

Australian Technology Park, Eveleigh Locomotive Workshop Development Construction Pedestrian & Traffic

Client // Mirvac Projects Pty Ltd

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GTAconsultants

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1. Introduction

1.1 Preface

This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The Application (referred to as SSDA 8449) seeks approval for the adaptive reuse and redevelopment of the western portion of the Locomotive Workshop Building (being Bays 5-15) within Australian Technology Park (ATP), Eveleigh as described in the Project Description section of this report.

The Application (referred to as SSDA 8517) seeks approval for the adaptive reuse and redevelopment of the eastern portion of the Locomotive Workshop (being Bays 1-4a) within the Australian Technology Park (ATP), Eveleigh as described in the Proposed Development Description section of this report.

This report speaks to the management of construction traffic for both SSDAs.

The ATP site has been continuously developed since its establishment in 1996, but has been underutilised as a technology and business precinct for some time. UrbanGrowth NSW has actively encouraged new development and employment opportunities at the site for the past 15 years, and Mirvac intends to continue with this and deliver upon the precinct's full potential.

1.2 Background

Historically, ATP was used for railway maintenance, storage and other associated industries. Use of the site as marshalling yards and workshops formed part of a large railway-based precinct on both sides of the main railway line, dating from 1882 and growing in size until its closure in 1989. Since this time, the precinct has been progressively redeveloped and repurposed.

In 2014, the NSW Government resolved to offer development sites within the ATP for sale through a selective tender process conducted by Urban Growth NSW Development Corporation (UGDC). In November 2015 Mirvac Projects Pty Ltd (Mirvac) was named as the successful party and ownership and development rights of the precinct were subsequently transferred.

In December 2015, an SSDA was submitted to the Department of Planning & Environment for a multi-building redevelopment (i.e. Buildings 1, 2 and 3 shown in Figure 2) of the ATP to provide new commercial office, retail and community uses and a significant upgrade to the ATP public domain. Following public exhibition, and the submission of additional information, the development was approved by the Planning Assessment Commission on 20 December 2016. The construction of Buildings 1, 2 and 3 is currently underway.

The redevelopment of the Locomotive Workshop is also part of Mirvac's redevelopment strategy for the ATP. The Locomotive Workshop building is to be redeveloped in its entirety, however planning approvals are sought through the submission of two separate SSDAs. This Application relates to the western portion of the Building and is envisaged to be the next phase of urban regeneration within the ATP.

The proposed development within the Locomotive Workshop seeks to create up to a maximum of 27,866sqm for employment uses. It is noted that the retail land uses component within Bays 5-15 are predominantly intended to service employees of ATP and the surrounding residents, rather than



operate as a traditional standalone or destination centre. The major retail floor space is subject to a separate Development Application with the indicative maximum yields of 11,940sqm for retail and 1,206sqm of light industrial land uses. The proposed development is also in addition the existing approval for Buildings 1 and 2, which once complete will deliver 107,400sqm of additional floor area. These Building are currently under construction (as of 2017).

1.3 Project Context

This construction pedestrian and traffic management plan (CPTMP) accompanies a State Significant Development (SSD) application relating to the redevelopment of the existing Locomotive Workshop building within the Australian Technology Park (ATP). The SSD applications seek approval for two components, retail and commercial. Mirvac has commissioned GTA Consultants (GTA) to prepare the CPTMP to examine the impacts of the construction works on the surrounding road network and to detail the proposed construction traffic and pedestrian management measures.

This CPTMP has been prepared in accordance with the City of Sydney Standard Requirements for Construction Traffic Management Plans and Mirvac proposes to undertake all works in accordance with this CPTMP. The requirements are attached in Appendix Error! Reference source not found..

The overall principles of traffic management during the construction activity include:

- o provide an appropriate and convenient environment for pedestrians
- o minimise the impact on pedestrian movements
- minimise the impact on cyclist movements
- o maintain appropriate capacity for pedestrians at all times on footpaths around the site
- maintain appropriate public transport access
- o minimise the loss of parking wherever possible/applicable
- maintain access to/from adjacent buildings
- o restrict construction vehicle movements to designated routes to/from the site
- manage and control construction vehicle activity in the vicinity of the site
- carry out construction activity in accordance with City of Sydney's approved hours of works.

1.4 Purpose of this Report

This report addresses the traffic and transport impacts during the construction phases of the redevelopment of the Locomotive Workshops to satisfy the Secretary's Environmental Assessment Requirements (SEARs).

The objectives of this report are to:

- provide a detailed description of the project and construction activities
- examine and consider the proposal's likely impact to traffic on the surrounding road network
- provide mitigating measures to address any traffic and transport impacts
- provide a Green Travel Plan for workers.

This report has been prepared and checked by engineers who hold the Roads and Maritime Services (RMS) Prepare a Work Zone Traffic Management Plan accreditation:

o Mackenzie Brinums: certificate no. 0051848769.



1.5 References

In preparing this report, reference has been made to the following:

- o an inspection of the site and its surroundings
- Procedures for use in the Preparation of a Traffic Management Plan (TMP), RMS, December 2001 (Version 2.0)
- Traffic Control at Work Sites manual, RMS, July 2018
- Australian Standard AS1742.3 2009 'Manual of Uniform Traffic Control Devices Part 3: Traffic control for works on roads'.

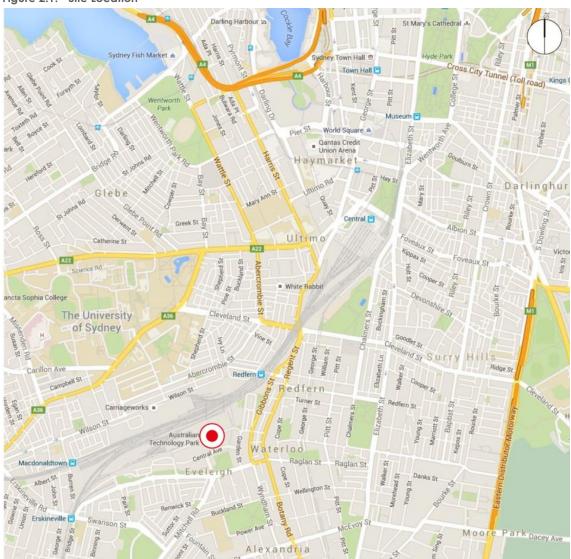
2. Existing Conditions

2.1 Site Description

The ATP site is located approximately 5km south of the Sydney CBD, 8km north of Sydney airport and within 300m of Redfern Railway Station. The site, with an overall area of some 13.2 hectares, is located within the City of Sydney local government area (LGA).

Figure 2.1 provides a graphic representation of the site location and broader context, with Figure 2.2 providing an aerial image of the ATP site and Figure 2.3 providing site context in relation to the other site developments.

Figure 2.1: Site Location



The Site



Figure 2.2: Existing Site Layout



The ATP Precinct

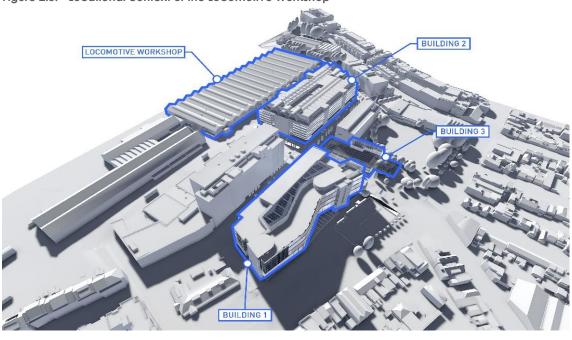


Figure 2.3: Locational context of the Locomotive Workshop

2.2 Road Network

2.2.1 Overview

The subject site is generally bounded by local streets with Garden Street and Cornwallis Street located to its east and Henderson Road located to its south. On the site's northern boundary runs the railway line. The ATP site is accessed by two internal roads, namely at Central Avenue from Garden Street and Davy Road from Henderson Road. A description of the roads in the immediate vicinity of the site is summarised below.

Henderson Road

Henderson Road is a two-way road aligned in an east-west direction.

Henderson Road is a four-lane road to the east of Davy Road and a two-lane road to the west of Davy Road. Henderson Road is a regional road which is owned by Roads and Maritime Services (RMS), but maintained by Council with funding from the State Government. It contains a carriageway width of 14 to 17 metres within an approximately 25 metre road reserve.

