



Central Park Block 1 Proposed  
Residential Development  
Construction Traffic Management Plan

transportation planning, design and  
delivery

# Central Park Block 1 Proposed Residential Development

## Construction Traffic Management Plan

Issue: A 30/06/14

Client: Central Park JV No. 2

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GTA Consultants Office: NSW

### Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
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# 1. Introduction

## 1.1 Background

Central Park is a mixed use precinct on the former Carlton United Breweries site in Chippendale, south of the Sydney CBD. It is proposed to incorporate a retail area, public parkland, residential apartments (including student accommodation), commercial office space, and a hotel over the 6 hectare site.

GTA Consultants has been commissioned to prepare a Construction Traffic Management Plan (CTMP) for the Blocks 1 and 4N basement construction and Block 1 construction works.

## 1.2 Purpose of this Report

This report addresses the traffic and transport impacts during the construction phase of the development.

The objectives of this report are:

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

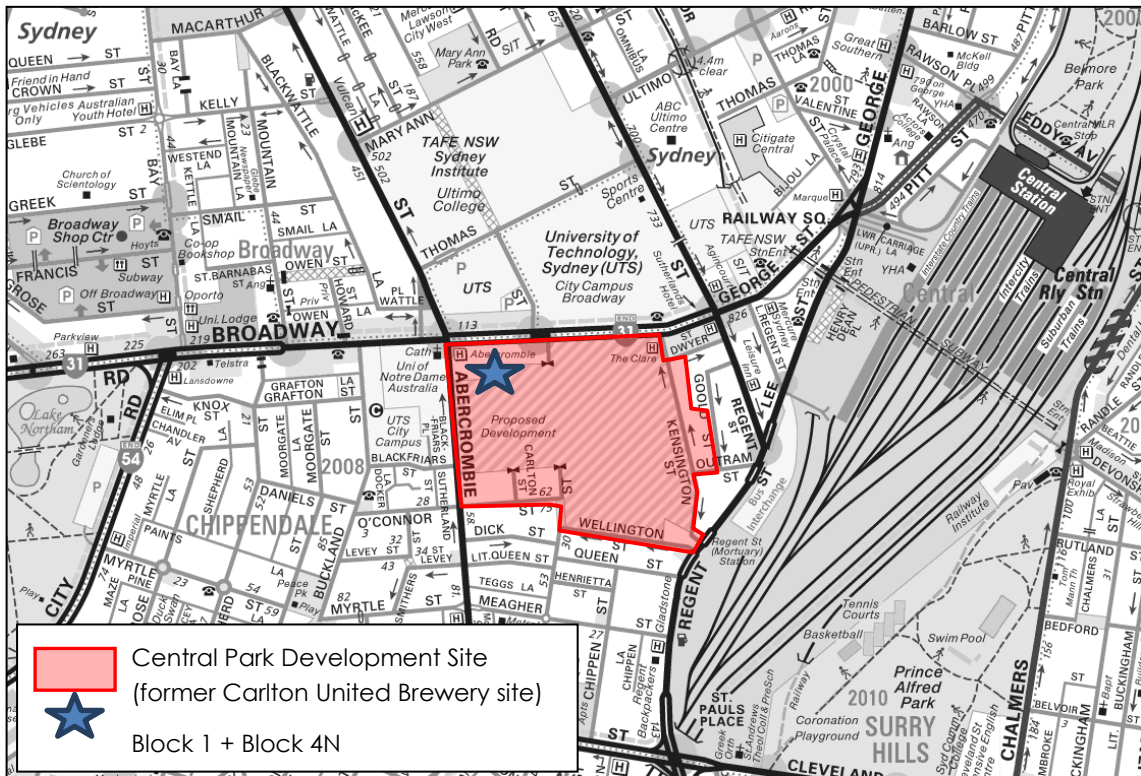
It is noted that a contractor has not yet been appointed. As such, this CTMP has been prepared using information provided by Frasers Property Australia based on their expectations and construction works already completed for other buildings within Central Park.

The report has been checked by engineers who hold the Roads and Maritime Services (RMS) Select/ Modify Traffic Control Plans (red card) and Design and Inspect Traffic Control Plans (orange card) certification.

## 2. Existing Conditions

The Central Park development site is located in Chippendale on the southern edge of the Sydney CBD, in close proximity to Central Railway Station, the University of Technology Sydney (UTS) and Broadway Shopping Centre. The site is bounded by Broadway to the north and Abercrombie Street to the west, O’Connell Street and Wellington Street to the south and Kensington Street and Goold Street to the east. Blocks 1 and 4N are located in the north-west corner of the site, adjacent to Abercrombie Street, Broadway and Chippendale Way as shown in Figure 2.1.

