Response to Agency submissions

A response to submissions made by government agencies and other bodies to the public exhibition of SSDA 9036 is set out in detail below.

Submissions were received by the following government authorities, agencies and bodies:

- Civil Aviation Safety Authority (CASA);
- Transport for NSW (TfNSW);
- NSW Environment Protection Authority (EPA);
- City of Canada Bay Council (Council);
- NSW Office of Environmental and Heritage (OEH) (Flooding and Environmental Matters);
- NSW OEH (Heritage Division);
- NSW Roads and Maritime Services (RMS); and
- Air Services Australia (ASA).

It is noted that no submissions objected to the SSDA. Rather, clarification or suggested refinements.

Please refer to a detailed response to matters in the Table below.
### Extract from agency submissions

**Council (Traffic)**

The traffic and parking analysis includes an increase of the staff car occupancy rate to 1.09 from the existing 1.03. There appears to be no analysis provided that justifies this increase. This increase has, in turn, been used to calculate lower traffic generation rates and lower parking requirements. Given factors such as variable shift times/days that currently result in a very low staff car occupancy rate and these factors continuing into the future, it appears unlikely that the staff car occupancy rate would increase as stated in the traffic parking analysis. Should the staff car occupancy rate remain at 1.03, the total parking demand would increase from 2381 spaces to 2490 spaces and is, therefore, likely to exceed the practical capacity of the proposed approximately 2539 spaces.

The traffic report indicates that there are currently 1985 staff with approved parking permits and 550 staff on a waiting list. Given that the proposal purports to accommodate all the staff parking demand off street, approval of the development should include a condition that prevents a limitation being placed on staff obtaining permits. Such a limitation forces the use of on street parking as is currently observed in surrounding residential streets where resident parking schemes are not in operation or outside of their hours/days of operation. This is particularly the case in Indra Street and Colane Street at present, however, these streets do not appear to have been included in the surveys of existing parking demand associated with the hospital.

### Response (prepared by Architectus)

This increase in staff car occupancy rate is considered to be achievable through a combination of walking, cycling, public transport or car pooling travel modes. The promotion of carpooling is one of several travel demand strategies proposed as part of a Green Travel Plan.

While the traffic and parking assessment (EIS Appendix AF) assumed this modal shift would be from car driver to car passenger, this was partly due to the existing low car occupancy rate when compared to other Hospitals. For example, traffic surveys at Prince of Wales Hospital (Randwick) have estimated a vehicle occupancy rate of 1.2.

It is anticipated a Green Travel Plan will be a requirement of a condition of consent. Additionally, in the longer term, other factors, such as improved public transport (e.g. Metro West) and the forecast increase in residential units in the locality (e.g. 3,600 new homes proposed at Rhodes East) will also assist in reducing the demand for travel by private car.

Refer to a detailed response to traffic matters prepared by Arup at Attachment J.

The Hospital Road car park is a mixed staff and visitor car park with over 950 spaces that will increase to 1,340 spaces after Stage 1. Staff with permits can access it at staff rates, with visitors and patients charged hourly (up to a daily maximum).

In the future, it is expected that the waiting list for staff permits will be reduced significantly with the provision of additional on-site parking spaces. Maintaining the option of a waiting list is, however, important to assist in managing on-site parking and as a travel demand measure.

Limiting the number of staff parking permits can help to ensure that parking spaces are available for patients and visitors at this car park. Potential negative impacts of abolishing the waiting list includes:

- Majority of the campus spaces at the main Hospital Road car park being occupied by staff;
- Visitors and patients parking on the surrounding streets causing intrusion problems;
- Increases in staff driving to work; and
| It is indicated that the existing car parking configuration comprises of 1890 standard car spaces and 67 accessible spaces. Whilst it is indicated that a total of 2539 spaces will be provided following the completion of Stage 1; no detail is provided on the number of those that will be accessible and how this will accommodate demand. The Traffic Report notes a 'high number of vehicles with disability permits' in Hospital Road. It is apparent that this is partly due the fact that disability permits exempt vehicles from the on street metered parking fees but no the fees in the hospital car park. Consideration should be given as to how vehicles displaying disability permits can be best accommodated off-street. | • Increases in parking on surrounding streets.
References to a detailed response to traffic matters, including impacts to Indra and Colane Streets, prepared by Arup at Attachment J.

It is acknowledged that on-street parking along Hospital Road is an attractive option for those with a mobility parking permit, both in terms of proximity to Concord Hospital and the exemption from payment of parking fees. However, as Hospital Road is a public road (owned and controlled by Council), the Hospital has no control of the use of these spaces.

To mitigate this issue, the proposed development will provide for new accessible parking spaces in convenient locations within car parking areas both to the north and south of Hospital Road, including the at grade car park sought under the Stage 1 works. Many patients/visitors with mobility parking permits will be able to utilise these spaces either free of charge (for under three-hour stays) or at discounted rates.

Additionally, the on-grade car park is adjacent to the new drop-off areas and the accessible bays will be very visible and likely to be used by visitors to the hospital.

Refer to a detailed response to traffic matters prepared by Arup at Attachment J.

Inadequate detail is provided with regard to the proposed 'mini roundabout' and raised pedestrian crossing to its east. Of the details provided it is apparent that the proposed entry on the north side of Hospital Road is poorly aligned with the entry on the south side of the road. It is also apparent that investigations are required for the continuity of the footpaths along the north and south sides of Hospital Road past the proposed roundabout. Negotiations over land ownership and maintenance obligations are also required noting that the proposed roundabout extends into the hospital property. As the design of the roundabout is a critical element of the successful operation of the proposed development, its design should be further refined at this stage before the planning of the proposed development progresses further.

A preliminary design of the roundabout and pedestrian crossing has been prepared by TTW within the Civil Plans at Attachment M. It is proposed that concurrence with Council and TfNSW regarding the design of this roundabout and footpaths (prior to the roundabout works being undertaken) be conditioned as part of the development consent.

Refer to a detailed response to traffic matters prepared by Arup at Attachment J and amended Civil Plans provided at Attachment M.

Anecdotal evidence indicates that there are significant queueing issues during the morning peak due to the high number of staff attempting to enter the boom gated carpark on the north side of Hospital Road. Whilst it is noted that the capacity for entering vehicles has increased due to an additional boom gate being provided, no analysis has been provided on the adequacy of the proposed arrangement to accommodate anticipated demands. The Stage 1 design for the decked carpark would appear to provide an excellent opportunity for these queueing issues to be

As detailed in the submitted Transport and Parking Report (EIS Appendix AF), the proposed arrangement will accommodate anticipated access demands. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.
<table>
<thead>
<tr>
<th>The intersection capacity analysis does not account for other background traffic increases which are particularly significant at the intersection of Concord Road and Homebush Bay Drive. Notwithstanding this, the analysis concludes that the subject intersection would operate at a poor level of service. It is apparent that a state government commitment is required with regard to the upgrade of the intersection of Concord Road and Homebush Bay Drive as part of the proposed redevelopment of the hospital.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This item is acknowledged. NSW Health Infrastructure is committed to liaising with Council and relevant state agencies regarding any future planned upgrades within the area. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The traffic report indicates delays where Concord Road intersects with Hospital Road and where it intersects with Killoola Street ‘are mainly due to traffic at the downstream intersection/s’. This statement does not discount there being capacity issues at these intersections should upgrades to the intersection of Concord Road and Homebush Bay Drive be realised. An analysis should be undertaken of the intersection of Concord Road and Hospital Road in particular to determine if upgrades to that intersection are likely to be required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following intersections have been analysed as isolated intersections in SIDRA to determine if any upgrades are required, should upgrades at the downstream intersection of Concord Road and Homebush Bay Drive be realised in the future:</td>
</tr>
<tr>
<td>- Concord Road &amp; Killoola Street; and</td>
</tr>
<tr>
<td>- Concord Road &amp; Hospital Road.</td>
</tr>
<tr>
<td>The model indicates there would be no capacity issues at these intersections if they were not impacted by downstream intersections. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Council would encourage NSW Health to investigate all potential options for providing expanded transport options to and from the hospital site for staff and visitors given the significant increase in the size and scale of the hospital facility under this redevelopment proposal and to encourage staff and visitors to be less reliant on private vehicles. It is noted that the parking fees for staff set out in the Green Travel Plan are very low and that potentially increasing these fees would discourage the use of private vehicles by staff and alternatively encourage staff to use alternative means of gaining access to the hospital. Council supports the conclusions and recommendations contained the Green Travel Plan and would be willing to work with NSW Health to achieve the initiatives set out in the Plan including supporting NSW Health in any submissions made to the relevant Government Ministers to improve public transport options for the area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is acknowledged that expanded transport options and parking fees is an ongoing issue that will be explored. However, it is noted that parking fees for hospitals are regulated by the Independent Pricing and Regulatory Tribunal (IPART) in consultation with the LHD.</td>
</tr>
<tr>
<td>NSW Health Infrastructure supports the involvement of Council to achieve the recommendations contained within the Green Travel Plan. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>It is also noted that a significant proportion of staff live outside the Canada Bay Local Government Area and that this could potentially be addressed through affordable housing initiatives that encourage hospital staff to live in closer proximity to the hospital site. Council would be prepared to enter into further discussions with NSW Health to investigate such initiatives and any other options</th>
</tr>
</thead>
<tbody>
<tr>
<td>The provision of affordable housing has been reviewed by the project team but is a strategic objective beyond the scope of the proposed development.</td>
</tr>
</tbody>
</table>
that would address this issue.

