

OSLADY HOMES LTD

1. Introduction

This statement has been prepared in response to Condition 7 of planning consent ref. **134748/FO/2022** for the approved scheme comprising a pair of two-storey, four-bedroomed family homes at Heathbank Road, Manchester. The development has been designed to meet and, where possible, exceed current regulatory requirements, in line with Manchester City Council’s Local Plan policies and the city’s ambition to achieve zero-carbon by 2038.

2. Energy Efficiency and Fabric First Approach

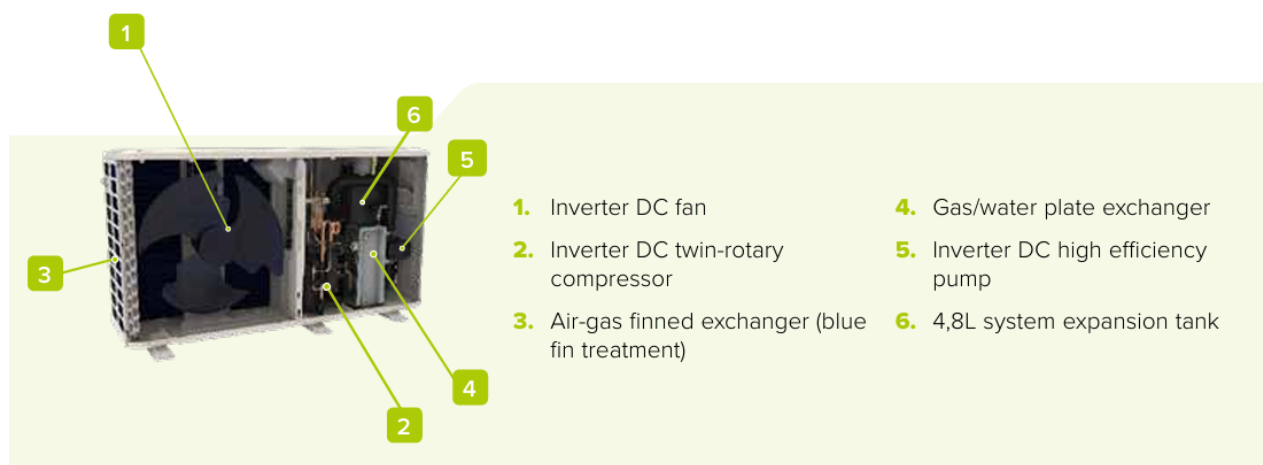
- The scheme adopts a fabric first approach, prioritising the performance of the building envelope before reliance on mechanical or renewable technologies.
- High-performance insulation, airtight construction, and energy-efficient glazing will minimise heat loss and reduce energy demand.
- Thermal bridging will be carefully managed to ensure consistent performance across the building fabric using preferred standard details.
- Homes will be constructed to achieve **Part L of the Building Regulations** (Conservation of Fuel and Power).

3. Renewable and Low-Carbon Technologies

- Each dwelling will be equipped with an **air source heat pump (ASHP)**, providing efficient, low-carbon heating and hot water.
- Roof orientation and design will allow for the future installation of **solar photovoltaic panels**.
- Provision for electric vehicle charging points will be incorporated.

Highly efficient even in winter

Edge EVO 2.0 - EXC is suitable for all climates and conditions. It is designed to be efficient and provide high temperature water even in harsh winters, down to -25°C: in particular, it can produce water at 60°C with the outdoor air down to -15°C. For even tougher applications, an additional electric heater can be selected to ensure that there is no loss of performance even under the most extreme conditions.



A 3D perspective diagram of a rectangular object, possibly a container or a piece of equipment. The object is shown from a three-quarter view. The front face is a dark, textured rectangle. The side face is a lighter, solid rectangle. The top face is a dark, textured rectangle. The dimensions are labeled: A for the width of the front face, B for the depth of the object, and C for the height of the object. The object is placed on a light-colored surface, and there are dashed lines indicating the dimensions.

