#### PREDICTED ENERGY ASSESSMENT

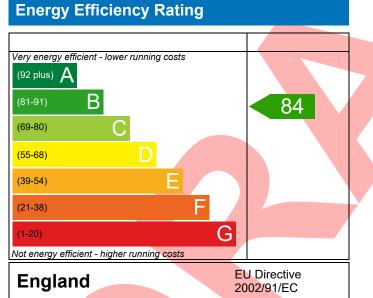


Plot 063, 3 Bed, K, WC, U, 2B Dwelling type: Date of assessment: Produced by: Total floor area:

House, Semi-Detached 05/08/2021 Ross Elliott 108.93 m<sup>2</sup>

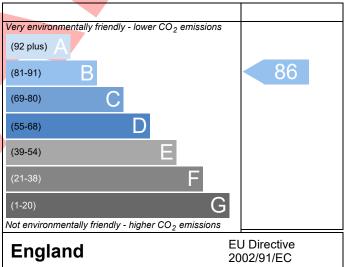
This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide  $(CO_2)$  emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

#### Environmental Impact (CO<sub>2</sub>) Rating



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide  $(CO_2)$  emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.



# **BUILDING REGULATION COMPLIANCE** Calculation Type: New Build (As Designed)



Reference     Property     Plot 063, 3 Bed, K, WC, U, 28       SAP Rating     84 B     DER     16.80     TER     17.66       Environmental     85 B     26 DERSTER     4.55     6       C0, Emissions (L/year)     1.54     DFEE     49 07     TFEE     58.92       General Requirements Compliance     Pass     % DFEE     16.72     Assessor ID     P639-000       Silvio junges, Silvio Silvio Junges, Silvio Silvio Silvio Junges, Silvio	Property Reference	4907-0025-4352-063				Issued on Date	05/08/202
Property     Plot 063, 3 Bed, K, WC, U, 28       SAP Rating     84 B     DER     16.80     TER     17.66       Environmental     86 B     % DERATER     4.55     68.92       CO2 emissions (I/year)     1.54     DEE     49.07     TEE     58.92       General Requirements Compliance     % DFEE     16.72     Assessor ID     P639-000       silvio junges@aessouthern.co.uk     Mr. Silvio Junges@aessouthern.co.uk     Assessor ID     P639-000       Client     Hill Western     Mustern     Assessor ID     P639-000       VUMARY FOR INPUT DATA FOR New Build (As Designed)     Client     Hill Western     Assessor ID     P639-000       Iterition 1 – Achieving the TER and TFEE rate     Ia     Ia <thia< th="">     Ia     <thia< th="">     Ia<th></th><th colspan="5">Plot 063 Prop Type Ref HT3_S_B Semi Op</th></thia<></thia<>		Plot 063 Prop Type Ref HT3_S_B Semi Op					
SAP Rating   S4 B   DER   15.80   TER   17.66     Environmental   86 B   % DER <ter< td="">   4.56   4.56     CO2 Emissions (1/year)   1.54   DEEE   49.07   TEE   58.92     General Requirements Compliance   Pass   % DEE   16.72   Assessor DD   P639-000     Silvio Junges, Gilvio Junges, Silvio Junges, Tel: 01884 242050,   Assessor DD   P639-000   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     Client   Hill Western   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     Client   Hill Western   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     Client   Hill Western   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     Client   Hill Western   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     Client   Hill Western   Silvio Junges, Gaessouthern.co.uk   Assessor DD   P639-000     UMARY FOR INPUT DATA FOR New Build (As Designed)   Silvio Junges, Gaessouthern.co.uk   KgC0,/m<sup>2</sup>   Pass     Cherterion 1 - Achieving the TER and TFEE rate   1.00 (mains gas)   Lie Gaesso   KgC0,/m<sup></sup></ter<>							
