



Gatwick Airport Northern Runway Project

Appendix A to the Applicant's Written Summary of Oral Submissions – ISH 9: Mitigation

Book 1

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Annex 1

1 The Applicant's Response to Annex B

- 1.1.1 The below table sets out the Applicant's response to the ExA's proposed requirements as set out in Annex B to the ISH9 hearing agenda [[EV20-001](#)].

DCO Rqt	Text as set out in the draft DCO [REP7-005]	ExA's Recommended Amendment/ Insertion:	Reasons and Notes	Applicant's Response
1		<p>Interpretation</p> <ul style="list-style-type: none"> • “average summer day” shall mean 0700-2300 in average operating mode between 16 June until 15 September inclusive; • “average summer night” shall mean the period 2300-0700 in average operating mode between 16 June until 15 September inclusive; • “Eligible premises” shall mean buildings at least partly used for permanent residency, education, healthcare, study and reading, worship, and community activity where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed LAeq, 16 hr 54 dB on an average summer day, and buildings at least partly used for permanent residency where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed LAeq, 8 hr 48 dB, on an average summer night; 	<p>Terms used in alternative requirements.</p> <p>‘Eligible premises’ is intended to identify those premises where receptor-based mitigation may be necessary to achieve an internal environment, consistent with relevant standards/ guidance having accounted for other noise controls.</p>	<p>Please see Annex 1 for the Applicant's full response.</p>

8	<p>Landscape and ecology management plan</p> <p>Subparagraph 3 currently reads:</p> <p>3) Each landscape and ecology management plan submitted pursuant to subparagraph (1) must be substantially in accordance with the outline landscape and ecology management plan and must include a timetable for the implementation of the landscaping works it contains.</p>	<p>Recommended amendment to subparagraph 3:</p> <p>3) Each landscape and ecology management plan submitted pursuant to sub-paragraph (1) must be substantially in accordance with the outline landscape and ecology management plan and <u>the tree planting proposals in the tree survey report and arboricultural impact assessment. Each landscape and ecology management plan</u> must include a timetable for the implementation of the landscaping works it contains.</p>	<p>Reason</p> <p>To ensure that each LEMP submitted for approval is in accordance with the tree planting proposals set out in <i>ES Appendix 8.10.1 – Tree Survey Report and Arboricultural Impact Assessment</i> which sets out how the proposed tree planting will comply with CBC policy CH6.</p>	<p>As explained in ISH9 and summarised in the Written Summary of Oral Submissions ISH9: Mitigation (Doc Ref. 10.62.2), the Applicant has accepted the principle of securing compliance with CBC's Policy CH6.</p> <p>The wording proposed here and by the JLAs in their Consolidated submissions on the draft Development Consent Order [REP7-108] is not suitable because of how LEMPs are structured on this Project. A LEMP will be provided for each part of the project however the AIA conclusions are based on project-wide tree removal and planting. Therefore an individual LEMP (for example around the highways) may show a net loss of trees although that is not representative of the overall project.</p> <p>The Applicant has included new requirement 39 (tree balance statement) in the draft DCO (Doc Ref. 2.1 v10) submitted at Deadline 8 which ensures compliance with CBC's Policy CH6.</p>
15,16	<p>Air noise envelope, Air noise envelope reviews</p> <p>Text to be replaced by wording in next column.</p>	<p>Air noise limits</p> <p>(1) From the commencement of dual runway operations, the operation of the airport shall be planned to achieve a predicted air noise level LAeq that:</p> <p>(a) for an average summer day is at least 0.5 dB less than the value calculated for an average summer day in 2019; and</p> <p>(b) for an average summer night is at least 0.5 dB less than the value calculated for an average summer night in 2019.</p> <p>(2) Five years after the commencement of dual runway</p>	<p>Reason</p> <p>For example, ANPS 5.60 <i>“The benefits of future technological improvements should be shared between the applicant and its local communities, hence helping to achieve a balance between growth and noise reduction”</i> and “include clear noise performance targets”</p> <p>Informative</p> <p>The ExA has based this draft operational noise requirement on scenario 3 of ICAO’s ‘Global trends in Aircraft Noise’ ‘technology improvements of 0.2 EPNdB per annum for all aircraft entering the fleet from 2024 to 2050.’</p> <p>It is intended to provide a clear expression of benefits sharing for all those likely to be adversely affected by aircraft noise, time for the Applicant to</p>	<p>The Applicant does not consider there to be any justification for these limits and was, with respect, surprised to see them as proposed. As we understand them, these controls are not based upon evidence that has been presented and substantiated on behalf of any interested party; and the informative explains that the noise limits are based upon an ICAO document that has not been relied upon or even mentioned at any earlier stage of the examination. As explained further below, the Applicant does not consider that this document gives any proper basis for the controls being suggested, nor that they are appropriate or necessary. The amendments also appear to in effect reject the entirety of the requirements as currently proposed in the draft DCO along with the entirety of the noise envelope document itself, for reasons which have not been explained. However, and as is explained in Annex 1, the issues with the proposed requirement are so fundamental that the Project would not take place if this were imposed.</p>

		<p>operations, and every fifth year thereafter until 2049, the operation of the airport shall be planned to achieve a predicted air noise level LAeq that:</p> <p>(a) for an average summer day reduces by at least a further 0.5 dB; and</p> <p>(b) for an average summer night reduces by at least a further 0.5 dB.</p> <p>(3) Before the commencement of dual runway operations, and annually thereafter, the undertaker shall have submitted to the independent air noise reviewer and have had approved by the independent air noise reviewer an operating plan ahead of the following summer operating season that shows that the noise limits set out in (1) and (2) shall be achieved.</p> <p>(4) As soon as reasonably practicable after the end of each summer operating season, after the commencement of dual runway operations, the undertaker shall publish their report to the independent air noise reviewer showing the calculated noise performance of the airport informed by actual noise measurements, compared with the noise limits set out in (1) and (2) with an explanation of any exceedances.</p>	<p>develop any necessary supporting processes, and an incentive for the aviation industry, which it can respond to.</p>	<p>Please see Annex 1 for the Applicant's full response.</p>
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		(5) If the independent air noise reviewer, in consultation with the host authorities, considers that any exceedances reported in (4) are caused by factors within the control of the undertaker, the undertaker shall modify its approach to the development of its operating plan for the following year to meet the noise limits set out in (1) and (2).		
18	Noise insulation scheme Text to be replaced by wording in next column.	Receptor based mitigation (1) Within not more than 3 months following the commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker shall submit for approval by the relevant local planning authority a forecast list of premises forecast to be eligible premises at the commencement of dual runway operations. (2) Within not more than 6 months following the commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker must take appropriate steps, having consulted with the relevant local planning authority, to notify the owners and occupiers of all premises on the approved list (1) that the premises has been approved for the design, installation, and maintenance of a package of measures that may include ventilation, noise insulation and methods to reduce solar gain to achieve an internal noise environment consistent with guidance. (3) Within not more than 12 months following the	Reason: For example, ANPS 5.68 ‘ <i>Development consent should not be granted unless the Secretary of State is satisfied that the proposals will meet the following aims for the effective management and control of noise, within the context of Government policy on sustainable development:</i> ’ <ul style="list-style-type: none"> • <i>Avoid significant adverse impacts on health and quality of life from noise;</i> • <i>Mitigate and minimise adverse impacts on health and quality of life from noise; and</i> • <i>Where possible, contribute to improvements to health and quality of life.’</i> Informative It is considered that local planning authorities should play a role in the design of receptor based mitigation, particularly on behalf of local communities. Designs proposed may affect the appearance of the local built environment and may involve features that would normally require consent, including listed building consent. The take up of such schemes may also be improved through the involvement of the local planning authorities by providing assurance to owners and occupiers that due process has been followed and the designs offered have been appropriately scrutinised against relevant standards.	Please see Annex 1 for the Applicant’s full response.

