Case Study

WASTEWATER HEAT RECOVERY (WWHR)

Case identifier
HIGHGATE GOLF CLUB

Country
UNITED KINGDOM (UK)

Building category
NON-RESIDENTIAL

Building subcategory
SPORTS FACILITIES

Type of Intervention in which the WWHRS was installed
DEEP RENOVATION (E.G., RENOVATING MANY BUILDING ELEMENTS)ESIGN

Occupancy and Hot Water Use
GOLF CLUB CHANGING ROOM FACILITIES USED BY MULTIPLE PEOPLE ON A DAILY BASIS

Facilities Information

- **Sewage drainage**

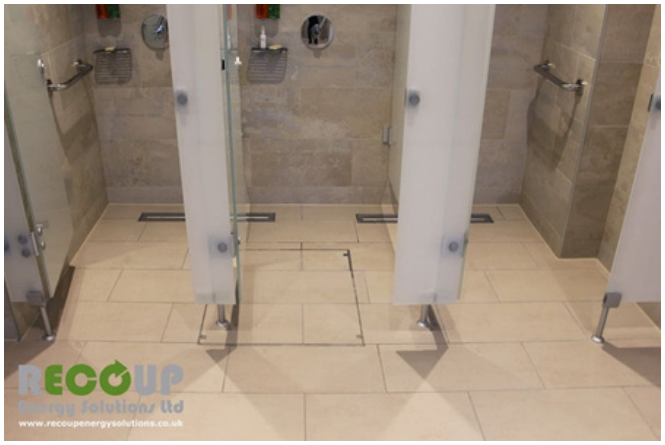
Black water from toilets is not mixed with grey water from showers, bathtubs and sinks.

- **Domestic hot water system configuration**

Centralised gas fuelled system providing heating and hot water for whole builiding.

- **Hot Water-using Bathing Appliances in the building**

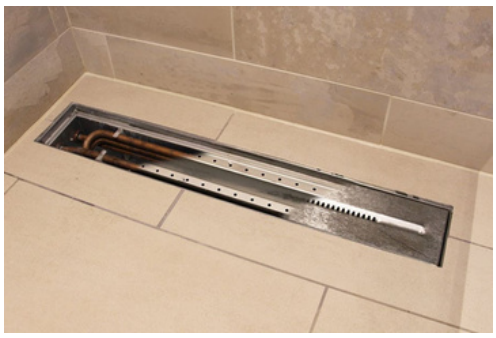
6 shower cubicles and WC facilities.



WWHRS Application Description

- **Installation type**

Decentralised. A single drain connected to each WWHRS.



- **Type of product**

Horizontal, embedded in the tray.

- **Brand and model of installed WWHRS**

Recoup Drain+ Compact.

- **Hot water-using bathing appliances connected**

Five units were installed within the cubicle facilities with the Drain+ Compact being chosen.

- **Scheme connection type**

Scheme B.

- **Installation Process**

The Recoup Drain+ Compact is positioned under the shower outlets central to the two. The floor is prerared with a recess for the Drain+ to sit into with space to make the relevant connetions at the sides or ends of the unit. The waste out is connected to the building sewerage . The cold mains connected to the lowest of the end connections and the preheated water connection (the highest) is connected to the cold outlets on both shower mixers. Once conencted pipework is protected and the space around the recoup Drain+ Compact is back filled.

- **Maintenance Actions**

No planned maintenance, Cleaning is liklely to be required by lifitng out drain cover components and removing any build up from the trap.

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WWHRS Performance Data

- **Have there been measurements of the operational performance of WWHRS?**

No.

- **Operational efficiency of the heat exchange**

Up to 40% rated efficiency.

- **Payback period of the installation**

The payback period is affected by a number of peramenters, flow rate, number of daily uses, length of shower. The estimated payback time is between 1 and 4 years.

- **Lifetime**

Over 20 years.

Case Study Provider: RECOUP.CO.UK