**Council (Stormwater Management)**

<table>
<thead>
<tr>
<th>It is noted that the flood study has been carried out based on existing structures and the Stage 1 proposal. The Flood study/analysis should be based on entire proposed development to include all stages of the redevelopment.</th>
<th>The flood study prepared by TTW (EIS Appendix Q), was undertaken on the known inputs at the time of assessment. Detailed development approval for the proposed Stage 2 works will be completed at a later date and does not form part of this SSDA, and therefore will require a separate detailed flood study at this time once the layout and design has been determined. Refer to a detailed response to civil matters prepared by TTW at Attachment L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater from the catchments which will be discharged to Council's drainage system along Hospital Road will require an On Site Detention (OSD) system to be in place for the stormwater management.</td>
<td>In response to this issue the proposed stormwater design has been amended to discharge to the south, away from Hospital Road, to negate the need for detention storage in this location. Refer to a detailed response to civil matters prepared by TTW at Attachment L and amended civil plans at Attachment M.</td>
</tr>
<tr>
<td>It is noted that the proposed Multi Storey Car Park (MSCP) will discharge to the north &amp; further investigation is required to determine the size and location of the existing stormwater infrastructure. The outcome of these investigations should be included in the final report and should also be incorporated into any redesign on the Civil Plans.</td>
<td>This item is subject to further detailed design processes, which are anticipated to be undertaken in consultation with Council. The location of any dispersion trench will need to be agreed upon with the project ecologist and arborist and agreed to by Council as to ensure no impact on adjacent bushland areas of the and existing path network. It is recommended that this is imposed as a condition of consent. Refer to a detailed response to civil matters prepared by TTW at Attachment L.</td>
</tr>
<tr>
<td>It is noted that the Civil Report prepared by TTW does mention the provision for water quality systems but there are no detailed drawings or MUSIC model results provided to support the stormwater quality targets as outlined in Council's DCP.</td>
<td>The Soil and Water Report at Attachment N nominates the use of stormwater treatment devices including a Gross Pollutant Trap (GPT) and Stormwater360 'Jellyfish’ unit. Final specification and configuration of these devices will be determined as part of subsequent detailed design processes. It is recommended that the provision of requested information is prepared prior to commencement of the relevant works and is formalised as a condition of consent.</td>
</tr>
<tr>
<td>The design of internal drainage system must take into consideration all surface runoff/overland flows from adjoining sites. The design of the internal drainage system will require the submission of longitudinal sections. All trunk drainage long-sections will need to include invert levels, finished ground/grate levels, design flowrates, pipe sizes and class, service crossings and a hydraulic grade line. The plans submitted are considered to contain a suitable level of detail regarding catchments, network layout and pipe sizing is as required for assessment under this SSDA. Further detailed information will be provided to Council as part of subsequent detailed design processes and in response to any conditions of consent that may influence this</td>
<td></td>
</tr>
</tbody>
</table>
design documentation should include Stormwater concept design and reports, subcatchment plans, Stormwater calculations, Overland flow analysis, Water quality plans etc.

Accordingly, it is recommended that the provision of requested information is prepared prior to commencement of the relevant works and is formalised as a condition of consent.

Notwithstanding, and in response to other matters raised, please refer to amended civil plans at Attachment M.

A formal overland flow path must be provided to ensure that, should the underground drainage system become blocked or if the design storm is exceeded, a safe overflow route for stormwater is available for which runoff can be safely conveyed to the Yaralla Bay. Drawings should be included to show the proposed formal overland flow routes.

Overland flow under the Stage 1 redevelopment will not impact on other properties. Overland flow paths are shown on the current drawings (Attachment M) and discharge over the existing and proposed access roads towards Yaralla Bay. Refer to a detailed response to civil matters prepared by TTW at Attachment L.

Written approval will need to be obtained from the relevant authority (RMS) and submitted to Council for the construction of the outlet along the seawall at Yaralla Bay.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent (prior to the relevant works commencing).

**Council (Civil)**

Civil works within road reserves require approval under Section 138 of the Roads Act 1993 from Council. A separate set of civil plans will need to be submitted to Council and an approval shall be obtained prior to the commencement of any works.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

It is noted that a roundabout/intersection and footpath works has been proposed at Hospital Road. Detailed designs including footpath connection details at the Roundabout/intersection will need to be provided to Council. Plans will need to include long sections and cross sections.

The design of the proposed roundabout intersection and adjacent footpaths are undergoing design development, and once finalised, will be provided to Council for approval under Section 138 of the Roads Act 1993. It is requested that this be addressed through a condition of consent (prior to the relevant works commencing).

All car parking spaces are required to comply with AS/NZS2890.1:2004 Off Street Car Parking Code.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

**Council (Heritage)**

The proposal will have an adverse impact on the heritage values of Concord Hospital as it will result in the loss of buildings, spaces and landscape features that were part of the original hospital. The proposal will also adversely affect the setting of the original hospital buildings, in particular the main building, the multi-ward block.

The impact of the proposal on existing heritage values of Concord Hospital is discussed in detailed within the EIS and appended Historical Heritage Assessment and Statement of Heritage Impact report prepared by Biosis (EIS Appendix AC).

Note that in response to matters raised by Council and OEH, that an updated Historical Heritage Assessment has been prepared by Biosis at Attachment G.
The proposal includes the demolition of a number of historic buildings and landscape features. It is unfortunate that an alternative design which included the retention of more historic buildings and the tennis court could not have been developed. The tennis courts are an original landscape feature that demonstrates the important role recreational activities played in patient treatment.

<table>
<thead>
<tr>
<th>The proposal includes the demolition of a number of historic buildings and landscape features. It is unfortunate that an alternative design which included the retention of more historic buildings and the tennis court could not have been developed. The tennis courts are an original landscape feature that demonstrates the important role recreational activities played in patient treatment.</th>
<th>Whilst a number of potential siting options were considered (refer EIS Section 1.2), the existing tennis courts are located centrally within the site and their retention was not feasible under the circumstances.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Statement of Heritage Impact (dated 21 June 2018, prepared by Biosis) submitted with the proposal recommends archival recording as a mitigation measure in relation to some of these buildings. This is supported, however, buildings in addition to those noted in the Statement of Heritage Impact, should also be archivally recorded as these buildings are also historic buildings, although altered. Buildings and features of the site which should have an archival recording prepared prior to demolition are set out below:</td>
<td></td>
</tr>
<tr>
<td>- Buildings numbered 10, 11, 14, 15, 16, 17, 18, 19, 63, 64, 65, 67, 72 and 73 on the plan shown in Plate 19 &quot;Existing Buildings at Concord Repatriation Hospital 2015&quot;, page 56 in the Statement of Heritage Impact.</td>
<td></td>
</tr>
<tr>
<td>- The tennis courts, including photos of their setting.</td>
<td>This item is acknowledged, and it is anticipated that archival recording will be addressed as a condition of consent.</td>
</tr>
<tr>
<td>The archival record must include original plans at 1:100 scale (or similar) as well as plans of the current buildings. A hard copy of the archival record for each building is to be provided to Canada Bay Council (for Council's Local Studies Library). The archival records are to include an electronic copy of the document on a good quality memory stick (for Council's electronic data base.)</td>
<td>This item is acknowledged, and it is anticipated this will be addressed as part of the relevant condition of consent.</td>
</tr>
<tr>
<td>The proposed new large hospital building will adversely affect the setting of the original hospital building, in particular the historic multi-ward block. It is unfortunate that the proposal was not designed to respect the original design rationale of separate buildings related through their landscape setting and formal arrangement.</td>
<td>This item is acknowledged. The proposed design is an outcome of detailed site analysis, consideration of heritage context, resources available and constraints. The impact of the proposal on existing heritage values of Concord Hospital is discussed in detailed within the EIS and appended Historical Heritage Assessment and Statement of Heritage Impact report prepared by Biosis (EIS Appendix AC). Note that in response to matters raised by Council and OEH, that an updated Historical Heritage Assessment has been prepared by Biosis at Attachment G.</td>
</tr>
</tbody>
</table>

**NSW Department of Planning & Environment**

It is noted that the Environmental Protection Authority provided a number of comments in relation to the site contamination and the submitted Remedial Action Plan (RAP). The issues raised, and recommendations made are to be addressed.

Refer to a detailed discussion on this matter in the Response to Submissions Cover Letter prepared by Architectus.
in an amended site assessment and RAP to be submitted with the Response to Submissions.

### Roads and Maritime Services

The submitted application’s Transport and Accessibility Report indicates that the proposed development, after completion of Stage 2, will have some impact on local roads and increased queue lengths to Concord Road.

