RANDWICK CAMPUS REDEVELOPMENT

CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

Acute Services Building

April 2020

NSW GOVERNMENT Transport for NSW

NSW GOVERNMENT Planning & Environment

NSW GOVERNMENT Health Infrastructure

Randwick City Council
a sense of community

lendlease

DOCUMENT HISTORY

Version	Date	Issue by	Status
3	July 2019	Lendlease	For CC2 and CC3 – Approved by TfNSW
4	April 2020	Lendlease	General update to include for Extended working hours

DOCUMENT CONTROL

To ensure the Construction Communication Plan remains relevant and accurate, this document will be continuously reviewed and evaluated throughout the planning and delivery of the Acute Services Building.

Any revisions made will be communicated to the project team accordingly.

CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

ACUTE SERVICES BUILDING

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1.0 INTRODUCTION

1.1 Overview

The Prince of Wales Hospital Expansion Stage 1 of the Randwick Campus Redevelopment comprises the construction of an Acute Service Building for NSW Health, in partnership with the University of NSW (UNSW).

The Randwick Campus Redevelopment Acute Service Building (ASB) is a highly complex project with critical early milestone components that must be delivered on time.

The new ASB building is subject to two separate planning approvals:

- SSD9113 - Acute Service Building (ASB) - Bulk earthworks, construction and fit out of a new Acute Services Building to existing hospital buildings, and road works to surrounding streets and landscape works;
- SSD10339 – The integrated Eastern addition to the ASB (the IASB) - Lowering of Hospital Road, construction of the UNSW Eastern Extension (Base Building only, not fit out) and overhead pedestrian links to existing hospital facilities. It is noted that some scope of the SSD9113-ASB development has been superseded by the integrated Eastern addition approved under this DA.

The construction of both approved developments is scheduled concurrently due to their inherently integrated scope.

This Construction Traffic and Pedestrian Management Plan (CTPMP) relates to the scope of SSD9113 for the main ASB Building. It has been prepared to operate in conjunction with the CTPMP for the IASB under SSD10339 (refer to Appendix 6).

The objective of this plan is is to ensure that the CC2 and CC3 activities (Structure inground services and fitout) associated with the ASB project are safely delivered using a robust set of methodologies and zero unplanned disruption to hospital services.

- The Lendlease construction management processes will provide:
- Seamless performance and accountability from a single responsible entity.
- The works will be managed by a single proven responsible entity.
- Reduced risk of delivery.

Lendlease has produced this CTPMSP as the contractor responsible for delivery of CC2 and CC3 activities under the Main Works Package. It is envisaged that this CTPMSP will evolve during the course of the project as the design develops in conjunction with the design consultant team, project stakeholders; HI, SESLHD and PWC.

In the following sections, we have set out how we intend on managing the CC2 and CC3 activities associated with the RCR.

The CTPMSP also defines the impacts of the proposed construction activities on areas within the RCR site and hospital campus. This plan will outline the proposed mitigation strategies to be implemented during the relevant construction activities and outlines contingency measures that will be enacted to eradicate any potential risk to HI, SESLHD its community partners and stakeholders.

Our proactive and collaborative approach is underpinned by the following overriding and non-negotiable objectives:

- Maintain business continuity of the hospital and adjoining facilities and properties
- To deliver a world class facility for our client on time to the highest safety and quality standards
- Safe and timely delivery of CC2 and CC3 works enabling construction of the Randwick Campus Redevelopment
- Communicate in a timely fashion with all relevant stakeholders what, when and how we are planning to undertake interface works

- Present a positive public perception of the project during the construction works
- Use experienced and competent subcontractors with appropriate resources to deliver their works in the manner we prescribe
- Hands on control of subcontractors from experienced Lendlease site supervision

Health Infrastructure will have four key outcomes from the Lendlease CTPMSP:

Figure 1: Key outcomes

1.2 Consent Conditions

The Department of Planning has issued the approved Development Consent conditions for the SSD-9113.

The Conditions relevant to the CTPMP which have been addressed in this CTPMP include:

B35 – CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN:

The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared in consultation with the Sydney Coordination Office and Sydney Light Rail team within TfNSW and RMS. The CTPMSP must address, but not be limited to, the following:

- Be prepared by a suitably qualified and experienced person(s);
- Specify:
  - Location of the proposed work zone/s;
  - Location of any crane;
  - Details of any lane or road closures;
  - Construction hours; and
  - Construction program;
- Detail size and type of construction vehicles including a swept path analysis demonstrating no encroachment into oncoming traffic lanes;
- Haulage and heavy vehicle routes including marshalling area/s and operations to ensure no heavy vehicle queuing prior to site entry;
- Estimated number of construction vehicle movements including measures to significantly minimise the number of movements during the defined peak traffic periods;
- Construction vehicle access arrangements noting that construction vehicles shall not use High Street without prior approval of the Sydney Coordination Office within TfNSW and RMS;
- Measures to avoid construction worker vehicle movements within the vicinity of the precinct, including any off-site construction worker parking location/s away from the precinct and operation;

- Location and operation of a pick-up/drop-off zone of adequate length on Hospital Road for the Sydney Children's Hospital. Pedestrian access to the zone should be maintained at all times;
- Identify cumulative construction impacts of projects including the Sydney Light Rail Project, University of New South Wales, Inglis Stables and surrounding new residential developments;
- Identify and reference existing Construction Pedestrian and Traffic Management Plans (CPTMPs) for developments within or around the site to ensure that coordination of work activities is managed to minimise the impacts on the road network;
- Consideration of potential impacts on general traffic, cyclists, pedestrians, bus services and light rail construction and operation within the vicinity of the site;
- Detail the duration of impacts and identify mitigation measures that are to be implemented mitigate impacts on general traffic, Sydney Light Rail construction and operation, bus operations, pedestrians and cyclists, and ensure road safety and network efficiency during construction;
- Include a Driver Code of Conduct to:
- Minimise the impacts of earthworks and construction on the local and regional road network;
- Minimise conflicts with other road users;
- Minimise road traffic noise; and
- Ensure truck drivers use specified routes;
- Include a program to monitor the effectiveness of these measures;
- Consultation strategy for liaison with surrounding stakeholders; and
- If necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.

B42 - CONSTRUCTION WORKER TRANSPORTATION STRATEGY

The Applicant shall prepare a Construction Worker Transportation Strategy (CWTS) in consultation with the Sydney Coordination Office within TfNSW and Roads and Maritime Services. The Applicant shall submit a copy of the final plan to the Coordinator General, Transport Coordination for endorsement, prior to the commencement of any work on site. The Plan needs to specify, but not limited to, the following:

- Initiatives that would help discourage construction workers driving to the precinct and parking;
- Provision of secure storage areas for construction worker tools and equipment on site;
- Measures to encourage the use of the ample public and active transport available within the vicinity of the site; and
- Details of the operation of off-site construction worker parking location/s, including how workers would be shuttled to the development site.

C9: CONSTRUCTION TRAFFIC

All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, excerpt if located in an approved on-street work zone, and vehicles must enter the site before stopping.

C10 CONSTRUCTION VEHICLE ACCESS:

Construction vehicles shall not use High Street without prior approval of the Sydney Coordination Office (SCO) within TfNSW and Roads and Maritime Services)

C11: ROAD OCCUPANCY LICENCE

A road Occupancy License must be obtained from the relevant road authority for any works that impact on traffic flows during construction activities.

The Applicant is to consult with the TfNSW and its internal stakeholders including Roads and Maritime Services, Council and the Light Rail Operator at the Traffic and Transport Construction Coordination meetings during construction.

Lendlease can confirm that consultation has been carried out with TfNSW, Transdev, SLR, and SCO. To seek endorsement of this plan consultation occurred in July 2019 and subsequent emails to gain approval in August 2019. Ongoing consultation in December 2019 along with presentation in December 2019 at TfNSW offices.

This plan is currently endorsed for CC2 and CC3 works, Lendlease will be CC4 later in 2020 which will require an update to this plan.

2.0 BUSINESS CONTINUITY

2.1 RANDWICK HOSPITALS' CAMPUS HEALTH SERVICE CONTINUITY

Proposed methodology for working within an operational hospital environment and maintaining pedestrian traffic and vehicular traffic to entries.

The Lendlease project team understands the challenging nature of the RCR and the constraints of managing major construction works adjacent and within an operational hospital environment and the non-negotiable requirement of no disruptions to hospital 'business continuity'.

Works areas

The first strategic approach from the site team in addressing live environment works is elimination. This means isolating work areas from operational hospital areas prior to any works being commenced and eliminating a works/hospital operations interface.

This will be the case for the major works to the following areas:

- The CC2 and CC3 activities under the Main Works Package will be enclosed by A Class hoarding and will be secured to ensure no unauthorised access. The A Class hoarding will be maintained for the construction of the new ASB.

When elimination is not feasible, the second approach is to fully isolate the work area through secure hoardings prior to commencing any works and to provide controlled work access through the operational environment. This will be applicable to:

- Services connections to existing infrastructure that are required

Along with significant works interfaces noted above there will also be planned investigative works, access to plant rooms, minor temporary works and installation of protective measures which will require process and controls to ensure full visibility of all subcontractors for these types of activities. Lendlease will impose a strict regime of consultation on all works outside the site perimeters, regardless of the nature of the intended works.

The Disruption Works Notice process will be followed here. This includes all workers to firstly complete the required hospital worker induction and secondly, Lendlease will institute a 'Permit to Work' process for all works outside of the secured site areas.

The permit system puts hold-points in place, which have to be signed-off prior to permit issue. If workers are found to be working without permits, they will be removed from the project. The hold points for the 'Permit to Work in the Hospital Area' will be the same as those for the Disruption Works Notice, to ensure a consistent level of compliance from the subcontractors.

Lendlease have identified a 4-step process that we will undertake to ensure that the design and construction methodology mitigates the construction risks inherent in conducting site works within a live Health Campus (refer Figure 1). The planning for health service continuity and risk management 4 step process will underpin all stages of the RCR-ASB project and will be used as the guiding principal for how construction will be undertaken around the campus.

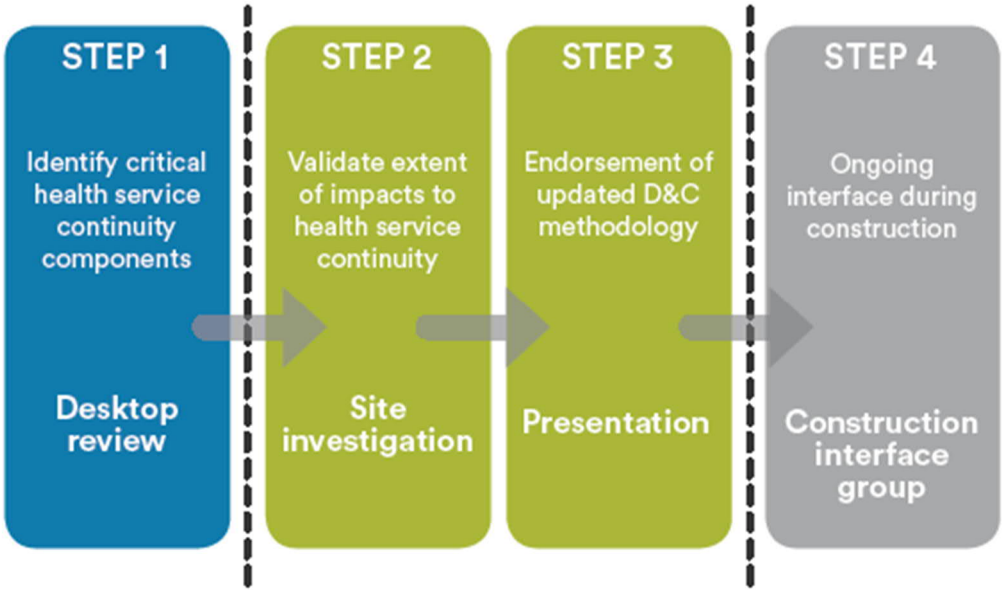


Figure 1: Four step business continuity process

Step 1 has been undertaken during the planning phase by Lendlease and will heavily influence initial construction methodology planning. Examples include but not limited to the following:

Program and staging:

- Analysis of disruptive works staging in the most efficient manner to minimise disruption to the Campus stakeholders
- Sequencing construction to ensure handover of completed spaces to the Randwick Campus Redevelopment at the best and earliest opportunity

Site establishment:

- Efficient use of existing redundant facilities and space available for site establishment to minimise space taken by the construction site
- Off Campus solutions to construction car parking to ensure no disruption to car parking within the precinct
- Planning for construction access in controlled zones

Construction interfaces:

- Strictly controlling where construction will interface with the Hospital nearby residential dwellings or public
- Implementing airtight, acoustically treated hoardings for all existing building connections to minimise Infection Control risks and reduce construction noise impacts to nearby existing buildings
- Ensuring sight lines from the construction site are managed so that patient and residential privacy in adjacent buildings are maintained
- Developing a web based Disruptive Works Notice (LiveOps) system to identify, document and communicate disruptions to stakeholders in a timely, interactive and transparent manner
- Separation of the construction workers from staff, public and patients by providing discrete site accommodation and amenities within the construction boundaries
- Using low impact construction methods to ensure noise and vibration doesn't impact the daily operations of the Hospital and nearby residential properties

Lendlease will follow steps 2 and 3 to validate these assumptions and further develop them ready for the construction phase.

Step 4 implements ongoing risk assessment, mitigations and controls that have been established through Steps 1-3 and the continual monitoring of changing conditions that may affect our design and construction methodology. Strategies to support Randwick business continuity include but not limited to:

- Regular construction risk assessment using the Interface Strategy principles to identify areas of and manage potential interface risks that may affect the Randwick Hospital Campus business continuity
- Utilising the Disruptive Works Notification (LiveOps) process to identify, manage, communicate and collaborate on works that affect the existing Hospital facility in a clear and transparent way
- Undertake a holistic integrated system testing and commissioning process
- Undertaking an efficient, transparent Completion and Validation processes in collaboration with the South East Sydney Local Health District and principal representatives to ensure that the completed product is seamlessly transitioned into a live hospital environment
- Community notices / updates

2.2 Hours of work

The construction hours approved for the development include the current approved ASB General construction hours.

General Construction hours	
Monday – Friday	7:00am to 6:00pm
Saturday	8:00am to 5:00pm
Sunday	No work

With the impact of Covid-19 and the Government legislation introduced with requirements to comply with social segregation, construction works, and productivity could be impacted. Hence Lendlease is preparing for extended working hours. The nominated extended working hours include the following:

General Construction hours	
Monday – Friday	6:00am to 1:00am
Saturday	8:00am to 5:00pm
Sunday	No work

These extended working hours during Monday to Friday is to allow for a second shift of works. These activities anticipated in these evening hours include:

- Steel reinforcement
- Formwork related activities
- Post-tensioning
- Materials handling
- Concrete pour
- Cores (but jump height is limited to suspended structure access)
- General deliveries for structure trades
- Block workers
- Primary Services installation
- Hospital road civil works
- Bulk Oxygen storage upgrade works

Based on these activities' construction deliveries will be required in the evening. Deliveries in the evening will be in addition to the scheduled day time deliveries. However, delivering of an evening will benefit the project as there is less volume of traffic in the evening. The estimated volumes are low and are addressed in section 4 of this report.

2.3 Proposed site plan

During the course of Randwick Campus Redevelopment, the CC2 and CC3 activities and see below proposed site establishment to be completed in the following stages:

Stage 2 - Structure, inground services and fitout.

This plan highlights the location of the site accommodation, project office inclusive of client's office, this plan also demonstrates how the site will be accessed by delivery drivers and couriers on a day by day.

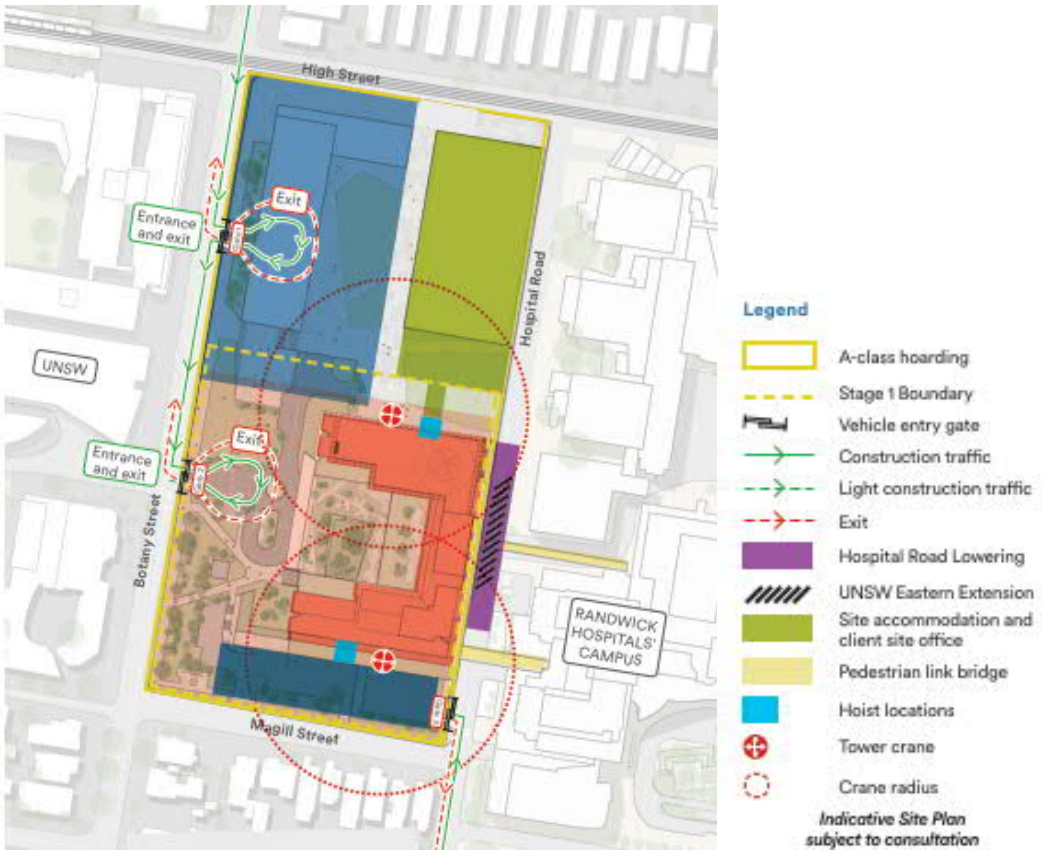


Figure 3 –Lowering of hospital road and UNSW Extension

2.3 Construction Workforce

At its peak the project will engage a workforce of approximately 500 individuals. It is anticipated that this peak will be reached in late-2020. All workers will undergo mandatory inductions to understand their responsibilities when working on the RCR project site and in close proximity to a live Hospital environment. This is inclusive of parking restrictions, dedicated parking facilities, transportation options and available on-site storage facilities.

Planning for construction workforce transportation and parking management will be aligned with projected workforce counts and associated parking demands.

It is understood that a portion of the site worker population will elect to travel to site using private vehicles. Construction workers driving to sites in constrained parking environments, similar to the RCR, typically carpool reducing traffic impacts on the local road network.

The project site is well serviced by public transport providing site workers with alternative travel options.

Figure 5 Labour Histogram identifies the workforce numbers.

