

Summary for Input Data

| | | | | |
|----------------------|--|---------------|-----------------------------|------------|
| Property Reference | 6381-SUST-105W-HAMPTON PARK | | Issued on Date | 04/11/2025 |
| Assessment Reference | 00001 WITH PV | Prop Type Ref | 6381-SUST-105W-HAMPTON PARK | |
| Property | Land adjacent to, 36, Hampton Park, Cotham, Bristol, , BS6 6LH | | | |

| | | | | | |
|------------------------------------|----------|---------------|-------|------|-------|
| SAP Rating | 83 B | DER | 4.06 | TER | 13.81 |
| Environmental | 97 A | % DER < TER | | | 70.60 |
| CO ₂ Emissions (t/year) | 0.21 | DFEE | 49.52 | TFEE | 55.67 |
| Compliance Check | See BREL | % DFEE < TFEE | | | 11.04 |
| % DPER < TPER | 34.50 | DPER | 48.04 | TPER | 73.34 |

| | | | |
|------------------|--|-------------|-----------|
| Assessor Details | | Assessor ID | N388-0001 |
| Client | 105 West Architects Ltd, 105 West Architects Ltd | | |

SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

| | | |
|----------------------------|---------------------|---------|
| Orientation | West | |
| Property Tenture | ND | |
| Transaction Type | 6 | |
| Terrain Type | Suburban | |
| 1.0 Property Type | House, Detached | |
| 2.0 Number of Storeys | 2 | |
| 3.0 Date Built | 2025 | |
| 4.0 Sheltered Sides | 2 | |
| 5.0 Sunlight/Shade | Average or unknown | |
| 6.0 Thermal Mass Parameter | Precise calculation | |
| Thermal Mass | 487.10 | k.J/m²K |

| | |
|--------------------------------|----------|
| 7.0 Electricity Tariff | Standard |
| Smart electricity meter fitted | Yes |
| Smart gas meter fitted | No |

| | | | | |
|------------------|---------------|---------------------|----------------------|-----------------------|
| 7.0 Measurements | | | | |
| | Ground floor: | Heat Loss Perimeter | Internal Floor Area | Average Storey Height |
| | 1st Storey: | 36.06 m | 59.37 m ² | 2.45 m |
| | | 9.16 m | 8.12 m ² | 2.20 m |

| | | |
|-----------------|-------|----------------|
| 8.0 Living Area | 53.91 | m ² |
|-----------------|-------|----------------|

| Description | Type | Construction | U-Value (W/m ² K) | Kappa (kJ/m ² K) | Gross Area(m ²) | Nett Area (m ²) | Shelter Res | Shelter | Openings | Area Calculation Type |
|-----------------|-------------|--------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|---------|----------|-----------------------|
| External Wall 1 | Cavity Wall | Other | 0.14 | 181.80 | 113.90 | 100.84 | 0.00 | None | 13.06 | Enter Gross Area |

| Description | Construction | Kappa (kJ/m ² K) | Area (m ²) |
|-----------------|----------------------------|-----------------------------|------------------------|
| Internal Wall 1 | Dense block, dense plaster | 100.00 | 68.76 |

| Description | Type | Construction | U-Value (W/m ² K) | Kappa (kJ/m ² K) | Gross Area(m ²) | Nett Area (m ²) | Shelter Code | Shelter Factor | Calculation Type | Openings |
|----------------------|---------------------|-----------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|--------------|----------------|------------------|----------|
| External Roof FLAT | External Flat Roof | Plasterboard, insulated flat roof | 0.15 | 9.00 | 49.20 | 47.36 | None | 0.00 | Enter Gross Area | 1.84 |
| External Roof RAFTER | External Slope Roof | Plasterboard, insulated slope | 0.15 | 9.00 | 9.00 | 7.84 | None | 0.00 | Enter Gross Area | 1.16 |

