

# Student Accommodation Development 13-23 Gibbons Street, Redfern

Demolition Construction Pedestrian Traffic Management Plan

Prepared for:

Metropolitan Demolition Group

10 February 2021

The Transport Planning Partnership



# Student Accommodation Development 13-23 Gibbons Street, Redfern

## Demolition Construction Pedestrian Traffic Management Plan

Client: Metropolitan Demolition Group

Version: V05

Date: 10 February 2021

TTPP Reference: 20467

#### **Quality Record**

Version	Date	Prepared by	Approved by	Signature
V01	19/11/2020	Doris Lee	Jason Rudd	Jan Russ
V02	13/01/21	Doris Lee	Jason Rudd	Jan Russ
V03	22/01/21	Doris Lee	Jason Rudd	Jan Russ
V04	01/02/21	Doris Lee	Jason Rudd	Jan Russ
V05	10/02/21	Doris Lee	Jason Rudd	Jan Russ



## **Table of Contents**

1	Intro	duction	1
	1.1	Background	1
	1.2	Purpose of this CPTMP	1
	1.3	Consultation with City of Sydney Council	2
2	Exist	ng Conditions	3
	2.1	Site Description	3
	2.2	Abutting Road Network	4
		2.2.1 Gibbons Street	4
		2.2.2 Margaret Street	4
		2.2.3 William Lane	4
	2.3	Public Transport Facilities	4
	2.4	Pedestrian and Cyclist Facilities	7
3	Desc	criptions of Demolition Activities	8
	3.1	Demolition Methodology	8
	3.2	Site Access and Construction Vehicle Routes	8
	3.3	Construction Vehicle Type	9
	3.4	Construction Worker Parking	9
	3.5	Materials and Handling Area	9
	3.6	Work Zone Requirements	10
4	Con	struction Traffic Assessment & Implications	11
	4.1	Construction Traffic Generation	11
	4.2	Pedestrian and Cycle Access	11
	4.3	Public Transport Facilities	11
	4.4	Emergency Vehicles and Heavy Vehicles	12
	4.5	Adjoining Properties and Local Access	12
	4.6	Sydney Metro / Other Construction Activates	12
5	Con	struction Traffic Management Measures	13
	5.1	Traffic Management Measures	13
	5.2	Vehicles Access	13
	5.3	Heavy Vehicle Loads	13
	5.4	Truck Routes	14
	5.5	Construction Worker Parking	14
	5.6	Site Inspections and Record Keeping	14



	5.7 Site Inductions	5
6	Conclusion1	6
Tab	es	
Table	4.1: Summary of Construction Traffic Movements	I 1
Figu	res	
Figure	2.1: Locality Plan	. 3
Figure	2.2: Site Proximity to Public Transport Facilities	. 5
Figure		
	2.3: Redfern Station Public Transport Map	. 6
Figure	2.3: Reafern Station Public Transport Map	
		. 7

- A. CITY OF SYDNEY STANDARD REQUIREMENTS FOR CONSTRUCTION TRAFFIC MANAGEMENT PLAN
- B. DEMOLITION VEHICLE SWEPT PATH ANALYSIS
- C. TRAFFIC CONTROL PLAN FOR DEMOLITION ACTIVITIES



## 1 Introduction

### 1.1 Background

The Transport Planning Partnership (TTPP) has prepared this Construction Pedestrian Traffic Management Plan (CPTMP) on behalf of the Metropolitan Demolition Group.

The Metropolitan Demolition Group have been contracted by The Trust Company (Australia) Ltd as Trustee for the WH Gibbons Trust to undertake the demolition activities associated with the construction of the approved 18-storey student accommodation development comprising 419 beds at 13-23 Gibbons Street, Redfern (SSD-9194).

### 1.2 Purpose of this CPTMP

The purpose of this CPTMP is to assess the traffic and pedestrian implications and outline how vehicular, cyclist and pedestrian traffic and access will be managed during the demolition period of the construction works for the site.