		<p>commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker must, subject to access being granted to the premises, carry out a survey of all the premises on the approved list and submit, for approval by the relevant local planning authority, proposed designs for all premises on the approved list.</p> <p>The designs submitted by the undertaker and the consideration of them by the relevant local planning authority must have due regard for guidance including Sound Insulation and Noise Reduction for Buildings BS 8233 British Standards Institution (2014), Methods for rating and assessing industrial and commercial sound BS 4142 British Standards Institution (2014), Acoustic design of schools: performance standards BB93 Department for Education (2015) and Acoustics— Technical Design Manual 4032 Department for Health (2011) as relevant.</p> <p>(5) Subject to agreement by the owner of the premises and access being granted to the premises, the design approved by the relevant local planning authority shall be installed and commissioned before the commencement of dual runway operations.</p>		
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20	<p>Surface access</p> <p>20. From the date on which the authorised development begins the operation of the airport must be carried out in accordance with the surface access commitments unless otherwise agreed in writing with CBC and National Highways (in consultation with Surrey County Council and West Sussex County Council).</p>	<p>Surface access</p> <p>20 (1) From the date on which the authorised development begins the operation of the airport must be carried out in accordance with the surface access commitments unless otherwise agreed in writing with CBC and National Highways (in consultation with Surrey County Council and West Sussex County Council).</p> <p>(2) <u>First use of the following airport facilities shall not be permitted until the mode shares set out below have been demonstrated to have been achieved in the Annual Monitoring Report unless otherwise permitted by CBC.</u></p> <p><u>(a)At least 54% of passengers travelling to the airport used public transport in the monitored year. Should this public transport mode share not be achieved then the Undertaker shall not use the following:</u></p> <ul style="list-style-type: none"> • <u>Simultaneous operational use of the northern runway; and</u> • <u>Pier 7 and associated stands.</u> <p><u>(b)At least 55% of passengers travelling to the airport used public transport in the monitored year. Should this public transport mode share not be achieved then the Undertaker shall not use the following:</u></p> <ul style="list-style-type: none"> •<u>The South Terminal Hotel Phase 2 on the former car park H; and</u> 	<p>To ensure that the impacts of the development as described in the Transport Assessment and the consequential effects set out in the Environmental Statement are not greater than those assessed within the Application.</p>	<p>For the purposes of this submission, the Applicant is engaging with the principle and intended effect of the amended wording and the stated reason for its promotion, rather than the specific detail of the wording itself. The Applicant reserves the right to make further submissions on the specific wording were the ExA to continue to be minded to include the amended wording notwithstanding the Applicant's response below.</p> <p>The Applicant does not consider the amended wording to be necessary or appropriate to address the concern described by the ExA.</p> <p>The Applicant has made various submissions in this examination as to the purpose and effect of the Surface Access Commitments (SACs) (including in The Applicant's Written Summary of Oral Submissions – ISH 8 Surface Access Commitments [REP6-078] and The Applicant's Response to Actions - ISH 8: Surface Access Commitments [REP6-084]), which it does not repeat in full here, other than to confirm that the Applicant considers the SACs to be the appropriate control document to ensure the Applicant's surface access impacts are properly controlled and mitigated.</p> <p>Specific to the ExA's stated reasoning for its proposed amendment, it is important to note that section 6 of the SACs prescribes the monitoring and reporting process in respect of the mode share commitments (commitments 1 to 4) and makes clear (paragraph 6.2.1) that the first annual monitoring report (AMR) is to be produced no later than 6 months prior to commencement of DRO. In circumstances where that AMR suggests the mode share commitments may not be achieved then an action plan must be produced to identify the additional interventions needed to ensure they will be (paragraph 6.2.6). Whilst there is no prescriptive trajectory within the SACs in respect of the mode share commitments, the Applicant considers the early monitoring of the trajectory towards the mode share commitments would mirror the intended effect of the 'earlier'/lower mode shares set out in the ExA's suggested amendments to Requirement 20. Given this, and in effort to remove any residual ambiguity, the Applicant has proposed to</p>
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		<p>•<u>The use of multi storey car Park Y.</u></p> <p>c)<u>Not more than 44.9% of staff travelling to the airport were car drivers in the monitored year. Should this car driver mode share be exceeded then the Undertaker shall not use the South Terminal Office (on former car park H).</u></p>		<p>amend the SAC to introduce 'interim' mode share commitments to be achieved by the first anniversary of the commencement of DRO to formalise the trajectory towards the passenger and staff mode share commitments set out in commitments 1 and 2 as explained further in response to Action Point 1 of the Applicant's Response to Actions – ISH9 Mitigation (Doc Ref. 10.63.2). Monitoring against these 'interim' mode share commitments (new Commitments 1A and 2A in the revised Surface Access Commitments (Doc Ref. 5.3)) and the corresponding trajectory to the mode shares in commitments 1 and 2 will enable express confirmation to be provided in the AMR that GAL is 'on track' to deliver its sustainable mode share commitments, or otherwise provide an early warning as to any further necessary remedial action required to ensure corrective interventions are taken in consultation/agreement with the TFSG.</p> <p>The Applicant infers from the ExA's suggested amends and questioning in the examination to date that they do not consider the remedial steps outlined in the SACs to be sufficient/robust to guard against a 'breach' of the mode share commitments, with the consequent concern previously expressed being that it must follow that this would necessarily result in greater vehicular mode share and impacts on the transport network which have not been assessed/properly mitigated. The Applicant responded to the ExA on this matter directly in response to Action Point 1 of The Applicant's Response to Actions ISH8 - Surface Access Commitments [REP6-084] and indirectly in response to question TT.2.10 at ExQ2 (REP7-092), where the Applicant explained how it does not necessarily follow that a lower mode share would equate to greater traffic numbers or the potential for an adverse impact on the transport network. Equally, even if more traffic did result, no evidence has been produced to the examination that specific harm would arise.</p> <p>The Applicant does not repeat but maintains those submissions for the reasons stated and in particular re-emphasises that there are a number of contextual factors that will be relevant to the implication of any departure from the mode-share commitments, or the trajectory towards them, and which would not automatically result in any corresponding adverse impact on the network, or its users. This is why the SACs prescribe a monitoring process to identify any necessary, specific, remedial action in circumstances where there is</p>
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				<p>such a non-compliance, forecast or actual, and for that discussion to be discussed/agreed with the TFSG.</p> <p>Further, and notwithstanding those submissions which explain why the amendment is not necessary/justified in view of the stated concern, for clarity - the Applicant would not choose to implement a DCO which had the wording recommended by the ExA. The Applicant will not repeat its previous submissions which explain the basis of the mode share commitments, GAL's historic strong track record in sustainable transport (which, again, the Applicant would submit is instructive as to why no threat of enhanced penalty is required), and the efficacy of the SACs/their supporting process, but would also observe there is no precedent (beyond the emerging, and untested, GCG approach offered by Luton Airport) in support of such a position.</p> <p>GAL would not incur the risk of incurring the very significant capital investment spend of constructing the development to then find it was unable to commence dual runway operations because (to take an extreme example) it was 0.1% under an annual monitored passenger public transport mode share. That is not a credible position to expect a commercial developer/operator to adopt, and there is no version of that amendment which adopts the same principle which GAL would accept. The level of uncertainty it would introduce to planning and investing in the development and subsequent operation of the airport would be unacceptable, and GAL would simply choose not to invest in implementing the scheme and instead elect to maintain its current operations/growth under a single runway, where it is not subject to any such restrictions. GAL's record of progressive and industry leading sustainable transport has not needed a "stick" of this nature.</p> <p>GAL has purposely not reverted to this more straight-forward objection in discussions to date, because it considers it important to engage with the underlying concern expressed by the ExA (and other IPs) and to provide comfort/clarification in that respect; however, considers it important for the practical reality/position to be understood given the stage of the examination.</p> <p>Whilst the SACs as a document is comparatively unique, the concept of travel plans and sustainable transport commitments in infrastructure/development planning is not unique and there is no consented/operational example of a breach of such plans requiring</p>
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				<p>the cessation of the development. Such a step is not supported/required under any national or local planning policy/law, despite the risk that “more traffic could result” being present in every EIA development application.</p> <p>Instead, the more appropriate consequence (and which reflects standard best practice) is for monitoring and remedial/escalatory action, typically carried out in partnership with the relevant planning/transport authority. That is the process which GAL has successfully undertaken to date with respect to its existing ASAS/BAU operations, and which it is proposing under the SACs (albeit with the additional safeguard of it being secured under a DCO requirement).</p>
New		<p>Removal of permitted development rights relating to the provision of additional car parking</p> <p>Notwithstanding the provisions of The Town and Country Planning (General Permitted Development) (England) Order 2015, Schedule 2, Part 8, Class F – Development at an airport (or any order revoking and re-enacting that Order with or without modification), no additional car parking shall be provided at the airport unless otherwise permitted by CBC.</p>	<p>To ensure that the impacts of the development as described in the Transport Assessment and the consequential effects set out in the Environmental Statement are not greater than those assessed within the Application.</p>	<p>To meet the ExA’s concerns, the Applicant is proposing to include a new Requirement in the draft DCO to control the total number of parking spaces provided. The new Requirement 37 in the draft DCO is as follows:</p> <p>Car parking spaces</p> <p><i>37. (1) The undertaker shall not provide more than 53,260 car parking spaces within the Order limits unless otherwise agreed in writing by CBC.</i></p> <p><i>(2) Upon commencement of the authorised development and by no later than each anniversary of that date, the undertaker must submit an annual report to CBC providing an update on the number of parking spaces provided by the undertaker within the Order limits.</i></p> <p>The proposed car parking cap of 53,260 represents the current parking provision of 40,320¹ passenger spaces, 6,090 staff spaces, 5,750 spaces assumed as part of the future baseline (2,500 spaces (robotics) + 3,250 spaces (MSCP7)), and the 1,100 additional spaces to accommodate the Project growth as explained further in Appendix B of The Applicant's Response to Rule 17 Letter – Parking (Doc ref. 10.64) and in response to Action Point 2 of the Applicant's Response to Actions – ISH9 Mitigation (Doc ref 10.63.2).</p>

