

Design and access Statement

Introduction

This Design and Access Statement has been prepared for the purpose of supporting a new minor planning application at 82 Fitzjohns Avenue, seeking approval for the placement and exact models of Air Source Heat Pumps (ASHP), a backup generator and a greenhouse.



Air Souce Heat Pumps

The use of Air Source Heat Pumps (ASHP) for heating and cooling in the house was consented in application 2021/1787/P. This application has now been implemented and majority of the shell and core has been constructed on site.

Feedback in an email dated 17/03/2021 from our previous PreApp consultation for the aforementioned planning application stated that the inclusion of ASHPs within the scheme “would give a significant carbon offset and is welcomed”. We also completed Dynamic Thermal Modelling to quantify the risk of overheating in the building as requested in the PreApp consultation and after incorporating all preferred measures of passive cooling in line with the cooling hierarchy (as discussed on page 12 of Energy and Sustainability Statement which should be read in conjunction with the Thermal Comfort Statement) it was concluded that active cooling will be necessary to achieve acceptable thermal comfort levels. We attach the 3 previous reports written for this herewith, which were submitted and consented.

The exact ASHP models were not specified in our previous application and now through design development we have discerned that 3 ASHPs are required to service the building in order to lessen the visual impact and noise affecting neighbours. Two units (Mitsubishi PUZ- ZM71VHA and Toshiba RAV-GM280) are proposed to be installed within appropriate acoustic enclosures made of a double-skin type construction in galvanised mild steel on the flat roof towards the rear of the main house. There are no directly overlooking windows from the neighbouring school and also the existing fence screens any visibility from ground level on the neighbouring school side. It is also screened by our own building on the opposite side from the properties on Thurlow Road. The third unit (Mitsubishi PURY- P550YNW) is proposed to be placed in a different location so as not to override noise levels at the rear of the main house. This unit will be situated in a discreet location behind the garage and away from any neighbouring properties. This will be enclosed in an acoustic enclosure designed by our acoustic consultant in a double-skin type construction of mild steel and will not be visible from the public path of Spring Walk. It will also be concealed between the garage and garden walls. As demonstrated in the attached acoustic reports, the 3 ASHPs have no detrimental impact on the neighbouring properties.



Backup Generator

The proposed generator is entirely enclosed within a small acoustic structure that will also be concealed behind the garage and not be visible from any public avenue. It is only for use during emergency power outages, and thus will only be active in exceptional circumstances. Once again our acoustic consultant was engaged to minimise the impact of this generator; its enclosure is lined with Class A acoustic absorption and EEC acoustic louvres of galvanised mild steel, and due to its rare usage will have little impact on neighbours. We attach a new Plant Noise Impact Assessment that shows the proposed noise levels of the Generator and aforementioned ASHPs will be acceptable.

It is often seen for larger new build & refurbished / extended houses to have a back up generator considering the life safety, AV systems, security systems etc. The use of Batteries as an alternative has been explored and deduced to be unfeasible as the size would be much greater than the generator to provide enough power.

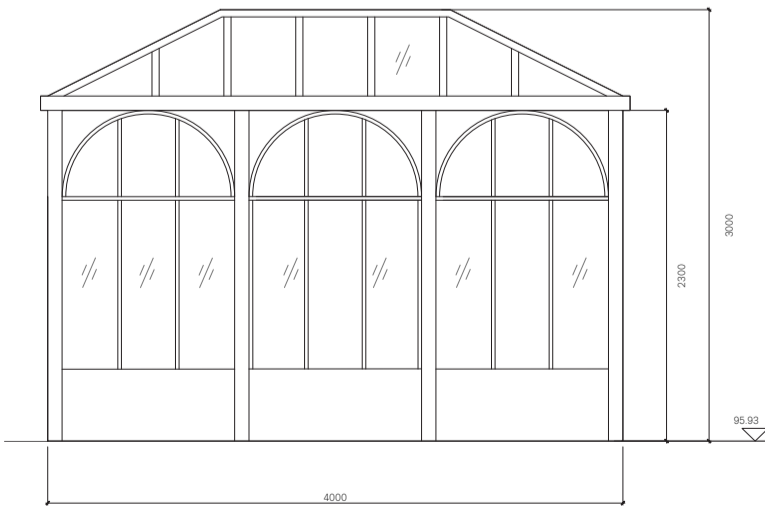


Greenhouse

Our previous consent allowed for a small Garden Folly towards the rear of the garden which we are now proposing to remove and replace instead with a greenhouse that will sit more in a more central location within the garden and will be used for germination, propagation and tender plants. It is a small scale structure of painted metal metalwork and glass with a traditional design that is diminutive to the house but sympathetic to the design of the main house and the landscape. It will not be visible from any public avenues or affect any neighbouring sight lines/rights of light.



Visual precedent for greenhouse



Proposed Greenhouse Elevation