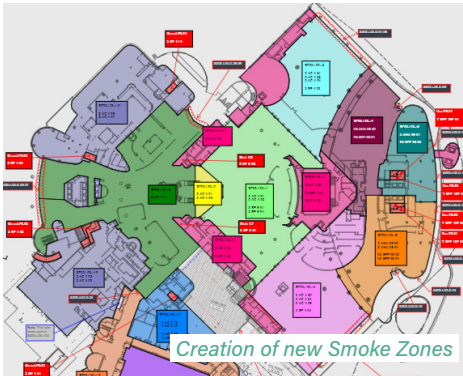


# Fire Systems Upgrades

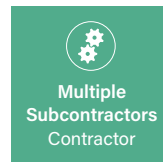
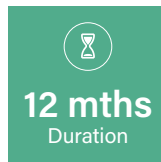
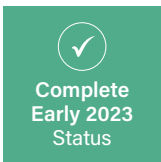
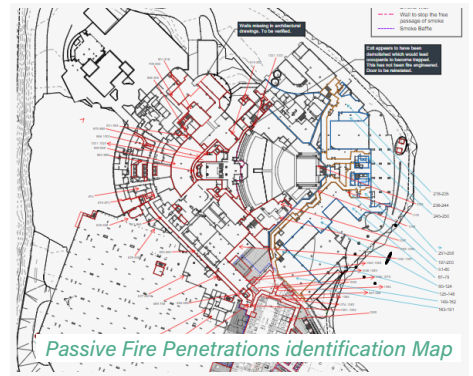
Gold Coast, QLD

Project Profile - Live Project



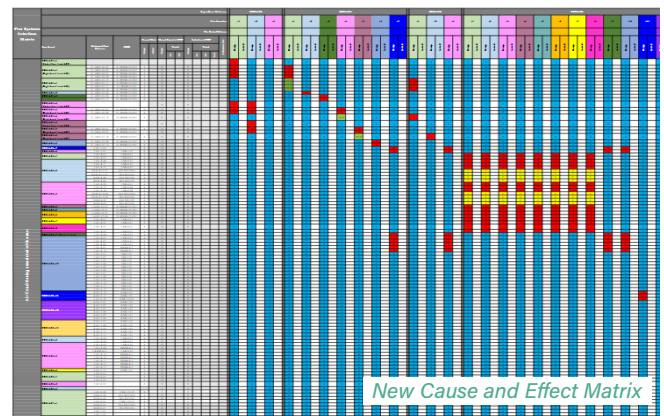
| Asset Register   |                                   |
|--|-----------------------------------|
| Client: The Star Sydney  |                                   |
| Property: The Star Gold Coast: Carpark, Plant Room & Back of House                         |                                   |
| Project: Fire & Smoke Compartmentation, Service Penetrations & Fire Stopping (1420 Assets) |                                   |
| Asset No:  | 001                               |
| Location:  | Older water pump room             |
| Property Level:  | Level 1                           |
| Equipment Type:  | CABLES                            |
| Type & Rating (FRL):   | 1000                              |
| Penetration Status:  | Non-Visible                       |
| System Used:   | Non-Compliant                     |
| Asset No:  | 002                               |
| Location:  | Older water pump room             |
| Property Level:  | Level 1                           |
| Equipment Type:  | CABLES                            |
| Type & Rating (FRL):   | 1000                              |
| Penetration Status:  | Non-Visible                       |
| System Used:   | Non-Compliant                     |
| Asset No:  | 003                               |
| Location:  | Older water pump room             |
| Property Level:  | Level 1                           |
| Equipment Type:  | ANALOG INSPECTION OF PENETRATIONS |
| Type & Rating (FRL):   | 1000                              |
| Penetration Status:  | Non-Visible                       |
| System Used:   | Non-Compliant                     |

Passive Fire Penetration Audit



## Key Info

|        |                           |
|--------|---------------------------|
| Client | Confidential              |
| Sector | Entertainment             |
| Role   | Technical Project Manager |



In 2021 our client became aware of many issues with their Fire systems and processes. This building owner operates some of the most complex assets in the market with constant change occurring by multiple internal stakeholders.

CAA was appointed to Project Manage the process of engaging, scoping and tendering the Consultants and Contractors scopes for Certifiers, Fire Engineers and Building Services Engineers and a multitude of Engineering Contractors. CAA managed the Design, Auditing, Delivery and Commissioning and Handover process back to the FM departments. Below is a summary of the works packages delivered:

**Fire Matrix Documentation** - Due the 30+ construction projects that had taken place over the years the site wide Fire Matrix's had not been updated and therefore not aligned with how the Infrastructure operates. So with new Fire Compartment layouts the team commenced with a new site wide audit for all Mechanical / Access Control and Fire System assets that need to operate under a fire event. Researching the old FER's (24No.) allowed the Fire Engineers to understand the operation of each Fire Compartment. This allowed the Building Services Engineers to advise of the specific functionality of each asset within each Fire compartment.

new documentation. We then began the process of re-testing the existing Infrastructure against this new information. This resulted in circa 500+ defects being identified from missing fire relays, MSSB wiring incorrect, seized dampers / actuators, doors not opening and Fire Fan Control switches not operating and many more. These works were then turned into specific contractor scope of works to rectify and re-test.

**Passive Fire Penetrations Audit / Rectification** - It could be seen that there were many non-conforming Passive Fire Penetrations (circa 4000 No.) to AS 1530.4 and AS 4072.1. We commissioned a site wide audit, ensured that each penetrations was clearly listed and located on architectural plans and suitable tested solutions were listed. The specific scope of works was then be tendered to the market for competitive pricing.

**Fire Compartmentation** - Over the years Fire compartmentation documents became un-useable within the property and the specific FRL's were unknown. Assessing old FER's and comparing to latest set of architectural these were all re-drawn. This involved many site walks as the floor plans had changed over the years. This now informs all contractors of Fire rated properties of all walls throughout the property

**Fire systems** - We found that there were many non-conformances with the sprinkler systems such as compliant spacing to AS 2118.1 and solenoid systems not operating. Many Fire doors required upgrading due to wear and tear to stay in compliance with AS 1905.