

## **CBD and South East Light Rail (SSI 6042) Modification 4 Submission from Randwick City Council**

### **1.0 Introduction**

The CBD and South East Light Rail (CSELR) project modification 4 proposes a number of significant changes impacting Randwick City. The major revisions proposed to the approved project have been generated through design development, and stakeholder discussions between Randwick City Council, the University of NSW and Transport for NSW.

Randwick City Council appreciates the constructive process leading up to this modification, and thanks Transport for NSW for the opportunity provided to Council to present and explore alternative options that integrate the light rail system with the local community and urban landscape, and leverage opportunities for an improved customer experience.

The Council has been a consistent advocate and supporter of light rail to Randwick, and overall Council supports the key elements of this modification. In particular the proposed relocation of the Randwick terminus to High Street, and undergrounding of the substation in High Cross Park is strongly supported.

Detailed comments are offered in this submission, together with recommendations for further resolution and clarification during the detailed design stage.

### **2.0 Summary of proposed modifications**

The CSELR modification is based on changes proposed to two light rail stops, comprising a revised location for the Randwick Light Rail Terminus and bus interchange, and a reconfiguration of the UNSW High Street stop. Together, they generate the following amendments to the approved design:

- New Randwick terminus stop & Interchange
- Reconfigured UNSW High Street stop
- Property access changes
- Changes to local traffic network
- Bus operation and stop changes
- Changes to High Cross Park substation & drivers amenities
- Reductions to the High Cross Park compound site

In addition to these amendments, the Modification also includes proposed administrative amendments to the approved design, notably including the demolition of Wansey Cottage within Royal Randwick Racecourse.

Part 3 of this submission is structured around the environmental assessment sub-headings identified in Sections 5 and 6 of the Modification report, and as noted below:

- 3.1** Traffic and transport
- 3.2** Visual and landscape character
- 3.3** Planted trees
- 3.4** Property and land use
- 3.5** Noise and vibration
- 3.6** Non-indigenous heritage
- 3.7** Socio-economic impacts
- 3.8** Utilities and services
- 3.9** Hazards and risks
- 3.10** Administrative amendments

Within each sub-heading the key impacts of the modification are summarised, followed by a description of the issues and recommendations relevant to Randwick City.

## 3. Impacts and Recommendations

### 3.1 Traffic and Transport

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#### 3.1.1 Summary of impacts of the modification

##### *Changed construction impacts*

- The modification expects some disruptions associated with local road/intersection reconfigurations and installation of signalised intersections on Arthur Street, at the corners of Wansey Road, Botany Street and Belmore Road, as well as at Botany and Barker Streets.
- Potential temporary footpath closures may be required at Belmore Road and High Street.
- Reduced construction impacts are expected around High Cross Park.

##### *Changed operational impacts*

- The modification involves changes to stop accessibility at UNSW High Street stop, with a new side platform connected to the footpath on the north side of High Street, and removal of the eastbound general traffic lane. Altered vehicular access is required for 5 properties on High Street.
- At the Randwick terminus, the westbound general traffic lane is removed, while access for emergency vehicles is retained.
- Interchange functionality at the Randwick terminus is altered, with inbound bus interchange on Avoca Street, and outbound bus interchange on Belmore Road. Accessibility for walk-up passengers is improved, with no major roads to cross to reach the town centre and Hospitals campus.
- There is possibly an overall marginal negative impact to the local traffic network operation, and minor impacts to bus services passing the High Street/Randwick interchange, although there is improved intersection performance at the corner of High Street, Belmore Road and Avoca Street.
- Locally, there will be reduced traffic flows on High Street, and increased flows expected on Arthur Street and Barker Street.
- There are reduced parking impacts around High Cross Park, and reduced impacts to traffic lanes at this location.
- The modification notes there will be a net additional loss of 32 parking spaces, although Council notes that the majority of these are as a result of new signalised intersections on Botany St/Arthur St, Botany St/Barker St and Arthur St/Belmore

Rd; 2 of which are forecast to become signalised intersections as part of the approved project.

### **3.1.2 Issues**

While there will be localised variations in traffic flow along the local street system (eg. High Street's traffic function will reduce and Arthur Street's traffic function will increase), the overall benefit for the town centre, the servicing of the health and education centre and the public transport task is considered to justify these impacts. While the Modification anticipates increased eastbound traffic flows on Alison Road, Council understands that the modelling has not taken into account the significant delays already being experienced southbound on Belmore Road due to pedestrian crossing at Arthur Street, and believes that the expected delays on Alison Road will not be observed.