As such, Roads and Maritime recommend that the applicant continues to work with TNSW and Council to mitigate these impacts through a comprehensive travel demand management strategy.

Roads and Maritime recommend that an independent Road Safety Audit (RSA) is conducted on the final design on the treatment and upgrades to Hospital Road.

The design of new roundabouts should be designed in accordance with Austroads Guide to Road Design Part 4B: Roundabouts Section 4.3.3 (2015), Roads and Maritime notes that the current design currently is inconsistent with the guide.

Swept path analysis, should be provided to illustrate the maximum size service vehicle and an articulated bus (19.0m) on Hospital Road. This is to ensure that these vehicles can operate on Hospital Road.

It is unclear as to whether the existing bus zone and infrastructure will be impacted by the proposed development. TNSW and the local bus operators should be consulted and approve any change or impact to bus operations or infrastructure.

The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements in relation to landscaping and/or fencing, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1-2004, AS2890.6-2009 and AS 2890.2 – 2002 for heavy vehicle usage.

Consideration should also be given to providing bicycle parking facilities either within the development or close to it, as well as end trip facilities such as showers, changing rooms, etc. to encourage travelling to and from the development.

### NSW Health Infrastructure and the project team and committed to continue to with RMS, TNSW and Council to mitigate impacts through a comprehensive travel demand management strategy. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.

This item is acknowledged, and a Road Safety Audit (RSA) will be conducted at the detailed design stage for the roundabout works. it is anticipated this will be addressed as a condition of consent.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

Swept path diagrams are also provided at Attachment K which demonstrate that services vehicles and articulated buses are capable of operating along Hospital Road. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.

No changes to the existing bus zone and infrastructure along Hospital Road are proposed as part of the development.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

As detailed at Section 4.3 of the EIS, approximately 41 staff and 7 public bicycle parking spaces are proposed to be provided in the basement of the development, with convenient access to new end of trip facilities also. The end of trip facilities will provide 8 showers and 60 lockers for staff.

Note that in response to matters raised, bicycle access and parking has been
reconfigured as detailed within the amended architectural plans at Attachment B.

<table>
<thead>
<tr>
<th>A Construction Pedestrian Traffic Management Plan (CPTMP) detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council for approval prior to the issue of a Construction Certificate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This item is acknowledged and is provided within the submitted traffic and parking report (EIS Appendix AF) that a detailed Construction Traffic Management Plan (CTMP) will be prepared by the Principal Contractor prior to the commencement of works. It is anticipated this will be addressed as a condition of consent.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A Road Occupancy Licence should be obtained from Transport Management Centre for any works that may impact on traffic flows on Concord Road during construction activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.</td>
</tr>
</tbody>
</table>

**Transport for NSW**

**Architectural Plans**

The Stage 1 works include the construction of roundabouts to service the multi-storey car park and new at grade car park. The architectural plans provided in Appendix C of the Concept Proposal indicate a two-lane approach to a single circulating lane roundabout at the intersection of Hospital Road and within the car park. The proposed design is inconsistent with Austroads Guide to Road Design Part 4B: Roundabouts Section 4.3.3 (2015) which requires that the number of circulating lanes from any particular approach must be equal or greater than the number of entry lanes on that approach.

The design of the roundabouts should be revised accordingly.

<table>
<thead>
<tr>
<th>The roundabouts to service the multi storey car park and the new at grade car park have been suitably designed. Subsequent detailed design will ensure compliance with relevant standards and codes. Refer to a detailed response to traffic matters prepared by Arup at Attachment J.</th>
</tr>
</thead>
</table>

**Pedestrian Pathway to Rhodes Station**

The Kokoda Track Memorial Walkway, which is also a shared path, provides the most direct pedestrian connection between the Hospital and Rhodes Station (approximately 15-minute walk). The Transport and Parking Report notes afternoon and night shift staff have concerns about safety when travelling to/from work in evenings and/or early mornings. To promote the use of cycling and walking, measures to increase the safety of the route between the Hospital and Rhodes Station should be explored.

Conduct further investigation, in consultation with Canada Bay Council and relevant agencies, into measures to improve the amenity and safety of the route between the Hospital and Rhodes Station to promote the use of cycling and walking.

<table>
<thead>
<tr>
<th>NSW Health Infrastructure and the project team and committed to continue to with Council and relevant agencies to improve transport connections surrounding the site and to mitigate impacts through a comprehensive travel demand management strategy (Green Travel Plan). It is anticipated this will be addressed as a condition of consent.</th>
</tr>
</thead>
</table>
**Bicycle Parking/EOT**

The EIS notes that Stage 1 of the development includes the provision of approximately 40 bicycle parking spaces with efficient access to end-of-trip facilities in accordance with Australian Standards. As the cycle access will be shared with the vehicle entry to the ambulatory care dropoff at basement level, the need to physically separate bicycle parking from vehicles and pedestrians is highlighted.

Bicycle parking and end of trip facilities for staff and visitors should be provided in accordance with Australian Standards AS2890.3 (Bicycle Parking Facilities) and guideline documents. Access to bicycle parking should be physically separated from vehicles and pedestrians and end of trip facilities should be located in secure, convenient, accessible areas close to the main entries incorporating adequate lighting and passive surveillance in accordance with Austroads guidelines.

Approximately 41 staff and 7 public bicycle parking spaces are proposed to be provided in the basement of the development, with convenient access to new end of trip facilities. These facilities will provide 8 showers and 60 lockers for staff in accordance with Australian Standards.

In response to matters raised relating to cycle access, it is noted that this arrangement has been amended to provide alternate access to prevent any conflict with ambulatory care or delivery vehicles. Refer to this revised layout within the amended Architectural Plans at Attachment B.

**Bus Services**

The EIS notes a number of bus stops are located along Hospital Road and that the Hospital is directly serviced by three bus routes, including the M41, the 460 and 468. Additional traffic generated by the proposal is likely to impact on the speed, and reliability and hence attractiveness of the aforementioned bus services. Increased bus travel times and reduced reliability around the Hospital is likely to increase operational costs and reduce the attractiveness of bus services. Measures to avoid or reduce impacts on buses accessing the site should be considered.

Further investigation should be undertaken to consider measures that could reasonable by undertaken to mitigate any impacts on bus services in the area. This could include measures such as:

- Ways to improve and/or prioritise bus access along Hospital Road, and
- Ways to improve access, quality and amenity of bus stops to ensure buses are a preferred travel mode.

Consultation with TNSW and local bus operators should be undertaken prior to any changes to bus stops or traffic management measures along Hospital Road. This would maintain safe and efficient bus movements, and customer and operational requirements.

As noted earlier, the proposed development does not impact on existing bust stops and infrastructure. Nevertheless, NSW Health Infrastructure will consult with TNSW and local bus operators to investigate measures to mitigate any potential impacts to the operation of bus services. It is recommended this is formalised through a suitable condition of consent.
**Green Travel Plan (Condition of Consent)**

As part of the ongoing operation of the hospital, a detailed Green Travel Plan (GTP), which includes target mode shares for both staff and visitors to reduce the reliance on private vehicles, shall be prepared. The GTP must be implemented accordingly and updated annually.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

**Office of Environment and Heritage (Environment)**

**Biodiversity**

On 14 June 2018 OEH determined under s. 7.9(2) of the Biodiversity Conservation Act 2016, that a biodiversity development assessment report was not required for this project. The SEARs still required that biodiversity impacts related to the project, including any impact on aquatic ecology, be addressed. OEH recommends the SEARs requirement be adequately addressed, including specific mitigation measures for the operational phase of the development - only mitigation measures for the construction phase are currently listed in the report (see point 5 below).

In terms of assessing the proposal’s indirect impacts on the adjoining Council reserve, and so addressing the SEARs requirement for aquatic ecology to be addressed, the current Flora and Fauna Assessment (FFA) is unsatisfactory for multiple reasons outlined below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It identifies several vegetation communities, associated with aquatic ecology, in its likelihood table but concludes that no assessment of significance is required because of “No impacts on community” (App 1, pg 31 &amp; 32). This is at odds with the following statement on page 9 “it was determined that there was potential for indirect impacts on offsite vegetation within council reserve in the north of the study area”</td>
</tr>
<tr>
<td>2.</td>
<td>The following two sentences contain the main reference to council reserve, which was not mentioned in greater detail elsewhere in report: “it was determined that there was the potential for indirect impacts on offsite vegetation within council reserve in the north of the study area” (page 9) and “a targeted survey for microchiropteran bats in vegetation within an adjacent council reserve was undertaken” (Page viii)</td>
</tr>
<tr>
<td>3.</td>
<td>FFA refers to SEARs requirement to “Address biodiversity impact related to proposal including any impact on aquatic ecology” (page 2) but does</td>
</tr>
</tbody>
</table>

The preliminary assessment identified potential for offsite impacts on aquatic vegetation communities including Saltmarsh and Mangroves. It was later determined that there would not be offsite impacts as they will be avoided through mitigation measures, as outlined in Chapter 6 of the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

Surveys within the council reserve were undertaken during the preliminary stage of the assessment when direct and indirect impacts of the development were unknown. It has since been confirmed that there will be no offsite impacts. Given that microbats within the council reserve would not be impacted, these results were not relevant to the assessment. Refer to the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

