

13 October 2021

Ms. Ingrid Berzins
Planning Officer, Social and Infrastructure Assessments
Department of Planning Industry and Environment
4 Parramatta Square, Locked Bag 5022, Parramatta NSW 2124
By email: Ingrid.Berzins@planning.nsw.gov.au

Dear Ms. Berzins,

Re: St John of God Richmond Hospital Redevelopment (SSD-10394) Response to Submissions

I refer to the email from letter from Ms. Ingrid Berzins, from the NSW Department of Planning Industry and Environment (DPIE) dated 24 September 2021 regarding the bushfire matters to be incorporated into the final documentation for the State Significant Development of the existing St John of God Richmond Hospital at 177 Grose Vale Road, North Richmond, 2754 (Lot/Section/Plan no: 11/-/DP1134453) in Hawkesbury.

The DPIE email of 24 September 2021 states:

In alignment with the assessment undertaken by the Department's bushfire consultant, the following protection measures are to be incorporated or detailed in the final documentation provided as part of the RFI:

- *the architectural plans are to be updated demonstrating that the proposed buildings are constructed to BAL-FZ. As the Garden Pavilion is attached to the Residential Pavilions, PBP 2019 does not allow any downgrade of Bushfire Attack Level (BAL) when any part of the building is situated within BAL-FZ. For this reason all new construction is to be in compliance with Section 3 and Section 9 (BAL-FZ) of Australian Standard 3959:2018 Construction of buildings in bushfire areas.*
- *provide detail of a designated safe refuge on site that is upgraded to BAL-FZ construction in accordance with Sections 3 and 9 of AS3959:2018 and fire separated from any adjoining structures. The refuge building must have sufficient space for all occupants and comply with the occupancy levels permissible for that structure.*
- *confirm that the landscaping proposed will be managed as an inner protection area (IPA) in accordance with Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service's document Standards for asset protection zones.*
- *detail the location of a 20,000 litre static water supply on site for firefighting purposes, additionally confirm that the water supply on site is in accordance with Table 6.8c of PP 2019.*

The project team have previously responded to a request for additional information from the RFS on 6 April 2021, an online meeting with DPIE and the St John of God team on Wednesday, 4 August 2021 and a subsequent response to submission dated 13 August 2021.

This most recent request from DPIE have introduced new considerations into the project that are not in keeping with previous responses or issues. The DPIE RFI does not reflect the sites low bushfire risk and the existence of the site as infill development. In earlier RFS correspondence, the RFS did not raise concern with the Residential Pavilions or the Garden Pavilions as the RFS accepted a lower bushfire risk and the nature of the redevelopment being redevelopment of the existing facilities which makes the application infill Special Fire Protection Purpose (SFPP). The RFS acceptance of the site as low risk is reiterated in the letter of 28 July 2021 which states:

The site is exposed to low risk in terms of bush fires and the proposed works can be considered as SFPP infill development.

Despite the redevelopment within the site being agreed by the RFS as being 'exposed to low risk in terms of bushfires', St John of God have taken a conservative risk-based approach in accordance with *Planning for Bushfire Protection 2019* to provide a better bushfire risk outcome with the redevelopment than currently exists on site.

The Bushfire Assessment Report for St John of God Hospital redevelopment, North Richmond by Blackash Bushfire Consulting dated 20 February 2020 (and as modified 4 May 2021 to address RFS issues) (Bushfire Report) identifies that the hospital is existing and is infill SFPP development and should be used as the basis of assessment by DPIE. This has been accepted by the RFS. The most recent email from the DPIE is of concern to DPIE as it introduced new considerations to the mix which is not in keeping with the low bushfire risk posed to the site.

The following is provided in response to the request for additional information and the items listed in the DPIE email.

Issue Raised

- 1. the architectural plans are to be updated demonstrating that the proposed buildings are constructed to BAL-FZ. As the Garden Pavilion is attached to the Residential Pavilions, PBP 2019 does not allow any downgrade of Bushfire Attack Level (BAL) when any part of the building is situated within BAL-FZ. For this reason all new construction is to be in compliance with Section 3 and Section 9 (BAL-FZ) of Australian Standard 3959:2018 Construction of buildings in bushfire areas.***

A detailed site analysis of the proposed construction levels (Bushfire Attack Levels) of the buildings was submitted with the application (see Appendix 1).

