

LAND SOUTH OF BANBURY RISE, BANBURY

TECHNICAL NOTE - NOISE

Project	Land South of Banbury Rise, Banbury		
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Introduction

BWB Consulting Limited was appointed by Bloor Homes Western to undertake a noise constraints review for a planning application at land south of Banbury Rise, Banbury (the Site').

The proposed development comprises an outline planning application for a residential development comprising up to 250 dwellings (with up to 30% affordable housing), public open space, landscaping and associated supporting infrastructure. Means of vehicular access will be determined via Edinburgh Way with additional pedestrian and cycle connections via Dover Avenue and Balmoral Avenue. Emergency access provision also via Balmoral Avenue. All other matters reserved.

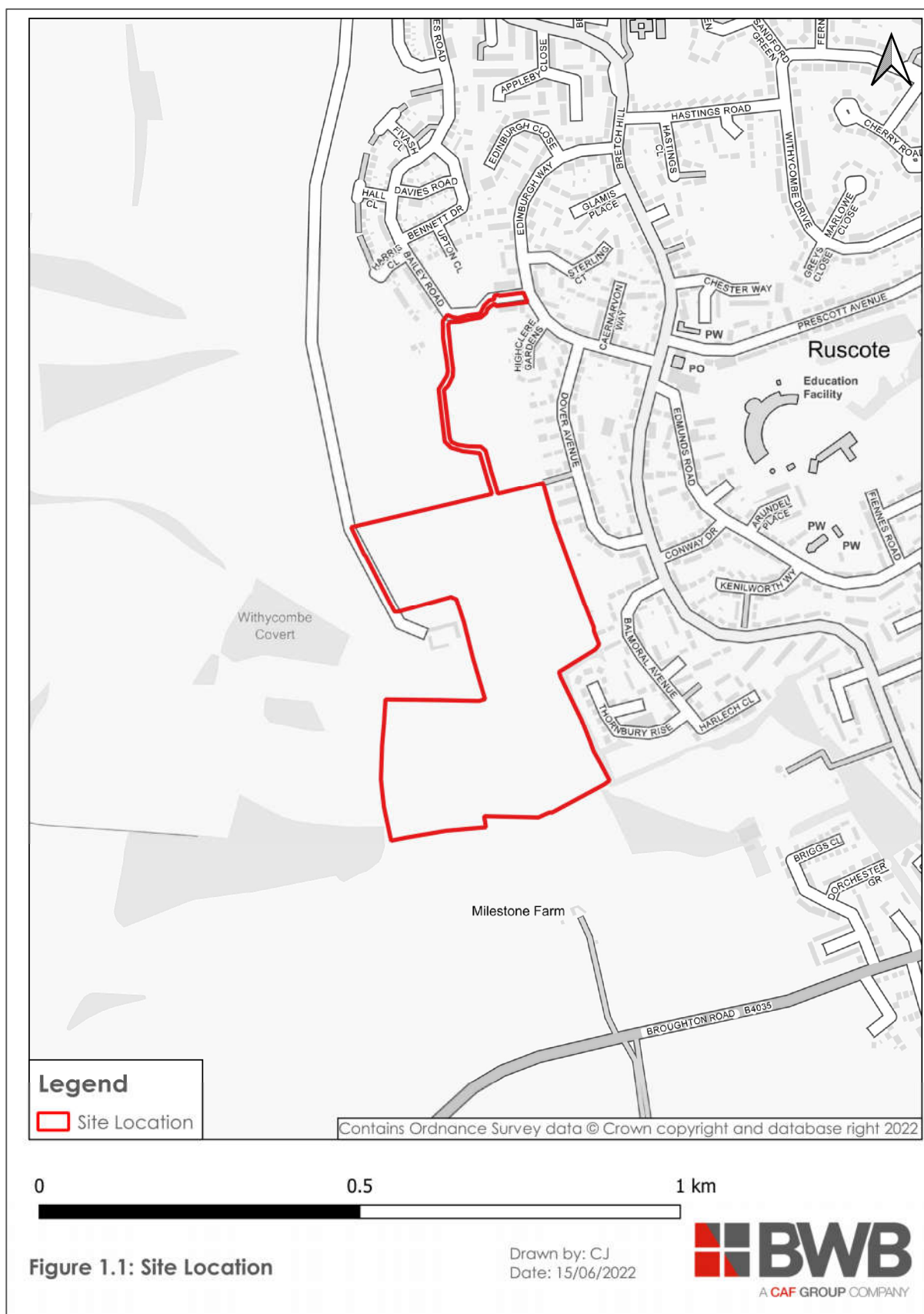
The constraints review was originally prepared to inform pre-application discussions with Cherwell District Council (CDC) prior to the submission of a planning application in 2022.

A desktop review of the Site and surrounding area was undertaken in order to identify any noise sources which may influence the suitability of the Site for residential use.

