



Structural REPORT
14-16 Victoria Street Kogarah

Project No: 19067-09

Revision: **03**

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STRUCTURAL REPORT

14-16 VICTORIA STREET KOGARAH

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1 INTRODUCTION

JSBC Consulting Pty Ltd has been commissioned by Sutherland and Associates Planning on behalf of the owners to carry out a structural assessment report on the current condition of 14-16 Victoria Street Kogarah.

A 12-storey residential building with 3 basements is proposed at 18-24A Victoria Street. The likely redevelopment at 4-12 Victoria Street will involve an approximately 11 storey residential building with multiple basement levels.

The report highlights the potential structural impact on 14-16 Victoria Street Kogarah during the construction of the proposed adjacent developments.

2 SCOPE OF WORK

The scope of the review includes the following:

- A visual inspection of the current structural condition of 14-16 Victoria Street Kogarah. A representative from JSBC Consulting visited the site at 8.00AM on the 29th of July 2019. Internal access was only provided to 14 Victoria Street.
- Review of concept drawings of the proposed developments.
- Review of the geotechnical report of the adjacent site.
- Highlight potential structural impact on 14-16 Victoria Street during construction of the adjacent proposed developments.

3 DOCUMENTS REVIEWED

The following documents were referred to in the review:

- Heritage Assessment Report PM-18005 by Perumal Murphy Alessi.
- Demo plan and proposed concept plans for 18-24A Victoria Street Kogarah.
- Geotechnical report 13779/1-AA for 22-24a Victoria Street prepared by Geotechnique Pty Ltd.

4 SUMMARY OF CURRENT CONDITION

Following inspection of 14-16 Victoria Street Kogarah we note the following:

- The terraces are constructed of load bearing brickwork and timber framed floors and roof.
- The boreholes from the geotechnical report for the adjacent site show that site contains up to 1.2m of residual soil over Class V shale. Given the age of the terraces, the loading bearing elements at 14-16 Victoria Street are most likely not founded on rock.
- Numerous cracks in the load bearing brickwork around the property were observed. (Refer to photos in Appendix A).
- The front balcony at number 14 is sagging and appears to be structurally inadequate.
- The brickwork at the top of the chimney appears to be loose.
- Multiple structural repairs have been carried throughout the terraces.

5 STRUCTURAL IMPACT FROM PROPOSED DEVELOPMENTS

It is likely that the proposed developments on the East and West boundaries of 14-16 Victoria Street will have the following structural impacts on the terraces:

- Due to the 9.0m deep excavation at 18-24A Victoria St and proximity to the boundary, there is a high risk that the soil under the load bearing elements for 14-16 Victoria Street will move even if retention/shoring systems are used. Given the age of the terraces and the data presented in the geotechnical report, the load bearing elements could be founded on residual soil overlying rock, which makes it more susceptible to movement. Any slight movement in the soil will cause structural damage to the walls which has a high risk on the structural integrity of the terraces.
- Due to the deep excavations, shoring systems with temporary anchors will be adopted. Pile drilling and installation of anchors and excavation will cause vibrations during construction which has a high risk of causing cracks in the brick walls which are not founded on rock. This has a high risk on structural integrity of the terraces.
- The soil at the bulk excavation level of the adjacent site is high strength sandstone. The excavation can cause stress relief in the sandstone which will cause lateral movement in the rock underlying the residual soil at 14-16 Victoria Street. This has a high risk of damage to the brick walls at 14-16 Victoria Street which will affect the structural integrity of the terraces.

In the event of structural damage to 14-16 Victoria Street due to the construction of the adjacent proposed developments, a proper repair to maintain the structural integrity of the terraces would be extensive and would involve replacement of a lot of the original material with new building material to comply with current Australian Standards.

6 APPENDICES

The following items are appended to this report:

- Photos of Current Condition of 14-16 Victoria Street Kogarah

PHOTOS



Photo 1 - Overall Photo of 14-16 Victoria Street (Sagging Balcony)



