

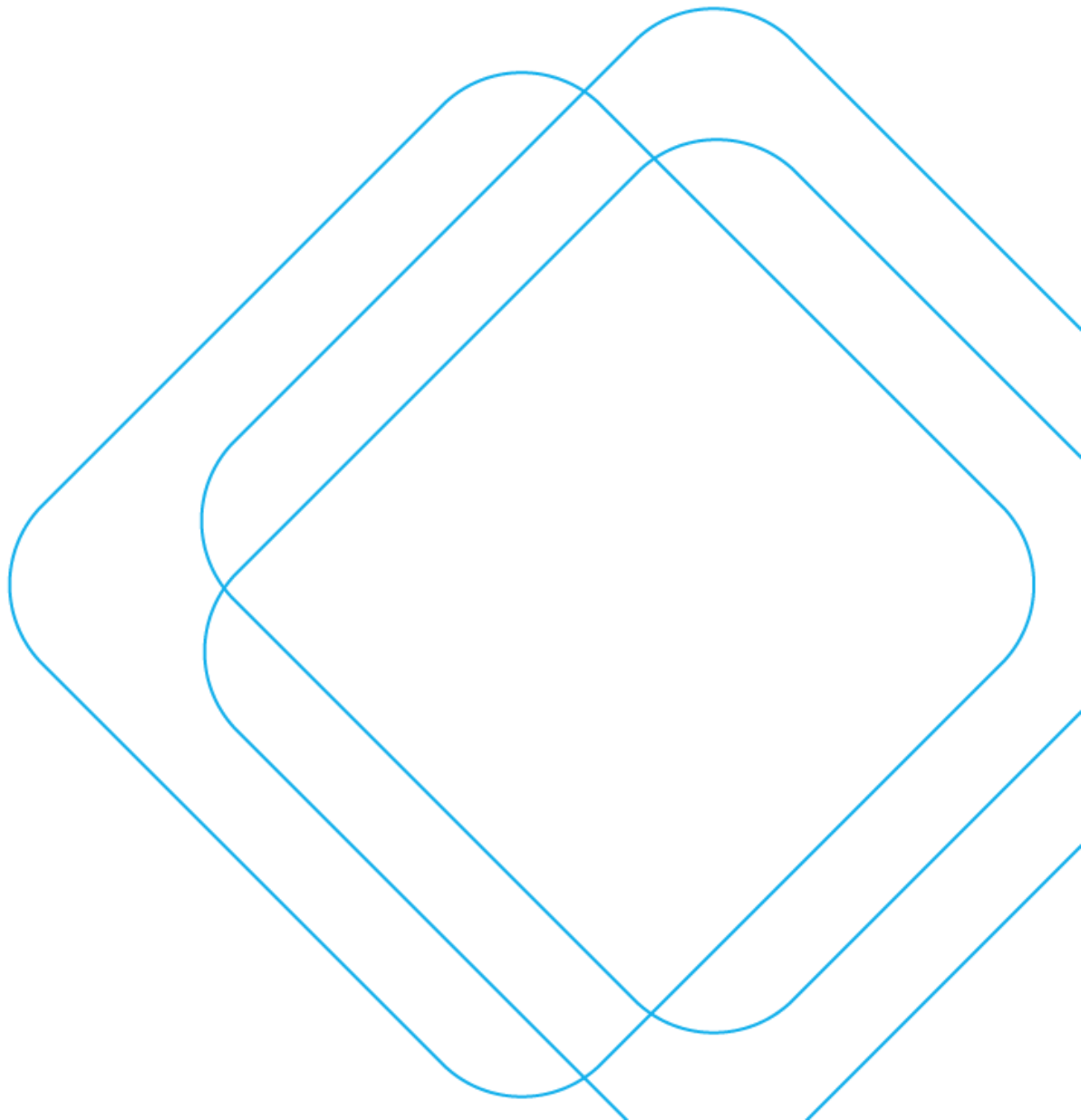


ORANGE HOSPITAL WORLD CLASS END OF LIFE PROGRAM (WCEOLP)

Traffic Impact Assessment


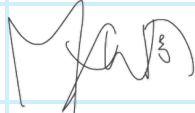
1 MAY 2024

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We pay our respects to Elders past, present and emerging.



Quality Assurance

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1.0 Introduction

1.1 Background

Orange Hospital is a public hospital operated by the Western NSW Local Health District (LHD). It is part of the Orange Health Service, which is situated in south Orange, in the suburb of Bloomfield. The Orange Health Service is co-located with Bloomfield Hospital, the Central West Cancer Care Centre and a Ronald McDonald House.