At intersections, Henderson Road includes auxiliary turning lanes. Kerbside parking lanes are also available on both sides of the road.

Garden Street

Garden Street is a two-way, two-lane local road aligned in the north-south direction.

It has a 12 metre wide carriageway with kerbside parking within a 25 metre wide road reserve. North of Central Avenue, the carriageway widens to allow 90 degree parking on the western side of the road. Garden Street bends to the east at its intersection with Cornwallis Street and continues in an east-west alignment to the Gibbons Street intersection with Wyndham Street.



Cornwallis Street

Cornwallis Street continues in a north-south alignment from Garden Street to Redfern Station. Cornwallis Street is a one-way local road in the southbound direction configured with a 6 metre carriageway within a 12 metre wide road reserve. Kerbside parking is permitted on the eastern side of the road.

ATP Internal Roads

Locomotive Street is an internal two-way road configured with kerb along its southern side and bollards and planter boxes along the northern side, on a 6m wide carriageway.

Central Avenue is an internal two-way road configured with two lanes separated by a central median, on a 20 metre wide carriageway and with a 30 metre wide road reserve.

Davy Road is an internal two-way road configured with four lanes separated by a central median on a 15 metre carriageway and a 25 metre wide road reserve. At the intersection with Henderson Road, Davy Road includes an additional southbound, right turn lane.

Locomotive Street, Central Avenue and Davy Road are private roads.

2.2.2 Surrounding Intersections

The following intersections currently exist in the vicinity of the site:

- Henderson Road-Davy Road-Mitchell Road (signalised)
- Henderson Road-Garden Street(signalised)
- Garden Street-Central Avenue (non-signalised)
- Garden Street-Cornwallis Street-Locomotive Street (non-signalised), and
- Henderson Road-Alexander Street (roundabout).

2.3 Public Transport

2.3.1 Train Services

Existing

Redfern Railway Station is located approximately 300m north-east of the ATP site and is within a 4 minute walk. The station is a major stop in the Sydney Trains network, with frequent services on four rail lines, namely T1 North Shore, Northern & Western Line, T2 Airport, Inner West & South Line, T3 Bankstown Line, T4 Eastern Suburbs & Illawarra Line. The services are shown in Table 2.1.

Table 2.1: Rail Service Provision

Lines	Frequency Peak Period	Frequency Off Peak
T1 North Sore, Northern & Western Line	3 minutes	4 minutes
T2 Airport, Inner West & South Line	5 minutes	5-15 minutes
T3 Bankstown Line	10-15 minutes	15 minutes
T4 Eastern Suburbs & Illawarra Line	3 minutes	5-10 minutes

Data Source: www.transportnsw.info (accessed 24 July 2017)

2.3.2 Bus Services

Regular scheduled bus services also service the area. Bus stops are located within 2 minute walking distance from the site including on Henderson Road and Wyndham Street. The available bus services are summarised in Table 2.6.



Table 2.2: Bus Service Provision

Service	Route	Route Description	Location of Stop	Distance to Nearest Stop	Frequency On/Off Peak
Bus	305	Mascot (Stamford Hotel) to Railway Square	Wyndham St near Boundary Street	120m	30 minutes 6am to 9am and 3pm to 6.30pm
Bus	308	Marrickville Metro to City	Wyndham St near Boundary Street	120m	15 minutes peak/ 30 minutes off peak
Bus	309	Port Botany to Railway Square	Wyndham St near Boundary Street	120m	5-15 minutes peak/ 20 minutes off peak
Bus	310	Eastgardens to Railway Square	Wyndham St near Boundary Street	120m	15 minutes peak/ 20 minutes off peak

Data Source: www.transportnsw.info (accessed 24 July 2017)

2.4 Pedestrian Infrastructure

Pedestrian footpaths are located on both sides of all streets, surrounding and internal to the site.

Public roads include footpath widths of 1.5-2 metres along Henderson Road, and 2.5 metres along Garden Street. Locomotive Street has a 1.8 metre wide pedestrian path which runs along its northern side. Hoarding for the construction of Building 2 currently sits along the southern edge of Locomotive Street which prevents any pedestrian activity along this area.

Marked foot crossings are provided at all signalised intersections within the area including along Henderson Road, and on the western and southern legs of the Wyndham and Garden Street intersection, which is located on the way to Redfern Railway Station from the site.

2.5 Cycle Infrastructure

The ATP site is well situated within Sydney's cycle network with cycle routes surrounding the site and an off-road cycle route passing the site itself. A shared path between Henderson Road and Cornwallis Road runs through the site via the Vice Chancellors Oval and Mitchell Way (internal road).

Bicycle parking facilities are provided throughout the ATP site with bicycle racks located at the following locations:

- the top of Cornwallis Street
- Innovation Plaza
- 8 Central Avenue
- near the Biomedical Building, and
- at Mitchell Way.

The bicycle network surrounding the site is shown in Figure 2.4.



Royal Prince Hospital

St Andrew's College Alfred Hospital

Aber cromble

Redfert 1

Aber cromble

Redfert 2

Aber crombl

Figure 2.4: Cycle Network

Source: http://www.sydneycycleways.net/map/ (accessed 05 November 2015)

2.6 Existing Car Parking Supply

At the time this report was prepared, the B1, B2 and B3 developments were under construction. As such, the parking supply at the site is reflective of this and is follows:

Spaces accessible from Davy Road, Central Avenue and Locomotive Street:

0	Sub-Total	739 spaces
0	Locomotive Workshop	4 spaces
0	Biomedical Building Staff Parking	33 spaces
0	Channel 7 Building Staff Parking	339 spaces
0	Channel 7 Building Visitor Parking	363 spaces

Spaces not accessible from Davy Road, Central Avenue and Locomotive Street:

0	Tot	al	826 spaces
	0	Sub-total	87 spaces
	0	IBC Building	17 spaces
	0	NIC Building	4 spaces
	0	Nicta Building	66 spaces



3. Overview of Construction Activities

3.1 Description of Construction Activities

The following works are to be undertaken under this project:

- o site preparation works, including interior demolition and strip-out of existing services
- construction and remediation of structure and roof
- commissioning, fit-out and façade works.

The project is scheduled to be carried out in stages with works to commence in early 2019 and to be completed by early 2021. Importantly, this timeframe coincides with the construction programme for Buildings 1, 2 and 3. Works will overlap with the existing construction associated with Buildings 1, 2 and 3. The stages 1 are generally to be completed as follows:

0	Site establishment/ strip-out/ demolition	4 months
0	Structure and roof works	6 months
0	Fit-out/ commissioning/ external works	6 months
0	Bay 15 Site establishment/ strip-out/ demolition	2 months
0	Bay 15 Structure and roof works	2 months
0	Bay 15 Fit-out/ commissioning/ external works	4 months

Table 3.1: Construction Description and Duration

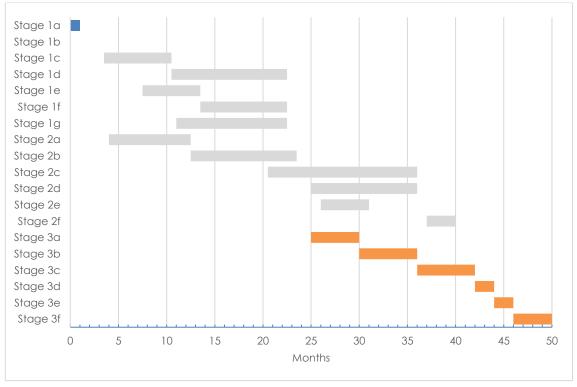
Stage	Phase	Description	Duration
	1a. Building 1 Piling Works	Foundation piling	1 month
Stage 1	1b. Building 1 Excavation	Bulk excavation and detailed excavation Below Ground Services	2.5 months
(approved works –	1c. Building 1 Structure Construction	O Construction of 12 storey structure	7 months
currently under construction)	1d. Building 1 Fit out	Fit out works for commercial, retail and childcare uses	12 months
	1e. Public Domain Works – Building 1	 Public Domain works surrounding Building 1 including Central Avenue. 	11.5 months
	2a. Building 2 and Building 3 Excavation and Piling	 Retention wall piling Bulk excavation Bulk and Detailed excavation Foundation piling Below ground services 	8.5 months
	2b . Building 2 and Building 3 Structure Construction	Construction of 7 storey structure.Construction of a 4 storey structure.	11 months
Stage 2 (approved works – currently under	2c . Building 2 and Building 3 Fit out	 Fit out works for commercial and retail uses for Building 2 Fit out works for commercial, retail & childcare uses for Building 3 	15.5 months
construction)	2d . Public Domain Works – Building 2	 Public Domain works surrounding Building 2 including roads. 	11 months
	2e . Public Domain Works – Leisure Courts	Public Domain works to Leisure Courts	5 months
	2f. Public Domain Works – Vice Chancellor's Oval	Public Domain works to Oval	3 months
	2g. Public Domain Works – Building 3	Public domain and forecourt works	3 months
Stage 3 (Locomotive	3a. Site Establishment (Begin March 2019)	Strip-out/ Demolition	5 months
Workshop)	3b. Structure and Roof Works	Above ground structural works	6 months

 $[\]ensuremath{^{\text{1}}}$ Staging is subject to changes and refinement as project progresses.