This CPTMP provides details of the proposed demolition traffic activities and measures to manage traffic and access during demolition to provide a safe road environment, minimise impact on the surrounding road network and maintain access for all road users and the local community.

Specifically, the purpose of this CPTMP is to:

- maintain vehicle and pedestrian access to/from adjacent properties at all times
- restrict construction vehicle movements to designated routes to/from the site
- manage and control construction vehicle activity in the vicinity of the site
- provide an appropriate and convenient environment for pedestrians and cyclists around the construction site
- minimise the impact of construction activity on traffic flows, emergency vehicle access and pedestrian movements
- maintain appropriate public transport access, and
- carry out construction activity in accordance with the approved work hours.

The report has been prepared and checked by engineers who hold the Roads and Maritime Services (Roads and Maritime) *Prepare a Work Zone Traffic Management Plan* card.



## 1.3 Consultation with City of Sydney Council

An on-site meeting of representatives from City of Sydney officers and Metropolitan Demolition Group was held on 19<sup>th</sup> November 2020 to discuss the proposed demolition methodology.

The agreed construction traffic routes and site access arrangements have been incorporated and reflected in this CPTMP.



# 2 Existing Conditions

## 2.1 Site Description

The subject site is located at 13-23 Gibbons Street, Redfern and falls within the local government area of the City of Sydney Council. The site is bounded by William Lane, Gibbons Street and Margaret Street along the east, west and south boundary respectively.

It is currently occupied by a residential flat building, with existing vehicular access provided directly off Margaret Street via a combined two-way driveway.

The location of the site and its surrounds is presented in Figure 2.1.





Basemap Source: nearmap

The surrounding land use predominately comprises a mix of residential, commercial and retail shop/café use. In addition to this, the Redfern Railway Station (Redfern Station) is located approximately 200m (walking distance) north-west of the site and provides various rail service connections to numerous destinations across Sydney.



### 2.2 Abutting Road Network

### 2.2.1 Gibbons Street

Gibbons Street is a one-way northbound State Road that extends along the western boundary of the site. The road is configured as four lanes with two-hour restricted and unrestricted kerbside parking provided on the eastern and western sides respectively. The speed limit is posted as 50 km/h.

### 2.2.2 Margaret Street

Margaret Street is a two-way local road that extends along the south boundary of the site. The street provides good connectivity between Regent Street and Gibbons Street to the east and west ends respectively. No parking is provided on either side of the street.

### 2.2.3 William Lane

William Lane (north of the site) is a two-way laneway that extends in a north-south alignment. The laneway provides rear access to properties for parking and loading activities. Access to the laneway is provided off Marian Street. No parking is provided on either side of the laneway.

## 2.3 Public Transport Facilities

Redfern Station is conveniently located 200m north-west of the site. The station is serviced by a number of railway lines that provide connections to various destinations across the Sydney Metropolitan area including the Sydney CBD.

A map of the site's proximity to existing public transport facilities is provided in Figure 2.2, with the Redfern Station's public transport map shown in Figure 2.3.





Figure 2.2: Site Proximity to Public Transport Facilities

Basemap Source: Google Maps Australia



Bus stand Tickets Lawson St **Stairs S** Escalator Unisex toilet Accessible toilet Baby change Redfern St Marian St Regent St after Redfern St Stop 201622 Marian St Stand B Eastern Suburbs & Illawarra Line В T1 Stop no. 201631 Eastern Suburbs Illawarra Cronulla North Shore N11 City Town Hall Stop no. 201622 N20 City Town Hall 305 Mascot Stamford Hotel 308 Marrickville Metro 309 Port Botany T8 City South 310 Eastgardens Stop no. 201646 Arrivals only LO9 Port Botany N20 Riverwood 🛪 Blue Mountains South Coast

Figure 2.3: Redfern Station Public Transport Map

Source: Redfern Station Map, Transport for NSW

Further to this, it is noted that the future Waterloo Station will be built 400m south from the site as part of the Sydney Metro Project Stage 2 (City & Southwest). This project will deliver 31 metro stations (including Waterloo Station) and increase the capacity of train services entering the Sydney CBD from about 120 services an hour today to up to 200 services beyond 2024.

