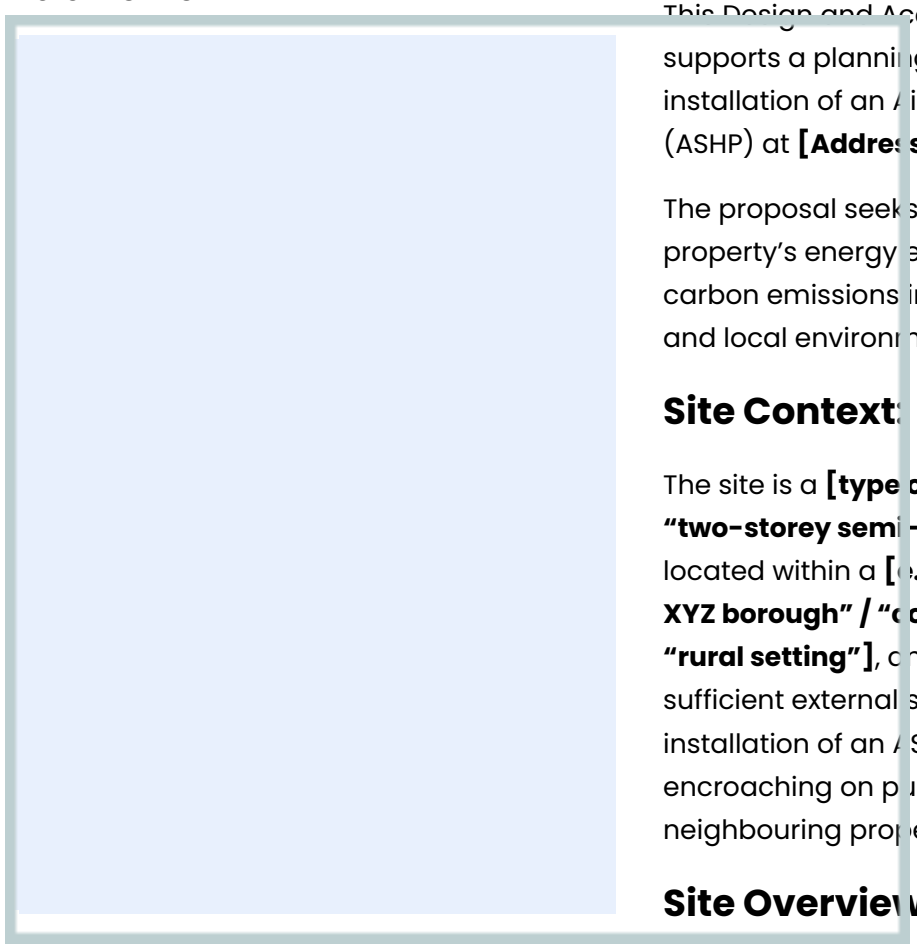

ADLÅR

PICTURE OF HOME



Introduction:

This Design and Access Statement supports a planning application for the installation of an Air Source Heat Pump (ASHP) at **[Address]**.

The proposal seeks to improve the property's energy efficiency and reduce carbon emissions in line with national and local environmental objectives.

Site Context:

The site is a **[type of property, e.g. "two-storey semi-detached dwelling"]** located within a **[e.g. "residential area of XYZ borough" / "conservation area" / "rural setting"]**, and benefits from sufficient external space for the installation of an ASHP without encroaching on public pathways or neighbouring properties.

Site Overview:

[e.g. "Name of Property" / "Historic Reference Number" / "Property Details"]

Site Context:

Proposed Development

- **Technology:** Air Source Heat Pump Adlår Castra Aurora II
- **Location: [e.g. "mounted at ground level to the side of the property"]**
- **Size:** Unit dimensions see following section
- **Fixing:** Placed on a concrete pad with anti-vibration brackets to reduce noise and vibration.
- **Screening: [e.g. "A timber fence/enclosure will provide visual screening while ensuring airflow compliance"]**

Appearance

The unit is of neutral black colour, modern in design, and will be positioned discreetly to minimise visual impact. If necessary, soft landscaping or screening will be used to harmonise it with the existing surroundings.

Installation Impact

- **Minimal Structural Impact**: The installation will require only one 4" (100mm) hole through the external wall to provide a route for water pipework between the internal system and the ASHP.
- **Reversible Installation**: The heat pump is fully removable with no lasting alterations to the structure, allowing the property to be restored to its original condition if required.
- **Comparable to Traditional Systems**: The physical impact of installation is no greater than that of conventional boiler systems, with the key difference being the external siting of the ASHP.
- **Preservation of Historic Fabric**: For listed or historically significant properties, the installation will not impact any protected or original building elements. As the ASHP system is non-intrusive and reversible, it preserves the historical and architectural integrity of the building.
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PICTURE OF HOME

Access Considerations

Installation Access

Access for the installation will be via existing entry points to the property. No alterations are required to current pedestrian or vehicle access routes.