Environmental 86 B % DER <per 4.56<br="">CO2 Emissions (t/year) 1.54 DFEE 49.07 TFEE 58.92 General Requirements Compliance Pass % DFEE&lt;7FEE 16.72 Assessor Details Mr. Silvio Junges, Silvio Junges, Tel: 01384 242050, Assessor ID P639-000 Silvio Junges@assouthern.co.uk Client Hill Western SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate La TER and DER Fuel for main heating Fuel factor 1.00 (mains gab) Target Carbon Dioxide Emission Rate (TER) 1.00 (mains gab) Develling Carbon Dioxide Emission Rate (TER) 1.00 (mains gab) Carbon Dioxide Emission Rate (TER) 1.00 (mains gab) Carbon Dioxide Emission Rate (DER) 1.6.80 kgCO<sub>2</sub>/m<sup>2</sup> b TFEE and DEE Target Fabric Energy Efficiency (TFEE) 58.92 kWh/m<sup>2</sup>/yr Dwelling Fabric Energy Efficiency (TFEE) 58.92 kWh/m<sup>2</sup>/yr Dwelling Fabric Energy Efficiency (TFEE) 58.92 kWh/m<sup>2</sup>/yr Dwelling Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.20 (max. 0.30) 0.20 (max. 0.70) Pas Floor 0.12 (max. 0.20) - Pas Floor 0.12 (max. 0.20) - Pas Gorings 1.20 (max. 2.00) 1.20 (max. 0.70) Pas Openings 1.20 (max. 2.00) 1.20 (max. 0.30) Pas Openings 1.20 (max. 2.00) 1.20 (max. 0.30) Pas Aritermability Arit permeability Arit permeability 45 0p ascals 4.00 (design value) m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa Maximum 1.00 m<sup>3</sup>/le.m<sup>2</sup> @ 50 Pa Pas Limiting System Efficiences</per>	Property	Plot 063, 3 Bed, K, WC, I	J, 2B				
CO2 Emissions (t/year)   1.54   DFEE   49.07   TFEE   58.92     General Requirements Compliance   Pass   % DFEE   16.72     Assessor Details   Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050, silvio.junges@aessouthern.co.uk   Assessor ID   P639-000     Client   Hill Western   SUMARY FOR INPUT DATA FOR New Build (As Designed)   Formation of the term   Formation of the term     SUMARY FOR INPUT DATA FOR New Build (As Designed)   Tracet Carbon Dioxide Emission Rate (TER)   1.00 (mains gas)   Formation of the term     Target Carbon Dioxide Emission Rate (TER)   1.00 (mains gas)   kgCO2/m <sup>2</sup> Pass     Dwelling Carbon Dioxide Emission Rate (DER)   58.92   kWh/m²/yr   Pass     Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m²/yr   Pass     Dwelling Fabric Energy Efficiency (TFEE)   58.92   kWh/m²/yr   Pass     Citerion 2 - Limits on design flexibility   19.8 (-16.6%)   kWh/m²/yr   Pass     Limiting Fabric Standards   2 Fabric L-values   Past   Pass   1.20 (max. 0.70)   Pass     Floor   0.12 (max. 0.25)   0.12 (max. 0.25)   Pass   Openings   1.20 (max. 3.30)   Pass	SAP Rating		84 B	DER	16.80	TER	17.60
General Requirements Compliance   Pass   % DFEE-TTFEE   16.72     Assessor Details   Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050, silvio,junges@aessouthern.co.uk   Assessor ID   P639-000     Client   Hill Western   Status   Assessor ID   P639-000     SUMARY FOR INPUT DATA FOR New Build (As Designed)   Status   Feed for main heating   Feed for	Environmental		86 B	% DER <ter< td=""><td></td><td>4.56</td><td></td></ter<>		4.56	
Assessor Details   Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050, silvio.junges@aessouthern.co.uk   Assessor ID   P639-000     Client   Hill Western   Silvio.junges@aessouthern.co.uk   Assessor ID   P639-000     Client   Hill Western   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Assessor ID   P639-000     Client   Hill Western   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk     Client   Hill Western   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk     Client   La TER and DER   Internation Silvio.solvide Emission Rate (TER)   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk     Target Carbon Dioxide Emission Rate (TER)   10.00 (mains gas)   Figure Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.junges@aessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.jungesilviessouthern.co.uk   Silvio.gen.junge	CO <sub>2</sub> Emissions (t/year)		1.54	DFEE	49.07	TFEE	58.92