Clause 1.2.8 of the RCC/TfNSW Development Agreement states that "TfNSW will provide traffic signals at the intersections of Belmore Road/Arthur Street and Botany Road/Arthur Street, if required as a consequence of the Project". Council understands that the traffic modelling does require signals at both of these intersections. Accordingly signals at these sites would be provided as part of the approved project, and associated parking impacts would apply equally to both the approved and modified projects.

Council notes and supports the positive impacts to parking, pedestrian accessibility and traffic flows around High Cross Park.

In table 3.1, it is suggested that traffic may be restricted to light vehicles for property access on the north side of High Street between Avoca Street and Clara Street. This is not supported, as it may detrimentally affect the business operations in these properties.

Changes indicated in the modification to stop accessibility at the UNSW High Street stop are not considered significant or problematic, given that each pedestrian crossing phase from the light rail platforms would require a full crossing of High Street.

Further considerations of alternative cycle routes are suggested by Council. For example, eastbound cyclists may not have to divert to streets north if a wide shared path is provided on the southern side of High Street, from Wansey Rd to Botany St. This ties in with Council's future plans for a High Street cycle link from Wansey Road to Anzac Parade.

### 3.1.3 Recommendations

1	<p>During construction:</p> <p>Ensure any adjustments to access to local facilities as a result of construction impacts would include safe temporary provisions for pedestrians and access to businesses and dwellings. These provisions should avoid redirecting pedestrians across a road to reach their destination.</p>
2	<p>Light rail operations:</p> <p>Request consideration of using the southern light rail track at the Randwick Terminus as the primary track, with the potential to allow access/egress from both sides of the LRV and closer proximity to the public plaza and inbound bus interchange. This will also assist to maintain driveway access to existing properties on the north side of High Street, opposite the terminus.</p>
3	<p>Traffic flows:</p> <p>Council requests consideration and incorporation of the existing effects of pedestrian movements, particularly on the Belmore Road pedestrian crossings, on the overall traffic flow and modelling of delays to the wider network. For example, it is considered that the reported delay to eastbound traffic on Alison Road may not occur when taking existing pedestrian movements into account.</p>
4	<p>Property access (table 3.1):</p> <p>Request that access to properties on the north side of High Street between Clara Street and Avoca Street is not restricted to light vehicles only.</p>
5	<p>Kerbside parking:</p> <p>Clarification is sought about the need for removal of kerbside parking spaces on the north side of Arthur Street opposite Clara Street as indicated on Figure 3.8 of Appendix B, and request retention if possible.</p>
6	<p>Parking at signalised intersections:</p> <p>Further discussions with Council are requested during detailed design stage into the parking impacts at signalised intersections to verify overall numbers of parking spaces affected.</p> <p>Request clarification of the revised net loss of parking spaces as a result of the modification, excluding the parking impacts associated with signalised intersections at Arthur Street/Botany Street, and Arthur Street/Belmore Road, as Council understands these intersections would need to be signalised as part of the approved project.</p>
7	<p>Cycle connections:</p> <p>Request consideration of dedicated cycle lanes along High Street, especially</p>

	between Botany Street and Avoca Street. This may involve a slight off set of the light rail tracks to allow sufficient space. Consideration of a shared path on the southern side of High Street fronting UNSW is also requested, to facilitate cycle movements to the campus from the surrounding cycle network.
8	Cycle connections: Further discussion with Council is requested to explore cycle connections to the Wansey Road shared path, as suggested in 4.5.2 of Appendix B. Options could include linking via Waratah Avenue and Writtle Park.
9	Construction Staging: 5.1.3 of Appendix B notes closure of High Street between Clara Street and Avoca Street as the first stage in construction. This is not supported and it is requested that signalised intersections at Arthur Street are completed prior to road closures.

## 3.2 Visual and Landscape Character

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### 3.2.1 Summary of impacts of the proposal

#### *During Construction:*

Impacts in High Cross Park are improved compared to the approved project, with a reduced area intended to be used as a construction compound.

At the revised UNSW High Street stop, there will be some additional visual impacts during construction of the new laneway at Arthur Street.

#### *Operational impact:*

The proposal considers that overall there will be a beneficial visual and landscape character outcome, in particular as a result of the reduced impacts to High Cross Park.

Improved visual and landscape character impacts are proposed at the Randwick Terminus, with the avoidance of High Cross Park for the terminus, and the location of the substation underground. The new terminus in High Street will change the visual character of High Street, and together with public domain upgrades will improve the streetscape amenity.

At the UNSW High Street stop, overall changes to visual and landscape character are proposed to be neutral in relation to the approved project.

