# DESIGN & ACCESS STATEMENT

SEPTEMBER/2023

AIR SOURCE HEAT PUMP AND CONDENSER UNITS, PLANT ENCLOSURE PROPOSAL

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# 2. INTRODUCTION

This statement accompanies the planning application for works to a single owner-occupied house at 53 Queen's Grove, in relation to the proposal of two Air source heat pumps and two condenser units in a external Plant enclosure.

The statement demonstrates that the proposal is considerate of the environment, noise production of the plant and the character and appearance of the host building and by association, the wider conservation area.

This statement encompasses the requirements of a design and access statement.

# 3. EXISTING SITE

## BACKGROUND

The existing building is a semi detached Victorian house which was built in 1844 as part of the Eyre Estate in St John's Wood. It is a typical example of the suburban villas which were built in large numbers in the 1840s. On Queen's Grove there are 3 similar pairs one of which No. 53 is part of, all in the ST. John's Wood conservation area but not listed.
The existing building uses gas boiler, powered by natural gas, to heat the building. Gas is a fossil fuel responsible for large percentage of global emissions.

image 01. Existing Garden area

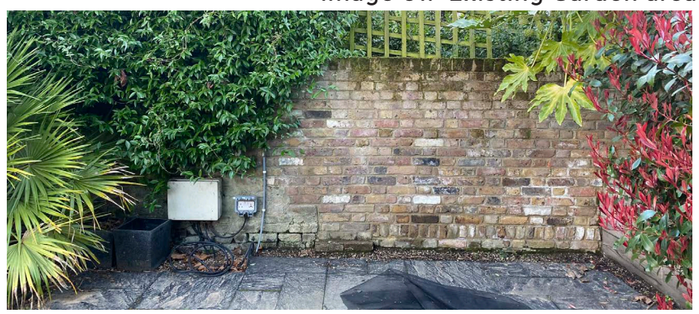


image 02. Existing Garden area

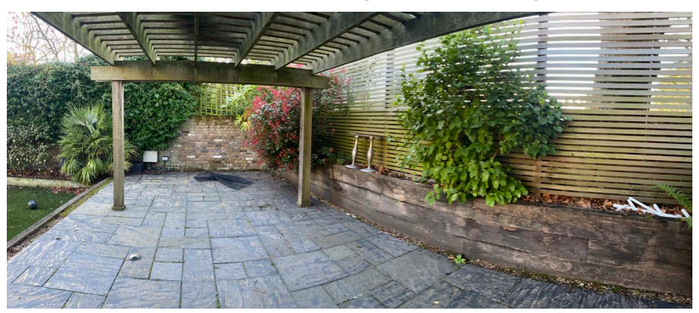


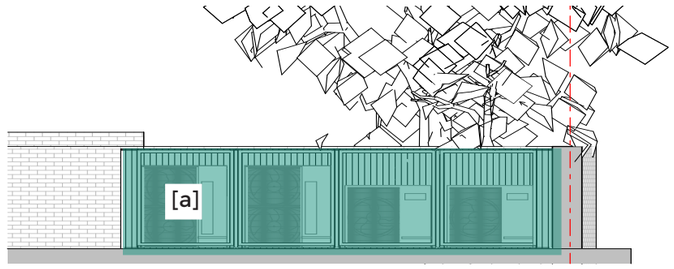
image 03. Existing Garden area

# 4. NEW PROPOSAL

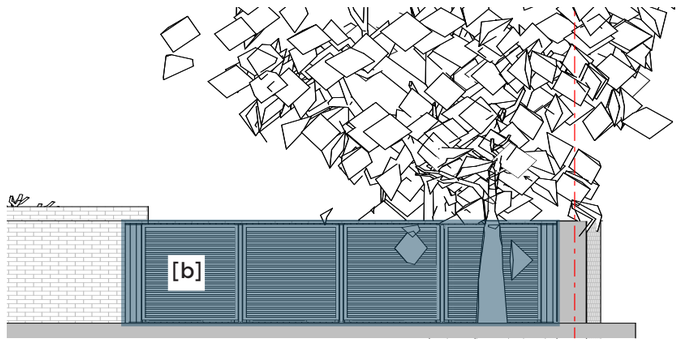
## BRIEF, STRATEGY, AMOUNT & SCALE

With the governments plan to ban gas boilers in new build building from 2025, to encourage greener heating and cooling systems, we would like to propose an efficient and environmentally friendly heating and cooling system for the property at 53 Queens Grove. The proposed Air Source Heat pump will efficiently heat the property and the proposed condensers will be linked to an AC system which will help reduce overheating, a current issue at the property.

