

6. **LRB 506** – Notice of Review, Against Refusal of Planning Permission in Principle for Erection of Dwellinghouse at Slateheugh, Fyvie, AB53 8QA – Reference: APP/2020/1376.

(iv) Applicant/Agent's Response to Representation Received.

ADDITIONAL INFORMATION FOR LOCAL REVIEW BOARD

APP/2020/1376 - Ref LRB 506 FB/fb - Slateheugh, Fyvie, AB53 8QA

NOISE IMPACT ASSESSMENT REPORT FOR PLANNING APPLICATION REFERENCE APP/2020/1376 - ERECTION OF DWELLINGHOUSE AND GARAGE - SITE AT SLATEHEUGH FYVIE ABERDEENSHIRE AB53 8QA (report dated 23 October 2020, revision 2)

For the purposes of clarity in this additional information report –

Environmental Health comments are highlighted in black (taken from holding objection dated 19 November 2020)

Information from the Noise Impact Assessment report is highlighted in red

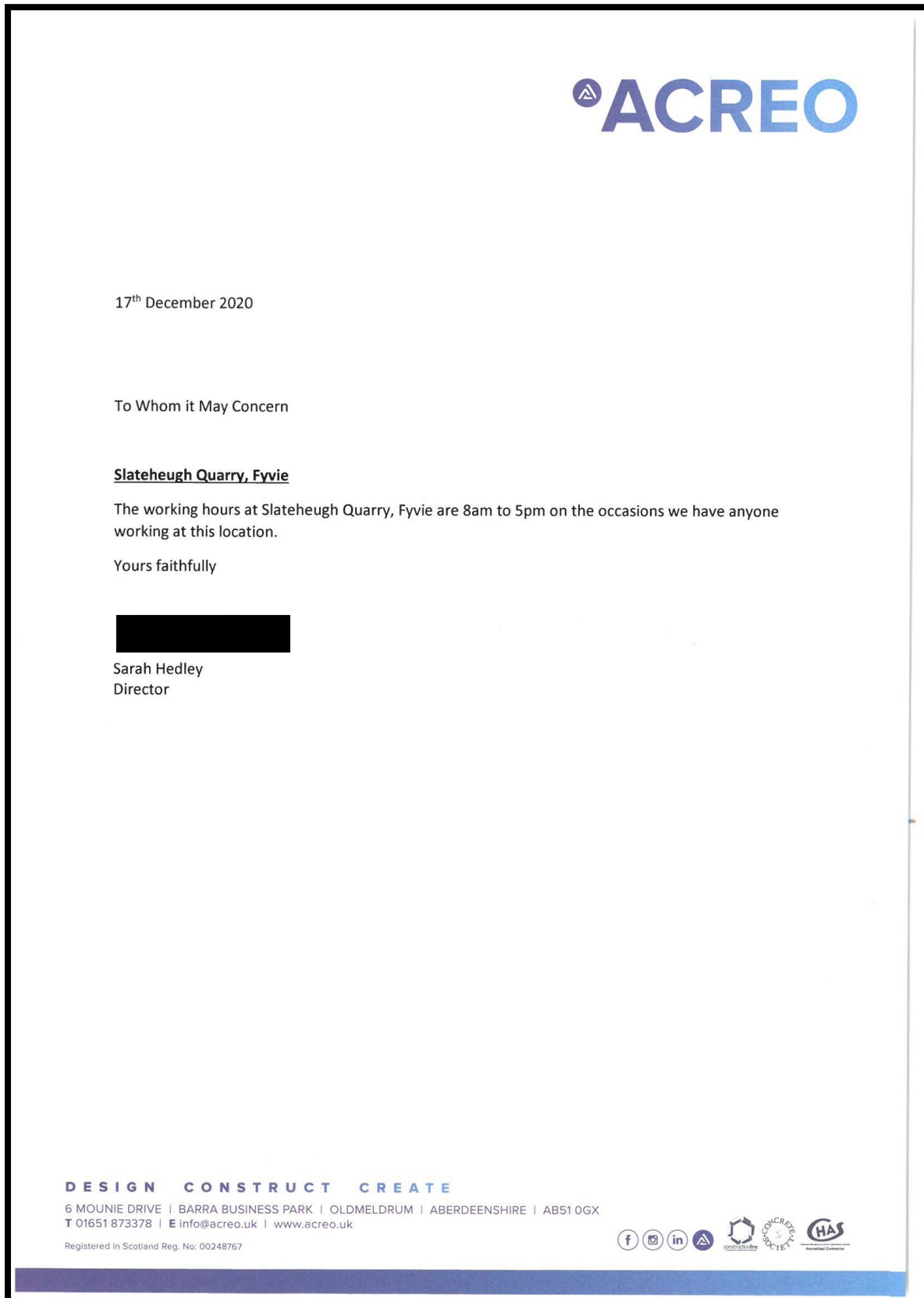
Additional comments by Grosle Environmental Services are highlighted in blue

