

# GREENSLEEVES, CRAWLEY DOWN

## Sustainability Report



**B+C** ARCHITECTURE

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## Sustainability

The proposed dwelling will exceed the minimum standards set in the current Building Regulations. It has been carefully designed by addressing sustainable design principals as follows:

- The applicants are very keen to make the proposed dwelling as sustainable as possible and close to net zero passive house.
- The building will be heated via an air source heat pump with the south facing roof utilized for solar panels both PV and solar thermal.
- The secondary heat source will be a log burning stove linked to the central heating system.
- The external fabric of the building will be pre-fabricated structural insulated timber panels.
- Rainwater will be harvested and stored to be re-used for flushing toilets and watering the garden and proposed vegetable patch.
- The proposed highly insulated and airtight building envelop with the double glazed window and door system will secure that the heat loss will be limited and in control. This also contributes to the reduction of heating demand.
- Mechanical Ventilation Heat Recovery (MVHR) to re-use stale air in the building and re-circulate as chilled fresh air which will maintain an air tight building.
- All proposed technologies will be fully designed post planning approval.

The proposed dwelling's carbon footprint will be significantly reduced by following the sustainable design principals listed above. The construction of a well-insulated and airtight building, where the energy demand is lower due to a controlled heat loss, will ensure that the building will achieve a higher quality than the national standard.

