

## Longcroft Farm

Technical Appendix 12.7: Suggested Planning Conditions

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# Contents

1	Suggested Planning Condition Wording	1
1.1	Introduction	1
1.2	Suggested Planning Condition Wording	1
1.3	Schedule Of Noise Guidance Notes	3

## 1 Suggested Planning Condition Wording

## 1.1 Introduction

- 11.1.1 If the wind farm is successful in its application for planning permission any resulting decision notice would likely contain appropriately worded noise conditions, written so as to be in accordance with Circular 4/1998 The Use of Conditions in Planning Permissions<sup>1</sup>.
- 11.1.2 Such conditions would provide a degree of protection to nearby residents under planning law. To that end, presented below are a set of relevant, precise and enforceable conditions that RES suggest may be considered as appropriate. The form of condition wording suggested has been adopted at sites such as Freasdail<sup>2</sup>, Minnygap<sup>3</sup>, Roos<sup>4</sup>, Solwaybank<sup>5</sup> and Wryde Croft<sup>6</sup>. Any final conditions attached to the proposal would be according to the discretion of the decision maker.
- 11.1.3 The proposed noise limits are derived to meet the ETSU-R-97 limit a lower limit of 37.5dB(A) or background noise plus 5dB(A) during the day, and 43.0 dB(A) at night. The limits are consistent with those of **Tables 12.13 and 12.14** of Chapter 12: Acoustic Assessment of the EIA Report.

## 1.2 Suggested Planning Condition Wording

11.2.1 The level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when calculated in accordance with the attached Guidance Notes, shall not exceed the values set out in the attached Table 1 or Table 2 (as appropriate). Noise limits for dwellings which lawfully exist or have planning permission for construction at the date of this consent but are not listed in the attached Tables shall be those of the physically closest location listed in the Tables

<sup>&</sup>lt;sup>1</sup> Circular 4/1998, "The Use of Conditions in Planning Permissions", Scottish Government, February 1998

<sup>&</sup>lt;sup>2</sup> Directorate for Planning and Environmental Appeals, Appeal Decision Notice, Appeal Reference PPA-130-2036, Decision Date: 15 April 2014

<sup>&</sup>lt;sup>3</sup> Directorate for Planning and Environmental Appeals, Appeal Decision Notice, Appeal Reference PPA-170-2055, Decision Date: 19 June 2014

<sup>&</sup>lt;sup>4</sup> The Planning Inspectorate, Appeal Decision, Appeal Reference: APP/E2001/A/09/2113076, Decision Date: 21 June 2010

<sup>&</sup>lt;sup>5</sup> Directorate for Planning and Environmental Appeals, Appeal Decision Notice, Appeal Reference PPA-170-2091, Decision Date: 23 September 2014

<sup>&</sup>lt;sup>6</sup> The Planning Inspectorate, Appeal Decisions for Appeal References: APP/J0540/A/08/2083801 and APP/J0540/A/08/2090541, Decision Date: 1 April 2010

unless otherwise agreed with the Local Planning Authority. The coordinate locations to be used in determining the location of each of the dwellings listed in **Tables 1 and 2** shall be those listed in **Table 3**.

- 1. Within 21 days from the receipt of a written request from the Local Planning Authority and following a complaint to the Local Planning Authority from the occupant of a dwelling which lawfully exists or has planning permission at the date of this consent, the wind farm operator shall, at the wind farm operators expense, employ an independent consultant approved by the Local Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property following the procedures described in the attached Guidance Notes.
- 2. The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment and conclusions regarding the said noise complaint, including all raw data upon which those assessments and conclusions are based. Such information shall be provided within 2 months of the date of the written request of the Local Planning Authority, with an additional 3 weeks allowed should further investigation pursuant to Guidance Note 4 be required, unless otherwise extended in writing by the Local Planning Authority.
- 3. Wind speed, wind direction and power generation data shall be continuously logged and provided to the Local Planning Authority at its request and in accordance with the attached Guidance Notes within 14 days of such request. Such data shall be retained for a period of not less than 24 months.
- 4. No development shall commence until there has been submitted to the Local Planning Authority details of a nominated representative for the development to act as a point of contact for local residents (in connection with conditions 1 4) together with the arrangements for notifying and approving any subsequent change in the nominated representative. The nominated representative shall have responsibility for liaison with the Local Planning Authority in

connection with any noise complaints made during the construction, operation and decommissioning of the wind farm.