Figure 2.1: Subject Site and its Environs



Basemap Source: Sydway Publishing

### 2.1 Road Network

#### 2.1.1 Adjoining Roads

##### Broadway

Broadway is a State Road (HW5) in the vicinity of the site and is aligned in an east-west direction. It is a two-way road configured with four lanes in each direction (including one bus lane in each direction) and functions as one of the main routes for traffic into and out of the Sydney CBD. East of the Regent Street/ Harris Street intersection (60 metres east of the site), Broadway becomes George Street and carries approximately 72,000 vehicles per day<sup>1</sup>.

<sup>1</sup> Based on 2005 Roads and Maritime Services (RMS) AADT data.

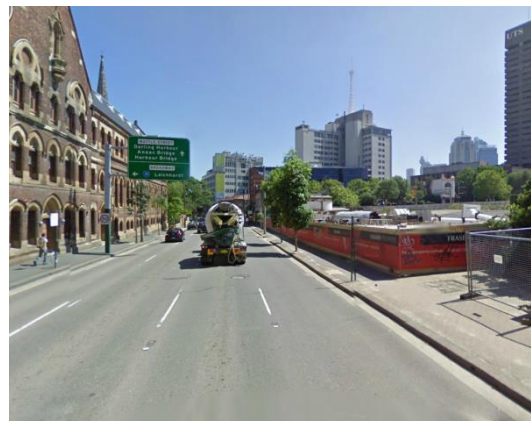
## Abercrombie Street

Abercrombie Street is a classified State Road (MR594) in the vicinity of the site aligned in a north-south direction. It is a one-way northbound road configured with a four-lane, 14m wide carriageway, set within a 24m wide road reserve (approx.). Abercrombie Street is shown in Figure 2.3 and carries approximately 18,000 vehicles per day<sup>2</sup>.

Figure 2.2: Broadway (looking west)



Figure 2.3: Abercrombie Street (looking north)



## Chippendale Way

Chippendale Way is a local street located within the Central Park site and is aligned in a north-south direction. It has recently been re-opened to local traffic via the installation of a signalised intersection with Broadway. Central Park Avenue to the east of Chippendale Way has also recently opened to allow two-way traffic and to enable local traffic and service vehicles access to Blocks 2 and 5 within Central Park.

### 2.1.2 Surrounding Intersections

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

- Abercrombie Street-Broadway-Wattle Street (signalised)
- Abercrombie Street-O'Connor Street (signalised), and
- Broadway-Chippendale Way (signalised).

## 2.2 Public Transport

The site is well serviced by high frequency public transport with Central Transport Interchange, the key transport hub in Sydney located 750m east of the site.

### 2.2.1 Bus Network

The subject site is located in close proximity to several key bus corridors including George Street to the east and Broadway to the north. Central Transport Interchange features four main bus hubs, including Railway Square (750m east of the site), George Street, Eddy Avenue and Chalmers Street which serve destinations across the Sydney Metropolitan Area including Sydney's south, eastern suburbs, inner-west, northern beaches and north-west.

<sup>2</sup> Based on 2005 Roads and Maritime Services (RMS) AADT data.

## 2.2.2 Rail Network

Central Railway Station located approximately 750m east of the site serves as the key rail hub in Sydney for CityRail services to destinations across the Sydney Metropolitan Area, the Illawarra, Blue Mountains and Central Coast. Central Station is also the hub for interstate rail services in Sydney as well as the main terminus for the Central to Lilyfield Light Rail Network.

## 2.3 Pedestrian Infrastructure

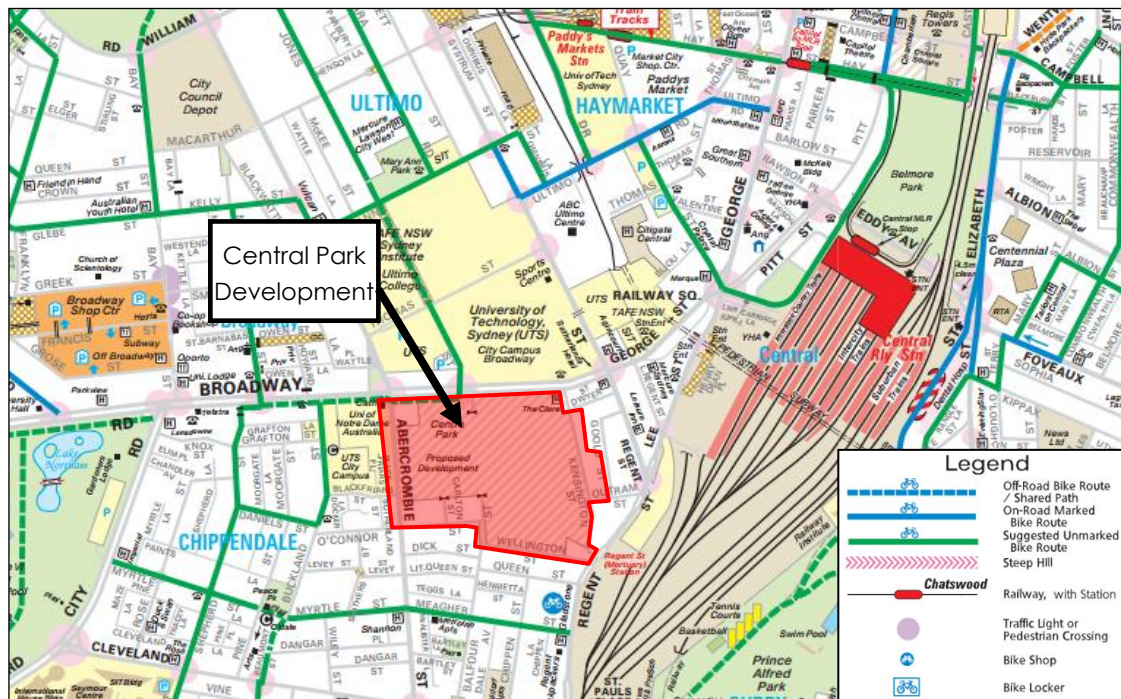
The pedestrian network surrounding the site is well established with pedestrian paths located on both sides of Abercrombie Street, Chippendale Way, Broadway and O'Connor Street. Safe crossing facilities are provided at the following locations:

- all legs of the Abercrombie Street-Broadway-Wattle Street intersection
- all legs of the Broadway-Chippendale Way intersection, and
- all legs of the Abercrombie Street-O'Connor Street intersection (south of the site).

## 2.4 Cycle Infrastructure

The site is located within close proximity to both on and off-road cycling facilities as indicated in an extract from the City of Sydney's cycle network map shown in Figure 2.4.

Figure 2.4: Cycle Network



Source: City of Sydney Cycling Guide

### 3. Overview of Construction Activities

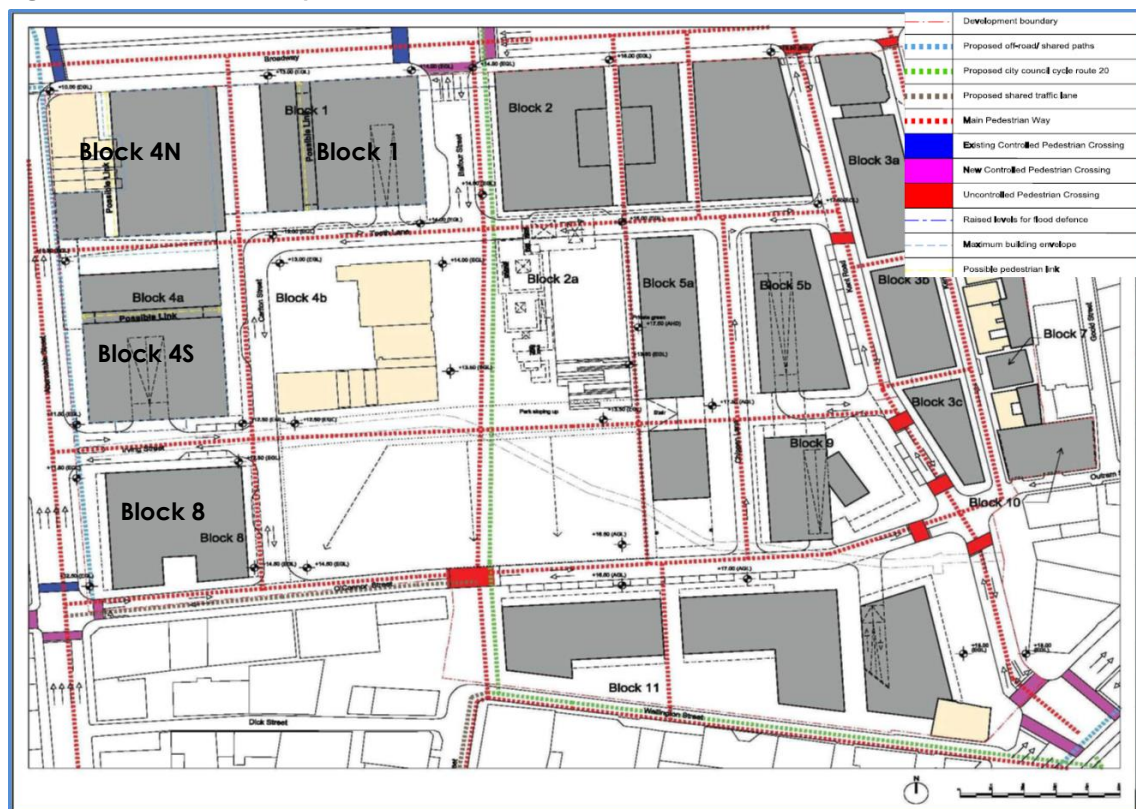
#### 3.1 Description of Works

Block 1 is proposed as a residential building and Block 4N is proposed as a commercial building, with ground floor retail. A combined basement car parking and loading areas are also proposed.