¹ Note the original "current provision" was 40,610 spaces, however, as explained in 10.21 Response to Rule 17 Letter - Car Parking [REP6-067] a total of 290 spaces associated with a separate commuter parking area have been removed from the total number of passenger spaces.

21	<p>Carbon action plan</p> <p>21. From the date on which the authorised development begins, the authorised development and the operation of the airport must be carried out in accordance with the carbon action plan unless otherwise agreed in writing with the Secretary of State.</p>	<p>Carbon action plan</p> <p>21. From the date on which the authorised development begins, the authorised development and the operation of the airport must be carried out in accordance with the carbon action plan unless otherwise agreed in writing with the Secretary of State <u>(following consultation with CBC)</u>.</p>	<p>To ensure that the relevant planning authority can use its knowledge of the local area to advise the Secretary of State.</p> <p>Additionally, the CAP should be modified to make provision for CBC to be provided with the Monitoring Report and to be consulted on any Action Plan required in the event that further interventions are required and to be consulted when the CAP is reviewed.</p>	<p>This is accepted. As explained in response to Action 20 in the Applicant's Response to Actions ISH9: Mitigation (Doc Ref. 10.63.2). The DCO Requirement in the Draft DCO (Doc Ref. 2.1) has been updated and an updated version of the Carbon Action Plan (Doc Ref. 5.3) is submitted at Deadline 8.</p>
New		<p>Employment, skills and business implementation plan</p> <p>(1) No part of the authorised development may commence until an Employment Skills and Business Implementation Plan has been submitted to Crawley Borough Council for approval in writing (in consultation with WSCC, ESCC and KCC).</p> <p>(2) The Employment Skills and Business Implementation Plan submitted pursuant to sub-paragraph (1) must be substantially in accordance with the Employment Skills and Business Strategy and must be in the form of the Draft Employment Skills and Business Implementation Plan.</p> <p>(3) The Employment Skills and Business Implementation Plan must be implemented as approved pursuant to sub-paragraph (1).</p>	<p>To ensure the socioeconomic benefits of the Proposed Development would be fully secured and realised.</p> <p>It should be noted that in the case of the Awel y Mor offshore windfarm the Secretary of State noted that there is a precedent for such Requirements.</p>	<p>Following ISH9, the Applicant and the JLAs have had further discussions about the implementation of the ESBS and consider that it is most appropriate for the ESBS to be secured through the s106 Agreement and not a DCO Requirement.</p> <p>Further information about the ESBS discussions has been provided in response to Action Points 31 and 32 of the Applicant's Response to Actions ISH9: Socio-economics (Doc Ref. 10.63.4)</p>

New		<p>Housing Fund</p> <p>(1) No part of the authorised development may commence until a Housing Fund Plan, covering both the construction and operation phases, has been submitted to and approved in writing by CBC (in consultation with East Sussex County Council, Horsham District Council, Mid Sussex District Council, West Sussex County Council, Kent County Council, Surrey County Council, MVDC, RBBC and TDC)</p> <p>(2) The Housing Fund Plan must be implemented as approved pursuant to sub-paragraph (1).</p>	<p>The ExA is aware of the on-going discussions between parties in respect of the possible obligation to establish a Housing Fund to mitigate the Proposed Development’s impact on housing delivery as regards affordable housing and temporary accommodation. Nevertheless, the ExA notes the evidence provided by the Authorities in respect of concerns regarding an existing lack of affordable, temporary and emergency housing. Given the increase in both construction workers and operational staff to the locality, the ExA considers it necessary to ensure, via a Housing Fund, additional pressures on affordable and temporary are fully mitigated.</p>	<p>At ISH9 the Applicant set out its response to this draft DCO Requirement and these submissions are recorded in Written Summary of Oral Submissions ISH9: Socio-Economics (Doc Ref. 10.62.4).</p>
25	<p>Operational waste management plan</p> <p>(1) The replacement CARE facility (Work No. 9) must not be brought into routine operation until the undertaker has submitted an operational waste management plan to West Sussex County Council for approval.</p> <p>(2) The operational waste management plan submitted under sub-paragraph (1) must be substantially in accordance with the operational waste management strategy.</p>	<p>Operational waste management plan</p> <p>(1) <u>Works to construct the replacement CARE facility (Work No. 9) must not commence until an operational waste management plan has been submitted to and approved in writing by West Sussex County Council.</u></p> <p>(2) The operational waste management plan submitted under sub-paragraph (1) must be substantially in accordance with the operational waste management strategy.</p> <p>The airport must be operated in accordance with the operational waste management plan approved by West Sussex County Council unless otherwise agreed in writing</p>	<p>To bring forward the approval of the OWMP ahead of the construction of the replacement CARE facility. This would be to prevent a situation where the existing CARE facility has been removed and the replacement facility has been constructed but can’t be brought into operation if the OWMP is not approved.</p>	<p>This is accepted and the draft DCO (Doc Ref. 2.1) has been updated.</p>

