

# CLARKE'S MECHANICAL

## Project Information Sheet

Project : **Ryde School – Catering & Design Technology Building, Ryde, Isle of Wight**

The scheme involved the installation of new mechanical services associated with the Construction of a new Art & CDT building for Ryde School.

The mechanical services element of the scheme comprised the following,

1. Domestic hot & cold water installation throughout the new building.
  - New incoming water main from the site boundary to the Plant Room
  - Final connections to all appliances
  - New mains fed cold water services routed to supply all cold water outlets & the hot water storage cylinders
  - Installation of two new 1000 litre unvented hot water cylinders & associated distribution pipework & thermostatic blending valves
  - Trace heating system to all new hot water distribution pipework
  - Installation of a new electrolytic water conditioner
2. Rainwater reclamation system with distribution to serve the WC cisterns & external watering points.
3. Gas distribution system from the new external gas meter enclosure to serve the Plant Room boilers & to the Kitchen catering appliances.
  - Gas distribution from the meter to all gas using devices within the Plant Room
  - Gas distribution to the Catering Kitchen
  - Gas detection systems, proving, interlocks & shut off controls
4. Gas fired multiple cascade boiler plant comprising controls, interlocks, flue system & all associated plant & equipment.
  - Installation of three new Broag Remeha Quinta 85 gas fired boilers
  - Primary flow & return headers with connections to boilers via shunt pumps
  - Twin wall stainless steel flue system
  - Testing, Flushing & Commissioning
5. LTHW heating system serving radiators, finned tube heat emitters, heater batteries, radiant panels & the hot water cylinders.

- Installation of a new primary pumped LTHW heating system comprising one constant temperature circuit & two separately pumped secondary circuits, one circuit is constant temperature & serves the DHW cylinders, Kitchen air handling unit & radiant ceiling panels, the other circuit is variable temperature & serves the radiators, finned tube heat emitters & the remaining heater batteries.
  - Installation twin headed auto-changeover pumps
  - Installation of pressurisation unit & expansion vessel
  - Testing, Flushing & Commissioning
6. VRF System
- Installation of a new Toshiba VRF air conditioning system to the ICT Suite via ceiling mounted cassette units
7. General Ventilation
- Installation of mechanical ventilation systems to the Kitchen, WC's & ICT Suite
  - Installation of three new heat recovery air handling unit to serve the Kitchen, Reception & ICT areas
  - Installation of a dedicated extract system to serve the Kitchen extract canopy
  - Installation of a dedicated extract system to serve the Dining area
8. Building Management System
- Installation of a new BMS system comprising two new control panels & all associated field controls & wiring
  - Control Panel 1 serves the ground floor plant room & controls the boilers, pressurisation unit, pumps & rainwater reclamation system
  - Control Panel 2 serves the extract systems & VRF systems
9. Above Ground Drainage System
- Installation of above ground drainage systems to suite all sanitary appliances

Client	:	Ryde School
Consulting Engineer	:	Skelly & Couch
Main Contractor	:	Stoneham
Mechanical Contractor	:	Clarkes Mechanical
Electrical Contractor	:	SB Electrical