The location of Blocks 1 and 4N are shown in Figure 3.1. This plan shows the approved Concept Plan including the internal road network and external road network connections.

The proposed construction works include Blocks 1 and 4N basement construction and Block 1 tower construction.

Figure 3.1: Current Concept Plan



Source: Frasers

#### 3.2 Duration and Staging of Works

The staging, description and estimated duration of the construction activities are summarised in Table 3.1. It is noted that early works on the site have commenced and were approved by a separate CTMP prepared by GTA Consultants in November 2013.

**Table 3.1: Construction Staging, Description and Duration**

Construction Phase	Description	Timing	Duration
Construction	<ul style="list-style-type: none"> <li>• construction of basement</li> <li>• erection of tower crane</li> <li>• construction of new building superstructure</li> <li>• façade</li> <li>• services and fit out</li> </ul>	Jun 2015 – May 2017	24 months
Public domain works	<ul style="list-style-type: none"> <li>• public domain works within and around the buildings.</li> </ul>	Jun 2017 – Jul 2017	2 months

As shown in Table 3.1, the construction works are anticipated to take approximately 26 months to complete.

### 3.3 Construction Details

#### 3.3.1 Plant and Equipment

Construction vehicles which are likely to be generated by the proposed construction activities generally include large, medium and small rigid trucks. The use of semi-trailers and articulated trucks including truck and dogs would require separate approval from the City of Sydney Construction Regulation Unit (CRU) in accordance with the City of Sydney Standard Requirements for Construction Traffic Management Plan.

#### 3.3.2 Work Hours

Construction activities would be undertaken in accordance with City of Sydney consent conditions which would be between the following times consistent with the other works within the Central Park site:

- 7:00am - 7:00pm, Monday to Friday
- 7:00am - 5:00pm, Saturdays.

No work would be undertaken on Sundays or public holidays. Work outside of these hours would only occur with specific approval from City of Sydney.

#### 3.3.3 Worker Parking

No dedicated worker parking would be provided for construction workers. Given that the Central Park site is located in close proximity to high frequency public transport, specifically Central Railway Station, staff would be encouraged to use public transport where practical.

#### 3.3.4 Loading

It is envisaged that all loading/ unloading would occur within the extent of the Blocks 1 and 4N site. Two-way access to the site would be provided via Chippendale Way and Abercrombie Street to distribute the site traffic during the construction period.

In the event that work zones are required on existing roads, the contractor would seek approval from the relevant authorities, as appropriate.

A truck wash down area would also be provided on-site.

### 3.4 Cumulative Construction Staging

It is understood that the basement construction of Blocks 1 and 4N and construction of Block 1 would overlap with construction works at Block 4S, which is located south of Block 4N on the northern side of Irving Street and Block 8, which is located south of Irving Street. The relative locations of both sites are shown in Figure 3.1.

In addition to the above, works are also being conducted along Kensington Street (east of the site). It is considered that traffic arising from activities on Kensington Street would not directly interact with traffic movements from the subject site. Therefore, this is not considered further in this assessment.

The anticipated construction staging and overlapping is shown in Table 3.2.

**Table 3.2: Basement and Construction Works Overlap**

Stage (for the purpose of this report only)	Block 1 and Block 4N [1]	Block 4S Construction	Block 8 Construction	Duration (From June 2015)
1 (Commencing June 2015)	Construction	Public domain works	Construction	1 month
2	Construction	Block 4S Construction Complete	Construction	13 months
3	Construction		Public domain works	2 months
4	Construction		Block 8 Construction Complete	8 months
5	Public domain works			4 months
<b>Total</b>				<b>26 months</b>

[1] Including basement construction at Block 1 and Block 4N and Block 1 construction works.

## 4. Construction Impact Assessment

This section of the report outlines specific tasks during the basement construction of Blocks 1 and 4N and construction works of Block 1.

### 4.1 Truck Movements

The estimated truck movements associated with each stage of Blocks 1 and 4N basement works and Block 1 construction works are summarised in Table 4.1.

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

Construction Phase	Approx. Working Days	Peak Movements Per Hour	Average Movements Per Day
Construction	576	6	30
Public domain works	48	2	6

As shown in Table 4.1, construction works are anticipated to generate approximately 30 vehicle movements (two-way) per day.

### 4.2 Cumulative Truck Movements

With consideration of the truck movements outlined above and the cumulative staging outlined in Section 3.4, the cumulative truck movements have been estimated and are shown in Table 4.2.

