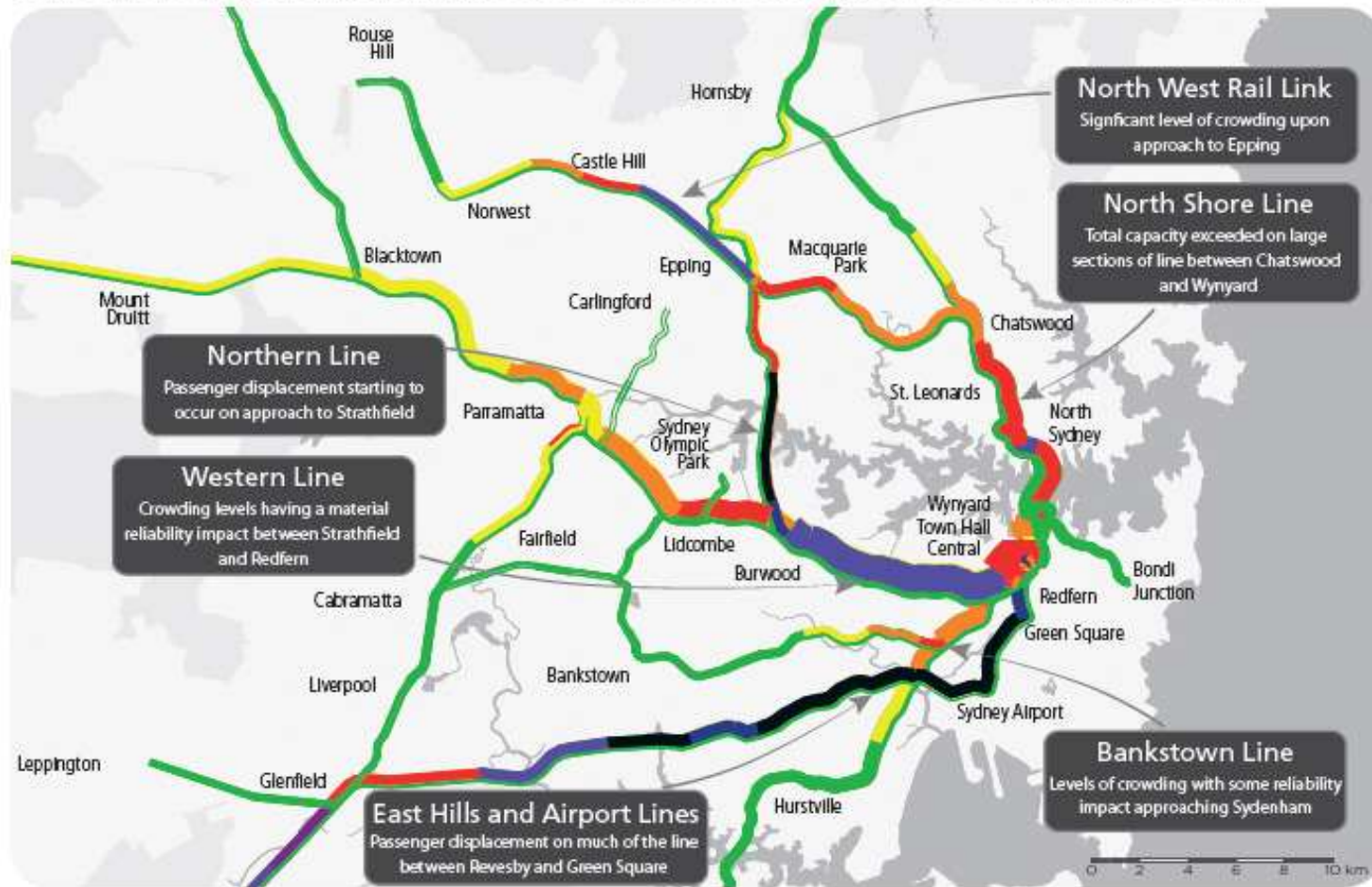


The Turbulent Sydney Metro Story





Ecotransit Sydney
Mathew Hounsell
Co-convenor







| Crowding Level | Description of crowding for double deck trains |
|------------------------|---|
| Very Low | Passengers are mostly seated |
| Low | Seated capacity is reached and people start to stand |
| Moderate | Standing space approaching full for reliable running |
| High | Crowding with some reliability impact |
| Very High | Crowding starting to have material reliability impact |
| Passenger displacement | Additional passengers are unable to board the train |

Note: The above passenger crowding levels are based on total capacity (including both seated and standing passengers). This is a more generally accepted measure internationally rather than expressing capacity on the basis of seating alone.

Key changes over the last decade

| | | |
|---|-------|---------------|
|  | ↑ 13% | Population |
|  | ↑ 7% | Weekday trips |
|  | ↑ 10% | Weekend trips |
|  | ↑ 23% | Vehicles |

Growth by mode

| | | |
|---|-------|------------------------|
|  | ↑ 24% | Train trips |
|  | ↑ 19% | Bus trips |
|  | ↑ 5% | Vehicle trips |
|  | ↑ 21% | Total public transport |

Passenger Journeys - 12 Month Average

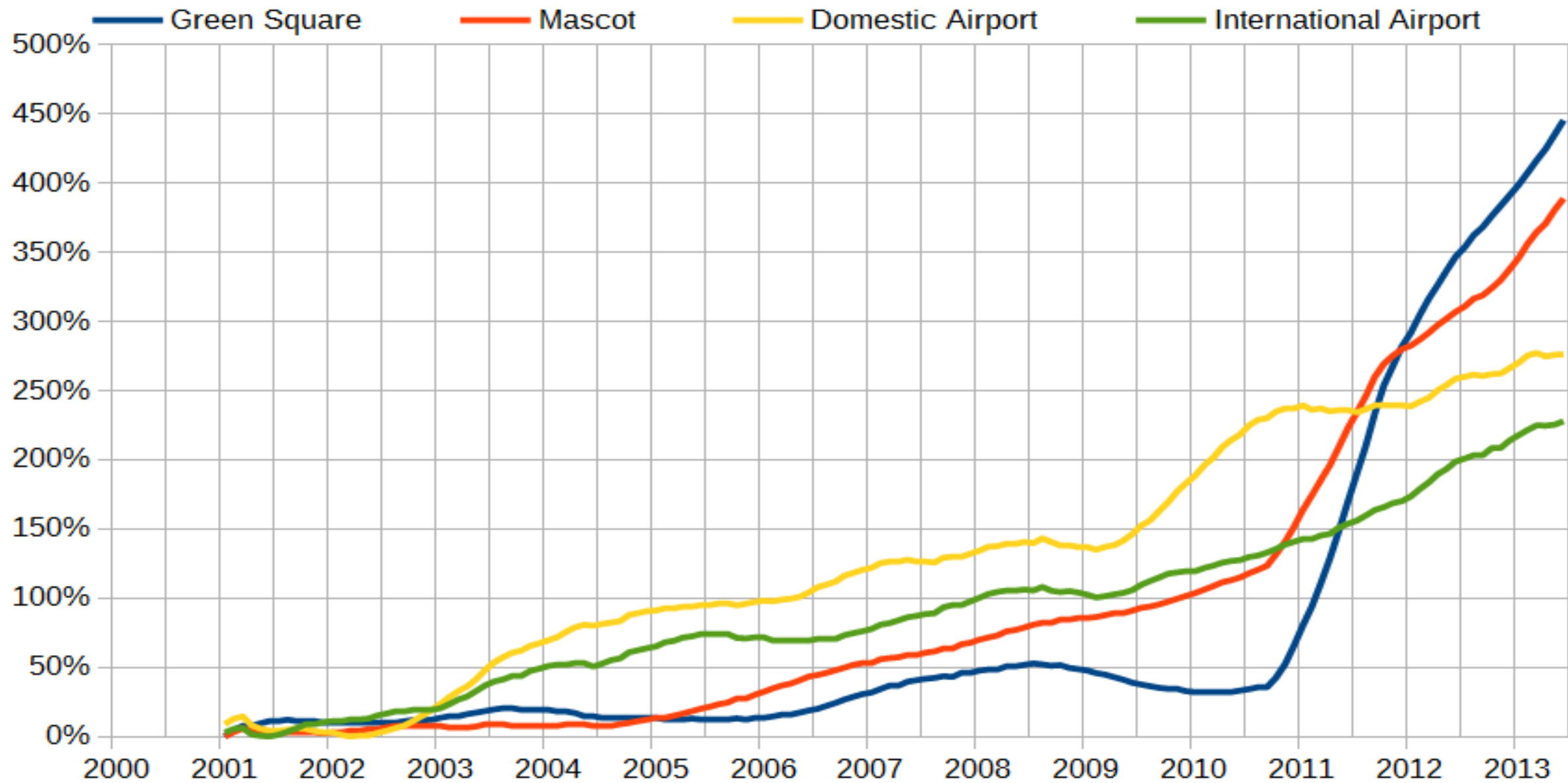


Table 31 Summary of economic results for key land transport options

| Option | Remove Station Access Fee, with a Public Transport Information Campaign |
|-----------|--|
| BCR | 1.5 |
| NPV (\$m) | 268 |

Note: BCR represents benefit cost ratio; NPV represents net present value.

Source: PwC and Australian Department of Infrastructure and Transport.



Figure 5.2. Rail network developments between 2006 and 2011 (for details, see section 4.4).