### 3.2.2 Issues

#### *High Cross Park*

- Council strongly supports the retention and preservation of High Cross Park and the undergrounding of substation. This should be done sensitively to minimise the impact to open space, trees and heritage values.
- Council notes that there will be some minor visual impact to High Cross Park with the removal of 7 trees along the edge of Belmore Road for the construction of the underground substation. Council requests consideration of transplanting these trees to an alternative location.
- The report does not define the above and below ground infrastructure that will be required for the operation and maintenance of the underground substation and the visual impacts that these might have on the park/public domain.

#### *Randwick Terminus*

- Illustrations of the revised stops on High Street indicate that overhead powerlines have been removed. Council strongly supports undergrounding of overhead powerlines along the entire High Street alignment.

#### *High Street Alignment*

- The changes to both High Street stops, the decreased traffic flows and increased pedestrian movements provide an opportunity to review the public domain design, with an integrated approach to street tree planting and coordinated placement of poles along the length of High Street.
- A key aim for the streetscape should be to avoid visual clutter, provide a safe and unobstructed pedestrian/customer environment, and a coordinated, legible layout for street tree planting, poles, urban elements and opportunities for public art.

#### *UNSW High Street stop*

- Council notes the minor changes in visual and landscape character impacts at the UNSW High Street stop – however considers that the improved footpath capacity and retention of the row of existing trees fronting UNSW is an improvement in streetscape amenity and visual character compared to the approved design.
- There is inconsistency throughout the report in relation to the existing trees along the northern and southern footpaths of this stop. The report does not mention any impacts to these trees, it is noted that figures 3.5 and 3.6 on page 13 show that the trees along the northern footpath are being removed and the ones in front of the Lowy Cancer Centre are being replanted following construction. This can also be seen in the photomontage illustration of the stop Figure 3.7 on page 14.

Council does not support removal of the row of existing trees fronting the Lowy

Cancer Centre. This modified design reduces the extent of encroachment of the light rail alignment into UNSW land, and a key driver and benefit of this modification is the improved public domain outcome and retention of this row of trees. Council is concerned about the realistic success of re-planting the existing trees following construction, and seeks their protection and retention.

#### *New Laneway off Arthur Street*

- While noting the increased visual impact of the new lane off Arthur St, the impact from the public domain is considered minor, and reasonable in the context of the benefits provided.
- Minor visual impacts during the construction of the new laneway to provide access to properties fronting High Street and Botany Street with some minor visual impacts in relation to the removal of 12 trees at the back of the properties for the construction of the new laneway.

#### *Wansey Cottage*

- The visual impact of the demolition of Wansey Cottage is not noted in the modification proposal.

### **3.2.3 Recommendations**

Refer also to recommendations under 3.3: Planted trees

10	<p>High Cross Park:</p> <p>Request that detailed design ensures minimisation of impact to High Cross Park from excavation for the substation and maximise retention of soft landscaped area, including consideration of the opportunity to overlay the excavation/ construction footprint with a lane of Belmore Road and adjacent footpath.</p> <p>Request that design consideration is given to the underground and above ground infrastructure that will be required for the operation and maintenance of the underground substation and how this infrastructure will impact the usage and visual amenity of the park. In particular it is requested that vents and access ways for the substation are placed to avoid impact on soft landscaped areas.</p> <p>Request that the design for the reinstatement of the park at the underground substation location is developed in consultation with Council, and includes opportunities for sitting, gathering and retention of the current passive usage of the</p>
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	<p>park.</p> <p>Request consideration of opportunities to transplant the 7 trees identified for removal in the Park.</p>
11	<p>Randwick Terminus:</p> <p>Request for the undergrounding of power and for the integration of stop columns/totems with the catenary poles.</p> <p>Design consideration should be given to the placement of street furniture along the southern footpath along the Randwick Terminus in relation to the footpath width reductions.</p> <p>Request that the detailed design allows for a seamless transition and coordination with the Hospital site public plaza at the corner of High St and Avoca St. The integrated design should be consistent with Council's Light Rail Urban Design Guidelines and developed in liaison with Council.</p>
12	<p>General – High Street Alignment:</p> <p>Illustrations of the revised stops on High Street indicate that overhead powerlines have been removed. Council strongly supports undergrounding of overhead powerlines along the High Street alignment, including at light rail stops.</p> <p>A holistic design approach to poles and wires to minimise visual clutter and provision of street trees is requested, including the undergrounding of power and the provision of multifunction poles that can cater for street lights, traffic lights, catenary wires, banners and hanging baskets for plants.</p> <p>Request for street furniture, paving and street tree species to be consistent with the Randwick City Council's Light Rail Urban Design Guidelines Volumes 1 &amp; 2.</p> <p>Request that detailed design consider where there are new opportunities for Integration of public art in the public domain.</p>
13	<p>UNSW High Street stop:</p> <p>Council notes the minor changes in visual and landscape character impacts at the UNSW High Street stop – however considers that the improved footpath capacity and opportunity to retain the row of existing trees fronting the Lowy Cancer Centre is an improvement in streetscape amenity and visual character compared to the approved design. Council requests confirmation that the trees in front of the Lowy Cancer Centre will be protected and retained.</p> <p>Request for the undergrounding of power and for the integration of stop columns/</p>