**Table 4.2: Cumulative Construction Traffic Movements**

Stage (for the purpose of this report only)	Peak Movements Per Hour			Total Peak Truck Movements Per Hour	Average Movements Per Day			Total Average Truck Movements Per Day
	Blocks 1 & 4N	Block 4S	Block 8		Blocks 1 & 4N	Block 4S	Block 8	
1	6	2	6	14	30	6	30	66
2	6		6	12	30		30	60
3	6		2	8	30		6	36
4	6			6	30			30
5	2			2	6			6

As shown in Table 4.2, the peak traffic generation will occur when there is an overlap of construction activities at all three sites. The peak traffic volumes would be 66 movements per day or 14 movements per hour. This is significantly less than the future traffic volumes determined within the Concept Plan for the site and would be adequately accommodated within the existing road network.

### 4.3 Construction Vehicle Routes

Generally, construction vehicles would have origins and destinations throughout Sydney. However all construction vehicles would be restricted to the arterial road network as much as practical.

As such, dedicated construction vehicle routes have been developed to provide the shortest distances to/from the arterial road network and are shown in Figure 4.1.

The designated truck routes for construction vehicles travelling to and from the site are as follows.

### Inbound

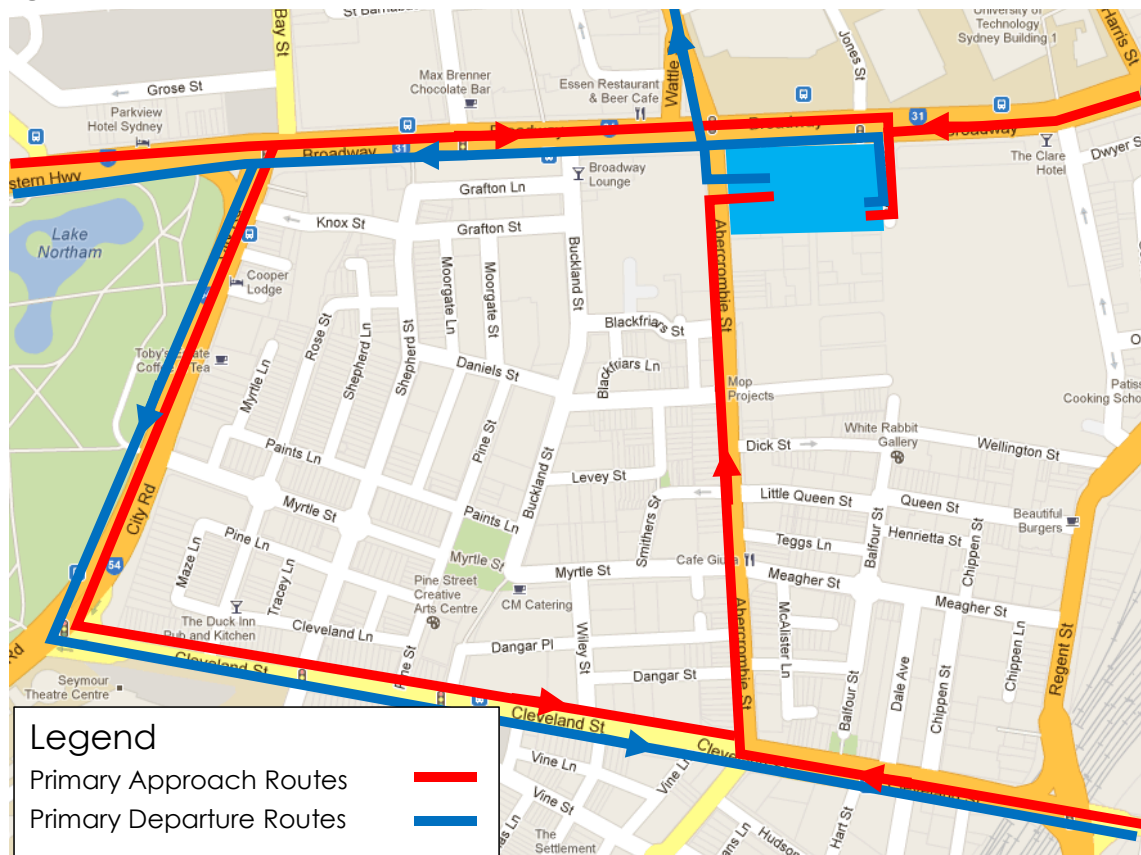
- From the Anzac Bridge and Sydney Harbour Bridge, travel west along Broadway, turn left into Chippendale Way and turn right into the site.
- From the M4 Motorway, travel east along Broadway, turn right into Chippendale Way and turn right into the site.
- From the Eastern Distributor, travel west along Cleveland Street, turn right into Abercrombie Street and turn right into the site.
- From the M4 Motorway, travel east along Cleveland Street, turn left into Abercrombie Street and turn right into the site.

To avoid delays and queuing at surrounding intersections, vehicle drivers would radio the site office on approach to confirm their arrival location.

