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# SECTION 131 FORM

| Appeal NO:_ABP_314485-22   | Defer Re O/H                                       |
|--|--|
| Having considered the contents of the submission d from  Toe Cronic I recommend that sect be not be invoked at this stage for the following reasons. | tion 131 of the Planning and Development Act. 2000 |
| E.O.: Pat B  | Date: 1810412024                                   |
| For further consideration by SEO/SAO   |  |
| Section 131 not to be invoked at this stage.   |  |
| Section 131 to be invoked - allow 2/4 weeks for reply.   |  |
| S.E.O.:  | Date:  |
| S.A.O:   | Date:  |
| VI   | 8"   |
| Please prepare BP Section 131 notice   | e enclosing a copy of the attached                 |
| o: Task No:  |  |
| llow 2/3/4weeks – BP   |  |
| O:   | Date:  |
| A:   | Date:  |
|  |  |

# CORRESPONDENCE FORM

| CORRESPONDE                                      | ENCE FORM                      |
|--|--------------------------------|
| Appeal No: ABP_314485                            |                                |
| M  |                                |
| Please treat correspondence received onO2        | 10412024 as follows:           |
| 1. Update database with new agent for Applicant/ | Appellant                      |
| ľ  | 1. RETURN TO SENDER with BP    |
| 2. Acknowledge with br                           | 2. Keep Envelope:              |
| 3. Keep copy of Board's Letter ☐                 | 3. Keep Copy of Board's letter |
|  |                                |
| Amendments/Comments Joe Cronin re                | S00050 to 5.131                |
| Amendments/Comments                              | 3 <i>p</i> 6/13 <i>c</i>       |
| 12/03/2024 02/04/24                              |                                |
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| 4. Attach to file                                |                                |
| (a) R/S (d) Screening                            | RETURN TO EO                   |
| (b) GIS Processing (e) Inspectorate              |                                |
| (c) Processing                                   |                                |
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|  | Plans Date Stamped             |
|  | Date Stamped Filled in         |
| EO: Ret B  | Date: 25/04/2024               |
| Date:   8   04 2024                              | Date: 25/04/2024               |

# **Stephen Sutton**

From:

Bord

Sent:

Tuesday 2 April 2024 10:57

To:

Appeals2

Subject:

FW: ABP 314485-22

**Attachments:** 

[Untitled].pdf

From: Joe Cronin <joe.m.cronin@googlemail.com>

Sent: Tuesday, April 2, 2024 10:23 AM

To: Bord <br/>
Subject: ABP 314485-22

**Caution:** This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

Attention of Mr Patrick Buckley

Please send delivery and read receipt

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Mr. Patrick Buckley, Executive Officer, An Bord Pleanala, 64 Marlborough Street, Dublin 1. D01 V902 29th March 2023

# Re. Case ABP-314485-22 Planning Reference No. F20A/0668

Dear Sir,

I refer to the response from Tom Philips and Associates dated 14<sup>th</sup> September 2023 on behalf of DAA plc., their covering letter including the relevant documents and maps concerning aircraft activity related to Dublin Airport's runway operations. Below is my submission as requested.

My foremost concern regards excessive noise emanating from aircraft landing in a westerly direction on the new northern runway 28R/10L, primarily at night but not exclusively. The above-mentioned response is yet another incarnation of conflicting evidence, it pertains to be a factual representation of the noise levels, that we in the locality of Portmarnock and Blackwoods Malahide, experience; it is nothing of the sort. Indeed, the contour lines of the northern runway would suggest we experience almost silence from its operation. Both the maps and narrative would give the impression that air liners whose median weight would be in excess of 96 tons under powered flight, passed our way at all.

My submission is to request An Bord Pleanala, (in the interests of attaining valid, honest and accurate information), to instigate an independent professional acoustic survey, accurately reflecting the living reality of those communities neighbouring the northern runway flight paths.

The following is a quote from Mr. Karl Searson, Acoustic Engineer, who carried out an acoustic survey (attached) at Blackwoods, Malahide, on the day July 11<sup>th</sup> and the night 12<sup>th</sup> July 2023.

"Even were the tests to have been conducted for potential "emergency" or "one-off operational conditions", the data, now to hand, means that unless and until significant upgrades/modifications to your home (and that of your immediate neighbours) are completed (thereafter being suitably commissioned, confirmed and maintained) these flight paths must not be availed of." Karl Searson.

My evidence for this request is set out under the following headings,

- 1. Fingal Development Plan 2023-2029 Dublin Airport, Aircraft Noise Zones. Attachments 1,2 and 3.
- Aircraft Noise Competent Authority (ANCA) Aircraft Noise Zones, Dublin Airport.
   World Health Organization (WHO) and International Standards organisation (ISO 1996-1)
   Attachments 4 & 5.
- 3. Karl Searson & Associates Acoustic Survey and Conclusions Dated 5<sup>th</sup> October 2023. Attachment 6.

## 1. Fingal Development Plan 2023-2029 Dublin Airport Noise Zones.

Maps 1 and 2 attached are taken from the Fingal County Development Plan 2023-2029 dated April'23 that resulted in document 3 attached, page 328, heading 8.1 Aircraft Noise Zones, citing a necessary acoustic survey and sound insulation requirement with conditions and recommendations. For the

sake of illustration, I have highlighted Blackwoods position within the zone areas and its proximity to the north runway westerly flight path.

You will note that Blackwoods, Malahide, is in **Zone B**. The methodology used by the planners of Fingal County Council in December 2019 is described as 'Single Mode' operations. It is notable that irrespective of the resultant decibel figures, ( >54 & <63dB LAeq, 16hr & >55dB Lnight) the council concludes the noise levels to be of a magnitude requiring all new dwellings and public structures to perform an acoustic survey with appropriate sound insulation.

The absurdity of the situation is further illustrated in that should I decide to alter my garage to domestic usage, I would be subject to the planning requirements of aircraft noise mitigation. However, under ANCA's Noise Contour Zones and subsequently DAA's Noise Assistance Grant Scheme, I am neither Annoyed by Noise nor Sleep Disturbed, thus illegible for a single bedroom noise insulation grant. It is difficult to believe both these conflicting results emanated from the same building, namely Fingal County Council HQ. One would have thought there would be some correlation in their respective outcomes.

