


Project name Old Holloway


Project summary A seductively simple self-build utilising an innovative pre-fabricated straw-bale/ timber construction. Perservering through a 4 year planning process, the single storey detached home sits snugly within its rural surroundings. The proposal creates an informal courtyard utilising the existing huts on site and the dwelling an arrangement that is typical for the local area. The scale and massing of the simple single-storey detached dwelling, with pitched roof and south facing verandah, is sympathetic to local vernacular architecture.

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Project Description

Projected build start date

Projected date of occupation 01 Nov 2017

Project stage Occupied

Project location Little Birch, Hertfordshire, England

Energy target PassivHaus

Build type New build

Building sector Private Residential

Property type Detached

Existing external wall construction Other

Existing external wall additional information Ecococon timber/ straw prefab panel system

Existing party wall construction

Floor area 95 m²

Floor area calculation method PHPP

Building certification Passivhaus certified

Project team

Organisation

Project lead

Client

Architect Juraj Mikurcik

Mechanical & electrical consultant(s)

Energy consultant(s) Nick Grant & Alan Clarke

Structural engineer

Quantity surveyor

Other consultant

Contractor Self-build, Mike Whitfield Construction Ltd

Design strategies

Planned occupancy

Space heating strategy

Water heating strategy

Fuel strategy

Renewable energy generation strategy

Passive solar strategy

Space cooling strategy

Daylighting strategy

Ventilation strategy

Airtightness strategy

Strategy for minimising thermal bridges

Modelling strategy

Insulation strategy

Other relevant retrofit strategies

Other information (constraints or opportunities influencing project design or outcomes)

Energy use

Fuel use by type (kWh/yr)

| Fuel | previous | forecast | measured |
|-----------------|----------|----------|----------|
| Electric | | | |
| Gas | | | |
| Oil | | | |
| LPG | | | |
| Wood | | | |
| | | | |

Primary energy requirement & CO2 emissions

| | previous | forecast | measured |
|--|----------|----------|----------|
| Annual CO2 emissions (kg CO2/m ² .yr) | - | - | - |

| | previous | forecast | measured |
|---|----------|----------|----------|
| Primary energy requirement (kWh/m ² .yr) | - | - | - |

Renewable energy (kWh/yr)

| Renewables technology | forecast | measured |
|--------------------------------------|----------|----------|
| - | | |
| - | | |
| Energy consumed by generation | | |

Airtightness (m³/m².hr @ 50 Pascals)

| | Date of test | Test result |
|------------------------------|--------------|-------------|
| Pre-development airtightness | - | - |
| Final airtightness | - | - |

Annual space heat demand (kWh/m².yr)

| | Pre-development | forecast | measured |
|--------------------------|-----------------|----------|----------|
| Space heat demand | - | - | - |

Whole house energy calculation method

Other energy calculation method

Predicted annual heating load

-

Other energy target(s)

Building services

Occupancy

Space heating

Hot water

Ventilation

Controls

Cooking

Lighting

Appliances

Renewables

Strategy for minimising thermal bridges

Building construction

Storeys

Volume

Thermal fabric area

Roof description

Roof U-value

Walls description

Walls U-value

Party walls description

Party walls U-value

Floor description

Floor U-value

Glazed doors description

Glazed doors U-value

Opaque doors description

Opaque doors U-value

Windows description

Windows U-value

Windows energy transmittance
(G-value)

Windows light transmittance

Rooflights description

Rooflights light transmittance

Rooflights U-value

Project images