### Outbound

- Turn right out of the site into Abercrombie Street and through along Wattle Street to Anzac Bridge and Sydney Harbour Bridge.
- Turn right out of the site into Abercrombie Street and turn left into Broadway to M4 Motorway.
- Turn right out of the site into Abercrombie Street, turn left into Broadway, turn left into City Road, turn left into Cleveland Street and on to Eastern Distributor.
- Turn left out of the site into Chippendale Way, turn left onto Broadway to M4 Motorway.
- Turn left out of the site into Chippendale Way, turn left into Broadway, turn left into City Road, turn left into Cleveland Street and on to Eastern Distributor.

Figure 4.1: Blocks 1 and 4N Construction Traffic Routes



Basemap Source: Google Maps

#### 4.4 Public Transport Services

There will be no re-direction of public transport services during construction works. No adverse impacts on existing public transport services or facilities would be expected.

#### 4.5 Pedestrian and Cyclist Access

Pedestrians and cyclists are not expected to be affected as a result of the construction works. On-site personnel will manage the opening and closing of the site access gates, with pedestrian safety monitored by these personnel. In the event that pedestrian safety is jeopardised, trained and licenced traffic controllers would be required to restrict pedestrian movements across the driveway locations. As such, a Traffic Control Plan would be prepared by the contractor. Any such Traffic Control Plan shall deploy swing gates or similar across the full width of the footpath to fully control pedestrian movements while trucks access the site. However, it is noted that traffic controllers would not be permitted to manage traffic along the Abercrombie Street or Chippendale Way driveways whilst construction vehicles turn in and out of site accesses.

#### 4.6 Emergency Vehicle Access

Emergency vehicle access to, from and around the construction site would be maintained at all times.

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.

Emergency protocols on the site would include a requirement for the Principal Contractor to assist with emergency access to the site.

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

## 5. Mitigation Measures

### 5.1 Traffic Management Measures

Advisory road signage should be installed along Abercrombie Street in accordance with Traffic Control Plan (TCP) 195 referenced in Traffic Control at work sites and AS1742.3 Manual of Uniform Traffic Control Devices - Traffic Control Devices for Works on Roads. This TCP is contained in Appendix A. Similar signage is currently installed along Abercrombie Street relating to construction works at Block 8 (shown in Appendix B). It is noted that advisory signage installed for the two sites would need to be coordinated to ensure that drivers are aware of the truck activity for the duration of the cumulative construction works.

In addition, signage indicating that there is a site access should be installed within Chippendale Way and Central Park Avenue to warn general traffic within Chippendale Way and Central Park Avenue of any increased truck movements. However, it is noted that generally traffic along Chippendale Way is aware of the ongoing construction in this area and would not require the same levels of signage as Abercrombie Street.

The following construction traffic management mitigation measures would also be applied to the construction of Block 1.

#### 5.1.1 Vehicle Access

- Construction vehicles shall radio site office on approach to the site to ensure access to the site and loading facilities within the site are available. All loading and unloading shall be undertaken within the site.
- General vehicle access along Abercrombie Street and Broadway shall be maintained at all times and traffic controllers shall not be permitted to stop traffic flows without prior approval from the appropriate authorities.
- Vehicles using Chippendale Way shall do so at low speed (no greater than 10km/h).
- If there are any materials spilt onto the road, site personnel and equipment shall rectify, subject to appropriate OH&S provision.

#### 5.1.2 Truck Routes

- Site induction shall include procedures for accessing the site from Broadway and Abercrombie Street.
- Drivers shall adhere to the nominated truck routes, as shown in Figure 4.1.
- Drivers shall be aware of pedestrians and cyclists in the vicinity of the site.
- Drivers shall be aware that the local area is signposted as 50km/h with Abercrombie Street and Broadway signposted as 60km/h.

### 5.2 Site Inspections and Record Keeping

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

### 5.3 Site Induction

All staff employed on the site by the Principal Contractor shall be required to undergo a site induction.

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

## 6. Conclusion

This report has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the proposed basement works at Blocks 1 and 4N and construction works at Block 1 within the Central Park development site.

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

- The construction works at Block 1 (and Block 1 and 4N basement) are expected to generate approximately 30 vehicle movements (two-way) per day, with a peak hourly generation of up to 6 vehicle movements per hour.
- The cumulative construction of Block 1, Block 4S and Block 8 are expected to generate approximately 66 vehicles per day, with a peak hourly generation of up to 14 vehicle movements per hour.
- Construction vehicle movements to and from the site can be satisfactorily accommodated by the surrounding road network.
- Signage in accordance with Traffic Control Plan 195 will be implemented along Abercrombie Street to assist vehicles entering and exiting the site and alert other drivers, pedestrians and cyclists that construction movements are taking place.
- All vehicles associated with the construction works would enter and exit the site via Abercrombie Street and/or Chippendale Way.
- A number of driver protocols would be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.
- The site is located in close proximity to the Central Transport Interchange which is served by high frequency public transport services.

