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Old Mill Street

Manchester

Part L (Domestic) Compliance Report

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Contents

1.0 Executive Summary 4
1.1 Site Location 6
1.2 Modelling Disclaimer 6
2.0 Basis of Assessment 7
2.1 Regulatory Basis 7
2.2 Information Relied Upon 7
2.3 Assumptions 8
3.0 Compliance Requirements 10
3.1 Approved Document L, Volume 1: Dwellings, 2021 Edition 10
3.2 Limiting Standards 10
3.3 Evidence and Testing 11
4.0 Inputs 12
4.1 Fabric Parameters 12
4.2 Air Permeability 12
4.3 Thermal Bridging 13
4.4 Building Services 13
5.0 Results 15
5.1 Results Summary 15
5.2 Energy Performance Certificate Ratings 15
5.3 Critical Dwellings 15
6.0 Option Appraisal 17
6.1 Development of the Specification 17
6.2 Measures Tested for Individual Dwelling Compliance 17
6.3 Sensitivity of the Proposed Specification 18
7.0 On-site Renewables 19
8.0 Related Requirements and Next Steps 20
9.0 Limitations 21
Appendix 1 – Dwelling Results 22
Appendix 2 – SAP Credentials 24

1.0 Executive Summary

Crookes Walker Consulting (CWC) have undertaken design stage Standard Assessment Procedure (SAP) 10.2 assessments for the 41 dwellings at Old Mill Street, Manchester. This report updates revision 0 of this report (22/08/2025) to reflect the current architectural layouts and the proposed fabric and building services specification.

The assessments have been carried out against Approved Document L, Volume 1: Dwellings, 2021 edition (incorporating 2023 amendments). The proposed specification is summarised below.

- External walls, including walls to unheated corridors, 0.14 W/m^{2}K; roof 0.11 W/m^{2}K; ground floor 0.16 W/m^{2}K.
- Windows 1.20 W/m^{2}K, with g-values of 0.40 (south, east and west) and 0.50 (north facing); external doors and doors to unheated corridors 1.20 W/m^{2}K.
- Design air permeability of 3.00 m^3/(h·m^2) at 50 Pa.
- Electric panel heaters for space heating.
- A KERS Weatherby hot water heat pump (W230, 229 litre integral cylinder) in each dwelling.
- Mechanical ventilation with heat recovery (MVHR) – Vent-Axia Sentinel Kinetic B.
- Low energy lighting at 120 lm/W. No photovoltaic (PV) panels are included in the dwelling assessments.

Approved Document L 2021 paragraph 2.6 allows a building containing more than one dwelling to meet the targets either on every individual dwelling, or on the floor-area-weighted average of all the dwellings in the building. The building average route has been used in this report.

Table 1 summarises the results.

Table 1 – Results Summary

Check	Result
Dwellings assessed	41 (3 duplex maisonettes and 38 apartments), 2429 m^2 in total
Average Dwelling Emission Rate ≤ average Target Emission Rate	4.11 ≤ 13.64 $kgCO_2/m^2/yr$ (69.9% better)
Average Dwelling Primary Energy Rate ≤ average Target Primary Energy Rate	43.07 ≤ 72.95 $kWhPE/m^2/yr$ (41.0% better)
Average Dwelling Fabric Energy Efficiency ≤ average Target Fabric Energy Efficiency	31.04 ≤ 31.91 $kWh/m^2/yr$ (2.7% better)
Dwellings meeting each target individually (emissions / primary energy / fabric)	41 / 41 / 34 of 41
SAP rating (EPC band)	38 dwellings band B, 3 band C; SAP 78 to 90