2. Aircraft Noise Competent Authority (ANCA) Aircraft Noise Zones, Dublin Airport.

ANCA's remit is set out in the relevant legislation of which section 21. (1) states the following

The competent authority shall monitor—

- (3) (a) The airport authority, or a person upon whom there is a noise impact from the airport, may, by notice in writing given to the competent authority, request the competent authority to review the effectiveness of the noise mitigation measures and operating restrictions (if any) on achieving the noise abatement objective.
  - (b) The competent authority shall, as soon as is practicable after it receives a request under paragraph (a), respond in writing to the requester.
  - (c) The competent authority may, at its discretion, comply with a request under paragraph (a).

It was under the highlighted section 3(c) above that ANCA refused to accept or review Mr. Searson's Acoustic Survey. To date neither myself nor any of my neighbours are aware of ANCA accepting any other source of information other than that provided by the Dublin Airport Authority.

An incidence of excessive noise is just as Mr. Searson's Report aptly describes, charting as it does its severity and intensity. The purpose of ANCA's contour maps is to dilute and smear-out over time the level and intensity of aircraft noise as it happens. It is a deliberate act aimed to conceal that which has blighted our lives as we live it, excessive noise as it peaks and decays in actuality. If one is disturbed from one's sleep by excessive noise, it happens in the moment, not over a period of weeks and months. It is incredulous, bearing in mind the findings in Mr. Searson's report that ANCA an unelected body, can produce contour maps so detached from reality that Blackwoods is within the 50-54 dB Daytime contour and at the 00-55dB Nighttime contour.

Acoustic Survey's producing contour maps requires mathematica Imodelling of the collected data. A myriad of decisions like acoustic monitoring placement, rounding up or down of the data, frequency, segmentation and weighting of data must be constantly made over long periods of time. It is incredulous that ANCA and the DAA choose to ignore both the **World Health Organisation and** 

International Standards organisation 1996-1 rules for Lden and Lnight with regard to areas of concentrated noise. ANCA and the DAA's use of Lden365 and Lnight365 to smear out and dilute high levels of recorded noise is reprehensible and quite peculiar to Ireland, by comparison to international practice. An example of which is London Heath Row's use of Lden92 for the 3 summer months when use is made of a supplementary runway.

It is little wonder the communities neighbouring Dublin Airport view ANCA's contour maps with incredulity as they bear no relationship to their lived experience.

# 3. Karl Searson & Associates Acoustic Survey and Conclusions Dated 5th October 2023. Attachment 6

Mr Searson's report is self-explanatory and corroborates what has been maintained by all the groups forming the neighbouring communities of Dublin Airport, that ANCA's contour maps bear no relationship to their living realities and in particular our small community in Blackwoods.

Mr. Searson's data was collected exclusively from nighttime flights and resulted in maximum readings of <u>90dBs outside and 67dBs inside our home</u>. A further item of note is that 101 fights were recorded that night greatly in excess of the 65 flights granted in planning permission. My home is approximately 275 metres from the centre line of the northern runway flight path with aircraft flying on average, 395 metres overhead, this piece of Information gleaned from Flight Radar 24.

Mr. Kenny Jacobs, Chief Executive, of the DAA answer to Mr. Searson's report was to say the northern runway is only operational for westerly landings when the southern runway is closed for essential maintenance. We have no guides or time limits on such periods, nor do we know when this is liable to happen. Furthermore, concerning the future, neighbouring communities only have a single sentence statement that the south runway is the preferred runway for westerly landings. This is such a generalisation that it bears no comfort whatsoever for future operations with increased traffic.

### Conclusion

In Mr. Jacobs reply to our enquiries and Mr. Searson's Report stated the following,

"On a final point, the acoustic report (Section 1) refers to two design levels, namely "LAeqT... should not exceed 30dBA" and "LAS max should not exceed (about) 42 dBA". It is important to note that these are design criteria but are not legal requirements that the airport is required to meet."

It is my contention that the DAA, will continue to blight our lives with excessive aircraft noise unless they are required to do so by the force of law. They have already ridden rough-shod over passenger numbers and night flight limits contrary to planning permission. An appropriate start would be to instigate an independent acoustic survey with a brief to future growth at Dublin Airport,

Name fee Ranin Date 1/4/7024

ADDRESS Bricse fuld, Black woods,

Black wood Lane

Mulahide W36 VW63

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# **SEARSON**

# **ASSOCIATES**

CONSULTING ENGINEERS

KARL V SEARSON

C Eng MIEI MIOSH MIOA ACIArb

OUR REF: 8569/23 rev 2.1

Phone (087) 2588061 (089) 2158958

Email searsonassociates@gmail.com

DATE: 5th October 2023.

Mr Bart Glover, 4, Blackwoods, Blackwood Lane, Malahide. Bart@kayskitchen.ie

## Re: No 4, Blackwoods: Aircraft Noise Assessment, index of noted events.

YOUR REF: BG

Dear Mr. Glover,

I am setting out below details of the 101 significant events which were recorded at/in your home over the measurement period which commenced shortly after 15:00 hours on 11th July and terminated at 09:00 hours on 22nd July 2023. During this 127 hour-odd period specific attention was paid to night time events, night-time commencing at 23:00 hours and terminating at 07:00 hours the next morning. The specific events were proximate aircraft fly-by's which provoked excessive in-bedroom noise levels. You had been advised that certain "test periods" had been selected by DAA for new flight paths and the measurement sessions were intended to analyse the levels associated with these new night-time fly-by events.

An aircraft identification application - with acronym FR - was initially used to identify those in-bedroom noise signals which characterised "events", but that application left many events unidentified. A subsequent package, with acronym WT and available on the internet, was accessed. It proved useful in reviewing the flight passes with respect to Dublin Airport during the above-mentioned measurement period and traces of specific fly-paths were noted and compared to the gathered acoustical data. It proved possible to identify the flight identification number and aircraft type and time of passage (with respect to Blackwoods) and correlate such results with the time stamp of the fast-logged acoustical data. In this respect the primary time metric was that accompanying the highest in-bedroom fast level (defined below as L<sub>AFmax</sub>) and the corresponding flight, gauged from "inching" the incoming aircraft icon proximate to Blackwoods and noting the corresponding time, aircraft type and flight identification number. In all the 101 events noted, the maximum time difference between the fast logged (primary) acoustical data and the WT time display was 22 seconds. As the minimum interval between incoming flights was typically six times this interval, no significant error arises.

