Bickerdike Allen Partners Architecture Acoustics Technology

Cheshire East Local Plan

Site Allocations and Development Policies Document

Hearing Position Statement on behalf of Peel Land and Property - Matter 8

Representor no. 719710

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1.0 MATTER 8 - NATURAL ENVIRONMENT, CLIMATE CHANGE AND RESOURCES

Question 140. Is Policy ENV 13 justified on the basis of proportionate evidence and consistent with national policy in respect of:

a. the noise thresholds proposed for the SOAEL and LOAEL, indoor ambient noise, external amenity areas, and external night-time noise for residential development?

b. the acoustic, ventilation and extraction design guidelines for residential development?

1.1 Draft Policy ENV 13, as a whole, is generally justified on the basis of current acoustic evidence and national policy. However, there are some minor areas, as discussed below, which deviate from national policy.

Questions 140, Part A - The noise thresholds proposed for the SOAEL and LOAEL, indoor ambient noise, external amenity areas, and external night-time noise for residential development

1. SOAEL

- 1.2 The draft policy states that "Planning permission for new dwellings will not normally be granted within areas subject to aircraft noise levels above the Significant Observed Adverse Effect Level (SOAEL)". SOAEL is not explicitly defined within the ENV 13 noise policy. It is referenced within a footnote that states "SOAEL is currently considered to be 63 dB L_{Aeq,16h} (07:00-23:00)".
- 1.3 This noise threshold is an external noise level. It does not take into account any noise mitigation to reduce noise levels inside homes. National policy on noise ^{1&2} provides no specific objective noise standards in relation to planning for new homes. Aviation policy³ provides a specific objective noise threshold where there is an expectation for airport operators to offer sound insulation to <u>existing</u> noise sensitive buildings (dwellings/hospitals

¹ Noise policy statement for England (DEFRA, 2010)

² Planning practice guidance, Noise (MHCLG last updated 22 July 2019)

³ Aviation policy framework (DfT, 2013)

etc). This level is 63 dB L_{Aeq,16h}. BAP agree that the ENV 13 SOAEL 63 dB L_{Aeq, 16h} noise level is a reasonable guideline to identify potential significant adverse impacts based on external noise levels.

- 1.4 National Planning Policy⁴ (NPPF Para 185) states that planning policies and decisions should... "*mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development and <u>avoid</u> noise giving rise to significant adverse impacts on health and the quality of life."*
- 1.5 There is a difference in the NPPF between <u>avoiding significant</u> adverse impacts from noise and <u>preventing unacceptable</u> impacts. NPPF Para 210 states *"Planning policies should...: set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality."*
- 1.6 Cheshire East have decided not to set a planning policy or threshold level for the Unacceptable Adverse Effect Level. This is defined in national planning policy PPG(N)² as the level at which there is an inability to mitigate the effects of noise. This unacceptable level is normally considered to be around 69-71 dB L_{Aeq,16h} during the daytime for aircraft noise.
- 1.7 BAP consider that the draft Policy ENV 13 wording is consistent with National Policy as there is potentially some flexibility within the wording of the policy, namely "*Planning permission for new dwellings <u>will not normally</u> be granted within areas subject to aircraft noise levels above the Significant Observed Adverse Effect Level (SOAEL)". There may be occasions when external aircraft noise levels exceed the SOAEL but the adverse effects of noise can be mitigated to an acceptable level.*

2. LOAEL

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⁴ National Planning Policy Framework (MHCLG, 2021)

- 1.8 The CEC footnote reference for LOAEL is 54 dB L_{Aeq,16h}. This external noise level is used as a threshold above which developers need to demonstrate that dwellings will provide adequate mitigation to ensure that desirable noise levels can be achieved inside dwellings with windows closed and ventilation provided.
- 1.9 This is reasonable and generally consistent with technical guidance and National Policy. Recent Central Government policy in relation to airspace change proposals around airports suggests a marginally lower LOAEL of 51 dB L_{Aeq,16h}⁵.

3. Indoor ambient noise levels

1.10 The internal ambient noise levels are consistent with current industry standards⁶. These internal standards have been used for many years and are based on the World Health Organisation (WHO) internal noise standards published in 1999⁷.