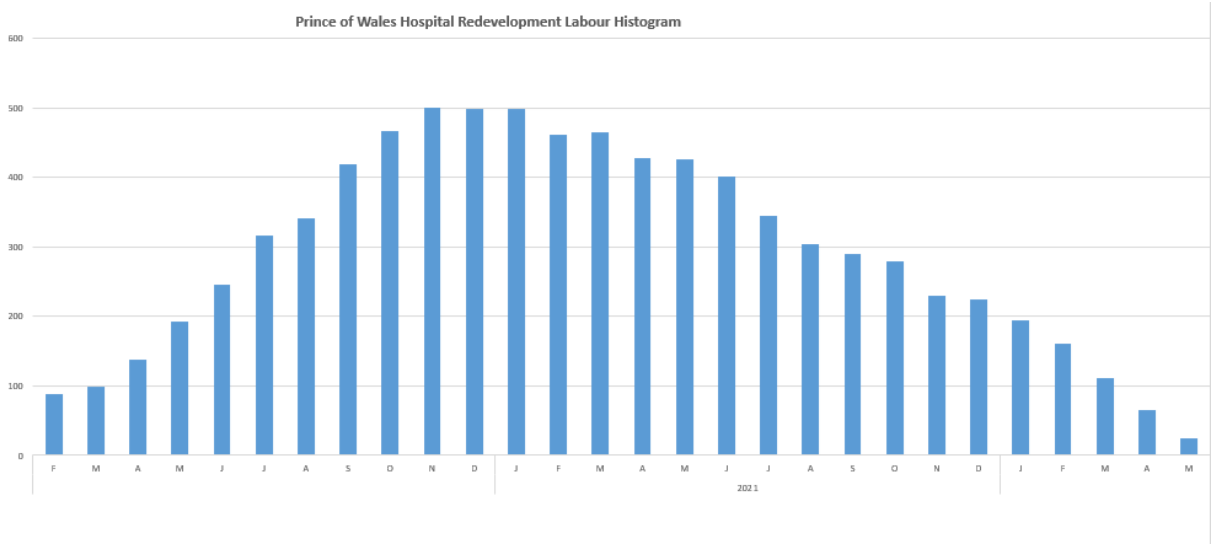


Figure 5 –Labour histogram

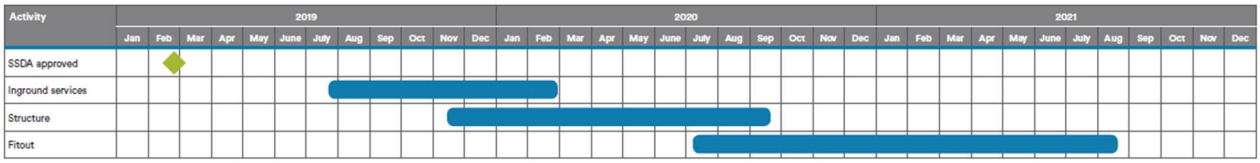
3.0 CONSTRUCTION PROGRAMME & STAGING

3.1 Key Milestones

The table identifies the key milestones of the scope of the ASB and Integrated ASB (IASB) addition works.

	Lendlease Program	
	Start Date	**Finish Date**
Construction of Acute Services Building (SSD 9113 - ASB)	July 2019	March 2022
Lowering of Hospital Road (SSD 10339 - IASB)	23rd March 2020	25 June 2021
UNSW Eastern Extension (Base Building only) (SSD 10339 - IASB)	16 April 2021	25 May 2022

For CC2 and CC3 the construction programme is summarized on this bar chart.



3.2 Construction staging overview

The Lendlease project team fully appreciate the disruption and change the construction works will bring to hospital operations and understand the challenges the HI, SESLHD and Randwick Hospital Precinct management will have in communicating the staging sequences and the program of the works to the staff and public. The better hospital staff and public understand the timing and reasoning of the staging of the works, the more comfortable they will be with the temporary inconveniences.

We have completed a review of our construction program and methodology and documented a draft set of staging plans covering the works phases, these will provide the basis for a full set of staging control plans, which will be developed in conjunction with detailed design development during the Planning Phase in consultation with HI, SESLHD and Randwick Hospital Precinct Management.

The staging plans will be developed to include:

- All site establishment items;
- Changed or modified egress paths;
- Pedestrian and vehicle circulation route changes;
- Temporary signage requirements; and
- Upcoming changes to works areas including approximated program dates.

3.2.1 Site Establishment

During the site establishment phase of the project the following activities will be undertaken. An "A" Class plywood hoarding will be installed to the perimeter of the site; this hoarding will ensure that there is no unauthorised access to the site. The duration in time for this is shown on the indicative program on previous page.

The Lendlease site office at this time will be located within a dwelling or complex located on High Street as shown on the CC2 and CC3 staging plan.

The site will have three (3) gates installed during the site establishment phase, two on Botany Street and one on Hospital Road. These gates will be steel and chain link mesh with large identification numbers and statutory Workplace Health and Safety signage installed on them.

The figure 9 below shows what the site established will look like.

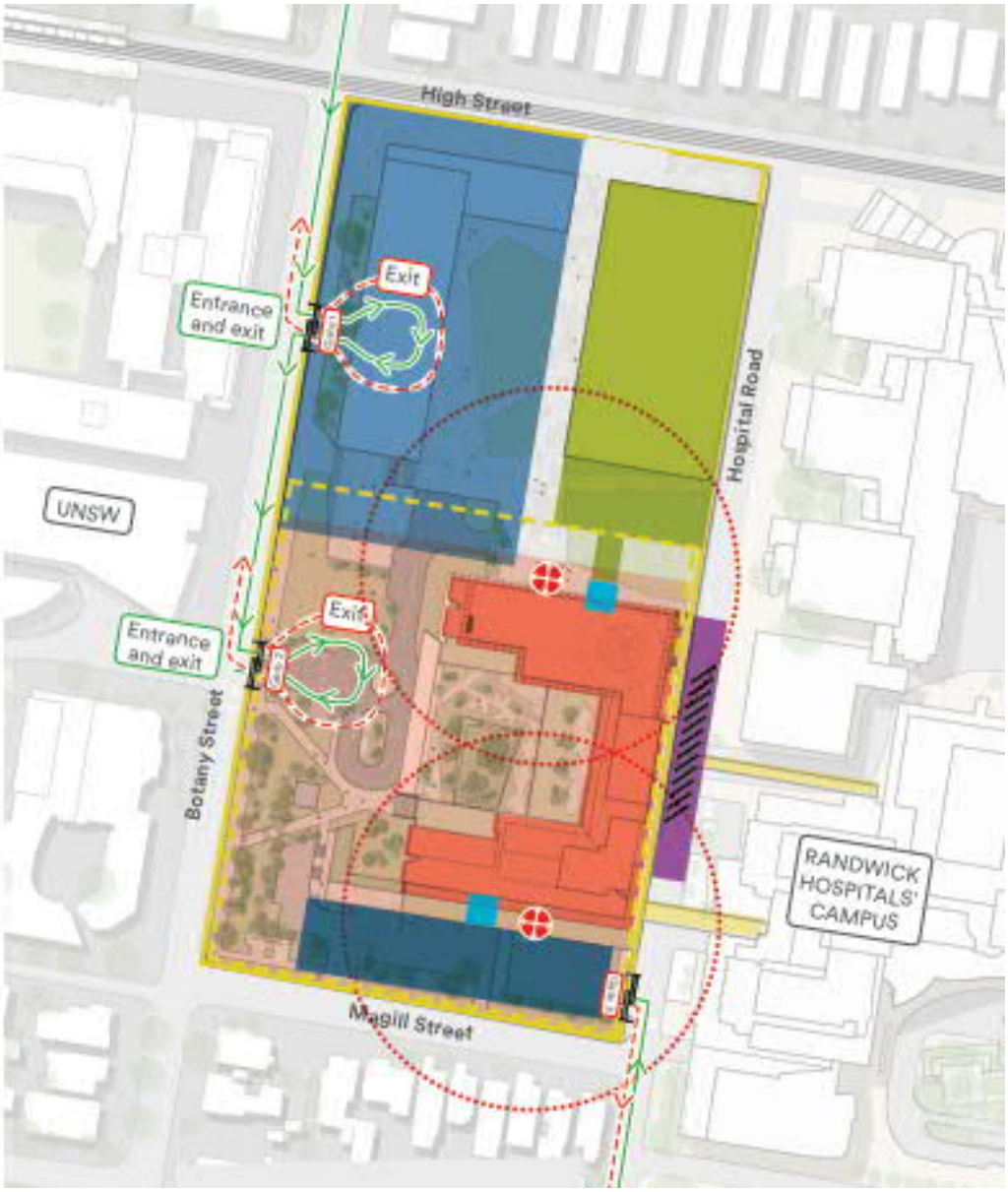


Figure 9 denotes the overall site plan, CC2 and CC3 sequence site plans.

Gate 1 and Gate 2

These gates will be the primary construction access gates during the Construction Certificate two and three works, these gates will facilitate all heavy haulage, articulated vehicles and all major deliveries on and off site. Detailed swept path analysis has been provided earlier in this document.

Gate 3

Gate 3 will be used intermittently for construction vehicle access during the project. Gate 1 & 2 remain the primary access points during all stages of the project. The below timeline indicates proposed usage of Gate 3. This will be further refined as construction progresses. During Structure phase, concrete/steel deliveries vehicle movements will be approximately 10-15 per occasion. This is planned to occur 1-2 days a week. Typical size vehicles are 12.5m rigid trucks. This will be for small concrete pours from level 1 where access is required from the southern boundary of the site. During Fitout stage, usage of this gate will be approx 75 movements / week. This will be predominately for deliveries of fitout and services materials to B2 and lower levels of the building. Pantek size vehicles which are most common for this stage of construction will be used. At the time of Commissioning, the permanent state loading dock to ASB at B2 level is accessible via Gate 3. Vehicle movements will continue at this stage to facilitate end use operations.

Further consultation is required on the activation of Gate 3 with key stakeholders, including Randwick City Council, TFNSW and LHD.

GATE 3 Frequency	2019	2020				2021				2022
	Nov	Feb	May	Aug	Nov	Feb	May	Aug	Nov	Feb
Structure										
Fitout										
Commissioning										

3.2.2 Cranes & Materials Handling

Proposed methodology for cranage and establishing a Helicopter Management Plan.

The proposed tower crane locations provide overall coverage to this site, capacity for heaviest lifts, minimal disruption to internal fitout and providing flexibility and redundancy between cranes. Lendlease has identified a preferred option below however we will investigate this positioning and selection with the SESLHD and HI.

Tower Crane No 1 will be positioned on Northern Elevation and will be founded on an external footing. This crane is proposed to be a Jaso 560 or similar hammerhead tower crane with a 85m boom and a lifting capacity of 6.5t at the tip of the boom. It will be equipped with an external climbing frame and tied into the concrete structure. The central position provides crane hook coverage to the core area and the floor plate, with the loading zone on the northern elevation. This crane has been sized for major lifts such as generators, and cooling towers.

Tower Crane Number two will be positioned on the Southern Elevation and will also be founded on an external footing. This crane is proposed to be a Jaso J560 or similar tower crane with a 65m boom and lifting capacity of 8.8t at the tip of the boom.

Figure 9: Crane and materials handling

It will be equipped with an external climbing frame and tied into the concrete structure. This position provides crane hook coverage to the south and eastern side. This crane has been sized for major lifts such as generators, and cooling towers.

Moving materials and workers up and down the structure will be by means of a number of person and material hoists.

Two time sets of twin hoists will be installed as the tower reaches low rise levels, this ensures that the workforce can traverse between floors efficiently and safely.

Careful consideration has been given to the quantity and location of the hoists to provide adequate vertical transportation to each level of the tower. We note the hoist locations nominated along the northern and southern elevation of the ASB has taken into consideration detailed floor layouts; plantrooms, wet areas, room layouts and circulation areas to minimise any unnecessary delays to plantroom, wet areas and clinical fitout works. The hoists will be progressively removed once the temporary fitout and commissioning of the internal builder's lifts are completed.

The figure shown on the previous page shows the cranes and material hoist.

Figure 10: Crane and materials hoist

3.2.3 Environmental Protection

Proposed methodology for environment protection, including noise, dust, vibration & visual.

The site area will require careful management of site run-off. Perimeter protections installed during the CC2 and CC3 works. Lendlease will carry out daily site inspections in response to changes in environmental conditions. These inspections will focus on protective measures for all site boundaries, access roads and stormwater pits.

These daily inspections will enable any issues to be identified and corrected immediately, resulting in no impact on the environment, local community and public ways.

- The primary areas requiring specific environmental controls will be:
- Inspection of remediation capping layer for uncontrolled breaches
- Managing site surface water run-off
- Disposal of any retained stormwater
- Protective measures during removal of hazardous materials
- Monitoring and mitigation of dust, vibration and noise
- Managed storage of hazardous construction materials
- Dedicated wash down facilities
- Monitoring water table during groundworks

Noise and vibration

Monitoring for noise emissions, vibration and air quality during the redevelopment works is necessary to maintain the health and well-being of people who are involved in the works and of those within the existing hospital buildings

During the CC2 and CC3 activities under the Main Works, there will be some noise and vibration. To manage the impact on the community, these activities will predominantly be carried out during the day. The proposed equipment for CC2 and CC3 stages of works will include but not limited to: concrete pumps, tower cranes, man and materials hoists, excavator 30t, skid steer loaders/bobcats, trucks and trailers and other tools/machinery such as cement mixers, angle grinders, concrete saws, chainsaws, mulchers, drills and hammers. Lendlease will

implement a CNVMP outlining the controls to be implemented on site. The CNVMP will confirm strategies that will be implemented to minimise disturbance to sensitive receivers in accordance with regulatory requirements.

In addition to the above any vibration sensitive equipment will be reviewed during the planning stages to advise if the works will have any impact of those pieces of equipment or hospital services.

Lendlease have identified particular noisy works, in particular those which directly interface with existing buildings where strategies will be implemented to minimise disturbance to sensitive receivers within the hospital.

Generally, the following controls will be implemented to ensure that noise and vibration related issues are controlled, addressed and resolved in accordance with regulatory requirements:

- Employees will receive training which will enable them to recognise areas where noise levels are likely to exceed 75dBA.
- Additional noise assessment of the site will be undertaken prior to or at the commencement of works on site with ongoing monitoring in strategic locations determined through consultation with HI during the construction period.
- As the work environment changes, additional assessments may be conducted, the timing of which will be determined in consultation between the site management, Site Safety Committee and the Principal.
- In conjunction with HI NSW, developing acceptable periods when specific “noisy works” can occur.
- Managing works within the approved site working hours.
- Planning and notification of noisy works via the Disruptive Works Notice procedure and in general consultation with HI.
- Warning signs shall be erected in areas where 85dBA is exceeded.
- Where additional personnel protection equipment is required, the areas shall be identified by signage. The appropriate noise protection devices are to be issued to the effected personnel.

Noise emissions will be managed in accordance with the regulatory requirements and Lendlease management procedures, complying with the following:

- National code of practice for noise
- Management and Protection of Hearing at Work [NOHSC:2009]
- AS/NZS 1269.0:2005: Occupational noise management – Series of several Standards
- AS 2012.2: Acoustics – Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors – Stationary test condition - Operator’s position
- AS 2436: Guide to noise control on construction, maintenance and demolition sites
- AS 2221.1: Methods for measurements of airborne sound emitted by compressor units including prime movers and by pneumatic tools and machines
- AS 3781: Acoustics – noise labelling of machinery and equipment

Air quality management

Objectives for the project are to implement appropriate controls to suppress dust and other suspended particles in accordance with legislation and risk management requirements minimising the generation of dust on the site and potential emission issues relating to plant and equipment.

The AQM Plan is included within the project EH&S Plan and our strategy for air quality management would include:

- Clear definition of trafficable and material storage areas to prevent unnecessary vehicle movement into other areas
- Use of water cart to dampen work areas and exposed soils to prevent the emission of excessive dust

- Installation of a wheel shaker grid and/or wash down facilities at the vehicle egress point
- Ensuring trucks transporting materials to and from the site use covers to prevent windblown dust or spillage
- Ensuring truck tailgate locking mechanisms are operational and in use
- Periodic inspection of surrounding roads to ensure no construction contamination and initiation of road sweeping if required
- Careful selection of materials for temporary road surfacing
- Aspergillus control during construction works within existing buildings
- Subcontractors to maintain equipment / machinery to ensure exhaust emissions comply with relevant legislation and guidelines
- All waste material to be sorted, collected and removed from site (for recycling where possible)
- Air quality monitoring
- Dust screens and airlocks to be utilised with interior works
- Provide construction filters to air intake vents
- Use of temporary exhaust fans and filters to circulate construction zone air to exterior of building

3.2.3 Waste Management

The applicant must notify RMS Traffic Management Centre of the truck route(s) to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from site

Lendlease will ensure our supply chain is responsible and accountable for maintaining a clean, clear and safe working environment. Rubbish bins will be provided to all work areas and will be regularly removed to the central skip bin location by the subcontractors for collection and transport from site to the waste recycle facility.

Bins will be moved via the person and materials hoists or by the crane, dependent on the where they are being loaded from and the waste material that is being removed from site. Crane lifted steel bins will be used to service the top floors where structure trades are working, and large Otto bins will service the lower levels where fitout and service trades are working. The site skips will be centrally located at Ground Level to ensure an easier pick up from our bin contractor.

Waste will be separated at the approved waste management Centre. Auditable records will be kept of quantities of all materials both recycled and disposed landfill. Records will be monitored to ensure Lendlease internal recycling targets are achieved or exceeded. This information will be collected and reported in compliance with our Environmental Management Plan and its Waste Management and Recycling Sub-Plan over the duration of the project.

To ensure the Randwick Campus Redevelopment project meets its sustainability targets, waste management reports will show monthly and cumulative performance.

3.3 Construction sequencing

The CC2 and CC3 works is identified below.

Main structure – below ground

Following the piling and bulk excavation activities, inground services will be installed to below the Basement B2 level. Once these services are progressively installed and completed the ground slabs will be formed and poured.

The structure below ground will be constructed using a twelve (12) pour sequence, the advantage of this approach is that this site will into develop into a repeatable form, reinforcement, pour rhythm quicker which will gain momentum as the and allow the towers to be constructed in a systematic and methodical manner.

The image below is a snapshot from the Lendlease animation of the Randwick Campus Redevelopment, this show cases the construction sequencing and methodology talked to above.

Figure 11: Below ground construction sequence

Main structure – above Ground

The structure above ground will be constructed using a five (5) pour sequence, the advantage of this approach is that this site will into develop into a repeatable form, reinforcement, pour rhythm quicker which will gain momentum as the towers are constructed.

The structure and concrete pours will be constructed using tower cranes, concrete pumps, hand tools and mixes. The noise and vibration impacts will be minimal during this time and further detail can be obtained in the Acoustic report.

The structural slabs will be designed to encompass band beams and two-way slabs formed using table formwork system.

These formwork systems have been optimised and improved over numerous Lendlease developments and will be further enhanced for the Randwick Campus Redevelopment. Columns will be formed using prefabricated column tubes and will be installed and poured prior to the slab being poured.

The image below is a snapshot from the Lendlease animation of the Randwick Campus Redevelopment, this show cases the construction sequencing and methodology talked to above.