Stage 2 Sydney Metro Line is expected to be operational in 2024.



## 2.4 Pedestrian and Cyclist Facilities

Fully constructed pedestrian footpaths are located on all roads surrounding the site. A formal pedestrian crossing is available at the signalised midblock crossing located 170m north of the site on Gibbons Street, near Redfern Street.

In relation to cyclist facilities, a shared path is located within Gibbons Street Reserve directly west of the site and provides connections to Redfern Station and commercial offices, northwest and south-west of the site respectively.

This shared path is provided off road and connects to other on-road cycle paths in the area as shown in Figure 2.4.

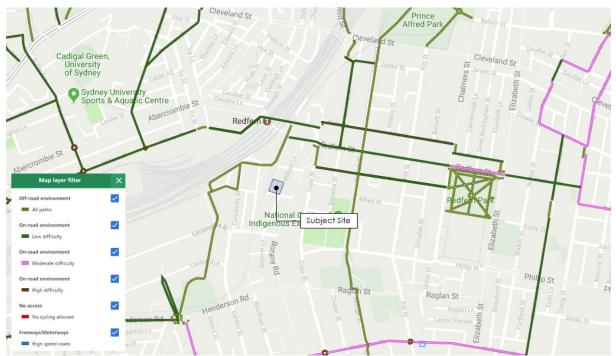


Figure 2.4: Cycleway Map

Source: Roads and Maritime Services – Cycleway Finder



# 3 Descriptions of Demolition Activities

### 3.1 Demolition Methodology

The proposed demolition works at 13-23 Gibbons Street, Redfern, will involve the following:

- Erection of A-class hoarding on the site's frontages to public footpaths (ie. Gibbons Street and Margaret Street).
- Widening of existing vehicle access at Margaret Street to accommodate demolition vehicle access to on site loading area
- demolition of existing on site structures and buildings
- Duration of works = 2 months
- Estimated up to 16 truck movements per day
- Largest truck to be used will be a 9.17m long tipper rigid body trucks.

The extent of the works will be wholly contained within the site boundary. No on street work zones are requested for the demolition activities.

The consented construction hours are:

Monday to Friday 7:30am – 5:30pm

Saturday 7:30am – 3:30pm, and

Sunday and Public Holiday No work.

Any works outside these times will only occur with approval from the relevant authorities prior to the commencement of any works.

### 3.2 Site Access and Construction Vehicle Routes

Construction vehicles will have origins and destinations throughout Sydney.

Dedicated construction vehicle routes have been developed to provide the shortest distances to / from the arterial road network, whilst minimising the impact of construction traffic on streets within the immediate vicinity of the site.

The site access driveway for demolition vehicles will be located at Margaret Street.

Vehicles will approach the site access from Gibbons Street into Margaret Street. Vehicles would then drive onto the site in a forward direction under traffic control to be loaded within the on site loading area. Vehicles will then manoeuvre on site to exit in a forward direction to Margaret Street and then to Regent Street.



These access arrangements will facilitate a one way flow of demolition related vehicles to and from the site along Margaret Street.

All truck drivers will be advised of the designated truck routes to/from the site and be required to adhere to the nominated routes.

The designated truck routes to/from the site are shown in Figure 3.1.

This nominated truck routes are shown in Figure 3.1, which is consistent with vehicle access routes requested by City of Sydney officers.

No queuing or marshalling/parking will be permitted on public streets. Construction vehicles are to radio or call on approach to ensure adequate access to the works site is made available.

