

08.02.13

Our Reference
12.338
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Mr Ben Shaw
Brompton Group Pty Ltd
100 Cumberland Street
The Rocks, Sydney NSW 2000

Dear Ben

**RE: Capability Statement for DA Submission
The Australian Hotel, 100-104 Cumberland Street, The Rocks**

We have reviewed the draft report prepared by Philip Chun, Building Code Consulting, dated 16th January 2013. Based on our review of the report, we understand there are several items upon which the structural engineer will be required to provide comment, and the following addresses each of these:

Structural Adequacy of External Walls and Fire

Based on a review of the building structure, we understand that the perimeter walls are a combination of 350 and 230 masonry walls. The 350 section of wall runs up to the underside of the first floor framing, with the 230 walls continuing thereafter. We understand that the wall along the southern boundary is a minimum 230 masonry wall throughout. We confirm that this wall will achieve an FRL of 180/180/180. It is proposed that any extensions to this wall be completed in a wall system that will maintain the FRL levels designated by the fire engineering report.

As such it is our opinion that the walls will satisfy the code requirements.

Structural Provisions

We confirm that all new structural works will be constructed in accordance with the current Building Code of Australia and Australian Standards requirements.

In relation to the existing section of the building that will not be touched, we comment as follows:

Based on our review of the existing building, we understand that there are defects in the first floor framing that will mean that the existing first floor structure does not comply with the requirements of the current Australian Standards. In particular, the framing members that run from the central spine beam, extending from the central core out to the perimeter wall, which have split, and it is our concern that these joists will continue to deteriorate over time.

To fully understand the capacity of the existing structure, a detailed examination of the condition of the joists around the perimeter walls would need to be completed to confirm that there is no damage to these joists. This can only be done once sections of the floor or ceiling fabric are opened up for investigation. It would be our recommendation that these works be completed in the short term to maintain the structural integrity of the first floor system.

Given that extensive works are proposed on the building, it is our opinion that the opportunity should be taken to rectify the deficiencies in the first floor structure at this time. It is our opinion that the most appropriate way to complete this would be to carefully lower the existing ceiling throughout the ground floor area, assess all floor joists, repair damaged sections and strengthen as required, and then reinstate the ceiling.

We have suggested that the works be completed from beneath, however the remedial works could be completed from above. Works to reinstate floor joists from above would require that the flooring be removed throughout, and sections of the lath and plaster walls to be demolished to allow for the installation of the new floor joists.

We also note that it is difficult to complete a thorough assessment of all the structural elements associated with the lower levels of the building due to the fact that they are generally covered by finishes, in particular, the central column in the bar, which should be investigated to confirm its capacity, along with confirmation of the condition of the primary steel beams throughout the first floor.

Fire Resistance Levels

The fire resistance stability of the building in relation to the upper level will be impacted by the fire resistance applied to the members throughout the lower levels of the building. The load will be transferred down through the masonry walls, and as such the fire rating requirements for these perimeter walls will be acceptable.

We note that there is a column running through the centre of the bar that will need to be assessed for compliance with fire rating, as it is highly likely that this column, and definitely the beam above, will not be fire rated. These elements support the first floor structure. It is possible that if the works are completed associated with the repairs to the first floor, that the finishes to both these elements can be stripped back and appropriate fire rating installed. It is even possible that at this time a layer of fire rating could be installed to the underside of the floor structure prior to the reinstallation of the feature ceilings.

Existing Fire Stairs

We note that at this point in time the structure associated with the northern stair is fully enclosed. Based on our investigation to date, we believe that several sections of the underside of the stair will need to be opened up to provide clarity as to the size and configuration of some of the elements. Once these elements are opened up, we will be able to finalise a report stating the works that need to be done, if any, to ensure that the stair complies with the load requirements of AS 1170.1.

Earthquake Code

We note that the building is being upgraded in a manner that will substantially improve the stability of the building in relation to earthquake. It is proposed to tie the reinforced concrete slab into the existing masonry walls and lift core, thus anchoring the roof level with a diaphragm. It is also proposed to tie the parapets back to a steel structure running around the perimeter of the upper level.

At this time it is not proposed to complete works to the first floor. As such, no upgrade of this element is proposed to comply with current earthquake codes.

Based on our assessment of the building, it is our opinion that the works proposed will not have an adverse impact on the integrity of the building in relation to earthquake, and will in fact improve the integrity of the building.

If you have any questions, please don't hesitate to contact the undersigned.

Yours sincerely

ASHBY DOBLE PTY LIMITED

A handwritten signature in black ink, appearing to read 'Scott Doble', with a stylized flourish at the end.

Scott Doble