The main cores will be established with self-climbing jump form systems. Once these are assembled on site they will lead the structure being 2 floors ahead of the main structure levels.

Figure 12: Main tower structure sequence

Internal works – fit out and finishes

Lendlease's current construction program considers just the base build fitout for the tower floors, acknowledging the integrated fitout is currently contemplated as a separate contract.

The base build fitout sequence will be undertaken as follows:

- High level services rough-in and riser rough-in
- Façade completion and ceiling margin installation
- Full height wall framing / blockwork
- Rough-in of services in wall
- Hold Point inspection and sign offs prior to second side wall sheeting
- Wall sheeting (post façade completion)
- Wet area fitout inclusive of all vanities, and FFE and items
- Specialist finishes to core wall where applicable
- Access floor installation
- Services fit-off and part commissioning
- Painting
- Install ceiling tiles
- Builders clean
- Final commissioning

The image below is a snapshot from the Lendlease animation of the Randwick Campus Redevelopment, this show cases the construction sequencing and methodology talked to above.

Figure 13: Internal finishes sequence

The CTPMP for the SSD 10339 Lowering of Hospital Road and UNSW Extension has now bene endorsed. This plan identifies the construction sequence for these works. The assessment for construction vehicle access for Hospital road works is minimal and sporadic due to the nature of the construction.

As these plans are developed, Lendlease will consult with all relevant stakeholders and Authorities.

4.0 CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT

4.1 Traffic Management & Control

Lendlease has engaged Arup to provide professional advise on traffic management plans and controls for the Acute Services building. This has been incorporated into the CTPMP throughout these next sections. The report accompanies the development application for the proposed CC2 and CC3 works associated with the redevelopment of the Randwick Health Campus (Campus). This report has considered the traffic and transport implications for following works:

CC2 and CC3 works phase of the Randwick Campus Development.

Proposed methodology for traffic management

Lendlease understand one of the keys to the successful delivery of the Randwick Campus Redevelopment project will be managing the flow of materials and equipment into and out of the construction site whilst maintaining a continuity of business for an operational Randwick Hospital. We also understand existing parking operation agreements are in place and the importance of maintaining currently parking numbers throughout the redevelopment works.

We believe it is imperative that our planning considers and successfully manages the maintenance of pedestrian, traffic flow and parking to the surrounding buildings and roads.

To do this Lendlease will be adopting a number of key traffic management strategies to minimise and mitigate Randwick Campus Redevelopment project's effects on the operational hospital:

- Engagement of Traffic Management Consultant to compile an overall Traffic Management Plan, specific Traffic Control Plans detailing each management of pedestrian, vehicular construction and operational traffic at each stage of works.
- Understanding existing parking provision, demand currently onsite, identifying temporary hospital and construction parking replacement options on and offsite to mitigate potential parking shortfalls during the redevelopment.
- Adopting an online materials booking system called the virtual superintendent to facilitate efficient just in time delivery of construction materials, alleviating traffic congestion.
- Encouraging staff, consultants and Subcontractors to adopt a Green Travel Plan for this project with use of public transport to and from site – in particular bus services proximity to the site.
- The delivery Driver Code is appended to this plan, this Driver Code is how supply chain partners will be consulted and will outline how they will conduct themselves while on site and within the Randwick Town Centre facility.

Traffic management and control will be established across all major roads and interfaces across the project. Traffic control will ensure that materials and deliveries will not block off roadways and will streamline the truck movements in and off the project site.

4.2 Base Transport Context

Review of baseline transport conditions investigated travel behaviours relative to mode for staff, visitors and patients. Data indicated that over 40% of staff live within 5km of the Campus and 12% live within the suburb of Randwick itself. The majority of those accessing the Campus use private vehicles as a primary mode of transport, however staff public transport use is high relative to other hospitals.

The Campus is bound to the east by Avoca Street, a state owned arterial road. Barker Street, which sits along the south of the Campus and primarily functions as a collector road linking the main hospital access roads (Hospital Road and Easy Street) to the arterial road network. High Street (northern boundary of the site) plays a similar role. However, with the development of the CBD and South East Light Rail, its function will likely transition to a more transit focused corridor.

The majority of intersections are performing within practical capacity. However, the key intersections along Avoca Street, mainly with Barker Street and Alison Road, are currently operating at capacity during peak periods.

There is approximately 2,300 on-campus car parking bays available to staff and the public. Parking demand peaks during the middle of the day (11am to 2pm) and is effectively at capacity, however sufficient parking is available outside of this peak period.

Randwick is a district hub for buses in Sydney's eastern suburbs. A number of bus routes frequent the area. The majority of these buses provide all-day services to the CBD. Some buses also provide access to surrounding areas, including Green Square, Mascot, Bondi Junction and Maroubra Junction.

4.3 Transport Assessment

This report incorporates a high-level review of construction traffic impacts associated with the CC2 and CC3 works. The proposed works will include structure, inground services and fitout. A review of the RMS Guide to Traffic Generating Developments (RMS, 2002) indicates that the structure, inground services and fitou activities would correlate to the reduction of between 400 and 700 vehicle trips per day from the surrounding road network. In comparison, daily construction volumes are assumed to be in the order of 50 truck and trailer vehicles per day during phase of works. Construction traffic generation of this magnitude is significantly less than the amount of vehicle trips currently generated by dwellings within the site area. As a result, the potential traffic impacts on the surrounding road network are anticipated to be minimal.

Construction traffic access routes are to be clearly defined and are to predominantly utilise arterial roads and minimise the use of local roads including Magill Street, Arthur Street, Belmore Road and Clara Street where possible.

Any loss in on-street parking as a result of work zones will be managed in consultation with RCC. The Construction Management Plan (Lendlease, 2018) proposes to develop a green travel plan to promote non-car modes of transport for construction workers. This will aim to minimise the impact of on construction site parking during this phase of construction.

4.4 Construction Traffic Management Principles

As a general principle, construction works will be staged to minimise impacts to traffic and other modes of transport. Some key principles for traffic management will likely include, maintaining access to properties, limiting interaction of construction traffic with hospital traffic (especially ambulance routes), maintaining capacity on the surrounding road network, provision for pedestrian movements, minimising impact on local streets (e.g. Magill Street) and managing interactions with CBD and South East Light Rail construction traffic.

4.5 Existing Transport Conditions

4.5.1 Traffic Volumes

Traffic surveys were conducted to provide an understanding of the existing performance at the intersections surrounding and in the vicinity of the site. Intersections considered as part of the analysis include the following:

- Alison Road / Belmore Road / Cook Street (signalised)
- Alison Road / Avoca Street (signalised)
- Belmore Road / Arthur Street (signalised)
- Avoca Street / High Street / Belmore Road (signalised)
- High Street / Botany Street (signalised)
- High Street / Hospital Road
- Avoca Street / Nurses Drive
- Avoca Street / Barker Street (signalised)
- Barker Street / Easy Street
- Barker Street / Hospital Road
- Barker Street / Botany Street (signalised)
- Botany Street / University of NSW (UNSW) Gate 11 access

The surveys were collected on a typical weekday – Thursday 20 July and Thursday 26 October in 2017 – outside of school and university holiday periods. The network peak across all intersections was identified as:

- AM peak hour: 7:30 – 8:30am
- PM peak hour: 4:45 – 5:45pm

A summary of the peak hour traffic volumes across the key mid-block road links and intersections are shown in Figure 9 to Figure 12.

A high proportion of traffic is identified through the intersections along Avoca Street. As discussed in Section 2.2, Avoca Street is a State Road providing a major north-south traffic movement through the area. Total intersection volumes are identified as exceeding 2,000 vehicular movements per hour at the intersections with Alison Road, High Street and Barker Street in both peak periods.

Barker Street is a key collector road through the study area, carrying a high volume of vehicular traffic to local roads from the state roads such as Alison Road and Avoca Street. Intersection volumes along Barker Street have also been shown to account for a range between 1,300 and 2,600 vehicles in both peak periods.

Further analysis of the intersection capacity and operations at all intersections around the study area are detailed in section 2.5.

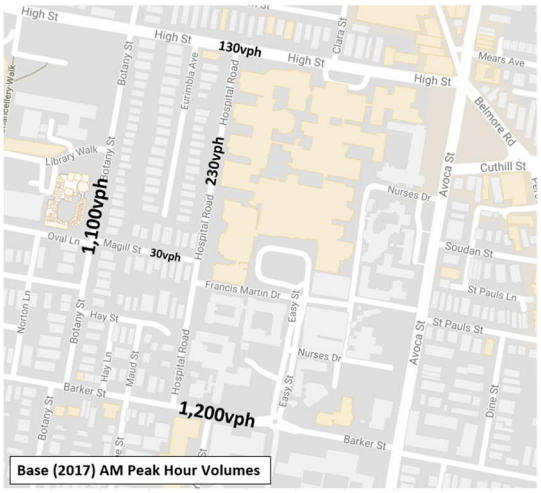


Figure 3: AM peak mid-block traffic volumes

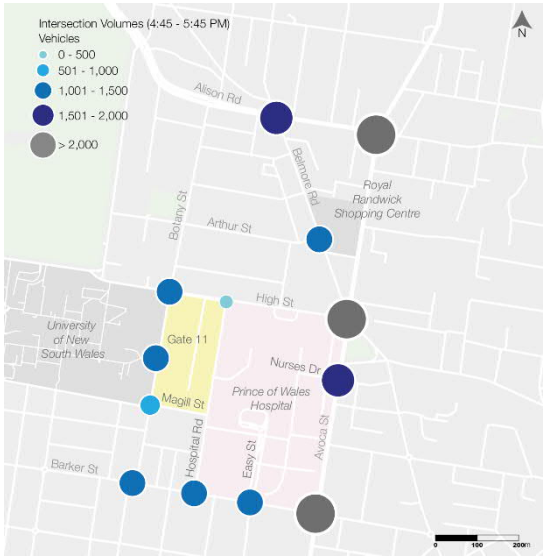


Figure 4: PM peak mid-block traffic volumes
(7:30-8.30am)
(4:45-5:45pm)

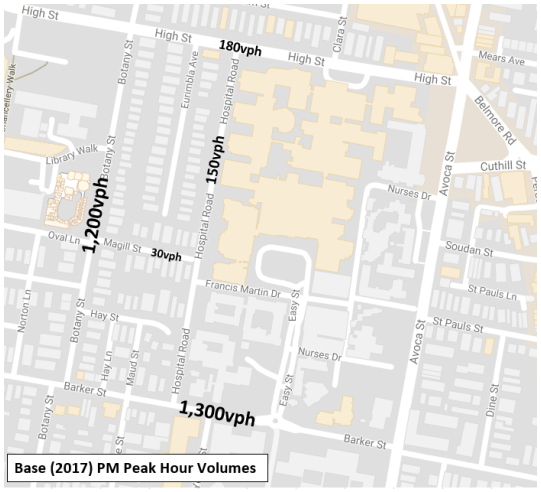


Figure 5: AM peak hour total intersection

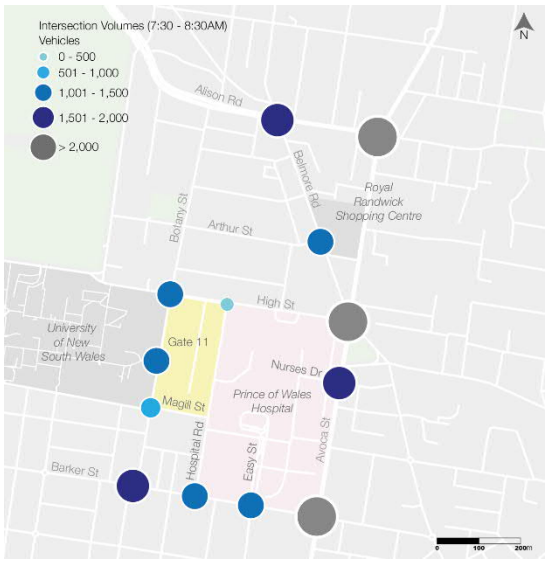


Figure 6: PM peak hour total intersection volumes
Vehicular volumes (7:30-8.30am)
Vehicular volumes (4:45-5:45pm)

4.5.2 Car Parking

Existing parking supply

There are currently 2,302 on-site parking spaces which serve the Randwick Health Campus, comprised of the following:

- Staff: 1,483 spaces
- Visitors: 819 spaces
- Total: 2,302

This provision of on-site parking corresponds to a rate of 1.56 spaces / 100m2 GFA or 2.16 spaces / bed. This amount is low when benchmarked against other health campuses, as shown in Figure 13.

An on-street parking review conducted by TTW (2013) on the surrounding road network indicated a total of 207 spaces. Further counts were conducted by Arup (October and November 2017) to update the on-street parking supply in light of construction works along High Street and Botany Street in relation to the CSELR and redevelopment of UNSW. As a result, there is likely to be a total of 222 on-street parking spaces (Table 1).

Existing parking demand

Parking demand surveys previously undertaken (PTC, 2014) for the campus indicate peak occupancies for staff and visitor parking of over 90% during the middle of a typical weekday. It is typically considered that parking occupancy of 90% represents the practical capacity of a car park where drivers have significant difficulty in locating parking spaces. Therefore, the existing car parking areas on-site are considered to be operating at maximum capacity on weekdays.

Previous surveys have also estimated that demand generated by approximately 550 vehicles are accommodated in parking areas off-campus – predominantly on surrounding streets. The surveys indicate there is a difference between on-site supply and total demand of approximately 440 parking spaces at peak times, as summarised in the table opposite.

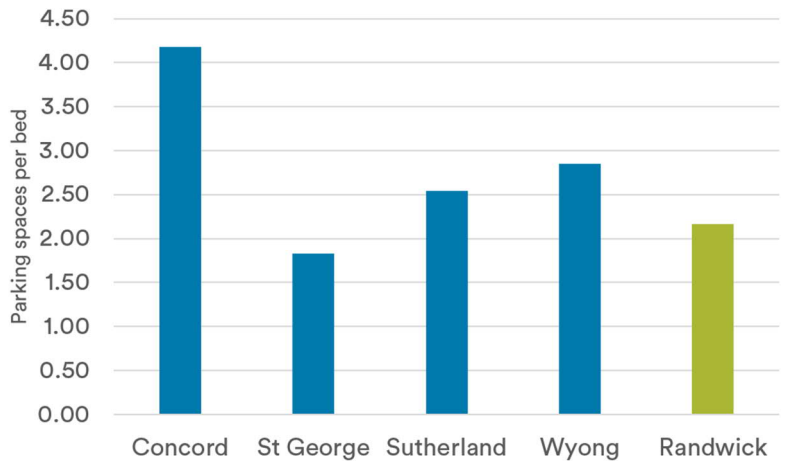


Figure 7: Parking rates at NSW Hospital campuses (Source: Various previous Arup projects, 2012 – 2017)

On-street Parking Spaces		
Street	Location	Parking
High Street	Between Avoca Street and Botany Street	0*
Botany Street	Between High Street and Barker Street	45**
Barker Street	Between Botany Street and Avoca Street	60
Avoca Street	Between High Street and Barker Street	50
Magill Street	Between Botany Street and Hospital Road	22
Eurimbla Avenue	South of High Street	51
Hospital Road^	Between Barker Street and High Street	-
High Street	Between Avoca Street and Botany Street	0*
Total		228

Table 1: On-street parking spaces (TTW, 2013; Arup, 2017).

* The current construction works along High Street for the CSELR project has removed all parking from this section of High Street

** The construction works currently carried out by UNSW has resulted in the removal of approximately 8 on-street spaces on the western side of Botany Street

^Parking along Hospital Road has been included within the on-campus parking supply

On-street Parking Spaces										
Staff	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Monday	71%	85%	89%	90%	91%	90%	89%	83%	69%	45%
Tuesday	72%	88%	91%	92%	93%	94%	89%	83%	69%	45%
Wednesday	69%	84%	91%	92%	92%	93%	92%	86%	72%	53%
Thursday	71%	86%	92%	91%	92%	93%	94%	88%	73%	52%
Friday	66%	79%	83%	82%	83%	85%	84%	78%	64%	45%

Staff	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Monday	46%	65%	81%	86%	78%	72%	76%	68%	59%	49%
Tuesday	46%	68%	85%	93%	91%	81%	79%	73%	62%	44%
Wednesday	49%	78%	96%	96%	94%	86%	87%	76%	60%	46%
Thursday	43%	67%	85%	89%	81%	78%	76%	68%	57%	46%
Friday	45%	73%	89%	91%	88%	82%	77%	64%	52%	42%

Existing Parking Supply & Demand					
User	Parking Demand		Parking Supply		Difference
	On-Campus	Off-Campus	Total	On-Campus	
Staff	1,395	205	1,600	1483	-117
Visitors	710	345	1,055	819*	-236
Total	2,105	550	2,655	2,302	-353

Table 2: Existing parking supply and demand (PTC, 2014).

*The number of visitor parking spaces was updated following a parking inventory audit was conducted by Arup (October and November 2017).

The parking demand can also be expressed as a ratio of total gross floor area (GFA) and beds, as follows:

- 1.90 spaces / 100 square metres GFA
- 60 spaces / bed

The campus has a low staff car driver mode share compared to other health campus, as illustrated in Figure 7.

STAFF CAR MODE SHARE

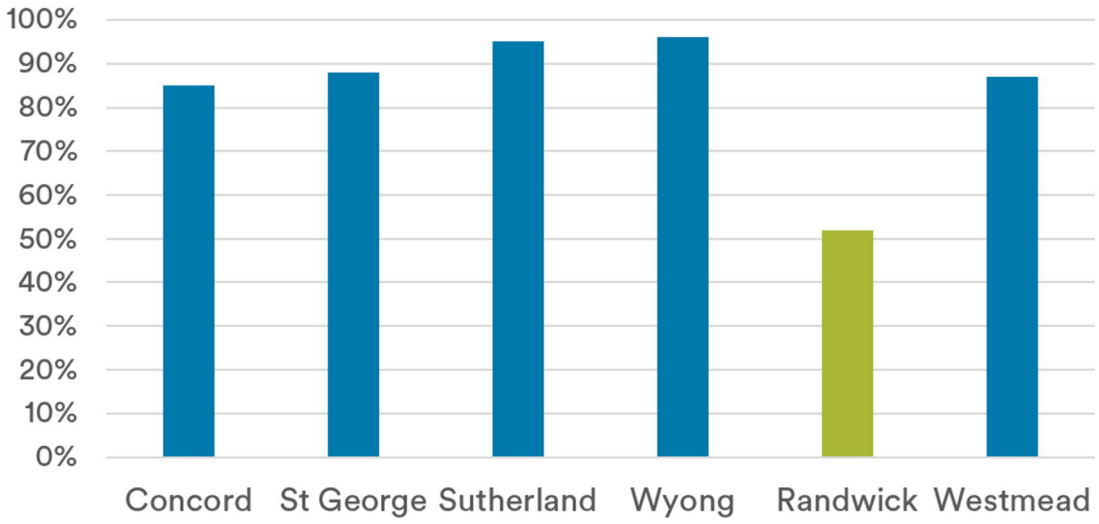


Figure 7: Existing staff driver mode share to NSW Hospital's (Source: Various previous Arup projects, 2012 – 2017)

4.5.3 Public Transport

Bus

The southern end of Belmore Road, which is located at the north-eastern boundary of the Randwick Health Campus site, is a district hub for buses in Sydney's eastern suburbs. A number of bus routes, shown in Figure 18, frequent the area, including:

All-day services connecting the south-eastern suburbs with the Sydney CBD via Moore Park – routes 372, 373, 374, 376, 377 and M50

A range of express service variants of these routes that operate during peak hours

North-south services that connect centres in the Eastern Suburbs, including Bondi Junction and Maroubra Junction – routes 314, 316, 317

East-west services that connect Randwick with Bondi Junction, Green Square, Mascot and various locations in the inner western and southern suburbs – routes 348, 400, 410 and 418

Leichhardt to Coogee – route 370

UNSW express bus services – routes 891, 893 and 898

The majority of bus routes travel along Belmore Road, with some services also using High Street, Alison Road and Avoca Street. Recent changes associated with the construction and operation of the CBD and South East Light Rail have resulted in buses using Arthur Street instead of High Street.