The acoustical data refers to both indoor and outdoor locations, the indoor location being in a bedroom with the window ajar for fresh air admission and the outdoor location being some 3,5m out from the façade of that bedroom, and at a height of 4m overground.

There are a number of acoustical metrics of interest, as follows:

- LAFmax: This is the noisiest portion of an event, assessed with the fast time constant and expressed in A-Weighted decibels, dB(A).
- LASmax: This is the noisiest portion of an event, assessed with the slow time constant and expressed in A-Weighted decibels, dB(A).
- SEL: This is the total acoustical energy associated with a given event but normalised back to a 1-second time interval. It is expressed in A-Weighted decibels, dB(A). It is an acronym for "single event level" or, alternatively, "sound energy level".

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Considerable data have been gathered and to present same in a coherent fashion I have prepared appendices showing the relevant data for each day and, additionally, tabulated the L<sub>AFmax</sub> trace from outdoors and indoors directly under each other to enable the contours to be visualised. For each outdoor event provoking excessive in-bedroom levels, I have tabulated and included the above metrics. The primary time is the Brūel & Kjær time (B & K time).

### I Report as follows:

1. The first series of data refers to the night-time profiles on 11<sup>th</sup> July 2023. There were six notable events, numbered accordingly, and I have tabulated the metrics, times and details in table 1A, below. I have also prepared and attached, as appendix 1, the Comparative fast trace, 23:29 – 00:00, 11<sup>th</sup> July 2023. This trace depicts the outdoor profile in the upper (1A) portion and, directly below, the corresponding provoked in-bedroom level (1B).

TABLE 1: 6 noted events of 11th July, #1 - #7.

|   |            |               |      | 0   | OUTDOORS - A |        |     | INDOORS - B |        |  |
|---|------------|---------------|------|-----|--------------|--------|-----|-------------|--------|--|
| # | B & K time | WT Flight Id. | Туре | SEL | LAFmax       | Lasmax | SEL | LAFmax      | LASmax |  |
| 1 | 23:31:27   | RYR2PC        | B738 | 85  | 76           | 73     | 65  | 56          | 55     |  |
| 2 | 23:33:38   | EIN40W        | A320 | 86  | 81           | 77     | 67  | 61          | 59     |  |
| 3 | 23:36:24   | GEC 8582      | A321 | 85  | 77           | 75     | 66  | 59          | 57     |  |
| 4 | 23:39:24   | EIN611        | A320 | 86  | 79           | 77     | 66  | 61          | 58     |  |
| 5 | 23:47:02   | RYR9M         | B738 | 85  | 79           | 76     | 65  | 60          | 58     |  |
| 6 | 23:50:43   | EIN24K        | A320 | 87  | 79           | 77     | 67  | 60          | 58     |  |
| 7 | 23:57:57   | SWR878C       | BCS3 | 83  | 73           | 71     | 62  | 54          | 53     |  |

The above table give a useful insight into the reduction in certain acoustic metrics going from outside to inside via a window ajar for ventilation (fresh air admission). While the SEL values have a significant effect on the 5-minute (or 15-minute) LAEQ level obtained, the maximum values (fast or slow) are subject to a numerical ceiling. This ceiling applies during night-time, from 23:00 to 07:00 hours, and, in the case of the LAFmax, the in-room level should not exceed 45 dB(A) and in the case of the LAFmax, the level should not exceed (about) 42 dB(A).

Taking the two periods from the 23:00 hours until 23:30 (no significant events) and the following period from 23:30 until midnight (7 notable events as set out above), there are significant differences. Via the B&K Evaluator software the following results a have been established:

TABLE 2: 30-minute night-time comparisons, no events Vs 7 events

|               |            | OUTDOORS - A |        |        |       | INDOORS - B        |                    |  |
|---------------|------------|--------------|--------|--------|-------|--------------------|--------------------|--|
| Time (T)      | Events ?   | LAugT        | LAFmax | LASmex | LAegT | L <sub>AFmax</sub> | L <sub>ASmax</sub> |  |
| 23:00 - 23:30 | No         | 47           | 63     | 60     | 27    | 42                 | 39                 |  |
| 23:30 - 00:00 | Yes, 1 - 7 | 61           | 81     | 77     | 42    | 61                 | 59                 |  |

There are good and reliable criteria for a bedroom, at night, with fresh air admission. The  $L_{AeqT}$  (sometimes called the decibel average) should not exceed 30 dB(A), and this should be maintained for the duration of the night. The first 30-minute test (no events) has all three metrics comfortably within their guideline values. Once the "events" occur (itemised and recorded as 1 to 7) those levels are *grossly* exceeded.

2. The next day (in a 24-hour sense) was 12<sup>th</sup> July. 32 night-time events were noted, and their combined result are set out in table 2 below:

TABLE 2: parts 1 & 2, 32 noted events of 12th July, #8 - #40.

|   |          |               |      | OUTDOORS - A |        |        | INDOORS - B |        |        |
|---|----------|---------------|------|--------------|--------|--------|-------------|--------|--------|
| # | Time     | WT Flight ld. | Туре | SEL          | LAFmax | Lasmax | SEL         | LAFmex | LASmex |
| 8 | 00:00:23 | RYR4YC        | A320 | 83           | 75     | 73     | 66          | 61     | 58     |
| 9 | 00:03:05 | RYR2WK 779    | B38M | 83           | 76     | 73     | 64          | 58     | 55     |