The proposal will have no direct impacts on aquatic ecology. Potential indirect impacts may be prevented through mitigation and stormwater management controls as
4. **FFA states in section 5.3.1 Changes in Hydrology** "there is an increased risk of potential contaminants to enter waterways during the construction phase and operation of the carpark. These potential indirect impacts can be effectively mitigated through appropriate storage of contaminants and runoff controls during construction, and appropriate stormwater management for the operational phase of the development." Regarding this last sentence, mitigation measures are necessary and should be planned for and implemented from the outset. A key activity is to "Protect areas of saltmarsh from runoff that contains high levels of nutrients of pollutants"

Additional stormwater information has since been provided, including, however not limited to, stormwater treatment devices to remove gross pollutants, sediment and nutrients before release into a dispersion trench in the offsite vegetation. This information is summarised in Chapter 6 of the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

5. **FFA states in 5.3.1 Impacts on Aquatic Ecology** - "likely water quality change will be runoff from new carpark. Much higher risk of heavy metals and hydrocarbons entering waterway. Should be mitigated where possible". However, all mitigation measures listed in Section 6 deal with construction phase only

Additional stormwater information has since been provided, including, however not limited to, stormwater treatment devices to remove gross pollutants, sediment and nutrients before release into a dispersion trench in the offsite vegetation. This process will minimise risk of heavy metals and hydrocarbons entering the waterway. This information is summarised in Chapter 6 of the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

6. **FFA states** "it was determined there was potential for indirect impacts on offsite vegetation within the council reserve in the north of the study area. Two biometric plots were undertaken in this vegetation in accordance with BAM (page 9). However, data is not given for these plots and they are not shown on Figure 5 (page 16). BAM plots were undertaken during preliminary assessment when direct and indirect impacts were unknown. The plots are outside of the direct impact area and considered not relevant for the development. Indirect impacts to this vegetation controlled through mitigation measures (Page 9, Chapter 6) of the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

7. **The FFA states** "A targeted survey for microchiropteran bats in vegetation within adjacent council reserve was undertaken by setting one microbat echolocation recording device (Anabat) adjacent to the subject site" but the location of this reserve and the location of the Anabat device is not marked on any map, and no Anabat data is given in the report. Anabat survey was undertaken during preliminary assessment when direct and indirect impacts were unknown. Survey undertaken to detect use of offsite habitat by threatened bats, in particular potential for *Myotis macropus* (Southern Myotis) use of riparian corridor. Anabat was located outside of the impact area and no direct or indirect impacts to occur in this area, hence bat assessment not relevant to project. Refer to the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

8. **Two of the microbats (Eastern Freetail bat and Yellow bellied Sheathtail bat) can use tree hollows but the FFA is not clear about the impacts on hollow-bearing trees. For example, test of significance for microbats states "no roosting habitat would be impacted by the works" but no data** The Flora and Fauna Assessment contained an error in the test of significance for Grey-headed Flying Fox. No hollow-bearing trees or stags were identified within the impact area during the field survey. One HBT was identified offsite in the council reserve, however, this tree will not be impacted. Page 76 has been amended
on HBTs is given in the report to substantiate this, and the test of significance for the GHFF states "The proposal will result in the removal of two hollow-bearing trees (HBTs) and one dead stag (page 76)"

removing reference to removal of 2 hollow-bearing trees and dead stag. Refer to the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

9. Regarding the White-bellied Sea Eagle, for which there are many BioNet records on and around the site, the FFA states “The study area did not contain foraging habitat or nests’ thus, an impact assessment was not conducted for this species”. However, no data is given in the report for the field survey that was carried out and, according to the test of significance for GHFF, the development will remove 2 HBTs and one stag. Further, there are many nearby BioNet records for the Powerful Owl but no test of significance was carried out for this species (which also relies on hollows).

Searches for habitat features within study area were undertaken during the field survey. No White-bellied Sea Eagle nests were recorded in impact areas. No hollow-bearing trees or stags will be removed as a result of the development (error amended removing reference to 2 HBTs and stag removed). Refer to the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

10. A potential mitigation measure for prescribed biodiversity impacts in the BAM 9.3.3.1 (c) is the retention of habitat features (Fallen timber, hollow logs, or rocks from the development site onto adjacent retained remnant vegetation to provide habitat”. This needs to be a condition for Concord Hospital, if two hollow-bearing trees and a stag are being removed, that the proponent is to have these placed (at their expense, and under the direction of appropriate Local Council staff) in an adjacent, or nearby Council reserve or on site.

Anerror was made in the original report however has been rectified in the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I. No hollow-bearing trees or stags will be removed as a result of the development. Reference to HBTs and stag removed therefore this mitigation measure is no longer required.

Aboriginal Cultural Heritage

OEH notes that a due diligence Aboriginal heritage assessment was undertaken for the proposal by Biosis (August 2018). This is inconsistent with Item 9 of the Secretary’s Environmental Assessment Requirements (SEARs) dated 8 February 2018 that states:

Where relevant, address Aboriginal Cultural Heritage in accordance with the Guide to investigation, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.”

Due diligence is not a substitute for undertaking an Aboriginal cultural heritage assessment. Due diligence is a legal defence against harm under the National Parks and Wildlife Act 1974 and is inadequate to assess the impacts of the proposed development on the Aboriginal archaeological and cultural heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) is currently being prepared and will be provided on completion.
values of the subject land.

Further assessment of Aboriginal cultural heritage is recommended in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR), with formal Aboriginal community consultation and a staged program of archaeological test excavations, to inform the development and satisfy the project SEARs.

### Water Quality Impacts on Endangered Ecological Communities

The site is located on the foreshore of the Parramatta River in proximity to both Brays Bay and Yaralla Bay and is surrounded by a sensitive estuarine environment. The proposal has not adequately demonstrated the protection of the following Endangered Ecological Communities (EECs) located adjacent to the proposed multi-storey five level car park (Stage 1) and the water quality of Parramatta River.

#### Endangered Ecological Communities:

- Coastal Saltmarsh
- Swamp oak floodplain forest
- Sydney Turpentine Ironbark Forest

#### Other vegetation communities

- Estuarine mangrove forest
- Riverflat paperbark swamp forest

The proposed development includes the provision of stormwater treatment devices to remove gross pollutants, sediment and nutrients before release into a dispersion trench in the offsite vegetation and surrounding waterways. This process will minimise the risk of heavy metals and hydrocarbons entering the waterway. Additionally, the dispersion trench reduces the risk of erosion in the bushland by spreading the stormwater out rather than installing a concentrated stormwater outlet.

It is noted that the location and design of the stormwater trench will be determined as part of subsequent detailed design processes. However, this trenching will be suitably located so that it will not result in direct impacts to EECs to the north of the study area including Swamp Sclerophyll Forest and Coastal Saltmarsh.

Plans for the stormwater dispersion trench will be prepared in consultation with an ecological consultant in order to ensure there are no direct impacts on EECs and native vegetation. It is recommended that this is formalised as a condition of consent.

Refer to a detailed response to civil and stormwater matters prepared by TTW at Attachment L. Additionally, a response to ecological matters prepared by Eco Logical at Attachment H as well as the updated Flora and Fauna Assessment prepared by Eco Logical at Attachment I.

The SEARs for drainage and Ecologically Sustainable Development (ESD) state:

- Detail drainage associated with the proposal, including stormwater and drainage infrastructure;
- Detail measures to minimise operational water quality impacts on surface waters and groundwater; and
- Include a description of the measures that would be implemented to

In response to matters raised by Council and OEH, an updated stormwater design is provided at Attachment M. This stormwater design incorporates a range of measures to minimise operational water quality impacts on surface waters and groundwater, including the provision of stormwater treatment devices and dispersion trenches in order to minimise the risk of erosion and the potential for heavy metals and hydrocarbons entering the waterway.

Refer to a detailed response to civil and stormwater matters, including measures to minimise operational water quality impacts on surface water and groundwater, as well as stormwater treatment measures prepared by TTW at Attachment L. An updated soil and water report further addressing these items is provided at Attachment N.
minimise consumption of water resources, water (including water sensitive urban design) and energy.

environmental outcomes in order to achieve the designed 4 Star Green Star equivalent, as nominated within the NSWWHI Engineering Services Guidelines is considered consistent with Australian Best Practice in design & construction for a healthcare facility. Refer to further details of these measures in the amended ESD statement prepared by Wood and Grieve Engineers at Attachment O.

OEH notes that part of the site is zoned E2 Environmental Conservation in the location where the multistorey car park is proposed to be located. It is unclear whether the proposed multi storey car park is permissible in this location given the part E2 Zoning, as it is not a prescribed zone under the Infrastructure SEPP (Clauses 56 and 57) and the design of the proposed multi-storey car park does not currently appear to be consistent with the E2 zone objectives.

Following further investigation, it is acknowledged that a small portion of the proposed multi-storey car park encroaches within the E2 – Environmental Conservation Zone to the north of the existing car park. Please refer to the extent of this encroachment on the overlay map prepared by Jacobs at Attachment B.