Lendlease understands that buses currently operate on Botany Street and are also planned to be reintroduced on

High Street in the near future. Lendlease will have the following mitigation measures in place to ensure no impact on the bus operations network:

Construction deliveries are not to operate on High street unless approved for use at the concrete truck marshalling area. The timing of this workzone is from 9.30am -3:00pm to mitigate impact on peak transport movements.

Promotion of public transport use by workers which will reduce vehicular movements around the precinct.

Lendlease construction delivery vehicles to access from Alison Street/Botany Street which is reducing construction vehicles from the Barker Street end of Botany Street.

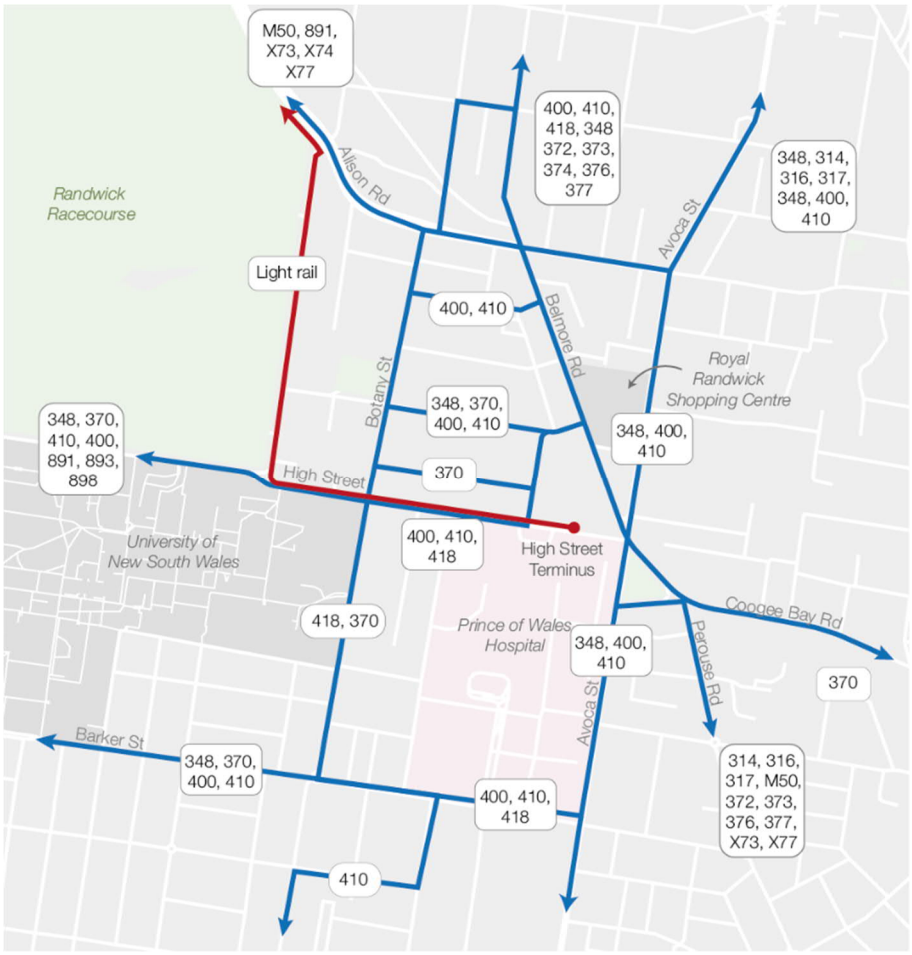


Figure 8: Existing bus services and future Light Rail servicing the Randwick Health Campus

Light Rail Terminus

The eastern end of High Street, which forms the northern boundary of the Randwick Health Campus site, now features the terminus for the CSELR Randwick line. Light rail services will terminate at a stop on High Street, immediately west of the Belmore Road and Avoca Street intersection.

Light rail services will travel from High Street towards the CBD every eight minutes between 7am and 7pm on weekdays. There will be a number of bus operational changes associated with the introduction of light rail. These operational changes will also result in amendments to a number of city-bound bus routes.

4.5.4 Active Transport

Active transport modes, including walking and cycling, currently accounts for approximately 17% of staff travel modes to and from the Campus. The majority of active transport accounted for by walking (14%) rather than cycling. As highlighted in Section 2.1, over 40% of staff currently reside in the eastern suburbs, with 14% living in the suburb of Randwick. This proximity, in conjunction with limited availability of parking on the Campus, has initiated a shift towards more active modes. 5, 10, 15 and 20 minute walking isochrones from the Randwick Health Campus shown in Figure 19.

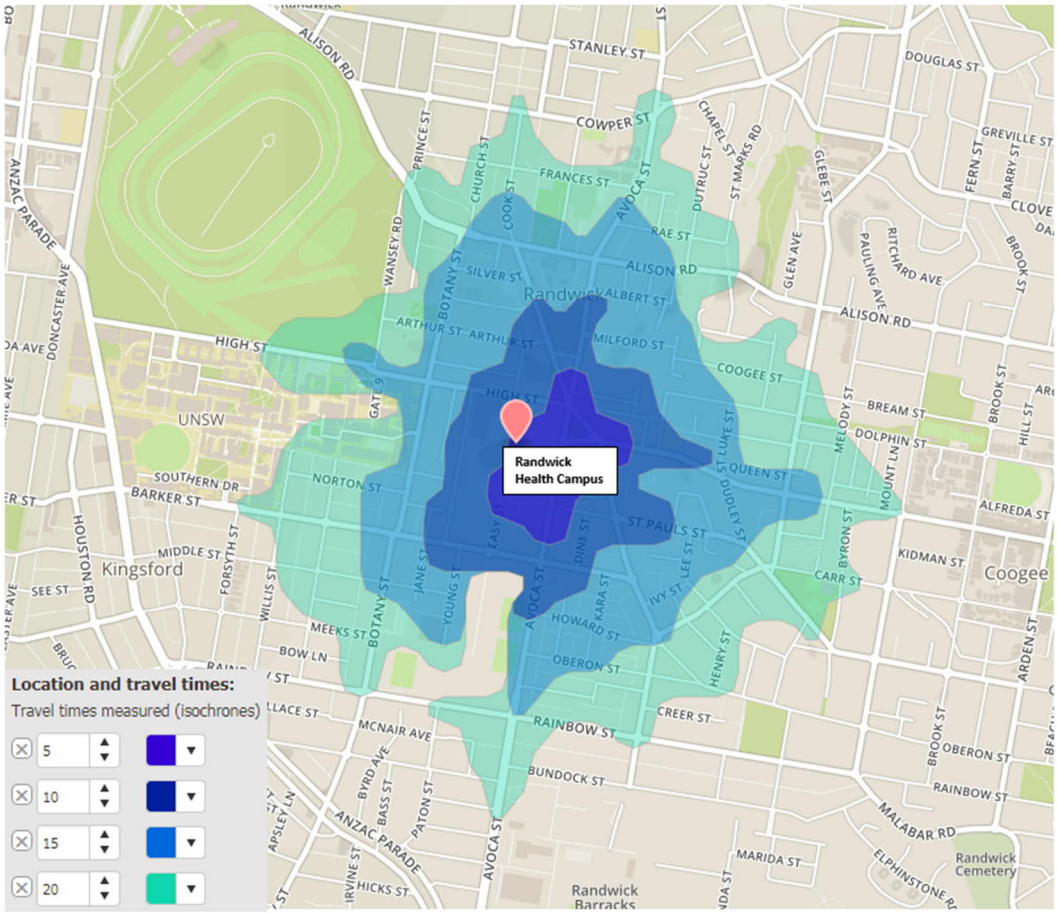


Figure 9: Walking isochrones to/from Randwick Health Campus (Source: Arup, 2017)

4.6 Construction Vehicles & Volumes

Heavy vehicles including Articulated Vehicles (AV) for machinery delivery and Heavy Rigid Vehicles (HRV) including truck and trailer combinations will be used for removal of excavation spoil and delivery of building materials for construction of the structure and fitout

Truck turning paths have been developed for the two driveways on Botany Street indicating that both Articulated Vehicles (AV) for machinery delivery and Heavy Rigid Vehicles (HRV) including truck and trailer combinations can turn left into and right out of each driveway. It is proposed to provide 11.0m wide gates to facilitate these movements as shown in Appendix A.

At the northern driveway, trucks will generally be able to turn out. Gaps in the southbound traffic will occur due to the High Street traffic lights to assist with these turns.

The following vehicle access to Gates is planned as follows:

- Truck and Trailer vehicles - Gate 1 and 2 only
- Articulated Vehicles - Gate 1 and 2 only
- 12.5m Pantek vehicles - Gate 3 only

The cumulative impact on the road network during the CC2 and CC2 scope of works is minimal as the deliveries will be more sporadic and less in quantum than the concrete structure works. The timeline below identifies the Crown Certificate stages.

Estimated construction delivery volumes is provided below:

- **Concrete pours** – 60-80 concrete trucks/day. Large pours expected every 6 days during the structure cycle
- **Structure Deliveries** – 10-12 deliveries / day of formwork, reinforcement and PT
- **Fitout Deliveries** – 10-15 deliveries/day of ductwork, pipework, plasterboard and associated items.

Due to Covid-19 extended working hours are being sought for approval. The key construction activities after hours are identified as per below;

- Steel reinforcement
- Post-tensioning
- Materials handling
- Concrete pour
- Cores (but jump height is limited to suspended structure access)
- General deliveries for structure trades
- Block workers
- Primary Services installation
- Hospital road civil works

Whilst there are deliveries scheduled during the day as per above, additional deliveries in the evening will be required to maintain construction productivity. Volumes of deliveries during CC 3 activities would be an additional 8-12 deliveries after the standard working hours. This will be deliveries such as steel reinforcement, post tensioning and fitout materials. On some occasions there will be concrete pours. Dependent on the concrete volume, there could be up to 80 concrete truck deliveries. However, the latest delivery would be by 10pm to allow finishing time to the concrete.

4.7 Construction Circulation Routes

The access points on Botany Street will be predominantly utilised as left turn entry for trucks with vehicles approaching from Alison Road on Botany Street and using the kerbside lane for turning into the driveway. This will minimise impacts on through traffic. Trucks will then exit turning right onto Botany Street to travel north towards Alison Road.

Deliveries to Gate 3 will be periodically to facilitate construction of the structure. Proposed delivery vehicle routes are indicated in the below figure. This is to be confirmed in consultation with TFNSW.

Magill Street has been opened to public traffic now that Hospital Road is closed to facilitate carpark entry and exit to the main hospital carpark. Construction vehicles are not permitted to use Magill street. Temporary bollards are currently installed at the Eastern end of the street which are opened at 7am and closed at 6pm to facilitate the carpark traffic. A boom gate is being procured to be utilized. At the completion of the project, the boom gate will be open from 7am – 10pm, and under control of security after hours to facilitate emergency vehicles. This is in accordance with SSD10339 Consent conditions.

The following marked up street overlays shows the various ways delivery drivers will be accessing the Randwick

Campus Redevelopment. Careful consideration has been given to all these options to ensure there are no impacts to the daily Hospital Operations, and the surrounding businesses and residents.

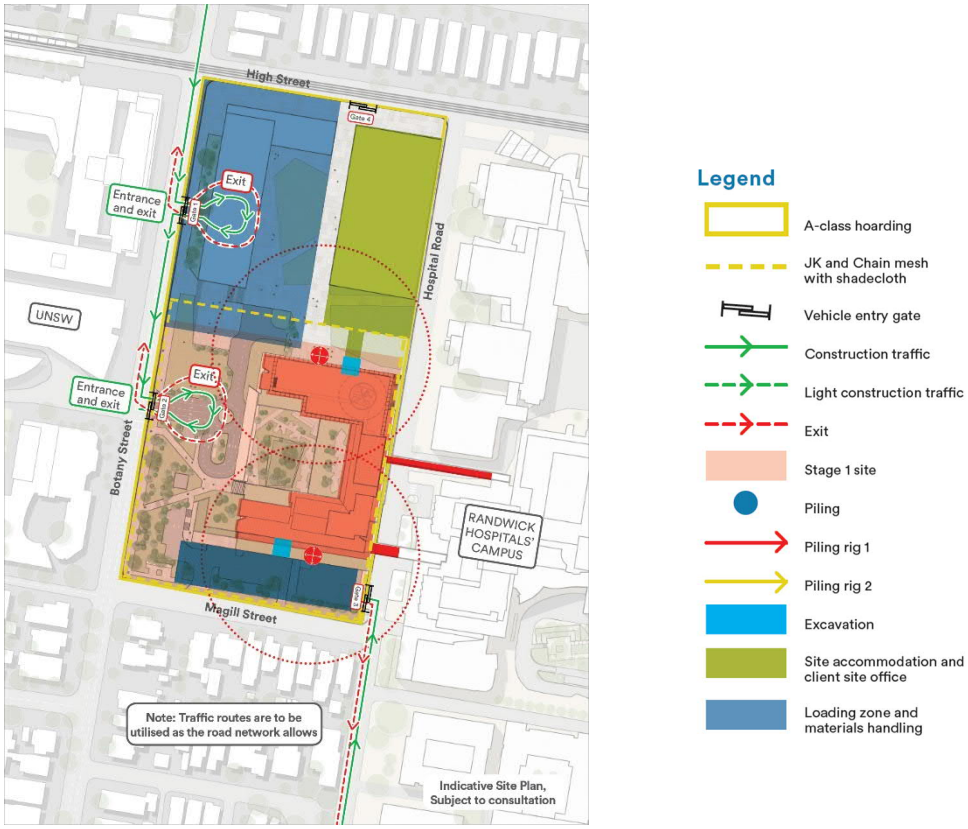


Figure 14: Site establishment plan CC2 and CC3, left in, right out

To keep construction related traffic to a minimum on the surrounding roads, it is necessary to define routes for construction traffic to and from the work site. These access routes are to predominantly utilise arterial roads and minimise the use of local roads including Magill Street, Arthur Street and Clara Street where possible. Construction traffic through the Randwick Junction Town Centre (i.e. Belmore Road) is to also be avoided. The key arterial roads surrounding the site are Avoca Street, Anzac Parade and Alison Road.

Access to the site will primarily be via Botany Street. The CTPMP currently allows for two construction access gates along Botany Street. Access via Hospital Road is to be coordinated to minimise impact on Hospital operations.

Construction access to the site via the High Street/ Eurimbla Avenue intersection is understood to be necessary for light vehicles construction management vehicles only.

Proposed access routes are shown to and from the site, and this access and egress routes takes in the TfNSW, TMC and SCO considerations which were talked about during the CC1 engagement phase of the project.

Concrete deliveries

Lendlease are working with our trade partners and supply chain to effectively manage and control the concrete truck deliveries on concrete pour days.

Lendlease has worked over the past few months in minimising the size of our concrete pours to a manageable size under 500m^3 to ensure we don't extend past our approved work hours and that we can maintain traffic flows, current and projected around the Randwick town Centre. For major concrete pours we expect to pour up to 80m^3 / hour. This equates to 12-13 concrete trucks per hour to maintain efficiency for a 6-8 hour concrete pour. With this volume of concrete on a given day we will not exceed 120 overall truck movements per day.

Lendlease will continue to work proactively with our supply chain to ensure minimal disruption to the local traffic network and the wider community as a whole.

Lendlease has proposed a construction delivery marshalling area in the event where there is a back log of concrete trucks caused by weather conditions, or other conditions outside the control of our workers. Due to the main site having a large material handling zone, there will be a large marshalling area within the site which should adequately allow for up to 8 trucks on site. Hence the marshalling area is purely a redundancy for worst case scenarios. The site will be the primary location for concrete trucks. Several locations have been investigated with the most viable noted in this plan utilising High Street opposite the Roundhouse/ Sport complex.

Construction concrete delivery vehicles will be held in this location then continue up High Street, left into Wansey Road, right into Arthur Street, then right onto Botany Street. Consultation has been undertaken with RCC and UNSW on this location. RCC has advised that the existing 'No Stopping' signs would be replaced with "Loading Zone" signage. There will be two-way active communication between the truck marshaller and the marshallers located on site.

Other key criteria for the marshalling area which as been noted during consultation includes:

- Hours of operation between 9:30am -3pm Monday to Friday. Note that the marshalling area will not be utilised on Saturdays as large pours wont proceed on these days. The marshalling area will also not be used during extended working hours as there will be sufficient capacity to hold concrete deliveries within the ASB site.
- Marshalling area only applicable for concrete trucks. Note there is a 9m restriction to vehicles accessing High street eastbound from Anzac Parade, and northbound onto Wansey Road. Articulated vehicles or truck and trailer vehicles will not use any part of High Street (between Anzac Parade and Avoca Street, except for articulated concrete trucks.
- Truck marshaller is to ensure no queuing of trucks towards Anzac Parade due to bus swept paths. Figure 15a identifies the TCP for High Street marshalling zone.
- Delivery trucks are to not park elsewhere on High Street, Wansey Road or Arthur Street. Strictly no trucks should be in the High Street truck waiting area before 9:30am and after 3pm. This time restriction will be subject to monitoring by the Sydney Coordination Office which may alter the time restriction or cancel the use of the marshalling are, based on the impacts of the road network, including buses.
- ATC advise not to be utilised on Autumn or Spring Carnival days which are Saturdays and one Tuesday in November. This can be complied with.
- The marshalling zone will be set back from identified driveways 3 metres to facilitate safe turning in and out of the driveways. The dedicated traffic marshallers will monitor this.
- Truck widths are 2.5m and the lane width is 3m. It is confirmed that with the traffic cone set up the cones and concrete trucks will be within the kerbside lane and won't extend into the second lane. Trucks will be managed to ensure they do not queue into the second lane from the northern kerb of High Street.
- The marshalling area will be able to accommodate up to nine trucks simultaneously in the zones nominated. Approximately 90m of marshalling area is indicated on the TCP.

