

STRUCTURAL ENGINEERING REPORT

For

DA Submission

St Vincent's @ Green Park Hotel (A Mental Health Initiative)

360 Victoria Street Darlinghurst NSW 2010

Engineer

Denis Young
DPY Consulting Pty Ltd

Client

St Vincent's Hospital Sydney Limited

Project Manager

Proceed Group

Architect

Boffa Robertson Group

Date 13th December 2021
Issue B

The Project

St Vincent's Hospital Sydney Ltd plan to transform this unique Green Park Hotel building into a multi-function centre with core focus on special mental health services. The proposal comprises the following services

- A. Safe Haven
- B. Urban health hub
- C. Transformation hub/Innovation space
- D. Webinar studio
- E. Multifunction Health Care space
- F. Common Area of Storage

The works are shown in the Architectural drawings produced by Boffa Robertson Group

- 2103/DA00 Cover Page, Drawing List and Site Plan
- 2103/DA01(B) Demolition Plans
- 2103/DA02(D) Proposed Floor Plans
- 2103/DA03(B) Reflected Ceiling Plans
- 2103/DA04(C) Elevations and Sections

Building Works

The building works that are proposed in the DA include

- Construction of new lift from Lower Ground floor through to First Floor
- Demolition of floor structure for accessible toilet on the ground floor
- Demolition of partition walls throughout the building
- Demolition and realignment of stair flight at First floor
- Construction of new section of elevated floor in Lower ground adjacent to the lift and toilets
- Fitout of various rooms
- Recladding where required and reuse of existing awning

Structural Works

There are some structural works required to the building for these proposed building works

- The new lift is to be constructed out of reinforced concrete block walls with a reinforced concrete pit and base. The existing structure on the Ground and First floors will be cut back at the lift location and resupported on the lift walls. The lift will protrude through the roof plane and there will be minor modification to the roof structure which will be supported by the lift structure. There will be a new section of roof constructed over the lift.
- The structural steel and timber floor at the accessible toilet on the ground floor is to be demolished to allow the construction of the new lift
- The new elevated floor in the lower ground floor adjacent to the new lift would be constructed as a concrete slab on bondek with dwarf walls.
- For the realignment of the stairs at the First floor steel stair stringers and beams with timber joists will be adopted

- With the awning to be retained the awning will need to comply with the loading from the current SAA Codes. Some further investigation is to be carried out on the existing structure when some cladding is removed. Structural analysis will be carried out and the capacity of the existing structure will be established and if required the structure for the awning will be strengthened
- The building is required to comply with the FRL's specified in the BCA 2019 Amendment 1 for Type B Construction. All new Structural elements are to be designed to comply with the required FRL's. Existing elements will be reviewed for compliance with the specified FRL and when required will be upgraded to achieve this FRL. If there are FRL's that can not be achieved on existing load bearing elements a Fire Safety Engineered Solution will be required.

Structural Adequacy

I can confirm that the Structural works involved in this building will not compromise the Building Code of Australia structural design criteria of any portion of the existing building.

I can certify that the design of the works will be in compliance with the following:

- BCA 2019 Amendment 1
- AS1170.0-2002 Loading Code General Principles
- AS1170.1-2002 Permanent, imposed and other actions
- AS1170.2-2011 Wind Actions
- AS1170.4-2007 Earthquake
- AS 3600-2018 Concrete Structures
- AS4100-1998 Steel Structures
- AS3700-2018 Masonry Structures
- AS1720.1-2010 Timber Structures

I can confirm that for the Structural design Importance Level 2 is adopted.

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