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TECHNICAL NOTE FOR PROPOSED RESIDENTIAL DEVELOPMENT, LAND TO THE WEST OF THE M1, DODWORTH, BARNSLEY

Environmental Noise Solutions has been commissioned by Keepmoat Homes (the client) to produce a technical note for the proposed residential development on land to the west of Junction 37 of the M1 in Dodworth, Barnsley (hereafter referred to as the application site). This technical note presents an assessment of site noise levels in relation to the provision of external amenity spaces.

To assess noise levels in the external areas, a three-dimensional Cadna-A noise model has been developed. Site geometry is based on Ordnance Survey mapping and terrain data, and the results of a noise survey undertaken by ENS. The noise model incorporates an indicative outline site plan with garden fences at 2.4m above ground level, to illustrate one possible site layout. It should be noted that this layout is subject to revision as the scheme is developed.

RESULTS

Noise levels across the site have been predicted at a height of 1.5m above ground level, with daytime noise contour plots appended to this report as Figures 1 and 2. Figures 3 and 4 present daytime noise contour plots with annotated noise levels.

In general, the lowest noise levels are achieved in those areas to the south-west of the site, where the proposed external areas benefit from both acoustic screening provided by intervening properties and the existing terrain, as well as attenuation with distance from the noise source (the M1).

However, where the building massing of the new dwellings provides a barrier to noise from the M1 to the east of the site, noise levels are substantially reduced such that it is possible to achieve a noise level of ≤ 55 dB $L_{Aeq,16hour}$ in gardens to the west of the first row of dwellings on the eastern site boundary (see Figures 3 and 4).

The noise model therefore demonstrates that with appropriate site layout, having gardens oriented to the west of the proposed dwellings should allow for all private external amenity areas across the site to achieve a noise level of ≤ 55 dB $L_{Aeq,16hour}$.

