



# Proposed Multi Dwelling Townhouses – 50 Botany Street, Bondi Junction

## Parking & Traffic Impact Assessment Report

P2046

Prepared for  
Bondi Exchange Pty Ltd

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# 1 Introduction

## 1.1 Background

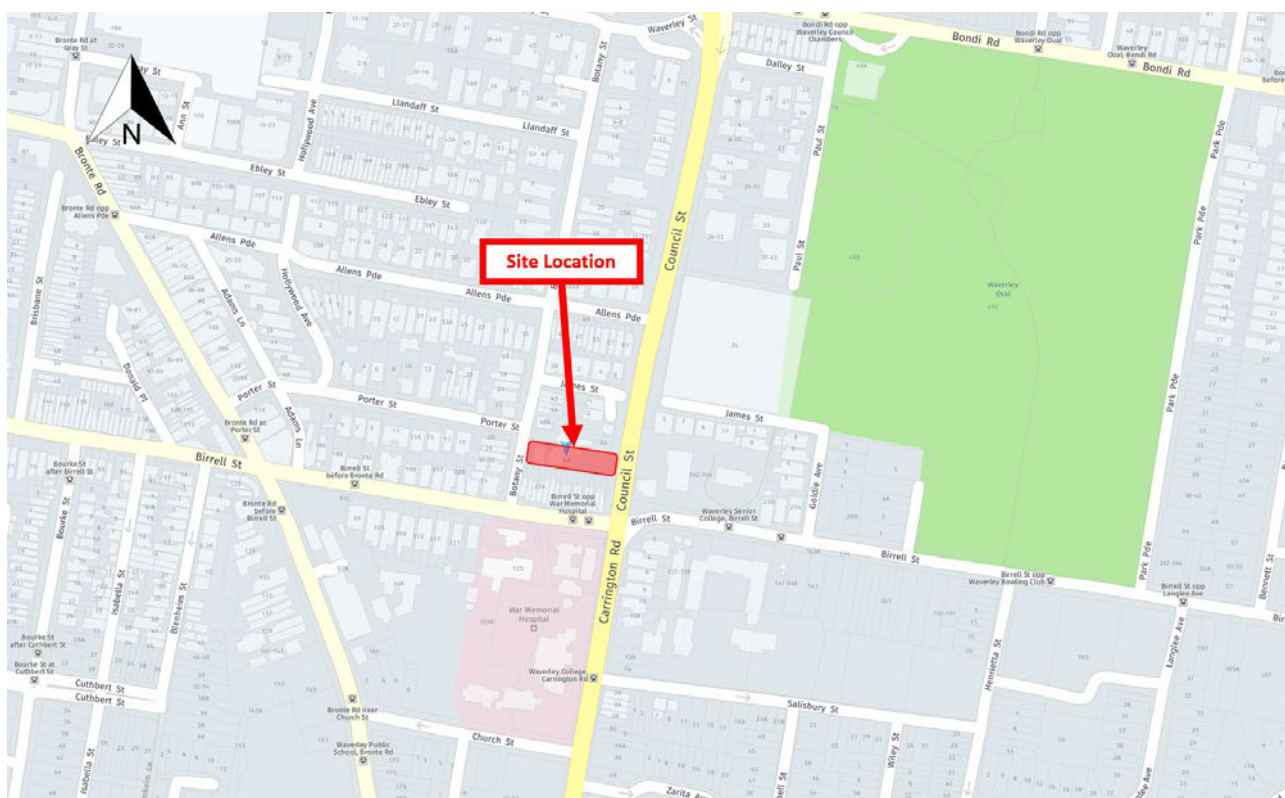
Greys Consulting has been engaged by Bondi Exchange Pty Ltd to prepare a Traffic and Parking Impact Assessment (TIA) report to support developer's application to construct an seven (7) townhouse unit development through subdivision of the existing lot at 50 Botany Street, Bondi Junction.

