

TECHNICAL NOTE

TITLE: Fernwood South – Noise Assessment Comments

CLIENT: Persimmon

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MIXED USE DEVELOPMENT AT FERNWOOD SOUTH – PLANNING APP. RE. 16/00506OUTM

1. INTRODUCTION

This document provides responses to the comments received in respect of the Fernwood South noise and vibration assessment, which was undertaken by RSK in 2015. The comments have been provided by Sanderson Weatherall (SW)¹ who are acting on behalf of Newark Steel Ltd (NSL). NSL operate a steelwork stockholding and processing facility, which is located adjacent to the boundary of the proposed development site.

2. SW COMMENTS AND RSK RESPONSES

SW comment No.1:

“a) Noise – The Persimmon Homes’ Masterplan (Dwg. No. 6534-L-07-1) shows residential properties adjacent to the south and west boundaries of the NSL depot. Residential properties are also shown adjacent to Sylvan Way (both sides). Consequently, there is the potential that residential amenities within the proposed development could be affected by the activities that take place inside the depot, particularly as the operations commence at 03:30 hrs. For example, there will be noise outside of the depot buildings from several sources including from the manoeuvring of Heavy Goods Vehicles (HGVs), the coming and going of delivery HGVs, warning sounds from unloading and packing HGVs, reversing alarms on forklift trucks and side-loaders, as well as from slinging chains over loads. There will be additional noise from activities that take place inside the warehouses including from the steel dragger system (which is how the steel moves between certain equipment and processes within the warehouses), 4no. steel saws, a saw drill line and shot blaster; large doors on both sides of the two warehouses are open when the site is in operational use. Given the proposed residential development adjoins the NSL depot on three sides, we would expect the Permission Homes’ Noise and Vibration

¹ Sanderson Weatherall letter ref. 182370/NH, dated 23 October 2018



Assessment (NVA) to have considered these activities however, a review of this documents suggests that these activities have been significantly underplayed.

For example, the monitoring location closest to the NSL depot is located next to Warehouse B and shielded by dense overgrowth. This is both quite far from Warehouse A, which is where the noisiest industrial activities take place, and behind a hedgerow that is outside of the applicant's control so its long-term retention cannot be secured via an appropriately worded planning condition. It is suggested that this monitoring location will not lead to accurate findings. NSL would have been pleased to have discussed its operations with Persimmon Homes' acoustics advisor if they had bothered to contact them; the scope of the NVA would then have been robust."

RSK response to comment No.1:

An unattended noise logger was set up along the western boundary of the industrial site with the intention of capturing the noise emissions generated by the various industrial activities. For robustness, the noise measurements at this location were taken over a seven-day period (05 – 11 February 2015). The resultant dataset has been used to determine the suitability of the site for residential development and establish the requirement for any associated mitigation measures.

The methodology for the baseline noise survey was agreed with the local authority prior to commencement.

During the deployment of the monitoring equipment, the surveyor subjectively considered the contribution of the noise emissions arising from the NSL site and positioned the logger at a representative location to capture the various perceptible sources of noise. The dominant source was noted to be attributable to roof mounted ventilation plant on Warehouse A however, other less prevalent noise sources were also noted to occur intermittently. The noise from both continuous and intermittent sources, during daytime and night-time hours would have been adequately captured by the long term monitoring position and utilised accordingly for the purposes of associated mitigation.

Concerns about the perimeter hedge are not considered to be significant. To provide effective acoustic screening, vegetation would typically need to be at least 10 metres deep, dense and consistent over its full height. It would also need to be evergreen to ensure year-round attenuation.

To inform the reserved matters application for the development (at a later stage), it is intended that a supplementary noise survey will be undertaken, including a series of measurements taken at the boundary of the industrial depot. The mitigation strategy for the proposed dwellings will be refined to reflect the latest survey data.

SW comment No.2:

"The NVA suggests that the extraction equipment on the warehouses are the most likely source of noise from the depot. This is incorrect for the reasons explained previously. Furthermore, this fails to appreciate that the extraction equipment is located on the east-facing elevations i.e. opposite the rear of the depot so away from the Persimmon Homes' site.

