

**Super insulate**  
Well insulated walls will keep heat loss to a minimum and combined with airtight construction will provide a comfortable healthy interior. There are both natural manufactured options available – the most important factor is ensuring the insulation is correctly installed and energy saving potential of the product

**Windows**  
Advanced windows using low-e coatings and argon fillings will improve insulation and reduce condensation.

**Building Fabric**  
Future proof the energy efficiency of dwellings over their whole life by limiting heat losses across the building envelope.

**Lighting**  
75% of the internal lighting and all external lighting is to comprise energy efficient fittings, comprising lamp, control gear and appropriate housing, reflector, shade or diffuser. High-efficiency fluorescent lamps will help reduce electricity demand

**Drying spaces**  
Provide satisfactory reduced energy means of drying clothes should be provided.

**Energy Saving Appliances**  
A+ rated or better white goods and low energy lighting reduces demand for electricity and water. Alternatively leaflets describing the EU Energy Efficiency Labelling Scheme containing details on the scheme and how it works and advice on purchasing energy efficient white goods.

**Low or Zero Carbon (LZC) Technologies**  
**Solar:** Solar Photovoltaic cells provide a low carbon means of providing electricity for the building. Heating water in the summer months with solar thermal collectors is a clean way of meeting a percentage of a buildings hot water requirements..

**Wind:** There are a number of different types of wind turbine available to suit differing sites and output requirements. A roof-mounted turbine can produce up to half of the households' annual electricity requirements.

**Biomass:** Biomass single room heaters/stoves Biomass boilers Biomass community heating schemes where the majority of heating comes from biomass

**Combined Heat and Power (CHP) and micro CHP** for use with the following fuels: natural gas biomass sewerage gas and other biogases

**Community heating,** including utilising waste heat from processes such as large scale power generation where the majority of heating comes from waste heat

**Water:** Small scale hydro power

**Heat Pumps:** Ground source heat pumps (GSHP)  
Geothermal heating systems

**Other:** Fuel cells using hydrogen generated from any of the above 'renewable' sources.  
For heat pumps to comply the heat source must be from a renewable source, for example soil, ground water or water courses.

**Cycle Storage**  
Provide adequate and secure cycle storage to encourage the wider use of bicycles as transport, thus reducing the need for short car journeys.

