



Hampshire County Council

REBUTTAL PROOF OF EVIDENCE OF NICK GAMMER IN RESPECT OF HIGHWAYS AND TRANSPORTATION

IN RELATION TO THE

Outline Planning Permission For The Demolition Of Existing Buildings And Development Of Up To 75 Dwellings, Open Space, Vehicular Access Point From Newgate Lane And Associated And Ancillary Infrastructure, With All Matters Except Access To Be Reserved. Land At Newgate Lane (North) Fareham.

PLANNING REFERENCE P/18/1118/OA

APPEAL REFERENCE APP/A1720/W/20/3252180

AND

Outline Planning Permission For The Demolition Of Existing Buildings And Development Of Up To 115 Dwellings, Open Space, Vehicular Access Point From Newgate Lane And Associated And Ancillary Infrastructure, With All Matters Except Access To Be Reserved. Land At Newgate Lane (South) Fareham.

PLANNING REFERENCE P/19/0460/OA

APPEAL REFERENCE APP/A1720/W/20/3252185

NOVEMBER 2020

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I. Qualifications and Experience and Scope of Evidence

- I.1 My qualifications and experience are set out at page 2 of my Proof of Evidence (NGPoE).
- I.2 My evidence considers the transport related matters which are the subject of this Inquiry.
- I.3 My rebuttal considers the Proof of Evidence (AJPoE) of Mr Anthony Jones of Pegasus Group. In his evidence Mr Jones asserts that the individual and cumulative impacts of the northern and southern sites do not undermine the purpose and objective of the Newgate Lane East improvements.
- I.4 In order to better understand the impact of the proposed development, both in terms of the proposed signalisation of old Newgate Lane/ Newgate Lane East junction and the installation of the required Toucan crossing, the Benefit Cost Ratio (BCR) calculation has been adjusted to account for the delay caused by the proposed improvement measures and new BCR values have been calculated.
- I.5 Based on the results of I.4 above, my rebuttal considers the results of the updated BCR analysis and the subsequent impact of the development mitigation proposals on Newgate Lane East. I conclude that the development impact results in significant delay leading to a substantial reduction in the Newgate Lane East improvement's BCR value and therefore the mitigation proposed by the appellant does undermine the purpose and objective of the Newgate Lane East improvements and results in a severe impact on the local highway network.

2. Updated BCR Assumptions

2.1 The Improvement Package (that is, signalisation of Peel Common Roundabout and realignment and upgrade of B3385 Newgate Lane South) provides increased capacity in a previously heavily congested area and links the Strategic Road Network and Fareham Rail Station to the Gosport Peninsula, including the Solent Enterprise Zone at Daedalus. These improvements form one part of the Fareham and Gosport Strategic Transport Infrastructure Plan (appendix NG1), which is a comprehensive package of schemes that work together to reduce congestion and improve journey times on key routes in the Fareham and Gosport area.

2.2 Mr Jones' evidence states the following at Paragraph 5.6:

Notwithstanding, my Evidence will shows that the traffic impacts of the northern and southern sites and proposed improvements to the junction between Newgate Lane and Newgate Lane East does not undermine the purpose and objectives of the Newgate Lane East bypass, as well as the Stubbington bypass. This is because it will provide a safe and operational off-site highway improvement scheme to the junction between Newgate Lane East and Newgate Lane that will not add any material levels of delay and journey times when compared to the extant situation.

Mr Jones concludes at paragraph 6.29 of his evidence:

It is therefore considered that the individual and cumulative impacts of the northern and southern sites do not undermine the purpose and objective of the Newgate Lane East, as well as the Stubbington bypass. This is because it will not add any levels of delay and journey time when compared to the extant situation.

2.3 Mr Mundy's evidence has demonstrated the proposed junction mitigation scheme is not safe. My evidence demonstrates that there are additional and material levels of delay and increased journey times resulting from the proposed mitigation, for either development in isolation or both developments combined. However, given the assertion made by Mr Jones at his paragraph 6.29 that the individual and cumulative impacts of the development proposals do not undermine the purpose and objectives of the Newgate Lane East bypass, I have asked Systra, the company who undertook the original BCR calculation, to re-calculate the BCR values to account for the forecast delay arising from the proposed development mitigation measures, in order to ascertain whether Mr Jones' assertion is correct. As will be seen from the Systra modelling discussed below, it is clear (contrary to Mr Jones' assertion) that in reality the development proposals would undermine the purpose and objectives of the Newgate Lane improvements. This is because the benefits of the improvements are

largely accrued from peak hour journey time savings due to increased capacity and reduced delays, which are substantially eroded by the development proposals.

