

Level 6, 189 Kent Street, Sydney NSW 2000

To Whom It May Concern

# RE: 4-6 Parramatta Square Section 4.55 (2) - Supporting Statement

I refer to the enclosed Section 4.55 (2) submission incorporating amendments to the Development Approval DA/436/2016/H for 4-6 Parramatta Square.

#### Photo Voltaic (PV) solar array

The amended roof design facilitates the inclusion of a PV solar arrangement, which is a Tenant requirement for Ecologically Sustainable Development (ESD) purposes and contributes to the Tenant's targeted 6-Star Green-star fitout rating. The addition of the PV solar array has resulted in a number of additional building requirements to ensure compliance with the Building Code of Australia (BCA) is met.

### **Building Code of Australia (BCA)**

The S4.55 (2) includes a core pop-up to provide stair access and egress to the roof level. This is required for the following reasons:

- 1. Under the BCA, PV solar arrays are defined as plant;
- 2. Pursuant to clause D1.16 of the BCA, a ladder may only be used as an exit where the plant area does not exceed 100sqm;
- 3. The PV solar array on 4 Parramatta Square totals approximately 524sqm.

Accordingly, the roof access design of 4 Parramatta Square cannot rely on ladder access, and must have fire stair access and egress provided in order to comply with code.

### Fire and Rescue New South Wales (FRNSW)

FRNSW considers PV solar plant has an inherent risk profile and thus requires direct access and egress to and from the PV solar array. Accordingly, FRNSW do not typically endorse Alternative Solutions regarding access and egress to PV solar arrays. A Deemed to Satisfy (DtS) solution should therefore be relied upon.

#### <u>Egress</u>

Stair access and egress is classified as Category 2 Fire Safety Provision (EP2.2) under the BCA. Where an exit is proposed to be deleted, this triggers a section 144 referral to FRNSW. Alternative Solutions in this context are typically not supported.

Further, BCA DtS provisions requires two fire isolated exits (cl. D1.2 and cl. D1.3) and travel distances in accordance with clause D1.4 of the BCA. The proposed S4.55(2) design complies with these requirements.

## Safety in Design

Hatches and ladders as the main points of access/egress to a roof level are discouraged, as they increase the risk exposure to building maintenance workers. PV solar arrays typically require frequent maintenance, waterproof maintenance and cleaning and are therefore considered heavily trafficked maintenance areas.

The proposed core pop-up ensures building compliance and safety in design is maintained, and determination of the S4.55 (2) proposal should therefore be considered in light of the above.

Yours faithfully,

Jelon

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