Silvio junges@aessouthern.co.uk     Client     VUMARY FOR INPUT DATA FOR New Build (As Designed)     Criterion 1 – Achieving the TER and TFEE rate     a TER and DER     Fuel for main heating   Mains gas     Fuel for Carbon Dioxide Emission Rate (TER)   17.60   kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Fabric Energy Efficiency (TFEE)   58.92   kWh/m <sup>2</sup> /yr     Dwelling Fabric Energy Efficiency (DFEE)   58.92   kWh/m <sup>2</sup> /yr     Dwelling Fabric Energy Efficiency (DFEE)   58.92   kWh/m <sup>2</sup> /yr     Dwelling Fabric Standards   2   2   File     2 Fabric U-values   Highest   Eternal wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.35)   Pas   Pas     Go of   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Air permeability   4.00 (design value)   m <sup>2</sup> /(h.m <sup>2</sup> ) @ 50 Pa   Maximum <td>General Requirements</td> <td>Compliance</td> <td>Pass</td> <td>% DFEE<tfee< td=""><td></td><td>16.72</td><td></td></tfee<></td>	General Requirements	Compliance	Pass	% DFEE <tfee< td=""><td></td><td>16.72</td><td></td></tfee<>		16.72	
WMARY FOR INPUT DATA FOR New Build (As Designed)     Criterion 1 – Achieving the TER and TFEE rate     La TER and DER     Fuel for main heating   Mains gas     Fuel for main heating   I.00 (mains gas)     Target Carbon Dioxide Emission Rate (TER)   II.6.0   kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)   I6.80   kgCO <sub>2</sub> /m <sup>2</sup> Pas     -0.80 (-4.5%)   kgCO <sub>2</sub> /m <sup>2</sup> Pas   -0.80 (-4.5%)   kgCO <sub>2</sub> /m <sup>2</sup> Pas     Lo TFEE and DFEE     Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m <sup>2</sup> /yr   Pas     Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m <sup>2</sup> /yr   Pas     Dwelling Fabric Standards     Zabric U-values     Element   Average   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Roof   0.12 (max. 0.25)   0.12 (max. 0.35)   Pas     Goof   0.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Are remability   Air permeability   Air permeability   Maximum   10.0   m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa   Pas			-	242050,		Assessor ID	P639-0001
Criterion 1 – Achieving the TER and TFEE rate     In TER and DER     Fuel for main heating   Main's gas     Fuel for main heating   1.00 (mains gas)     Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO2/m²     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m²   Pas     -0.80 (-4.5%)   kWh/m²/yr   Pas     Criterion 2 - Limits on design flexibility   Limiting Fabric Standards   Pas     2 Fabric U-values   Element   Average   Highest     External wall   0.20 (max. 0.20)   0.12 (max.	Client	l Western					
riterion 1 – Achieving the TER and TFEE rate     a TER and DER   Fuel for main heating   Main's gas     Fuel for main heating   1.00 (mains gas)   Pase     Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO2/m²   Pase     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m²   Pase     -0.30 (-4.5%)   kgCO2/m²   Pase     b TFEE and DFEE   -0.30 (-4.5%)   kgCO2/m²   Pase     Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m²/yr   Pase     Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m²/yr   Pase     Criterion 2 - Limits on design flexibility   Limiting Fabric Standards   2     2 Fabric U-values   Element   Average   Highest     External wall   0.20 (max. 0.30)   -   Pase     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pase     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pase     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pase     Air permeability   Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum <td>UMARY FOR INPUT DA</td> <td>TA FOR New Build (As D</td> <td>esigned)</td> <td></td> <td></td> <td></td> <td></td>	UMARY FOR INPUT DA	TA FOR New Build (As D	esigned)				
