

21 February 2024

Mr. Anthony Witherdin
Director, Key Site Assessments
Department of Planning, Housing, and Infrastructure

Dear Mr. Witherdin

RE: Modification to Barangaroo Concept Plan (MP06_0162 MOD 9)

The Museum of Applied Arts and Sciences (Powerhouse) appreciates the opportunity to provide a submission on the proposed modification to the Approved Concept Plan for Central Barangaroo.

Sydney Observatory is a state heritage listed site and operates as a public museum and educational facility, offering highly successful programs and tours that provide unique telescope viewing experiences of the Southern Night Sky. As a direct neighbour to the proposed project, the development of Central Barangaroo has the potential to impact the utilisation and setting of Sydney Observatory.

Sydney Observatory is a significant site in Australia's scientific and pre- and post-colonial history. Geographically positioned on the highest point of Warrane (Sydney) and overlooking the harbour, it is considered a site of significance for the Eora nation. Beginning as the centre of scientific research of the colony of New South Wales, the site has a seminal role in the history of milling, defence, signaling, timekeeping, astronomy, surveying, and meteorology in Australia. It is recognised as an item of state significance on the NSW Heritage Register and is a unique heritage and tourism asset for Sydney and NSW as a working observatory.

The time ball, an iconic feature of Sydney Observatory since its construction in 1858 holds significance and cultural value. The purpose of the time ball was to visually communicate time to the colony and maritime vessels, it was designed to be visible from across Sydney Cove, including from the harbour and foreshore. The time ball is still operable and used as part of the museum's learning program. The proposed modification to the approved concept plan has been assessed to have an adverse impact on these views due to the cumulative loss of harbour views to and from the harbour foreshore.

Sydney Observatory's tours program introduces visitors to the highlights of the Southern Sky and includes experiences with both Australia's oldest working telescope and modern research-grade telescopes. The visible astronomical objects viewed through telescopes changes throughout the year, based on the movement of the planets, moon and the visibility of seasonal stars and constellations. Tours are conducted in the day and night, including viewing of the sun, moon and land-based objects during daylight hours.

Cumulative impacts from obstruction and light pollution because of increased urban development obstruct the visibility of many celestial objects from Observatory Hill, while also affecting the visibility of the time ball from across Sydney and its harbour. This submission is confined to the impact the proposed modification will have on Sydney Observatory.

Block 7 Tower Form

The previously proposed tower form for Block 7, with an increase in height from RL35 to RL73.7, raised significant concerns for Sydney Observatory. The Powerhouse is pleased that the concerns raised in relation to the tower have been taken into consideration. The remainder of this submission focusses on the impact of the current modification proposal as compared to the approved concept plan.

Architecture and Design

The proposed modification generally increases the height and gross floor area from the approved concept plan. The Powerhouse notes that the Heritage Impact Statement by GML Heritage (Appendix M, dated October 2023) concludes that the proposed modification will increase the impact of the development to Observatory Hill and Sydney Observatory, including removing a section of the harbour waterscape from Observatory Hill and impacting views of the time ball from nearby Pyrmont Bay.

The Powerhouse notes the recommendation from GML Heritage that the proposed built form in key locations could be reduced to optimise historical visual connections and respect the heritage significance of the setting. It is considered that further mitigation measures could be made in respect of heritage impacts of the proposal on Sydney Observatory, principally in relation to Blocks 5 and 6 which exceed the heights set out in the approved concept plan.

Whilst the proposed modification maintains views of the western horizon from Observatory Hill over the built form, it is recommended that rooftop planting be designed in a manner to preserve views of the horizon over time.

Light spill

The increase of built form in Barangaroo beyond the approved concept plan increases light spill in the area, impacting telescope viewing from Observatory Hill. The modification will increase the scale of buildings and resulting light spill. The proposed modification significantly increases the maximum residential cap which is likely to increase building utilisation during the evening and subsequent light levels. A light spill analysis has not been carried out to determine the impact of the modification or to recommend specific measures beyond current standards to reduce the impact on the function of Observatory Hill for telescope viewing. In order to adequately assess the impacts such light spill will have on the operation of the Observatory a detailed light spill analysis is recommended to be undertaken. This analysis should investigate ways in which light spill impacts to the Observatory could be minimised or mitigated through the design of the built form.

Sky View Assessment

The Powerhouse appreciates that the Sky View Assessment (Appendix E, dated 31 October 2023) has avoided the erroneous assumptions used in previous reports in relation to this development. As the proposed modification does not block the view of the horizon from Observatory Hill (subject to clarification around rooftop planting) and the report does not include a formal light analysis, the Powerhouse has not included detailed feedback on this report in this submission.

I trust these comments are useful to the Department of Planning, Housing and Infrastructure in the assessment of the modification.

If you require additional information or wish to discuss this matter further, please do not hesitate to contact Jeremy Kelshaw at jeremy.kelshaw@powerhouse.com.au

Yours sincerely



Lisa Havilah
Chief Executive