

## Fire Research & Investigation Unit

# Heads Up

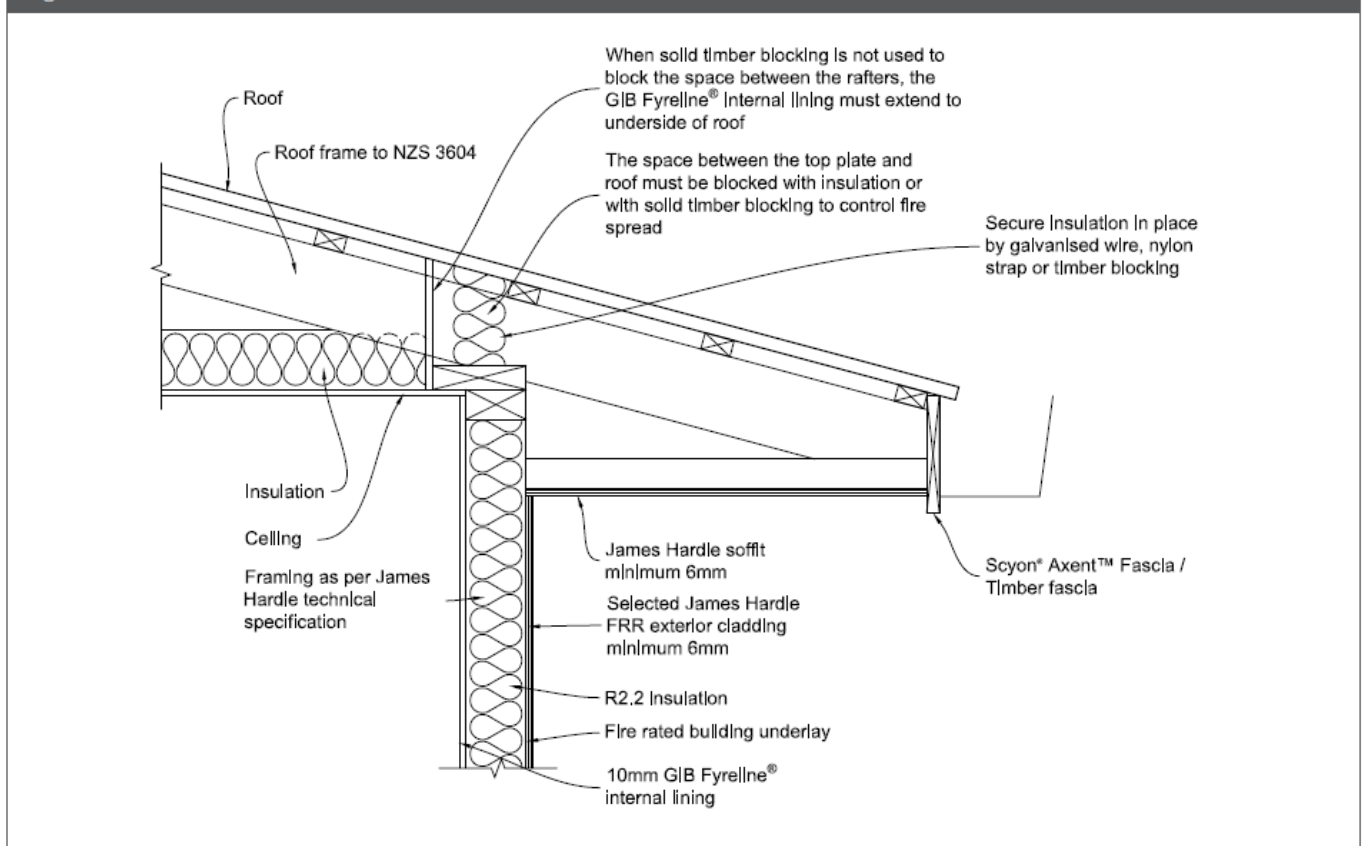


### BACKGROUND

The space between soffit boards and roof eaves have provided a pathway for fire to spread between firecells unseen. Building legislation requires construction and materials to prevent fire spread in this way. The Fire Service have encountered examples where separation is not always maintained. This is commonly observed in older buildings that have had soffits replaced.



Figure 6: 30 minute fire rated soffit



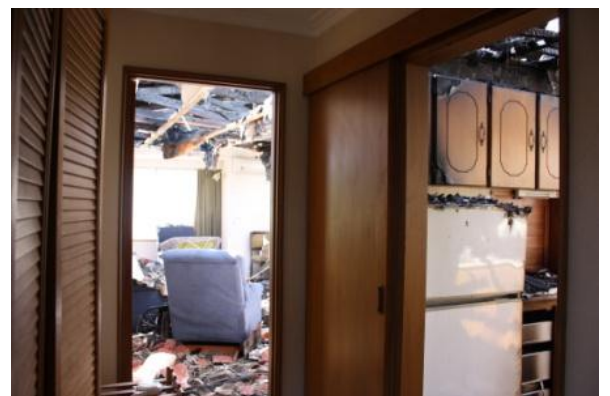
*A manufacturer's specification showing soffit installation which maintains fire separation.*

## INCIDENT DETAILS

A recent house fire investigated by the Fire Service involved fire travel, through roof eaves and across firecell boundaries due to the fire separations not being extended into the eaves spaces (see below). Drop down burning occurred into multiple residential units causing significant damage to the building and property



Photos showing damage in adjacent units as a result of fire spread.



## FURTHER INFORMATION

The potential for fire spread by this route has been identified in several other multi-tenancy residential buildings.

## LESSONS LEARNED/RECOMMENDATIONS

These instances have highlighted the need for building owners, inspectors and NZFS staff to be aware of the risk of fire spread via roof eaves.

- Building designers should include specific construction details to address fire spread by this path.
- Building inspectors should be vigilant for non-compliant designs and construction
- NZFS staff should be vigilant for fire spread across firecells resulting from this form of construction