a. TER and DER     Fuel for main heating   Mains gas     Fuel factor   1.00 (mains gas)     Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO2/m²     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m²   Pas     b. TFEE and DFEE			<u> </u>				
Fuel for main heating   Mains gas     Fuel factor   1.00 (mains gas)     Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO <sub>2</sub> /m <sup>2</sup> Pas     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO <sub>2</sub> /m <sup>2</sup> Pas     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO <sub>2</sub> /m <sup>2</sup> Pas     De TFEE   58.92   kWh/m <sup>2</sup> /yr   Pas     Dwelling Fabric Energy Efficiency (TFEE)   58.92   kWh/m <sup>2</sup> /yr   Pas     Dwelling Fabric Standards   2   Element   Average   Highest     Element   Average   Highest   Pas     Floor   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Roof   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   1.20 (max. 3.30)   Pas     Za Thermal bridging calculated from linear thermal transmittances for each junction   3 Air permeability   Maximum   10.0   m <sup>3</sup> /(h.m <sup>3</sup> ) @ 50 Pa   Pas     Maximum   10.0   m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa   Pas   Pas   Pas							
Fuel factor   1.00 (mains gas)     Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO2/m²     Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m²   Pas     -0.80 (-4.5%)   kWh/m²/yr   Pas     -0.80 (-4.6%)   kWh/m²/yr   Pas     -0.80 (-4.6%)   kWh/m²/yr   Pas     -0.12 (mat on design flexibility   Limiting Fabric Standards   Pas     2 Fabric U-values   -   Pas     -   -   Pas   Pas     -   -   0.20 (max. 0.30)   -   Pas     -   -   0.12 (max. 0.20)		7	Mains	35			
Target Carbon Dioxide Emission Rate (TER)   17.60   kgCO2/m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m <sup>2</sup> b TFEE and DFEE   -0.80 (-4.5%)   kgCO2/m <sup>2</sup> Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m <sup>2</sup> /yr     Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m <sup>2</sup> /yr     Pas   (-16.6%)   0.20 (max. 0.70)   Pas     Party wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Floor   0.12 (max. 0.20)   -   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     2a Thermal bridging   4.00 (design value)   m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa   Pas     Maximum   10.0   m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa   Pas     Limiting System Efficien		2					
Dwelling Carbon Dioxide Emission Rate (DER)   16.80   kgCO2/m²   Pas     b TFEE and DFEE   -0.80 (-4.5%)   kgCO2/m²   Pas     Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m²/yr   Pas     Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m²/yr   Pas     viterion 2 - Limits on design flexibility   49.07   kWh/m²/yr   Pas     Limiting Fabric Standards   2   2   kWh/m²/yr   Pas     2 Fabric U-values   Element   Average   Highest   Pas     Elor   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     2a Thermal bridging   4.00 (design value)   m³/(h.m²) @ 50 Pa   Maximum     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas     Limiting System Efficiencies   10.0   m³/(h.m²) @ 50 Pa   Pas		le Emission Rate (TER)				kgCO <sub>2</sub> /m <sup>2</sup>	