4. External amenity areas

- 1.11 The guideline for external amenity areas within draft Policy ENV 13 was also based on guidance from the WHO document⁷. As of 2018 these external noise guidelines were withdrawn. The internal noise guidelines were not. This 2018 guidance document⁸ included no explicit guidance for noise levels in external amenity areas/gardens/balconies etc.
- 1.12 The 1999 WHO external amenity area guidelines are still current within two technical guidance documents^{6&9}. These two technical guidance documents are not policy documents. They are explicitly referenced within Central Government Planning Practice Guidance on Noise² PPG(N).

⁵ Air Navigation Guidance (DfT, 2017)

⁶ BS8233:2014

⁷ Guidelines for community noise (WHO, 1999)

⁸ Environmental Noise Guidelines for the European Region (WHO 2018)

⁹ ProPG: Planning & Noise Professional Practice Guidance on Planning & Noise (IOA/ANC/CIEH 2017)

1.13 BAP consider that the draft ENV 13 external amenity noise policy is not consistent with current evidence and national policy. The key point is the application of this noise standard. The noise policy is drafted as if this level is a hard limit rather than a guideline, see below extract from ENV13 with emphasis added.

"private gardens, sitting out areas and balconies that are intended to be used for relaxation that form an intrinsic part of the overall scheme are designed to achieve the lowest practicable noise level <u>and will not exceed</u> 55dB L_{Aeq,16hour} across a reasonable proportion of them".

- 1.14 This conflicts with current technical guidance documents and policy. The amenity standard only applies for aircraft noise (not road or rail noise) and it does not take into account the technical difficulty in reducing external noise levels from aircraft. The current policy position is summarised below with emphasis added.
- 1.15 BS8233:2014 Para 7.7.3.2 states that "For traditional external areas that are used for amenity space, such as gardens and patios, <u>it is desirable</u> that the external noise level does not exceed 50 dB L_{Aeq,T}, with an upper guideline value of 55 dB L_{Aeq,T} which would be acceptable in noisier environments. However, it is also recognised that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited."
- 1.16 PPG(N) states within paragraph: 005: "where external amenity spaces are an intrinsic part of the overall design, the acoustic environment of those spaces should be considered so that they can be enjoyed as intended."
- 1.17 ProPG paragraph 2.48 refers to both BS8233 and PPG (N)"*It is notable that both documents require a decision to be made regarding whether or not an external amenity area (or amenity area)*

space) is intrinsic to the required design for acoustic, or for other, reasons. <u>However, the advice</u> <u>in BS8233:2014 states that the resulting noise levels outside are never a reason for refusal as long</u> <u>as levels are designed to be as low as practicable.</u> Whereas, to comply with policy guidance any amenity space must have an acoustic environment so that it can be enjoyed as intended."

1.18 Peel considers that draft Policy ENV 13 could be made consistent with evidence and with national policy with a slight amendment to the policy wording as follows:

b. private gardens, sitting out areas and balconies that are intended to be used for relaxation that form an intrinsic part of the overall scheme are designed to achieve the lowest practicable noise level and will not exceed 55dB LAEG, 16hour across a reasonable proportion of them.

b across private gardens and balconies, a reasonable proportion – typically comprising a sitting out area that is intended to be used for relaxation and that forms an intrinsic part of the overall scheme - is designed to achieve the lowest practicable noise level and should ideally not exceed a guideline level of 55dB $L_{Aeq,16hour}$

1.19 Draft Policy ENV 13 as currently drafted is not sound as it is not consistent with national policy. This is also not justified, however Peel considers the policy could be made sound be implementing the slight amendment to the policy wording suggested above.

5. External night time noise

- 1.20 Policy ENV13 provides noise standards for the night time period. These are in terms of external average level, internal average level and internal level for individual aircraft noise events. Unlike daytime noise no LOAEL or SOAEL threshold is defined. No unacceptable adverse effect level is defined.
- 1.21 The assessment of night noise from aircraft using the energy average noise metric dB L_{Aeq,8h} is relatively straightforward. Manchester airport regularly produces noise contours for assessment. The assessment of noise from individual aircraft events is more challenging as this information is not currently routinely published by airports. BAP consider the proposed

objective methodology within ENV 13 is pragmatic, reasonable and consistent with current technical guidelines and policy.

