RANDWICK CAMPUS REDEVELOPMENT

CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

Integrated ASB Addition

June 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
1	August 2019	Lendlease	For SSDA Approval
2	December 2019	Lendlease	For Construction Certificate 1, 2, & 3
3	February 2020	Lendlease	For Construction Certificate 1, 2, & 3 incorporating TfNSW comments
4	March 2020	Lendlease	Incorporating TfNSW commentary following additional consultation
5	June 2020	Lendlease	Incorporating extended hours and revised staging

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 IASB.

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

CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT PLAN

INTEGRATED ASB ADDITION

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1.0 INTRODUCTION

1.1 Overview

The Randwick Campus Redevelopment Acute Service Building (RCR-ASB) is a highly complex project with critical early milestone components that must be delivered on time. The objective of this Construction Traffic & Pedestrian Management Plan (CTPMP) is to ensure that the IASB Addition (the Project) is safely delivered using a robust set of methodologies and zero unplanned disruption to hospital services.

This plan has been developed from the already approved CTPMP for the Main Acute Services Building approved under SSD 9113 by TfNSW.

The IASB Addition includes the lowering of Hospital Road, and construction of the UNSW Eastern Extension (Base Building only) and associated Link bridges. These works will occur concurrently to the ASB construction.

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; and
- a mechanism to reduce risks during project delivery.

Lendlease has produced this CTPMP as the contractor responsible for the delivery of the project. It is envisaged that this CTPMP will evolve during the course of the Project as the design develops in conjunction with the design consultant team, project stakeholders, Health Infrastructure (HI), South East Sydney Local Health District (SESLHD) and Price Waterhouse Coopers (PwC).

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

The CTPMP also defines the impacts of the proposed construction activities on areas within the RCR site and hospital campus the Prince of Wales (POW) Hospital Campus (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 minimise any potential risk to HI, SESLHD, its community partners and stakeholders.

Our proactive and collaborative approach to our client NSW Health Infrastructure is underpinned by the following overriding and non-negotiable objectives:

- Maintain business continuity of the campus 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 the Integrated ASB Addition, enabling construction of the RCR;
- 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 qualified subcontractors with appropriate resources to deliver their works in the manner we prescribe; and
- Hands on control of subcontractors from experienced Lendlease site supervision.

HI will have four key outcomes from the Lendlease CTPMP:

Figure 1: Key outcomes

1.2 Consent Conditions

The Department of Planning has issued the approved Development Consent conditions for the SSD-10339.

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

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- **A31 – Transport Network Operation** - The Applicant must consult with TfNSW, including its Sydney Coordination Office and TfNSW (RMS), to identify measures to mitigate impacts on the surrounding road network associated with the closure of Hospital Road at High Street.
- **B7 – CBD & South East Light Rail** - Prior to commencement of construction, the Applicant must consult with and obtain written approval from TfNSW, including its Sydney Co-ordination Office and Sydney Light Rail team, in relation to the proposed construction management measures to mitigate any impacts to the operation of the CBD South East Light Rail arising from:
    - (a) the closure of Hospital Road at High Street; and
    - (b) excavation works and any potential flooding impacts due to the proposed development.
- **B15 – Construction Traffic & Pedestrian Management Plan** - A Construction Traffic and Pedestrian Management Plan (CTPMP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:
    - (a) be prepared by a suitably qualified and experienced person(s);
    - (b) be prepared in consultation with the TfNSW, including its Sydney Coordination Office, Sydney Light Rail Operator team, TfNSW (RMS), and Council;
    - (c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on the CBD and South East Light Rail project and general traffic, cyclists and pedestrians and bus services;
    - (d) location of all proposed work zones;
    - (e) proposed construction hours;
    - (f) estimated number and type of construction vehicle movements including volume, time of day, vehicle routes, access and parking arrangements. All construction vehicles are to enter and exit

site in a forward direction. No reversing into site should be allowed for pedestrian safety reasons. Construction vehicle movements should be limited during peak periods, AM (7am-9.30am) and PM (4pm-6.30pm) to reduce impacts on any bus operations and traffic flow.

- (g) construction program including details of peak construction activities and proposed construction staging;
- (h) measures to reduce the likelihood of construction workers driving to the Randwick Hospital Campus site to park, placing further demand on kerbside parking and the road network during construction.
- (i) include a Driver Code of Conduct to:
  - (i) minimise the impacts of earthworks and construction on the local and regional road network;
  - (ii) minimise conflicts with other road users;
  - (iii) minimise road traffic noise; and
  - (iv) ensure truck drivers use specified routes;
  - (v) include a program to monitor the effectiveness of these measures; and
  - (vi) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.
- (j) include a program to monitor the effectiveness of these measures, and
- (k) if necessary detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes

- **B16 –** A copy of the final CTPMP is to be submitted to the Coordinator General, Transport Coordination at TfNSW for endorsement prior to the commencement of any work.
- **B17 – Construction Worker Transportation Strategy -** Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy in consultation with the Sydney Coordination Office within Transport for New South Wales to the satisfaction of the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities.
- **B24 – Construction and Demolition Waste Management -** Prior to the commencement of the removal of any waste material from the site, the Applicant must notify the TfNSW (RMS) Traffic Management Centre of the truck route(s) to be followed by trucks transporting waste material from the site.
- **C15 & C16 – Construction Traffic -** All construction vehicles (excluding worker vehicles) are to be contained wholly within the site, except if located in an approved on-street work zone, and vehicles must enter the site before stopping. A construction zone is not permitted on High Street.

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 on the 12th December 2019 to discuss the response letters prepared by TfNSW & RMS issued on the 23RD September 2019, including Transdev and SCO comments. This meeting was a productive meeting to consult on traffic and pedestrian management solutions for the approved development. Consultation will continue with TfNSW during the approval period of the CTPMP.

Lendlease will be seeking three Construction Certificates under this SSD-10339. They are as follows:

- CC1 – Services diversions
- CC2 – Piling, retaining structure,road pavements and slabs.
- CC3 – UNSW integrated fitout, UNSW structure and bridges

The CTPMP is requested to be approved for all these components of works. It is noted in section 3.3.5 that specific transport routes are to be consulted and agreed with TfNSW for the delivery of prefabricated bridges. This consultation will occur in mid-2020 once specialized subcontractors are engaged for this component of the work, which is programmed to occur early 2021.

2.0 BUSINESS CONTINUITY

2.1 Working within the operational hospital environment

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 identified excavation zones 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 civil works stages
- During the UNSW Extension construction works overhead protection will be installed to facilitate loading dock access for business continuity.

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 2). The planning for health service continuity and risk management 4 step process will underpin all stages of the RCR-IASB project and will be used as the guiding principle for how construction will be undertaken around the campus.

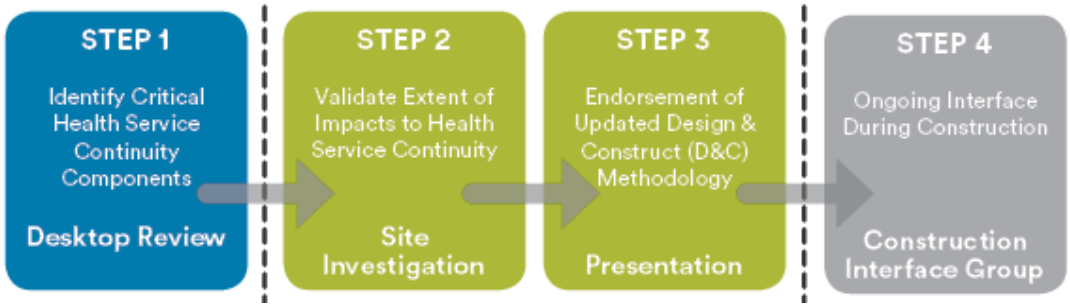


Figure 2: Four step business continuity process

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; and
- Sequencing construction to ensure handover of completed spaces to the RCR 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; and
- 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; and
- 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 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 process in collaboration with the SESLHD and principal representatives to ensure that the completed product is seamlessly transitioned into a live hospital environment; and
- Community notices / updates.

2.2 Hours of work

The construction hours approved for the development include the current approved ASB General construction hours and the Special construction hours for selected weekends;

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

Extended Construction hours Due to Covid 19	
Monday – Friday	6:00am to 10:00pm
Saturday	7:00am to 5:00pm
Sunday	No work

Special Construction Hours required on select weekends* to maintain operation of Hospital loading dock		
		Respite periods
Friday	6:00pm to 10:00pm (limited to site establishment activities in preparation for weekend works)	10:00pm to 7:00am = 9 hours
Saturday	5:00pm to 10:00pm (general construction activities excluding excavation, sawing of rock, jack hammers, pile drivers, vibratory rollers/compactors of the like)	10:00pm to 7:00am = 9 hours
Sunday	8:00am to 5:00pm (general construction activities including excavation, sawing of rock, jack hammers, pile drivers, vibratory rollers/compactors of the like)	N/a
Sunday	5:00pm to 10:00pm (general construction activities excluding excavation, sawing of rock, jack hammers, pile drivers, vibratory rollers/compactors of the like)	10:00pm to 7.00am = 9 hours
*Required for a total of 29 weekends plus 11 reserve/contingent weekends (total project duration of 130 weekends).		

In addition to regular working hours, there will be occasional extended periods (Weekend closures) when out of hours works are required. These out of hours works will be necessary to conduct the following activities:

- Site establishment and periodic changes to suit staging of works;
- Piling;
- Jump steel installation;
- Essential services, relocations and cutovers;
- Excavation; and
- Key deliveries.
- Install of bridge and structure sections

Lendlease will agree the process with HI, LHD, TMC, TfNSW, SCO and Randwick City Council to address the approvals and additional measures required prior to scheduling any out of hour's works. The nature of these works would typically include erection of hoardings, works to footpaths, services connections and other works that interface with the surrounding operational hospital.

With the weekend hours proposed above, sufficient 'respite periods' are provided to the neighboring residents. A minimum of 9 hours is provided as respite even when a weekend closure is underway.

Weekend closures have been indicatively scheduled in accordance with the below time motion chart. These weekend dates will vary. Lendlease will provide sufficient notification to the stakeholders of upcoming weekend closures to ensure all stakeholders are aware. Approximately 29 weekend closures are anticipated between February 2019 to March 2022, with 11 reserve/contingent weekends.

Throughout the duration of these works, Lendlease will ensure compliance with the approved hours. However certain construction activities on a given day may require additional time to complete to ensure the safety of the workers or neighbors. These high-risk scenarios will be identified, and approval sought from the relevant Authorities.

Through consultation with HI and LHD, loading dock closures on a weekday may be sought to facilitate the

weekend works schedule. A Friday or Monday shutdown of the loading dock will facilitate high risk works such as mobilisation of cranes, steelwork and other construction materials.

2.3 Proposed site plan

During the course of RCR the Lowering of Hospital Road and UNSW Eastern Extension, see below proposed site establishment to be completed in the following stages:

- Stage 1 – Integrated ASB Addition which includes the Hospital Road Lowering Southern Portion and Construction of the UNSW Eastern Expansion structure and fitout

This plan highlights the location of the site accommodation and project office and how the IASB site is integrated with the Acute Services Building site.

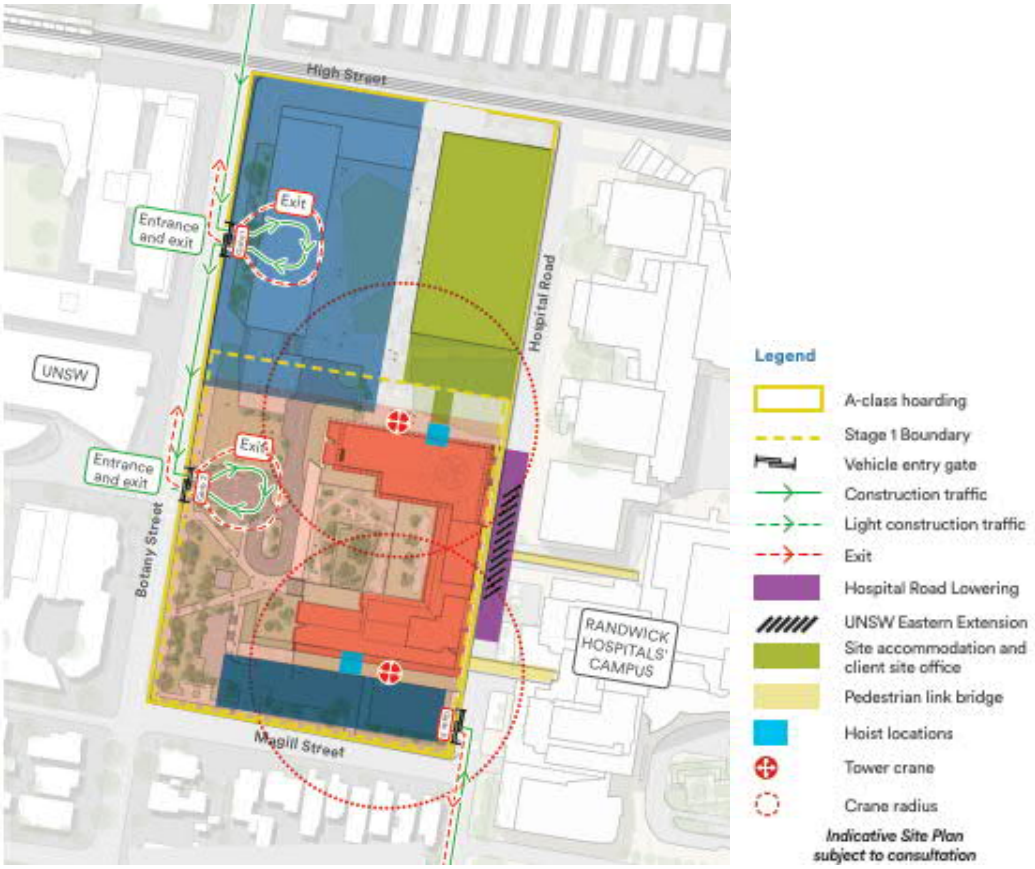


Figure 3 –Lowering of hospital road and UNSW Extension

2.3 Construction Workforce

The construction works for the Lowering of Hospital road works is predominantly civil works. This means the workforce is limited in numbers due to the use of plant and small crews. It is not until the construction of the USNW Extension building commences until the workforce numbers increase. Figure 5 Labour Histogram identifies the workforce numbers. For the first 15 months, the workforce peaks at approximately 40 workers. The peak crew expected for the Structure and fitout phase of the building is 135 workers.

2019											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
									12	16	16
2020											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
20	25	25	30	30	30	35	35	35	35	35	40
2021											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
50	50	78	90	100	110	120	138	138	138	125	120
		2020									
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug				
103	92	75	61	50	40	30	10				

Figure 4 –Workforce peaks

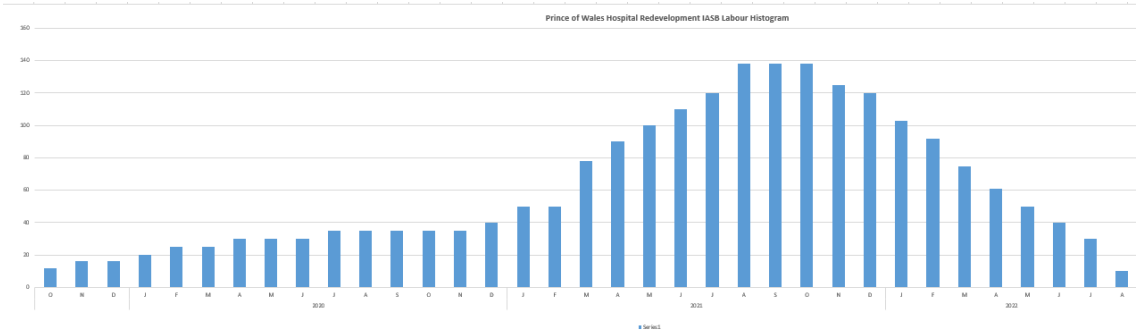


Figure 5 –Labour histogram

3.0 CONSTRUCTION PROGRAMME & STAGING

3.1 Key Milestones

The table identifies the key milestones of the scope of the IASB addition works.

	Lendlease Program	
	Start Date	Finish Date
Lowering of Hospital Road	23rd March 2020	25 June 2021
UNSW Eastern Extension (Base Building only)	16 April 2021	25 May 2022

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 an initial 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.

3.3 Construction sequencing

The lowering of Hospital Road is a critical piece of construction that requires highly developed sequence and methodology. Over the course of the design phase Lendlease will continue to develop our construction sequence to ensure safety of all workers and the public, zero unplanned disruptions, and sequence works to ensure Hospital and Dock continuity. A number of small, planned isolated shutdowns are proposed to facilitate the integration works to existing buildings and carry out high risk construction activities.

Some of the major construction sequencing that is being planned in detail include:

- Existing hospital loading dock temporary closures;

- Retention piles installed;
- Install capping beams and progressively adjust sheet piles on the ASB side of the site;
- Bulk excavation;
- Progressively lay new stormwater and sewer pipework to enable a revised connection;
- Install pit and conduit system for new HV;
- FRP ground slab;
- Install permanent piles for UNSW Eastern Extension (Base Building only) and link bridge;
- Undertake “jump steel” construction for the Level 01 slab; and
- Install the new hospital connection link bridge.

Due to the staging requirements to lower Hospital road, construction vehicles are required to use High Street as a means of access to facilitate these works. Lendlease has reviewed options to utilize the existing ASB site, however due to cross levels difference and the existing site accommodation locations, there is no direct access to Hospital Road. A staged approach will mean that the construction vehicles on High street are for limited periods which is captured in the Time Motion study. The following consultation with TfNSW and Transdev has identified the key restrictions:

- Construction vehicles limited 9m in length when approaching from High Street
- Swept path analysis undertaken to identify turning paths at signal intersections at High St/Botany St and Hospital Rd/High st
- Cumulative impacts on the surrounding road network minimised by restricting deliveries to outside peak times (7:00am -9.30am, and 4:00pm-6.30pm)
- Construction vehicles will only use High street during stages 3 and 5 of 6 of the identified construction staging works below.
- The same above restrictions applied to Loading dock Freight and service deliveries

3.3.1 Stage 1 of 4 – New High Voltage Feeds for Existing Substation 134 & 1087

During this stage of the project new incoming High Voltage feeds will be installed in Hospital road south of the loading dock and reticulate into both existing substations.

Construction works will be carried out under traffic control. Light construction vehicles will access from Barker street into Hospital road. Vehicles will be sporadic for this type of trench and conduit installation works. Vehicle movements are indicated in the time motion chart below. Access to the Loading dock and Carpark will be maintained during this work. Some weekend closures of the loading dock will be required to facilitate trench and conduit works within the loading dock area. Fleet and SCHN parking is not proposed to be disturbed during these works.

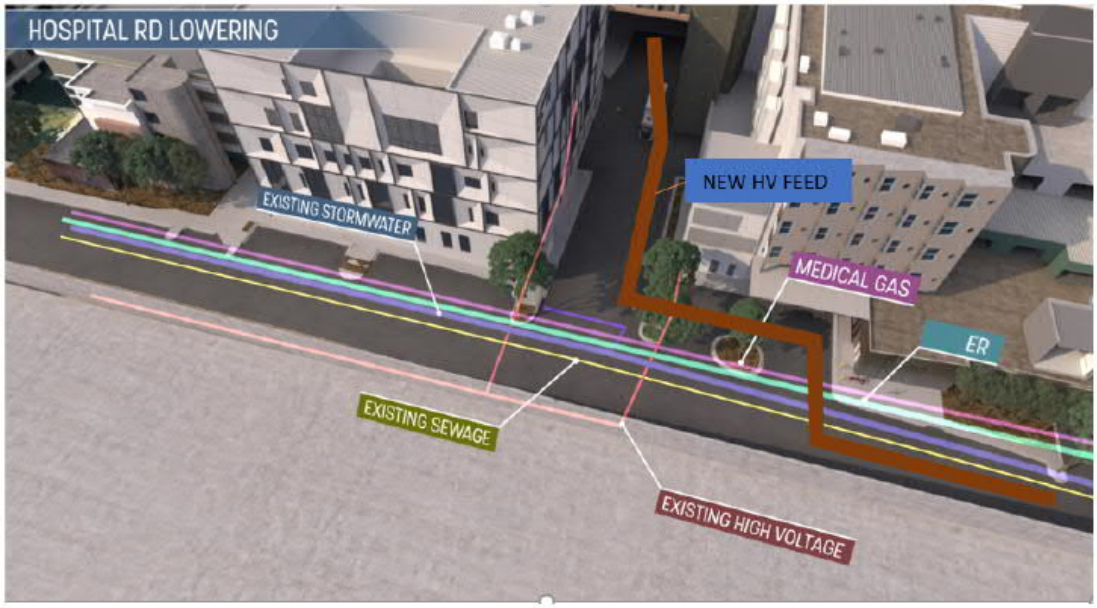


Figure 6 – High voltage install - stage 1 of 4

3.3.2 Stage 2 of 4 –South side: Services, piling and road construction

During this stage the existing services will be relocated out of the works area and temporary supplies connected to the buildings to ensure supply during the works. This allows the works to proceed on the install of the sewer and stormwater following the service install works will commence on bulk excavation, piling, construction of the new booster set and pavements

Construction vehicles will enter and exit the secure compound from Barker Street. Medium Rigid Vehicles (MRV) 9m long are proposed for these works. Vehicles will be sporadic due to the staging required within the site. 5-10 tip trucks / day removing spoil from the trench is expected this will increase further for a short period of time during the bulk excavation. With the installation of the perimeter hoarding, no through access to public vehicles and pedestrians are possible along Hospital road. Deliveries to the Hospital Loading Dock will approach from High street & Hospital Road intersection. The current intersection is restricted to vehicles of up to 9m only to turn right. After consultation with Transdev and TfNSW, it is requested that no larger vehicles are proposed through High Street due to limitations with swept paths at the intersection. Arup have carried out swept path analysis identifying the turning circles which are included in the Appendix. The Hospital has an existing arrangement where Freight and service vehicles are minimised during commute peak periods (7:00am – 9.30am and 4pm – 6.30pm). This restriction will be maintained as requested by TfNSW to minimise cumulative impacts on the traffic network. Freight and Service vehicles are limited to 9m. Swept path analysis has been carried out to demonstrate MRV and HRV vehicles at the intersection of High St and Belmore Rd, and High St and Avocat St. This will be the exit route for the Freight and Service vehicles. These swept paths identify the vehicles can make these turns safely.

Pedestrians will be diverted along High Street to Botany street and /or Avoca street.

Emergency access / egress arrangements to the main loading dock will be retained. There will be no impact on fire access to the SCHN.

SCHN parking will be retained in its current location. The 8 carspaces opposite Ainsworth building will be removed to facilitate these works from this time. Some minor modifications to existing kerbs and soft landscape will be carried out to provide a turning circle for these vehicles.

During this stage satellite sites will be set up on Hospital road to the north of the existing site and on Delivery Drive

to facilitate service locating and preparation works for service install, preparation for piling works and capping beam install following piling. TCPs will be drawn up for this work and the sites will be managed via traffic control to ensure access to delivery drive is maintained and pedestrians have safe access around the work sites. Additionally, as part of this stage of works the site will be extended to the south blocking one of the carpark entrances, this will be communicated with all the relevant stakeholders and will only be for a short period of time to allow for the construction of the services across the driveway and in close proximity to it. Signage will be in place to direct carpark user to the other entrances.

Traffic management details are identified in Traffic management plans located in section 4.6.