	The airport must be operated in accordance with the operational waste management plan approved by West Sussex County Council unless otherwise agreed in writing with West Sussex County Council.	with West Sussex County Council.		
New		<p>Air Quality Monitoring</p> <p>In consultation with the host authorities, and prior to the commencement of dual runway operations, the undertaker shall develop an operational air quality monitoring and management plan, which shall be implemented following the commencement of dual runway operations</p>	<p>Reason:</p> <p>For example, 5.35 to 5.41 of the ANPS regarding monitoring the effectiveness of mitigation measures included in the authorised development.</p>	<p>In principle, if the ExA requires that this is a DCO Requirement, this drafting could be accepted on the basis that the "AQMMP" reflects the commitments currently in the draft DCO s106 Agreement [REP6-063].</p> <p>Anything further is not agreed and is responded to in the Applicant's response on JLAs' EMG Framework Paper (Appendix C to the Applicant's Response to Deadline 7 Submissions (Doc Ref. 10.65)).</p>
New		<p>Odour management and monitoring plan</p> <p>(1) The commencement of dual runway operations must not take place until an odour management and monitoring plan to ensure the management of aviation fuel odour and other odour emissions at the Horley Gardens Estate has been submitted to and approved in writing by CBC in consultation with RBBC.</p> <p>The odour management and monitoring plan submitted under sub-paragraph (1) must be substantially in accordance with the</p>	<p>To ensure procedures are in place to monitor and manage impacts related to odour, in particular for residents of the Horley Gardens Estate.</p> <p>This new requirement is based on the JLA's suggested requirement in [REP7- 108].</p> <p>It is suggested by the ExA that the Odour Reporting Process Technical Note [REP7-094] could form the basis of an outline odour management and monitoring plan referred to in sub- paragraph (2) and is expanded to include sections on the following matters identified by the JLA's in [REP7-108]:</p> <ul style="list-style-type: none"> • procedures for recording, reviewing monitoring results and adjusting mitigation; • procedures for data sharing with the host 	<p>This is not necessary and there is no evidentiary basis for this (AQ16 of Table 2 at Appendix A of The Applicant's Response to Deadline 4 Submissions submitted at Deadline 6 [REP6-090]). If the ExA considers that this is necessary, the Applicant could accept that the process set out in the technical note could be secured as an odour monitoring and management plan and the Applicant has updated the Note to frame it as a plan and to include commitment to carry out actions.</p> <p>The draft DCO (Doc Ref. 2.1) includes a new DCO Requirement to this effect.</p>

		<p>outline odour management and monitoring plan.</p> <p>(3) The odour management and monitoring plan submitted under sub-paragraph (1) should include a two stage study to:</p> <p>(i) determine the ambient concentrations of an appropriate marker for aviation fuel at which fuel odours are perceived on the Horley Gardens Estate;</p> <p>(ii) if the concentrations of the marker determined in sub-paragraph (3)(i) exceed the limit of detection of a suitable field based monitor then such equipment is to be installed at a location agreed with CBC for a 1 year period to enable the examination of the distribution of events giving rise to aviation fuel odour;</p> <p>The airport must be operated in accordance with the odour management and monitoring plan approved by CBC unless otherwise agreed in writing with CBC.</p>	<p>authorities and reporting to the host authorities (The ExA note that the reporting process referred to in [REP7-094] only refers to the reporting of complaints rather than the reporting of monitoring results);</p> <ul style="list-style-type: none"> • a complaints and resolution process (The ExA note that [REP7-094] includes the complaints process. However, the process appears to end with reporting and responding to the complaint rather than a resolution process); • a communications and engagement plan; and • any proposed odour mitigation measures. 	
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Annex 1

1 Overview

- 1.1.1 This Annex provides the Applicant's response to the Examining Authority's proposed amendments to the draft DCO Requirements 1, 15 and 16 that relate to noise mitigation, as listed in Annex B to the Agenda for ISH9.

2 ExA Proposed Amendment to Requirement 1 Interpretation

- "average summer day" shall mean 0700-2300 in average operating mode between 16 June until 15 September inclusive;
- "average summer night" shall mean the period 2300-0700 in average operating mode between 16 June until 15 September inclusive;
- "Eligible premises" shall mean buildings at least partly used for permanent residency, education, healthcare, study and reading, worship, and community activity where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed LAeq, 16 hr 54 dB on an average summer day, and buildings at least partly used for permanent residency where, following the commencement of dual runway operations, air noise, ground noise or combined air and ground noise is predicted to exceed LAeq, 8 hr 48 dB, on an average summer night;

Applicant's response:

- 2.1.1 Bullets 1 and 2 are agreed, consistent with UK policy and CAA guidance. The Applicant notes for the Noise Envelope and Noise Insulation Scheme the ExA is agreed with the Applicant that summer season Leq 16 hr and Leq 8 hr night are the correct metrics, and no suggestion is made for noise limits in other seasons or to be set using other metrics.
- 2.1.2 The Applicant would like to comment on three aspects of bullet 3 as follows.
- 1) **The NIS does not cover community buildings because the noise impacts at all community buildings are not significant**
- 2.1.3 The ES assesses noise impacts on 50 noise sensitive community buildings (including 21 schools, one hospital, 18 places of worship and 7 community buildings). The full list of community buildings which are assessed is in Table 4.3.2 in **ES Appendix 14.9.2 Air Noise Modelling** [[APP-172](#)].

- 2.1.4 In 2032, the year of greatest noise impacts, at 42 of these buildings noise levels are predicted to either decrease or increase by less than $L_{eq, 16 \text{ hr}} 1 \text{ dB}$, ie a negligible change, as a result of the Project compared to the 2032 baseline. The 6 predicted noise increases above 1 dB are between 1.0 and 1.4dB. Table 4.3.2 in **ES Appendix 14.9.2 Air Noise Modelling [APP-172]** provides modelled noise changes at all community buildings.
- 2.1.5 There are two places of worship where the Project is predicted to reduce $L_{eq, 16 \text{ hour}}$ daytime noise levels by up to 1.2dB (ES Chapter 14 paragraphs 14.9.159 to 161 give details and **ES Appendix 14.9.2 Air Noise Modelling [APP-172]** gives predicted noise levels). These are ref 48 St Michael's and All saints in Lowfield Heath and ref 15 Gurjar Hindu Union in Ifield.
- 2.1.6 These predicted increases and decreases may or may not result in increases or decreases in total noise levels at these buildings depending on the level of noise from other ambient noise sources, in particular road traffic. In all cases the changes in aircraft noise are low and would result in negligible or minor effects, which would not be significant in ES terms. There is therefore no requirement for mitigation at these properties, and the Applicant does not propose to offer noise insulation. Nor does it agree with the suggestion that it would be sound to require this.
- 2.1.7 The Applicant acknowledges that other Projects have offered noise insulation schemes for community buildings, but because the noise increases of this Project are negligible or minor, mitigation is not required in this case. Each application must be considered on the basis of its own impacts, rather than applying an approach from another project with different impacts where such mitigation is necessary. However the Applicant notes that the Luton expansion project offers noise insulation to community buildings at $L_{eq, 16 \text{ hr}} 63\text{dB}$ and no community buildings at Gatwick are predicted to be at levels above this.
- 2.1.8 Similarly, places for worship have been assessed. 17 places for worship have been modelled with noise levels above the assessment scoping criterion of $L_{eq, 16 \text{ hr}} 50\text{dB}$, all of which have noise changes of less than +1.4dB, which are negligible or minor and similarly do not require mitigation.
- 2.1.9 The impact of aircraft noise on learning in schools is well documented and the Applicant has proposed a Schools Noise Insulation Scheme to address noise increases.
- 2.1.10 With regards the schools noise insulation scheme qualifying criterion of $L_{eq, 16 \text{ hr}} 51\text{dB}$, it has been suggested that the BB93 teaching space criterion of 60 dB L_{A1} ,

