



Project Experience

Site: Watergardens Shopping Centre, Melbourne - EWIS Replacement

Client: QIC / OTTO Construction Group

Project Value: \$550,000

Project Overview

Watergardens Shopping Centre, spanning over 92,000m² with 300+ tenancies, required a comprehensive upgrade of its Emergency Warning and Intercommunication System (EWIS). The existing system had reached its end-of-life cycle, and components were no longer supported, necessitating a state-of-the-art solution to maintain compliance with Australian Standards and ensure uninterrupted operation.

Challenges

- **Complex Site:** The shopping centre was constructed in multiple stages over 24 years, leading to limited accurate drawings and unique site-specific challenges.
- **Zero Disruption:** The upgrade had to be completed overnight to ensure full protection during operational hours.
- **System Upgrade Complexity:** The transition involved significant wiring modifications and integrating the latest-generation EWIS system with limited manufacturer support.

Approach

- **Detailed Planning:** Over a month of extensive surveys and investigations were conducted to map out the site's intricacies and coordinate the changeover.
- **Pre-Commissioning:** All components were pre-tested before delivery to ensure a smooth installation and eliminate disruptions.
- **Phased Execution:** The changeover was completed in three nights. In addition to the original scope of works, remote Paging Consoles were installed in both the Security and Operations Offices to enhance operational efficiency.
- **Staff Training:** Training on the new system commenced immediately after the first night of installation, showcasing the efficiency of the planning and execution process.



Scope of Works

System Installation:

- Replaced legacy EV3000 networked EWIS panels with the digital EvacU Elite system, including three new panels and amplifiers.
- Undertook extensive field wiring modifications and upgraded to fire-rated cabling to overcome the limitations imposed by the new system. The EV3000 was wired with Duplex Amplifiers, allowing for 240W of power, whereas the new EvacU Elite only permitted 150W per zone. This required locating speaker runs and splitting them into two zones, each under 150W.

Active Armed Offender Preparation:

- Supplied and installed two Remote Paging Consoles, ensuring seamless communication during emergencies and working within the current AS1670.4 standards.
- Installation of new Cat6 cables to facilitate Paging Consoles in addition to original scope of works.
- Providing for future expansion of system.
- Rewiring and allocation of Speaker Zones for non background music for tenants. Most of these works were separate contracted works performed concurrently with base contract works.

Key Achievements

- Zero Operational Disruptions: All works, including extensive wiring modifications, were completed without impacting the centre's operations.
- Enhanced Safety and Compliance: The new EWIS system adheres to AS1670-2018 and AS2118-1 standards and includes features like programmable zone controls to exclude background music in retail stores.
- Future-Proofing: Spare capacity was built into the system to accommodate future expansions, ensuring long-term reliability and scalability.
- Compliance: Independent certification and testing were completed to ensure compliance.

Highlights

- The project was one of the largest installations of the latest-generation EWIS system in the region. The Armed Offender system works were groundbreaking - tailored to meet the centre's unique requirements and modified to incorporate Watergardens procedures.
- Despite limited manufacturer support and the team's minimal prior experience with the system, the execution was seamless and efficient, including the modifications to the new systems. Airmaster are in discussions with the manufacturer as these modifications will be adapted into future manufacture. This will enable Airmaster's solution to be integrated into all future systems they release.
- The centre now benefits from a modern, robust system that supports its operational and safety needs.

