

Port Salford Extension (GM Allocation 33)

Strategic Environmental Noise Review

Peel Holdings (Land and Property) Ltd

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1.0 Introduction

Cundall has been commissioned by Peel Holdings (Land & Property) Ltd to provide a desktop study of environmental noise issues and considerations for the proposed Port Salford Extension strategic site, in relation to the proposed allocation usage (Ref. GM Allocation 33), previously referred to as “City Gateway”.

This report documents relevant planning policies, identifies key noise sources to affect the site, and provides commentary on the initial outline masterplan. Where considered necessary at this stage of the review process, potential high level mitigation strategies are identified.

The scope of the assessment is based on good practice techniques and extensive previous experience of similar projects. Noise planning policies and assessment criteria which would be relevant to the site are given in Appendix I.

2.0 Site location

This assessment is in relation to land known as Port Salford Extension (“the Site”), allocated within the draft Greater Manchester Spatial Framework as GM Allocation 33. The scheme includes the following proposals:

- The expansion of Port Salford to deliver a multi-modal logistics and distribution hub;
- The potential for ongoing investment in City Airport and Heliport as a general business aviation facility;
- The land east of Irlam, proposed as expansion of logistics site.

The City of Salford Stadium and City Airport and Heliport are both established or permitted uses. It is understood that part of the site is currently designated as green belt, however it is being promoted for release and reallocation to deliver a tri-modal logistics interchange on the edge of Irlam.

Proposals are therefore for a planned provision of jobs and road and public transport investment.

The extension scheme for Port Salford is located between the M62 the A57 in Salford. It is bound by existing residential settlements of Irlam and Peel Green/Barton to the south and north respectively. There are also the existing Silver Street playing fields to the south of the site and the Barton Moss Care Centre with commercial and industrial properties to the east of it. The Manchester-Liverpool rail link runs to the north of the site.

A red line site location plan is provided below.