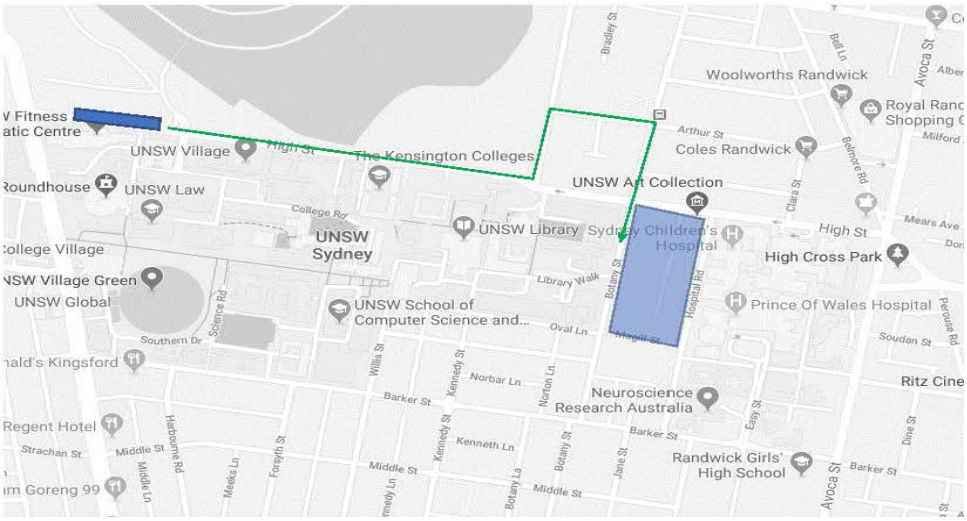


Figure 15: Marshalling area and truck routes

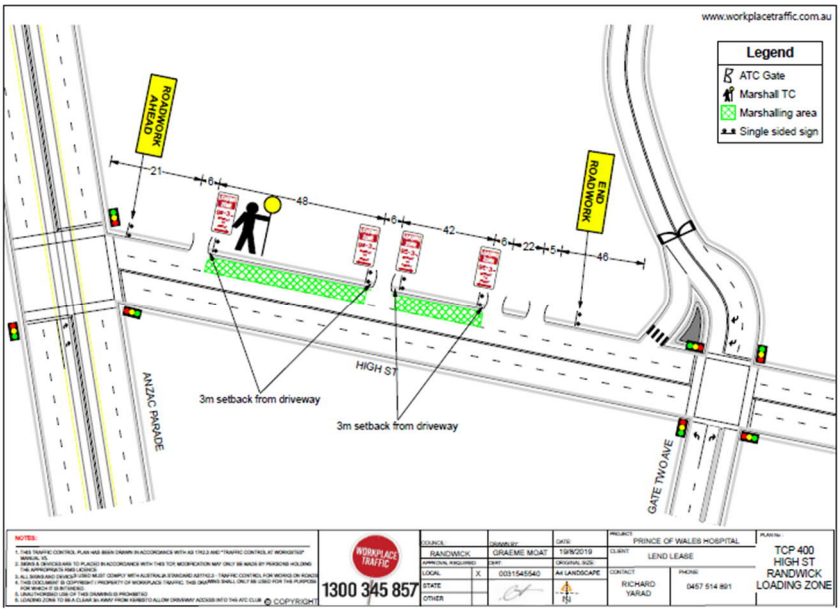


Figure 15A: High Street Randwick, TCP

The following truck haulage routes have been identified to minimise impact on surround roads to the precinct. These routes will be communicated to the workforce via startup meetings, toolbox talks and issuing the CTPMSP. Articulated vehicles (excluding concrete trucks) and truck and trailer vehicles will not use High Street.

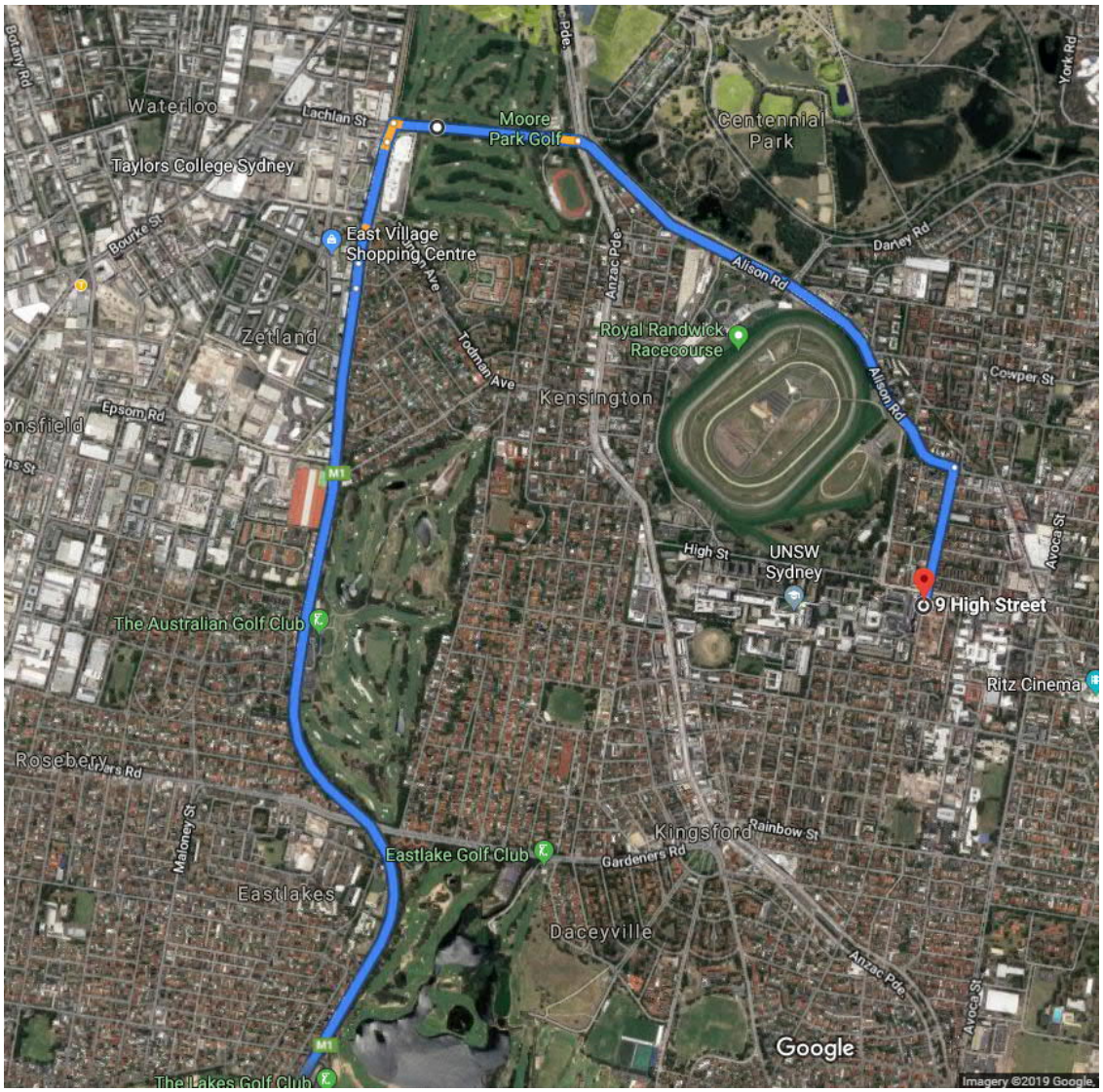


Figure 15b: Travelling from Southwest M5/M1 to Randwick

Delivery vehicles travelling from the West of Sydney will follow a direction as outlined in the above figure. Utilising the M5/M1 vehicles follow the following route to the site:

- Exit from the M5/M1 onto Dowling street
- Turn right onto Dacey Avenue
- Via right onto Alison Road
- Turn right onto Botany Street
- Enter Gate 1 of the site

Construction delivery vehicles will follow a similar route leaving site exiting right out of the gate in accordance with the TCP.

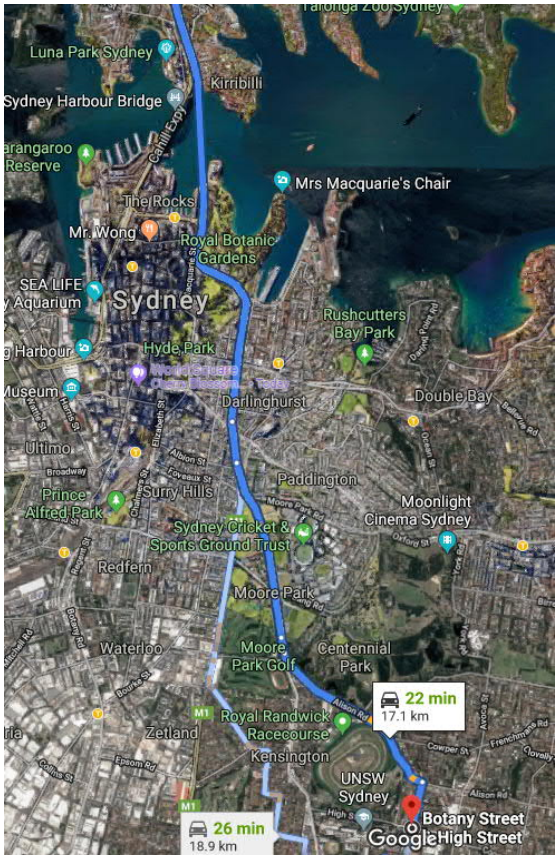
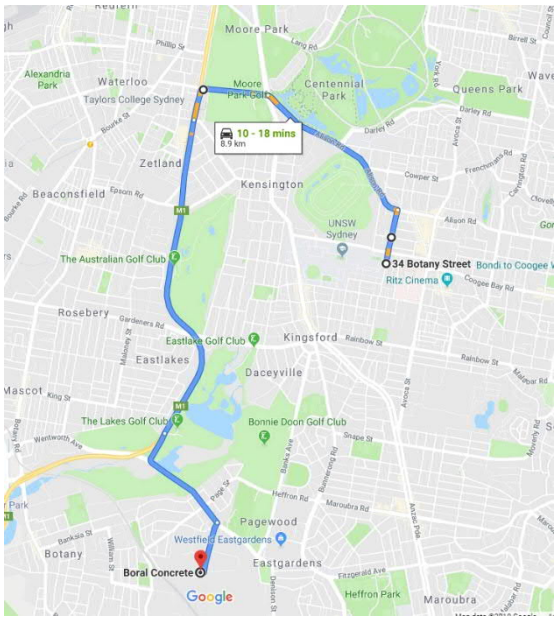


Figure 15c: Travelling from North M1 to Randwick

Delivery vehicles travelling from the North of Sydney will follow a direction as outlined in the above figure. Utilising the M1 tunnel vehicles follow the following route to the site:

- Exit from the M1 onto Anzac Parade
- Turn left into Alison Road
- Turn right into Botany Street
- Enter Gate 1 of the site

Construction delivery vehicles will follow a similar route leaving site exiting right out of the gate in accordance with the TCP.



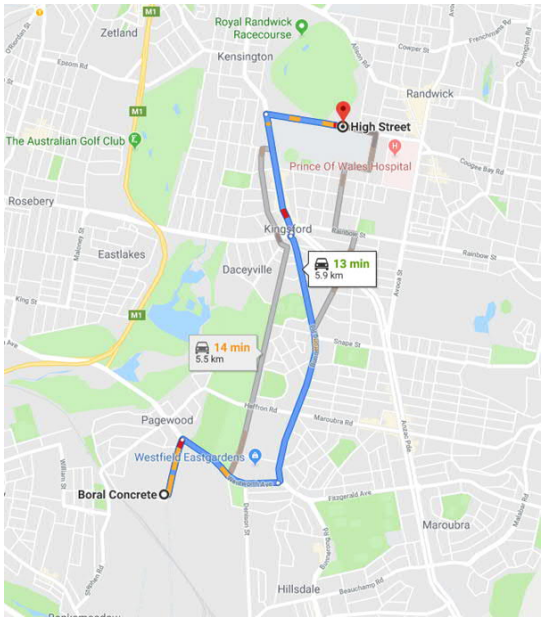


Figure 15d: Concrete delivery vehicle route. Figure 15e: Concrete delivery vehicles route, if advised to utilize the marshalling zone on High Street

Concrete delivery vehicles travelling from the Boral plant yard at East gardens will follow a direction as outlined in the above figure. Utilising the M1 vehicles follow the following route to the site:

- Exit from the M1 onto South Dowling Street
- Turn right onto Dacey Avenue
- Turn left onto Alison Road
- Turn right into Botany Street
- Enter Gate 1 of the site

Construction delivery vehicles will follow a similar route leaving site exiting right out of the gate in accordance with the TCP.

If the concrete trucks are advised to utilise the marshalling zone on High Street they will follow the route indicated on the following page.

4.3 Fencing and hoarding for site segregation and safety

Lendlease understand the critical importance of maintaining a secure and safe perimeter hoarding line to protect the public and staff from construction activities and prevent unauthorised access into the construction site 24 hours a day. Segregation of the site accommodation compound from the main site is equally important for worker safety.

Lendlease understands that one of the keys to the successful delivery of the Integrated ASB Addition will be the flow of materials and equipment into and out of the construction site. We believe it is imperative that our planning considers and successfully manages:

- The maintenance of pedestrian and traffic flows to the surrounding roads;
- The unimpeded continued use of existing vehicular and pedestrian entry and exit points to the Campus; and
- 24-hour access to the ambulance drop off area for Prince of Wales Hospital and Sydney Children's Hospital Network;

To achieve this, an extensive Traffic and Pedestrian Management Plan has been developed with specific focus to:

- Carpark entry and egress: Existing Carpark operations will be maintained at all times, including all car park services and emergency egress. Particular focus will be on peak flow access and egress during hospital shift change overs and strategies will be employed to ensure flows are maintained by reducing the number of deliveries during these peak periods (7.00am – 9:30am, and 4:00pm – 6:30pm);
- Maintaining business continuity operations for the Hospital by relocating service vehicles and existing car spaces to alternate locations of the Hospital easing the traffic flow on Hospital Road;
- Disabled pedestrian access and paths of travel: Throughout all activities, disabled pedestrian access will be adjusted/maintained as required for entry and exit to Hospital buildings;
- All swept paths are being designed by ARUP to ensure coordination with the TfNSW;
- Lendlease will consult with all suppliers to ensure the correct size and weight vehicles are allocated to the project and are cognisant of carriage weight constraints;
- Ambulance entry: No works or vehicle movements will be allowed to affect the access of ambulance entry and parking area other than noted with the closure of Hospital Road. Ambulance NSW has been consulted of the closure of Hospital Road; and
- Construction Vehicles: Mitigating impact to the Hospital precinct and surrounding roads will be considered along with a detailed analysis of delivery frequency in conjunction with the program and access routes to the site from the various approaches. Procedures for timely delivery notification will be developed (e.g. call prior to arrival and also advise on aborted deliveries).

4.4 Coordination with Other Construction sites

Lendlease has identified two other key construction sites within the near vicinity of the Randwick Campus Redevelopment. This includes the Inglis Newmarket Stables site, and UNSW construction sites.

Lendlease has and will continue to engage and meet on a regular basis with these key stakeholders to understand upcoming work activities to minimise impact on the coordination of truck movements on the road network. Mitigation steps include:

Regular meetings with Construction Management personnel from these sites during peak construction activities such as concrete structure works to coordinate day to day activities.

Issuing 3 week look ahead programmes which will identify nominated days of large concrete pours and coordinate with the other sites to programme these works around other higher volume vehicle activities.

Utilising truck haulage movements as per the Lendlease construction traffic management plan.

The construction vehicle requirements for the Lowering of Hospital road works will have negligible impact on the Main ASB construction works and usage of Gate 3. This is due to the sporadic requirement of deliveries for services diversion, trenching, piling and excavation works. The time motion chart indicates construction traffic volumes for the Hospital road works. Access will alternate from High and Barker street depending on the stages of these works, with volumes of construction traffic generally from 3-6 vehicles per day.

Further to this, there is limited impact on other construction developments within the local network such as the Newmarket Green Development, current UNSW developments and the Sydney Light Rail project. Lendlease is having regular meetings with Ganellan, Randwick City Council and UNSW to understand any impacts on the network. Lendlease has been consulting with Acciona for access to finalise stormwater and footpath works along High Street.

4.5 Existing Parking Provision

Lendlease have completed a preliminary investigation of existing parking provision, demand and proposed supplementary parking opportunities' on and offsite.

The traffic and parking impact assessment report produced by Arup provides detailed information regarding the existing parking provision on campus, the allocation of spaces among users and the occupancy throughout the day.

4.6 Virtual Superintendent

In an effort to reduce and minimise impact of construction traffic within operational Randwick Hospital, Lendlease propose to adopt an online materials booking system called the virtual superintendent on the project during the bulk excavation phase. This system allows the external supply chain to book in a delivery to the project through an online portal which can be live streamed to the Site Managers computer or field device. This system facilitates an efficient just in time delivery of construction materials, alleviating further traffic congestion onsite.

This daily information can then be printed out or sent electronically to the team, RMS, Randwick City Council as required to ensure that effective just in time deliveries occur on-site and traffic congestion around construction loading zones are avoided.

Lendlease has used this system at Barangaroo and at the North Connex projects with great success and will adopt it on this project given the operational hospitals logistical constraints.

During Concrete phase, our Concrete supplier will have an online app tracking tool of all concrete trucks to monitor delivery route and timing of deliveries. This will be able to be viewed in real time on site by Lendlease Site Management.

4.7 Traffic Impacts

Workers will generate additional traffic to the site although with minimal parking opportunities the numbers are expected to be low. Road network impacts will be mitigated by the fact that construction workers generally start earlier and finish earlier than the commuter peak periods and would likely not coincide with the peak traffic period of the surrounding road network. A comparison of indicative hours of operations with current road network peaks is shown in Table 5.

Construction workers driving to sites in constrained parking environments, such as this site, typically carpool – further reducing the impact on the road network. There is ample public transport available that will encourage workers to minimise private vehicle use which will further reduce the impacts on the local road network. Furthermore, the CMP proposes to prepare and adopt a green travel plan in order to encourage construction workers to minimise private car trips, promoting carpooling and the use of public and active transport modes.

4.8 Cumulative Impacts

There will be a number of other developments surrounding the subject development site which could overlap with the suite works. These include the Inglis Stables site to the south of Barker Street and developments on the UNSW campus. The UNSW Bioscience Project Stage 2 is nearing completion on Botany Street and consultation with UNSW will identify any new upcoming projects that need coordination.

There is also the Lowering of Hospital Road and UNSW Extension part of the ASB scope under SSD-10339. These cumulative impacts are analyzed in the CTPMP within the appendix.

Through regular consultation with the project stakeholders, mitigation plans and assessments will be made on traffic management plans. This will be in consultation with TfNSW.

4.9 Parking

4.9.1 On-street Parking

The establishment of on-street work zones will impact the supply of on-street parking. The current CMP highlights potential work zones along Botany Street; either side of the proposed access gates. The existing on-street car parking along the eastern side of Botany Street is time restricted with resident permit holders excepted. Given that the properties fronting Botany Street are being removed, there will no longer be a need for these resident parking spaces.

The location of any on-street work zones and their impact on parking supply is to be discussed and agreed with RCC. It is envisaged that the impacts on kerbside uses will be as shown in Figure 23:

- Bus stops maintained on Botany Street
- No kerbside parking on Botany Street east kerb
- CSELR works continue on High Street
- No change to parking in Magill Street

Figure 13: Impacts to kerbside parking

4.9.2 Staff Parking

Construction worker parking is generally proposed to be off-site and also not in the streets surrounding the site. Any parking on site would be subject to discussion and agreement with PwC (representing LHD and HI) and TfNSW.