It is however noted that investigation of historical images (NSW LPI sixmaps) indicate this E2 Zone area to the north of Hospital Road having existed since the 1940’s, being used for a variety of purposes including accommodation and car parking for the hospital.

However, it is noted that Clause 4.38(3) of the Environmental Planning and Assessment Act 1979 (EP&A Act) is applicable in this regard, which provides:

“(3) Development consent may be granted despite the development being partly prohibited by an environmental planning instrument.”

The effect of Section 4.38(3) is that if SSD is only partly (and not wholly) prohibited, then development consent may nevertheless be granted. The proposed development relies on this clause for the reasons set out below.

The objectives of the E2 Environmental Conservation land include:

- To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values; and
- To prevent development that could destroy, damage or otherwise have an adverse effect on those values.

Development permissible within E2 Environmental Conservation Zone is limited and does not include the development for the purposes of a car parking (which itself is ancillary to the existing hospital).

However, as detailed within the EIS, the proposed multi storey car park does not involve the removal of any trees (as it is on a land area already used for parking), does not present any unreasonable visual or amenity impacts and will otherwise
**OEH has reviewed the Soil and Water report prepared by Taylor Thomson Whitting.** It states the proposed stormwater systems do not discharge to Council’s stormwater system, but directly to Parramatta River/ Sydney Harbour. A combination of a GPT plus a Stormwater360 Jellyfish JF3250-24-4 can meet the (pollution) reduction targets for the main works on the southern side of hospital road. It also states that ‘the proposed multi-deck car park on the north side of Hospital Road can similarly meet stormwater quality targets through the use of a proprietary stormwater treatment device’. There is no detail of what this device is and how runoff from the development to the north of Hospital Road is to be treated. This is inconsistent with the SEARs. Further, this report states the preliminary site contamination investigation completed by Douglas Partners in June 2016, notes potential sources and types of contaminants at the proposed development site in section 3.2 of the Soil and Water report including at the ‘main hospital car park with potential for leakage of engine oil and or petrol penetrating into the ground’ with contaminant types being heavy metals, TRH and BTEX.

An updated Soil and Water Report is required that includes stormwater treatment devices to manage runoff and treat and remove contaminants and pollutants generated from the development to mitigate impacts on the sensitive vegetation communities.

**A Water Quality management plan is required, and the proposal should make use of stormwater quality improvement devices. OEH is concerned with heavy metals and hydrocarbons, oils and runoff flowing directly into river and harbour which is inconsistent with the policies outlined below.**

**A similar SSD for the Prince of Wales Hospital redevelopment included a hydrocarbons trap or separator to treat runoff generated. The nominated proprietary product will be specifically designed to provide high removal efficiencies of suspended solids and their associated pollutants, oil, and floatables over a wide range of flow rates. OEH recommends a similar approach for the redevelopment of Concord Hospital.**

The above mitigation measures are required to ensure the proposal is consistent

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preserve existing ecological, scientific, cultural and aesthetic values.

The development is therefore consistent with the objectives of the E2 – Environmental Conservation Zone and permissible as a consequence of the operation of Section 4.38(3) of the EP&A Act.

Final specification and configuration of stormwater devices will be determined as part of subsequent detailed design processes. It is recommended that the provision of requested information is prepared prior to commencement of the relevant works and is formalised as a condition of consent.

Refer to a detailed response to civil and stormwater matters prepared by TTW at Attachment L. An updated soil and water report further addressing these items is provided at Attachment N.

An updated soil and water report further addressing these items is provided at Attachment N.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent prior to commencement of works.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent prior to commencement of works.

As detailed within this RTS, it is noted that the proposed stormwater design incorporates a range of measures to minimise operational water quality impacts on surface waters and groundwater, including the provision of stormwater treatment devices and dispersion trenches in order to minimise the risk of erosion and the
with the E2 zone objectives, and the following policies:

- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Parramatta River Estuary Coastal Zone Management Plan
- Easter City District Plan
- Coastal Management SEPP

potential for heavy metals and hydrocarbons entering the waterway.

Refer to a detailed response to civil and stormwater matters prepared by TTW at Attachment M. An updated soil and water report further addressing these items is provided at Attachment N.

There is inadequate detail in this SSD about managing the proposals runoff and water quality and its consistency with the Sydney Harbour Catchment REP, District Plan priorities/actions above, Coastal Management SEPP and the CZMP.

As discussed within this RTS, the proposed stormwater design has been developed in accordance with Council’s DCP and technical specifications, Australian Standards and industry best practice. A detailed assessment of the planning context and regulatory framework is provided at Section 4 of the EIS.

Refer to a detailed response to civil and stormwater matters prepared by TTW at Attachment L. An updated soil and water report further addressing these items is provided at Attachment N.

Further, the proposed multi-storey car park is in a high-risk acid sulfate soils area. Any forthcoming consent should condition the need to prepare an acid sulfate soils management plan, if for the multi-storey car park, excavation exceeds disturbance of 1000 tonnes of soil and pile diameters exceed 0.6m to 0.9 m diameter on an 8m by 8m grid; and significant excavation is required into alluvial clays (or excavation into clays below RL 5m) for earthworks (as noted in the Soil and Water Report). It is noted that the hospital building basement excavation exceeds 2400 tonnes as such a management plan should be prepared.

This item is acknowledged, and it is anticipated this will be addressed as a condition of consent.

The SSD should include provisions and design controls relating to sustainability including water sensitive urban design, urban tree canopy and green cover to assist with reducing the urban heat island effect, and local temperatures and improving livability. OEH recommends the development incorporate green walls, green roof and/or a cool roof into the design. The benefits of Green Roofs and Cool Roofs are outlined in the OEH (2015) Urban Green Cover in NSW Technical Guidelines which can be found at the following link:


Green roofs can increase habitat and biodiversity at the site, particularly if local native plant species are used from the relevant native vegetation community. OEH notes that there are multiple ATLAS records of the White Bellied Sea Eagles on

The proposed CSB includes multiple landscape terraces, so it is considered unnecessary to incorporate additional green walls and roofs. Furthermore, in terms of additional cost, maintenance, durability, health and safety the incorporation of green roofs/walls are not viable nor compatible with the sensitive use of the site as a hospital (due to the potential risk for water intrusion, stagnant water and associated risk and spread of infection). This item is detailed further within the amended architectural design report prepared by Jacobs at Attachment C.
and surrounding the site. This species would benefit from these sustainability initiatives.

| OEH also recommends that the NSW and ACT Governments Regional Climate Modelling (NARCiiM) climate change projections developed for the Sydney Metropolitan area are used to inform the building design and asset life of the project. These include over 100 climate variables, including temperature, rainfall, hot days and cold nights, severe Forest Fire Danger Index (FFDI) and are publicly available online and at fine resolution (10km and hourly intervals) for 20-year time periods: 2020-2039 near future and long-term 2060-2079. | An amended ESD statement has been prepared by Wood and Grieve Engineers at Attachment O which includes a response to the NSW and ACT Governments Regional Climate Modelling (NARCiiM) climate change projections.

The project will utilise the regional climate projection data such as rainfall, temperatures and fire danger index from NARCLiM for the next 20-year periods (2020-2039) and/or more future periods (2060-2079) to assist with the project team on the building design to ensure the project will be adapted and resilience to the impact on climate change.

Climate change risk mitigation actions that may be implemented into the building design including but not limited to:

- Alternative water supplies to reduce the potable water consumption during drought periods;
- Proper flood prevention design to manage against potential flooding and high rainfall events;
- Stormwater treatment to ensure waterways water quality standards are met; and
- Alternative energy sources to reduce grid electricity consumption and its associated costs.

Further, the SSD makes no mention of the Sustainability priorities and strategies in the Eastern City District Plan (March 2018) such as Planning Priority E17: Increasing urban tree canopy cover and delivering Green Grid connections. To achieve this priority the District Plan identifies opportunities for green grid connections and outlines the NSW Governments target to increase tree canopy cover across Greater Sydney to 40 per cent. The SSD needs to detail how it is proposed to be consistent in this regard.

The ESD Statement should be updated to include the above and all WSUD measures to provide clarity as to what the proposals ESD outcomes are and its commitments.

| The proposal does not reduce through site permeability, or impact upon foreshore areas along the Parramatta River. Therefore, the proposal will allow for the continuation of green links between Drummoyne to Rhodes Peninsula, that forms an important east-west corridor between Parramatta and Sydney Harbour. Refer also to the amended ESD statement prepared by Wood and Grieve Engineers | As noted in the EIS and appended Landscape Design Report prepared by Site Image (EIS Appendix I):

- Existing trees are proposed to be retained wherever possible; and
- Infill planting is proposed throughout to help screen and maintain the character of the campus around the CSB and MSCP.
### Office of Environment and Heritage (Heritage Division)

The award-winning buildings on the subject site are not proposed to be demolished as part of the proposal, however the proposed building envelop is in close vicinity. The Stephenson & Turner buildings were designed to take advantage of the solar access and ventilation. It is noted that the proposed building envelope is likely to block some of the solar access to one of the Stephenson and Turner buildings. It is recommended that the building envelope, and detail design of the proposed development allows for the current levels of lighting and ventilation to Stephenson and Turner buildings to be retained.