## 3.3 Construction Vehicle Type

The largest vehicles to be used during demolition activities will be a 9.17 metre long tipper rigid body truck (8 wheeler vehicle).

A vehicle swept path analysis has been conducted using the design specifications of the 9.17m long 8 wheeler tipper rigid truck. The results are presented in Appendix B.

### 3.4 Construction Worker Parking

No onsite vehicle parking will be provided. All workers will be encouraged and expected to use public transport and not park on public roads.

This will be incorporated in the workers induction program to ensure no parking impact on surrounding streets.

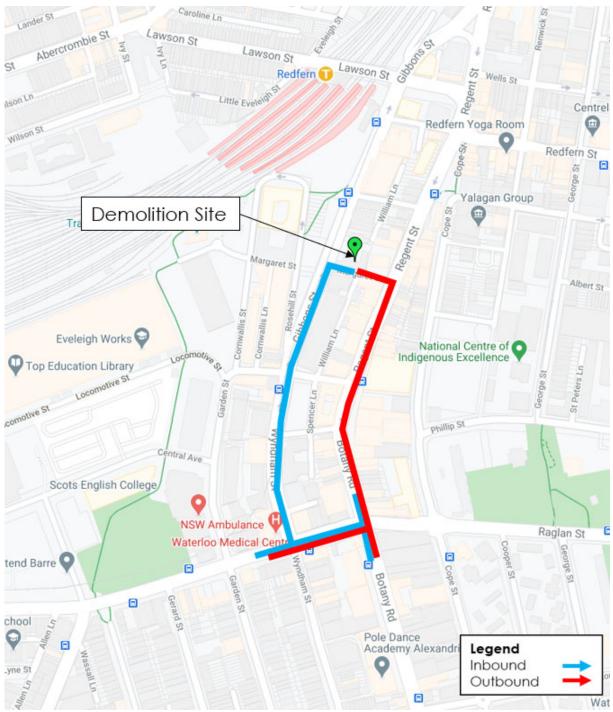
## 3.5 Materials and Handling Area

All materials handling and plant equipment, including waste storage, will be wholly stored onsite within the works site.



transport plann





Basemap Source: Google Maps Australia

## 3.6 Work Zone Requirements

No work zones will be utilised during the demolition activities for the site.



# 4 Construction Traffic Assessment & Implications

### 4.1 Construction Traffic Generation

The estimated traffic movements associated with each stage of the construction works are summarised in Table 4.1.

**Table 4.1: Summary of Construction Traffic Movements** 

Construction Activities	Duration	Daily Two-Way Movements	Hourly Two-Way Movements
Demolition	2 months	16 trips per day	Up to 2

The proposed construction traffic generation is considered to generate a low level of vehicular traffic, with up to two truck movements (two-way) per hour expected during peak construction activities.

As such, the proposed construction activities could not be expected to result in adverse impact on the surrounding road network.

### 4.2 Pedestrian and Cycle Access

Pedestrian and cycle access will be maintained as per existing conditions during the project.

Pedestrians and cyclists will be temporarily held in Margaret Street with traffic controllers when demolition vehicles are entering or exiting the site.

It is noted that pedestrians may be held only for very short periods to ensure safety when trucks are leaving or entering but must not be stopped in anticipation of truck arrival (i.e. at all times the pedestrians have right-of-way on the footpath not the trucks).

All appropriate site hoarding and fencing will be installed to ensure pedestrian safety along the site's frontages to Gibbons Street and Margaret Street.

### 4.3 Public Transport Facilities

The proposed construction activities will not result in any changes to existing public transport services. All existing bus facilities and bus stops will be maintained at all times during the works.



## 4.4 Emergency Vehicles and Heavy Vehicles

No special provisions for emergency service vehicles or heavy vehicles are required as part of the proposed construction works.

Emergency and heavy vehicle access will be maintained at all times.

### 4.5 Adjoining Properties and Local Access

The proposed construction works will not impact existing local access to / from properties.

