LendLease

# Barangaroo Stage 1B Public Domain

## Transport Assessment and Construction Traffic Management Strategy

Rev B | 1 May 2017



Job number 226463-12

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# Contents

# 1 Introduction

This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Infrastructure pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The SSDA seeks approval for public domain works within Stage 1B at Barangaroo South as described in the Overview of Proposed Development section of this report.

## 1.1 Overview of Proposed Development

The Public Domain SSDA seeks approval for all public domain works within 'Stage 1B' of the Barangaroo South Site, as well as the expanded area of Hickson Park and the waterfront promenade required by Concept Plan MOD 8. These works include typical public domain features such as street paving, street furniture, lighting and planting.

Additional items such as shade/weather protection structures, water features and bicycle facilities are also included in the design of the public domain. Various services and infrastructure such as power and water are incorporated into the proposed works where relevant.

## 1.2 Site Location

Barangaroo is located on the north western edge of the Sydney Central Business District, bounded by Sydney Harbour to the west and north, the historic precinct of Millers Point (for the northern half), The Rocks and the Sydney Harbour Bridge approach to the east; and bounded to the south by a range of new development dominated by large CBD commercial tenants.

The Barangaroo site has been divided into three distinct redevelopment areas (from north to south) – the Headland Park, Barangaroo Central and Barangaroo South.

The Public Domain SSDA Site area is located within Barangaroo South as shown in Figure 1. The SSDA Site extends over land generally known and identified in the approved Concept Plan as Blocks 5, 4A, 4B and Y and the area of the foreshore between Block X and Darling Harbour.

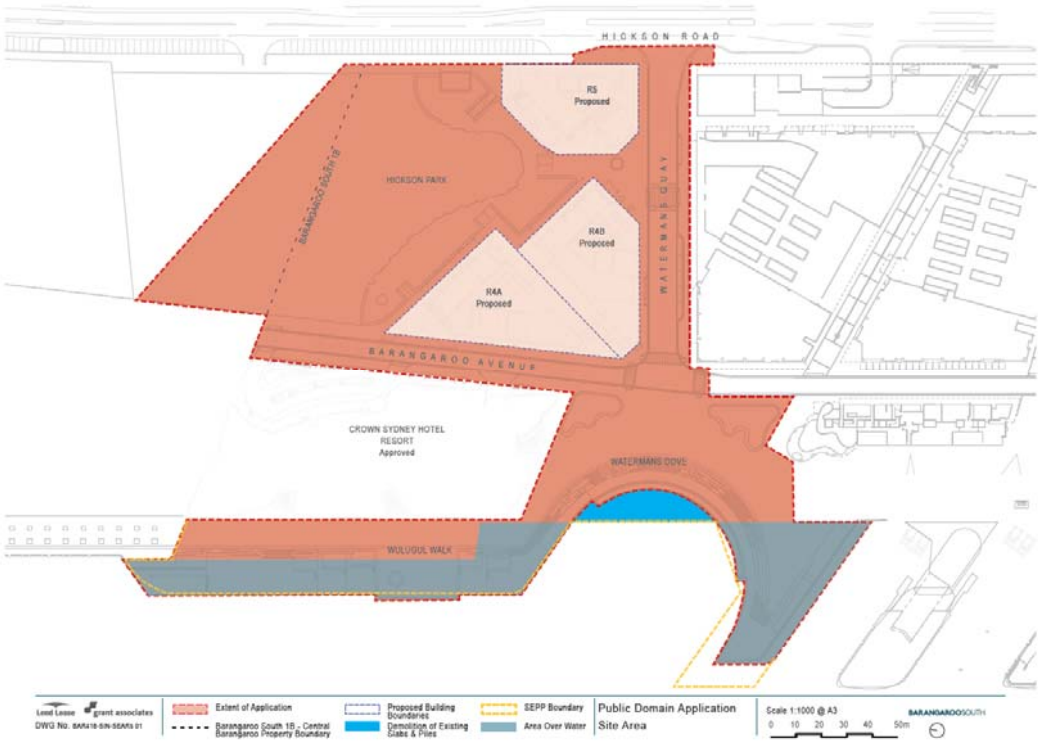



Figure 1: Public Domain Application Site Plan

## 1.3 Report Scope

This report has been prepared to respond to the Secretary's Environmental Assessment Requirements (SEARs) for preparation of the Environmental Impact Statement to accompany the Development Application (DA). The requirements relating to traffic and transport, along with the section in this document where they have been addressed, are outlined in Table 1.

Table 1 Department of Planning and Environment (DPE) SEARs requirements

| **SEARs** | **Where addressed in this report** |
|---|---|
| Details of proposed daily and peak hour vehicle, public transport, pedestrian and bicycle movements | Section 3.2, 3.6 and 3.7 |
| Details of on-street parking, loading zones, bicycle and pedestrian facilities | Section 3.1, 0, 0, 3.6 and 3.7 |
| Details of pedestrian and cycling connections | Section 3.6 and 3.7 |
| Construction traffic assessment | Section 3.10.1 |

# 2 Description of Public Domain Works

## 2.1 Road layout

The roads which are contained within 'Stage 1B' of the Barangaroo South Site comprise Barangaroo Avenue running north-south as an extension of Barangaroo Avenue within the Stage 1A precinct, and Watermans Quay running east-west to Hickson Road as shown on Figure 2. The northern end of Barangaroo Avenue (north of the Crown Hotel Resort) is to be closed to vehicular traffic in the short term with no through road connection to the north. Following the opening of Barangaroo Central, it will become a through road capable of accommodating a 12.5m long vehicle.

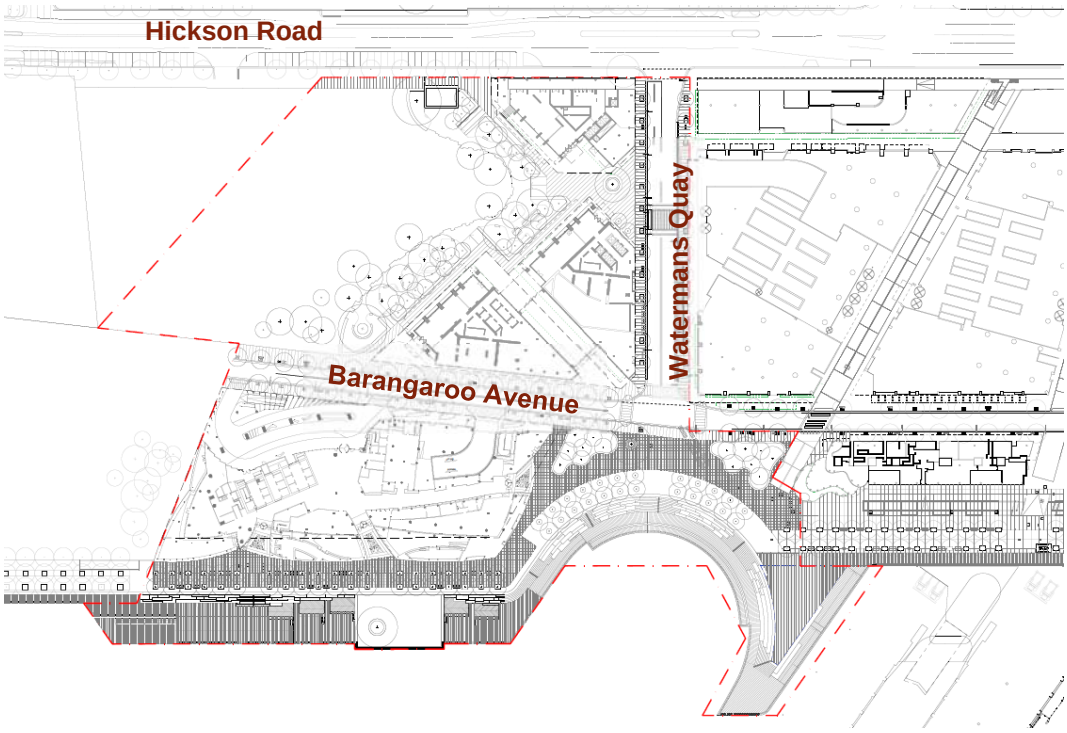



Figure 2: Road layout

## 2.2 Road cross sections

### 2.2.1 Watermans Quay

The road cross section dimensions for Watermans Quay is shown in Figure 3. An 11.5m road carriageway is proposed between kerbs for two-way traffic with indented taxi bays on the south side of Watermans Quay. The overall road reserve between property boundaries is 23m.


Figure 3 Watermans Quay cross section

### 2.2.2 Barangaroo Avenue

The road cross section dimensions for Barangaroo Avenue is shown in Figure 4. A 7m road carriageway is proposed between kerbs for two-way traffic which is commensurate with the low speed, pedestrian friendly environment. This cross section is consistent with that recently completed on Barangaroo Avenue within the Stage 1A site.


Figure 4 Barangaroo Avenue cross section

## 2.3 Road connections

There are two intersections that are considered by this planning application as shown in Figure 5:

- Watermans Quay / Hickson Road
- Watermans Quay / Barangaroo Avenue

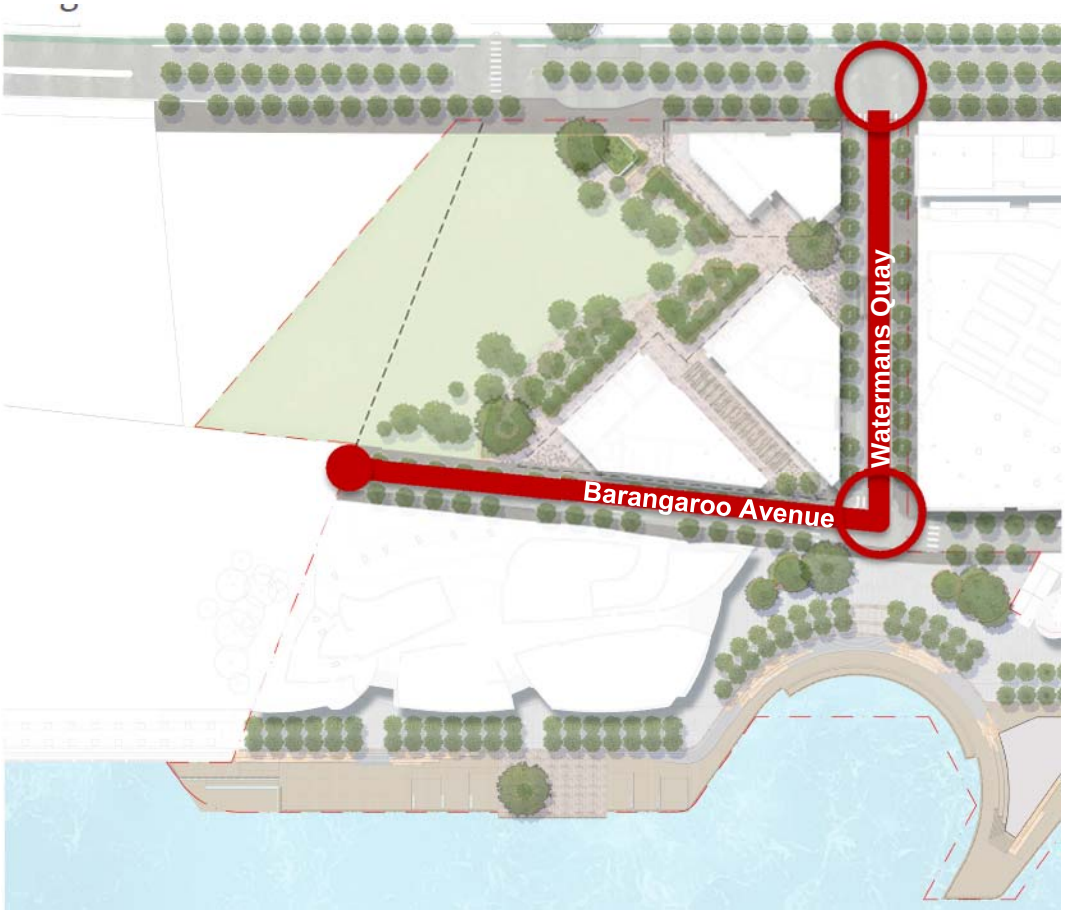



Figure 5: Road connections

For this development application, the northern end of Barangaroo Avenue (north of the Crown Hotel Resort) is to be closed to vehicular traffic, with no through road connection to the north. A small turning head will temporarily be provided at the end of Barangaroo Avenue to facilitate vehicle turnarounds. It is anticipated only a small number of vehicles will be required to undertake this manoeuvre, with signage to be installed noting that Barangaroo Avenue becomes a ‘no through road’.

## 2.4 Pedestrian and bicycle Connections

The Sydney City Centre Access Strategy was released by Transport for NSW in December 2013. This strategy aims to deliver a fully integrated transport network that prepares Sydney's city centre for the future. The focus is on improving access and circulation by public transport and active transport modes. A key focus is improved legibility and conditions for pedestrians and completing the cycleway network. The strategic cycleway and pedestrian improvements as outlined in the strategy are shown in Figure 6. The Stage 1B Barangaroo South site is well connected to the broader pedestrian and cycleway networks.


Figure 6 Future City Centre Strategic cycleway and pedestrian access improvements

# 3 Traffic and transport assessment

## 3.1 Site Access

The site access arrangements for Stage 1B are shown on Figure 7. The key pedestrian routes are focused on Wynyard Walk which provides connection to Wynyard Station for train and bus passengers. City Walk Bridge and Wynyard Walk Bridge provide grade separated access into the Barangaroo South precinct.

Cyclists will access the allocated resident bicycle parking within the Stage 1B development using an access ramp off Watermans Quay. Cyclists will use Hickson Road, Sussex Street and Napoleon Street for access into the facility.