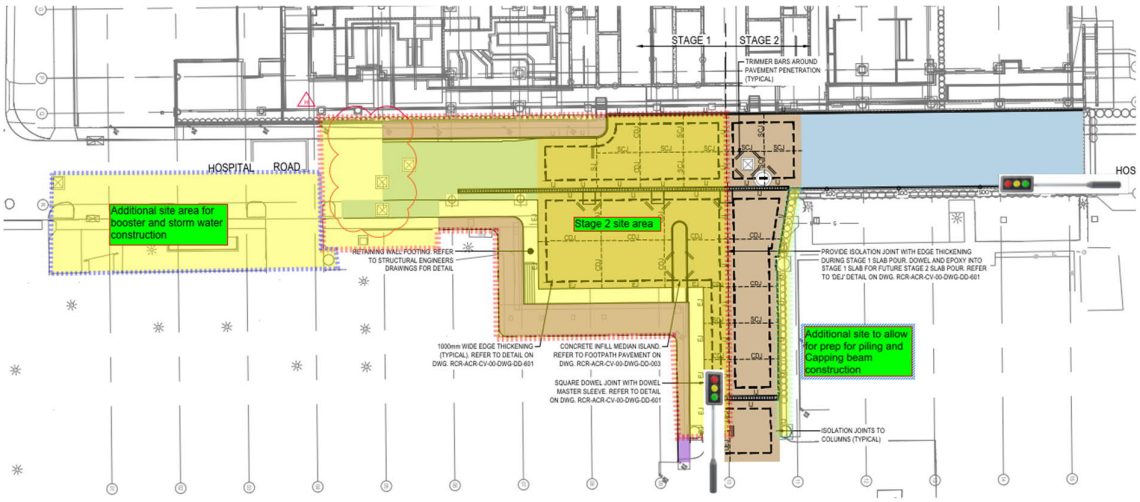


Figure 7 – South stage – services diversion – stage 2 of 4

3.3.3 Stage 3 of 4 –North Side: Services, piling and road construction.

During this stage the existing services will be relocated out of the works area and temporary supplies connected to the buildings to ensure supply during the works. This allows the works to proceed on the install of the sewer and stormwater following the service install works will commence on bulk excavation, piling, and pavements. Weekend shut downs will be utilized to facilitate the transition between stage 2 and 3

A similar amount of construction vehicle movements are estimated during these works. This is indicated in the time motion chart. Construction Vehicles will approach Hospital road from High street . Due to the minimal volume of construction vehicles per day, there will be negligible impact on the Hospital carpark entry & exit points.
Loading dock access will be from Hospital road north off Barker street. Intermittent weekend closures of the loading dock will be required to facilitate hoarding movements, piling and bulk excavation activities.

Construction vehicles will enter and exit the secure compound from High Street. Construction vehicles will be restricted to Medium Rigid Vehicles (MRV) 9m long as requested by TfNSW. Vehicles will be sporadic due to the trenching methodology required and depth of services trench. 5-10 tip trucks / day removing spoil from the trench is expected this will increase further for a short period of time during the bulk excavation. With the installation of the perimeter hoarding, no through access to public vehicles and pedestrians are possible along Hospital road. The current intersection is restricted to vehicles of up to 9m only to turn right. After consultation with Transdev and TfNSW, it is requested that no larger vehicles are proposed through High Street due to limitations with swept paths

at the intersection. As works progress and the height difference between the existing road and the new road level increase construction vehicles will alos have to make use of the southern gate, entering site via Barker street. Arup have carried out swept path analysis identifying the turning circles which are included in the Appendix.

Construction vehicles will be minimised during commuter peak periods (7.00am-9.30am and 4.00pm -6.30pm) to minimise cumulative impacts on the traffic network.

Construction vehicles leaving the site will turn left onto High street, and travel west down High street to Anzac Parade where they can then turn left or right. TfNSW have confirmed that this needs to be monitored. Alturnativitly Barker street will be used as the height difference becomes too great.

Pedestrians will be diverted along High Street to Botany street and /or Avoca street.

Emergency access / egress arrangements to the main loading dock will be retained. There will be no impact on fire access to the SCHN.

SCHN parking will be retained in its current location. The 8 carspaces opposite Ainsworth building will be removed to facilitate these works from this time. Some minor modifications to existing kerbs and soft landscape will be carried out to provide a turning circle for these vehicles.

Traffic management details are identified in Traffic management plans located in section 4.6.

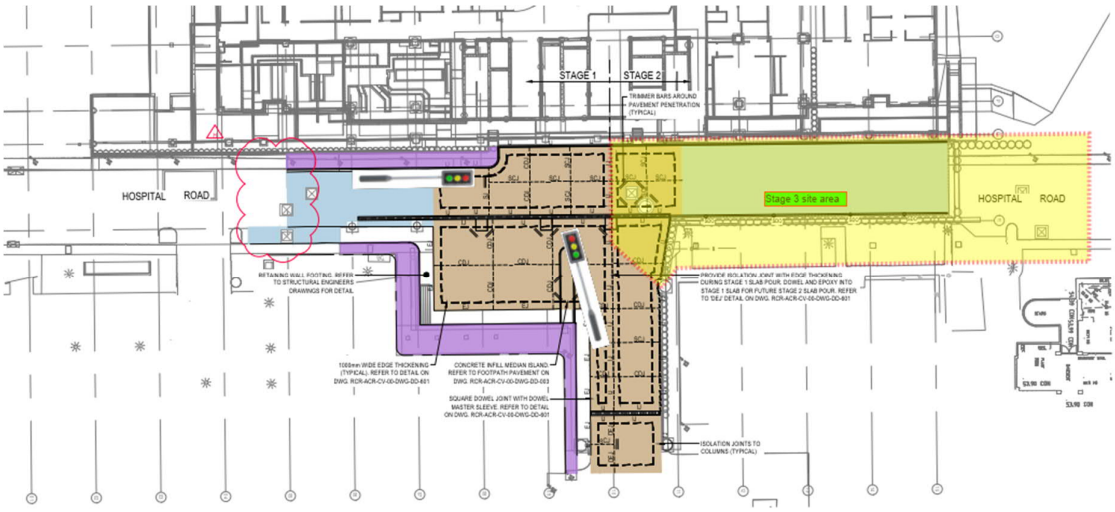


Figure 8 – North stage – services diversion – stage 3 of 4

3.3.4 Stage 4 of 4 – Construction UNSW Eastern Extension (Base Building only) and Link bridges

The IASB Addition construction critical path runs through the structural work packages being structural steel, formwork, reinforcement and concrete placement. To ensure the critical path is achieved Lendlease will be utilising “jumpsteel” to effectively and simply support the Level 01 slab over the lowered hospital road. This technique of fast tracking structural works will be utilised on other Lendlease projects such as Sydney Metro Martin Place.

The structural steel elements of the jump steel will be coordinated with the structural steel for the link bridge which is being constructed from the existing hospital out to meet the new façade line. A 3D image of that is also provided below.

The tower cranes for the ASB have been selected to provide lifting coverage for the UNSW Eastern Extension

(Base Building only) structural works. This allows the delivery of jump steel and associated building elements to be delivered through Gate 1 or 2 off Botany street. The delivery vehicles will be unloaded on the north/west side of the ASB and lifted across to Hospital road. This will significantly reduce construction vehicles on Hospital road during the construction of the structure.

The below Tower crane Radius chart (figure 12) indicates the reach from the ASB site and coverage of the UNSW Extension building.

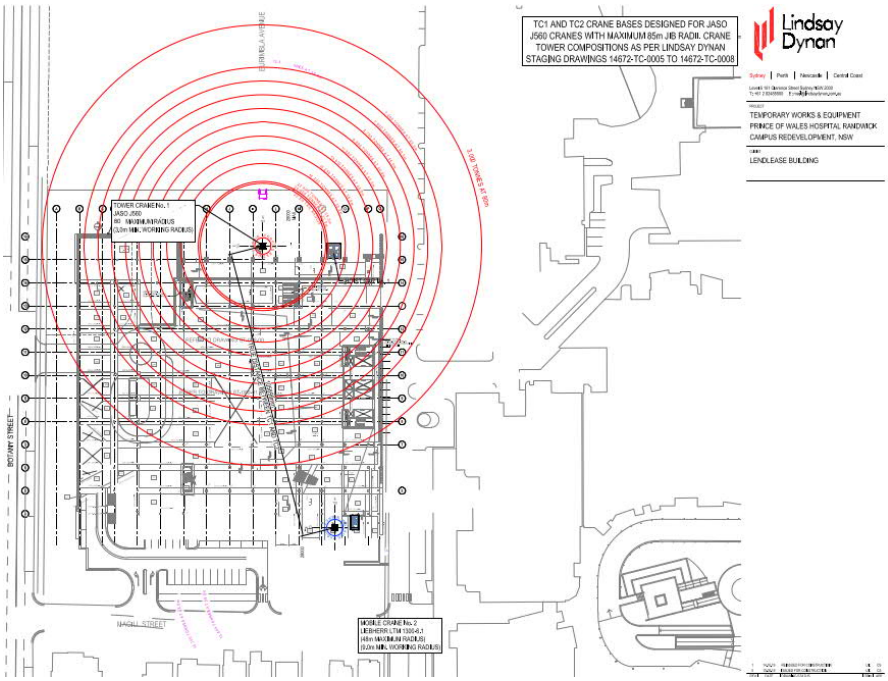


Figure 9 – Tower crane radius chart

At times there will be planned heavy lifts of prefabricated elements such as the bridges and facade components which will require large mobile cranes positioned in Hospital road. Weekend loading dock closures will be required to facilitate these works. These vehicles will approach off Barker road into Hospital road. Construction vehicle volumes on Hospital road are identified in the time motion chart (Figure 15).

Specific transport routes for the steel bridge deliveries will be agreed with TfNSW once a steel contractor is secured for the works.

The path of all mobile cranes will be from Barker street to avoid crossing and Light track tracks and overhead wiring.

Figure 10 – Structural Steel elements supported above Hospital Road

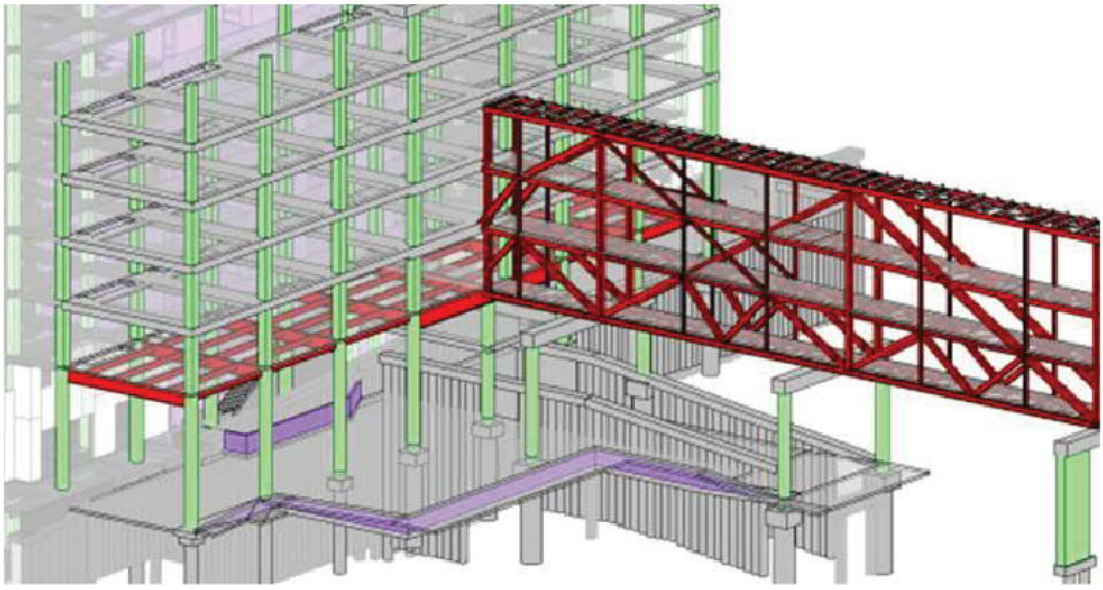


Figure 11 – Patient link bridge and jumpsteel integration

3.4 Construction Programme

The Construction programme for the UNSW extension works and Lowering of hospital road is identified in the below time motion study.
The time motion study below summaries the construction programme into the stages of works providing detailed information on construction vehicle projections associated with each stage of the works. Peak construction activities are identified when Stage 4 and 5 occur. This is the completion of the bulk excavation of the northern section of Hospital Road and the installation of the Link Bridges to the existing hospital.

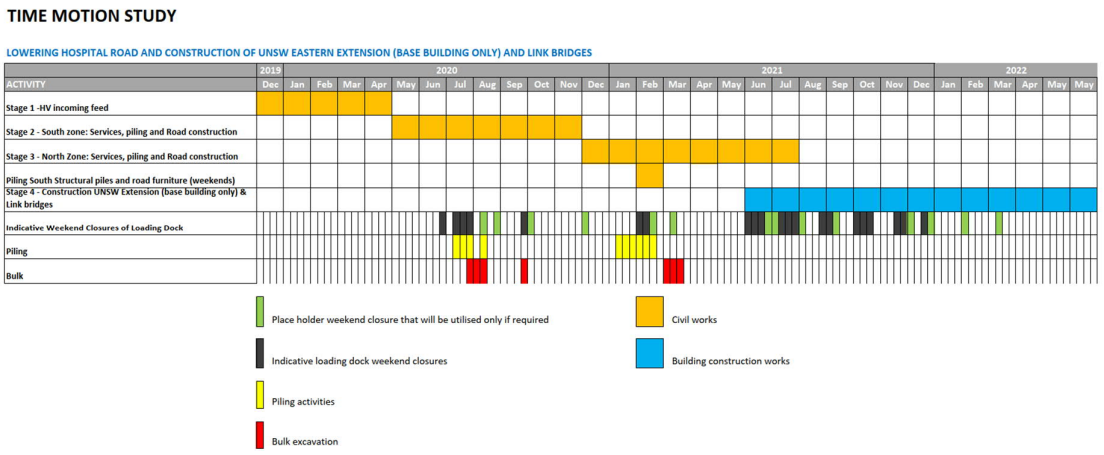


Figure 12 – Time Motion chart study

The cumulative impacts associated with the approved Acute Services Building is very low. The Structure for the ASB has commenced and peak construction activities for ASB are from September 2020 to March 2021. From which resources and delivery frequency reduce. The below resources chart (figure 16) indicates the peak period of the ASB for comparison to identify low cumulative impact of both projects.

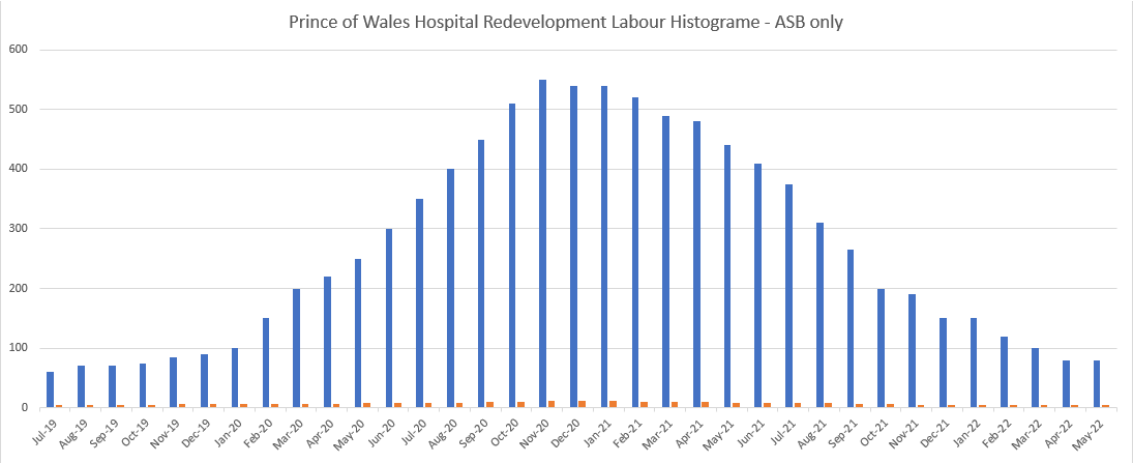


Figure 13 – Acute Services Building Peak workforce

4.0 CONSTRUCTION TRAFFIC & PEDESTRIAN MANAGEMENT

4.1 Site considerations

Lendlease has carefully planned and considered the staging requirements for the Integrated ASB Addition. These established strategies are to best manage logistics of the project within a live hospital campus. In doing so we have identified the following key considerations for management of the site:

- Site establishment schedule;
- Worker transport and parking;
- Pedestrian access and circulation routes;
- Site evacuation / major incident response;
- Site compound and amenities;
- Temporary services;
- Site temporary services;
- Fencing and hoarding for site segregation;
- Site access points, construction traffic and deliveries;
- Materials storage and handling;
- Working adjacent to residential and business properties;
- Site management controls;
- Business continuity of Randwick Health Campus, Sydney Children's Hospital, and the University of New South Wales, Royal Hospital for Women;
- Risk management;
- Construction methodology; and
- Project completion.

4.2 Site access points, construction traffic and Deliveries

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).

4.3 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.

4.4 Lowering Hospital road impact on ASB & Other Development works

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 Construction vehicles study

Lendlease has prepared a time motion chart for the proposed stages of construction to lower Hospital road and construct the UNSW Eastern Extension (Base Building only) building and associated link bridges.

This study considers the key stages of construction, the works, and construction vehicle requirements to facilitate activities such as trenching, building materials, excavation and piling. Working in and around live services requires a very considered and controlled speed of construction. The duration of these works extends over a 30-month period which is indicative of the complex nature of construction required to successfully complete these works. The

volume of construction vehicles is very low compared to normal construction projects such as the ASB. This is due to the complexity and type of works being undertaken.

Please see the figure on the following page.

TIME MOTION STUDY

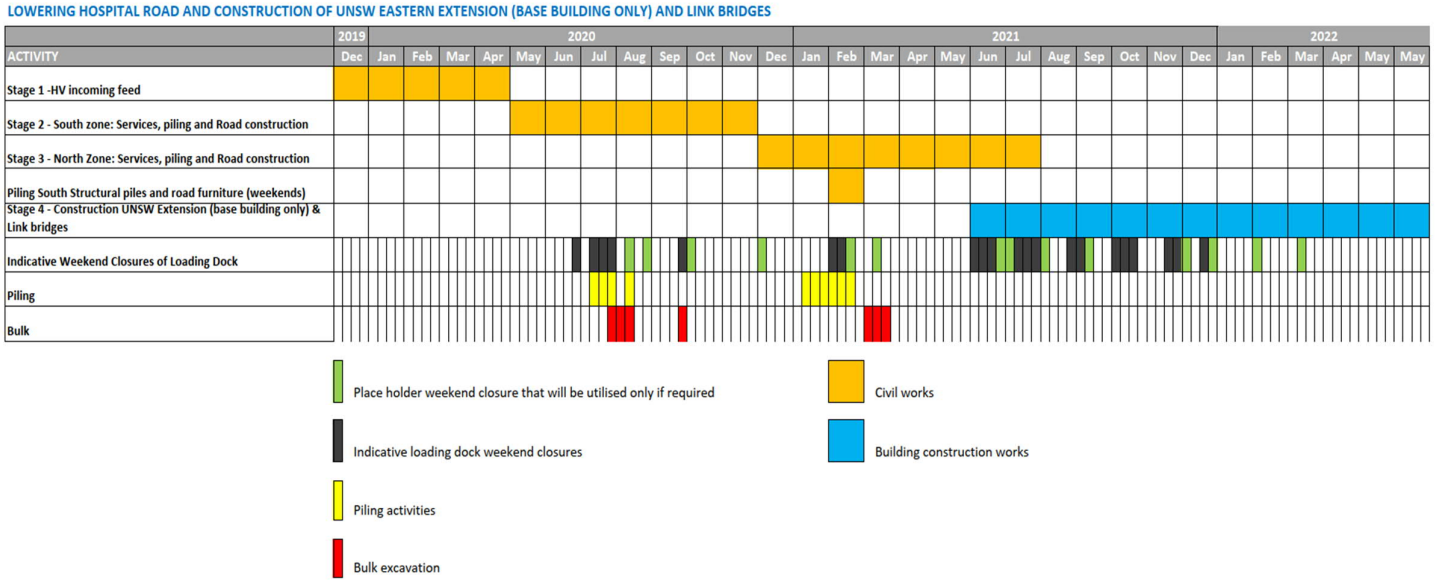


Figure 14 – Lowering Hospital Road and UNSW Eastern Extension time motion chart

Figure 14 identifies the anticipated number of vehicle movements each month for the proposed stages of construction. Indicative weekend closures are identified which may shift according to construction programming and sequencing. Piling and bulk excavation activities have been identified separately on this chart to show indicative duration of these works. The vehicle types expected for the civil works include:

- Bogie & tip trucks for spoil removal and bedding materials
- Concrete truck deliveries for piles and foundations
- Pantek & rigid trucks with conduits, pipes, shore boxes, and reinforcement

4.6 Hospital Road Traffic Management Plans

The construction staging identified in this section of the plan for the Lowering of Hospital road is indicated on the following Staged Traffic management diagrams.

In developing these staging diagrams consideration has been provided for vehicle entry and exit points off Barker and High street, impacts on existing parking on Hospital road and access/egress of the existing Hospital campus carpark.

The three key stages of Traffic management are explained below:

Stage 1 – Hospital Road Contra Flow Traffic for High Voltage Works (completed)

- Traffic management operations to the surrounding road, rail and bus network remain unchanged with this operation of works.
- Contra flow traffic conditions are introduced along Hospital Road to facilitate High Voltage trenching of these works adjacent to the RHW building.
- Light construction vehicles required for the works utilize Hospital Road from Barker street and exit onto High Street. Vehicles are limited to 9m.
- Minor parking arrangements on Hospital Road are adjusted to facilitate these works and relocated to spaces within the Hospital campus.
- Construction vehicles limited during peak periods in the AM and PM hours identified.
- No change to the SCHN drop off zone on the corner of High st/Hospital Road as requested by TFNSW.
- Pedestrian access along Hospital road remains on the eastern side footpath where currently nominated.

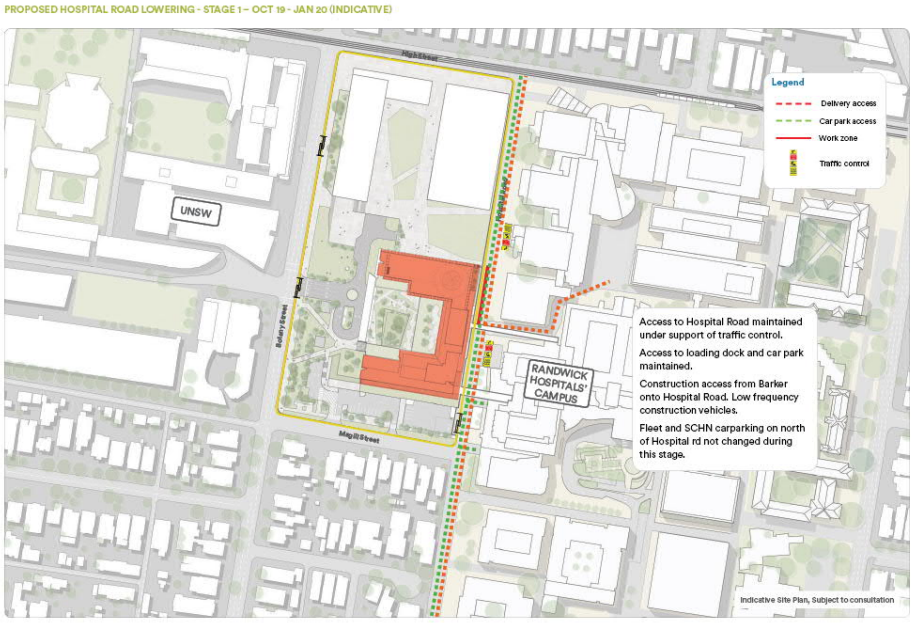


Figure 15 – Hospital Rd lowering – Traffic management diagram – stage 1

Stage 2 – Civil Works to South of Loading Dock (Currently Underway)

- Construction compound is established adjacent to the Royal Woman's Hospital (RHW) building to facilitate the civil works construction.
- Hospital Road is closed to existing traffic north to south.
- All Hospital loading dock deliveries are required to enter and exit Hospital Road from High Street. The quantum of loading dock deliveries has been studied by Arup with swept path analysis studied by Arup. This is located in the appendix.
- Hospital Carpark entry and exit from Hospital Road is by Barker Street. Impact on Barker Street will be reduced by the re-opening of Magill street during business hours.
- Construction vehicles for the civil works to enter the compound turning left off Barker Road into Hospital Road.
- Construction vehicles will enter and exit the site compound in a forward direction.
- Construction vehicles limited during peak periods in the AM and PM hours identified to minimise cumulative impacts with the Newmarket Green Development and associated school hours.
- No change to the SCHN drop off zone on the corner of High St/Hospital Road as requested by TFNSW.
- Pedestrian access along Hospital Road north to south from High Street to Botany Street is closed. Pedestrians requiring through access to Sydney Light Rail will be required to use Botany Street or Avoca Street. Variable message signs will be displayed advising of road closure.
- Construction Vehicle haulage routes for this stage of works is idenitfied in section 4.7.