More significantly and worrying are the baseline noise model maps; these show the warehouses as white boxes with no noise emission levels. This suggests there is no sound generated from the warehouses, which again is incorrect.”

RSK response to comment No.2:

As noted above, the air handling units on the roof of Warehouse A were subjectively noted as being the dominant noise source whilst the monitoring equipment was being deployed/retrieved. The duration of the baseline measurements taken adjacent to the boundary of the NSL site should ensure that other prominent noise producing activities would have been adequately captured.

The noise model has been calibrated against the measured levels taken at the site boundary (Position LT2), with the emission source being assigned to the roof mounted ventilation equipment (dominant contribution). Such an approach is standard practice where on-site measurements of specific plant items cannot be obtained. The noise maps clearly show the noise source attached to the warehouse building and denoted by the change in coloured noise contours (coloured red and changing to amber as the noise level reduces). If the specific source noise were to be assigned to an alternative source within NSL, the resultant levels at the monitoring location (and subsequent assessment conclusions) would not alter because the noise levels obtained during the long term would still be used as a means of calibration.

SW comment No.3:

“Tables 3.2 to 3.5 show the unattended and attended monitoring results however, the exact start and end times are not specified. It is not therefore clear if the NVA adequately captures the noise generated from the NSL depot, particularly during its night-time operations.”

RSK response to comment No.3:

The unattended noise measurements taken adjacent to the western boundary of the NSL site (Position LT2) commenced at approximately 16:00 hrs on 5 February 2015 and recorded continuously during both daytime and night-time periods (07:00-23:00 and 23:00-07:00 hrs respectively), terminating on 11 February 2015 at mid-day.

The duration of the survey was therefore considered sufficient to capture both daytime and night-time noise emissions occurring at the adopted measurement location.

SW comment No.4:

“Given it has been nearly 4 years since the NVA was undertaken and during the same period NSL has incrementally grown its operations at the depot, we consider noise levels have probably increased and this, in itself, justifies an updated NVA.”

RSK response to comment No.4:

As noted above, it is intended that a supplementary noise survey will be undertaken to inform the reserved matters application (detailed design stage) for the proposed development. This would include a series of supplementary measurements taken around the perimeter of the NSL site. On this basis,

the potential variance in the noise levels generated by the NSL facility including any operational growth over the last four years would be captured.

To ensure a robust assessment at reserved matters stage, it would be prudent for NSL and Rototek to be consulted regarding the strategy for any subsequent baseline noise measurements. This should ensure that the monitoring accurately captures the industrial noise climate.

SW comment No.5:

Whilst traffic noise has been assessed adjacent to the A1, the B6326 Great North Road and Shire Lane, it has not been assessed adjacent to Sylvan Way. No reasons are given for this exclusion but it should be an important consideration because residential properties are proposed on either side of Sylvan Way. The road is currently used as the access into and out of 3 industrial sites, namely: the NSL depot; the Rototek site; and, a used tyre storage and processing compound. It is understood that Persimmon Homes intend to make the western end of Sylvan Way into a bus route; the western end will also act as a vehicular access into the residential block to the north of Sylvan Way and a smaller block to the south. Consequently, noise from traffic along Sylvan Way will increase as a result of the residential developments. However, the omission of this road represents an inconsistency and undermines the credibility of the NVA.

RSK response to comment No.5:

Traffic data was not made available for the Sylvan Way link to inform the noise assessment. The traffic flows utilising this road link will be assessed as part of the reserved matters applications with an appropriate mitigation strategy introduced for the proposed road side receptors, where necessary. A number of mitigation measures including façade treatments, orientation and stand-off distances can be utilised which should not preclude the inclusion of new residences adjacent to Sylvain Way.

SW comment No.6:

“Additionally, it is likely that the industrial noise from the depot will increase when NSL pursues it growth plans.”

RSK response to comment No.6:

The proposed growth plans are understood to comprise revised working hours that will permit 24 hr operation, seven days a week. This can be accounted for as part of a reserved matters application using the refined measurement data.