atspaceltd.co.uk



1 Plot Development

# SAP Comprehensive Case Study



Call us today on 0800 917 8922 to speak with an adviser or visit atspaceltd.co.uk



# **Dwelling Details**

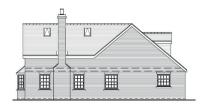
### 1x Detached Dwelling

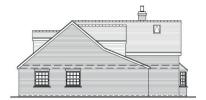
- 4 bedroom property
- Timber frame construction
- Brick façade

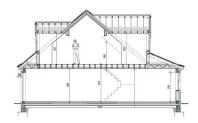
- Closed cell panels
  Electric heating
  Aim: to achieve an A Rating with a cost saving

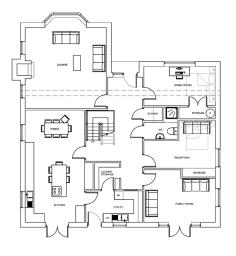


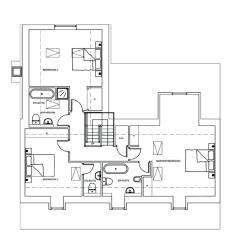














#### **Initial SAP Result**

## **Client Specification**

- EPC Rating 92 A
- CO<sub>2</sub> Emissions 1,614 kg/year
- -69.13% Under Compliance
- Dwelling Emissions Rate (DER) 6.9 kgCO<sub>2</sub>/m<sup>2</sup>/year
- Dwelling Fabric Energy Efficiency (DFEE) 52.1 kWh/m²/year

## **Our Cost Saving Changes**

What We Changed

Changed the air source heat pump to an electric water storage boiler

## **Proposed SAP Result**

With Cost Saving Changes

- EPC Rating 92 A
- CO<sub>2</sub> Emissions 5294 kg/year
- -1.83% Under Compliance
- Dwelling Emissions Rate (DER) 21.97 kg/CO<sub>2</sub>/m<sup>2</sup>/year
- Dwelling Fabric Energy Efficiency (DFEE) 52.1 kWh/m²/year



## **Comparision of Results**

**Initial** 

EPC Rating 92 A

CO<sub>2</sub> Emissions – 1,614 kg/year

-6.9% Under Compliance

Dwelling Emissions Rate (DER) – 6.9  $kgCO_2/m^2/year$ 

Dwelling Fabric Energy Efficiency (DFEE) – 52.1 kWh/m²/year

Proposed

EPC Rating 92 A

CO<sub>2</sub> Emissions – 5,294 kg/year

-1.83% Under Compliance

Dwelling Emissions Rate (DER) -21.97 kg/CO<sub>2</sub>/m²/year

Dwelling Fabric Energy Efficiency (DFEE) – 52.1 kWh/m²/year

## **Cost Comparison**

**Initial** 

Air source heat pump – £8,000

**TOTAL £8,000** 

Proposed

Electric water storage boiler – £4,000

**TOTAL £4,000** 

What We Achieved

Savings Made

£4,000 on the dwelling