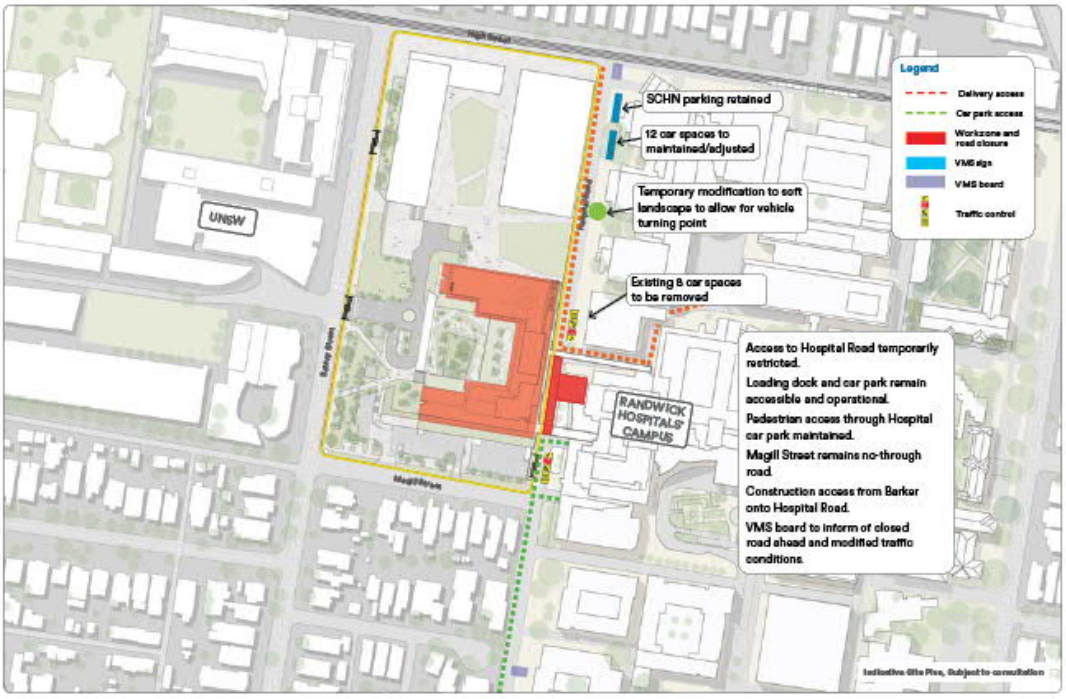


Figure 16 – Hospital Rd lowering – Traffic management diagram – stage 2

Stages 3 and 4 – Civil Works to north section Loading Dock

- Construction compound is established adjacent to the Ainsworth building to facilitate the civil works construction.
- Hospital Road is closed to existing traffic north to south.
- All Hospital loading dock deliveries are required to enter and exit Hospital Road from Barker Street. The quantum of loading dock deliveries have been studied by Arup with swept path analysis studied by Arup. This is located in the appendix.
- Hospital Carpark entry and exit from Hospital Road is by Barker Street. Impact on Barker street will be reduced by the re-opening of Magill street during business hours.
- Construction vehicles for the civil works to enter the compound turning right off High street into Hospital Road at the signalized intersection. This right turn is limited to 9m vehicles.
- Construction vehicles will enter and exit the site compound in a forward direction.
- Construction vehicles limited during peak periods in the AM and PM hours identified.
- No change to the SCHN drop off zone on the corner of High St/Hospital Road as requested by TfNSW.
- Pedestrian access along Hospital Road north to south from High Street to Botany Street is closed. Pedestrians requiring through access to Sydney Light Rail will be required to use Botany Street or Avoca Street. Variable message signs will be displayed advising of road closure
- Construction vehicles leaving the site will turn left onto High street from Hospital Road and travel west on High Street to Anzac Parade. This has been agreed with TfNSW through consultation. Lendlease will monitor these vehicle movements.
- Construction Vehicle haulage routes for this stage of works is idenitfied in sectiion 4.8.

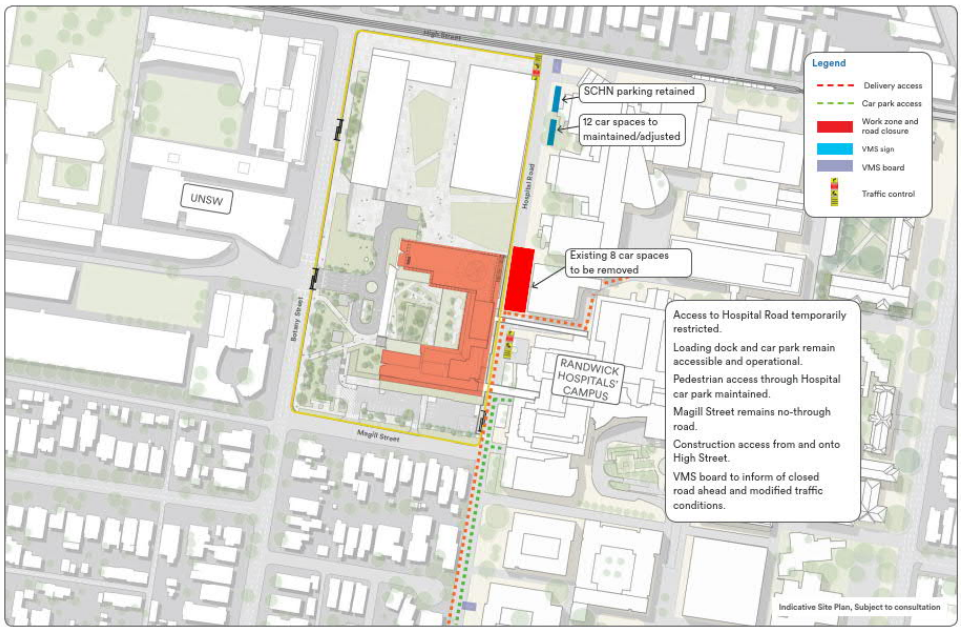


Figure 17 – Hospital Rd lowering – Traffic management diagram – stage 3 and 4

4.7 Construction Vehicle Haulage Routes

The following construction vehicle haulage routes have been identified to minimise impact on surround roads to the precinct during construction works. These routes will be communicated to the workforce via startup meetings, toolbox talks and issuing this CTPMP. Swept path analysis provided by Arup are located in the Appendix 4 for turning onto High Street and Hospital Road.

Inbound Construction traffic from North M1 to Randwick: Stage 2

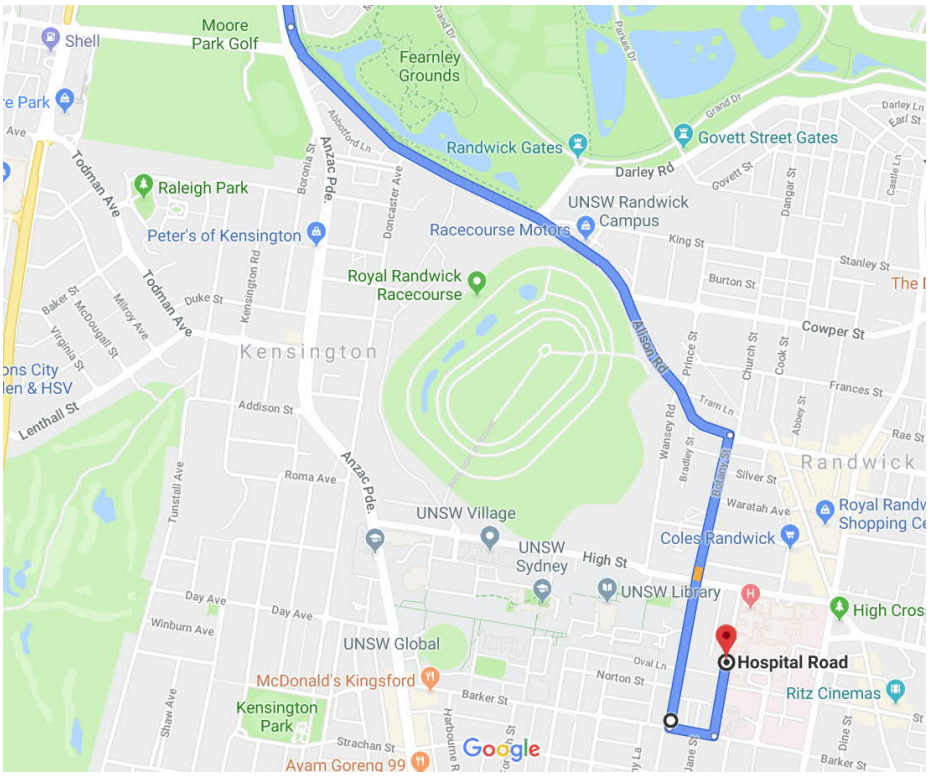


Figure 18 – Construction Traffic North M1 to Randwick: Stage 2

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

- Exit from the M1 onto Anzac Parade
- Turn left onto Alison Road
- Turn right into Botany St
- Turn left onto Barker Street
- Turn left onto Hospital Road and through to site gate
-

Outbound Construction traffic from Randwick to North M1: Stages 2 South

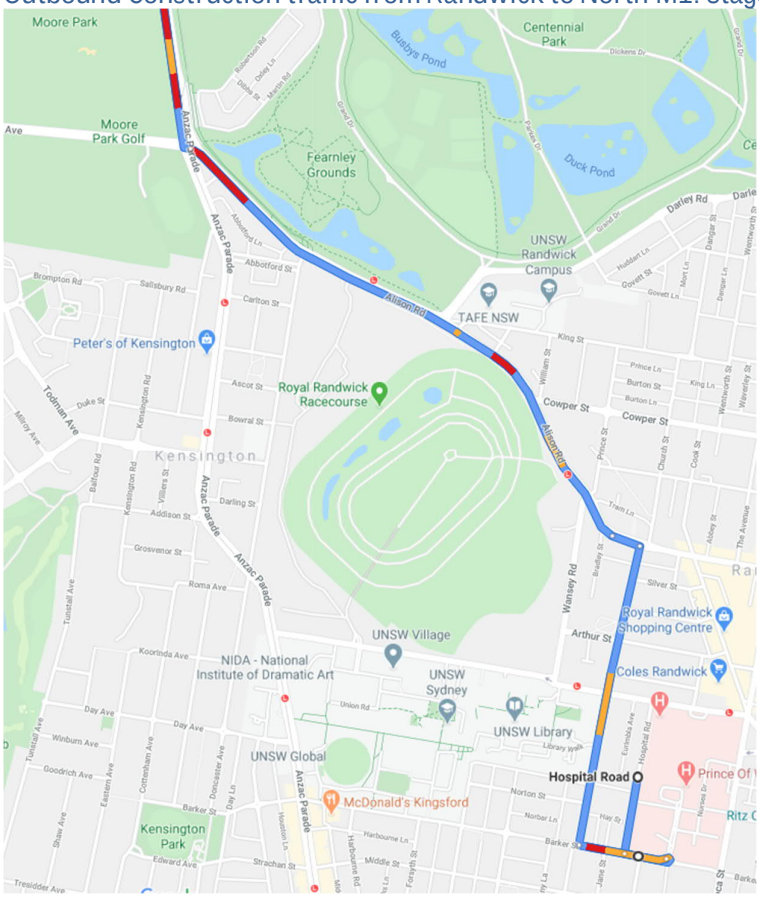


Figure 19 – Construction Traffic from Randwick to North M1: Stage2

Construction vehicles leaving the Site to go to the North of Sydney will follow a direction as outlined in the above figure.

- Exit site
- Proceed south down Hospital road Turn Left onto Barker St
- Preform a u turn at the Easy street roundabout
- Turn Right at Barker street
- Turn Left at Alison Road
- Turn Right onto Anzac Parade
- Continue into the M1 Tunnel

Inbound Construction traffic from South or West M1/M5 to Randwick: Stages 2 South

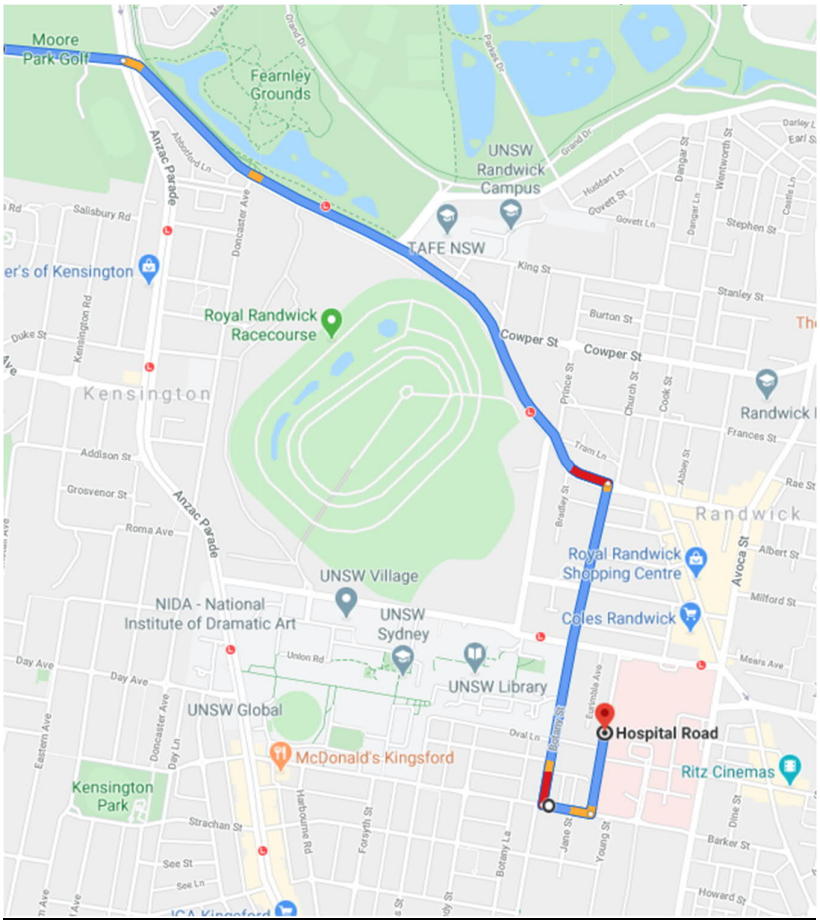


Figure 20 – Construction Traffic South or west to Randwick: Stage 2

Delivery vehicles travelling from the South or 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:

- Drive north along M1 Southern cross drive
- Turn Right onto Darcy Ave
- Continue onto Alison Road
- Turn right into Botany St
- Turn left onto Barker Street
- Turn left onto Hospital Road and through to site gate

Outbound Construction traffic from Randwick to South or West M1/M5: Stages 2 South

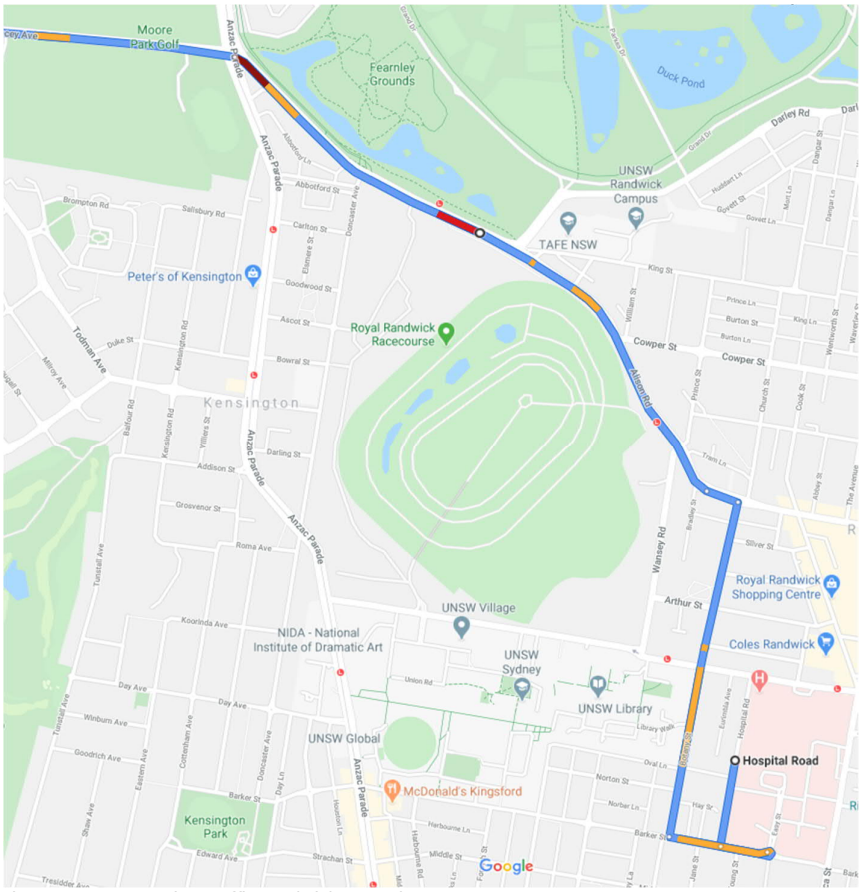


Figure 21 – Construction Traffic Randwick to South or west: Stage 2

Delivery vehicles travelling from the South or 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 site
- Proceed south down Hospital road Turn Left onto Barker St
- Preform a u turn at the Easy street roundabout
- Turn Right at Barker street
- Turn Left at Alison Road
- Continue onto Dacey Ave
- Turn Left onto Southern cross Drive

Inbound Construction traffic from North M1 to Randwick: Stages 3 and 4

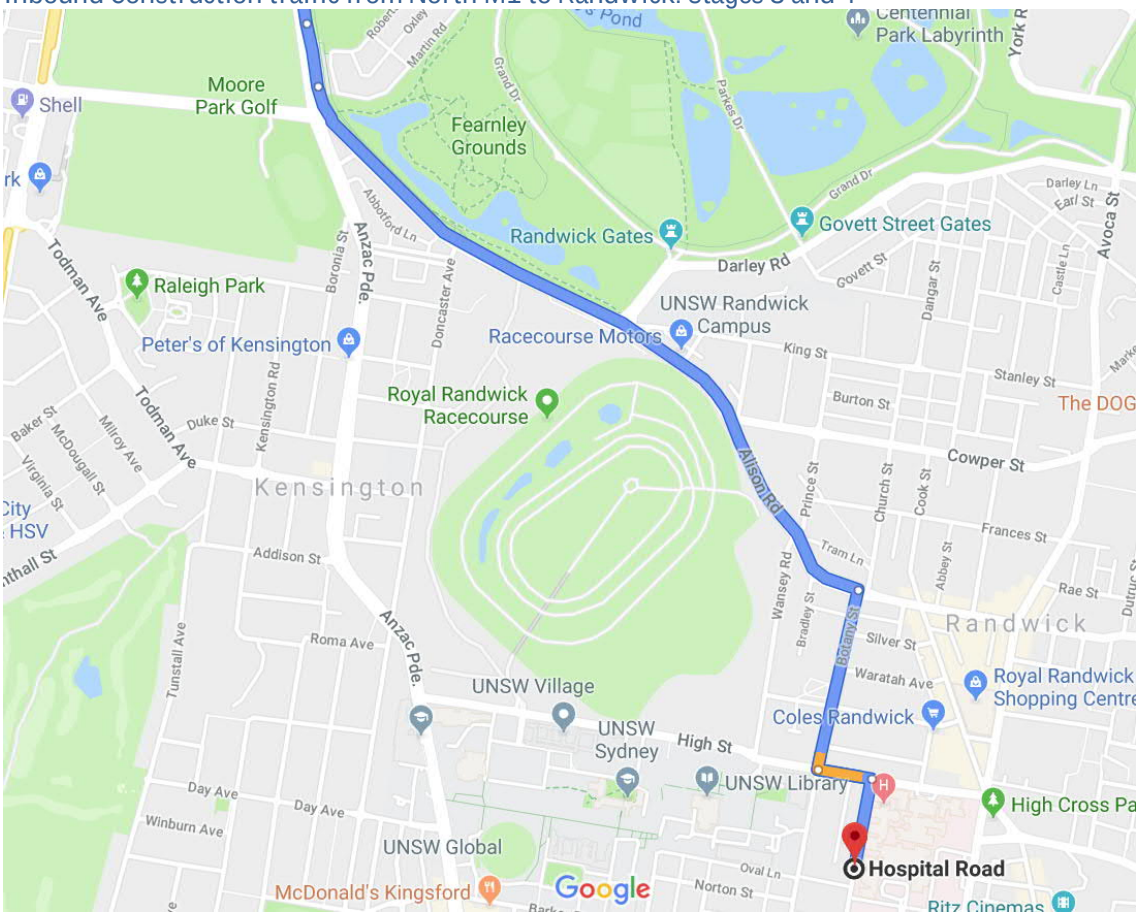


Figure 22 – Construction Traffic North M1 to Randwick: Stages 3 and 4

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

- Exit from the M1 onto Anzac Parade
- Turn left onto Alison Road
- Turn right into Botany St
- Turn left into High Street
- Turn right into Hospital Road and through to site gate (vehicles under 9m only)

Construction traffic from Randwick to North M1: Stages 3 and 4

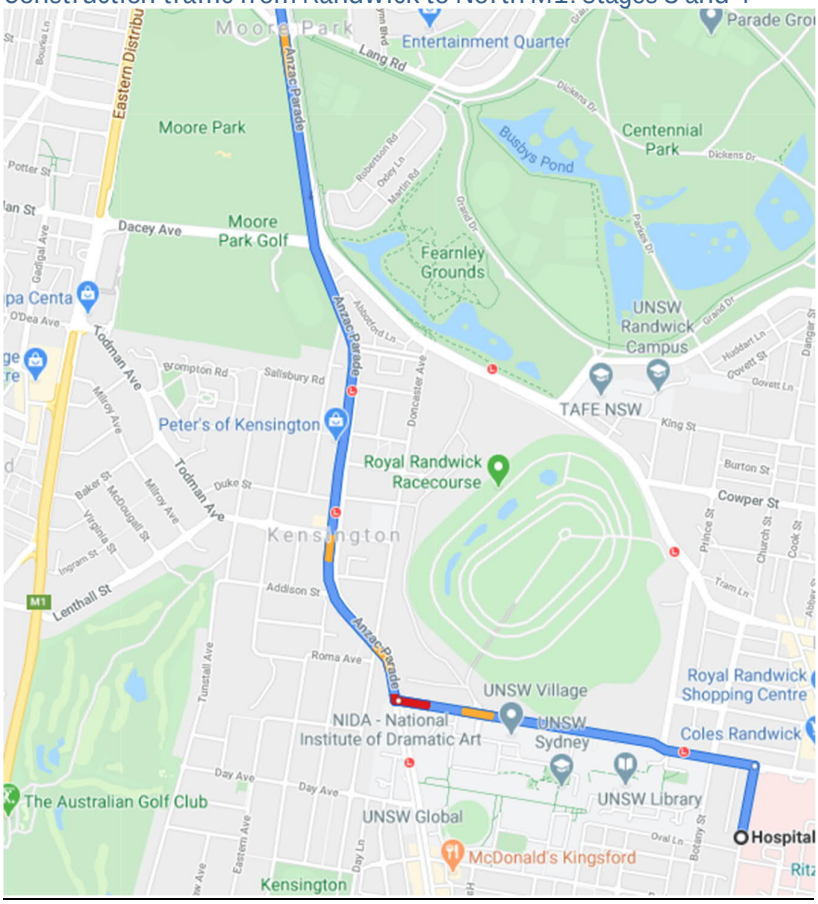


Figure 22 – Construction Traffic Randwick to North M1: Stages 3 and 4

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

- Exit site and drive north along Hospital Road
- Turn left into High St (vehicles under 9m only)
- Turn Right onto Anzac Parade
- Take the M1 Tunnel

