

5 August 2019

16205

Ms Aditi Coomar  
Principal Planner, Social and Infrastructure Assessments  
Department of Planning, Industry and Environment  
Level 29, 320 Pitt Street  
SYDNEY NSW 2000

Dear Ms Coomar,

## **SECTION 4.55(1A) MODIFICATION APPLICATION TO SSD 16\_7919 - RESPONSE TO RFI 85 CARABELLA STREET, KIRRIBILLI**

This response to request for additional information is provided to address your email dated 1 August 2019. A response to each of the Department's queries is outlined below. This letter should be read in conjunction with the following attachments:

- Heritage Memo prepared by GML Heritage;
- Response Diagrams prepared by FJMT; and
- Section 4.55 Letter of Support prepared by Northrop.

### **Heritage**

*An addendum statement is required from GML confirming that the proposed materials would not have any additional impact on the conservation area or the heritage items on the site, and that the additional glazing is acceptable*

GML has prepared an addendum Heritage Statement to respond to the Department's request. The proposed changes to the external materiality of the new Innovation Centre and the Gymnasium extension will not have any additional impact on the neighbouring Careening Cove Conservation Area, or on the setting of the key heritage buildings on the site, these being Elamang, Administration and the Chapel. There will be no additional impacts on the heritage significance of Loreto Kirribilli or heritage items in the vicinity of the site. As per the approved scheme, the materiality is contemporary and of its time, which represents best practice in the design of new buildings within the vicinity of buildings of heritage significance. The use of a lighter toned brick than previously proposed will provide a visual consistency between buildings on the site - the proposed bricks are consistent in tone with the face brickwork of the Marian Centre. Although lighter than previously proposed, the brickwork will still provide a visual contrast to the light-coloured rendered buildings on the site, including the Chapel, Administration and Elamang, which will ensure that these heritage buildings remain visually prominent.

*Provide justification regarding the proposed amendments to the use of sandstone as this was a specific requirement from GA NSW during the assessment of SSD-7919. The Design Report does not specify why the proposed material (painted steel or glass reinforced concrete) is considered to be an improvement over sandstone having regard to the heritage listing of the site*

During the assessment of SSD 7919, GA NSW provided the following response:

*"Consider the replacement of dark bricks and finishes with lighter coloured material in response to issues of heat gain and sustainability, increase the possibility of light reflection to overshadowed or below ground areas and to respond sensitively to the heritage buildings on site which appear to be sandstone and light coloured render."*

It is noted that sandstone was never proposed as part of the materials palette for the Innovation Centre. However, as outlined in the submitted Design Report and Statement of Environmental Effects, the façade has been revised in order to comply with the acoustic requirements of Condition B6.

The selected palette of materials includes a lighter brick which is more consistent with the brickwork of the Marian Centre and a warm coloured glazed facade. The glazed facade will have an interlayer which has a light/warm tone. In the northern facade of both the east and the west wings, a bronze tinted glazing is used as a full height vision panel. The stair glazing is relatively clear to provide good visibility and the glazing to lower ground level 4 to ground level is a light grey glass with a good visible light transmission quality.

The steel and glass reinforced concrete walkway balustrades will be painted a complementary light cream colour to align with the existing Junior School, the Chapel and the Centenary Hall paint finish.

It is considered that the revised materials respond positively to the comments made by GA NSW by providing a lighter palette which better responds to the sandstone and rendered buildings on the site.