Orange Hospital is among several sites offering palliative care services for the Western NSW LHD. As part of the World Class End of Life Care program (WCEoLP), Orange Hospital is confirmed to receive upgrades to its palliative care facilities. This upgrade will deliver three Palliative Care beds in addition to the existing two within the existing Orange Hospital building. A concept design has been endorsed which has the three new bedrooms on the first floor, with a dedicated lounge and covered courtyard area. No changes are being made to the hospital building access, surrounding footpaths, or the car park.

1.2 Report purpose

This Traffic Impact Assessment Report supports the required Review of Environmental Factors (REF). The report presents a review of existing traffic and parking operations at the current health facility, describes the planned changes, and assesses the impact of these changes on traffic and transport operations in and surrounding the proposed facility.

2.0 Existing conditions

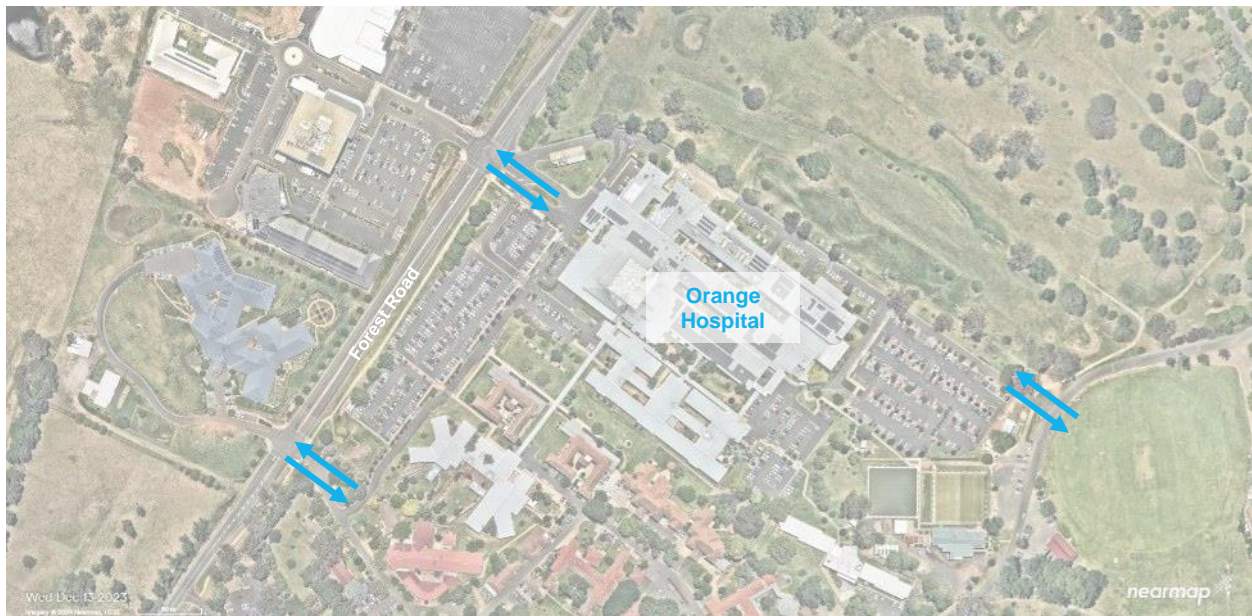
2.1 Existing site access

2.1.1 Road network

Orange Hospital is situated to the east of Forest Road, the main collector road for the area. There are two access points to the hospital located along Forest Road. These are both signalised intersections that provide two-way access to the hospital. The northern intersection is the main access point to the hospital and is located closest to the main hospital entrance and emergency department. The southern intersection provides the best access for mental health, drug and alcohol services (Bloomfield Hospital). These access points are connected by an internal road network that also connects to all hospital parking facilities.

An additional access point exists from Huntley Road via an unnamed road. The hospital is located to the west of Huntley Road. This is illustrated in **Figure 2-1**.

Figure 2-1 Access points to Orange Hospital



2.1.2 Public transport

The closest train station is Orange Station. It is located to the north of the hospital in Orange City Centre. The journey by car between the station and hospital is typically seven minutes. The bus routes shown in **Table 2-1** all provide connectivity between Orange Station and the Hospital.