Stage	Phase	Description	Duration
		 Roofing improvement works 	
	3c. Locomotive Workshop Fit-out	Fit our works for commercial and retail uses	6 months
	3d. Demolition Bay 15	O Strip-out/Demolition	2 months
	3e. Structure and Roof Bay 15	Above ground structural works Roofing improvement works	2 months
	3f. Fit out Bay 15	O Fit our works for commercial and retail uses	4 months

Figure 3.1: Indicative Construction Staging and Duration



Note: Schedule subject to change based on final planning

3.2 Work Hours

The permitted hours of work will be conditioned in the development approval. However, construction work hours for construction sites within the City of Sydney would typically be as follows:

- o Monday to Friday 7:30 am 5:30 pm
- Saturday 7:30 am 3:30 pm
- No work will be carried out on Sundays and Public Holidays without prior approval by the relevant authorities.

Works outside of the approved hours will be subject to agreement and approval by City of Sydney Council and/or the relevant approving authority.

3.3 Contact Details

Mirvac representatives will be on-site during all construction works. The roles and contact details of key Mirvac personnel are detailed in Table 3.2.



Table 3.2: Contact Details

Organisation	Project Role	Contact Name	Contact Number
Mirvac	Senior Site Manager	Warren Henson	0411 026 687
Mirvac	Project Manager	Chris Callaghan	0414 238 368
	000		
NSW Police (Sydney City LAC)			02 8303 5199
NSW Fi	02 9698 1161		

3.4 Site Access

The project is wholly confined to the Locomotive Workshop building and immediate curtilage. As such, access arrangements are limited due to the location of the site. The only existing vehicle access to the site is via Locomotive Street. This road will provide the only site vehicle access for both entry and egress.

Disruption to the existing tenants that utilise Locomotive Street will be minimised. Loading and taxi access is to be maintained for the existing tenants at the Channel 7 building and Bay 15 within the Locomotive Workshop.

All vehicles entering and exiting Locomotive Street will do so from Garden Street via the Henderson Road intersection. No vehicles will be permitted to travel eastbound from the Locomotive Street intersection with Garden Street.

The existing Locomotive Workshop has a number of constraints, namely heritage requirements that prevent alterations to the building façade. As such, the vehicle access locations into the subject site are dictated by existing door/opening locations.

In this regard, there are three vehicle entry locations proposed to be provided. They are proposed to be located at bays 4a and 13 along the southern edge of the subject site via Locomotive Street, and at the northeast corner of the building. Refer to Figure 3.2 below.

Locomotive Street is currently boom gate controlled. During the construction period, it is proposed to have a RMS accredited traffic controller stationed at the boom gates to direct and control construction vehicles, together with assisting the management of other vehicles required to enter the site. RMS accredited traffic controllers would also ensure there is no conflict between construction vehicles, general traffic and pedestrians at all work zone access points.





Figure 3.2: Vehicle Site Access Points

3.5 Works Zone

Construction activities will involve the delivery to site of construction materials and the removal of demolition and building waste. Three works zones are proposed to be provided to facilitate these activities. These are proposed to be provided in the following locations and as shown in Figure 3.3:

- Work Zone 1 located along the eastern edge of the building. Access to this work zone
 will be via a gate at its southern end and will be traffic controlled.
- Work Zone 2 located along the southern end of the building at bays 06-08. Access to this work zone will require construction vehicles to travel to the western end of Locomotive Street and perform a U-turn. The vehicle will then enter and exit the work zone in a forward direction under traffic controller supervision.
- Work Zone 3 located along the southern end of the building at bays 10-12. Access to this work zone will require construction vehicles to travel to the western end of Locomotive Street and perform a U-turn. The vehicle will then enter and exit the work zone in a forward direction under traffic controller supervision (see swept paths for this movement in Appendix B).

The proposed works zones would be installed so as not to interrupt traffic flow along the roads and/or pedestrian amenity. These will be managed at all vehicle access point.

All works zones are proposed along internal roads within the ATP site. No work zones are proposed along public roads or footpaths. It is noted that there is an emergency vehicle zone on Locomotive Street adjacent to the Ausgrid substation, immediately east of Work Zone 2. Access to this emergency vehicle zone will be maintained at all times during construction works.



Figure 3.3: Work Zone Locations



The proposed works zones will require the removal of existing bollards and planters along the Locomotive Street frontage of the site. Pedestrian movements along Locomotive Street will be discouraged through implementation of signage to divert pedestrians to instead continue south at the pedestrian crossing and use Central Avenue. It is recognised that some pedestrians will still continue to use Locomotive Street and as such, jersey kerb with fencing will be used to separate pedestrians from general traffic along Locomotive Street on the southern side of a 1.2 metre walkway, while Class A hoarding will be used to separate pedestrians from the work zones on the northern side. This is shown indicatively in Figure 3.4. Traffic controllers will be positioned at the two works zones and site access on Locomotive Street to manage pedestrians as vehicles are entering and exiting.

Figure 3.4: Pedestrian management along Locomotive Street



3.6 Plant and Equipment

The materials and equipment required for the subject construction works are generally as follows:

- mini excavators, bob cats, scissor lifts
- o concrete trucks for delivery of ready mix concrete
- mobile cranes of various sizes for placement of site sheds, demolition, structural steel,
 materials
- medium rigid vehicles, small rigid vehicles, vans and couriers to deliver smaller materials.

From the above, the largest truck would be a 12.5-metre heavy rigid vehicle. Use of any larger vehicles will require approval from Council in a separate application.

3.7 Construction Workers

The number of construction workers at the site would vary throughout each stage of the project. It is acknowledged that the total number of construction staff on site will include workers on site from other construction projects within the precinct. The proposed number of works specifically for the construction of the Locomotive Workshop is as follows:

- Stage 3a 120 people
- Stage 3b 170 people
- Stage 3c 200 people.
- Stage 3d 40 people
- Stage 3e 80 people
- Stage 3f 80 people.

The number of workers on site, and across the precinct as part of other approved developments, is shown in Figure 3.5. It is anticipated that the peak number of personnel on site would occur within the first month of activity, where cumulative works from sites would see approximately 760 workers coming to the ATP site in a day. Mirvac have implemented a Green Travel Plan for current construction works and will continue to do so for any future works to strongly encourage workers to alternative transport methods and thereby mitigate the impact to surrounding residents. All staff will be encouraged to utilise public transport to access the site. Mirvac will prohibit any staff member to park on-street within the local road network. These parking controls and travel demand measures will be communicated to staff during the site induction process.





Figure 3.5: Number of Site Personnel per Month



4. Construction Traffic Assessment

4.1 Construction Traffic Volumes

The estimated number of (two-way) construction vehicle movements per day and type of vehicle is detailed in Table 4.1 for each construction stage.

Table 4.1: Indicative Construction Traffic Volumes

Construction Stage	Average No. of Trucks Per Day	Average No. of Truck Movements Per Day	Cumulative Truck Movements per Day [1]	Cumulative Truck Movements per Hour [1]	Vehicle Type/ Size
3a. Site Establishment and Demolition	4	8	28	3	8.8m Medium Rigid 12.5m Large Rigid
3b. Structure and Roof Works	8	16	32	4	8.8m Medium Rigid 12.5m Large Rigid 8.8m Concrete Truck
3c. Locomotive Workshop Fit-out	8	16	32	4	8.8m Medium Rigid 12.5m Large Rigid
3d. Bay 15 Demolition	4	8	8	1	8.8m Medium Rigid 12.5m Large Rigid
3e. Bay 15 Structure and Roof	8	16	16	2	8.8m Medium Rigid 12.5m Large Rigid 8.8m Concrete Truck
3f. Bay 15 Fit out	8	16	16	2	8.8m Medium Rigid 12.5m Large Rigid

^[1] These volumes indicate the cumulative truck movements per day/ hour at the commencement of each stage.

