

Figure 2 - Project Site Identification

2.3 Key Issues and Objectives of this Study

Over the next 12 years, Gosford Hospital will undergo growth to provide additional services to support local and regional health demand requirements within the Central Coast region.

Additional services within the Hospital Precinct will have a twofold effect: firstly they will have the potential to increase traffic activity and demand for parking spaces; secondly, the new infrastructure will be displacing existing parking, thus reducing the available on-site parking supply. The Project proposes to address these issues through the provision of additional parking within a new multi-storey car park within the HWP, as well as infrastructure upgrades and initiatives to reduce car usage as a proportion of the travel mode.

In preparing this Assessment, we have taken into account the results of a comprehensive Parking Demand Study for the Hospital prepared by PTC in April 2013. As part of this Assessment an extensive investigation into the travel and parking characteristics of the various users accessing the Hospital was undertaken. The Assessment was subsequently updated in February 2015 to incorporate revised future Hospital growth estimates provided by HI.

The analysis undertaken in February 2015 indicates that the current parking supply is not sufficient for the expected increase in Hospital services. In this regard, the HWP - Stage 1 project includes the construction of a multi-storey car park located between Holden Street and Showground Road, which will consolidate the existing parking displaced by the Hospital Redevelopment as well accommodating the increased parking demand associated with the Hospital Redevelopment and HWP projects.

In this regard, this Traffic and Accessibility Assessment addresses the traffic activity associated with the Hospital Redevelopment, adopting the proposed car park as the new origin and destination for the majority of trips.

The primary objective of this Assessment is to assess the impact of traffic activity associated with the proposed Hospital Redevelopment and to determine the extent of mitigating works required to maintain an acceptable operation of the local road network. The Assessment also addresses the accessibility of the Hospital by other means of transport, including improvements to pedestrian movements in the context of a new entrance and improved pedestrian facilities.

2.4 Secretary's Environment's Assessment Requirements

The presentation of this Assessment is based on the suggested structure presented in the RMS Guide, while the response to the SEARs relating to Transport and Accessibility is summarised as follows:

- *Details existing public transport and its adequacy to meet the likely future demand of the proposed development;*

Described in Sections 3.11 and 7.9

- *Details existing pedestrian and cycle movements within the vicinity of and to the site, and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access.*

Described in Sections 3.12, 3.13 and 7.1.

- *Identifies accurate details of the current and future daily vehicle movements and assesses the impacts of the traffic generated on the local and classified (Pacific Highway) road network, including intersection capacity and the capacity of the broader network and any potential need for upgrading or road works, having regard to local planning controls.*

Described in Sections 3.8 and 7. This Assessment presents detailed determination of existing traffic activity through traffic surveys and intercept surveys undertaken at the Hospital as part of the above mentioned Parking Assessment Report. A detailed road network assessment has been prepared by Jacobs Pty Ltd using the modelling software LINSIG to model the road network surrounding the Hospital under various scenarios. Separate traffic modelling using SIDRA has been undertaken at the intersections of Donnison Street / Showground Road and the Central Coast Highway / Racecourse Road, as these intersections are outside the influence of the network model.

- *Details an estimate of the total daily and peak hour trips generated by the proposed development, including vehicle, public transport, pedestrian and cycle trips.*

Described in Sections 7.1 and 7.2.

- *Provides an assessment of the impact on road and intersections and the need/associated funding for upgrading or road improvement works (if required), having regard to existing traffic generated by existing educational establishments and Gosford Railway Station, within the area bounded by:*
 - *Mann Street to the east;*
 - *Racecourse Road to the north and west (including the Etna Street railway over-bridge); and*
 - *Donnison Street to the south (including the Donnison Street railway over-bridge).*

Described in Sections 2.8 and 6 and the Traffic Modelling Report prepared by Jacobs Pty Ltd. Based on an RMS request, modelling of the Donnison Street / Showground Road and the Central Coast Highway / Racecourse Road intersections has also been included in this Assessment.

