

Green Build Award

Shortlisted: Goldsmith Street Norwich

A total of 105 dwellings for social rent, helping to meet the housing need of 292 affordable dwellings per year in Norwich.

This is a brownfield development on the site of former sheltered housing dwellings, a county care home and industrial units. The main site encompasses an area of approximately 1.2 hectares and this area will provide 93 dwellings. There are a range of properties from 1-bedroom flats through to 4-bedroom houses. This is currently under construction and due for completion in early 2019.

Two smaller sites are also included, providing 12 dwellings and these will be delivered as the second phase of the development.



(Picture: Impression of Goldsmith Street)



(Picture: Construction of Goldsmith Street)

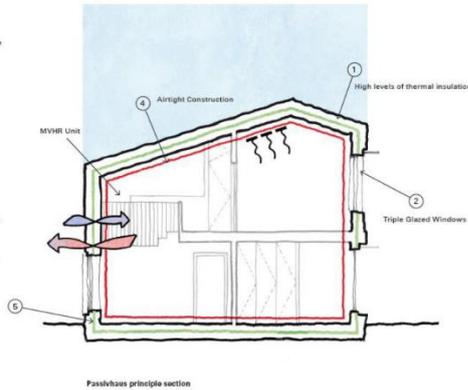
All dwellings are designed to achieve the certified PassivHaus standard, meaning this will be the largest PassivHaus scheme for social rent in the country.

Particular features of the development are:

- High quality design by Mikhail Riches architects, the development has already won the Housing Design Award in 2016 and was included in the top 10 in the world for new architecture in 2018 by The Times.
- Recreating the terraced streets in this area that were removed in post war clearance.
- High density and low massing. The development achieves approximately 80 dwellings per hectare despite the maximum height being only 3 storeys and most of the site being 2 storeys.
- Improvements to the local small park in providing play equipment and formal footpaths for the local community.

Passivhaus - The five basic principles

1. High levels of thermal insulation
The whole house is warm and winter heating bills are exceptionally low.
2. Triple glazed opening windows
No cold surfaces or condensation & plenty of ventilation all year round
3. Mechanical ventilation and heat recovery
Fresh air all year round and no wasted heat energy
4. Airtight construction
No drafts in winter
5. Thermal bridge free design
No cold spots and no condensation. No mold growth.
6. Reduced annual heating and cooling demand
Must be no more than 15 kWh/m² per year in heating and cooling



There were a number of drivers that led to the council taking the decision to deliver Passivhaus:-

Social drivers:

- Reduced energy bills for our tenants helping to tackle fuel poverty.
- Health benefits - Homes delivered to Passivhaus are reported to have better air quality, helping with asthma and allergies.

Environmental drivers:

- Complies with the council’s environmental strategy 2015-19, to ensure new development is carried out in a sustainable way (target for all council house building achieving Passivhaus or CSH4);
- Carbon reduction - In 2006 the Government introduced a target of new homes being zero carbon by 2016, which would be achieved through incremental changes to building regulations. This target was scrapped in 2015 but the council had already taken the decision that Passivhaus would be a way of delivering towards this target.
- Passivhaus has been tested against future climate change, providing an element of future proofing for these dwellings.



(Picture: Impression Greyhound Opening)

Economic Drivers:

- Upskilling the local workforce allowing them to create a niche in the construction market;
- Opportunities for local businesses as contractor (RG Carter), sub-contractors and suppliers;
- Generating income from council assets.

Political Drivers:

- Planning policy - Greater Norwich Joint Core Strategy policy 3- Energy and Water has a requirement for 10% renewables. It has been accepted that this can be waived where the development achieves the Passivhaus standard.
- Tackling fuel poverty for our tenants.
- Replacing stock lost through Right to Buy with high quality new stock.
- Quality control - Passivhaus was designed to ensure that the performance gap in house building was minimised. Other sustainability standards such as CSH have shown that the performance as designed isn’t achieved in reality.

