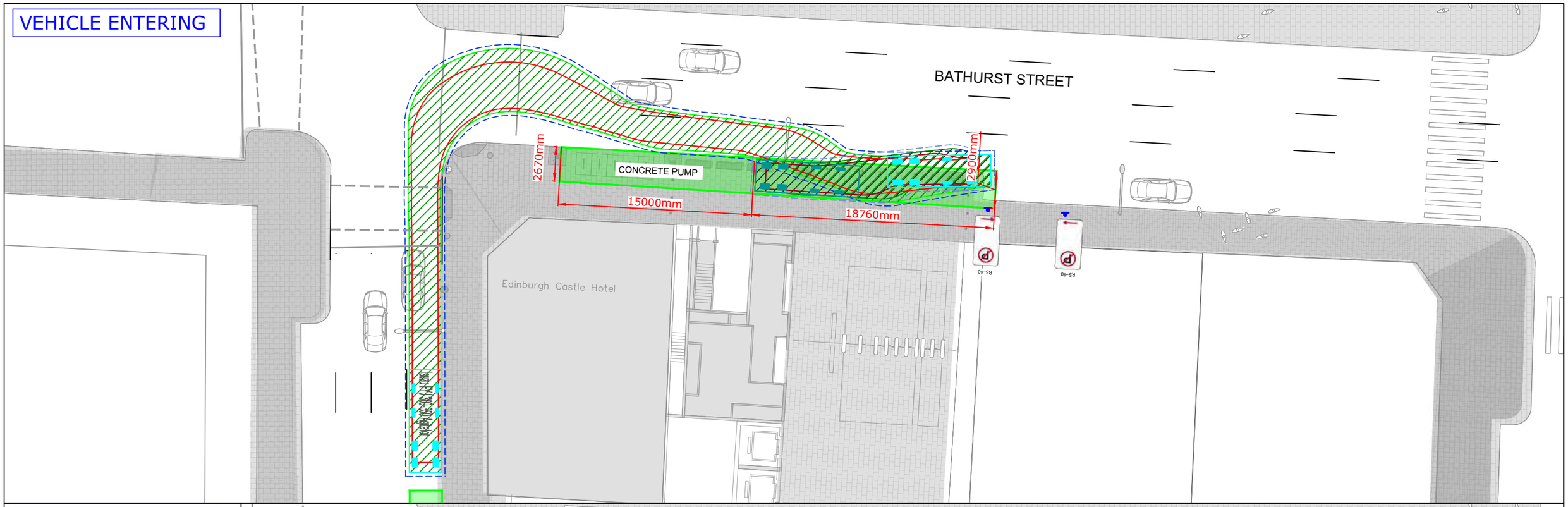
DWG No. 19433CAD006
FIGURE 16

DATE STAMP 07 MAY 2020

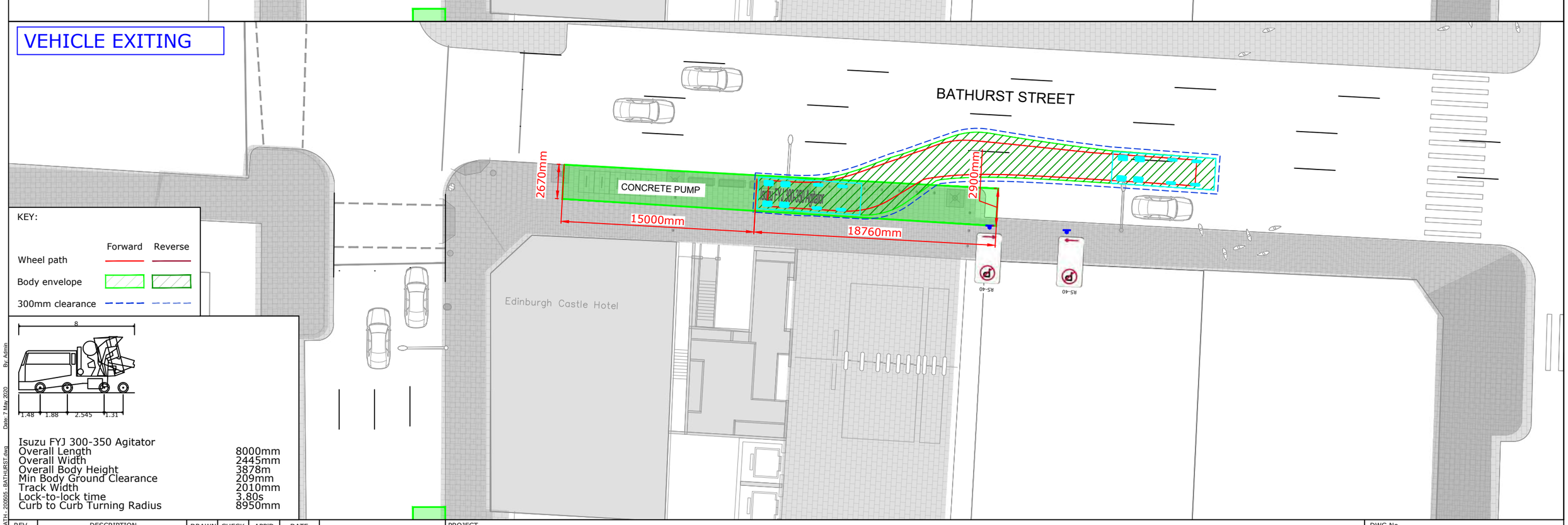
PROJECT No. 19433 | SCALE 1:400 @A3 | REV. A

Filename: 19433CAD006 - SWEPT PATH - 200505 - PITT.dwg
Date: 7 May 2020
By: Admin

VEHICLE ENTERING



VEHICLE EXITING



KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Isuzu FYJ 300-350 Agitator

Overall Length	8000mm
Overall Width	2445mm
Overall Body Height	3878m
Min Body Ground Clearance	209mm
Track Width	2010mm
Lock-to-lock time	3.80s
Curb to Curb Turning Radius	8950mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.0m AGITATOR