An offsite location away from the precinct could be considered with a traffic assessment required to be undertaken on the potential traffic generations impact. The requirement for this parking facility is to be reviewed during the development the CTPMP. Other construction activity in the area (e.g. UNSW) has made no additional allowance for on-site parking. Furthermore, given the ample availability of public transport, construction staff will be encouraged to either car-pool or arrive to the site via public transport.

4.10 Pedestrians

Pedestrians on High Street and Botany Street may be impacted from walking past the site during construction. Traffic controllers will manage all construction vehicles and pedestrians interactions.

During all phases of construction, construction vehicles entering, exiting and driving around the site will be required to give way to pedestrians at all times, as required under the NSW Road Rules. The footpaths will be closed temporarily on the frontage of the site with safe alternative detours in place.

4.11 Public Transport

The proposed works will interface with a number of existing bus routes on Botany Street and High Street. The Contractor is to ensure that trucks do not queue along these roads and instead, directly enter and be wholly accommodated within the site. Any changes to bus stop locations to facilitate loading/works zones will be undertaken in consultation with TfNSW and RCC. Bus stops have been relocated outside the works area as required.

4.12 Construction Traffic Management Principles

The Contractor will be required to prepare a CTPMP for approval by RCC and HI in consultation with the SCO prior to the commencement of works.

As a general principle, construction of the proposed works will be staged to minimise impacts to traffic and other modes of transport. The overall principles for traffic management during construction of the proposed works will include:

- Maintain access to properties located in the vicinity of the site at all times
- Manage and control construction traffic movements on the adjacent road networks and vehicles movements to and from the construction site
- Limit the interaction of construction traffic with hospital traffic, especially heavy vehicle and light vehicle conflicts
- Trucks to enter and exit the site in a forward direction
- Maintain traffic capacity at intersections and mid-block in the vicinity of the site
- Restrict construction vehicle activity to designated truck routes in the area
- Construction access driveways and on-street work zones to be managed and controlled by site personnel
- Provide an appropriate environment for pedestrians at all times
- Maintain convenient access and circulation for public transport
- Pedestrian movements adjacent to construction activity, across construction access driveways and to/from public transport facilities, will be managed and controlled by an authorised and qualified traffic controller
- Pedestrian warning signs and construction safety signs/devices to be utilised in the vicinity of the site and to be provided in accordance with WorkCover and any applicable legislative requirements

- Construction activity is to be carried out in accordance with RCC's approved hours of work
- Minimise vehicle usage of Magill Street

4.13 Consultation

Initial consultation has occurred with the Sydney Coordination Office, Randwick City Council, and Roads and Maritime.

- RCC Traffic and Construction Update Meeting 3/7/18
- TfNSW Monthly Meeting 4/7/18
- Traffic Coordination Meeting (RCC) – 10/7/18
- SCO / RMS / LLB /HI Meeting – 12/7/18
- SCO / RMS / LLB /HI Meeting – 15/07/19

Discussions with relevant stakeholders including the Sydney Coordination Office, TfNSW, Roads and Maritime Services and Randwick City Council are ongoing.

Description	Hours of operation / peak periods
Site working hours	Monday - Friday: 7am - 6pm Saturday: 8am - 5pm Sunday: No works
Truck minimisation periods	AM Peak: 7:30am - 9:00am PM Peak: 3:00pm - 4:30pm

Due to Covid-19 and the extended working hours being sought by Health Infrastructure as identified in Section 2.2, deliveries in the evening will be required to facilitate construction progress. Currently peak period traffic has reduced to 20% of normal levels (based on TomTom data). Based on the 8-12 estimated standard deliveries in the evening, and periodic concrete pours, this increased construction volume traffic would not have significant impact on the road network.

4.14 Summary

Arup has prepared this report to accompany the development application for the site CC2 and CC3 works associated with the redevelopment of the Randwick Health Campus. This report has considered the traffic and transport implications for the CC2 and CC3 works.

5.0 DRIVER CODE OF CONDUCT

All construction delivery drivers to and from the site are to strictly comply with the Driver code of Conduct. This code is outlined in this section of the report.

Delivery drivers will be provided with the CTPMP which reference the following items:

- Drivers must comply with the haulage routes identified in the CTPMP. This ensures vehicles adhere to main roads to minimise impact on suburban streets.
- Drivers are to comply with all regulatory speed limits and road rules when approaching and leaving the site.
- All drivers are to ensure they hold the relevant licenses for the vehicles they are driving in accordance with Statutory requirements.
- Hospital Road speed limits are to be complied with at all times.
- Noise minimization techniques are encouraged when approaching and leaving the site to reduce the impact on residents, the University and occupants of the Hospital buildings.
- Any truck loads are to be covered prior to leaving the site to minimise dust.
- There is to be no parking up trucks outside the construction site.
- All trucks leaving and entering the site are to do so in a forward motion.
- Additional care is to be taken by drivers in wet weather to ensure the safety of other vehicles, pedestrians and themselves.
- There is zero tolerance to drug and alcohol on site, and drivers may be subject to random testing which is carried out by the site.
- All deliveries will be booked in with the Site Manager/Foreman for a dedicated time slot agreed 24 hours in advance. Any deliveries not booked with will not be accepted and instructed to return to their respective yard.
- Delivery drivers are encouraged that a 10minute rest break is taken if driving more than two hours continuous.
- Any special deliveries such as steel bridges for link bridge will be wide loads and require special escort. Prior approval with TMC will be sought and dedicated transport routes agreed.
- Community updates on any delivery changes from the agreed CTPMP will be communicated by the Lendlease Stakeholder Community Manager. This is through letter drop and email notification.
- Any complaints received by residents or other drivers must be forwarded to Lendlease to ensure reporting to Authorities and required actions implemented.
- Delivery drivers are to be cautious of SLR and minimise any interaction. In particular when turning at intersections and proximity to tracks.

This code of conduct will be communicated to the delivery drivers via the subcontractors engaged for the works, and also provided to drivers as they enter the construction gate.

Monitoring of Driver conduct will be by the following:

- Positive or negative feedback received by the residents, and other key stakeholders.
- Analyses during subcontractor audits for EHS performance.

6.0 CONSTRUCTION WORKER TRANSPORTATION STRATEGY

6.1 INTRODUCTION

The Construction Worker Transportation Strategy (CWPS) has been prepared in response to development consent for State Significant Development Application (SSDA) number SSD 9113. Specifically, the CWPS demonstrates compliance with Condition B42 & 44.

The document is a separate report to the CTPMP.

7.0 STAKEHOLDER MANAGEMENT

7.1 CONSULTING AND COMMUNICATING

Lendlease's approach to managing enquiries for the Randwick Campus Redevelopment (RCR) project is to create a strategic framework which enables a consistent and transparent guide to engaging stakeholders throughout both the initial project engagement and Delivery Phase. The key principles which underpin our proposed approach are:

- Establish and maintain transparent and consistent communication channels which enable geographically dispersed and diverse stakeholders to engage which the project as required;
- Respect, involve and engage stakeholders to ensure their needs are recognised and considered throughout all phases of the project;
- Ensure a proactive, rather than reactive approach to all potential stakeholder related issues and engagement;
- Tailor communications to provide the right information, to the right people at the right time; and
- Should Lendlease receive any inquires or complaints through the RCR project hotline or email address these will be actioned in a timely fashion with the response to be circulated to the RCR project team.

The Lendlease Stakeholder Engagement Strategy supports the implementation of this CTPMP during the works. The Strategy outlines key groups and their respective levels of interest in the project:

- End Users;
- Authorities / Service Providers / Utilities;
- Invested Parties;
- Impacted Parties (Primary);
- Impacted Parties (Secondary); and
- Interested Parties.

Figure 31 – Stakeholder engagement wheel

Lendlease will continue to work proactively with TfNSW, PwC, HI and all other relevant stakeholders.

In accordance with Condition C36, Traffic and Transport Construction Coordination meetings are to be undertaken by the applicant during construction. The meetings shall include HI, the subject building contractor, TfSNW, Council, Sydney Light Rail operator, UNSW, Inglis Newmarket development main contractor and main contractors of other developments within the vicinity of the subject development site. The meetings shall be chaired by the applicant, be it HI or the subject building contractor.

Bi-monthly coordination meetings have been proposed to re commence to ensure ongoing communication amongst the key stakeholders. This more formal approach will supplement the regular communication already occurring with Lendlease and other stakeholders. This engagement with the other contractors in the Randwick area is to ensure works and haulage routes are coordinated to minimise cumulative disruptions to the community.

Lendlease will monitor the effectiveness of this CTPMP monthly internally with reviews of any complaints raised to the project team. Ensuring open communication with TfNSW and other key stakeholders will provide effective monitoring of this plan. The above mentioned bi-monthly meetings will be a good mechanism for this communication.

8.0 AUTHORITIES

8.1 LEGISLATIVE REQUIREMENTS

- The works will be undertaken is accordance with Legislative Requirements including but not limited to:
- National Construction Code 2011 comprising the Building Code of Australia;
- Protection of the Environment Operations Act 1997 and Regulations;
- Environmentally Hazardous Materials Act 1985;
- Protection of the Environment Administration Act 1991and Regulations;
- Work, Health & Safety Act 2011 and relevant codes of practice and standards;
- Australian Standard 2601-2001: Demolition of Structures;
- Code of Practice for Safe Removal of Asbestos (NOHSC: 2002 (2005));
- Guide to the Control of Asbestos Hazards in Buildings & Structures (NOHSC: 3002 (1988));
- Resource & Recovery Act 2001;
- Environmental Planning & Assessment Act 1979;
- Heritage Act 1977;
- Local Government Act 1993; and
- National Parks and Wildlife Act 1974.

8.2 PLANNING APPROVAL AND CONSTRUCTION CERTIFICATE

In addition to the methodology outlined in Section 2.2 of the Planning Services Plan, for the Delivery Phase we note the following process:

- Development consent will be obtained through a State Significant Development Application (SSDA) under Division 4.7 of the Environmental Planning and Assessment Act 1979; and
- This will allow the earliest start on site date possible and assist with providing delivery certainty to HI, SESLHD and PWC.

Our Design Manager - Building and Authorities will lead this process working closely with the PCA (Principal Certifier) and with the HI NSW Team. The SSDA approval will identify generic and specific deliverables required from HI NSW. These will include payment of development and administration fees. Our Design Manager will coordinate this process to ensure there is a clear and coordinated program to submit all SSDA requirements to the PCA so that no program delays arise.

The Principal is responsible for obtaining all other planning approvals required to deliver the RCR.

8.3 UTILITY PROVIDER AND ASSOCIATED EXTERNAL APPROVALS

At various stages external approvals of components of the works will be required. This will include:

- Randwick City Council (traffic);
- Ausgrid (or local electrical utility provider);
- NSW Fire and Rescue;
- Jemena (gas);
- Sydney Water (water, sewer and storm water);

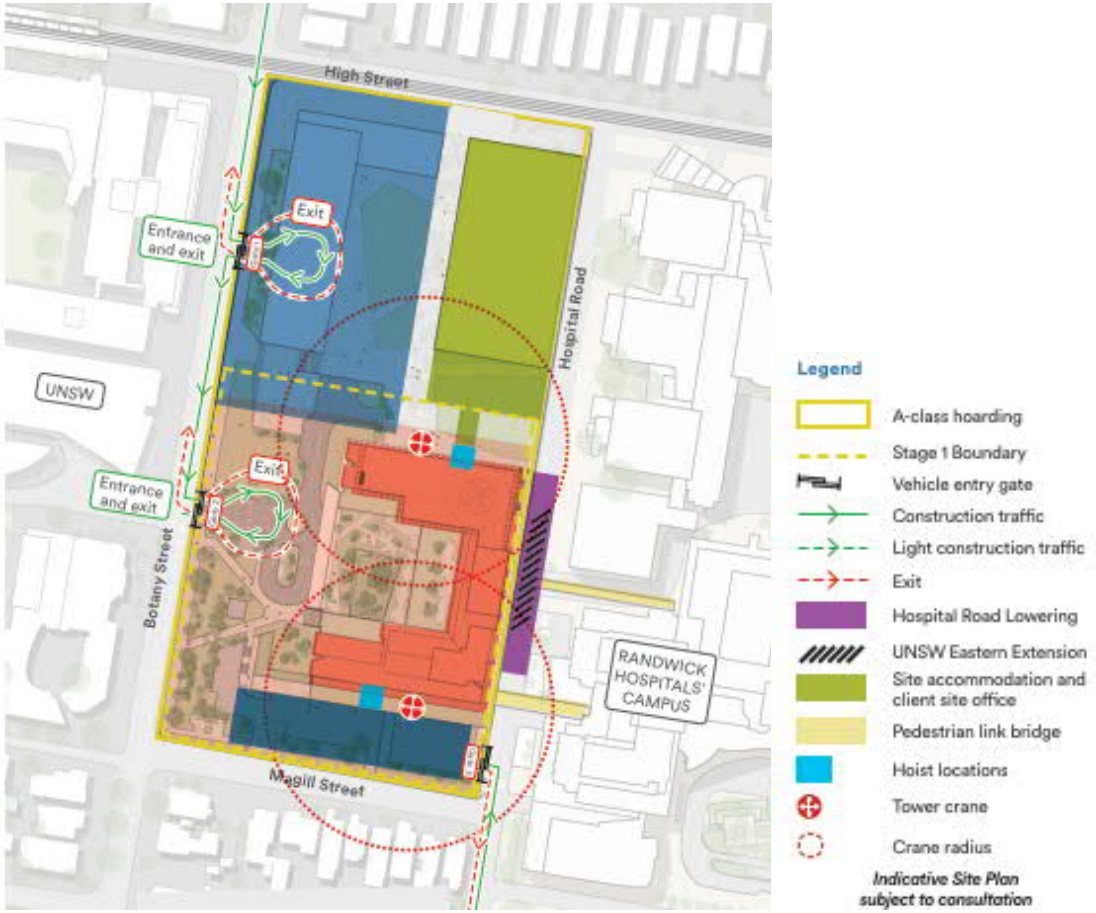
- Roads and Maritime Services;
- NETS, Adult A&E, Children's A&E, Careflight Helicopters (helipad);
- Communication providers; and
- Other relevant utility providers.

Our approach with these authorities will differ dependent on the respective requirements, however fundamentally we will seek:

- Prior coordination with HI NSW to ensure all approaches are aligned and coordinated;
- Early contact to mitigate potential delays and identify potential issues; and
- Establish common contacts that can provide continuity of service on the project.

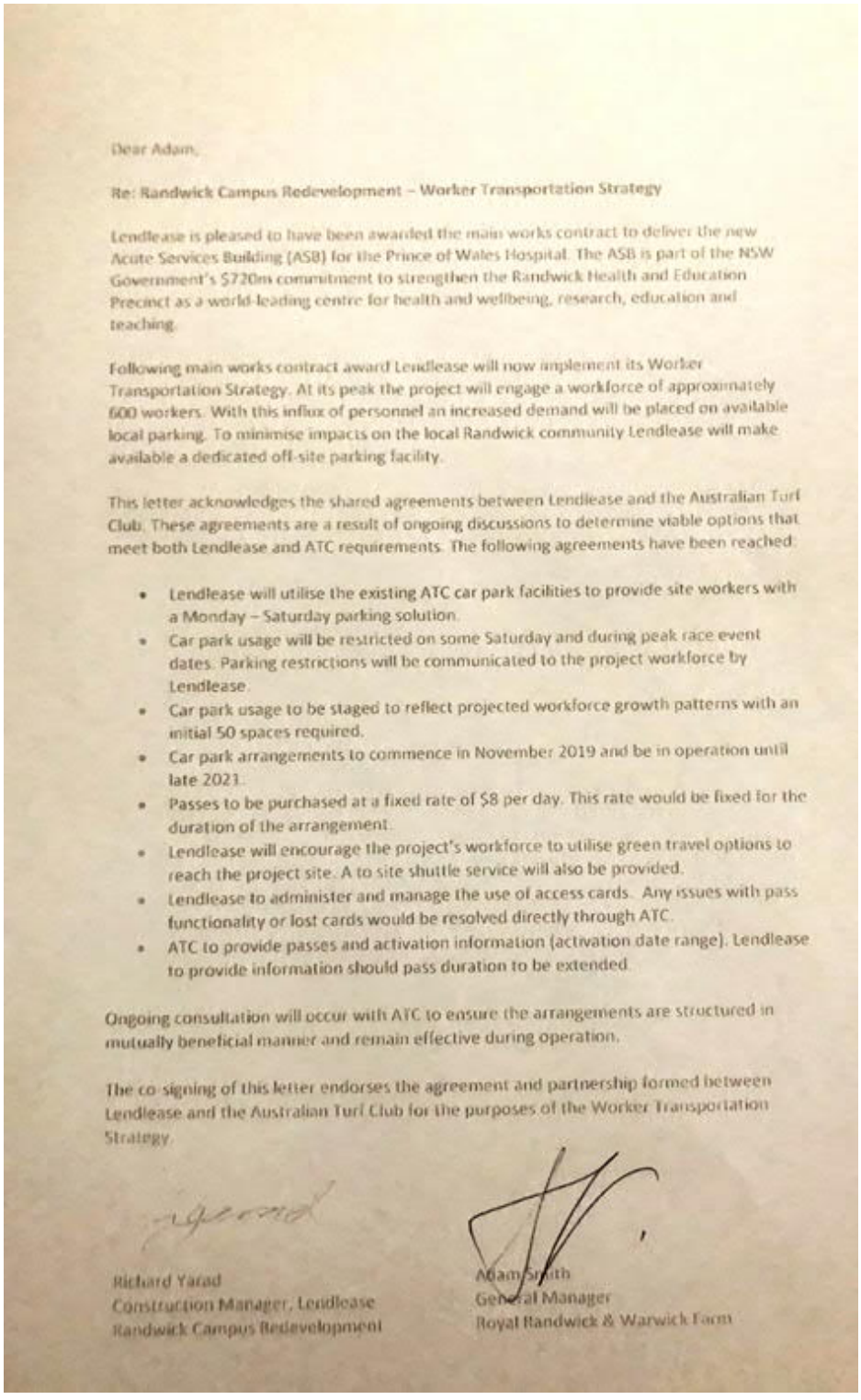
13.0 APPENDICES

APPENDIX 1 – SITE ESTABLISHMENT PLAN



APPENDIX 2 – PROJECT ORGANISATIONAL CHART

APPENDIX 3 – ATC Letter of Support



Dear Adam,

Re: Randwick Campus Redevelopment – Worker Transportation Strategy

Lendlease is pleased to have been awarded the main works contract to deliver the new Acute Services Building (ASB) for the Prince of Wales Hospital. The ASB is part of the NSW Government's $720m commitment to strengthen the Randwick Health and Education Precinct as a world-leading centre for health and wellbeing, research, education and teaching.

Following main works contract award Lendlease will now implement its Worker Transportation Strategy. At its peak the project will engage a workforce of approximately 600 workers. With this influx of personnel an increased demand will be placed on available local parking. To minimise impacts on the local Randwick community Lendlease will make available a dedicated off-site parking facility.