| 10 | 00:08:24 | EIN70V  | B752 | 92 | 86 | 82 | 70 | 62 | 59 |
|----|----------|---------|------|----|----|----|----|----|----|
| 11 | 00:11:27 | RYR5YV  | B738 | 87 | 80 | 78 | 67 | 61 | 58 |
| 12 | 00:14:56 | RYR11YP | B738 | 85 | 76 | 74 | 66 | 59 | 57 |
| 13 | 00:18:01 | EIN459  | A320 | 86 | 76 | 74 | 66 | 61 | 59 |
| 14 | 00:26:38 | RYR9QY  | B738 | 86 | 79 | 76 | 66 | 58 | 57 |
| 15 | 00:29:21 | RYR275Y | B38M | 84 | 78 | 75 | 64 | 57 | 55 |
| 16 | 00:31:55 | RYR56SP | B738 | 85 | 76 | 73 | 66 | 59 | 57 |
| 17 | 00:34:44 | RYR38ZY | B738 | 85 | 78 | 75 | 65 | 60 | 57 |
| 18 | 00:38:00 | RYR72GD | B738 | 86 | 78 | 76 | 66 | 59 | 58 |
| 19 | 00:40:26 | RYR4JW  | B38M | 83 | 74 | 73 | 64 | 56 | 55 |
| 20 | 00:42:58 | RYR212  | 7M8  | 85 | 77 | 74 | 65 | 58 | 56 |
| 21 | 00:45:49 | EIN4RL  | A320 | 86 | 80 | 77 | 67 | 60 | 58 |
| 22 | 00:48:13 | RYR8Q2  | B38M | 83 | 80 | 77 | 65 | 56 | 54 |
| 23 | 00:51:14 | RUK95CX | B738 | 85 | 76 | 74 | 65 | 58 | 56 |
| 24 | 00:57:24 | EIN4GJ  | A320 | 87 | 79 | 76 | 67 | 61 | 58 |
| 25 | 01:01:59 | EIN43N  | A320 | 89 | 79 | 76 | 67 | 62 | 58 |

TABLE 2: Continued.

|    |          |               |      |     | OUTDOORS - A |                    |     | INDOORS - B |        |  |
|----|----------|---------------|------|-----|--------------|--------------------|-----|-------------|--------|--|
| #  | Time     | WT Flight Id. | Туре | SEL | LAFmax       | L <sub>ASmax</sub> | SEL | LAFmax      | LASmex |  |
| 26 | 01:04:07 | EIN7VT        | A320 | 89  | 79           | 72                 | 66  | 60          | 58     |  |
| 27 | 01:06:48 | RYR927E       | B38M | 83  | 75           | 72                 | 63  | 57          | 54     |  |
| 28 | 01:09:50 | RYR8L         | B738 | 84  | 79           | 76                 | 64  | 60          | 57     |  |
| 29 | 01:13:42 | RYR6VL        | B738 | 84  | 76           | 74                 | 65  | 59          | 57     |  |
| 30 | 01:21:39 | TOM239        | A320 | 85  | 79           | 76                 | 66  | 61          | 58     |  |
| 31 | 01:25:10 | EIN799        | A320 | 86  | 78           | 76                 | 66  | 60          | 58     |  |
| 32 | 01:27:37 | AZD358        | AT72 | 87  | 80           | 76                 | 66  | 59          | 56     |  |
| 33 | 01:30:41 | EIN499        | A320 | 87  | 79           | 77                 | 67  | 62          | 59     |  |
| 34 | 01:38:43 | EIN38JC       | A320 | 86  | 79           | 76                 | 67  | 60          | 58     |  |
| 35 | 01:51:06 | EIN5HL        | A320 | 87  | 81           | 78                 | 67  | 63          | 60     |  |
| 36 | 01:54:10 | EIN44Y        | A320 | 87  | 80           | 77                 | 68  | 63          | 60     |  |
| 37 | 02:10:53 | EIN584        | A320 | 86  | 79           | 77                 | 67  | 60          | 58     |  |
| 38 | 02:16:10 | EIN56V        | A320 | 87  | 81           | 78                 | 67  | 62          | 59     |  |
| 39 | 02:20:57 | EIN34V        | A320 | 87  | 79           | 77                 | 67  | 61          | 59     |  |
| 40 | 04:25:50 | EIN104        | A333 | 89  | 79           | 77                 | 69  | 61          | 59     |  |

Appendices 2, parts 1 and 2, show the indoor and outdoor traces. Considerable air traffic movements ensued from just after midnight (event #8) until 02:22 (event #39). A single event (#40) occurred at 04:25 - 04:27 hours.

- 3. The next few days until the early hours of 18th July passed without any *significant* night-time events occurring.
- 4. A single event occurred in the early hours of 18<sup>th</sup> July. There were other signature passes both before and after the particular event, but the in-room level associated therewith were all below the threshold L<sub>AFmax</sub> level of 45 dB(A). Appendix 3 details the relevant combined trace, the results being set out in table 3 below

TABLE 3: Noted single event of 18th July.

|    |          |               |      | OUTDOORS - A |        |        | OUTDOORS - A INDOORS - B |        |        |  |  |
|----|----------|---------------|------|--------------|--------|--------|--------------------------|--------|--------|--|--|
| #  | Time     | WT Flight Id. | Туре | SEL          | LAFmex | LASmax | SEL                      | LAFmex | LASmex |  |  |
| 41 | 01:41:41 | AZD358        | AT72 | 77           | 70     | 66     | 58                       | 55     | 51     |  |  |

- 5. There were no notable event on 19th July.
- 6. The 20<sup>th</sup> July proved to be particularly busy from the point of view of notable events. A total of 30 events were recorded and analyzed. Appendix 4, the comparative L<sub>AFmax</sub> traces, is broken down into three parts, the tabular data being set out below in table 4:

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TABLE 4: parts 1, 2 & 3, noted events of 20th July, #42 - #72.

|    |          |               |      | 0   | UTDOORS | 6-A    | 1   | NDOORS | -В     |
|----|----------|---------------|------|-----|---------|--------|-----|--------|--------|
| #  | Time     | WY Flight Id. | Туре | SEL | LAFmax  | LASmex | SEL | LAFmex | LASmax |
| 42 | 00:53:55 | RYR275Y       | B738 | 85  | 75      | 74     | 64  | 57     | 55     |
| 43 | 00:55:58 | RYR7120       | B38M | 85  | 75      | 74     | 65  | 61     | 57     |
| 44 | 00:58:17 | RYR77JN       | B738 | 84  | 75      | 74     | 64  | 57     | 56     |
| 45 | 01:00:42 | TOM7DX        | A320 | 82  | 72      | 71     | 62  | 54     | 53     |
| 46 | 01:00:42 | RYR1391       | B738 | 84  | 74      | 74     | 65  | 57     | 56     |
| 47 | 01:04:54 | EIN4RL        | A320 | 84  | 75      | 74     | 65  | 57     | 56     |
| 48 | 01:09:04 | RYR7FL        | B738 | 85  | 75      | 74     | 65  | 58     | 57     |
| 49 | 01:11:34 | RYR6E         | B738 | 85  | 75      | 75     | 65  | 56     | 55     |
| 50 | 01:13:48 | RYR30UE       | B738 | 85  | 77      | 76     | 65  | 58     | 56     |
| 51 | 01:18:32 | EIN499        | A320 | 85  | 78      | 76     | 65  | 60     | 58     |
| 52 | 01:25:56 | AZD 358       | AT72 | 84  | 74      | 73     | 654 | 55     | 54     |
| 53 | 01:29:17 | EIN58R        | A320 | 84  | 75      | 74     | 665 | 57     | 56     |
| 54 | 01:40:23 | RYR3TD        | B38M | 84  | 74      | 73     | 64  | 55     | 54     |