Sydenham - 6 Tracks In

1

Imagery © AAM

Google

Sydenham - 4 Tracks Out

1

Sydenham - 6 Platforms



Imagery © AAM

Google



1

Bridges - built for 6 tracks

Imagery © AAM

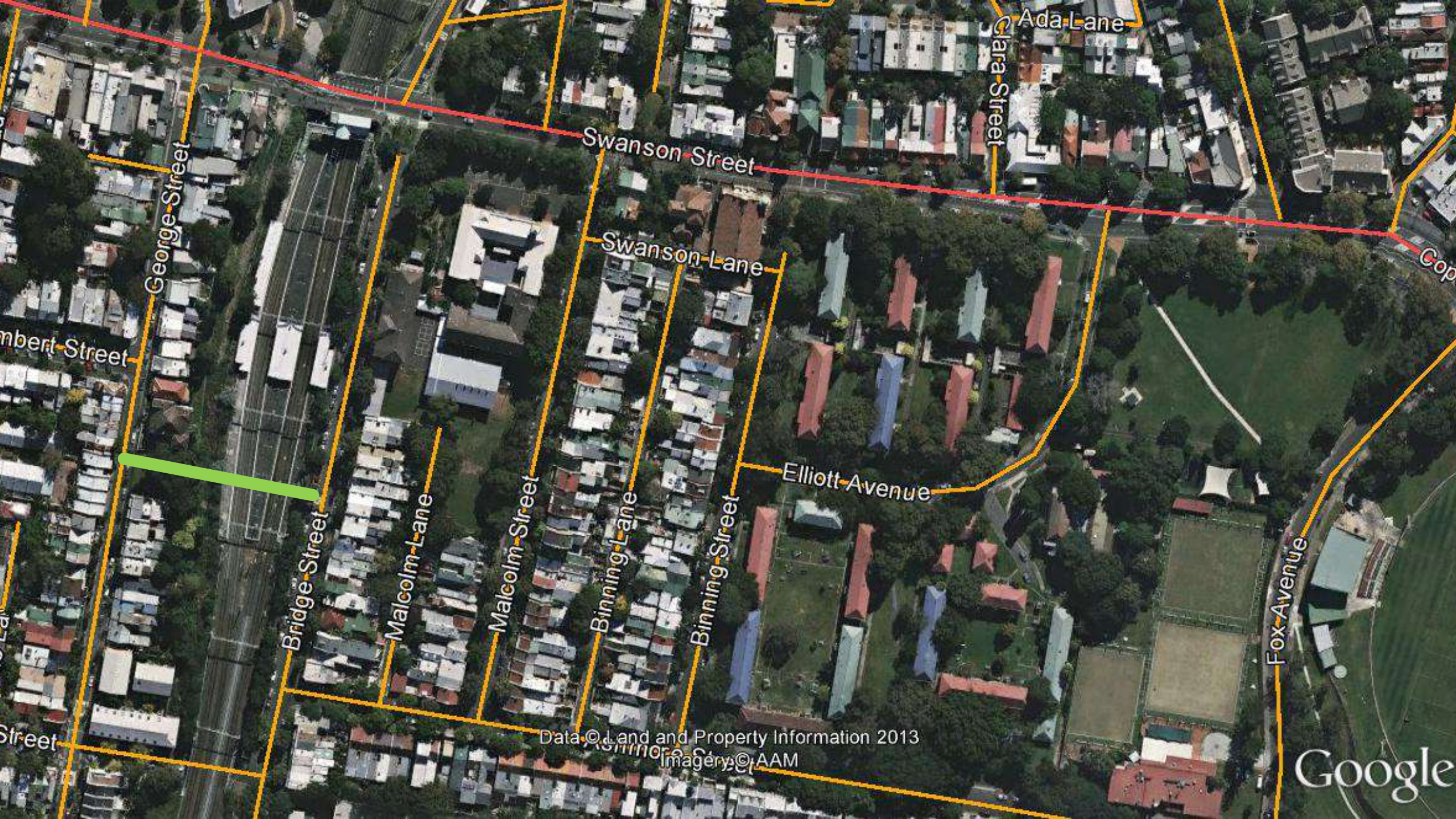
Google

Erskineville



Imagery © AAM

Google



Ada Lane

Clara Street

Swanson Street

George Street

Lambert Street

Swanson Lane

Cop

Bridge Street

Malcolm Lane

Malcolm Street

Binning Lane

Binning Street

Elliott Avenue

Fox Avenue

Street

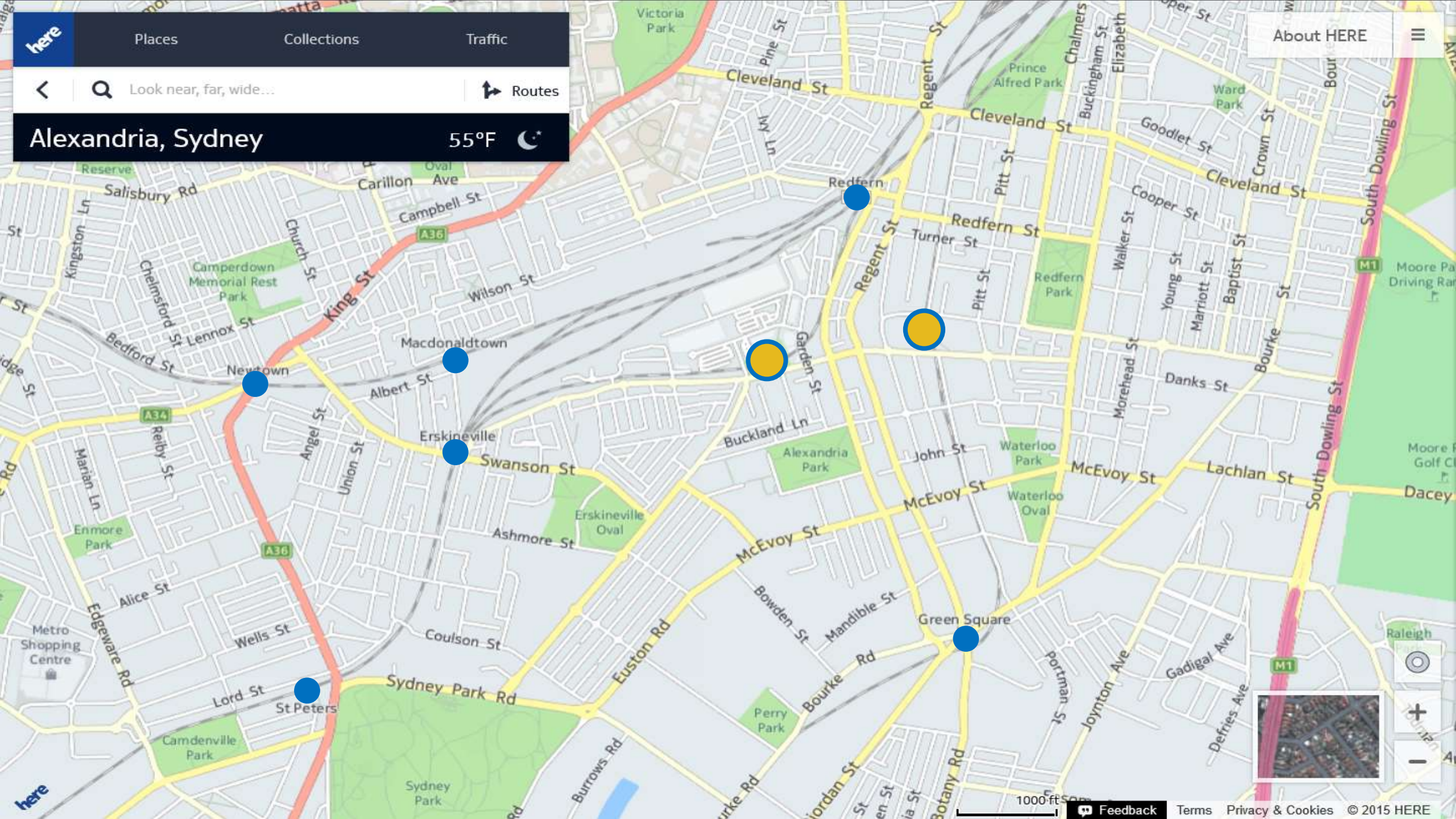
Data © Land and Property Information 2013
Imagery © AAM

Google

Comparison

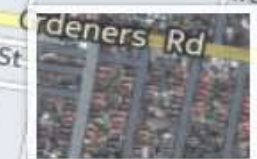
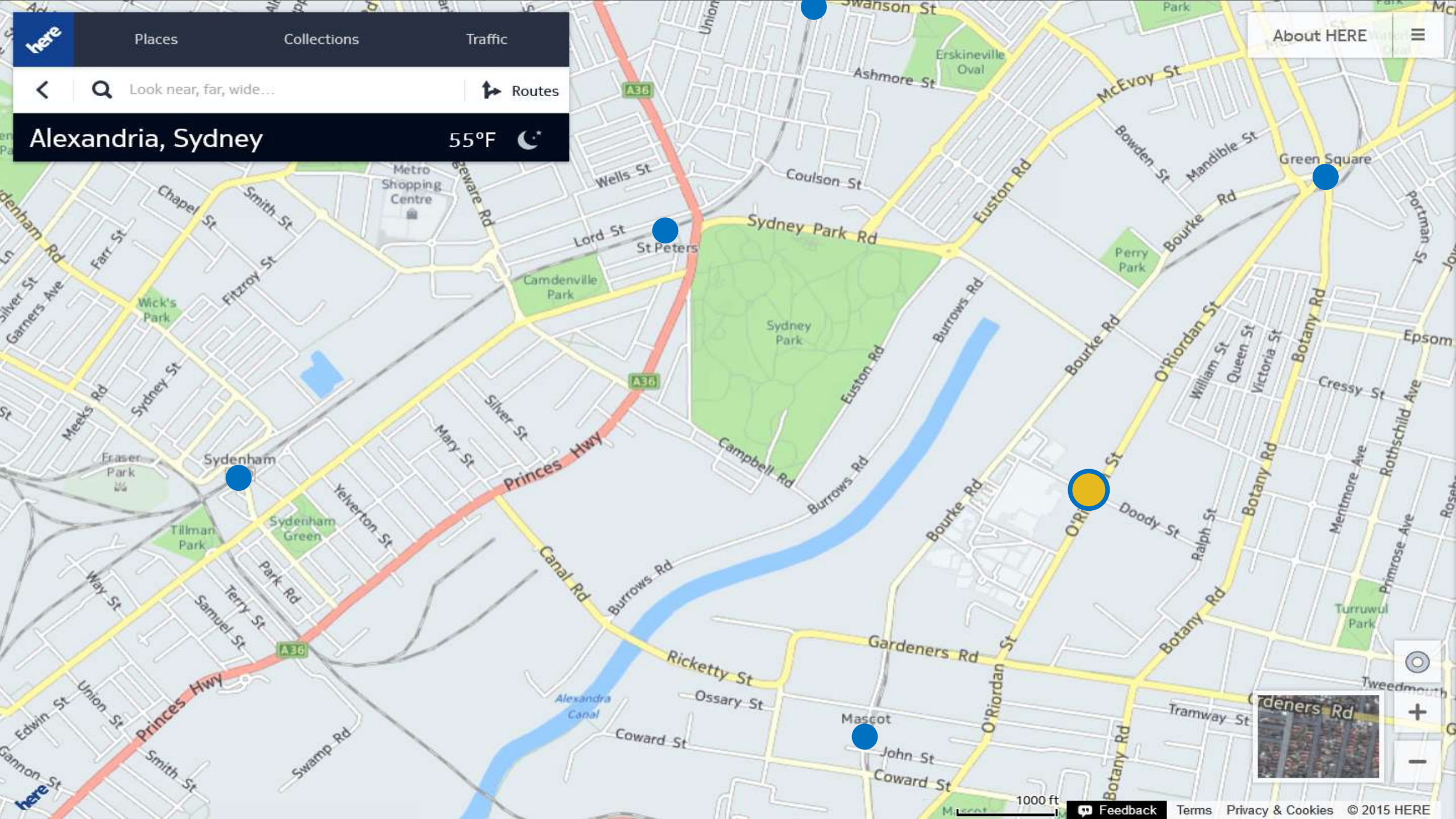
| | Rail Clearway | Light Rail | Metro |
|----------------------|----------------------|-------------------|---------------|
| cost / track km | \$30 million | \$20 million | \$200 million |
| passengers / vehicle | 1,200 | 250 | 900 |

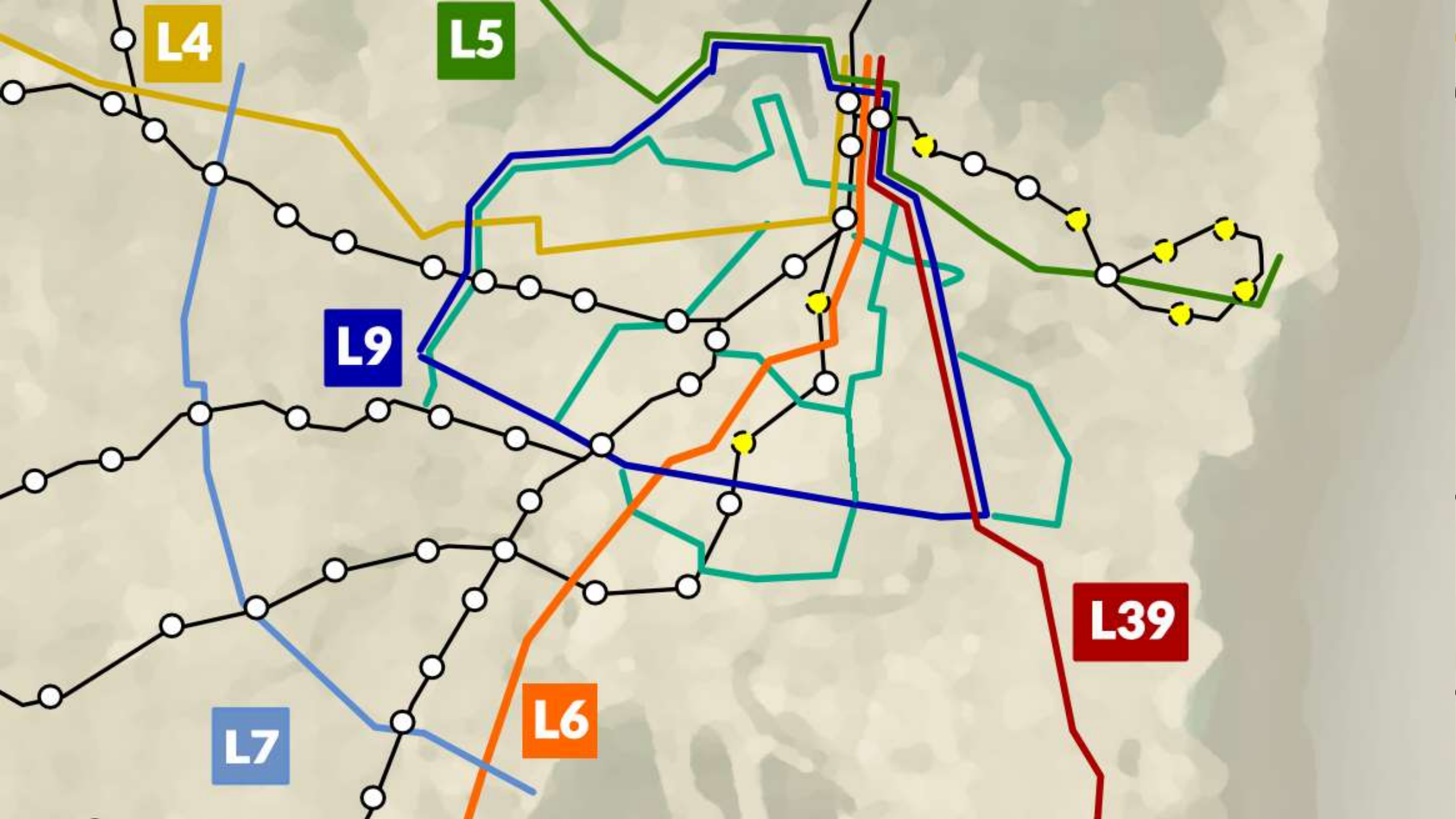
| 6 km / hour | Rail Clearway | Light Rail | Metro |
|--------------------|----------------------|-------------------|-----------------|
| cost | \$200 million | \$120 million | \$1,200 million |
| passengers / hour | 36,000 | 7,500 | 27,000 |



Map navigation controls including a compass, zoom in (+) and zoom out (-) buttons, a street view pegman icon, and a satellite view inset.

