

16 July 2019

File No: 2019/339289

Our Ref: R/2014/13/D

Jess Fountain
DA Coordinator, Key Sites Assessment
NSW Department of Planning and Environment
GPO Box 39
Sydney NSW 2001
By email: Jessica.Fountain@planning.nsw.gov.au>

Dear Jess,

Art Gallery NSW Expansion Project – Sydney Modern – Modification 1 (SSD-6471-Mod-1)

I refer to your invitation to comment on the above mentioned State Significant Section 4.55 application to modify the consent for the Art Gallery NSW Expansion Project (“Sydney Modern”). The modification proposes replacing the approved seawater heat rejection system with a series of cooling towers located within the approved excavation footprint and changes to adjacent landscaping to accommodate the exhaust grill.

Council staff reviewed the proposed modifications and raised concerns with your colleague, Tim Green, as suggested in your initial correspondence – see Attachment A. At the time of writing this letter, no response to our questions has been received. As such, objection is raised to the proposed modification for the following reasons:

Health and Safety

The plume from the cooling towers will potentially discharge on to a public thoroughfare and fire exit path. All Cooling Towers are required by the Public Health Regulation 2012 to be installed in accordance with AS3666.1.2011 and specifically be *located away from occupied areas, pedestrian thoroughfares, air intakes, (including lift vents), building openings and trafficable areas*. Cooling towers are most typically installed on the roof of a premises and/or a roof level plant room for this purpose. The City regularly assists NSW Health with outbreaks of Legionnaires disease often involving fatalities.

Insufficient information accompanies the application to demonstrate compliance with the aforementioned Australian Standard, and raises concerns regarding public safety. A duly qualified person in accordance with the Public Health Act 2010 should be appointed to assess the most appropriate location for the proposed cooling tower(s) within the building to ensure public health and safety.

Trees and Landscaping

Insufficient information has been provided to assess the impact of the proposed exhaust on nearby existing and proposed trees. In particular, the set of amended architectural and landscape plans fail to include:

- Sections and elevations, including the finished height/RL of the grill
- Whether the grill will be screened for visual amenity, safety and security
- How the grill will interface with the adjacent fire egress path

The application does not assess the impact of the heat exhaust and grill on the tree canopies and root protection zones of trees T1118 (existing) and T1228 (new) or the impact on surrounding vegetation and the public domain. Accordingly, concern is raised that the modification will have an adverse impact on the success of the surrounding landscaping and visual amenity from, and comfort of, the public domain.

Ecologically Sustainable Development

The benefits of replacing the approved seawater heat rejection system are outlined in the Review of Mechanical Services report prepared by Steensen Varming and accompanying the application. The benefits generally relate to the greater ease of construction and maintenance and minimising impacts on future development in the area of the approved seawater heat rejection system.

The ESD Addendum prepared by WSP notes that, with regard to credit 18B Potable Water of the Green Star rating, the development will go from receiving six points to four points (from a possible 12), "*as the revised heat rejection design will use potable water, and so the requirements of 18B.3 Heat Rejection cannot be met*". The ESD Addendum goes on to state that water use equivalency can be achieved between the seawater heat rejection system and cooling towers through rainwater harvesting. However, no details of rainwater harvesting accompany the application.

While the development may still be able to achieve a 6-star Green Star rating, it is disappointing that the modification seeks easier, traditional heat rejection methods to the detriment of achieving a higher Green Star score and ecologically sustainable development outcome.

Request for further information

Council staff recommend that additional information is requested to address the concerns raised above, and would be happy to review and amend our submission accordingly. Otherwise, Council requests the following conditions be imposed on the development:

(1) MICROBIAL CONTROL IN WATER SYSTEMS

The installation, operation and maintenance of water-cooling or warm water systems installed on the premises must comply with AS/NZS 3666:3:2011 - Air-handling and water systems of buildings-Microbial Control Part 3: Performance based maintenance of cooling water systems.

Note: The occupier of premises at which a water-cooling system is installed, must notify the council in writing on the prescribed form, of the

installation of all water-cooling tower systems within the premises -
Public Health Act 2010.

Notification forms are available on Council's website
www.cityofsydney.nsw.gov.au

(2) SETBACKS TO TREES

1:10 detail plans and sections are to be provided demonstrating that the grill will be protected from stormwater overland flows, public access and foreign objects.

(3) SETBACKS TO TREES

The location of the exhaust is to be sufficiently setback and the direction of hot air mitigated so as not to encroach within the root protection zone and tree canopy of trees T1118 and T1228 and other nearby vegetation. The required distance must be certified by a qualified Arborist (AFQ 5).

(4) RAINWATER HARVESTING

A rainwater harvesting system must be designed to supply sufficient rainwater to meet the needs of the heat rejection system for the Sydney Modern development.

Should you wish to speak with a Council officer about the above, please contact David Zabell, Senior Planner, on 9288 5842 or at dzabell1@cityofsydney.nsw.gov.au

Yours sincerely,

A handwritten signature in black ink, appearing to be 'GJahn', written in a cursive style.