Figure 4.1: Daily Cumulative Truck Volumes



Based on Table 4.1, on average, the maximum vehicle volumes per day would be 12 vehicles per day (or 24 two-way movements per day). Taking cumulative works into consideration as shown in Figure 4.1, the average peak vehicle volumes would be 18 vehicles per day (36 two-way movements per day). It is not expected that this low level of daily traffic movements would create any adverse impact on the surrounding road network from an operation or safety perspective.

4.2 Staff Traffic

As per Council's standard requirements, 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. It is noted, no staff parking will be provided for staff during the construction period.

All staff will be encouraged to utilise public transport to access the site. The following measures will be in place to strongly encourage staff to use public transport:

- during the induction and regular management meetings, staff will be informed of restricted parking conditions on site and the surrounding streets
- during the induction and regular management meetings, staff will be instructed to use public transport to access the site and public transport timetable information will be made available and displayed at prominent locations
- the above measures will be included in contract documents between Mirvac and its subcontractors
- a Green Travel Plan will be implemented to encourage workers to alternative transport methods and thereby mitigating the potential impact on surrounding residents.

As such, it is not expected there would be any staff generated traffic during the construction stage.

4.3 Construction Vehicle Routes

Generally, construction vehicles will have origins and destinations from a wide variety of locations throughout the Sydney metropolitan area. However, all construction vehicles will be restricted to the State and Regional Road network, where possible.

As such, dedicated construction vehicle routes have been developed with the aim of providing the shortest distances to/from the arterial road network whilst minimising the impact of construction traffic on streets within the vicinity of the site.

Truck drivers will be advised of the designated truck routes to/ from the site. No queuing or marshalling of trucks will be permitted on public roads.

All construction vehicles accessing and leaving the site will be advised and directed not to use Mitchell Road or Boundary Street. The truck routes are detailed below and shown in Figure 4.2 and Figure 4.3.

Approach Routes

- North: Cahill Expressway, Western Distributor Freeway, Harris Street, Regent Street, Botany Road, Henderson Road, Garden Street, Locomotive Street
- West: M4 Western Motorway, Parramatta Road, Princes Highway, Cleveland Street, Regent Street, Botany Road, Henderson Road, Garden Street, Locomotive Street
- Northwest: Western Distributor Freeway, Harris Street, Regent Street, Botany Road, Henderson Road, Garden Street, Locomotive Street
- **South:** M5 South Western Motorway, Princes Highway, Sydney Park Road, Euston Road, McEvoy Street, Botany Road, Henderson Road, Garden Street, Locomotive Street.

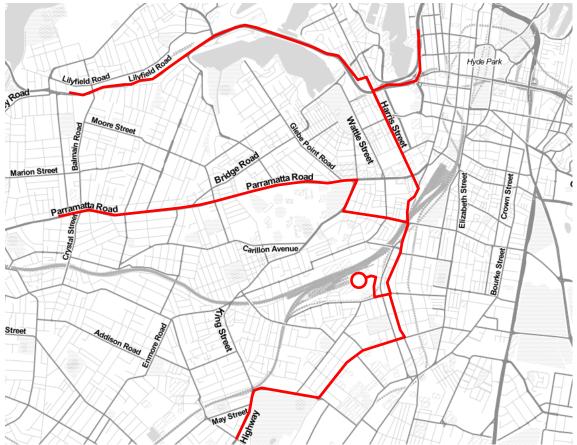
Departure Routes

• North: Locomotive Street, Garden Street, Henderson Road, Wyndham Street, Gibbons Street, Regent Street, Cleveland Street, Western Distributor Freeway, Cahill Expressway.



- West: Locomotive Street, Garden Street, Henderson Road, Wyndham Street, Gibbons Street, Regent Street, Cleveland Street, Princes Highway, Parramatta Road, M4 Western Motorway.
- Northwest: Locomotive Street, Garden Street, Henderson Road, Wyndham Street,
 Gibbons Street, Regent Street, Cleveland Street, Abercrombie Street, Wattle Street,
 Pyrmont Bridge, Western Distributor Freeway.
- **South:** Locomotive Street, Garden Street, Henderson Road, Botany Road, McEvoy Road, Euston Road, Sydney Park Road, Princes Highway, M5 South Western Motorway.

Figure 4.2: Construction Traffic Approach Routes



Basemap Source: OpenStreetMaps, Stamen

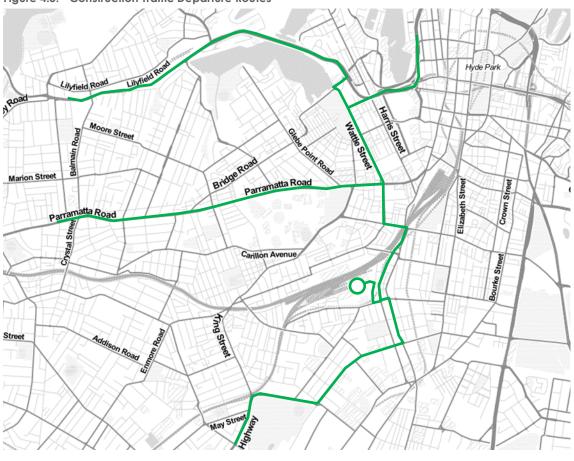


Figure 4.3: Construction Traffic Departure Routes

4.4 Construction Staff Parking

The constraints of the site mean that it is not possible to provide any designated parking within the site for construction workers.

It is noted, there will be no on-site parking or the ability for construction staff to park on nearby public roads. However, an existing drop-off zone has been provided on-site as part of the Building 1 and 2 CTMP. As such, this drop-off zone will be utilised to provide access for construction workers to bring tools and equipment to site. The designated pick-up/drop-off points will be limited to during construction hours only and will not be available outside of these periods.

The proposed facility will differ depending on construction stage. This includes:

- During Stage 1 and 2, drop-off points will be provided in the designated construction zones. This will be managed by traffic marshals, similarly to other construction traffic; or
- During Stage 3 during fit-out and finishes, pick-up and drop-off will occur through gates which will be provided in the hoarding to provide access to loading docks and car park areas in each building.

Mirvac will implement a Green Travel Plan to encourage workers to alternative transport methods and thereby mitigate the impact to surrounding residents.



4.5 Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, WHS, driver protocols and emergency procedures. All new staff will be informed that they are not to park on the surrounding roads. If adopted, the measures described in the Green Travel Plan, will be presented to all new staff during the staff induction.

4.6 Traffic Control Plan

The proposed traffic control plans for the construction works is included in Appendix C. The plan presents the principles of traffic management and is subject to WorkCover requirements and modification to suit latent conditions.

Detailed information for work site operations is contained in the Traffic Control at Work Sites manual (RMS, 2018). The control of traffic at work sites must be undertaken with reference to WorkCover requirements and the contractor/builder's own Workplace Health and Safety manuals.

The proposed traffic control plans for the work site (see Appendix C) includes the following considerations:

- Warning signage for vehicles and pedestrians at site entry and exit points to alert them to the presence of construction traffic.
- Construction vehicle activity, including the loading/ unloading of trucks to be conducted within the work site and the designated works zones for each building site.
- Construction staff to manage pedestrian and control activity on the individual site accesses.
- o The movement of trucks to/ from the Work Zone will be under normal traffic conditions.
- Traffic cones will be installed around any vehicle within the Work Zone to provide delineation for passing traffic.
- o Pedestrians and all passing vehicles will maintain priority at all times.
- Clear definition of the work site boundary to be provided by erection of construction hoarding/fencing around site boundaries adjacent to roads.
- Pedestrians to be guided around the site via existing footpaths using signage.
- Traffic controllers will be present at the site accesses during truck movements to control interaction between construction vehicles and pedestrians.
- All signage will be clean, clearly visible and not obscured.
- All construction vehicle activity will be minimised, where possible, during peak periods.
- All temporary traffic control measures will be removed at the end of each shift and reinstated at the start of the next shift.

It is noted that traffic controllers are not to stop traffic on public streets to allow construction vehicles to exit the site. Instead they are to assist construction vehicles leaving the site by seeking a suitable gap in the traffic.