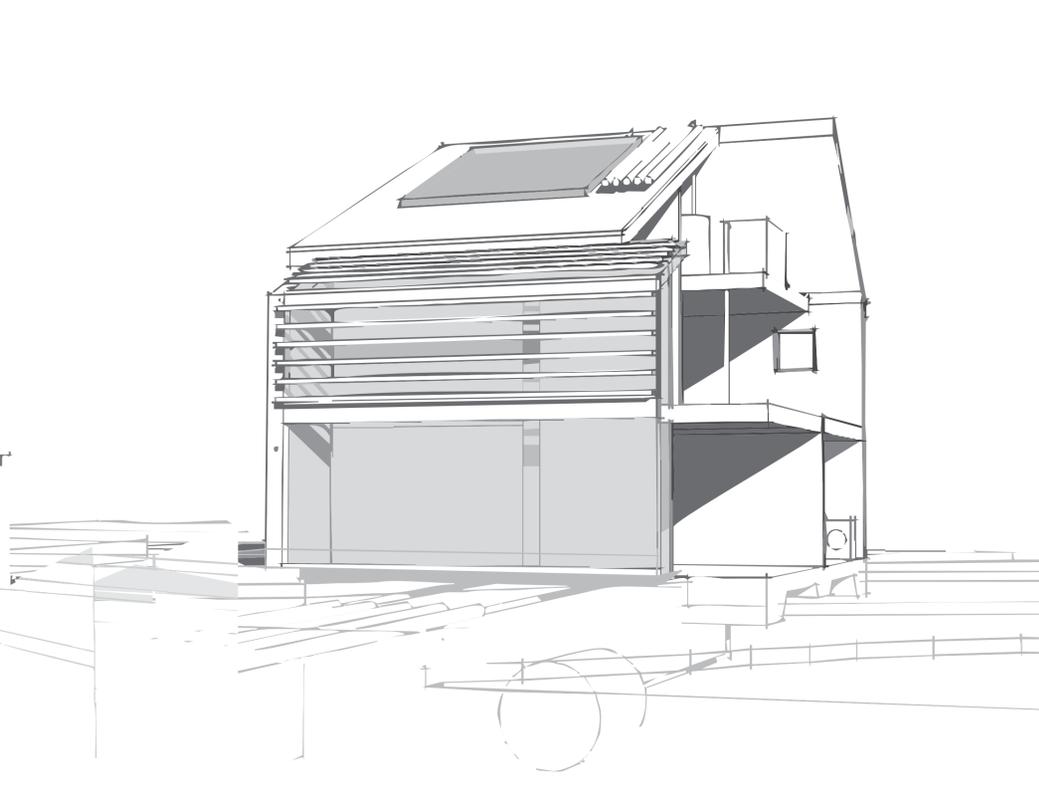
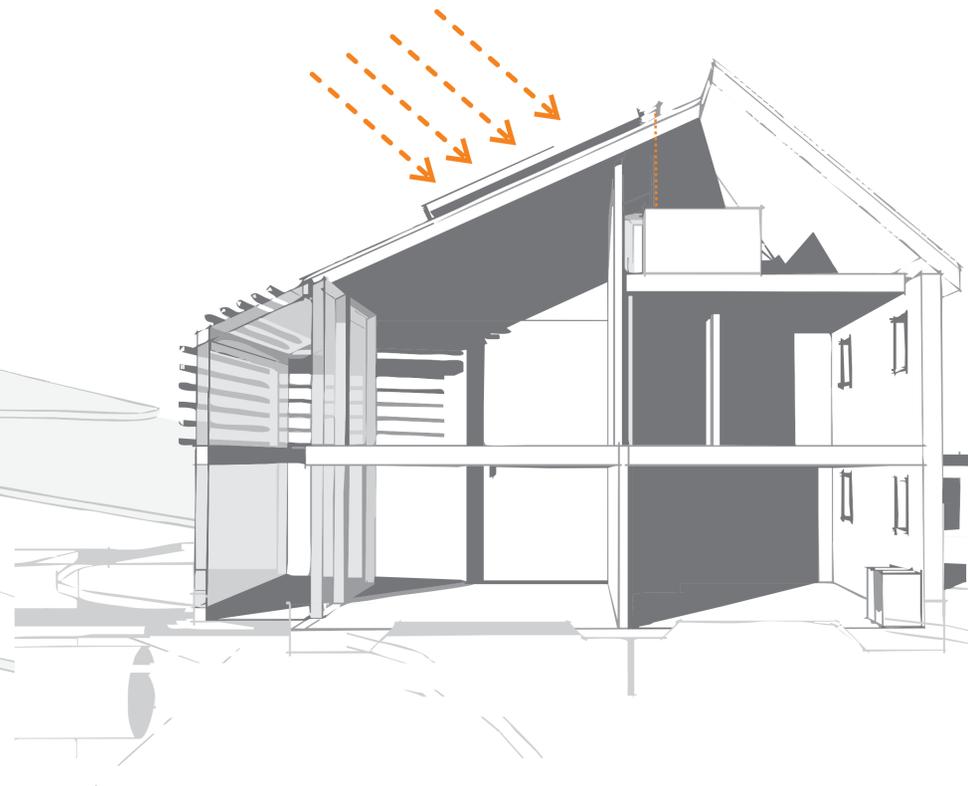
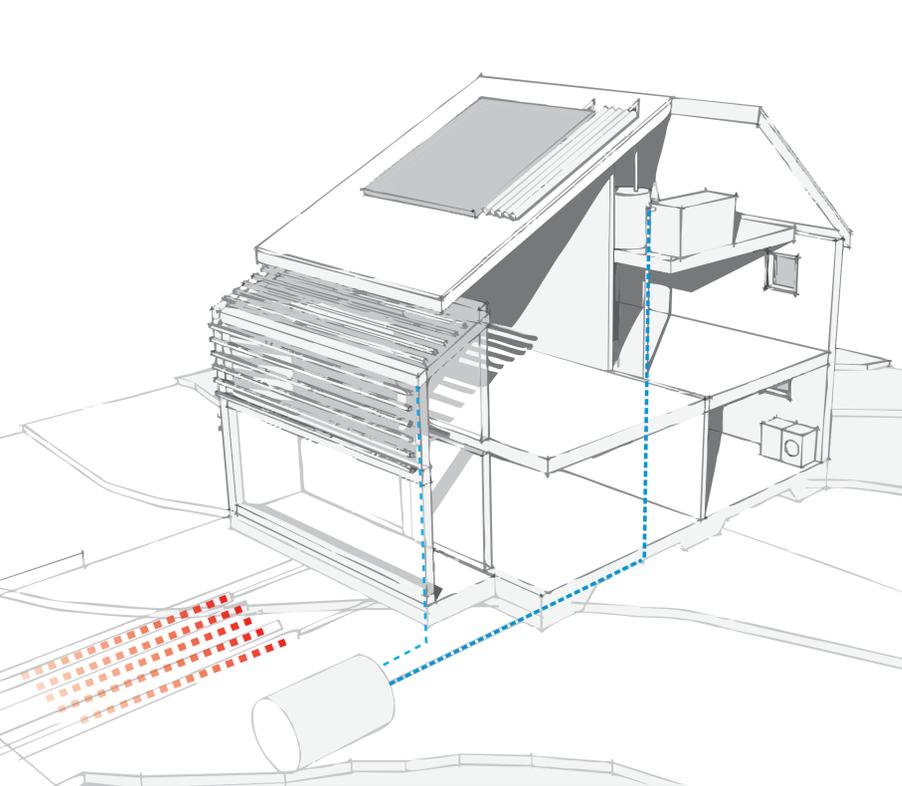
**Home Office**  
To reduce the need to commute to work by providing residents with the necessary space and services to be able to work from home.