| Description | Storey | Construction | Area (m ²) |
|--------------------|-----------------|--|------------------------|
| Internal Ceiling 1 | Lowest occupied | Plasterboard ceiling, carpeted chipboard floor | 8.12 |

| Description | Type | Storey Index | Construction | U-Value (W/m ² K) | Shelter Code | Shelter Factor | Kappa (kJ/m ² K) | Area (m ²) |
|-------------------|----------------------|-----------------|--------------|------------------------------|--------------|----------------|-----------------------------|------------------------|
| Heatloss Floor GF | Ground Floor - Solid | Lowest occupied | Other | 0.13 | None | 0.00 | 117.00 | 59.40 |

| Description | Storey Index | Construction | Kappa (kJ/m ² K) | Area (m ²) |
|-------------|--------------|--------------|-----------------------------|------------------------|
|-------------|--------------|--------------|-----------------------------|------------------------|

Summary for Input Data

Internal Floor 1

Plasterboard ceiling, carpeted chipboard floor

18.00

8.12

12.0 Opening Types

| Description | Data Source | Type | Glazing | Glazing Gap | Filling Type | G-value | Frame Type | Frame Factor | U Value (W/m²K) |
|----------------------|--------------|-------------|------------------------|-------------|--------------|---------|------------|--------------|-----------------|
| Entrance door | Manufacturer | Solid Door | | | | 0.00 | | | 1.40 |
| Glazed door & window | Manufacturer | Window | Double Low-E Soft 0.05 | | | 0.63 | | 0.70 | 1.20 |
| Roof light | Manufacturer | Roof Light | Double Low-E Soft 0.05 | | | 0.50 | | 0.70 | 1.30 |
| Roof window | Manufacturer | Roof Window | Double Low-E Soft 0.05 | | | 0.50 | | 0.70 | 1.30 |

13.0 Openings

| Name | Opening Type | Location | Orientation | Area (m²) | Pitch |
|------|----------------------|----------------------|-------------|-----------|-------|
| ED1 | Entrance door | External Wall 1 | West | 1.94 | |
| ED2 | Glazed door & window | External Wall 1 | East | 7.68 | |
| W1/2 | Glazed door & window | External Wall 1 | East | 1.77 | |
| W3-5 | Glazed door & window | External Wall 1 | East | 1.10 | |
| W6 | Glazed door & window | External Wall 1 | North | 0.57 | |
| RL1 | Roof light | External Roof FLAT | Horizontal | 0.56 | 0 |
| RL2 | Roof light | External Roof FLAT | Horizontal | 1.28 | 0 |
| RW1 | Roof window | External Roof RAFTER | East | 1.16 | 31 |

14.0 Conservatory

None

15.0 Draught Proofing

100 %

16.0 Draught Lobby

No

17.0 Thermal Bridging

Calculate Bridges

17.1 List of Bridges

| Bridge Type | Source Type | Length | Psi | Adjusted Reference: | Imported |
|--|------------------------|--------|-------|---------------------|----------|
| E1 Steel lintel with perforated steel base plate | Independently assessed | 7.55 | 0.29 | 0.29 | Yes |
| E3 Sill | Independently assessed | 3.45 | 0.03 | 0.03 | No |
| E4 Jamb | Independently assessed | 20.68 | 0.02 | 0.02 | Yes |
| E5 Ground floor (normal) | Independently assessed | 36.06 | 0.04 | 0.04 | Yes |
| E6 Intermediate floor within a dwelling | Independently assessed | 9.16 | 0.00 | 0.00 | Yes |
| E16 Corner (normal) | Independently assessed | 23.73 | 0.05 | 0.05 | No |
| R1 Head of roof window | Table K1 - Default | 0.80 | 0.24 | 0.24 | Yes |
| R2 Sill of roof window | Table K1 - Default | 0.80 | 0.24 | 0.24 | Yes |
| R3 Jamb of roof window | Table K1 - Default | 2.90 | 0.24 | 0.24 | Yes |
| R11 Upstands or kerbs of rooflights | Table K1 - Default | 7.80 | 0.24 | 0.24 | Yes |
| E11 Eaves (insulation at rafter level) | Independently assessed | 4.43 | 0.02 | 0.02 | No |
| E13 Gable (insulation at rafter level) | Independently assessed | 4.93 | 0.04 | 0.04 | No |
| E14 Flat roof | Independently assessed | 30.72 | 0.05 | 0.05 | No |
| E17 Corner (inverted – internal area greater than external area) | Independently assessed | 2.45 | -0.07 | -0.07 | No |
| R7 Flat ceiling (inverted) | Table K1 - Default | 0.00 | 0.12 | 0.12 | No |

