BREAAM Communities

BREEAM Communities is a way to improve, measure and certify the social, environmental and economic sustainability of the plans for large-scale developments by integrating sustainable design into the master-planning process.

Fabric First

Maximising the performance of the building fabric/ materials, before considering the use of building services i.e:

- Maximising air tightness
- Optimising insulation
- Optimising solar gain through openings and shading
- Using thermal mass of the building fabric

Benefits include:

- Reduce capital and operational costs
- Improve energy efficiency and carbon emissions

Future Flexibility

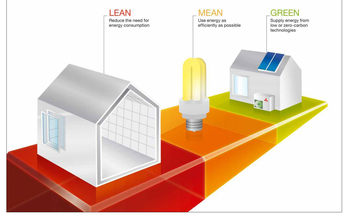
- Plug and play infrastructure - capability to connect extra developments onto district heating network.
- Capacity to expand energy centre

Clean Energy Generation

Renewable energy sources utilised include:

- Combined Heat & Power (CHP)
- Air Source Heat Pumps (ASHP)
- Photo-Voltaic Panels (PVs)

Be Lean, Be Mean, Be Green



Renewable technologies

Ground source heat pumps (GSHP)

A GSHP will be provided to provide the Leisure Centre with a renewable heat source for heating and hot water generation. Pipework laid in shallow trenches in the ground absorb heat which can then be used throughout the building during the winter. Similarly, the process can be reversed in the summer to discard excess heat.

Solar PV panels

Photovoltaic (PV) panels mounted on the roof of all new dwellings will provide a source of environmentally friendly energy. PV systems offer a sustainable source of energy production - they require little maintenance, generate no noise in operation, and have a long service life. PV panels will also be mounted on the roof of the Leisure Centre to supplement mains supplies. Panels are to be mounted in an east-west configuration and require little maintenance.

Solar thermal panels

In addition to solar PV, the larger houses with a hot water tank will also have solar thermal panels which heat water using the sun's energy. These panels will reduce household energy bills as well as lead to lower carbon emissions.

Electric car charging

Electric vehicle charging points will be included for new dwellings within the Sheerwater regeneration project. Charging stations encourage residents to choose electric vehicles and benefit from the financial, performance and environmental benefits they offer. Easy availability of charging facilities makes electric vehicle ownership more convenient and accessible.

District Heating Network

The main energy centre (located within Parcel B) will provide heating and hot water to Medium rise development.

Larger consolidated plant will consist of boilers and CHPs - reduced overall energy usage and emissions compared to itemised plant within each building.

MUGA

Flood lighting to outdoor sports complexes to be provided via energy efficient and reliable LED flood lighting.