

Proposed Industrial Subdivision

**Lot 2 in DP 1233067,
South Street, Marsden Park**

TRAFFIC AND PARKING ASSESSMENT REPORT

30 November 2018

Ref 18229

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants 

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1. INTRODUCTION

This report has been prepared to accompany a development application to Blacktown City Council to subdivide a large parcel of industrial land located at Lot 1 & 2 in DP 1233067 (Figures 1 and 2).

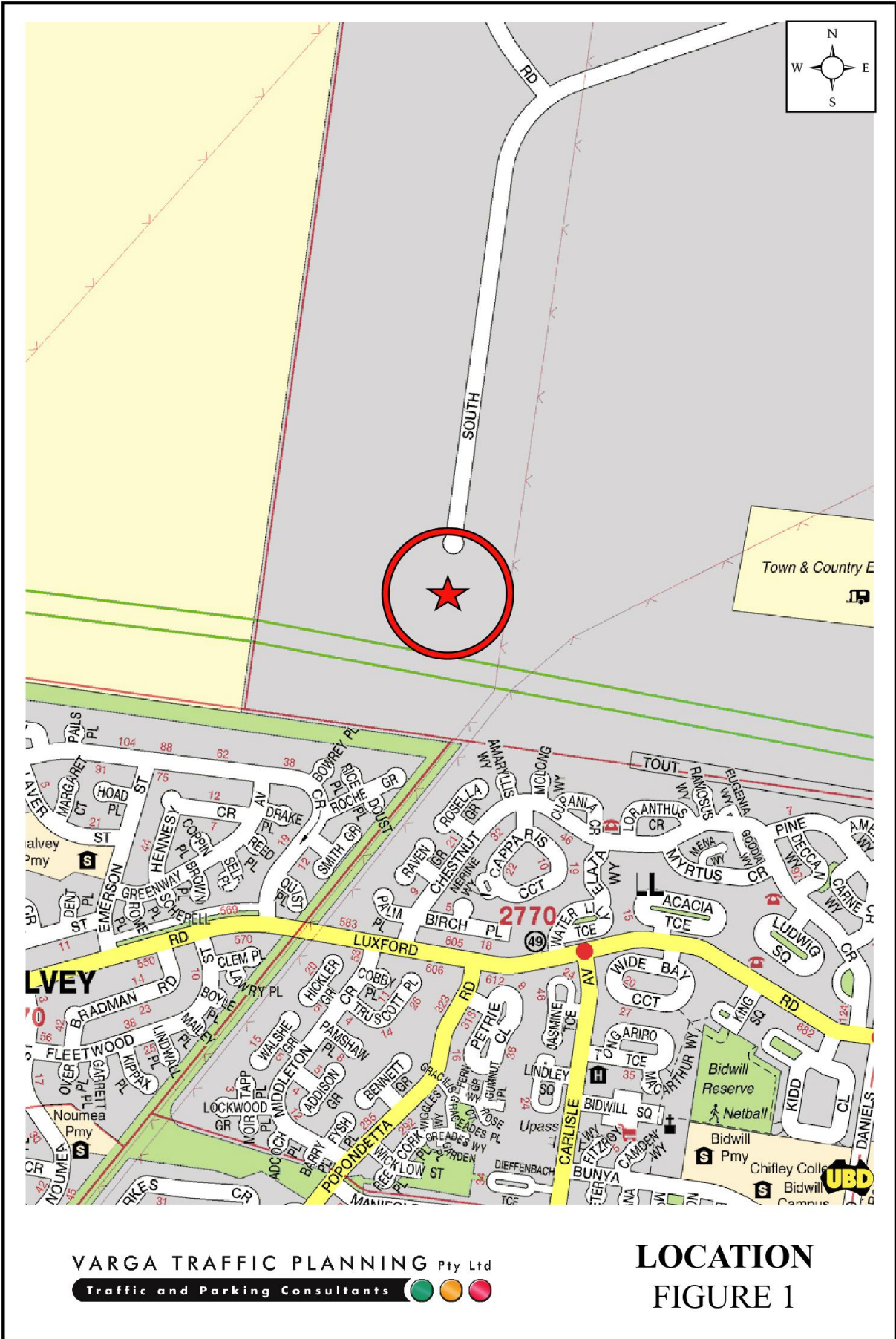
The proposed subdivision seeks approval to subdivide the site to facilitate the future construction of a multi-unit industrial development with a central estate access road servicing these units. Off-street parking and loading facilities will ultimately be provided for each industrial unit in accordance with Council requirements.