b TFEE and DFEE   -0.80 (-4.5%)   kgCO2/m²     Target Fabric Energy Efficiency (TFEE)   58.92   kWh/m²/yr     Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m²/yr     -9.8 (-16.6%)   kWh/m²/yr   Pas     Criterion 2 - Limits on design flexibility   -9.8 (-16.6%)   kWh/m²/yr     Limiting Fabric Standards   -   -     2 Fabric U-values   -   -     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   -     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     2a Thermal bridging   -   -   -     Air permeability   Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas   Pas	-						Pass
b TFEE and DFEE     Target Fabric Energy Efficiency (TFEE)     Dwelling Fabric Energy Efficiency (DFEE)     49.07     -9.8 (-16.6%)     kWh/m²/yr     -9.8 (-16.6%)     criterion 2 - Limits on design flexibility     Limiting Fabric Standards     2 Fabric U-values     Element   Average     Highest     External wall   0.20 (max. 0.30)     0.20 (max. 0.70)   Pass     Floor   0.12 (max. 0.20)     -   0.12 (max. 0.20)     Roof   0.12 (max. 0.20)     0.20 (max. 0.30)   Dass     Openings   1.20 (max. 2.00)     1.20 (max. 3.30)   Pass     Openings   1.20 (max. 2.00)     1.20 (max. 3.30)   Pass     Air permeability   Air permeability     Air permeability   10.0   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa     Pass   4.00 (design value)   m³/(h.m²) @ 50 Pa	0	,					
Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m²/yr     9.8 (-16.6%)   kWh/m²/yr   Pas     Criterion 2 – Limits on design flexibility   Limiting Fabric Standards     2 Fabric U-values   Verage   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Za Thermal bridging   Thermal bridging calculated from linear thermal transmittances for each junction   3 Air permeability   Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas	b TFEE and DFEE						
Dwelling Fabric Energy Efficiency (DFEE)   49.07   kWh/m²/yr     9.8 (-16.6%)   kWh/m²/yr   Pas     criterion 2 - Limits on design flexibility   Limiting Fabric Standards     Limiting Fabric Standards     2 fabric U-values     Element   Average   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Za Thermal bridging   Thermal bridging calculated from linear thermal transmittances for each junction   3 Air permeability     Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas     Limiting System Efficiencies   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas	Target Fabric Energy	Efficiency (TFEE)	58.92			kWh/m²/yr	
Criterion 2 – Limits on design flexibility     Limiting Fabric Standards     2 Fabric U-values     Element   Average   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Za Thermal bridging     Thermal bridging calculated from linear thermal transmittances for each junction     3 Air permeability   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas	Dwelling Fabric Ener	gy Efficiency (DFEE)	49.07	7		kWh/m²/yr	
Limiting Fabric Standards     2 Fabric U-values   Highest     Element   Average   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas     Za Thermal bridging   Thermal bridging calculated from linear thermal transmittances for each junction     3 Air permeability   Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas			-9.8 (-16	6.6%)		kWh/m²/yr	Pass
Z Fabric U-values   Average   Highest     Element   Average   Highest     External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pass     Party wall   0.00 (max. 0.20)   -   Pass     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pass     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pass     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pass     Za Thermal bridging calculated from linear thermal transmittances for each junction   3 Air permeability   Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pass	Criterion 2 – Limits on d	esign flexibility					