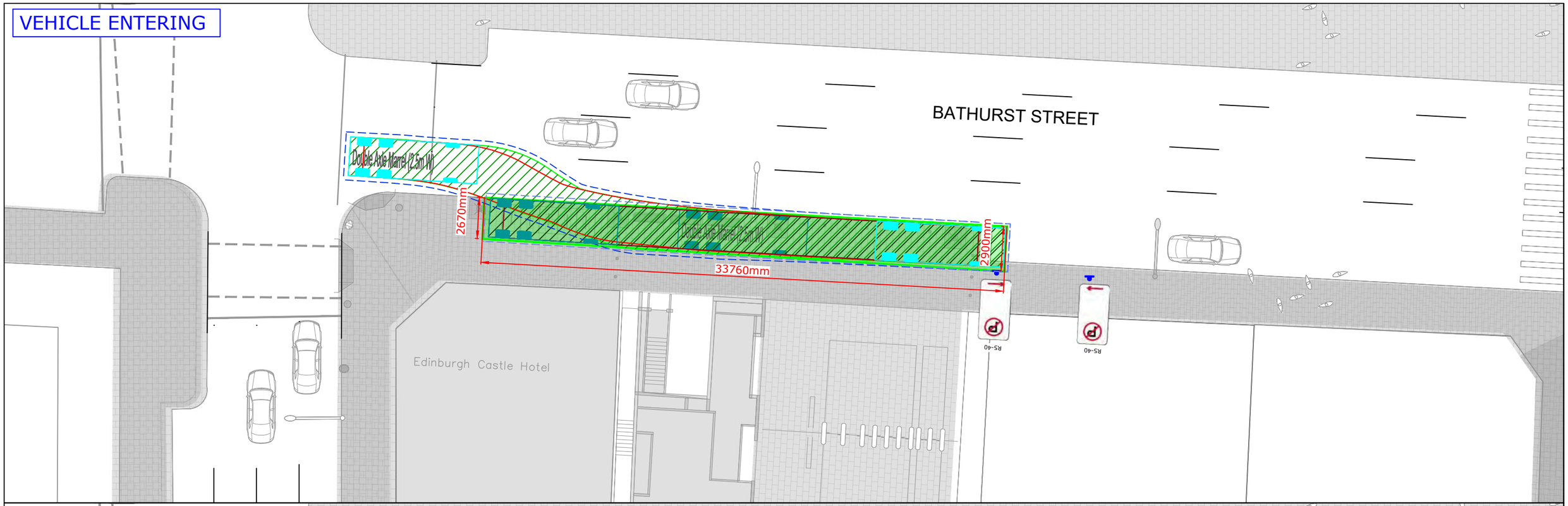
DWG No. 19433CAD006
FIGURE 17

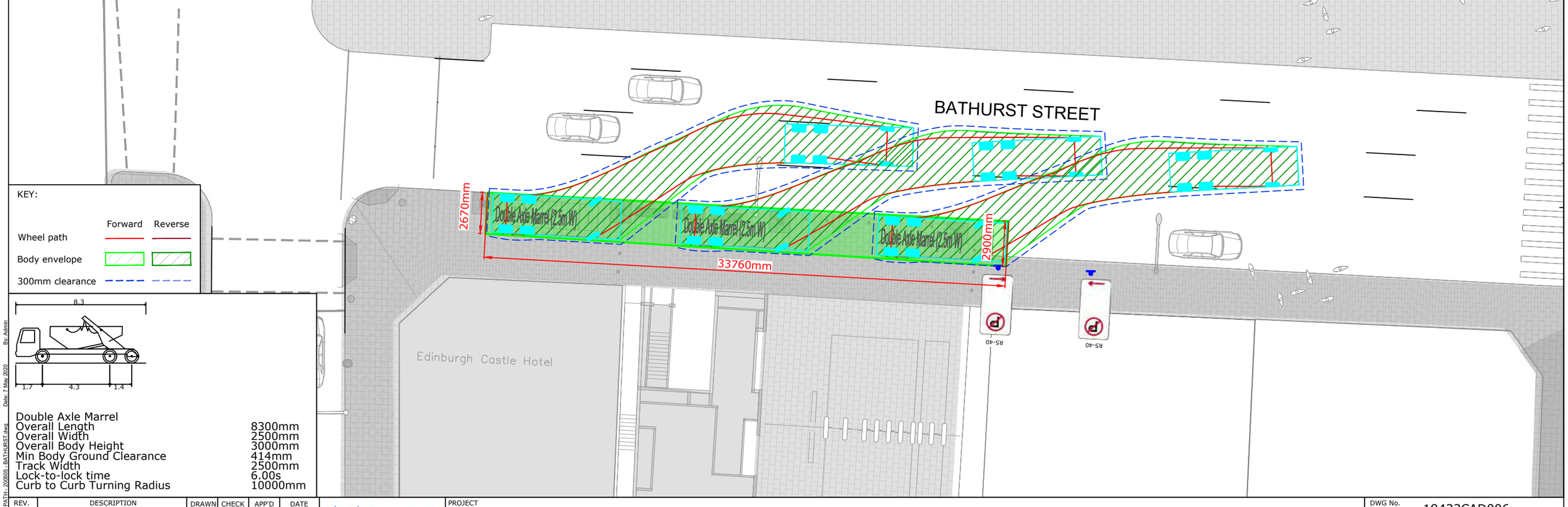
DATE STAMP: 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:300 @A3	A

Filename: 19433CAD006 - SWEPT PATH - 200505 - BATHURST.dwg
Date: 7 May 2020
By: Admin

VEHICLE ENTERING





KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Double Axle Marrel	
Overall Length	8300mm
Overall Width	2500mm
Overall Body Height	3000mm
Min Body Ground Clearance	414mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.3m DOUBLE AXLE MARREL

