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Contact: Daire Fleming

15 December 2016

Department of Planning & Environment
C/- Andrew Hartcher
GPO Box 39
Sydney NSW 2001
E: Andrew.Hartcher@planning.nsw.gov.au

Attention: Mr Andrew Hartcher

Dear Sir

Re:

**Walsh Bay Arts Precinct Stage 2
Hickson Road, Dawes Point (SSD 7689)**

I refer to the above development proposal's Environmental Impact Statement (EIS) which is currently on public exhibition. Fire & Rescue NSW (FRNSW) has reviewed the following specific documents that are attached to the EIS exhibition:

- i. The 'Environmental Impact Statement – Main Report' (authored by MG Planning Pty Ltd [REF: 12-29(5)], Rev:3, dated 15 November 2016),
- ii. The 'Building Code of Australia (BCA) Assessment Report – Phase 2 – State Significant Development Application (SSDA) Documentation' (authored by Blackett Maguire and Goldsmith [REF: 160144], Rev:4, dated 14 November 2016),
- iii. The 'Infrastructure NSW – Walsh Bay Arts Precinct – Fire Engineering Report for SSDA' (authored by ARUP, Report No. 248853-00, Revision Issue, dated 26 October 2016), and
- iv. The 'Walsh Bay Arts Precinct – Operational Plan of Management 2016' (authored by MI Associates Pty Ltd, Version V2.1, dated 10 November 2016).



Comments/Observations

FRNSW notes that the development is located within a FRNSW Fire District pursuant to Section 5 of the Fire Brigades Act 1989 (the Act). Section 6 of the Act imposes a duty upon the Commissioner of FRNSW to take all practicable measures for preventing and extinguishing fires and saving life and property in case of fire.

To fulfil our statutory duties, FRNSW would undertake firefighting operations in the event that the proposed development was subjected to a fire incident (either an internal structure fire or an external fire threat) In terms of prioritising our statutory duties FRNSW would undertake actions that initially focussed on life safety (N.b. including members of the public and firefighters) and then property protection.

FRNSW standard operational guidelines do not permit vehicle access on to the Pier 2/3 and Wharf 4/5 at Walsh Bay given concerns associated with the structural adequacy to support the imposed loads of FRNSW vehicles.

FRNSW notes that the BCA Report identifies that the proposed development will include a number of different classifications being Class 5 (Office/Administration), Class 6 (Café/Restaurant/Bar), Class 8 (Production Workshops), Class 9b (Assembly Building) and Class 9b (Entertainment Venue). Due to the building's rise in storeys, Section 7.0 of the BCA Report identifies that the proposed building is required to be 'Type A' Construction (i.e. Clause C1.1 and Table 1.1 of the deemed to satisfy [DtS] provisions of the BCA).

The BCA Report also highlights that it is proposed to rationalise the fire resistance levels to 60 mins in lieu of Type A construction requirements and that this departure from the relevant DtS provisions of the Code is to be addressed by a fire engineered solution that is intended to meet the relevant performance requirements. It is FRNSW's understanding that a minimum fire resistance level of 60/60/60 is proposed as advised during the emergency services meeting No. 2 on 12 December 2016. Given the state heritage significance of the existing structure together with the anticipated use and potential difficulties that may arise in relation to fire brigade intervention and fire fighting, FRNSW recommend that the fast response sprinkler system be installed throughout the development with no exceptions.

The proposed fire strategy focuses on compartmentation and occupant egress (N.b occupants may include disabled occupants which will be required to be considered as part of the assessment – see Part D3 of the Appendix 1 'Building Code of Australia Assessment Report' – Access for Persons with a Disability).

In the building's proposed configuration with the workshop being at the front of Pier 2/3 there is potential for a fire to cause significant property loss and increase the risk to occupants evacuating the Wharves.

Without enhancement of the essential fire safety measures throughout the development, FRNSW ability to protect property at risk and fulfil our statutory duties would be severely constrained.



