

COMPLETED PROJECT

SITE:	Carousel Shopping Centre
LOCATION:	Cannington WA
SCOPE OF WORK:	Fire Protection (Wet and Dry Fire)
COMPLETION DATE:	September 2018

SCENTRE GROUP



Westfield Carousel located on the Albany Highway in Perth's south-east is anticipated to become one of the largest Westfield Shopping Centre in Australia. Upon completion the centre will have 290 retail outlets, in excess of 4,000 parking spaces and a lettable area of 82,350 sq metres.

The \$350M redevelopment has delivered a redefined retail, dining and social destination to the suburb. The completed centre includes a new David Jones Department store, over 60 additional speciality retail outlets as well as a new fashion precinct.

The redevelopment also includes a landscaped rooftop dining and entertainment quarter along with an Asian Restaurant laneway.

SCOPE DETAILS

Within our scope for this project we were tasked with the design and construct contract for all the Wet & Dry Fire services:

- A fully compliant Automatic Fire Sprinkler System to AS2118.1
- Compliant Portable Extinguishers to AS2444
- Compliant Fire Detection System and Smoke Control System to AS1670.1 & AS1668.1
- Compliant Emergency Warning and Intercommunication System to AS1670.4

Firesafe completed the fire services to the redevelopment on the Ground Floor, additionally, there is a large open-air dining area that has been protected on Level one as well as a large Tenancy (Strike/Holey Moley) located on Level 2.

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The Fire Sprinkler system was installed to the new mall, speciality shops, mini-majors, loading docks, plant rooms and communication rooms including all concealed spaces and common areas.

New fire sprinkler control valves have been installed in the Sprinkler Control Valve Rooms No's 8 & 9 which are fed by the existing fire pumps.

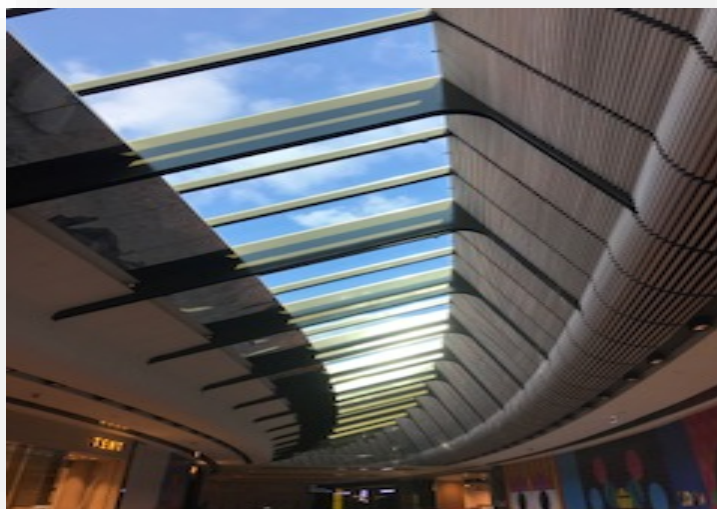
The Fire Detection system was installed to the new mall, mini-majors, food tenancies, several plant rooms and communication rooms as well as all common areas such as amenities, end of trip and back of house.

The Fire Detection System is also provided with a Graphics System in the Fire Control Room and is interfaced with the new hydrant pump room, new sprinkler monitor valves/flow switches/solenoids, Security/Access control systems, Back Ground Music Systems, Public Address Systems, Building Management Systems, Solar Panels and Mechanical Services including a fully upgraded Fire Fan Control Panel.

CHALLENGES & SOLUTIONS

Throughout the project there were various challenges which we had to overcome:

- This project required the handing over of four areas for early opening (Eastern and Western Malls, the new multi storey car park which Detection/EWIS only as well at the new hydrant pump room. Firesafe were required to run a temporary feed from the existing sprinkler system to supply the new pipe work, as the new valve rooms were not yet commissioned.
- Due to early handovers Firesafe were required to have two of the 3 new Data Gathering Panels installed and networked with the existing centre to allow engineer sign off. This required alternative cable paths to be used as the new mall was ready in time for main feed cables.
- Firesafe installed new above and below ground pipe work to provide the project with a pumped ring-main supply (Previously only one valve room was feed by pumped water). 200mm galvanised pipe was used for the above ground pipe section, this required continual coordination as the majority of the run reticulated through public trafficable areas.
- Fire Sprinklers and Detection were installed in the new fashion mall which had feature timber ceilings. This required installation of side wall sprinklers aesthetically throughout the fashion mall.



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- A large feature ceiling (The Oculus) was installed in the central mall, at a cost of approximately \$250,000.00. It was imperative that we took extra care with the sprinkler installation in this area.



- Firesafe modified the existing fire services to accommodate nightly isolations for the decommissioning of old services & installation of new services allowing the new feature ceilings.
- Two high level feature ceilings requiring sprinkler protection and detection were installed above the David Jones escalators.

To ensure accuracy of installation, templates were positioned on the ground floor and laser indication used to position sprinklers. This installation was staged and close coordination with the ceiling contractor was required.

- A lot of the testing and commissioning had to be completed outside of the shopping centre opening hours to allow full integration testing with existing services and new services throughout. Upon completion the site has approximately 1000 fire zones.