TABLE 4: continued.

|          |  |   | 0  | UTDOORS   | TDOORS - A  |   | INDOORS - B   |   |  |
|----------|--|---|--|---|---|---|---|---|--|
| Time     | WT Flight Id.  | Туре  | SEL  | LAFmax  | LASMEX  | SEL   | LAFmex  | L <sub>ASmax</sub>  |  |
| 02:26:54 | TOM3HD   | A320  | 83   | 73  | 72  | 63  | 54  | 53  |  |
| 02:43:38 | EIN5HL   | A320  | 84   | 75  | 75  | 65  | 56  | 55  |  |
| -        | EIN104   | A333  | 86   | 76  | 75  | 66  | 58  | 57  |  |
|          | AAL724   | B772  | 87   | 76  | 75  | 66  | 57  | 56_   |  |
| -        |  | A21N  | 83   | 73  | 72  | 63  | 54  | 53  |  |
| ****     |  | A333  | 87   | 77  | 76  | 67  | 58  | 57  |  |
|          |  | B734  | 87   | 78  | 78  | 67  | 60  | 59  |  |
|          |  | B738  | 86   | 81  | 79  | 66  | 62  | 60  |  |
|          |  |   | 86   | 76  | 75  | 66  | 57  | 56  |  |
|          | -  |   | 85   | 77  | 76  | 66  | 58  | 57  |  |
| -        |  | B738  | 83   | 72  | 71  | 63  | 54  | 53  |  |
|          |  | A320  | 85   | 77  | 75  | 65  | 59  | 57  |  |
| +        |  | B738  | 86   | 78  | 76  | 66  | 60  | 57  |  |
|          |  |   | 84   | 74  | 73  | 64  | 56  | 55  |  |
|          |  |   | 84   | 75  | 74  | 64  | 56  | 55  |  |
| -        |  | -   | -  | 75  | 74  | 64  | 56  | 55  |  |
|          |  |   | 84   | 75  | 74  | 64  | 56  | 55  |  |
|          |  |   | _  | -   | 72  | 63  | 55  | 54  |  |
|          | Time 02:26:54 02:43:38 03:43:46 04:00:08 04:04:07 04:13:28 04:27:58 04:37:25 04:39:45 04:42:51 23:36:18 23:38:30 23:41:01 23:43:30 23:46:22 23:50:42 23:55:58 23:58:25 | 02:26:54 TOM3HD 02:43:38 EIN5HL 03:43:46 EIN104 04:00:08 AAL724 04:04:07 EIN1TC 04:13:28 EIN13K 04:27:58 BCS2886 04:37:25 FPO7SN 04:39:45 UPS248 04:42:51 BCS5QC 23:36:18 RYR66PG 23:38:30 5F711 23:41:01 RYR45HY 23:43:30 RYR3CH 23:46:22 GEC8352 23:50:42 RYR1SB 23:55:58 RYR86EY | 02:26:54         TOM3HD         A320           02:43:38         EIN5HL         A320           03:43:46         EIN104         A333           04:00:08         AAL724         B772           04:04:07         EIN1TC         A21N           04:13:28         EIN13K         A333           04:27:58         BCS2886         B734           04:37:25         FPO7SN         B738           04:39:45         UPS248         B763           04:42:51         BCS5QC         A321           23:36:18         RYR66PG         B738           23:41:01         RYR45HY         B738           23:43:30         RYR3CH         B738           23:46:22         GEC8352         A321           23:50:42         RYR1SB         B38M           23:55:58         RYR86EY         B38M | Time         WT Flight Id.         Type         SEL           02:26:54         TOM3HD         A320         83           02:43:38         EIN5HL         A320         84           03:43:46         EIN104         A333         86           04:00:08         AAL724         B772         87           04:04:07         EIN1TC         A21N         83           04:13:28         EIN13K         A333         87           04:27:58         BCS2886         B734         87           04:37:25         FPO7SN         B738         86           04:39:45         UPS248         B763         86           04:42:51         BCS5QC         A321         85           23:36:18         RYR66PG         B738         83           23:38:30         5F711         A320         85           23:41:01         RYR45HY         B738         86           23:43:30         RYR3CH         B738         84           23:46:22         GEC8352         A321         84           23:50:42         RYR1SB         B38M         84           23:55:58         RYR86EY         B38M         84 | Time         WT Flight Id.         Type         SEL         LAFMBX           02:26:54         TOM3HD         A320         83         73           02:43:38         EIN5HL         A320         84         75           03:43:46         EIN104         A333         86         76           04:00:08         AAL724         B772         87         76           04:00:07         EIN1TC         A21N         83         73           04:13:28         EIN13K         A333         87         77           04:27:58         BCS2886         B734         87         78           04:37:25         FPO7SN         B738         86         81           04:39:45         UPS248         B763         86         76           04:42:51         BCS5QC         A321         85         77           23:36:18         RYR66PG         B738         83         72           23:41:01         RYR45HY         B738         86         78           23:43:30         RYR3CH         B738         84         74           23:46:22         GEC8352         A321         84         75           23:55:58         RYR86EY | 02:26:54         TOM3HD         A320         83         73         72           02:43:38         EIN5HL         A320         84         75         75           03:43:46         EIN104         A333         86         76         75           04:00:08         AAL724         B772         87         76         75           04:04:07         EIN1TC         A21N         83         73         72           04:13:28         EIN13K         A333         87         77         76           04:27:58         BCS2886         B734         87         78         78           04:37:25         FPO7SN         B738         86         81         79           04:39:45         UPS248         B763         86         76         75           04:42:51         BCS5QC         A321         85         77         76           23:36:18         RYR66PG         B738         83         72         71           23:38:30         5F711         A320         85         77         75           23:41:01         RYR45HY         B738         86         78         76           23:43:30         RYR3CH         B738 <td>Time         WT Flight Id.         Type         SEL         LAFmax         LASmax         SEL           02:26:54         TOM3HD         A320         83         73         72         63           02:43:38         EIN5HL         A320         84         75         75         65           03:43:46         EIN104         A333         86         76         75         66           04:00:08         AAL724         B772         87         76         75         66           04:04:07         EIN1TC         A21N         83         73         72         63           04:13:28         EIN13K         A333         87         77         76         67           04:27:58         BCS2886         B734         87         78         78         67           04:37:25         FPO7SN         B738         86         81         79         66           04:39:45         UPS248         B763         86         76         75         66           04:42:51         BCS5QC         A321         85         77         76         66           23:36:18         RYR66PG         B738         83         72         71</td> <td>Time         WT Flight Id.         Type         SEL         LAFmax         LASmax         SEL         LAFmax           02:26:54         TOM3HD         A320         83         73         72         63         54           02:43:38         EIN5HL         A320         84         75         75         65         56           03:43:46         EIN104         A333         86         76         75         66         58           04:00:08         AAL724         B772         87         76         75         66         57           04:04:07         EIN1TC         A21N         83         73         72         63         54           04:13:28         EIN13K         A333         87         77         76         67         58           04:13:28         EIN13K         A333         87         78         78         67         60           04:27:58         BCS2886         B734         87         78         78         67         60           04:37:25         FPO7SN         B738         86         81         79         66         62           04:39:45         UPS248         B763         86         76&lt;</td> | Time         WT Flight Id.         Type         SEL         LAFmax         LASmax         SEL           02:26:54         TOM3HD         A320         83         73         72         63           02:43:38         EIN5HL         A320         84         75         75         65           03:43:46         EIN104         A333         86         76         75         66           04:00:08         AAL724         B772         87         76         75         66           04:04:07         EIN1TC         A21N         83         73         72         63           04:13:28         EIN13K         A333         87         77         76         67           04:27:58         BCS2886         B734         87         78         78         67           04:37:25         FPO7SN         B738         86         81         79         66           04:39:45         UPS248         B763         86         76         75         66           04:42:51         BCS5QC         A321         85         77         76         66           23:36:18         RYR66PG         B738         83         72         71 | Time         WT Flight Id.         Type         SEL         LAFmax         LASmax         SEL         LAFmax           02:26:54         TOM3HD         A320         83         73         72         63         54           02:43:38         EIN5HL         A320         84         75         75         65         56           03:43:46         EIN104         A333         86         76         75         66         58           04:00:08         AAL724         B772         87         76         75         66         57           04:04:07         EIN1TC         A21N         83         73         72         63         54           04:13:28         EIN13K         A333         87         77         76         67         58           04:13:28         EIN13K         A333         87         78         78         67         60           04:27:58         BCS2886         B734         87         78         78         67         60           04:37:25         FPO7SN         B738         86         81         79         66         62           04:39:45         UPS248         B763         86         76< |  |