We propose [a] **two air source heat pump units and two condenser units** and [b] **a timber plant enclosure**.




Proposed Units Elevation




Proposed Plant Enclosure Elevation

Our proposal takes the following into consideration:

- Efficiency of the system
- Environmental impact
- Noise production of the proposed units
- Aesthetics and surrounding context

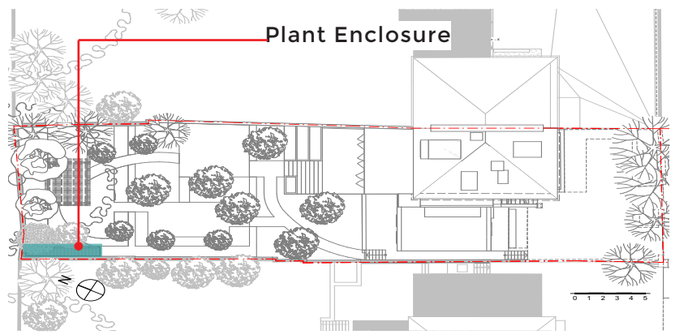
53 Queens Grove is undergoing upgrades which will improve the insulation levels and further draught-proof the building. The increased insulation and passive ventilation measures will ensure the AC is only utilised on very hot days.

We are proposing a solution that will future-proof the heating system of the property from any regulation changes

Gas boilers have been proven to be an inefficient way of heating buildings and bad for the environment as they utilise fossil fuels in the form of gas. An air source heat pump will increase efficiency and significantly reduce the building's current carbon emissions by using less energy to heat the property.

According to the **Microgeneration Certification Scheme Planning Standards (MC 007)**, there is a noise production requirements for air source heat pumps to ensure they don't cause disturbances to the surrounding area. According to the **RBA Acoustics Report 12892.RP01.PNA.0 - 22 August 2023**, the proposed plant units meet the criteria set by the City of Westminster and take into considerations the atmospheric noise emissions from the proposed plant.

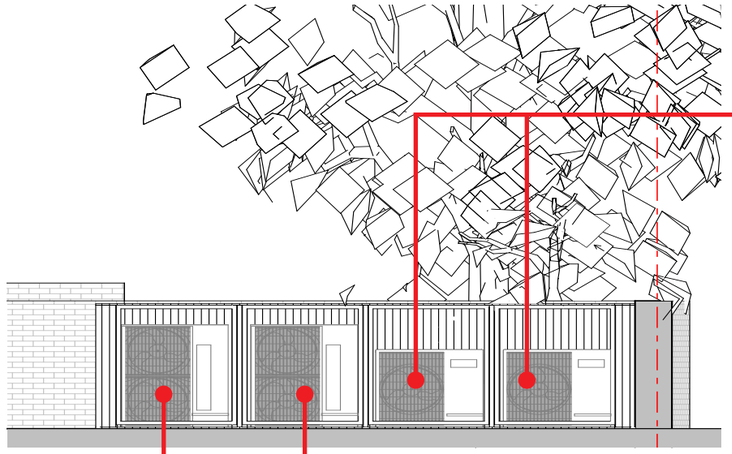
We had originally considered a single air source heat pump unit and a single condenser unit, but with the noise restrictions, the single units will produce greater noise emissions. This has resulted in the specification of two units for each instead.