The NSW Rural Fire Service (RFS) document *Planning for Bushfire Protection 2019* (PBP) provides the framework for the consideration of infill Special Fire Protection Purpose (SFPP) development stating that (p. 52):

The intention for any building work occurring within an existing SFPP development is to achieve a better bush fire outcome than if the development did not proceed. Achieving this may require a

combination of measures including improved construction standards, APZs and evacuation management. This may result in a level of retrofitting of existing buildings and managing other portions of the site (i.e. APZs) to ensure an improved level of bush fire protection.

The determination of what constitutes a “better bushfire outcome” is not specified in criteria within PBP and is a somewhat subjective requirement relying on the approach of the Level 3 BPAD practitioner working in collaboration with the design team to come up with a reasonable and balanced outcome that reflects the risk for the site and which provides for a better bushfire outcome than currently exists on site. The deliberation and design associated with the proposed development has been worked through since late 2019 to provide the best outcome for the site in relation to bushfire issues. As noted earlier in this response, the RFS have accepted the site as being low risk.

Following the discussion with DPIE on the 4 August 2021, St John of God have repositioned Pavilion 4 so that it is within the existing building footprint and the Wellness Centre to be at BAL 29.

The DPIE response states that:

PBP 2019 does not allow any downgrade of Bushfire Attack Level (BAL) when any part of the building is situated within BAL-FZ

The PBP 2019 does not provide for the construction standards for buildings. Construction requirements are presented through the *Building Code of Australia (BCA)* which uses the *Australian Standard for Construction of Buildings in Bushfire Prone Areas (AS3959)* as providing the acceptable solutions or deemed to satisfy provisions for new construction. The AS3959 requires the determination of the highest BAL affecting a building. Importantly, the AS3959 (section 3.5 of AS3959 2018) provides for the reduction in building construction requirements due to shielding which states:

Where an elevation is not exposed to the source of bushfire attack, then the construction requirements for that elevation can reduce to the next lower BAL. However, it shall not reduce to below BAL—12.5.

An elevation is deemed to be not exposed to the source of bushfire attack if all of the straight lines between that elevation and the source of bushfire attack are obstructed by another part of the same building (see Figure 3.1). However, it shall not reduce to below BAL 12.5.

PBP states the above (p. 86) and also adds:

Reduced construction requirements do not apply where any elevation is BAL-FZ unless justified with an appropriate performance-based demonstration of the shielding.

The Bushfire Hazard Assessment and subsequent documentation provided a performance-based report supporting the application. The performance-based application determined the BAL for all buildings as shown in Appendix 1 and recommended that the construction levels be reduced commensurate with the low risk and as provided for within the AS3959. The rear (non hazard side of the buildings) sides of the buildings are not exposed to a bushfire fire source feature and the BAL assessment within the BHA, steps the construction levels down commensurate with the risk and shielding provided to the buildings.

The condition that DPIE are seeking to impose is above the AS3959 and adds significant cost to the project for no net gain.

Similarly, the Garden Pavilion is significantly removed from the low bushfire risk and is within BAL 12.5 as demonstrated in the BHA. The condition to unduly require this building to be upgraded 4 BAL levels above the actual BAL is unreasonable and not in keeping with PBP or AS3959.

Considering the low risk of the site, the BALs as shown in Appendix 1 should be relied upon and conditioned by DPIE.

- 2. provide detail of a designated safe refuge on site that is upgraded to BAL-FZ construction in accordance with Sections 3 and 9 of AS3959:2018 and fire separated from any adjoining structures. The refuge building must have sufficient space for all occupants and comply with the occupancy levels permissible for that structure.***

The safe refuge is provided within the Garden Pavilion which is at BAL 12.5 (see Appendix 1) in accordance with the determined BAL levels for the building.

As outlined above, there is no requirement in PBP or AS3959 to provide this building as BAL Flame Zone. This condition is not in keeping with the bushfire risk or the determined BAL at the building.

The dining area which is intended to be used as the refuge will be fire isolated with in a two hour fire rated compartment and therefore fire separated from the remainder of the building.

However, it must be noted that the refuge is provided as a redundancy and the primary response in the event of fire is to evacuate the site to alternative locations.

- 3. confirm that the landscaping proposed will be managed as an inner protection area (IPA) in accordance with Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service's document Standards for asset protection zones.***

The landscaping can comply with the RFS Standards for Asset Protection Zones. This can be provided as a condition of consent.

- 4. detail the location of a 20,000 litre static water supply on site for firefighting purposes, additionally confirm that the water supply on site is in accordance with Table 6.8c of PBP 2019.***

The site is serviced by an existing reticulated hydrant system and an extension of this system for the new development. The RFS in previous responses have not flagged or required a separate 20,000L water tank for firefighting purposes.