Service vehicles access the basement loading area from Watermans Quay.

Emergency vehicles gain access within the precinct along Watermans Quay and Barangaroo Avenue where they can stop to gain foot access to the foreshore promenade and walks. Emergency vehicle access is also available to the waterfront. Cars access the basement parking areas via vehicle ramps on Watermans Quay, with a vehicle porte cochere available on Barangaroo Avenue.

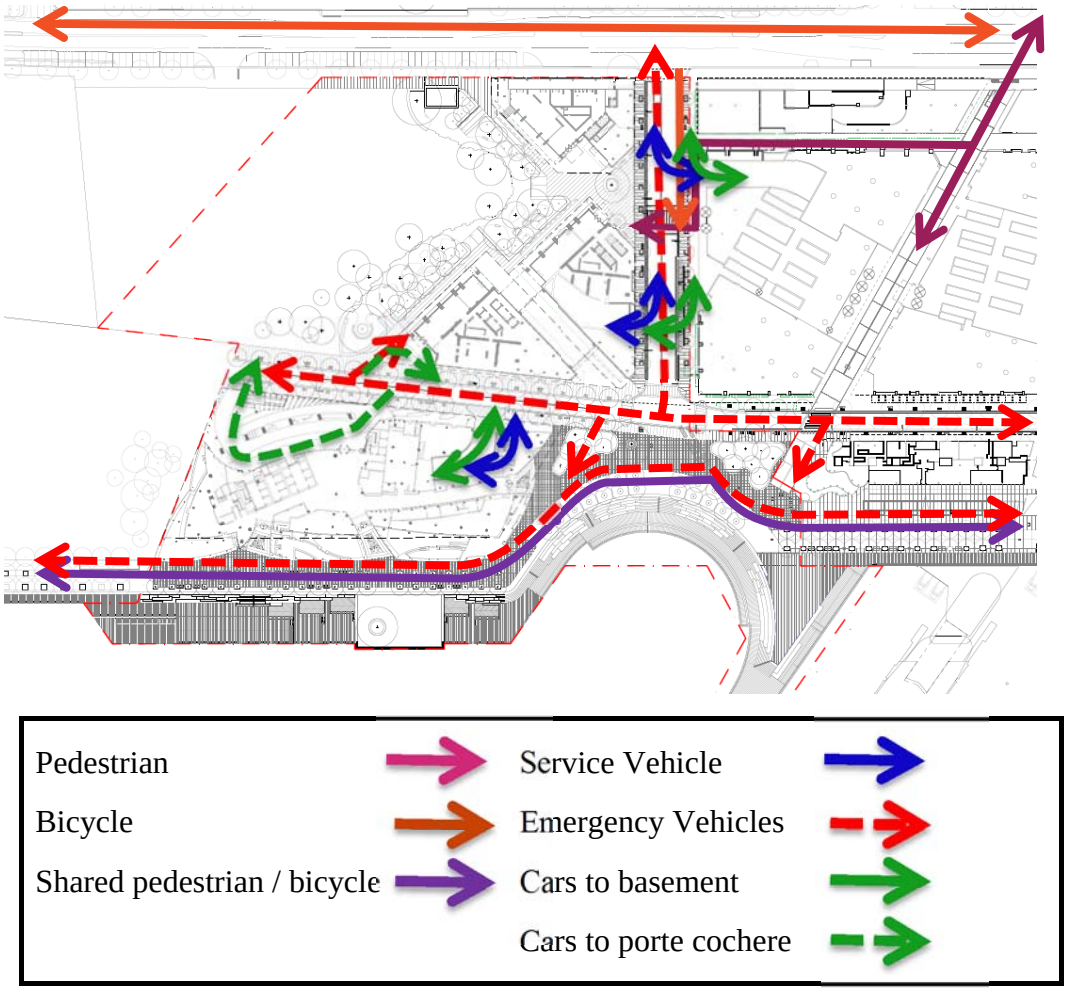



Figure 7 Site Access Arrangements for Stage 1B

## 3.2 Traffic flows

The Stage 1B traffic flows on Watermans Quay and Barangaroo Avenue are shown on Figure 8.

The midblock two-way traffic flow on Barangaroo Avenue is predicted to be in the order of 220 vehicles in the AM peak hour and up to 290 vehicles in the PM peak hour. This is within the limits of the environmental capacity for a local street as defined by the RMS in *The Guide to Traffic Generating Developments* document. The daily traffic flow is expected to be 2,500 to 3,000 vehicles/day.

The midblock two-way traffic flow on Watermans Quay east of the Stage 1B basement access ramp is predicted to be 350 vehicles in the PM peak hour. The daily traffic flow is expected to be 3,000 to 3,500 vehicles/day.

These traffic volume levels are at local road levels predominantly providing access to Barangaroo South and adjacent developments. There may be some through traffic in the morning peak feeding into the precinct from Harbour Street via Wheat Road which has a destination in the northern CBD, although this route will not be very attractive due to the length of the route and availability of an alternative via Erskine Street.


Figure 8 Stage 1B forecast traffic flows

## 3.3 Vehicle turning paths

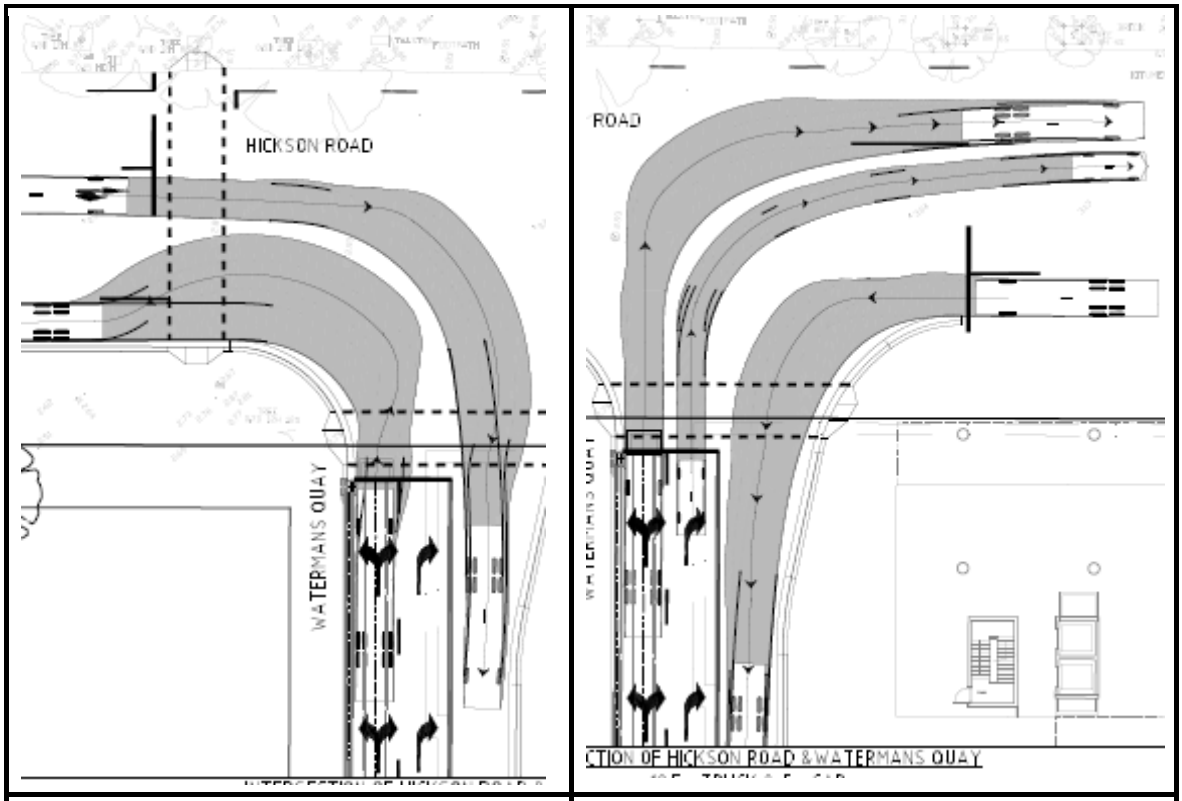
Table 2 below summarises the design vehicles for which the roads within Stage 1B have been designed:

Table 2 Summary of design vehicles for Stage 1B road network

| Interim Arrangement (prior to development of Central Barangaroo) | Ultimate Arrangement (upon completion of Central Barangaroo development) |
|---|---|
| • 12.5 m truck access along Watermans Quay and Barangaroo Avenue south of Watermans Quay;<br>• 9.8 m garbage truck to access the Stage 1B basement and Crown basement; and<br>• Passenger vehicles to the northern end of Barangaroo Avenue. | • 12.5 m truck access along Watermans Quay and Barangaroo Avenue<br>• 9.8 m garbage truck to access the Stage 1B basement and Crown basement |

### 3.3.1 Hickson Road / Watermans Quay

The intersection of Hickson Road and Watermans Quay has been designed to accommodate a large rigid truck for access into the Stage 1A basement loading dock. The turning paths for the 12.5m HRV design vehicle are shown in Figure 9. All movements are able to be executed independently without crossing the path of another vehicle.



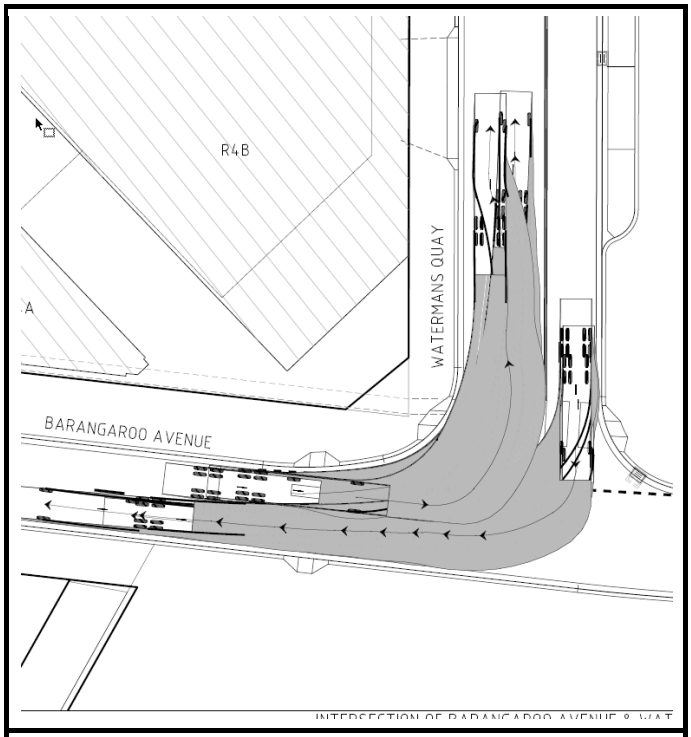

12.5m truck left turn exit from Watermans Quay to Hickson Road

12.5m truck left turn entry from Hickson Road to Watermans Quay

Figure 9 Hickson Road / Watermans Quay truck turning

### 3.3.2 Barangaroo Avenue / Watermans Quay

The Barangaroo Avenue / Watermans Quay intersection has been designed to accommodate the movement of 12.5m rigid trucks and 14.5m buses/coaches turning from Watermans Quay into Barangaroo Avenue (northbound). In the short term only 9.8m vehicles will be permitted to travel north on Barangaroo Avenue, however the design provides flexibility in future following the development of Barangaroo Central.




12.5m truck left turn from Barangaroo Avenue to Watermans Quay

Figure 10 Barangaroo Avenue / Watermans Quay truck turning

## 3.4 Proposed Stage 1B traffic signage

Traffic signage on the corner of Watermans Quay and Barangaroo Avenue will be required as shown in Figure 11 to provide information advance warning to drivers noting that it becomes a no through road north of Watermans Quay. It is recommended the sign read:

"*No through road, local access only to Crown Sydney. No access vehicles over 10m"*


Figure 11 Stage 1B traffic signage

## 3.5 Kerbside use – taxis and set down.

The southern kerb of Watermans Quay contain a number of indented parking bays. These bays will be used as a taxi rank to service both the Stage 1A and 1B precincts.

Figure 12 Taxi rank – Watermans Quay

## 3.6 Pedestrian access and volumes

### 3.6.1 Forecast pedestrian flows

Utilising Arup's pedestrian demand precinct model for Barangaroo, forecast pedestrian flows on various footpath links within the Stage 1B area could be forecast. These flows consider the full build out (~2025) of the Barangaroo Precinct, including the Crown Sydney and Barangaroo Central sites.

The forecast pedestrian flows across the AM, lunchtime and PM peak hours, as well as across the full day, are summarised in Table 3 below.

Table 3 Forecast pedestrian flows

| Link (refer Figure 13) | Forecast Pedestrian Flows | | | |
|---|---|---|---|---|
| | AM (8am-9am) | Midday (12.30pm - 1.30pm) | PM (5pm - 6pm) | Full Day |
| **1** | 208 | 777 | 656 | 5,969 |
| **2** | 121 | 259 | 254 | 2,299 |
| **3** | 849 | 3,173 | 1,164 | 12,196 |
| **4** | 0 | 0 | 0 | 0 |
| **5** | 951 | 1,224 | 1,455 | 13,998 |
| **6** | 1,763 | 2,685 | 2,342 | 23,665 |
| **7** | 450 | 1,050 | 479 | 5,303 |
| **8** | 9 | 190 | 81 | 1,055 |
| **9** | 56 | 265 | 150 | 2,046 |
| **10** | 106 | 290 | 296 | 2,529 |
| **11** | 315 | 2,059 | 1,109 | 13,296 |
| **12** | 189 | 1,235 | 665 | 7,978 |
| **13** | 126 | 823 | 444 | 5,318 |
| **14** | 550 | 1,140 | 787 | 9,373 |
| **15** | 285 | 892 | 617 | 5,477 |
| **16** | 461 | 1,342 | 1,045 | 10,987 |


Figure 13 Forecast pedestrian flows

### 3.6.2 Pedestrian crossing arrangements

The primary pedestrian routes that run across the Barangaroo South site from east to west are along City Walk, connecting to Napoleon Bridge for access to Wynyard Walk, and Transport Place which is on the Margaret Street alignment and also connects directly to Wynyard Walk bridge and tunnel.