The plans and documents for the proposed development, which were assessed for this Traffic and Parking Impact Assessment report, are as follows:

- Urban Design Analysis
- Concept Basement Parking Plan

This report is prepared for the Planning Proposal stage and could be used for the DA stage with further assessment of the detailed access driveway and parking layouts.

The subject site is shown in Figure 1.1.



**Figure 1-1 Subject Site Area**

Source: Near Maps

## 1.2 Proposed Development

The proposed development comprises seven (7) townhouses located within SP2 Infrastructure landuse zone and surrounded by the Medium Density Residential (R3) Land Use of Waverley Council LGA based on Waverley Council Land and Environment Planning Maps 2012. The intended future use of the lot is medium density residential after demolition of the telecommunication tower within the lot.

The development plans show one access driveway via Botany Street for the proposed townhouses. The site area is 1355sqm with a road frontage of 20m to Botany Street.

Off-street parking spaces have been provided at basement level according to the proposed concept basement layout.

The concept basement parking layout plan is attached in **Appendix A**.

### **1.3 Scope of Work**

The following works have been undertaken as part of this study:

- summary of the site's traffic generation and any impacts on the surrounding intersections;
- assessment of the site access location and form in accordance with Waverley Council DCP (General Provision) and AS2890.1 requirement;
- assessment of the parking layout in accordance with AS2890.1 requirement;
- a review of public transport accessibility and facilities within proximity to the site.
- assess on-site statutory car parking requirements of the proposed development based on parking rates stipulated in Waverley Council DCP 2012 (Part B - General Provisions Chapter B7) and RTA Guide to Traffic Generating Developments (2002) document;
- provide advice to the design team on the parking supply, site access and general layout;
- propose site access / egress arrangements with commentary on suitability and visibility requirements in line with Australian Standards; and
- provide a traffic impact assessment report for submission to Waverley Council in accordance with the outcomes of the above tasks to support the proposed DA.

### **1.4 Reference Documents**

The following documents have been reviewed and referenced in this report:

- > Part B - General Provisions Chapter B7 of Waverley Council DCP 2012;
- > Guide to Traffic Generating Developments (RTA, 2002);
- > AS\_NZS2890.1-2004 Parking Facilities-Off Street Car Parking; and
- > Development Plans provided by the Smith & Tzannes.

## 2 Existing Conditions

### 2.1 Surrounding Road Network

#### 2.1.1 Key Roads

Details of the immediate road network surrounding the proposed development site is shown in Table 2.1.

**Table 2-1 Surrounding Road Network**

Road Name	Jurisdiction	Hierarchy	No. Lanes	Divided	Speed Limit	Comments
Botany Street	Waverley Council	Local Street	2	No	50km/h	Local Residential Street
Waverley Street	Waverley Council	Local Street	2	No	50km/h	Local Residential Street
Birrell Street	Waverley Council	Local Collector Street	2	No	50km/h	Regional Road
Council Street	TfNSW	Collector Road	4	No	50km/h	State Controlled Road
Bondi Road	TfNSW	Colle	4	No	50km/h	State Controlled Road
Syd Einfeld Drive	TfNSW	Arterial Highway	6	Yes	80km/h	State Controlled Road

The existing road network surrounding the development at 50 Botany Street, Bondi Junction consists of:

- Botany Street (Local Road)
- Birrell Street (Regional Road)
- Council Street (State Road)
- Bondi Road (State Road)
- Syd Einfeld Drive (State Road)

The main traffic corridor in the vicinity of the subject site is Syd Einfeld Drive which is classified as a State Road and can be accessed via Bondi Road.

#### 2.1.2 Botany Street

A local road that runs in a north-south direction. It provides direct vehicular access to the subject site. Botany Street is a two-lane, two-way delineated road with unrestricted kerbside parking along northbound. The road has a posted speed limit of 50km/h. Connected footpaths are provided on both sides of Botany Street in the vicinity of the site.

