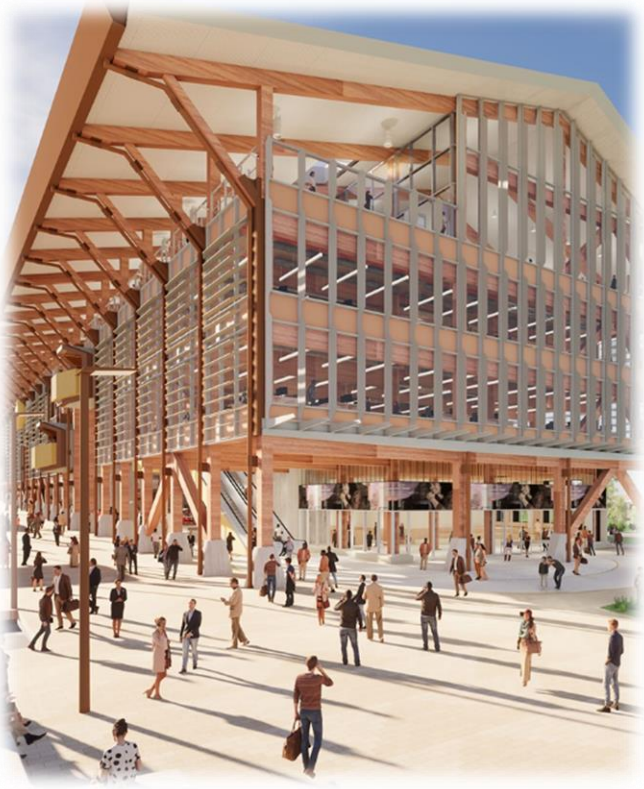
PROJECT:	**Bool Katijin / Building 360, Murdoch Uni**
LOCATION:	**Murdoch University, MURDOCH WA**
SCOPE OF WORK:	Wet/Dry Fire Protection
COMPLETION DATE:	March 2023
CONTRACT VALUE:	$2M

Building 260 is located centrally on the Murdoch University site adjacent to Banksia Court, Discovery Way and the existing library. The building forms an integral part of transitioning Discovery Way as the primary arrival gateway for the university.

Upon completion the structure known as Building 360 will be the first large-scale mass engineered timber building in Western Australia. The large roof of the building acts as a renewable energy generator with a mass array of photo voltaic cells and naturally ventilated mixed mode spaces for students to minimize energy usage.



SCOPE DETAILS

Firesafe were awarded the contract to design and install the below:

- Automatic Fire Sprinkler system in accordance with AS2118.1 - 2017
- Fire Hydrant & Fire Hose Reel system in accordance with AS2419.1 – 2005 and AS2441.1 - 2005
- Fixed Fire Pump Sets in accordance with AS2941.1-2013
- Fire Water Storage Tanks in accordance with AS2304.1 - 2013
- Automatic Fire Detection/OWS & EWIS system in accordance with AS1670.1-2018 & AS1670.4 - 2018
- Fire Fan Control in accordance with AS1668.1-2015
- Fire Extinguishers in accordance with AS2444-2001

The Fire Sprinkler system has been installed to protect all areas and all levels of the building.

Fire Sprinkler Control Valves have been installed and located within the Fire Pump Room.

The Fire Hydrant and Fire Hose Reel system provides protection to all Levels 1 – 4 inclusive.

The Fire Pumps and Tanks have been installed for the combined fire sprinkler/fire hydrant systems to provide water reticulation to the building.

The Fire Extinguishers of various types have been installed to satisfy the requirements of the code to all areas and levels of the building.

The Fire Detection and EWIS System has been installed to all areas and levels of the building. The main Fire Indicator Panel is located at the Southern main entry foyer with a Fire Fan Control panel located at the Main Fire Indicator Panel. There is also BMS interface located in each Comms Room on each floor.

Photo Optical Smoke detection has been installed above and below the floor with the majority of the site protected with a Wireless Detection system.

CHALLENGES & SOLUTIONS

Throughout the project we were faced with various challenges:

- Designing an aesthetically appealing, compliant sprinkler system to compliment the lack of ceilings. All pipework is visible to the public eye and extensive coordination was required with architects and other trades to provide a consistent feel.

- We needed pipework to run through mass laminated timber beams throughout all levels of the project. A fully coordinated and aesthetically appealing system design was required very early on in the design phase of the project to allow prefabricated timber sections to be manufactured overseas with exact openings for pipework throughout the building.