It is proposed to install zebra crossings on Watermans Quay and Barangaroo Avenue to connect with key pedestrian desire lines as shown in Figure 14. The crossings will be installed as wide crossings and angled to suit the pedestrian desire line.

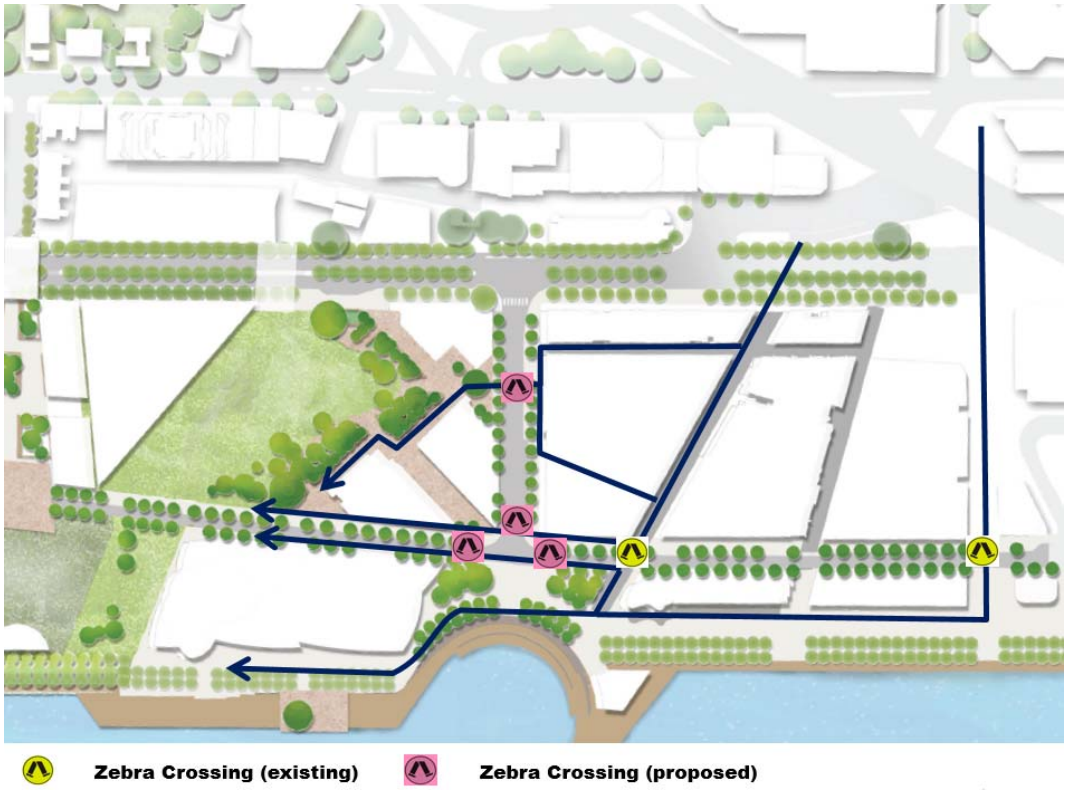



Figure 14 Stage 1B pedestrian crossings

### 3.6.3 High Pedestrian Activity Areas

The development of the Barangaroo South precinct could facilitate the introduction of 40km/hr High Pedestrian Activity Areas (HPAA) on Barangaroo Avenue and Watermans Quay. HPAAs are strongly focused on pedestrian safety, with a 40km/hr maximum speed at all times. The different road environment helps to alert drivers to lower their speed and make them aware of the presence of pedestrians moving about or near the road. This creates a safer road environment for all road users, particularly for pedestrians, cyclists and children. Drivers will be aware they are entering a 40km/hr HPAA through a different street environment including alternate pavement surfacing and kerb extensions.

It is recommended, as part of the design refinement stage, the potential to implement an HPAA through the Stage 1B precinct is investigated.

The Sydney City Centre Access Strategy notes the various benefits of HPAAs:

*40km/h high pedestrian activity areas in parts of the city centre have the benefit of improving road safety throughout the day as well as later at night when there are higher rates of pedestrian crashes due to alcohol affected pedestrians and higher than average vehicle speeds.*


Figure 15 High Pedestrian Activity Area Signage

## 3.7 Bicycle access arrangements

Cycling within Barangaroo will be confined to the internal road network, i.e. along Watermans Quay and Barangaroo Avenue. These will function as mixed traffic streets given the relatively low levels of vehicular traffic and anticipated 40km/hr speed limit. On-road bicycle symbols can be provided at minimum 200m intervals towards the centre of the travel lane to signify to drivers the presence of cyclists along these routes. The route along Barangaroo Avenue will connect with a recreational cycle route which continues through Barangaroo Central and into Barangaroo Reserve.

The foreshore promenade will primarily act as a pedestrian pathway however cycling will not be prohibited. A low speed environment will be promoted where cyclists will be required to give way to pedestrians at all times. This will be similar to the operation of the adjacent King Street Wharf and Darling Harbour.

## 3.8 Bicycle Parking

Bicycle parking will be provided in the Stage 1B public domain to service visitors to the Barangaroo precinct. The quantum of parking has been determined based on the expected peak population estimates for a typical weekday for the Barangaroo South site. Population estimates were derived from the Barangaroo Pedestrian Precinct Demand Study in conjunction with Lend Lease and the BDA.

It is expected more than 20,000 visitors may be present on the Barangaroo site (i.e. Barangaroo South, Barangaroo Central and Barangaroo Reserve) at any one time on a typical day. Of these visitors, approximately 6,000 are anticipated to be directly attributable to uses in the Stage 1A and 1B precincts.

Consistent with the Stage 1A precinct, bicycle parking is to be provided for 4% of visitors to the precinct, requiring 240 spaces across the entire Barangaroo South precinct. These spaces are to be allocated as follows:

| **Area** | **Number of visitor parking spaces** |
|---|---|
| Stage 1A public domain (including outside commercial towers) | 103 |
| Public domain in vicinity of Crown Sydney | 37 |
| Stage 1B public domain | 100 |
| **Total** | **240** |

Spaces within the Stage 1B precinct may be provided within standard City of Sydney bicycle racks, or spaces mounted on smart poles on Watermans Quay and Barangaroo Avenue.

## 3.9 Ferry

Existing commuter ferry services providing access to Barangaroo and the CBD arrive and depart from King Street Wharf (number 3) and Circular Quay.

Construction is underway for a new ferry hub at Barangaroo, serving the new commercial office and visitor population. It will connect ferry users to the western and midtown parts of the city centre via the Wynyard Walk link, reduce capacity constraints on the Circular Quay terminal and bring additional ferry services and routes directly to Barangaroo. The Barangaroo Ferry Hub will initially comprise of two wharves, however provision is made within the design for the construction of a third wharf based on future demand and uptake.

It is expected the ferry hub will open in the first half of 2017. The ferry wharf (under construction) is shown in Figure 16 below.

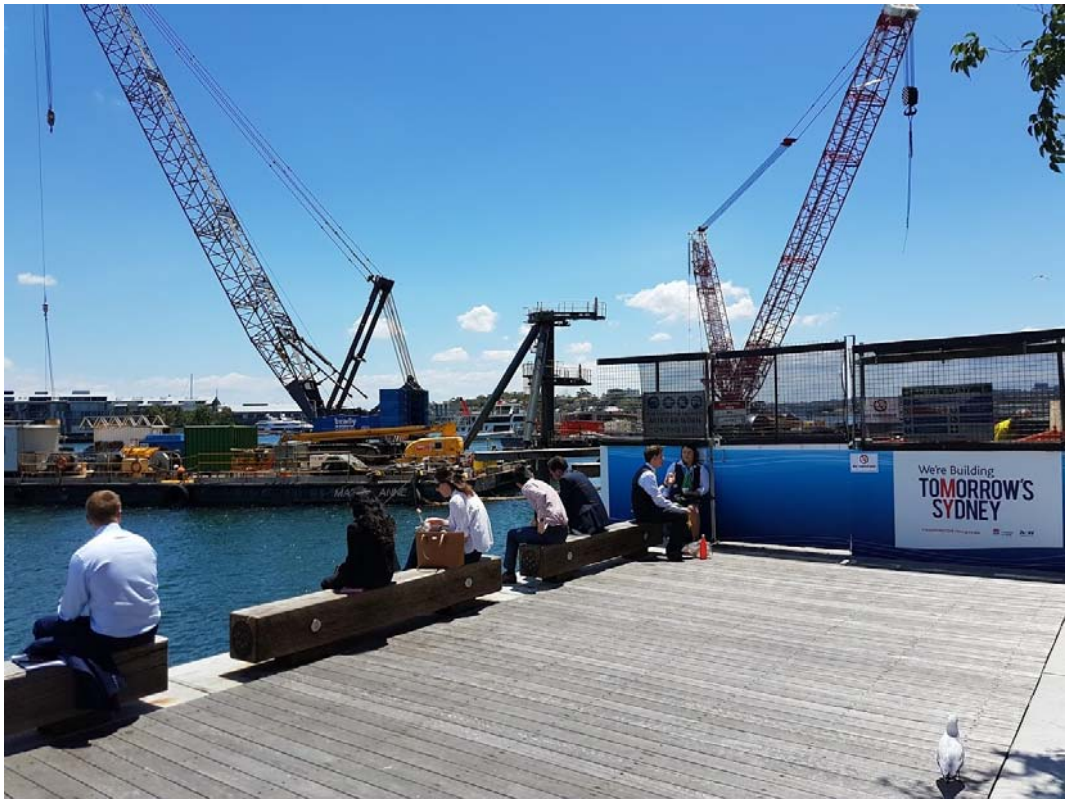



Figure 16 Barangaroo Ferry Wharf

# 3.10 Road Network

## 3.10.1 During Construction

All Stage 1B Public Domain construction works are to be finished by the time the Crown Hotel Resort opens on December 23rd 2020. The bulk of the public domain construction works is expected to be done in the 12 months prior to this date, however construction of the marine structures is expected in June 2018 and waterfront areas in 2019. Table 4 below outlines the concurrent developments within the Barangaroo South site, noting the start and finish dates by annual quarters.

Table 4: Construction Details of Barangaroo South Works

| **Project** | **Project Duration*** | | **Overlaps with Stage 1B works?** |
|---|---|---|---|
| | ***Start*** | ***Finish*** | |
| Stage 1a Basement Construction | Oct 2011 | Sept 2015 | ✗ |
| C3 Commercial Building | Mar 2014 | Sept 2016 | ✗ |
| C4 Commercial Building | May 2013 | Oct 2015 | ✗ |
| C5 Commercial Building | Oct 2013 | June 2016 | ✗ |
| C2 Building | Feb 2016 | Apr 2017 | ✗ |
| R8/R9 Residential Buildings | Jun 2014 | Nov 2015 | ✗ |
| Batch Plant Operation | Sept 2013 | Sept 2015 | ✗ |
| Block 4 Remediation Works | May 2016 | Mar 2019 | ✓ |
| Block 5 Remediation Works | Sep 2016 | Mar 2019 | ✓ |
| Stage 1a Public Domain Works | Jul 2014 | Mar 2016 | ✗ |
| City Walk Link Bridge | Oct 2014 | Jun 2015 | ✗ |
| Building R1 | July 2016 | Mar 2017 | ✗ |
| Building R7 | Dec 2015 | Oct 2016 | ✗ |
| Stage 1C Remediation and Earthworks | Dec 2015 | Mar 2018 | ✗ |
| Crown Sydney | June 2016 | Dec 2020 | ✓ |
| Hickson Road Remediation | Nov 2016 | Oct 2018 | ✗ |
| Stage 1B basement | Jun 2017 | Jan 2020 | ✓ |
| Stage 1B residential towers | Dec 2019 | Jul 2023 | ✓ |
| **Stage 1B public domain works** | **June 2018** | **Dec 2020** | ✓ |

** The above dates are indicative only and allow for future tenant fit out works within the individual buildings*

The construction staging for works external to the Barangaroo South site are outlined in Table 5 below.

Table 5: Construction Details of Works Adjacent to Barangaroo South

| **Project** | **Project Duration** | | **Overlaps with Stage 1B works?** |
|---|---|---|---|
| | ***Start*** | ***Finish*** | |
| Barangaroo Ferry Wharf | Feb 2016 | 1st half 2017 | ✗ |
| Sydney Metro | Jul 2017* | Dec 2023* | ✓ |

* Indicative only

## Forecast Traffic Movements

An assessment has been made of the cumulative impacts of construction activities in the precinct.

The proposed construction timeframe for Stage 1B public domain will extend into the period of the occupation of the Barangaroo South Stage 1A development. As such, an assessment of the road network impact of these works during this time has also been undertaken.

The works associated with construction of the public domain including Barangaroo Avenue and Watermans Quay will be spread over a 30 month period with truck movements peaking during high intensity periods of 8 movements per hour. On average a typical hour would involve 4 truck movements, or 40 movements per day. This activity will be occurring at the anticipated peak period in December 2020 and represents a negligible 1% increase in activity. The majority of construction truck movements occur prior to the afternoon peak commuter period, minimising the impact on the local road network. During the morning peak period the access road generally operates satisfactorily and requires no further works to accommodate the levels of construction traffic anticipated.