#### 2.1.3 Waverley Street

A local road that runs in an east-west direction. It provides access to high density residential buildings within. Waverley Street is a two-lane, two-way delineated road with unrestricted kerbside parking along the southern kerbside. The road has a posted speed limit of 50km/h. Connected footpaths are provided on both sides of Waverley Street in the vicinity of the site.

#### 2.1.4 Birrell Street

A Regional Road that runs in an east-west direction. Birrell Street is a two-lane, two-way road with unrestricted kerbside parking in both directions. The road has a posted speed limit of 50km/h. Connected footpaths are provided on both sides of Birrell Street in the vicinity of the site.



### 2.1.5 **Council Street**

A State Controlled Road that runs in a north-south direction. Council Street is a two-lane, two-way road with unrestricted kerbside parking in both directions. The road has a posted speed limit of 50km/h. Connected footpaths are provided on both sides of Birrell Street in the vicinity of the site. Council Street provides access to the medium density residential landuse within.

### 2.1.6 **Bondi Road**

Bondi Road is a 2-kilometre State Controlled Road. Bondi Road commences at the intersection of Syd Einfeld Drive, Oxford Street and Old South Head Road in Bondi Junction and heads in an easterly direction as a four-lane, single carriageway road through Bondi, until it turns into Campbell Parade at Bondi Beach.

### 2.1.7 **Hume Highway**

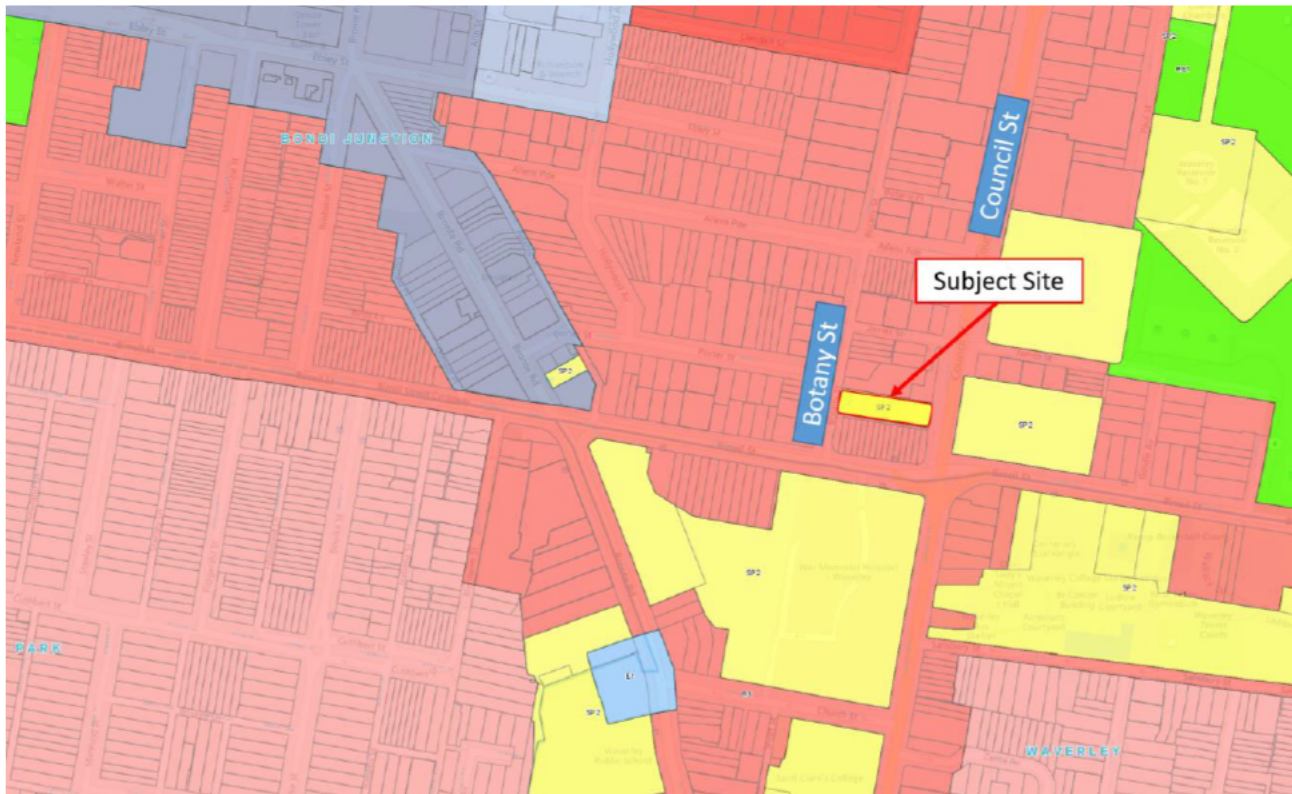
Syd Einfeld Drive is a State Controlled Road and commences at the intersection of Oxford Street and Ocean Street in Woollahra and heads east as a six-lane, dual-carriageway road, elevated for most of its length over connector roads into central Bondi Junction just to its south. It terminates at the intersection Oxford Street, Old South Head Road and Bondi Road at the eastern end of Bondi Junction. It has a speed limit of 80 km/h for its entire length.