Local access to properties will be maintained at all times during the works.

### 4.6 Sydney Metro / Other Construction Activates

The Sydney Metro City and Southwest construction works are expected to be ongoing during the demolition works of the proposed development.

It should be noted that the Sydney Metro works may affect the proposed construction activities if there are any road closures and/or changes to traffic conditions in the Redfern area.

As such, the Metropolitan Demolition Group will be responsible to liaise with the relevant Project Site Engineer/Manager and/or check with authorised representatives from Sydney Metro project team for updates on a regular basis to mitigate any potential impacts and manage construction vehicle access to/from the site as required.



# 5 Construction Traffic Management Measures

### 5.1 Traffic Management Measures

A site-specific Traffic Control Plan (TCP) has been prepared for the management of vehicles and pedestrians.

This TCP is provided in Appendix B.

The proposed demolition truck movements to / from the works site will be accompanied by advisory traffic control signage to minimise the traffic impact on the surrounding road network. The signage arrangements are provided in the TCP (Appendix B).

All advisory road signage will be installed in accordance with AS1742.3 Manual of uniform traffic control devices - Traffic control devices for works on roads and the Roads and Maritime Services Traffic Control at Worksites Manual. Signs will be installed and maintained throughout the construction period.

### 5.2 Vehicles Access

Construction vehicles will radio / call the site office on approach to ensure the on-site loading area is available within the works site.

All vehicle access to and from the site via Margaret Street will be undertaken with traffic control.

All loading and unloading activities will be undertaken within the works site during the approved work hours.

The queuing or marshalling of demolition vehicles will not be permitted on public roads.

Notwithstanding the above, if there are any materials spilt onto the road, site personnel and equipment will rectify the issue accordingly, subject to appropriate OH&S provision.

### 5.3 Heavy Vehicle Loads

All drivers will be required to adhere with the posted vehicle load limits on all roads and not overload vehicles beyond its maximum loading limits and/or relevant approvals.



### 5.4 Truck Routes

Protocols must be in place to ensure:

- site induction will include procedures for accessing the site
- drivers will adhere to the nominated truck routes as shown in Figure 3.1
- drivers will be aware of pedestrians and cyclists in the vicinity of the site
- drivers will be aware of existing signposted speed limits.

### 5.5 Construction Worker Parking

As indicated previously, onsite car parking will not be available during the works and workers encouraged to use public transport and not park on public roads.

However, a tool drop-off and storage facility will be provided on-site. This will allow construction workers to drop off and store their tools, allowing them to use public transport to travel to and from the site.

Taking the above into consideration, it is proposed to implement the following measures to encourage workers to use public transport:

- provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their specific machinery for the project
- inform workers during the induction and regular management meetings that no car parking will be available for workers on site nor on public roads
- instruct workers to use public transport to access the site during the induction and regular management meetings, and
- display public transport timetable information at key locations within the work site and ensure that it is easily accessible by workers.

## 5.6 Site Inspections and Record Keeping

A daily inspection before the start of demolition activities will take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards. Any possible adverse impacts will be recorded and dealt with as they arise.



### 5.7 Site Inductions

All workers employed on the site by the appointed contractor will be required to undergo a site induction.

The induction will include permitted access routes to and from the works site for site workers and delivery vehicles as well as standard environmental, OH&S, driver protocols and emergency procedures.

The workers are to be informed to use public transport to access the site during the induction.



### 6 Conclusion

This Demolition CPTMP has been prepared to document the proposed demolition activities and associated traffic management measures necessary to facilitate the demolition of existing structures and buildings on the site at 13-23 Gibbons Street, Redfern.

The key findings contained in this Demolition CPTMP are as per below.