### Reuse of Sandstone

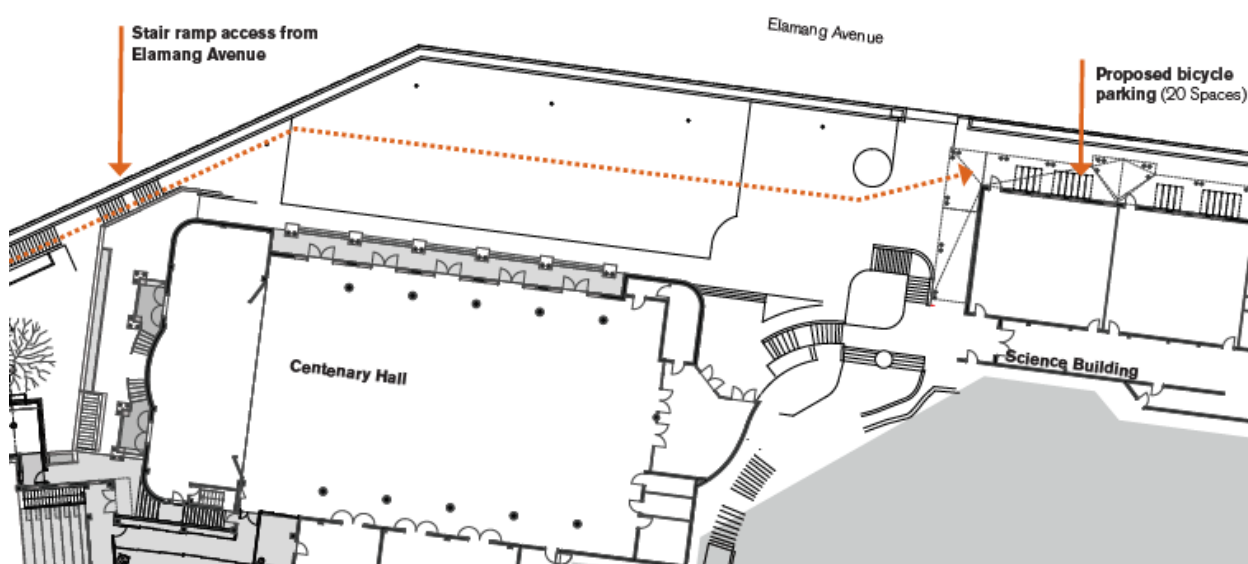
*Please confirm whether the reuse of the sandstone as was previously proposed, would be maintained in the landscaped areas.*

The existing sandstone will continue to be used within the landscaped areas on the site.

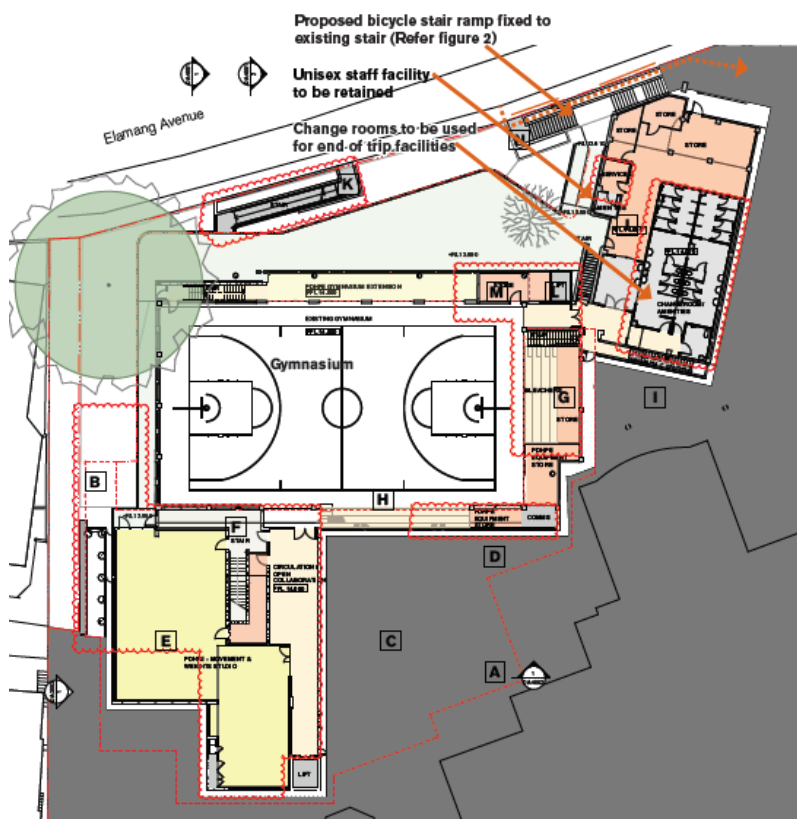
### Bicycle Parking

*Please specify the location of the bicycle parking area and the accessible entry to the bicycle parking from Elamang Avenue. This was a requirement of the conditions of consent.*

Consistent with the approved development, 20 bicycle parking spaces will be provided under the Science Building, with end of trip facilities to be provided in the western precinct redevelopment. The proposed bicycle parking is shown on the **attached** diagrams and at **Figure 1**. Access will continue to be provided via a ramp from Elamang Avenue. The end of trip facilities are provided as part of the western precinct redevelopment and are shown on DA-2201 and **Figure 2**.