2.4 As stated in my Proof of Evidence (NGPoE) at Paragraph 5.5, the BCR of 1.88, upon which funding and implementation for the Improvement Package was based, was calculated using the Solent Sub-Regional Transport model. This model scenario has been used to inform the calculation of revised BCR values, including the delay forecast by the proposed development signal infrastructure. However, given the timescales, a full model re-run was not possible, and a number of assumptions have been used in calculating the revised BCR values. These are set out below (noting the likely impact on the revised BCR value in brackets):

- Full demand model runs adding the different signal options were not undertaken, therefore the impact of any mode shift or re-routing of traffic has not been captured in this assessment. (Likely to underestimate the revised BCR values)
- The modelling runs from the Solent Transport Sub-regional Transport Model (SRTM) undertaken for the original calculation of the BCR were used to extract demand. Option DS2b, model run ARI vs the Do Minimum (ARH) has been used to determine AM, Inter-Peak and PM flow difference. This run does not include the development housing options of 75, 90 or 190 dwellings. Therefore, all calculations include 'no development' demand with only adjustments to the delay per vehicle as provided by HCC for the development scenarios. (Likely to overestimate the revised BCR values)
- Demand is taken from the 2019 and 2036 SRTM model runs, and linear growth is assumed between 2019 and 2036, and no further growth in demand after 2036 (this is consistent with the 2014/15 analysis). Demand is split by 4 user classes: Work, Non-Work, LGV and HGV. (Neutral)
- The existing model scenario does not sufficiently represent the old Newgate Lane/ Newgate Lane East junction, so the delays exiting old Newgate Lane have not been included in the calculation and therefore the disbenefits of the signal options are underestimated. Delays on Newgate Lane East are captured fully. (Will underestimate the revised BCR values)
- Benefit calculations are in line with TUBA 1.9.5, which references WebTAG Databook, November 2014. Consistent with the original Benefit calculations in 2014/15. (Neutral)

- The original benefit calculation only included benefits from the Fareham and Gosport modelled areas to exclude model noise. The adjustment does not remove benefits/trips from the area outside these locales, but a select link on the two-way approach to the roundabout suggests all demand on this link is travelling within these two areas. (Neutral)
- The assumed opening year is 2015. This assumes both the signal options are completed along-side the original interventions modelled in 2014/15 and only in the Do Something. (Neutral)
- Occupancy and purpose split are calculated at an average 12-hour level. (Neutral)
- No costs for the inclusion of either the signals or toucan crossing have been included in the PVC. (Will overestimate the revised BCR values)
- The scenarios missing the IP data assumed a delay for the IP proportional to the AM peak This was determined based on reviewing other modelled signals on Newgate Lane. (Neutral)
- No accounting for change in greenhouse gasses, operator benefits, or taxes has been made here – but the impact is considered to be minor in this instance. (Neutral)
- As per the original 2014/15 application, all monetary values reported are for a full 60-year appraisal period and discounted to 2010 prices. (Neutral)

2.5 Systra have confirmed that on balance these assumptions are not expected to have a significant impact on the revised BCR values discussed in Section 4 below and the approach taken is reasonable for forecasting the revised BCR values.

3. Toucan Crossing Modelling

3.1 The delay due to the proposed toucan crossing presented in my Proof of Evidence was based on a study from 2018, using traffic flows recorded that year. These flows do not include the changes in traffic assignment due to Stubbington bypass, background traffic growth, committed development or forecast development traffic. The toucan crossing delay resulting from these flows was included in my Proof of Evidence as there was not time to update the Toucan crossing modelling using the agreed assessment traffic flows. However, to provide an accurate forecast of traffic delay resulting from implementation of the Toucan crossing, this modelling has now been updated (Appendix NG5) using the same agreed forecast future year traffic flows as used in the junction assessments. The revised Toucan crossing vehicular delay is shown in Section 4 below.