30mins may be exceeded for school at noise levels below this. The Applicant has discussed this further with the Local Authorities in the Topic Working Group (TWG) on 18 July and notes the full guidance in BB93 is as follows, under Table 1: noisy activity and sensitivity levels and upper limits for indoor ambient noise levels, which states the upper limit for indoor ambient noise levels for general teaching areas of 40 dB $L_{Aeq, 30 \text{ minutes}}$. There are two footnotes as follows:

- *In order to protect students from regular discrete noise events, eg, aircraft or trains, indoor ambient noise levels should not exceed 60 dB $L_{A1, 30mins}$.*
- *This is achieved by default for spaces with IANLs [Internal Ambient Noise levels] up to 40 dB $L_{Aeq, 30min}$, but requires assessment in spaces with higher IANL limits, eg, 45 and 50 dB.*

2.1.11 Thus, the guidance says that if internal ambient noise levels are below $L_{eq, 30 \text{ minutes}}$ 40dB, by default the 60 dB $L_{A1, 30mins}$ criterion will be met and conditions will be within the recommended levels for teaching. The proposed external noise level of $L_{eq, 16 \text{ hr}}$ 51dB, with windows partly open would give an internal noise level of about $L_{eq, 16 \text{ hr}}$ 36 dB which would give an $L_{eq, 30 \text{ minutes}}$ of about 37dB allowing for the peak half hour within the 16 hour day (as demonstrated to the TWG). This is below the $L_{eq, 30 \text{ minutes}}$ 40dB that by default shows the 60 dB $L_{A1, 30mins}$ criterion will be met and conditions will within the recommended levels for teaching. Therefore, the proposed noise criterion for schools is consistent with the BB93 guidance and will ensure the Department of Education's recommended noise standard for teaching areas are complied with.

2) The NIS Outer Zone is based on policy guidance and equally addresses night noise as day noise

2.1.12 The Examining Authority's suggested definition of 'eligible premises' refers to noise levels above $L_{eq, 8 \text{ hr night}}$ 48dB. The Applicant commented on this in The Applicant's Response to ExQ2 - Noise and Vibration [[REP7-089](#)] question NV.2.3 as follows:

2.1.13 *With regard to night-time noise, similarly the ES notes the distinction between adverse effects to be minimised and significant adverse effects on health and quality of life above SOAEL ($L_{eq, 8hr}$ 55dB) which are to be avoided, within the context of Government policy on sustainable development.*

2.1.14 *The Inner Zone NIS is set at the $L_{eq, 8r \text{ hr}}$ 55dB contour, which encompasses the $L_{eq, 16 \text{ hr}}$ 63dB contour, avoiding the need to have separate day and night Inner*

Zones, which would unnecessarily complicate the scheme yet provide no additional protection to any property.

- 2.1.15 *There is no policy guidance on a lower threshold for night-time noise above which to offer noise insulation, but the Applicant notes that the Leq 8hr 48dB, ie 3dB above the night LOAEL contour approximately aligns with the Leq 16 hr 54dB, ie 3dB above the daytime LOAEL contour that forms the Outer Zone boundary of the NIS. Accordingly, it is considered that an equivalent level of mitigation from night noise is provided through the receipt of insulation by properties which are within the Leq 16 hr 54dB contour area.*
- 2.1.16 **ES Addendum - Updated Central Case Aircraft Fleet Report** [[REP4-004](#)] provided Leq 16 hr and Leq 8 hr night contours for the worst case 2032 year upon which the NIS is based that show the similarity between the Leq 16 hr 54dB and Leq 8 hr 48dB contours. The online Air Noise Viewer has also been updated to illustrate the Updated Central Case noise contours and the updated NIS.
- 2.1.17 The Applicant's view is therefore that adverse effects at night are suitably addressed in the proposed NIS, and adding additional zones to address Leq 8 hr levels above 48dB would not provide [necessary] additional mitigation but would unnecessarily complicate the scheme.
- 2.1.18 The Applicant also notes that the recent Luton Airport Expansion NIS takes this approach to night noise.
- 2.1.19 As a final point on wording, it is not possible for something to be partly used permanently.. A more precise form of words would be "...*buildings which the whole or a part of are used for permanent residency...*". In any such buildings, it would also only be noise sensitive rooms which would be eligible for noise insulation measures, and whilst the Applicant puts on record its objection to the ExA's proposed Requirement 18 as expressed more fully in this document, should the ExA proceed further with their suggested Requirement 18 and this definition that important distinction would need to be addressed.

3) The Applicant does not propose to offer noise insulation for ground noise below SOAEL because adverse effects of ground noise are mitigated through other means

- 2.1.20 The definition of "Eligible premises" proposed by the ExA also refers to "...*ground noise or combined air and ground noise...*". Adverse effects from ground noise are mitigated by both existing and proposed ground noise management practices and the design of the Project as described in Appendix B

of **Supporting Noise and Vibration Technical Notes to Statements of Common Ground (Doc Ref 10.13) [REP3-071]**. For example, engine ground runs are limited in number by the proposed Section 106 Agreement [**Draft Section 106 Agreement Version 2 (Tracked) [REP6-064]**] and can only take place during the day unless in an emergency. The airport has an extensive noise bund and walls around the east and north sides, and the noise bund in the western end will be reconfigured as part of the Project. This approach to mitigation is consistent with policy to mitigate adverse effects as far as practicable in the context of government policy on sustainable economic development. Such ground-based noise mitigation measures are effective for ground noise because ground noise propagates close to the ground. The Applicant has taken measures to mitigate adverse effects of ground noise and does not propose to offer noise insulation for ground noise below SOAEL. It is noted that many of the properties that may experience ground noise below SOAEL are also in any event within the Air Noise contours and would qualify for noise insulation.

3 ExA Proposed Amendment to Requirements 15,16 - Noise Envelope

Air noise limits

(1) From the commencement of dual runway operations, the operation of the airport shall be planned to achieve a predicted air noise level LAeq that:

- for an average summer day is at least 0.5 dB less than the value calculated for an average summer day in 2019; and
- for an average summer night is at least 0.5 dB less than the value calculated for an average summer night in 2019.

(2) Five years after the commencement of dual runway operations, and every fifth year thereafter until 2049, the operation of the airport shall be planned to achieve a predicted air noise level LAeq that:

- for an average summer day reduces by at least a further 0.5 dB; and
- for an average summer night reduces by at least a further 0.5 dB.

(3) Before the commencement of dual runway operations, and annually thereafter, the undertaker shall have submitted to the independent air noise reviewer and have had approved by the independent air noise reviewer an

operating plan ahead of the following summer operating season that shows that the noise limits set out in (1) and (2) shall be achieved.

(4) As soon as reasonably practicable after the end of each summer operating season, after the commencement of dual runway operations, the undertaker shall publish their report to the independent air noise reviewer showing the calculated noise performance of the airport informed by actual noise measurements, compared with the noise limits set out in (1) and (2) with an explanation of any exceedances.

(5) If the independent air noise reviewer, in consultation with the host authorities, considers that any exceedances reported in (4) are caused by factors within the control of the undertaker, the undertaker shall modify its approach to the development of its operating plan for the following year to meet the noise limits set out in (1) and (2).

Reason

For example, ANPS 5.60 “The benefits of future technological improvements should be shared between the applicant and its local communities, hence helping to achieve a balance between growth and noise reduction” and “include clear noise performance targets”

Informative

The ExA has based this draft operational noise requirement on scenario 3 of ICAO’s ‘Global trends in Aircraft Noise’ ‘technology improvements of 0.2 EPNdB per annum for all aircraft entering the fleet from 2024 to 2050.’

It is intended to provide a clear expression of benefits sharing for all those likely to be adversely affected by aircraft noise, time for the Applicant to develop any necessary supporting processes, and an incentive for the aviation industry, which it can respond to.

Applicant's response:

- 3.1.1 The Applicant’s view is that the Noise Envelope proposed with its limits as stated complies with policy and the changes to the noise limits proposed by the Examining Authority are not required.

