

15th March 2016

Simon Karkkainen

Richard Crookes Constructions
214 Willoughby Rd
Naremburn NSW 2065

Dear Simon,

RE: LEES1 Building, University of Sydney, Structural Design Statement

Northrop has been engaged as structural engineer for the LEES1 building at University of Sydney. With Richard Crookes and the design team, Northrop has provided structural advice to allow the development of the scheme which is reflected in architectural DA documentation.

The proposed building will occupy land at the University of Sydney, between the existing Carslaw Building and adjacent to City Road.

The site is constrained by an existing pedestrian bridge to the west, the Carslaw Building to the North, Barff Road to the east and three Moreton Bay Fig trees to the south, adjacent City Road.

The LEES1 building will occupy eight levels including a plant level at level 8. The building primarily accommodates teaching laboratories and associated facilities, student workspaces and offices.

The first floor is a partial basement and will require the construction of shoring and retaining structures to the west and south.

The site is typically underlain by 2-4m of fill and silty/shaly clay over sandstone which improves in strength with depth. The building will be founded in the higher strength sandstone on bored piles.

Floor plates are typically of post-tensioned construction and supported on concrete columns.

A large cantilever is to be constructed over the approach to the pedestrian bridge to the west. This will be effectively hung from columns supported by transfer structure at level 5 with a resultant horizontal force taken back in to each floor plate and resolved in reinforced concrete core walls throughout the building.

Lateral stability is provided by reinforced concrete cores and walls.

In summary, Northrop confirm that the building shown in DA documentation as prepared by HDR Rice Daubney incorporates Northrop's structural requirements and a scheme compliant with the BCA and relevant referenced documents can be developed from this scheme.

Yours faithfully,



Ian McDaid
Assocaite | Structural Engineer
BEng(Hons), CEng, NPER

On behalf of: Northrop Consulting Engineers Pty Ltd