Y-value 0.04 W/m²K

19.0 Mechanical Ventilation

Mechanical Ventilation

| | |
|--|--|
| Mechanical Ventilation System Present | Yes |
| Mechanical Ventilation data Type | Data Sheet |
| Type | Balanced mechanical ventilation with heat recovery |
| Manufacturer SFP | 0.50 |
| Duct Type | Rigid |
| MVHR Efficiency | 80.00 |
| Wet Rooms | 1 |
| Brand, Model | TBC |
| SFP from Installer Commissioning Certificate | No |
| MVHR System Location | Inside heated envelope (installed exclusively) |
| Duct Installation Specification | Level 1 |

20.0 Fans, Open Fireplaces, Flues

| | |
|--|---|
| Number of open chimneys | 0 |
| Number of open flues | 0 |
| Number of chimneys/flues attached to closed fire | 0 |
| Number of flues attached to solid fuel boiler | 0 |
| Number of flues attached to other heater | 0 |
| Number of blocked chimneys | 0 |
| Number of intermittent extract fans | 0 |

Summary for Input Data

Number of passive vents

Number of flueless gas fires

21.0 Fixed Cooling System

22.0 Pressure Testing

Designed AP₅₀ m²/(h.m²) @ 50 Pa

Test Method

22.0 Lighting

No Fixed Lighting

| Name | Efficacy | Power | Capacity | Count |
|------------|----------|-------|----------|-------|
| Lighting 1 | 80.00 | 5.00 | 400.00 | 12 |

24.0 Main Heating 1

Description

Percentage of Heat %

Database Ref. No.

Fuel Type

In Winter

In Summer

Model Name

Manufacturer

System Type

Controls SAP Code

Is MHS Pumped

Heating Pump Age

Heat Emitter

Underfloor Heating

Flow Temperature

Flow Temperature Value

25.0 Main Heating 2

26.0 Heat Networks

27.0 Secondary Heating

28.0 Water Heating

Water Heating

SAP Code

Flue Gas Heat Recovery System

Waste Water Heat Recovery Instantaneous System 1

Waste Water Heat Recovery Instantaneous System 2

Waste Water Heat Recovery Storage System

Solar Panel

Water use <= 125 litres/person/day

Cold Water Source

Bath Count

Immersion Only Heating Hot Water

28.1 Showers

| Description | Shower Type | Flow Rate [l/min] | Rated Power [kW] | Connected | Connected To |
|-------------|-------------------------------|-------------------|------------------|-----------|--------------|
| TBC | Instantaneous electric shower | | 10.00 | No | |

28.3 Waste Water Heat Recovery System

Summary for Input Data

29.0 Hot Water Cylinder

| | |
|--------------------------|----------------------------------|
| Hot Water Cylinder | Hot Water Cylinder |
| Cylinder Stat | Yes |
| Cylinder In Heated Space | Yes |
| Independent Time Control | Yes |
| Insulation Type | Measured Loss |
| Cylinder Volume | 150.00 |
| Loss | 1.80 |
| Pipes insulation | Fully insulated primary pipework |
| In Airing Cupboard | No |