- *Provides a traffic analysis of the broader network in addition to any major/relevant intersections, using SIDRA or similar traffic model, including:*
 - *current traffic counts and ten year traffic growth projections, allowing a two per cent background growth on the classified road network;*
 - *current traffic signal phasing;*
 - *with and without development scenarios considered;*
 - *95th percentile back of queue lengths;*
 - *details and level of service on all legs for the relevant intersections; and*
 - *electronic input/output data files for RMS review.*

Described in Sections 2.8 and 6 and the Traffic Modelling Report prepared by Jacobs Pty Ltd. The road network modelling adopts each of the requirements of this SEAR with the following amendments:

- *The growth projection has been based on 12 years as this represents the completion date for the Project (as agreed with representatives of Council and RMS).*

- The maximum queue lengths have been provided rather than the 95th percentile lengths due to the capabilities of LINSIG.
- *Details proposed access arrangements, including emergency, delivery and service vehicles, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and cycle networks.*

Described in Sections 5 and 7.9

- *Describes the measures to be implemented to promote sustainable means of transport including public transport usage and pedestrian and bicycle linkages in addition to addressing the potential for implementing a location specific sustainable travel plan.*

Described in Section 7.12

- *Demonstrates how users of the development will be able to make travel choices that support the achievement of State Plan targets.*

The State Plan targets are described in the Central Coast Regional Action Plan and how the Project responds to the targets is described in Section 7.11 of this Assessment.

- *Demonstrates the provision of convenient and secure bicycle parking and end-of-trip facilities and appropriate on-site car parking and set-down and pick-up facilities, with consideration of afternoon shift changes and pickup and drop-off facilities, having regard to the availability of public transport.*

Described in Section 7.12.

- *Details traffic and transport impacts during construction and how these will be mitigated for any associated traffic, pedestrian, cyclist, parking and public transport, including preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of impacts.*

An outline Traffic Management Plan for Construction has been prepared and is included as part of SSDA (SSD6913), EIS, Appendix 25 – Preliminary Construction Management Plan.

- *Details regarding any proposed road closures, road upgrades, alterations to existing road networks and measures to mitigate any associated traffic impacts.*

The Project includes the closure Beane Street West, and truncation of Hospital Road and Holden Street in order to accommodate the Project and increase the pedestrian amenity around the Hospital Precinct. Other road upgrades are described in Section 7.6, which result from the combination of Hospital traffic and background growth within the road network.

- *Details car parking arrangements during construction. Alternative parking arrangements (on or off site) should be made for staff and construction workers.*

An outline Traffic Management Plan for Construction has been prepared and is included as part of SSDA (SSD6913), EIS, Appendix 25 – Preliminary Construction Management Plan.

In relation to the SEARS requirement for consultation during the planning process, the Project has been presented the Project and the Traffic and Parking Assessment to Council and RMS at the following meetings:

- Meeting held to present the overall scheme to RMS representatives on 19th December 2014 and 12th January 2015.

- Meeting held to present the overall scheme to Council representatives on 27th February 2015.
- Meeting held to present the draft Traffic and Parking Assessment to Steven Green (Gosford City Council) and Tim Browne (RMS) on 12th March 2015.
- Meeting held on 31st March with Gosford City Council and RMS to present traffic modelling data and review outcomes and additional requirements.
- Teleconference held on 23rd April with Tim Browne and Andrew Dorrian (RMS) and Steven Green (GCC) to present traffic modelling data and review outcomes.

3 Existing Conditions

3.1 Gosford Hospital

Gosford Hospital is part of the Central Coast Local Health District (CCLHD), providing public health services to the Central Coast region. The area is served by two acute Hospitals being Gosford and Wyong, while Gosford Hospital is the largest employer within the region.