Graham Jahn AM
Director
City Planning, Development & Transport

Thu 4/07/2019 11:09 AM

David M Zabell <DZabell1@cityofsydney.nsw.gov.au>

Request for further information - R/2014/13/D

To Tim Green

Dear Tim

Council staff have reviewed the subject modification for the Art Gallery of NSW and request further information to assist in understanding the impacts of the proposal. In particular:

- What are the driving forces in abandoning the seawater heat rejection system?
- What measures will be taken by the landscape architects to mitigate heat on trees and plants in the vicinity of the exhaust?
- What consideration has been given to the impact of the heat exhaust on pedestrian comfort?
- Further information or commitments are required regarding harvesting rainwater to minimise water use for the cooling towers.
- Sections and RLs are required to identify the height of the grill relative to the surrounding area.

At this stage and without further information to address the above Council is not in a position to support the proposed modification. Can you please request further information of the applicant to address the concerns above? Council also reserves its right to provide a formal response by 10 July.

Regards

David M Zabell
Senior Planner
Planning Assessments



Telephone: +612 9288 5842
cityofsydney.nsw.gov.au

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Mr Cameron Sargent
Team Leader, Key Sites Assessments
Department of Planning, Industry and
Environment
GPO Box 39
SYDNEY NSW 2001

Our ref: DOC19/580446 -1

Your ref: SSD 6471 MOD 1

Dear Mr Sargent

Subject: Modification application for the Art Gallery of NSW Expansion Project – Sydney Modern (SSD 6471 Mod-1)

I refer to your email of 27 June 2019 seeking input from the Environment, Energy and Science (EES) Group on the Secretary's environmental assessment requirements (SEARs) for the above State Significant Development project.

EES Group has reviewed the modification application and provides the following comments regarding Aboriginal cultural heritage and biodiversity.

Aboriginal Cultural Heritage

EES Group notes the Environmental Impact Statement indicates that the proposed modification is located within the approved excavation footprint and that no further excavation is required to facilitate the proposed modification. Given that the modification will not result in any additional impact, EES Group has no further comment in regard to the Aboriginal cultural heritage matters.

Biodiversity

Section 7.17 of the *Biodiversity Conservation Act, 2016* (BC Act) stipulates:

2 (b) a biodiversity development assessment report is required to be submitted and taken into consideration if this Division applies to the original development as proposed to be modified even if a biodiversity development assessment report was submitted in connection with the application for the original development or even if this Division did not apply to the original development (for example, because the modification results in the development exceeding the biodiversity offsets scheme threshold),

(c) however a further biodiversity development assessment report is not required to be submitted if the authority or person determining the application for modification (or determining the environmental assessment requirements for the application) is satisfied that the modification will not increase the impact on biodiversity values,

(3) The regulations may make further provision with respect to any such applications for modification (including exemptions to the application of this section).

EES Group notes that the applicant has not addressed the BC Act in its application for the proposed modifications. If the application is not subject to section 7.17(3), EES Group recommends that the applicant be requested to provide an assessment of biodiversity values (sections 1.4 and 6.1 of the *Biodiversity Conservation Regulation 2017* and 1.5 and 6.3 of the BC Act) and the impact of the proposal on the biodiversity values. The provision of this additional



information will assist the Department in determining the appropriate planning pathway for biodiversity assessment required for the modification application.

Should you have any queries regarding this matter, please contact Marnie Stewart, Senior Project Officer Planning on 9995 6868 or Marnie.Stewart@environment.nsw.gov.au.

Yours sincerely,

S. Harrison 22/07/19

Susan Harrison
Senior Team Leader Planning
Climate Change and Sustainability
Environment, Energy and Science Group



Jess Fountain

DA Coordinator
Key Sites and Industry Assessments
Planning Services
Level 29, 320 Pitt St, Sydney | GPO Box 39 Sydney
NSW 2001
T 02 9860 1559

Sent by email to: Jessica.fountain@planning.nsw.gov.au

Dear Ms Fountain

RE: SSD-6471-MOD-1 for proposed changes to heat exchanger and minor built and landscaping changes as part of the Art Gallery NSW Expansion Project – Amended Proposal (SSD 6471)

Thank you for your invitation dated 27 June 2019 to comment on the amended proposal for State Significant Development SSD 6471 for proposed changes to the heat exchanger and associated minor built and landscaping changes as part of the Art Gallery NSW Expansion Project.

SSD 6471 was approved on 20 November 2018.

The following public exhibition documents for the modified proposal have been reviewed:

- SSD MOD Report, by Architectus, 20 June 2019.
- Attachment A: Amended Architectural Plans, by SANAA, 24 May 2019.
- Attachment B: Supplementary Architectural Design Statement by SANAA 8 May 2019.
- Attachment C: Amended Landscape Plans, by Macgregor Coxall, 28 May 2019.
- Appendix D: Review of Mechanical Services by Steensen Varming, 3 May 2019
- Appendix F: Updated Acoustic Noise Assessment by Arup, 8 May 2019.
- Attachment H: Archaeological Assessment and Impact Statement, by GML 7 June 2019.
- Attachment I: Letter of support from the Royal Botanic Gardens, 7 May 2019.