Question 140, Part B - The acoustic, ventilation and extraction design guidelines for residential development

- 1.22 Policy ENV 13 requires an assessment of suitable internal conditions for future residents taking into account both ventilation standards (mandatory requirements covered under Building Regulations) and overheating standards (not currently covered under Building Regulations). This will add an additional cost burden for developers. To comply with this requirement a non-standard dwelling design will almost certainly be required.
- 1.23 This approach is reasonable and consistent with current technical guidance and noise policy.
- 1.24 Draft Policy ENV 13 includes an unusually specific policy regarding energy which is not supported by noise technical guidance or policy:

"The acoustic, ventilation and overheating strategies must not rely upon continuous mechanical extract (MEV) or continuous mechanical supply and extract with heat recovery (MVHR) ventilation systems that require <u>energy use unless these can be powered by renewable energy generation</u> within the development;"

1.25 The above two ventilation methods (MEV & MVHR) can be used to comply with mandatory Building Regulations performance standards for all dwellings irrespective of external noise levels. The implication of this policy would mean that a new build development within a location outside of the aircraft noise contours (for example a new-build site near a busy road or railway line in Wilmslow) could be provided with a standard MEV or MVHR system with no renewable energy generation required. However, a development in Knutsford, where policy ENV13 is engaged, would require a renewable source of energy to power this ventilation system as Knutsford is within the LOAEL contours. 1.26 An energy policy requiring renewable sources to power mechanical ventilation in dwellings should not be influenced by aircraft noise. This policy does not apply to road traffic noise and rail noise which does not seem equitable and would result in the inconsistent application of policy. If such a policy is required and is justified, the issue should be addressed under an energy policy and not an aircraft noise policy.

Question 141 – To what extent are the limitations imposed by Policy ENV 13 on the grant of planning permission for residential development within the vicinity of Manchester Airport likely to affect the delivery of housing on sites allocated in the LPS and potential windfall sites on which the Plan relies to meet the housing requirement for Cheshire East to 2030?

- 1.27 Whilst Peel broadly supports draft Policy ENV 13 as a whole, it is considered the current policy wording could limit the delivery of much needed housing in the authority area. Moreover the policy could prevent new residential development from coming forward within environs where this type of development/ land use could easily be accommodated subject to appropriate and deliverable mitigation with respect to aircraft noise.
- 1.28 Although the Council substantially rewrote the policy between the initial and revised versions of the Publication Draft Plan, there remain some detailed aspects of Policy ENV 13 which still do not fully reflect national policy, and which should be changed to bring it into line, in order that it can form a robust development management tool in Cheshire East. This is important to ensure that the policy does not unduly constrain development which would, in other circumstances, be acceptable and desirable.
- 1.29 Policy ENV 13 as currently drafted includes a noise standard (55dB) for levels within gardens which could (incorrectly) be interpreted as a hard limit. Ordinarily, this would affect the delivery of housing on sites allocated in the LPS. However, from a review of the draft SADPD Policies Map, which includes the Manchester Airport noise contours, the only LPS residential allocation which falls within the 57-60dB and 60-63dB noise contours is Parkgate Extension

(Site Ref: LPS 37). Notably this site already benefits from detailed planning permission (Ref: 18/2996M) for residential development.

- 1.30 CEC were satisfied to grant detailed permission for residential development at the Parkgate Extension, which permission places no express requirement on the developer to provide any acoustic mitigation to external amenity areas of the dwellings in relation to aircraft noise impacts. Had policy ENV13 been in place at the time of approval, the hard limit noise standard imposed on external amenity areas could have prevented this allocation from coming forward.
- 1.31 Importantly the draft SADPD relies very heavily upon windfall sites to meet the residual housing requirement for Cheshire East to 2030. The hard limit set by ENV 13 is very likely to stymie the delivery of windfall sites in and around Knutsford. This will be particularly detrimental to housing delivery in Mobberley. The entire settlement is within daytime noise contours between 54dB and 66dB. As a Local Service Centre where no site allocations are proposed, Mobberley will be entirely reliant on windfall sites to deliver new housing (both open market and affordable) in the area. The current wording of Policy ENV 13, which is overly restrictive and not consistent with national policy, could severely restrict the delivery of much needed residential development on windfall sites.
- 1.32 The Council has not sought within the draft SADPD to justify or explain the reasons for its divergence from national policy in this respect. Accordingly the policy in its current form is unsound as it is not justified or consistent with national policy. However, if Policy ENV 13 was reworded to make clear that the noise standard (55dB) for levels within gardens should be considered a guideline, rather than a hard limit, as per our proposed wording set out in the response to Question 140 above, this would allow a more proactive, creative and positive approach to mitigate and minimise the adverse effects of aircraft noise, which would be more consistent with national policy.