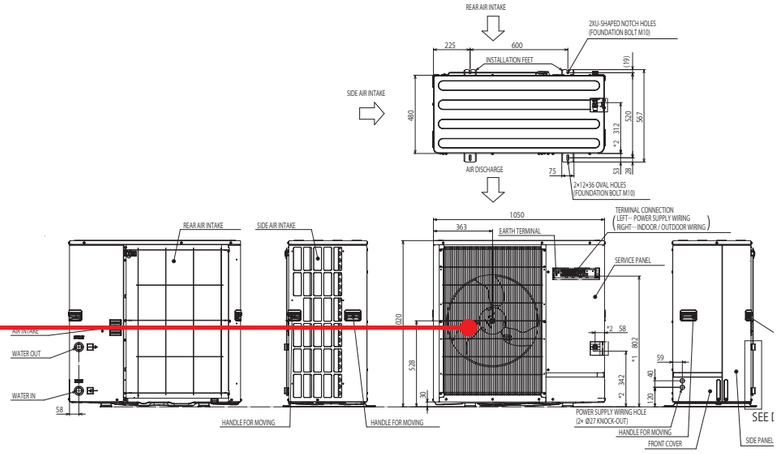



Location of Plant enclosure, refer to PR-A0.01

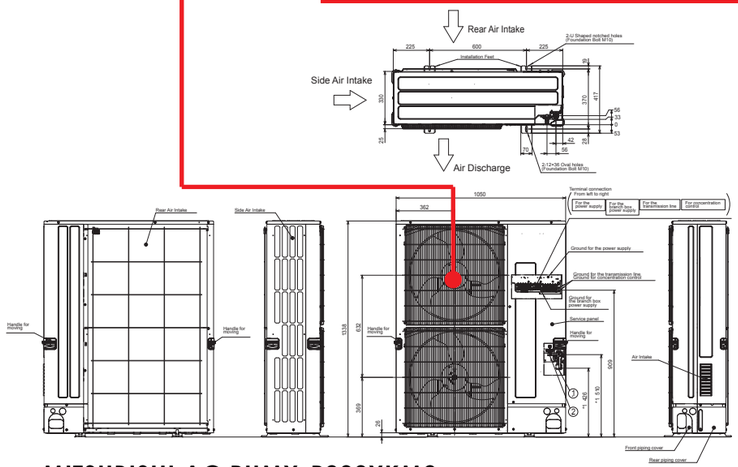
Proposed Plant Items:

**CU1** - Mitsubishi AC PUMY-P200YKM2
**CU2** - Mitsubishi AC PUMY-P112VKM5
**ASHP1** - Mitsubishi AC PUZ-WM85VAA
**ASHP2** - Mitsubishi AC PUZ-WM85VAA

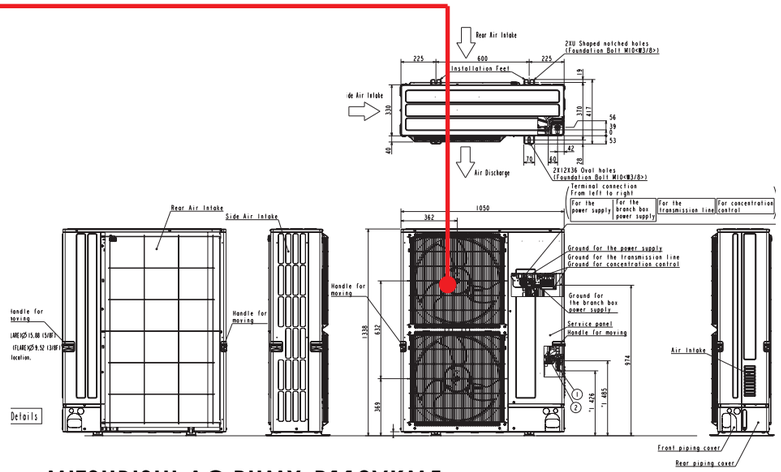





**MITSUBISHI AC PUZ-WM85VAA**

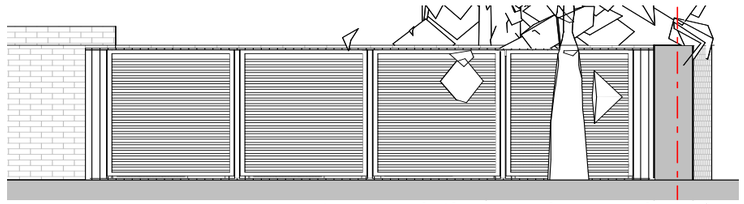



**MITSUBISHI AC PUMY-P200YKM2**




**MITSUBISHI AC PUMY-P112VKM5**

The proposed plant will be placed in a timber trellis enclosure with four large louvred door. The louvred doors have 45 degree timber slats that will allow for ventilation to the enclosure and help to evenly distribute the noise emissions of the plant.



**Proposed Plant Enclosure Elevation**

## MATERIAL

The proposed plant enclosure is made from light oak timber. The material is in keeping with the design of the garden, respects the building lines and scale and won't obscure key architectural features.

**Light Oak Enclosure**

## ACCESS

Access to the property remains unchanged.

## USE

The property is to remain as a single family dwelling C3 residential. The alterations are necessary to enable the continued efficient use of the property by a family.

## ENVIRONMENTAL IMPACT

- The proposed ASHP will be significantly better for the environment than the existing gas boiler
- The proposed external materials are unlikely to need renewal for years.