

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT GARDEN TOWN HIGHWAYS INFRASTRUCTURE – A4130 IMPROVEMENT (MILTON GATE TO COLLETT ROUNDABOUT), A4197 DIDCOT TO CULHAM LINK ROAD, AND A415 CLIFTON HAMPDEN BYPASS) COMPULSORY PURCHASE ORDER 2022

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT TO CULHAM THAMES BRIDGE) SCHEME 2022

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT GARDEN TOWN HIGHWAYS INFRASTRUCTURE – A4130 IMPROVEMENT (MILTON GATE TO COLLETT ROUNDABOUT), A4197 DIDCOT TO CULHAM LINK ROAD, AND A415 CLIFTON HAMPDEN BYPASS) (SIDE ROADS) ORDER 2022

THE CALLED-IN PLANNING APPLICATION BY OXFORDSHIRE COUNTY COUNCIL FOR THE DUALLING OF THE A4130 CARRIAGEWAY, CONSTRUCTION OF THE DIDCOT SCIENCE BRIDGE, ROAD BRIDGE OVER THE APPLEFORD RAILWAY SIDINGS AND ROAD BRIDGE OVER THE RIVER THAMES, AND ASSOCIATED WORKS BETWEEN THE A34 MILTON INTERCHANGE AND THE B4015 NORTH OF CLIFTON HAMPDEN, OXFORDSHIRE (APPLICATION NO: R3.0138/21)

PLANNING INSPECTORATE REFERENCE:

APP/U3100/V/23/3326625 and NATTRAN/SE/HAO/286 (DPI/U3100/23/12)

Rebuttal proof of evidence of

Anna Savage

Air Quality

1 SCOPE OF EVIDENCE

- 1.1 This Rebuttal Proof of Evidence for air quality has been prepared to address additional points raised regarding:
 - 1.1.1 the validity of the assessment and impacts on Appleford by Chris J Hancock on behalf of Neighbouring Parish Councils - Joint Committee (NPC-JC) in January 2024; and
 - 1.1.2 additional issues raised regarding the validity of the assessment by Angela Jones's proof of evidence on health in January 2024.
- 1.2 The aim of this Rebuttal Proof of Evidence is to respond to a number of points that have not already been addressed in my main proof of evidence, to provide further clarification of my evidence or to correct misapprehensions within evidence presented by other parties. I have sought to avoid unnecessary repetition of matters already addressed at length, with the ultimate intention of assisting the Inquiries. Where I do not respond to a point raised by another party, my lack of response should not be construed nor interpreted as agreement, unless explicitly stated so within this Rebuttal Proof of Evidence.

2 RESPONSE TO CHRIS HANCOCK

- 2.1 Chris Hancock of NPC-JC raises a number of points regarding air quality, marked in his proof as “Matter 7”. This Rebuttal Proof of Evidence responds to the comments and issues raised that have not previously been responded to specifically in my main proof of evidence. For example, Section 3 of my main proof of evidence has already responded to comments relating to:
- Recent WHO guidelines particularly in relation to particulates (paragraph 3.49 and 3.50);
 - Modelling of PM_{2.5} (paragraph 3.49);
 - Lack of monitoring in Appleford (paragraph 3.38);
 - Emissions from Appleford sidings (paragraph 3.25); and
 - The elevation (paragraph 3.29) and gradient (paragraph 3.32) of the Scheme.
- 2.2 The first point of response relates to the statement in paragraph 4.2.4 of Mr Hancock’s proof of evidence that the Scheme does not comply with Development Policy (DP) 23 in VOWHDC’s Local Plan (CD G.2.7).
- 2.3 My main proof of evidence focused on policy DP26, which is the core policy on air quality and I demonstrated that the Scheme was compliant with that policy. Policy DP23 relates to the impact of development on amenity and says that schemes should demonstrate that they will not result in significant adverse impacts on amenity, including on emissions. The air quality assessment (CD A.15) concluded that the Scheme was not predicted to result in any significant impacts on air quality. Therefore, the Scheme is compliant with policy DP23.
- 2.4 Paragraph 4.2.9 and 4.2.12 of Mr Hancock’s proof of evidence mention the HGV weight restrictions and speed restrictions through Appleford. It is stated that the assessment is not based on credible traffic flows and, therefore, the reductions are not credible. It is requested that traffic calming measures or other means to restrict vehicles must be in place on Main Road.
- 2.5 In response, I draw attention to AECOM’s technical response (CD B.2 Appendix S) on 27 October 2022 which stated that the traffic modelling conducted for the Scheme predicts a reduction in traffic flows on Main Road and, in particular, a substantial reduction in the numbers of HGVs on this road as these vehicles will use the Scheme. I refer to Claudie Currie’s main proof of evidence (traffic modelling), which provides further details on the traffic modelling that was conducted for the Scheme.
- 2.6 As the Scheme does not have significant impacts on pollutant concentrations at properties along Main Road, there is no requirement for any additional mitigation measures, such as traffic calming.
- 2.7 A sensitivity test was conducted and presented in this appendix to consider the impacts of enforcing the HGV restriction with and without the Scheme. This test showed that this would not result in any significant differences in the results presented in the Environmental Statement (ES) with the outcome not significant in both cases.
- 2.8 Paragraph 4.2.12 of Mr Hancock’s proof of evidence also states that there should be no substantial increase in traffic on Main Road in future scenarios, and therefore the air quality assessment is in error. It is stated that the Scheme will not create a reduction in NO₂ concentrations through Appleford as the increase in HGVs on the Scheme will increase traffic emissions.
- 2.9 As stated above and in paragraph 3.22 of my main proof of evidence, the traffic model predicts a reduction in traffic on Main Road, particularly a reduction in HGVs. The air quality model has taken into account the impact of vehicle emissions from traffic on Main Road and the Scheme when predicting future air quality concentrations. The assessment predicted that NO₂ concentrations will be lower with the Scheme at properties along the Main Road. This is