This letter acknowledges the shared agreements between Lendlease and the Australian Turf Club. These agreements are a result of ongoing discussions to determine viable options that meet both Lendlease and ATC requirements. The following agreements have been reached:

- Lendlease will utilise the existing ATC car park facilities to provide site workers with a Monday – Saturday parking solution.
- Car park usage will be restricted on some Saturday and during peak race event dates. Parking restrictions will be communicated to the project workforce by Lendlease.
- Car park usage to be staged to reflect projected workforce growth patterns with an initial 50 spaces required.
- Car park arrangements to commence in November 2019 and be in operation until late 2021.
- Passes to be purchased at a fixed rate of $8 per day. This rate would be fixed for the duration of the arrangement.
- Lendlease will encourage the project's workforce to utilise green travel options to reach the project site. A to site shuttle service will also be provided.
- Lendlease to administer and manage the use of access cards. Any issues with pass functionality or lost cards would be resolved directly through ATC.
- ATC to provide passes and activation information (activation date range). Lendlease to provide information should pass duration to be extended.

Ongoing consultation will occur with ATC to ensure the arrangements are structured in mutually beneficial manner and remain effective during operation.

The co-signing of this letter endorses the agreement and partnership formed between Lendlease and the Australian Turf Club for the purposes of the Worker Transportation Strategy.

Richard Yarad
Construction Manager, Lendlease
Randwick Campus Redevelopment

Adam Smith
General Manager
Royal Randwick & Warwick Farm

APPENDIX 4 – Driver Code of Conduct

B35 – CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- Include a Driver Code of Conduct to:
- Minimise the impacts of earthworks and construction on the local and regional road network;
- Minimise conflicts with other road users;
- Minimise road traffic noise; and
- Ensure truck drivers use specified routes.

WORKPLACE SPECIFIC 3

ALL DELIVERIES (IRRESPECTIVE OF SIZE) MUST BE BOOKED IN AND APPROVED WITH LENDLEASE REPRESENTATIVES WITH A MINIMUM OF 24 HOURS NOTICE

YOUR DELIVERY MUST MARSHALL NEAR ROWLAND PARK AND THEN YOU MUST ADVISE YOUR SITE BASED POINT OF CONTACT (E.G. SUBCONTRACTOR FOREMAN) AND WAIT UNTIL THE CONTRACTOR HAS TRAFFIC & PEDESTRIAN MANAGEMENT IN PLACE

A SUBCONTRACTOR REPRESENTATIVE MUST MEET YOU DELIVERY AT THE GATE. PLEASE INSIST ON A PHONE CALL 20min – 30min PRIOR TO ARRIVAL TO SITE. LENDLEASE SITE TEAM WILL NOT BE MEETING OR ACCEPTING DELIVERIES ON BEHALF OF ANY TRADE CONTRACTORS

DELIVERIES TO SITE ARE TO USE THE FOLLOWING GATES:
MAIN GATES ARE ALONG BOTANY ROAD – NOSE IN & NOSE OFF SITE. NO REVERSING OUT ON TO BOTANY ROAD UNDER ANY CIRCUMSTANCES. ALL SEMI-TRAILERS, LOW LOADERS, LARGE FLAT BEDS, TILT TRAYS ARE TO ACCESS VIA BOTANY ROAD GATES ONLY

DURING ANY PERIOD IN WHICH THE BOTANY ROAD GATES ARE CLOSED, THERE MAY BE ALTERATIVE ACCESS THROUGH GATE 3 ALONG HOSPITAL ROAD. PLEASE CONFIRM WITH YOUR SITE REPRESENTATIVE AS TO WHICH GATE YOU MUST USE

UNLESS NOTED OTHERWISE OR BOOKED IN WITH LENDLEASE, NO GATE IS TO BE OPENED PRIOR TO 6am OR BEYOND 6pm, MONDAY AND THROUGH TO FRIDAY. ON SATURDAY NO GATE IS TO BE OPENED PRIOR TO 8am OR BEYOND 5pm, . IF THE DELIVERY IS REQUIRED BY RMS RULES TO BE OFF THE ROAD BY A CERTAIN TIME PLEASE ENSURE YOU ADVISE LENDLEASE OF ANY SPECIAL REQUIREMENTS

PLEASE BE AWARE THAT SCHOOL ZONES ARE IN PLACE AND ENFORCED ALONG BUNNERONG ROAD

ALL DELIVERIES TO THE RANDWICK CAMPUS REDEVELOPMENT (RCR) ARE TO ACCESS AND LEAVE SITE FROM THE ROUTES SHOWN IN THE FOLLOWING SLIDES

DRIVERS ARE TO KEEP A COPY OF THIS INDUCTION IN THEIR VEHICLES AT ALL TIMES

WORKPLACE SPECIFIC 4

Driver Behaviour

Drivers are expected to conduct themselves in a courteous and professional manner at all times, including:

- Being mindful of their presence within a live Hospital environment
- Refraining from playing radios or music with windows down
- Refraining from using language or remarks that may be considered offensive
- Hospital and private property access is to be strictly maintained at all times
- Use only approved haulage routes and designated marshalling areas

Behave in accordance with all road rules, including speed limits, school zones and traffic signage

Strictly no parking in Hospital parking zones including emergency and disabled parking bays

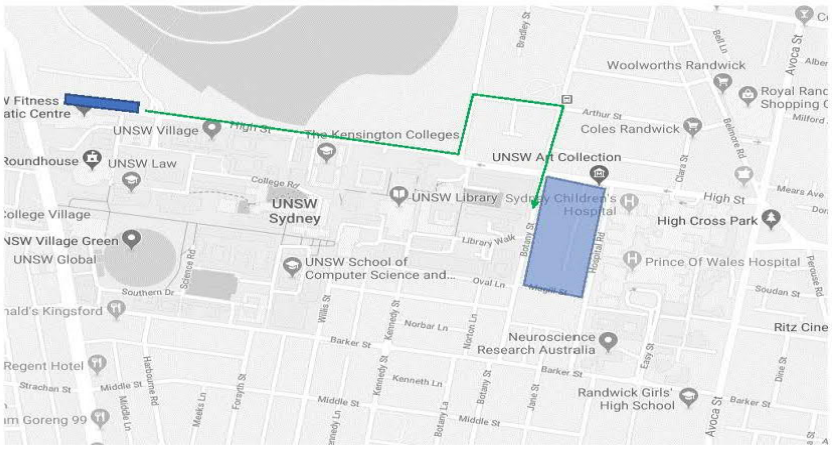
Any community contact should be directed to the RCR community contact number 1800 571 866

WORKPLACE SPECIFIC 5

Approved Marshalling Plan

Site Notes:

1. Site Speed Limit is **5km/h**
2. Pedestrians have right of way at all times
3. All vehicles must have operating flashing lights, reversing beepers/squawkers
4. All vehicle operators must wear Lendlease Building minimum PPE when exiting the vehicle cab – Hard Hat, High Vis clothing, Gloves, Safety Glasses, Safety Boot, Long Sleeve Shirt



Marshalling area and truck routes

Lendlease has a zero tolerance to drugs and alcohol in the workplace

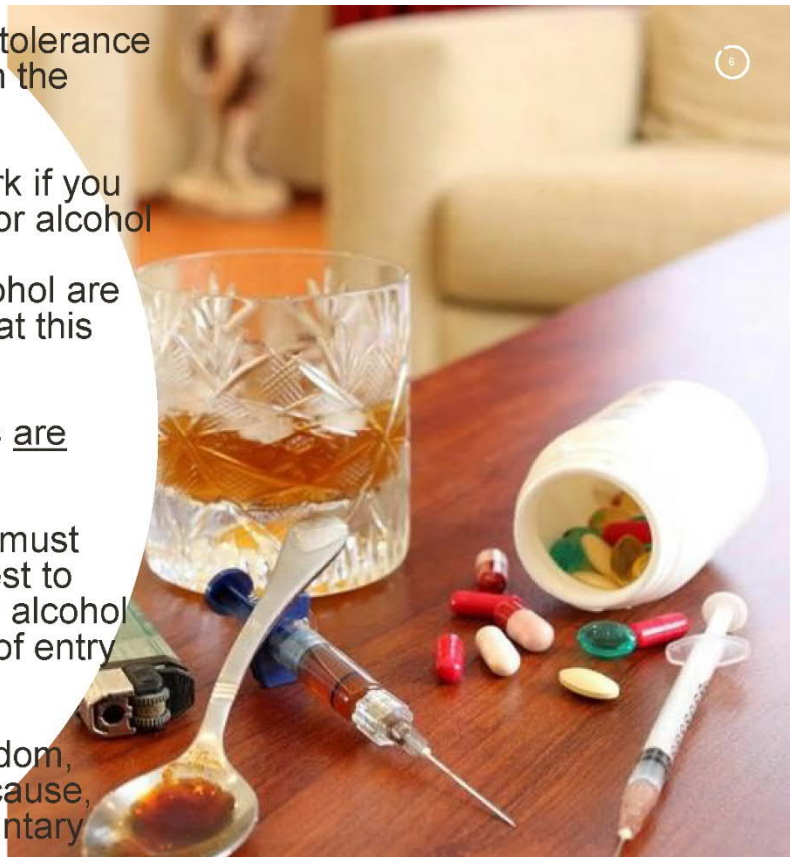
Do not commence work if you are affected by drugs or alcohol

Illicit drugs and all alcohol are prohibited at all times at this workplace

Drug and alcohol tests are conducted here

All Workers & Visitors must comply with any request to participate in drug and alcohol testing as a condition of entry to this workplace

Testing includes – random, targeted, reasonable cause, post incident, and voluntary



What is Tested?

- Alcohol
  - Breath alcohol concentration (BAC) with a zero level tolerance of 0.000
- Drugs
  - All drug testing shall be conducted via a sample of oral fluid (saliva)*

Substance	Initial Site Test Limits
Cannabinoids: (THC, Marijuana)	20 ng/ml
Cocaine and metabolites	50 ng/ml
Amphetamine / methamphetamine	50 ng/ml
Opiates	50 ng/ml
Benzodiazepines	10 ng/ml

Substance	NATA Lab Test Limits
Morphine Codeine 6-Acetyl morphine	25 ng/ml 25 ng/ml 10 ng/ml
Amphetamine Methylamphetamine Methylenedioxymethylamphetamine Methylenedioxyamphetamine	25 ng/ml 25 ng/ml 25 ng/ml 25 ng/ml
Δ^9 terahydrocannabinol (THC)	10 ng/ml
Cocaine Benzoylecgonine Ecgonine methyl ester	25 ng/ml 10 ng/ml 25 ng/ml
Benzodiazepines	10 ng/ml

- A positive result at the initial site test triggers a requirement for a second NATA approved lab test

* Except where Client requirements or Legislation requires otherwise e.g. rail corridor works

What Happens If?

- A Worker refuses to be tested? Will be deemed a positive test result and disciplinary consequences will follow
- A Worker is selected but can't be found and the absence is unexplained? Will be deemed a positive test result and disciplinary consequences will follow
- A Worker is taking prescription or pharmacy medication that may test positive e.g. Panadeine Forte etc? Workers will be given the opportunity to declare the medication prior to testing.
- A Workers tests Non-negative at the test conducted at the workplace? **Alcohol** – If a BAC greater than 0.000% is recorded in the first test, a second test will be conducted after 60 minutes. If the BAC remains greater than 0.000%, the Worker will be removed from the workplace. If the BAC is 0.000%, a negative result is recorded and the worker may return to work
  Drugs – If the initial test is greater than the prescribed limits, a second saliva sample is taken and sent to a NATA approved Lab for confirmatory testing. The samples are protected by a chain of custody process .The worker will be excluded from the workplace until the results of the confirmatory test is known (normally 48 hours). If the Confirmatory test results are negative, a negative result is recorded and the Worker is allowed to return to work. If the Confirmatory test results are positive, the worker remains excluded from the workplace

Smoke Free Workplace

Smoking including the use of electronic cigarettes is prohibited at this workplace except in designated smoking areas

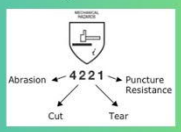
There is to be no smoking, including electronic cigarettes, anywhere within the site – this is both a Lendlease Building and NSW Health requirement

PART B - WORKPLACE SPECIFIC 10

Personal Protective Equipment

Workplace PPE Requirements

- Correct type full fingered protective gloves
- Safety Helmet
- Protective eyewear
- High visibility shirt/vest
- Protective footwear
- Double eye protection required for all grinding/cutting works
- **NO** singlets
- Work shorts to the knee - **NO** footy shorts

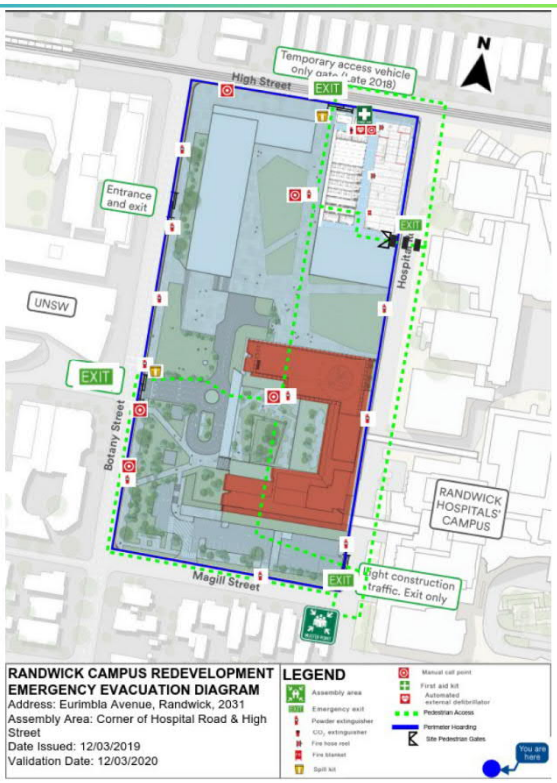


Time for a PPE Audit

- Safety Helmet <3 years old
- Boots free of damage
- No holes in gloves
- Clothing not torn or worn
- Safety glasses unscratched and free from damage

lendlease

PART B - WORKPLACE SPECIFIC 11



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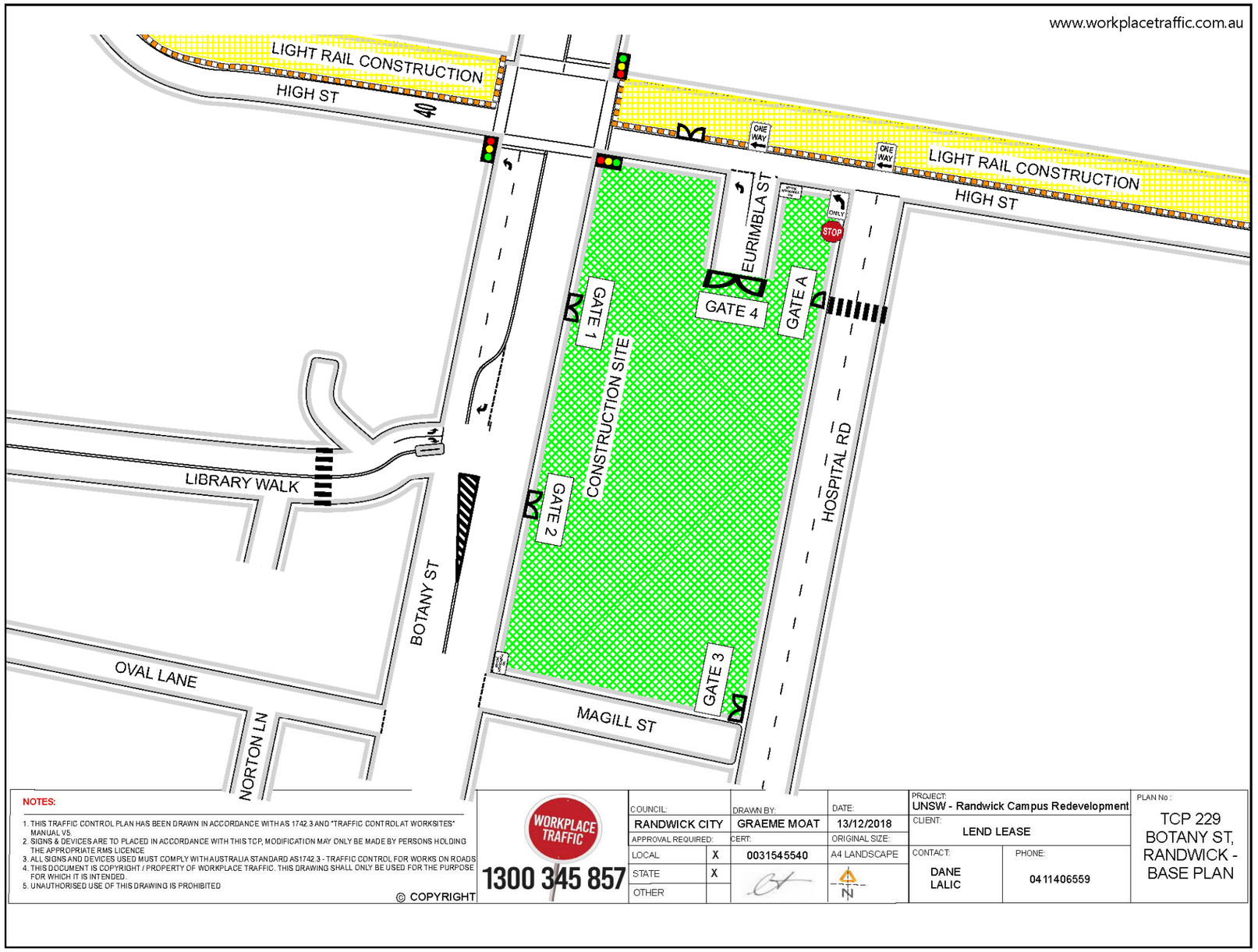
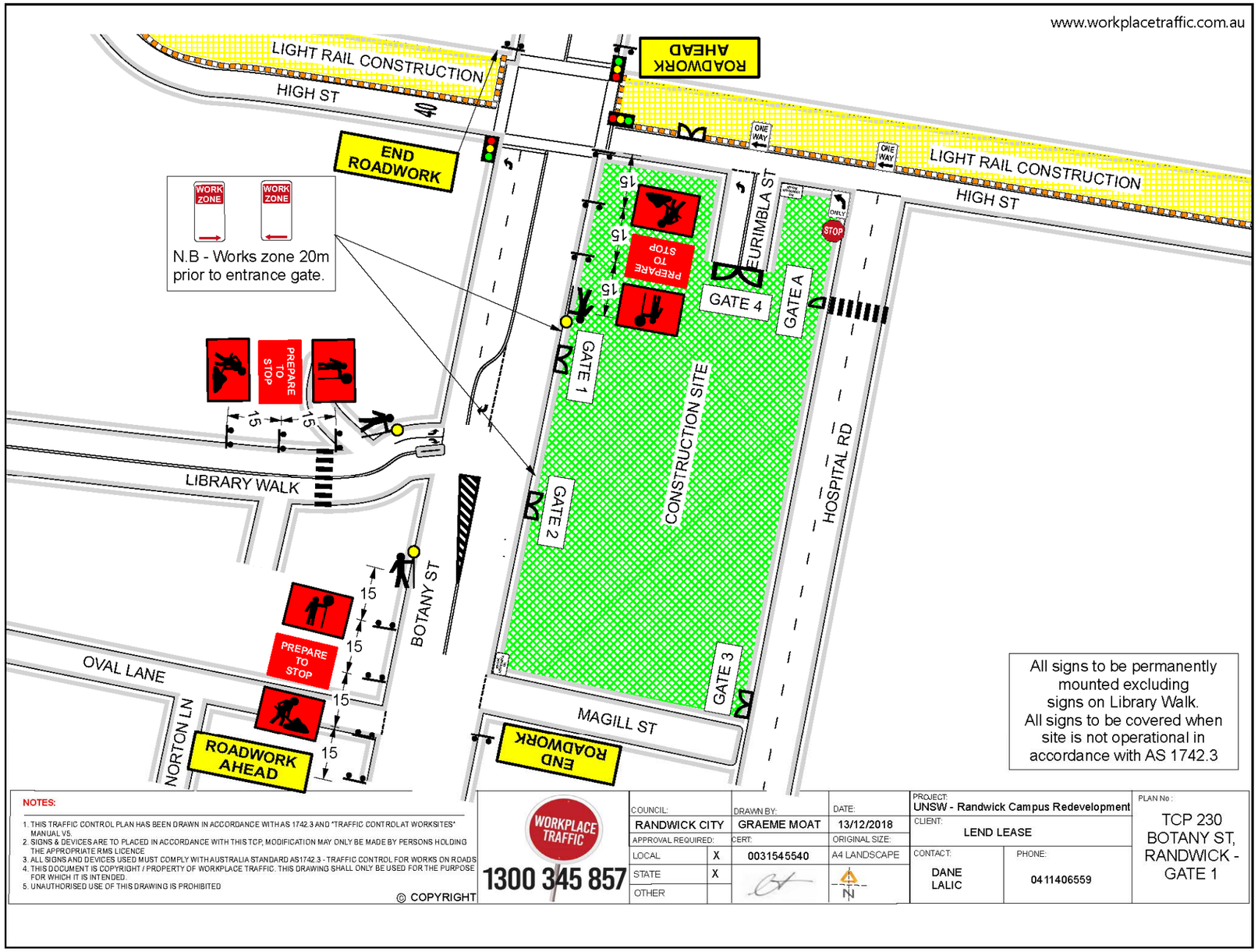
APPENDIX 5 – Traffic Management Plans