	<p>totems with the catenary poles.</p> <p>Request for service equipment to be located at the wide island platform (city-bound) to avoid constraints with pedestrian flow at the northern footpath.</p> <p>Request that the design of the public domain and paving treatment to stops and surrounds is developed in liaison with Randwick City Council, NSW Health and UNSW, as part of a broader public domain/paving strategy for the health/education precinct that recognises the increased pedestrianisation of this location.</p>
14	<p><b>New Laneway off Arthur Street:</b></p> <p>Support an additional mitigation measure to achieve a high quality urban design outcome at the new Arthur Lane.</p> <p>Request for new trees and landscape to be incorporated into the new design for the laneway to replace the 12 trees being removed with this proposal.</p>
15	<p><b>Wansey Cottage:</b></p> <p>Council supports the mitigation measure for the Wansey Cottage to be included in the next phase of interpretation planning for the project in consultation with Council.</p>

### 3.3 Planted trees

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#### 3.3.1 Summary of Impacts

The Modification proposes an overall reduced impact to trees, with a net total of 12 trees previously approved for removal now proposed for retention, as outlined below:

##### *Randwick Terminus:*

- Retention of 26 trees in High Cross Park previously approved for removal
- Removal of 7 trees in High Cross Park along the edge of Belmore Road previously approved for removal. A new mitigation measure is proposed noting that works to underground the substation would ensure there is no impact to any significant trees.
- Removal of two existing trees in High Street adjacent to the stop (locations not specified)

##### *UNSW High Street stop:*

- Existing trees on the south side of High Street in front of the Lowy Cancer Centre are proposed to “replanted following construction” (Figure 3.5).
- Removal of 12 trees to allow for construction of the Arthur Street lane. The location and description of trees is not provided – although assumed within private property?

*Wansey Cottage:*

- No information is included in the report on tree impacts related to the demolition of Wansey Cottage.

### **3.3.2 Issues**

*High Cross Park*

- Council notes that there will be some minor impacts to High Cross Park with the removal of 7 trees along the edge of Belmore Road for the construction of the underground substation.
- Council notes that there will be constraints in relation to the provision of trees or landscaped areas in the area above the substation and that there will need to be consideration at the design stage for the provision and integration of these as part of the final design for this section of the park.

*Randwick Terminus*

- No significant impacts with the proposed removal of two trees at this location. Council considers this proposal an opportunity to review the street tree planting at the Randwick Terminus location to provide an improved visual amenity and pedestrian microclimate to the public domain.

*High Street Alignment*

- The proposal does not mention impacts to trees along High Street. The previous project approval identifies trees to be removed and management for replacement of trees through the Vegetation Offset Guide 2013 in the EIS. Considering the significant changes to the public domain along High Street with the introduction of the light rail and this street acting as the main back bone linking the educational and health precincts and connecting to the Randwick Town Centre, Council considers that the street tree planting for High Street including Randwick Terminus and UNSW High Street Stop be addressed at design stage with the development of a street tree masterplan in consultation with Council.

*UNSW High Street stop*

- There are some changes to the tree impacts at this location not clearly addressed in the report.
- There is inconsistency throughout the report in relation to the existing trees along the northern and southern footpaths of this stop. The report does not mention any impacts to these trees, it is noted that figures 3.5 and 3.6 on page 13 show that the trees along the northern footpath are being removed and the ones in front of the Lowy Cancer Centre are being replanted following construction. This can also be seen in the photomontage illustration of the stop Figure 3.7 on page 14.
- Council does not support removal of the row of existing trees fronting the Lowy Cancer Centre. This modified design reduces the extent of encroachment of the light rail alignment into UNSW land, and a key benefit of this modification is considered to be the improved public domain outcome and retention of this row of trees. Council is concerned about the realistic success of re-planting the existing trees following construction, and seeks their protection and retention.

#### *New Laneway off Arthur Street*

- Council notes that there are some impacts with the proposed removal of 12 trees at the back of the properties fronting High Street and Botany Street for the construction of the new laneway.

#### *Wansey Cottage*

- No information is provided in relation to trees. It is envisaged that the impact on the surrounding trees is as per previous planning approval.