Back: 300 mm
Right side: 500mm (2.1÷8.1) / 600mm (9.1÷14.1)

Left side: 500mm (2.1÷8.1) / 300mm (9.1÷14.1)
Front: 1000mm (2.1÷3.1) / 1500mm (5.1÷8.1) / 3000mm (9.1÷14.1)

technical data

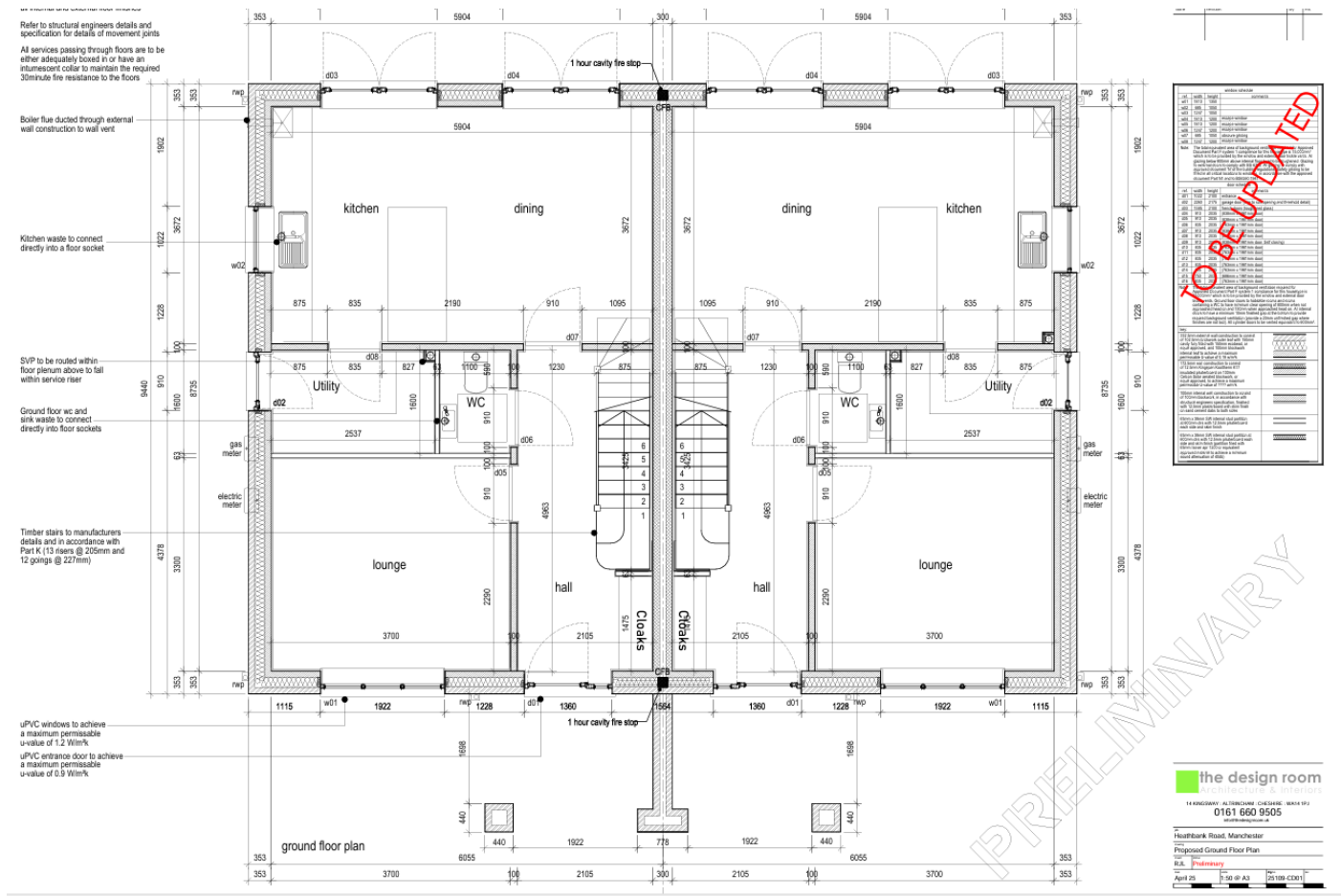
Size (230M)					2.1	3.1	4.1	5.1	6.1	7.1	8.1
Heating	Capacity	Water 35/30°C - Outdoor air 7°C	Nominal	kW	4,20	6,35	8,40	10,00	12,10	14,50	15,90
	COP		Nominal	-	5,10	4,95	5,15	4,95	4,95	4,60	4,50
	Capacity	Water 35/30°C - Outdoor air -7°C	Nominal	kW	4,70	6,00	7,00	8,00	10,00	12,00	13,10
	COP		Nominal	-	3,10	3,00	3,20	3,05	3,00	2,85	2,70
	Capacity	Water 45/40°C - Outdoor air 7°C	Nominal	kW	4,30	6,30	8,10	10,00	12,30	14,10	16,00
	COP		Nominal	-	3,80	3,70	3,85	3,75	3,70	3,60	3,50
Cooling	Capacity	Water 18/23°C - Outdoor air 35°C	Nominal	kW	4,50	6,50	8,30	9,90	12,00	13,50	14,20
	EER		Nominal	-	5,50	4,80	5,05	4,55	3,95	3,61	3,61
	Capacity	Water 7/12°C - Outdoor air 35°C	Nominal	kW	4,70	7,00	7,45	8,20	11,50	12,40	14,00
	EER		Nominal	-	3,45	3,00	3,35	3,25	2,75	2,50	2,50
Electrical power for meter sizing				kW	2,30	2,70	3,40	3,70	5,50	5,80	6,20
Seasonal efficiency Medium climate	Heating 55°C	Energy class	-	A++	A++	A++	A++	A++	A++	A++	A++
		Annual energy consumption	kWh/year	2,749	3,348	4,064	4,541	6,916	6,917	7,213	