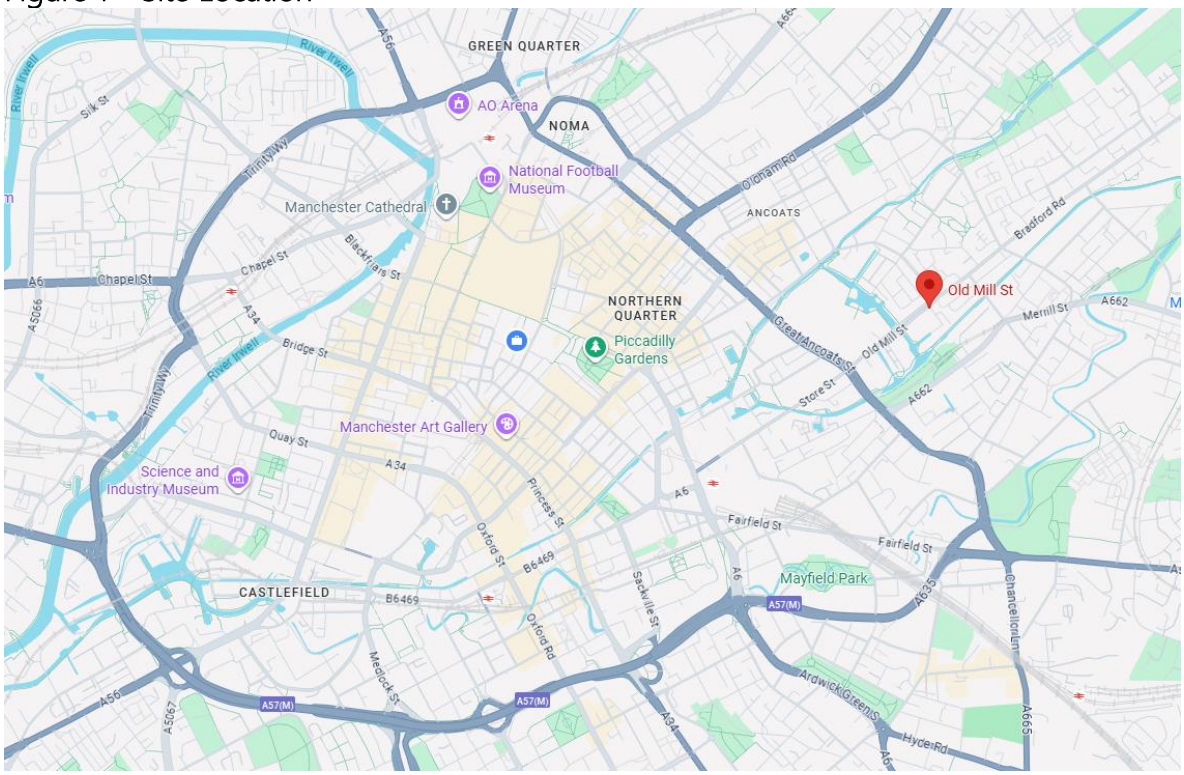
The results indicate that the building meets the average target emission rate, average target primary energy rate and average target fabric energy efficiency rate with the proposed specification. Every dwelling also meets its individual emission and primary energy targets, with large margins.

Seven two-bedroom apartments on levels 04 and 05 are between 0.2% and 1.0% above their individual fabric energy efficiency targets; these are offset by the other dwellings, and the building average is 2.7% below the average target. A pass on every individual dwelling was tested by changing the building services, but the ventilation and heating systems have no effect on the fabric energy efficiency results (Section 6.0). The building average route therefore relies on the fabric specification as set out in this report.

These results are design stage predictions. They should be re-run as the design develops and at the as-built stage, and checked independently against the SAP software outputs before reliance is placed on them.

1.1 Site Location

Figure 1 – Site Location



The development is at 88 Old Mill Street, to the east of Manchester city centre, as shown on the architect's drawings.

1.2 Modelling Disclaimer

The dwellings have been modelled using Elmhurst Energy's SAP 10 Online software, which is approved for calculating the energy performance of dwellings using SAP 10.2 for the purpose of demonstrating compliance with the energy efficiency requirements of the Building Regulations.

It should be noted that the data generated by this work is obtained using computer calculations. These calculations are the best means of predicting the performance of the dwellings at this stage. Full certainty can only be achieved by measuring the performance of the dwellings and associated systems after a period of use.

Whilst the calculations have been undertaken in good faith using reasonable skill and care, Crookes Walker Consulting Limited can take no responsibility for differences between the computer calculations and the actual performance of the completed dwellings due to the inherent complexity and variability of the physics in a building and its environment.

2.0 Basis of Assessment

2.1 Regulatory Basis

The assessments have been carried out using SAP 10.2 against Approved Document L, Volume 1: Dwellings, 2021 edition incorporating 2023 amendments (AD L 2021), consistent with revision 0 of this report.