### **3.3.3 Recommendations**

16	<p>High Cross Park:</p> <p>Council notes that there will be constraints in relation to the provision of trees or landscaped areas in the area above the substation and requests consideration at the detailed design stage for the provision and integration of these as part of the final design for this section of the park.</p> <p>Council requests consideration of the opportunity to transplant the 7 trees identified for removal in the Park.</p>
17	<p>Randwick Terminus:</p> <p>Request for street trees to be incorporated in the vicinity of the Randwick Terminus where possible.</p>

18	<p>High Street alignment:</p> <p>Request a coordinated public domain design that allows for regular street tree planting in consultation with Council, to improve the pedestrian experience and overall visual amenity of the street.</p>
19	<p>UNSW High Street stop:</p> <p>Additional street tree planting should be considered for the northern combined footpath and platform where possible, in particular as the proposal is not intending to provide shelter at this side of the stop.</p> <p>Council does not support removal of the row of existing trees fronting the Lowy Cancer Centre. Retention of this row of trees is considered a key benefit of the modification. Council is concerned about the realistic success of re-planting the existing trees following construction, and therefore seeks their protection and retention in situ.</p>
20	<p>New Laneway off Arthur Street:</p> <p>Request for new trees and landscape to be incorporated into the new design for the Lane way to replace the 12 trees being removed with this proposal.</p>
21	<p>Wansey Cottage:</p> <p>Request for new mature or advanced fig trees to be planted inside ATC land to reinstate the existing row of fig trees to be removed with the construction of the stop.</p>

### 3.4 Property and Land use

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#### 3.4.1 Summary of impacts

##### *Randwick Terminus:*

- A decrease in impacts to High Cross Park is expected, and improved land use integration and amenity with surrounding areas such as Prince of Wales Hospital and Randwick Junction town centre, and connection to a public plaza.

##### *UNSW High Street stop:*

- Reduced impacts on UNSW property at the south side of High Street
- Increased property impacts with the removal of driveway access from High Street for properties at 34, 36, 38, 42, 44 and 46 High Street.

- This is proposed to be mitigated with construction of a new public access lane from Arthur Street.
- The new lane is likely to impact adjoining properties owned by UNSW, including the garage and swimming pool at 10 Arthur Street, as well as the boundaries of the Tigger's Place and Honey Pot Childcare centres.
- A small area of additional land at the corner of Wansey Road and High Street will also be required.

*Wansey Cottage:*

- The modification report does not describe any land use/property impact from the demolition of Wansey cottage.

### 3.4.2 Issues

While noting the property impacts of the revised UNSW High Street stop, these are mitigated by the new laneway at Arthur Street, which is considered to provide suitable alternative access.

Council acknowledges that the design of the new laneway is indicative at this stage, and in principle supports the intended construction of the laneway as a public road. In order to meet the design and operational requirements of a public road, further discussion and consultation with Council during detailed design stage is sought. These requirements include, for example, design vehicle definition and loading conditions, key dimensions to suit access, safety and servicing needs, landscaping opportunities, tree planting, drainage, utilities, signage and the like.

### 3.4.3 Recommendations

22	<p>New Laneway:</p> <p>While supporting the intended public laneway, consideration should be given during detailed design stage to ensure the lane is not perceived or used as a public thoroughfare (ie: no access to High Street), and incorporate CPTED principles. Opportunities to provide a positive visual impact are also encouraged, as indicated in section 3.2.</p>
23	<p>Laneway design standards:</p> <p>Council requests an additional Condition of Approval requiring consultation with Council on the detailed design of the laneway, and compliance with relevant design, construction and operational standards for a public road. It is considered that the design of the laneway needs further resolution in order to inform boundary changes and subdivision plans.</p>

## 3.5 Noise and Vibration

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### 3.5.1 Summary of impacts

LRV operations:

- Properties on the north side of High Street near the UNSW High St stop (even number 30 to 46) are expected to exceed the airborne noise trigger levels.
- No change is forecast for exceedances to the noise trigger levels at the Lowy Cancer Centre or properties between Botany Street and Avoca Street. However a marginal increase in noise levels at the location of the Light rail tracks crossover near Clara Street is expected.
- The closer proximity of the light rail tracks to some Prince of Wales Hospital buildings may (depending on the use of the buildings) cause airborne noise trigger levels to be exceeded. For example, if the use is not hospital wards, noise levels are below the trigger point.
- Ground-borne noise impacts are expected to be lower than airborne noise, and therefore not expected to cause significant impact.
- Vibration impacts overall are not expected to be significantly different from the approved scheme. Additional investigation of locations with vibration sensitive equipment is identified for the detailed design stage.
- At Belmore Road, properties adjacent to the approved terminus in High Cross Park will be significantly less affected by the modified terminus location.