www.workplacetraffic.com.au
LIGHT RAIL CONSTRUCTION
HIGH ST
END ROADWORK
ROADWORK AHEAD
ONE WAY
LIGHT RAIL CONSTRUCTION
HIGH ST
WORK ZONE
WORK ZONE
N.B - Works zone 20m prior to entrance gate.
PREPARE TO STOP
15
15
15
PREPARE TO STOP
EURIMBLA ST
ONLY
STOP
GATE 4
GATE A
GATE 1
CONSTRUCTION SITE
HOSPITAL RD
LIBRARY WALK
GATE 2
BOTANY ST
15
15
PREPARE TO STOP
OVAL LANE
NORTON LN
15
ROADWORK AHEAD
15
MAGILL ST
GATE 3
END ROADWORK
All signs to be permanently mounted excluding signs on Library Walk.
All signs to be covered when site is not operational in accordance with AS 1742.3
NOTES:
1. THIS TRAFFIC CONTROL PLAN HAS BEEN DRAWN IN ACCORDANCE WITH AS 1742.3 AND "TRAFFIC CONTROL AT WORKSITES" MANUAL V5.
2. SIGNS & DEVICES ARE TO PLACED IN ACCORDANCE WITH THIS TCP, MODIFICATION MAY ONLY BE MADE BY PERSONS HOLDING THE APPROPRIATE RMS LICENCE
3. ALL SIGNS AND DEVICES USED MUST COMPLY WITH AUSTRALIA STANDARD AS1742.3 - TRAFFIC CONTROL FOR WORKS ON ROADS
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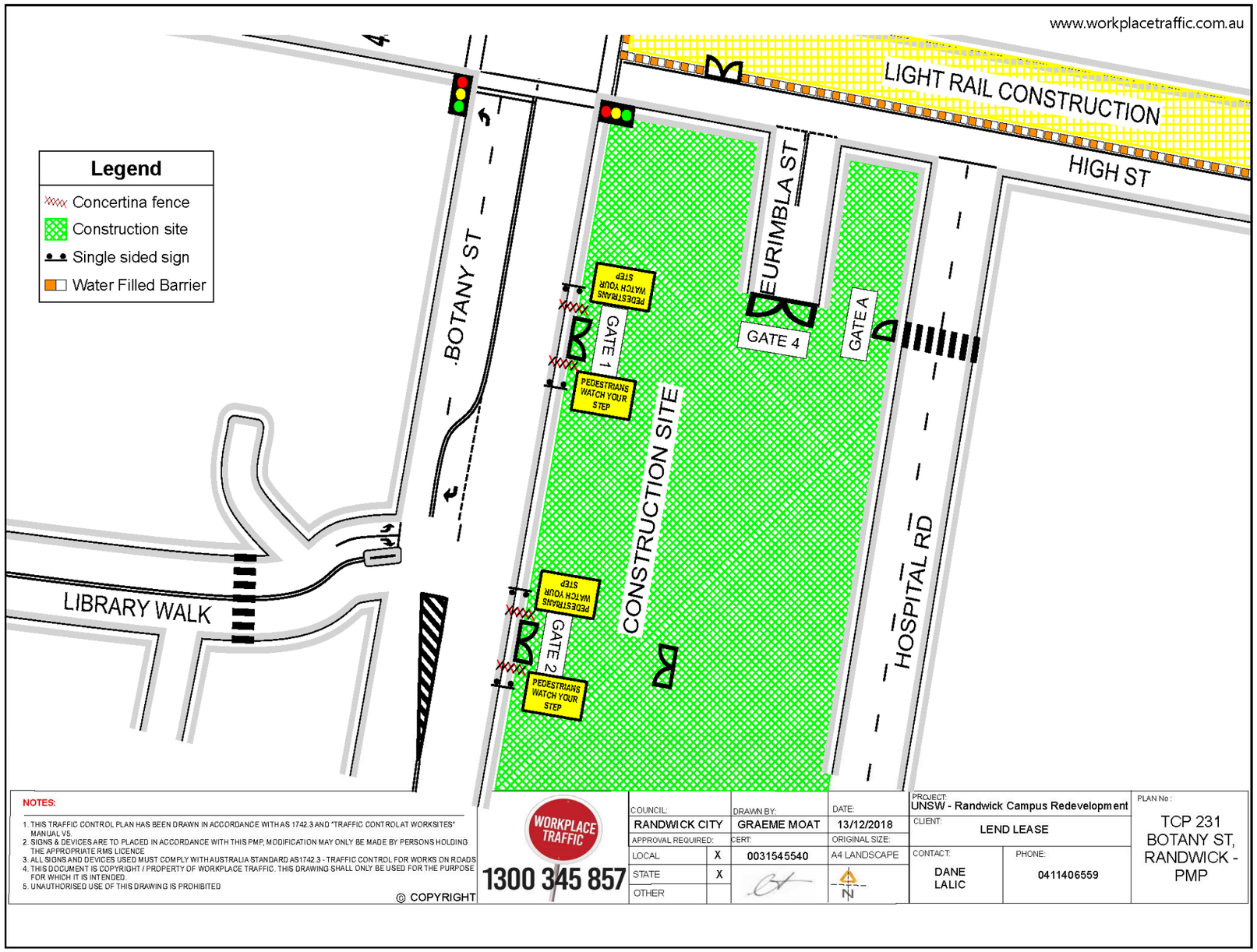
5. UNAUTHORISED USE OF THIS DRAWING IS PROHIBITED
© COPYRIGHT
WORKPLACE TRAFFIC
1300 345 857
COUNCIL: RANDWICK CITY
DRAWN BY: GRAEME MOAT
DATE: 13/12/2018
APPROVAL REQUIRED:
CERT:
ORIGINAL SIZE:
LOCAL X 0031545540 A4 LANDSCAPE
STATE X
OTHER
N
PROJECT: UNSW - Randwick Campus Redevelopment
CLIENT: LEND LEASE
CONTACT: DANE LALIC
PHONE: 0411406559
PLAN No : TCP 230 BOTANY ST, RANDWICK - GATE 1


www.workplacetraffic.com.au
Legend
Concertina fence
Construction site
Single sided sign
Water Filled Barrier
LIGHT RAIL CONSTRUCTION
HIGH ST
BOTANY ST
EURIMBLA ST
GATE 4
GATE A
GATE 1
GATE 2
PEDESTRIANS WATCH YOUR STEP
CONSTRUCTION SITE
HOSPITAL RD
LIBRARY WALK
NOTES:
1. THIS TRAFFIC CONTROL PLAN HAS BEEN DRAWN IN ACCORDANCE WITH AS 1742.3 AND "TRAFFIC CONTROL AT WORKSITES" MANUAL V5.
2. SIGNS & DEVICES ARE TO PLACED IN ACCORDANCE WITH THIS PMP, MODIFICATION MAY ONLY BE MADE BY PERSONS HOLDING THE APPROPRIATE RMS LICENCE
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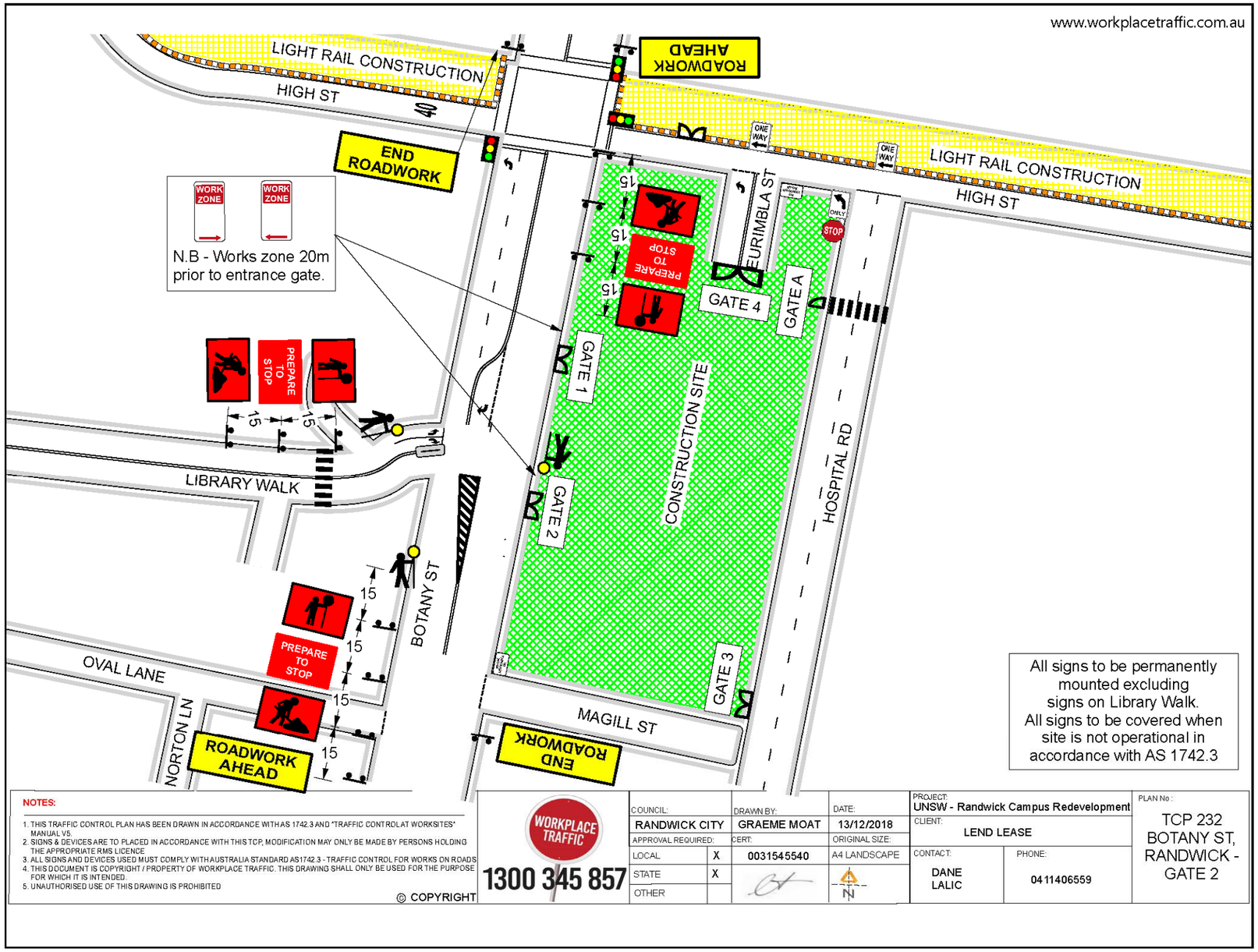
WORKPLACE TRAFFIC
1300 345 857
COUNCIL: RANDWICK CITY
DRAWN BY: GRAEME MOAT
DATE: 13/12/2018
APPROVAL REQUIRED:
CERT:
ORIGINAL SIZE: A4 LANDSCAPE
LOCAL X 0031545540
STATE X
OTHER
PROJECT: UNSW - Randwick Campus Redevelopment
CLIENT: LEND LEASE
CONTACT: DANE LALIC
PHONE: 0411406559
PLAN No : TCP 231 BOTANY ST, RANDWICK - PMP


www.workplacetraffic.com.au
LIGHT RAIL CONSTRUCTION
HIGH ST
ROADWORK AHEAD
END ROADWORK
ONE WAY
LIGHT RAIL CONSTRUCTION
HIGH ST
WORK ZONE
WORK ZONE
N.B - Works zone 20m prior to entrance gate.
PREPARE TO STOP
15
15
15
15
15
15
15
PREPARE TO STOP
EURIMBLA ST
ONLY
STOP
GATE 4
GATE A
GATE 1
CONSTRUCTION SITE
HOSPITAL RD
GATE 2
GATE 3
LIBRARY WALK
BOTANY ST
OVAL LANE
NORTON LN
ROADWORK AHEAD
MAGILL ST
END ROADWORK
All signs to be permanently mounted excluding signs on Library Walk.
All signs to be covered when site is not operational in accordance with AS 1742.3
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3. ALL SIGNS AND DEVICES USED MUST COMPLY WITH AUSTRALIA STANDARD AS1742.3 - TRAFFIC CONTROL FOR WORKS ON ROADS
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5. UNAUTHORISED USE OF THIS DRAWING IS PROHIBITED
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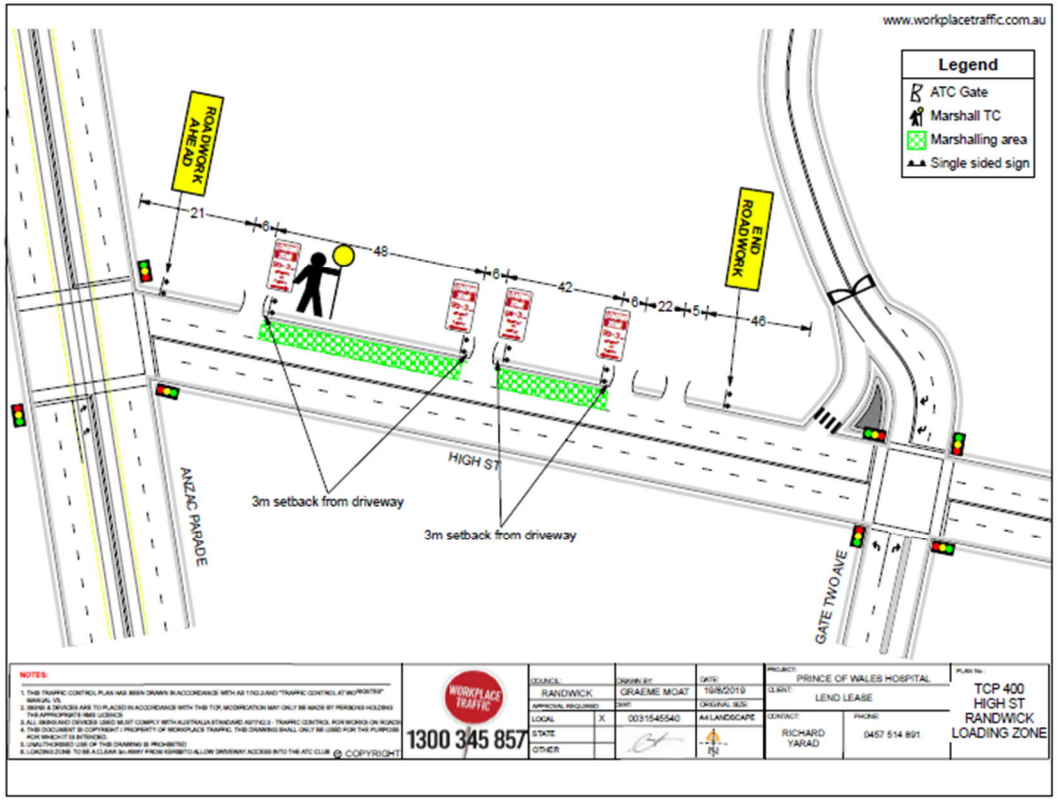
WORKPLACE TRAFFIC
1300 345 857
COUNCIL: RANDWICK CITY
DRAWN BY: GRAEME MOAT
DATE: 13/12/2018
APPROVAL REQUIRED:
CERT:
ORIGINAL SIZE:
LOCAL X 0031545540 A4 LANDSCAPE
STATE X
OTHER
N
PROJECT: UNSW - Randwick Campus Redevelopment
CLIENT: LEND LEASE
CONTACT: DANE LALIC
PHONE: 0411406559
PLAN No : TCP 232 BOTANY ST, RANDWICK - GATE 2


www.workplacetraffic.com.au
Legend
ATC Gate
Marshall TC
Marshalling area
Single sided sign
ROADWORK AHEAD
END ROADWORK
21
6
48
6
42
6
22
5
46
HIGH ST
ANZAC PARADE
GATE TWO AVE
3m setback from driveway
3m setback from driveway
NOTES:
1. THIS TRAFFIC CONTROL PLAN HAS BEEN DRAWN IN ACCORDANCE WITH AS 1742.3 AND "TRAFFIC CONTROLS AT WORKSITES" MANUAL V5.
2. SIGNS & DEVICES ARE TO PLACED IN ACCORDANCE WITH THIS TCP, MODIFICATION MAY ONLY BE MADE BY PERSONS HOLDING THE APPROPRIATE RMS LICENCE.
3. ALL SIGNS AND DEVICES USED MUST COMPLY WITH AUSTRALIA STANDARD AS1742.3 - TRAFFIC CONTROL FOR WORKS ON ROADS
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6. LOADING ZONE TO BE A CLEAR 3m AWAY FROM KERB/TO ALLOW DRIVEWAY ACCESS INTO THE ATC CLUB
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WORKPLACE TRAFFIC
1300 345 857
COUNCIL: RANDWICK
APPROVAL REQUIRED:
LOCAL X
STATE
OTHER
DRAWN BY: GRAEME MOAT
DWG#: 0031545540
DATE: 15/8/2019
ORIGINAL SIZE: A4 LANDSCAPE
PROJECT: PRINCE OF WALES HOSPITAL
CLIENT: LEND LEASE
CONTACT: RICHARD YARAD
PHONE: 0457 514 891
PLAN No: TCP 400
HIGH ST
RANDWICK
LOADING ZONE

APPENDIX 6 – IASB CTPMP