The Hospital is the principal referral hospital and regional trauma centre for the Central Coast and provides a diverse range of services including emergency, intensive care, maternity, gynaecology, paediatrics, mental health, cancer treatment, coronary care, orthopaedic surgery, urological surgery and vascular surgery. The Hospital's emergency department is the third busiest in the State of NSW.

The Hospital is also a teaching hospital of the University of Newcastle and the University of New England. Medical, nursing and allied health students are placed at the hospital for practical terms.

The Hospital has recently completed the Central Coast Regional Cancer Centre project (2013), comprising the construction of a new comprehensive cancer centre and expansion of the existing chemotherapy treatment and consulting services.

3.2 Location

Gosford is located approximately 80 kms north of Sydney. Gosford Hospital is located approximately 500 metres to the east of the Gosford City Centre and north-west of the Gosford Railway Station, as shown in Figure 3.

The City Centre hosts a population of approximately 170,000 within the Gosford Local Government Area (LGA), which has experienced growth of approximately 6.2% between 2003 and 2013 according to ABS Census Data. A significant proportion of the population (25.4%) is over 60 years of age, highlighting the popularity of the Central Coast as a retirement destination.



Figure 3 - Project Location

3.3 Land Use Characteristics

3.3.1 The Hospital Precinct

The Hospital is located in the north-west part of Gosford City Centre, which is identified in the Gosford City Centre Masterplan as Precinct 5, which generally includes the area identified in Figure 4 below.