**Table 2-2 Road Classifications**

Road Classification	Description
<b>Arterial Road</b>	This is typically a main road carrying more than 15,000 vehicles per day and over 1,500 vehicles per hour in the peak period. They carry traffic from one region to another, forming principal avenues of communication for metropolitan traffic movements.
<b>Sub-Arterial Road</b>	This is typically a secondary road carrying between 5,000 and 20,000 vehicles per day, and over 500 to 2,000 vehicles per hour in the peak period. They carry traffic from one sub-region to another forming secondary inter-regional transport links.
<b>Collector Road</b>	This is typically a minor road carrying between 2,000 and 10,000 vehicles per day, and over 250 to 10,000 vehicles per hour in the peak period. They provide a link between local areas and regional roads, carrying low traffic volumes. At volumes greater than 5,000 vehicles per day, residential amenity begins to decline noticeably.
<b>Local Road</b>	This is typically a local street carrying less than 2,000 vehicles per day and 250 vehicles per hour in the peak period. They provide immediate access to individual houses and carry low volumes of traffic.

Source: RMS Functional Classification of Roads





**Figure 2-1 Study Area Land Use Plan**

Source: Waverley Council LEP 2012 Maps

## 2.2 Existing Traffic Controls

Key features of the existing traffic controls which apply to the road network in the vicinity of the site are:

- a 50 km/h SPEED LIMIT in Local Roads;
- The Birrell Street/Council Street and Waverley Street/Bondi Road Intersections are controlled by Traffic Lights

## 2.3 Public Transport

### 2.3.1 Bus Routes

There is a bus route currently providing public transport access via two bus stops located near the proposed development. Important bus routes and their frequencies are summarised in **Table 2-3**.

Two bus stops are conveniently located at Birrell Street. The Bus Stops are serviced by the following route providing frequent service to Bondi Junction Train Station:

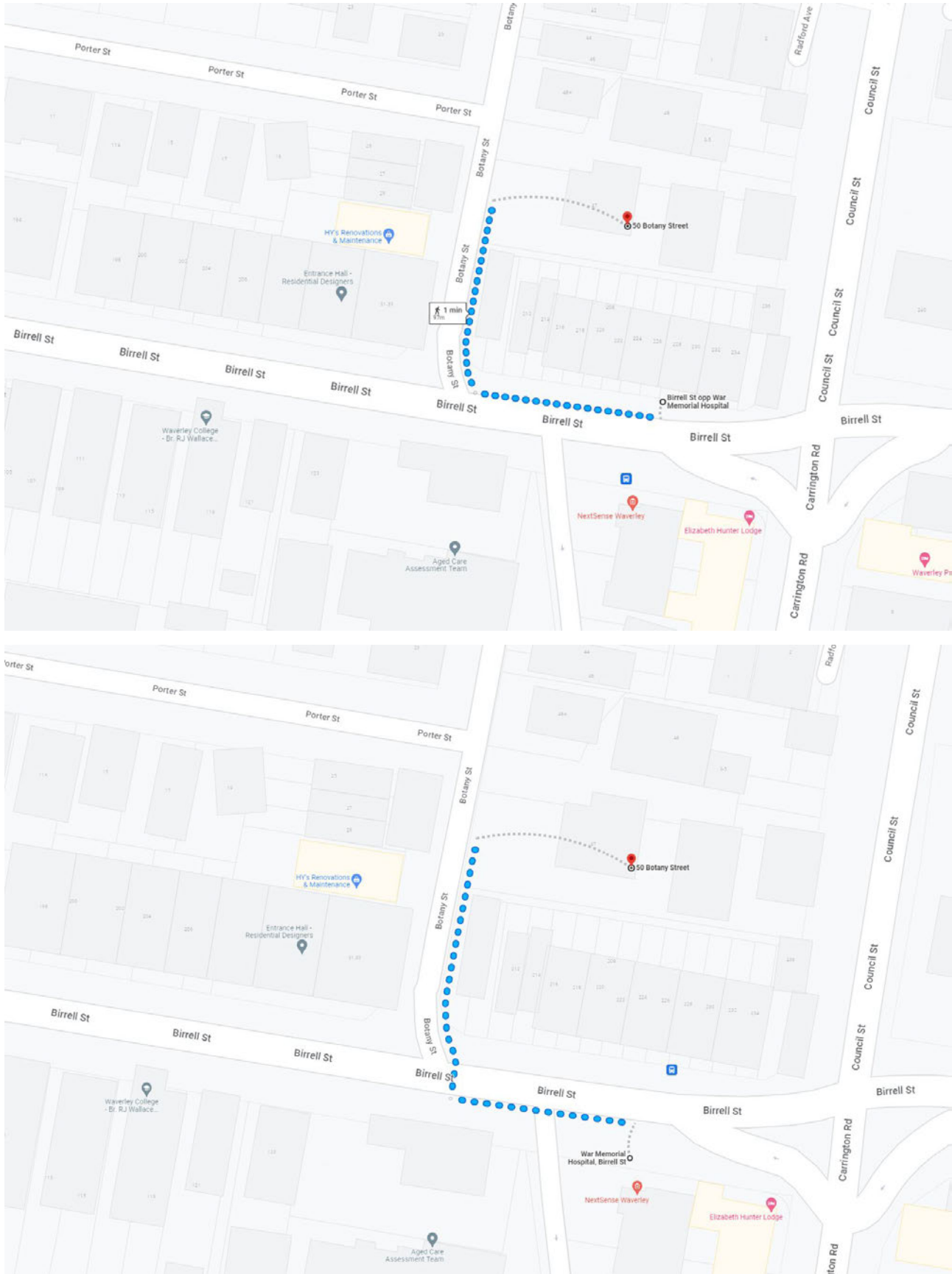
**Table 2-3 Bus Services**

Route	Description	Operator	Frequency	
			Weekday Peak	Weekday Off-Peak
<b>360</b>	Clovelly to Bondi Junction	Sydney Buses	Every 10 Minutes	Every 30 Minutes

Source: <http://www.transport.nsw.gov.au/>

Bus time schedules show an average of 3 minute travel time to Bondi Junction Station.

The bus stops surrounding the site are presented in Figure 2-2.



**Figure 2-2 Walking Distance to Public Transport (Bus) from the Planning Proposal**

Source: Google maps

### **2.3.2      Train**

Bondi Junction Train Station can be accessed by approximately 11 minute walk from the planning proposal. Bondi Junction Train Station provides access to T4 and South Coasts lines.