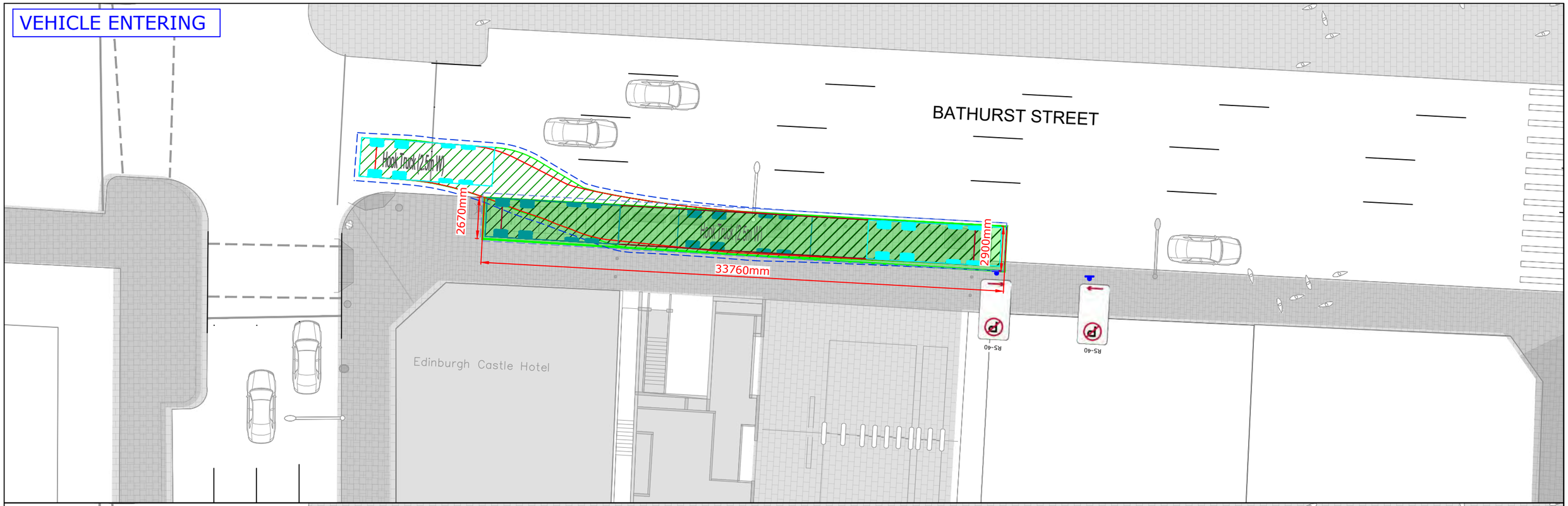
DWG No. 19433CAD006
FIGURE 18

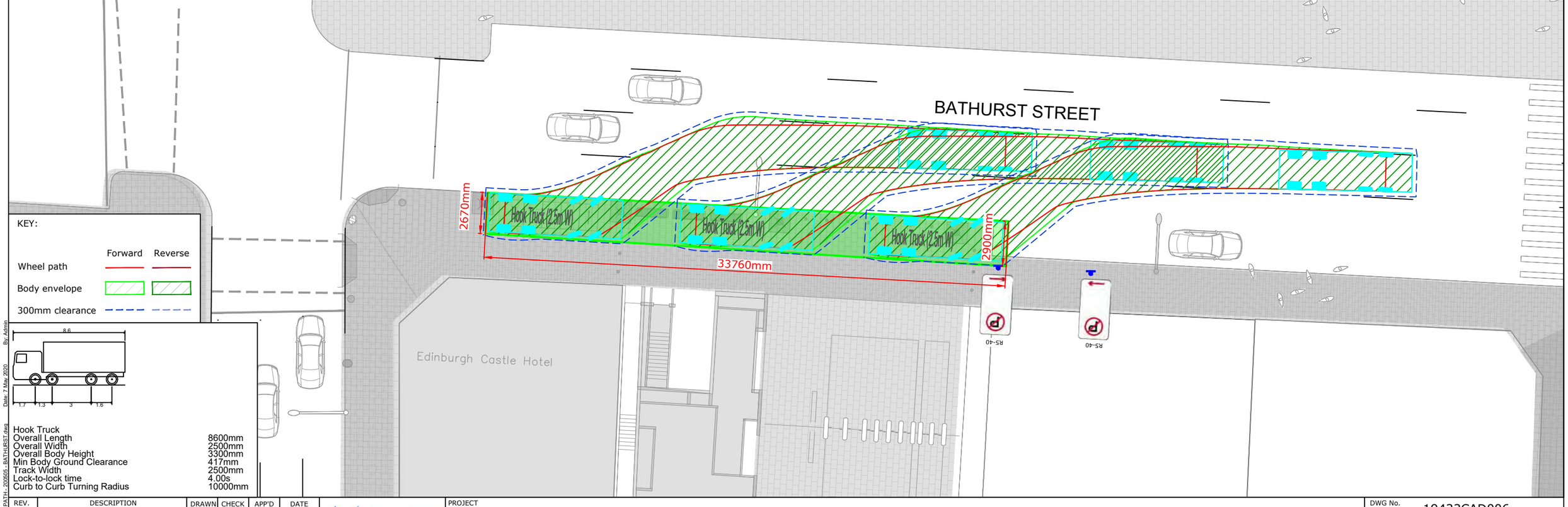
DATE STAMP 07 MAY 2020

PROJECT No. 19433 | SCALE 1:250 @A3 | REV. A

By: Admin
Date: 7 May 2020
Filename: 19433CAD006 - SWEPT PATH - 200505 - BATHURST.dwg

VEHICLE ENTERING





KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

Hook Truck	
Overall Length	8600mm
Overall Width	2500mm
Overall Body Height	3300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10000mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
8.6m HOOK TRUCK