## Construction vehicle access

Access for construction vehicles to the Barangaroo Stage 1B site will be via Hickson Road at the existing gatehouse, approximately 350m north of the Sussex Street / Napoleon Street intersection. This site access will be utilised until January 2019, after which it will move approximately 25m south along Hickson Road as illustrated in Figure 17 below.

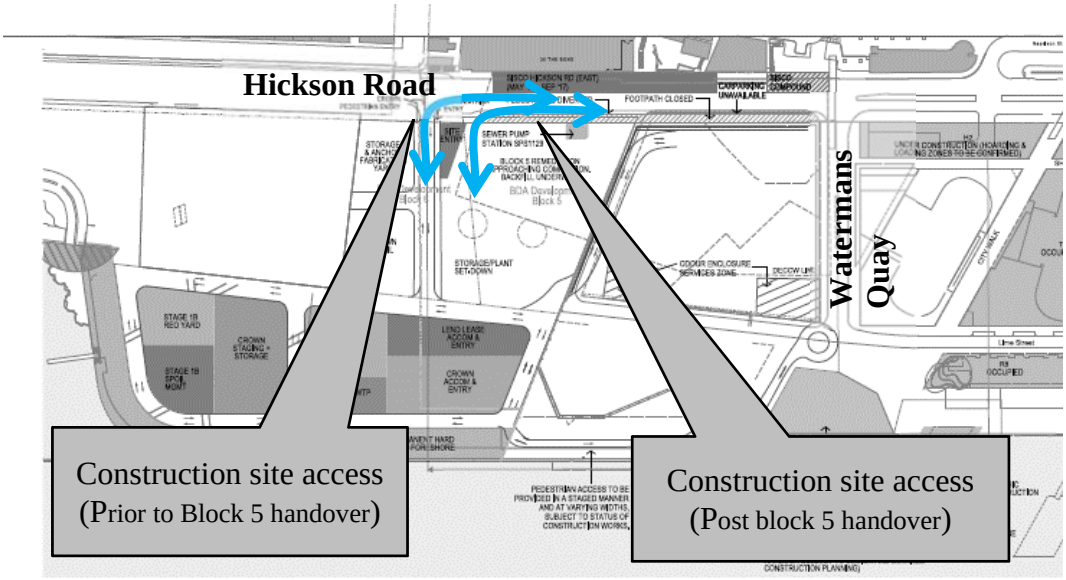



Figure 17 Site Access Diagram

Note: Locations shown are indicative only

## Barangaroo Construction Traffic Management Plan

*Forecast Vehicle Activity - Vehicle Movements per Hour*

| Project | 2015 | | | | | | | | | | | | 2016 | | | | | | | | | | | | 2017 | | | | | | | | | | | | 2018 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| ***Operational Traffic Movements*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C3 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| C4 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| C5 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| R8/R9 Residential Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| C2 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| R1 & R7 Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| On-Street Parking | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Headland Park | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Crown Sydney | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Total Car Movements*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***52*** | ***80*** | ***104*** | ***104*** | ***104*** | ***104*** | ***104*** | ***104*** | ***104*** | ***104*** | ***157*** | ***157*** | ***157*** | ***157*** | ***157*** | ***199*** | ***199*** | ***199*** | ***199*** | ***199*** | ***199*** | ***206*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** |
| ***Service Vehicle Movements*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 40 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| ***Total Operational Traffic Movements*** | **0** | **0** | **0** | **0** | **0** | **0** | **52** | **105** | **129** | **129** | **129** | **129** | **129** | **129** | **129** | **129** | **197** | **207** | **207** | **207** | **207** | **249** | **249** | **249** | **249** | **249** | **249** | **256** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** |
| ***Construction Traffic Movements**** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basement Construction | 8 | 8 | 8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T1 Commercial Building | 4 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T2 Commercial Building | 10 | 10 | 10 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T3 Commercial Building | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R8/R9 Residential Buildings | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Batch Plant Operation | 6 | 6 | 6 | 7 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Block 4 Remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| Block 5 Remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Hickson Road Remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 10 | 10 | 10 | 5 | 5 | 5 | 0 | 0 |
| Stage 1A Public Domain | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C2 Building + C6 Kiosk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C8 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| R1 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R7 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| City Walk Bridge | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stage 1C remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crown Sydney | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| Stage 1B Basement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Building R4a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building R4b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building R5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stage 1B public domain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| ***Barangaroo South Total*** | ***48*** | ***48*** | ***48*** | ***35*** | ***36*** | ***36*** | ***24*** | ***24*** | ***24*** | ***22*** | ***16*** | ***14*** | ***10*** | ***13*** | ***13*** | ***13*** | ***27*** | ***33*** | ***33*** | ***33*** | ***41*** | ***37*** | ***43*** | ***43*** | ***43*** | ***43*** | ***49*** | ***47*** | ***44*** | ***72*** | ***72*** | ***72*** | ***75*** | ***70*** | ***70*** | ***72*** | ***71*** | ***71*** | ***71*** | ***71*** | ***77*** | ***100*** | ***108*** | ***97*** | ***97*** | ***97*** | ***92*** | ***92*** |
| Wynyard Walk | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Headland Park Main Works | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barangaroo Ferry Wharf | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sydney Metro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| ***Total Construction Traffic Movements*** | ***70*** | ***70*** | ***70*** | ***57*** | ***58*** | ***58*** | ***46*** | ***46*** | ***46*** | ***38*** | ***32*** | ***30*** | ***10*** | ***14*** | ***14*** | ***14*** | ***28*** | ***34*** | ***34*** | ***34*** | ***42*** | ***54*** | ***60*** | ***59*** | ***43*** | ***43*** | ***49*** | ***47*** | ***44*** | ***72*** | ***96*** | ***96*** | ***99*** | ***94*** | ***94*** | ***96*** | ***95*** | ***95*** | ***95*** | ***95*** | ***101*** | ***124*** | ***132*** | ***121*** | ***121*** | ***121*** | ***116*** | ***116*** |
| **Total Additional Traffic Movements** | **70** | **70** | **70** | **57** | **58** | **58** | **98** | **151** | **175** | **167** | **161** | **159** | **139** | **143** | **143** | **143** | **225** | **241** | **241** | **241** | **249** | **303** | **309** | **308** | **292** | **292** | **298** | **303** | **304** | **332** | **356** | **356** | **359** | **354** | **354** | **356** | **355** | **355** | **355** | **355** | **361** | **384** | **392** | **381** | **381** | **381** | **376** | **376** |

* Anticipated construction vehicle activity generated by Barangaroo South worksites are based on recent information provided to Arup by Lend Lease Buildings

| Project | 2019 | | | | | | | | | | | | 2020 | | | | | | | | | | | | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| ***Operational Traffic Movements*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C3 Commercial Building | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |
| C4 Commercial Building | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| C5 Commercial Building | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| R8/R9 Residential Buildings | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| C2 Building | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| R1 & R7 Buildings | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| On-Street Parking | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Headland Park | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Crown Sydney | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| ***Total Car Movements*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***210*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** | ***301*** |
| ***Service Vehicle Movements*** | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| ***Total Operational Traffic Movements*** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **260** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **270** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** | **361** |
| ***Construction Traffic Movements**** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basement Construction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T1 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T2 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T3 Commercial Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R8/R9 Residential Buildings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Batch Plant Operation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Block 4 Remediation | 14 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Block 5 Remediation | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hickson Road Remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stage 1A Public Domain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C2 Building + C6 Kiosk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C8 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R1 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R7 Building | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| City Walk Bridge | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stage 1C remediation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crown Sydney | 9 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stage 1B Basement | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 23 | 23 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building R4a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building R4b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Building R5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Stage 1B public domain | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Barangaroo South Total*** | ***89*** | ***89*** | ***90*** | ***68*** | ***68*** | ***68*** | ***68*** | ***68*** | ***68*** | ***68*** | ***68*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***84*** | ***55*** | ***55*** | ***55*** | ***32*** | ***48*** | ***32*** | ***32*** | ***48*** | ***48*** | ***48*** | ***48*** | ***48*** | ***48*** | ***48*** | ***48*** | ***48*** | ***32*** | ***32*** | ***32*** | ***32*** | ***32*** | ***32*** | ***32*** | ***32*** |
| Wynyard Walk | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Headland Park Main Works | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barangaroo Ferry Wharf | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sydney Metro | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| ***Total Construction Traffic Movements*** | ***113*** | ***113*** | ***114*** | ***92*** | ***92*** | ***92*** | ***92*** | ***92*** | ***92*** | ***92*** | ***92*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***108*** | ***79*** | ***79*** | ***79*** | ***56*** | ***72*** | ***56*** | ***56*** | ***72*** | ***72*** | ***72*** | ***72*** | ***72*** | ***72*** | ***72*** | ***72*** | ***72*** | ***56*** | ***56*** | ***56*** | ***56*** | ***56*** | ***56*** | ***56*** | ***56*** |
| **Total Additional Traffic Movements** | **373** | **373** | **374** | **352** | **352** | **352** | **352** | **352** | **352** | **352** | **352** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **378** | **440** | **440** | **440** | **417** | **433** | **417** | **417** | **433** | **433** | **433** | **433** | **433** | **433** | **433** | **433** | **433** | **417** | **417** | **417** | **417** | **417** | **417** | **417** | **417** |

## Traffic Modelling

This report examines in detail the future stage traffic operations of the five nearest and most relevant intersections to Barangaroo South construction site, namely:

- Hickson Road & Watermans Quay, **Priority Controlled (Future)**
- Napoleon Street & Hickson Road, **Traffic Signals**
- Sussex Street & Shelley Street, **Traffic Signals**
- Sussex Street & Erskine Street, **Traffic Signals**
- Napoleon Street, Margaret Street & Kent Street, **Traffic Signals**

The effect of the estimated additional peak hour traffic during (for the combined construction and operational activities at Barangaroo) has been investigated for each of the affected intersections during the AM peak hour. Negligible construction traffic movements are anticipated during the PM peak hour and therefore this has not been considered in the analysis. The modelling results for the future peak hour traffic movements are summarised in Table 6.

Table 6: Intersection Analysis

| Peak | Intersection | Future Traffic Peak, 2020 (Excluding Stage 1B works) | | | Future Traffic Peak, 2020, (Including Stage 1B works) | | |
|---|---|---|---|---|---|---|---|
| | | LOS | DOS | AVD (sec) | LOS | DOS | AVD (sec) |
| AM | Sussex St / Erskine St | C | 0.91 | 37 | C | 0.91 | 36 |
| | Sussex St / Shelley St | D | 0.98 | 46 | D | 0.99 | 51 |
| | Hickson Rd / Napoleon St | E | 0.94 | 58 | E | 0.95 | 61 |
| | Kent St / Margaret St | B | 0.61 | 21 | B | 0.62 | 21 |
| | Hickson Rd / Watermans Quay | A | 0.49 | 2 | A | 0.51 | 2 |

LOS - Intersection Traffic Level of Service, DOS - Degree of Saturation, AVD - Average Delay per vehicle

The results of the LinSig intersection analysis forecast minimal changes in the operation of key intersections as a result of the construction of the Stage 1B development (including the public domain), when compared with the base case scenario. The additional construction vehicles associated with the Stage1B works (including the public domain) has a negligible impact on forecast road network performance.

During the AM peak hour, when construction vehicles attributable to Stage 1B are expected to access the site, the road network generally operates satisfactorily. The addition of construction traffic movements associated with the Stage 1B works does not impact the overall operation of the local road network, and requires no further works to accommodate the levels of construction traffic anticipated.

# Construction Traffic Management

## Hours of Operation

The proposed site hours of operation will be similar to the existing project approvals for Barangaroo South. These hours assist the site traffic movements being generated mainly outside the normal commuter peak traffic periods, such that their impacts on the surrounding road network are minimised.

## Restriction to Construction Routes

In addition to MP10_0023 – D4(e), which restricts trucks using York Street between 2pm and 8pm, trucks are also not able to use York Street or Clarence Street in the AM peak between 6am and 10am due to existing restrictions.

## Emergency Vehicle Access

Site entries are to be clearly signposted for the benefit of all approaching site traffic, in particular emergency services vehicles.

## Access for Construction Workers

To reduce the impact on the local road network associated with construction work, no on-site parking is to be provided for construction workers. In this manner it is being treated like any other CBD construction project. The constrained parking environment surrounding the site, coupled with the relatively high cost of long term parking, will ensure the majority of construction workers arrive to the site via public transport.

Construction workers through their site inductions will be provided with travel advice about public transport, walking and cycling routes to the site.

## Traffic Control Recommendations

The site traffic control recommendations for each worksite gate entry or exit point (including all appropriate signage) will be determined by means of a Traffic Control Plan to be prepared by an RMS accredited contractor closer to construction commencement. Traffic control plans will be prepared in accordance with Roads and Maritime Services *Traffic Control at Worksites Manual.* These plans will be developed in coordination with other works adjacent to the site and will consider traffic control measures on Sussex Street, Hickson Road and Napoleon Street currently implemented by the Wynyard Walk project.

The BDA must authorise any changes to the Traffic Management Plan & TCP’s. Road permits must also be issued by the BDA for such activities.

Truck movements are to be staged and coordinated to prevent trucks circling CBD streets whilst awaiting access to the site. Holding areas outside the CBD fringe are not considered necessary given the coordinated nature of vehicle arrival and departures given the presence of an on-site logistics centre.