Site Setting

The Site is located on the western edge of Banbury and lies within the administrative area of CDC. The Site is bound to the north by the Banbury Rise residential development which was under construction at the time of the constraints review. To the east of the Site lies existing residential dwellings. To the south of the Site lies agricultural land with the B4035 Broughton Road beyond. To the west of the Site lies Withycombe Farm with agricultural land beyond, and Wild Pawz Secure Dog Field. **Figure 1** details the location of the Site.

Figure 1: Site Location



Legislation, Planning Policy & Guidance

National Planning Policy Framework (NPPF)

Published in July 2021, this document sets out the Government's planning policies for England and supersedes the previous NPPF published in 2012. It makes the following reference to noise in the section entitled Conserving and enhancing the natural environment:

"174. 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."

- It also makes the following references to noise in the Section entitled *Ground conditions and pollution*:

"185. 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 life⁶⁰;

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.

⁶⁰ See Explanatory Note to the Noise Policy Statement for England (Department for Environment, Food & Rural Affairs, 2010)."

And

"187. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

BS 8233:2014: Guidance On Sound Insulation and Noise Reduction for Buildings

This standard provides guidance for the control of noise in and around buildings. The guidance provided within the document is applicable to the design of new buildings, or refurbished buildings undergoing a change of use, but does not provide guidance on assessing the effects of changes in the external noise levels to occupants of an existing building.

The guidance provided includes appropriate internal and external noise level criteria which are applicable to dwellings for steady external noise sources. It is stated that it is desirable that the internal ambient noise level does not exceed the following criteria set out in **Table 2.1** below:

Table 2.1: Summary of internal ambient noise levels to be achieved in habitable rooms

Activity	Location	Internal noise level criteria ($L_{Aeq,T}$, dB)	
		Daytime (07:00 - 23:00hrs)	Night-time (23:00 - 07:00hrs)
Resting	Living room	35	-
Dining	Dining room/area	40	-
Sleeping (daytime resting)	Bedroom	35	30

Whilst BS 8233:2014 recognises that a guideline value may be set in terms of SEL or L_{AFmax} for the assessment of regular individual noise events that can cause sleep disturbance during the night-time, a specific criterion is not stipulated. Accordingly, reference has been made in this assessment to the World Health Organisation (WHO) 1999: Guidelines for Community Noise below.

With respect to external amenity space such as gardens and patios it is stated that it is desirable that the 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. It is then confirmed that higher external noise criteria may be appropriate under certain circumstances such as within city centres urban areas, and locations adjoining the strategic transportation network, where it may be necessary to compromise between elevated noise levels and other factors such as convenience of living, and efficient use of land resource.

World Health Organisation (WHO) 1999: Guidelines for Community Noise

The L_{AFmax} criterion in BS8233 is largely concordant with the World Health Organisation (WHO) guidance: 1999: Guidelines for community noise. This document draws upon guidance from Vallet and Vernay, which states:

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

Summary of baseline conditions

A high-level desktop review was undertaken in November 2021 in order to determine the existing noise environment on the Site. The following noise sources have been identified in the local area:-

- Road traffic on the B4035 Broughton Road to the south approximately 360m from the site boundary; and

- Wild Pawz secure dog field to the west, bordering the site.

The local area is a mixture of residential and agricultural uses. Therefore, away from the noise sources listed above, the noise climate is likely to be conducive to residential use.

Potential Noise Constraints

Construction Phase

The noise and vibration levels generated during the construction phase may cause an impact at nearby sensitive receptors. However, this is likely to be a short-term, temporary impact, and can be controlled through a suitably worded CEMP.

Operational Phase

Road traffic noise on B4035 Broughton Road

This road is not included in the latest DEFRA Strategic Noise Mapping round (2017). Given this, and the significant setback distance between this noise source and the southern site boundary, road traffic noise should not pose a design challenge and no further assessment of this source is considered warranted.

Wild Paws Secure Dog Field

The field itself is located in the south west section of the farm complex and therefore there is only a limited section of boundary that is common to the site and the field. The location of the field is shown in **Figure 2**.

Figure 2: Location of Wild Pawz Secure Dog Field



There are no accommodation elements and the field can only be booked for 20 or 50 minute sessions, so it is highly unlikely a vocal dog will be using the field for a prolonged period of time. Furthermore, the dogs will be there for exercise – typically the main source of noise at dog kennels is from excited dogs at the beginning of feeding time, whereas this will not occur here. The advertised operating hours are:

- Winter- Mon- Sun 6am- 6pm
- Spring- Mon - Sun 6am - 8pm
- Summer- Mon- Sun 5am- 10pm

Given these considerations, it is unlikely that the use of the field will pose a constraint to residential development.

Development generated road traffic noise on the local area

Given the scale of potential residential development, and the proximity of the site to main roads, it is considered unlikely that there will be a significant percentage increase in road traffic noise over an 18-hour daytime period (06:00 – 00:00) to generate a perceptible increase in noise on the surrounding roads.

Mitigation & Recommendations

Based on a review of the surrounding noise sources, it is considered that the site is suitable for residential development from a noise perspective and there are no sources that warrant further assessment. It is considered that future noise levels in habitable rooms and outdoor amenity areas should comfortably meet BS8233 criteria without the need for mitigation.