Road traffic noise:

- It is noted that both the approved and proposed modification indicate increased road traffic noise above identified trigger levels on Arthur Street and Clara Street (although noting that existing noise levels on Clara Street exceed trigger levels due to operation of the shopping centre loading dock)
- The Modification report suggests that further investigation of feasible and reasonable mitigation strategies could be considered for these streets, and outlines possible strategies.
- The report assesses the likely noise impact of the new laneway, and notes it is not expected to cause significant impacts.

Construction noise:

- The report notes the modification is not likely to significantly change the construction footprint within the light rail corridor, and that no additional noise impacts are expected.

- Noise during construction of the new laneway is expected to impact surrounding properties. The report recommends a site specific Construction Noise and Vibration Impact Statement should be prepared during detailed design stage, and consultation with surrounding impacted properties.

### 3.5.2 Issues

Appendix C – Noise and vibration impact assessment does not appear to include an assessment of the impacts of demolition of Wansey Cottage. Council requests further information and clarification during detailed design stage.

Further investigation on the uses and sensitivities of the Nelune Cancer Centre building (currently under construction) fronting High Street to establish whether airborne noise trigger levels are exceeded, and if so, ensure appropriate mitigation measures are incorporated into the construction process.

Council notes the possible mitigation strategies for streets exceeding road noise trigger levels, and that the existing noise levels on Clara Street exceed trigger levels. Council is happy to discuss the need for and type of possible mitigation strategies during detailed design stage.

Council notes and supports the recommendation for a site specific Construction Noise and Vibration Impact Statement in relation to the new laneway, including consultation with affected properties.

### 3.5.3 Recommendations

24	Wansey Cottage: Request further information on the noise and vibration impacts of the demolition of Wansey Cottage, and confirmation that the detailed design stage will ensure that the construction noise and vibration impacts of the demolition of Wansey Cottage are identified and appropriately mitigated
25	Hospital Campus sensitive receivers: Support further investigation on the uses and sensitivities of the Nelune Cancer Centre building (currently under construction) fronting High Street to establish uses and relevant noise trigger levels
26	Road traffic noise: It is noted that road noise impacts on Arthur Street exceed trigger levels in both the approved and modified design. Council requests ongoing discussions during detailed design stage on the need for mitigation strategies, and suitable options.



27	Construction noise – new laneway: Support for a site specific Construction Noise and Vibration Impact Statement in relation to the new laneway, including consultation with affected properties regarding measures to minimise impacts.
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### 3.6 Non-indigenous and Aboriginal heritage impacts

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The Modification Report includes an Environmental Assessment of various aspects of the proposal including non-indigenous and Aboriginal heritage impacts. The Modification Report also addresses Administrative changes to Minister's Conditions of Approval in relation to Wansey Cottage and also includes Environmental management measures. Appendix D comprises an Aboriginal and Historic Heritage Assessment prepared by Artefact Heritage, while Appendix E comprises a Wansey Road Cottage Heritage Report prepared by GML Heritage.

#### 3.6.1 Summary of impacts

The proposed modifications include:

- Relocation and redesign of the Randwick terminus stop
- Reconfiguration of the UNSW High Street stop arrangement (including new access lane from Arthur Street to properties on High Street)
- Changes to local traffic network including one way streets, and changes to intersections bus stops and car parking.
- Demolition of Wansey Cottage within Randwick Racecourse to optimise track alignment on Alison Road and Wansey Road.

#### 3.6.2 Issues

##### **Relocation of Randwick terminus**

The relocation of the Randwick terminus will avoid substantial impacts to High Cross Park and its significant trees which would have resulted from the High Cross Park terminus. The original proposal would have resulted in major adverse impact on the heritage significance of High Cross Park due to the physical erosion of the space, the loss of significant trees and the new structures proposed. The modified proposal will avoid these visual and heritage impacts and lower the impact of the proposal on views and vistas in the High Cross heritage conservation area and nearby heritage items.

### **High Cross Park construction compound**

Due to the relocation of the Randwick terminus, the size of the construction compound adjacent to High Cross Park can be reduced.

### **Superintendent's Residence drivers' amenities**

Driver's amenities are to be relocated to the Superintendent's Residence within the Prince of Wales Hospital site. The Superintendents Residence, associated with the former Destitute Children's Asylum on the site, was designed by J. Horbury Hunt and dates from 1863. It is listed as a heritage item under Randwick Local Environmental Plan 2012. This building has been identified in previous heritage investigations as being of State significance. Modifications to the building to accommodate the proposed drivers' amenities should be guided by a Conservation Management Plan in order to minimise adverse heritage impacts. Maintenance Schedules and an Interpretation Plan should also be prepared and implemented in conjunction with the proposed works.