	ns (seasonal output)	SCOP	-	3,31	3,52	3,37	3,47	3,45	3,47	3,46	
		ns (seasonal output)	%	129	138	131	137	135	135	135	
		Energy class	-	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
		Heating 35°C	Annual energy consumption	kWh/year	2,354	2,849	3,223	3,649	5,156	5,157	6,011
SCOP	-		4,85	4,95	5,22	5,20	4,81	4,81	4,72		
ns (seasonal output)				%	191	195	205	205	189	189	186
Outdoor unit					2.1	3.1	4.1	5.1	6.1	7.1	8.1
Power supply	Voltage/Frequency/Phases			V/Hz/n°	230/50/1						
Water flow-rate		Water 35/30°C - Outdoor air 7°C	Nominal	l/s	0,20	0,30	0,40	0,48	0,58	0,69	0,76
Pump available pressure			Nominal	kPa	85	85	86	86	88	87	87
Minimum system water content				l	30			70			
Expansion tank capacity				l	4,8						
Sound power			Nominal	dB(A)	55	58	59	60	65	65	68
Sound pressure @1m			Nominal	dB(A)	41	44	45	46	50	50	53
Operating range											
Water supply temperature	Heating		Minimum / Maximum	°C	30 / 65						
	Cooling		Minimum / Maximum	°C	5 / 25						
	DHW		Minimum / Maximum	°C	30 / 60						
Operating range (Outdoor air)	Heating		Minimum / Maximum	°C	-25 / 35						
	Cooling		Minimum / Maximum	°C	-5 / 43						
	DHW		Minimum / Maximum	°C	-25 / 43						