because residential properties are located closer to Main Road (where traffic flow is predicted to reduce) currently than they will be with the Scheme.

- 2.10 Paragraph 4.2.10 of Mr Hancock's proof of evidence states that no supporting evidence is given to show current idling compared to flowing traffic on roads, and that there has been no analysis of air quality impacts due to the traffic and speeds from the Scheme.
- 2.11 In response, paragraph 3.38 and 3.39 of my main proof of evidence stated that AECOM conducted a baseline air quality monitoring survey to measure NO₂ concentrations close to existing roads in the area. These measurements took into account the impact of vehicle emissions in the baseline, including the impact of varying traffic speeds and idling vehicles. The monitoring data from these sites were used to verify the baseline air quality model predictions before future predictions were undertaken based on data from the traffic model with and without the Scheme.
- 2.12 Paragraph 4.2.10 of Mr Hancock's proof of evidence also states that traffic emissions on parts of the A4130 will increase, not fall, and that there will be higher emissions generated close to settlements.
- 2.13 Paragraph 2.51 of Claudie Currie's main proof of evidence (traffic modelling) states that traffic model data from Systra was provided for use in the air quality assessment. The traffic model outputs used in the air quality assessment predict increases and reductions in traffic flow on local roads as a result of the Scheme. However, the impact of these changes in emissions and therefore on pollutant concentrations at all modelled receptors is small and there are no exceedances of the objective values, such that no predicted impacts are considered to be significant. For example, there is a predicted small increase in traffic flows on the A4130 north of Didcot, and concentrations are predicted to increase slightly as a result. However, as pollutant concentrations at relevant receptor locations on this road are below relevant objective values and the increase is small, the impact is not considered to be significant. On other sections of the A4130 Milton Road, traffic flows decline due to the Scheme and therefore there are predicted improvements in concentrations.

3 RESPONSE TO ANGELA JONES

- 3.1 Dr Angela Jones raises a number of points regarding air quality, marked in her proof as “Acceptability in terms of air quality”. My rebuttal proof responds to the comments raised that have not previously been responded to specifically in my main proof of evidence and those relevant to the Scheme. Where I refer to paragraph numbers below, they refer to the paragraph numbering of Ms Jones’ proof of evidence.
- 3.2 In paragraph 15 of her proof, Dr Jones raises points regarding the lack of a Health Impact Assessment (HIA) for the Scheme.
- 3.3 In my response to this point, I note that the information from the ES including Chapter 6 Air Quality (CD A.15) were provided to SODC and VOWHDC to make a judgement on human health impacts. Further details are provided in Section 4 of the main proof of evidence by Alex Maddox (Environmental Impact Assessment) and in Section 2 of his rebuttal to Dr Jones where he states that the ES included sufficient information for the impact of the Scheme on human health to be established.
- 3.4 In the same paragraph, Dr Jones notes that consideration of the health impacts is particularly important for sensitive populations such as children and specifically refers to the Europa School in Culham.
- 3.5 I confirm that the air quality assessment (CD A.15) did not model air quality impacts specifically at this school, as there are sensitive receptors closer to the affected roads. In the results appendix (CD A.17), the predicted annual mean NO₂ concentration at the Kiddylinguistics preschool in Culham (receptors R20, R21), located close to the Europa School was shown to reduce slightly with the Scheme. Likewise, there are predicted air quality benefits at other schools including Clifton Hampden C of E Primary School (receptor R37) and Sutton Courtenay C of E Primary School (receptor R8) with the Scheme
- 3.6 In paragraph 8 and 9, Dr Jones, states that the decay gradient of some pollutants can be up to 1500m downwind. As Appleford is downwind of the Scheme, she states that it is within this affected area.
- 3.7 In response to the point on decay gradients, the characteristic decrease in concentrations from a source with increasing distance is well understood and was derived from calculations conducted by the Transport Research Laboratory. This relationship has been shown to apply to gaseous and particulate pollutants and is illustrated in the graph below, taken from the National Highways Guidance DMRB HA 207/07 Air Quality. The latest DMRB standard (LA105 Air Quality) requires that detailed air quality assessments consider receptors located within a distance of up to 200m of affected roads. Beyond this distance, pollutant concentrations are typically within background levels.

