

WANSEY ROAD / HIGH STREET - 40KM/H SPEED LIMIT

1.1 OBJECTIVE

The purpose of this report to provide an overview of the potential speed limits to be implemented as part of construction of the new light rail stop on Wansey Road at High Street.

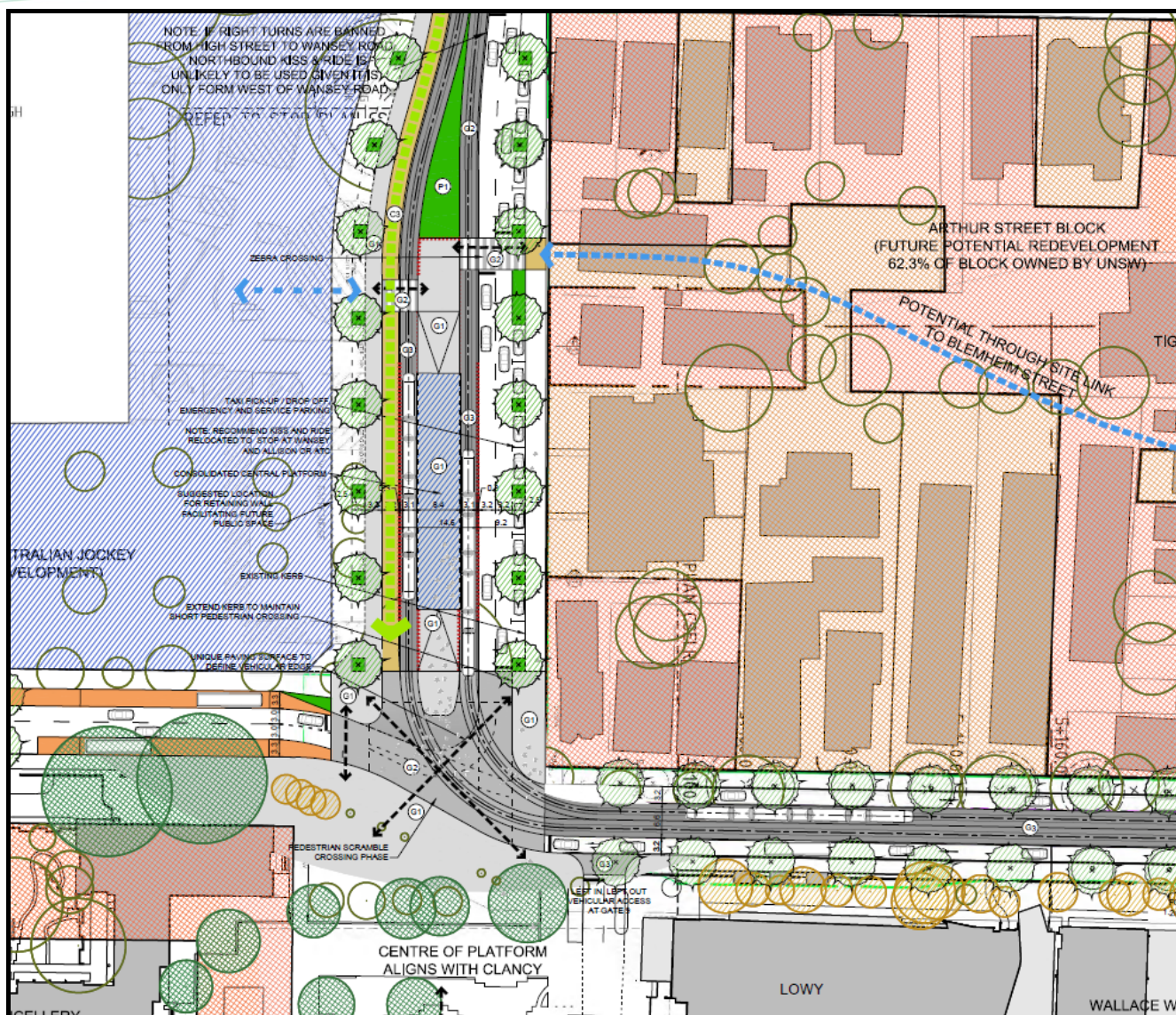
1.2 EXISTING CONDITIONS

Wansey Road is an existing two lane, two way Local Road (Local Council) with parking on both sides. High Street is an existing two lane, two way Major Road (Local Council) with parking on both sides. Both roads are within a 50km/h speed limit area (although Wansey Road may previously have had a 40km/h speed limit).

