

James Hallows
Lighthouse Project Group
Suite 201
157 Walker Street
North Sydney 2060
24/03/2026

Structural Memorandum – Adaptive Reuse Scheme

Dear James,

We have received your request on 24th March 2026 to provide a structural memorandum outlining the design principles behind our adaptive reuse scheme for 5 Blue Street, North Sydney.

The adaptive reuse scheme adopts a building form and usage based upon not exceeding the vertical load capacity of columns and footings in rail corridor (i.e. North Sydney Station). As discussed further below, works in the rail corridor pose planning, access and approval risks from Sydney Trains. Hence the structural scheme is based upon limiting any works within the rail corridor i.e. a reverse engineering approach where the overall development scale and size is determined limited by the capacity of the columns and foundations within North Sydney Station.

Based upon original structural drawings for 5 Blue Street, the existing columns and foundations within the rail corridor can support an additional two light weight levels above its current maximum height. Additionally, the existing structure can support an extension of levels along grid lines 5 to 6 and beyond, cantilevering on the western side. There are also extensions to levels on the eastern and southern sides of the floor plates via cantilevers. The extent of the additional floor plate is governed by the existing structural capacity of the columns and footings within the rail corridor

The adaptive reuse considers the following:

- Works in the rail corridor – Arcadis has significant experience in undertaking works in the rail corridor, including over 50 station upgrades within the Sydney Trains Network. Irrespective of the scale of works, engineering works in the rail corridor require significant preplanning and approval of Sydney Trains. Hence eliminating any required strengthening works within the rail corridor removes a key program and approval risk for this project.
- Geotechnical conditions – In order to limit works excavation and construction works within rail corridor, Douglas Partners have been engaged to advise the strength of the sandstone under the existing building foundations. As this rock strength has been upgraded based upon recent investigations, Arcadis has adopted this higher bearing capacity to determine the number of new levels outlined above.
- Concrete strength – In order to assess the structural capacity of the existing columns, the assessment to determine the number of new levels above is based upon the concrete strength stated in the original structural drawings
- Compliance to current Australian Standards – As this building was constructed prior to the Newcastle Earthquake in 1989, Arcadis has undertaken a detailed assessment in accordance with the relevant Australian and TfNSW Over Station Development requirements.

Yours sincerely



John Merrick FIEAust NPER MIPENZ RPEQ BPVic

Senior Technical Director, Building Structures

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