- The demolition works are expected to generate up to two vehicles per hour (two-way) during the peak demolition activity.
- Given the expected low volume of construction vehicles, construction vehicle movements to and from the site can be satisfactorily accommodated in the surrounding road network.
- No pedestrian or cyclist facilities will be impacted as a result of the construction activities.
- It is proposed that loading / unloading of trucks to occur within the site, with construction vehicle access provided off Margaret Street.
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.

In summary, it is concluded that the proposed traffic control measures will adequately address potential implications associated with proposed demolition activities.



# Appendix A

City of Sydney – Standard Requirements for Construction Traffic Management Plan

# 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 13 Gibbons Street, Redfern: SSD-9194

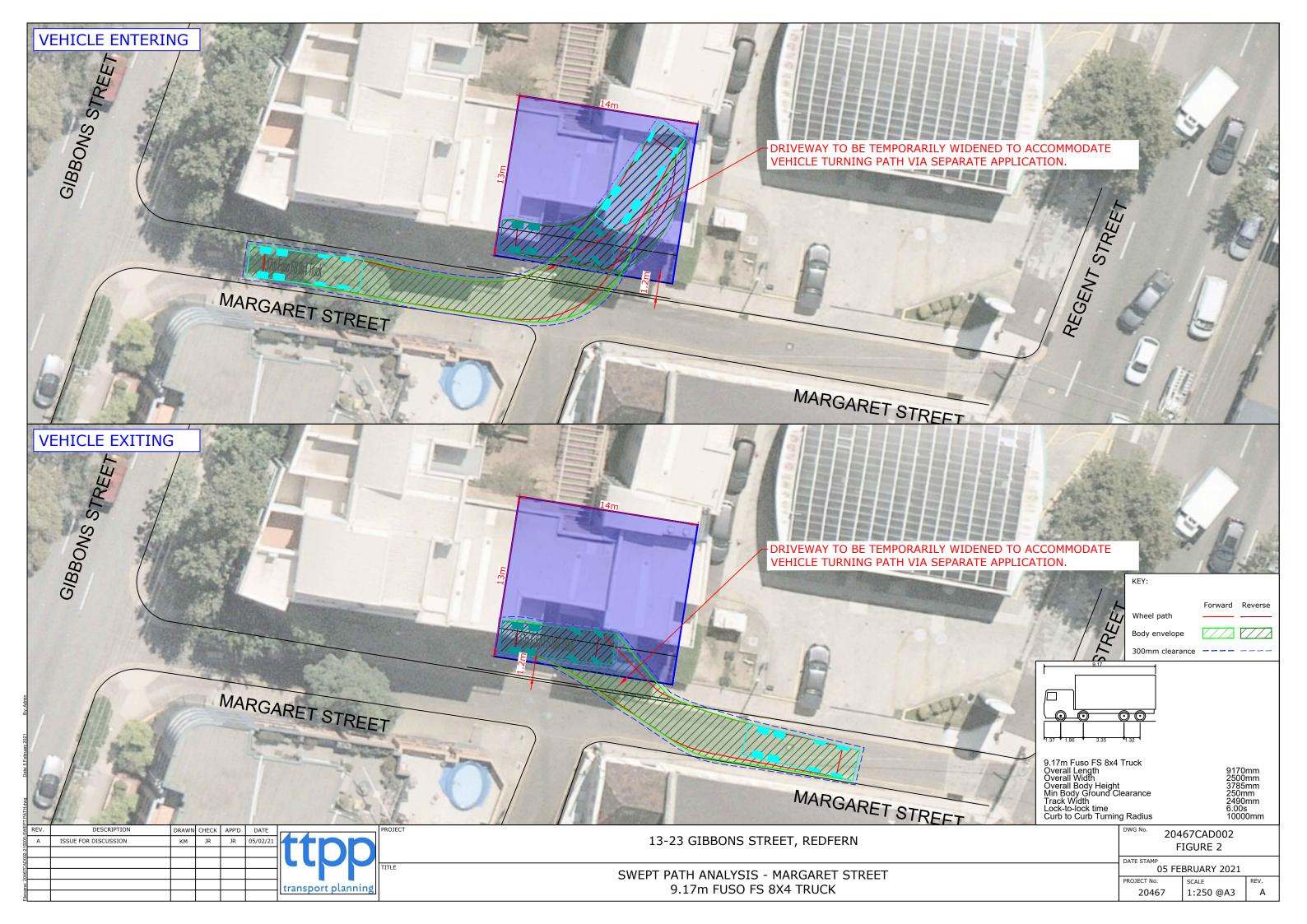
- 1. Details of routes to and from site and entry and exit points from site site specific
- 2. Details of roads that may be excluded from use by construction traffic i.e. roads with load limits, quiet residential streets or access/turn restricted streets site specific
- 3. The approved truck route plan 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 National Heavy Vehicle Regulator (NHVR) 28 days prior to the vehicle's scheduled travel date. For more information please contact the NHVR on 1300 696 487 or www.nhvr.gov.au.
- 8. No queuing or marshalling of trucks is permitted on any public road.
- Any temporary adjustment to Bus Stops or Traffic Signals will require the Applicant to obtain approval from Transport for NSW (TfNSW) 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 TfNSW'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 TfNSW's 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. <u>at</u> 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 TfNSW 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 TfNSW 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

