

DESIGN & ACCESS STATEMENT

September 2026

FOR THE INSTALLATION OF AN EXTERNAL AIR SOURCE
HEAT PUMP UNIT TO THE REAR ELEVATION
AT
111 WALSWORTH ROAD
HITCHIN
HERTFORDSHIRE
SG4 9SP



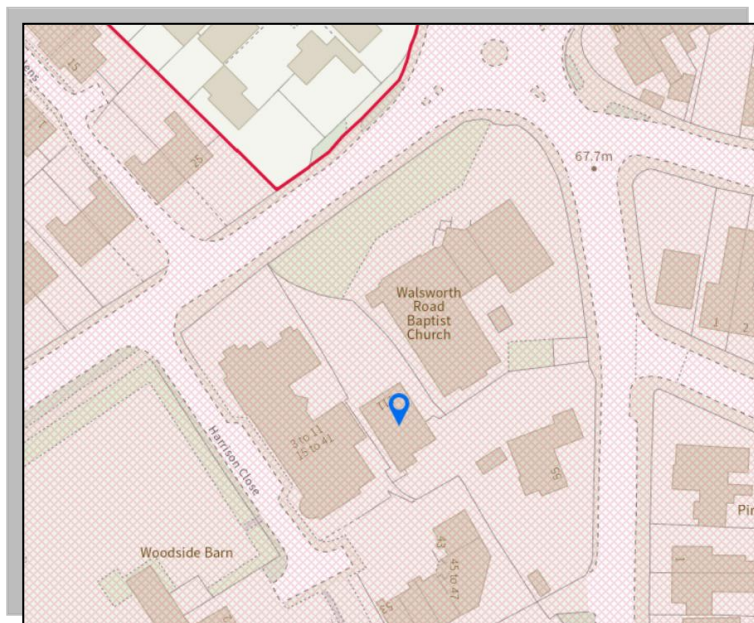
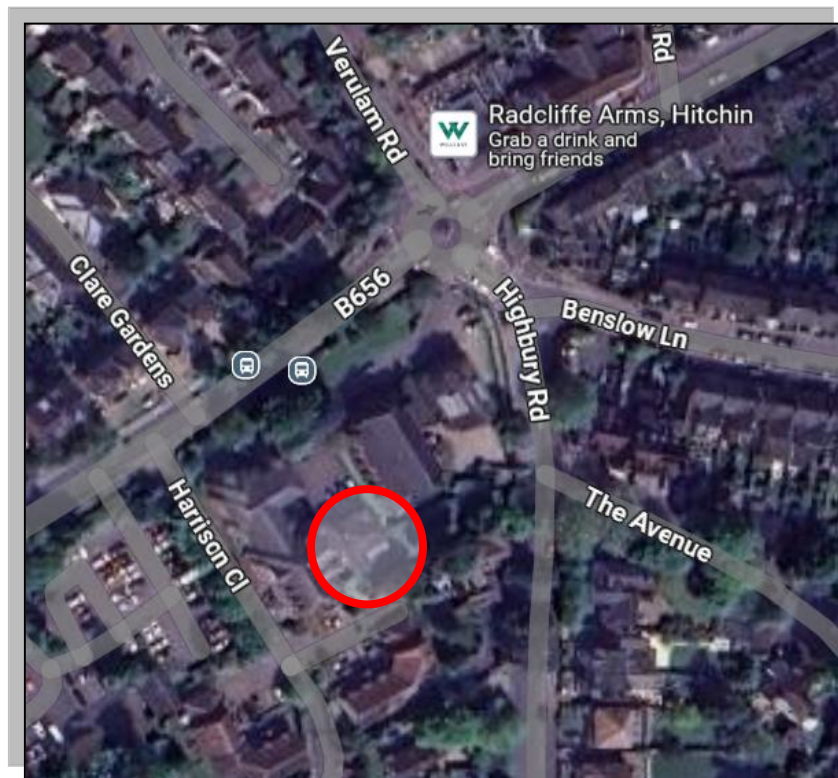
Prepared by

Paul Hinkins – Inigo Architecture LTD

1.0 INTRODUCTION

This statement is written to support the installation of an external air source heat pump unit to the rear (south-east) elevation of the host building within the ownership of the Hitchin Youth Trust as illustrated on the submitted drawing.

The application site is set back from the south side of Walsworth Road, to the southwest of Walsworth Road Baptist Church and to the east of flats accessed via Harrison Close, all of which are located within the Hitchin Conservation Area





Photographs of the Walsworth Road Baptist Church taken from the Hitchin Youth Trust car park and rear gardens



Photographs of the modern flats located to the west, and the relationship of both neighbouring structures to the host building.

2.0 PROPOSAL - DESIGN

The proposal is to install a Panasonic 9.0KW R32 Free Multi Z external air source heat pump unit CU-5Z90CBE-5 to the rear elevation of the building as illustrated on the submitted drawing. This will provide the users of the building with more comfortable spaces during the summer and winter months, and periods of warmer and cooler weather.



Photographs of side and rear elevations of the building indicating the position for the proposed external Air Source Heat Pump unit. An internal photograph at first floor level indicates the view to the rear boundary.