Construction vehicles will approach the site from areas outside the CBD using major arterial routes such as the M4, M5 etc.

The size of trucks to access the site will be in accordance with Clause 300-3 of the Road Rules in terms of lengthy vehicle restrictions. This clause is noted below:

*(1) A driver of a lengthy vehicle must not, unless written permission is first obtained from the Authority and all the conditions of the permission are strictly complied with, drive the vehicle on Monday to Friday (inclusive):*
*(a) between 8 am and 6 pm on any road (or part of a road) in the City of Sydney that is within the area that corresponds with the shaded area indicated in the diagram at the end of this rule*
Lengthy vehicle means an articulated vehicle, a bus that is longer than 12.5 metres or a combination of a motor vehicle and trailer, which together with any loading is longer than 12.5 metres.

In accordance with Condition D14 of the development consent for the project, personnel will not be permitted to use stop/slow signage in Hickson Road or Sussex Street on weekdays between 7am and 9am and 4pm to 7pm. However, personnel using stop/slow signage will be permitted on Hickson Road, north of the intersection of Hickson Road and Napoleon Street, when it is required to ensure safe truck access at designated site access points, provided that vehicles queue lengths generated as a result of the traffic control do not exceed more than six vehicles in either direction.

**Pedestrian Routes Approaching the Site**

In July 2015 two major improvements to the pedestrian network in the Barangaroo precinct were opened to the public, those being:

- The Napoleon Bridge – providing a grade separated pedestrian connection from Napoleon Street, across Sussex Street into the Barangaroo site
- Signalisation of the Hickson Road / Napoleon Street intersection providing controlled pedestrian crossing movements across all four legs of the intersection.

In 2016 site access for construction workers were further improved through the completion of the Wynyard Walk development. This provides a safe and efficient access for construction workers walking across Hickson Road and Sussex Street.

These arrangements are summarised in Figure 18.

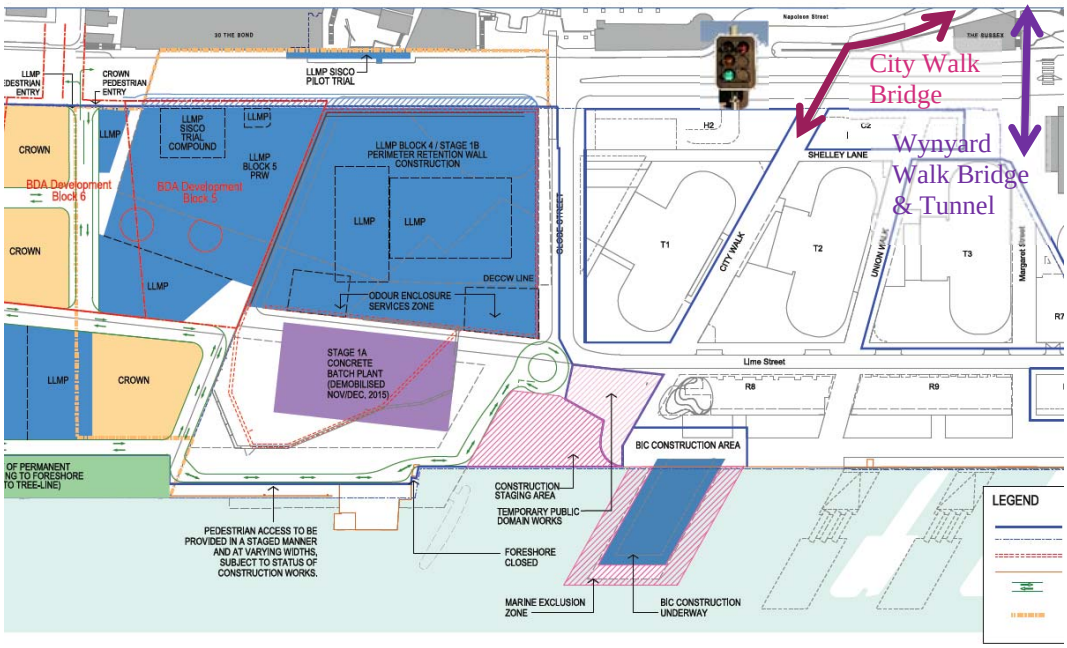



Figure 18 Pedestrian access routes

## Parking

To reduce the impact on the local road network associated with construction work, no on-site parking is to be provided for construction workers. In this manner it is being treated like any other CBD construction project.

## Bus Routes

In July 2015 the NSW Government announced a series of bus routes will directly service the Barangaroo precinct. These services all run along Hickson Road adjacent to Barangaroo South, terminating at Walsh Bay, and include:

- Route 311
- Route 324
- Route 325

The proposal involves no changes to the road environment impacting the movement of buses on Hickson Road. Traffic modelling demonstrates negligible differences in the operation of the road network as a result of the Stage 1B works, and therefore bus operations will be unaffected.

## Emergency Vehicles

Access and egress arrangements for emergency vehicles in the precinct will remain unchanged both during and following the completion of the Stage 1B works. It has been previously demonstrated that the works will result in negligible differences in the operation of the road network, and therefore emergency vehicle operations will be unaffected.

### 3.10.2 During Operation

Following the completion of the Stage 1B development, including public domain works, traffic signals will be installed at the Hickson Road / Watermans Quay intersection. This will improve traffic circulation and efficiency by providing for controlled vehicles movements between Hickson Road and Watermans Quay. The detailed design of the intersection, including the phasing and lane arrangements, would take place closer to the construction date and be subject to consultation with the Road Authority and RMS. A preliminary intersection layout has been developed and is illustrated in Figure 19.

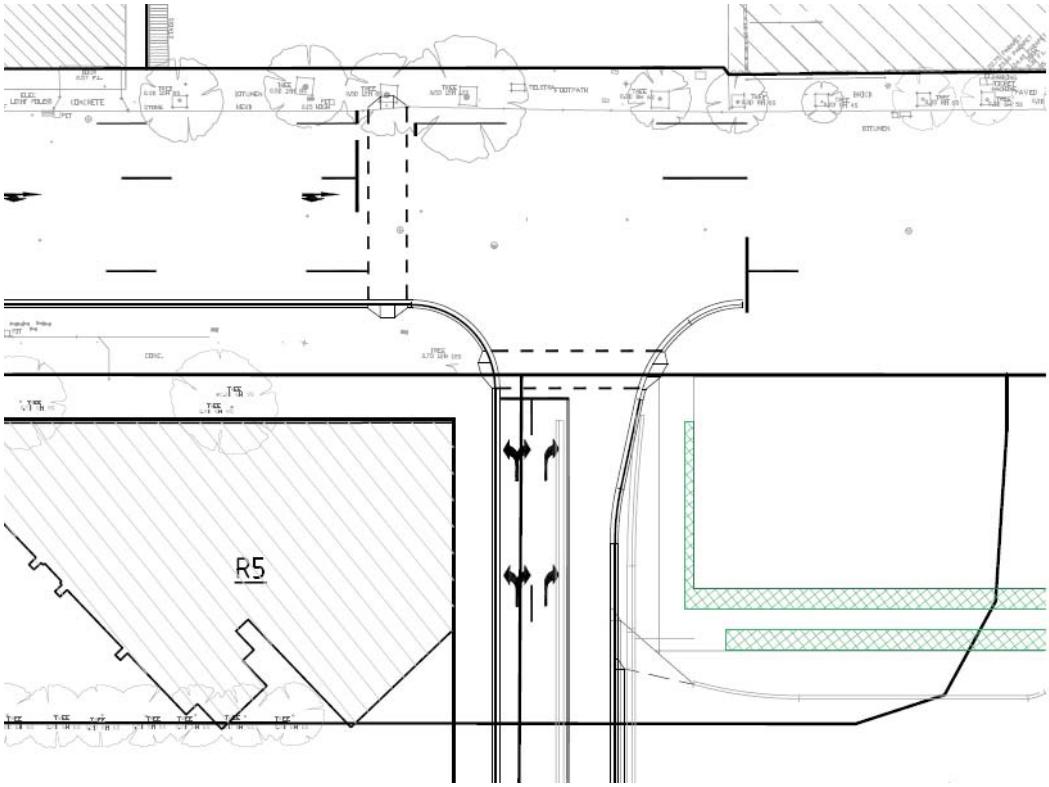



Figure 19 Potential Hickson Road / Watermans Quay intersection layout

## Traffic Generation

The total peak hour and daily traffic forecast to be generated by the entire Stage 1B development (up to three residential towers comprising approximately 775 residential units) is summarised in Table 7 below.

Table 7 Stage 1B Traffic Generation

| Land Use | Variable | # | AM Peak Hour (8am – 9am) | | | | PM Peak Hour (5pm – 6pm) | | | | Daily | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | trip rate | no of trips | In | Out | trip rate | no of trips | In | Out | trip rate | no trips | In | Out |
| Residential | dwelling | 775 | 0.14 | 108 | 22 | 86 | 0.09 | 69 | 55 | 14 | 1.52 | 1178 | 589 | 589 |
| Retail | car space | 3 | 0.04 | 1 | 1 | 0 | 0.40 | 1 | 0 | 1 | 6.5 | 20 | 10 | 10 |
| **Sub Total** | | | | ***109*** | ***23*** | ***86*** | | ***70*** | ***55*** | ***15*** | | ***1198*** | ***599*** | ***599*** |

## Traffic Modelling

A corridor traffic model (using the LinSig 3.2 software package) was developed to assess the future road network performance arising from the development of the Barangaroo precinct – including the development of the Stage 1B site. This modelling software allows intersections to be modelled in a single network and provides signal optimisation to reflect future traffic conditions within the Barangaroo precinct.

The road network performance has been measured against three parameters, those being:

- Level of Service (LOS)
- Degree of Saturation (DOS)
- Average Vehicle Delay (AVD)

The performance of intersections in an urban environment is measured in terms of its Level of Service (LoS). Levels of service ranges from A (very good) to F (over capacity with significant delays). This is described in the RTA Guide to Traffic Generating Developments as summarised in Table 8. Across the Sydney CBD road network, it is not uncommon for intersections to operate at Level of Service E or F (at capacity) during commuter peak hours.

Table 8 Intersection level of service

| Level of Service | Average Vehicle Delay (seconds) | Traffic Signals and Roundabouts | Priority Intersections ('Stop' and 'Give Way') |
|---|---|---|---|
| A | < 14 | Good operation | Good operation |
| B | 15 to 28 | Good with acceptable delays and spare capacity | Acceptable delays and spare capacity |
| C | 29 to 42 | Satisfactory | Satisfactory, but accident study required |
| D | 43 to 56 | Operating near capacity | Near capacity and accident study required |
| E | 57 to 70 | At capacity. At signals, incidents will cause excessive delays. Roundabouts require other control mode | At capacity; requires other control mode |
| F | >71 | Unsatisfactory with excessive queuing | Unsatisfactory with excessive queuing; requires other control mode |

Another common measure of intersection performance is the degree of saturation, which provides an overall measure of the capability of the intersection to accommodate additional traffic. A DOS of 1.0 indicates that an intersection is operating at capacity.

The results of the traffic modelling are summarised in Table 9 below. Full analysis is provided as an **Error! Reference source not found.**.

Table 9 Traffic Modelling Results

| Peak | Intersection | Without Stage 1B Development | | | With Stage 1B Development | | |
|---|---|---|---|---|---|---|---|
| | | AVD (sec) | DOS | LOS | AVD (sec) | DOS | LOS |
| AM | Sussex Street / Erskine Street | 42 | C | 0.91 | 41 | C | 0.91 |
| | Hickson Road / Napoleon Street | 36 | C | 0.95 | 41 | C | 0.96 |
| | Kent Street / Margaret Street | 25 | B | 0.87 | 30 | C | 0.94 |
| | Hickson Road / Watermans Quay | 20 | B | 0.91 | 21 | B | 0.91 |
| PM | Sussex Street / Erskine Street | 60 | E | 0.98 | 63 | E | 0.98 |
| | Hickson Road / Napoleon Street | 55 | D | 0.98 | 64 | E | 0.99 |
| | Kent Street / Margaret Street | 45 | D | 0.94 | 47 | D | 0.95 |
| | Hickson Road / Watermans Quay | 8 | A | 0.76 | 8 | A | 0.76 |

LOS - Intersection Traffic Level of Service, DOS - Degree of Saturation, AVD - Average Delay per vehicle

A key finding of the analysis is that there are minimal changes in the operation of the local road network as a result of the Stage 1B development. The traffic analysis indicates the transport network in the Barangaroo precinct could accommodate the increased movements arising from the development of the site. This is consistent with the findings of the traffic modelling recently conducted for the modification of the Barangaroo Concept Plan (MP06_0162).

It is recognised that significant vehicle queuing currently occurs in the southbound direction on Sussex Street in the PM Peak hour as a result of more congested traffic operating conditions in the vicinity of the cross traffic movements at the King Street and Market Street intersections. It should be recognised that this is an existing issue which is not the direct result of the proposal.

The operation of the future signalised intersections on Hickson Road will be dependent on the operating conditions of intersections further downstream on Sussex Street. Essentially they will act as ‘slave’ in the Sussex Street road network, with intersections at King Street and Market Street acting as the ‘masters’.

In this context, the road network impacts of the proposal are considered modest.

# 4 Summary

This transport assessment supports a State Significant Development Application (SSD 7944) seeking approval for public domain works within Stage 1B at Barangaroo South.

Access to the basement car park for all vehicle types (residential, retail and service vehicles) is to be via the western end of Watermans Quay. The primary vehicular access route into and out of the site will be via Sussex Street, Hickson Road and Watermans Quay.