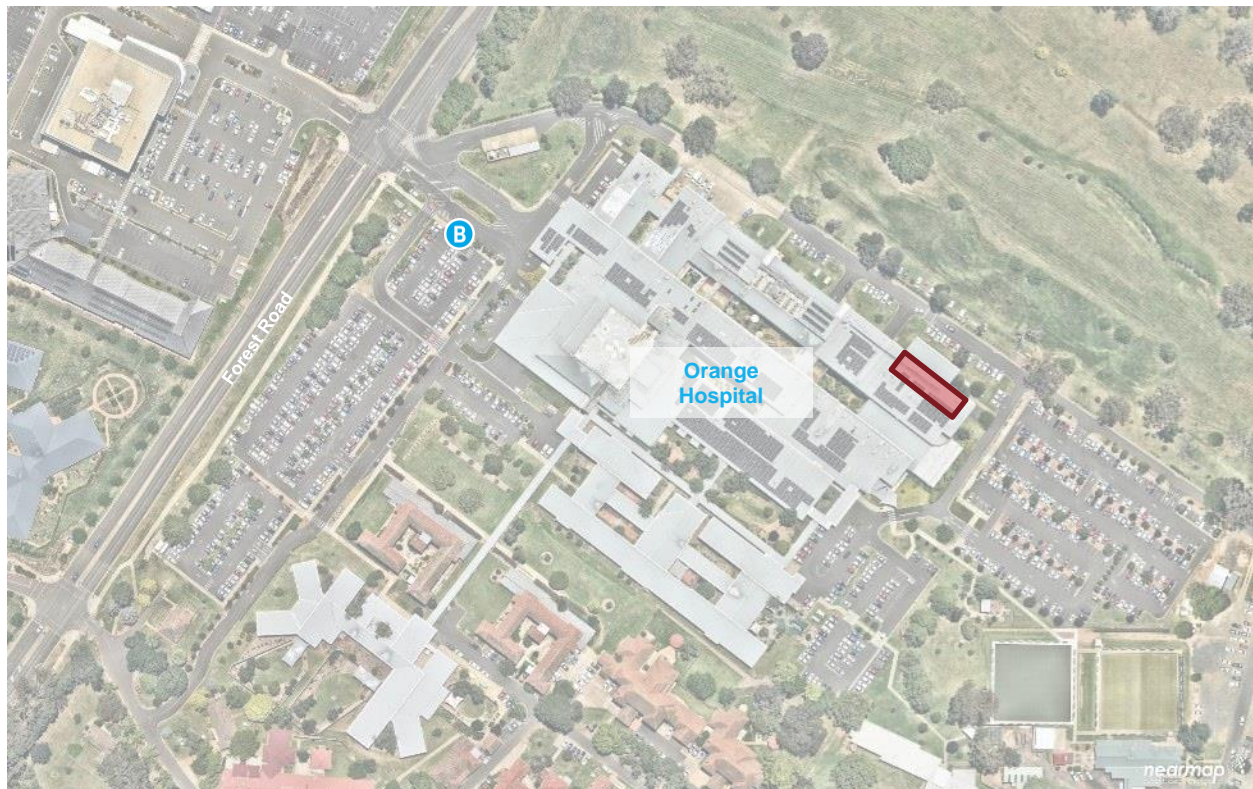
Orange Hospital has a bus station located on premises. There are six bus routes that depart from this stop. The 535 and 540 are the most frequent of these routes.

Table 2-1 Bus departures from Orange Hospital bus stop

Service no.	Origin/ Destination	Frequency (no. of services)		
		Monday - Friday	Saturday	Sunday
516	Blayney to Orange (loop service)	4	N/A	N/A
530	Orange to Bathurst	1	N/A	N/A
531	Orange City Centre to Glenroi (loop service)	7 Approx. hourly 7am to 3pm	N/A	N/A

Service no.	Origin/ Destination	Frequency (no. of services)		
		Monday - Friday	Saturday	Sunday
535	North Orange Shopping Centre to Orange Hospital	11 – 13 Hourly 6am to 5pm (8pm Thurs & Fri)	11 Hourly 7am to 6pm	5 Every 2 hours from 9am to 6pm
535	Orange Hospital to North Orange Shopping Centre	10 – 12 Hourly 9am to 7pm (9pm Thurs & Fri)	11 Hourly 8am to 7pm	6 Every 2 hours from 8am to 7pm
540	Orange Hospital to Charles Sturt Uni via N Orange Shopping Centre	8 – 9 Approx. hourly 6am to 8pm (8pm Thurs & Fri)	9 Approx. hourly 8am to 7pm	5 Every 2 hours 9am to 6pm
540	Charles Sturt Uni to Orange Hospital via N Orange Shopping Centre	8 – 9 Approx. hourly 7am to 7pm (8pm Thurs & Fri)	9 Approx. hourly 9am to 7pm	5 Every 2 hours 10am to 7pm
581	Orange City Centre to Glenroi (Loop Service)	7 Approx. hourly 6am to 2pm	1	n/a

