

# Completed Project

**MULTIPLEX**

<b>SITE:</b>	Capital Square (Tower 1 & Podium)
<b>LOCATION:</b>	Mounts Bay Road, Perth CBD
<b>SCOPE OF WORK:</b>	Fire Protection – (Wet & Dry Fire Services)
<b>COMPLETION DATE:</b>	2017
<b>Project Value:</b>	Tower \$5.4M Podium \$2.1M

*Capital Square (Tower 1) is one of the three proposed buildings constructed on the Old Emu Brewery site. Tower 1 consists of 32 levels of premium office space with a letting area of 54,000 square metres. The Tower includes one basement level, a mid-level plant room, roof top plant rooms, five floors classified as a Remote Operations Centre and two floors used as kitchen and dining facilities.*

*Capital Square (Podium) and carpark are located on the the same site as the Tower 1 and consists of an auditorium, end of trip facility, four levels of tenancy offices, five levels of car parks and two tenancy levels.*

*The projects both have a 5 Star Green Star As Built rating and upon completion will become the new headquarters for Woodside Energy Limited in Perth.*



## SCOPE DETAIL:

Within our scope we were tasked with the design and construct contract for all Wet & Dry Fire services for Capital Square (Tower 1 and Podium) including:

- A fully compliant combined Fire Sprinkler/Hydrant system to AS2118.6
- Fire Sprinkler System designed to AS2118.1, Fire Hydrant System designed to AS2419.1
- Primary and Secondary & Relay Fire Booster Pumps Sets interconnected to 2 x Fire Water Storage Tanks designed to AS294 & AS2304
- A fully compliant Fire Hose Reel system to AS2441 (All Areas)
- Fully compliant portable extinguishers to AS2444
- A fully compliant Fire Detection (Addressable) system installed to AS1670.1
- A fully compliant Fire Fan Control Panel to operate the Smoke Control System installed to AS1668.1
- A fully compliant Emergency Warning and Intercommunication system installed to AS1670.4 to all levels of the buildings
- High Level Interface to the Building Management System
- Fire Detection Graphical User Interface

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- High Level Fire Detection Network between both the Tower 1 and Podium Buildings for central monitoring on the Mimic Panel installed at the Security Office

The systems were required to provide full coverage to all areas of all the buildings to comply with the latest BCA requirements.

## CHALLENGES & SOLUTIONS:

Throughout the project we were faced with various challenges:

- With so many work trades happening at the same time, the site management & coordination of the site logistics and site labour requirements was critical, so as not to affect the other services work efficiently in order to maintain progress, which was commercially viable to all as well as in the best interests of the client and the requirements of the construction program.
- A high level of coordination between various trades on site including services and ceiling fixers was required to ensure all clash detection was captured at early stages of the project and resolved prior to installation as well as ensuring the interfacing between multiple systems such as electrical, lighting, security, BMS, mechanical, etc was discussed, planned, actioned, tested and commissioned to achieve a fully working building by the project completion date to allow the client to handover on time.
- Works undertaken for this project being located within the centre of Perth CBD presented logistical challenges. Deliveries needed to be scheduled on a daily basis to avoid traffic disruption. The lack of on street parking required deliveries to be scheduled with precision, as well as organising agreed drop points and times to best suit the sites logistics requirements.
- It was a requirement of the Podium Project to provide the 5 x car park levels with an operating wet fire system, which we had to provide by connecting to the water boards street water main, to the network of fire pipework in order to provide a wet fire system throughout these levels for beneficial use. This required interfacing between Wet and Dry systems for alarms to cater for an emergency that could have eventuated. Alarms were also sent to various parties by SMS.
- The Tower 1 faced with a complex fire operation mode for the smoke control systems due to the interconnecting floors throughout the building. This building was the first of its kind in Australia to our knowledge which required Firesafe to work very closely with our panel manufactures and suppliers and their research and development department to carry in depth programming and system design to ensure the building operated as required by the Fire Engineering Report.

