



Structural Statement

Outline Functional Description

- The new three storey Learning Centre building will be concrete framed with Post-tensioned slabs and bands.
- Soldier Pile walls with infill panels will be used as the temporary and permanent retention system for the basement excavation.
- Where there is new structure being built over existing floors the existing structure has been checked and complies with the additional loading requirements. In these areas the new structure is of reinforced concrete construction with loads applied directly to existing columns.
- For all new structures adjoining an existing structure the new structure will be self supporting and rely on its own foundation system. The new arts centre will be concrete framed with post tensioned slabs and bands.

Summary of Design Assumptions

- The building will be designed in accordance with the following Australian Standards:
 - AS3600- Concrete Structures
 - AS4100- Steel Structures
 - AS1170.0- Structural design Actions- General Principles
 - AS1170.1- Structural design actions- Permanent, Imposed and other actions
 - AS1170.2- Structural design actions- Wind actions
 - AS1170.4- Structural Design Actions- Earthquake actions in Australia
 - AS4678- Earth-retaining structures
- Design Criteria for Classrooms and Offices:
 - Superimposed DL- 1kPa
 - Live Load- 3kPa
- Design Criteria for Corridors:
 - Superimposed DL- 1kPa
 - Live Load- 4kPa
- Wind Loads:
 - $V_r = 46\text{m/s}$
 - Region A2
 - Terrain Category - 3
- Earthquake Loads:
 - Design Category 2
 - Site Sub-soil class – Be

Structural

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