DWG No. 19433CAD006
FIGURE 19

DATE STAMP: 07 MAY 2020

PROJECT No. 19433 | SCALE 1:250 @A3 | REV. A

By: Admin
Date: 7 May 2020
Filename: 19433CAD006 - SWEPT PATH - 200505 - BATHURST.dwg

VEHICLE ENTERING

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		

HRV - Heavy Rigid Vehicle	
Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (BATHURST STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 19433CAD006
FIGURE 20

DATE STAMP: 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:250 @A3	A

By: Admin
Date: 7 May 2020
Filename: 19433CAD006 - SWEPT PATH - 200508 - BATHURST.dwg

VEHICLE ENTERING

VEHICLE EXITING

Edinburgh Castle Hotel

PITT STREET

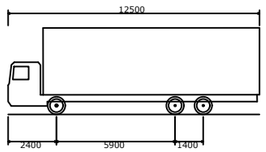
19660mm

32520mm

2510mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
300mm clearance		



HRV - Heavy Rigid Vehicle

Overall Length	12500mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	417mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12500mm

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	WJ	07/05/20

ttpp transport planning

PROJECT: PITT STREET STATION

TITLE: SWEPT PATH ANALYSIS- SOUTH SITE (PITT STREET)
AS2890.2 12.5m HEAVY RIGID VEHICLE

DWG No. 19433CAD006 FIGURE 21

DATE STAMP 07 MAY 2020

PROJECT No.	SCALE	REV.
19433	1:400 @A3	A

Filename: 19433CAD006 - SWEPT PATH - 200505 - PITT.dwg Date: 7 May 2020 By: Admin

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@ttpp.net.au

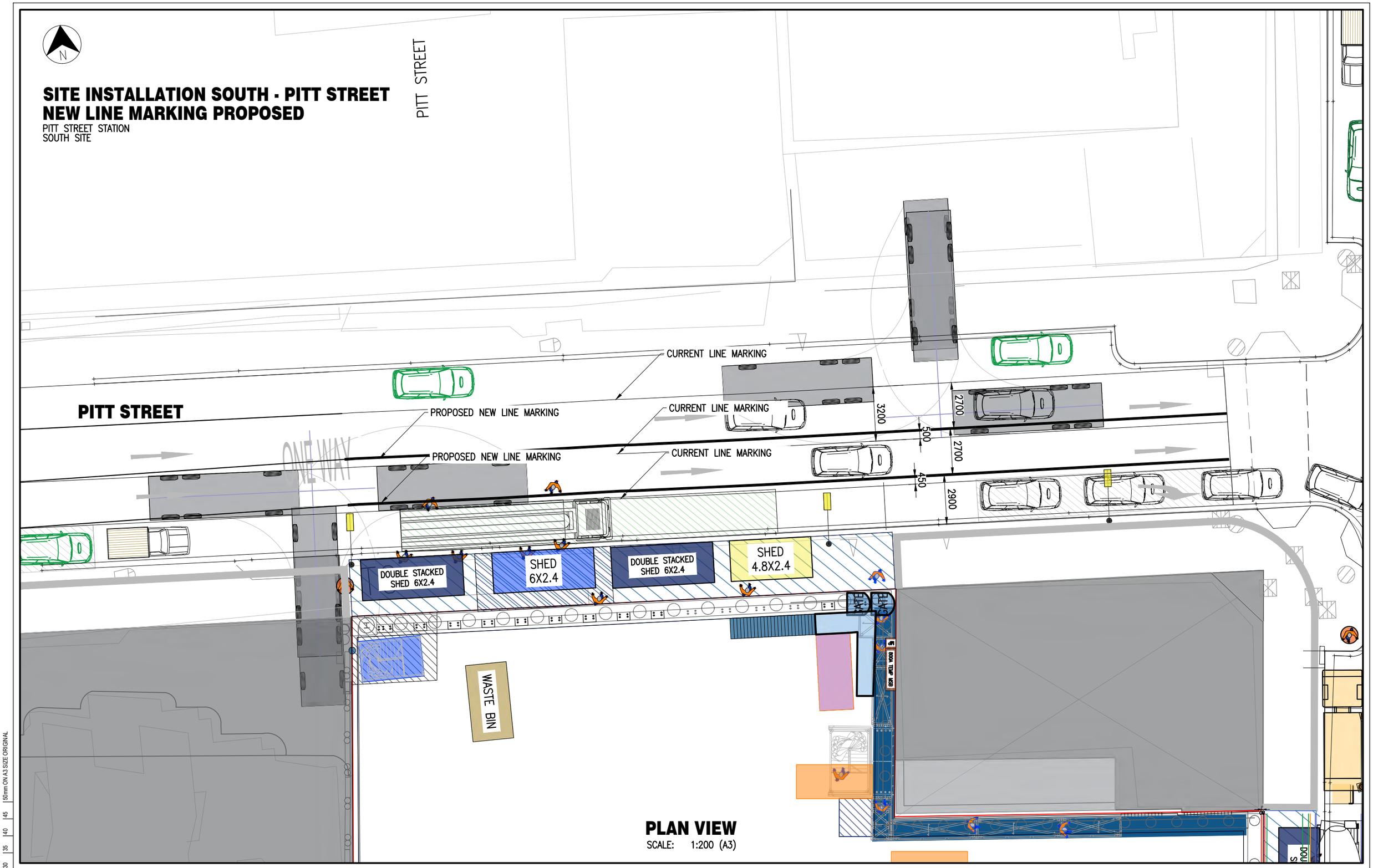
www.ttpp.net.au

Appendix F

Concept Drawings for Pitt Street South and Bathurst Street Line Marking

SITE INSTALLATION SOUTH - PITT STREET
NEW LINE MARKING PROPOSED

PITT STREET STATION
SOUTH SITE



PLAN VIEW
SCALE: 1:200 (A3)

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION / NAME \\006nfN01070-PittStSD\Delivery\CS Construction\Working Folder\AP NW DC\2. SITE INSTALLATION\PT-MT-08-traffic bathurst street.dwg				DESIGN LOT CODE ..	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	PLOT DATE / TIME 15/01/2020 3:57:54 PM	PLOT BY nwalter
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY
..	..	..-..-..	..	..	..	CO-ORDINATE SYSTEM: MGA ZONE 56 (GDA94) HEIGHT DATUM: AHD	COMPANY NAME / LOGO

TITLE	NAME	DATE
DRAWN	N. WALTER	..
DRG CHECK		
DESIGN		
DESIGN CHECK		
DESIGN MNGR		
PROJECT MNGR		

CLIENT: NSW GOVERNMENT, sydney METRO

PREPARED FOR: Sydney Metro

SYDNEY METRO
PITT STREET STATION
METHODOLOGY AND CONSTRUCTABILITY
Site installation
..
..