Within the context of enhancing the proposed development's design so that FRNSW capability to fulfil our statutory duties is maximised, thereby minimising the potential for life and property loss, the following recommendations are submitted for consideration:

Recommendations

1. That the maximum compartment size is to be maintained within 2000m² floor area to limit the risk to occupants and fire fighters in the event of an emergency. FRNSW recommend that adequate compliant separation be provided between compartments to limit fire/smoke spread throughout the development and that new compartment walls shall comply with minimum requirements of the NCC. Limiting the compartment sizes will provide a sufficient period of time to afford first responders with an opportunity to protect property on arrival.
2. That a full quantitative egress strategy of the wharves and piers together with the public domain be undertaken to assess the time taken to evacuate the area in the event of an incident that requires full and immediate evacuation such as a hazmat or terrorist act. FRNSW have concerns regarding timely access to the area during an emergency incident. It is expected that a staged evacuation of the precinct may not be acceptable in the event of such an incident and that there may be significant delays regarding accessing the area during mass occupant evacuation of the area. It should also be noted that FRNSW do not have the ability to utilise the proposed water based fire tender that has been assumed in Section 3.9 – Fire Brigade Access of the fire engineering report and that access will be via Hickson Road.
3. With regards that “appropriate protection of unprotected openings”. In the event that the calculations show excess received radiation, consideration should be provided to the “holding capacity” of the apron and how close occupants could potentially be to these unprotected openings.
4. That the egress design proposed for the subject development should take into consideration the effects associated with stairs and lifts being contained within the same fire isolated shaft as identified on page 18 of the BCA report
5. That all Performance Solutions which rely on egress strategies should take into consideration the delays associated with the proposed double knock style of system (where two smoke detectors or one smoke detector and one manual call point are used). See Section 3.5.2 second paragraph, page 16 of the FER for SSDA. This system may have major egress and fire brigade intervention ramifications in the event of arson or a terrorist attack which should be considered as part of the assessment.
6. That adequate justification is provided for proposing a 4-6 minute staging evacuation delay between zones for the subject development as outlined on page 17 of the FER for SSDA. This delay may have major egress and fire brigade intervention ramifications in the event of arson or a terrorist attack.
7. That a fast response sprinkler system be installed throughout the development without exception. Additional enhancement of the system above these requirements would be welcomed by FRNSW.



8. With regards to the installation of a smoke exhaust system, FRNSW do not consider the requirement as stipulated in the National Construction Code to be an onerous requirement as suggested in Section 3.8 of the fire engineering report. With consideration to the reduced fire resistance levels proposed together with occupant loads characteristics and the limited fire brigade access, FRNSW recommend the installation of a smoke hazard management system to limit fire consequences for current and future use. FRNSW does not consider future fire engineering reviews and reassessments to be an appropriate approach in future-proofing the design of a state significant development.
9. That the fire hydrant system is designed in accordance with the requirements of Australian Standard [AS] 2419.1 – 2005), consideration may need to be given to the relocation of the hydrant boosters to improve fire fighter access.
10. That the facility's emergency plan consider the specific needs of disabled occupants and that appropriate evacuation management measures are implemented to ensure that all occupants can be safely evacuated.
11. FRNSW recommend that that the existing base building Fire Engineered Solution for the Shore Sheds titled "TM Management Services Pty Ltd, Walsh Bay Shore Studio 2 and 3, Fire Safety Assessment Report August 2003" be reviewed to ensure that the new works do not impact on existing requirements associated with previous report. The FER should also confirm that the existing requirements have been considered and any impacts on the new proposal have been addressed.
12. With consideration to the proposed atrium, enhanced fire safety system may be required to be installed throughout the development to ensure occupant evacuation can be conducted within an accepted time period.

For further information, please contact Daire Fleming of the Fire Safety Advisory Unit, referencing FRNSW file number BFS16/2630 (12178)). Please ensure that all correspondence in relation to this matter is submitted electronically to firesafety@fire.nsw.gov.au.

Yours faithfully



Daire Fleming
Manager
Fire Safety Advisory Unit
Community Safety Directorate