Additional comments by client are highlighted in yellow

ITEM 1 COMMENTS FROM ENVIRONMENTAL HEALTH

Information confirming that the storage yard does not operate at night

Please find below a letter from the client in relation to the operation hours at the site:



ITEM 2 COMMENTS FROM ENVIRONMENTAL HEALTH

With regard to appendix H (H1) of the noise impact assessment, information on the calculations and assessment made.

The specific sound level was calculated as below: (all text in red is Appendix H page 34)

SPECIFIC SOUND LEVEL OF ADJACENT YARD

The hourly LAeq ambient sound level at Location Two was 45.5, 46.1 and 44.4 dB(A). This monitoring included all noisy activities from the adjacent yard. It was confirmed that between 10:10 to 13:10 hours, noisy activities within the yard was the loading of metal panels into a van, moving of vehicles on the site, exiting and entering vehicles and use of the forklift truck.

Calculation for the ambient sound level at Location Two –

$$\text{Between 10:10 to 11:10 hours: } LA_{eq} = 10 \lg [(15 \times 10^{44.2/10} + 15 \times 10^{44.9/10} + 15 \times 10^{47.5/10} + 15 \times 10^{44.4/10}) / 60] = 45.5 \text{ dB(A)}$$

$$\text{Between 11:10 to 12:10 hours: } LA_{eq} = 10 \lg [(15 \times 10^{44.9/10} + 15 \times 10^{46.5/10} + 15 \times 10^{47.7/10} + 15 \times 10^{44.7/10}) / 60] = 46.1 \text{ dB(A)}$$

$$\text{Between 12:10 to 13:10 hours: } LA_{eq} = 10 \lg [(15 \times 10^{42.9/10} + 15 \times 10^{46.5/10} + 15 \times 10^{42.2/10} + 15 \times 10^{44.8/10}) / 60] = 44.4 \text{ dB(A)}$$

The residual sound level LAeq at Location One was taken to be the logarithmic average of all the 15-minute LAeq measurements taken between 08:00 to 10:00 hours. The day time LAeq residual sound level was taken to be 42.2 dB(A).

Calculation for the residual sound level at Location One –

$$LA_{eq} = 10 \lg [(10^{39.7/10} + 10^{47.4/10} + 10^{42.8/10} + 10^{38.2/10} + 10^{38.2/10} + 10^{43.0/10} + 10^{39.2/10} + 10^{39.0/10}) / 8] = 42.2 \text{ dB(A)}$$

The specific sound level of the adjacent yard was calculated by the logarithmic subtraction of the residual sound level at Location One from the hourly ambient sound level at Location Two (that included the noisy activities within the adjacent yard). The hourly specific sound level of the adjacent yard was calculated to be 42.7, 43.8 and 40.4 dB(A).

Calculation for the residual sound level at Location One –

Between 10:10 to 11:10 hours: $L_{Aeq} = 10\lg [(10^{45.5/10} - 10^{42.2/10})] = 42.7 \text{ dB(A)}$

Between 11:10 to 12:10 hours: $L_{Aeq} = 10\lg [(10^{46.1/10} - 10^{42.2/10})] = 43.8 \text{ dB(A)}$

Between 12:10 to 13:10 hours: $L_{Aeq} = 10\lg [(10^{44.4/10} - 10^{42.2/10})] = 40.4 \text{ dB(A)}$

With an acoustic barrier at the south and west site boundary and movement of the proposed dwellinghouse location, it is assumed that a reduction of at least 14 decibels shall be achieved; therefore, the hourly specific sound level of the adjacent yard at the proposed dwellinghouse shall be reduced to 28.7, 29.8 and 26.4 dB(A).