A3

EDMS REGISTRATION No. SMCSWSPS-CPB-PSN-CM-DWG-00004 | PART

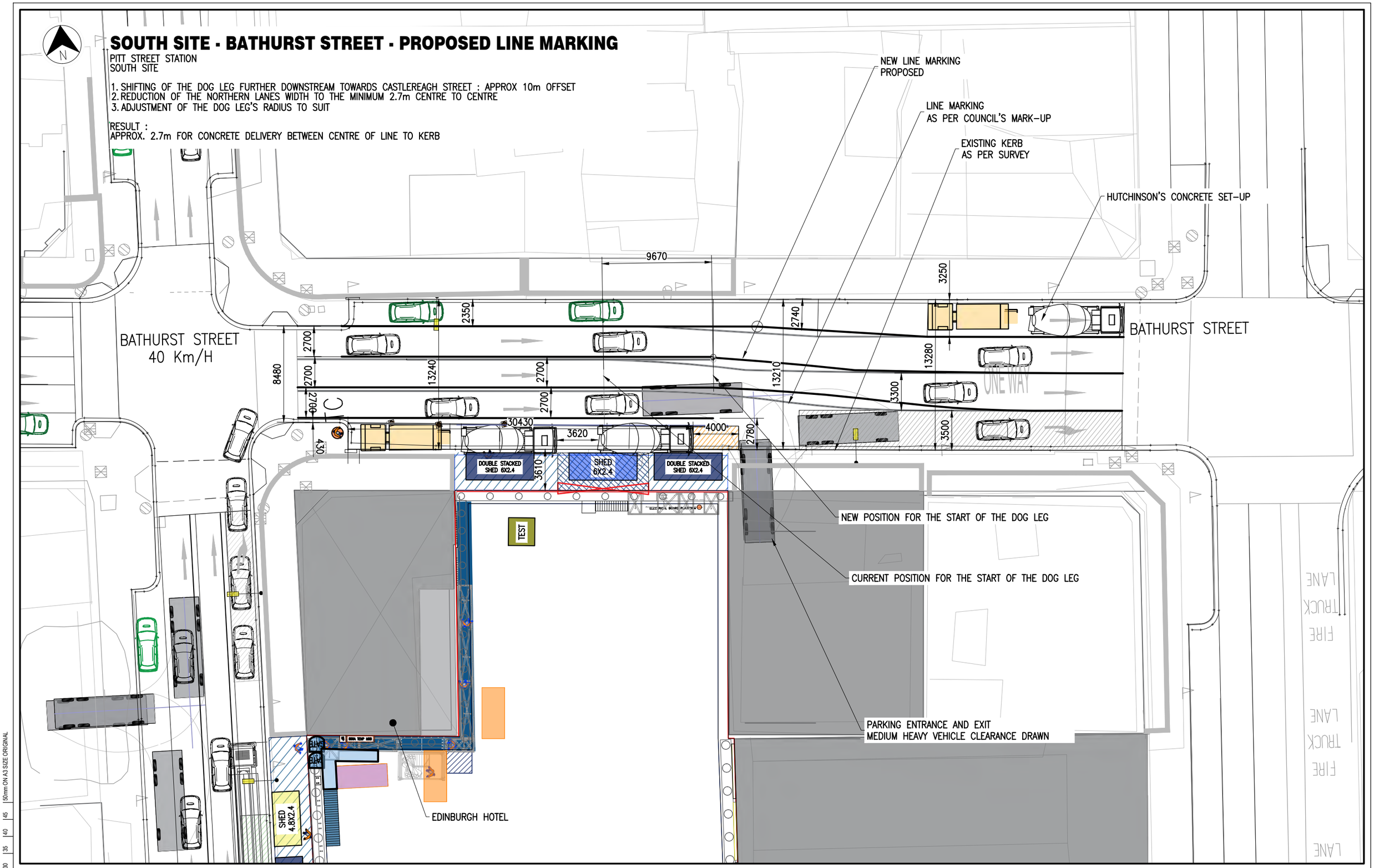
ISSUE STATUS	EDMS No.	SHEET No.	ISSUE
DESIGN STAGE - DESIGN PHASE	..	XX-0000	A

SOUTH SITE - BATHURST STREET - PROPOSED LINE MARKING

PITT STREET STATION
SOUTH SITE

1. SHIFTING OF THE DOG LEG FURTHER DOWNSTREAM TOWARDS CASTLEREAGH STREET : APPROX 10m OFFSET
2. REDUCTION OF THE NORTHERN LANES WIDTH TO THE MINIMUM 2.7m CENTRE TO CENTRE
3. ADJUSTMENT OF THE DOG LEG'S RADIUS TO SUIT

