

PLANNING STATEMENT
Name and address of proposed site: 47 Blaenant, Emmer Green, Reading RG4 8PH
Proposals: Installation of an air source heat pump within 1m of the site boundary.
Drawings and supporting documents - Drawing 21. North Elevation - Heat Pump Proposals - Drawing 22. North Elevation - Heat Pump Illustration - Drawing 23. Heat Pump Location and Distance to Neighbours - Drawing 24. Site Location - Aira Heat Loss Technical Report - Aira Heat Pump Sketch - Aira Heat Pump Fact Sheet 2025

Assessment of the surroundings of the proposed development:

Blaenant is a cul-de-sac with two private side roads which are also called Blaenant.

47 Blaenant is bound by Blaenant the main road to the north, a public footway to the west, 45 Blaenant to the south, and a private access road to the east.

47 Blaenant is a 3-bed detached property, located at the end of the main road with the front access facing the private side road in the east.

The side door of the property from the kitchen opening out onto Blaenant the main road to the north. Adjacent to the side door, there is approximately 1.5-2.0m wide green landscape along the side of the property boundary on the north facing side.

14, 12, and 10 Blaenant are to the north of 47 Blaenant and can be seen when looking out from the side door. All three properties have a driveway or a small front garden, setting the building back from the main road.

All the houses were built at the same time in 1996.

Figure 1 shows site location.

Figure 2 shows the north-facing facade of 47 Blaenant, the side door from the kitchen and the soft landscape along the property boundary.

Figure 3 shows a side view looking out to 14, 12, and 10 Blaenant (from left to right) at the end of the cul-de-sac.

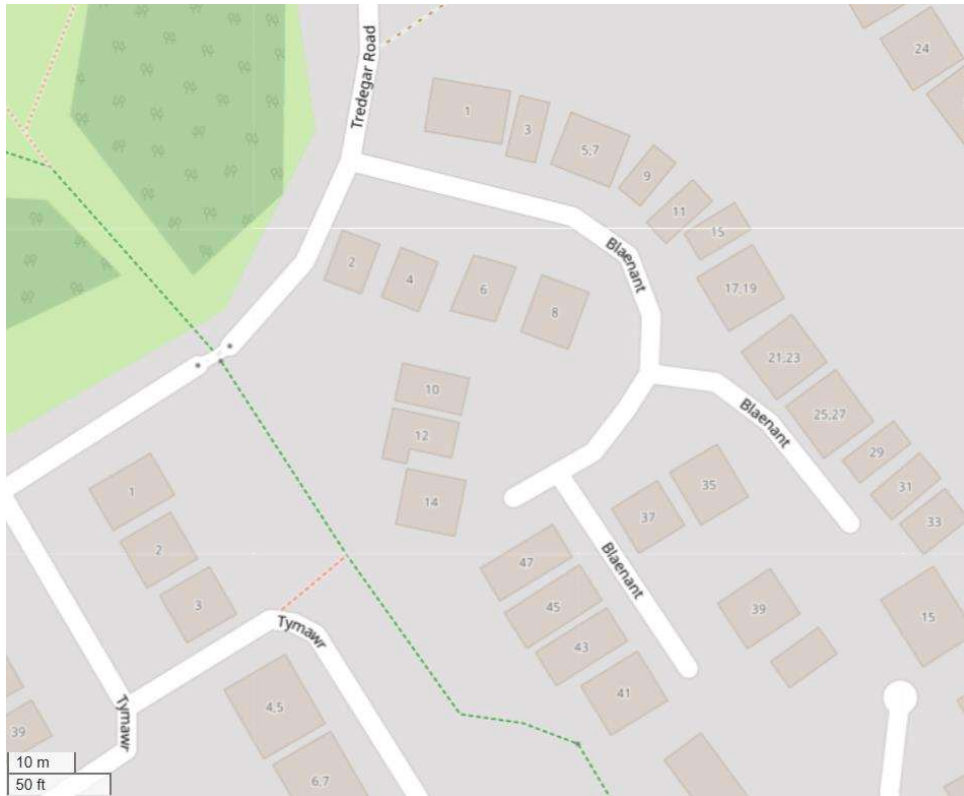


Figure 1 – Site Location



Figure 2 – North-facing facade of 47 Blaenant, the side door and the soft landscape along the property boundary.



Figure 3 – Side view looking out to 14, 12, and 10 Blaenant

Local Policies

In February 2019 Reading Borough Council declared a 'climate emergency'. The Council also called on the Government to follow the recommendations of the Committee on Climate Change and radically improve the policy framework. This includes:

- *more support for renewable electricity and heat (and not taxing them unfairly)*
- *establishing the widespread use of ground-source heat pumps and potentially air source heat pumps*

The Reading Climate Emergency Strategy 2020-25, November 2020, outlines Energy and Low Carbon Development Action Plan of which under Sub category: Renewable Energy – Heat, Action Name *E12 Renewable Heat Air Source* encourages different types of heat pumps and development of skills of local installers.

