

OCTAGON DEVELOPMENTS - OVERBYE, SOUTH ROAD, ST GEORGES HILL, WEYBRIDGE, SURREY KT13 0NA

HEATING AND COOLING – OCTAGON STANDARD DESIGN CRITERIA

01. Heating

Outside temperate	-4 °C
Room temperatures:-	
Reception rooms and bedrooms	23 °C - Underfloor heating
Circulation spaces, Laundry, Boot Room, WCs, Cloaks, Coats, Staff & Catering	22 °C - Underfloor heating
Kitchen	
Bathrooms	24 °C - Underfloor heating
Pool Shower Rooms	23 °C - Heated towel rails
Pool Room	30 °C - Ducted warm air system
Garage	15 °C (background) Electric heating
Wine Cellar	Unheated space (see Wine Cellar cooling)
Plantrooms	Unheated spaces

Notes:-

1. In all rooms with warm water underfloor heating, in order to maintain stable temperature control it is assumed that the system will be set to run continuously under the dictates of a weather compensation controller. A night set back facility will allow rooms to be controlled at a lower temperature overnight.
2. Heated towel rails will supplement the output from the underfloor heating in Bathrooms.

02. Cooling

A 2 pipe VRV (Variable Refrigerant Volume) comfort cooling system will be installed to serve all habitable rooms and circulation spaces with the exception of the Swimming Pool, Wine Cellar and Staff Accommodation.

Fancoil units will be installed to serve individual rooms and the system will be designed to maintain room temperatures of 23 °C dry bulb when the outside temperature is 30 °C. There will be no control of relative humidity although dehumidification will occur as part of the cooling process. It is expected that the relative humidity will be within the comfort range , i.e. between 30-70%.

Note:-

1. The controls system will be designed to prevent simultaneous heating and cooling occurring in individual rooms.

03. Wine Cellar Cooling

A dedicated DX (Direct Expansion) cooling system will be installed to serve the Wine Cellar. The system will be designed to maintain a dry bulb temperature of 12°C within the cellar. (This may vary depending upon the wine to be stored.)

A wall-mounted electrode type steam humidifier will be installed. This will inject water vapour direct into the Cellar to maintain a relative humidity of 75%.