The calculation for the specific sound level of the adjacent yard takes into account the sound reduction measures of an acoustic barrier (detailed in page 33 of the NIA report which gives at least a ten decibel reduction) plus the movement of the proposed dwellinghouse to a new location (detailed in page 33 of the NIA report with an indicative shape of yellow on the site plan to represent the new proposed location and house shape which produces a further four decibel reduction). See information detailed below:

- Acoustic barrier - It is assumed that the acoustic barrier shall give at least a ten decibel reduction. This is assumption is based on British Standard 5228-1:2009 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, this states on page 129 that ‘In the absence of spectral data, as a working approximation, if there is a barrier or other topographic feature between the source and the receiving position, assume an approximate attenuation of 5 dB when the top of the plant is just visible to the receiver over the noise barrier, and of 10 dB when the noise screen completely hides the sources from the receiver. High topographical features and specifically designed and positioned noise barriers could provide greater attenuation.’

Between 10:10 to 11:10 hours: $L_{Aeq} = 42.7 - 10 = 32.7 \text{ dB(A)}$

Between 11:10 to 12:10 hours: $L_{Aeq} = 43.8 - 10 = 33.8 \text{ dB(A)}$

Between 12:10 to 13:10 hours: $L_{Aeq} = 40.4 - 10 = 30.4 \text{ dB(A)}$

- House relocation to new position – the Noise Impact Assessment report details in Appendix H (page 33) that ‘The applicant has also confirmed that the house location shall be moved on the site to be farther away from the adjacent yard. The monitoring location at Location Two was 28 metres from the adjacent yard major activities. If the proposed house is moved to a position 43 metres from the adjacent yard major activities (indicated on site plan in

yellow), then the approximate sound reduction due to distance attenuation would be four decibels.' This assumption is based on the sound reduction of noise radiation from a point source, as detailed below:

Sound reduction due to distance attenuation = $20 \lg [43 / 28] = 4$ decibels

Between 10:10 to 11:10 hours: $LA_{eq} = 32.7 - 4 = 28.7$ dB(A)

Between 11:10 to 12:10 hours: $LA_{eq} = 33.8 - 4 = 29.8$ dB(A)

Between 12:10 to 13:10 hours: $LA_{eq} = 30.4 - 4 = 26.4$ dB(A)

RATING LEVEL OF ADJACENT YARD

For the location of the proposed dwellinghouse, an acoustic penalty for intermittent noise is added which may be perceptible, this is +3dB. This figure is added to the specific noise level to achieve the rating level of 31.7, 32.8 and 29.4 dB(A).

The rating level is calculation below:

Between 10:10 to 11:10 hours: $LA_{eq} = 28.7 + 3 = 31.7$ dB(A)

Between 11:10 to 12:10 hours: $LA_{eq} = 29.8 + 3 = 32.8$ dB(A)

Between 12:10 to 13:10 hours: $LA_{eq} = 26.4 + 3 = 29.4$ dB(A)

BACKGROUND SOUND LEVEL

The day time LA90 background sound level was taken to be the logarithmic average of all the 15-minute LA90 measurements taken between 08:00 to 10:00 hours at Location One. The day time LA90 background was taken to be 34 dB(A).

Calculation for the background sound level at Location One –

$$LA_{90} = 10 \lg [(10^{34.2/10} + 10^{35.7/10} + 10^{34.6/10} + 10^{33.4/10} + 10^{34.5/10} + 10^{33.9/10} + 10^{33.6/10} + 10^{35.2/10}) / 8] = 34 \text{ dB(A)}$$

ITEM 3 COMMENTS FROM ENVIRONMENTAL HEALTH

With regard to appendix H (H1) of the noise impact assessment, information on the subjective assessment of tonality/impulsivity if reversing alarms are being used on site.