An air source heat pump (ASHP) is an energy-efficient heating system that extracts heat from the outside air and transfers it into home. It works even in cold temperatures and can be used for both heating and hot water. The key benefits are:

- **Energy Efficiency:** ASHPs are up to 300% more efficient than traditional gas boilers, as they use electricity to move heat rather than generate it.
- **Environmental Benefits:** They reduce carbon emissions and are a great alternative to fossil fuel-based heating systems.
- **Government Grants:** In the UK, you can get up to £7,500 towards installation through the Boiler Upgrade Scheme.

Air Source Heat Pump Outdoor Unit

The proposed air source heat pump at 47 Blaenant has been sized based on the size and the potential heat loss of the property. Aira Homes has carried out a survey and heat loss calculations, and advised a 6.5kW heat pump.

The heat pump outdoor unit is proposed to be located adjacent to the side door to reduce the distance and subsequently heat loss to the water cylinder tank which will be placed inside the property in the utility room under the stairs. The further the distance of the outdoor unit is from the cylinder tank, the less efficient the heat pump operates. Therefore, it is important to have the outdoor unit within the shortest distance possible to the cylinder tank to maximise the energy efficiency.

Aira heat pump outdoor unit has a very modern, sleek, Scandinavian design. It comes in full black which would blend into the existing dark green shrubs (currently rosemary and lavender). Though some part of the rosemary will be removed to ensure the unit has unobstructive air movement, the remaining shrubs will be maintained. The shrub will help soften the look of the outdoor unit. See **Figure 4** showing an Aira heat pump outdoor unit surrounded by low plants and against a brick wall. **Figure 5** show illustration of an Aira outdoor unit in the proposed location. The proposed location will also allow ease of access for maintenance.



Figure 4 – Example of Aira heat pump outdoor unit against a brick wall surrounded by low plants in front (source: <https://www.airahome.com/en-gb/heat-pumps>)



Figure 5 – Illustration of Aira 6kW outdoor unit in the proposed location (site boundary in red)

Layout and Scale

The proposed air source heat pump outdoor unit is proposed to be installed in the location where it will maximise as much as possible the heat transfer to the water cylinder tank. The only place that will reduce the heat loss is on the outside wall of where the cylinder tank is located. Due to the size of the property, it is not practical to have the tank and the outdoor unit at the rear of the property as the tank would take up the area next to the rear window which provides natural light into the property.

The outdoor unit is 121.6 x 100.5 x 42.5 cm in width, height, and depth, respectively.

Technical Appraisal

The technical specifications for the 6kW outdoor unit are shown in **Table 1**.

The average noise level of an Aira Heat Pump Outdoor Unit, measured from a distance of 3 metres for the 6kW is 46.9 dB(A).

The nearest property which is 14 Blaenant is approximately 12.87m away. At the nearest window of No. 14, it is expected that the noise level would reduce to around 34 dB(A) which is comparable to the rustling of leaves.

One of the main reasons for the current rule which require the outdoor air source heat pump to be more than 1m to the property boundary is the noise level that could disturb neighbours. However, as the nearest property is some distance away, it would not be affected by the noise as per the aforementioned assessment.

Table 1 6wK Outdoor Unit Specifications

Outdoor Units 	
6 KW OUTDOOR UNIT	
Energy efficiency [35/55 °C]	A+++/A++
Refrigerant	R290
Power output @ +7/35 °C [Max rps]	9.5 kW
Power output @ -7/35 °C [Max rps]	6 kW
SCOP [Average 35 °C]	4,7
Maximum cooling power @ 35/18 °C	8 kW
Max temp outlet	70 °C
Working range, heating	-25 °C – +45 °C
Power supply	230V
Recommended fuse size, A [outdoor unit]	16A
Sound pressure level [EN12102]	46.9 dB(A)
Dimensions [cm] [w/h/d]	121.6 x 100.5 x 42.5

The Government Plan to Remove the 1-meter to Boundary Rule

The UK government has announced plans to remove the 1-meter to boundary rule for air source heat pumps as part of its efforts to promote cleaner energy and reduce barriers to heat pump installation. This change is included in the Warm Homes Plan, which aims to make energy-efficient heating more accessible. The rule change will allow heat pumps to be installed closer to property boundaries, provided they meet noise criteria.

The government has stated that these changes will be implemented into law as soon as parliamentary time allows, with updates expected early this year. Refer to the press release published in November 2024 on <https://www.gov.uk/government/news/help-to-save-households-money-and-deliver-cleaner-heat-to-homes>

Conclusions

The proposed air source heat pump outdoor unit will blend into the existing greenery and the new flower and low planting will help soften the look of the unit. Sufficient distance from the neighbours’ properties within the vicinity will reduce the noise level to the level that is low enough to not cause disturbance.

Based on the recent announcement from the government, it is expected that the 1m boundary rule will be removed at some point this year. Therefore, installation of the air source heat pump outdoor unit within 1m of the property boundary should be acceptable.