

Application of 'shielding' in the Bushfire Management Overlay



This Fact Sheet outlines CFA's approach to the shielding provisions of Australian Standard 3959 – Construction of buildings in bushfire-prone areas when developing in the Bushfire Management Overlay (BMO).

The Shielding Provisions

When building in the Bushfire Management Overlay (**BMO**) there is a requirement to provide an amount of defensible space (vegetation management) around the building in order to limit the severity of a buildings potential exposure to:

- ember attack
- radiant heat
- and direct flame contact.

The amount of defensible space influences how a building needs to be constructed. This is done through the specification of a Bushfire Attack Level (**BAL**), typically as a condition on the relevant planning permit by way of a Bushfire Management Plan.

If a BAL is specified on a planning permit, then the Relevant Building surveyor involved in the project must accept that assessment as part of the building permit process (Reg 156, *Building Regulation 2018*).

Australian Standard 3959, Construction of buildings in bushfire-prone areas (**AS3959**) outlines a range of different requirements depending on the specified BAL.

Section 3 of AS3959 applies to all BAL's, and this section includes clause (3.5) which is titled "Reduction in construction requirements due to shielding". This is referred to as the "shielding provisions", 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. However, it shall not reduce to below BAL-12.5.

The shielding of an elevation shall apply to all the elements of the wall, including openings, but shall not apply to subfloors or roofs."

CFA's approach to the application of the shielding provisions is guided by the type of development and the level of risk.

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Low Risk Areas

A planning permit issued via the BMO will typically include a consistent defendable space distance around the building.

Similarly, the permit will typically specify that the building must be constructed to a single BAL which corresponds to the amount of defendable space provided.

Applying this BAL means compliance with Section 3 and the relevant other parts of AS3959. For example, if BAL-29 is specified then this means compliance with Sections 3 & 7 of AS3959.

The Relevant Building Surveyor must ensure that the building complies with the relevant sections of AS3959 for the determined BAL. This includes the shielding provisions of clause 3.5 (see Figure 1 below for examples).

In practice this means that if a BAL-29 construction standard is applied, then the shielded elevations could be constructed to meet BAL-19 requirements.

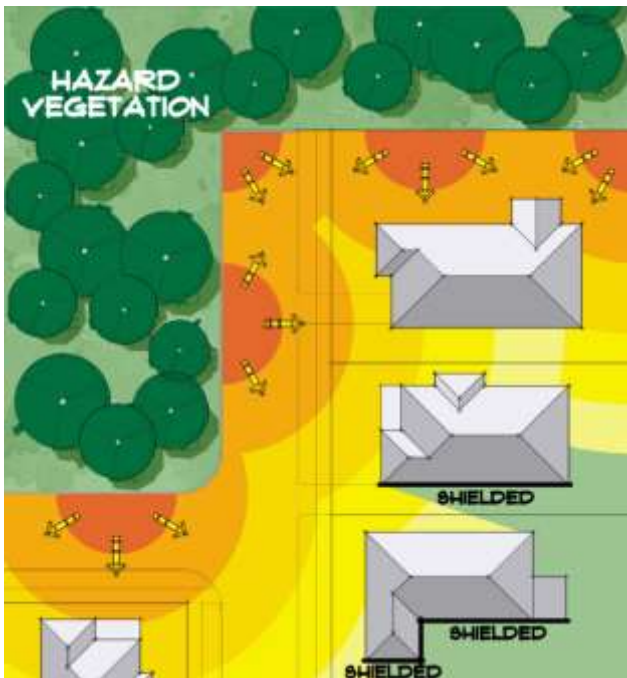


Figure 1 - Examples where it may be appropriate to apply the shielding provisions for low risk development.

High Risk Areas

There are situations where CFA may expressly state that the shielding provisions in clause 3.5 of AS3959 should not apply as part of a planning permit condition (or on a Bushfire Management Plan).

If this occurs, then CFA's expectation is that the Relevant Building Surveyor does not apply the shielding provision in AS3959. Doing so would result in a building permit that is inconsistent with the planning permit.

Situations where CFA may expressly state the shielding provisions do not apply may include:

- **Flame Zone (BAL-FZ)**

As the name suggests, flame contact is likely and the relevance of shielding is no longer limited to simply radiation. Flames have the potential to wrap around the building to elevations that may be otherwise shielded from radiation.

- **High risk Type 3 or 4 landscapes**

The BMO Technical Guide (DELWP) includes a methodology for determining a level of landscape risk.

In landscapes where there is significant risk there is a need to be very conservative in how a development occurs in order to meet the objective of the States Bushfire Planning Policy. The application (or misapplication) of shielding is likely to be critical to the safety of building occupants in these landscapes.

For more information on the shielding provisions please contact CFA's Bushfire Planning Team on 03 9262 8444.