L

kWh/day

31.0 Thermal Store

None

32.0 Photovoltaic Unit

| |
|------------------------|
| One Dwelling |
| Export Capable Meter? |
| Yes |
| Connected To Dwelling |
| Yes |
| Diverter |
| No |
| Battery Capacity [kWh] |
| 0.00 |

| PV Cells kWp | Orientation | Elevation | Overshading | FGHRS | MCS Certificate | Overshading Factor | MCS Certificate Reference | Panel Manufacturer |
|--------------|-------------|------------|----------------|-------|-----------------|--------------------|---------------------------|--------------------|
| 1.50 | South | Horizontal | None Or Little | | No | 1.00 | | |

34.0 Small-scale Hydro

None

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

| Typical Cost | Typical savings per year | Ratings after improvement | |
|-----------------|--------------------------|---------------------------|----------------------|
| | | SAP rating | Environmental Impact |
| £4,000 - £7,000 | £80 | B 85 | A 97 |
| | | 0 | 0 |
| | | 0 | 0 |

Energy Report



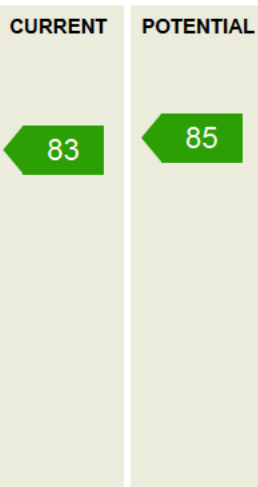
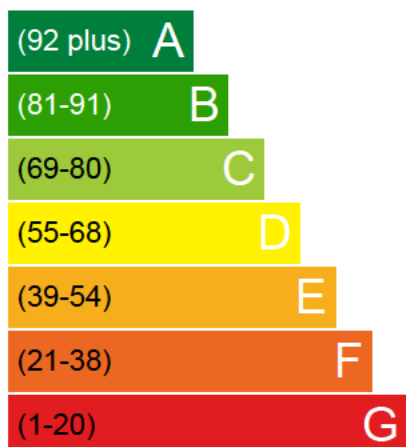
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|------------------|--|
| Dwelling Address | Land adjacent to, 36, Hampton Park, Cotham, Bristol, , BS6 6LH |
| Reference | 6381-SUST-105W-HAMPTON PARK-00001 WITH PV |
| Assessment Date | 04/11/2025 |
| Submission Date | |
| Property Type | House, Detached |
| Total Floor Area | 67 |

This Energy Report has been generated using the UK's National Calculation Methodology for dwellings, Standard Assessment Procedure (SAP). This methodology is used to assess the energy efficiency of dwellings which is calculated based on a dwelling's heating, hot water, ventilation and lighting usage.

This document is not an Energy Performance Certificate (EPC) as required by the Energy Performance of Buildings Regulations

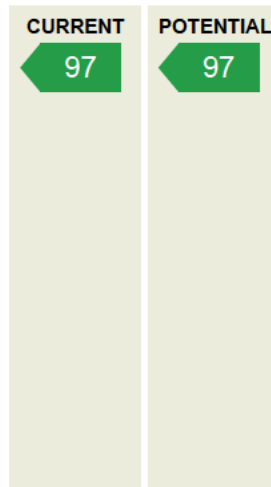
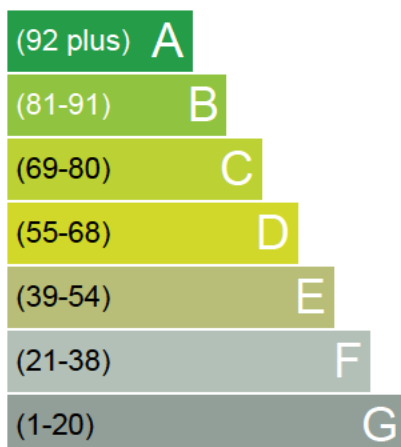
Energy Efficiency Rating