## **2.4          Pedestrian Infrastructure**

Connected footpaths with proper access and connectivity is provided from the proposed development to public transport services.

## **2.5          Existing Car Parking Context**

### **2.5.1      Car Parking Restrictions**

#### **2.5.1.1    *Botany Street***

Botany Street at the vicinity of the proposed development has no parking restriction on both sides of the road. The unrestricted parking policy looks appropriate according to the low turnover of parking manoeuvres in the neighbourhood due to adjacent low/medium density residential land use.

### 3 Parking Assessment

This section investigates the proposed parking provisions against the statutory requirements applicable for the subject development. A car park design review has also been undertaken to ensure compliance of the proposed design against the minimum standards stipulated in the Waverley Council DCP, RTA Guidelines and the Australian Standards.

#### 3.1 Proposed Car Parking Supply

The parking rates were obtained from car parking requirements for multi dwelling houses set out in the Waverley Council Development Control Chapter B7.

The car parking rates adopted to calculate the amount of car parking spaces required are tabulated in **Table 3-1** below.

A total of 9 car spaces are proposed. Detailed parking calculations are depicted in **Table 3-1**.

**Table 3-1 Proposed Car Parking Supply**

Type	Waverley Council DCP (Zone 2 Max)
7X Dwellings 3-Bedroom	10.5 Spaces
1 additional visitor spaces for every five dwellings	1.4 Space
Total Spaces Required (Maximum Rounded Up)	12 Spaces
Spaces Provided	12 Spaces

As summarised in the table above, the proposed parking provision complies with Waverley Council DCP minimum and maximum parking requirement for medium density developments located at Zone 2. (Good to fair accessibility to public transport)

#### 3.2 Parking Layout

The proposed parking spaces of town houses 1 to 7 provide access to Botany Street driveway.

##### 3.2.1 Car Park Dimensions

The minimum dimensions required for the car park are shown in **Table 3-2**:

**Table 3-2 Car Parking Dimensions**

Parking Space Width	Parking Space Length	Aisle Width
2.4m	5.5m	5.8-6.7m

The concept parking space dimensions of the design plans provided to Greys Consulting have been confirmed to be in accordance to AS 2890.1-2004.

##### 3.2.2 The Access Driveway and Internal Circulation

Parking layout plans were interrogated for compliance with requirements of AS2890.1 for off-street parking provision.

Width of the proposed driveways off Botany Street has not been provided at planning proposal stage for further assessment.

## 4 Proposed Development

### 4.1 Development Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads & Maritime Services Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002).

The RMS Guidelines are based on extensive surveys of a wide range of landuses and nominate the following traffic generation rates which are applicable to the development proposal.

Application of the above traffic generation rates to the various components outlined in the development proposal yields a traffic generation potential of approximately 5 peak hour vehicle trips as set out in the table below:

**Table 4-1 Peak Hour Development Traffic Generation**

Land Use	Generation Rate	GFA/No. Units	Total Trips
Residential Dwellings	0.85 peak hour vehicle trips	7	5.95
<b>Total Trips Generated (rounded)</b>			<b>6</b>

Accordingly, it is likely that the proposed development will result in an increase in the traffic generation potential of the site of maximum 6 vph.

Projected increase in traffic activity as a consequence of the development proposal is minimal and will clearly not have any unacceptable traffic implications in terms of negatively impacting surrounding road network capacity.