ElementAverageHighestExternal wall0.20 (max. 0.30)0.20 (max. 0.70)PassParty wall0.00 (max. 0.20)-PassFloor0.12 (max. 0.20)0.12 (max. 0.70)PassRoof0.12 (max. 0.20)0.12 (max. 0.35)PassOpenings1.20 (max. 2.00)1.20 (max. 3.30)PassZa Thermal bridging calculated from linear thermal transmittances for each junction3 Air permeabilitym³/(h.m²) @ 50 PaAir permeability at 50 pascals4.00 (design value)m³/(h.m²) @ 50 PaPassMaximum10.0m³/(h.m²) @ 50 PaPassLimiting System Efficiencies50 PaPass	Limiting Fabric Stand	lards					
ElementAverageHighestExternal wall0.20 (max. 0.30)0.20 (max. 0.70)PassParty wall0.00 (max. 0.20)-PassFloor0.12 (max. 0.20)0.12 (max. 0.70)PassRoof0.12 (max. 0.20)0.12 (max. 0.35)PassOpenings1.20 (max. 2.00)1.20 (max. 3.30)PassZa Thermal bridging calculated from linear thermal transmittances for each junction3 Air permeabilitym³/(h.m²) @ 50 PaAir permeability at 50 pascals4.00 (design value)m³/(h.m²) @ 50 PaPassMaximum10.0m³/(h.m²) @ 50 PaPassLimiting System Efficiencies50 PaPass	2 Fabric U-values						
External wall   0.20 (max. 0.30)   0.20 (max. 0.70)   Pas     Party wall   0.00 (max. 0.20)   -   Pas     Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas		Ave	rage	F	lighest		
Party wall0.00 (max. 0.20)-PasFloor0.12 (max. 0.25)0.12 (max. 0.70)PasRoof0.12 (max. 0.20)0.12 (max. 0.35)PasOpenings1.20 (max. 2.00)1.20 (max. 3.30)Pas <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascalsMaximum10.0m³/(h.m²) @ 50 Pam³/(h.m²) @ 50 PaImitting System Efficiencies	External wall		-		-	0)	Pass
Floor   0.12 (max. 0.25)   0.12 (max. 0.70)   Pas     Roof   0.12 (max. 0.20)   0.12 (max. 0.35)   Pas     Openings   1.20 (max. 2.00)   1.20 (max. 3.30)   Pas <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas	Party wall					,	Pass
Roof0.12 (max. 0.20)0.12 (max. 0.35)PasOpenings1.20 (max. 2.00)1.20 (max. 3.30)Pas <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals4.00 (design value)m³/(h.m²) @ 50 PaMaximum10.0m³/(h.m²) @ 50 PaPasLimiting System Efficiencies				C	.12 (max. 0.7	0)	Pass
2a Thermal bridging     Thermal bridging calculated from linear thermal transmittances for each junction     3 Air permeability     Air permeability at 50 pascals     4.00 (design value)     m³/(h.m²) @ 50 Pa     Maximum     10.0     m³/(h.m²) @ 50 Pa     Pas	Roof	0.12 (max. 0.20)					Pass
2a Thermal bridging     Thermal bridging calculated from linear thermal transmittances for each junction     3 Air permeability     Air permeability at 50 pascals     4.00 (design value)     m³/(h.m²) @ 50 Pa     Maximum     10.0     m³/(h.m²) @ 50 Pa     Pas			. ,	,			Pass
Thermal bridging calculated from linear thermal transmittances for each junction     3 Air permeability     Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas     Limiting System Efficiencies   Efficiencies   Efficiencies							
3 Air permeability     Air permeability at 50 pascals     Maximum     10.0     m³/(h.m²) @ 50 Pa     Pas     Limiting System Efficiencies		calculated from linear th	ermal transmit	tances for each iu	inction		
Air permeability at 50 pascals   4.00 (design value)   m³/(h.m²) @ 50 Pa     Maximum   10.0   m³/(h.m²) @ 50 Pa   Pas     Limiting System Efficiencies   4.00 (design value)   m³/(h.m²) @ 50 Pa   Pas				<b>j</b> -			
Maximum 10.0 m³/(h.m²) @ 50 Pa Pas   Limiting System Efficiencies		at 50 pascals	4 00 (de	sign value)		m³/(h m²) @ 50 P=	1
Limiting System Efficiencies							
		iencies	10.0			, (, e 5510	
	4 Heating efficiency						