4.7 Public Transport Services

The proposed construction works will not have any impact on public transport services directly adjacent to the site.

Furthermore, most workers at the site would utilise public transport to access the site well outside the peak commuter periods and therefore construction worker patronage would not have any negative impacts on the capacity of the transport systems.



4.8 Pedestrian and Cyclist Access

Pedestrian and cyclist facilities within the ATP site and those along public roads such as Garden Street and Henderson Road will be maintained as much as practical during the construction stage.

To enable vehicle access to Bay 1, approximately one-third of the pedestrian plaza will be closed off using Class 2 hoarding to provide the required space for site loading. This is the only pedestrian/cyclist space to be directly affected by the construction works.

Pedestrian access along Locomotive Street is to be maintained at all times, however pedestrians will be encouraged to use Central Avenue through use of signage. Concrete jersey barriers with fence panels will provide separation between the work zones along Locomotive Street and pedestrian footpaths, with any interactions with construction vehicles to be managed by RMS accredited traffic controllers when necessary with priority given to pedestrians where possible.

Within high pedestrian areas, authorised traffic controllers will be deployed to manage the movement of pedestrians and cyclists through the areas. This would include providing traffic controllers at the main access points of the ATP site.

It is noted, detailed vehicle and pedestrian traffic control plans will be prepared and implemented. All plans prepared will be done in consultation with all stakeholders including existing tenants and retailers on the site and approval authorities. Furthermore, any agreed proposal will be communicated to the workforce during their induction and as the construction staging evolves.

Key pedestrian routes within the site are highlighted below in Figure 4.4.

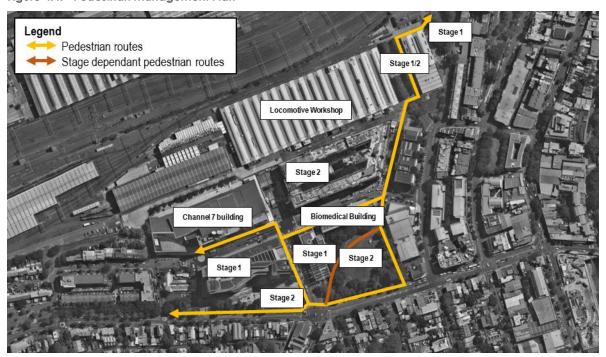


Figure 4.4: Pedestrian Management Plan

In terms of the broader area surrounding the ATP site, it is understood that footpaths works are being completed on the western side of Gibbons Street between April and May 2019. These works do not conflict with the key pedestrian route to the ATP from Redfern Station and therefore it is not expected that pedestrian access to the ATP site would be impacted.

4.9 Emergency Vehicle Access

At this stage, access to the neighbouring sites by emergency vehicles would not be affected by the works as public roads would be unaffected.

Internally to the ATP site, traffic flow would be maintained on all internal roads.

Emergency access to the subject site will be maintained as existing, through the internal roads, Central Avenue, Davy Road and Locomotive Street.

As mentioned previously, there is an emergency vehicle zone on Locomotive Street adjacent to the Ausgrid substation, immediately east of Work Zone 2. Access to this emergency vehicle zone will be maintained at all times during construction works.

Emergency protocols on the site would include a requirement for a traffic controller to assist with emergency access from the street. All truck movements to the site work zone and/or incident point would be suspended and cleared. Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

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

There would therefore be no adverse impacts on the provision of existing emergency vehicle access to the existing ATP buildings or to other neighbouring properties as a result of the proposed construction activities.

4.10 Existing and Future Developments

It is understood that there are currently no proposed developments within the local area that would be adversely impacted by the construction works.

4.11 Traffic Movements in Adjoining Council Areas

No adverse effects are expected from the movement of heavy vehicles through adjacent council areas.

4.12 Consultation Process

Consultation will be carried out with RMS, Transport for NSW and Council as part of the development application process.



Construction Traffic Management Mitigation Measures

5.1 Traffic Management Measures

The following construction traffic management mitigation measures will be applied during the construction period at ATP.

5.1.1 Traffic Signs and Devices

 Advisory road signage would be installed on approach to the work zone in accordance with the RMS 'Traffic control at Work Sites' manual, Volume 5, July 2018.

5.1.2 Hours of Operation

- Work is to be undertaken only during the approved construction hours as conditioned in the development approval which are expected to be between 7:30am and 5:30pm weekdays and between 7:30am and 3:30pm Saturdays.
- Any work outside of the approved hours shall only be undertaken if work cannot be achieved during approved hours and will require a separate approval.

5.1.3 Vehicle Access

- All construction vehicles including all trucks must enter and exit the site in a forward direction.
- Construction vehicles are to make radio contact with the site on approach to ensure access to the work site is available.
- Access along all public roads will be maintained at all times.
- Construction vehicles must not block accesses along all public roads.
- Any materials or spoil spilled onto the road must be rectified with appropriate equipment and qualified personnel, subject to appropriate WHS provisions.
- Constructions vehicles will not queue on any public roads on approach to the construction works site.

5.1.4 Truck Routes

- The site induction must include procedures for heavy vehicles accessing the site.
- Drivers must adhere to nominated truck routes illustrated in Figure 4.2.
- Drivers must be aware of the local area's traffic, pedestrian and cyclist activity.
- All construction vehicles will adhere to the sign posted speed limits at all times.

5.1.5 Site Inspections and Record Keeping

The construction operation would be monitored to ensure that it proceeds as set out in the Contractor's Construction Management Plan provided by the Head Contractor. A daily inspection before the start of the construction activity should take place to ensure that conditions accord with those stipulated in the plan and there are no potential hazards. Any possible adverse impacts would be recorded and dealt with if they arise.



6. Conclusion

This CPTMP has been prepared to document the associated construction traffic management measures necessary to facilitate the proposed construction works at the Locomotive Workshop building.

Based on the findings of the report, it is concluded that:

- i Construction of the Locomotive Workshop would commence in March 2019 and will take approximately 25 months to complete.
- ii The works associated with the Locomotive Workshop are proposed to align with the approved B1, B2, B3 and public domain construction programme and conclude at the same time
- iii All vehicles accessing the site will do so via Locomotive Street.
- iv RMS accredited traffic controllers will be in place at the location of the existing boom gates for the duration of the construction.
- v RMS accredited traffic controllers will be present at each site access and loading zone during truck movements.
- vi Average construction vehicle movements to and from the site can be satisfactorily accommodated by the surrounding road network. Peak construction vehicle movements are to occur during the first stage for the Locomotive Workshop site. This is to occur outside the road network peak periods to prevent impacting general traffic movements.
- vii Construction routes would not adversely affect the safety of motorists, pedestrians, cyclists and the amenity of local residents.
- viii Construction activities are to be undertaken during approved working hours.
- ix Large and medium rigid trucks will be required to access the site.
- x Emergency vehicles will have access to the site via all existing accesses and internal roads

Overall, the construction traffic arrangements are considered to be acceptable for this project.



Appendix A

CoS Standard Requirements

Australian Technology Park, Eveleigh, Locomotive Workshop Development

The City of Sydney Standard Requirements for Construction Traffic Management Plan

This report has been prepared taking into consideration the CoS' requirements for a CTMP. The table below provides a checklist and summary of this CTMPs compliance with Council requirements.

The Applicant or contractor undertakes to follow and abide by the following requirements at all times during the demolition, excavation and construction works at Australian Technology Park, Eveleigh.