2.0 CHANGES SOUGHT

Policy ENV 13

Aircraft noise

The 2019 summer (mid-June to mid-September) average mode daytime $L_{Aeq,16-hour}$ (07:00-23:00) noise contours published by Manchester Airport, as shown on the policies map, will be used for the purposes of planning application decision making until the number of air transport movements is equal or greater than that for 2019. The noise mitigation to achieve the requirements set out in the policy must assume the noise levels shown by these contours.

1. Dwellings (houses, flats, bungalows and maisonettes):

i. Planning permission for new dwellings will not normally be granted within areas subject to aircraft noise levels above the Significant Observed Adverse Effect Level (SOAEL)¹⁰

ii. Planning permission for new dwellings will be granted in areas subject to daytime aircraft noise levels between the Lowest Observed Adverse Effect Level (LOAEL)¹¹ and the SOAEL¹⁰ where it is demonstrated by the applicant that:

a. the internal ambient noise levels under summertime conditions with windows closed (and with the necessary ventilation to prevent overheating and ensure good indoor air quality) shall not exceed the levels set out in BS8233:2014 (or any successor to this standard), which are repeated in the table below. The application should demonstrate that the acoustic design of the proposed development will achieve the below indoor ambient noise levels and has been developed in combination with ventilation and overheating strategies. The application should maximise natural ventilation, avoid overheating, minimise sound pollution and have good air quality in accordance with policy H1 of the National Design Guide and avoid a situation where occupants would have to choose between good internal ambient noise levels and thermal comfort or good indoor air quality(10)¹². The acoustic, ventilation and overheating strategies

 $^{^{10}}$ SOAEL is currently considered to be 63 dB $L_{Aeq,16hour}$ (07:00 -23:00)

 $^{^{11}}$ LOAEL is currently considered to be 54 dB $L_{\mbox{Aeq,16hour}}$ (07:00 -23:00)

¹² The Acoustics, Ventilation and Overheating Residential Design Guide published by the Association of Noise Consultants provides advice to designers on adopting an integrated approach to the acoustic design within the context of the ventilation and thermal comfort requirements.

must not rely upon continuous mechanical extract (MEV) or continuous mechanical supply and extract with heat recovery (MVHR) ventilation systems that require energy use unless these can be powered by renewable energy generation within the development; and

Indoor ambient noise levels for dwellings			
Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB L _{Aeq, 16hour}	-
Dining	Dining room/area	40 dB L _{Aeq, 16hour}	-
Sleeping (daytime resting)	Bedroom	35 dB L _{Aeq, 16hour}	30 dB L _{Aeq, 8hour}

b. private gardens, sitting out areas and balconies that are intended to be used for relaxation that form an intrinsic part of the overall scheme are designed to achieve the lowest practicable noise level and will not exceed 55dB LAGG, 16hour across a reasonable proportion of them.

b across private gardens and balconies, a reasonable proportion – typically comprising a sitting out area that is intended to be used for relaxation and that forms an intrinsic part of the overall scheme - is designed to achieve the lowest practicable noise level and should ideally not exceed a guideline level of 55dB $L_{Aeq,16hour}$

iii. Given that individual noise events can also cause sleep disturbance, where average mode summer night noise levels exceed 48 dB L_{Aeq,8hour}, planning permission will only be granted where applicants can demonstrate that a commensurate level of protection can be provided so that a maximum sound level of 45 dB L_{AF,max} in bedrooms during the summer (mid-June to mid-September) will not normally be exceeded more than ten times during a night (23:00 to 07:00). Typical aircraft L_{AF,max} noise levels may be determined either by a noise survey over a representative period (typically a number of weeks) or by noise modelling, in line with a methodology that should be first agreed with the council so that the application is based on suitable noise data.

iv. Applications for sites affected by aircraft noise should be accompanied by a noise impact assessment. The noise assessment should highlight any noise mitigation measures and demonstrate:

a. a good acoustic design process;

b. that the indoor ambient noise levels set out in criterion 1(ii)(a) will be achieved;

c. that the external noise levels set out in criterion 1(ii)(b) will be achieved; and

d. any other relevant issues (e.g. how the acoustic design will avoid unintended adverse consequences on indoor air quality and overheating).

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