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Memorandum

To	**Katy Johnson**	From	**Phuc Do**
Copy	**Matthew Wood** **Mardi Christian** **Genevieve Hastwell**	Reference	**507914**
Date	**2021-06-30**	Pages (including this page)	**4**
Subject	**Pendle Hill High School Upgrade – Response to Submissions**		

Dear Katy,

Please find below Aurecon responses to the relevant recommendations from Government Agency/Organisation on SSDA submission for Pendle Hill High School Upgrade project.

1 Item 3 – Acoustic

1.1 Recommendations from Agency / Organisation

Demonstrate that the existing noise level measurements set out in the Acoustic Report (Appendix X of the EIS) are appropriate for predicting anticipated operational noise impacts, given that the existing number of students is significantly (10-13 times) lower than the maximum potential existing and post-development number of students. Noting that:

- page 31, penultimate paragraph refers to existing school enrolments of 378.

- Table 7.1, page 32, provides estimates of outdoor play area usage based on existing maximum capacity of 1,080 students and post-development maximum capacity of 1,320 students.

- the noise level measurements discussed in Table 7.2, page 32 are based upon “Approx. 100 students playing (measured in Assembly area)” and “Approx. 10 students playing in games court”.

1.2 Aurecon Response

The existing noise measurement was carried out on a typical school day in consultation with the school staff to confirm its validity as explained in Section 7.1.1. The measurement reflects the existing condition of the school and is appropriate for predicting anticipated operational noise impacts. No further testing needed as it would provide similar outcome. The measurement result is presented in Table 7-2.

The predicted noise impact to the nearest affected receivers is then calculated based on student capacity as presented in Table 7-1. The calculation outcome is presented in Table 7-3.

The noise impact is then discussed in Section 7.1.3.

This process has been used on other similar school projects and is a standard process.

2 Item 4 – Acoustic

2.1 Recommendations from Agency / Organisation

Consideration should be given in Section 8.2 of the Acoustic Report to construction noise and vibration impacts upon teachers and students that will be involved in learning activities and associated

activities during the 12.5 month construction phase. Appropriate mitigation measures should be developed and recommended.

2.2 Aurecon Response

Appropriate mitigation measures would be developed and recommended by the builder as part of the construction methodology and therefore is not part of this report to address.

3 Item 35 – Network Capacity

3.1 Recommendations from Agency / Organisation

Endeavour Energy has noted the following in the Services Infrastructure Report addressing the suitability of the site for the development in regard to whether electricity services are available and adequate for the development.

The proposed new padmount substation to be installed along Binalong Road is shown in the following extract of the Proposed Site Plan.

From Endeavour Energy's perspective the fact that provision is being made for a padmount substation is a positive. Endeavour Energy's general requirements is for a padmount substation to be at ground level and have direct access from a public street (unless provided with appropriate easements for the associated underground cables and right of access).

3.2 Aurecon Response

The requirement for the padmount substation to have direct access from Binalong Road is noted and will be treated through landscape design process during Detail Design phase.

4 Item 36 – Easement for padmount substation

4.1 Recommendations from Agency / Organisation

As shown in the following extract of Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', Figure A4.3 'Padmount easements and clearances', padmount substations require:

- Easement with a minimum size of 2.75 x 5.5 metres (single transformer).

- Restriction for fire rating which usually extends 3 metres horizontally from the base of the substation footing / plinth and 6 metres vertically from the same point.

- Restriction for swimming pools which extends 5 metres from the easement (which may not be required for non-residential use).

[See image in submission]

The easement should not cross property boundaries but the restriction/s may affect any adjoining property provided they are able to be registered on the title to that property.

4.2 Aurecon Response

Drawing ACD-1005-P12 shows that an overall easement of 5.9m x 2.95m has been allowed for in the design. The horizontal and vertical clearance of 3m and 6m has also been considered in the design and there is no neighbouring areas or buildings located within this clearance zone.

5 Item 40 – Release of easement

5.1 Recommendations from Agency / Organisation

Easement Release

In regard to the existing easement for padmount substation no. 15741 which is to be decommissioned, the applicant can make an application for the release of the redundant easement. Under Endeavour Energy's Company Policy 9.2.3 'Property Tenure for Network Assets', the company will assess all applications for the release of easements to identify and manage risks to its network, commercial and community interests. The company may seek compensation for the extinguishment of property tenure. No easement is considered to be redundant or obsolete until it is released under this policy.

Applications for the release / extinguishment of an easement can only be made by the registered landowners of the encumbered property and in this instance can be done as part of the application for connection of load or capital works project for the development project ie. where alternative / new network arrangements are to be put in place.

Endeavour Energy's Network Connections Branch (contact via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666) are managing the conditions of supply with the proponent and their Accredited Service Provider (ASP) and will advise of Endeavour Energy's requirements for the release of easement.

5.2 Aurecon Response

There was no design intent to decommission substation no. 15741. The intent was to only decommission the existing customer intake cable, i.e. disconnect the school power supply from substation no.15741 once the new padmount substation is in place.

6 Item 41 – Acoustic

6.1 Recommendations from Agency / Organisation

Prudent Avoidance

As part of the further acoustic assessment consideration should also be provided to the new padmount substation required to facilitate the proposed development. The transformers in substations may emit a hum – especially when under heavy load say in the summer peak when use of air conditioning is at its highest. The noise is usually not perceptible enough to be regarded as disruptive and/or to the point where amelioration measures are required. As noise levels, frequency and timing can vary and people perceive sounds differently, to minimise any potential exposure to intrusive noise, the siting towards the electricity infrastructure of less sensitive uses or parts of the building not regularly occupied is recommended.

6.2 Aurecon Response

The design has followed Endeavour Energy design guideline (MDI 0044 Figure A4.3) for noise separation distance of 3m, see item 36 for more detail.

In addition, the substation is located relatively further from Building H (approximately 13m) or the nearest neighbour building (approximately 17m). Once the transformer noise detail is available from Endeavour Energy during Detail Design phase, a noise impact assessment can be carried out accordingly.

7 Item 43 – Acoustic

7.1 Recommendations from Agency / Organisation

Noise and Vibration

The EPA reviewed the SSD Application Acoustic Assessment, Rev 3, dated 30 April 2021, prepared by Aurecon and is generally satisfied with the assessment. However, the EPA makes the following comments:

1. The report adequately identifies noise sources associated with the development and uses appropriate assessment criteria for those noise sources. However, it is noted that that the assessment of mechanical plant indicates that significant noise mitigation is required due to the proximity of the boundary. The EPA advises that the feasibility of such a mitigation option identified in the report should be assessed prior to commencing the design of the mechanical plant.

7.2 Aurecon Response

A benchmarked mitigation measure has been provided and followed in the design of the mechanical plant enclosure to achieve the noise impact requirements. Further detail of the mitigation measures will be developed by the design team during Detail Design stage following recommendation in the report.