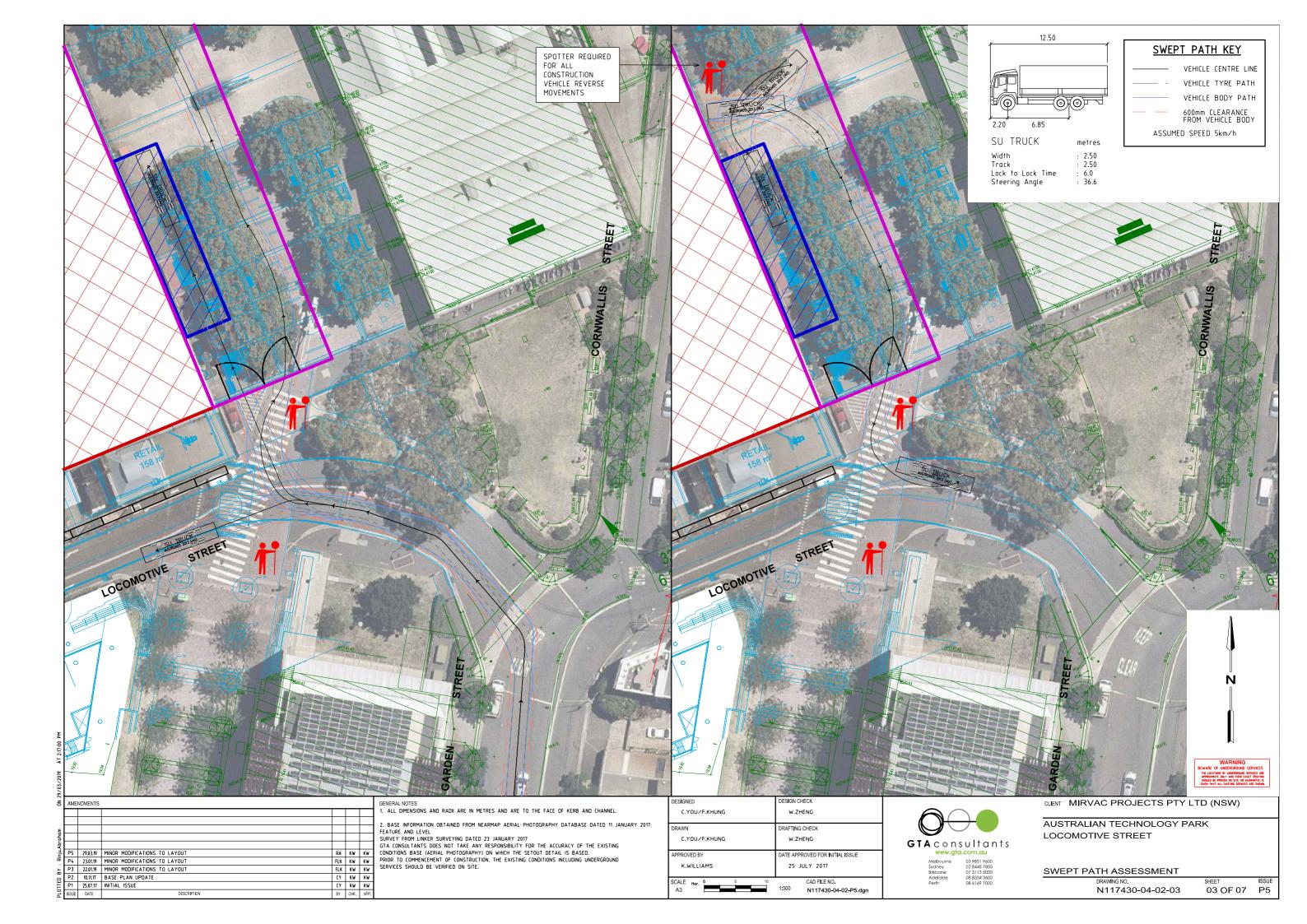
	Paraller de la Company de la C							
	Requirement	Compliant	Comment/ Reference					
i 	Details of routes to and from site and entry and exit points from site – site specific	Yes	Section 4.3					
ii 	Details of roads that may be excluded from use by construction traffic i.e. roads with load limits, quiet residential streets or access/turn restricted streets – site specific	Yes	Section 4.3					
iii	The approved truck route plan shall form part of the contract and must be distributed to all truck drivers.	Yes	Section 4.5					
iv	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).	Yes	Section 5.1.3 Appendix C - TCP					
V	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).	Yes	Section 5.1.3					
vi	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 on local roads (unless specific approval for a one-off occasion is obtained from the City's Construction Regulation Unit).	Yes	Section 3.6					
vii	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 .	Yes	Section 3.6					
viii	No queuing or marshalling of trucks is permitted on any public road.	Yes	Section 4.3 Section 5.1.3					
ix	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.	NA	Adjustments to Bus Stops or Traffic Signals are not anticipated at this stage, however, if required a separate application will be submitted					
Х	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.	Yes	Section 4.4					
xi	All loading and unloading must be within the development site or at an approved "Works Zone".	Yes	Section 3.5					
xii	The Applicant must apply to the City's Traffic Works Co-ordinator to organise appropriate approvals for Work Zones and road closures.	NA	No Works Zones are proposed on public ways, however if required, a separate application will be submitted.					

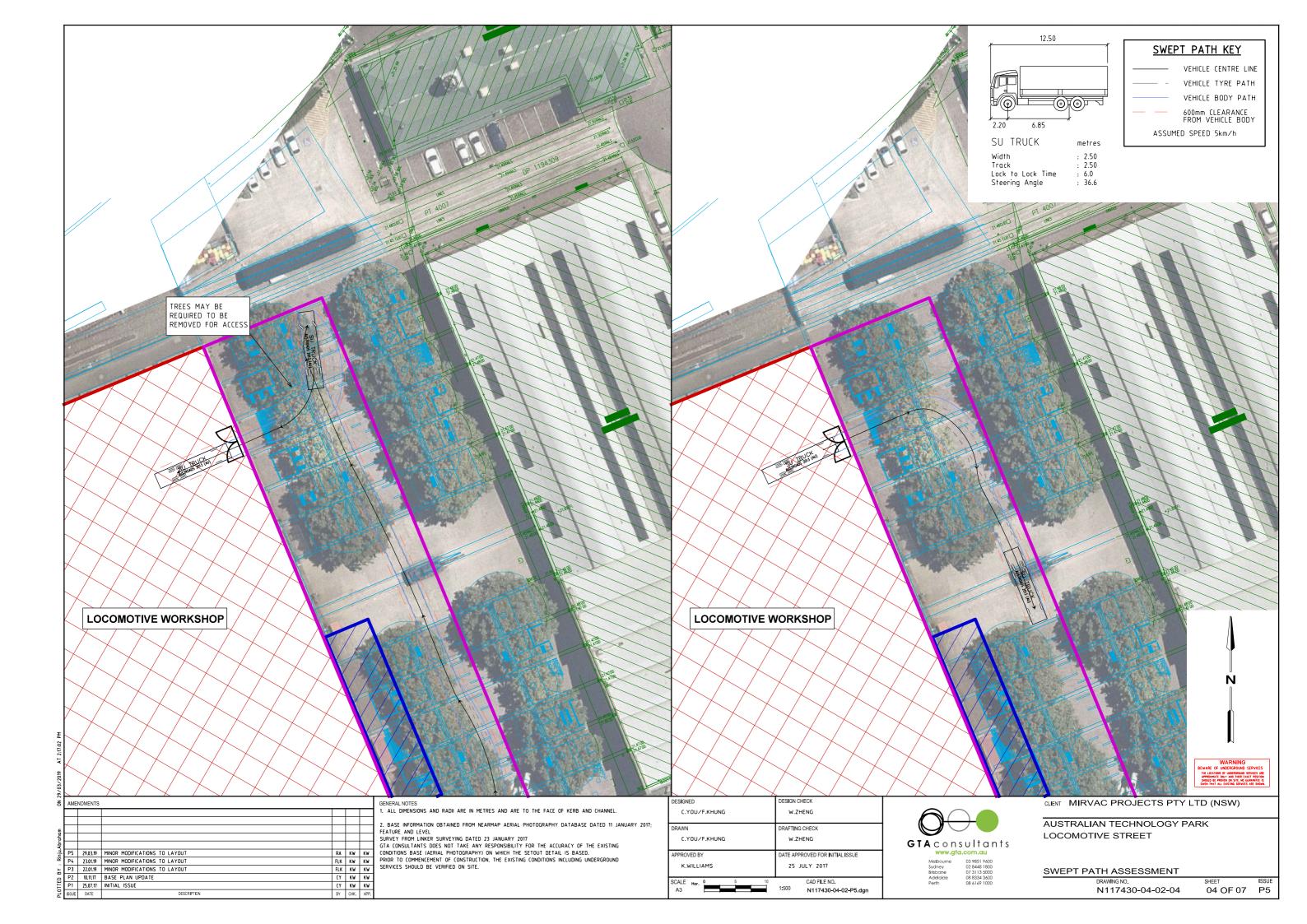
Requirement	Compliant	Comment/ Reference
xiii The Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for partial road closures.	NA	No road closures are anticipated, however if required, a separate application will be submitted.
xiv The Applicant must apply 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.	NA	Road works to any public road is not anticipated however, if required, a separate application will be submitted
xvThe Applicant must apply to the City's Construction Regulations Unit to organise appropriate approvals for temporary driveways, cranes and barricades etc.	Yes	A separate application will be submitted. Section 3.4
xvi The Applicant must comply with development consent for hours of construction.	Yes	Section 3.2
xvii 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.	Yes	Appendix C - TGS
xviii 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.	Yes	Section 4.6
xix 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.	Yes	Section 4.8
xx Physical barriers to control pedestrian or traffic movements need to be determined by the City's Construction Regulations Unit prior to commencement of work.	NA	No physical barriers are proposed however, if required, a separate application will be submitted
xxi The Applicant must obtain a permit from the City's Construction Regulation Unit regarding the placing of any plant/equipment on public ways.	NA	No equipment will be placed on public ways, however if required, a separate application will be submitted.
xxii The Applicant must apply to the City's Building Approvals Unit to organise appropriate approvals for hoarding prior to commencement of works.	Yes	A separate application will be submitted
xxiii 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).	NA	Road works to any public road is not anticipated however, if required, a separate application will be submitted
xxiv 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.	-	Noted