Approved Document L, Volume 1: Dwellings, 2026 edition (AD L 2026) has been published and introduces the Future Homes Standard and SAP 10.3. It is assumed that the scheme will benefit from the transitional arrangements for AD L 2021. The applicable edition is to be confirmed with the building control body; if AD L 2026 applies, the assessments will need to be re-run in SAP 10.3 and the results will differ.

The building comprises a ground floor and five upper floors. Whether the building is a higher-risk building (18 m or more in height, or at least seven storeys) is to be confirmed. This report is not intended to support a Building Safety Act Gateway submission. Any information required for that purpose would need independent verification.

2.2 Information Relied Upon

The assessments are based only on the information listed in Table 2. No survey has been carried out.

Table 2 – Information Relied Upon

Document	Reference	Revision	Date
Ground Floor GA Plan – Planning	OLDMS-BUT-01-00-DR-A-94000	P04	15/09/2026
First Floor GA Plan – Planning	OLDMS-BUT-01-01-DR-A-94001	P04	15/09/2026
Typical Floor GA Plan (02–04) – Planning	OLDMS-BUT-01-ZZ-DR-A-94002	P03	03/09/2026
Fifth Floor GA Plan – Planning	OLDMS-BUT-01-05-DR-A-94005	P03	03/09/2026
Roof GA Plan – Planning	OLDMS-BUT-01-R5-DR-A-94006	P03	03/09/2026
SAP measurements workbook (areas, openings, thermal bridging lengths)	3603-CWC-XX-XX-M-SAPs-5601	REV01	09/10/2026
Elmhurst SAP 10 model – plot "Proposed_REV02 MVHR WB"	Project 3603 Old Mill Street, group Proposed Design_REV01	–	09/10/2026
Part L (Domestic) Compliance Report	3603-CWC-XX-XX-RP-N-7006	0	22/08/2025

2.3 Assumptions

The following assumptions have been made. Each is to be confirmed as the design develops.

- The dwelling geometry, floor areas, orientations and opening areas are as measured from the drawings listed in Table 2 and held in the SAP model.
- The communal corridors and stair cores are unheated. Walls and doors between the dwellings and the corridors have been treated as heat loss elements.
- Party walls between dwellings are assumed to be fully filled and effectively sealed (U-value 0.00 W/m^{2}K).
- Each dwelling has one shower, fed from the hot water cylinder, with a flow rate of 8 l/min, and no waste water heat recovery. Water use is designed to no more than 125 litres per person per day.
- The products named in this report were selected for assessment purposes, using their Product Characteristics Database (PCDB) data. Any alternative product will need to be re-assessed.
- The MVHR unit has been modelled inside the heated envelope with rigid ductwork. The number of wet rooms used to select the MVHR performance

data is as held in the model (three for dwellings 00-01-4B and 00-03-3B) and is to be confirmed against the layouts.

- The space heating controls for the electric panel heaters are as held in the model (SAP control code 2605) and are to be confirmed against the heater specification.
- Dwelling 00-04-2B has been modelled as a single-storey apartment of 90.00 m^2. The floor area and storey arrangement are to be confirmed against the drawings.

3.0 Compliance Requirements

3.1 Approved Document L, Volume 1: Dwellings, 2021 Edition

For each new dwelling, the regulations require all of the following.

- Regulation 26 – the Dwelling Emission Rate (DER) must be no greater than the Target Emission Rate (TER). Both are expressed in kilograms of carbon dioxide per square metre of floor area per year ($kgCO_2/m^2/yr$).
- Regulation 26C – the Dwelling Primary Energy Rate (DPER) must be no greater than the Target Primary Energy Rate (TPER), expressed in kilowatt hours of primary energy per square metre of floor area per year ($kWhPE/m^2/yr$).
- Regulation 26A – the Dwelling Fabric Energy Efficiency rate (DFEE) must be no greater than the Target Fabric Energy Efficiency rate (TFEE), expressed in kilowatt hours per square metre of floor area per year ($kWh/m^2/yr$).