Effort should also be made to retain their setting and relationship with the open land as much as possible. It is also recommended that the applicant be required to provide public interpretation of these buildings as part of the project.

The development is considered responsive on urban design grounds with respect to building siting and envelopes. The impact of the proposal on existing heritage values of Concord Hospital is discussed in detailed within the EIS and appended Historical Heritage Assessment and Statement of Heritage Impact report prepared by Biosis (EIS Appendix AC).

Note that in response to matters raised by Council and OEH, that a detailed response to matters has been prepared by Biosis at Attachment F with an updated Historical Heritage Assessment also prepared at Attachment G.

The updated Historical Heritage Assessment confirms that the development is acceptable from a heritage perspective with respect to its relationship to existing significant buildings by providing adequate physical curtilage to these buildings, with the new development reflective of, and sensitive to, the original design concept developed by the architects, Stephenson and Turner.

### Civil Aviation Safety Authority

The site accommodates a grassed helipad located to the south of the site. The proposed development does not seek any alteration to this existing helipad. No new helipads or other aviation-related facilities are proposed as part of the redevelopment.

Also, at approximately RL 44m, and with a taller existing building next door, the proposed building(s) will not infringe the Obstacle Limitation Surfaces for an Aerodrome (156m AHD). Therefore, CASA has no comment.

This item is acknowledged.

### Air Services Australia

With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 43.5m (143ft) AHD, the property development will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Bankstown, Camden, Richmond or Sydney Airport and Westmead Hospital HLS.

The property development will not affect the Sydney RTCC. Note that procedures not designed by Airservices at Bankstown, Camden, Richmond or Sydney Airport.

This item is acknowledged.
or Westmead Hospital HLS were not considered in this assessment.

This property development, to a maximum height of 43.5m (143ft) AHD, will not adversely impact the performance of Precision/Non-Precision Navigational Aids, HF/VHF Comms, ASMGCS, Radar, PRM, ADSB, WAM or Satellite/Links.

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<thead>
<tr>
<th>NSW Environment Protection Authority</th>
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<tr>
<td><strong>General</strong></td>
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<tr>
<td>The EPA considers that the project comprises distinct phases of construction and operation and has set out its comments on that basis.</td>
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<tr>
<td>The EPA notes the proximity of surrounding residences which may be adversely affected by noise impacts during demolition, site preparation, construction and operation phases of the project.</td>
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This item is acknowledged.

<table>
<thead>
<tr>
<th><strong>Construction Phase</strong></th>
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<tr>
<td>The EPA anticipates that site establishment, demolition, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on:</td>
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<tr>
<td>• the site contamination remediation action plan accompanying the EIS,</td>
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<td>• compliance with recommended standard construction hours,</td>
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<td>• intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting),</td>
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<td>• feasible and reasonable noise and vibration minimisation and mitigation,</td>
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<td>• effective dust control and management,</td>
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<td>• erosion and sediment control, and</td>
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<td>• waste handling and management, particularly concrete waste and rinse water.</td>
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This item is acknowledged. All works will be undertaken in an environmentally responsible manner as detailed within the EIS and supporting documentation (such as the preliminary construction management plan at EIS Appendix L) and in accordance with the conditions of consent.

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<th><strong>Site contamination (incl. asbestos containing material)</strong></th>
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<tr>
<td>The EPA anticipates that given the age of some of the structures on the development site, asbestos containing materials, lead-based paints and potential</td>
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Please refer to a discussion of site contamination matters in the RTS Cover Letter and in the response to contamination matters prepared by Coffey at Attachment E.
PCBs (electrical equipment) are likely to be encountered during demolition.

Section 4.1.1 to EIS Appendix AA Remedial Action Plan advises that "[f]ragments of bonded ACM were identified within the Phase 1 redevelopment area whilst section 4.4.2 advises that friable asbestos "... was identified in three soil samples ...". Similarly, section 7.1 to EIS Appendix AA confirms data gaps including “Uncertainties associated with historic asbestos management practices.”

The EPA further anticipates that given uncertainties about historic clinical waste management practices, incinerator/boiler ash and clinical waste may also be present within the Stage 1 development site.

The Remedial Action Plan refers to Phase 1 and Phase 3 redevelopment areas, wherein

a) the Phase 1 area coincides with the clinical services building footprint and curtilage, and

b) the Phase 3 area coincides with the existing at grade car park on the north side of Hospital Road on part of which both the stage 1 and stage 2 multi-storey car park is to be located.

The Phase 1 Detailed Site Investigation report is very limited in scope being restricted to small area of the clinical services building and environs part of the development site in the vicinity of an existing loading dock.

The Phase 3 Detailed Site Investigation report indicates some areas of Benzo(a) pyrene and semivolatile Total Recoverable Hydrocarbons (TRH) impact in shallow soils beneath existing asphalt and notes the possibility of asbestos containing materials and acid sulfate soils underlying the site.

The EPA notes that the Remediation Action Plan only addresses asbestos contamination despite other potential contamination issues which have not been properly investigated due in part to inaccessibility (i.e. existing structures) and which may need remediation.

Since late 2015, clause 79 of the Waste Regulation has required transporters of loads of asbestos waste to provide certain details of the loads to the EPA using the “WasteLocate” system. These details include details of the source site, date of proposed transport, details of the proposed destination site and the approximate weight of asbestos waste in the load. The information must be provided to the
EPA before transportation of the load commences.

WasteLocate is an online tool that allows the EPA to track the transport of asbestos waste. Transporters are required to use WasteLocate to report the movement of more than 100 kilograms of asbestos waste or more than 10 square metres of asbestos sheeting within NSW. The details can be reported on WasteLocate by using an app on a mobile phone or tablet or by using a computer.

EIS Appendix AT under the heading “Combustible liquids” states “[d]iesel is present in underground tanks and is used as back-up generator fuel. The existing underground tanks will need to be decommissioned .”

The EPA notes that although a Phase 2 Detailed Site Investigation report is included with the EIS, Stage 2 is proposed to be the subject of a separate application. Accordingly, the EPA has not considered the Phase 2 report.

The proponent should note that the EPA requires all contamination assessment and validation reports submitted to the EPA to comply with the requirements of the Contaminated Land Management Act 1997 and to be prepared, or reviewed and approved, by a certified consultant.

**Recommendation**

The proponent be required to ensure that prior to commencing any work on the development site, an appropriate procedure:

a) is prepared and implemented to identify and deal with unexpected finds of site contamination, including:
   i. asbestos containing materials,
   ii. lead-based paint,
   iii. incinerator and boiler ash,
   iv. clinical waste, and
   v. hydrocarbon contamination associated with any underground petroleum storage system.

b) details who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.
<table>
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<tr>
<th>Recommendation</th>
<th>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</th>
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<tr>
<td>The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 ‘asbestos wastes’. Note: The EPA provides additional guidance material at its web-site</td>
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<td><strong>Recommendation</strong></td>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
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<td>The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.</td>
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<td><strong>Recommendation</strong></td>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
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<td>The proponent be required to ensure that (following demolition of any existing structures, parking infrastructure, and underground utilities) further detailed investigation be undertaken of soil and groundwater contamination within the footprint of those structures, that infrastructure and those utilities prior to undertaking any site preparation, bulk earthworks or construction.</td>
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<tr>
<td><strong>Recommendation</strong></td>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
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<td>The proponent be required to undertake a detailed site assessment of the entire Stage 1 development site having due regard to identified data gaps including uncertainties about historic waste management practices across the development site and its immediate surrounds.</td>
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<tr>
<td><strong>Recommendation</strong></td>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
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| The proponent be required consider the guidance material provided in The National Environment Protection (assessment of contamination) Measures, 2013 as amended as well as the following EPA documents when undertaking further site assessment and validation:  
  - Technical Note: Investigation of Service Station Sites, 2014,  
  - NSW EPA Sampling Design Guidelines,  
  - Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017, and  
| **Recommendation**                                                          | This item is noted and supported. It is anticipated this will be addressed as a condition of consent. |
The proponent be required to ensure that the processes outlined in State Environmental Planning Policy 55 - Remediation of Land (SEPP55) are followed in assessing the suitability of the land and any remediation required in relation to the proposed use.

**Recommendation**
The proponent be required to ensure that the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required to notify the EPA should any contamination of the development site be identified which meets the triggers in the Guidelines for the Duty to Report Contamination.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required, should additional site investigations reveal further contamination of soil or groundwater, to engage a site auditor (accredited under the Contaminated Land Management Act) to:

a) review the adequacy of contamination assessment reports, any remediation action plan and unexpected finds procedure, and

b) provide a Section A Site Audit Statement (SAS) and accompanying Site Audit Report (SAR) certifying the suitability of the development site for the proposed use.

As detailed within the EIS and supporting documentation, it has been identified that contamination at the site is able to be readily managed via routine implementation of common remedial strategies.