1000 ft Scale



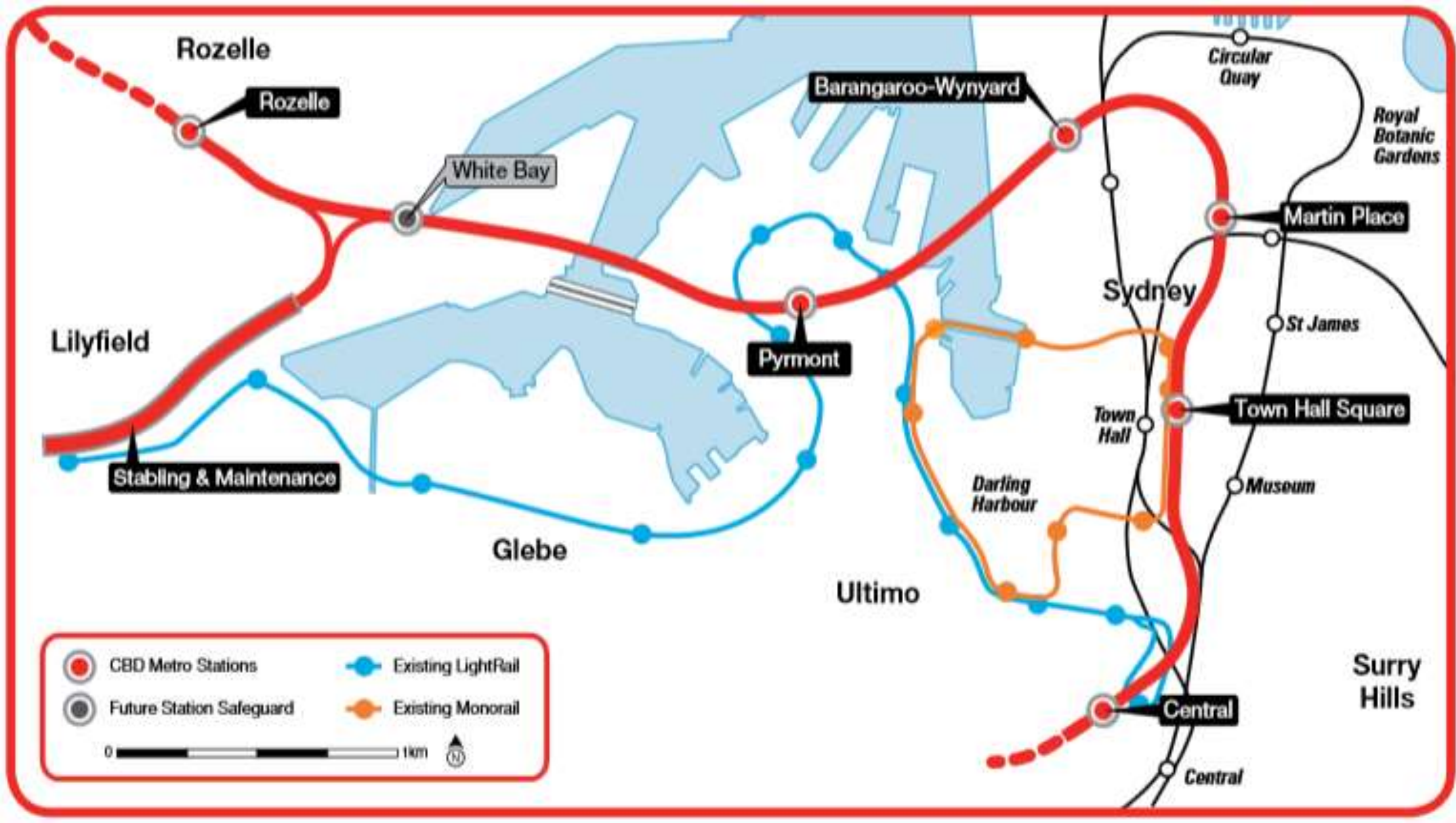


Why Metros?

SydneyLink

The future of Sydney's transport





Rozelle

Rozelle

White Bay

Barangaroo-Wynyard

Circular Quay

Royal Botanic Gardens

Martin Place

Sydney

St James

Lilyfield

Stabling & Maintenance

Pyrmont

Town Hall Square

Town Hall

Museum

Darling Harbour

Glebe

Ultimo

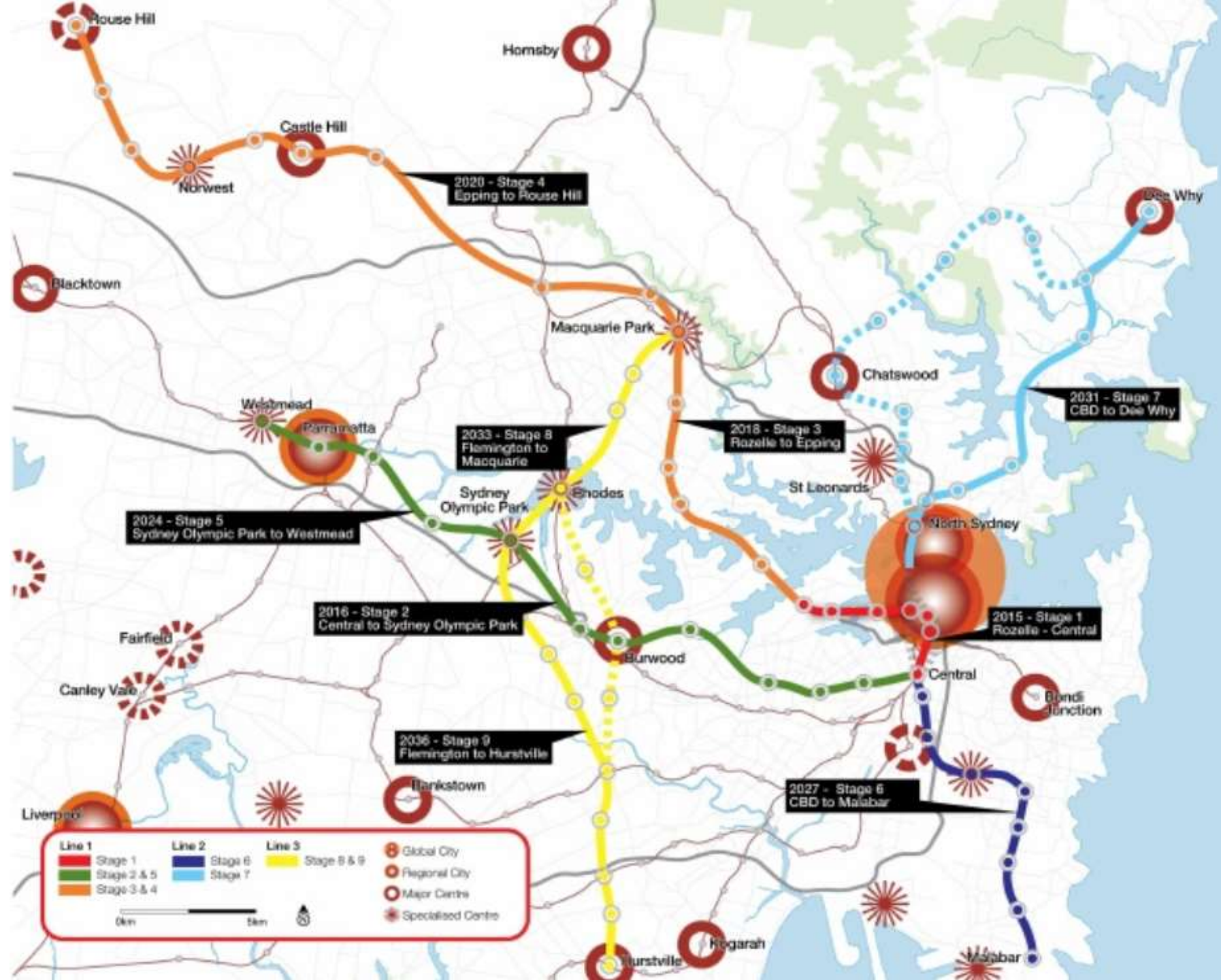
Surry Hills

Central

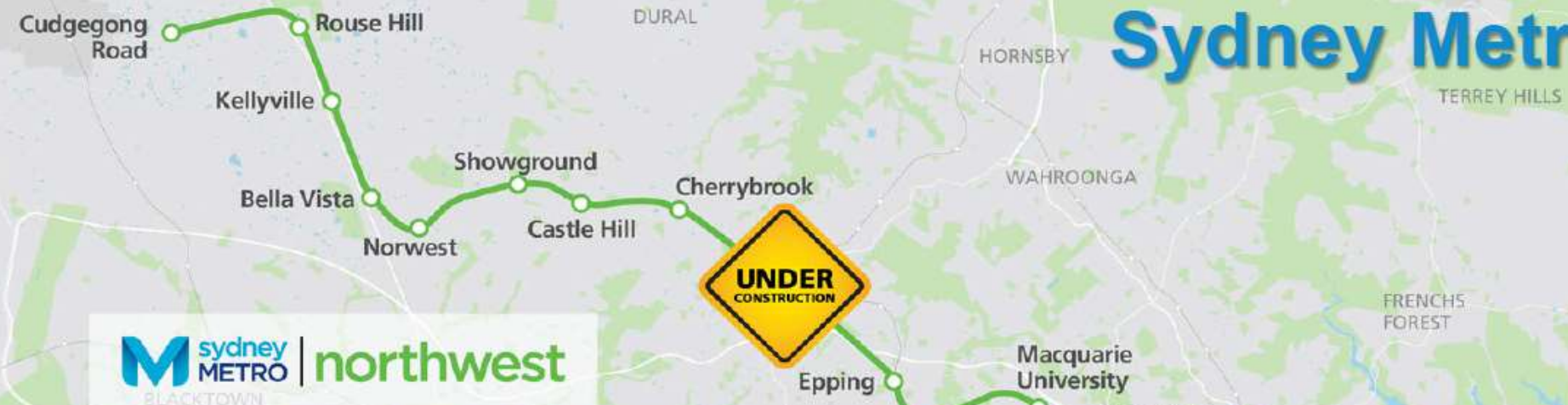
Central

- CBD Metro Stations
- Future Station Safeguard
- Existing Light Rail
- Existing Monorail