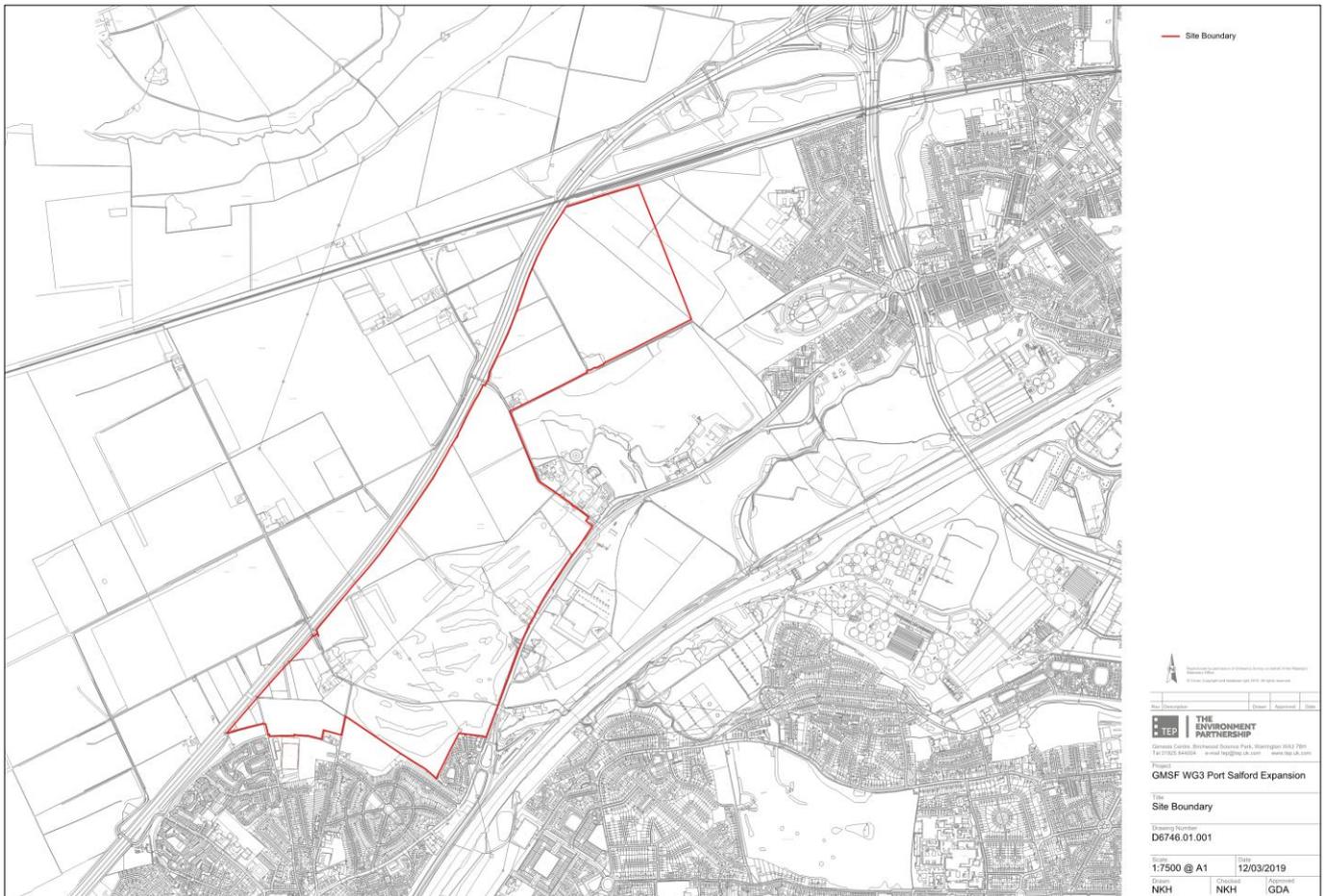


Figure 1 - Assessment site extents

3.0 Site context and outline proposals

The site location and extent are outlined in Section 2 above. The existing site area is largely undeveloped, with the exception of the Boysnope Park Golf Club at its southern end; adjacent areas are primarily residential in nature although there are a small number of existing industrial uses and transport links (including City Airport). Towards the centre of the site, directly to the west of City Airport, lies the Barton Moss Secure Care Centre.

An initial high-level assessment would suggest that the site could be appropriately developed for an industrial scheme, given the reciprocal and established zones located adjacent.

Prevailing noise levels would generally be expected to be acceptable and primarily driven by road traffic noise from the M62 and, to a lesser extent the A57. Significant effects from noise generated by the new scheme is not anticipated to affect the already established residential premises, which are already exposed to high noise levels from the local traffic networks.

An appropriate buffer zone and scheme of boundary mitigation measures between any noise generating activities on site (i.e. industrial operations) and the adjacent Barton Moss Secure Care Centre would be developed to protect the amenity of this sensitive receptor.

3.1 Site masterplan and potential impacts

An illustrative masterplan for the site is reproduced in the figure below, indicating conceptual areas that could be used for development within a transport framework.



Figure 2 - Preliminary site masterplan

The figure below highlights key noise sources that could affect the site as a whole. These impacts would be considered further, in terms of how they would drive the use of certain areas of the site.