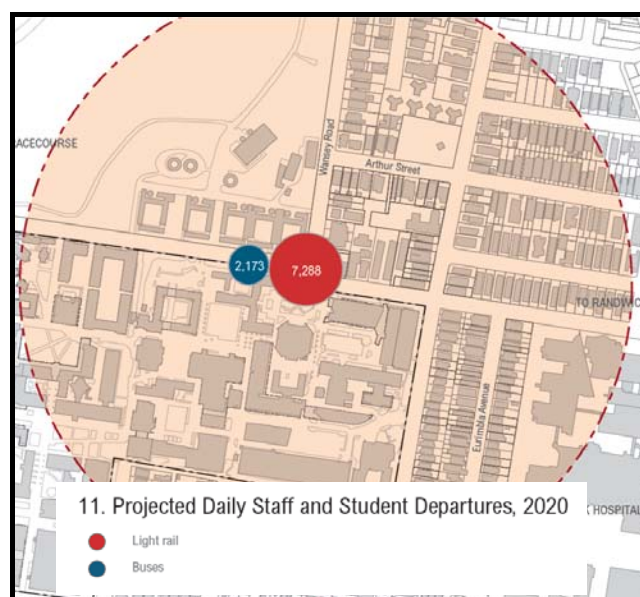
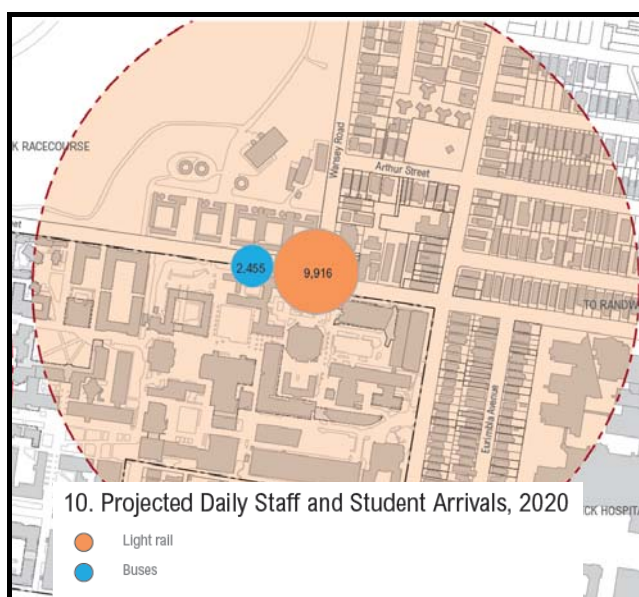


1.3 PROPOSED CONDITIONS

It is proposed to construct a centre island platform stop in Wansey Road between High Street and Arthur Street. Traffic signals will be installed at the Wansey Road / High Street intersection to facilitate crossings of both roads. A pedestrian scramble crossing is proposed at the intersection to cater for the large volumes of pedestrians and various travel paths. Traffic signals may be installed in the future at the Wansey Road / Arthur Street intersection. Parking will be removed from both High Street (east of Wansey Road) and Wansey Road. Bus stops will be located on High Street west of Wansey Road. Future development of land to the east and west of Wansey Road will further change the road environment with the potential for a pedestrian plaza arrangement adjacent to the light rail stop.



The figure below presents existing pedestrian movements (arrivals and departures) near the Wansey Road / High Street intersections. There are predicted to be approximately 12,000 arrival movements and 9,500 departure movements per day by 2020.






It is considered that these sections of Wansey Road and High Street are a High Pedestrian Activity Area. Following the construction of the new light rail stop and bus stops, and realignment of the traffic lanes, this level of pedestrian activity is expected to increase.