## 1.3 Schedule Of Noise Guidance Notes

- 11.3.1 These notes form part of conditions 1-5. They further explain these conditions and specify the methods to be deployed in the assessment of complaints about noise immissions from the wind farm.
- 11.3.2 Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farm" (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

#### Note 1

- (a) Values of the LA90,10min noise statistic shall be measured at the complainant's property using a sound level meter of EN 60651/BS EN 60804 Type 1, or EN 61672 Class 1 quality (or the replacement thereof) set to measure using a fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This shall be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the replacement thereof). These measurements shall be made in such a way that the requirements of Note 3 shall also be satisfied.
- (b) The microphone should be mounted at 1.2 1.5 m above ground level, fitted with a two layer windshield (or suitable alternative approved in writing from the Local Planning Authority), and placed outside the complainant's dwelling. Measurements should be made in "free-field" conditions. To achieve this, the microphone should be placed at least 3.5 m away from the building facade or any reflecting surface except the ground at a location agreed with the Local Planning Authority.
- (c) The LA90,10min measurements shall be synchronised with measurements of the 10-minute arithmetic mean wind speed and with operational data, including power generation information for

- each wind turbine, from the turbine control systems of the wind farm.
- (d) The wind farm operator shall continuously log arithmetic mean wind speed and arithmetic mean wind direction data in 10 minute periods on the wind farm site to enable compliance with the conditions to be evaluated. The mean wind speed at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 m height wind speed data which is correlated with the noise measurements of Note 2(a) in the manner described in Note 2(c).

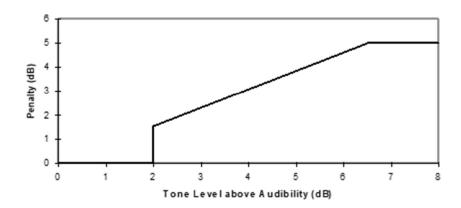
#### Note 2

- (a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b). Such measurements shall provide valid data points for the range of wind speeds, wind directions, times of day and power generation requested by the Local Planning Authority. In specifying such conditions the Local Planning Authority shall have regard to those conditions which were most likely to have prevailed during times when the complainant alleges there was disturbance due to noise.
- (b) Valid data points are those that remain after all periods during rainfall have been excluded. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10-minute period concurrent with the measurement periods set out in Note 1(c) and is situated in the vicinity of the sound level meter.
- (c) Data points considered valid in accordance with Note 2(b) shall be plotted against the corresponding wind speed value determined in accordance with Note 1(d). A least squares, "best fit" curve of 2nd order shall be fitted to the data. In the event that this is a poor fit to the data, a higher (maximum 4th) order polynomial or data binning can be used. The noise level at each integer speed shall be derived from this best-fit curve, or the relevant data bin, as appropriate.

#### Note 3

Where, in the opinion of the Local Planning Authority, noise immissions at the location or locations where assessment measurements are being undertaken contain a tonal component, the following rating procedure shall be used.

- (a) For each 10-minute interval for which LA90,10min data have been obtained as provided for in Notes 1 and 2, a tonal assessment shall be performed on noise immissions during 2-minutes of each 10-minute period. The 2-minute periods shall be regularly spaced at 10-minute intervals provided that uninterrupted clean data are available. Where clean data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.
- (b) For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference, ΔLtm (Delta Ltm), shall be calculated by comparison with the audibility criterion, given in Section 2.1 on pages 104-109 of ETSU-R-97.
- (c) The arithmetic average margin above audibility shall be calculated for each wind speed bin where data is available, each bin being 1 metre per second wide and centred on integer wind speeds. For samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.
- (d) The tonal penalty shall be derived from the margin above audibility of the tone according to the figure below. The rating level at each wind speed shall be calculated as the arithmetic sum of the wind farm noise level, as determined from the best-fit curve described in Note 2, and the penalty for tonal noise.



Note 4

If the wind farm noise level (including the application of any tonal penalty as per Note 3) is above the limit set out in the conditions, measurements of the influence of background noise shall be made to determine whether or not there is a breach of condition. This may be achieved by repeating the steps in Notes 1 & 2 with the wind farm switched off in order to determine the background noise, L3, at the assessed wind speed. The wind farm noise at this wind speed, L1, is then calculated as follows, where L2 is the measured wind farm noise level at the assessed wind speed with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[ 10^{\frac{L_2}{10}} - 10^{\frac{L_3}{10}} \right]$$

The wind farm noise level is re-calculated by adding the tonal penalty (if any) to the wind farm noise.

### TABLE OF NOISE LIMITS RELATING TO CONDITION 1

Table 1: The LA90,10min dB Wind Farm Noise Level Between 23:00 and 07:00 hours:

House	Refere	Reference Wind Speed, Standardised v10 (ms-1)												
ID	1	2	3	4	5	6	7	8	9	10	11	12		
H32	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0		
H34	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0		

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H40	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H41	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H42	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H43	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H44	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H49	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H50	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H52	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H53	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H54	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H55	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H56	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H60	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H61	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H62	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H66	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H67	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H68	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H69	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H70	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H72	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H73	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H74	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H75	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H76	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H77	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H78	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H81	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H84	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H105	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H116	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H137	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H142	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H171	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H216	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H219	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H236	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H238	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H243	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H246	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H249	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H251	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H258	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H260	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H261	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H262	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H263	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H265	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H267	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H268	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H278	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H279	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H280	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H281	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H282	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H283	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H284	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H285	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H286	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H287	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H288	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H289	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H290	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H291	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H292	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H293	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H294	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H295	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H296	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H297	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H298	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H299	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H300	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H301	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H302	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H303	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H304	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H305	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H306	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H307	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H308	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H309	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H310	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H311	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
H315	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0