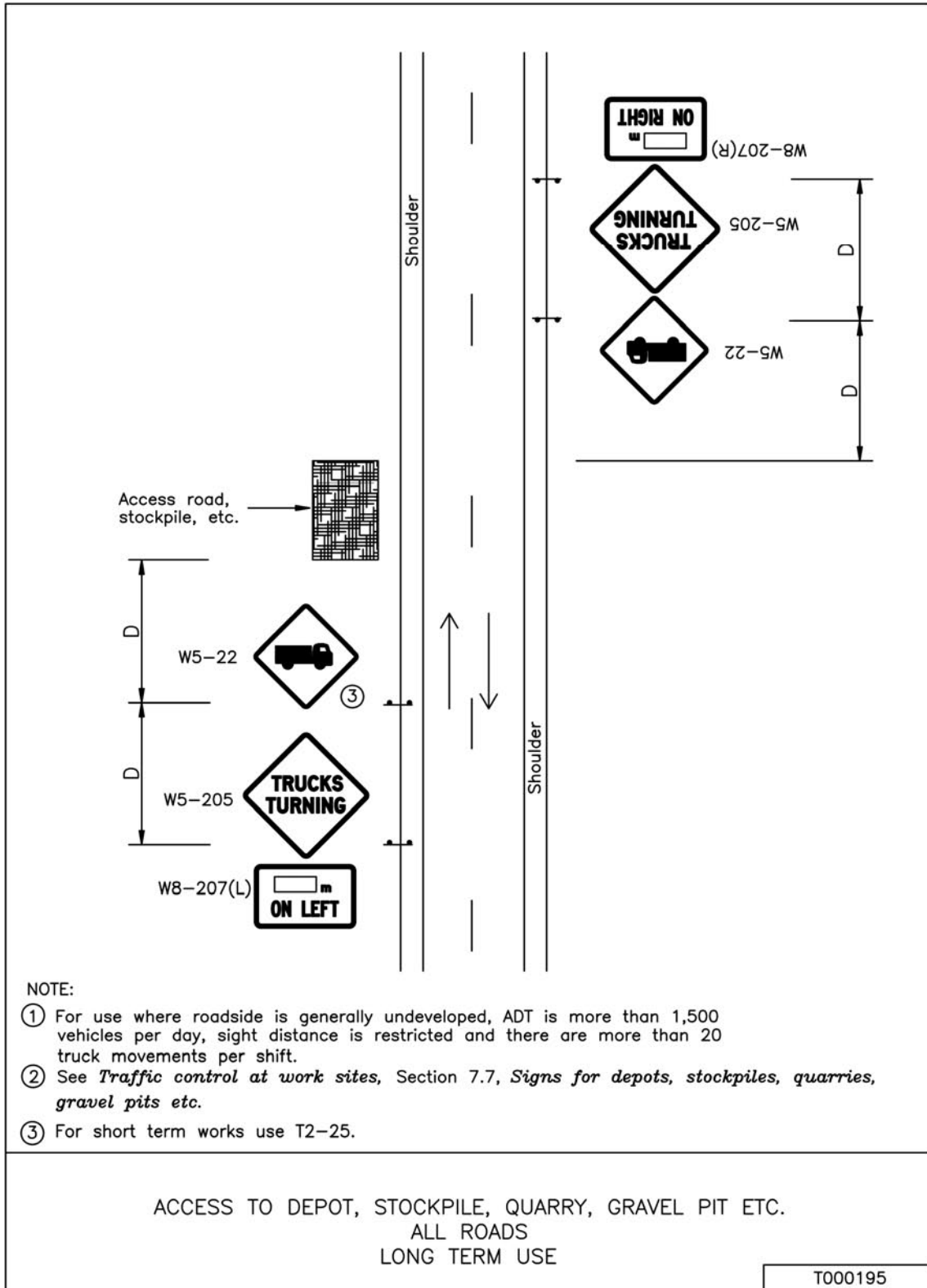
The contractor has not yet been appointed. As such, this CTMP has been prepared using information provided by Frasers Property Australia based on their expectations and construction works already completed for other buildings within Central Park.

In summary, it is concluded that the proposed measures would adequately address potential traffic related implications associated with the proposed basement construction of Blocks 1 and 4N and construction works at Block 1.