Construction traffic from South or West M1/M5 to Randwick: Stages 3 and 4

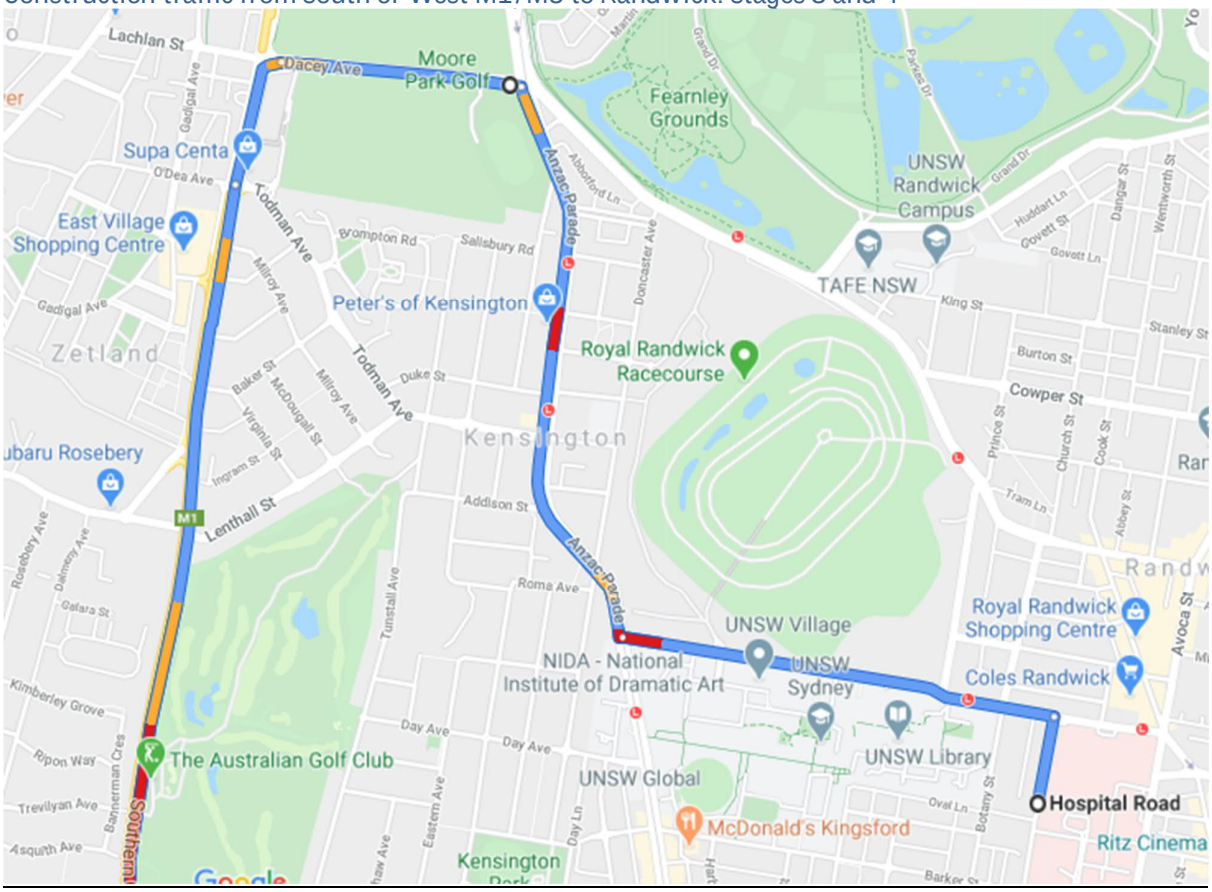


Figure 23 – Construction Traffic From South or West to Randwick: Stages 3 and 4

Delivery vehicles travelling from the South or 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
- Veer right onto Alison Road
- Turn right onto Botany Road
- Turn left onto High Street
- Turn right onto Hospital Road and through to site gate (vehicles under 9m only)

Construction traffic from Randwick to South M1/M5: Stage 3 and 4

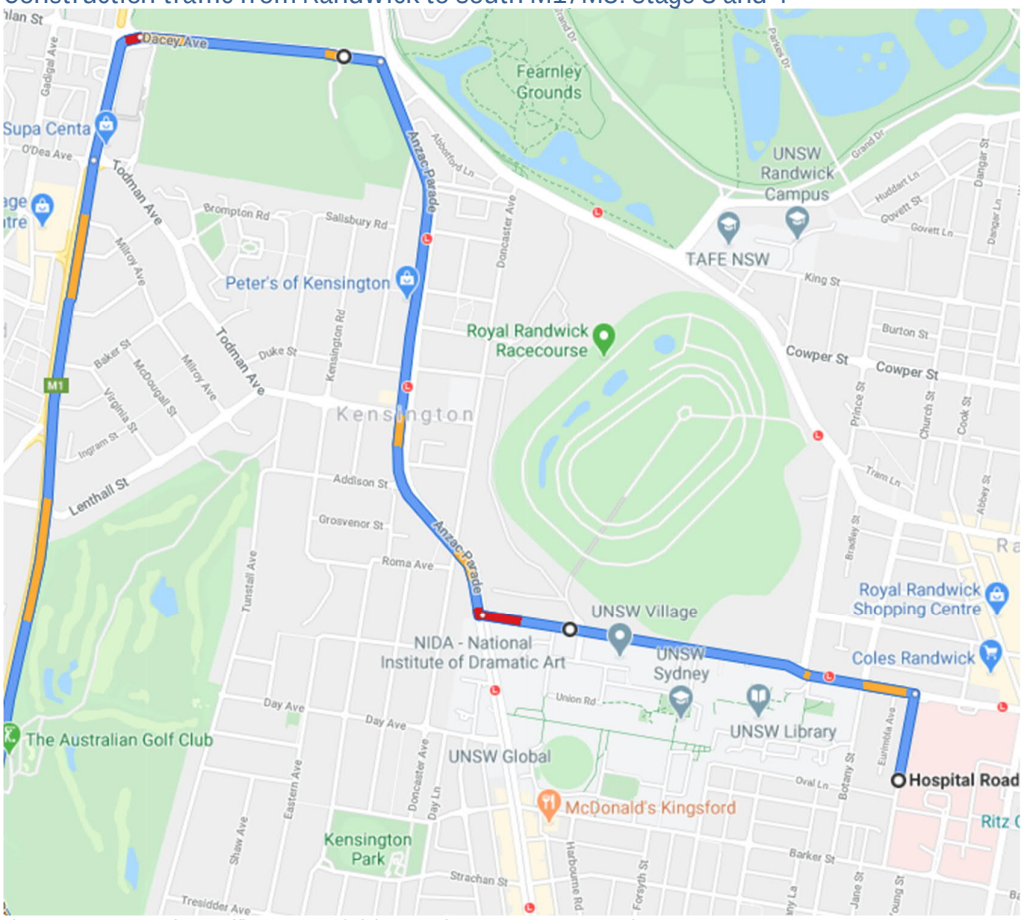


Figure 24 – Construction Traffic From Randwick to South or West: Stages 3 and 4

Delivery vehicles travelling from site to the South or 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 site and drive north along Hospital Road
- Turn Left onto High St
- Turn right onto Anzac Parade
- Turn left onto Darcy Ave
- Turn left onto M1 Southern cross drive

Hospital Delivery traffic from Botany St to the Loading dock stage 2

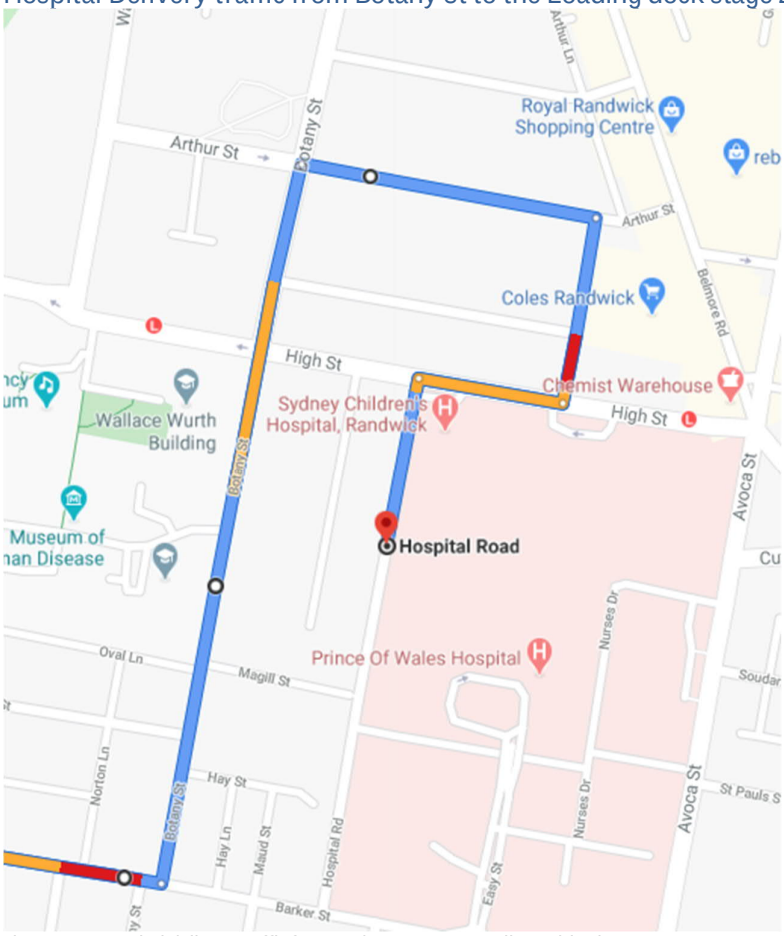


Figure 25 – Hospital delivery traffic form Barker St to enter Delivery drive in stage 2

Hospital delivery vehicles from Barker street to Delivery Drive will follow the route outlined above

- Turn onto Botany St
- Turn Right from Botany to Arthur St
- Turn Right into Clara St
- Turn right onto High St
- Turn left into Hospital road

4.8 Oversize deliveries

During construction works oversize deliveries will need to access site on occasion these will not be frequent occurrences. Examples of oversize deliveries are the piling rigs, mobile cranes and steel deliveries for the bridge structures.

These deliveries will follow all relevant RMS oversize load restrictions and will be operating within the RMS approved hours.

Due to the staging of the works these deliveries will have to enter site via both Barker St and High St.

4.9 Pedestrian & Cyclist Access & Management

Pedestrian & cyclist access around the precinct will remain unchanged with the proposed construction works of this development. The High Street footpath remains unchanged and the signalized intersection at High Street and Hospital Road remains in its current operation. This provides safe access to the SLR interchange for pedestrians.

Pedestrians & cyclists who utilize Hospital Road as a north / south thoroughfare to access High street or Barker road will be required to chose alternate travel paths due to the closure of Hospital Road during construction and from an end state. VMS boards will be installed at High Street & Barker Road advising of the road closure and alternate routes. Signage will divert pedestrian to use Avoca street or Botany/Magill street to travel north/south between High and Barker Road. This will allow commuters to access the UNSW Light Rail Station, or High Street Interchange station.

The Prince of Wales Hospital marketing and communications team are developing internal communications to be provided to Hospital staff and visitors of these changed conditions to assist with the change management process required.

4.10 Existing Parking provisions

Lendlease have completed investigations of the existing parking provision, demand and proposed supplementary parking opportunities' on and offsite in relation to the Hospital carparking.

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.

Existing parking provisions along Hospital road will need to be modified to facilitate the lowering of the road and construction of the UNSW Eastern Extension (Base Building only) and associated link bridges.

SCHN parking will be retained. Ainsworth parking will be removed along with other parking spaces on Hospital road. 12 car spaces can be provided along the northern section of Hospital Road which can be used for Hospital authorities.

Refer to the satellite image below of the proposed modified parking to the north of Hospital Road.

No impact on the entry and exit of the Hospital Carpark is proposed. No impact on the motorcycle parking provisions to the south of hospital road will require location during stage 3 works. It is proposed to move these further south.

At the commencement of the Stage 2 works, VMS signs will be positioned at the corner of High Street and Hospital Road, warning public vehicles of no through access. The SCHN drop off (figure 25) will be retained and vehicles directed to merge back onto High street.

Figure 25 – SCHN drop off zone

A modified turning circle arrangement will be constructed to allow vehicles parking on the north of Hospital road to 'U' turn and exit Hospital road onto High street. This will require removal of soft landscape and modification to kerbs and footpath. This has been modelled by ARUP for sufficient turning circles and these works will be constructed at commencement of the works prior to Hospital Road closing. See the below photo of the proposed changes. View looking south along Hospital Road.

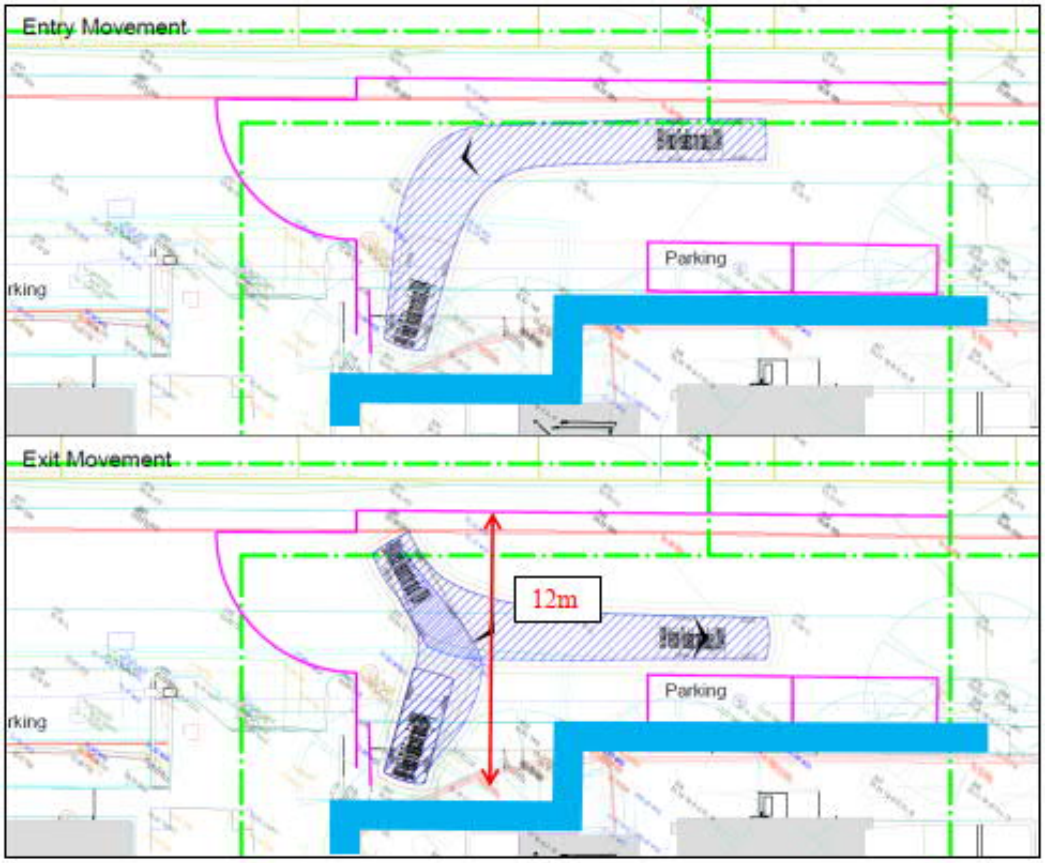


Figure 26 – modified turning circle for Hospital Rd

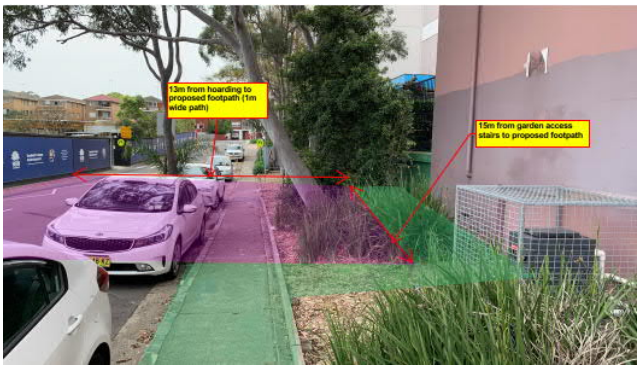


Figure 27 – Adjusted footpath

There will be no parking for construction workers on site. All workers are encouraged to utilize the public transport network to Randwick which is sufficiently supplied by Bus and the new Light Rail. In accordance with the Construction Worker Transportation Strategy an offsite parking facility has been arranged with the Australian Turf Club (ATC). This allows for workers to park at the ATC club in the public carpark and shuttle to site utilsing the SLR or the shuttle bus service provided by Lendlease.

4.11 Sydney Light Rail Interface

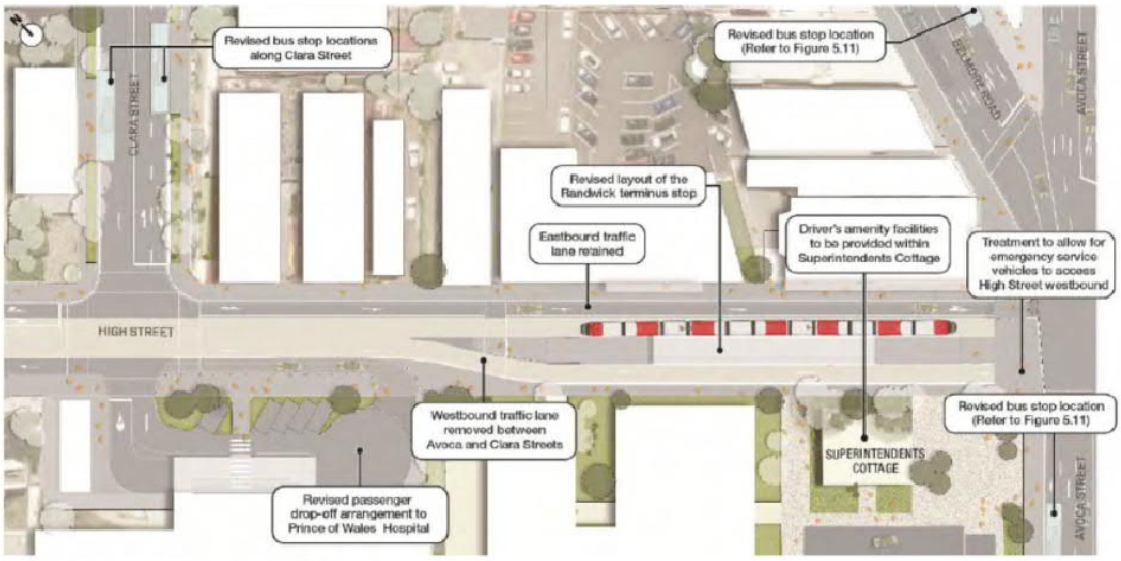
The Sydney Light Rail has now gone "live". It is expected that commuters will look to utilize the light Rail in lieu of driving to the Randwick area.

Lendlease understand through consultation with TfNSW (Transport for New South Wales), TMC (Transport Management Centre) and the light rail contractor the sensitivities around the High Street interchange.

Throughout construction of the Light Rail project, Lendlease has been coordinating any external works with Acciona to mitigate any impacts and ensure all works are timely managed. The construction of the IASB addition will not impact on the location of the SLR interchange and public pedestrian access to the interchange which is adjacent to the Hospital on High Street. Lendlease forecasts that construction workers will also utilize the SLR in order to commute to the construction site.

Lendlease will have construction vehicles entering off High street into Hospital road during stages of the construction as outlined in the CTPMP. This is required to facilitate the staging of the construction works and access due to level changes in Hospital Road. These vehicles will be required to adhere to the signalized intersection operation which does not require any adjusting with the proposed scope. Hence this will not impact on the Light rail train schedule or pedestrian movements.

Through consultation with Transdev, TfNSW, and SCO, it is understood that MRV vehicles are restricted to this intersection in order to mitigate impact on SLR tracks and crossing over into oncoming trams. Arup has carried out sept path analysis of the MRV and HRV to identify this, in support of using MRV's for the construction works.



Note: Indicative only. Subject to detailed design

Figure 27 – Finished state of The Light Rail Infrastructure Along High Street

Lendlease will continue to consult with Transdev, TfNSW and SCO to understand any impacts associated with the Kingsford opening of the SLR in early 2020.

4.12 Surrounding network considerations

In developing the CTPMP, Lendlease and Health Infrastructure has considered the surrounding network operations to understand any affects by the proposed development.
Arup has been commissioned to carry out a Traffic and Transport assessment of the surrounding network. The full report is attached as an appendix to the CTPMP. The key findings from the assessment are summarized;

- Most effective surrounding traffic measure is to re-open Magill Street to relieve traffic on Barker Street from the Hospital carpark. Proposed to close Magill Street at night to stop non-local traffic from entering with the use of a boom gate. The opening of Magill Street is anticipated for May/June 2020 to allow relief to carpark access provisions of the existing Hospital. Any re-opening of Magill street will be agreed with Council. This consultation is underway.
- The forecast daily traffic volumes along Magill Street of 2500 vehicles per day is expected to be less than the 3000 vehicles per day local street threshold.
- No new parking demand within the campus by the IASB addition, i.e. no new staff, and UNSW staff are already working on the UNSW campus.
- Public interest to redirect traffic from High Street due to CSELR, buses and pedestrians.
- Cumulative impacts of the Newmarket Greenland Development, ASB Development, SLR and UNSW are considered;
    - Civil works programme has low frequency of construction vehicles identified in the time motion study.
    - UNSW extension structure commences after the ASB structure works which minimises cumulative impacts. The UNSW extensions structure is facilitated by deliveries within the ASB site and utilisation of the existing Tower crane.
    - Newmarket development – key handover is early 2020 of the Barker street apartments. Through consultation with the Ganellen team, their respective Stage 2 works will commence mid-2020.
    - UNSW campus construction activity has diminished, with the possibility of the B22 development in 2021.
    - SLR operations are not expected to impact construction deliveries and vice versa as deliveries will be schedule outside peak service times of 7:00am-9:30am, and 4:00pm-6:30pm.
- Cumulative construction vehicle monitoring will be in place with the ASB and IASB works to ensure the volume predicted is adhered to. Restrictions to construction vehicles during peak periods will apply as identified above. This will be done by checking gate log entries and monitoring 2 weekly construction programmes. Consultative meetings with SLR, TfNSW, Newmarket, and other Authorities will provide opportunities for feedback.

4.13 Existing Hospital Loading Dock Facility

The Randwick Campus Loading Docks are accessible to vehicles from Hospital Road, via Delivery Drive. They are the central component of logistics operations for most facilities on the campus, including:

- Prince of Wales Hospital (POW), including heritage buildings;
- Prince of Wales Private Hospital (POWP);
- Sydney Children's Hospital (SCH);
- The Royal Hospital for Women (RHW);
- Eastern Suburbs Mental Health Service – KILOH, MHICU;
- Bright Alliance Building.

Health Infrastructure commissioned ARUP to carry out a study of the loading dock usage to determine frequency of vehicles and type of vehicles. This study is located in the Appendix 5.

As part of the proposed development the Hospital has been commissioned to review its logistics operation and streamline the delivery and collection of goods and services from the Hospital to facilitate future stages of construction. This is also investigating the avoidance of HRVs (5%) and introducing MRV's to assist with the High Street intersection restrictions. The percentage of vehicle type is identified in figure 29.

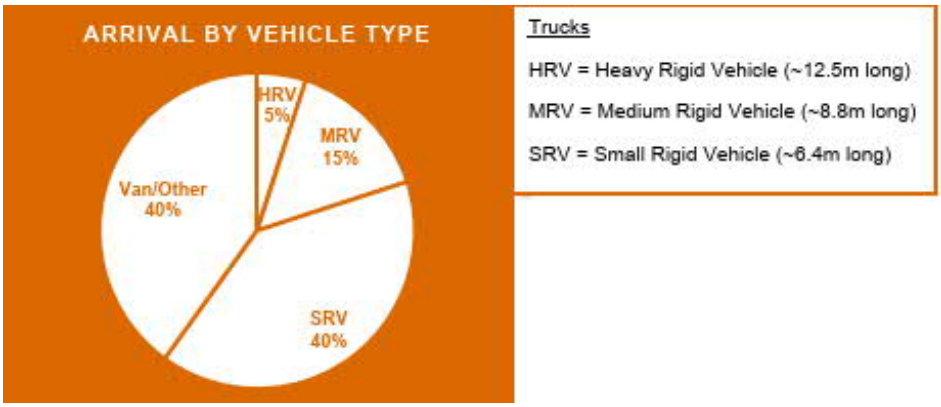


Figure 28 – Vehicle types

The quantum of vehicles observed from the study indicate totals of approximately 210 vehicles per day. This is summarized in the report included in the Appendix. During the various stages of construction identified for the Hospital Road lowering, this quantum of loading dock deliveries will alternate between Barker street entrance and High street entrance.