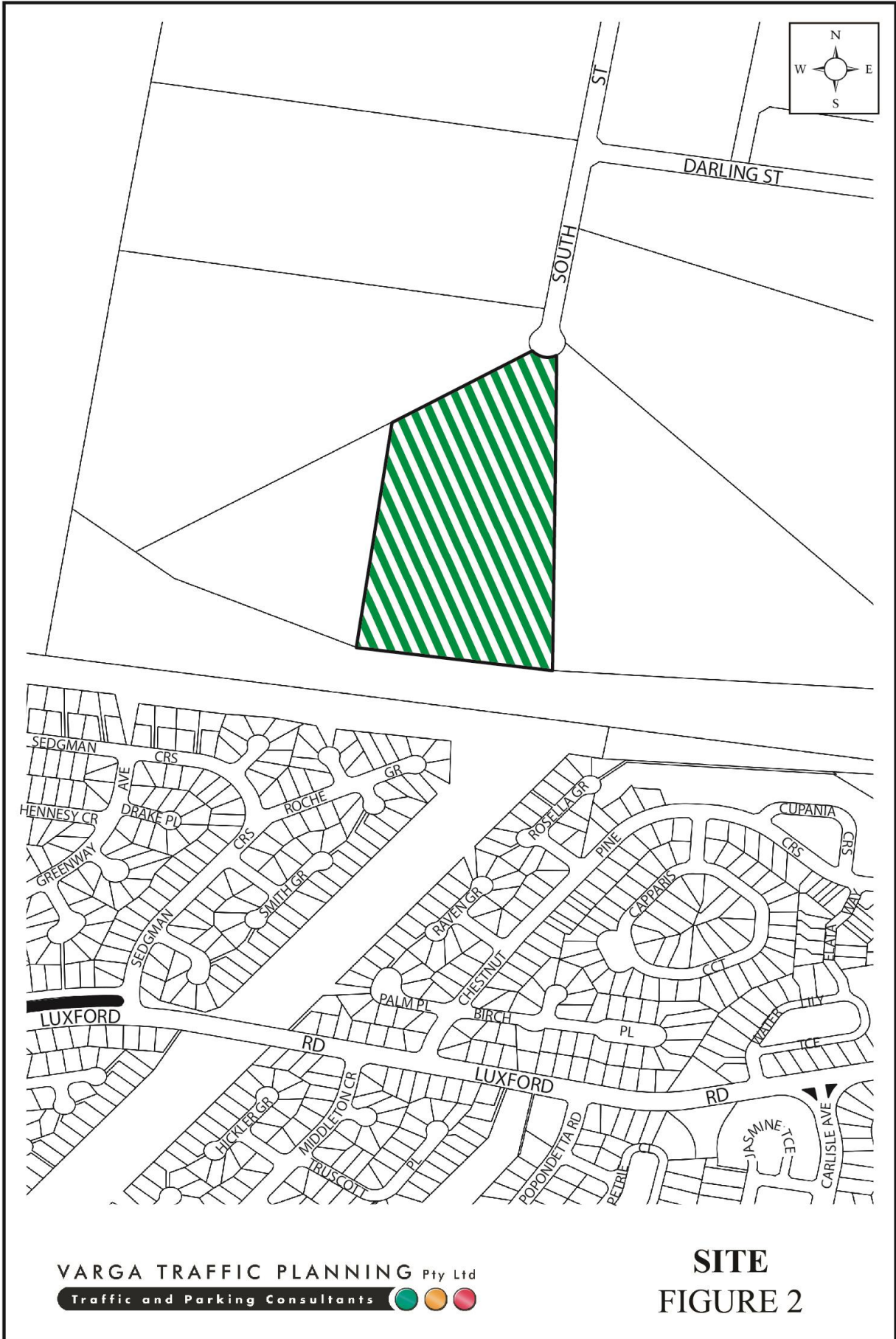
The subject site is situated within the *Marsden Park Industrial Precinct* which envisages the creation of an attractive employment precinct that provides for a diverse range of job opportunities to support the growing residential areas in Sydney's North West. The precinct will be characterised by a mix of employment generating uses such as general and light industrial, business parks, and commercial uses. Some smaller medium and low density residential areas are also proposed, near the future Marsden Park Town Centre to the north.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the existing and future road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards

- assesses the adequacy and suitability of the quantum of off-street parking provided on the site.





2. PROPOSED DEVELOPMENT

Site

The subject site is zoned “IN2 – Light Industrial” located on the southern end of South Street in the suburb of Marsden Park. It has street frontages of approximately 26 metres in length to South Street and occupies an area of approximately 71,862m².

The subject site is currently largely vacant.

A recent aerial image of the site and its surroundings is reproduced below.



Source: Nearmap Imagery 2018

Marsden Park Industrial Precinct

The subject site is situated within the *Marsden Park Industrial Precinct* which envisages the creation of an attractive employment precinct that provides for a diverse range of job opportunities to support the growing residential areas in Sydney’s North West. The precinct will be characterised by a mix of employment generating uses such as general and light

industrial, business parks, and commercial uses. Some smaller medium and low density residential areas are also proposed near the future Marsden Park Town Centre to the north.

Relevant extracts from the *Blacktown City Council (BCC) Growth Centre Precincts DCP 2010, Schedule 3 – Marsden Park Industrial Precinct* document illustrating the Indicative Layout Plan, Road Network & Hierarchy, Public Transport and Pedestrian & Cycle Movement are reproduced in the following pages

Proposed Development

The proposed subdivision seeks approval to subdivide the site to facilitate the future construction of a multi-unit industrial development comprising 18 industrial units with an indicative cumulative GFA of 19,912m² as follows:

Lot No.	Area (m ²)	
	Warehouse	Office
3	1420	200
4	856	200
5	856	200
6	856	200
7	856	200
8	856	200
9	716	200
10	726	200
11	732	200
12	797	200
13	909	200
14	909	200
15	909	200
16	909	200
17	909	200
18	909	200
19	906	200
20	1281	200
21	1420	200
TOTAL GFA:		19,912m²

The concept plan which has been prepared for the purposes of the subdivision application envisages the provision of 308 parking spaces on the site in accordance with Council requirements.