During the noise monitoring there was some reversing of vehicles on site, however in comparison to the ambient sound level, the subjective assessment was not considered to be tonal / impulsive in comparison to the ambient sound level consisting of road traffic noise from the A947 and intermittent local traffic of agricultural vehicles and distance aircraft noise.

As highlighted in Appendix H (page 32) 'The context is the dwellinghouse shall be located in a site that is already impacted upon by significant constant road traffic noise from the A947, from intermittent local traffic of agricultural vehicles and distance aircraft noise.'

ITEM 4 COMMENTS FROM ENVIRONMENTAL HEALTH

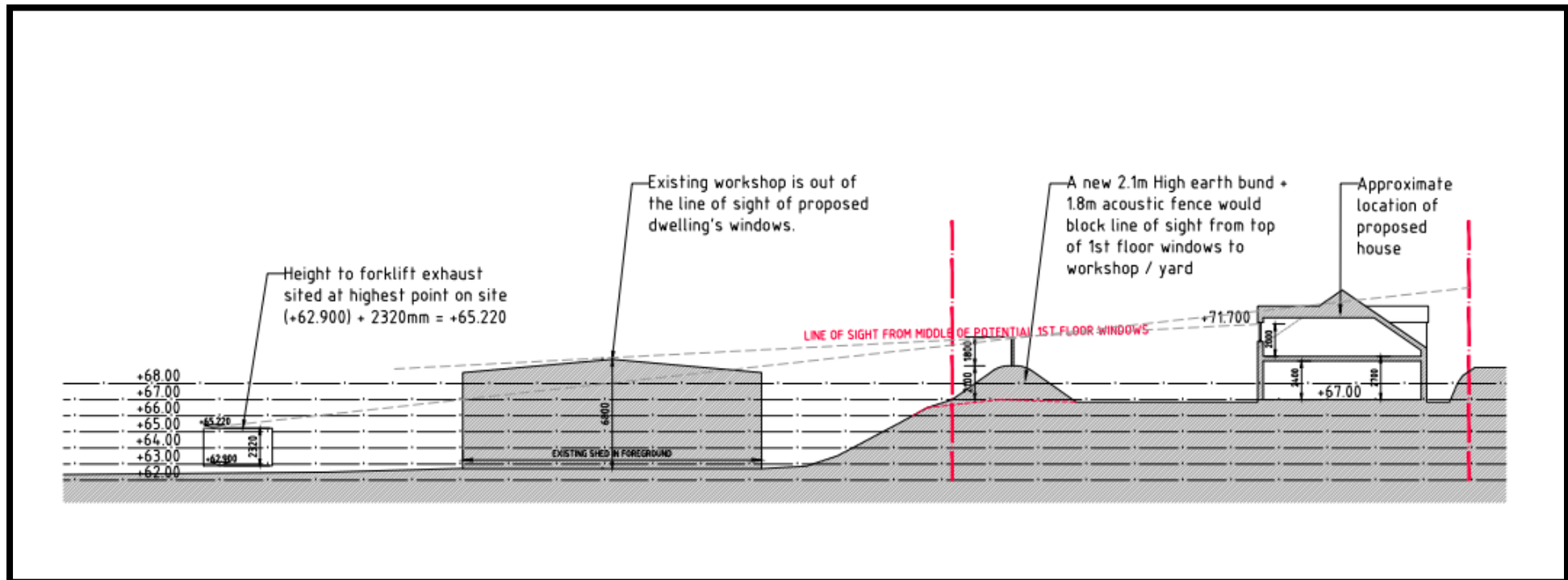
Information on the subjective description of noise in the report with reference to activities not readily distinctive against the residual noise.

[See comments from Item 3](#)

ITEM 5 COMMENTS FROM ENVIRONMENTAL HEALTH

Information on the height of the noise barrier.

Please find below an indicative plan of the noise barrier provided by the architect and approved by the client.



ITEM 6 COMMENTS FROM ENVIRONMENTAL HEALTH

Information on the assessment of the noise impacts as per BS4142:2014+A1:2019 made in the assessment.

The assessment of noise impacts made in the report are the adjacent yard which consisted of intermittent activities within the curtilage of the site. The client has confirmed that during the noise measurement period that noise from the site was representative as normal operations.