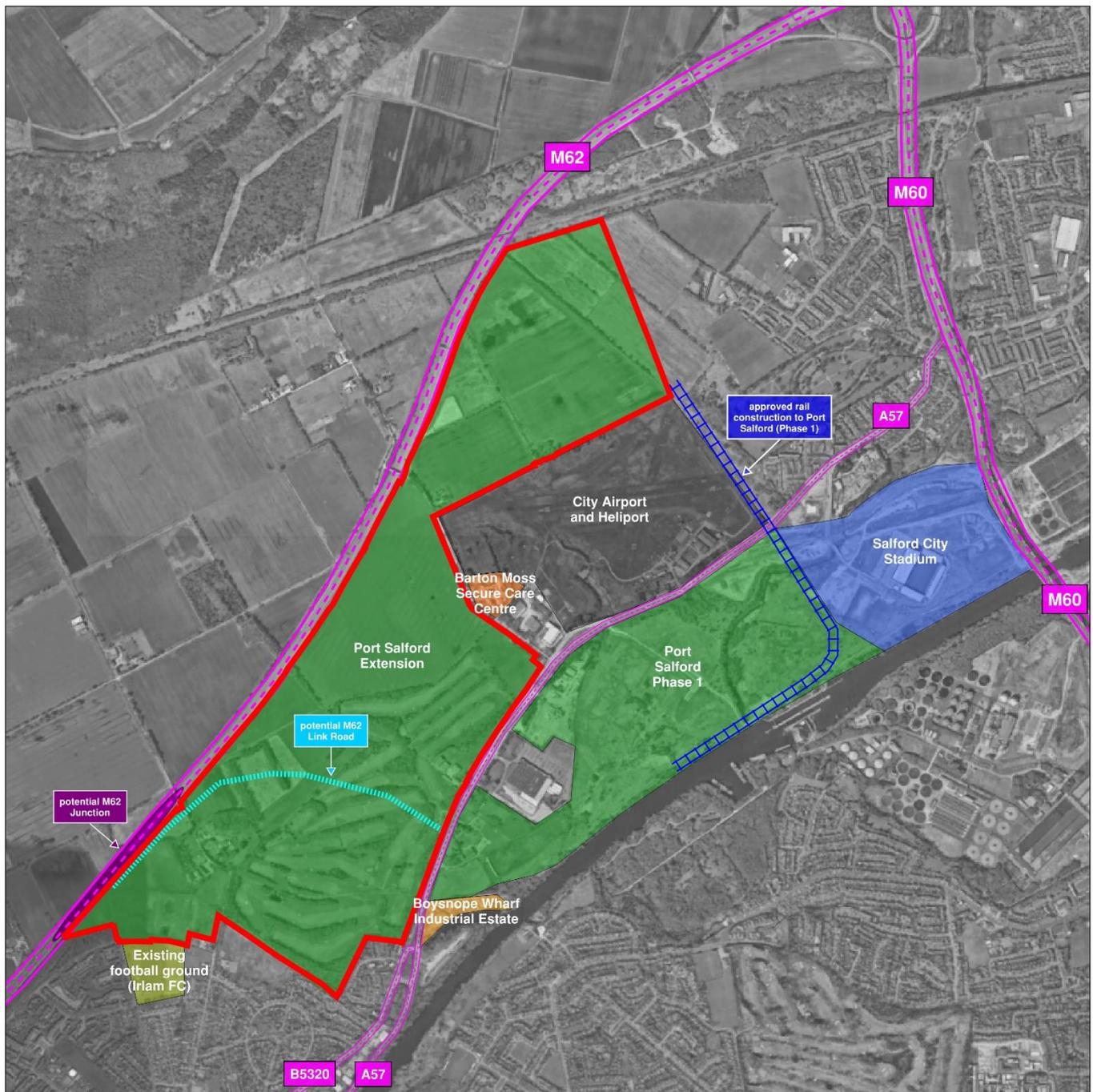


Figure 3 - Acoustic constraints plan

Noise from proposed sources (i.e. industrial operations and/or transportation noise) affecting the Barton Moss Secure Care Centre and the residential properties to the south and north-east of the site has been identified as a key consideration.

Reviewing the DEFRA predicted noise mapping data presented¹ for road and rail sources indicates that the majority of the site and its surrounding areas is expected to be subject to prevailing average road traffic noise levels of 60 to 65 dBA $L_{Aeq,16hr}$ (see figure below).