Maintenance Access

Adequate clearance (typically 1 metre) will be maintained around the unit to allow safe and compliant access for routine maintenance or servicing, in accordance with manufacturer specifications.

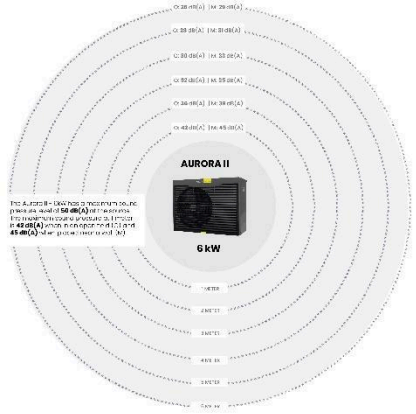
Noise Impact

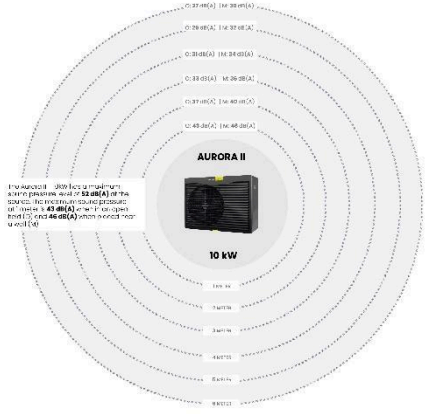
A noise impact assessment has been considered. The ASHP model selected complies with MCS Planning Standards (MCS 020) and Part E of Building Regulations (resistance to sound, ensuring minimal disturbance to occupants and neighbouring properties.

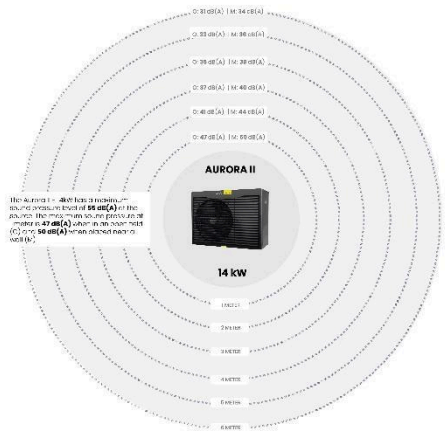
A noise assessment will be attached separately to the application.

MCS 020 Standard:
https://mcscertified.com/wp-content/uploads/2025/03/MCS-020-a-Issue-1.0-Final.pdf

	AURORA II		
MODEL	6 kW	10 kW	14 (1) kW
Noise Level (dB(A)) – 1m	50	51	52
Sound Power Level	63	66	67






AURORA II
14 kW

Environmental and Sustainability Benefits

The ASHP replaces or supplements a traditional fossil-fuel heating system and:

- Reduces household carbon emissions
- Improves EPC (Energy Performance Certificate) rating
- Aligns with local climate strategies and national net-zero targets

Heritage & Conservation Area Considerations

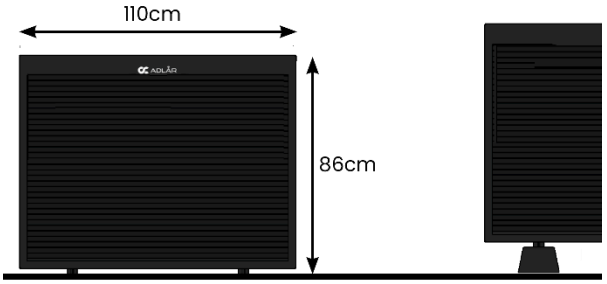
Although the property lies within a protected zone. The installation has been carefully designed to avoid any adverse effect on the visual amenity or historic character of the area. It will not affect any listed structures or fabric.

Conclusion

The proposed installation of an Air Source Heat Pump represents a sustainable and low-impact improvement to the property. It is designed to be visually unobtrusive, acoustically compliant, and fully accessible for maintenance. The development supports wider environmental goals without compromising the character or access of the site.