Table 2: LA90,10min dB Wind Farm Noise Level at all other times:

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H32	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H34	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H40	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H41	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H42	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H43	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H44	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H49	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H50	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H52	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H53	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H54	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H55	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H56	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H60	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H61	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H62	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H66	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H67	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H68	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H69	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H70	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H72	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H73	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H74	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H75	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H76	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H77	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H78	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H81	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H84	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H105	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H116	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H137	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H142	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H171	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H216	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H219	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H236	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H238	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H243	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H246	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H249	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H251	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H258	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H260	37.5	37.5	37.5	37.5	37.5	38.3	39.9	42.0	44.2	46.7	49.3	49.3

House	Reference Wind Speed, Standardised v10 (ms-1)											
ID	1	2	3	4	5	6	7	8	9	10	11	12
H261	37.5	37.5	37.5	37.5	37.5	38.3	39.9	42.0	44.2	46.7	49.3	49.3
H262	37.5	37.5	37.5	37.5	37.5	38.3	39.9	42.0	44.2	46.7	49.3	49.3
H263	37.5	37.5	37.5	37.5	37.5	38.3	39.9	42.0	44.2	46.7	49.3	49.3
H265	37.5	37.5	37.5	37.5	37.5	38.3	39.9	42.0	44.2	46.7	49.3	49.3
H267	37.5	37.5	38.0	38.6	39.2	39.9	40.8	41.9	43.1	44.5	46.2	46.2
H268	37.5	37.5	38.0	38.6	39.2	39.9	40.8	41.9	43.1	44.5	46.2	46.2
H278	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H279	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H280	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H281	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H282	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H283	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H284	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H285	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H286	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H287	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H288	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H289	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H290	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H291	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H292	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H293	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H294	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H295	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H296	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H297	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H298	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H299	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H300	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H301	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H302	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H303	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H304	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
H305	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5

House	Reference Wind Speed, Standardised v10 (ms-1)													
ID	1	2	3	4	5	6	7	8	9	10	11	12		
H306	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H307	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H308	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H309	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H310	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H311	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
H315	37.5	37.5	37.5	37.5	37.5	37.5	37.5	39.9	42.6	45.4	48.3	48.3		

### TABLE OF COORDINATE LOCATIONS OF PROPERTIES

Note to Table 3: The geographical co-ordinates references are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies

Table 3: Coordinate locations of the properties listed in Table 1 & 2.

House ID	Co-ordinates		House ID	Co-ordinates	
	X (m)	Y (m)		X (m)	Y (m)
H32	354250	651473	H258	350918	653686
H34	354281	651535	H260	353020	653728
H40	352480	651638	H261	353012	653735
H41	352634	651701	H262	352976	653774
H42	352682	651721	H263	352966	653783
H43	352599	651722	H265	352926	653944
H44	352630	651728	H267	352794	654159
H49	351469	651832	H268	352765	654215
H50	351441	651838	H278	350064	655057
H52	354434	651852	H279	350585	655077
H53	351435	651854	H280	350585	655077
H54	351466	651859	H281	350112	655081
H55	351453	651861	H282	350154	655101
H56	351449	651864	H283	350153	655103
H60	352205	652276	H284	350570	655127
H61	352168	652294	H285	350562	655133
H62	352168	652294	H286	350171	655148

House ID	Co-ordinates		House ID	Co-ordinates	
	X (m)	Y (m)		X (m)	Y (m)
H66	358096	652813	H287	350171	655148
H67	352059	653029	H288	350597	655151
H68	352145	653063	H289	350604	655157
H69	351995	653162	H290	349657	655265
H70	351043	653191	H291	349973	655267
H72	351083	653203	H292	350016	655276
H73	351071	653216	H293	350051	655278
H74	352127	653217	H294	350061	655279
H75	352134	653231	H295	349073	655280
H76	352129	653244	H296	350069	655280
H77	352127	653251	H297	350077	655281
H78	351047	653253	H298	349041	655287
H81	351034	653281	H299	349088	655351
H84	350904	653307	H300	349148	655354
H105	350894	653372	H301	350151	656165
H116	350914	653393	H302	349852	656769
H137	350839	653419	H303	352055	657034
H142	350904	653423	H304	352032	657039
H171	350840	653467	H305	351849	657889
H216	350859	653520	H306	351843	657922
H219	350947	653522	H307	351860	657933
H236	350900	653560	H308	351222	658127
H238	350886	653562	H309	351231	658326
H243	350910	653599	H310	351291	658366
H246	350923	653610	H311	351197	658392
H249	350843	653622	H315	353768	657503
H251	350910	653642			