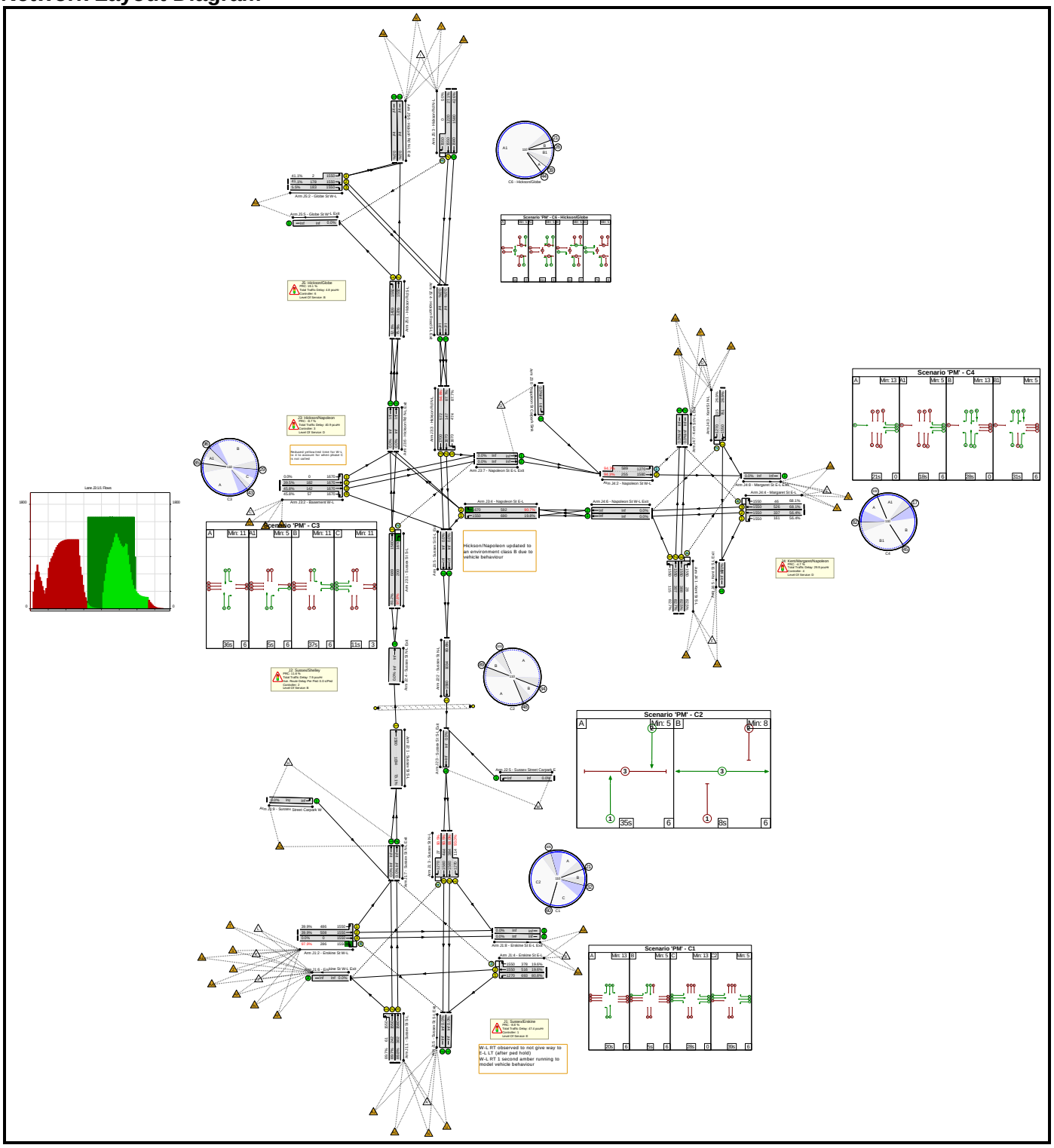
It is proposed to install zebra crossings on Watermans Quay and Barangaroo Avenue to connect with key pedestrian desire lines through the Barangaroo South precinct, including to the foreshore promenade and Wynyard transport interchange. The crossings will be installed as wide crossings and angled to suit the pedestrian desire lines.

The cumulative impacts of construction and development traffic activity associated with all works currently planned in the precinct have been assessed. The assessment concludes that the traffic impacts arising from the works proposed under the Development Application can be appropriately managed.

# Basic Results Summary

**Scenario 1: 'PM'** (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

## Network Layout Diagram



Basic Results Summary

## Network Results

| Item | Lane Description | Lane Type | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Deg Sat (%) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---|---|---|---|---|---|---|---|
| **Network** | - | - | - | - | **97.9%** | - | - |
| **J1: Sussex/Erskine** | - | - | - | - | **97.9%** | - | - |
| 1/2+1/1 | Sussex St S-L Left Ahead | U | 272 | 1550:1550 | 89.7 : 89.7% | 90.5 | 11.4 |
| 1/3 | Sussex St S-L Ahead | U | 271 | 1580 | 89.8% | 91.1 | 11.6 |
| 2/2+2/1 | Erskine St W-L Left Ahead | U | 397 | 1550:1550 | 39.9 : 39.9% | 11.9 | 5.2 |
| 2/3+2/4 | Erskine St W-L Right Ahead | U+O | 280 | 1550:1550 | 0.0 : 97.9% | 134.5 | 15.5 |
| 3/2+3/1 | Sussex St N-L Ahead Left | U | 463 | 1580:1270 | 93.0 : 93.0% | 69.9 | 16.4 |
| 3/3+3/4 | Sussex St N-L Ahead Right | U+O | 426 | 1580:1270 | 90.5 : 90.5% | 59.9 | 15.5 |
| 4/1 | Erskine St E-L Left | U | 560 | 1270 | 80.8% | 33.5 | 15.9 |
| 4/2+4/3 | Erskine St E-L Ahead Right | U+O | 175 | 1550:1550 | 19.6 : 19.6% | 12.9 | 1.6 |
| **J2: Sussex/Shelley** | - | - | - | - | **80.6%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 756 | 1580 | 73.1% | 16.1 | 7.8 |
| 2/1 | Sussex St N-L Ahead | U | 834 | 1580 | 80.6% | 19.5 | 18.6 |
| Ped Link: P1 | Shelley | - | 0 | - | 0.0% | Inf | Inf |
| **J3: Hickson/Napoleon** | - | - | - | - | **97.8%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 560 | 1580 | 81.2% | 34.1 | 18.5 |
| 1/2 | Sussex St S-L Right | O | 196 | 1670 | 97.8% | 154.5 | 12.0 |
| 2/2+2/1 | Basement W-L Left Ahead | U | 72 | 1670:1670 | 39.5 : 0.0% | 61.9 | 2.4 |
| 2/3+2/4 | Basement W-L Right Ahead | U | 91 | 1670:1670 | 45.8 : 45.8% | 62.0 | 2.8 |
| 3/2+3/1 | Hickson Rd N-L Ahead Left | U | 545 | 1670:1670 | 87.7 : 87.7% | 40.5 | 15.1 |
| 3/3 | Hickson Rd N-L Ahead | U | 542 | 1700 | 94.8% | 76.8 | 22.5 |
| 4/1 | Napoleon St E-L Left | U | 137 | 1550 | 19.8% | 16.9 | 1.8 |
| 4/2 | Napoleon St E-L Right | U | 537 | 1670 | 90.7% | 40.4 | 19.8 |
| **J4: Kent/Margaret/Napoleon** | - | - | - | - | **94.3%** | - | - |
| 1/2+1/1 | Kent St S-L Left Ahead | U | 349 | 1550:1550 | 82.7 : 82.7% | 58.5 | 11.9 |
| 1/3+1/4 | Kent St S-L Ahead Right | U+O | 343 | 1550:1550 | 82.5 : 82.5% | 60.8 | 12.0 |
| 2/2+2/1 | Napoleon St W-L Left Ahead | U+O | 795 | 1580:1270 | 94.3 : 94.3% | 45.4 | 27.6 |
| 3/1+3/2 | Kent St N-L Ahead Right Left | U+O | 233 | 1550:1270 | 26.9 : 26.9% | 17.6 | 3.4 |

Basic Results Summary

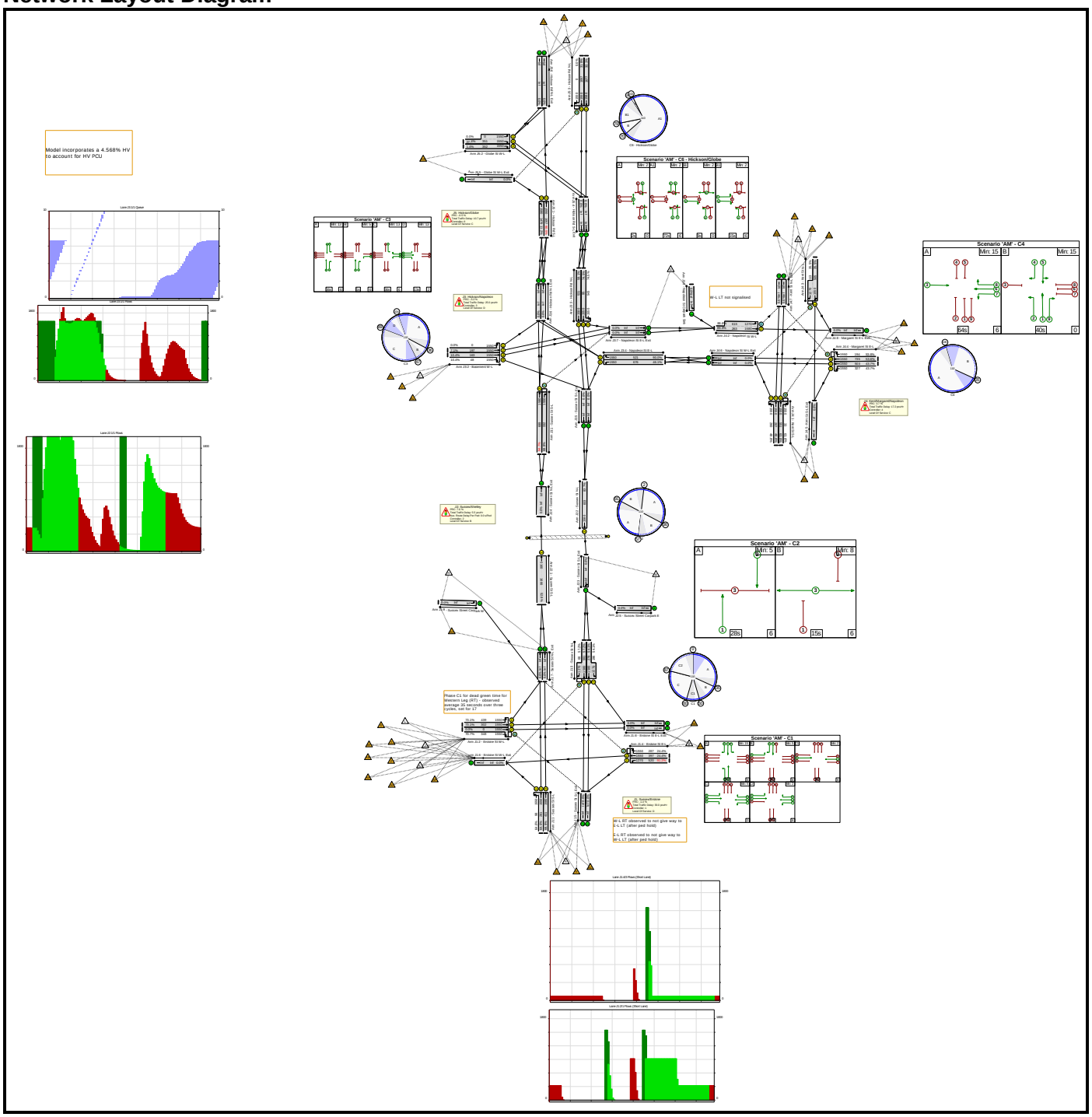
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4/2+4/1 | Margaret St E-L Left Ahead | U | 281 | 1550:1550 | 56.4 : 56.4% | 38.7 | 7.5 |
| 4/3+4/4 | Margaret St E-L Ahead Right | U+O | 389 | 1550:1550 | 68.1 : 68.1% | 39.6 | 10.9 |
| **J5: Hickson/Globe** | **-** | **-** | **-** | **-** | **75.5%** | **-** | **-** |
| 1/1 | Hickson Rd S-L Left | U | 171 | 1550 | 12.1% | 1.5 | 0.1 |
| 1/2 | Hickson Rd S-L Ahead | U | 926 | 1550 | 75.5% | 9.6 | 6.5 |
| 2/2+2/1 | Globe St W-L Right Left | U | 74 | 1550:1550 | 41.1 : 41.1% | 61.8 | 2.4 |
| 2/3 | Globe St W-L Right | U | 10 | 1550 | 5.5% | 53.6 | 0.3 |
| 3/1 | Hickson Rd N-L Ahead | U | 673 | 1580 | 42.6% | 2.0 | 0.4 |
| 3/2+3/3 | Hickson Rd N-L Ahead Right | U+O | 331 | 1550:1550 | 27.1 : 0.0% | 5.1 | 2.9 |

| | | | | | |
|---|---|---|---|---|---|
| C1 | PRC for Signalled Lanes (%): | -8.8 | Total Delay for Signalled Lanes (pcuHr): | 47.39 | Cycle Time (s): 110 |
| C2 | PRC for Signalled Lanes (%): | 11.6 | Total Delay for Signalled Lanes (pcuHr): | 7.88 | Cycle Time (s): 110 |
| C3 | PRC for Signalled Lanes (%): | -8.7 | Total Delay for Signalled Lanes (pcuHr): | 40.88 | Cycle Time (s): 110 |
| C4 | PRC for Signalled Lanes (%): | -4.7 | Total Delay for Signalled Lanes (pcuHr): | 29.93 | Cycle Time (s): 110 |
| C5 | PRC for Signalled Lanes (%): | 0.0 | Total Delay for Signalled Lanes (pcuHr): | 0.00 | Cycle Time (s): 110 |
| C6 - Hickson/Globe | PRC for Signalled Lanes (%): | 19.1 | Total Delay for Signalled Lanes (pcuHr): | 4.43 | Cycle Time (s): 110 |
| | PRC Over All Lanes (%): | -8.8 | Total Delay Over All Lanes(pcuHr): | 130.88 | |