7. The pattern of notable events carried on into the early hours of 21<sup>st</sup> July. A further 28 events were noted and analyzed. Appendix 5, divided into two parts, sets out the comparative L<sub>AFmax</sub> traces with the individual results being tabulated in table 5 below.

TABLE 5, parts 1& 2, 28 notable events of 21st July.

|                      |          |               |      | 0   | UTDOORS | S-A    |     | NDOORS | - B    |
|----------------------|----------|---------------|------|-----|---------|--------|-----|--------|--------|
| #                    | Time     | WT Flight Id. | Туре | SEL | LAFmax  | Lasmex | SEL | LAFmax | LASMEX |
| <del>"</del><br>73   | 00:00:49 | EIN3AV        | A320 | 85  | 78      | 76     | 66  | 59     | 57     |
| 74                   | 00:03:44 | RYR9QY        | B738 | 85  | 76      | 75     | 65  | 57     | 56     |
| <del>/ -</del><br>75 | 00:06:13 | RYR45TC       | B38M | 83  | 74      | 73     | 63  | 55     | 53     |
| 76                   | 00:08:59 | EIN70V        | B752 | 89  | 82      | 79     | 69  | 62     | 59     |
| 77                   | 00:11:42 | EIN7VT        | A320 | 84  | 77      | 75     | 65  | 57     | 55     |
| 78                   | 00:13:50 | RYR8CK        | B738 | 85  | 75      | 74     | 65  | 57     | 56     |
| 79                   | 00:16:05 | RYR2BY        | B38M | 85  | 76      | 75     | 63  | 55     | 54     |
| 80                   | 00:18:36 | EIN76HJ       | A320 | 84  | 75      | 74     | 65  | 57     | 56     |
| 81                   | 00:21:23 | RYR2WK        | B738 | 85  | 76      | 75     | 64  | 56     | 55     |
| 82                   | 00:23:34 | EIN799        | A320 | 85  | 76      | 75     | 65  | 58     | 57     |
| 83                   | 00:26:44 | EIN38JC       | A320 | 85  | 76      | 75     | 65  | 57     | 56     |
| 84                   | 00:29:29 | RYR7BW        | B738 | 85  | 76      | 75     | 65  | 59     | 57     |
| 85                   | 00:32:19 | TAP26T        | E190 | 84  | 77      | 75     | 65  | 59     | 57     |

