

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ASSOCIATED SPECIFICATIONS AND OTHER DESIGN TEAM MEMBERS INFORMATION.
2. ALL DETAILS REPRESENT THE PROPOSED SOLUTION AND IS SUBJECT TO FURTHER DEVELOPMENT WITH THE WIDER TEAM.
3. ALL DUCTWORK IN CEILING MUST BE INSULATED
4. EXISTING AREA WHERE NO WORK HAS BEEN DESCRIBED MUST BE RETAINED WITH ALL THE SERVICES BEING RECONNECTED

Reference	Main Activity	Related Drawing	Designation	Manufacturer	Model	Manufacturer Ref	NOTE
01	Plant Refurbishment	50-04	Gas Boiler	IDEAL	EVOMAX 2 100 kW		WITH FRAME SYSTEM
02	Plant Refurbishment	50-04	Low-Loss Header	IDEAL			TO MATCH BOILER
03	Plant Refurbishment	50-04	Circulation Pump	Grundfos	Magna 1 D 40-150 F		
04	Plant Refurbishment	50-04	EXPANSION VESSEL	FLAMCO	75 LITRES		RATED FOR 3 BAR
05	Plant Refurbishment	50-04	EXPANSION VESSEL	FLAMCO	75 LITRES		RATED FOR 3 BAR
06	Plant Refurbishment	50-04	Pressurisation Unit	Mikrofill	Mikrofill 3		
07	Plant Refurbishment	50-04	Magnetic Filtrre	VEXO	XPOT6		
08	Plant Refurbishment	50-04	BMS panel	NA			
09	Plant Refurbishment	50-04	Secondary Return Pump	Grundfos	Magna 1 25-50 N		
10	Plant Refurbishment	50-04	Booster Set + BREAK TANK	DUTY POINT	SCUBA TANK	WX2-9060-1650	2.58 l/s @ 4.5 BAR
11	Plant Refurbishment	50-04	Water Conditioner	Hydrotec	HY_MAG DN50		2.58 l/s
12	Plant Refurbishment	50-04	Gas Fired Heater	Lochinvar	ECH87-480GCE	ECH87-9060-1250	

The diagram illustrates a water supply system for a building, featuring a new single compartment break tank with an integrated booster set. The system is designed to supply water to the building at 2.25 l/s and to the DHWS at 1.88 l/s.

Key Components and Flow:

- Control Panel (06):** Located at the top left, it controls the system.
- Hot Water Tank (12):** A vertical tank with a coil, connected to the system.
- Secondary Return (09):** A tank with a pump and valve, connected to the system.
- New Single Compartment Break Tank + Integrated Booster Set (10):** The central component, featuring a tank with a pump and valve, and a DCV (Direct Control Valve) for pressure regulation.
- Water Conditioner (11):** A unit that treats the water before it enters the building.
- Flow Rates:**
 - BCWS TO DHWS: 1.88 l/s
 - BCWS TO BUILDING: 2.25 l/s
- Valves and Pumps:** The system includes various valves (IV, DCV, PRV, AECV) and pumps (P) to regulate flow and pressure.
- Discharge:** The PRS (Pressure Reducing Station) is designed to discharge outside the building at 6 BAR.

The diagram also shows the rerouting of water from existing MCWS (Main Control Water Supply) and the integration of the new system into the existing infrastructure.

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T1	TENDER ISSUE	AC	PD	AJS	JULY 21
P1	PRELIMINARY ISSUE	AC	PD	AJS	JULY 21
REV	DESCRIPTION	BY	CHK	APP	DATE

HELLESDON PARISH COUNCIL



HELLESDON COMMUNITY CENTRE
WOODVIEW ROAD, HELLESDON
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MECHANICAL SERVICES PLANT SCHEMATIC

Scale @ A1 NTS	Drawn AC	Date July 21	Checked PD	Date July 21	Approved AJS	Date July 21
Project No. 21027		Type ML	Drawing No. 50-05		Revision T2	