3.1.2 The Applicant acknowledges the reason for noise envelope limits to be set as required in ANPS 5.60, and has demonstrated in **The Applicant's Response to ExQ2 - Noise and Vibration [REP7-089]** question NV.2.5 the degree of noise benefit sharing provided to the community by the lower revised noise limits based on the Updated Central Case (from 2032 to 2038; day 31% to 58% and night 50% to 69%). The Applicant notes that policy does not preclude noise levels increasing (*'In circumstances where there is an increase in total adverse effects, "limit" would mean to mitigate and minimise adverse effects, in line with the Noise Policy Statement for England'*), that there is no policy guidance on the degree of sharing required, and that other projects such as the Bristol Airport expansion have been consented with lower degrees of sharing than would be achieved in the Updated Central Case. Therefore, the Applicant's view is that the Noise Envelope limits set by the Applicant demonstrably comply with policy.

The basis of the Examining Authority's Proposed limits are not given.

3.1.3 The Examining Authority sets out proposed noise reductions every 5 years giving ICAO's Global Trends 2022 as an informative, which is discussed below. However, key factors that would assist the Applicant in understanding the Proposal are not stated such as:

- why a reference to noise levels in 2019 is used rather than an account of policy LOAELs or SOAELs;
- the rate of fleet renewal assumed or the rate of growth in the baseline or Project cases; and
- the extent of noise reduction due to new technology that these limits aim to share with the community.

ICAO's Global Trends 2022 paper does not support an expectation that LAeq noise levels will reduce, and future baseline noise modelling at Gatwick indicates the Examining Authority's proposed limits are not achievable and would require reductions in air traffic from 2019 levels requiring operations from the airport to shrink.

3.1.4 The Examining Authority's proposal is stated to be informed by the ICAO Global Trends In Aircraft Noise², included as Appendix 1 to this document. In particular, the Examining Authority in their informative has quoted from the third paragraph that reads '*technology improvements of 0.2 EPNdB per annum for all aircraft*

² https://www.icao.int/environmental-protection/Pages/Noise_Trends.aspx (accessed 7 August 2024).

entering the fleet from 2024 to 2050' and the Examining Authority appears to have deduced from this that a reduction in Leq 16 hr and Leq 8 hr noise levels of 0.5dB every 5 years is expected by ICAO and hence a reasonable basis for a noise envelope at Gatwick. The Applicant accepts the ICAO range in long term global trend quoted for the noise emission levels of individual new aircraft entering the fleet (as quantified by the EPN noise levels measured during certification), but fails to see how the Examining Authority has made their deduction for Leq 16 hr and Leq 8 hour noise levels in the community, for the following main reasons.

- 3.1.5 **Figure 1.10 of the ICAO report shows Leq noise contour areas increasing, not decreasing**, for their Scenario 3 (as referenced by the Examining Authority and noting that ICAO use the Day Night Level, DNL, which is a 24 hour weighing of Leq day and night levels). This is the opposite trend indicating increasing Leq noise levels. The ICAO assumptions for the different scenarios are important:
- a. *'Scenario 3 was meant to capture a COVID-19 delay, with no noise technology improvements for aircraft entering the fleet from 2019 to 2023, and technology improvements of 0.2 EPNdB per annum for all aircraft entering the fleet from 2024 to 2050'*.
 - b. *'Scenario 2 includes noise technology improvements of 0.1 EPNdB per annum for all aircraft entering the fleet from 2019 to 2050'*.
- 3.1.6 The Applicant notes that the Examining Authority has referred to Scenario 3 for which ICAO forecast a gradual increase in noise contour areas. For Scenario 2 a greater increase in contour areas of about 45% from 2025 to 2050 is forecast.
- 3.1.7 **The ICAO study is for global trends**, it aggregates noise modelling for global aircraft manufacturers fleet forecasts, for global air traffic growth, and operating procedures at 319 airports, and so is of limited relevance to the specific situation at Gatwick, for example in terms of air traffic growth or fleet renewal as discussed below. But other factors also affect Leq noise levels, for example operating procedures (i.e. the way a given aircraft is flown to meet local air navigation requirements and specific airline procedures). The ICAO study makes a global assumption: *'For Scenarios 2, 3, and 4, an additional moderate operational improvement of 2% is applied for population inside DNL 55, 60, and 65 contours'* that is unlikely to be accurate for Gatwick Airport. This is because it already has in place highly efficient operating procedures targeted at reducing noise, and this will have led to an over-estimate of future noise reduction that could be achieved at Gatwick based on this document
- 3.1.8 **There is no direct linkage between the long-term trend of noise levels of new aircraft coming into service each year and Leq noise levels.** The ICAO

long term trend in new individual aircraft noise levels tells us that hypothetically if the fleet at Gatwick were to be fully replaced every year, then if there was no growth and no change in any other aspect such as aircraft size, operating procedures etc, then Leq noise levels may reduce by 0.2dB each year, or about 1dB every 5 years. However, aircraft have life spans of 20-25 years, so the rate of fleet replacement is not 100% a year, but around 4-5%. Thus, the benefit of new technology reducing Leq noise levels will gradually filter in depending on the rate of fleet transition. It is of concern to the Applicant that this may not have been understood and accounted for in the ExA's proposed requirement 15 and 16.

- 3.1.9 **The noise reductions proposed by the ExA cannot be met.** The Applicant has studied the rate of fleet transition over the last several years and assessed three rates of fleet transition, a Central Case (pre-COVID) and Slower Transition Case (mid COVID) and an Updated Central Case (2023/4), in order to most accurately reflect the likely rate of fleet transition and hence Leq noise benefit delivered specific to the Gatwick fleet of airlines. The results can be seen in the future baseline forecasts which are provided in the various Leq 16 hr and Leq 8 hr night noise contours and contour areas reported in the ES (including the ES Addendum [[ES Addendum - Updated Central Case Aircraft Fleet Report REP4-004](#)]). The future baseline noise modelling uses ATM forecasts that account for both fleet transition and baseline ATM growth without the Project. Because of the Night Flight Restrictions, no baseline growth is forecast in the 8 hour night Leq 8 hour period (see ES Table 14.7.1) with the number of flights constant at about 125. So, by looking at the reduction in future baseline noise contours for Leq 8 hr night, we can see the effect of forecast fleet transition where there is no growth in terms of contour areas reducing. In **The Applicant's Response to Actions ISH8 – Noise** [[REP6-087](#)] the Applicant reported the average reduction in Leq 8 hr night from the 2019 to the 2029 baseline for the Updated Central Case as 0.4dB estimated from the rule of thumb relating Leq noise level to contour area. This is less than the 0.5dB reduction proposed by the ExA from 2019 to 2029, suggesting the ExA proposal will not be met in the 2029 baseline even with no growth in air traffic. To stay within the proposed noise limits would require a reduction in existing flight numbers at Gatwick below 2019 levels, which would deliver more than 100% of the noise benefit for new technology to the community, and make any expansion project impossible. The airport would have to progressively reduce the number of flights from current levels rather than increasing them.

It is not practicable to base noise envelope limits on noise levels at spot locations. The Applicant has commented above on the Examining Authority's proposed noise level reduction on the basis that they are adopted as corresponding reductions in Leq noise contours areas. It is, however, not clear to the Applicant if in fact the Examining Authority are suggesting these noise reductions should be set as noise levels measured (or modelled) at particular locations around the airport.