RESULT :
APPROX. 2.7m FOR CONCRETE DELIVERY BETWEEN CENTRE OF LINE TO KERB

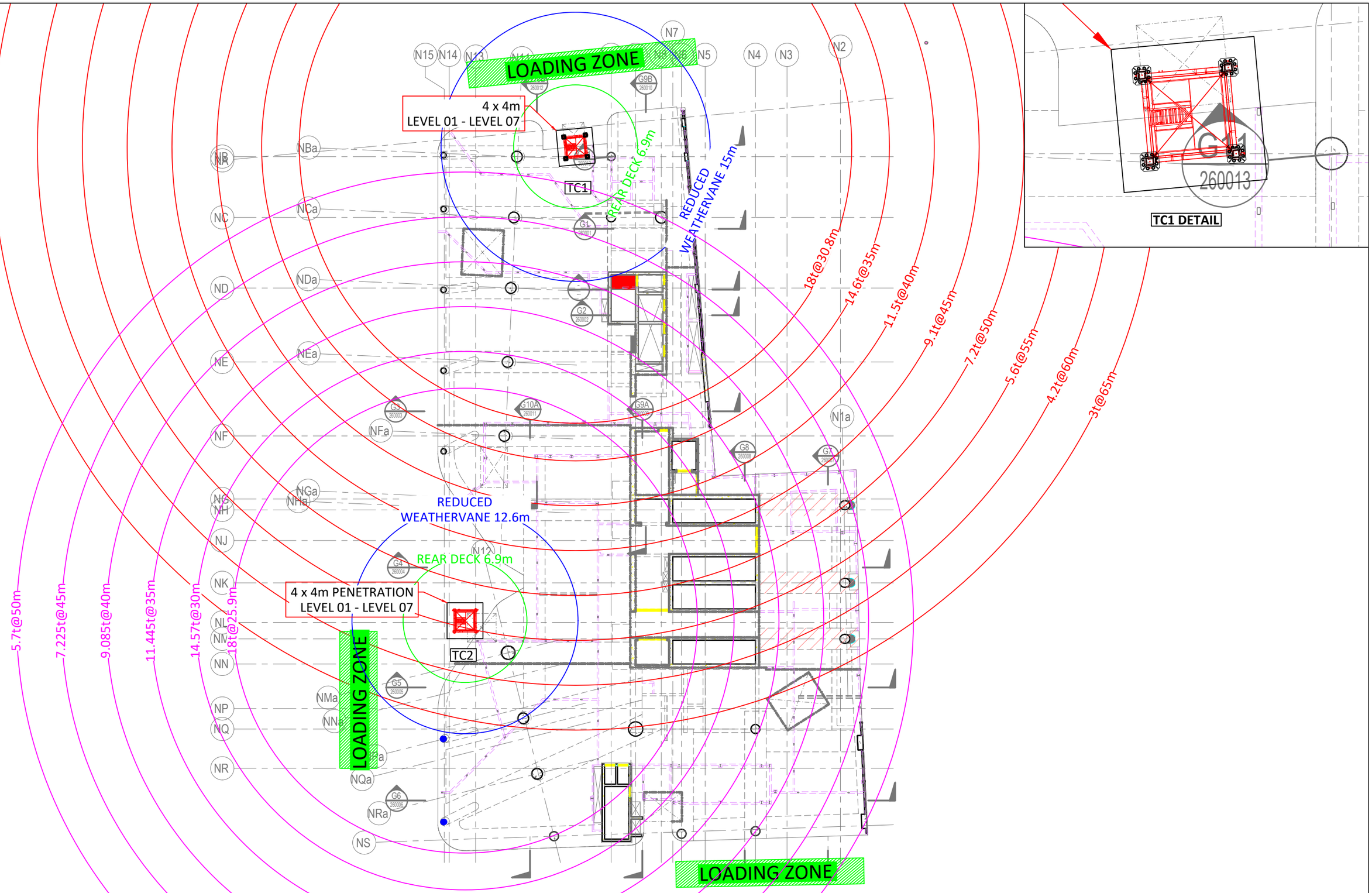


THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION / NAME \\006nf\N01070-PittStSD\Delivery\CS Construction\Working Folder\2. METHODS\8. SITE INSTALLATION\PT-MT-08-traffic bathurst street.dwg				DESIGN LOT CODE ..	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME 15/01/2020 3:57:54 PM	PLOT BY nwalter		CLIENT	SYDNEY METRO PITT STREET STATION METHODOLOGY AND CONSTRUCTABILITY Site installation .. ..
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE		A3
..	..	-.-.-.	..	..	..		COMPANY NAME / LOGO	DRAWN	N. WALTER	..		
								DRG CHECK				
								DESIGN				
								DESIGN CHECK			PREPARED FOR Sydney Metro	
								DESIGN MNGR				
						CO-ORDINATE SYSTEM MGA ZONE 56 (GDA94)	HEIGHT DATUM AHD	PROJECT MNGR			Drawing No. SMCSWSPS-CPB-PSN-CM-DWG-00004	PART
											ISSUE STATUS DESIGN STAGE - DESIGN PHASE	EDMS No. ..	SHEET No. XX-0000	ISSUE A

Appendix G

Crane Details (Over Station Development)



DWG NO. SMCSWSPS-TCR-PSN-TW-DWG000200

TITAN GROUP OF COMPANIES
TOWER CRANES, MOBILE CRANES, CONSTRUCTION HOISTS & RIGGING
ADELAIDE/ACT/BRISBANE/MELBOURNE/ PERTH/SYDNEY/NEW ZEALAND
HEAD OFFICE
7 CURTIS RD, MULGRAVE
NSW 2765
+61 1300 30 40 52