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| 86  | 00:39:49 | FIA711  | A320 | 86 | 77 | 76 | 66 | 58 | 57 |
|-----|----------|---------|------|----|----|----|----|----|----|
| 87  | 00:50:57 | NYX300  | SF34 | 80 | 70 | 69 | 59 | 50 | 49 |
| 88  | 00:53:55 | RYR8TE  | B738 | 85 | 75 | 74 | 65 | 56 | 55 |
| 89  | 00:56:22 | RYR38ZG | B38M | 84 | 73 | 72 | 64 | 56 | 54 |
| 90  | 00:59:07 | EIN4GJ  | A320 | 85 | 76 | 76 | 66 | 58 | 57 |
| 91  | 01:01:42 | RYR87YJ | B738 | 85 | 75 | 74 | 65 | 57 | 56 |
| 92  | 01:11:13 | RYR11YP | B738 | 85 | 76 | 74 | 65 | 58 | 56 |
| 93  | 01:15:18 | EIN56V  | A320 | 85 | 78 | 76 | 66 | 60 | 58 |
| 94  | 01:22:29 | AZD358  | AT72 | 84 | 76 | 74 | 63 | 54 | 52 |
| 95  | 01:42:49 | EIN58R  | A320 | 85 | 76 | 75 | 65 | 59 | 57 |
| 96  | 02:00:48 | EIN499  | A320 | 85 | 78 | 76 | 66 | 59 | 58 |
| 97  | 02:03:45 | EINSHL  | A320 | 85 | 77 | 75 | 65 | 59 | 57 |
| 98  | 03:31:45 | ТОМ59Н  | A320 | 83 | 73 | 72 | 63 | 55 | 54 |
| 99  | 03:57:35 | EIN104  | A333 | 88 | 79 | 77 | 68 | 60 | 59 |
| 100 | 04:09:32 | AAL724  | B772 | 87 | 77 | 75 | 67 | 58 | 57 |
| 101 | 04:13:52 | EIN13K  | A333 | 88 | 78 | 77 | 68 | 60 | 58 |

- 8. The above results and appendices indicate a clear and significant issue in respect of the given events. You have indicated that the DAA e-contacted you (and others) indicating that "tests" were being conducted.
- 9. From my interpretation of the WT trace, these events are all associated with incoming aircraft, at night, availing of the North Runway.
- 10. The crux of the night-time issues, in respect of the 101 events tabulated above, mean that each and every one of the above tests provoked in-bedroom noise levels well in excess of the published levels geared towards a good night's sleep. Furthermore, on the occasions when these tests were not being conducted proper and suitable levels were measured, post 23:00 hours, in your bedroom, the window alar for fresh air admission.
- 11. These findings are applicable to your immediate neighbours, assuming they rely on natural ventilation for fresh air admission.
- 12. Even were the tests to have been conducted for potential "emergency" or "one-off operational conditions", the data, now to hand, means that *unless* and *until* significant upgrades/modifications to your home (and that of your immediate neighbours) are completed (thereafter being suitably commissioned, confirmed and maintained) these flight paths must not be availed of.

Yours sincerely,

Karl Starson
Chartered Engineer.



# Aircraft Noise Competent Authority 2023 Dublin Airport Noise Contours

Scheme (RN:S) et g biny conto-2021day-even ng-night contou Voluntary property purchase Resident at Noise Insulation Home Sound Insulation Programme (HSIP) e gibity 2023 depenenting in ght 2022 day-evening-night 2020 day-avening-night 2023 night contours 2023 right contours 2022 night contours 2021 night centours 5969 SP 50 2 60 B SPOT ST 35 59dB 80 6 4d8 Contours cortour Car bash 25 fingalcoco maps arcgis con/apps/instant/basic/index.html?appid=4851ec95a3649c9945eff67b8ca2l01 Blackwoods **Dublin Airport aircraft noise contours** ď ф Э

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# Aircraft Noise Competent Authority 2023 Airport Noise Contours

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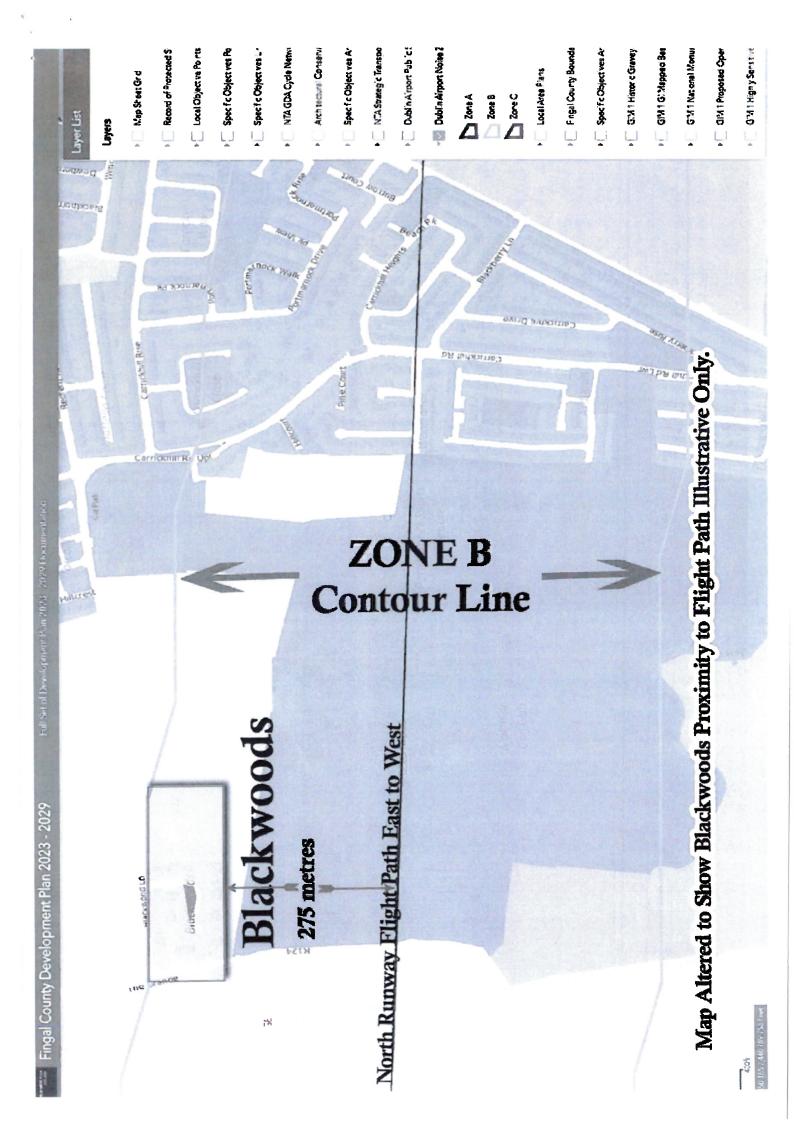
8 2023 day-evening-night contours Scheme (RNIS) e gibility contour 2021 day-อายา กฎ-กเลเน coาเฉษาร Voluntary property nurehase Residential Noise insulation Programme (MSIP) eligibility 2028 day-evening-night contours Home Sound Insulation 2023 day-even ng-night antial elgibility contour 2022 night contours 2021 nght confours 2023 nght contours 50 54dB 45 4903 65 6Yd3 EC2-9 C9 70 74:38 -75cB Ø Blackwoods Blackwoods PISCKWOOD LA ď The star