Yours sincerely

Robert Ashby - MIOA
Environmental Noise Solutions Limited

Figure 1: Predicted daytime noise contour plot – North land parcel

Figure 2: Predicted daytime noise contour plot –South land parcel

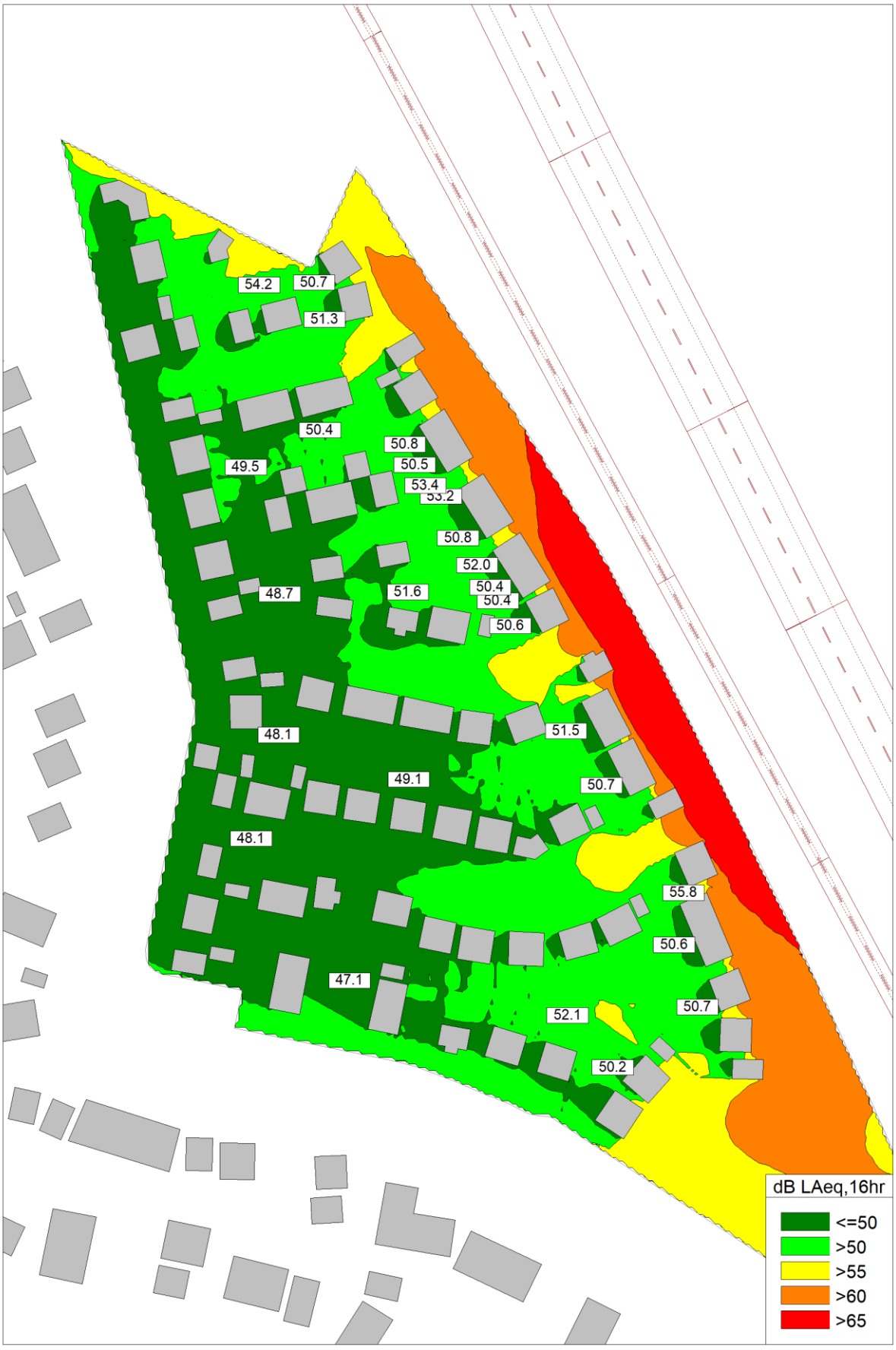

Figure 3: Predicted daytime noise contour plot – North land parcel with levels

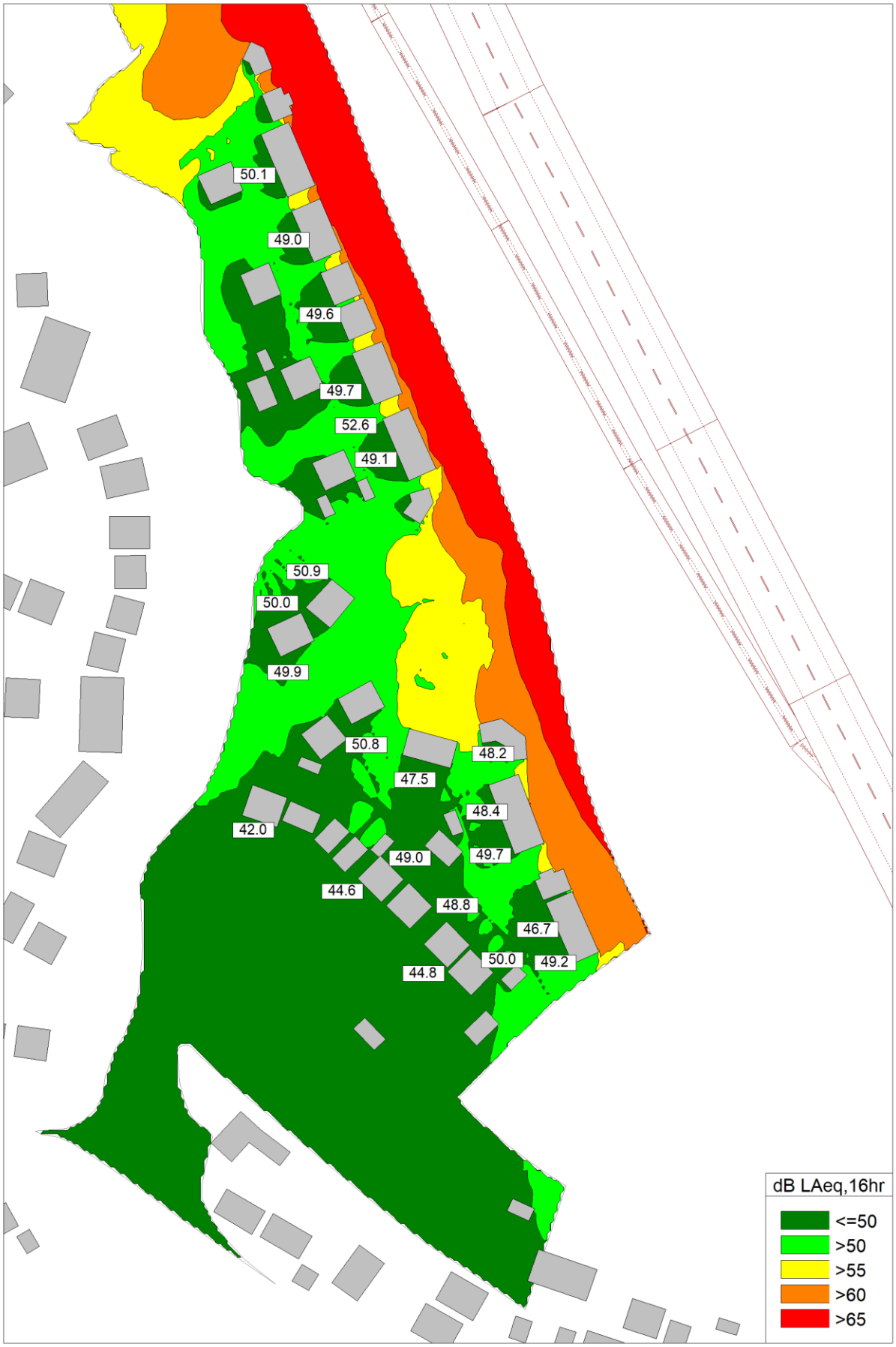

Figure 4: Predicted daytime noise contour plot –South land parcel with levels