Figure 2-2 Orange hospital bus stop location



B Bus stop ■ New palliative care unit

2.1.3 Walking

A footpath is available along the Orange Hospital side of Forest Road. At the northern intersection an internal footpath connects with the footpath on Forest Road. The hospital carparks contain footpaths that provide access to various hospital entrances.

The palliative care unit is located at the rear of the hospital on the first floor. The main ambulant entry at the rear of the hospital is the closest access point for the palliative care unit. During the daytime, visitor access to palliative care occurs through this entry. Out-of-hours visitor access occurs through the main hospital entrance at the front of the building.

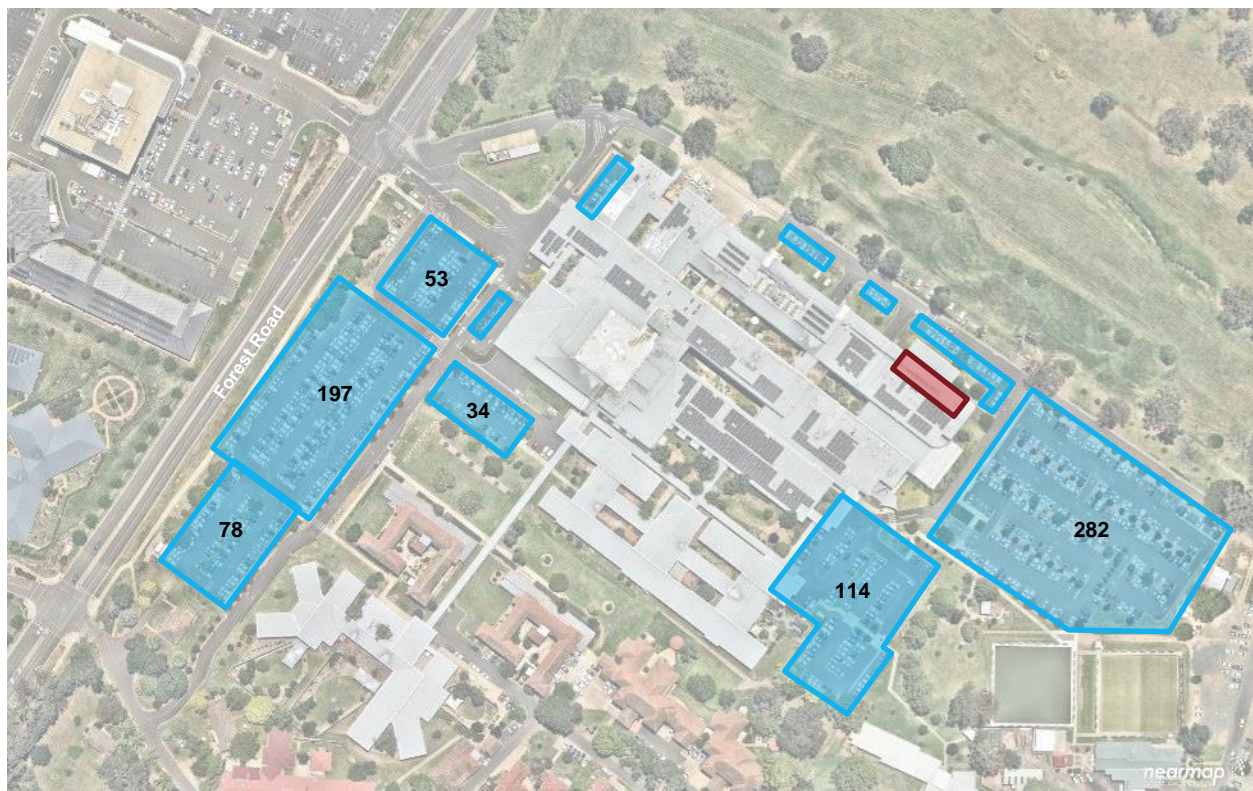
2.2 Parking facilities

There are more than 750 spaces on site with several carparks located to the east and west of the hospital. The location and capacity of the existing hospital parking is marked in **Figure 2-3**. Both general and dedicated staff parking are provided, and parking is free of charge for all persons.