The targets are calculated by the SAP software for each dwelling from a notional dwelling of the same size and shape. AD L 2021 paragraph 2.6 requires a building containing more than one dwelling to meet one of the following: (a) every individual dwelling meets its own target primary energy rate, target emission rate and target fabric energy efficiency rate; or (b) the floor-area-weighted average dwelling primary energy rate, dwelling emission rate and dwelling fabric energy efficiency rate for the whole building do not exceed the corresponding average target rates (calculated in accordance with paragraph 1.4). The same averaging method should be used for all three rates, and averages should not be calculated across separate buildings on a site (paragraph 2.7).

This report uses route (b), the building average, for all three rates.

It is assumed that all 41 dwellings are within a single building. This is to be confirmed, along with the building control body's requirements for the presentation of the building average calculation at design stage.

3.2 Limiting Standards

In addition to the targets, AD L 2021 sets minimum standards for individual elements and systems. Those relevant to the proposed specification are:

- Limiting U-values and air permeability for new dwellings – AD L 2021 Table 4.1.

- Window and door U-values to be calculated using the actual size and configuration, a standard size, or measured using the hot-box method – AD L 2021 paragraphs 4.2 and 4.3.
- Specific fan power for continuous mechanical supply and extract ventilation no greater than 1.5 W/(l·s) – AD L 2021 paragraph 6.55; heat recovery efficiency of at least 73%, with a summer bypass and a variable speed controller – paragraph 6.56.
- Internal light fittings with a minimum luminous efficacy of 75 light source lumens per circuit-watt – AD L 2021 paragraph 6.58.

3.3 Evidence and Testing

- A Building Regulations England Part L (BREL) report for each dwelling at design stage, before work starts, and again at the as-built stage.
- Air pressure testing of every dwelling on completion, with the as-built DER, DPER and DFEE calculated using the measured air permeability.
- Photographic evidence of the construction details and building services, to be provided to the building control body and the building owner.
- An as-built SAP calculation and Energy Performance Certificate (EPC) for each dwelling, lodged by an accredited On Construction Domestic Energy Assessor.
- A Home User Guide for each dwelling.

4.0 Inputs

4.1 Fabric Parameters

Table 3 sets out the fabric values used in the assessments, against the limiting values in AD L 2021 Table 4.1.

Table 3 – Fabric Parameters

Element	Proposed U-value (W/m²K)	AD L 2021 Limiting U-value (W/m²K)
External walls	0.14	0.26
Walls to unheated corridors	0.14	0.26
Internal walls	Fully filled	–
Party walls	0.00 (fully filled and sealed)	0.20
Roof (top-floor dwellings)	0.11	0.16
Ground floor (ground-floor dwellings)	0.16	0.18
Windows	1.20	1.6
Window g-value	South, east and west 0.40; north facing 0.50	–
External doors	1.20	1.6
Doors to unheated corridors	1.20	1.6

All fabric values are better than the limiting values. The fabric energy efficiency results have limited headroom on the building average (Section 5.0), so none of these values should be downgraded without re-assessment. Window and door U-values will need to be evidenced by the supplier in accordance with AD L 2021 paragraphs 4.2 and 4.3.

4.2 Air Permeability

Table 4 – Air Permeability

Proposed Design Value m³/(h·m²) at 50 Pa	AD L 2021 Maximum m³/(h·m²) at 50 Pa
3.00	8.0

A design air permeability of 3.00 m³/(h·m²) is demanding and every dwelling will be tested on completion. Air permeability has a direct effect on the fabric energy

efficiency results, which have narrow margins on the upper floors (Section 6.0). The as-built test results should therefore not exceed the design value.

4.3 Thermal Bridging

Table 5 sets out the linear thermal transmittance (ψ) values used for each junction type. These have been entered as independently assessed values.