**Rainwater Harvesting**  
To assist in storm water attenuation and to reduce the amount of water used within the building a rainwater harvesting system can be installed. A large storage tank is required that will collect rainwater from the roof, filter it and supply the house with non-potable water for use in toilet flushing and the cold feed of washing machines.

**Water and appliances**  
Reduced water consumption can be achieved through the fitting of flow restrictors or aerated taps, fit showers, smaller baths, dual/low flush WCs.

**Environmental Impact of Materials**  
Use materials with low environmental impact over their lifecycle, elements to consider are roof, external walls, internal wall, floors and windows

**Responsible Sourcing of Materials**  
Responsible sourcing of basic elemental and finishing materials should be sought.



**Healthy Interiors**  
Carefully chosen and sourced materials with non-toxic finishes will add to creating a healthy environment. Breathable constructions along with good ventilation add to the occupants well-being.

**Flood Risk**  
Reduce and delay the discharge of rainfall to public sewers and watercourses to help protect watercourses and reduce the risk of localised flooding, pollution and other environmental damage.

**Storage of non-recyclable waste and recyclable household waste**  
Sufficient space should be provided for the storage of general and recyclable waste. It should be easily accessible to the occupant.

**Construction Site Waste Management**  
Ensure developer provides a SWMP (Site Waste Management Programme) to implement procedures and commitments to sort, reuse and recycle construction waste

**Composting**  
Home composting facilities are to be provided for homes with adjoining gardens, with information leaflets regarding composting strategy for each dwelling

**Global Warming**  
Reduce global warming from blowing agent emissions that arises from the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials. Also aim to reduce the emission of nitrogen oxides (NOX) into the atmosphere.

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**Daylighting & Sunspaces**  
A good standard of natural light should be achieved so as electric light can be displaced. Sunspaces can provide good natural light to the building and assist keeping the building during the winter months. They can also provide a place to grow herbs and plants, a place to sit and extra storage area.

**Passive Solar Design**  
Basic passive solar design with principal Façade to face within 30 of due south

**Natural Ventilation**  
A heat exchanger uses the heat from the extracted air to pre-warm the fresh air ensuring 24-hour fresh and airy rooms.

**Solar Shading**  
During the summer months solar shading can be required to reduce overheating, it is important views are not compromised and maintenance is easy.

**Thermal Mass**  
High density internal finishes store energy and coolth, released when needed to keep the house warm in the winter and cool in the summer.

**Sound Insulation**  
Improve sound insulation to reduce the likelihood of noise complaints from neighbours.

Improve the occupiers' quality of life by providing an outdoor space for their use, which is at least partially private.

**Flexibility**  
Design homes to allow future adaptability of building to suit the changing needs of the occupant

**Home User Guide**  
Encourage and reward provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.

**Considerate Constructors Scheme**  
Encourage construction sites to be managed in an environmentally and socially considerate and accountable manner that mitigates environmental impact.

**Security**  
Encourage the design of developments where people feel safe and secure; where crime and disorder, or the fear of crime, does not undermine quality of life or community cohesion.

**Ecological Enhancement**  
Enhance the ecological value of a site, protect existing ecological features from substantial damage during the clearing of the site and the completion of construction works

**Building Footprint**  
Promote the most efficient use of a building's footprint by ensuring that land and material use is optimised across the development.