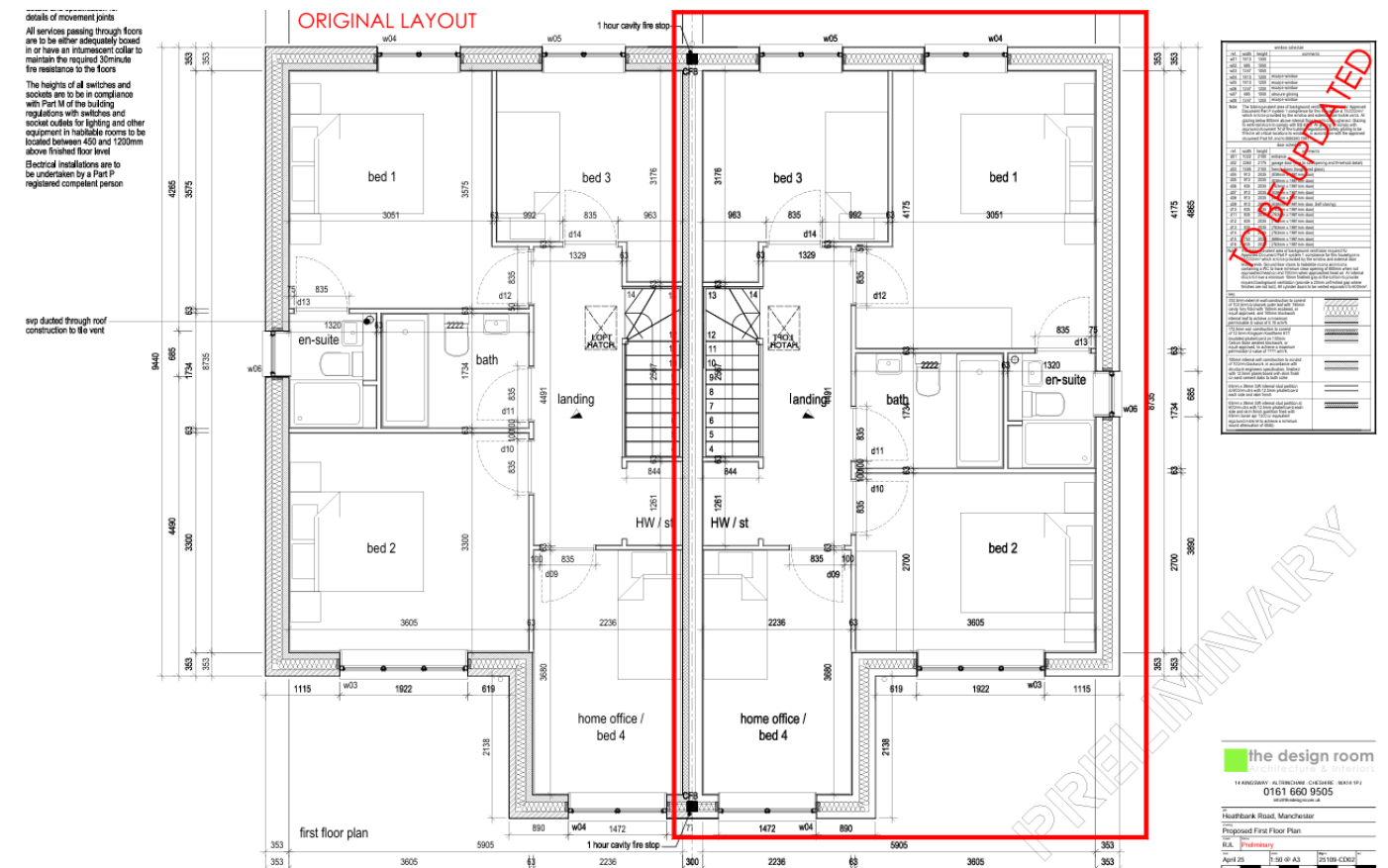
AIR SOURCE HEAT PUMP LOCATIONS

4. Design of Heating Systems (Specialist Input)

- The **air source heat pumps and internal heating systems** have been designed and specified by **environmental control sustainability specialists at Graham Plumbing Ltd and UK Plumbing Supplies Ltd.**
- Internal heating distribution will utilise **low-temperature radiators**, designed to work seamlessly with the ASHPs.
- Controls will be fully programmable, allowing residents to manage heating demand efficiently and reduce energy consumption.



GROUND FLOOR PLAN



FIRST FLOOR PLAN

- **Stelrad Vita Compact Radiator Package**
- **Clivet R32 ASHP Package**

Stelrad Vita Compact Radiator Package - FF.

