Proposed Mixed Use Development Sandleford Park, Newbury, West Berkshire

APP/38 Rebuttal – Nigel Mann, Air Quality & Noise

A106825-1

Bloor Homes and the Sandleford Farm Partnership

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Prepared by Tetra Tech Limited (Formerly WYG)

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TABLE OF CONTENTS

1.0 INTRODUCTION

1.01 My name is Nigel Mann. I am currently employed as a Director - Environmental Scientist at the Leicester office of Tetra Tech Limited.

1.02 I have reviewed the evidence and relevant documents produced and submitted by West Berkshire Council and the Rule 6 Party groups, Say No to Sandleford (SNTS) and Greenham Parish Council-Newbury Town Council (GPC-NTC). I present my responses to these Proofs of Evidence below.

2.0 RESPONSE TO EVIDENCE – AIR QUALITY

West Berkshire Council

2.01 The Proof of Evidence (Trees) produced by West Berkshire Council (WBC) states in paragraph 8.6 that the school playing pitch will have an impact on trees T31, T33 and T34 and the ancient woodland through the increase in air pollution. I have shown within App/26 and the Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9] that the impact on the ancient woodland sites will be negligible as a result of the scheme, in isolation and in combination with the proposed scheme at Sandleford Park West.

2.02 The Proof of Evidence of Susan Deakin: Ecology produced on behalf of WBC states, through reference to studies such as NECR 199 (2016) The ecological effects of air pollution from road transport: an updated review [CD 17.17], that woodland habitats can be adversely affected by aerial pollutants 100m or more from road sources. The Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9] agrees that that woodland habitats can be adversely affected by aerial pollutants but shows that the predicted effects of the scheme are 'negligible' on all ecological receptors assessed.

Say No To Sandleford (SNTS)

2.03 The SNTS Proof of Evidence [CD12.5] states in paragraph 5 that the buffer zones for major developments around ancient woodland sites should be a minimum of 50m for housing developments and a minimum of 100m for major roads, to avoid loss or deterioration of biodiversity. I have acknowledged the concerns for a minimum buffer zone width within paragraph 5.28 of the Proof of Evidence – Air Quality [APP/25]. However, as shown in paragraphs 5.28 to 5.29 of Proof of Evidence – Air Quality APP/25, the impacts on any ecological receptor, inclusive of the ancient woodland sites located within the scheme are predicted to be 'negligible', as shown in the Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9] and the Tetra Tech Air Quality Technical Note (Appendix APP/26/A [CD10.26]). Within my Proof of Evidence – Air Quality APP/25 paragraph 5.28, I stated that "*I acknowledge that whilst a minimum buffer of 50m is to be installed around the Ancient Woodland sites, there are concerns that a buffer zone of 150m should be implemented*". However, reference to a 50m buffer was a typographical error, and it should be noted that all assessments of the effects on air quality associated with the scheme have utilised a buffer zone around ancient woodland sites of 15m, in accordance with the development plans.

2.04 Paragraph 7 of the SNTS Proof of Evidence [CD12.5] on the health effects of exhaust emissions and the potential effects of non-exhaust emissions, i.e. particulate matter, primarily sourced from tyres, brakes and road abrasion. I have detailed a response to these concerns in paragraphs 5.14 to 5.18 within my proof APP/25. The potential health effects as a result of non-exhaust emissions have been responded to in paragraphs 5.09, 5.10, 5.25 and 5.26 of APP/26, as these emissions sources are included within the Air Quality modelling undertaken within the Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9].

2.05 Paragraphs 8 and 9 of the SNTS Proof of Evidence [CD12.5] discuss the health effects of air pollution, specifically particulate matter at schools and developing children. There are concerns that the vehicle access route associated with the scheme are adjacent to schools. The Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9] shows that the predicted concentrations of Nitrogen Dioxide (NO_2) PM_{10}, and $PM_{2.5}$ are all significantly below the relevant National Air Quality Objectives, as shown in paragraph 5.23 of APP/26. The concentrations of $PM_{2.5}$ at the school are also below the World Health Organisation's (WHO) recommended guideline value for $PM_{2.5}$ (10µg/m^3).

Greenham Parish Council-Newbury Town Council (GPC-NTC)

2.06 Paragraph 41 of Dr Tony Vickers Proof of Evidence Appendices, states there will be inevitable air pollution adjacent to busy roads outside the site affecting students using active travel methods. Paragraphs 5.12 to 5.15 of APP/25 discuss the potential health impacts of air quality associated with the scheme, and the Tetra Tech Air Quality Assessment (dated January 2020) [CD1.9] shows the quantified predicted concentrations of NO_2, PM_{10} and $PM_{2.5}$ and that they are significantly below the relevant National Air Quality Objectives. As such, it is considered that the unquantified comments by Mr Vickers are superseded by the quantified assessment provided by the appellant.

3.0 RESPONSE TO EVIDENCE – NOISE

Say No To Sandleford (SNTS)

3.01 The SNTS Proof of Evidence [CD12.5] states in paragraph 5 that the buffer zones for major developments around ancient woodland sites should be a minimum of 50m for housing developments and a minimum of 100m for major roads, to avoid loss or deterioration of biodiversity. Similarly, paragraphs 4.2.1 and 5.2.1 of the proof provide narrative commentaries of academic studies, although the findings of the studies are considered in largely subjective terms with respect to the appeal site.

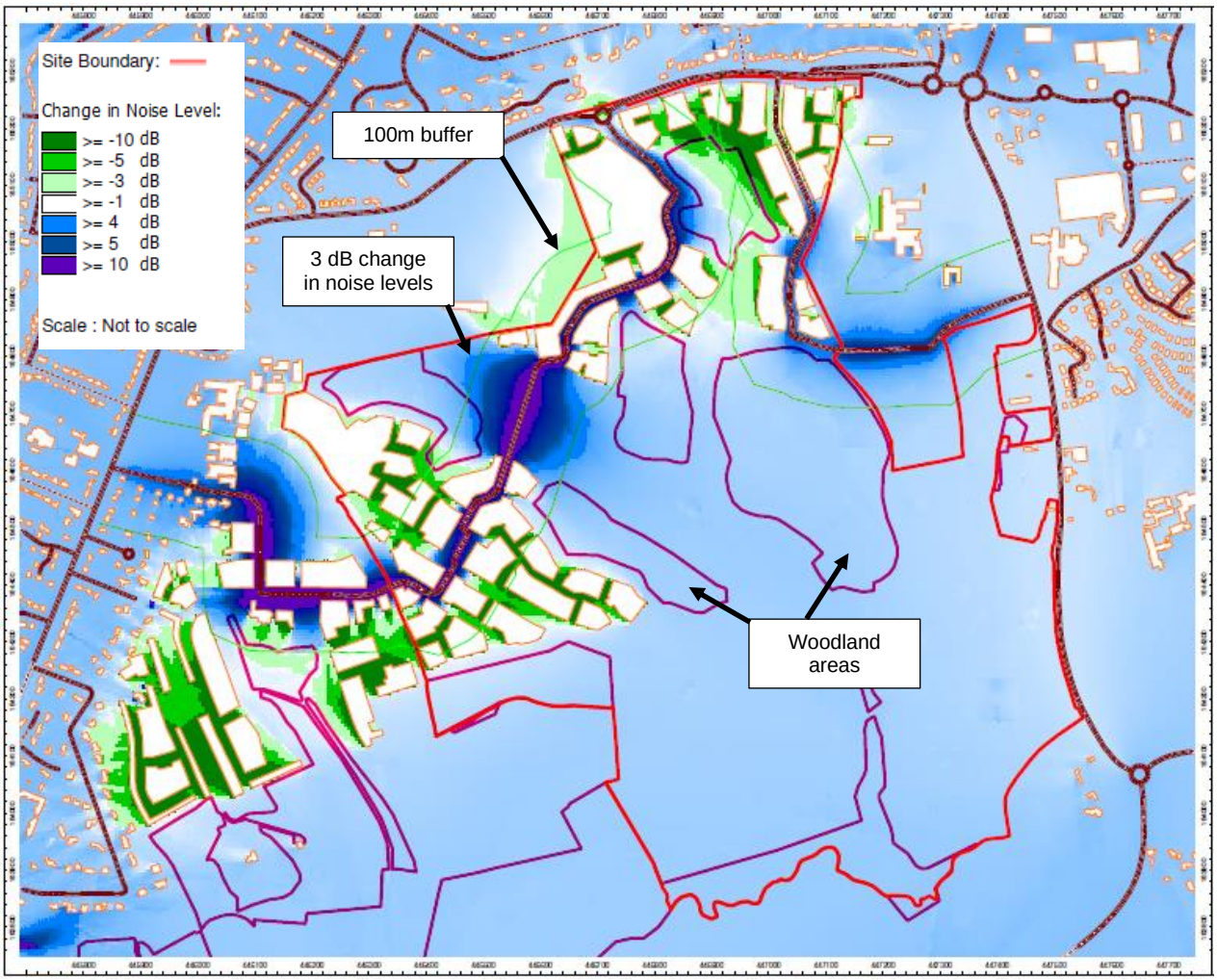
3.02 The submitted technical noise report (prepared by WYG, ref A106825-1 dated 14th January 2020) illustrates in SK06 within Appendix B where noise levels are expected to increase as a result of road traffic associated with the proposed development (which is quantified within section 5.2 of the report).

3.03 It should be noted that there is no nationally adopted methodology with respect to the determination of impacts in relation to buffer zones in relation to noise generated by road traffic noise and woodland areas. Indeed, the evidence cited within Table 6.1 of the SNTS proof of evidence references a variety of academic studies conducted within different parts of the world for which there are no uniform results.

3.04 However, as noted above, the analysis of the introduction of the development undertaken with respect to changes in road traffic noise does provide a quantifiable analysis of the development proposals. Noise level changes of up to ±3 dB are generally imperceptible to the human ear and therefore I consider that this represents an appropriate metric against which the potential effects of the scheme with respect to noise affecting existing woodland areas.

3.05 Figure 3.1 below has been reproduced from sketch SK06 of the submitted technical report with overlays that show existing woodland areas (outlined in pink), a nominal 100m buffer from the site access roads (shown in green) and the areas of the site where an increase in road traffic noise of 3 dB are expected to occur (between the 2017 ‘do minimum’ and 2031 4-access ‘do something’ scenarios.

Figure 3.1 Do Minimum 2017/Do Something (4 Access) 2031: Noise Level Difference Plot



3.06 The analysis presented above demonstrates that approximately 2,096m^2 of existing woodland out of 467,584m^2 within the study area may experience a perceptible change in road traffic noise levels. As such, I do not consider that this represents a significant adverse impact with respect to noise; indeed the latest edition of the Design Manual for Roads and Bridges[i] identifies that a long-term change in noise levels of between 3.0 and 4.9 dB would represent an impact of Minor magnitude, with levels below 3.0 dB representing a Negligible impact.

Greenham Parish Council-Newbury Town Council (GPC-NTC)

3.07 Similarly, paragraph 2.1 of Dr Chris Foster's Proof of Evidence makes a single reference to noise that cites a Woodland Trust report that references a variety of studies that consider multiple variables that may affect woodland areas. However, as noted above, the findings of the studies are considered in largely subjective terms.

3.08 As shown above, only a very small area of existing woodland is expected to experience Minor impacts with respect to road traffic noise and therefore I do not consider that the use of buffer zones would be required around existing woodland areas to reduce the potential effects of noise.