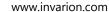
Demolition Vehicle Swept Path Analysis

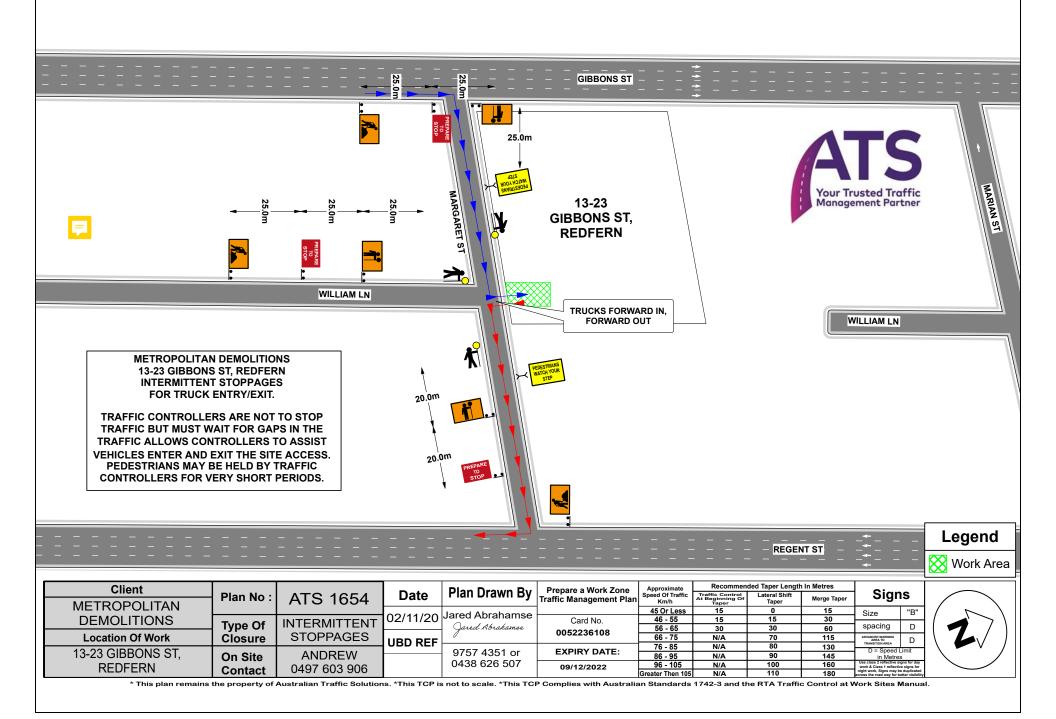




# Appendix C

Traffic Control Plan for Demolition Activities





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