A review of aerial imagery suggests the parking spaces to the west of the hospital are relatively full (aside from the staff dedicated parking), while there is consistently spare capacity on the eastern side of the hospital. The palliative care unit is found on the eastern side of the hospital.

There is no on-street parking along Forest Road as no stopping is permitted.

Figure 2-3 Orange hospital carpark locations and capacity



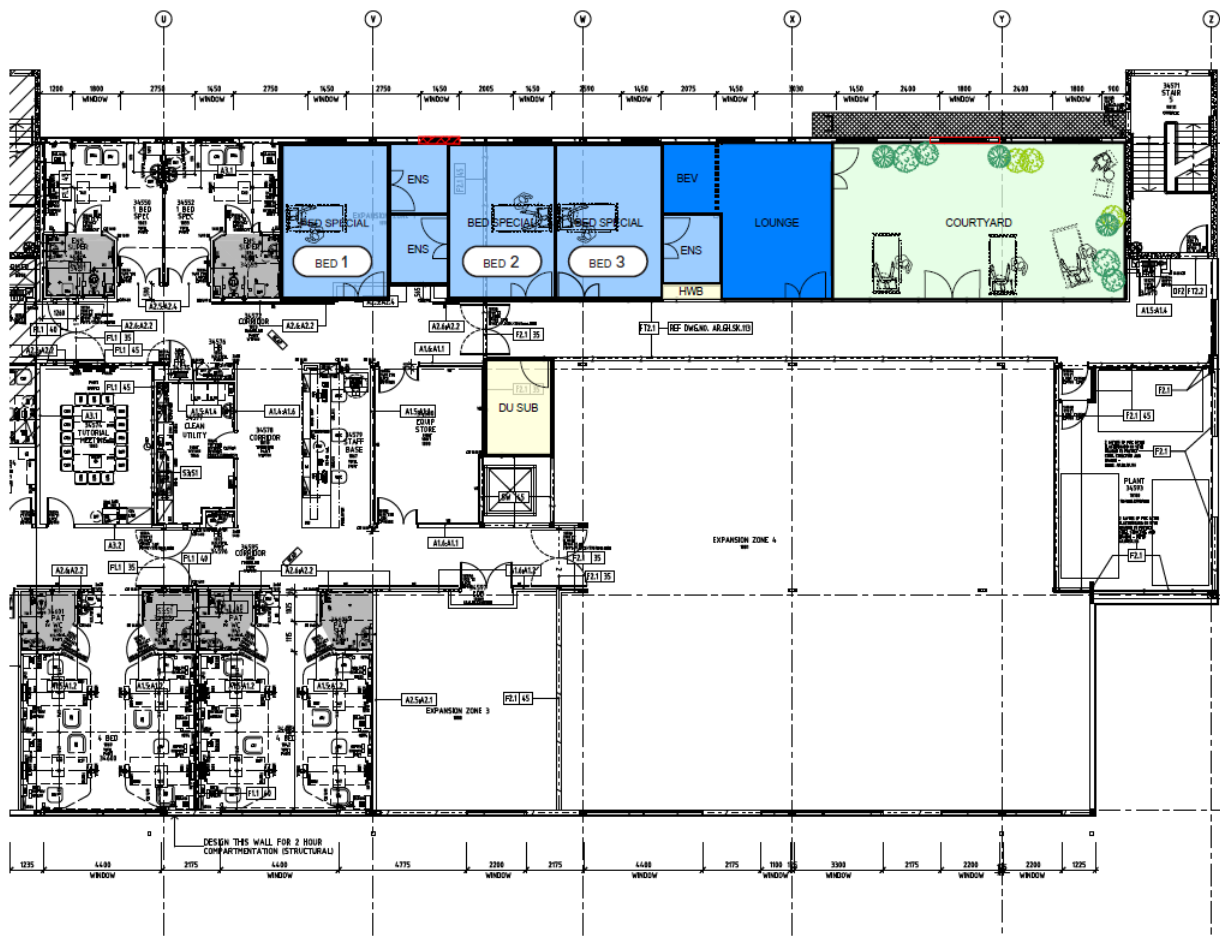
Carpark New palliative care unit

3.0 Proposed facilities

3.1 Rooms

The World Class End of Life Care program (WCEoLP) will deliver three Palliative Care beds in addition to the existing two within the existing Orange Hospital building. A concept design has been endorsed which has the three new bedrooms on the first floor, with a dedicated lounge and covered courtyard area. The proposed plan is illustrated in **Figure 3-1**. No changes are being made to the hospital building access, surrounding footpaths, or the car park.