# Basic Results Summary

**Scenario 1: 'AM'** (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

## Network Layout Diagram



Basic Results Summary

## Network Results

| Item | Lane Description | Lane Type | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Deg Sat (%) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---|---|---|---|---|---|---|---|
| **Network** | - | - | - | - | **94.7%** | - | - |
| **J1: Sussex/Erskine** | - | - | - | - | **91.2%** | - | - |
| 1/2+1/1 | Sussex St S-L Left Ahead | U | 243 | 1550:1550 | 64.0 : 64.0% | 49.2 | 7.1 |
| 1/3 | Sussex St S-L Ahead | U | 297 | 1580 | 68.9% | 49.1 | 9.2 |
| 2/2+2/1 | Erskine St W-L Left Ahead | U | 542 | 1550:1550 | 73.1 : 73.1% | 29.9 | 13.1 |
| 2/3+2/4 | Erskine St W-L Right Ahead | U+O | 246 | 1550:1550 | 0.0 : 70.7% | 55.5 | 7.9 |
| 3/2+3/1 | Sussex St N-L Ahead Left | U | 257 | 1580:1270 | 54.1 : 54.1% | 34.7 | 2.9 |
| 3/3+3/4 | Sussex St N-L Ahead Right | U+O | 377 | 1580:1270 | 57.2 : 57.2% | 24.2 | 5.2 |
| 4/1 | Erskine St E-L Left | U | 474 | 1270 | 91.2% | 63.8 | 17.9 |
| 4/2+4/3 | Erskine St E-L Ahead Right | U+O | 167 | 1550:1550 | 24.4 : 24.4% | 21.1 | 2.6 |
| **J2: Sussex/Shelley** | - | - | - | - | **83.7%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 882 | 3160 | 52.9% | 7.6 | 2.9 |
| 2/1 | Sussex St N-L Ahead | U | 697 | 1580 | 83.7% | 18.5 | 11.4 |
| Ped Link: P1 | Shelley | - | 0 | - | 0.0% | Inf | Inf |
| **J3: Hickson/Napoleon** | - | - | - | - | **94.7%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 653 | 1580 | 94.7% | 47.4 | 18.6 |
| 1/2 | Sussex St S-L Right | O | 229 | 1550 | 68.9% | 36.8 | 6.8 |
| 2/2+2/1 | Basement W-L Left Ahead | U | 14 | 1550:1550 | 7.1 : 0.0% | 52.1 | 0.4 |
| 2/3+2/4 | Basement W-L Right Ahead | U | 22 | 1550:1550 | 10.4 : 10.4% | 51.9 | 0.5 |
| 3/2+3/1 | Hickson Rd N-L Ahead Left | U | 475 | 1550:1550 | 74.5 : 74.5% | 17.5 | 7.6 |
| 3/3 | Hickson Rd N-L Ahead | U | 309 | 1580 | 58.1% | 31.5 | 8.4 |
| 4/1 | Napoleon St E-L Left | U | 312 | 1550 | 46.1% | 18.5 | 5.3 |
| 4/2 | Napoleon St E-L Right | U | 469 | 1550 | 90.0% | 53.0 | 17.5 |
| **J4: Kent/Margaret/Napoleon** | - | - | - | - | **86.8%** | - | - |
| 1/2+1/1 | Kent St S-L Left Ahead | U | 228 | 1550:1550 | 48.8 : 48.8% | 38.1 | 5.4 |
| 1/3+1/4 | Kent St S-L Ahead Right | U+O | 373 | 1550:1550 | 63.8 : 63.8% | 36.8 | 10.1 |
| 2/2+2/1 | Napoleon St W-L Left Ahead | U+O | 762 | 1580:1270 | 86.8 : 86.8% | 22.4 | 29.6 |
| 3/1+3/2 | Kent St N-L Ahead Right Left | U+O | 219 | 1550:1270 | 35.5 : 35.5% | 31.8 | 4.2 |

Basic Results Summary

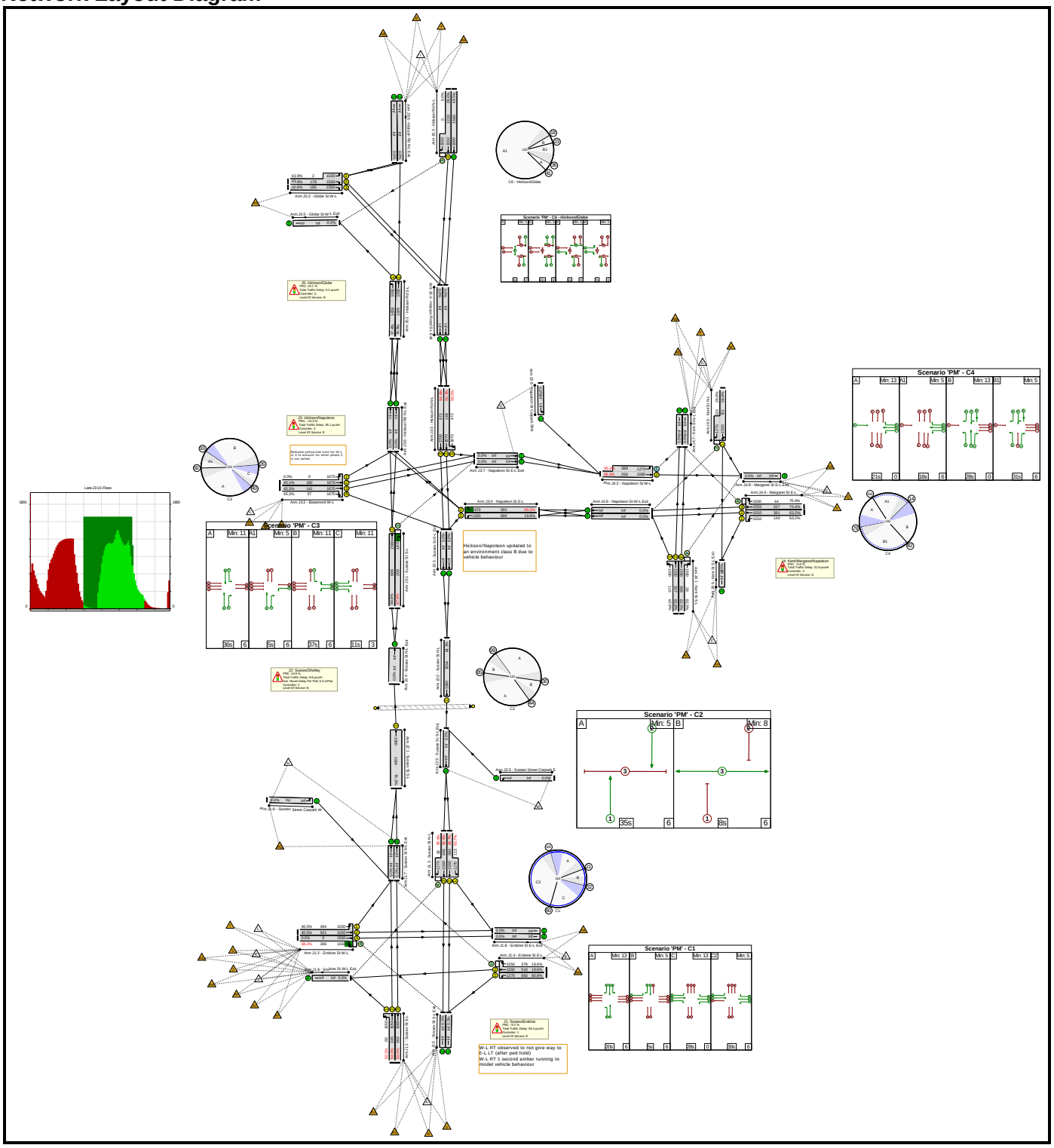
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4/2+4/1 | Margaret St E-L Left Ahead | U | 363 | 1550:1550 | 43.7 : 43.7% | 18.6 | 6.4 |
| 4/3+4/4 | Margaret St E-L Ahead Right | U+O | 498 | 1550:1550 | 53.6 : 53.6% | 17.6 | 9.2 |
| **J5: Hickson/Globe** | **-** | **-** | **-** | **-** | **90.5%** | **-** | **-** |
| 1/1 | Hickson Rd S-L Left | U | 166 | 1580 | 11.2% | 1.4 | 0.1 |
| 1/2 | Hickson Rd S-L Ahead | U | 956 | 1550 | 90.5% | 28.6 | 30.8 |
| 2/2+2/1 | Globe St W-L Right Left | U | 96 | 1550:1550 | 27.4 : 0.0% | 42.1 | 2.6 |
| 2/3 | Globe St W-L Right | U | 5 | 1550 | 1.4% | 38.4 | 0.1 |
| 3/1 | Hickson Rd N-L Ahead | U | 346 | 1580 | 32.1% | 9.6 | 4.5 |
| 3/2+3/3 | Hickson Rd N-L Ahead Right | U+O | 337 | 1550:1550 | 31.9 : 0.0% | 9.6 | 4.4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| C1 | PRC for Signalled Lanes (%): | -1.4 | Total Delay for Signalled Lanes (pcuHr): | 30.05 | Cycle Time (s): | 110 |
| C2 | PRC for Signalled Lanes (%): | 7.6 | Total Delay for Signalled Lanes (pcuHr): | 5.45 | Cycle Time (s): | 110 |
| C3 | PRC for Signalled Lanes (%): | -5.2 | Total Delay for Signalled Lanes (pcuHr): | 24.99 | Cycle Time (s): | 110 |
| C4 | PRC for Signalled Lanes (%): | 3.7 | Total Delay for Signalled Lanes (pcuHr): | 17.20 | Cycle Time (s): | 110 |
| C5 | PRC for Signalled Lanes (%): | 0.0 | Total Delay for Signalled Lanes (pcuHr): | 0.00 | Cycle Time (s): | 110 |
| C6 - Hickson/Globe | PRC for Signalled Lanes (%): | -0.5 | Total Delay for Signalled Lanes (pcuHr): | 10.66 | Cycle Time (s): | 110 |
| | PRC Over All Lanes (%): | -5.2 | Total Delay Over All Lanes(pcuHr): | 88.35 | | |

# Basic Results Summary

**Scenario 1: 'PM'** (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

## Network Layout Diagram



Basic Results Summary

## Network Results

| Item | Lane Description | Lane Type | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Deg Sat (%) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---|---|---|---|---|---|---|---|
| **Network** | - | - | - | - | **99.3%** | - | - |
| **J1: Sussex/Erskine** | - | - | - | - | **98.2%** | - | - |
| 1/2+1/1 | Sussex St S-L Left Ahead | U | 281 | 1550:1550 | 92.3 : 92.3% | 99.9 | 12.5 |
| 1/3 | Sussex St S-L Ahead | U | 279 | 1580 | 92.5% | 100.9 | 12.8 |
| 2/2+2/1 | Erskine St W-L Left Ahead | U | 403 | 1550:1550 | 40.5 : 40.5% | 11.9 | 5.3 |
| 2/3+2/4 | Erskine St W-L Right Ahead | U+O | 281 | 1550:1550 | 0.0 : 98.2% | 137.1 | 15.7 |
| 3/2+3/1 | Sussex St N-L Ahead Left | U | 466 | 1580:1270 | 93.7 : 93.7% | 73.3 | 17.6 |
| 3/3+3/4 | Sussex St N-L Ahead Right | U+O | 428 | 1580:1270 | 90.9 : 90.9% | 62.1 | 16.6 |
| 4/1 | Erskine St E-L Left | U | 560 | 1270 | 80.8% | 33.5 | 15.9 |
| 4/2+4/3 | Erskine St E-L Ahead Right | U+O | 175 | 1550:1550 | 19.6 : 19.6% | 12.9 | 1.6 |
| **J2: Sussex/Shelley** | - | - | - | - | **81.1%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 779 | 1580 | 75.3% | 18.8 | 7.7 |
| 2/1 | Sussex St N-L Ahead | U | 839 | 1580 | 81.1% | 20.2 | 18.1 |
| Ped Link: P1 | Shelley | - | 0 | - | 0.0% | Inf | Inf |
| **J3: Hickson/Napoleon** | - | - | - | - | **99.3%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 583 | 1580 | 84.6% | 33.2 | 19.4 |
| 1/2 | Sussex St S-L Right | O | 196 | 1670 | 97.9% | 151.1 | 12.0 |
| 2/2+2/1 | Basement W-L Left Ahead | U | 73 | 1670:1670 | 40.1 : 0.0% | 62.1 | 2.4 |
| 2/3+2/4 | Basement W-L Right Ahead | U | 90 | 1670:1670 | 45.3 : 45.3% | 61.9 | 2.8 |
| 3/2+3/1 | Hickson Rd N-L Ahead Left | U | 560 | 1670:1670 | 90.3 : 90.3% | 46.9 | 17.2 |
| 3/3 | Hickson Rd N-L Ahead | U | 542 | 1700 | 94.8% | 76.8 | 22.5 |
| 4/1 | Napoleon St E-L Left | U | 137 | 1550 | 19.8% | 16.9 | 1.8 |
| 4/2 | Napoleon St E-L Right | U | 588 | 1670 | 99.3% | 80.8 | 29.0 |
| **J4: Kent/Margaret/Napoleon** | - | - | - | - | **95.3%** | - | - |
| 1/2+1/1 | Kent St S-L Left Ahead | U | 350 | 1550:1550 | 82.9 : 82.9% | 58.8 | 11.9 |
| 1/3+1/4 | Kent St S-L Ahead Right | U+O | 342 | 1550:1550 | 82.3 : 82.3% | 60.5 | 11.9 |
| 2/2+2/1 | Napoleon St W-L Left Ahead | U+O | 805 | 1580:1270 | 95.3 : 95.3% | 49.5 | 28.4 |
| 3/1+3/2 | Kent St N-L Ahead Right Left | U+O | 233 | 1550:1270 | 26.9 : 26.9% | 17.6 | 3.4 |