The cumulative impacts of construction vehicles and loading dock deliveries are very low due to the alternate staging of these access points.

4.14 Flooding Assessment

BMT has been engaged by Lendlease throughout the RCR development to provide studies of the Overland flow path through the site and from High Street. The ASB development has introduced a stormwater trap system designed to compensate for a 1:100 year rain event. The Hospital Road lowering works will have no impact on the overland flow path generated by High Street.

The current scope of the ISSDA is to lower the southern part of Hospital Road which has negligible effect at High Street as identified in the below peak water depth plan. The localised low point at on Northern section of Hospital Road will be addressed through the HRL Stormwater Management Plan.

The final solution once Hospital Road is lowered in its entirety to High Street (future development) is to install drainage at the High Street intersection to drain the flow to the trunk drainage system that is existing in High Street / Botany Street.

Consequently, there will be no impacts on flood levels in High Street as a result of the lowering during construction of Stage 1 lowering or ultimately. BMT have provided confirmation of this in the attached letter in the Appendix 6.

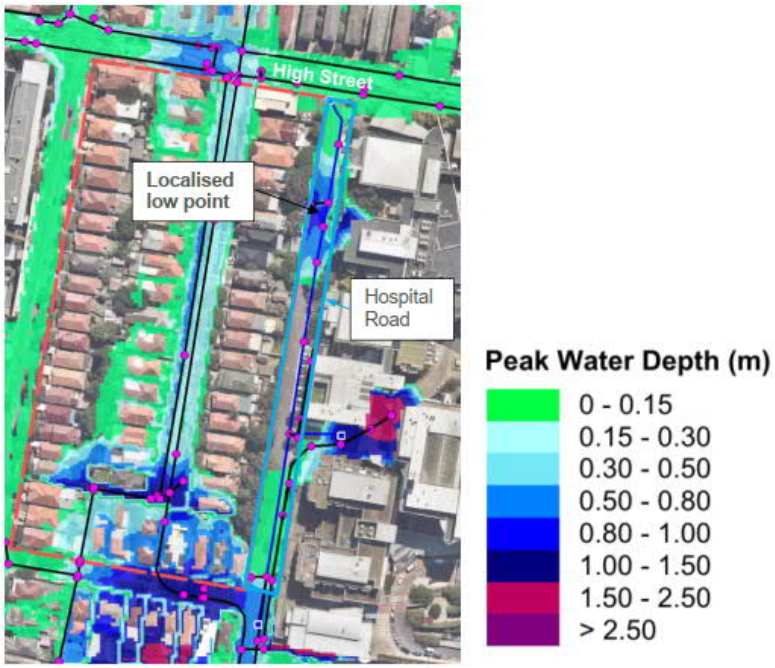


Figure 29 – Existing Case probable maximum flood event peak flood depths

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 10339. Specifically, the CWPS demonstrates compliance with Condition B17.

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 30 – Stakeholder engagement wheel

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

In accordance with Condition C16, 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);

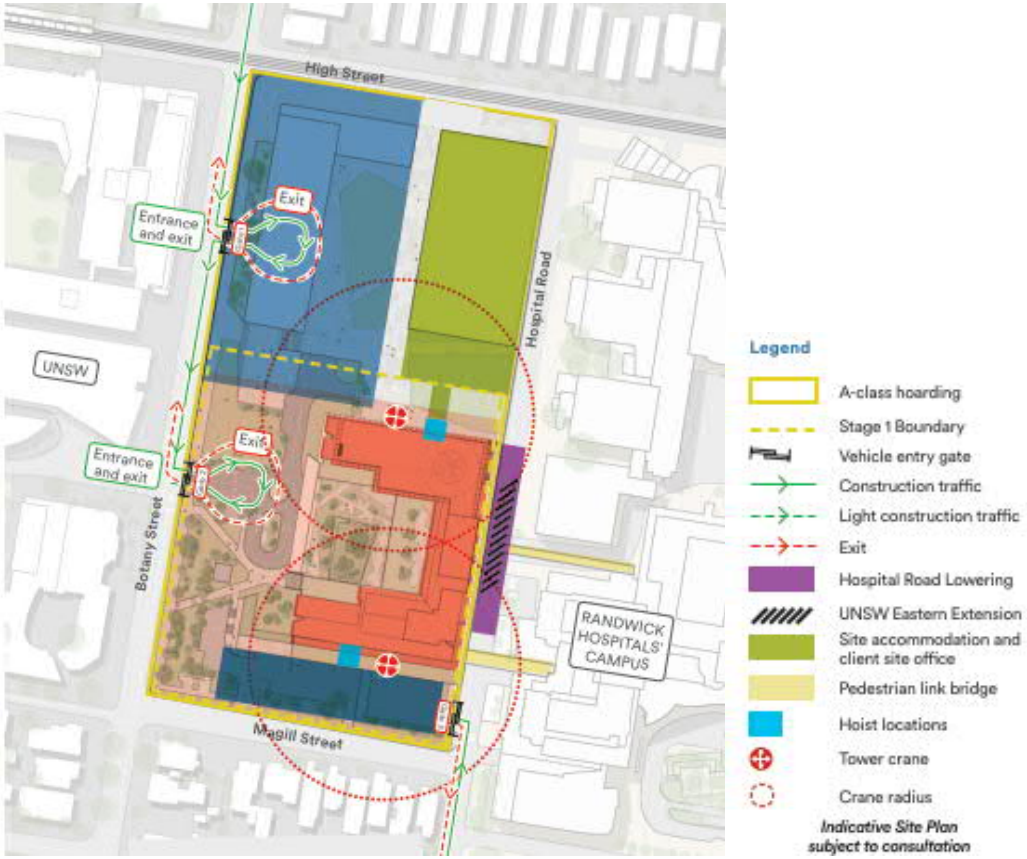
- Sydney Water (water, sewer and storm water);
- Roads and Maritime Services;
- NETS, Adult A&E, Children's A&E, Careflight Helicopters (helipad);
- Communication providers; and
- Other relevant utility providers.

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

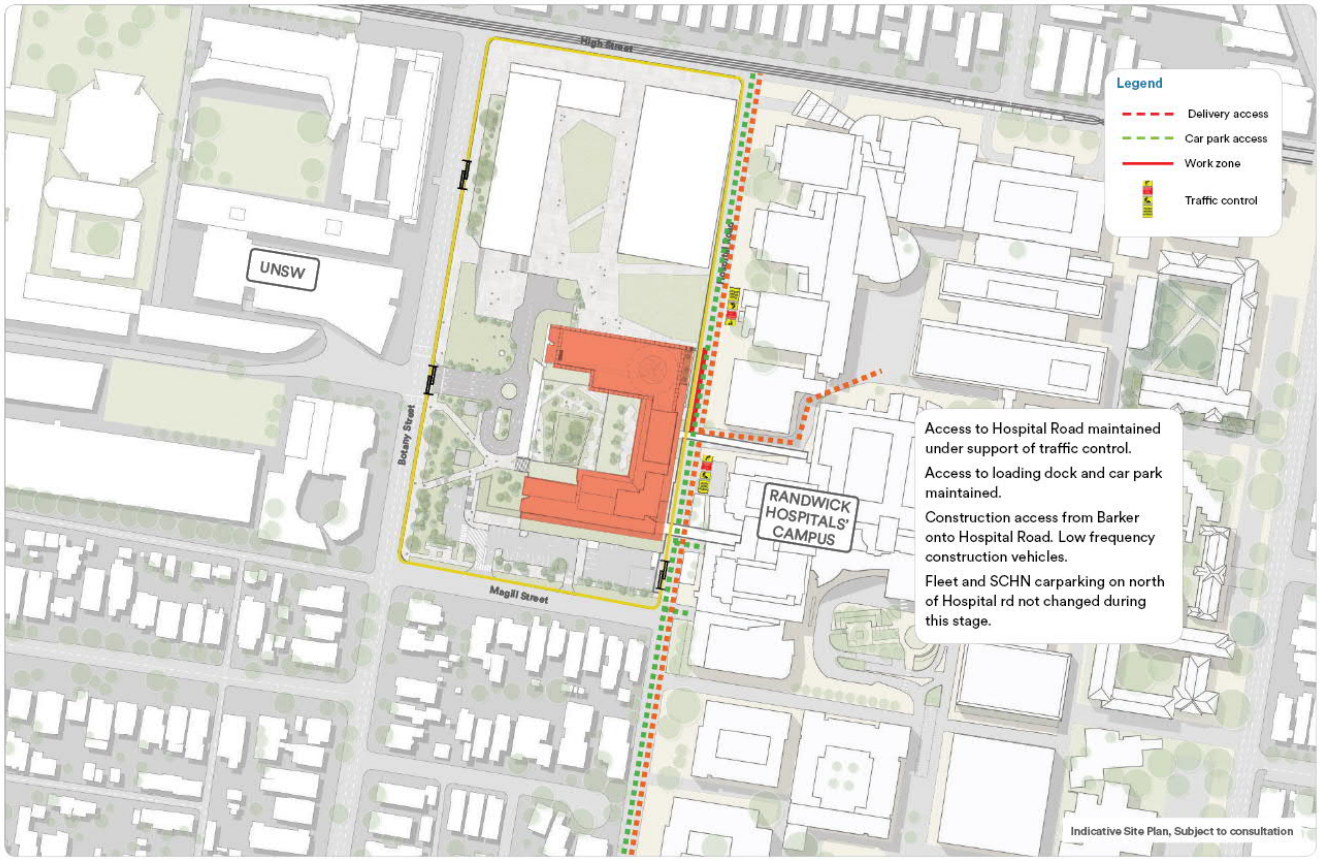
APPENDIX 1 – SITE ESTABLISHMENT PLAN



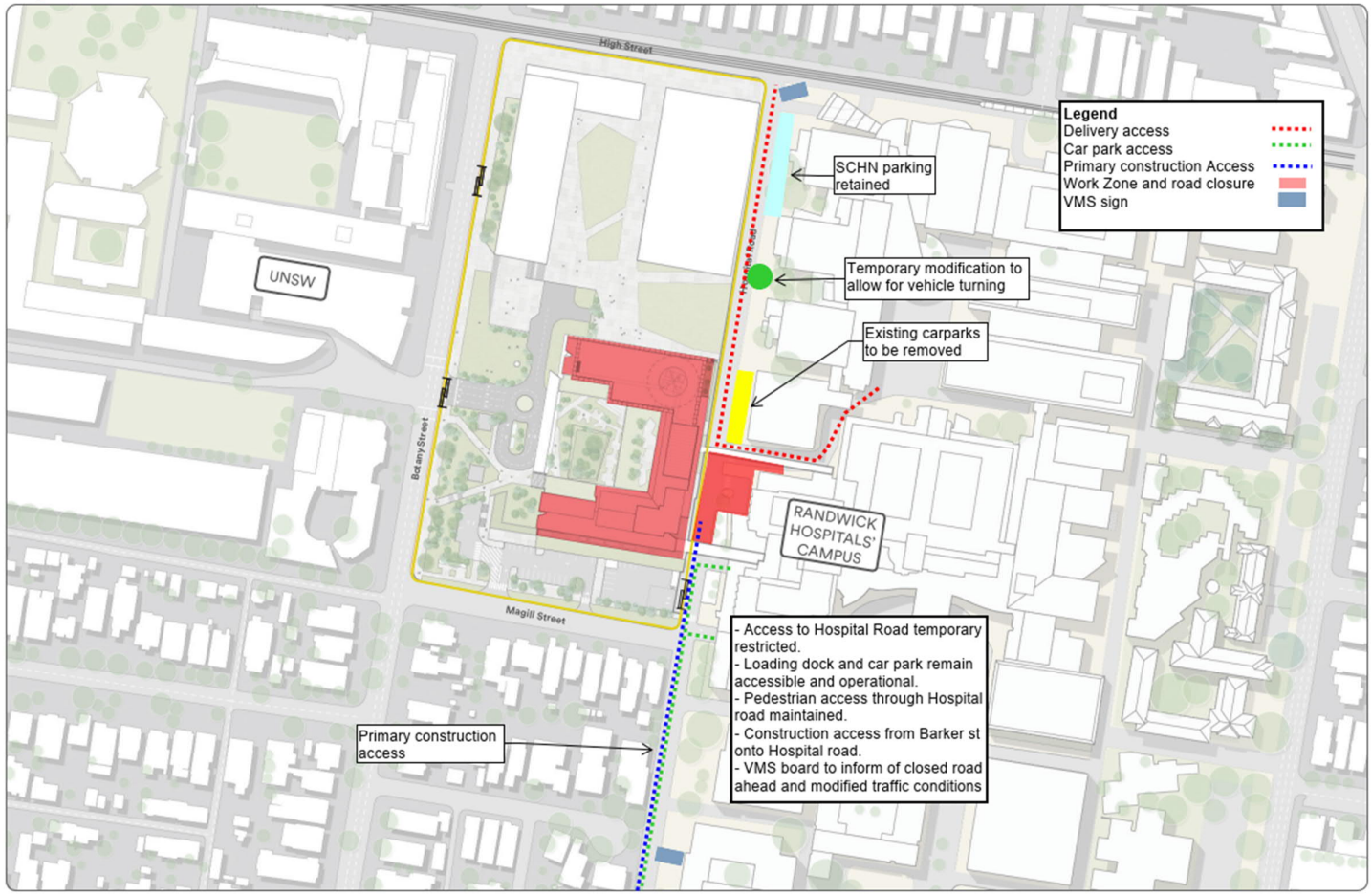
APPENDIX 2 – PROJECT ORGANISATIONAL CHART

APPENDIX 3 – TRAFFIC MANAGEMENT PLANS

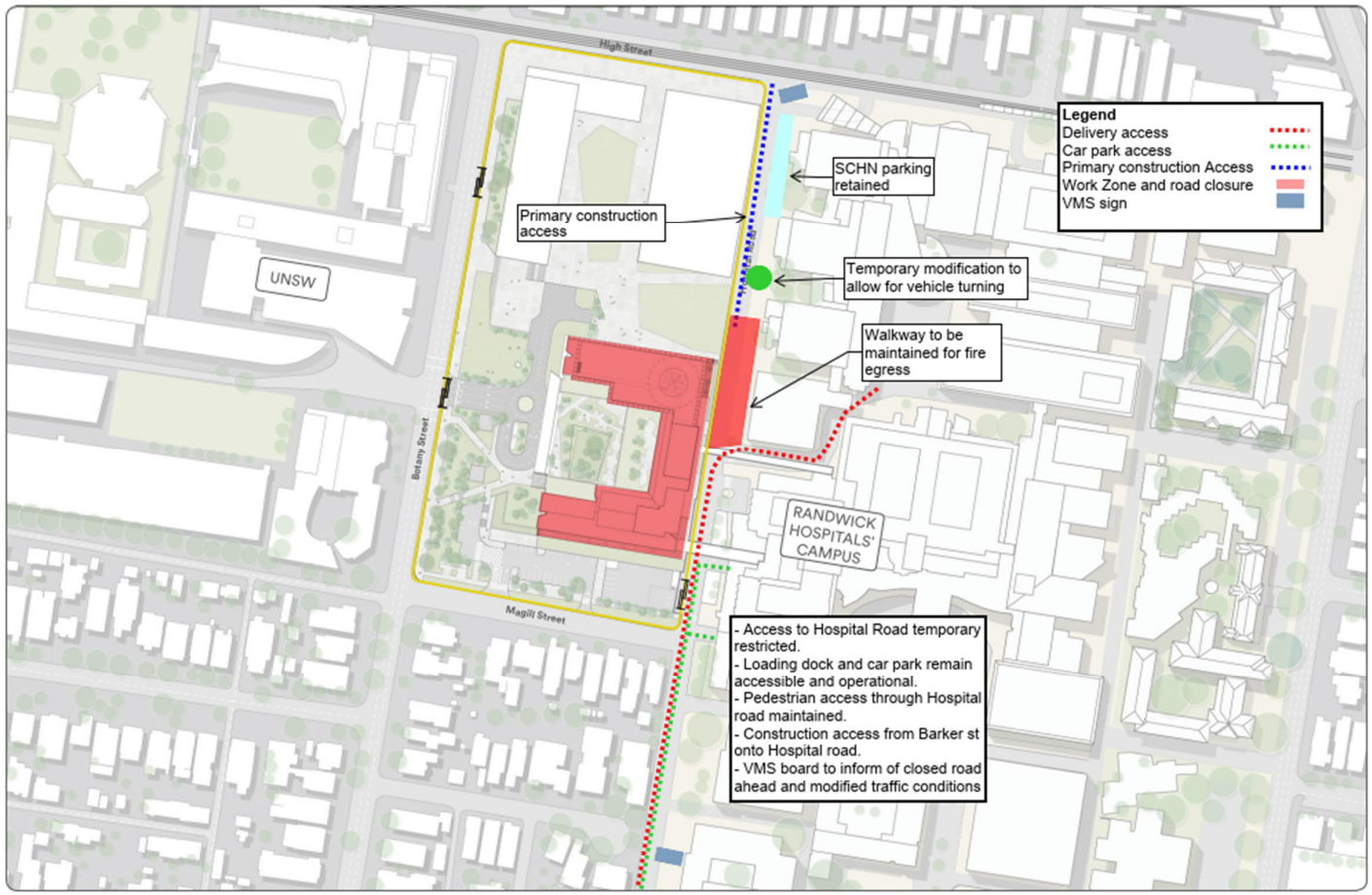
PROPOSED HOSPITAL ROAD LOWERING - STAGE 1 – OCT 19 - JAN 20 (INDICATIVE)



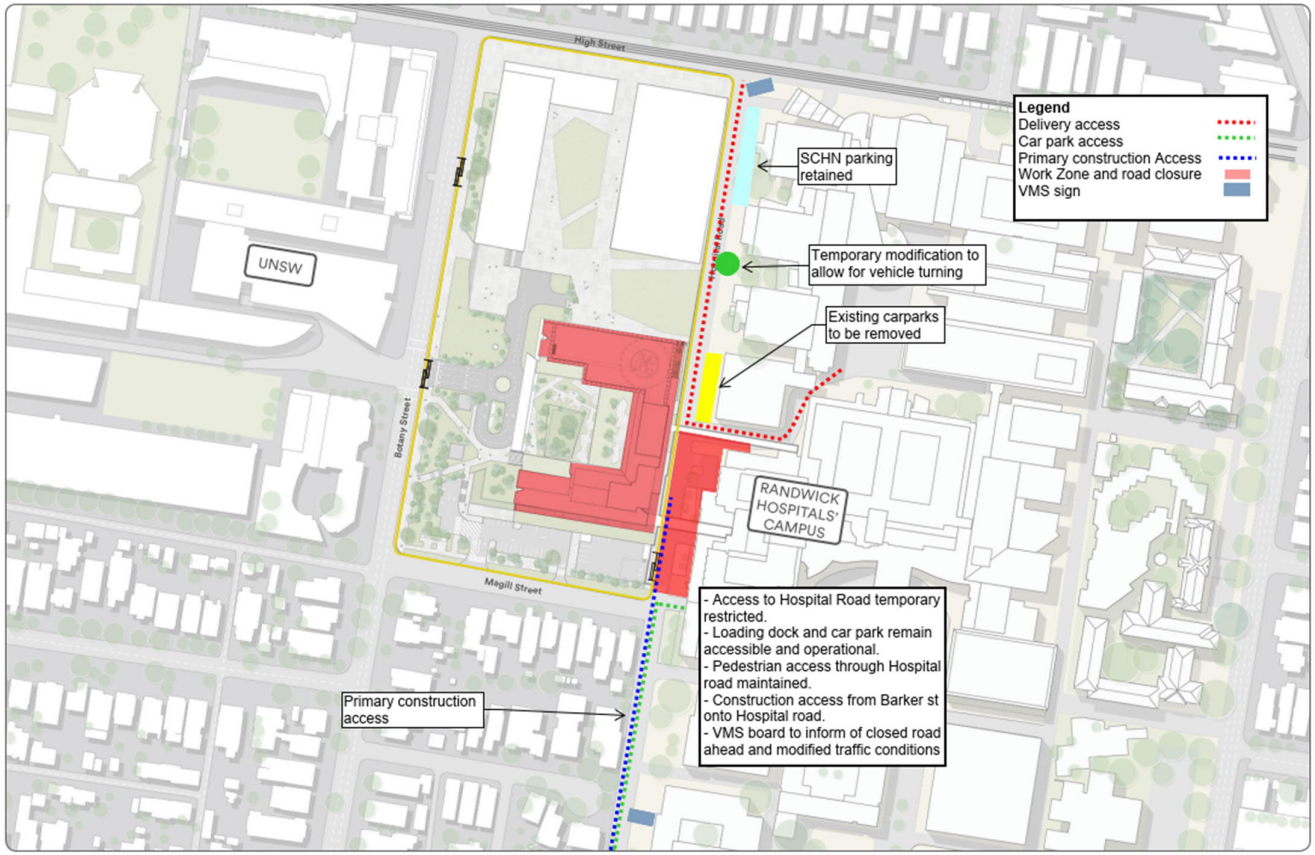
Stages 2, 4 & 6 – Construction vehicle access from Barker St