As identified in the Remedial Action Plan (RAP) (EIS Appendix AA), consent is required for the remedial works which will provide another layer of rigour to ensure the works are completed appropriately. To this extent, it is considered that engagement of a site auditor for the project is unreasonable, given the straightforward nature of the remediation. The engagement of a site auditor is a significant expense particularly on a publicly funded project.

This item is noted, and it is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required to ensure all Underground Petroleum Storage System (UPSS) infrastructure to be removed from the Stage 1 development site is decommissioned, the site validated, and the process documented and reported in accordance with the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2014.

In the event that UPSS are identified with the Phase 1 (or Phase 3) redevelopment area that require decommissioning as part of the redevelopment, Coffey can provide guidance and assist with validation and documentation of the process so that this condition is satisfied.

**Acid sulfate soils**
This item is acknowledged. NSW Health Infrastructure support the recommendations.
The EIS confirms the presence of acid sulfate soils on the development site underlying the existing at grade car park on the northern side of Hospital Road (i.e. Stage 1 and 2 multi-storey car park site), potential acid sulfate soils.

The EPA anticipates the likelihood that during the course of demolition, bulk earthworks and construction the project is likely to disturb acid sulfate soils. The EPA emphases that potential acidification of the soil profile once the soils are disturbed during the redevelopment may increase the mobility of any heavy metal contaminants in the site soils.

The EPA confirms that acid sulfate soils may only be disposed of at a waste facility legally able to receive such waste. And, any waste containing acid sulfate soils must be classified in accordance the EPA’s waste classification guidelines Part 4. The EPA’s waste classification guidelines are available at its web site via the following link:


<table>
<thead>
<tr>
<th>Recommendation</th>
<th>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proponent be required to assess and manage any acid sulfate soil (ASS) and potential acid sulfate soil (PASS) in accordance with the 1998 Acid Sulfate Soils Manual published by the NSW Acid Sulfate Soil Management Advisory Committee (ASSMAC).</td>
<td></td>
</tr>
<tr>
<td>Recommendation</td>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
</tr>
<tr>
<td>The proponent be required to ensure all acid sulfate soil waste generated during the project is kept separate from all other waste and is assessed, classified and managed in accordance with the “Waste Classification Guidelines Part 4: Acid Sulfate Soils”.</td>
<td></td>
</tr>
<tr>
<td>Odour management</td>
<td>This item is acknowledged. NSW Health Infrastructure support the recommendations of the EPA relating to odour management. It is anticipated these will be addressed within the conditions of consent.</td>
</tr>
<tr>
<td>The EPA notes that sulfurous odours may arise during disturbance, stockpiling and transport of any acid sulfate soil (ASS) and potential acid sulfate soil (PASS)</td>
<td></td>
</tr>
</tbody>
</table>

- a) covering and protection of all stockpiles and truckloads of acid sulfate soil (ASS) and potential acid sulfate soil (PASS) to prevent exposure to
precipitation and runoff,

b) odour suppressants being applied during site preparation and bulk excavation works, and

c) limiting the surface area of exposed odorous material.

**Recommendation**
The proponent be required to ensure that all such measures as may be necessary to minimise and manage any odours arising from excavation, stockpiling and removal of contaminated and acid sulfate soil are implemented, including but not limited to:

a) staged excavation to limit the surface area of exposed odorous material,

b) application of odour suppressants,

c) effective covering of stockpiles and truckloads of excavation spoil, and

d) expedited removal of odorous material from the development site to a facility legally able to accept those wastes.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required to ensure that any Air Quality and Odour Management Plan prepared for the project includes amongst other things:

- Proactive and reactive management strategies;
- Key Performance indicator(s);
- Monitoring method(s);
- Location, frequency and duration of monitoring;
- Record keeping;
- Response mechanisms;
- Contingency measures; and
- Compliance report.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Noise and vibration**
The EPA anticipates that demolition, site preparation (including tree clearing), bulk This item is noted, however as detailed within the amended Acoustic Impact Assessment at Attachment Q, the proposed development is capable of complying with
earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on surrounding residences, especially residences adjoining the hospital campus.

### General construction hours
The EPA emphasises that demolition, site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours.

As detailed in amended Acoustic Impact Assessment at Attachment Q, construction works will be undertaken in accordance with the EPA recommended standard construction hours. It is anticipated this will be addressed as a condition of consent.

#### Recommendation
The proponent be required to ensure that as far as practicable all demolition, site preparation, bulk earthworks, construction and construction-related activities likely to be audible at any noise sensitive receivers such as surrounding residences are only undertaken during the standard construction hours, being:

- **a)** 7.00 am to 6.00 pm Monday to Friday,
- **b)** 8.00 am to 1.00 pm Saturday, and
- **c)** no work on Sundays or gazetted public holidays.

As detailed in amended Acoustic Impact Assessment at Attachment Q, construction works will be undertaken in accordance with the EPA recommended standard construction hours. It is anticipated this will be addressed as a condition of consent.

#### Intra-day respite periods
The EPA anticipates that those demolition, site preparation, bulk earthworks, construction and construction-related activities generating noise with particularly annoying or intrusive characteristics (such as those identified as particularly annoying in section 4.5 of the Interim Construction Noise Guideline) would be subject to a regime of intra-day respite periods where:

- **a)** they are only undertaken after 8.00 am,
- **b)** they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and
- **c)** ‘continuous’ means any period during which there is less than an uninterrupted 60-minute respite between temporarily halting and recommencing any of the intrusive and annoying work referred to in Interim Construction Noise Guideline section 4.5.

The EPA emphasises that intra-day respite periods are not proposed to apply to

This item is noted. Refer further discussion below.
<table>
<thead>
<tr>
<th>those demolition, site preparation, bulk earthworks, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommendation</strong></td>
</tr>
<tr>
<td>The proponent be required to schedule intra-day ‘respite periods’ for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers, including surrounding residents.</td>
</tr>
<tr>
<td>Respite periods are recommended in the EPA Interim Construction Noise Guidelines when the Highly Noise Affected trigger level of 75dB(A) is reached during hours of construction.</td>
</tr>
<tr>
<td>As detailed in the response to acoustic matters at Attachment P and amended acoustic report at Attachment Q, it is not anticipated that noise levels exceeding 75dB(A) will be achieved at residences outside of the hospital precinct. Accordingly, it is considered that such respite periods are not warranted and would be unreasonable under the circumstances.</td>
</tr>
<tr>
<td>Respite periods should only be adopted for activities that are expected to reach the Highly Noise Affected trigger level. There should be no blanket adoption of respite periods based on the equipment used, it should be based on the noise level.</td>
</tr>
<tr>
<td>In this regard, any condition of consent addressing construction noise and respite periods should only require respite periods for activities exceeding the 75dB(A) Highly Noise Affected trigger level. To do otherwise is contrary to the Interim Construction Noise Guidelines and will result in unnecessary delay to the project.</td>
</tr>
<tr>
<td><strong>Idling and queuing construction vehicles</strong></td>
</tr>
<tr>
<td>The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site.</td>
</tr>
<tr>
<td>With regard to idling and queuing construction vehicles, management controls are proposed as detailed at Attachment Q which requires “Construction vehicles which are stationary onsite during queuing, should have their engines switched off to minimise impacts on residential receivers”. It is anticipated this will be addressed as a condition of consent.</td>
</tr>
<tr>
<td>This item is noted and supported. It is anticipated this will be addressed as a condition of consent.</td>
</tr>
<tr>
<td><strong>Reversing and movement alarms</strong></td>
</tr>
<tr>
<td>The EPA has identified the noise from ‘beeper’ type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives.</td>
</tr>
<tr>
<td>Similar to above regarding reversing and movement alarms, a management control has been included in the recommendations updated acoustic report (Attachment Q) which provides “Construction equipment which require reversing or movement alarms</td>
</tr>
<tr>
<td>Concord Hospital Redevelopment</td>
</tr>
</tbody>
</table>
Transport for NSW, Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional ‘beeper’ alarms. Each determined that adoption of ‘quacker’ type movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.

Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

**Recommendation**

The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Dust control and management**

The EPA considers dust control and management to be an important air quality issue during demolition, site preparation, bulk earthworks and subsequent construction.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**

The proponent be required to:

a) minimise dust emissions on the site, and

b) prevent dust emissions from the site.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Sediment control**

Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called ‘Blue Book’) provides guidance material for achieving effective sediment control on construction sites. The proponent should implement all such feasible and reasonable measures as may be necessary to prevent water pollution in the course of developing the site.

The EPA emphasises the importance of:

a) not commencing demolition, site preparation, bulk earthworks,
construction and construction related activities until appropriate and effective sediment controls are in place, and

b) daily inspection of sediment controls which is fundamental to ensuring timely maintenance and repair of those controls.

**Waste control and management (general)**

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

- **Avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government
- **Resource recovery** including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources
- **Disposal** including management of all disposal options in the most environmentally responsible manner.