Table 5 – Thermal Bridging ψ-values (W/mK)

Ref.	Junction	ψ-value
E1 / E2	Lintels (steel lintel with perforated base plate / other lintels)	0.042
E3	Sill	0.034
E4	Jamb	0.029
E5	Ground floor (normal)	0.080
E6	Intermediate floor within a dwelling	0.040
E7	Party floor between dwellings (in blocks of flats)	0.070
E16	Corner (normal)	0.030
E17	Corner (inverted)	0.000
E18	Party wall between dwellings	0.060
E21	Exposed floor (inverted)	0.080
P1	Party wall – ground floor	0.040
P2	Party wall – intermediate floor within a dwelling	0.000
P3	Party wall – intermediate floor between dwellings (in blocks of flats)	0.000

These ψ-values are significantly better than the SAP 10.2 default values and are critical to the results. Calculated ψ-values (to BRE BR 497) or recognised construction details will be needed for every junction to support the values used, in particular the 0.040 W/mK values for E6 and P1.

4.4 Building Services

Table 6 sets out the building services included in the assessments.

Table 6 – Building Services

Item	Proposed
Space heating	Electric panel heaters (direct electric)
Space heating controls	As held in the model (SAP control code 2605) – to be confirmed
Hot water	KERS Weatherby W230 hot water heat pump (PCDB 106463), 229 litre integral cylinder, separate from the space heating
Hot water cylinder loss	1.45 kWh/day (PCDB data)
Ventilation	MVHR – Vent-Axia Sentinel Kinetic B (PCDB 500140), inside the heated envelope, rigid ductwork
MVHR performance (by number of wet rooms)	One wet room: SFP 0.76 W/(l·s), 91% heat recovery. Two: SFP 0.88 W/(l·s), 91%. Three: SFP 1.07 W/(l·s), 88%
Showers	One per dwelling, 8 l/min, no waste water heat recovery
Lighting	120 lm/W
Photovoltaics	None (see Section 7.0)

Against the limiting standards in Section 3.2:

- The MVHR specific fan power of 0.76 to 1.07 W/(l·s) is below the 1.5 W/(l·s) maximum, and the 88% to 91% heat recovery efficiency is above the 73% minimum.
- The lighting efficacy of 120 lm/W is above the 75 lm/W minimum.

5.0 Results

5.1 Results Summary

Table 7 summarises the results across the 41 dwellings. The average target and average dwelling values are floor-area-weighted across the whole building, as required by AD L 2021 paragraphs 1.4 and 2.7. Detailed results for each dwelling are given in Appendix 1.

Table 7 – Results by Check – Building Average

Check	Average Target	Average Dwelling	Improvement	Building Average Result	Dwellings Meeting Target Individually
Emissions ($kgCO_2/m^2/yr$)	13.64	4.11	69.9%	Meets target	41 of 41
Primary energy ($kWhPE/m^2/yr$)	72.95	43.07	41.0%	Meets target	41 of 41
Fabric energy efficiency ($kWh/m^2/yr$)	31.91	31.04	2.7%	Meets target	34 of 41

5.2 Energy Performance Certificate Ratings

Table 8 – Predicted SAP Ratings

EPC Band	SAP Rating Range	No. of Dwellings
A	92 and above	0
B	81 to 91	38
C	69 to 80	3
Total		**41**

The predicted SAP ratings range from 78 to 90. The three band C dwellings are the ground floor duplex maisonettes 00-01-4B (SAP 78) and 00-03-3B (SAP 79), and the top floor apartment 05-08-2B (SAP 80). The final EPC ratings will be confirmed by the as-built assessments.

5.3 Critical Dwellings

Table 9 lists the dwellings whose individual fabric energy efficiency rate is above their individual target. These are all two-bedroom apartments on levels 04 and 05.

Table 9 – Dwellings Above Their Individual Fabric Target

Dwelling	DFEE (kWh/m²/yr)	TFEE (kWh/m²/yr)	Above Target
04-03-2B	29.72	29.47	0.86%
04-04-2B	28.96	28.67	1.00%
04-07-2B	32.71	32.67	0.15%
05-03-2B	35.99	35.69	0.85%
05-04-2B	35.39	35.06	0.94%
05-07-2B	38.35	38.20	0.38%
05-08-2B	39.01	38.93	0.22%

Across the building the fabric energy efficiency rate is 0.87 kWh/m²/yr (2.7%) below the average target. This is the governing margin for the building. The emission and primary energy margins are large: the lowest individual margins are 60.6% and 23.4% respectively (dwelling 00-03-3B).

6.0 Option Appraisal

6.1 Development of the Specification

Table 10 summarises the specifications assessed in arriving at the proposed specification, and the number of dwellings not meeting each target individually.