Stages 3 – Construction Vehicle access form High St

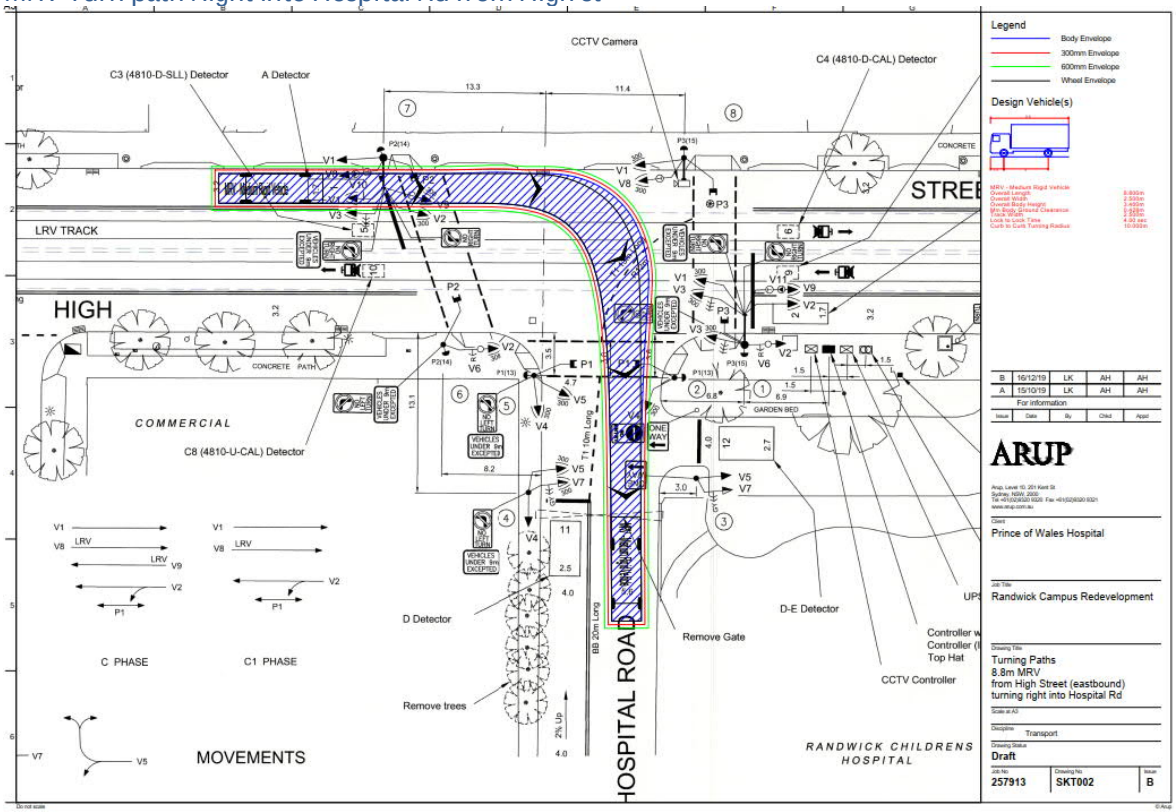


Stages 4 – Extended site area to allow for booster construction

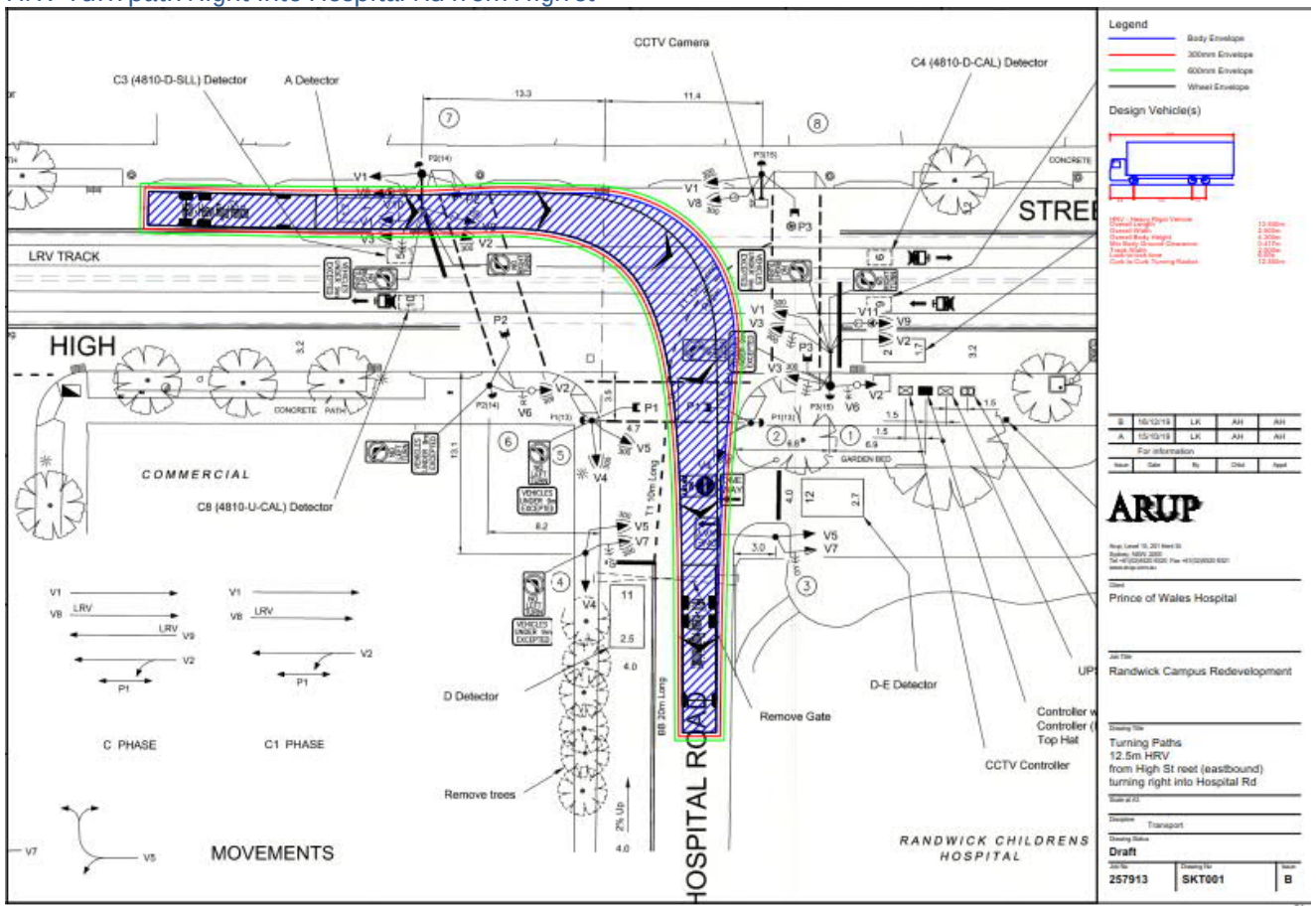


APPENDIX 4 – SWEPT PATH ANALYSIS

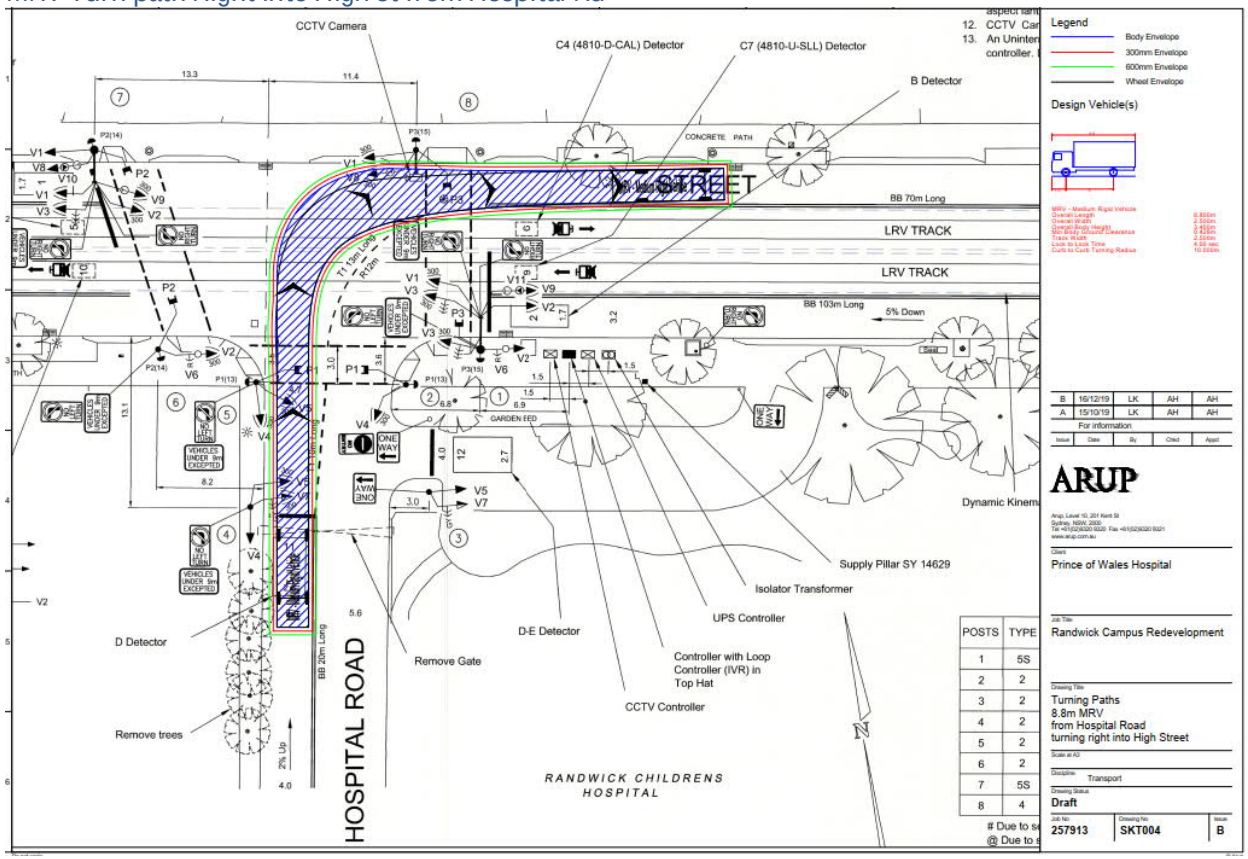
MRV Turn path Right into Hospital Rd from High st



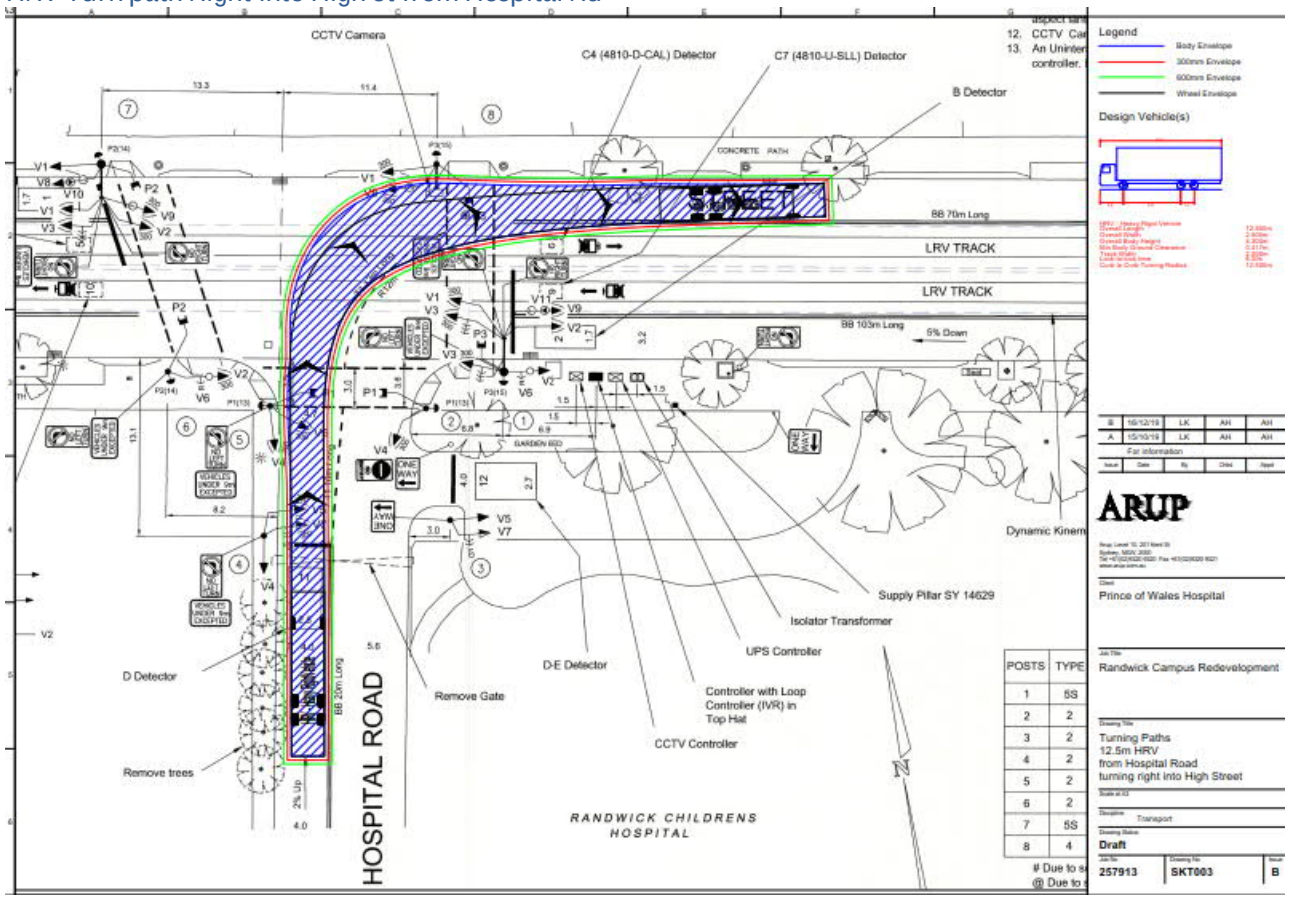
HRV Turn path Right into Hospital Rd from High st



MRV Turn path Right into High St from Hospital Rd

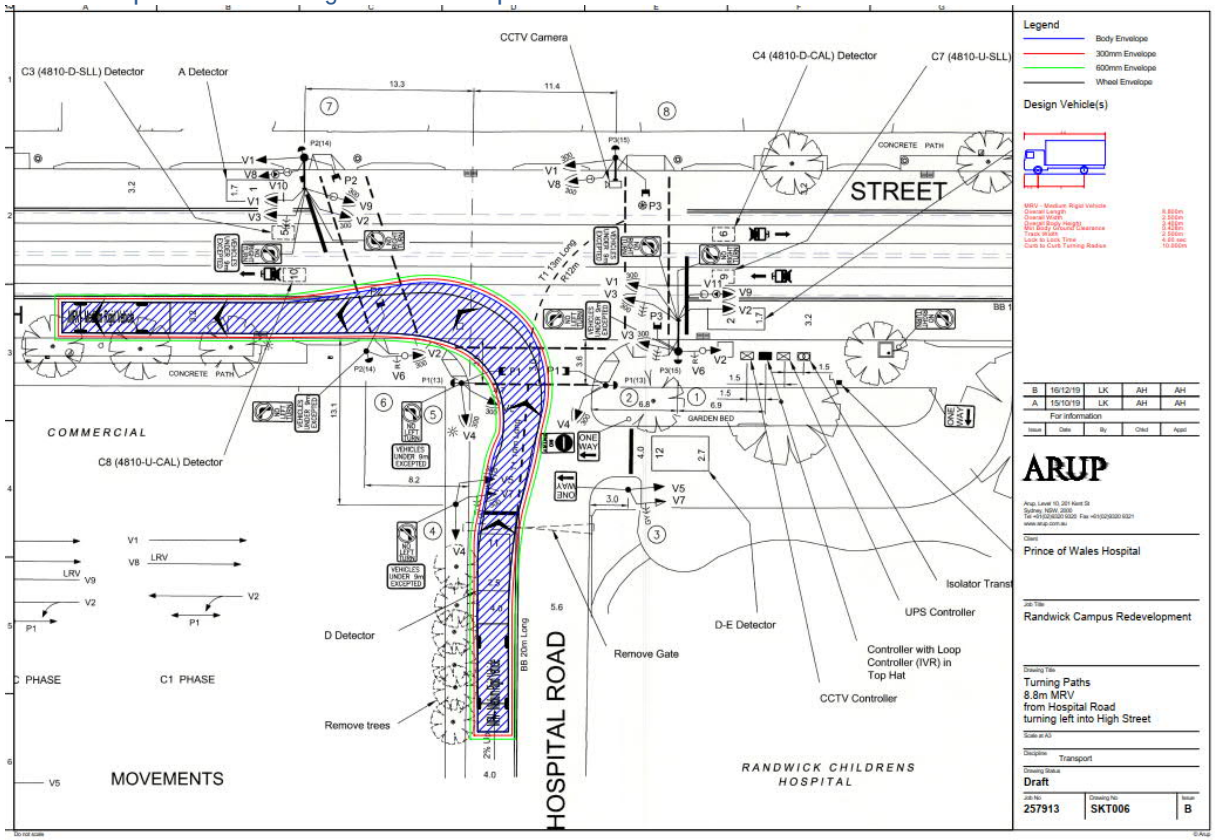


HRV Turn path Right into High St from Hospital Rd

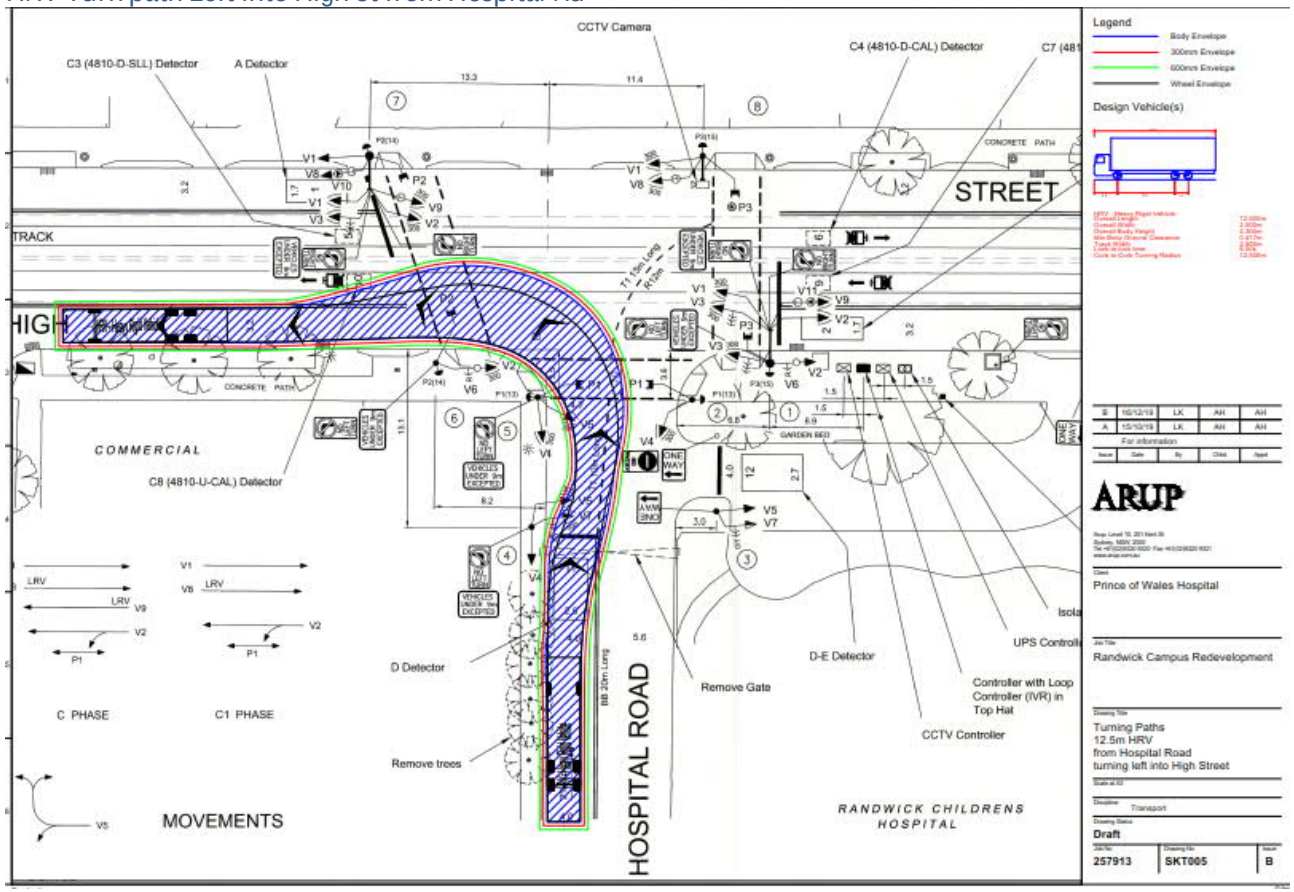


POSTS	TYPE
1	5S
2	2
3	2
4	2
5	2
6	2
7	5S
8	4

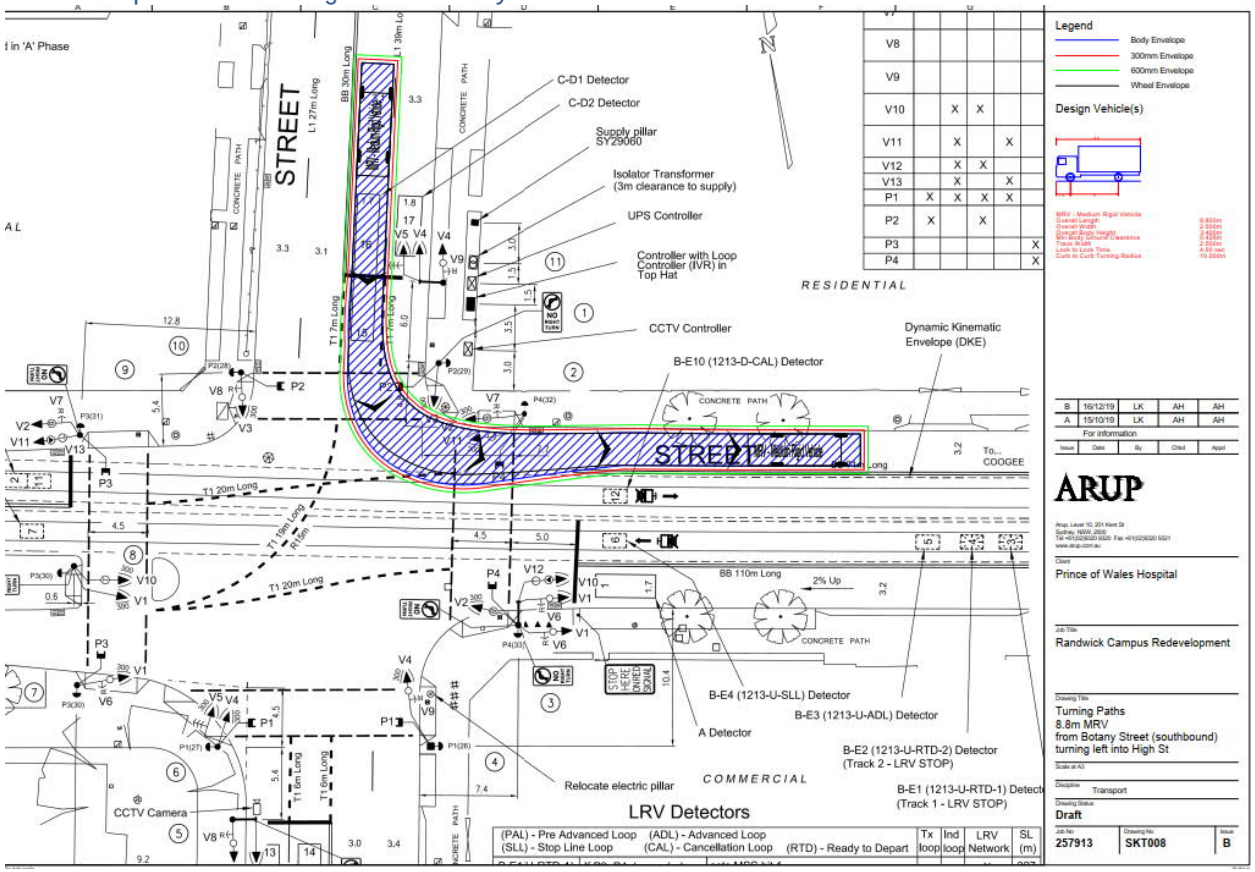
MRV Turn path Left into High St from Hospital Rd



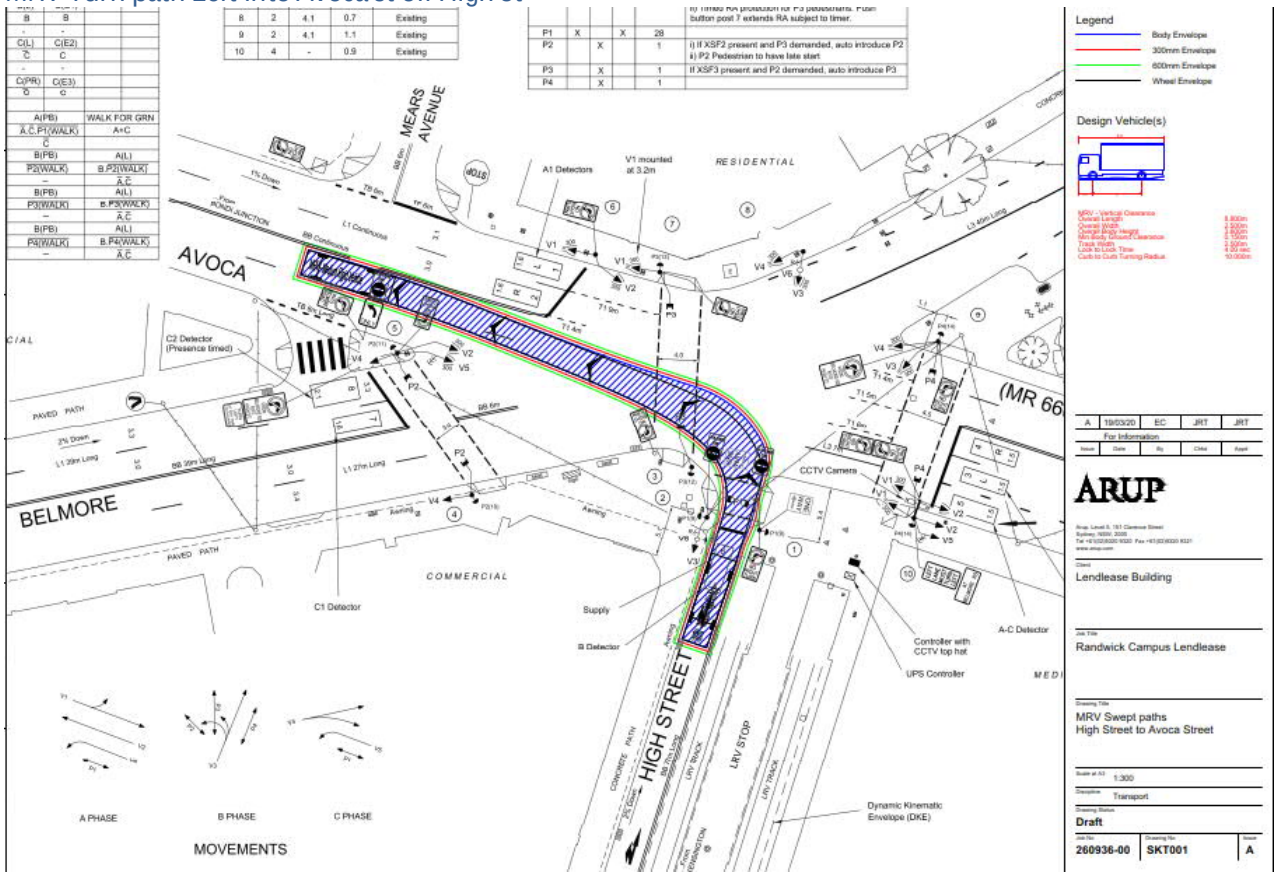
HRV Turn path Left into High St from Hospital Rd