Figure 3-1 Endorsed concept design – First floor



Source: BVN, 2023

3.2 Staff, patient and visitor increase

As the proposed expansion makes no changes to the hospital's access or car park, the only impact from the additional beds would be from trip generation and parking demand resulting from additional staffing, patients, and visitors.

The anticipated growth in number of people at the hospital from each user group is derived from the *World Class End of Life Program – Orange Designated Palliative Care Beds Functional Brief (2023)*. There will be an increase in:

- **Staff:** The Functional Brief anticipates an increase in staff headcount by one. The additional staff will be part of the Haematology/Oncology/Palliative Care (HOPs) Ward, which includes the existing Palliative Care beds. Staff are assumed to drive to and from the hospital.
- **Patients:** There will be a maximum of three additional patients from the proposed expansion, with a typical length of stay of just over five days. Patients are assumed to be driven by family or carers, or transferred to Orange Hospital by ambulance/patient transfer services.

- **Visitors:** Family members and carers are encouraged to visit regularly and visiting hours are unrestricted. A family member is permitted to stay overnight within each patient's bedroom. Visitors are assumed to drive to and from the hospital.

The trip generation and parking implications of the additional staff, patients and visitors are detailed in **Table 3-1**.

Table 3-1 Parking demand and trip generation resulting from growth in staff, patients, and visitors

User group	Trip generation	Parking demand	Note
Staff	+1 trip per peak hour	+1 parking demand during peak demand period	This assumes that the additional staff will work a typical day shift, and is the most conservative assumption.
Patients	No material increase	No increase	Patients do not drive themselves, and patient turnover is low enough such that the number of trips is negligible.
Visitors	+3 trips per peak hour	+3 parking demand during peak demand period	In lieu of actual visitor data, it is assumed that there would be a visitor every day for each patient.
Total	+4 trips in peak hours	+4 parking spaces demand during peak periods	

4.0 Traffic, transport and parking impact assessment

4.1 Road network

An increase of four trips during the peak hour is a negligible increase in traffic volume and will have no material impact on the surrounding road network.

4.2 Parking

The parking demand is expected to increase by four during the peak hour. This represents less than 1% of existing car spaces. A review of aerial imagery suggests the parking spaces to the west of the hospital are relatively full (aside from the staff dedicated parking), while there is consistently spare capacity on the eastern side of the hospital. The spare capacity is expected to be able to absorb the growth in parking demand of one additional staff and three visitors.

4.3 Walking

Pedestrian access for Orange Hospital will remain unchanged.

4.4 Public transport

There will be no impact to public transport services around Orange Hospital.

4.5 Construction

Based on information provided by HI on other health facility construction activities, the delivery of the new facilities will have approximately one to two construction trucks per week and a demand for seven parking spaces for the workers per day. This is an indicative number only and would depend on the construction methodology and timeframes determined by the selected Contractor. The workers are likely to find parking within the hospital car parks, surrounding parking facilities, or on-street in the surrounding road network.

The proposed facility is adjacent to 15 parking spaces, which may be impacted by the works site and loading/unloading zones. Consideration will need to be given during the construction planning process to the impact of the construction siting.

A Construction Traffic Management Plan (CTMP) would be developed by the Contractor prior to the start of construction and updated throughout the project as required. The CTMP would be prepared in consultation with Transport for NSW and Orange City Council and would seek to minimise traffic, transport and parking impacts during the construction stages of the project, especially while the health service remains operational. The CTMP would address aspects such as type of construction vehicles, construction transport routes, dilapidation surveys, traffic control plans, including detours and signage, noise and vibration impacts, and details of measures to minimise conflicts with other road users or users of the site.

5.0 Summary

This Traffic Impact Assessment Report presents a review of existing traffic and parking operations at Orange Hospital, describes the planned changes, and assesses the impact of these changes on traffic and transport in and surrounding the Hospital facility.

Based on the assessments undertaken, a summary of the impacts are as follows:

- The increase in peak hour trips is immaterial to the road network
- Existing parking can support the additional peak hour trips
- There is no impact to walking
- There is no impact to public transport
- Construction activity is indicatively one to two construction trucks a week and a demand for seven parking spaces by the construction workers. The impact of the additional traffic, parking demand, as well as the extent of the construction site will need to be assessed and mitigated by a Construction Traffic Management Plan, completed by the selected Contractor.



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