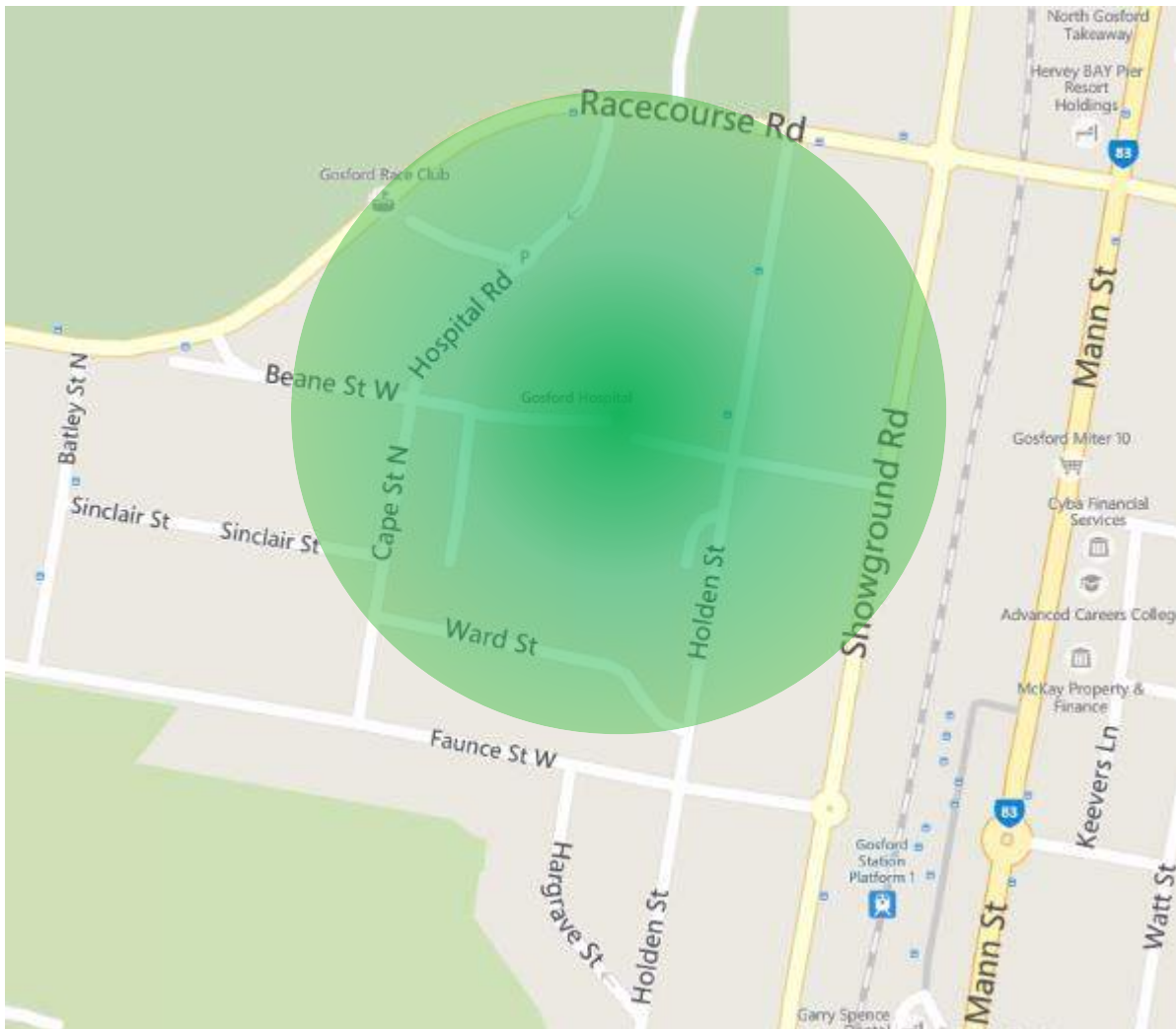


Figure 4 - Hospital Precinct

The Hospital Precinct comprises the Gosford Hospital, residential properties now occupied and / or owned by the LHS and Health Administration Corporation, a small proportion of residential properties, and a number of health related private businesses, served by a local road network surrounding the Gosford Hospital and HWP. The Precinct abuts the Gosford High School and Gosford Golf Club to the north, and the Sydney to Newcastle Main Railway Line and Gosford Railway Station to the east, and residential properties to the south and west.

3.4 The Hospital Campus

The existing Hospital Campus is bordered by Holden Street to the east, Ward Street to the south, Cape Street North to the west and Racecourse Road to the north. Hospital Road passes through the north west corner of the Hospital Campus connecting between Cape Street North and Racecourse Road.

The Hospital Campus map is presented below:

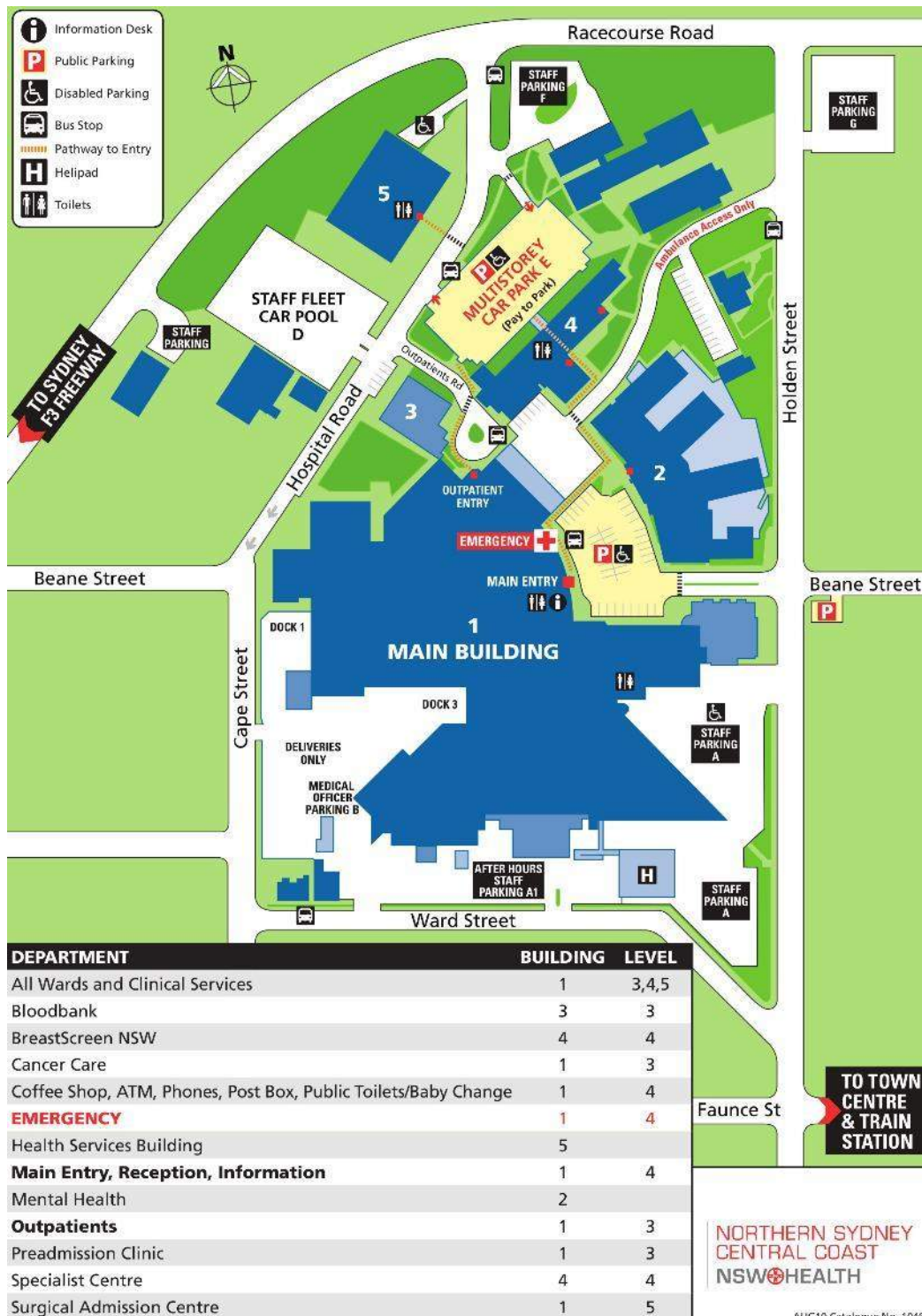


Figure 5 - Hospital Campus Map (Source: NSW Health)

3.5 Existing Surrounding Land Use Activities

The context of the Hospital in relation to surrounding land-uses is shown in Figure 6. The road network serving the Hospital is described in Section 3.6 of this Assessment.



Figure 6 - Gosford Hospital Local Context

The following land uses are located within a 500 metre catchment area of the Gosford Hospital:

- South of the Hospital is characterised by low to medium density housing along Ward Street and Faunce Street West;
- North of the Hospital lies access to Gosford Golf Course and Gosford High School;
- West of the Hospital is characterised by low density housing and access to Henry Kendell High School; and
- East of the Hospital lies Gosford Railway Station and the Gosford CBD.

3.5.1 Future Surrounding Land Use Activities

In 2010, Gosford City Council (GCC) published the Gosford City Centre Masterplan to identify a strategy for the growth of the City to become a “world class waterfront city”. The purpose of the Masterplan is to provide “an implementable design document that will guide the revitalisation of Gosford City Centre” and sets out “an ultimate development scenario for the entire City Centre area”. It should be noted that the “Hospital Precinct” is identified as Precinct No.5 within the City Centre boundary. The properties located between Holden Street and Showground Road, and Racecourse Road and Faunce Street West are identified as the Health Support Precinct, which is referred to by HI as the HWP. Stage 1 of the HWP forms part of the SSD

Application. Future stages of the HWP are intended to be developed separately and do not form part of the Application.