Basic Results Summary

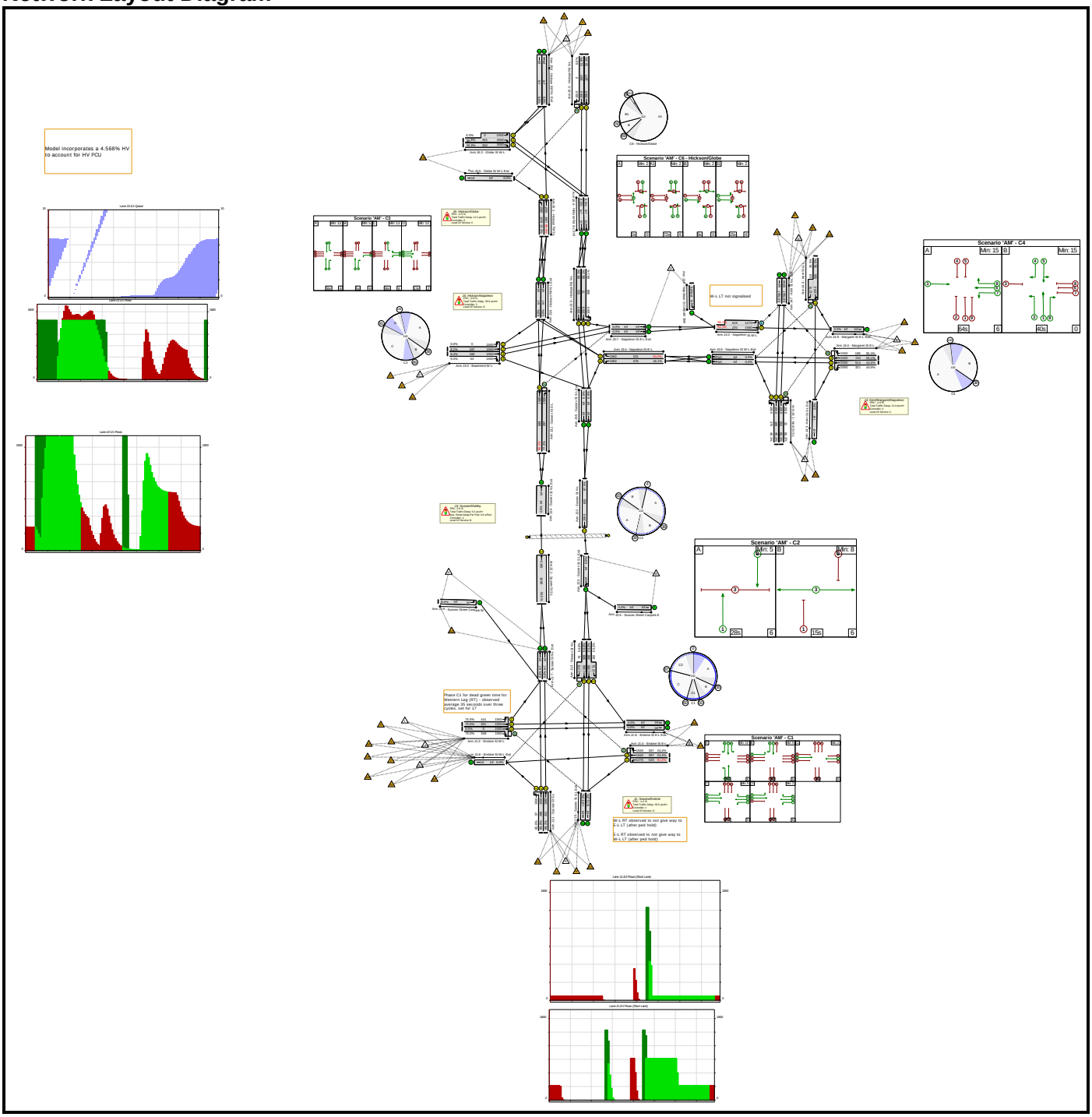
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4/2+4/1 | Margaret St E-L Left Ahead | U | 319 | 1550:1550 | 63.2 : 63.2% | 40.6 | 8.9 |
| 4/3+4/4 | Margaret St E-L Ahead Right | U+O | 402 | 1550:1550 | 70.4 : 70.4% | 40.7 | 11.5 |
| **J5: Hickson/Globe** | **-** | **-** | **-** | **-** | **75.5%** | **-** | **-** |
| 1/1 | Hickson Rd S-L Left | U | 245 | 1550 | 17.4% | 1.6 | 0.2 |
| 1/2 | Hickson Rd S-L Ahead | U | 926 | 1550 | 75.5% | 9.9 | 7.6 |
| 2/2+2/1 | Globe St W-L Right Left | U | 79 | 1550:1550 | 43.9 : 43.9% | 62.8 | 2.6 |
| 2/3 | Globe St W-L Right | U | 20 | 1550 | 10.9% | 54.4 | 0.6 |
| 3/1 | Hickson Rd N-L Ahead | U | 687 | 1580 | 43.5% | 2.0 | 0.4 |
| 3/2+3/3 | Hickson Rd N-L Ahead Right | U+O | 317 | 1550:1550 | 26.0 : 0.0% | 5.0 | 2.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| C1 | PRC for Signalled Lanes (%): | -9.2 | Total Delay for Signalled Lanes (pcuHr): | 50.35 | Cycle Time (s): | 110 |
| C2 | PRC for Signalled Lanes (%): | 10.9 | Total Delay for Signalled Lanes (pcuHr): | 8.79 | Cycle Time (s): | 110 |
| C3 | PRC for Signalled Lanes (%): | -10.3 | Total Delay for Signalled Lanes (pcuHr): | 49.12 | Cycle Time (s): | 110 |
| C4 | PRC for Signalled Lanes (%): | -5.9 | Total Delay for Signalled Lanes (pcuHr): | 31.80 | Cycle Time (s): | 110 |
| C5 | PRC for Signalled Lanes (%): | 0.0 | Total Delay for Signalled Lanes (pcuHr): | 0.00 | Cycle Time (s): | 110 |
| C6 - Hickson/Globe | PRC for Signalled Lanes (%): | 19.1 | Total Delay for Signalled Lanes (pcuHr): | 4.78 | Cycle Time (s): | 110 |
| | PRC Over All Lanes (%): | -10.3 | Total Delay Over All Lanes(pcuHr): | 145.22 | | |

# Basic Results Summary

**Scenario 1: 'AM'** (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

## Network Layout Diagram



Basic Results Summary

## Network Results

| Item | Lane Description | Lane Type | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Deg Sat (%) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---|---|---|---|---|---|---|---|
| **Network** | - | - | - | - | **96.2%** | - | - |
| **J1: Sussex/Erskine** | - | - | - | - | **91.2%** | - | - |
| 1/2+1/1 | Sussex St S-L Left Ahead | U | 249 | 1550:1550 | 65.0 : 65.0% | 49.5 | 7.4 |
| 1/3 | Sussex St S-L Ahead | U | 298 | 1580 | 69.2% | 49.2 | 9.2 |
| 2/2+2/1 | Erskine St W-L Left Ahead | U | 545 | 1550:1550 | 73.5 : 73.5% | 30.1 | 13.2 |
| 2/3+2/4 | Erskine St W-L Right Ahead | U+O | 254 | 1550:1550 | 0.0 : 73.0% | 57.1 | 8.4 |
| 3/2+3/1 | Sussex St N-L Ahead Left | U | 297 | 1580:1270 | 55.2 : 55.2% | 33.1 | 3.3 |
| 3/3+3/4 | Sussex St N-L Ahead Right | U+O | 369 | 1580:1270 | 56.0 : 56.0% | 22.7 | 4.9 |
| 4/1 | Erskine St E-L Left | U | 474 | 1270 | 91.2% | 63.8 | 17.9 |
| 4/2+4/3 | Erskine St E-L Ahead Right | U+O | 167 | 1550:1550 | 24.4 : 24.4% | 21.1 | 2.6 |
| **J2: Sussex/Shelley** | - | - | - | - | **87.5%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 892 | 3160 | 53.5% | 7.1 | 3.0 |
| 2/1 | Sussex St N-L Ahead | U | 729 | 1580 | 87.5% | 22.0 | 12.2 |
| Ped Link: P1 | Shelley | - | 0 | - | 0.0% | Inf | Inf |
| **J3: Hickson/Napoleon** | - | - | - | - | **96.2%** | - | - |
| 1/1 | Sussex St S-L Ahead | U | 663 | 1580 | 96.2% | 54.2 | 20.4 |
| 1/2 | Sussex St S-L Right | O | 229 | 1550 | 77.2% | 48.8 | 8.3 |
| 2/2+2/1 | Basement W-L Left Ahead | U | 16 | 1550:1550 | 8.1 : 0.0% | 52.3 | 0.5 |
| 2/3+2/4 | Basement W-L Right Ahead | U | 20 | 1550:1550 | 9.4 : 9.4% | 51.7 | 0.5 |
| 3/2+3/1 | Hickson Rd N-L Ahead Left | U | 525 | 1550:1550 | 69.1 : 69.1% | 14.3 | 7.9 |
| 3/3 | Hickson Rd N-L Ahead | U | 362 | 1580 | 68.1% | 36.6 | 10.8 |
| 4/1 | Napoleon St E-L Left | U | 312 | 1550 | 46.1% | 18.4 | 5.3 |
| 4/2 | Napoleon St E-L Right | U | 490 | 1550 | 94.0% | 65.6 | 20.2 |
| **J4: Kent/Margaret/Napoleon** | - | - | - | - | **94.1%** | - | - |
| 1/2+1/1 | Kent St S-L Left Ahead | U | 214 | 1550:1550 | 46.1 : 46.1% | 37.7 | 5.0 |
| 1/3+1/4 | Kent St S-L Ahead Right | U+O | 387 | 1550:1550 | 66.3 : 66.3% | 37.7 | 10.7 |
| 2/2+2/1 | Napoleon St W-L Left Ahead | U+O | 833 | 1580:1270 | 94.1 : 94.1% | 35.6 | 33.2 |
| 3/1+3/2 | Kent St N-L Ahead Right Left | U+O | 219 | 1550:1270 | 35.5 : 35.5% | 32.0 | 4.2 |

Basic Results Summary

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4/2+4/1 | Margaret St E-L Left Ahead | U | 370 | 1550:1550 | 44.5 : 44.5% | 18.6 | 6.6 |
| 4/3+4/4 | Margaret St E-L Ahead Right | U+O | 512 | 1550:1550 | 55.1 : 55.1% | 17.9 | 9.6 |
| **J5: Hickson/Globe** | **-** | **-** | **-** | **-** | **90.5%** | **-** | **-** |
| 1/1 | Hickson Rd S-L Left | U | 197 | 1580 | 13.3% | 1.5 | 0.1 |
| 1/2 | Hickson Rd S-L Ahead | U | 956 | 1550 | 90.5% | 29.3 | 31.9 |
| 2/2+2/1 | Globe St W-L Right Left | U | 136 | 1550:1550 | 38.8 : 0.0% | 44.4 | 3.8 |
| 2/3 | Globe St W-L Right | U | 68 | 1550 | 19.3% | 40.7 | 1.8 |
| 3/1 | Hickson Rd N-L Ahead | U | 347 | 1580 | 32.2% | 9.6 | 4.5 |
| 3/2+3/3 | Hickson Rd N-L Ahead Right | U+O | 336 | 1550:1550 | 31.8 : 0.0% | 9.6 | 4.3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| C1 | PRC for Signalled Lanes (%): | -1.4 | Total Delay for Signalled Lanes (pcuHr): | 30.52 | Cycle Time (s): | 110 |
| C2 | PRC for Signalled Lanes (%): | 2.9 | Total Delay for Signalled Lanes (pcuHr): | 6.21 | Cycle Time (s): | 110 |
| C3 | PRC for Signalled Lanes (%): | -6.8 | Total Delay for Signalled Lanes (pcuHr): | 29.88 | Cycle Time (s): | 110 |
| C4 | PRC for Signalled Lanes (%): | -4.6 | Total Delay for Signalled Lanes (pcuHr): | 20.95 | Cycle Time (s): | 110 |
| C5 | PRC for Signalled Lanes (%): | 0.0 | Total Delay for Signalled Lanes (pcuHr): | 0.00 | Cycle Time (s): | 110 |
| C6 - Hickson/Globe | PRC for Signalled Lanes (%): | -0.5 | Total Delay for Signalled Lanes (pcuHr): | 12.12 | Cycle Time (s): | 110 |
| | PRC Over All Lanes (%): | -6.8 | Total Delay Over All Lanes(pcuHr): | 99.68 | | |