- 3.1.10 The Applicant has commented on the suggestion that the Noise Envelope should be based on noise levels rather than noise contour areas in NV.2.5 of **The Applicant's Response to ExQ2 - Noise and Vibration** [[REP7-089](#)]. In question NV.2.5 the Examining Authority asked what would be the dB values of x1, x2, y1, y2. An Leq 16 hr or Leq 8 hr noise limit has to apply at a particular location or locations, but the Examining Authority offer no suggestions as to where, either in NV.2.5 or Annex B to the ISH9 agenda. The Applicant therefore speculates that the Examining Authority may have had in mind a set of locations at which different noise limits would apply, each ramping down by the suggested amount over time. Logically this set of locations might be within a selection of affected communities, or they might be under the main departure routes and within the arrivals swathes to each runway end. There are multiple concerns that arise from such a proposal, including the following:

Inefficient use of airspace

- 3.1.11 The Applicant's response to NV.2.5 noted setting noise envelope limits as noise levels at particular locations '*may not give airport sufficient flexibility to operate in different conditions*'. We can expand on this as follows: demand for specific departure routes is a function of the flight planning system. The system will allocate departure routes on the basis of the flight plan filed by the airline, aiming to achieve the most expeditious routing to the destination to minimise track miles flown and consequent fuel burn and carbon emissions. As demand varies across destinations the routes flown vary, within seasons and across years. The routes allocated are also dictated by other airspace constraints, conditions in other controlled airspace and activities at other airports. By law (Transport Act 2000 and NATS En-Route Ltd (NERL) Licence, granted under Act) NATS must maintain a high standard of safety in the provision of air traffic control services and 'make the most efficient use of the overall airspace'. In doing so NERL must have freedom to operate the route structure to ensure a safe and efficient operation. Any noise limit associated with a given departure or arrivals route could imply a movement limit on that route that could hinder NERL's ability to manage the airspace safely and efficiently. This would artificially dictate a flight

plan to NERL, and as a consequence it is likely an airspace change would be required.

There would also be the real question of where to fix the noise limit locations?

- 3.1.12 A noise limit location may be seen as a control point that could encourage flights to be moved from it. This would be a particular concern for noise levels set at locations within the arrivals swathes where aircraft are spread over a wide area before they converge onto the Instrument Landing System. Setting noise limits at given locations could also have unexpected consequences, increasing noise elsewhere for some communities that would see it as inequitable.

Requiring Noise Reductions everywhere compared to 2019 Means the Northern Runway could never be used for routine operations.

- 3.1.13 In the **Applicant's Response to ExQ2 - Noise and Vibration** [\[REP7-089\]](#) Question NV.2.5 the Applicant refers to the 4 ES Figures that show noise change from 2019 to 2032 describing the areas extending beyond either end of the Northern Runway where noise increases are expected of up to 3dB. In these areas the Examining Authority's proposal to set noise limits below 2019 levels could not be achieved with flights using the Northern Runway as intended by the Project.
- 3.1.14 These are some of the reasons why a set of noise limits applying at a set of locations is not a feasible proposition for Gatwick Airport's Noise Envelope. It is not a system used at any comparable airport for good reasons. For these and the other reasons outlined above, imposing the requirement the ExA has suggested would be as good as a refusal. It would result in the grant of a consent that could not be implemented to achieve any expansion.
- 3.1.15 **The Noise Envelope 5 year forecast process will prevent breaches.** In paragraph 4) of the proposal the Examining Authority sets out a requirement to publish noise performance based on actual noise measurements as soon as reasonably practicable after the end of each summer operating season, and then in paragraph 5) requires in the event of an exceedance the undertaker to '*modify its approach to the development of an operating plan for the following year to meet the noise limits*'. Actual performance is to be related to the summer season from 16 June to 15 September. The Applicant has explained (**The Applicant's Response to ExQ2 - Noise and Vibration** [\[REP7-089\]](#) Question NV.2.6) that because by 15 September the capacity declaration and slot allocation process for the following summer is fixed, taking into account the reporting timescales and the time required for verification it would be too late to change the operating plan to avoid a limit breach in the next summer, and instead influence would be able

to be exercised over subsequent seasons. To address this the Applicant has developed a process to forecast air traffic and to model noise levels, 1,2,3,4 and 5 years ahead every year, so as to foresee potential breaches in good time to affect capacity declaration and slot allocation if necessary to ensure compliance.

- 3.1.16 To address the issues of timing and ensuring seasons can be influenced the Airport will also start two years prior to operations from the NRP commencing, forecasting the NRP traffic at that time and identifying how levels of noise would be within the noise envelope accounting for the planned growth utilising the additional capacity which the consent sought by the Applicant would authorise. The Applicant believes this is a more effective way to manage compliance than that suggested by the ExA, looking at how to influence behaviour for future years and not only for the following year, as is stated in the ExA suggested Requirement.
- 3.1.17 On a related matter, the ExA's suggested rigid approach to noise reviews could not take account of other extraordinary events. There is, therefore, the need for provision for an extraordinary review, which would be subject to Secretary of State approval. This is a fair and reasonable measure and required to ensure the continued operation of the airport in those extraordinary circumstances. The Applicant is wholly resistant to any noise envelope which does not provide this necessary safeguard for the future continued operation of the Airport.
- 3.1.18 The Applicant also notes the reference by the ExA to the independent noise reviewer consulting with host authorities on whether exceedances reported in (4) are caused by factors within the control of the undertaker or not. It is not at all clear what purpose that consultation would serve and why it is considered host authorities need to or have the expertise to comment on such matters, particularly whether they have a level of expertise beyond that of the independent noise reviewer. Such an element of a requirement could not be evidenced to be in accordance with relevant national policy which establish that requirements in relation to a development consent must be (inter alia) necessary.

4 Requirement 18 Noise Insulation Scheme

Receptor based mitigation

(1) Within not more than 3 months following the commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker shall submit for approval by the relevant local planning authority a forecast list of premises forecast to be eligible premises at the commencement of dual runway operations.

(2) Within not more than 6 months following the commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker must take appropriate steps, having consulted with the relevant local planning authority, to notify the owners and occupiers of all premises on the approved list (1) that the premises has been approved for the design, installation, and maintenance of a package of measures that may include ventilation, noise insulation and methods to reduce solar gain to achieve an internal noise environment consistent with guidance.

(3) Within not more than 12 months following the commencement of any of Work Nos. 1 – 7 (inclusive) the undertaker must, subject to access being granted to the premises, carry out a survey of all the premises on the approved list and submit, for approval by the relevant local planning authority, proposed designs for all premises on the approved list.

(4) The designs submitted by the undertaker and the consideration of them by the relevant local planning authority must have due regard for guidance including Sound Insulation and Noise Reduction for Buildings BS 8233 British Standards Institution (2014), Methods for rating and assessing industrial and commercial sound BS 4142 British Standards Institution (2014), Acoustic design of schools: performance standards BB93 Department for Education (2015) and Acoustics—Technical Design Manual 4032 Department for Health (2011) as relevant.

(5) Subject to agreement by the owner of the premises and access being granted to the premises, the design approved by the relevant local planning authority shall be installed and commissioned before the commencement of dual runway operations.

Reason

For example, ANPS 5.68 'Development consent should not be granted unless the Secretary of State is satisfied that the proposals will meet the following aims for the effective management and control of noise, within the context of Government policy on sustainable development:

- Avoid significant adverse impacts on health and quality of life from noise;
- Mitigate and minimise adverse impacts on health and quality of life from noise; and
- Where possible, contribute to improvements to health and quality of life.'

Informative

It is considered that local planning authorities should play a role in the design of receptor based mitigation, particularly on behalf of local communities. Designs proposed may affect the appearance of the local built environment and may involve features that would normally require consent, including listed building consent. The take up of such schemes may also be improved through the involvement of the local planning authorities by providing assurance to owners and occupiers that due process has been followed and the designs offered have been appropriately scrutinised against relevant standards.

Applicant's Response:

The Noise Insulation Scheme is well defined and does not require further local authority approvals (save for any planning and listed building consents which are required by law and would need to be obtained in certain cases) that would delay roll out.