**IMAGE AND SPECIFICATION DETAILS FOR PROPOSED EXTERNAL
AIR SOURCE HEAT PUMP UNIT (SIZE 940mm W x 340mm D x 999mm H)**



The **Panasonic CU-5Z90CBE** is the largest outdoor unit in Panasonic's Free Multi Z range, built to run **up to five independently controlled indoor units** from a single external condenser. It uses the **R32 refrigerant** and an inverter-driven rotary compressor to deliver flexible, room-by-room heating and cooling across larger homes without needing five separate outdoor units cluttering the exterior.

Rated at **9.0kW nominal cooling** and **10.4kW nominal heating**, the CU-5Z90CBE supports a combined indoor capacity range of **3.2kW to 18.3kW**, giving installers real freedom to mix and match indoor unit types and sizes across a whole-house project.

9.0 kW
Nominal Cooling

10.4 kW
Nominal Heating

5
Indoor Connections

A+++
SEER Rating

R32
Refrigerant

-15°C
Min Heating Temp

IMPORTANT: F-GAS QUALIFIED INSTALLATION REQUIRED

This unit is charged with **R32**, a fluorinated greenhouse gas covered by F-Gas Regulations. Installation, commissioning, and any refrigerant handling must be carried out by an **F-Gas certified engineer**. See the certification form above before ordering.

PLEASE NOTE: CONFIRM TOTAL COMBINED INDOOR CAPACITY

With five connections available, it's straightforward to exceed the outdoor unit's rated capacity when combining several larger indoor units. The combined nominal cooling capacity of all connected indoor units must stay within the **3.2kW–18.3kW** range — check the total against the specific indoor unit combination before ordering, particularly on five-zone layouts.

GOOD TO KNOW: MINIMUM TWO INDOOR UNITS MUST BE CONNECTED

The CU-5Z90CBE is designed to run **2 to 5 indoor units** — at least two must be connected for the system to operate correctly. Indoor unit sizes can be mixed and matched across wall-mounted Etherea, TZ super-compact, cassette, and duct types, provided total connected capacity stays within the outdoor unit's rated range.

Five Independent Zones From One Outdoor Unit

A single outdoor unit drives **up to five rooms** with individual temperature control on each, significantly reducing the outdoor footprint compared to installing separate condensers for a whole-house system.

Inverter-Driven Rotary Compressor

The **inverter compressor** modulates output to match real-time demand across all connected rooms rather than cycling on and off, which improves comfort, reduces electricity use, and lowers operating noise.

A+++ SEER Efficiency

Achieves an **SEER rating of 8.50 (A+++)** and an **SCOP of 4.68**, placing it among the most efficient units in Panasonic's domestic multi-split range.

Wide Indoor Unit Compatibility

Compatible with Panasonic's **Etherea wall-mounted, TZ super-compact wall-mounted, 60x60 cassette, and low static pressure hideaway duct** indoor units, so each connected room can use the indoor style that best suits the space.

R32 Refrigerant for Lower Environmental Impact

R32 has a **lower global warming potential** than the R410A refrigerant it replaces, while also improving system efficiency — helping the unit meet current and future F-Gas phase-down requirements.

Long Maximum Pipe Run

Supports a **total pipe length of up to 80 metres** across all connections, giving installers more flexibility to site the outdoor unit further from the rooms it serves on larger properties.

PERFORMANCE	
Cooling Capacity (Nominal)	9.0 kW
Heating Capacity (Nominal)	10.4 kW
Indoor Nominal Capacity Range (Min–Max)	3.2 – 18.3 kW
Minimum Indoor Units Connected	2
Maximum Indoor Units Connected	5
EFFICIENCY	
SEER	8.50 (A+++)
SCOP	4.68 (A++)
SOUND	
Outdoor Sound Pressure – Cooling (Hi)	53 dB(A)
Outdoor Sound Pressure – Heating (Hi)	54 dB(A)
ELECTRICAL	
Power Supply	230V, 1-phase, 50Hz

PHYSICAL & REFRIGERANT	
Dimensions (H x W x D)	999 x 940 x 340 mm
Net Weight	81 kg
Refrigerant	R32
Refrigerant Charge	2.72 kg
CO ₂ Equivalent	1.836 T
Pipe Diameter – Liquid	1/4" (6.35 mm)
Pipe Diameter – Gas	3/8" (9.52 mm)
Total Pipe Length Range	6 – 80 m
Pipe Length Range to One Unit	3 – 25 m
Elevation Difference (In/Out)	15 m
Additional Gas Amount	20 g/m
OPERATING RANGE	
Cooling – Outdoor Ambient	-10°C to +46°C
Heating – Outdoor Ambient	-15°C to +24°C

The neighbouring Baptist Church is listed in the Hitchin Register of Buildings of Local Interest, however no buildings within the vicinity are statutory listed.

The neighbouring flats are a modern addition and set over four stories with facing brickwork and upper rendered panels to all elevations.

It is anticipated that the location of the proposed external heat source heat pump unit will ensure that neighbouring buildings will not be adversely impacted by any perceived noise from the unit or from direct overlooking.

3.0 CONCLUSION

It is considered that the carefully chosen location for the proposed external air source heat pump unit would greatly improve the usability of the building during the cooler and warmer months of the year, which can provide an uncomfortable user experience.

The location of the proposed external unit has been carefully considered to ensure that it does not detrimentally affect the visual impact from any neighbour buildings or any perceived noise when the air source heat pump system is in use.



Paul Hinkins

Paul Hinkins Associate

INIGO ARCHITECTURE LTD