Sydney Metro



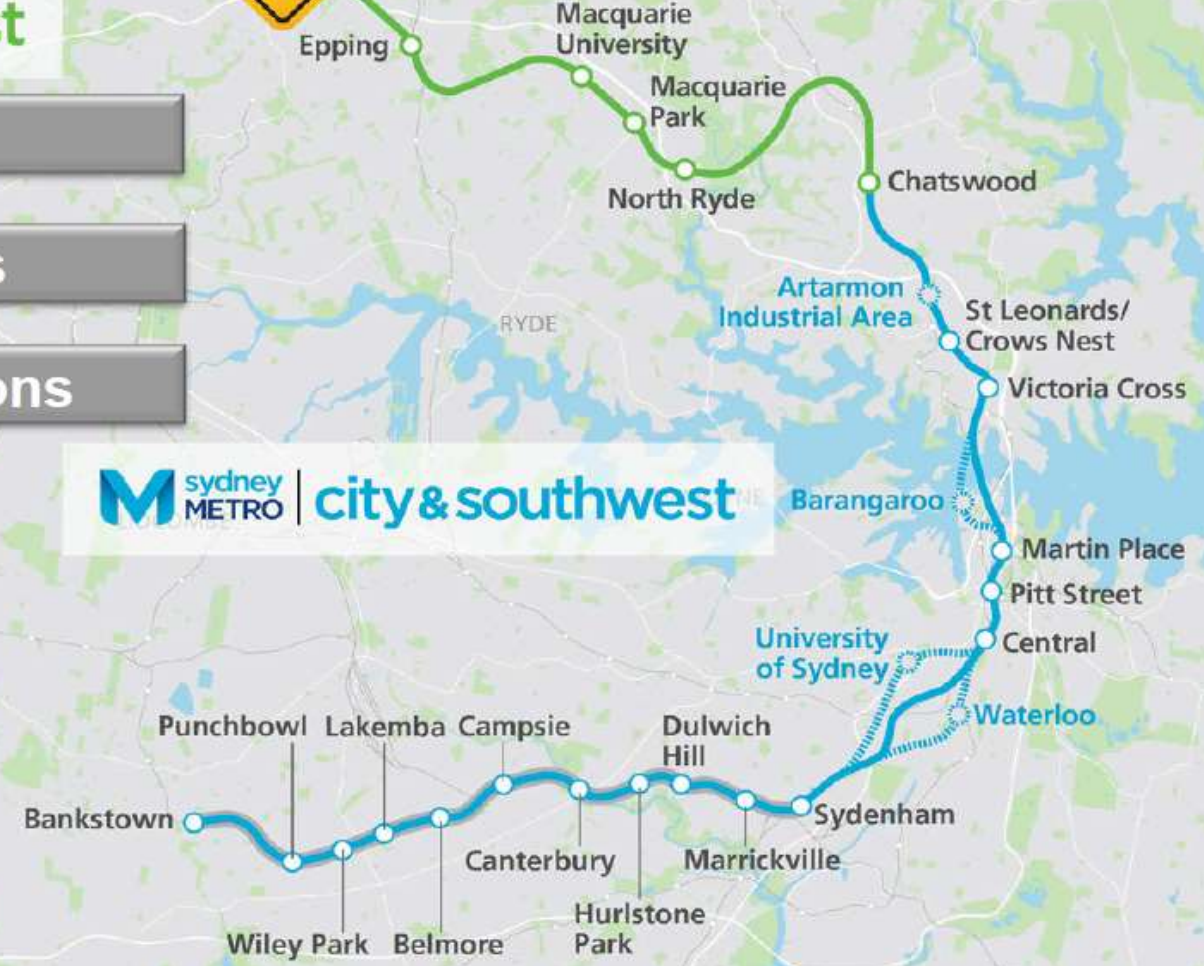
M sydney METRO | **northwest**
BLACKTOWN

66km, two stages

29 metro railway stations

Plus three optional stations





M sydney METRO | **city & southwest**



Legend

- Sydney Metro Northwest alignment
- Sydney Metro City & Southwest alignment
- Station and alignment options
- Upgrade and conversion to metro rail

Legend

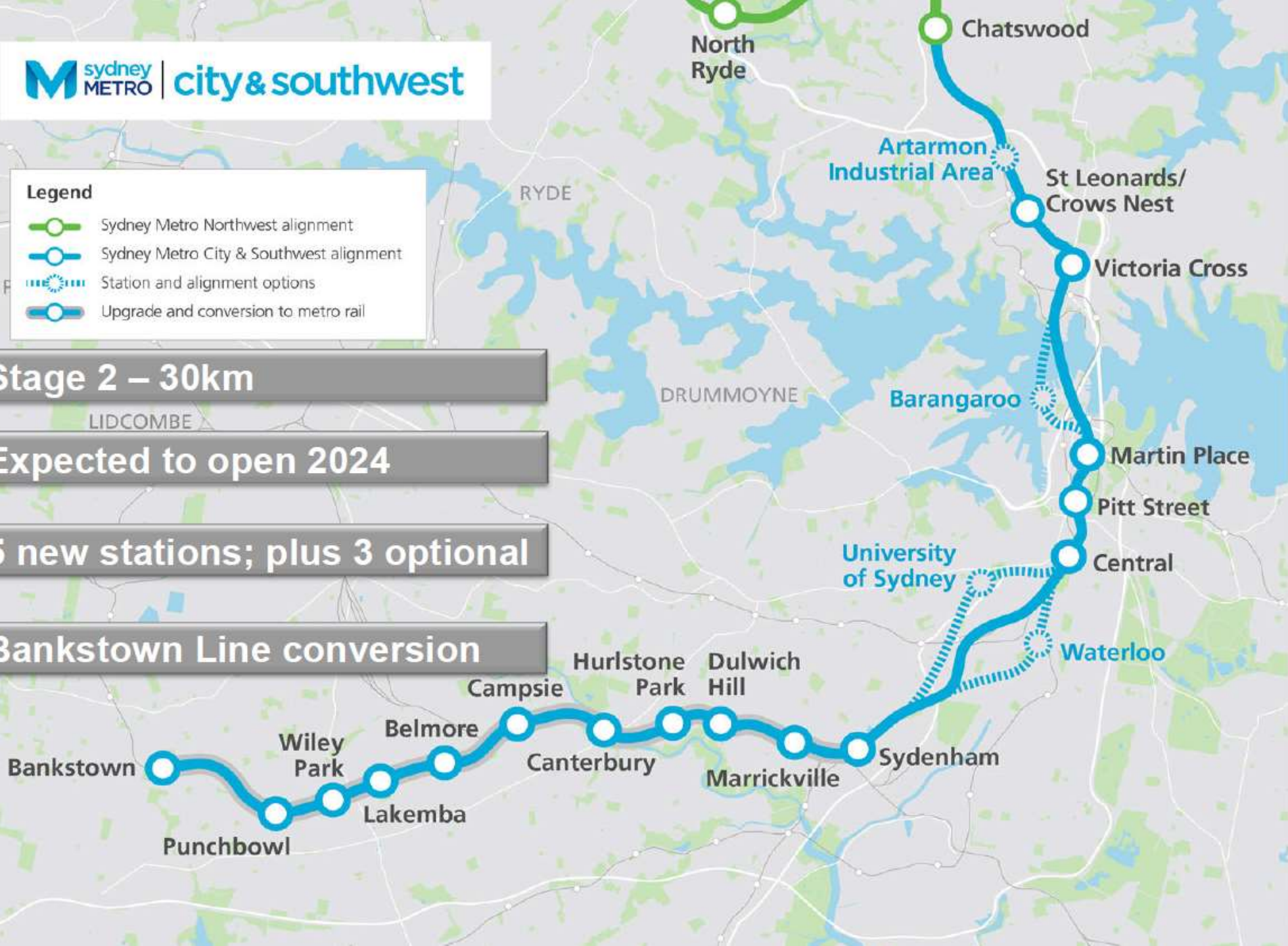
-  Sydney Metro Northwest alignment
-  Sydney Metro City & Southwest alignment
-  Station and alignment options
-  Upgrade and conversion to metro rail