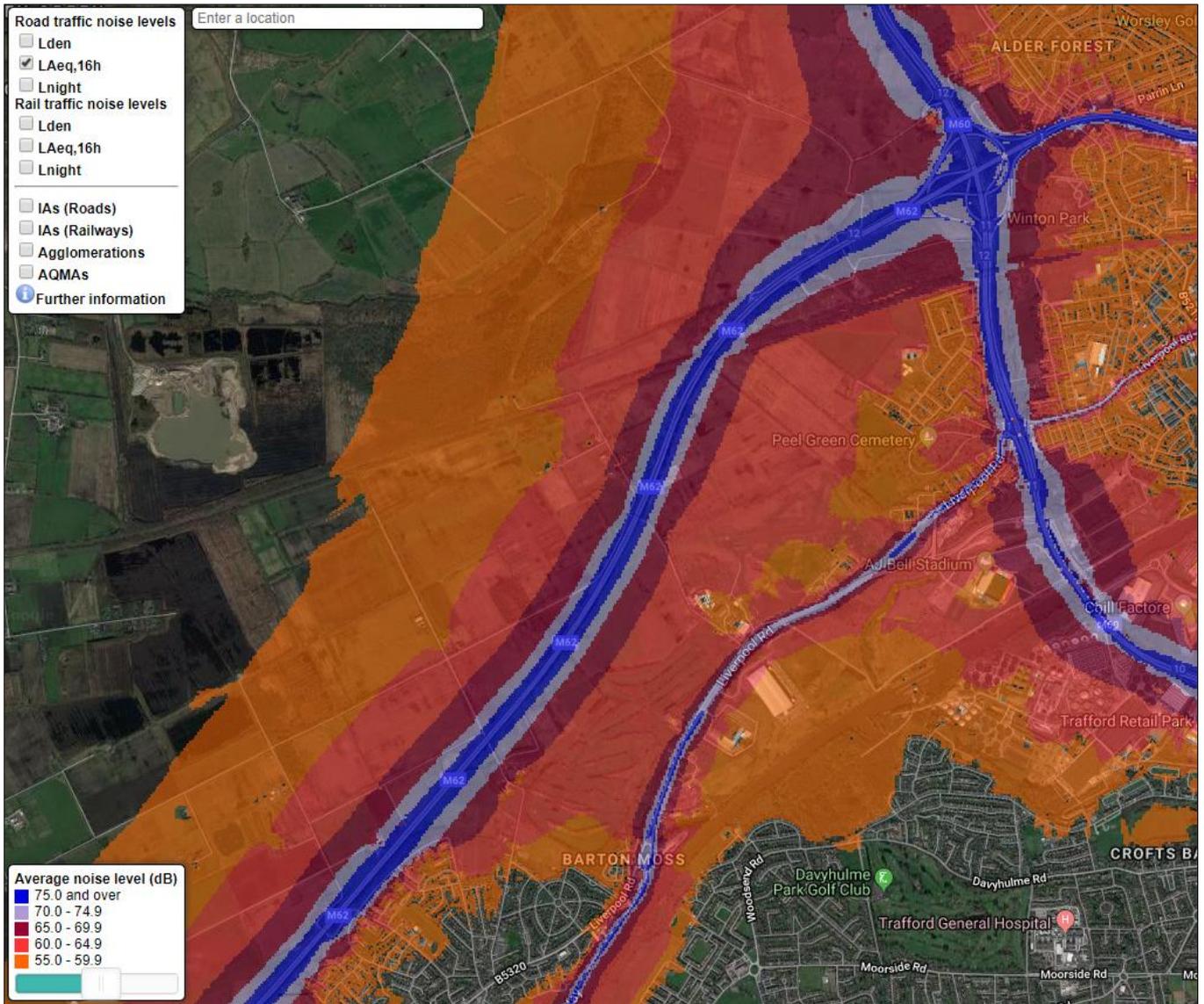


Figure 4 - Average road traffic noise impact

¹ Ref: <http://www.extrium.co.uk/noiseviewer.html>

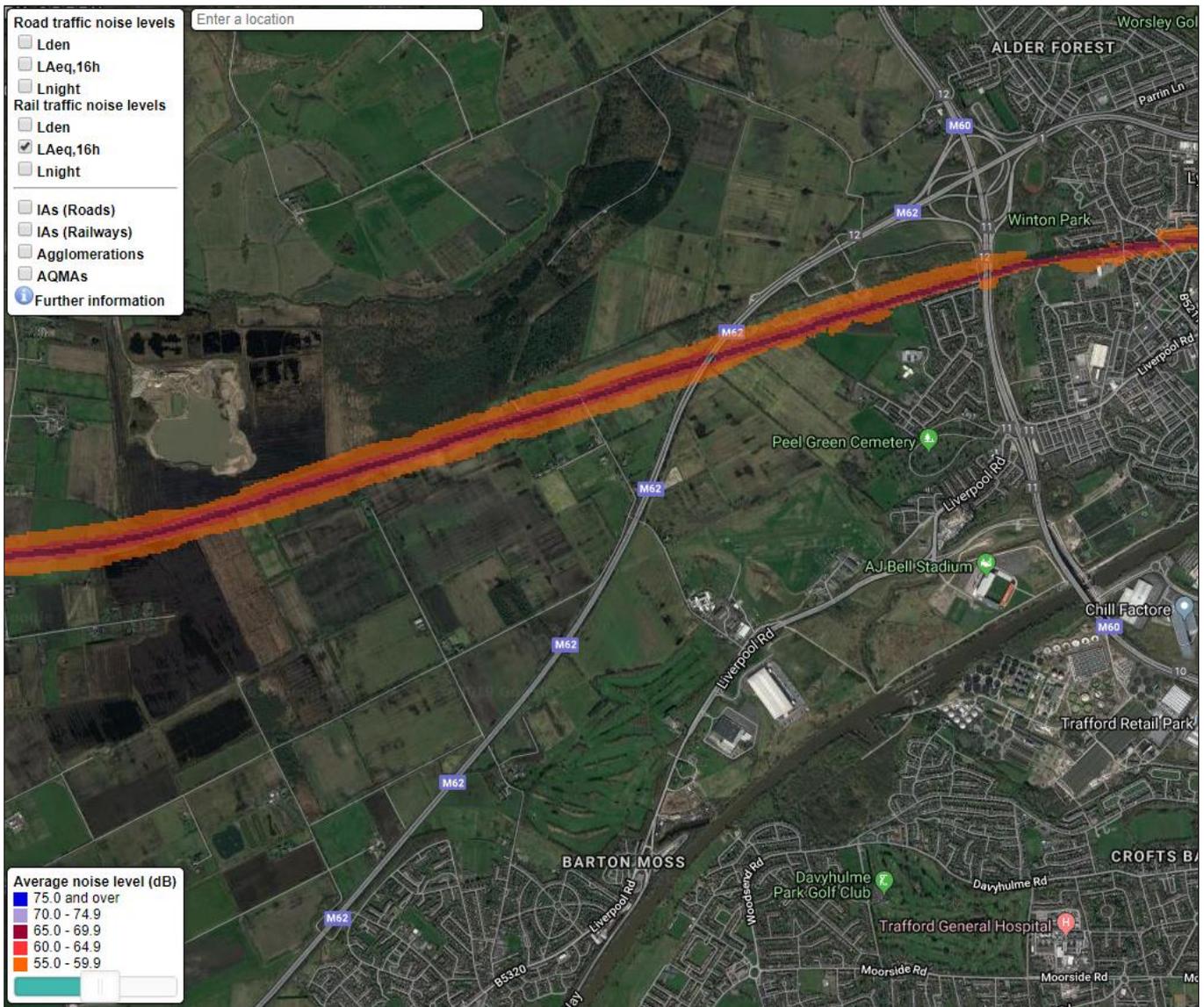


Figure 5 - Average rail traffic noise impact

3.2 Key design considerations

Once the allocation of the site is approved in principle, key constraints and opportunities that are presented by the site can be identified and addressed. In addition to prevailing conditions from adjacent land uses, consideration would be given to the potential impacts of future developments such as new or expanded transport links.

Key constraints that need to be considered are outlined above; it is expected that buffer zones and boundary mitigation measures between the proposed industrial operations associated with the development site and existing residential developments and the Barton Moss Care Centre will need to be incorporated as the design progresses.

However, it is considered that layout of the site could be arranged such that the proposed industrial operations would be viable.

3.3 Design development

Further work on the outline masterplan would develop the location and inter-relationship of activities to minimise incompatible land use adjacencies as far as possible, and identify mitigation concepts that could be incorporated from the outset to reduce any associated noise impacts onto the nearest noise sensitive receptors.

More detailed studies focusing on the use of public and private amenity spaces would also be considered at this stage, and the use of building massing to shield noise-sensitive areas established.

3.4 Mitigation measures

Based on the constraints identified above, the following mitigation measures may be considered necessary. Concepts to incorporate within the developed masterplan scheme would include:

- Land use zoning and adjacencies;
- Green corridors and buffering zones between areas;
- Green barriers such as bunds and living walls;
- Building massing and orientation to limit noise propagation;

By integrating a sustainable design approach, the protection of the nearest noise sensitive receptors would be identified and used as positive marketing strategy for the site as a whole.

4.0 Conclusions

Considering acoustic impacts at an early stage in the masterplan process allows for a co-ordinated approach to be developed and design strategies to be implemented from the outset, whilst minimising impacts from incompatible adjacencies.