Table 10 – Specifications Assessed

Specification	Hot Water / Ventilation	Windows (W/m^2K)	DER Fails	DPER Fails	DFEE Fails
Baseline	KERS MEV-W230 exhaust air heat pump with mechanical extract ventilation	1.20	0	1	5
MVHR (initial model)	KERS MEV-W230 with MVHR	1.20	0	0	7
Proposed specification	**KERS Weatherby W230 with MVHR**	**1.20**	**0**	**0**	**7 (building average met)**

In the baseline, the DPER of dwelling 00-01-4B exceeded the target by 2.9%. Moving to MVHR with the KERS Weatherby hot water heat pump resolved this, and all dwellings now meet their emission and primary energy targets individually.

In preparing the proposed specification, the SAP model was also checked and the following input corrections were made: the ventilation of dwellings 04-04-2B and 04-08-2B was corrected from mechanical extract to MVHR; the north and south window g-values of dwelling 00-01-4B were corrected; the external door of dwelling 00-01-4B was corrected from a window to a door; and one shower was added to each dwelling.

6.2 Measures Tested for Individual Dwelling Compliance

To establish whether every dwelling could meet its individual fabric target without changing the fabric, alternative building services were tested on all 41 dwellings. Table 11 shows the results.

Table 11 – Effect of Building Services Changes on the Fabric Target

Change (Applied on Its Own)	Dwellings Not Meeting DFEE Target	Lowest DFEE Improvement
None – proposed specification	7	–1.0%
MVHR – Zehnder ComfoAir Q350 (94–96% heat recovery)	7	–1.0%
MVHR – Vent-Axia Kinetic Plus E (94% heat recovery)	7	–1.0%
MVHR – Vent-Axia Sentinel Econiq S	7	–1.0%
Mechanical extract ventilation in place of MVHR	7	–1.0%

None of the services changes had any effect on the fabric energy efficiency results. The space heating and hot water systems likewise do not form part of the fabric energy efficiency calculation. Individual dwelling compliance could only be achieved by a fabric or airtightness change. For information, the single measures that achieved this in testing were: windows 1.10 W/m²K (lowest margin 1.6%); windows 1.00 W/m²K (4.1%); air permeability 2.00 m³/(h·m²) (0.6%); external walls 0.12 W/m²K (0.2%); or a party floor (E7) ψ-value of 0.05 W/mK (0.3%).

As the building meets all three average targets with the proposed fabric, the building average route has been adopted and no fabric change is proposed.

6.3 Sensitivity of the Proposed Specification

The building average fabric energy efficiency margin is 2.7% (0.87 kWh/m²/yr). The following inputs should not be downgraded without re-assessment: window U-value; window g-values; external wall U-value; roof and ground floor U-values; air permeability; and the thermal bridging ψ-values in Table 5. Any change to any dwelling, including a change of layout, will change the building average and will need to be re-assessed.

7.0 On-site Renewables

PV has not been included in the dwelling SAP assessments, and the results in this report do not rely on it. It is proposed that roof-mounted PV serves the landlord areas.

It is estimated that approximately 85 m^2 of PV (approximately 18.7 kWp) can be accommodated on the roof in areas that are not significantly shaded. This is an estimate and is to be confirmed by the M&E engineer.

This is not expected to align with the on-site renewable energy expectations of the Places for Everyone (PfE) joint development plan. The area quoted is the extent of roof available that is not significantly shaded. The planning policy position is to be confirmed with the planning consultant.

8.0 Related Requirements and Next Steps

The following are outside the scope of this report but will need to be addressed.

- Overheating – an assessment under Approved Document O is reported separately. The window g-values and the MVHR strategy assumed here should be consistent with that assessment. The MVHR units will need to deliver the boost ventilation rates assumed in the overheating assessment (70 l/s per dwelling, 82 l/s for the four-bedroom duplex); the unit and its performance data will need to be confirmed, and any change of unit re-assessed in SAP.
- Ventilation – the MVHR design to Approved Document F, Volume 1.
- Design stage BREL reports for each dwelling, to be submitted before work starts.
- Junction details and calculated ψ-values for every junction type (Section 4.3).
- Window and door U-values from the supplier (Section 4.1).
- If the corridors are to be heated, directly or indirectly, the heat loss walls and doors to the corridors will need to be revised and the dwellings re-assessed.
- Confirmation of the regulatory basis and the higher-risk building status (Section 2.1).
- As-built SAP assessments, air permeability tests, photographic evidence, BREL reports, EPCs and Home User Guides on completion.

