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Project Number: 17316

Philippe Remonde
C/- Durbach Block Jaggers Architects
Level 2, 9 Roslyn Street
POTTS POINT NSW 2011

Dear Philippe,

7 BRUCE AVENUE, MANLY – EXISTING BUILDING CONDITION - STRUCTURAL ADEQUACY

As requested, we have visited the property at 7 Bruce Avenue, Manly to inspect the structure and assess the structural implications of the proposed alterations and additions.

Existing Building

The existing building is a two-storey brick residence constructed on a block that slopes towards the waterfront of Little Manly Cove (photographs 1 & 2).

The structure comprises a suspended concrete floor slab at the lower level, a suspended timber floor at the upper level and a pitched tiled roof. The supporting walls are masonry. There is a boat house at the lower level, and inspection in the adjacent sub-floor space indicated that the building is founded onto rock.

Since construction, the building has been exposed to corrosive conditions from wind driven salt and water due to its proximity to Little Many Cove, and this has caused deterioration of the structure in several locations:

1. Deteriorating masonry and mortar joints (photograph 3)

2. Deterioration of exposed concrete on the façade and in other exposed locations (photographs 4 – 8)

3. Deterioration of the loadbearing structure in the sub-floor space beneath the building (photographs 9 & 10)

The structure surrounding the old boat shed that supports the two-storey building is deteriorated (photograph 11) and requires rectification, replacement or strengthening to ensure on-going structural adequacy.

Proposed Alterations and Additions and Implications for the Existing Structure

The proposed alterations and additions to the building are shown on the DA drawings prepared by Durbach Block Jaggers, that indicate significant modifications to the internal layouts, a new upper floor addition, and modifications to the façade.

While most of the Western wall is proposed to be retained largely intact, retention of small areas of the existing façade on other elevations is not feasible and will pose a safety risk during the construction process, so demolition and rebuilding of these elevation is recommended.

Currently the concrete floor slabs extend through the external wall of the building on the South and Eastern sides of the building (eg photographs 1 & 6) and any rectification or demolition of these exposed edges will affect the support of the walls above. The changes proposed to these facades require demolition of large sections of these walls in any case, and it would be therefore preferable to demolish the walls to the floor level prior to re-building in the new configuration.

Additional structure will be required through the boatshed and existing sub-floor space to support the loads of the reconfigured house above and ensure the structural integrity of the modified building.

Although it might appear feasible to retain portions of the wall and structure that are not modified by the proposals, demolition and re-building is a preferred option to mitigate the safety risks associated with the temporary support of these elements during construction.

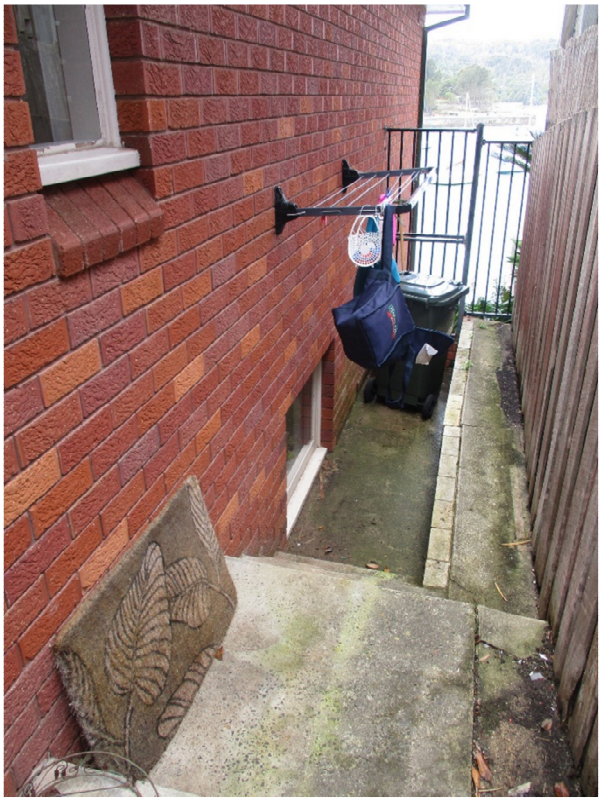
As such, the extent of demolition indicated on the architectural documentation reflects our review and recommendations regarding the amount of existing structure that can be safely retained during the construction, and that is sufficient to support the loads associated with the proposed alterations and additions to the existing building.

I trust that this is of assistance, but should you require anything further please contact us.

Yours sincerely,

Andrew Simpson, Technical Director CPEng, MIE(Aust)
SDA Structures Pty Ltd

Photograph 1



Photograph 2

Photograph 3

Photograph 4

Photograph 5

Photograph 6

Photograph 7

Photograph 8

Photograph 9

Photograph 10

Photograph 11