



SDA Structures Pty Ltd ACN 149 969 915
Consulting Engineers
Studio 2, 61 Victoria Road
Rozelle, NSW 2039
Telephone 02 9810 6911
Email sda@sdastructures.com.au
www.sdastructures.com.au

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Project Number: 19228

Ali Bounds
BVN Architecture
PO Box N646
Grosvenor Place
NSW 1220

Dear Ali,

New Science and Learning Centre - St Patricks College - SSDA Report

As part of the SSDA submission for the Science and Learning Centre proposed at St Patricks College, Strathfield, SDA Structures has reviewed the architectural DA documentation prepared by BVN Architecture and provided structural engineering conceptual advice.

Proposed Works

The proposed works are indicated on the SSDA drawings prepared by BVN Architecture that show the development will comprise a new three-storey building over a new basement carpark.

New landscaping on the podium level and new bleacher seating adjacent to the existing playing fields are also proposed.

Existing Site Conditions

The new building is situated on an area that currently contains on-grade tennis courts and playing area.

Demolition of existing structures associated with the works is limited to minor structures (eg existing bleacher seating, landscaping walls etc) at the extremities of the site.

A geotechnical investigation has been carried out by Douglas Partners, and the findings are contained in their report 86967.00.R.001.Rev0, dated January 2020, that indicate that the founding conditions comprise shallow clays over the shale bedrock.

The bedrock was cored during the investigation to confirm its strength and bearing capacity.

Proposed Building Structure

Some excavation will be required below existing grade to achieve the proposed basement levels, requiring shoring/ retaining structures along the Southern and Western boundaries. A mixture of battering with cut and fill, and shoring walls are proposed to retain the existing ground around the excavation.

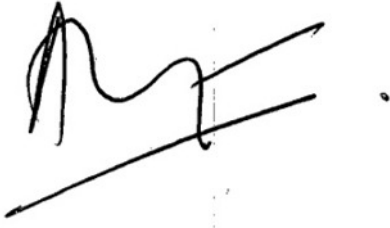
Foundations are likely to be high level pad foundations, that bear into the shale bedrock that will be close to the excavated level of the basement, based on the findings of the geotechnical investigation.

The structure is proposed to be a reinforced and post-tensioned concrete framed system comprising post-tension floors supported on reinforced concrete columns and walls.

Detailed design of the proposed structure will be developed following the SSDA process.

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

Yours sincerely,

A handwritten signature in black ink, appearing to be 'AS', written over a horizontal line. The signature is stylized and somewhat abstract.

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