Stage 2 – 30km

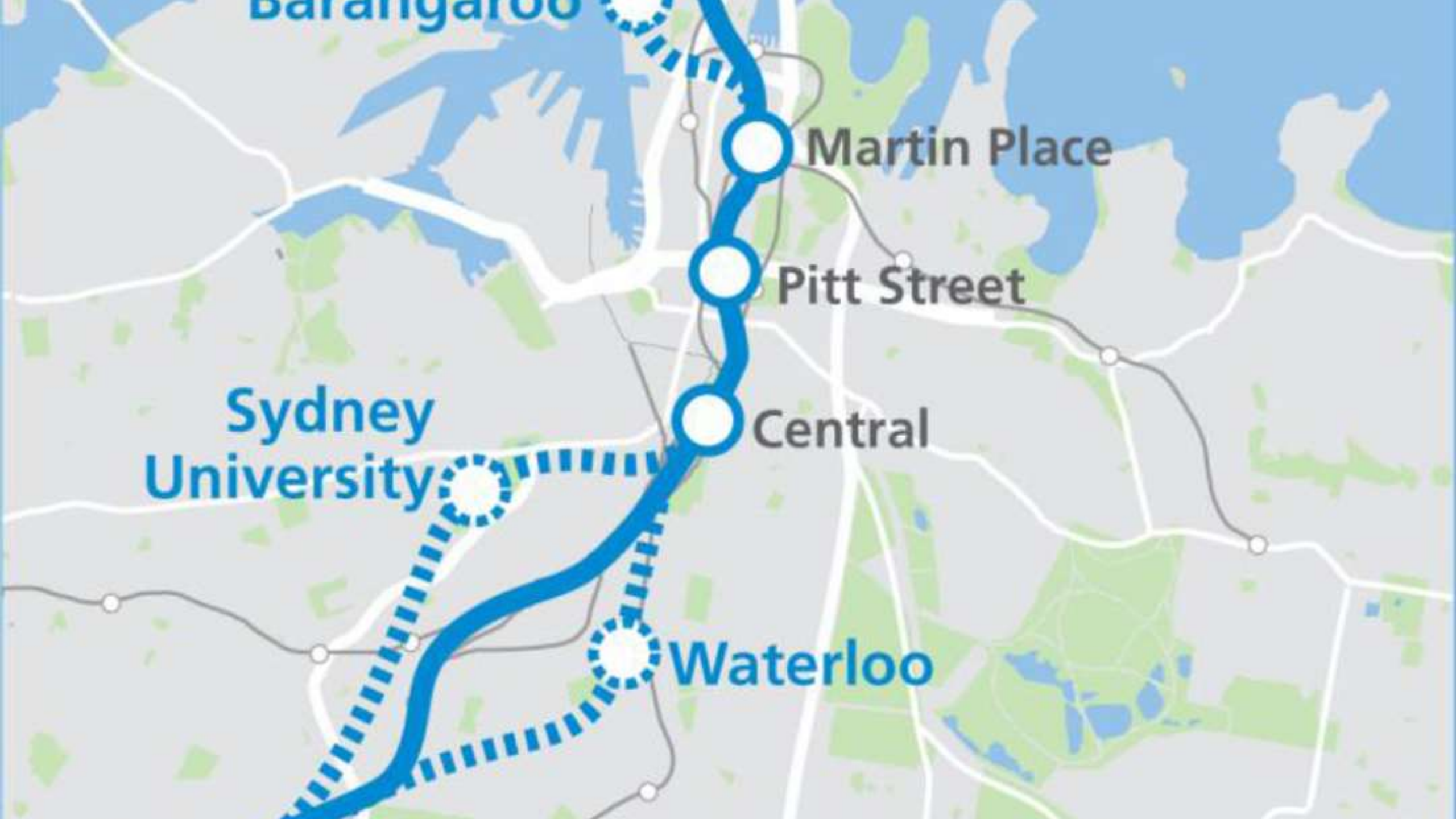
Expected to open 2024

5 new stations; plus 3 optional

Bankstown Line conversion







Barangaroo

Martin Place

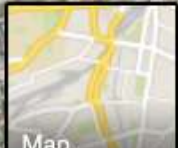
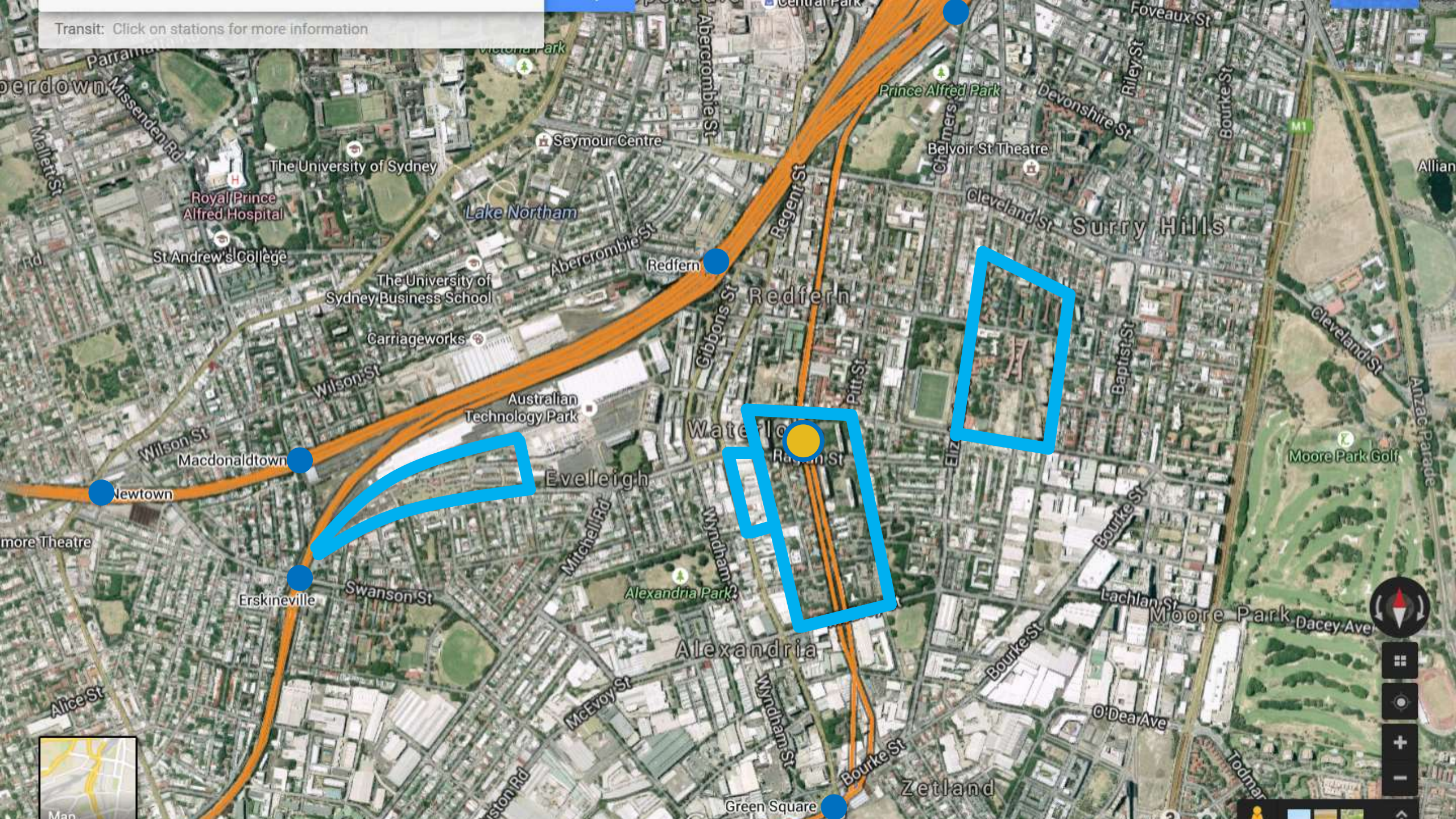
Pitt Street