3.2 Following receipt of the WRAT assessment from the Appellant, I have been asked by Jane Parker how long the pedestrian delay is likely to be at various crossings in the local area. The operation of the proposed Newgate Lane Toucan crossing will be optimised to minimise delay to traffic. This has been considered in the updated Toucan crossing modelling. It should be noted that this may result in some delay to pedestrians, likely to be 40 seconds (the maximum accepted at standalone signalised crossings within Hampshire Highway Authority's jurisdiction) in the peak hours, when traffic flows are highest. The average pedestrian waiting time to cross Newgate Lane East at Peel Common roundabout was recorded as approximately 50 seconds (SCOOT ASTRID, average waiting times on street between 3-7th Feb 2020) in the AM and PM traffic peaks and pedestrian waiting times at the HMS Collingwood junction could be up to 2 minutes based on the vehicle actuated maximum green times and intergreen values.

4. Updated BCR Calculations

4.1 I considered a number of different scenarios in my Proof of Evidence (NGPoE), highlighting the forecast delay for different signalisation arrangements, with different development quanta and using either the corrected Highway Authority (HA) modelling or Appellant modelling. Evidence from Mr Jones and Ms Hoskins confirms that the full signalisation scheme is no longer being proposed by the Appellant; as such I have not considered this further in relation to the BCR.

Summary of delay due to mitigation proposals

4.2 The delay per vehicle due to the proposals to signalise old Newgate Lane/ Newgate Lane East junction, using both the Appellant and HA modelling is summarised in Tables 1 and 2 below respectively.

	75 Dwellings	115 Dwellings	190 Dwellings
AM			
Newgate Lane East Northbound	10.9	11	11
Newgate Lane East Southbound	6.3	6.7	7.4
Newgate Lane	64.8	67.8	75.7
PM			
Newgate Lane East Northbound	4	4	4
Newgate Lane East Southbound	4.7	4.7	4.7
Newgate Lane	64.6	65.8	68.7

Table 1: Indicative Arrow Delay per Vehicle (seconds), Appellant Modelling
 Source: Appellant LinSig Modelling, October 2020 (CDA. 71 and CDA. 142)

	75 dwellings	115 dwellings	190 dwellings
AM			
Newgate Lane East northbound	11.8	11.8	12.0
Newgate Lane East southbound	6.0	6.5	7.2
Old Newgate Lane	68.0	72.6	85.7
PM			
Newgate Lane East northbound	4	4	4
Newgate Lane East southbound	4.7	4.7	4.7
Old Newgate Lane	64.6	65.8	68.7

Table 2: Indicative Arrow Delay per Vehicle (seconds), HA Modelling
 Source: HA Modelling Indicative Arrow, October 2020, (Appendix NG3)

4.3 The delay per vehicle due to the proposed implementation of the toucan crossing, using the agreed assessment flows, is summarised in Table 3 below.

	75 dwellings	115 dwellings	190 dwellings
AM			
Newgate Lane East northbound	57.8	59.1	62
Newgate Lane East southbound	3.9	3.9	4
PM			
Newgate Lane East northbound	5	5	5.1
Newgate Lane East southbound	5.2	5.3	5.3

Table 3: Toucan Crossing Delay per Vehicle (seconds), Agreed Traffic Flows and Development traffic
 Source: HA Modelling, November 2020 (Appendix NG5)

4.4 The combined delay per vehicle on Newgate Lane East in the AM and PM peak periods due to the proposed implementation of old Newgate Lane/ Newgate Lane East junction signalisation and the toucan crossing is summarised in table 4 below.

	75 dwellings HA modelling	75 dwellings Appellant modelling	115 dwellings HA modelling	115 dwellings Appellant modelling	190 dwellings HA modelling	190 dwellings Appellant modelling
AM						
Newgate Lane East northbound	69.6	68.7	70.7	70.1	74	73
Newgate Lane East southbound	9.9	10.2	10.4	10.6	11.2	11.4
PM						
Newgate Lane East northbound	9	9	9	9	9.1	9.1
Newgate Lane East southbound	9.9	9.9	10	10	10	10

Table 4: Combined junction signalisation and Toucan Crossing Delay per Vehicle (seconds)
 Source: HA Modelling, November 2020 (Appendix NG5), Appellant LinSig Modelling, October 2020 (CDA. 71 and CDA. 142), HA Modelling, November 2020 (Appendix NG5).