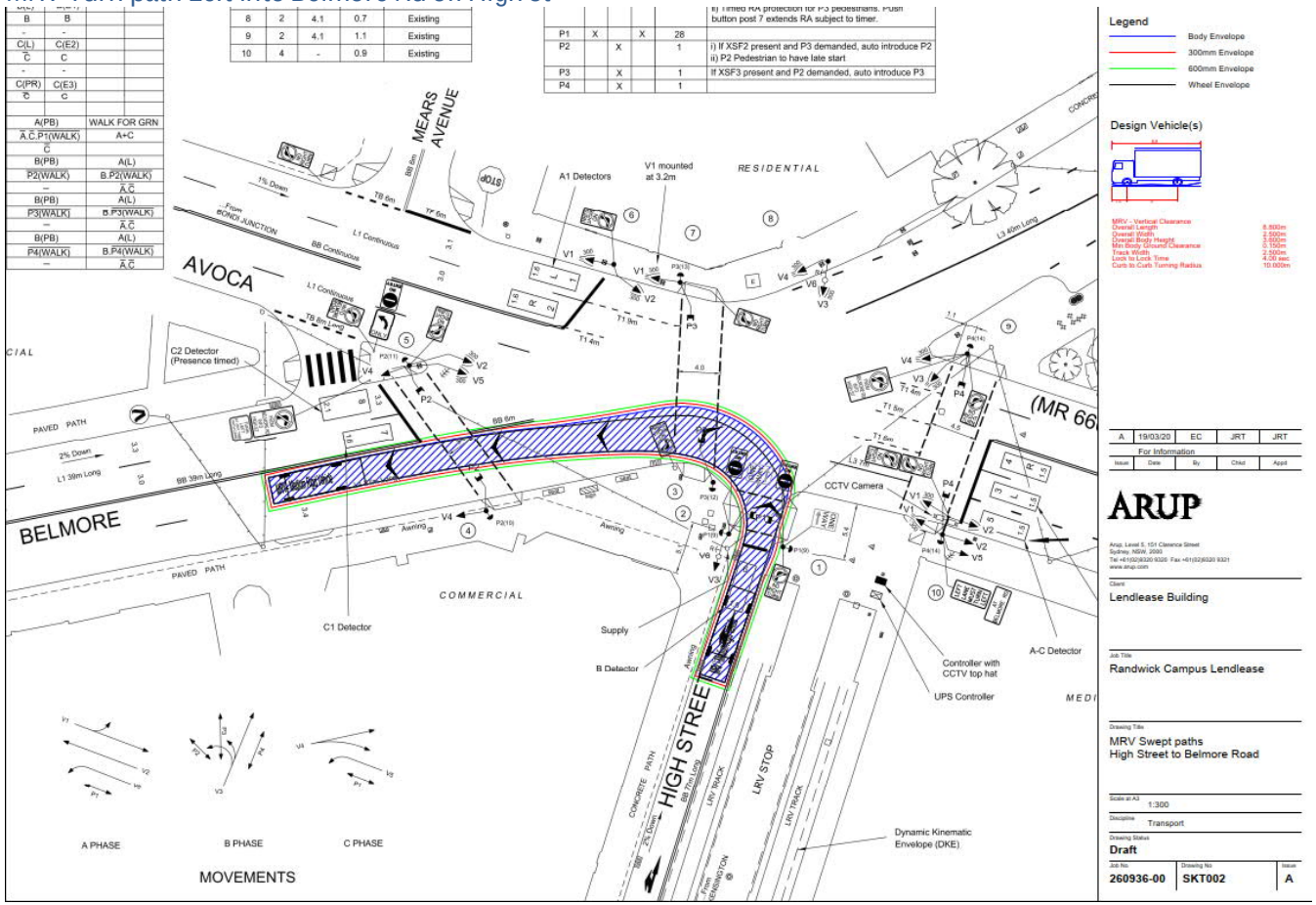
MRV Turn path Left into High St off Botany St



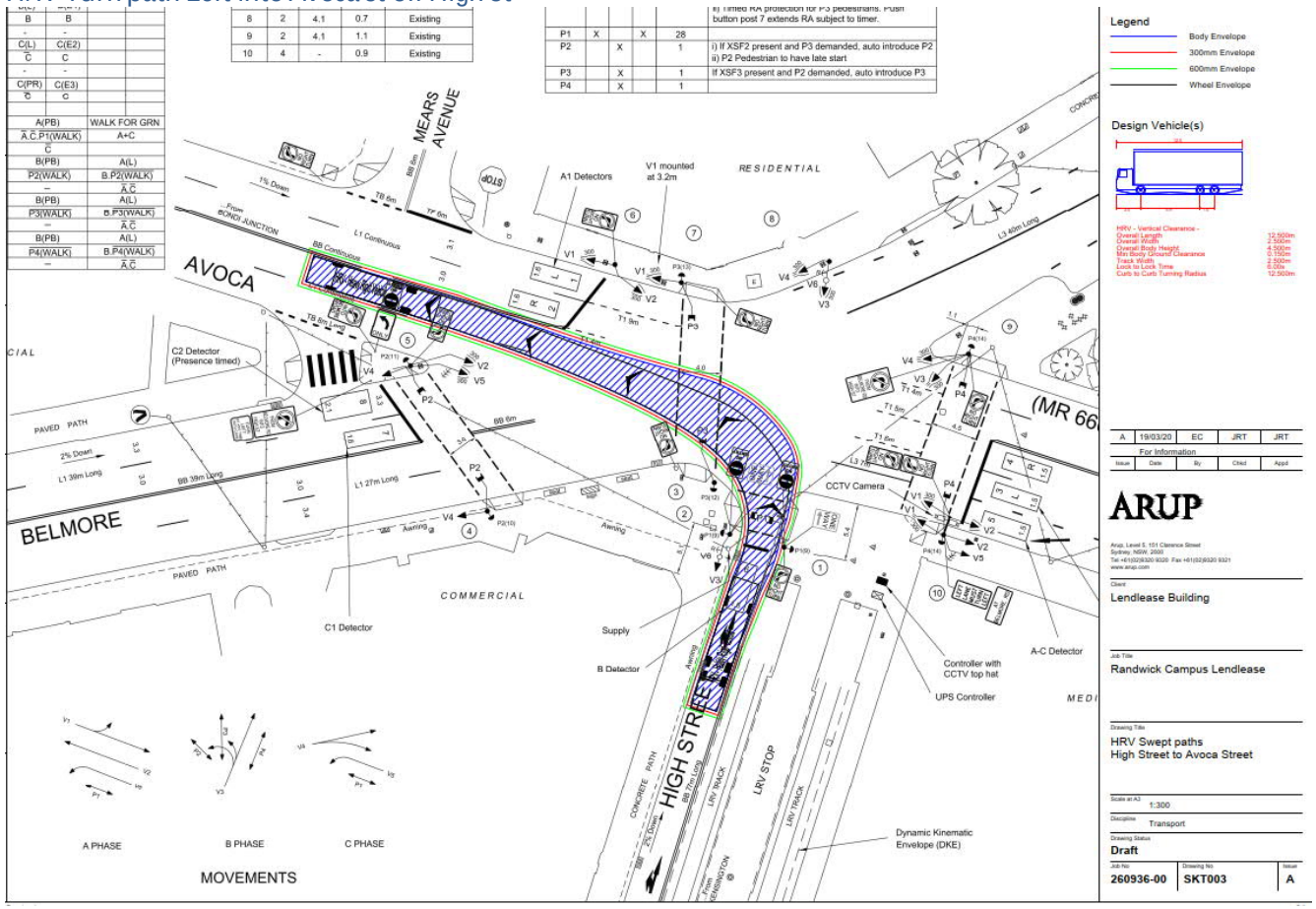
MRV Turn path Left into Avoca st off High St



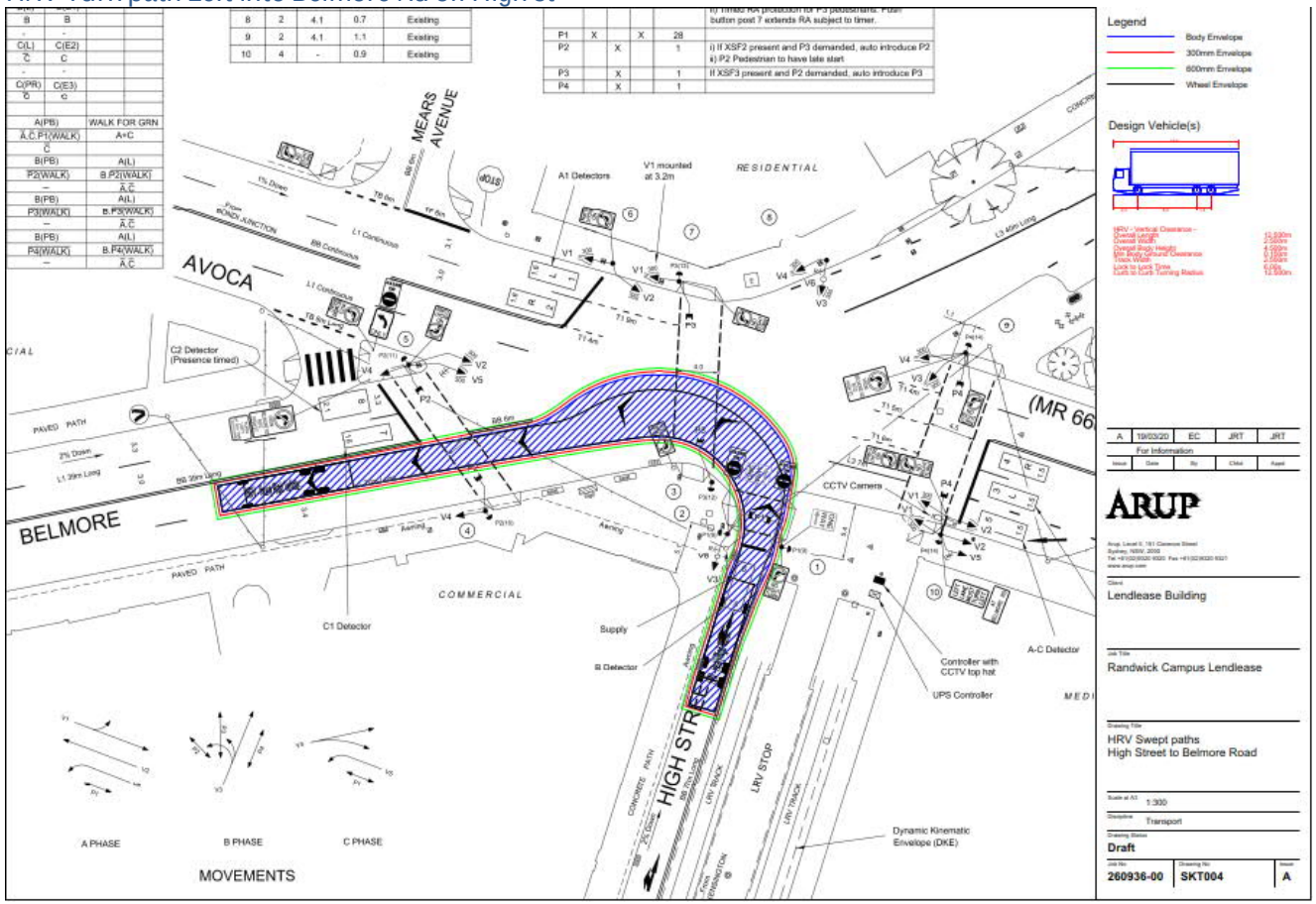
MRV Turn path Left into Belmore Rd off High St



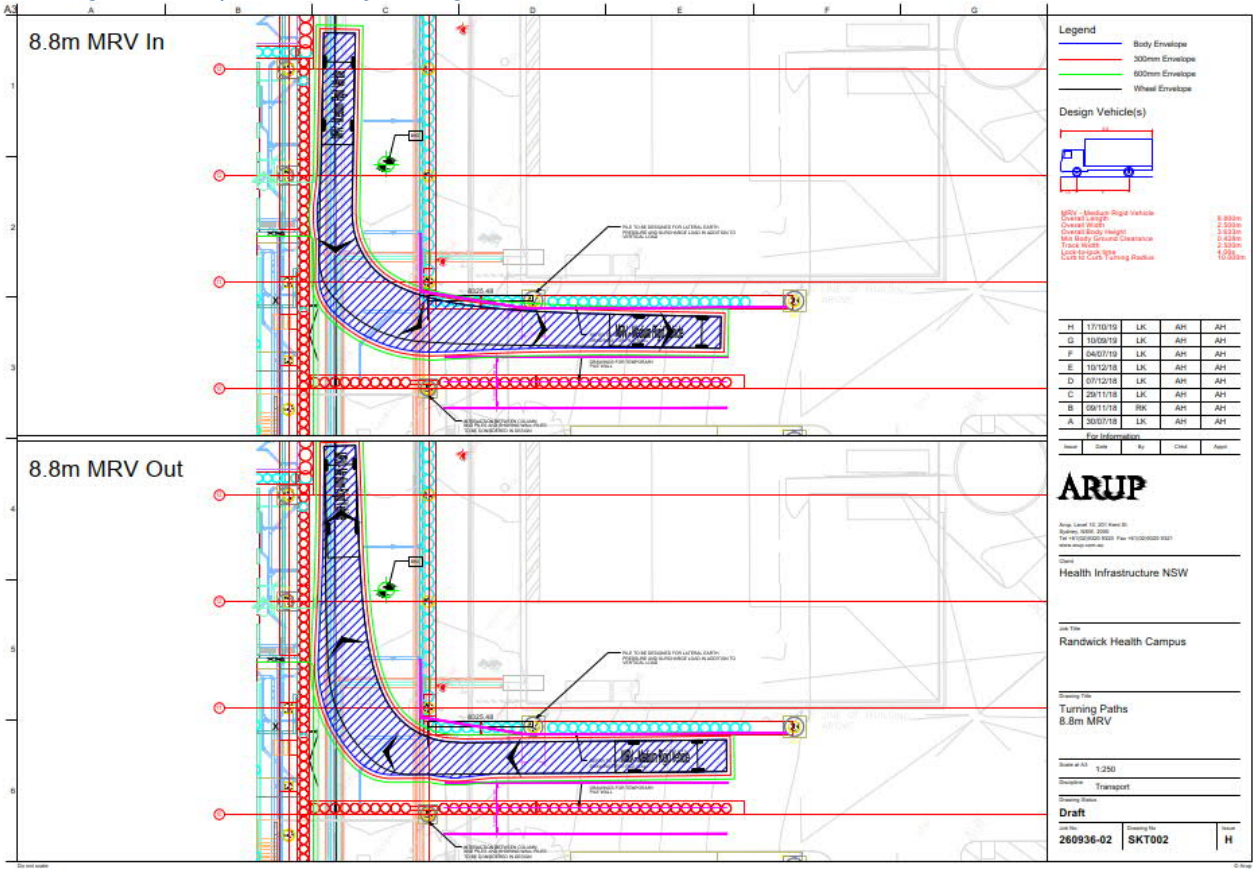
HRV Turn path Left into Avoca st off High St



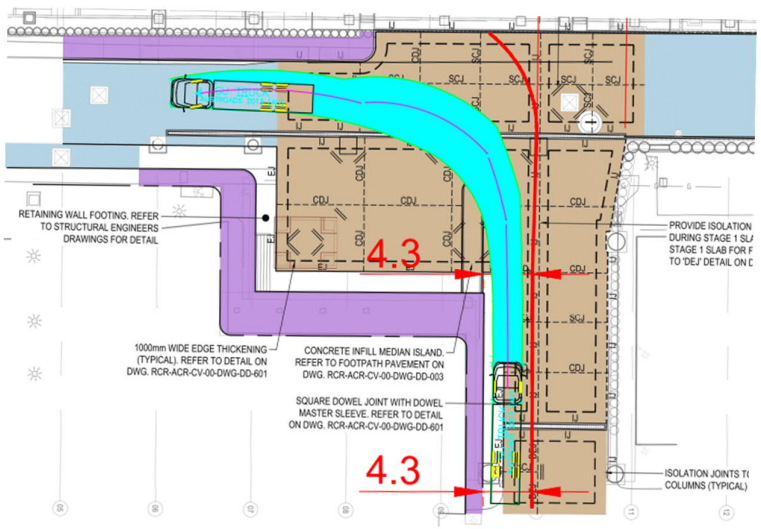
HRV Turn path Left into Belmore Rd off High St



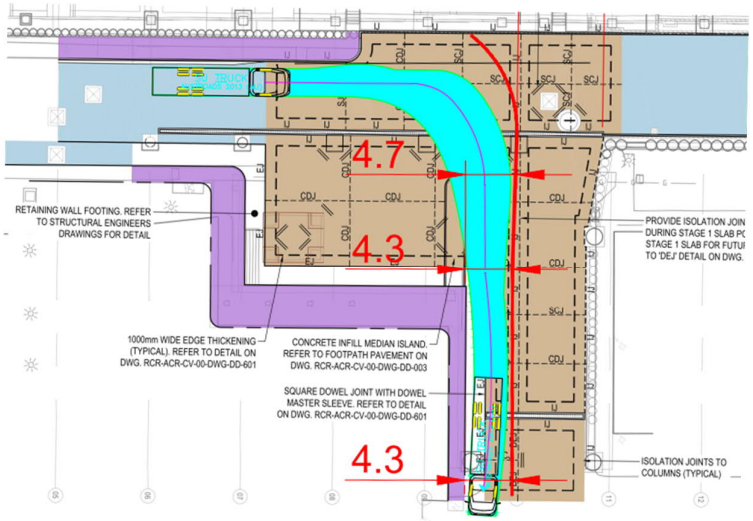
Loading Dock Swept Path Analysis Stage 2



Loading Dock Swept Path Analysis Stages 3 and 4



12.5 m HRV exiting Delivery Drive to the South



12.5 m HRV entering Delivery Drive from the South

APPENDIX 5 – BMT LETTER OF FLODDING ASSESSMENT

BMT Eastern Australia Pty Ltd
Level 8, 200 Creek Street
Brisbane Qld 4000
Australia
PO Box 203, Spring Hill 4004

Tel: +61 7 3831 6744
Fax: + 61 7 3832 3627

ABN 54 010 830 421

www.bmt.org

Our Ref: mpg: L.B23176.017.Respnose to TfNSW Hospital Road.docx

18 December 2019

Lend Lease
Level 14, Tower Three
International Towers Sydney
Exchange Place
300 Barangaroo Avenue
Barangaroo NSW 2000

Attention [redacted]

Dear [redacted]

RE: RANDWICK CAMPUS REDEVELOPMENT- HOPSITAL ROAD LOWERING RESPONSE TO TRANSPORT for NSW QUERY

We refer to the letter dated 24 September 2019 from TfNSW regarding the addition to the approved Acute Services Building, specifically the lowering of part of Hospital Road.

BMT has been responsible for the completion of detailed flood modelling in support of both the Acute Services Building and the lowering of Hospital Road. We can therefore respond to the query raised in relation to potential flooding impacts on the Light Rail system in High Street.

Query

Sydney Light Rail Operation and Infrastructure

Comment

The proposed development would have the potential to impact on the Sydney Light Rail operation, infrastructure and the completion of the Sydney Light Rail Project's program of works due to the following:

- *Flooding – The Environmental Impact Assessment prepared to support the development states that the development is affected by overland flooding. It is advised that the subject development has the potential to impact surrounding land/ activities, including the Sydney Light Rail Project, by contributing to additional flooding during construction and operation; and*
- *Closure of Hospital Road at High Street and the proposed excavation of Hospital Road – Excavation and construction activities would have the potential to impact on the operation of the light rail, or its assets and accessibility including the health and safety of passengers.*

Recommendation

It is requested that the applicant consults with the Sydney Light Rail operator and undertakes an assessment of the above issues and propose any required mitigation measures in consultation with the Sydney Light Rail operator as part of the response to submissions.

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Response

The addition to the approved Acute Services Building refers to the lowering of part of the southern section of Hospital Road in Randwick (refer Figure 1).

Figure 1 Location of Hospital Road works

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Hospital Road between High Street and Magill Street is a private road that currently services the existing Hospital. The works commence approximately 170 metres to the south of the Sydney Light Rail in High Street.

As noted in the TfNSW letter, catchment drains from the north to High Street and then through the Acute Services Building area before draining to the south. This flow path is shown on Figure 1.

The drainage works involved in the approved Acute Services Building provide for the collection of flow (both underground and overland) at High Street and the conveyance of this flow to Magill Street in the south.

The depth and extent of flooding associated with the Probable Maximum Flood (PMF) for the existing (i.e. prior to the construction of the Acute Services Building) is shown on Figure 2.

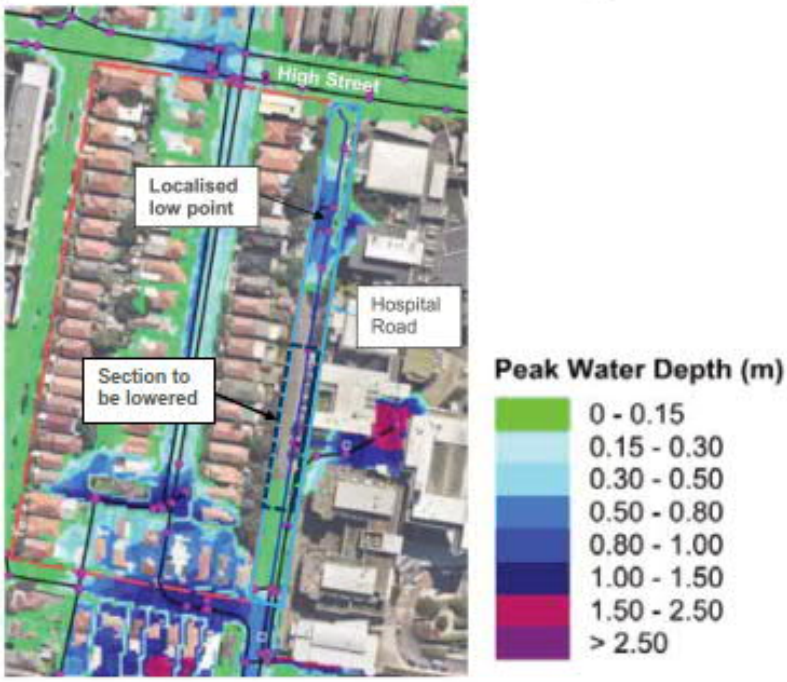

Figure 2 Depth of flooding, Existing Situation, Probable Maximum Flood

With reference to Figure 2, the flow arriving at the low point in High Street (approximately mid-way along the High Street frontage of the new hospital) is collected and drained via a separate drainage system to that provided for Hospital Road. This situation will be replicated with the construction of the Acute Services Building, with the approved dedicated trunk drainage system collecting water at the low point in High Street.

The drainage of Hospital Road will remain separate to that of the Acute Services Building.

At present, a small amount of flow drains from the surface of a local High Street catchment to Hospital Road (refer Figure 2). This runoff drains in a southerly direction down Hospital Road towards Magill Street. The

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remainder of the flow draining to Hospital Road originates from the existing hospital to the east of Hospital Road.

Runoff from Hospital Road ultimately joins the runoff from the catchment draining to the low point in High Street and the Acute Services Building at Magill Street, some 300 metres south of High Street. Ground levels in Magill Street are of the order of ten metres lower than those in High Street (i.e. there is a significant fall to the south of High Street).