### **High Cross substation**

The above ground substation in High Cross Park has been replaced by a below ground substation in a similar position on the western side of Belmore Road. The substation is to be around 16m long and 9m wide, with a depth approx. 8 – 9m below ground. An underground connection between the substation and the Randwick terminus is required, along Belmore Road and across the Avoca Street Road and Avoca Street intersection. It appears that ventilation penetrations will also be required in the roof of the substation.

A World War II air raid trench shelter has been located within the south east portion of High Cross Park, adjacent to Belmore Road. The air raid shelter is identified as having local significance and part of the fabric of High Cross Park and the High Cross heritage conservation area. The below ground substation will be unlikely to have an adverse visual impact but will have potential adverse impact on archaeological remains including those of the air raid trench.

There are concerns that required ventilation grilles for the substation may impact on the grassed areas of High Cross Park. It is suggested that as much of the substation as possible be located within the paved footpath area, rather than in the grassed area of High Cross Park in order to minimise impact of ventilation grilles and to reduce the impact on the air raid trench.

In relation to Historical archaeology, the High Street and Arthur Street area assessed as having low to moderate archaeological potential and High Cross Park was originally assessed as having low archaeological potential to contain locally significant

archaeological remains but is now assessed as having high archaeological potential to contain remains of the former air raid trench. The report considers that the mitigation methods in the EIS are still considered appropriate. In relation to Aboriginal heritage, the High Street and Arthur Street area assessed as having low to moderate potential to contain intact archaeological deposits. High Cross Park is assessed as having moderate to high potential to contain intact archaeological deposits. The report considers that the impacts to Aboriginal heritage are consistent with the impacts identified in the approved project.

### **New access to High Street properties from Arthur Street**

The mitigation measures for Historical archaeology and Aboriginal heritage for the approved project are considered to be appropriate for the Arthur Street area affected by the excavation associated with the new service lane.

### **Bus stop changes**

The modifications will require an enlarged bus stop in Belmore Road, adjacent to the Avoca Street corner, including extending awning coverage in this area (by Randwick City Council). It is noted that existing awnings extend across nos.125 – 133 Belmore Road, a group of two storey Federation commercial building listed as heritage items and no.135 – 139 Belmore Road a two storey commercial building dating from the late 1980s. The building to the south of these properties is a heritage item which comprises a two storey pitched roof sandstone section, a three storey parapeted sandstone tower and a single storey rendered masonry section. The original sandstone portion of the building which dates from 1859 was constructed as a residential building, is set back from and not parallel to the street alignment which is marked by an iron palisade fence. The sandstone building is inappropriate for the attachment of an awning. Historic photographs of the rendered brick portion of the building which dates from the late Victorian period indicate symmetrical post supported awnings to the Avoca Street and Belmore Road frontages. The heritage impact on these building would need to be considered in the design of any awning structure constructed adjacent to these buildings.

### **Demolition of Wansey Cottage**

Wansey Cottage within the Racecourse site is identified as an element of moderate heritage significance within the Randwick Racecourse heritage conservation area. The approved project identified the light rail alignment and Wansey Road stop as having an adverse impact on the setting of Wansey cottage, passing within 0.5m of its north east corner. During the detailed design process, options to avoid impacting on Wansey cottage were considered.

According to the report, all feasible options which were investigated would result in demolition, partial demolition or impacts to the curtilage of Wansey Cottage. All feasible options would have severe impacts on the fabric or setting of the building, including its function and significance as a residence. Based on these investigations, the only feasible option was identified as demolition of Wansey Cottage, contributing to the cumulative heritage impact on Randwick Racecourse resulting from the project.

The Wansey Road Cottage Heritage Report recommends the implementation of a number of additional mitigation measures. Conditions of approval will need to be amended to remove reference to avoiding impact to Wansey Cottage.

### 3.6.3 Recommendations

#### Environmental management measures

The report notes that environmental management measures for detailed design and construction are to be amended to address proposed project modifications. Otherwise previously identified mitigation measures are considered suitable to manage potential impacts on the proposed modifications. Proposed new mitigation measures are supported:

28	<p>High Cross Park:</p> <p>New management measures for detailed design relate to either avoiding or mitigating impacts of the below ground substation in the heritage fabric of the park. If an alternative position within the park cannot be found for the substation, mitigation measures include archaeological excavation and archival recording of the air raid shelter and significant trees, provision of an exclusion zone around significant elements and investigation of interpretative signage. An archival recording of the park is to be prepared prior to commencement of works and impacts on the cenotaph and significant trees avoided.</p>
29	<p>Wansey Cottage:</p> <p>New management measures relate to archival recording prior to demolition, interpretative signage incorporated into the Wansey Road stop and salvage of building elements for future use in repair of other heritage items.</p>

