



1 The new Auditorium and three tiered balconies, mirroring the original design (Courtesy Theatre Royal Charitable Foundation) **2** The new Grand Circle Foyer (Courtesy Theatre Royal Charitable Foundation) **3** Auditorium and heritage dome - restored and retained heritage features with new detailing (Courtesy Holmes Fire)

Isaac Theatre Royal

Project Location: Christchurch

Holmes Fire Ltd for Isaac Theatre Royal

Disciplines: Fire Engineering



The Isaac Theatre Royal (ITR) is one of Christchurch's most iconic heritage buildings, which was constructed in 1908. It sustained considerable damage during the earthquakes of 2011, which was worsened by numerous aftershocks. In the year of 2012 the Theatre Trust initiated the restoration and rebuild of the ITR.

Holmes Fire was brought in during the construction phase to review the Fire Engineering Strategy for the building. The project provided an opportunity to add significant value by rationalising the fire safety systems required within the building.

A new Fire Engineering Strategy was provided within three months and the fire engineering design process included:

- The collaboration with the University of Canterbury to develop a new egress modelling tool for Holmes Fire use, which could undertake the buildings comprehensive egress assessment of merging crowd spaces.
- The development of a fire strategy which considered an alternative compliance with the New Zealand Building Code in order to support the heritage architectural vision, designed over 100 years ago.
- A hands on approach to proactively integrate the Fire Strategy with the operational needs of the Theatre.
- Consideration to Safety in Design, which included the physical practicality of installation and maintenance of the proposed fire strategy and
- Implementation of a complex fire and security interface which included multiple interface tests and training of theatre staff.

The fire engineering design resulted in a building-specific fire safety solution that facilitates a wide range of cultural uses within the revived theatre for the entire community.

Judging & Copyright Statement

This project is a Finalist entry in the 2016 INNOVATE NZ Awards of Excellence competition. The winners will be announced on Friday 2 September, 2016.

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