- 4.1.1 The Applicant has undertaken (in paragraph 4.3.2 of the NIS) to consult the local planning authority on details of how the noise insulation scheme is to be promoted and administered to ensure equitable access to the noise insulation scheme including for vulnerable people.
- 4.1.2 The Applicant held a further Noise Topic Working Group with the Local Authorities on 18th July 2024 in which the 30 specific comments provided by the Joint Local Authorities in their Deadline 5 submission [[REP5-094](#)] were discussed. The meeting was productive and in several areas the Applicant has clarified proposals to improve the Noise Insulation Scheme. As reported in The Applicant's response to NV.2.4 of **The Applicant's Response to ExQ2 - Noise and Vibration** [[REP7-089](#)] the Applicant believes that through the consultation undertaken the Noise Insulation Scheme has taken account of local authority and stakeholder views and has been developed into a well defined scheme that is ready to implement. The materials to be provided should not require planning consent and the NIS makes clear that where Listed Building Consent is required (approximately 5% of properties), the Applicant will make the necessary application on behalf of the homeowner. In the very unlikely event any planning permission is required this will also need to be obtained. The Applicant has not sought to disapply town and country planning and listed building laws.

- 4.1.3 One of the key concerns expressed by various parties is a commitment to securing the scheme to a fixed timescale. The Applicant has given this further consideration and below sets out a fixed timescale for delivering the NIS which is both achievable, and which achieves the requirement of policy ANPS 5.68. The Applicant believes that any further requirement to review and approve the measures would delay the process and place the timely delivery of the scheme at risk. There is no need to create an additional consenting / approval requirement in the manner proposed by the Examining Authority in sub-paragraph (3).
- 4.1.4 With regards the Examining Authority's proposal in sub-paragraph (1) on eligibility, the Applicant is clear that eligibility is unambiguously defined in the NIS, particularly using the online air noise viewer provided which can be viewed to a high level of detail using a zoom function.

The Applicant cannot guarantee internal noise levels, in the same way that the Noise Insulation Regulations for roads and railways do not.

- 4.1.5 The Examining Authority's proposals in sub-paragraphs (2) and (4) refer to the need to achieve an internal noise environment consistent with guidance. The Applicant reads this to mean fixed noise levels. As discussed at ISH8 (**The Applicant's Written Summary of Oral Submissions ISH 8: Agenda Item 6 – Noise [REP6-081]**) the Applicant cannot guarantee fixed internal noise levels, as note therein '*The Applicant noted that Noise Insulation Regulations for Roads and for Railways do not set absolute numerical values for internal noise levels because there may be other parts of the structure that allow noise in that are not part of the scheme. It would be difficult for the Applicant to address wall construction or roof construction to keep noise out.*' '*The Applicant reiterated that the Applicant cannot specify a target internal noise level because it wouldn't be reasonable for the Applicant to rebuild the home if made of poorly insulated materials. This is not expected and not done at other airports.*' The Applicant notes that government noise policy is in the context of the government's policy on sustainable development. This recognises that preferred noise levels cannot necessarily be achieved in all circumstances i.e. it wouldn't be reasonable to rebuild a home or part of it if made of poorly insulated materials. The proposed NIS includes all reasonable measures to reduce noise in the context of the government's policy on sustainable development, consistent with the NISs on other airport projects.

The Examining Authority's proposed programme is not necessary or achievable.

- 4.1.6 The Examining Authority's proposed programme in sub-paragraph (5) requires all noise insulation to be installed before the opening of the NRP. The Applicant believes it could be very difficult to deliver the entire scheme of approximately 4,000 homes before opening, but now commits to delivering the smaller Inner Zone (approximately 400 homes) and Outer Zone 1 (approximately 100 properties) in this period. The Applicant's forecasts show noise levels will increase after opening to peak approximately 3 years later. The NIS Outer Zone covers areas that are not significantly affected by aircraft noise, so there is no policy requirement for this noise insulation and hence no requirement for any of the Outer Zone to be delivered before runway opening. Instead the Applicant now commits to delivering the Outer Zone 2 scheme within two years of opening, and the Outer Zone 3 scheme within three years of opening, i.e. before the highest noise levels arise. More specific details of the phasing, including when the scheme will open for each sub-zone and by when persons must have applied such that noise insulation must be installed before the set timescales are given in the NIS updated for Deadline 8³.

The Applicant will give due notice to ensure residents are fully notified of the launch of the NIS.

- 4.1.7 With regards the Examining Authority's proposal in sub-paragraphs (2), (3) and (5) on notifications and implementation, the Applicant has improved the NIS to ensure residents are informed through various means of the scheme, including by direct letter twice. Details are included in the NIS updated for Deadline 8.

The Applicant does not commit to maintenance costs for the noise insulation measures, because they will be very small.

- 4.1.8 The Examining Authority's proposal in sub-paragraph (2) requires the Applicant to pay maintenance costs for the noise insulation measures. Windows typically last 25 years. Ventilators are low maintenance and will be subject the manufacturer's guarantee. They are also tried and tested technology with high reliability rates. Maintenance costs will be very small.
- 4.1.9 The thermal insulation benefits of the measures is also likely to create savings for home owners that will assist with offsetting maintenance costs.

³ These commitments being subject to timely applications being made to the scheme by eligible parties.

Appendix 1

ICAO Global Trends in Aircraft Noise (2022)

As part of the CAEP/12 (2022) update to the ICAO Global Environmental Trends, four scenarios were developed for the noise trends assessment, resulting in the total contour area and population inside the yearly average day-night level (DNL) contours (55, 60, and 65 dB) for 319 global airports, representing approximately 80% of the global traffic.

Population counts for airports in the US, Europe, and Brazil used the latest available local census data. For all other airports, the NASA Gridded Population of the World, version 4 (GPW v4) was used.

Scenario 1 (CAEP/12 Baseline) assumes no further aircraft technology or operational improvements after 2018. Scenario 2 includes noise technology improvements of 0.1 EPNdB per annum for all aircraft entering the fleet from 2019 to 2050. Scenario 3 was meant to capture a COVID-19 delay, with no noise technology improvements for aircraft entering the fleet from 2019 to 2023, and technology improvements of 0.2 EPNdB per annum for all aircraft entering the fleet from 2024 to 2050. Scenario 4 includes noise technology improvements of 0.2 EPNdB per annum for all aircraft entering the fleet from 2019 to 2050. For Scenarios 2, 3, and 4, an additional moderate operational improvement of 2% is applied for population inside DNL 55, 60, and 65 contours.

Figure 1 shows the total 55 dB DNL noise contour area from 2010 to 2050. In 2015, this area was 14,400 square-kilometres, and the population inside that area was approximately 30 million people. By 2045, the area is expected to grow from 1.0 to 2.2 times, compared with 2015, depending on the technology scenario. Of note is that under the advanced aircraft technology scenario (Scenario 4), from about 2030 onwards, the total yearly average DNL contour area may no longer increase with an increase in traffic.

Figure 1-10 provides results for the total global 55 DNL contour area (i.e., for 319 airports) for 2018, 2019, 2020, 2024, 2028, 2038 and 2050 for the four scenarios. Historical data modelled in the prior CAEP/11 work cycle is also shown for 2015. The 2018 contour area is 16,486 square-km. This value decreases to 9,451 square-km in 2020 due to the COVID-19 downturn and increases to 15,530 square-km by 2024. In 2050 the technology freeze

(Scenario 1) total global contour area is 31,407 square-km and decreases to 15,196 square-km and 21,570 square-km, with advanced and low technology improvements, respectively. The total population inside the 55 DNL contours was estimated to 37 million in 2018 and could range from 76 million under Scenario 1 to 38 million under Scenario 4 in 2050; this is under the assumption that population density around airports does not vary in time.