Loading / servicing for the proposed development is expected to be undertaken by a variety of light commercial vehicles and trucks up to and including 8.8m long Medium Rigid Vehicles (MRV trucks). Each of the industrial unit is to be configured with an internal loading bay indented into that unit.

Vehicular access to the site is to be provided via a central access road off the future South Street extension.

The future configuration of South Street extension is not yet known at the time of writing, however advice from RMS suggests that it is likely to comprise a 43m wide road reservation for a dual carriageway with a central median island, similar to that provided further to the north in South Street and the Schofields Road extension.

The proposed subdivision makes allowance for a 43m wide dual carriageway road reservation along the eastern side of the site.

Concept plans of the envisaged future industrial development for the purposes of this subdivision proposal have been prepared by *SBA Architects* and are reproduced in the following pages.

Status of the South Street Extension

Following preliminary discussions, the RMS has provided the following advice in respect of the South Street extension in a letter dated 23 January 2018 (ref: SYD17/01785):

- the proposed development would be aided if there was further information on the plans for this potential road upgrade
- RMS are unable to confirm any impacts at this stage and has redirected the query to Transport for NSW
- RMS is currently in the process of starting preliminary investigations into the South Street road upgrade

- RMS has not received funding to undertake further preliminary plans at the time of writing
- the estimated road width is expected to be similar width to Schofields Road as the road will be an extension of Schofields Road
- it is expected that South Street will be two lanes in each direction and therefore form an approximate 43-metre-wide road corridor
- RMS will eventually manage the upgrade from a local road to a sub-arterial or arterial road, however the timings surrounding this upgrade is still yet to be confirmed at the time of writing.

It is noted in this regard that, although the extension of South Creek Road beyond Hollinsworth Road is shown Blacktown City Council's *Growth Centre Precincts DCP Schedule 3 – Marsden Park Industrial Precinct (Amended 30 November 2011)*, it was not included in the 2036 traffic model prepared by *Arup (2009)* which informs the DCP, and was not included in the *Maps for Consultation: Bells Line of Road – Castlereagh Connection Recommended Corridor (TFNSW March 2018)* or the updated future *Western Sydney Corridors Map* published by TFNSW in June 2018.

Extracts from the *Bells Line of Road – Castlereagh Connection Recommended Corridor* and the updated *Western Sydney Corridors Map* are reproduced in the following pages. Reference to those extracts indicates that:

- interchanges with the Castlereagh Freeway extension are proposed at Richmond Road to the east of the site, and at the junction with the Outer Sydney Orbital to the west of the site
- the Corridor maps illustrating properties that will be affected by the Castlereagh Freeway extension do not make any allowance for an interchange with South Street, and

- provision of interchanges on the Castlereagh Freeway extension at Richmond Road and at the junction with the Outer Sydney Orbital would, in any event, preclude *another* interchange being provided at South Street due to inadequate ramp merge/weave lengths.

In summary, it would appear that the South Street extension to the Castlereagh Freeway as identified in the DCP is no longer being pursued in recent planning of road corridors in the Marsden Park area.

The proposed development does however, make allowance for a dual carriageway extension of South Street beyond Hollinsworth Road, should the need ever arise.