Description of the Proposal (from summary in SSD MOD Report by Architectus)

The proposed modification comprises the deletion of the approved seawater heat exchange system including an upper (above-ground) plant room at the water's edge at Woolloomooloo, to be replaced with new cooling towers in an unused void within the new gallery extension development.

Works associated with the new cooling towers include a new outlet vent covered by a circular steel grate (diameter approximately 8m and total area of 51m²) located north of Gallery 2, to be constructed against the slope of the land and amongst landscaping within the hillside.

The new outlet grille requires minor changes to landscape plantings and minor changes to the fire stair and egress pathway from Gallery 2 to Mrs Macquarie's Road. The fire egress path will be routed to the north of the outlet grate and exit near the bicycle parking.

Discussion of Heritage Impacts of the Proposal

- There are no anticipated archaeological impacts because the new works are located behind the rammed earth wall and wholly within the approved excavation and building footprint. No additional excavation is required.
- Deletion of the seawater heat exchange system at the water's edge at Woolloomooloo including the above-ground plant room will have no heritage impact as it is located at a distance to the Domain. These changes will have a positive visual impact.
- The internal works for the proposed new cooling towers will have no heritage, visual or archaeological impact as they will be located inside an unused void within the new building works with no additional excavation.
- Visible new works involve a new external grate (8m in diameter) above the cooling towers in a landscaped area north of Gallery 2, and installed against the slope of the embankment.
- The new 8m diameter grate will be a large new element within the landscaped area alongside Mrs Macquarie's Road. It is not clear from the photomontages whether the new grate will be visible from the road. The plans provide no details (materials, colour, height above ground, elevations or sections) to allow accurate assessment of the visual impact of the new grate.
- The new grate will sit next to a re-routed pathway that provides an exit route from the building to the street. The new grate could be highly visible and visually intrusive within the landscaped garden area.
- The exhibition documents include Appendixes D and F discussing the mechanical services and acoustic impact of the proposed modifications.
- The acoustic impacts assessment notes that "*At this stage in the project, details of the plant selections are not known and therefore detailed selections of noise control devices cannot be made.*" (page 15 of Appendix F). The impact of operational noise resulting from the new cooling towers needs to be confirmed and set at a limit that does not interfere with both passive and active recreational use of the Domain and does not adversely impact upon the use of the pathway, bike area and loading dock.
- Appendix D discusses the mechanical services required to operate the cooling towers. It notes the following: "*The cooling towers shall discharge warm air only vertically through a grille located directly above them in the landscaping, make up air shall be drawn through this same grille.*" This suggests the 8m diameter grille acts as a protective cover for two different movements of air and could possibly be redesigned to comprise smaller grates.

In view of the above, the following comments are provided to assist your determination of this application:

- The proposed modification will add a new large built element to the landscaped area north of the new gallery in close proximity to Mrs Macquarie's Road and the Domain. Although the subject area is not within the SHR curtilage of The Domain, in practice it is part of the Domain experience.
- Although adequate information has not been submitted in terms of design, elevation, section of the proposed works, it appears as if the area is going to acquire the feel of a back of house space with little architectural merit.
- It is recommended that the proposed works be afforded the same architectural attention that the overall development is being given to make it worthy of the context it is located in.
- It is recommended that effort also be made to ensure the noise and thermal amenity within The Domain is retained.

If you have any questions regarding the above advice, please contact Robin Hedditch, Senior Heritage Assessment Officer at the Heritage, Department of Premier and Cabinet via email robin.hedditch@environment.nsw.gov.au or via phone 02 9873 8622.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Rajeev Maini', with a stylized flourish at the end.

Rajeev Maini
Senior Team Leader
Regional Heritage Assessments South
Heritage, Department of Premier and Cabinet
As Delegate of the Heritage Council of NSW
5 July 2019



DOC19/551614-1
SSD 6471

5/7/19

Mr Tim Green
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Mr Green

SSD 6471 – SYDNEY MODERN (MOD 1) – ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing to you in reply to your invitation to the Environment Protection Authority (EPA) to make a submission concerning the above modification application EIS.

The EPA requests that this submission be read in conjunction with its letters dated 15 December 2017 and 7 May 2018 in respect of the project EIS and Response to Submissions Report respectively.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arm's length'. The EPA has not reviewed any environmental management plan forming part of or referred to in the modification application EIS.

The EPA further notes that the modification appears to be limited to abandoning the seawater heat exchange system proposed to serve the air conditioning plant, and reconfiguration of the mechanical ventilation system to include cooling towers. The EPA anticipates that noise emissions from operation of the redesigned mechanical ventilation/air conditioning system are likely to differ from those predicted to arise from operation the previous design. However, the EPA is satisfied that the cooling towers can be mitigated to not exceed the criteria and that the project can be designed to not exceed the rating background level + 5dBA.

Should you require clarification of any of the above please contact me on 9995 6212.

Yours sincerely

A handwritten signature in blue ink that reads 'Sarah Thomson'.

SARAH THOMSON
Unit Head, Metropolitan Infrastructure
NSW Environment Protection Authority

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