Runoff from High Street ponds in a low point in Hospital Road (refer Figure 2). Even in a PMF event, the depth of flooding is not sufficient to overtop the low point, and the low point drains via the underground drainage system in Hospital Road. If the inlets to the drainage system at the low point in Hospital Road were to fully block, then the low point would overtop and flow would drain to the south (i.e. away from High Street) as the level in Hospital Road at which overtopping would commence is well below the ground level at High Street.

The section of Hospital Road that is to be lowered under the present application is located to the south of the low point, and drains via the separate drainage system (noted above) away from High Street towards Magill Street.

The proposed road lowering and associated stormwater drainage relocation will not affect the low point in Hospital Road further to the north and therefore will not affect flood conditions in High Street.

Consequently, the works will not contribute to additional flooding during construction or operation and no mitigation measures will be required on High Street as part of the development. Therefore, liaison with the Sydney Light Rail operator is not necessary in this case.

If you have any queries in relation to this response, please do not hesitate to contact us.

Yours Faithfully
BMT

[redacted]
Senior Principal

g:\admin\B23176.g.mg_RCR_Prince of Wales\L.B23176.017.Response to TfNSW Hospital Road.docx

APPENDIX 6 – TRANSPORT FOR NSW RESPONSE LETTERS

Transport
Roads & Maritime
Services

23 September 2019

Our Reference: SYD19/00717
DPI&E Ref: SSD 10339

[redacted]
Team Leader, Social Infrastructure Assessments
Department of Planning & Environment
320 Pitt Street
SYDNEY NSW 2000

Attention: [redacted]

Dear [redacted]

PRINCE OF WALES HOSPITAL ACUTE SERVICES BUILDING
HOSPITAL ROAD, RANDWICK

Reference is made to the Department's correspondence dated 23 August 2019, requesting Roads and Maritime Services (Roads and Maritime) to provide comment.

Transport for New South Wales (TfNSW) will provide a separate submission.

Roads and Maritime has reviewed the submitted application and provides the following comments for the Departments consideration:

1. The lowering of Hospital Road and closure of Hospital Road from Barker Street to High Street will have an impact on existing traffic distribution on the surrounding transport network. Roads and Maritime has reviewed the submitted Transport Impact Assessment (TIA) and notes an increase in trip distribution to McGill Street and Botany Street.

   As such, Roads and Maritime requests that the applicant continues to engage with the transport cluster to identify measures to mitigate any impacts to the surrounding network.

2. TIA states within Section 3.4 that "*A new bicycle parking and end of trip facility is being planned for on campus which is part of approved SD9113. This will be available for IASB Addition staff*". To ensure that sufficient bicycle parking provision is across the campus, within the Response to Submissions, the proponent should detail the number of bicycle parking spaces and facilities to be provided across the campus, to ensure that the campus has sufficient facilities to support and encourage active transport.

3. The proposed development will generate additional pedestrian movements in the area. Pedestrian safety is to be considered in the vicinity.

Roads and Maritime Services

27-31 Argyle Street, Parramatta NSW 2150 |
PO Box 973 Parramatta NSW 2150 |

www.rms.nsw.gov.au | 13 22 13

4. A Road Occupancy Licence (ROL) should be obtained from Transport Management Centre for any works that may impact on traffic flows on High Street during construction activities. A ROL can be obtained through https://myrta.com/oplinc2/pages/security/oplincLogin.jsf

5. All demolition and construction vehicles are to be contained wholly within the site and vehicles must enter the site before stopping. A construction zone will not be permitted on High Street.

6. A Construction Pedestrian Traffic Management Plan (CPTMP) shall be submitted in consultation with the TfNSW Sydney Coordination Office (SCO), Roads and Maritime, and Randwick City Council, prior to the issue of a Construction Certificate. The CPTMP needs to include, but not be limited to, the following: construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control.

If you have any further inquiries in relation to the subject application, please contact [redacted] or by email at Development.Sydney@rms.nsw.gov.au.

Yours sincerely

[redacted]
Senior Land Use Planner
South East Precinct, Greater Sydney Division

Transport for NSW

Mr David Gibson
Team Leader
Social Infrastructure Assessments
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Attention: Megan Fu

Dear Mr Gibson

Prince of Wales Hospital - Addition to Approved Acute Services Building (SSD 10339)
Notice of Exhibition

Thank you for your letter dated 23 August 2019, requesting Transport for NSW (TfNSW) to review and comment on the above.

Roads and Maritime Services will provide a separate response letter.

Sydney Light Rail Operation and Infrastructure

Comment

The proposed development would have the potential to impact on the Sydney Light Rail operation, infrastructure and the completion of the Sydney Light Rail Project's program of works due to the following:

- Flooding - The Environmental Impact Assessment prepared to support the development states that the development site is affected by overland flooding. It is advised that the subject development has the potential to impact surrounding land/ activities, including the Sydney Light Rail Project, by contributing to additional flooding during construction and operation; and
- Closure of Hospital Road at High Street and the proposed excavation of Hospital Road – Excavation and construction activities would have the potential to impact on the operation of the light rail, or its assets and accessibility including the health and safety of passengers.

Recommendation

It is requested that the applicant consults with the Sydney Light Rail operator and undertakes an assessment of the above issues and propose any required mitigation measures in consultation with the Sydney Light Rail operator as part of the response to submissions.

Transport for NSW
18 Lee Street, Chippendale NSW 2008 | PO Box K659, Haymarket NSW 1240
T 02 8202 2200 | **F** 02 8202 2209 | **W** transport.nsw.gov.au | ABN 18 804 239 602

Impacts on Transport Network Operation

Comment

The development proposal includes the following:

- Hospital Road - Lowering of an 80 m section of the private service road known as Hospital Road by up to 4 m and closure of that private road from its intersection with Barker Street and High Street, save for maintaining vehicular access to the loading dock and staff car park off Barker Street; and
- Magill Street - Open Magill Street to improve traffic network flow around the construction site.

Recommendation

It is advised that the applicant continue to consult with Roads and Maritime Services and the Sydney Coordination Office within TfNSW to identify measures to mitigate any impacts to the surrounding network.

Construction Worker Transportation Strategy

Comment

The applicant's proposal to minimise construction workers driving to the precinct and parking is supported as the Construction Management Plan prepared to support the development states the following:

- The applicant recognises that a dedicated worker and transportation strategy needs to be implemented;
- Construction workers would be encouraged to adopt a Green Travel Plan for this project with use of public transport to reduce the amount of light vehicles on the road and to ease congestion around the Randwick Precinct; and
- The applicant will establish a "park and ride" and associated shuttle bus service.

Recommendation

It is advised that the applicant be conditioned to prepare a Construction Worker Transportation Strategy in consultation with the Sydney Coordination Office within TfNSW.

Construction Pedestrian and Traffic Management

Comment

Several construction projects, including the Sydney Light Rail Project, University of New South Wales, the Newmarket Green Development and surrounding new residential developments will likely occur at the same time as this development within the Randwick Precinct. The cumulative increase in construction vehicle movements from these projects could have the potential to impact on general traffic and bus operations within the Randwick Precinct, as well as the safety of pedestrians and cyclists particularly during commuter peak periods.

Further, TfNSW advises that the use of High Street by the development's construction vehicles should be avoided to ensure that the interface risk between construction vehicles and the Sydney Light Rail and buses is mitigated.

Recommendation

It is requested that the applicant be conditioned to:

- Prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with the Sydney Coordination Office within TfNSW, Roads & Maritime Services, the Sydney Light Rail operator; and
- Consult with TfNSW, Roads and Maritime Services and the light rail operator at Traffic and Transport Construction Coordination meetings during construction.

Travel Demand Management Strategy and Green Travel Plan

Comment

The Green Travel Plan prepared to support the development application includes potential travel mode share shifts for car (driver and passenger), public transport, walking and cycling.

It is advised that preliminary discussions have commenced with the health and education institutions within the Randwick Health and Education Precinct for the approved Acute Services Building (SSD 9113) to support their development of strategies to reduce the proportion of single-occupant car travel and increase the mode share of public transport and active transport within the precinct.

Recommendation

It is requested that the applicant be conditioned to revise the Travel Demand Management Strategy and Green Travel Plan in consultation with the Sydney Coordination Office within TfNSW and all stakeholders within the Randwick Health and Education Precinct.

Suggested draft Conditions of Consent

Suggested draft Conditions of Consent are included in **TAB A**.

TfNSW requests that the applicant consults with the Sydney Coordination Office within TfNSW in relation to the above issues. TfNSW would be pleased to consider any further material forwarded from the applicant

Thank you again for the opportunity of providing advice for the above development applications. If you require clarification of any issue raised, please don't hesitate to contact [redacted]
Principal Manager Land Use Planning and Development[redacted]

Yours sincerely

24/9/2019

[redacted]

Principal Manager Land Use Planning and Development
Customer Strategy and Technology

Objective Reference CD19/07021

TAB A - Suggested Draft Conditions of Consent

Prior to the Commencement of Construction

Construction Pedestrian and Traffic Management

The applicant shall prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with the Sydney Coordination Office and Sydney Light Rail team within TfNSW, Sydney Light Rail Operator 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 CPTMP needs to specify, but not limited to, the following:

- A description of the development;
- Location of proposed work zone(s);
- Location of the crane;
- Size and type of construction vehicles including swept path analysis showing no encroachment into oncoming traffic lanes;
- Haulage routes including marshalling area/s and operation to ensure no heavy vehicle queuing prior to site entry;
- Construction vehicle access arrangements. Construction vehicles shall not use High Street without prior approval of the Sydney Coordination Office within TfNSW and Roads and Maritime Services;
- Details of any lane or road closures;
- Loading dock operation during construction;
- Proposed construction hours;
- Estimated number of construction vehicle movements including measures to significantly minimise the number of movements during the defined peak traffic periods;
- Construction program;
- Consultation strategy for liaison with surrounding stakeholders;
- Any potential impacts to general traffic, cyclists, pedestrian, bus services and light rail services within the vicinity of the site from construction vehicles during the construction of the proposed works;
- Cumulative construction impacts of projects including the Sydney Light Rail Project, University of New South Wales, Newmarket Green Development and surrounding new residential developments. Existing CPTMPs for developments within or around the development site, including the approved Acute Services Building (SSD 9113), should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network;
- 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;
- Pedestrian and traffic management measures;

- 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; and
- Proposed mitigation measures. Should any impacts be identified from the construction of the development, the duration of the impacts and measures proposed to mitigate any associated general traffic, Sydney Light Rail construction and operation, bus operation, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.

Construction Worker Transportation Strategy

The applicant shall prepare a Construction Worker Transportation Strategy in consultation with the Sydney Coordination Office within TfNSW. 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 to 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 public and active transport available within the vicinity of the site; and
- Details of the operation of any off-site construction worker parking location(s), including how workers would be shuttled to the development site.

Sydney Light Rail Project

The applicant shall consult and agree with the Sydney Light Rail project team in relation to the development's construction activities to ensure that those activities do not adversely impact the completion of the Sydney Light Rail Project's program of works, including, but not limited to, footpaths, kerbs and gutters, driveways and road restoration works.

During Construction

Consultation during Construction

- The applicant shall provide the following information to TfNSW and its internal stakeholders Traffic and Transport Construction Coordination meetings during construction which will be set up and chaired by the Sydney Coordination Office:
    - Update of construction activities;
    - The details in relation to date and timing of construction activities such as concreting etc. that are likely to generate high volume of construction vehicles;
    - The details of full or part road closures that are likely to impact on traffic and bus movements in the vicinity of the site and the Sydney Light Rail Project;
    - Update of the CPTMP if any changes to the original CPTMP is required;
    - Safety incidents as a result of construction activities associated with pedestrian and public transport movements surrounding the site;
    - The details of the coordination of work activities to manage cumulative construction traffic from developments under construction within the precinct to minimise impacts on the road network; and
    - Actions by the applicant for safety and traffic management issues raised by TfNSW.

Representatives of other developments under construction within the precinct shall be invited to the meetings and other attendees as requested by the Sydney Coordination Office.

Minutes of meetings shall be taken by the applicant and a copy of the minutes of meetings is to be distributed to all attendees within a week of the meeting.

- The applicant shall provide the builder's direct contact number to surrounding stakeholders impacted by the construction work and the Transport Management Centre and Sydney Coordination Office within Transport for NSW to resolve issues relating to traffic, freight, servicing and pedestrian access during construction in real time. The applicant is responsible for ensuring the builder's direct contact number is current during any stage of construction.

Use of High Street as Construction Vehicle Access

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

Prior to the issue of the Occupation Certificate

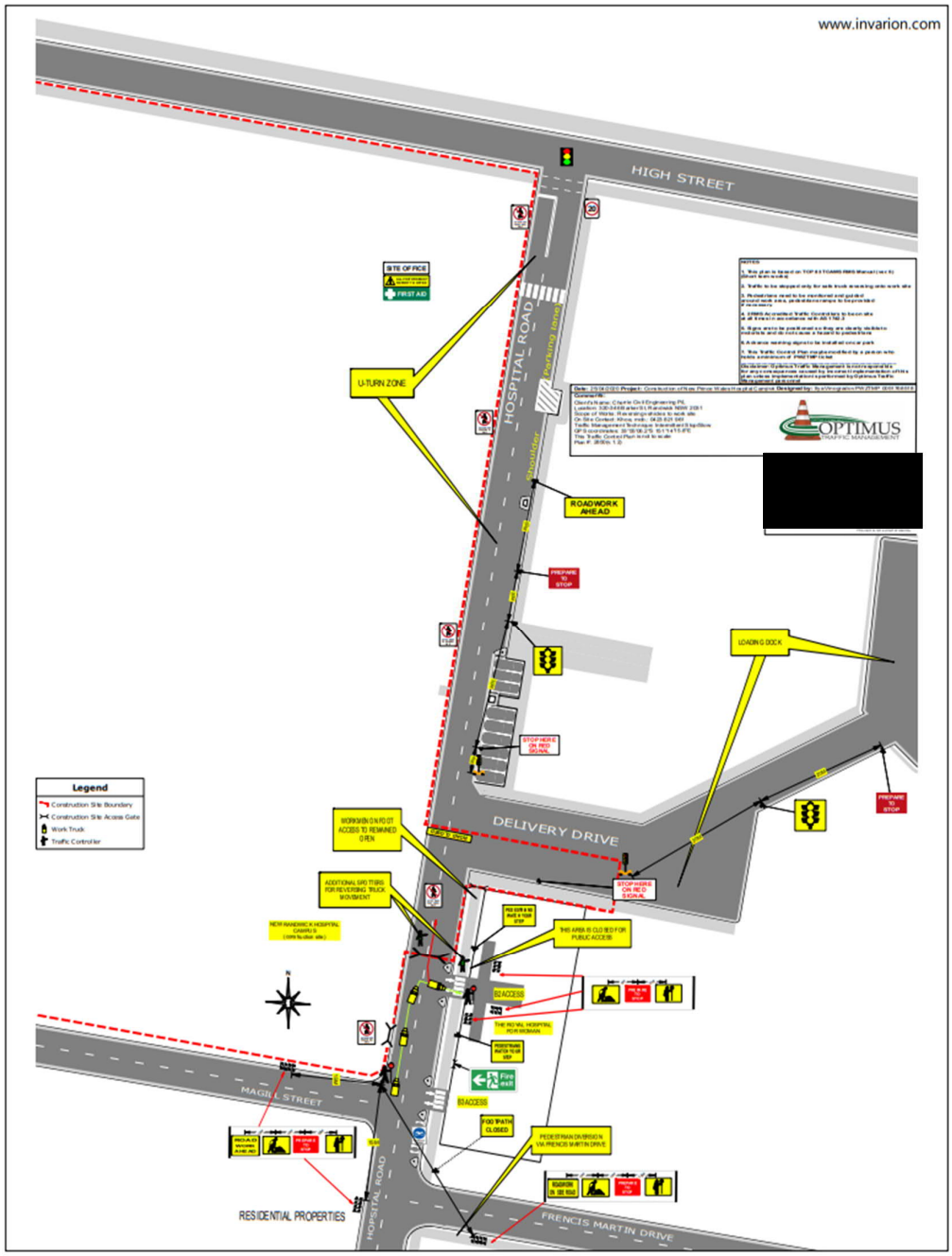
Travel Demand Management Strategy and Green Travel Plan

The applicant shall prepare a Travel Demand Management Strategy and Green Travel Plan to reduce the proportion of single-occupant car travel and increase the mode share of public transport and active transport for the development and the Randwick Health and Education Precinct. The strategy and plan shall be prepared in consultation with the Sydney Coordination Office within TfNSW and in conjunction with all stakeholders within the Randwick Health and Education Precinct. The applicant shall submit a copy of the final plan to the Coordinator General, Transport Coordination for endorsement, prior to the issue of the occupation certificate.

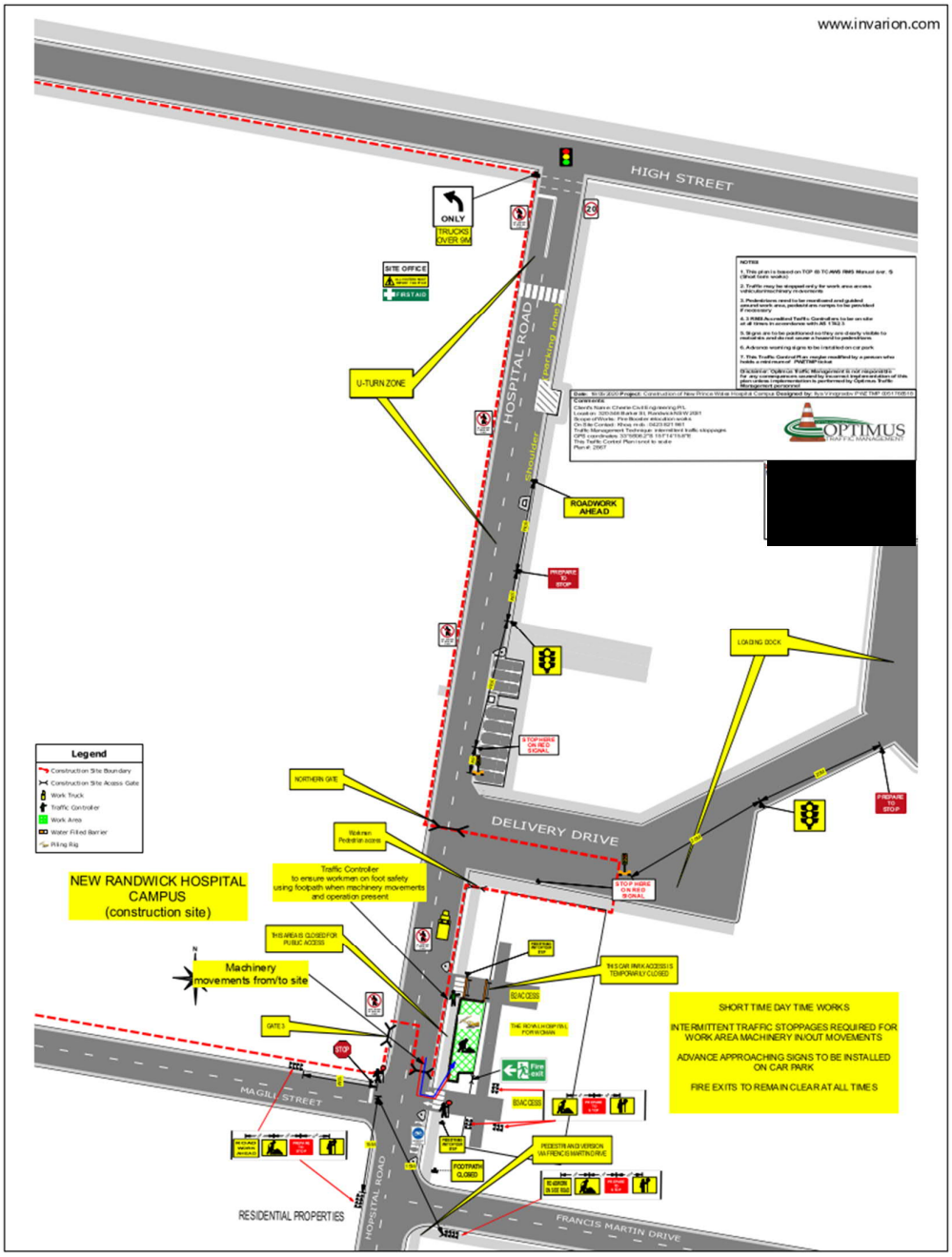
APPENDIX 7 – ARUP INTEGRATED ACUTE SERVICES BUILDING ADDITION TRAFFIC AND TRANSPORT ASSESSMENT

APPENDIX 8 – TRAFFIC CONTROL PLANS

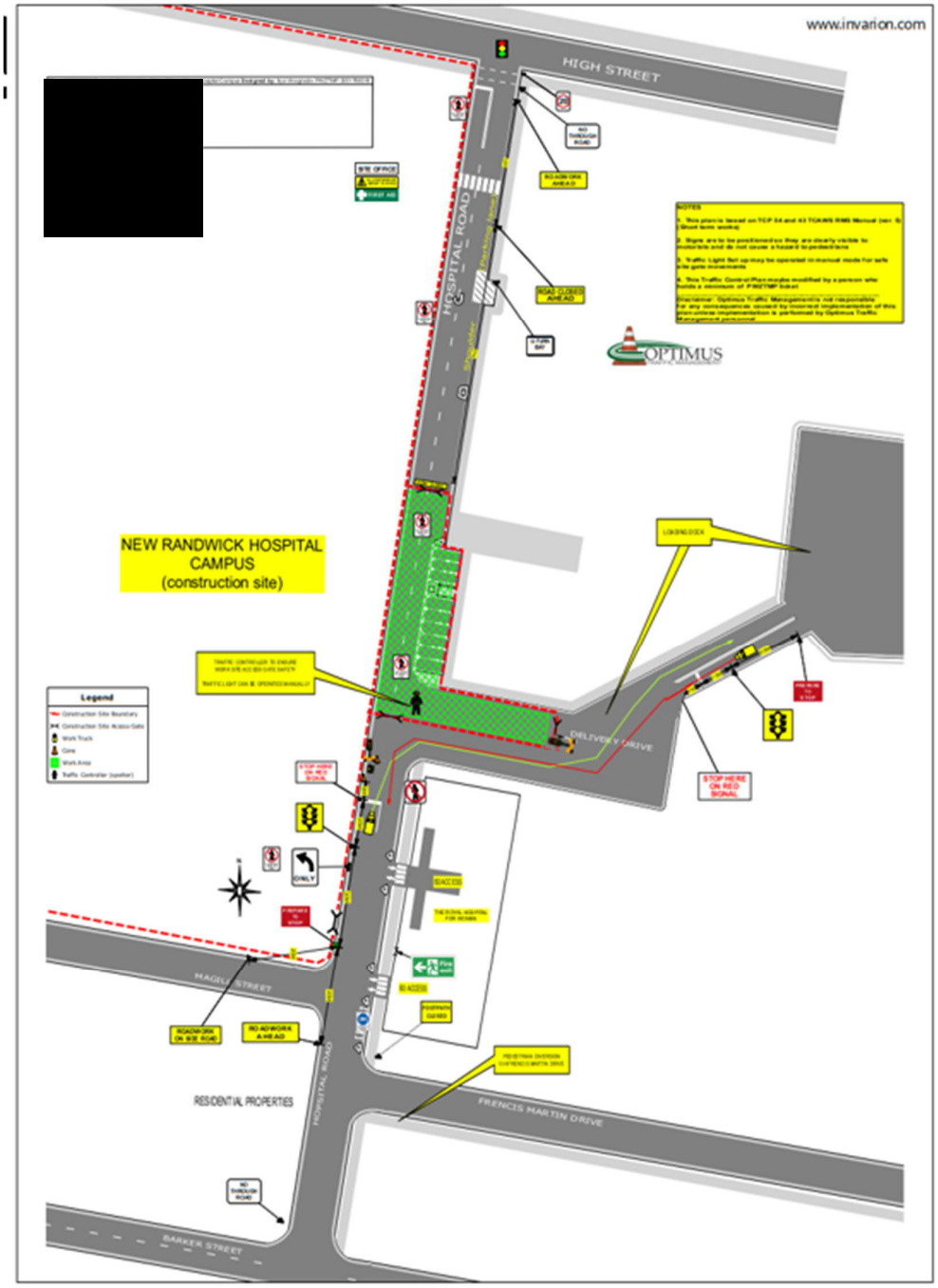
Stage 2 & 4



Stage 2 Extended site layout



Stage 3 & 5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