If the site is allocated for industrial development in principle, detailed acoustic assessments would be prepared and submitted alongside any future applications, demonstrating that any noise impacts onto nearby noise sensitive receptors can be adequately controlled.

Based on the assessment site's location and the existing adjacent residential properties, it is considered that the Local Authority planning requirements should be achievable.

Key noise sources affecting the site have been identified, including the potential for new transport vectors within the site itself.

Appendix I Noise assessment criteria

The assessment methodology adopted in this report has been based on Cundall's extensive experience of similar development sites and recommended criteria given in relevant British Standards and specific Local Authority policy, where applicable.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) was originally published in March 2012 and amended in July 2018. The NPPF is part of government reform to make the planning system less complex and more accessible, and to promote sustainable growth. It replaces existing national planning policies such as Planning Policy Guidance PPG24: Planning and Noise.

The NPPF states:

"170 - Planning policies and decisions should contribute to and enhance the natural and local environment by;

*e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or **noise pollution** or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;"*

and

"180 - Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason;"

National Policy Statement for England

The Noise Policy Statement for England (NPSE) was published by Defra in March 2010. This NPSE sets out the long-term vision of Government noise policy:

"Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development."

The NPSE long term vision is supported by the following aims:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *Avoid significant adverse impacts on health and quality of life;*
- *Mitigate and minimise adverse impacts on health and quality of life; and*
- *Where possible, contribute to the improvement of health and quality of life."*

BS 8233:2014 and World Health Organisation Guidelines for Community Noise

Table 1 below shows recommended internal noise levels for residential dwellings, as prescribed in BS 8233:2014:

Area	Day Level (07:00 – 23:00 hrs)	Night Level (23:00 – 07:00 hrs)
Living Rooms	≤ 35 dB L _{Aeq,16hour}	N/A
Dining Rooms	≤ 40 dB L _{Aeq,16hour}	N/A
Bedrooms	≤ 35 dB L _{Aeq,16hour}	≤ 30 dB L _{Aeq,8hour}

Table 1 - BS 8233:2014 Internal ambient noise levels for dwellings

Within new residential developments, it is typical to set the design criteria such that the external building fabric can allow an internal night-time noise level of 30 dBA and daytime level of 35 dBA to be achieved, to provide a comfortable environment within habitable rooms (specifically bedrooms).

BS 8233:2014 also recommends that individual noise events at night can be disturbing to sleep patterns, and that a guideline level should be set in terms of SEL or L_{AFMax}. BS 8233 does not give a definitive level for internal maximum levels, or define an appropriate number of exceedances per night. However, the World Health Organisation's 'Guidelines for Community Noise' references a study by Vallet & Vernet, 1991, which concluded that:

"...for a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB L_{AF,max} more than 10-15 times per night."

BS 8233 also states that it is desirable that the steady noise level in external amenity areas (such as gardens or outdoor living areas) does not exceed 50 dB L_{Aeq,T}, with 55 dB L_{Aeq,T} being acceptable in noisier environments. This is in line with recommendations given in the WHO Guidelines for Community Noise.

It would be typical to adopt such design targets when considering potential noise impacts on a new residential development.

However, in the period since the original issue of the WHO guidelines, the Government has set all English Local Planning Authorities specific five-year housing supply targets. This has placed greater emphasis on making efficient use of land resource earmarked for residential development. BS 8233:2014 recognises this, and states that it should be accepted that these values are not achievable in all circumstances where development would be otherwise desirable. The document goes on to suggest that in areas such as city centres, or urban areas adjoining the transport network, a compromise (between elevated external noise levels and ensuring development needs) is warranted.

Local Authority criteria – Salford City Council

Salford City Council has issued a Revised Draft Local Plan "A fairer city" in January 2019.

While this document does not provide specific noise policy for new residential developments, Cundall's previous experience in developments within Salford shows that the Local Authority generally works toward meeting the requirements of BS 8233 for internal and external noise levels.

Strategic noise mapping

Defra has published strategic noise map data that give a snapshot of the estimated noise from major road and rail sources across England in 2012. The data was developed as part of implementing the Environmental Noise Directive.

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