

Offices across the country

Our ref : 22385.1v1
9 December 2014

Paul Sinclair
Technical Director
Redrow Homes Limited
Redrow House
St David's Park
Ewloe, Flintshire
CH5 3RX

via email only to: paul.sinclair@redrow.co.uk

Dear Paul,

Re: Proposed Residential Development, Park Avenue, Sefton Park – Noise

I am writing with our findings and recommendations in connection with noise issues for the above proposed development.

I contacted Ian Rushforth, Environmental Health Officer at Liverpool City Council, by telephone to confirm that he is happy with the scope of our assessment.

Site Description

I carried out an inspection of the site on the afternoon of 25 September 2014. The site is grassland with mature trees around the edge. The site is bounded to the north and north-west by Queens Drive, to the west by Mossley Hill Drive, to the east by Aigburth Vale, and to the south by Carnatic Road. Park Avenue bisects the site running east-west. There are existing dwellings to the south and south east and Mossley Hill Hospital is located to the east of the northern part of the proposed development land.

I noted that the ambient noise climate on the site was fairly low. Road traffic flows on the surrounding roads were low to moderate, and were not continuous. There was no audible noise from the adjacent Mossley Hill Hospital on the site. Some brief noise measurements at the perimeter of the site indicated that ambient noise levels due to road traffic were around 54 dB L_{Aeq} .

Noise Impact Assessment

The proposed housing site layout, detailed in Calder Peel drawing ref 14082 (P1) 002* shows that all houses will be set back from the surrounding roads. We therefore conclude that acceptable noise levels will be achieved in private gardens and within habitable rooms without any special noise mitigation measures.

However, as the ambient noise climate of the area is low, we consider that it would be prudent to take steps to minimise the potential impact of noise from construction of the development on existing nearby dwellings.

British Standard 5228-1:2009+A1:2014, 'Noise and vibration control on construction and open sites' provides guidance on the threshold of potential significant effect at dwellings for construction noise.

Table E.1 in Annex E provides guidance on example threshold values for the onset of potential significant effect from construction noise at dwellings.

Table 1: Table E.1 from BS5228-1:2009+A1:2014
- Example threshold of potential significant effect at dwellings

Assessment category and threshold value period	Threshold value, in decibels (dB) ($L_{Aeq,T}$)		
	Category A ^{A)}	Category B ^{B)}	Category C ^{C)}
Night-time (23:00 – 07:00)	45	50	55
Evening and weekends	55	60	65
Daytime (07:00 – 19:00) and Saturdays (07:00 – 13:00)	65	70	75

A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than the category A values.

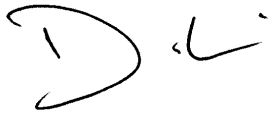
D) 19:00 – 23:00 weekdays, 13:00 – 23:00 Saturdays and 07:00 – 23:00 Sundays.

As the daytime ambient noise climate at the proposed development site is low at no more than 54 dB L_{Aeq} , it is the Category A values that apply for this site. Therefore, for normal weekday daytime and Saturday morning construction activities, the applicable noise limit is 65 dB L_{Aeq} outside the nearest dwellings. In our experience, it will be straightforward to control construction noise to within this level so long as measures are taken to minimise construction noise emissions as far as is practicable.. Typical measures that can be taken to ensure that construction noise is minimised are as follows:

- ensure that works will be completed in accordance with the guidance for noise control set out in BS5228-1: 2009+A1:2014;
- ensure modern plant is used;
- regular and effective maintenance of plant and machinery on the site, e.g. lubrication of bearings, maintaining the integrity of silencers, engine covers etc.;
- when loading wagons and dumpers, minimise the height from which material is dropped by loader/excavator;
- idling of machines between work periods and revving of engines should be avoided;
- where piling is required use non-percussive techniques where possible;
- site roads should be kept in a state of good repair to reduce body rattle noise from the passage of empty vehicles;
- arrange site operations and vehicle routes to minimise the need for reversing movements; and
- set an appropriate speed limit for all construction vehicles using the site.

If necessary, the above measures can be incorporated into an Environmental Management Plan for the construction phase of the development in order to ensure that noise from construction activities is effectively managed.

Yours sincerely
for Hepworth Acoustics

A handwritten signature in black ink, appearing to read 'D. Quinn'.

Donald Quinn BSc MIOA
Technical Director

Enc. Copy of Calder Peel drawing ref. 14082(PI)001L



	area	no.	total area
BA	circa. 813 sqft	2	circa. 3626 sqft
BL	circa. 2443 sqft	3	circa. 7329 sqft
D	circa. 900 sqft	8	circa. 7200 sqft
M	circa. 900 sqft	3	circa. 2718 sqft
R	circa. 3078 sqft	4	circa. 12312 sqft
B	circa. 1001 sqft	5	circa. 5005 sqft
F	circa. 2978 sqft	4	circa. 11912 sqft
G	circa. 1580 sqft	5	circa. 7900 sqft
Total		34	circa. 80792 sqft