**Figure 1** Location of bicycle parking and access from Elamang Avenue  
Source: FJMT



**Figure 2** Location of end of trip facilities

Source: FJMT

### ESD Targets and Design Quality Principles

The original sustainability objectives for the project, which include benchmarking to industry best practice standards and over-complying with the National Construction Code, have not altered. However, a number of the initiatives that were being implemented have been altered to accommodate the conditions of consent and use of the spaces. This has stemmed from the acoustic constraints on the project and further examination of the way in which some spaces would be used.

It is noted that the building was never proposed to be passively ventilated, and that a mixed mode ventilation strategy has always been envisaged. Consistent with the Building Services Concept prepared by NDY, natural ventilation would have only been possible pending design development, final architectural design and acoustic advice. Acoustic advice during design development has confirmed that natural ventilation is not possible.

A response to each of the Department's questions is provided below and, in the statement prepared by Northrop (**attached**).

*The Modification report states that the ESD targets would not change. However, there is a considerable change in the materials and glazing proposed in lieu of the continuous screens (for the Innovation Centre). Please provide an addendum statement to confirm the following:*

- *Natural ventilation is provided to the learning studies as before and is not compromised by the use of the alternative material.*

The changes to the facade materials have been made in response to Condition B6, which effectively restricts the use of the outdoor learning areas on the western part of the building to no more than two people speaking (refer to submitted Acoustic Statement prepared by Acoustic Logic). Due to this constraint, the outdoor learning spaces have been brought into the internal learning areas. As a result, the SSD façade composition of screened balconies are no longer possible and an alternative façade design has been proposed, as outlined above.

Generally consistent with the SSD Building Services Concept prepared by NDY, a mixed mode ventilation strategy has been introduced to provide ducted outside air to the occupants (economy cycle). Operable windows have been introduced in most learning areas, however these can only be used if the acoustic requirements are met.

The facade systems selected are high performance with performance glazing and sun shading to meet the sustainability aspirations as outlined in NDY's original Sustainability Master Plan.

Additionally, an adaptive thermal comfort analysis has been completed which identified that a number of the learning areas may fall outside of comfort conditions for their expected uses. Namely, the PDHPE spaces which will require conditioning to support their use though the warmer months.

- *The reasons for mechanically ventilating the staff rooms at all times when there are provisions for windows in these rooms.*

As a mixed mode system is proposed, the staff rooms have the option of being either naturally ventilated using the economy cycle, or air conditioned. The staff rooms are also provided with openable windows, which can be used only if the acoustic conditions meet the requirements of Condition B6.

The use of this system is primarily to provide flexibility to these spaces.

- *Whether the change in materials and the change in plan, especially the lower ground floor which now includes a huge area with no ventilation (PDHPE and weights), lead to any alterations to the ESD targets. While the design report states that the skylights would ventilate this, this is not a practical solution as no one will operate the skylights in the school on a daily basis and the new design of this floor completely eliminates natural light and ventilation which was previously provided (the glazed door and window are less than 1% of the floor area and not considered sufficient for this purpose).*