Central

Sydney University

Waterloo

Transit: Click on stations for more information





BLACKTOWN

CABRAMATTA

PARRAMATTA

LIVERPOOL

EPPING

HORNSBY

BANKSTOWN

BURWOOD

CHATSWOOD

HURSTVILLE

NORTHSYDNEY

WOLLICREEK

SYDNEY CITY

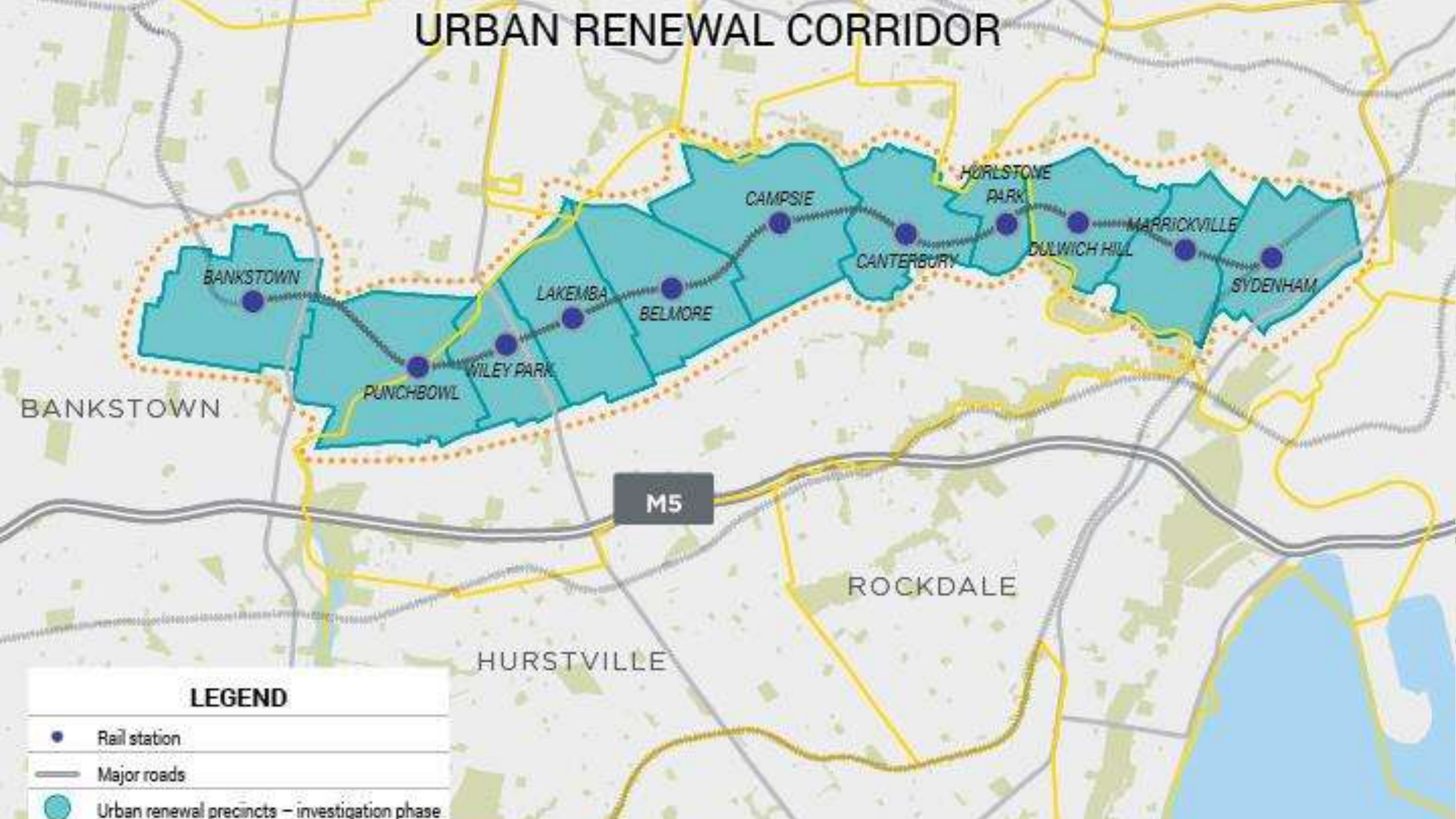
MANLYVALE

GREEN SQUARE

RANDWICK

BONDI JUNCTION

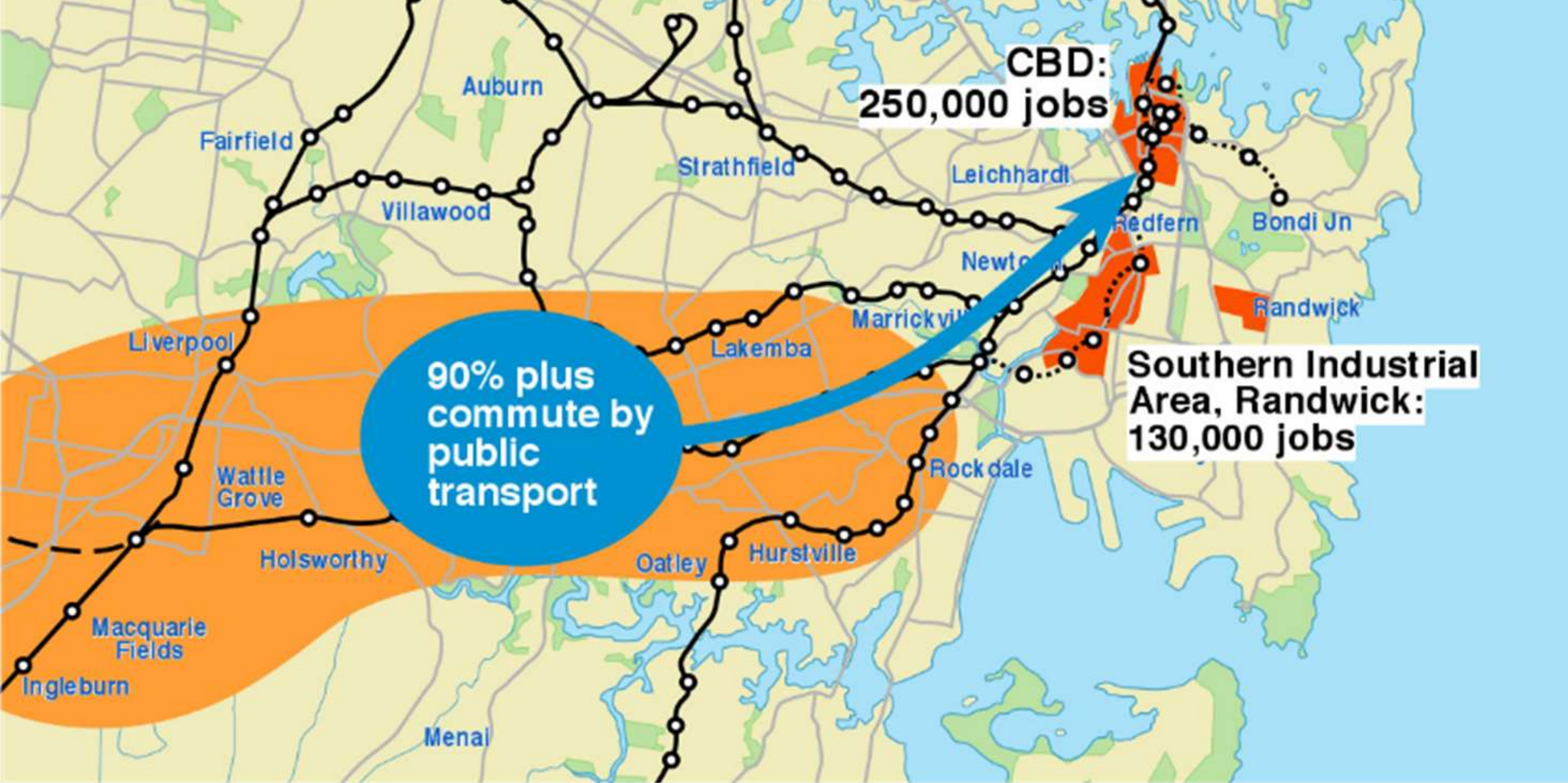
URBAN RENEWAL CORRIDOR



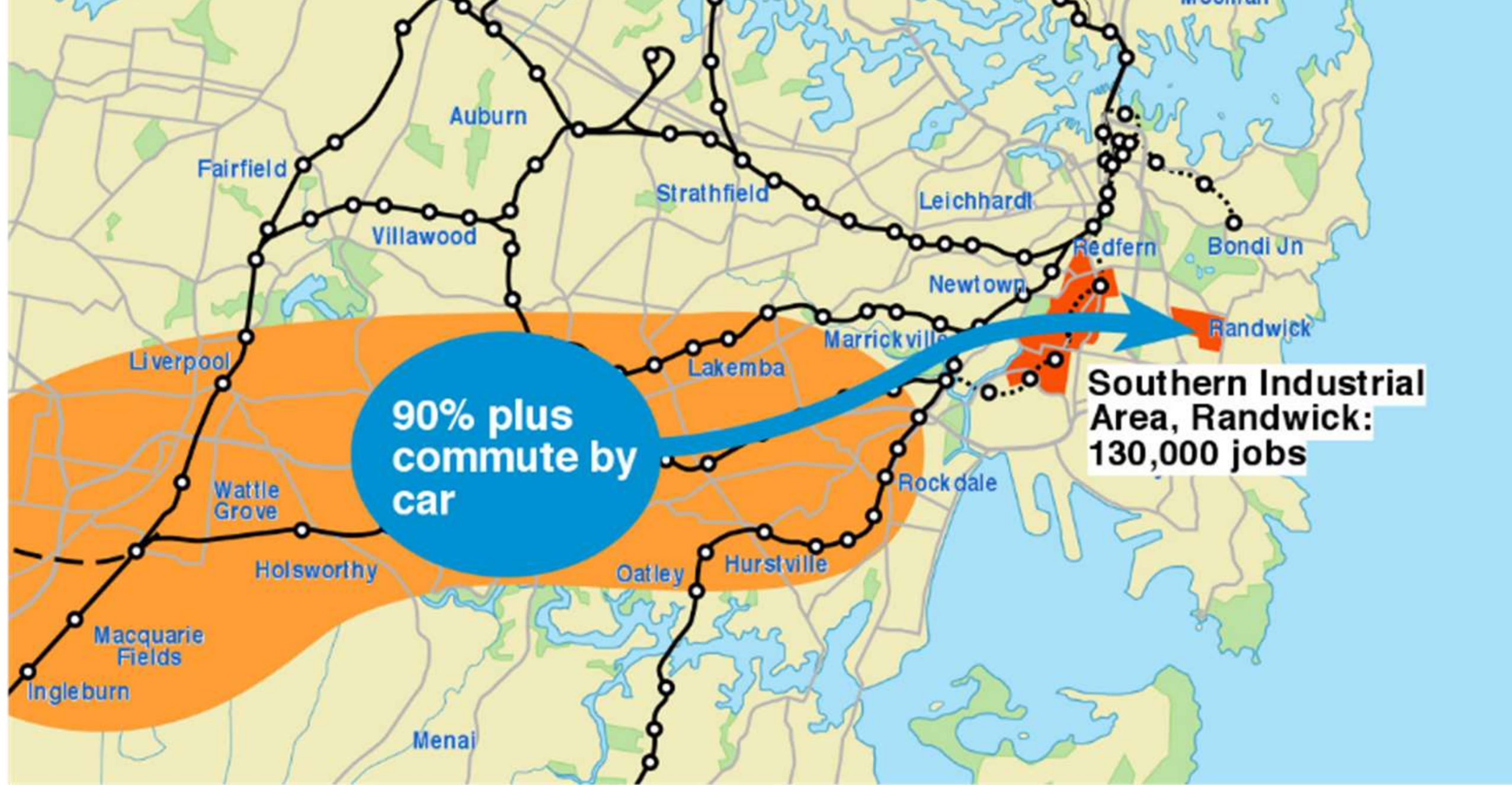
LEGEND

- Rail station
- Major roads
- Urban renewal precincts – investigation phase

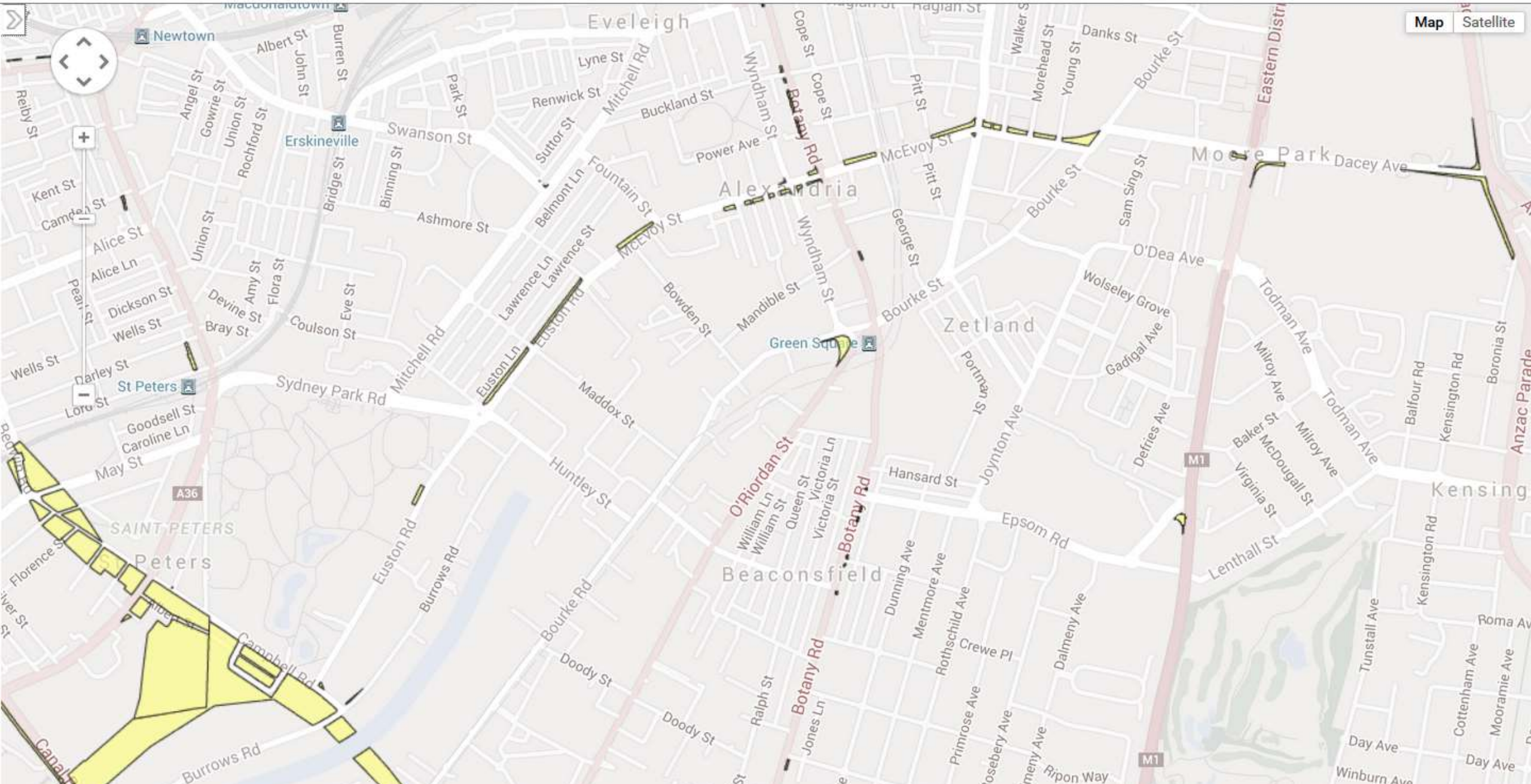
What does this
means for
Alexandria,
Erskineville, and
the Inner City?



South-West Sydney's greatest commuter problem:

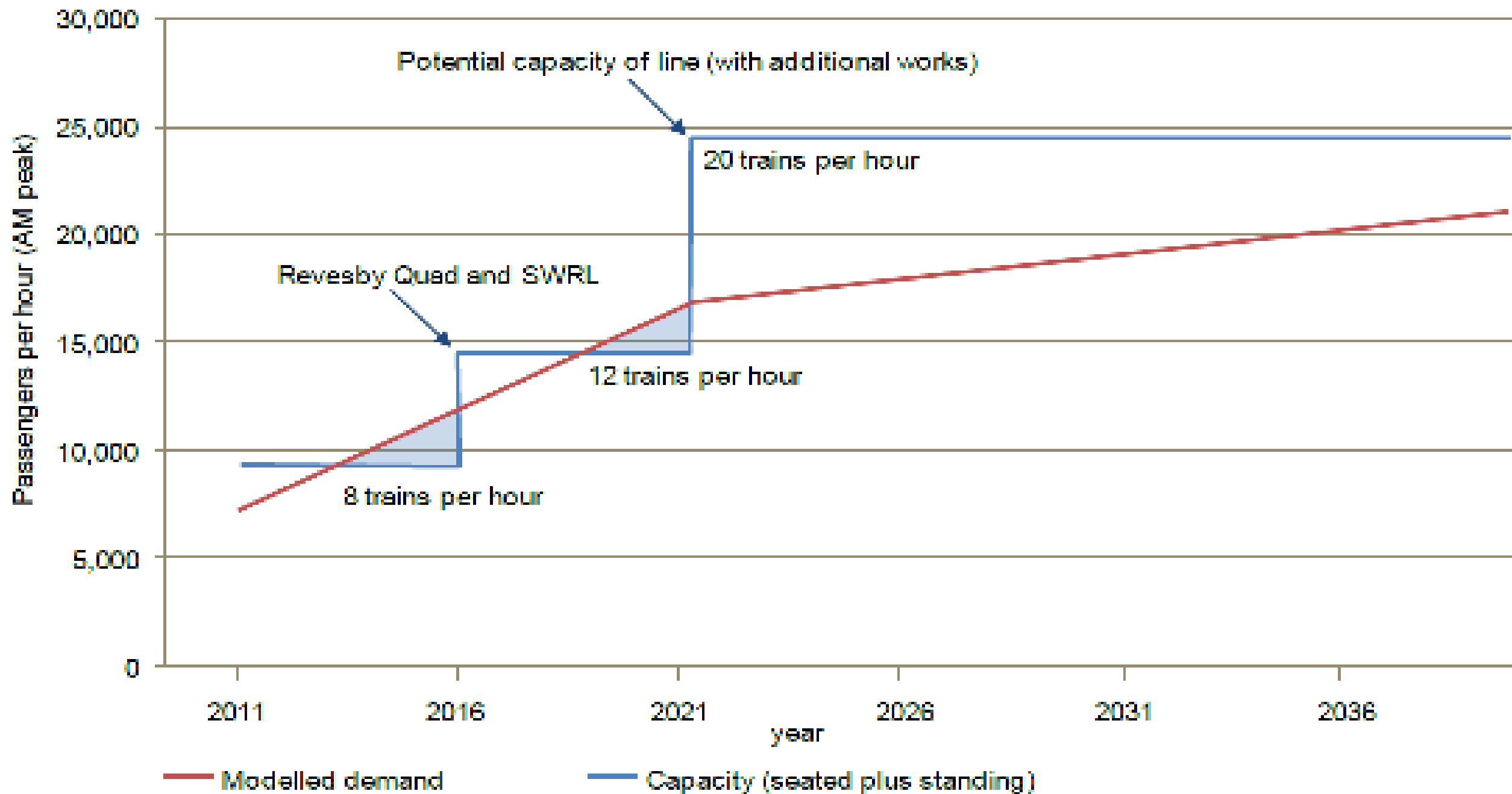


South-West Sydney's greatest commuter problem:



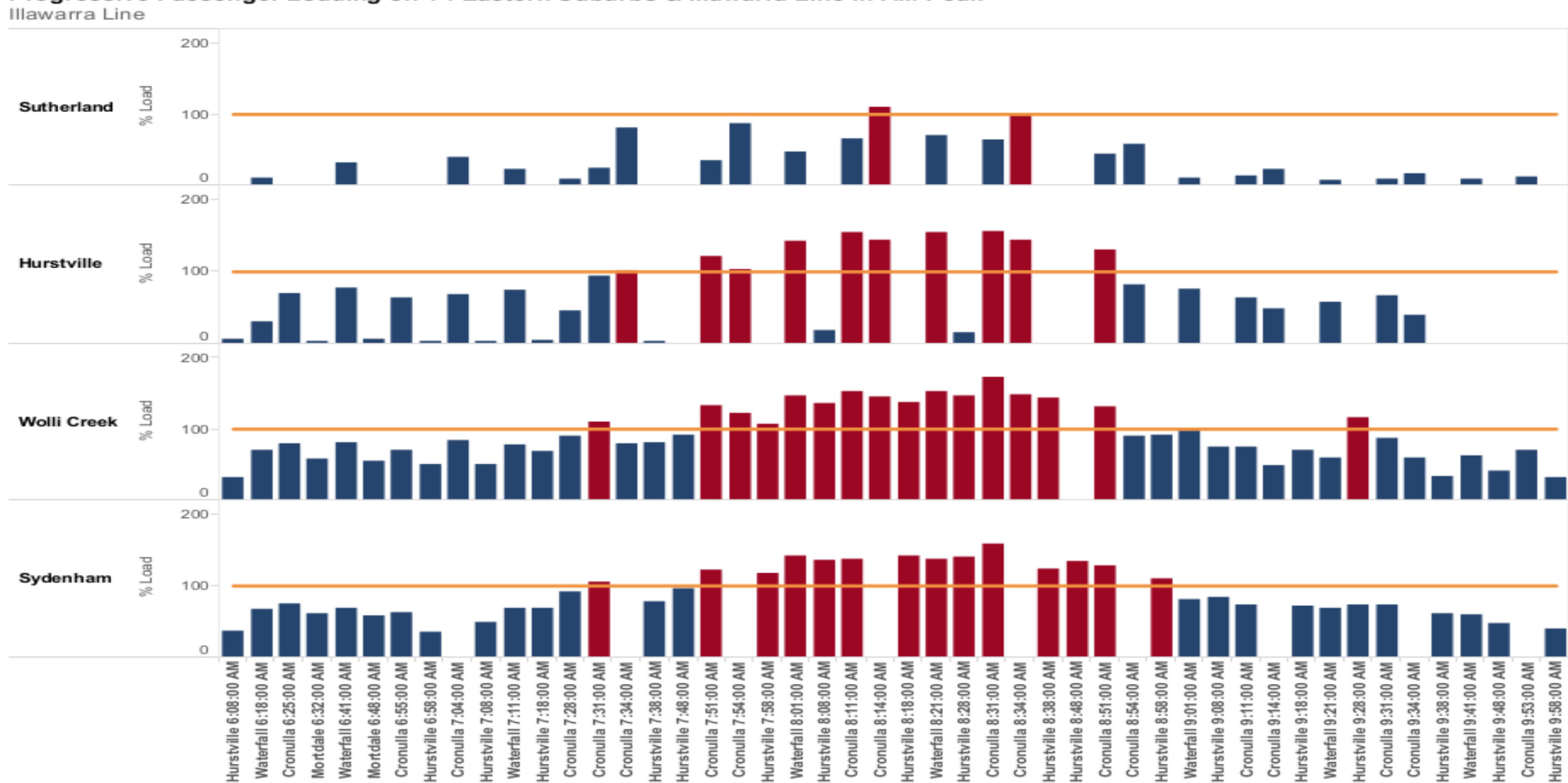
What about the
passengers?

Figure 2 Potential Airport Rail Link capacity compared to modelled demand in the am peak



Train Loads Survey: March 2015 - By Line

Progressive Passenger Loading on T4 Eastern Suburbs & Illawarra Line in AM Peak

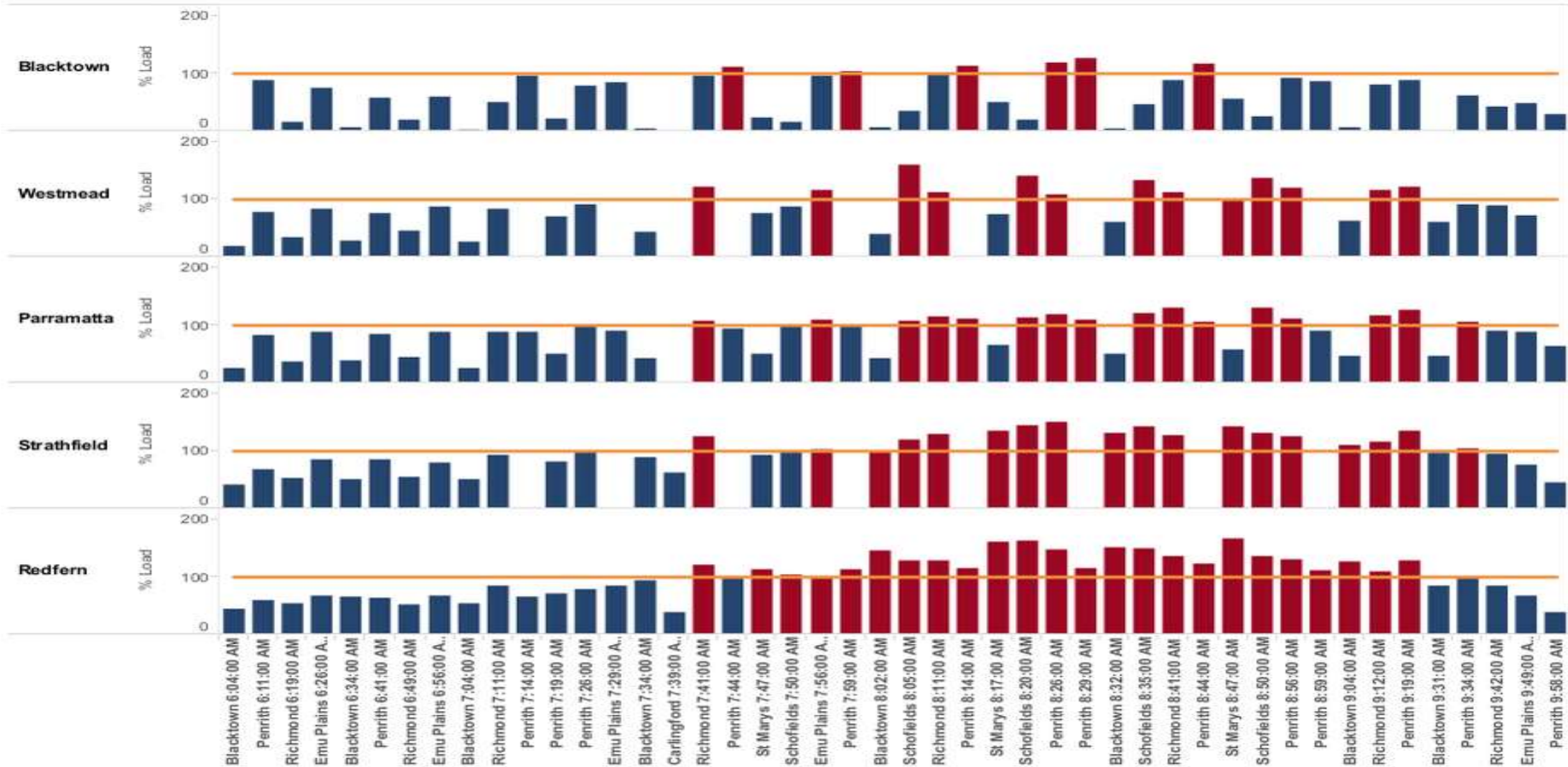


AM Peak = Origin Station and Central Arrival Time. PM Peak = Destination Station and Central Departure Time

Train Loads Survey: March 2015 - By Line

Progressive Passenger Loading on T1 North Shore, Northern & Western Line in AM Peak

Western Line



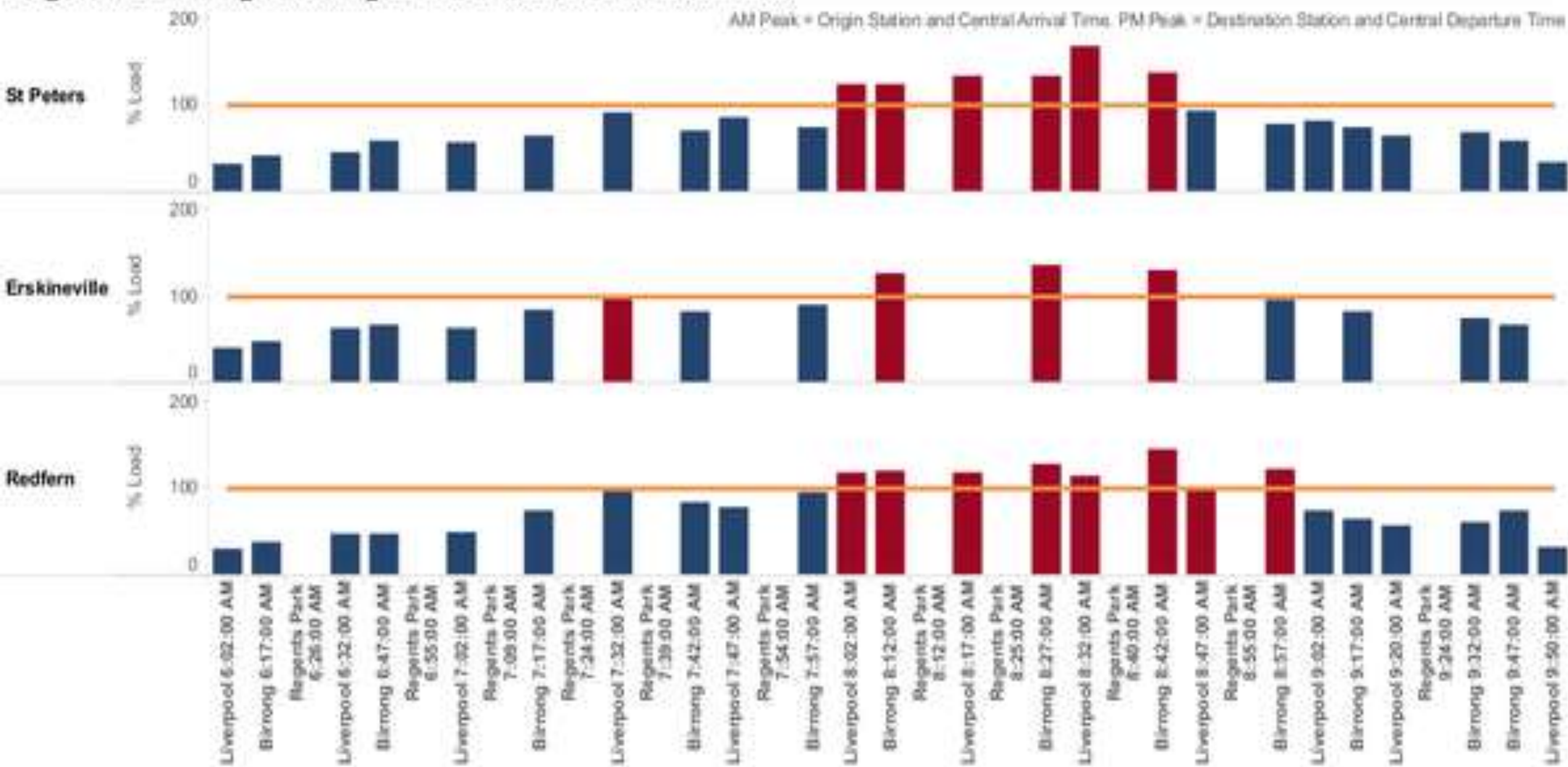
AM Peak = Origin Station and Central Arrival Time. PM Peak = Destination Station and Central Departure Time