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA’s guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

**Recommendation**

The proponent be required to ensure that:

1) all waste generated during the project is assessed, classified and managed in accordance with the EPA "Waste Classification Guidelines Part 1: Classifying Waste", November 2014 and the 2016 Addendum thereto;

2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.
3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

<table>
<thead>
<tr>
<th>Waste control and management (concrete and concrete rinse water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that:</td>
</tr>
<tr>
<td>a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and</td>
</tr>
<tr>
<td>b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommendation</th>
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</thead>
<tbody>
<tr>
<td>The proponent be required to ensure that concrete waste and rinse water are:</td>
</tr>
<tr>
<td>a) not disposed of on the development site, and</td>
</tr>
<tr>
<td>b) prevented from entering waters, including any natural or artificial watercourse.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational phase</th>
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</thead>
<tbody>
<tr>
<td>The EPA considers that environmental impacts that arise once the development is operational should be able to be largely averted by responsible environmental management practices, particularly with regard to:</td>
</tr>
<tr>
<td>a) feasible and reasonable noise mitigation measures;</td>
</tr>
<tr>
<td>b) radiation control;</td>
</tr>
<tr>
<td>c) clinical and related waste management</td>
</tr>
<tr>
<td>d) waste management in accordance with the waste management hierarchy;</td>
</tr>
<tr>
<td>e) design, installation and operation of any underground petroleum storage</td>
</tr>
</tbody>
</table>

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

This item is acknowledged. All works will be undertaken in an environmentally responsible manner as detailed within the EIS and supporting documentation and in accordance with the conditions of consent.
f) water sensitive urban design; and

g) energy conservation and efficiency.

### Noise and vibration impacts

The EPA anticipates the proposed development may have significant operational noise impacts on nearby sensitive receivers, especially residences adjoining the hospital campus.

This item is noted, however as detailed within the amended Acoustic Impact Assessment at Attachment Q, the proposed development is capable of complying with the EPA Noise Policy for Industry requirements during both construction and operational phases of the development.

Refer to a further discussion on acoustic matters below and supported by the response to acoustic matters, prepared by Acoustic Logic at Attachment P.

### Background noise measurement

The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Noise Policy for Industry (NPI) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The EPA considers that background noise monitoring was not undertaken in accordance with guidance material provided in NPI Fact Sheets A and B in respect of unattended monitoring locations and rain affected data.

It is the professional opinion of Acoustic Logic, authors of the acoustic assessment, that all procedures recommended in Fact Sheets A and B of the policy were complied with. Please refer to a detailed response to this issue at Attachment P.

### Recommendation

The proponent be required to undertake and report background noise monitoring in accordance with the relevant guidance material provided in Noise Policy for Industry Fact Sheets A and B.

It is the professional opinion of Acoustic Logic, authors of the acoustic assessment, that all procedures recommended in Fact Sheets A and B of the policy were complied with. Please refer to a detailed response to this issue at Attachment P.

### Construction vibration

The EPA notes with concern that section 6.1.5.2 to EIS Appendix AB ‘Acoustic Report for SSD 9036’ inexplicable refers (2nd dot point, p.31) to residences in “... Somerset Street and Nepean Private Hospital ...” instead of locations adjoining the Concord hospital campus.

This is a typographical error and should be disregarded. This item has been corrected in the updated acoustic report at Attachment Q, which now includes references to the nearest residential receivers along Currawang Street, Concord.

### Mechanical plant and equipment

EIS Appendix AB proposes that mechanical plant and equipment should be subject to detailed acoustic review “once plant is selected” and proposed acoustic treatments adopted.

This item is acknowledged. When the initially submitted acoustic report (EIS Appendix AB) was prepared, detailed information regarding the locations and selections of mechanical plant were not known. The level of detail which was provided is consistent with information provided at SSD stage.
However, since lodgment of the SSDA, the project has proceeded into detailed design phase and we now are in a position in which we can provide more detail regarding mechanical plant. Please refer to a detailed response to this issue at Attachment P.

**Recommendation**  
The proponent be required to:  

a) provide a comprehensive quantitative assessment of operational noise impacts on surrounding noise sensitive receivers, especially adjoining residences;

b) ensure mechanical plant and equipment installed on the development site does not generate noise that:
   i. exceeds 5 dBA above the rating background noise level (day, evening and night) measured at the western boundary of the development site, and
   ii. exhibits tonal or other annoying characteristics.

Refer comments above and to the detailed response to acoustic issues at Attachment P.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**  
The proponent be required to reorient mechanical plant away from the facades facing noise sensitive receiver locations, especially nearby residences.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Emergency back-up generators and Underground Petroleum Storage System**

The EPA notes that architectural drawing number NEWB-AR-DRG-15B2 revision 21’ indicates proposed location of a new back-up emergency generator system and anticipates that system would be served by an Underground Petroleum Storage System (UPSS).

The proponent may only use a UPSS in accordance with the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014. And, any such UPSS must be designed, installed and operated with regard to Guidelines issued by the EPA.

This item is acknowledged.

**Recommendation**  
The proponent be required to design, install and operate any underground petroleum storage system in accordance with the requirements of the Protection of
Radiation control
The EPA understands that Concord hospital provides diagnostic imaging, nuclear medicine and radiotherapy services.

The EPA notes architectural drawing number NEWB-AR-DRG-15B2 revision 21’ indicates proposed future ‘radiation oncology’ and ‘radiation therapy bunkers’.

The EPA administers the Radiation Control Act 1990 (and Radiation Control Regulation 2013) and anticipates that ‘regulated material’ will be stored and possessed on the hospital campus. ‘Regulated material’ means:

a) radioactive substances,
b) ionising radiation apparatus,
c) non-ionising radiation apparatus of a kind prescribed by the regulations, and
d) sealed source devices.

A ‘person responsible’ within the meaning of section 6 of the Radiation Control Act 1990 is obliged to hold an appropriate ‘radiation management licence’ in respect of regulated material at the university campus.

A natural person who uses regulated material at the hospital campus must hold a ‘radiation user licence’ and must comply with any conditions to which the licence is subject.

The EPA notes that the EIS does not appear to acknowledge any implications for the radiation management licence held by Sydney Local Health District.

The EPA’s “Radiation Guideline 7 - Radiation shielding design assessment and verification requirements” provides guidance concerning shielding assessment and calculations. The EPA encourages the proponent to engage a specialist consultant to undertake shielding calculations.

Recommendation
The proponent be required to ensure shielding of ‘regulated material’, including diagnostic imaging equipment is assessed and calculated in accordance with the

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.
EPA’s guidance material provided in “Radiation Guideline 7 - Radiation shielding design assessment and verification requirements”.

**Recommendation**
The proponent be required to apply for and obtain any necessary amendment to the ‘radiation management license’ currently held under the name of the Sydney Local Health District in respect of ‘regulated material’ at the new facilities and the management and handling of any waste containing radioactive material.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Waste management (general)**
The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

- **Avoidance** including action to reduce the amount of waste generated by households, industry and all levels of government
- **Resource** recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources
- **Disposal** including management of all disposal options in the most environmentally responsible manner.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required to identify and implement feasible and reasonable opportunities for the reuse and recycling of waste, including food waste.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Waste management (clinical and related waste)**
The EPA anticipates that the development will generate ‘clinical and related waste’ which are defined under the Protection of the Environment Operations Act 1997, as follows:

- ‘Clinical and related waste’ includes clinical waste; cytotoxic waste; pharmaceutical, drug or medicine waste; and sharps waste.
- “Clinical waste means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.
containing any of the following:

- a) human tissue (other than hair, teeth and nails),
- b) bulk body fluids or blood,
- c) visibly blood-stained body fluids, materials or equipment,
- d) laboratory specimens or cultures,
- e) animal tissue, carcasses or other waste from animals used for medical research,

but does not include any such waste that has been treated by a method approved in writing by the Director General of the Department of Health.”

The occupier of any premises comprising a hospital, day procedure centre, pathology laboratory, mortuary or medical research facility where clinical and related waste is generated, must ensure that there is a waste management plan, in respect of that waste, for the premises. And, should prepare that plan with due regard to the relevant provisions of clause 113 of the Protection of the Environment Operations (Waste) Regulation 2014.

**Recommendation**
The proponent be required to properly classify and manage clinical and related waste in accordance with the EPA’s Waste Classification Guidelines.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Recommendation**
The proponent be required to ensure that the occupier of the hospital prepares and implements a revised waste management plan, in respect of clinical and related waste generated at the development site in accordance with NSW Health policy directive 2017_026 titled “Clinical and Related Waste Management for Health Services”, dated August 2017.

This item is noted and supported. It is anticipated this will be addressed as a condition of consent.

**Water sensitive urban design and energy conservation and efficiency**
The EPA notes that hospitals are typically heavy users of potable water and electricity.

EIS Appendix AH indicates that implementation of ESD principles is to be achieved through design team reference to “…industry best practice requirements” considered against NSW Health internal guidance (i.e. Engineering Services).

This item is noted and supported. It is anticipated this will be addressed as a condition of consent. Refer also to the amended ESD statement prepared by Wood and Grieve Engineers at Attachment O.
EIS section 6.19 indicates that the proponent would adopt a range measures to be maximise energy efficiency and minimise energy consumption, including:

- energy efficient chillers, boilers and heat exchangers,
- variable speed drives for all major fans and pumps, and
- building management control system.