Client: CPB CONTRACTORS

Project: PITT STREET, SYDNEY

Drawing: Level 05

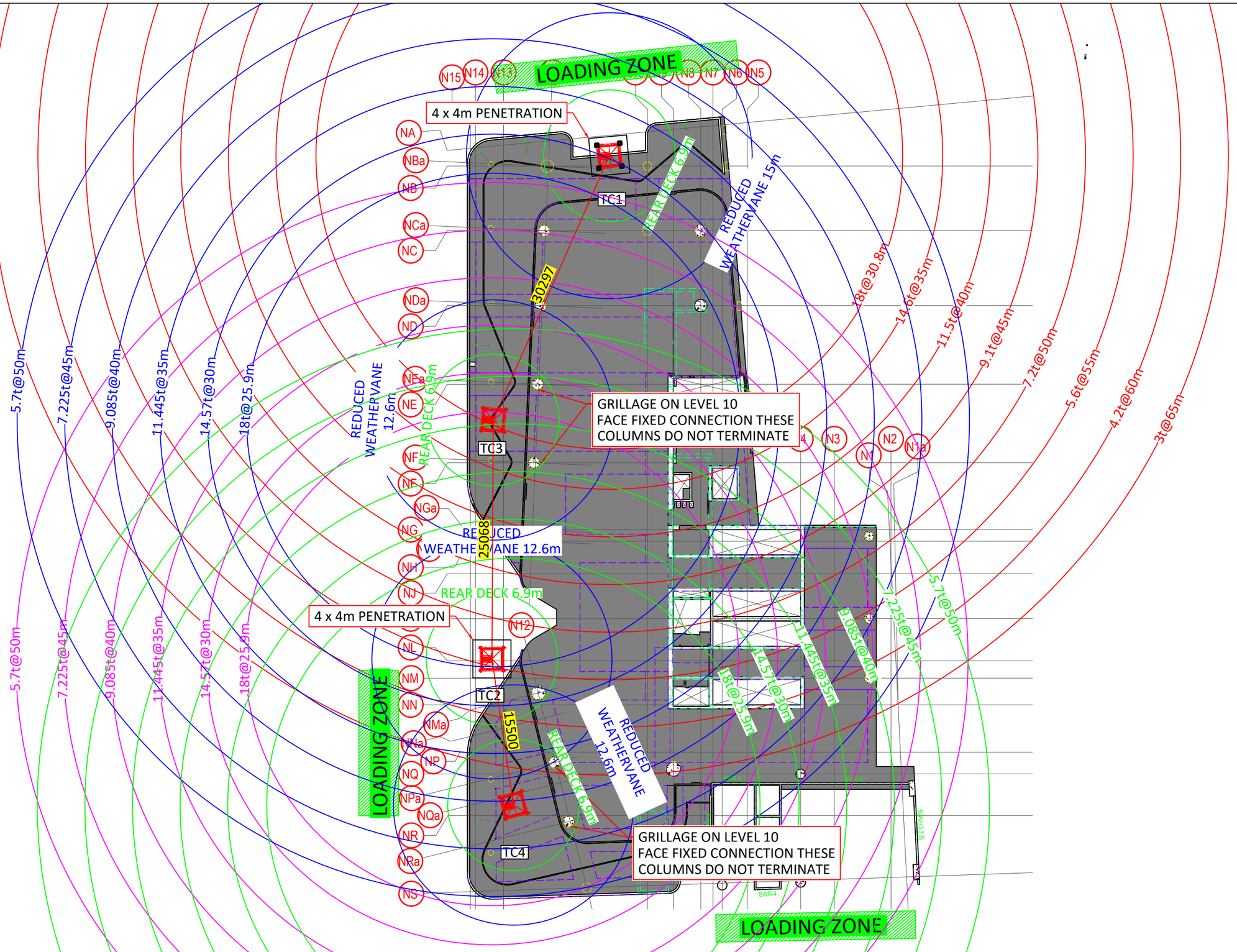
CRANE	MODEL	JIB	MAX CAPACITY	TOWERS	HUH
TC1	Jaso J380	50m-65m	36t-18t	8	x
TC2	Jaso J280	50m	18t	12	x
TC3	Jaso J280	50m	18t	20	x
TC4	Jaso J280	50m	18t	20	x

NOT FOR CONSTRUCTION

Rev	Description	Drn.	Chk.	Date
P1	Information	AK	-	27.07.21
P2	Revise crane locations	AK	-	28.07.21

Sheet No. T103 | Scale 1:400 @ A3 | Drawn By AK

Current Revision P2



DWG NO. SMCSWSPS-TCR-PSN-TW-DWG000201

TITAN GROUP OF COMPANIES
TOWER CRANES, MOBILE CRANES, CONSTRUCTION HOISTS & RIGGING
ADELAIDE/ACT/BRISBANE/MELBOURNE/ PERTH/SYDNEY/NEW ZEALAND
HEAD OFFICE
7 CURTIS RD, MULGRAVE
NSW 2765
+61 1300 30 40 52