SUBJECT TO AUTHORITY APPROVALS

SUB-DIVISION PLAN
LOTS 3-21 CONCEPT

DATE: 06.04.18
DRAWN BY: [Name]
CHECKED BY: [Name]
SCALE: 1:1000

DA 130 C

SBA ARCHITECTS

11 HUNTER STREET, SYDNEY NSW 2000
PH: (02) 9550 8888
WWW.SBA-ARCHITECTS.COM.AU

INDUSTRIAL DEVELOPMENT PROPOSAL

LOT 38 - DP1233067, MARSDEN PARK NSW

Figure 2.1: Precinct Indicative Layout Plan

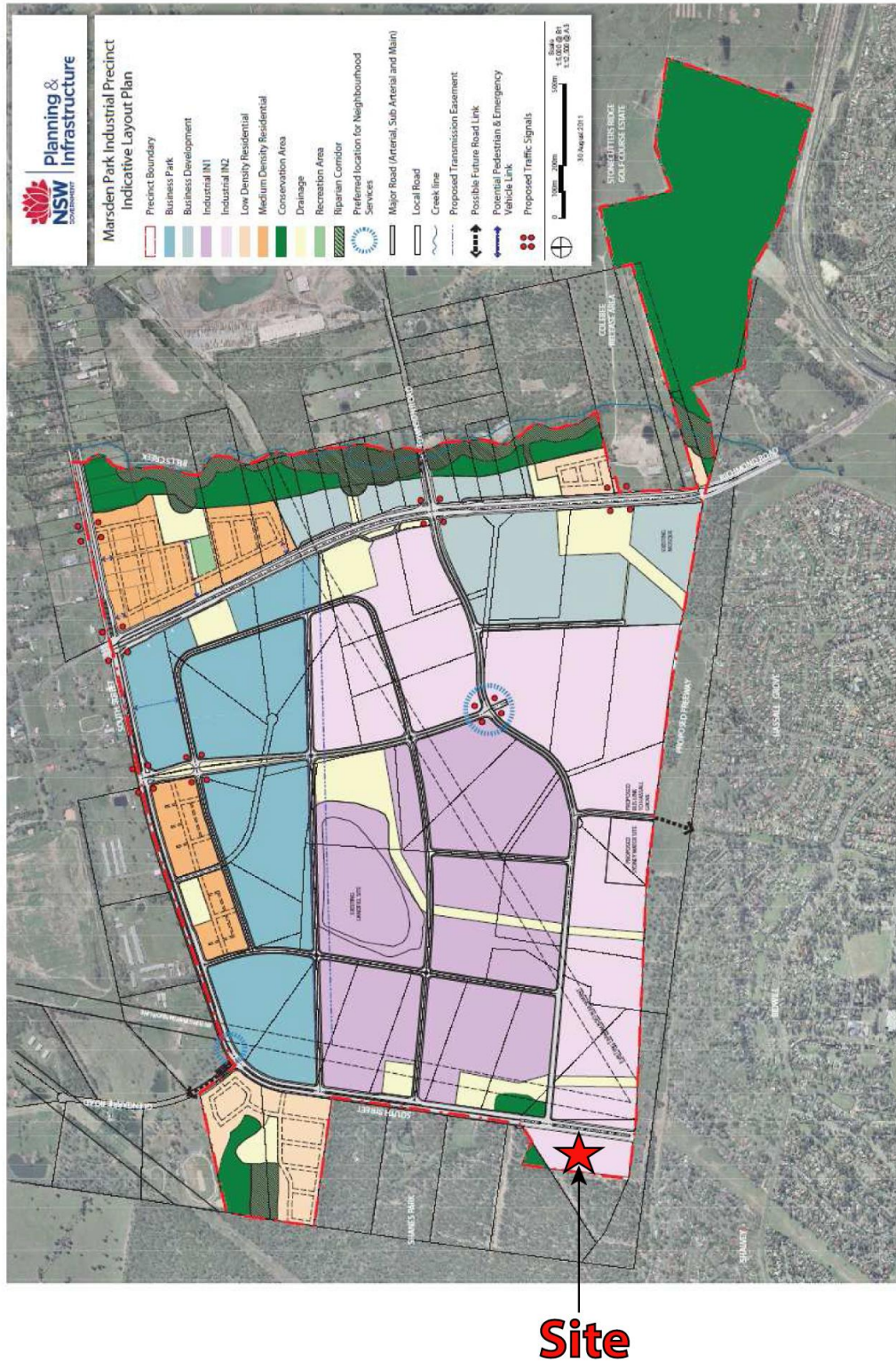


Figure 3.2: Public Transport Network

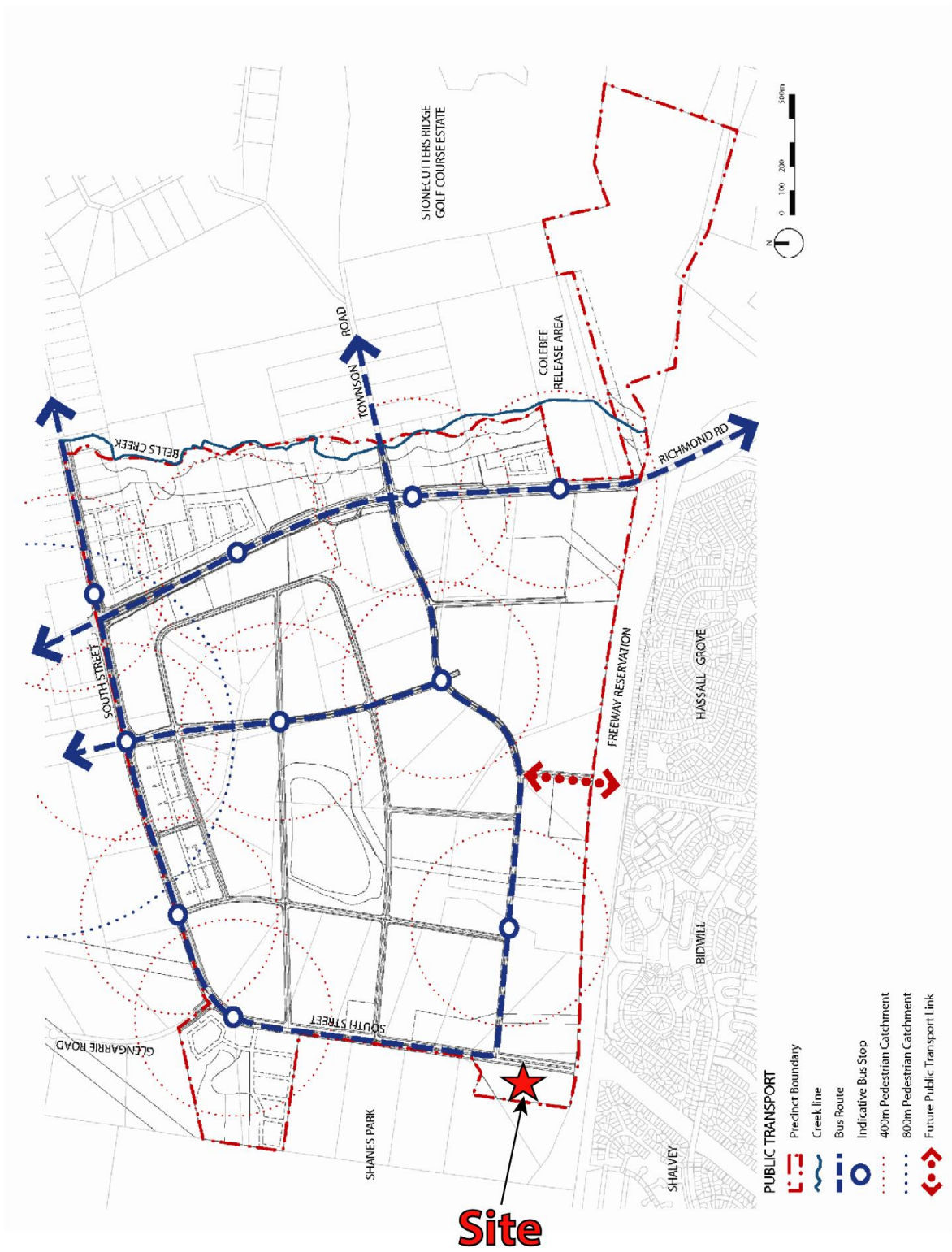
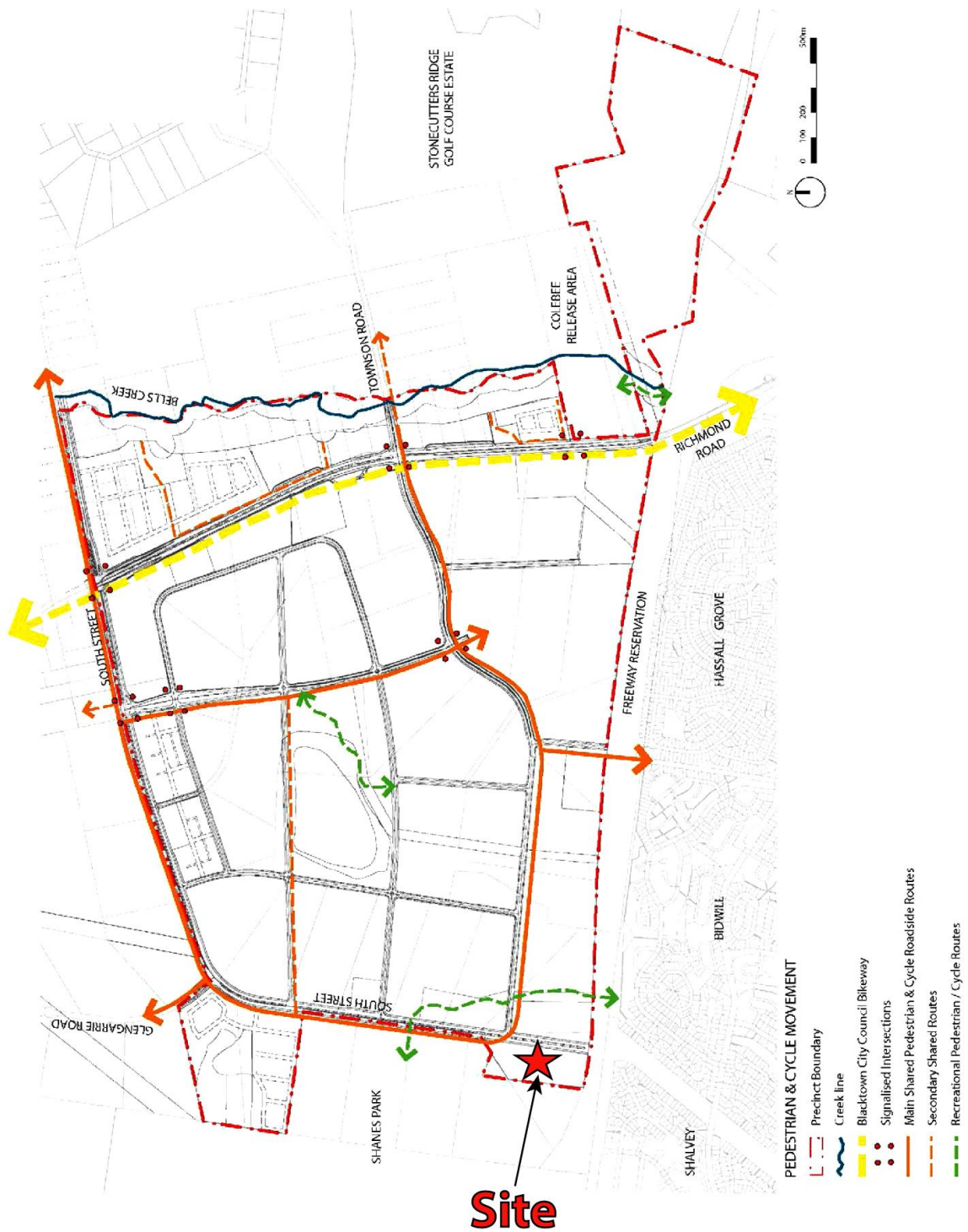
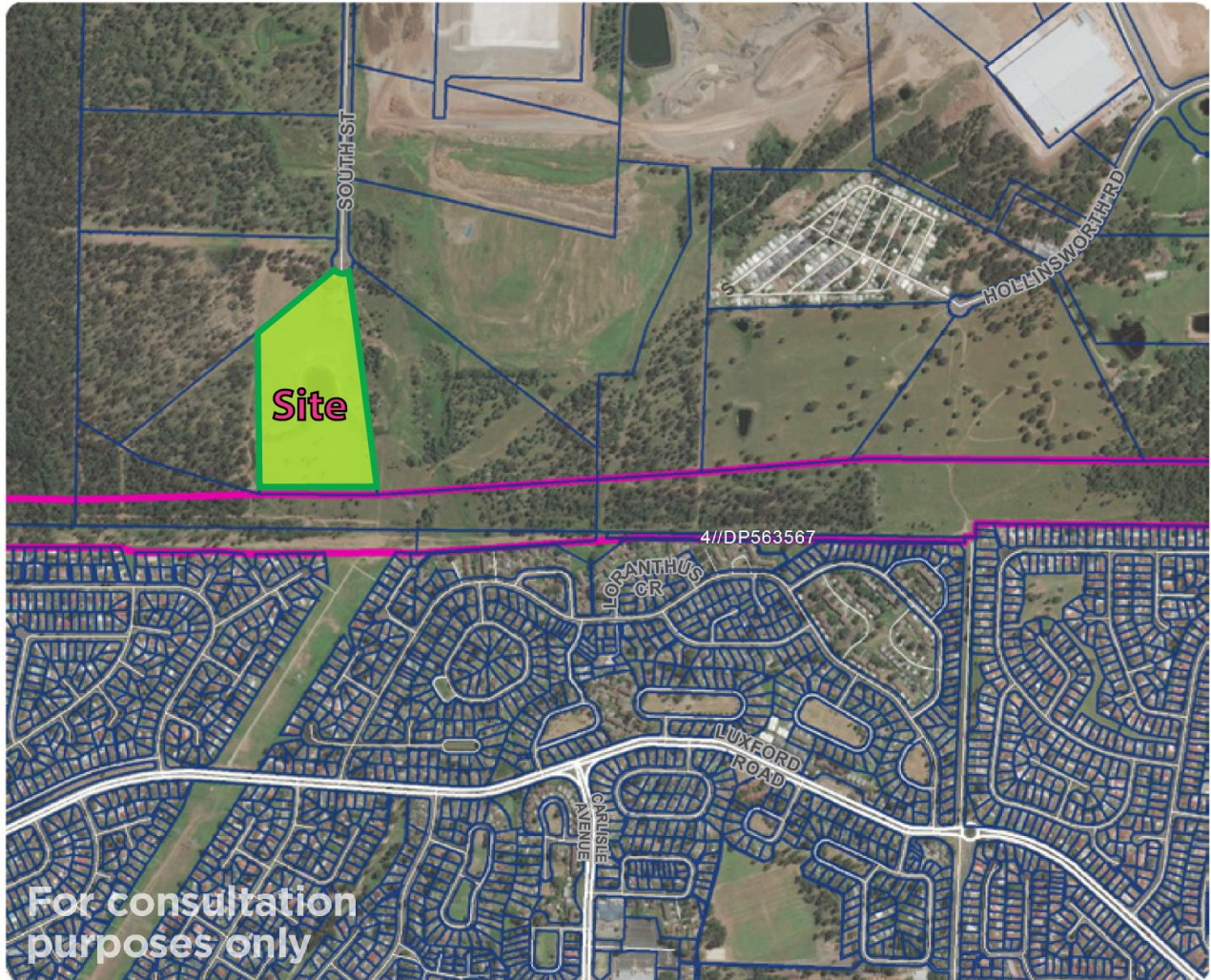