9.0 Limitations

This report is subject to the following limitations.

- This report is a design stage assessment based only on the information listed in Table 2. No survey has been carried out.
- The results have been taken from the Elmhurst SAP 10 Online software and require independent verification against the software outputs before they are relied upon.
- The fabric energy efficiency results rely on the building average route in AD L 2021 paragraph 2.6(b). Seven dwellings do not meet their individual fabric targets, and the design stage and as-built Building Regulations England Part L (BREL) reports for those dwellings will show this. The building average calculation will need to be presented to the building control body alongside them.
- Products are named for assessment purposes only and do not form a specification. Any alternative product will need to be re-assessed.
- The results in Section 6.2 are for single changes, except where stated. Combined changes have not been assessed.
- No cost plan or running cost assessment has been prepared. Direct electric space heating will have higher running costs for occupants than a heat pump system.
- This report is not a BREL report and does not constitute a submission to the building control body. It is not intended to support a Building Safety Act Gateway submission.
- Assumptions are listed in Section 2.3 and items to be confirmed are highlighted throughout.

Appendix 1 – Dwelling Results

Emissions in $kgCO_2/m^2/yr$; primary energy and fabric energy efficiency in $kWh/m^2/yr$. "Imp. %" is the percentage improvement on the target (a negative value is above the target). Dwelling references are level – number – bedrooms. The building average (floor-area-weighted) is given in the final row.

Table 12 – Dwelling Results – Proposed Specification

Dwelling	Area (m^2)	SAP	DER / TER	Imp. %	DPER / TPER	Imp. %	DFEE / TFEE	Imp. %	Individual Result
00-01-4B	128.11	78 C	4.92 / 12.80	61.6	50.9 / 67.8	25.0	39.9 / 44.1	9.4	All met
00-02-2B	82.21	84 B	4.16 / 13.06	68.1	43.4 / 69.5	37.6	33.7 / 36.3	7.2	All met
00-03-3B	92.08	79 C	5.22 / 13.26	60.6	54.0 / 70.5	23.4	39.5 / 40.1	1.5	All met
00-04-2B	90.00	84 B	4.02 / 12.69	68.3	42.0 / 67.5	37.7	34.0 / 36.3	6.3	All met
01-01-2B	70.50	87 B	3.45 / 11.72	70.6	36.2 / 62.4	41.9	26.8 / 27.0	1.0	All met
01-02-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met
01-03-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met
01-04-2B	70.50	85 B	3.88 / 12.76	69.6	40.7 / 68.0	40.1	31.0 / 31.8	2.5	All met
01-05-1B	40.40	88 B	4.05 / 15.77	74.3	42.7 / 84.8	49.7	29.4 / 30.4	3.2	All met
02-01-1B	40.40	88 B	4.04 / 15.62	74.1	42.6 / 84.0	49.3	29.2 / 30.2	3.5	All met
02-02-1B	40.40	89 B	4.00 / 15.56	74.3	42.2 / 83.7	49.6	29.1 / 30.2	3.7	All met
02-03-2B	70.50	87 B	3.55 / 11.97	70.3	37.3 / 63.8	41.5	27.8 / 28.2	1.3	All met
02-04-2B	70.50	87 B	3.45 / 11.72	70.6	36.2 / 62.4	41.9	26.8 / 27.0	1.0	All met
02-05-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met
02-06-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met
02-07-2B	70.50	85 B	3.88 / 12.76	69.6	40.7 / 68.0	40.1	31.0 / 31.8	2.5	All met
02-08-2B	70.50	85 B	4.02 / 13.07	69.2	42.1 / 69.6	39.6	32.2 / 33.2	3.1	All met
03-01-1B	40.40	88 B	4.04 / 15.62	74.1	42.6 / 84.0	49.3	29.2 / 30.2	3.5	All met
03-02-1B	40.40	88 B	4.04 / 15.62	74.1	42.6 / 84.0	49.3	29.2 / 30.2	3.5	All met
03-03-2B	70.50	87 B	3.55 / 11.97	70.3	37.3 / 63.8	41.5	27.8 / 28.2	1.3	All met
03-04-2B	70.50	87 B	3.45 / 11.72	70.6	36.2 / 62.4	41.9	26.8 / 27.0	1.0	All met
03-05-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met
03-06-1B	40.40	89 B	3.59 / 14.47	75.2	38.1 / 77.8	51.0	23.9 / 24.2	1.3	All met