We have based '**preliminary**' sizing on the **45W/m² (Bedroom 1), 35W/m² (Bedroom 2,3 4 & Landing) & 55W/m² (Ensuite & Family Bathroom – allowing for mech extract)** at this stage. This assumes the property is being **constructed & insulated** to current building regulation standards.

We have based the system flow/return temperatures on **45/40°C** at this stage.

This is a 'guide only' at this stage. We would recommend that full MIS3005 compliant room by room heat losses are carried out and sent back to us for Radiator sizing verification / amendment as necessary. No order should be accepted from your customer unit these heat losses have been reviewed and amended accordingly.

Room Name	Area (m ²)	W/m ²	Heat Load (W)	Radiator Output Each (W)	Radiator Size
Bedroom 1	11.65	45	524.25	637	1 x 600 x 1100 K2 Vita Compact
Bedroom 1 Ensuite	2.23	55	122.65	218	1 x 600 x 400 K2 Vita Compact
Bedroom 2	11.48	35	401.8	521	1 x 600 x 900 K2 Vita Compact
Bedroom 3	7.44	35	260.4	347	1 x 600 x 600 K2 Vita Compact
Bedroom 4	7.46	35	261.1	347	1 x 600 x 600 K2 Vita Compact
Family Bathroom	3.92	55	215.6	326	1 x 600 x 600 K2 Vita Compact
Landing	8.92	35	312.2	405	1 x 600 x 700 K2 Vita Compact
	53.10		2,098		

Accessories	Qty	UKPS Code	
15mm Dia CP Angled TRV / LS Pack	6	U711.0030	
15mm Dia CP WH/LS Valve	2	IN34.0010	
ESI Programmable Room Stat	1	EC11.0040	
ESI 22mm Dia 2 Port Zone Valve	1	EC11.0060	

**System Flow / Return
Temperatures**

45/40°C

**Room
Temperatures:**

Bedrooms & Landing (21°C), Ensuite & Family Bathroom (22°C)

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Clivet R32 ASHP Package.

We have based our '**preliminary**' sizing on **35W/m²** at this stage. This assuming the property will be **constructed & insulated** to current building regulation standards.

Total Floor Area (GF & FF): **105m² x 35W/m² =** **3.68kW**

This is a 'guide only' at this stage. We would recommend that full MIS3005 compliant room by room heat losses are carried out and sent back to us for ASHP sizing verification / amendment as necessary. No order should be accepted from your customer unit these heat losses have been reviewed and amended accordingly.

We have based on the project having 4 x Bedrooms / 2 x Bathrooms requiring a **200 L** cylinder at this stage. This in line with BS 6700, see below:

Domestic HW cylinder selection guide

These recommendations are based on the guidelines in BS 6700.

Guidance should be sought for unusual applications. e.g.: high flow-rate showers, large baths etc.

Minimum sizes recommended in BS 6700

For storage situations without rapid reheat, an allowance should be made of 45 litre per occupant. This can be reduced to 35 litre per person for 10 to 15+ kW heat pumps on suitably sized heat exchangers. The sizes below are for indirect cylinders with limited stratification and mixing being the heat method within the cylinder.

No of Baths	3 kW HP	6 kW HP	8 kW HP	10 kW HP	15+ kW HP
1 Bathroom	122 litre	88 litre	73 litre	70 litre	70 litre
2 Bathrooms	260 litre	200 litre	131 litre	130 litre	130 litre

Cylinder Sizing Example: a manufacturer produces a range of 90 to 300 litre indirect domestic cylinders in 30 litre between cylinder size capacities up to 210 and then 250 and 300 litre cylinders. The following would be their recommended cylinder sizes

Hot Water Demand	Bedrooms	3 to 6 kW	10 to 15+ kW
1 Standard Bath or Shower	Bedsit / 1 Bed*	150	90
	2 – 3 Bed	180	120
	3 – 4 Bed	210	150
1 Bath and En-suite	2 – 3 Bed	210	150
	3 – 4 Bed	210	150
	4 – 5 Bed	250	180
2 Standard Baths **	2 – 3 Bed	210	180
	3 – 4 Bed	210	180
	4 – 5 Bed	250	210
3 Standard Baths **	3 – 4 Bed	300	250
	4 – 5 Bed	300	250
	5 – 6 Bed	300	300

As part of MCS guidelines the installer is now asked to discuss the cylinder size chosen and its recovery time with the end client to make sure this product is suitable for the application and the number of inhabitants living in the property, this must be communicated & accepted prior to any order placement.