Most energy efficient - lower running costs



Carbon Dioxide (CO2) Emissions Rating

Very environmentally friendly - lower CO2 emissions



Additional ratings for your home

| | Primary Energy | Energy | Carbon | Cost | HTC |
|-----------|----------------|----------|--------|----------|--------|
| CURRENT | 38.67 kWh | 1256 kWh | 206 kg | 490.54 £ | 75 W/K |
| POTENTIAL | 32.53 kWh | 952 kWh | 168 kg | 410.59 £ | 75 W/K |

Breakdown of property's energy performance

Each feature is assessed as one of the following:

| | | | | |
|-----------|------|---------|------|-----------|
| Very Poor | Poor | Average | Good | Very Good |
|-----------|------|---------|------|-----------|

| Feature | Description | Energy Performance |
|-----------------------|--|--------------------|
| Walls | Average thermal transmittance 0.14 W/m ² K | Very Good |
| Roof | Average thermal transmittance 0.15 W/m ² K | Very Good |
| Floor | Average thermal transmittance 0.13 W/m ² K | Very Good |
| Windows | High performance glazing | Good |
| Main heating | Air source heat pump, radiators and underfloor, electric | Average |
| Main heating controls | Time and temperature zone control | Very Good |
| Secondary heating | None | |
| Hot water | From main system | Average |
| Lighting | Good lighting efficiency | Good |
| Air tightness | Air permeability [AP50] = 3.0 m ³ /h.m ² (assumed) | Good |

Recommendations





The recommended measures provided below will help to improve the energy efficiency of the dwelling. To reach the dwelling's potential energy rating all of the recommended measures shown below would need to be installed. Having these measures installed individually or in any other order may give a different result when compared with the cumulative potential rating.

| Recommended measures | Cumulative savings (per year) | Cumulative rating | Typical costs | Incremental savings (per year) | Cumulative CO2 rating |
|----------------------|-------------------------------|-------------------|-----------------|--------------------------------|-----------------------|
| Solar water heating | £80 | B 85 | £4,000 - £7,000 | £80 | A 97 |

The typical cost is based on average installation prices across the country so may not be representative of the actual costs in your area.

Estimated energy costs of the dwelling

The table below shows the estimated running costs of the space and water heating and lighting within the dwelling. It does not include the energy used from household appliances. The estimated annual costs after potential improvements indicates the total energy cost if all recommended measures named above were installed.

| | | Estimated annual costs | Estimated annual costs after potential improvements | Potential future savings |
|------------------------------------|---|------------------------|---|---|
| Lighting |  | £53 | £53 |  |
| Heating |  | £230 | £253 | |
| Hot Water |  | £433 | £324 | |
| New Technologies e.g. Impact of PV | | -(£226) | -(£220) | |
| TOTAL | | £491 | £411 | |

Estimated energy use and potential savings



Space Heating

671
kWh per year



Water Heating

928
kWh per year

About this document

Created by:
Company/Trading name:
Phone number:
Email address:

Disclaimer

This Energy Report should not under any circumstances be treated as a Condition Survey and cannot be used to indicate that any element of the dwelling (e.g. heating system) is working correctly.
This Energy Report must not be used in situations where an Energy Performance Certificate (EPC) is required.
This Energy Report is generated from a set of data inputs which may not reflect the actual dimensions, services or construction of the dwelling.
The calculation used to generate this report reflects the SAP Methodology current at the time of report generation.

Glossary terms for additional metrics

| | |
|---------------------------|---|
| Primary Energy | The measure of the energy required for lighting, heating and hot water in a property. This includes the efficiency of the property's heating system, power station efficiency for electricity and the energy used to produce the fuel and deliver it to the property. |
| Energy Used | The estimated amount of fuel energy for lighting, heating and hot water for the property. The estimate is based on typical usage which is likely to be different to actual consumption. |
| Carbon (CO ₂) | The current emissions based on the energy estimates. |
| Cost | The estimated cost of energy. The cost of each unit of fuel is based on an industry standard which is likely to be different to those the occupier actually pays. |
| Heat Transfer Coefficient | Heat flow through the property envelope where internal and external temperatures are different. |