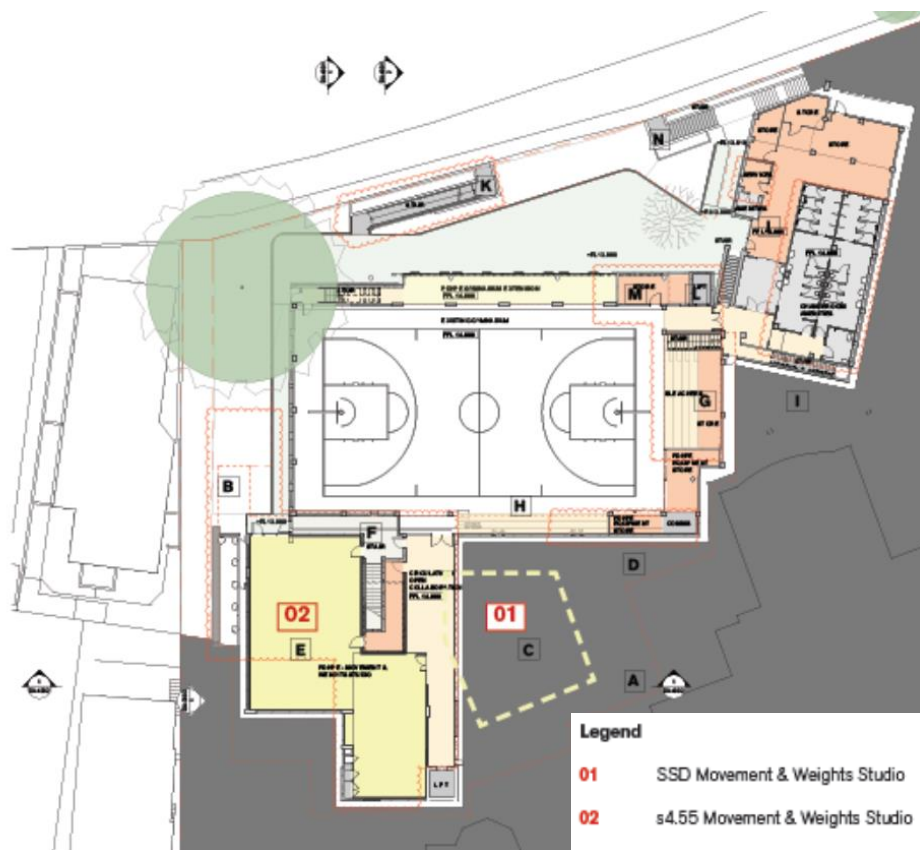
The lower ground level 4 is a large movement studio and weights area which is used in association with the gymnasium. The space replaces the current weights area which is located underneath the stage area of the Centenary Hall.

Previously, this area was a PDHPE learning area and the movement studio and weights area was located to the rear of the gymnasium to the east. This area will be used before and after school for co-curricular sports and during school for PDHPE. Due to the reduction in the extent of excavation, the learning studio function has been relocated to the refurbishment of the existing classrooms underneath the Chapel wing, with a shared use and the weights area relocated to the west. The previous external courtyard has been converted to an internal area, to address Condition B6.

As shown in **Figure 3**, in the SSD submission natural daylight and ventilation was not able to be provided in the movements and weights studio as a result of the disconnect with the external environment. The function of the revised weights area is divided into two zones - the zone to the south-east will have a raised acoustic floor to accommodate free weights and a sled track, the zone to the west will accommodate cardio equipment such as ergonometres for rowing training, exercise equipment such as running machines, cycles and steppers and a central circuit area. Not unlike a commercial weights gym, daylight is not essential for the function of this area. However, daylight has been provided via two large skylights and the northern glazed wall and door, which will improve the daylight condition when compared to the original SSD application, where there was no access to natural light or ventilation. A comparison between the approved and proposed location of the weights area and gym is provided at **Figure 3**.

The two skylights have been incorporated into the design to provide a connection with the environment, as will the glazing to the north. The function of the skylights is for daylight and not natural ventilation. An indicative view of the proposed weights area is **attached** and provided at **Figure 4**.

The use of lower ground for the weights area and movement studio was selected as these areas generally do not require detailed focus work where high levels of daylight is desirable.



**Figure 3** Approved and proposed location of the movement and weights studio  
Source: FJMT



**Figure 4** Indicative view of the proposed weights area  
Source: FJMT



*Note that the design quality principles for the Education SEPP require compliance with the natural ventilation provisions and the Section 4.55 application should demonstrate that it is an improvement over the original preproposal in this regard*

Due to the restrictions of Condition B6, the façade materials of the new Innovation Centre have been changed. To address the design quality principles of the Education SEPP, FJMT has maintained the originally proposed economy cycle system to provide fresh, filtered but unconditioned air into the learning spaces when the external conditions are appropriate. This is seen as a valid approach due to the acoustic constraints.

Should you require any further information, please contact me on the details below.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'K. Tudehope'.

**Kate Tudehope**  
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