**Description**
- Penmount Crematorium is a large, publicly owned facility managed by Cornwall Council. The facility serves the south of Cornwall and is located on the outskirts of Truro. The main crematorium and chapel buildings have a seated capacity of 167 people.
- In addition to the crematorium and chapel buildings, there are landscaped memorial gardens and a wildflower natural burial ground.
- Cornwall council funded a refurbishment of the facility in 2014. This improved the services offered by expanding office space, creating a front of house reception area and client interview rooms.
- The buildings' carbon footprint was reduced through the introduction of high efficiency lighting, recovered heat exchange technology and intelligent control systems.

**Refurbishment of local crematorium to improve the reflective gathering spaces in the chapel buildings**

**Benefits Delivered**
- Improvement on overall carbon footprint of the facility through the use of waste heat recovery technology to heat the building.
- Efficient MEP systems ensuring longevity of operation for the client.
- Smart intelligent controls allowing the client to track and log energy usage as well as regulate and monitor HVAC plant and systems.

**Involvement**

**Mechanical services design duties involved:**
- Space heating improvement through the use of gas fired high efficiency boiler plant and waste heat recovery technology.
- Replacement heat emitters and associated pipework, designed to operate on compensated temperatures, reducing energy consumption.
- Hot and cold water supplies to refurbished welfare facilities.
- Ventilation system upgrades to ensure improved internal conditions and protection of building fabric.
- New gas and water supplies to support the improved services installation.
- Introduction of an intelligent automatic control system to regulate and monitor overall energy usage.

**Electrical services design duties involved:**
- Improved lighting throughout ensuring compliance with recommended lighting levels.
- Enhanced building protection through the introduction of an automatic fire detection and alarm system.
- External ingress and egress improvement through introduction of external lighting.
- Out of hours building and property protection through the use of automatic intruder detection and alarm systems.
- Provision of small power and data outlets throughout to allow flexible use of space.
- Disabled alarm provisions to ensure compliance with Approved document M.