Figure 3.3: Pedestrian & Cycle Movement

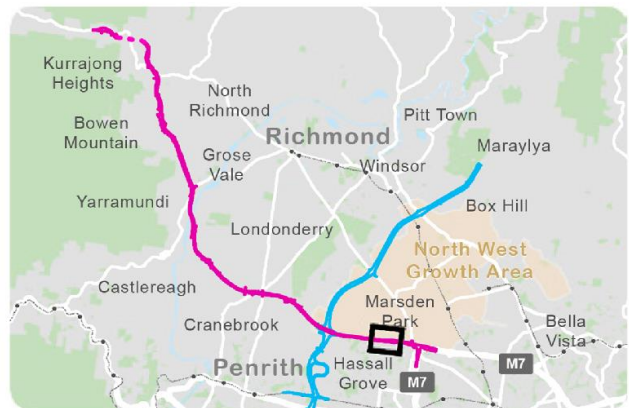


Bells Line of Road - Castlereagh Connection recommended corridor

Shalvey, Bidwill and Marsden Park

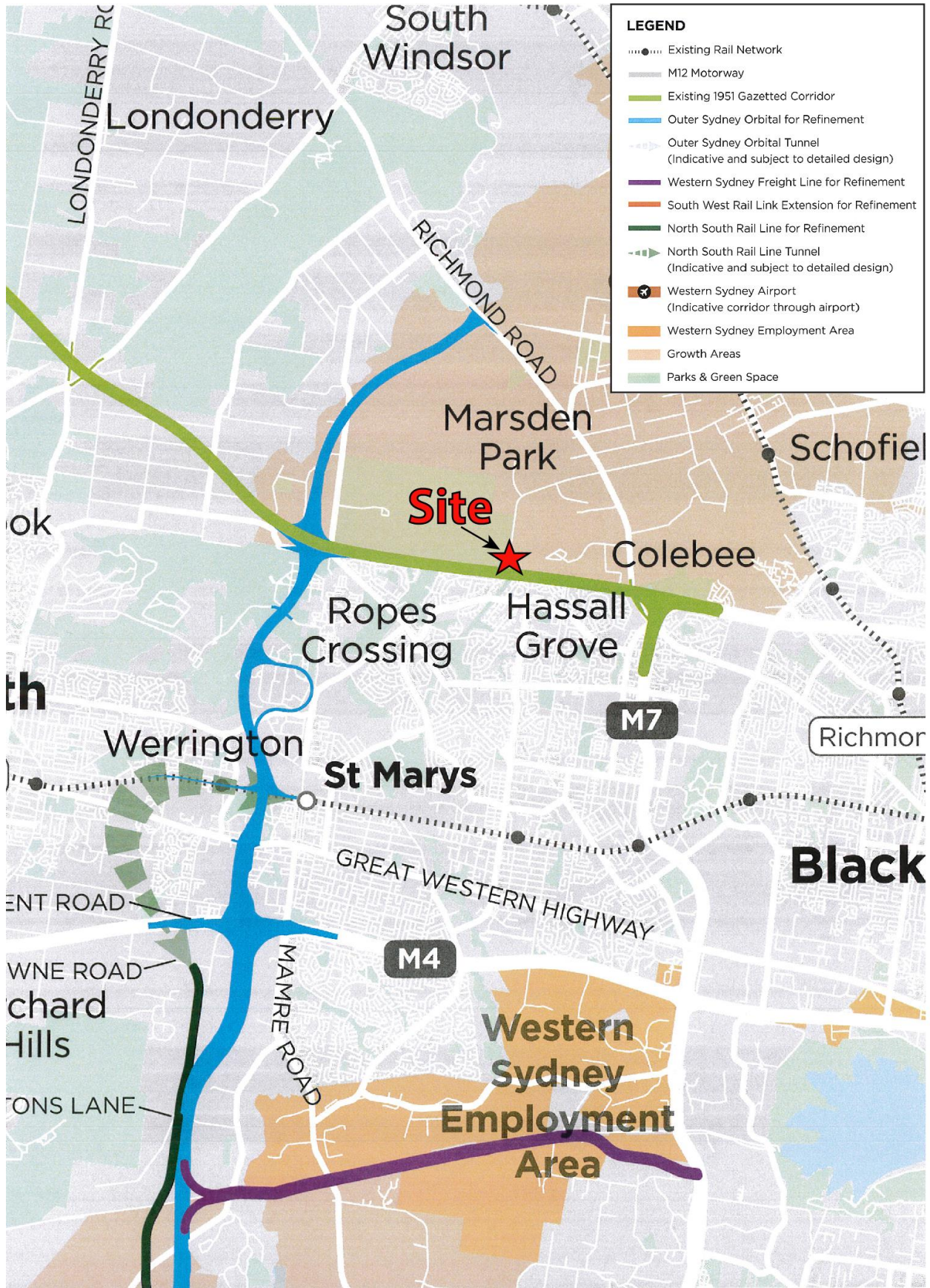


-  Bells Line of Road - Castlereagh Connection corridor
-  Property boundary



0 75 150 300 m 1: 12000

Aerial imagery (Feb 2016) © Esri, DigitalGlobe, CNES/Airbus DS



Extract from Future Western Sydney Corridors

3. TRAFFIC ASSESSMENT

Existing Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Richmond Road is classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Blacktown to Bligh Park. It has recently been widened from two lanes to a four-lane divided road with a central median and provision for six lanes if required in the future. Other upgrades include off-road shared paths for pedestrians and cyclists, upgraded intersections with new traffic lights and the realignment of the Garfield Road West intersection.

South Street is an unclassified rural road that is primarily used to provide vehicular access to frontage properties connecting Richmond Road at its eastern terminus and ends with a cul-de-sac at its southern terminus just above the subject site.