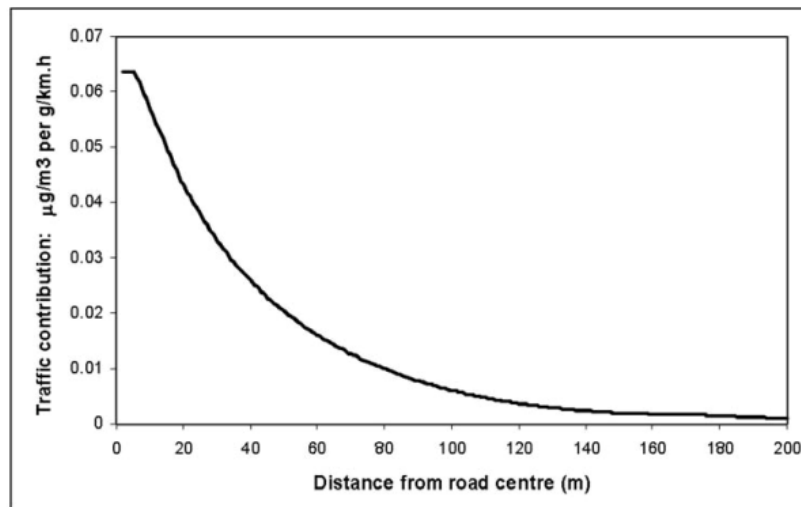


Figure C1 Traffic Contribution to Pollutant Concentration at Different Distances from the Road Centre

- 3.8 The Scheme air quality assessment (CD A.15) considered impacts at selected properties in Appleford that are located within 200m of Main Road and at distances between 20m and 550m from the Scheme. The prevailing wind direction in the meteorological data from RAF Benson that was used in the air quality model was from the Southwest, so the assessment has taken account of Angela Jones's comment that many properties in Appleford are downwind of the Scheme.
- 3.9 I am, therefore, satisfied that the modelled receptors were selected within an appropriate distance from the Scheme and that the meteorological data represented local conditions. Therefore, the assessment fully considered the air quality impacts due to the changes in traffic flows and position of the existing roads and the Scheme. The changes in concentrations presented in the assessment (CD A.17) at properties in Appleford are predicted to be small and not significant.

4 STATEMENT OF TRUTH AND DECLARATION

- 4.1 I confirm that, insofar, as the facts stated in my rebuttal evidence are within my own knowledge, I have made clear what they are and I believe them to be true and that the opinion I have expressed represent my true and complete professional opinion.
- 4.2 I confirm that my rebuttal evidence includes all facts that I regard as being relevant to the opinions that I have expressed and that attention is drawn to any matter which would affect the validity of those opinions.
- 4.3 I confirm that my duty to the Inquiry as an expert witness overrides any duty to those instructing or paying me, and I have understood this duty and complied with it in giving my evidence impartially and objectively, and I will continue to comply with that duty as required.
- 4.4 I confirm that, in preparing this rebuttal evidence, I have assumed that same duty that would apply to me when giving my expert opinion in a court of law under oath or affirmation. I confirm that this duty overrides any duty to those instructing or pay me, and I have understood this duty and complied with it in giving my evidence impartially and objectively, and I will continue to comply with that duty as required.
- 4.5 I confirm that I have no conflicts of interest of any kind other than those already disclosed in this rebuttal evidence.

ANNA SAVAGE

9 February 2024