We have based the system flow temperature on **45°C** at this stage.

We design using the MCS methodology standard implemented from 2nd June 2025, for external design temperatures shown in Table B 99.6% dry-bulb temperature (°C).

Table B requires no uplift factor for intermittent heating.

The 4kW 2.1 Clivet R32 unit will provide 4.63kW output based on the criteria as detailed above. The site's external temperature is -5.1°C (site is 101m elevation above sea level).

- ***The Clivet unit is provided with an inbuilt 4.8 L heating expansion vessel. The UK Cylinder is provided with a 12 L Robokit expansion vessel set. Full system water content will be required to calculate if this is enough to cater for the system requirements.***
- ***Inhibitor / biocide will be required. This can be sized / spec'd once total system water content is known.***
- ***We have allowed for 1m length of Primary Pro external pipework insulation at this stage with 1 x 290 ml tube of Bond & Seal, 1 x rubber lined clip & back plate. These should be multiplied based on the totals required for the project.***
- ***We have allowed for anti-freeze valves as frost protection devices. These MUST be installed externally, close to the ASHP's at the lowest point of the heating system.***
- ***We have included Abode Heats, Heat Pump Go MCS Umbrella Scheme information if the end user is interested in the Developer MCS certificates for the project. The installer will need to deal with and pay Abode Heat directly for this.***

Heat Pump and Buffer Combined Pre Plumbed Options

- > 3 port full bore, 28mm compression DHW & CH diverter valve.
- > 4 bar pressure gauge.
- > Fill & flush valve with servicing ports. Useful to fill and flush the system with cleaning chemicals or water treatment.
- > 6m Circulating pump supplied fitted for heating circuit.
- > G3 compliant cold feed pipework, inc. tundish, drain point, filling loop and 3 bar inlet control set.
- > Our 28mm full bore, high gain, high flow coil reduces noise and improves recovery times.
- > **Optional 8m circulating pump for primary circuit.**
- > Robokit / T&P insulation cover and potable expansion vessel is also supplied.
- > Factory fitted immersion heater, for emergency backup this can be linked to a heat pump for an anti legionella cycle where required.
- > 12mm heat pump sensor probe pocket.
- > Buffer provides hydraulic separation and minimum system volume.
- > Additional immersion, in buffer; can act as optional back up heater.



Supplied complete with 12ltr Robokit including heating expansion vessel (loose).



Description	Product Code with 2 Circulating Pumps	Product Code with 1 Circulating Pump	Nominal Capacity (L)	Weight (KG)	Weight full (KG)	Height (mm)	Diameter (mm)	Heat Pump Coil Surface Area (m²)	Standing Heat Loss		Secondary Return included as standard	ERP BAND
									kWh/ 24h	WATTS		
Slimline Diameter Model												
120L/30L	ESNPPB3012	ESNPPB3012X	120	52	196	1645	475	1.61	1.25	52	✗	B
150L/30L	ESNPPB3015	ESNPPB3015X	150	55	229	1915	475	1.61	1.42	59	✗	B
170L/30L	ESNPPB5017	ESNPPB5017X	170	58	270	2095	475	2.08	1.63	68	✗	C
Standard Diameter Model												
150L/50L	ESPPB5015	ESPPB5015X	150	56	259	1540	545	2.08	1.22	44	✗	B
180L/50L	ESPPB5018	ESPPB5018X	180	61	284	1675	545	2.44	1.63	68	✗	C
200L/50L	ESPPB5020	ESPPB5020X	200	65	310	1850	545	2.97	1.70	71	✓	C
225L/50L	ESPPB5022	ESPPB5022X	225	69	344	2011	545	2.97	1.99	83	✓	C
250L/60L	ESPPB6025	ESPPB6025X	250	77	385	1919	580	2.97	1.80	75	✓	C
300L/60L	ESPPB6030	ESPPB6030X	300	82	427	2076	580	2.97	2.08	86	✓	C