1.4 GUIDELINES

There are a number of relevant guidelines in relation to speed limits in New South Wales as follows:

Table 1: Speed Limit Guidelines

Title	Year	Key Issues
<p>40km/h High Pedestrian Activity Area (HPAA) Fact Sheet</p>  	2012	<p><i>Areas of high pedestrian activity, near shopping strips, railway stations, bus interchanges, beach-sides and services such as medical centres.'</i></p> <p><i>The maximum speed limit is 40km/h at all times. The different road environment helps to alert drivers to the lower speed limit and makes them aware of the presence of pedestrians moving about or near the road.</i></p> <p><i>This creates a safer road environment for all road users, particularly for pedestrians, cyclists and children.</i></p> <p><i>Why 40 km/h?</i></p> <p><i>Managing speed, in accordance with safe system principles, is a key component in managing pedestrian safety. Research and scientific analysis show that a pedestrian hit by a car travelling at 40 km/h has twice the chance of surviving the collision than if the car was travelling 50 km/h.</i></p> <p><i>Travelling speeds higher than 40 km/h greatly increases the risk of injury and death to pedestrians.</i></p>
<p>NSW speed zoning guidelines</p> 	2011	<p><i>The speed zoning guidelines are important in determining speed limits that assist drivers to recognise the speed limit for the road environment being encountered. The setting of speed limits is now based on this approach so that avoiding death and serious injuries becomes a priority.</i></p> <p><i>(b) 40 km/h speed limits</i></p> <p><i>40 km/h speed limits are used in areas where vulnerable road users are present, such as:</i></p> <ul style="list-style-type: none"> <i>- School zones (at prescribed times).</i> <i>- High pedestrian activity areas.</i> <i>- Local traffic areas.</i> <i>- Toll plazas in pedestrian access areas.</i> <i>- School bus blackspot zones.</i> <p><i>(c) School zones speed limits</i></p> <p><i>School zones are implemented outside schools to reduce vehicle speeds where there is an increased potential for conflict between vehicles and schoolchildren. School zones operate on government gazetted school days.</i></p> <p><i>School zones are installed and signposted in accordance with the RTA Technical Direction, 40 km/h School Zones.</i></p> <p><i>(d) High pedestrian activity areas</i></p> <p><i>Vehicle speed is a key factor in pedestrian injuries and fatalities. 40 km/h high pedestrian activity speed limits are installed where there are relatively large numbers of pedestrians and/or other vulnerable road users.</i></p> <p><i>These areas should be established in conjunction with a suitable local area traffic management scheme. The area will need to contain physical devices or treatments to create a self-enforcing 40 km/h speed environment.</i></p>

Title	Year	Key Issues
		<i>For further details on how to identify and install 40 km/h high pedestrian speed limits in high volume pedestrian areas refer to the RTA's 40 km/h speed limits in high volume pedestrian areas (refer to Section 1.6 for reference details).</i>

1.5 DISCUSSION

Based on a review of the above guidelines, it is considered that the sections of Wansey Road and High Street in the vicinity of the intersection are able to be considered as High Pedestrian Activity Areas.

In New South Wales, 40km/h school speed zones 'are implemented outside schools to reduce vehicle speeds where there is an increased potential for conflict between vehicles and schoolchildren. School zones operate on government gazetted school days.' It is considered that students attending UNSW, in particular overseas students and school students that attend special programs, would have the same level of risk as school students. Therefore, a speed zone similar to a school speed zone could be implemented along Wansey Road and High Street.

The road environment along this section of Wansey Road will support the installation of a 40km/h speed limit due to the following:

- traffic lanes (3.2m) adjacent to kerb outstands or traffic islands.
- signalised T-intersection.
- a large central light rail platform stop.
- significant pedestrian activity along and across Wansey Road.
- future high density development along both sides of Wansey Road.

The road environment along this section of High Street will support the installation of a 40km/h speed limit due to the following:

- single traffic lanes (3.2m) adjacent to kerb and light rail tracks.
- signalised T-intersection.
- light rail curves into Wansey Road.
- bus stops on High Street west of Wansey Road.
- significant pedestrian activity along and across High Street.
- future high density development along north side of High Street.

1.6 RECOMMENDATION

It is recommended that a 40km/h High Pedestrian Activity Area speed limit be implemented along Wansey Road and High Street in the vicinity of the intersection as part of construction of the new light rail stop on Wansey Road at High Street.