Future Road Upgrades

The *Indicative Layout Plan* and the *Precinct Road Network and Hierarchy* contained in Schedule 3 of the *Growth Centres DCP* indicates that in the short to medium term the southern section of South Street (adjacent to the site) and the extension of Hollinsworth Road will form part of a local *collector road* loop, with a “long-term” proposal to upgrade this section of South Street to a dual carriageway *arterial road* with a possible future link to the Castlereagh Freeway.

As noted in the foregoing, the proposed development makes allowance for a 43m wide dual carriageway road reservation along the eastern boundary of the site with a possible future link to the Castlereagh Freeway.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60 km/h SPEED LIMIT which applies to the southern section of South Street
- TRAFFIC SIGNALS in Richmond Road at its intersection with South Street.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services' publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS *Technical Direction (TDT 2013/04a)* document.

The RMS *Technical Direction* document specifies that it replaces those sections of the RMS *Guidelines* indicated and must be followed when RMS is undertaken trip generation and/or parking demand assessments.

The RMS *Guidelines* and *Technical Direction* are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the development proposal:

Business parks and industrial estates (Sydney)

AM Peak:	0.52 peak hour vehicle trips per 100m ² GFA
PM Peak:	0.56 peak hour vehicle trips per 100m ² GFA

Accordingly, application of the above traffic generation rates to the envisaged multi-unit industrial development comprising a cumulative GFA in the order of 19,912m² yields a traffic generation potential of approximately 104 vehicle trips per hour (vph) in the AM peak hour and 112 vph in the PM peak hour.

That projected increase in the traffic generation potential of the site as a consequence of the development proposal is consistent with the zoning objectives of the subject site, and will be satisfactorily accommodated by the existing road carriageway in South Street and the recently upgraded intersection with Richmond Road. The recent completion of Richmond Road upgrade provides a pivotal connector between the M7 Motorway and the new employment and housing lands and future road infrastructure upgrades planned in the *Marsden Park Industrial Precinct*.



4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Due to the current rural nature of the site, there are generally no kerbside parking restriction that apply in South Street.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in the *Blacktown City Council growth Centre Precincts Development Control Plan (DCP) 2018*, Table 6-3 in the following terms:

Table 6-3: Specific land use requirements for car parking

Zone Z	Car Parking Requirements	Bicycle Parking Requirements
IN2 (Light Industrial) IN1 (General Industrial)	Buildings 7500sq m or less - 1 space per 75sq.m GFA Buildings greater than 7500sq.m – 1 space per 200sq.m GFA only for the area in excess of 7500sq.m where there is a specific end user which would not demand a higher rate and where employee parking is adequately catered for. 1 space per 40sq.m GFA of Office Component	Employees: 1 bicycle locker or other suitable form of secure bicycle accommodation is to be provided per 200m ² GFA
B7 (Business Park)	1 space per 40sq.m GFA	
B5 (Bulky Goods Retailing)	1 space per 45sq.m GFA	

Application of the above parking rates to the envisaged industrial development comprising a cumulative industrial floor area of 16,312m² and ancillary office floor area of 3,600m² yields an off-street parking requirement of 308 car spaces and 100 bicycle spaces.

That level of off-street parking provision will ultimately be provided on the site subject to a separate DA lodged for the development of each lot and concept plans prepared for the purposes of this subdivision application have been demonstrates adequate parking can be achieved on-site.

The geometric design layout of the car parking facilities will ultimately be designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6* in respect of parking bay dimensions and driveway / aisle widths.

Loading / Servicing Provisions

Loading / servicing for the proposed development is expected to be undertaken by a variety of light commercial vehicles and trucks up to and including 8.8m long Medium Rigid Vehicles (MRV trucks).

Each of the industrial unit is envisaged to be configured with an internal loading bay indented into that unit. Concept plans prepared for the purposes of this subdivision application demonstrates the manoeuvring areas can be designed to accommodate the *swept turning path* requirements of these MRV trucks to allow them to enter and exit the site whilst travelling in forward gear at all times, as demonstrated by the attached *swept turning path* diagrams.

The geometric design layout of the proposed loading / service facilities will ultimately be designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2* in respect of loading dock dimensions and service area requirements for MRV trucks.

Conclusion

In summary, the proposed parking and loading facilities will satisfy the relevant requirements specified in both Council's Parking Code as well as the Australian Standards, subject to a separate DA for each individual lot and it is therefore concluded that the proposed subdivision will not have any unacceptable parking or loading implications.



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Scale: 1:800 @ A1
 100m
 50m
 25m
 12.5m
 6.25m
 3.125m
 1.5625m
 0.78125m
 0.390625m
 0.1953125m
 0.09765625m
 0.048828125m

PROJECT
INDUSTRIAL DEVELOPMENT

DRAWING TITLE
TURNING PATHS 181128

ADDRESS
 Lot 2 in DP 1233067
 South Street, Marsden Park

PROJECT NO.
 18229
 REVIEWED
 RV

1:800 @ A1

DATE DRAWN
 2018-11-28
 PREPARED
 TY

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants