

Altis Frasers JV Pty Ltd  
Level 3, 1C Homebush Bay Drive  
Rhodes NSW 2138

**Attention: Paul Solomon**

**RE: DA Support | Ardex Facility | 657-769 Mamre Road, Kemps Creek (proposed Lot 12)**

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The purpose of this statement is to provide confidence to the Consent Authority that prior to the issue of Development Application (DA) Consent, that the proposed development to construct, fit out and operate a manufacturing facility and associated warehouse facility at 657-769 Mamre Road, Kemps Creek (proposed Lot 12) will be formally reviewed by an Accredited C10 Fire Safety Engineer.

The proposed site contains a single large isolated building used as a manufacturing, warehousing and distribution facility for Ardex. The building will consist of 2 floors in accordance with the BCA definition of a floor and multiple service/maintenance levels and two operational mixing towers. The building has been defined by the BCA consultant to be required to be constructed of Type C construction. The development will incorporate the required fire safety systems of large isolated building, including but not limited to, sprinkler protection, smoke hazard management systems, fire hydrant and fire hose reel coverage, fire and smoke compartmentation and brigade vehicular access.

In undertaking this review Affinity Fire Engineering has reviewed the Development Application submission architectural drawings prepared by Pace Architects (Project: 210618, DA Submission plans, dated 06/09/2021) and the BCA compliance Report provided by Modern Building Certifiers Pty Ltd (Revision: 01, Dated: 22/09/2021) and have provided fire safety engineering advice through emails, meetings, mark ups and Ardex technical workshops with recommended design changes that have been incorporated in the DA set of plans in order to achieve a level of safety that enables the design to meet the performance provisions of the BCA.

Based on these documents, our review and advice provided, Affinity Fire Engineering confirms that the proposed design incorporates features that are intended to meet the performance provisions of the BCA through the formal Fire Engineering process.

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In particular, the fire safety strategy and fire engineering design shall focus on the following site critical design elements in order to confirm compliance with the Performance Requirements of the BCA:-

- ▶ Occupant egress in the event of a fire emergency and the maintenance of tenable conditions for occupant evacuation and fire brigade intervention;
- ▶ Fire and smoke spread throughout the building and its impact on occupant egress;
- ▶ Site access and fire services design to facilitate fire brigade intervention.

Based on the advice provided by the BCA Consultant the fire safety strategy and associated reports shall incorporate assessment of the following Fire Engineering items:-

- ▶ Assess the allowance of fire shutters within the DG Separation wall which do not have the required FRL of -240/30 – BCA Clause C1.1
- ▶ Rationalise the emergency vehicular access around the facility which in multiple locations is greater than 18m from the building (up to 50m), and has security gates and boom gates crossing over the roadway – BCA Clauses C2.3 and C2.4.
- ▶ Assessment of egress provisions (up to approximately 90m to the nearest exit and 180m between alternative exits – including awnings) and rationalised smoke hazard management requirements in order to demonstrate safe occupant evacuation and fire brigade intervention – BCA Clauses D1.4, D1.5 and E2.2.
- ▶ Assess the location of the fire hydrants underneath awnings being classified as external hydrants and the removal of FRL protection 90/90/90 behind the external hydrants – BCA Clause E1.3 / AS2419.1:2005.
- ▶ Assess the location of the fire hydrants being greater than 50m from a hard stand – BCA Clause E1.3 / AS2419.1:2005.
- ▶ Assess the adoption of 50m fire hose reels in order to achieve coverage of the warehouse (in lieu of 36m long hose reels) – BCA Clauses E1.4.
- ▶ Assess the location of the sprinkler tanks and sprinkler boosting equipment situated in locations that do not conform with the relevant Australian Standards - BCA Clause E1.5 / AS2118.1:2017.
- ▶ Rationalise the location of the exit signage within the facility on order to reduce the signs being impacted on by fork lifts and the like – BCA Clauses E4.6.

Unless identified above, all other matters are expected to achieve compliance with the BCA.

The subject design for the industrial manufacturing and warehouse and distribution facility for Ardex is considered by Affinity Fire Engineering to not compromise the expected fire safety strategy, fire brigade intervention or conformance with the building regulations. Hence, Affinity Fire Engineering anticipate that the fire safety engineering assessment to be conducted as part of the Construction Certificate stage will achieve compliance with the Performance Requirements of the BCA.

It is noted that this document should not be used for Construction Documentation as the formal fire engineering process and assessment is required to be completed prior.



We trust that the above information is sufficient for Consent Authority's needs with respect to fire safety design and compliance with the relevant building regulations in this regard. Should any further information be required for a determination to be made please contact the undersigned on 02 9194 0590.

Yours faithfully

A handwritten signature in black ink, appearing to read 'TOD'.

**Thomas O'Dwyer**

Director,

Affinity Fire Engineering

Fire Safety Engineer - BDC 0766

M: 0499 977 202