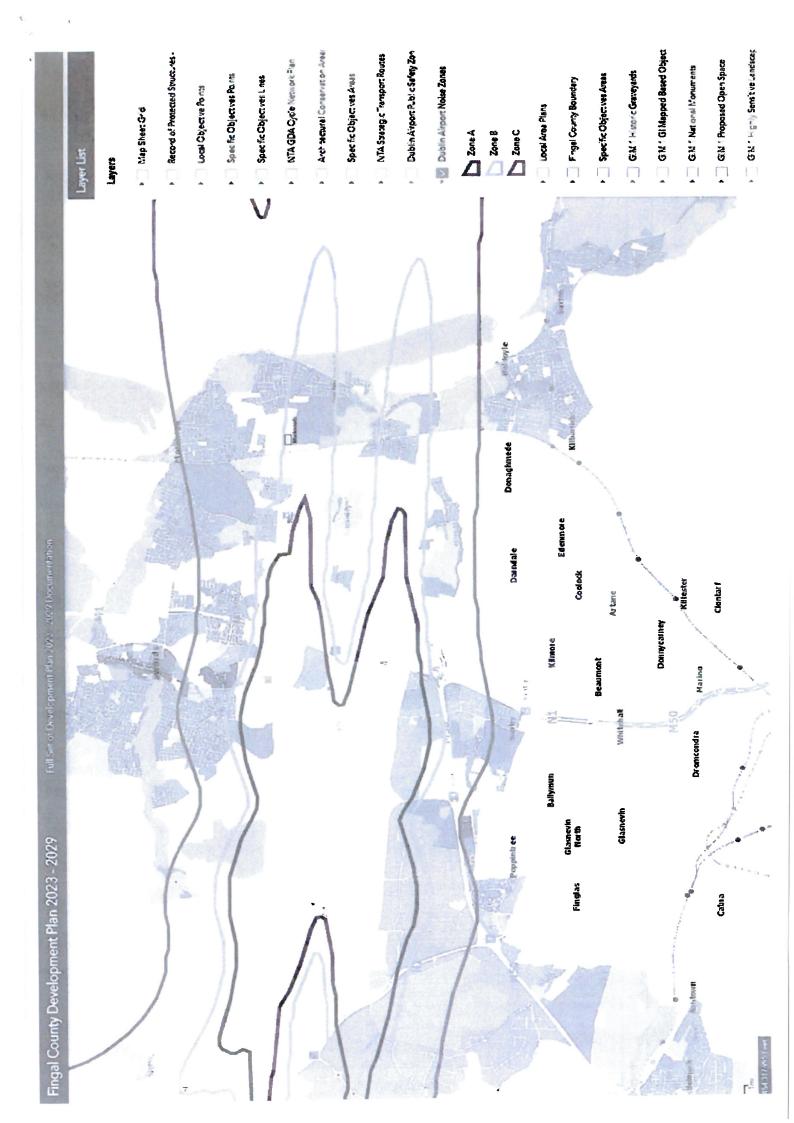
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**Table 8.1: Aircraft Noise Zones** 

| Zone   | Indication of<br>Potential Noise<br>Exposure during<br>Airport Operations | Objective   |
|--------|---|---|
| D      | ≥ 50 and < 54 dB<br>LAeq, 16hr and ≥ 40<br>and < 48 dB Lnight             | To identify noise sensitive developments which could potentially be affected by aircraft noise and to identify any larger residential developments in the vicinity of the flight paths serving the Airport in order to promote appropriate land use and to identify encroachment. All noise sensitive development within this zone is likely to be acceptable from a noise perspective. An associated application would not normally be refused on noise grounds, however where the development is residential-led and comprises non-residential noise sensitive uses, or comprises 50 residential units or more, it may be necessary for the applicant to demonstrate that a good acoustic design has been followed. Applicants are advised to seek expert advice.   |
|        |   | To manage noise sensitive development in areas where aircraft noise may give rise to annoyance and sleep disturbance, and to ensure, where appropriate, noise insulation is incorporated within the development Noise sensitive development in this zone is less suitable from a noise perspective than in Zone D. A noise assessment must be undertaken in order to demonstrate good acoustic design has been followed.  |
| С      | ≥ 54 and < 63 dB<br>LAeq, 16hr and ≥ 48<br>and < 55 dB Lnight             | The noise assessment must demonstrate that relevant internal noise guidelines will be met. This may require noise insulation measures. An external amenity area noise assessment must be undertaken where external amenity space is intrinsic to the development's design. This assessment should make specific consideration of the acoustic environment within those spaces as required so that they can be enjoyed as intended. Ideally, noise levels in external amenity spaces should be designed to achieve the lowest practicable noise levels. Applicants are strongly advised to seek expert advice.   |
| В      | ≥ 54 and < 63 dB<br>LAeq, 16hr and ≥ 55<br>dB Lnight                      | To manage noise sensitive development in areas where aircraft noise may give rise to annoyance and sleep disturbance, and to ensure noise insulation is incorporated within the development. Noise sensitive development in this zone is less suitable from a noise perspective than in Zone C. A noise assessment must be undertaken in order to demonstrate good acoustic design has been followed. Appropriate well-designed noise insulation measures must be incorporated into the development in order to meet relevant internal noise guidelines. An external amenity area noise assessment must be undertaken where external amenity space is intrinsic to the developments design. This assessment should make specific consideration of the acoustic environment within those spaces as required so that they can be enjoyed as intended. Ideally, noise levels in external amenity spaces should be designed to achieve the lowest practicable noise levels. Applicants must seek expert advice. |
| A      | ≥ 63 dB LAeq, 16hr<br>and/or ≥ 55 dB<br>Lnight                            | To resist new provision for residential development and other noise sensitive uses. All noise sensitive developments within this zone may potentially be exposed to high levels of aircraft noise, which may be harmful to health or otherwise unacceptable. The provision of new noise sensitive developments will be resisted.  |
| Notes: | as described in<br>2017;<br>> Internal and Ext<br>follow the guida        | Design' means following the principles of assessment and design ProPG: Planning & Noise – New Residential Development, May sernal Amenity and the design of noise insulation measures should ence provided in British Standard BS8233:2014 "Guidance on sound of the buildings"   |

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