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Our reference: ED18432116

16 May 2024

Dear John,

Planning Application 2021/1089 & 2021/1090 – Review of Applicants' Response

Ricardo undertook a review of the of the Air Quality Chapters and associated appendices included within the Environmental Statements (ES) for Land South of Barugh Green Road and East of Higham Common Road *'the residential element'* (2021/1090) and the Land to the Southeast of Higham Common Road, *'the employment element'* (2021/1089) on behalf of Barnsley Metropolitan Borough Council (BMBC) on 9 January 2024. The review identified 22 issues, clarifications and potential planning conditions (referred to as AQ1 to AQ22) to be considered by the applicant.

The purpose of this letter is to review the applicants' response to the 22 issues which they have provided in the document "*Revised response to Review of Air Quality ES Chapter.pdf*" to confirm whether the issues have been suitably addressed or if more clarification is required.

Review of Applicants' Response

AQ1

Ricardo raised a query to understand the reason for the applicant deciding to undertake assessment for the scenario years 2026 and 2033 given that the development would be phased with early occupation by 2027 and completion in 2036. The applicant responded that the 2026 and a link road were included compared to various iteration of scenarios up to 2033 based on discussions with BMBC who requested that the earliest possible year should be assessed. The reason provided by the applicant is satisfactory and on further reflection assessing the earlier possible year would be more conservative in terms of the background concentrations, as the air quality is expected to improve with year due to improvement in vehicle fleet as reflected in the Defra background maps and monitoring data. No further clarification is required regarding this issue.

AQ2

Ricardo raised a query about an additional scenario to assess the link road which was requested by BMBC. The applicant has now confirmed that the scenario has been included as Scenario 5 and Scenario 6. No further clarification is required regarding this issue.

AQ3

Ricardo raised a query to understand the applicant's methodology or approach to establishing the baseline for the assessment and the location of the monitoring stations. The applicant has provided a response highlighting the location of the baseline methodology in Appendix 12.3 and the main Chapter and have also provided a map showing the monitoring locations. Section 12.4 of Chapter 12 provides the basis of the baseline used for the assessment which is a combination of monitoring data and Defra background maps used to adjust for future years. This is acceptable and no further clarification is required.

AQ4

Ricardo raised this query to ascertain from the applicant whether the construction traffic would exceed the IAQM criteria, and if so, a detailed assessment should be undertaken. The applicant has stated that "*At present, sufficient information is not available to assess this aspect, as a contractor has not yet been appointed and consequently the specific details of the construction programme and its associated vehicle movements are not known. We propose at this stage that a Construction Traffic Management Plan be included as part of the CEMP, which could be secured by a planning condition.*

Similarly, this could also stipulate that in the event of construction traffic exceeding the IAQM threshold of >100 AADT of HGVs at any stage of construction, a detailed assessment be carried out to determine if there will be any adverse impacts as a result (this would include consideration of whether properties associated with residential Phase 1 will experience >100 AADT of construction traffic during the construction of the later phases)".

This response shows that the applicant has not considered the likely air quality impacts due to construction traffic within the EIA which is an important aspect in undertanding the overall impact of the scheme and is expected in an air quality assessment for any major scheme. **The applicant should undertake a detailed traffic analysis of the construction traffic to check that the IAQM criteria is not exceeded. If this is exceeded a detailed air quality assessment of construction impacts should be undertaken and submitted to BMBC to update the EIA**.

AQ5

Ricardo highlighted that some significant policies and legislation had not been taken into consideration in the assessment and that the BMBC Air Quality and Emissions Good Practice Planning Guidance (2020) mentioned in the report was not the most recent version. The applicant has responded that the inclusion of these polices would not change the outcome of the assessment and has now confirmed that the mention of the BMBC Air Quality and Emissions Good Practice Planning Guidance (2020) was a typo and in fact the latest version in 2021 was used. This is acceptable and no further clarification is required.

AQ6

Ricardo identified that the construction dust assessment did not include the consideration of the Local Wildlife Sites (LWS's) – Redbrook Pastures, Hugset Wood and Daking Brook. The applicant has confirmed that Hugset Wood and Daking Brook are over 700 m away from the site boundary and so dust impacts are likely. However, no indication has been provided on the distance of these LWS sites to the traffic route. The applicant confirms that Redbrook Pastures is located within 30 m of the site boundary and the dust risk for this site would be like that at Craven Wood which was assessed. This is agreed.

The applicant should clarify or confirm that the Hugset Wood and Daking Brook are also over 50m away from a traffic route and if not assess the dust impacts at these LWS.

AQ7

Ricardo identified that the modelled location for the proposed school (receptor PSR4) was at different location to where the school is proposed (C1) as shown in the phasing parcel plan. The applicant has responded that the school location master plan had undertaken several revisions hence the difference in location but confirms that none of the other PSR locations within the site would experience significant air quality above the objective and on that basis the conclusion of the assessment would remain the same. The only locations that could be representative of the school are PSR5 or PSR6, but this is unclear from the maps provided. **The applicant should provide a map showing the modelled roads (including the link road) and the modelled receptors to confirm that the worst-case location representative of the school has been modelled. Where the modelled location is not representative of the school, modelling should be undertaken for the worst-case location representative of the school.**

AQ8

Ricardo asked for some clarification regarding the adjustment growth factors used for the traffic data in 2026 and 2033. The applicant has confirmed that the traffic consultants used baseline 2019 data and the TEMPro v8.1 growth factors which includes commited developments. This is standard practice and is acceptable.

AQ9

Ricardo queried the negative concentrations change for NO_2 given that there was an increase in traffic near receptors ESR11 and ESR12. The applicant has rectified the modelling and the results and confirmed that the updated results do not change the overall impact assessment. This is acceptable and no further clarification is required.

AQ10

Ricardo noticed some editorial reference to ‘demolition’ and the applicant has now updated this. No further changes are required.

AQ11

Ricardo identified that due to the phased approach of the development there would be residents inhabiting some of the development and as such the construction dust risk assessment and in-combination effects should take these receptors into consideration. The applicant has made the argument that the dust risk assessment would remain high risk even with the consideration of these receptors. It is agreed that the high risk would be applicable to these receptors, however mitigation measures should be specifically put in place to ensure that the residents are not exposed to significant dust given their proximity to the construction.

AQ12

Ricardo identified that it was not specifically stated in the report that mitigation measures for a ‘high risk’ site as recommended by IAQM would be implemented and that these should be written in a Dust Management Plan (DMP) and integrated into a Construction Environmental Management Plan (CEMP). The applicant has clarified that “*it would have been beneficial to include a section referring to the mitigation measures within IAQM guidance (at the time of writing the Chapter 2014, updated 2024) for High-Risk Sites*”. In addition, they confirm that these measures would be worked into the DMP and CEMP. This is acceptable and no further clarification is required.

AQ13

Ricardo identified that the requirement for 10% of electric vehicle charging points (EVCP) was not included for industrial/ commercial units. The applicant has now confirmed that “*the employment site allows for 10% of parking spaces to have electric vehicle charging points, which is in line with current regulations as well as with guidance from the IAQM and with the BMBC Air Quality and Emissions*

Good Practice Guidance (2021)". This is satisfactory and should be stipulated as a planning condition as part of the planning permission.

AQ14

Ricardo reiterates the need for a DMP for high-risk site to included dust monitoring as prescribed in the IAQM guidance. The applicant has confirmed that a DMP would be prepared and incorporated into the CEMP, and this will be secured by a planning condition. This is acceptable and no further clarification is required.

AQ15

Ricardo identifies that the damage cost calculations refer to the Defra (May 2020) guidance instead of the new version released in 2023. The applicant has clarified that there was inconsistency in the text and that the calculation were based on the 2023 version and as such the outcome of the assessment remains the same. No further clarification is required.

AQ16

Ricardo highlights that the assessment does not include a Proposal Mitigation Statement, which must include the calculated damage cost, proposed mitigation and a proposed demolition/construction management plan. The applicant states that they "*envisage the Proposal Mitigation Statement being prepared separately to the ES Chapter as this will require engagement with BMBC*…". This is acceptable, however the applicant should provide some initial mitigation suggestions for consideration prior to discussions with BMBC and this should be reviewed prior to granting planning permission. If agreed this would form the basis for establishing the final Mitigation Statement.

AQ17

Ricardo raised concerns as to whether the cumulative dust impact from commited developments have taken into consideration and that reference should be made to the dust assessment prepared by third parties for other relevant developments or the use professional judgement to make such judgement in line with IAQM guidance. The applicant has responded that "*We would suggest that in the event of construction overlapping with that of another project, both would be operating in accordance with site-specific mitigation (assuming the site in question is large enough/processes dusty enough for this to be required) and therefore, residual cumulative impacts would not be considered significant*."

Although neighbouring construction sites would be operating in accordance with site specific mitigation measures, this does not negate the fact that the cumulative dust impacts can be potentially significant. **The DMP should include the protocols for working with neighbouring sites and the appropriate mitigation that would be put in place to ensure that cumulative dust impacts are minimised.**

AQ18

Ricardo's review identifies that the year of the emission factors and background concentrations used for all the scenarios are not clearly stated. The applicant has responded that the corresponding EFT years (2019, 2026) has been used for the modelled scenarios except for 2033 where the EFT was based on 2030. This approach is acceptable and information on the background concentration has been resolved in the response to query AQ3.

AQ19

Ricardo has identified that the air quality assessment does not mention the use of gas boilers and their potential to increase emissions associated with the Proposed Development and as such seeks clarification that the gas boilers meets the minimum standard < 40 mgNOx/kWh. The applicant has stated that "*highly efficient gas combination boilers are proposed to be utilised, subject to the Building*

Regulations that are applicable at the time.". This statement does not provide confidence that the gas boilers would meet the minimum standard of < 40 mgNOx/kWh. **The applicant should provide details of the emissions standards of the gas boilers and if these exceed < 40 mgNOx/kWh then a detailed assessment would need to be undertaken, further to this a commitment should be made to the minimum number of dwellings with ASHPs**. More sustainable power sources should be considered such as the use of air source heat pumps as the use gas boilers are being phased out.

AQ20

Ricardo raised concerns on the potential emissions that could be associated with the use of emergency generators over the course of the construction period which could be up to 10 years and that the applicant should confirm that the emission rates for the generators would be less than 5 mg/sec to be screened out as insignificant. The applicant has stated that at this stage the onsite plant is not yet known but that any NRMM would comply with the latest emission standards in Regulation (EU) 2016/1628 and the requirement to meet the latest emission limits would be incorporated within the CEMP. **Clarification is still required on the maximum number of internal combustion engine generators required on site, the rated thermal input and operational duration. Where generator emissions cannot be screened out (i.e., the emission rate is greater than 5 mg/sec) then a detailed assessment should be undertaken.**

AQ21

Ricardo identified that the applicant did not provide the assumptions behind the data used for the emissions calculations for damage cost (i.e., the assumed year and traffic growth, distance, speed). The applicant has confirmed that " *The overall AADT figure for the full completed development, albeit starting from the 2026 opening year for robustness, has been used for the Damage Cost Calculation. The 10km/50km/h calculation assumption is set out in the BMBC Air Quality and Emissions Good Practice Guidance (2021), which does not offer a justification for the speed but states the 10km distance comes from the National Travel Survey UK average. The BMBC approach is fairly standard across the sector, for example, the West Yorkshire Low Emissions Guidance also uses the same criteria to assess Damage Costs*." The use of the worst-case daily traffic for the fully completed year, distance of 10 km and a speed 50km/h based on best practice is acceptable. No further clarification is required.

AQ22

Ricardo recommended the Non-Technical Summary be revised taking account the outcome of issues AQ1 to AQ21. The applicant responded that "*While the submitted ES Chapters/Appendices are not being revised, the above Clarification Notes should provide BMBC with the necessary information to address the points raised*".

It is considered that this Clarification Note provides responses to most of the issues, however there are still several outstanding issues which would require an update to the EIA. **AQ4** and **AQ19** are the outstanding high priority issues, **AQ7** and **AQ17** are medium priority issues while **AQ6** is of low priority.

Yours sincerely,

[redacted]

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