Council recommends additional new environmental management measures to be included in relation to the drivers amenities within the Superintendents Residence, bus stop shelters adjacent to the heritage items in Belmore Road, and required ventilation for the below ground substation, as follows:

30	<p>Superintendent's residence:</p> <p>Modifications to the Superintendents Residence building to accommodate the proposed drivers' amenities should be guided by a Conservation Management Plan in order to minimise adverse heritage impacts. Maintenance Schedules and an Interpretation Plan should also be prepared and implemented in conjunction with the proposed works.</p>
31	<p>Belmore Road bus interchange – extended awning coverage:</p> <p>The heritage impact of the proposed enlarged bus stop in Belmore Road, adjacent to the Avoca Street corner, including extending awning coverage in this area, is to be carefully considered to ensure a sympathetic design response. The building on the corner of Avoca Street and Belmore Road is listed as a heritage item under Randwick LEP 2012. The original sandstone portion of the building which dates from 1859 is set back from and not parallel to the street alignment which is marked by an iron palisade fence, and is inappropriate for the attachment of an awning. Historic photographs of the rendered brick portion of the building which dates from the late Victorian period, indicate symmetrical post supported awnings to the Avoca Street and Belmore Road frontages.</p>
32	<p>High Cross Park substation:</p> <p>The heritage impact of any required ventilation grilles for the below ground substation are to be carefully considered. The placement of ventilation grilles may impact on the grassed areas of High Cross Park. It is suggested that as much of the substation as possible be located within the paved footpath area, rather than in the grassed area of High Cross Park in order to minimise impact of ventilation grilles and to reduce the impact on the air raid trench.</p>

## 3.7 Socio economic impacts

### 3.7.1 Summary of impacts

The modification proposes some improvements to open space access during construction as a result of the reduced impact to High Cross Park. Minor additional adverse impacts in relation to property acquisition are expected to occur as a result of the new laneway from Arthur Street, which requires land owned by the University of NSW.

During operation the proposals is expected to have beneficial impacts, with improved access from the stop to the Randwick Junction town centre, and to the Randwick Hospitals campus.

### 3.7.2 Issues

Council supports the reduced impact to High Cross Park, and improved integration of the Randwick Terminus with the surrounding town centre and health facilities. Council also considers that the increased property acquisition related to the UNSW High Street stop is reasonable, based on the benefits of the proposal, and that the land affected is owned by the University of NSW, a key stakeholder proposing this modification to the UNSW High Street stop.

## 3.8 Utilities

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### 3.8.1 Summary of impacts

An existing Ausgrid substation near the corner of High Street and Botany Street will need to be relocated. The Modification proposal does not indicate any other specific impacts on utilities.

### 3.8.2 Issues

While not specifically noted in Section 5.9 of the Environmental Assessment, the modification indicates that overhead power lines on High Street are to be located underground (eg: Figures 3.4 and 3.5 of the Modification Report). Council strongly supports undergrounding of power lines, and the improved streetscape and opportunities for a coordinated public domain treatment, including street tree planting consistent with Council's Light Rail Urban Design Guidelines.

The modification report does not indicate any additional impacts regarding the undergrounding of the substation in High Cross Park, however it is important to ensure that access points to the substation, and any trenching or cable reticulation requirements are located to minimise impacts on the soft landscape and existing trees.

### 3.8.3 Recommendations

33	Undergrounding of power: Request overhead power lines be located underground along the full length of High Street, consistent with Figures 3.4 and 3.5 of the modification report, and Figure 3.6 of Appendix B.
34	Ausgrid substation:

	Council requests consultation at an early stage on the relocation of the existing Ausgrid substation near the corner of High Street and Botany Street.
35	High Cross Park substation: That any utilities and access points to the underground substation at High Cross Park avoids impacting existing trees, and minimises impacts on soft landscaped areas.

### 3.9 Electromagnetic interference (EMI)

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#### 3.9.1 Summary of impacts

The modified design of the UNSW High Street stop would help reduce EMI impacts to the sensitive receivers at the Lowy Cancer centre. The report notes that the modified Randwick terminus location is not expected to have any additional EMI impacts to the Hospitals campus.

#### 3.9.2 Issues

Council supports the reduced impact of the UNSW High Street stop and sensitive receivers on the UNSW campus, and notes that the modification proposes that existing Conditions of Approval (MCoA B17, B18) relating to EMI are sufficient to manage any potential impacts.

### 3.10 Administrative Changes to Conditions of Approval

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#### 3.10.1 Wansey Cottage demolition

Refer to comments in section 3 of this submission.

#### 3.10.2 Out of hours work

The amendment to the MCoA seeks to allow EPA to approve out of hours work in situations where an Environment Protection License is in place. Council has no objection to this amendment.