

# South West HAMMAR Exeter

Stephen Foster & David Meyrick

End User Experience – Heat Pumps

**Churchill**  
Estates Management

 **RENDESCO**

# Profile



**Steve Foster**  
**Contracts Manager**  
Churchill Estates Management

With over 40 year's experience in the electrical engineering & Controls industry, Stephen is responsible for mechanical & electrical maintenance contracts across the portfolio.



**David Meyrick**  
**Head of Technical support**  
Rendesco

Prior to specialising in the GSHP industry David worked in the Electrical Engineering and Contracting industry, Project Managing and Estimation. David spent the last 14 years focused on delivering, maintaining and managing commercial HP systems, working for Manufacturers and specialist companies.

# CEM Overview



2022



Formerly Millstream Management Services, Churchill Estates Management is a British company, independently owned by the McCarthy family and part of the Churchill Group alongside sister companies Churchill Retirement Living, Churchill Sales & Lettings and Careline Support Limited. Family values are embedded throughout the business, meaning passion, pride and quality underpins everything we do.

Churchill Estates Management is a leading provider of retirement housing management services in the UK, providing services to over 8,000 retirees, national developers, Right-to-Manage directors and investors.

Established in 2006, we have built an award-winning track record and reputation for outstanding customer care.



# Where we operate



Churchill Estates Management now manages over 200 retirement developments across the UK. The company manages with integrity and trust and we are proud to say we provide a quality service with a strong established and trusted relationship with our Customers that is supported by our experience and knowledge.

## CEM Mission & Vision

### OUR MISSION

Providing enjoyable, safe and worry-free retirement living.

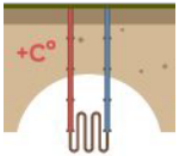
### OUR VISION

To be the market-leading retirement management company through Customer and Colleague satisfaction.

# Introduction to RENDESCO

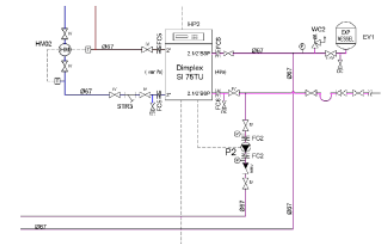
Renderesco has invested in market leading design and installation capability to deliver the most efficient and cost-effective heat pump systems.

## Industry leading design



Our industry leading geothermal design team use the latest modelling software to ensure accurate and effective borehole array design which is specific to each site.

Our mechanical design team work with your design team to integrate our heat pump systems in to your properties and ensure they run efficiently and effectively.



Our commissioning and operational teams ensure that quality standards are maintained, and customers receive a smooth handover and demonstration.

Case studies

## Churchill Retirement Living



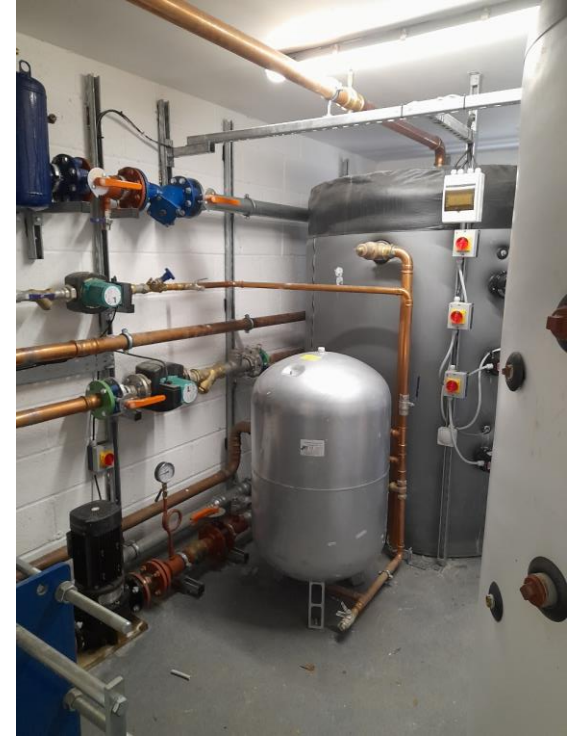
### ✓ Project summary

- A portfolio of 2,460x individual retirement properties over 62 sites across the UK.
- 100% of heating and hot water provided by Dimplex ground source heat pumps.
- 930x closed loops boreholes drilled across all sites to varying depths 130m-175m.
- Borehole and GSHP networks funded, owned and operated by Rendesco.