Photo 2 - Cracks in External Brick Wall at Terrace Number 14

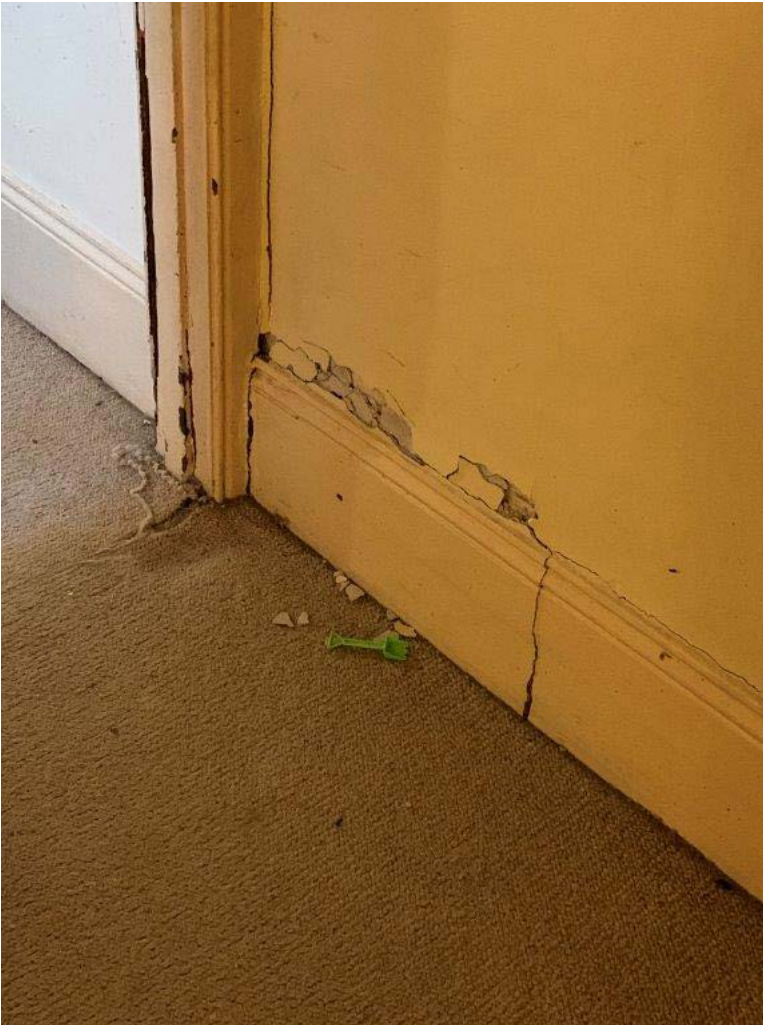


Photo 3 - Cracks in Brick Wall



Photo 4 - Cracks in Brick Wall



Photo 5 Cracks in Brick Wall



Photo 6 - Cracks in Brick Wall



Photo 7 - Cracks in Ceiling and Brick Wall



Photo 8 - Condition of Ceiling

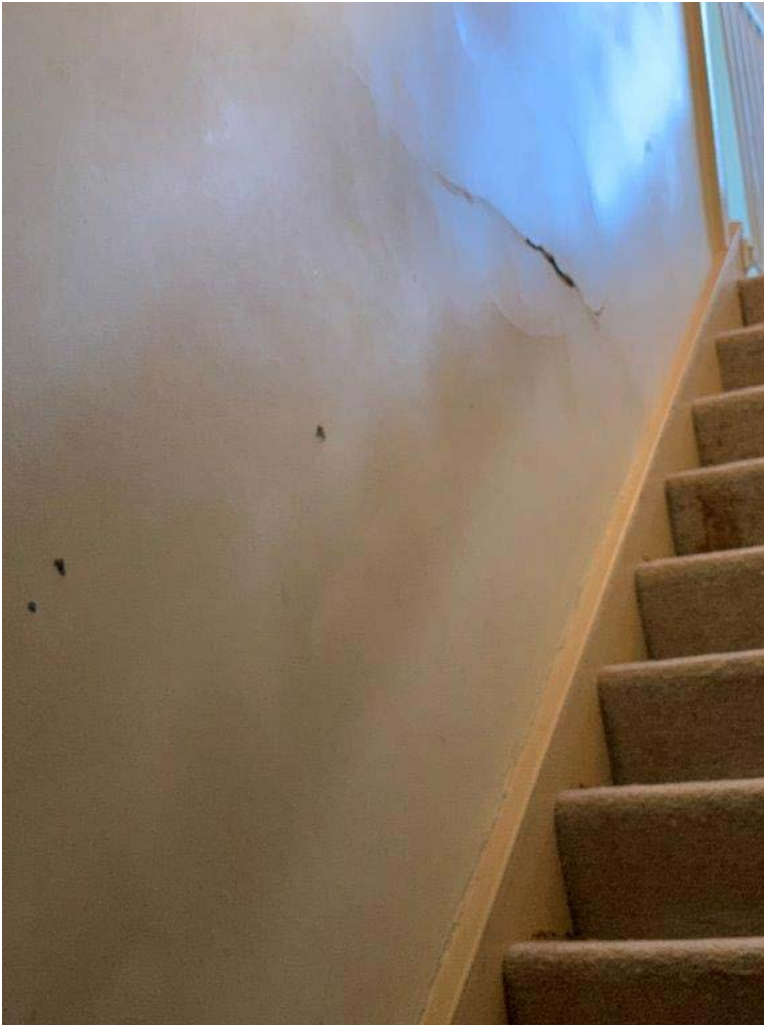


Photo 9 - Cracks in Brick Wall



Photo 10 - Cracks in Brick Wall



Photo 11 - Sagging Balcony



Photo 12 - Sagging Balcony



Photo 13 - Cracks in Brick Wall



Photo 14 - Cracks in Brick Wall



Photo 15 - Cracks in Brick Wall



Photo 16 - Sagging Balcony



Photo 17 - Cracks in Brick Parapet at Terrace Number 16