Dwelling	Area (m^2)	SAP	DER / TER	Imp. %	DPER / TPER	Imp. %	DFEE / TFEE	Imp. %	Individual Result
03-07-2B	70.50	85 B	3.88 / 12.76	69.6	40.7 / 68.0	40.1	31.0 / 31.8	2.5	All met
03-08-2B	70.50	85 B	4.02 / 13.07	69.2	42.1 / 69.6	39.6	32.2 / 33.2	3.1	All met
04-01-1B	40.40	89 B	3.75 / 15.43	75.7	39.7 / 83.2	52.3	26.5 / 28.6	7.4	All met
04-02-1B	40.40	89 B	3.75 / 15.43	75.7	39.7 / 83.2	52.3	26.5 / 28.6	7.4	All met
04-03-2B	70.50	86 B	3.81 / 12.42	69.3	39.9 / 66.2	39.7	29.7 / 29.5	-0.9	DFEE above
04-04-2B	70.50	86 B	3.73 / 12.25	69.6	39.1 / 65.3	40.1	29.0 / 28.7	-1.0	DFEE above
04-05-1B	40.40	90 B	3.52 / 14.66	76.0	37.4 / 79.1	52.7	23.6 / 24.5	3.8	All met
04-06-1B	40.40	90 B	3.52 / 14.66	76.0	37.4 / 79.1	52.7	23.6 / 24.5	3.8	All met
04-07-2B	70.50	85 B	4.15 / 13.10	68.3	43.4 / 69.9	38.0	32.7 / 32.7	-0.1	DFEE above
04-08-2B	70.50	84 B	4.25 / 13.29	68.0	44.4 / 71.0	37.4	33.6 / 33.6	0.1	All met
05-01-1B	40.40	87 B	4.68 / 16.91	72.3	49.2 / 91.2	46.0	33.0 / 35.0	5.8	All met
05-02-1B	40.40	87 B	4.68 / 16.91	72.3	49.2 / 91.2	46.0	33.0 / 35.0	5.8	All met
05-03-2B	70.50	82 B	4.87 / 13.84	64.8	50.8 / 73.9	31.2	36.0 / 35.7	-0.8	DFEE above
05-04-2B	70.50	82 B	4.80 / 13.70	65.0	50.0 / 73.1	31.6	35.4 / 35.1	-0.9	DFEE above
05-05-1B	40.40	87 B	4.39 / 16.16	72.8	46.2 / 87.2	47.0	30.3 / 31.1	2.8	All met
05-06-1B	40.40	87 B	4.39 / 16.16	72.8	46.2 / 87.2	47.0	30.3 / 31.1	2.8	All met
05-07-2B	70.50	81 B	5.18 / 14.38	64.0	53.9 / 76.8	29.8	38.3 / 38.2	-0.4	DFEE above
05-08-2B	70.50	80 C	5.27 / 14.53	63.7	54.8 / 77.6	29.4	39.0 / 38.9	-0.2	DFEE above
Building average	**2,429**		**4.11 / 13.64**	**69.9**	**43.1 / 73.0**	**41.0**	**31.0 / 31.9**	**2.7**	**All met**

Appendix 2 – SAP Credentials

Table 13 – SAP Assessment Credentials

Item	Detail
Software	Elmhurst Energy SAP 10 Online (SAP 10.2)
Software version	3.1.67 (from the software input summaries, 09/10/2026)
Assessor	Eleanor Schofield
Assessor accreditation number	U281-0001
SAP model	Project 3603 Old Mill Street, group Proposed Design_REV01, plot "Proposed_REV02 MVHR WB"