

Reference: SW:DA LTR/S 13037

09th September 2016

Brookfield Office Properties
Australia Commercial Operations
Level 22, 135 King Street
SYDNEY NSW 2000

Attention: Mr Mike Russell

Dear Sir,

**RE: WYNYARD PLACE, SYDNEY
SHELL HOUSE – SECTION 96 SUBMISSION**

Further to the your request regarding the Shell House Section 96 Submission, please find below a summary of the site investigation and testing undertaken for Shell House and our recommendation for modification of the existing building.

The Shell House design documentation issued in October 2015 considers retaining the eastern, northern and western façades and clock tower of the Shell House with the southern facade and internal structure proposed for demolition and rebuild.

The structural basis of design and construction outlined in the above design documents also considers retaining the existing floor structure for the first structural bay immediately adjacent to the retained facades to assist with the demolition and rebuild of Shell House. The purpose of retaining this section of existing floor was to provide temporary lateral support to the façade during demolition and construction by forming part of the temporary façade retention system and then to be incorporated into the final permanent floor structure.

The proposal for utilising the existing floor structure was subject to a detailed investigation of these elements to confirm condition, design working life and compliance with the latest Australian Standards.

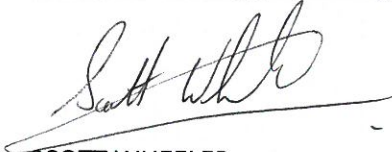
Site investigation works and material testing has now been undertaken for Shell House. The results of the investigation confirm the integrity of the existing concrete floors is significantly affected by a magnesite floor topping. This topping has led to the aggressive deterioration of the slab reinforcement due to the high chloride ion content. As a result, the structural integrity of the floor is substantially compromised and cannot be relied upon as proposed for the temporary works, or to achieve an extended design life and perform in the permanent condition for the new development.

Further to the above structural investigation, it is recommended the Section 96 Submission should incorporate the full demolition and replacement of the existing Shell House floors with new structure to laterally support the existing façade and to provide an appropriate design working life and performance to satisfy the Australian Standards.

We trust the above meets with your requirements and should you require any further information please do not hesitate to contact the undersigned.

Yours faithfully

ROBERT BIRD GROUP PTY LTD



SCOTT WHEELER
Managing Director