200L/50L version specified

5. Water Efficiency

- Homes will be designed to achieve water consumption rates of ≤ 105 litres per person per day, in line with Building Regulations Part G.
- Dual-flush toilets, aerated taps, and water-efficient appliances will be specified.
- **Water butts could be installed at a later date** to provide a sustainable source of water for garden irrigation.

6. Sustainable Materials and Construction

- Materials will be responsibly sourced, with preference given to those with low embodied carbon and certified under schemes such as **FSC** or **PEFC**.

7. Waste Recycling (Approved Provision)

- As specified and approved under the planning consent, **each home will be provided with integrated facilities for household waste recycling**, ensuring residents can separate recyclable materials at source.
- Dedicated internal storage space will be designed to accommodate recycling bins, in line with Manchester City Council's waste management standards.
- External provision for secure, accessible waste and recycling storage will be incorporated into the site layout.

8. Construction Phase Waste Minimisation and Control

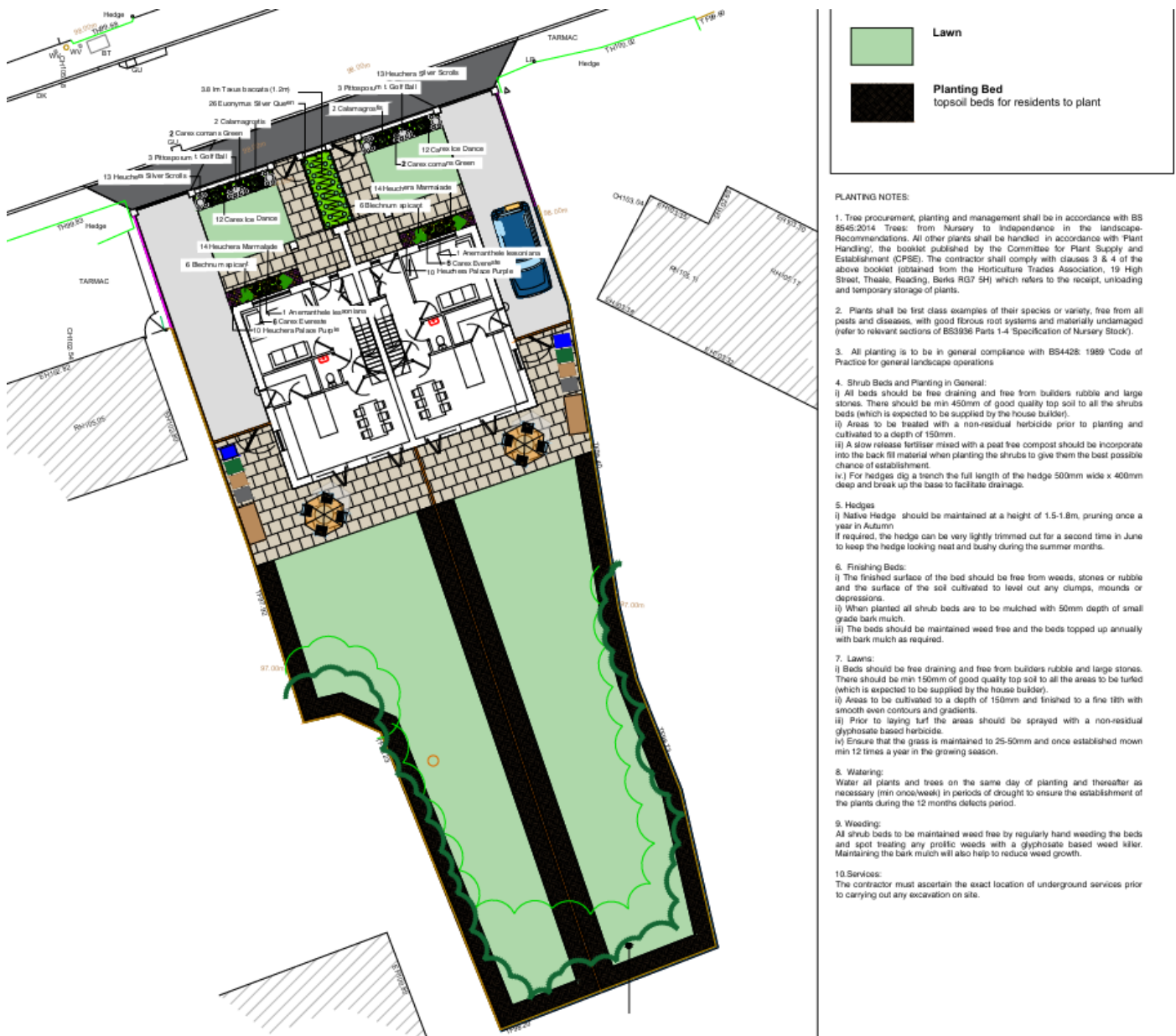
- In accordance with the **previously approved Construction Management Plan**, robust measures will be implemented to minimise and control waste during the construction phase.
- A **Site Waste Management Plan (SWMP)** will be followed, ensuring segregation of recyclable materials and reducing disposal to landfill.
- Construction methods will prioritise efficient use of materials, with off-cuts and surplus reused wherever possible.
- Waste streams will be monitored and recorded to demonstrate compliance with Manchester City Council's sustainability requirements.
- Contractors will be trained in waste minimisation practices, ensuring consistent application across the site.
- Regular audits will be undertaken to verify performance against the approved Construction Management Plan.