Client: CPB CONTRACTORS

Project: PITT STREET, SYDNEY

Drawing: Level 10

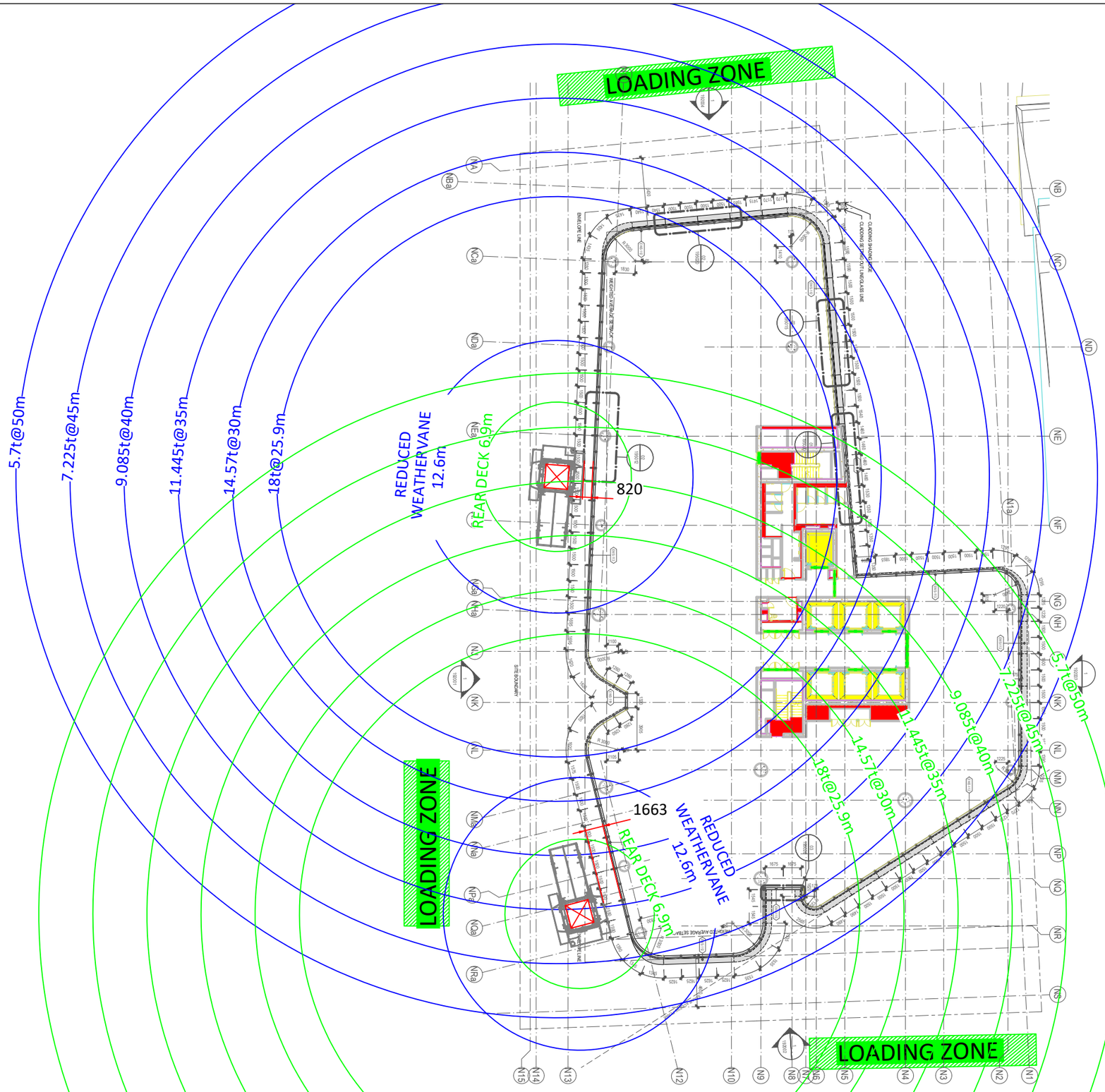
CRANE	MODEL	JIB	MAX CAPACITY	TOWERS	HUH
TC1	Jaso J380	50m-65m	36t-18t	8	x
TC2	Jaso J280	50m	18t	12	x
TC3	Jaso J280	50m	18t	20	x
TC4	Jaso J280	50m	18t	20	x

NOT FOR CONSTRUCTION

Rev	Description	Drn.	Chk.	Date
P1	Information	AK	-	27.07.21
P2	Revise crane locations	AK	-	28.07.21

Sheet No. T104 | Scale 1:400 @ A3 | Drawn By AK

Current Revision P2



DWG NO. SMCSWSPS-TCR-PSN-TW-DWG000202

TITAN GROUP OF COMPANIES
TOWER CRANES, MOBILE CRANES, CONSTRUCTION HOISTS & RIGGING
ADELAIDE/ACT/BRISBANE/MELBOURNE/ PERTH/SYDNEY/NEW ZEALAND
HEAD OFFICE
7 CURTIS RD, MULGRAVE
NSW 2765
+61 1300 30 40 52

Client: CPB CONTRACTORS

Project: PITT STREET, SYDNEY

Drawing: Level 13-35 TYP FACADE DETAIL

CRANE	MODEL	JIB	MAX CAPACITY	TOWERS	HUH
TC1	Jaso J380	50m-65m	36t-18t	8	x
TC2	Jaso J280	50m	18t	12	x
TC3	Jaso J280	50m	18t	20	x
TC4	Jaso J280	50m	18t	20	x

NOT FOR CONSTRUCTION

Rev	Description	Drn.	Chk.	Date
P1	Information	AK	-	27.07.21
P2	Revise crane locations	AK	-	28.07.21

Sheet No. T106 | Scale 1:400 @ A3 | Drawn By AK

Current Revision P2

RADIAL PLAN REPRESENTS
THE CRANE AT 90% CAPACITY

8.46t@40m

10.55t@35m

13.29t@30m

16.2t@26m

WEATHERVANE 16m

REAR DECK 6.9m

PITT STREET

LOT 10 - DP1255507
NEW METRO STATION UNDER CONSTRUCTION

MGA NORTH → DP1255507

BATHURST STREET

DWG NO. SMCSWSPS-TCR-PSS-TW-DWG-002000

TITAN GROUP OF COMPANIES
TOWER CRANES, MOBILE CRANES,
CONSTRUCTION HOISTS & RIGGING
ADELAIDE/ACT/BRISBANE/MELBOURNE/
PERTH/SYDNEY/NEW ZEALAND
HEAD OFFICE
7 CURTIS RD, MULGRAVE
NSW 2765
+61 1300 30 40 52

Client: CPB CONTRACTORS

Project: PITT STREET SOUTH, SYDNEY

Drawing: SITE OVERLAY

CRANE	MODEL	JIB	MAX CAPACITY	TOWERS	HUH
TC5	Jaso J280	40m	18t	TSR17 INTERNAL	x

NOT FOR CONSTRUCTION

Rev	Description	Drn.	Chk.	Date
...	...	...	...	...
P6	Update building overlay	AK	-	16.10.20
P7	Update drawing	AK	-	23.10.20
P8	Update Radial	AK	-	05.11.20
P9	Update Elevation	AK	-	30.11.20

Sheet No. T100 | Scale 1:400 @ A3 | Drawn By AK

Current Revision P9 | Quote: 2992

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