Dimensions

AURORA II - Height



AURORA II - 6&10kW

AURORA II - 14kW

Specifications

SPECIFICATIONS - AURORA II

	AURORA II		
MODEL	6 kW	10 kW	14 (1) kW
Voltage	220-240/50 Hz	220-240 50 Hz	380~415 50 Hz
Phases	1	1	1
HEATING: PERFORMANCE CONDITION 7 °C / 6 °C, INLET / OUTLET WATER 30 °C / 35 °C			
Heating Capcity (kW)	6.46(2.50~8.30)	10.58(4.20~12.20)	14.45(5.30~16.50)
Nominal Power Input (kW)	0.57-1.92	0.86-2.88	1.15-4.15
Nominal Input Current (A)	2.53-8.52	3.82-12.77	1.63-5.90
ERP Level (Outlet water temperature 35 °C)/SCOP	A+++/4.92	A+++/4.55	A+++/4.58
HEATING: PERFORMANCE CONDITION 7 °C / 6 °C, INLET / OUTLET WATER 47°C / 55°C			
Heating Capcity (kW)	2.30-7.62	3.85-11.20	4.90-15.10
Nominal Power Input (kW)	0.75-2.61	1.13-3.75	1.65-5.25
Nominal Input Current (A)	3.32-11.58	5.01-16.6	2.35-7.47
ERP Level (Outlet water temperature 55 °C)/SCOP	A++/3.37	A++/3.41	A++/3.39
COOLING: PERFORMANCE CONDITION 35°C / 24°C, INLET / OUTLET WATER 12°C / 7°C			
Cooling Capcity (kW)	1.80-7.10	2.60-10.30	4.50-13.50
Nominal Power Input (kW)	0.61-2.43	0.91-3.65	1.45-4.85
Nominal Input Current (A)	2.71-10.78	4.03-16.19	2.06-6.89
EER Level (Outlet water temperature 7 °C)/SCOP	3,25	3,14	3,21
GENERAL DATA			
Maximum Power Input (kW)	2.71	3.83	5.97
Maximum Input Current (A)	12.00	17	10.50
Refriderant/Weight	R32/1.25kg	R32/1.8kg	R32/2.8kg
Nominal Water Flow (m^3/h)	1.1	1.75	2.52
Fan Motor Type	DC inverter		
Compressor	Panasonic/DC Inverter/Rotary/EVI		
Circulation Pump	Grundfos/Inverter Type/Built-in		
IP Class	IPX4		
Noise Level (dB(A)) – 1m	50	51	52
Max. Outlet Water Temperature (°C)	60	60	60
Water Pipe Connections	DN 25 (1")	DN 25 (1")	DN 32 (1-1/4")
Pressure Drop at Nominal Water Flow (kPa)	25	27	30
Operating Temperarture Range (Heating Mode) (°C)	-30~45		
Operating Temperarture Range (Cooling Mode) (°C)	16~45		
Net Dimensions (L*D*H) (mm)	1100*445*850	1100*445*850	1110*480*850
Net weight (kg)	102	109	124

Supporting Documents Provided:

1. **MCS 020 Sound Calculator**
    a. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fmcscertified.com%2Fwp-content%2Fuploads%2F2025%2F03%2FMCS-020-a-Calculator-FINAL.xlsx&wdOrigin=BROWSELINK
2. **Photos of Site**
3. **Site Location Plan 1:1250**
    a. Can be downloaded from https://www.planningportal.co.uk/planning/planning-applications/buy-a-planning-map
    b. Once downloaded, add the location of the heat pump
4. **Block Plan 1:250**
    a. Can be downloaded from https://www.planningportal.co.uk/planning/planning-applications/buy-a-planning-map
    b. Once downloaded, add the location of the heat pump
5. **Householder Application**

Steps for submitting an application

1. Fill out this document with your content
2. Go to:
    a. https://www.planningportal.co.uk/
    b. Login/Register
    c. Start a new application
3. Steps
    a. Enter address
    b. Enter your details
    c. Description of Works
        i. “Installation of an air source heat pump”

Listed Building Alterations

Do the proposed works include alterations to a listed building?

- [x] Yes
- [ ] No

If Yes, do the proposed works include

a) works to the interior of the building?

- [x] Yes
- [ ] No

b) works to the exterior of the building?

- [x] Yes
- [ ] No

c) works to any structure or object fixed to the property (or buildings within its curtilage) internally or externally?

- [ ] Yes
- [x] No

d) stripping out of any internal wall, ceiling or floor finishes (e.g. plaster, floorboards)?

- [ ] Yes
- [x] No

If the answer to any of these questions is Yes, please provide plans, drawings and photographs sufficient to identify the location, extent and character of the items to be removed. Also include the proposal for their replacement, including any new means of structural support, and state references for the plan(s)/drawing(s).

> The current heating system will be removed, in its place a hot water tank. Outside nothing will be removed, however a heat pump will be placed on the outside wall. A 4” core hole will be required at low level to bring the flow and return pipework into the property. This will be behind the property, so no real visual impact.