9. Lighting Systems

- **Low-energy lighting systems** will be installed throughout each dwelling, reducing electricity demand and supporting carbon reduction targets.
- Internal lighting will be fitted with **controlled systems**, including programmable timers, dimmers, and motion sensors where appropriate.
- External lighting will utilise **low-energy fittings** with automatic controls to minimise unnecessary operation, reduce light pollution, and enhance security.

10. Biodiversity and Landscaping

- Native planting will be incorporated into landscaping to support local biodiversity.
- Permeable paving will be used to reduce surface water run-off.
- Gardens will be designed to encourage pollinators and provide ecological value.
- Landscaping will be delivered in accordance with the **previously approved landscape scheme prepared by Colour Green Ltd**, ensuring high-quality, sustainable external spaces that complement the development.



11. Transport and Accessibility

- Secure cycle storage will be provided to encourage sustainable travel.
- The site benefits from proximity to public transport links, reducing reliance on private vehicles.

12. Climate Resilience

- Building design will consider overheating risk, with natural ventilation and shading strategies incorporated.

13. Policy Alignment and Conclusion

This Environmental Standards Statement has been prepared to **discharge Condition 7 of planning consent ref. 134748/FO/2022**. The approved scheme for two semi-detached, two-storey, three-bedroomed family homes at Heathbank Road demonstrates a strong commitment to environmental sustainability.

The measures outlined directly support **Manchester City Council's Local Plan policies** and the city's **Housing Strategy 2022–2032**, which emphasise:

- Delivering sustainable, zero-carbon housing.
- Supporting responsible waste management and recycling.
- Enhancing biodiversity and climate resilience.
- Prioritising a **fabric first approach** to reduce energy demand before reliance on renewable technologies.
- Incorporation of airsource heat pumps as an integral part of the heating and hot water systems.

By integrating specialist-designed air source heat pumps and heating systems, low-energy and controlled lighting, water efficiency measures, sustainable materials, approved waste recycling facilities, construction phase waste minimisation measures, and the **landscape scheme prepared by Colour Green Ltd**, the scheme aligns with Manchester City Council's planning policies and contributes positively to the city's wider sustainability goals.

OSLADY HOMES LTD – 18.12.2025