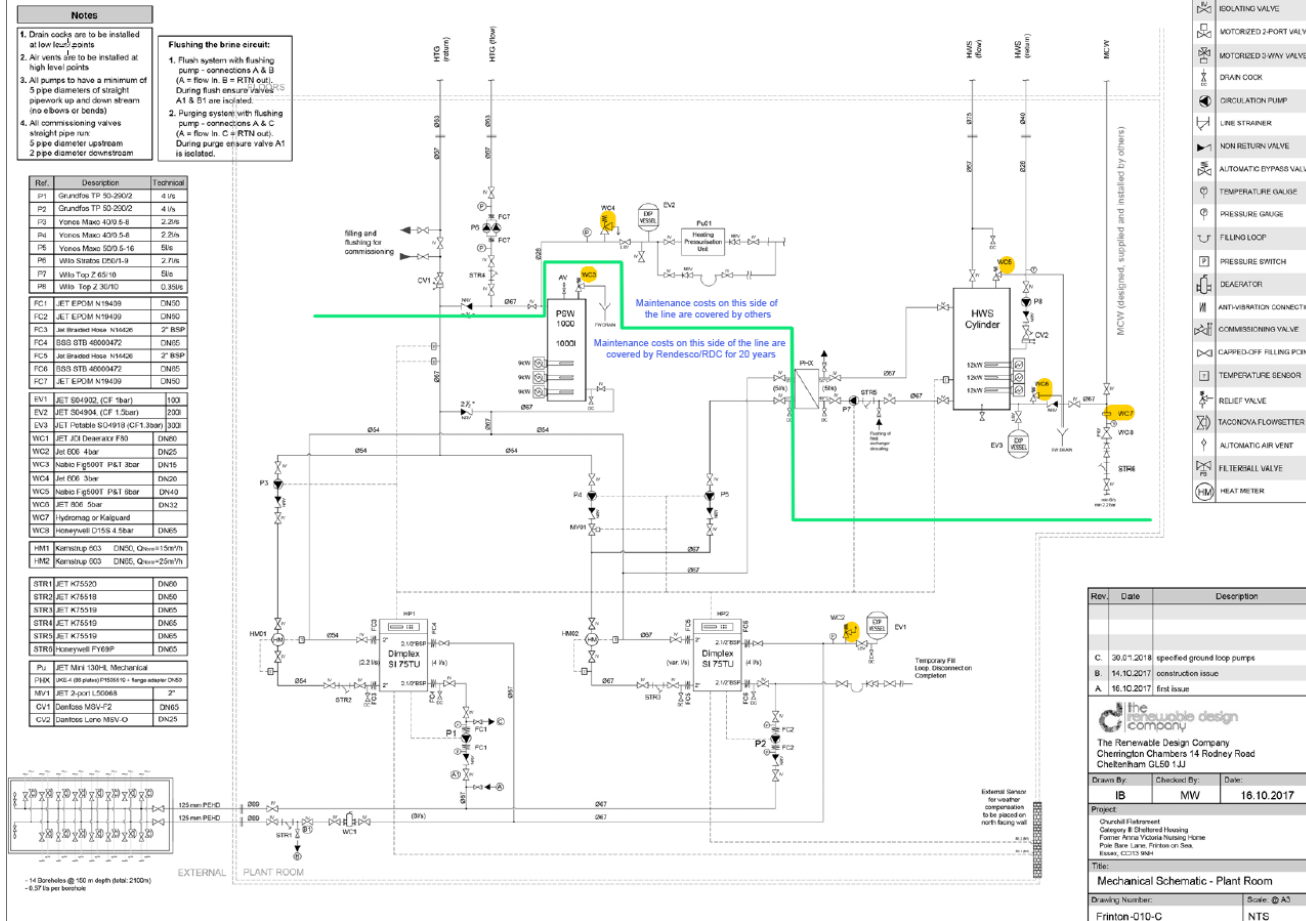
# GSHP

Typical Plant Room Installation



**61 Lodges**

# Maintenance Demarcation Schematic



Typical GSHP Design



# GSHP Experience

- **Requires Professional Design, Quality Installation & commissioning**
- **Supplies Heating & Hot water**
- **Critical up time availability**
- **Ownership of GSHP with Rendesco** for 20 years they take the RHI income
- **Ongoing Relationship** – vested interest
- **Plant room** specific purpose built
- **Inclusive GSHP Maintenance & Repair** in the Rendesco contract
- **Secondary Plant Demarcation** – CEM responsible Call outs & Repairs chargeable  
*(Annual spend £42K repairs £38k PPM)*
- **Remote monitoring 24x7x365** – Diagnostic, fix, operate, Renewable Heat Incentive(RHI) Data
- **Backed up with immersion heaters**
- **Typical Failures** – Pressurisation sets, expansion Vessels, Secondary Pumps
- **Call Outs Repairs 26 site attendance does not include remote fix or switching**
- **Circa £1,311 Average per annum per lodge** currently
- **Currently investigating a Proactive maintenance approach** *(Inclusive of repairs call outs)*

# ASHP

Typical Roof Top Installation



**52 Lodges**



# ASHP Experience

- **Requires Professional Design, Quality Installation**
- **General heating only**
- **Critical up time**
- **Roof or compound Mounted** – Exposed to the elements, Water Ingress, Pigeon Mess, Leaves, Rodents
- **Acoustics** – Residents & Neighbours
- **Replacement & Major repairs** – Crane hire, Road Closures
- **Remote Monitoring** – Alarm Monitoring, Diagnostic, Renewable Heat Incentive(RHI) Data
- **Maintenance Contract with 3<sup>rd</sup> Party Supplier** £80k per Annum
- **Call outs & Repairs Chargeable** £45,000 per annum average £865 per annum
- **Water Treatment at Installation/Commissioning**
- **Dosafil Units** - installed to improve & monitor water quality post completion. Ongoing Filtration socks
- **Typical Failures** – Refrigerant leaks, Isolators, Pressurisation units, Contactors, Compressors
- **Call outs/repairs 63**
- **Currently Circa £2,403 average per annum**

# Final Comments

## Personal findings & experiences,

- Design by trusted experienced engineering company/consultant
  - Select the correct Heat Pump for the Requirements, location, geology,
  - Location of the Heat Pumps is critical
  - Ensure Maintenance Department involved in design process
  - Heating or Heating & Hot Water
  - Ensure installation meets the specification
  - Consider ongoing maintenance requirements Primary & Secondary plant
  - Life Cycle Replacement cost & Logistics
  - Regular Planned Maintenance program
  - Consider Remote monitoring – involve IT
  - Back up systems in case of failure
  - Water Treatment
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- A well designed, installed and maintained system will ensure lower life cycle cost, increase reliability and ultimately customer satisfaction