## Appendix A

Appendix A

### Standard Traffic Control Plan



## Appendix B

### TCP for Block 8

RED CARD  
WAYNE JOHNSON: LICENSE No. 2542040795



TRAFFIC CONTROLLER TO STOP  
PEDESTRIANS CROSSING IRVING  
ST WHILST CONSTRUCTION  
VEHICLES TURN RIGHT FROM  
ABERCROMBIE ST INTO IRVING ST



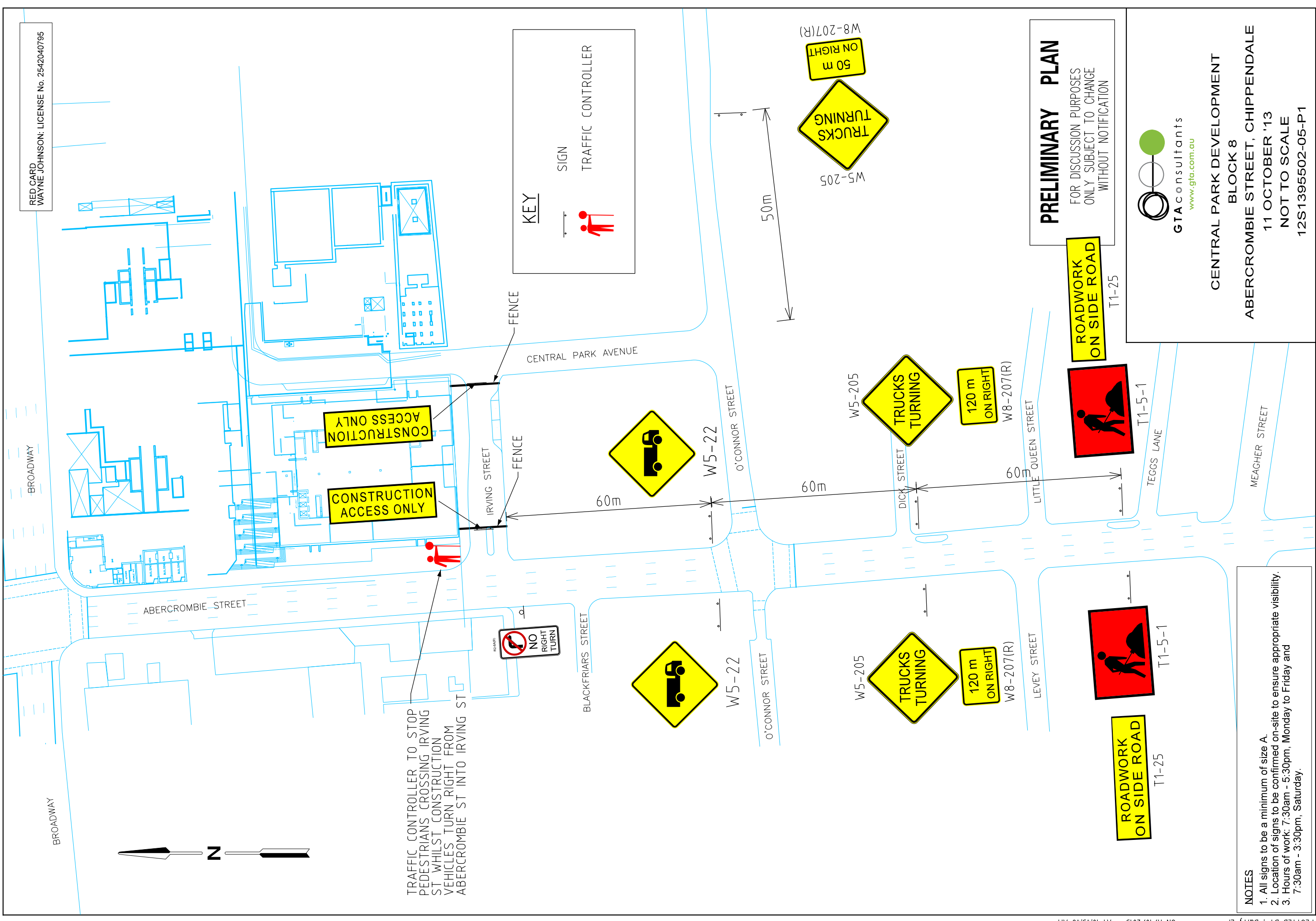
CONSTRUCTION  
ACCESS ONLY

CONSTRUCTION  
ACCESS ONLY

**KEY**

— SIGN

— TRAFFIC CONTROLLER



**PRELIMINARY PLAN**  
FOR DISCUSSION PURPOSES  
ONLY SUBJECT TO CHANGE  
WITHOUT NOTIFICATION

ROADWORK  
ON SIDE ROAD  
T1-25



CENTRAL PARK DEVELOPMENT  
BLOCK 8  
ABERCROMBIE STREET, CHIPPENDALE  
11 OCTOBER '13  
NOT TO SCALE  
12S1395502-05-P1

- NOTES**
- All signs to be a minimum of size A.
  - Location of signs to be confirmed on-site to ensure appropriate visibility.
  - Hours of work: 7:30am - 5:30pm, Monday to Friday and 7:30am - 3:30pm, Saturday.

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