Impact on the BCR

4.5 The revised BCRs for the various development quantum and modelling scenarios are summarised in Table 5 below.

	75 dwellings	115 dwellings	190 dwellings
Junction Signalisation (Appellant modelling) Only	1.48	1.47	1.45
Junction Signalisation (HA modelling) Only	1.47	1.46	1.44
Toucan Crossing Only	0.78	0.76	0.71
Junction Signalisation (Appellant modelling) + Toucan	0.38	0.34	0.27
Junction Signalisation (HA modelling) + Toucan	0.37	0.34	0.26

Table 5: Revised BCR Values

Source: Systra Info Note, Newgate Lane Appeals, November 2020 (appendix NG6)

4.6 As can be seen, the delay due to the Appellant's indicative arrow signalisation of old Newgate Lane/ Newgate Lane East has a significant impact on the BCR, reducing this from 1.88 to between 0.38 and 0.26 when all mitigation proposals (signalisation of old Newgate

Lane/ Newgate Lane East and Toucan crossing implementation) are considered. With the inclusion of the Appellant’s proposed mitigation, and resulting reduction in journey time saving benefits, the costs of the Newgate Lane Improvement Package would substantially outweigh the benefits. As can be seen in Figure I below, the revised BCR value falls within the ‘poor’ category in the Department for Transport’s Value for Money Framework.

Box 5.1 Standard Categories
(Transport cost outlays exceed revenues or cost savings)

VfM Category	Implied by...*
Very High	BCR greater than or equal to 4
High	BCR between 2 and 4
Medium	BCR between 1.5 and 2
Low	BCR between 1 and 1.5
Poor	BCR between 0 and 1
Very Poor	BCR less than or equal to 0

**Relevant indicative monetised and/or non-monetised impacts must also be considered and may result in a final value for money category different to that which is implied solely by the BCR. This chapter provides guidance on how to select the final value for money category.*

Figure I: Value for Money

Source: Department for Transport’s Value for Money Framework, July 2017

4.7 In my professional opinion this result clearly demonstrates the Appellant’s proposed mitigation – regardless of modelling parameters and for all development quanta - does undermine the purpose and objectives of the Newgate Lane Improvement Package. Under these circumstances it is highly unlikely the Improvement Package would have been funded and implemented.

4.8 Considering the impacts of Appellant’s proposed mitigation measures separately, in all cases the BCR is reduced to under 1.5, resulting in the Newgate Lane Improvement Package moving from Medium to Low value for money in the Department for Transport’s Value for Money Framework (Figure I above).

4.9 This demonstrates that, even considering the junction signalisation and Toucan crossing implementation separately, the Appellant’s proposed development mitigation does

undermine the purpose and objectives of the Newgate Lane Improvement Package for either development in isolation or the developments combined.

5. Summary and Conclusions

- 5.1 The indicative arrow signalisation scheme is not considered acceptable by the Highway Authority on safety grounds as set out in Mr Mundy's evidence. Nevertheless, for completeness and following exchange of evidence, my rebuttal considers the impact of the development proposals to signalised old Newgate Lane/ Newgate Lane East and Toucan crossing implementation on the BCR of the recent highway Improvement Package at Peel Common Roundabout and Newgate Lane.
- 5.2 The updated assessment of the BCR values for this Improvement Package when including the forecast delay arising from the Appellant's highway mitigation proposals result in a reduction of the BCR value from 1.88 (Medium) to between 0.38 and 0.26 (Poor). Under these circumstances the costs of the Newgate Lane Improvement Package would substantially outweigh the benefits derived from the improvements.
- 5.3 I demonstrate in Section 4 that either of the developments in isolation or the developments combined, have a substantial impact on journey times, leading to reductions in the BCR to well below the likely threshold for scheme delivery. As such, in my professional opinion, the purpose and objectives of the Newgate Lane Improvement Package would be undermined and the impact on the local highway network is unacceptable and severe.
- 5.4 I conclude that, regardless of the modelling parameters considered acceptable, the indicative arrow signalisation scheme results in an unacceptable and severe impact on the highway network for either of the developments in isolation, or the developments combined and that implementation of either of the proposed developments with the signalisation scheme or the Toucan crossing should be refused in accordance with the Policy CS5 part 3, DSP40 part v and paragraph 109 of NPPF.

Conclusions

- 5.5 In my opinion, the severe impact on the operation of the highway network justifies FBC's decision to refuse the application in accordance with paragraph 109 of the NPPF.

5.6 The proposed signalisation of old Newgate Lane/ Newgate Lane East, for all development quanta, results in a significant erosion of the benefits arising from the Newgate Lane Improvement Package and a severe impact on the highway network. Implementation of the Toucan crossing results in the same, as does implementation of both the junction signalisation and Toucan crossing as proposed by the Appellant. The development proposals would result in unacceptable and severe harm to operation of the highway network for either development in isolation or combined and are not in compliance with Development Plan Policies CS5 and DSP40 and the NPPF.