Train Loads Survey: March 2015 - By Line

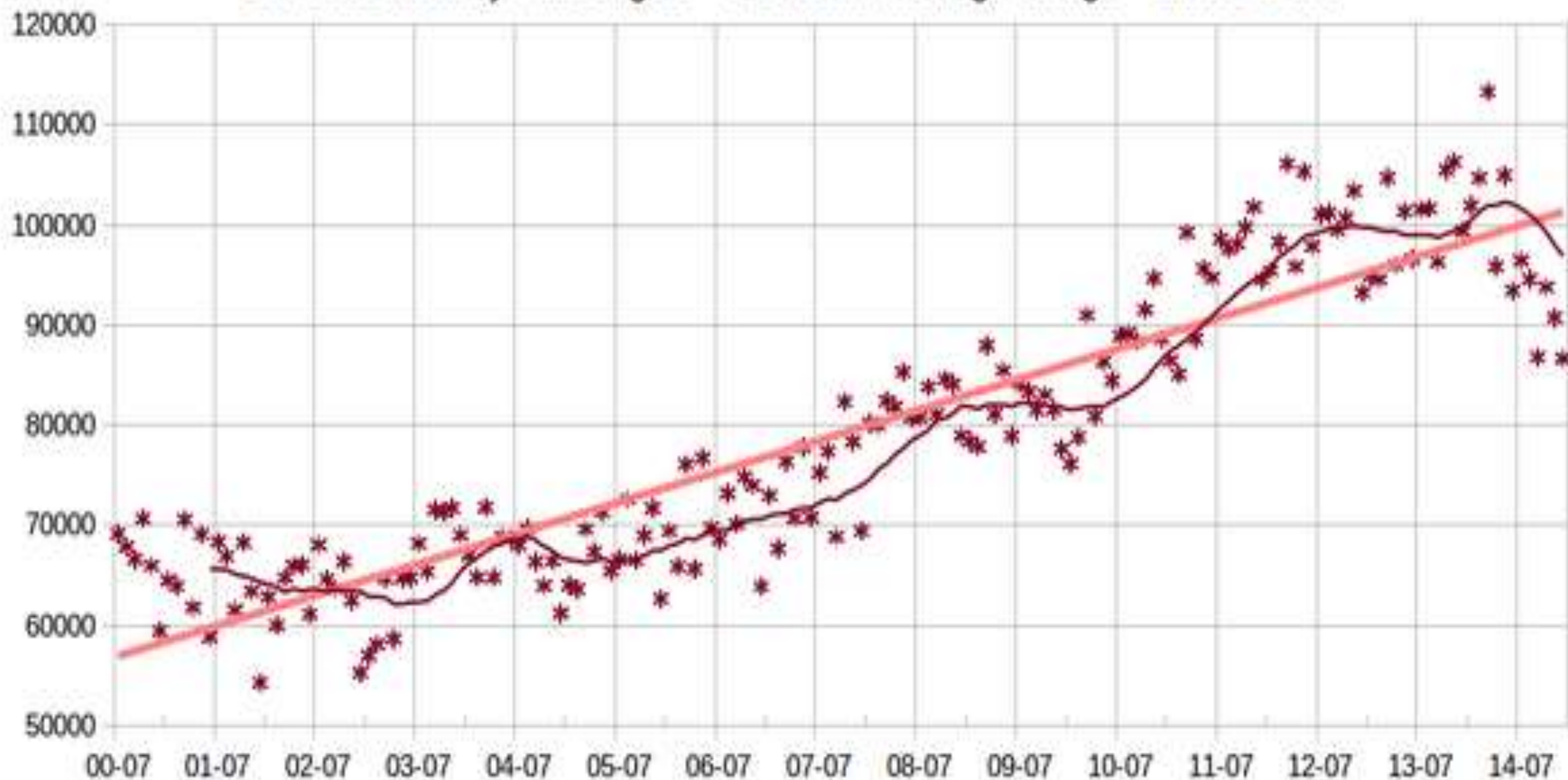


Progressive Passenger Loading on T3 Bankstown Line in AM Peak

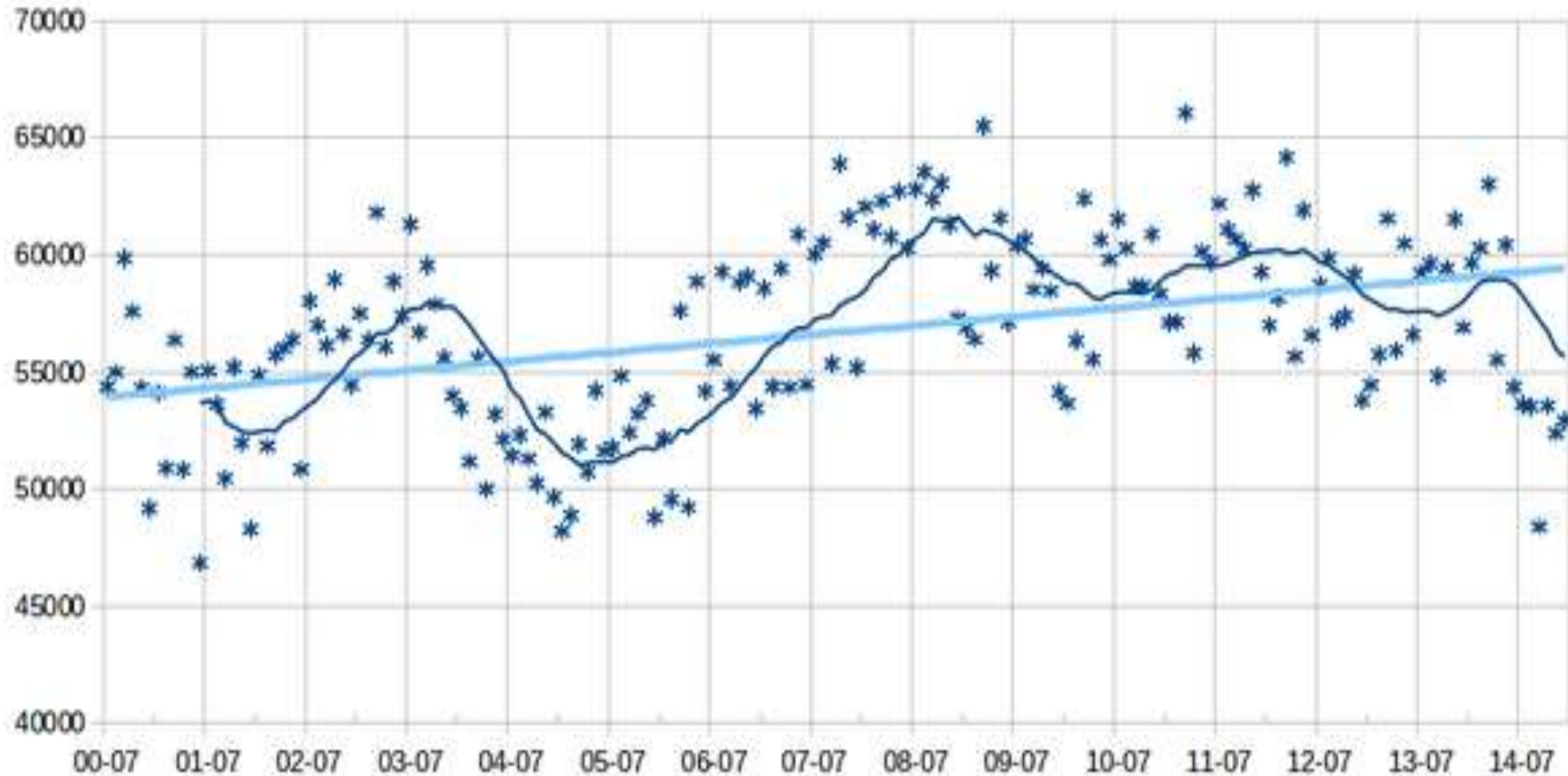
AM Peak = Origin Station and Central Arrival Time. PM Peak = Destination Station and Central Departure Time



St Peters Monthly Passengers + 12 Month Moving Average + Linear Trend



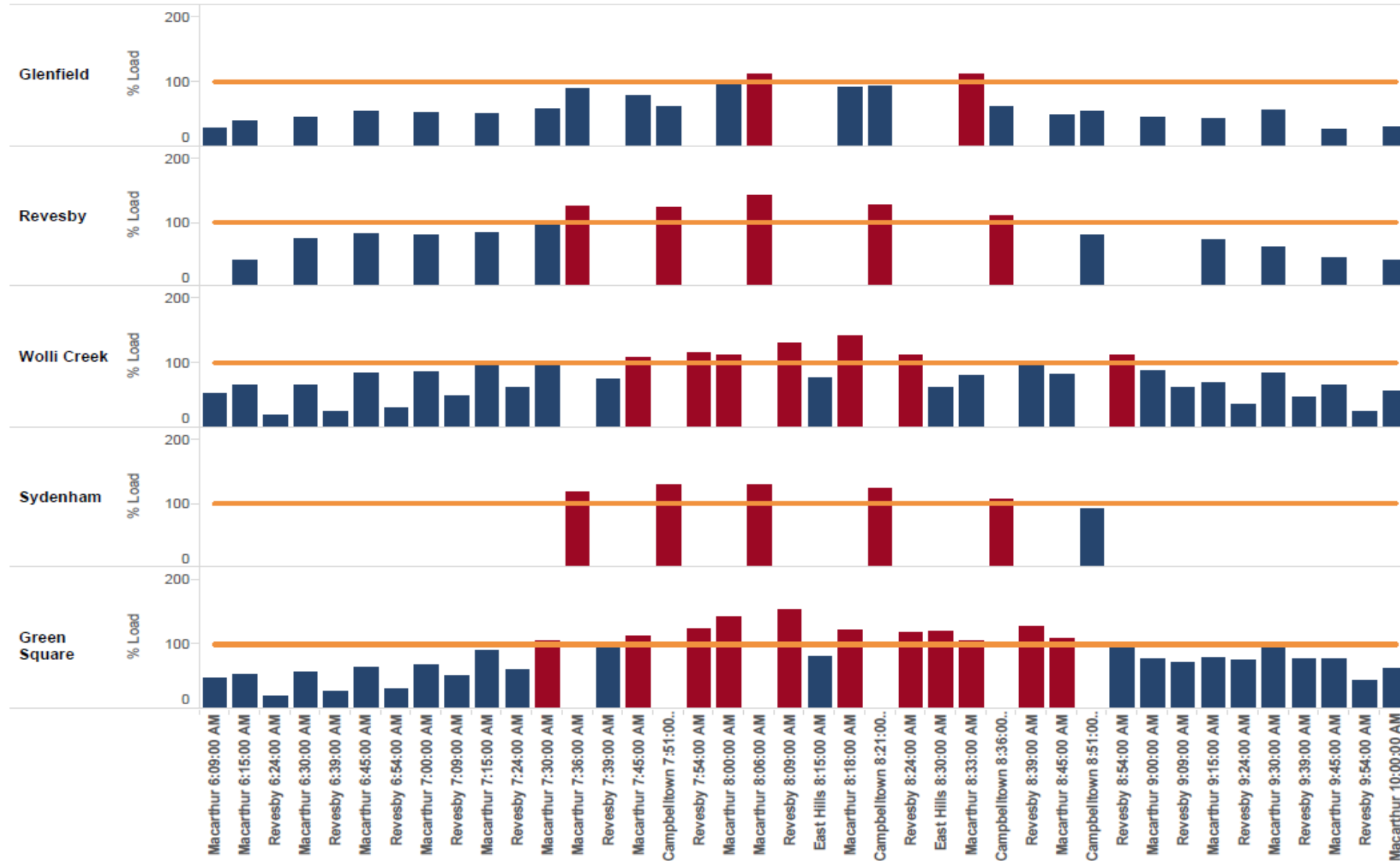
Erskineville Monthly Passengers + 12 Month Moving Average + Linear Trend



Train Loads Survey: March 2015 - By Line

Progressive Passenger Loading on T2 Airport, Inner West & South Line in AM Peak

Airport Line



INSTRUCTIONS

Select a Peak period, then select the desired Main Line and then Sub Line(s). Stations can also be filtered.

Toggle with (All) checkboxes to see all Main Line, Sub Line and Stations available.

AM Peak is read from top to base, PM Peak is the reverse.

Peak
AM

Main Line

T2 Airport, Inner West & South Line

Sub Line

Airport Line

South Line

Station

Glenfield

Green Square

Holsworthy

Redfern

Revesby

Sydenham

Wolli Creek

% Load Scale

0.0 200.0

AM Peak = Origin Station and Central Arrival Time. PM Peak = Destination Station and Central Departure Time

Joint Study on Aviation Capacity in the Sydney Region

- ▶ There is already some crowding in the am peak on CBD bound trains.
- ▶ Some of these services are already full (but with some standing room available) before they reach the International Terminal.
- ▶ This period is also the peak period for passenger arrivals at the airport.
- ▶ **Based on current growth levels, between 2013 and 2018 all of these CBD-bound am peak services will be full** unless additional rolling stock and train paths can be allocated to the Airport Rail Link.

Joint Study on Aviation Capacity in the Sydney Region

- ▶ There are currently 8 trains per hour in the peak on the Airport Line.
- ▶ A sequence of rail projects including the Kingsgrove-Revesby quadruplication, completion of the South West Rail Link and construction of the Revesby turnback will provide capacity for additional services on this line.
- ▶ If additional rollingstock is allocated to the line, it is anticipated an additional 4 trains per hour in the peak will commence in 2016 when the South West Rail Link opens.
- ▶ This will temporarily relieve crowding in peak periods but in the longer term, additional services will be required

MTR Property & Railway-related business

- ▶ The Corporation is involved in a wide range of business activities in Hong Kong in addition to its railway operations. These include
 - ▶ the development of residential and commercial property projects,
 - ▶ property management,
 - ▶ shopping malls
 - ▶ leasing and management,
 - ▶ advertising media and
 - ▶ telecommunication services in trains and stations.

How do we fix
this mess?