PBP does not require a separate static water supply for firefighting purposes where reticulated supply is provided. The external ring main and boosters meets the PBP requirements for the provision of water for firefighting purposes as per Table 6.8c.

Compliance with PBP Table 6.8c can be a condition of consent.

It should be noted that the new buildings will be built in accordance with the Building Code of Australia (BCA) which will provide internal fire protection above the requirements of AS3959 and PBP. The internal fire detection, suppression and fire safety provisions will complement the external construction which will be completed in accordance with AS3959.

The BCA internal fire services include:

- Internal fire detection and sprinkler systems for a Class 9A hospital. The automatic suppression system is to be installed in accordance with BCA 2019 and AS 2118.1 – 2017 with fast response heads.
- A smoke detection system is to be provided in accordance with BCA 2019 and AS 1670.1 – 2018. The Xavier and Residence buildings are required to have a reduced detector spacing, with the maximum spacing being 10 x 10 m.
- A fire hydrant system is to be installed in accordance with AS2419.1-2005
- Fire Hose Reels will meet the requirements of BCA 2019 and installed in accordance with AS 2441 – 2005 with exception (as agreed by NSW Fire and Rescue) to the following:
 - Fire Hose Reels are to be omitted from the residential portions of the development.
 - Fire extinguishers are to meet the requirements of BCA 2019 and installed in accordance with AS 2444 – 2001 with exception to the following design requirements limiting the locations extinguishers are provided:
 - In locations where FHRs would otherwise be required within the Administration Building.
 - Fire extinguishers are to be provided in all staff stations.
 - Fire extinguishers are to be provided in the locations shown in the figures below. Fire extinguishers not within the staff station are permitted to be locked within a cabinet that is to be openable by all staff members.
- Fire compartments as per the BCA for a Class 9A. Residence areas being split into fire compartments bounded by 120/120/120 FRL construction and not exceeding 500m²
- Smoke compartments
- Smoke doors/ fire doors
- Emergency lighting and exit signage will be installed in accordance with AS2293.1-2005

An external ring main and boosters are also provided for firefighting purposes. This meets the PBP requirements for the provision of water for firefighting purposes as per Table 6.8c.

Conclusion

The redevelopment within the site is agreed by the RFS as being infill SFPP development which is 'exposed to low risk in terms of bushfires', Blackash and the project team have taken a conservative risk-based approach in accordance with PBP to provide a better bushfire risk outcome with the redevelopment than currently exists on site.

As required by PBP, an appropriate combination of Bushfire Protection Measures has been provided for the redevelopment which demonstrably provides for a better bushfire outcome for the site as a result of the proposed works. The application demonstrates a better outcome by a combination of measures including:

- improved construction standards in accordance with the BCA through AS3959 for the new buildings
- internal fire protection for the new buildings in accordance with the BCA for fire spread, mitigation and suppression which augments the external resilience of the buildings to the impact of bushfire (construction in accordance with AS3959)
- the site will be managed as an asset protection zone with a Vegetation Management Plan to guide the works
- an updated emergency management and evacuation plan that includes provision for bushfires
- access that is available within the site for MR fire fighting vehicles. Access is provided within the site for MR fire appliances. A swept path analysis is provided at Attachment 4 showing access throughout the site.
- water supply in accordance with PBP for firefighting purposes.

The redevelopment has considered and responded to the low bushfire risk posed to the site for occupants and firefighters with a suite of measures that meets PBP, the BCA and AS3959.

Throughout the design of the proposal and through engagement with agencies, the project team have considered and responded to bushfire risk and requirements in a sensible manner that recognises the constraints associated with the site and the requirements within PBP.

St John of God are concerned that DPIE are seeking to impose conditions over and above that required by PBP and AS3959 that are not in keeping with the low bushfire risk of the site. These conditions introduce significant cost to the project which is not substantiated by DPIE or required to demonstrate a better bushfire outcome for the proposal.

This document and earlier responses continue to demonstrate that the objectives for existing SFPP facilities have been met and the DPIE should be confident of approving the application considering the information provided within the Bushfire Hazard Assessment and the additional information provided to the RFS and DPIE (including this letter).

If you require any further information or have any queries, please do not hesitate to contact me on 0419 203 853.

Yours sincerely,



Lew Short | Director
Blackash Bushfire Consulting



