Expiry Date - 14/12/2023

Development Control – Delegated Officer Report

Application Number: AWDM/0964/23 Recommendation – APPROVE

Site: 5 Eirene Avenue Worthing West Sussex BN12 4DL

Proposal: Installation of an Air Source Heat Pump to the front elevation of the house

Date of site visit: 29/11/23

Neighbours checked: Y

Additional neighbour notifications: N

Site and Surroundings

The application site is located to the west side of Eirene Avenue within a residential area of Worthing close to the coastline. The property comprises a modern semi-detached two-storey house constructed circa 2017. The property exhibits a shallow brick skirt with white render to lower elevations and composite cladding to upper elevations, a slate tiled gable roof, and dark framed openings. The property is set back from the road behind an open block paving driveway large enough to accommodate one low-to-mid-sized vehicle and steadily rises resulting in the slightly elevated position of the house. The attached neighbour No. 6 Eirene Avenue is a mirrored copy of the application property. Of note are the Juliet Balconies to first-floor façade with large pointed fanlights above. Solar PV's cover the southerly roof pitch of the application property nearly entirely.

The property is not within a conservation area, is not a listed building and there are no protected trees on site.

Proposal

Planning permission is sought for the installation of an Air Source Heat Pump (ASHP), Daikin model EDLA04EV3, to the front of the property beneath the ground-floor kitchen window. The dimensions of the ASHP are 1250mm long, 362mm deep, and 770mm high.

Relevant Planning History:

The semi-detached pair (Demolition of existing bungalow and erection of a pair of semi-detached two-storey houses) were implemented pursuant to AWDM/1314/16, decision issued 12 Jan 2017.

Consultations:

Environmental and Public Health (EPH)

‘I have visited and spoken to the applicant about the use of the air source heat pump (ASHP). It is being fitted to a modern house with good insulation properties and with solar panels on the roof. The ASHP will be used to top up the hot water in summer months and for heating and hot water in the colder months. Therefore it is unlikely to be operating overnight during the warm summer nights when windows will be open for thermal comfort. The applicant has chosen the quietest model currently available and is proposing to place it beneath his kitchen window at the front of the house, which given the surrounding constraints is the optimal position.

The concern is noise affecting the neighbouring semi detached property which is a mirror image of the applicants home. They both have Juliet balconies on the front of the property that have a pair of doors that open inwards into the bedroom. These are fitted with trickle vents, but if the occupant wants additional ventilation, then they have to open the door, as there are no other fanlights or casement windows to open in the room. So how do we assess the potential noise impact? MCS 020 assumes the noise radiates equally in all directions. It then adds the direct noise from the ASHP and the reflected noise from hard surfaces, i.e in this case the wall behind and the paving below. Finally a standard urban background noise level of 40dB is added. It is this standardisation that has meant the applicant has failed the permitted development level of 42dB or less by just 1dB.

With reference to the Council's Planning Noise Advice Document, November 2023, S3.4. The issue is that the MCS 020 does not consider the spectral frequency or any tonal element of the ASHP.

The Institute of Acoustics has its own calculation sheet that uses formula for the distance reduction rather than the Table in MCS 020 but instead of adding a standard urban background it adds a character correction to the noise. I have used the applicants data in this calculation sheet.

This can then be compared against background noise levels in the locality. I don’t have specific measurements for this site but for Goring Hospital the day time background noise level was 36dB LA90 and the night time background noise level was 34dB LA90. I would make a reasoned guess that this location would have background levels not far from these figures and I would expect them to be below 40dB LA90.

Based on a BS4142 assessment a rating level of + 5dB is an indication of an adverse impact depending on the context. A rating level of +10dB or more is an indication of a severe adverse impact depending on the context. So for example using Goring Hospitals background noise data; during the day we have a specific noise level of 43 and a background level of 36dB, a rating level of +7 and at night time we have a specific noise level of 43 and a background level of 34 that is a +9 rating level. For context, the predicted noise from the ASHP will not be an issue when Juliet balcony doors are closed but will be obvious when outside the front door on the driveway. The noise may be audible in the bedroom when the Juliet doors are open but to

what extent or noise level is not yet known, because what correction do you make for the outside to inside noise level from the open doors. You would normally reduce the noise level by 13dB for an open casement window, but the doors create a bigger opening, so this reduction will be less.

Finally, noise from ASHP's will have directionality, i.e the noise will be most prominent in front of the unit and will mainly radiate out away from the property. However, the paper based assessment whether the IOA or the MCS 020 does not allow for this it assumes the noise radiates equally in all directions so could overestimate the impact.

Therefore, given the uncertainties I have raised my concern is that asking for a noise assessment prior to installation of the air source heat pump based on prediction will not give an accurate picture of the noise impact, and as noise mitigation can easily be applied retrospectively, I would recommend that the assessment of noise and details of any necessary noise mitigation be provided once the ASHP is in situ. This can be requested as a condition.'

A link to the calculation sheet and the current Planning Noise Advice Document can be found via:

https://www.adur-worthing.gov.uk/noise/planning/#:~:text=When%20reviewing%20planning%20applications%20we,health%20and%20quality%20of%20life

Representations:

None received

Relevant Planning Policies

Worthing Local Plan 2023: SP1, SP2, DM5
National Planning Policy Framework (Revised September 2023)
National Planning Practice Guidance
SPG 'Extending or Altering Your Home' (WBC)

Planning Assessment

There is no objection in principle to alterations to residential dwellings within the built-up area. The key considerations are the effects on the visual and residential amenities of the locality.

Visual Amenity

The ASHP would appear industrial and would be readily visible to the street scene by virtue of its situation to the front of the property. Notwithstanding, the impact to visual amenity is not considered to be materially harmful in view of the minor scale of the proposal, the modern context of the property and street scene, and the merits of the proposal in relation to sustainable energy provision. The applicant has evidentially already embraced such renewable

energy sources through the installation of solar PV's on the roof of the property.

Should the introduction of a physical barrier of unknown form and scale be required in order to mitigate noise impact (as required by condition 3 attached to this permission), the merits of the proposal will be weighted against the mitigation measures' impact on visual amenity. With the expected increase of ASHP related planning applications by virtue of the government's encouragement to shift to low carbon and renewable sources, it is recognised the Council must adopt a favourable approach towards them which is both balanced and pragmatic.

Residential Amenity

The proposal would result in no material impact to neighbours insofar that it would not be overbearing or overshadowing and existing outlook would not be materially altered.

However, as highlighted in the consultation response from EPH, the noise assessment demonstrates a fail by 1dB and as such, there is anticipated to be some degree of noise impact to the attached neighbour's (No. 6) nearest habitable room, located to the first-floor served by the Juliet Balcony. In light of EPH comments, it is understood that noise impact would not render the proposal unacceptable on residential grounds by virtue of the uncertainties surrounding the noise assessment. Instead, it gives cause to impose a condition to ensure this is sufficiently mitigated should issues arise. Given the strong support from local and national government to the transition to sustainable forms of energy supply, it is considered that the condition would adequately address noise impact in such circumstances.

There are no residential amenity grounds to resist the proposal.

Recommendation

APPROVE subject to Conditions:-

1. Drawing Numbers
2. Standard time limit
3. Noise Impact Assessment Once ASHP In Situ

Informative

The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development, as set out within the National Planning Policy Framework.

Is recommendation contrary to letter(s) of representation? N

Expiry Date - 14/12/2023

Case Officer:	Jason Albon	Date: 12/12/2023
Authorised by:	Jo Morin	Date: 13.12.2023