## 5 Summary and Conclusions

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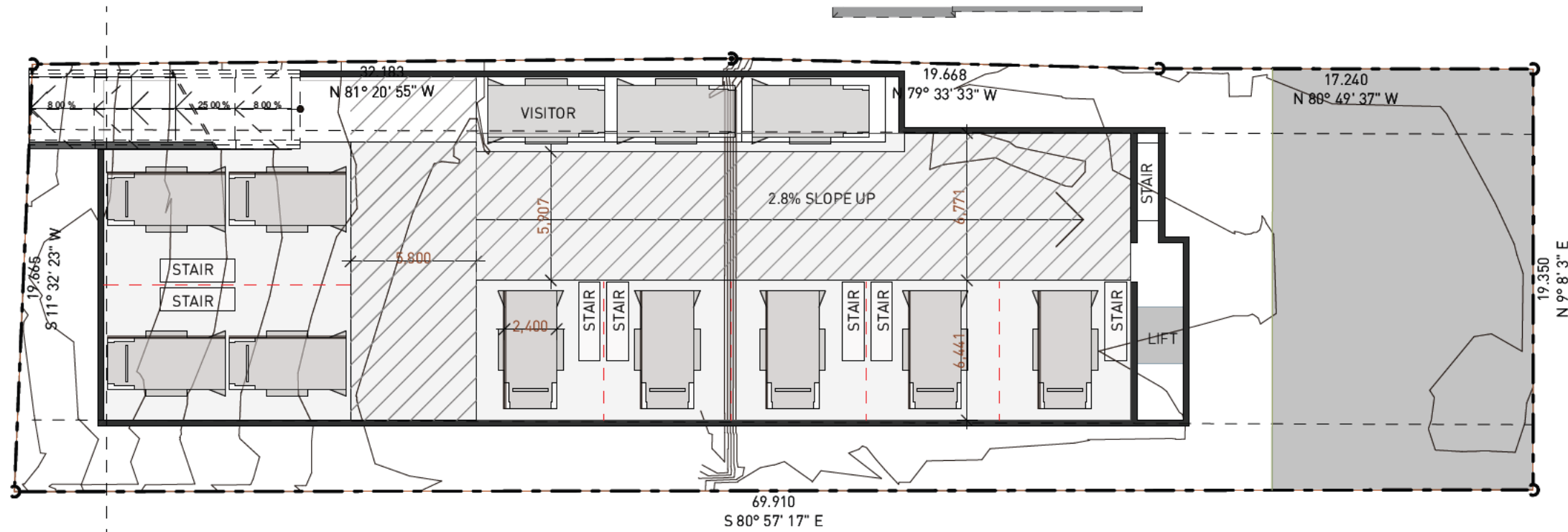
Greys Consulting was engaged by Bondi Exchange Pty Ltd to prepare a traffic impact and parking assessment in support of a development application for a proposed seven townhouses development at 50 Botany Street, Bondi Junction, NSW. The proposed development was assessed in accordance with the Waverley Council DCP, RMS Guidelines to Trip Generating Development and the AS 2890.1 Series. The assessment outcomes are as follows:

- > An investigation of the public transport available was undertaken revealing several bus routes frequently passing near the subject site providing access to important destinations in the vicinity area Transport Hub at Bondi Junction.
- > No SIDRA intersection assessment was required due to trivial number of projected trip generation from the subject development which does not warrant SIDRA modelling at this stage.
- > The proposed parking layout and access ramp is designed in accordance to AS 2890.1-2004.
- > As part of this report, a parking layout assessment was also undertaken. The proposed development provides a total of 12 parking spaces on the provided concept parking design plans. The parking provision complies with Waverley Council DCP Chapter B7 requirements. It is considered that the proposed provision of 12 car spaces will satisfy the actual parking demands likely to be generated by the development proposal and in the circumstances, it is concluded that the proposed development will not have any unacceptable parking implications.
- > The investigation of the public transport options revealed a reasonable level of bus and train accessibility to the site. Given these factors, and the results of the high-level intersection and mid-block analysis, it is clear that this development is sustainable in transport terms, with acceptable impacts on the local transport network.

## **Appendix A – Concept Basement Parking Layout**



## REFERENCE DEVELOPMENT - BASEMENT



LEVEL C1  
1:250