The Masterplan identifies development opportunities within each of the five Precincts in the context of the expected growth in population of 10,000 new residents and 6,000 new jobs within the City Centre. Each Precinct will involve different sets of development goals based around the existing opportunities, for example the Waterfront Precinct will seek to maximise the potential offered by the waterfront, while the Hospital Precinct will build on the established Hospital and related surrounding land uses.

The key initiatives identified within the Hospital Precinct include:

- Expansion of Health and Wellbeing Services
- Etna Street Bridge Upgrade
- Holden Street and Showground Road Pedestrian Upgrades
- New development along Showground Road
- Gosford Public School Relocation
- Gosford and Henry Kendall High School Oval Upgrades
- Racecourse Road Pedestrian Upgrade
- Railway Pedestrian Link

The proposed Gosford Hospital Redevelopment and HWP project are entirely consistent with the objectives relevant to the GCC Gosford City Centre Masterplan, Hospital Precinct vision and will promote future government and non-government investment and development along Showground Road and Holden Street. The truncation of Holden Street and the closure of Beane Street West will improve the pedestrian environment (including lifts from Showground Road up to Holden Street).

The Masterplan identifies a number of opportunities to develop land within the City Centre to accommodate the growth in population and jobs and also to reinvigorate the City as a destination. In order to manage the access demand associated with the Masterplan, a Transport Management and Accessibility Plan (TMAP) was prepared by Aecom in 2010. The TMAP identifies improvements to the accessibility of the City Centre by all modes of transport with an emphasis on decreasing the use of cars as a proportion of the overall mode share. In relation to the Hospital, the improvements to active and public transport, identified as part of the project, are described in Section 7 of this Assessment.

In the context of the Hospital Precinct and connecting road network, the TMAP also identifies improvements to the road network, summarised as follows:

*“Roads related initiatives to facilitate bus improvements and pedestrian connectivity and redistribute central area traffic to bypass Mann Street, including potential signalisation of **Etna Street intersections with Showground Road, Holden Street** and Hills Street; **investigation of bridge capacity enhancements at Etna Street; signalisation of Racecourse Road intersection with Showground Road**; and monitoring of pedestrian and cyclist movements in the vicinity of the Hely Street and Central Coast Highway intersection, as development occurs.”*

¹ Source: Gosford City Centre Transport Management and Accessibility Plan – Aecom - 2010

These suggested road improvements have been considered within the future road modelling scenarios presented in Section 7 of this Assessment.

3.5.2 Development Proposals in the Vicinity

A search of the Gosford City Council ePlanning portal indicates that a number of DA submissions have either been recently approved or are awaiting determination. It is apparent that a number of the projects comprise multi-unit developments (e.g. 9-13 Ormond Street, comprising 87 units). While these developments and the associated traffic activity are identifiable at present, there are likely to be many future developments in the Gosford area in line with the Masterplan proposal, and as a consequence of GGC's current Development Incentive strategy. A number of major mixed-use, commercial, hospitality and large scale residential projects have been recently been approved by the Joint Regional Planning Panel (JRPP) and GCC.

In accordance with the SEARs a road network growth rate of 2% per annum has been adopted in this Assessment, which takes into account proposed and future developments. Therefore, to avoid duplication of vehicle trips, the traffic growth associated with individual developments is not included within the modelling.

It is acknowledged that Development Applications at 68 and 76-78 Showground Road are currently under consideration by Council. These properties are located within the proposed HWP site. HI is currently in negotiations to purchase these properties.

3.6 Existing Road Network

The Hospital is served by a regional and local road network, which provides ready access to the City Centre and the surrounding region, while the M1 Pacific Motorway provides the primary connection to Sydney and Newcastle. The road network in this area is also comprised of local streets providing direct access to the surrounding land-uses.

In the regional context the Hospital is served by the following State roads:

- North – Pacific Highway (Manns Street) and M1 Pacific Motorway
- South – M1 Pacific Motorway and Central Coast Highway
- East – Central Coast Highway
- West – Central Coast Highway