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.



## **BUILDING REGULATION COMPLIANCE** Calculation Type: New Build (As Designed)



Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database	Pass		
	Vaillant ecoFIT sustain 618 VU186/6-3 (H-GB)			
	Efficiency: 89.7% SEDBUK2009			
	Minimum: 88.0%			
Secondary heating system	None			
5 Cylinder insulation				
Hot water storage	Measured cylinder loss: 1.11 kWh/day Permitted by DBSCG 2.10	Pass		
Primary pipework insulated	Yes	Pass		
6 Controls				
Space heating controls	Time and temperature zone control	Pass		
Hot water controls	Cylinderstat	Pass		
	Independent timer for DHW	Pass		
Boiler interlock	Yes	Pass		
7 Low energy lights				
Percentage of fixed lights with low-energy	100 %			
fittings				
Minimum	75 %	Pass		
8 Mechanical ventilation				
Continuous extract system				
Specific fan power	0.18			
Maximum	0.7	Pass		
Criterion 3 – Limiting the effects of heat gains in sum	mer			
9 Summertime temperature				
Overheating risk (Thames Valley)	Slight	Pass		
Based on:				
Overshading	Average			
Windows facing North East	0.69 m <sup>2</sup> , No overhang			
Windows facing South East	10.73 m <sup>2</sup> , No overhang			
Windows facing North West	12.49 m <sup>2</sup> , No overhang			
Air change rate	4.00 ach			
Blinds/curtains	None			
Criterion 4 – Building performance consistent with DI	EK and DFEE rate			
Party Walls				
Туре	U-value			
Filled Cavity with Edge Sealing	0.00 W/m²K	Pass		
Air permeability and pressure testing				
<u>3 Air permeability</u>				
Air permeability at 50 pascals	4.00 (design value) m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa			
Maximum	10.0 m³/(h.m²) @ 50 Pa	Pass		

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### **BUILDING REGULATION COMPLIANCE** Calculation Type: New Build (As Designed)



#### 10 Key features

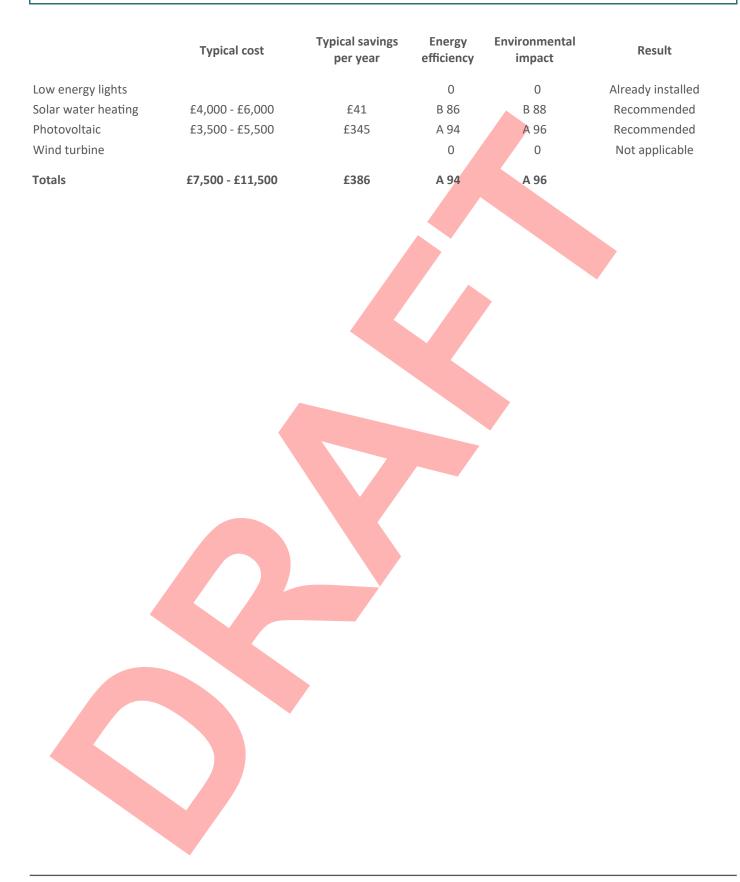
Party wall U-value	0.00	W/m²K
Roof U-value	0.12	W/m²K
Floor U-value	0.12	W/m²K
Door U-value	1.08	W/m²K

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#### RECOMMENDATIONS





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