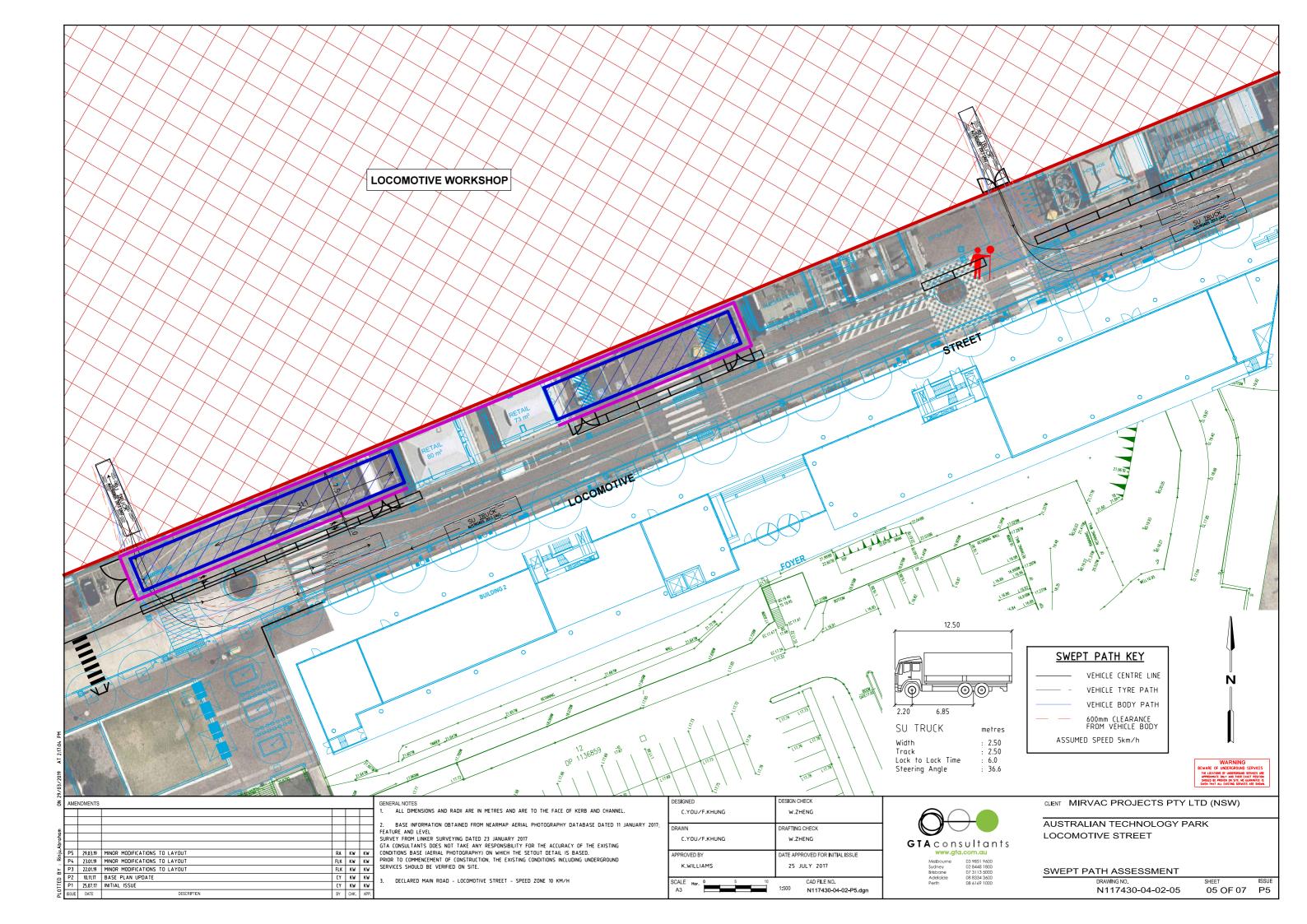
Appendix B

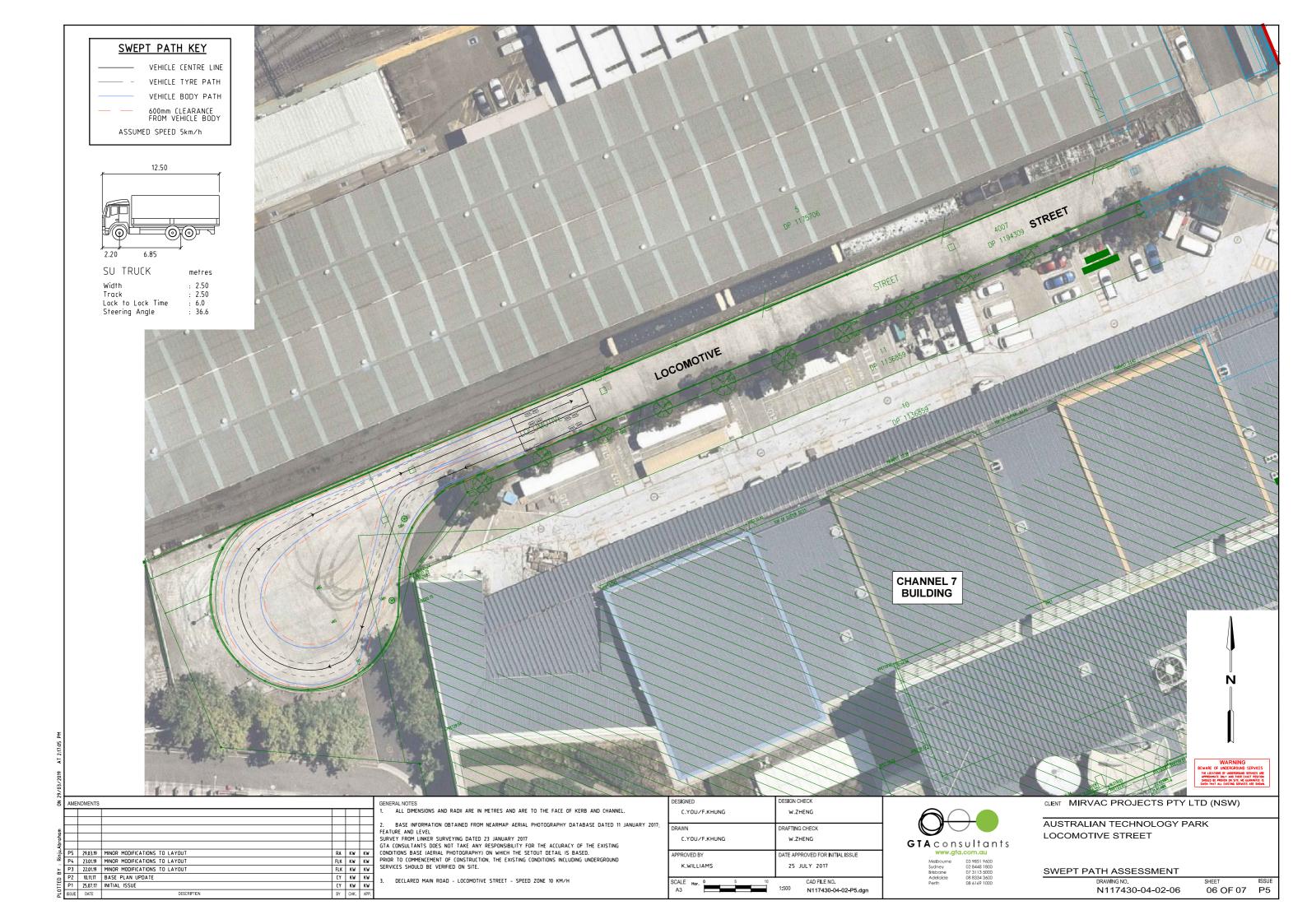
Swept Path Diagrams

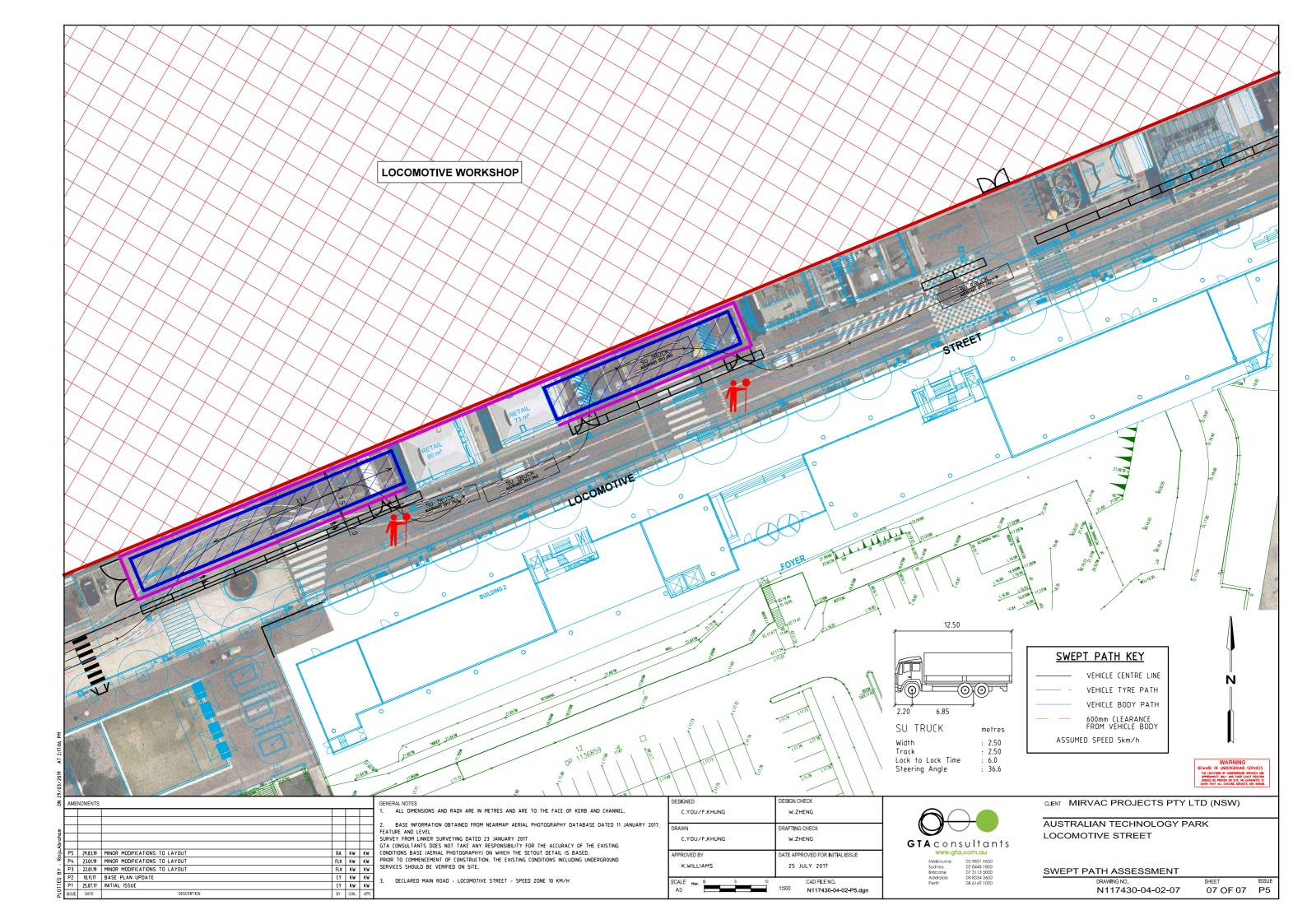








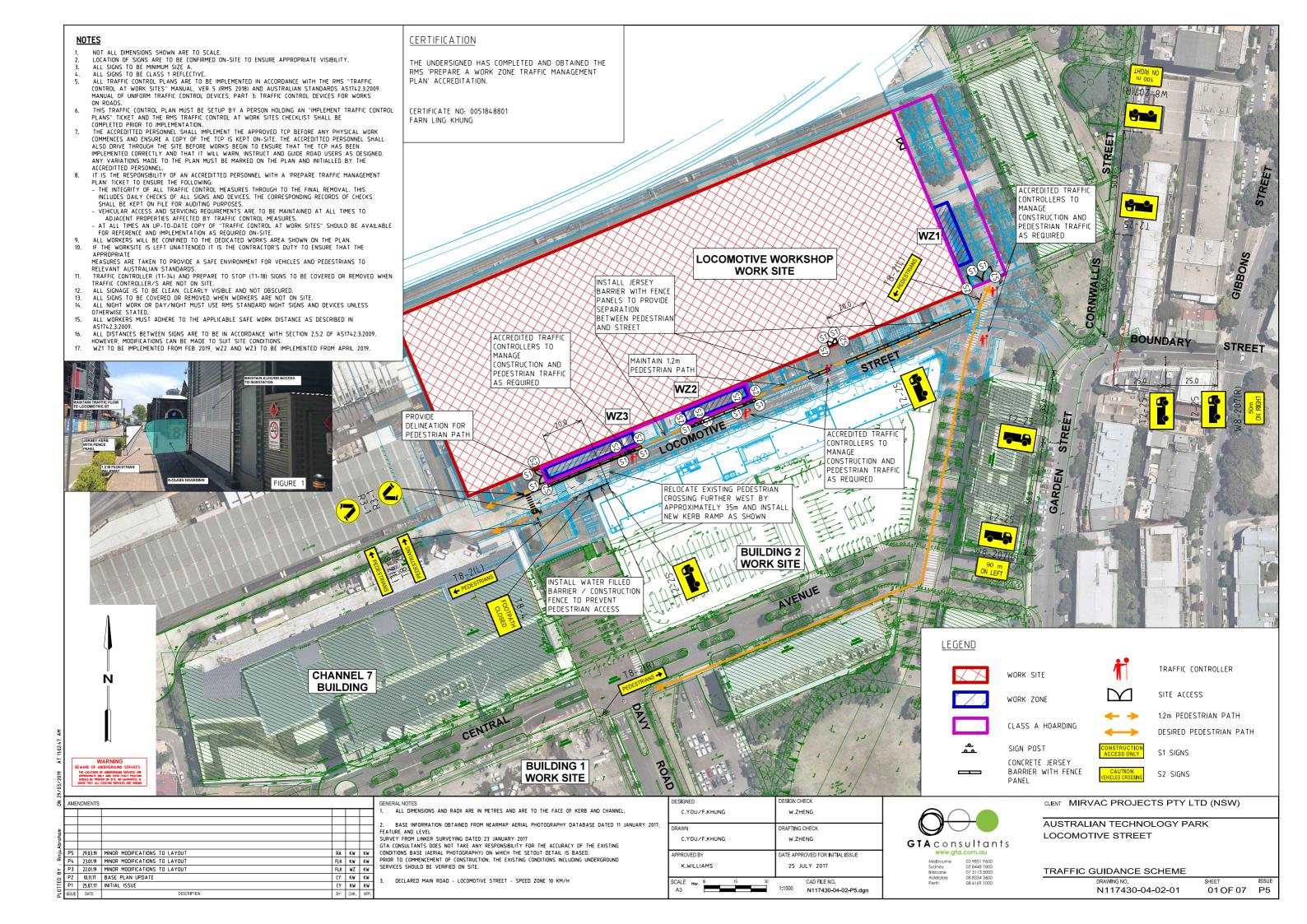




Appendix C

Traffic Control Plans





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 Brisbane
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 A Level 25, 55 Collins Street
 A Ground Floor, 283 Elizabeth Street
 A Suite 4, Level 1, 136 The Parade

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