



Title: Response to OCC's Response dated 23rd April 2023

Strategic Issues

Technical Note 16 v1

Date: June 2023

1.1 Introduction

- 1.1.1 Jubb has been commissioned by Hallam Land Management Ltd (HLM) to provide highways and transportation advice in relation to a proposal for a residential-led mixed use development on land north-east of the railway line in North West Bicester 'Hawkwell Village'.
- 1.1.2 A planning application (Ref: 21/04275/OUT) was submitted in December 2021 for a residential led mixed use development for up to 3,100 dwellings.
- 1.1.3 Following the latest Oxfordshire County Council (OCC) response (23rd April 2023) on transport and highway matters, HLM requested a meeting with OCC to discuss strategic issues. Unfortunately to date a suitable meeting date has been unable to be identified. Therefore, this note sets out the strategic issues that would have been raised at a meeting and a response from OCC is requested at the earliest convenience. It is considered that a meeting to discuss these issues would still be beneficial. The detail behind each item requiring a direction from OCC is not provided i.e. full modelling results, costings, journey times etc.; only the important findings are set out in order to obtain a strategic decision.
- 1.1.4 Detailed technical matters raised in the OCC response are not provided within this response as many of the issues rely on a strategic direction being agreed. A further Technical Note, setting out a response to detailed matters, will be issued at a later date.

1.2 Use of the Bicester Transport Model to Assess the Impact of the Development on the Highway Network

- 1.2.1 It is extremely disappointing, after being requested by OCC to use the updated Bicester Transport Model (BTM) and the agreement of an extensive scoping exercise to agree the modelling requirements in detail, that OCC are now stating that due to the age of the base model the modelling may need to be refreshed and/or traffic counts by the applicant are recommended to be undertaken.
- 1.2.2 The cost for using the model was significant (£27,350) and to be informed at this late stage, after being directed to its use, is considered to be an unreasonable request.
- 1.2.3 The initial BTM modelling results were received at the end of September 2022 with revised BTM modelling outputs received at the end of January 2023. It would be helpful if OCC could explain why the acceptability of the BTM model has changed between January 2023 and April 2023.
- 1.2.4 Having been requested to use the 2031 output traffic flows from the BTM to assess the impact of the development at junctions on the network it is not understood how 2023 surveys in the vicinity of the site will assist in terms of the future impact assessment – there is no 2023 base/future BTM assessment for comparison purposes and the SLR (in-situ in 2031) which will have a significant impact on vehicle assignment is not currently in place. The use of the BTM is to assess the operation of the network with the future infrastructure in place.
- 1.2.5 Recent planning applications (Axis J9, Phase 3 / Firethorn) and OCCs own scheme for the signalisation of the A4095/B4100 junction have used the BTM to assess their impact and OCC have deemed its use as acceptable.
- 1.2.6 OCC need to justify why the BTM model is not suitable for use to assess the impact of the Hawkwell Village development in light of its own direction to use the model for assessment purposes and its use to determine the impact of other developments / schemes.

1.2.7 Finally, the BTM does not consider the target set out in the OCC Local Transport and Connectivity Plan (LTCP) to remove 1 in 4 existing vehicles by 2030 and therefore, offers a worst-case scenario for future turning movements on the network.

1.3 Main Access Junctions Designs

1.3.1 The main access designs have been updated to provide straight over crossings for cyclists.

1.3.2 The introduction of straight over crossings for cyclists requires the introduction of an 'All Red Phase' to the signal phasing and a loss of capacity for vehicle movements.

1.3.3 Following the adoption of the OCC LTCP it is considered that any loss of vehicle capacity to the benefit of active transport users will be considered appropriate to achieve the LTCP vision and targets.

1.3.4 In addition, the LTCP target to reduce 1 in 4 car trips by 2030 has not been considered within the BTM and therefore, there will be a significant reduction in the vehicle trips that will pass through the two site access junctions.

1.3.5 For a 'Predict & Provide' approach to be achieved it should not attempt to achieve a 90% PRC at junctions (especially where no reduction to traffic has been undertaken to achieve the Vision) and should focus on the achievement of the movement of active road users.

1.3.6 Modelling indicates that the eastern site access junction will generally operate within its design capacity in 2031 with staggered or single movement pedestrian and cycle crossings and with both the BTM and the 'Vision' trip generation. With the target for a 1 in 4 reduction in car trips set out in the LTCP the junction will operate well within capacity.

1.3.7 The model indicates that the western site access junction will generally operate within its design capacity in 2031 with staggered pedestrian and cycle crossings. The introduction of single movement pedestrian and cycle crossings pushes the operation above its design capacity and on some arms close to or just over its theoretical capacity. The maximum DoS of 102% occurs on the A4095 eastern arm in the AM peak hour and results in a queue of 35 vehicles.

1.3.8 The LTCP vision to achieve a 1 in 4 reduction in car trips is likely to see the operation of the junction return to being within its design capacity. Introducing additional lanes is not compliant with the LTCP or its vision to reduce car trips by 25% - building in additional vehicle capacity will lead to additional trips through the junction and on the network.

1.4 Howes Lane / Bucknell Road / A4095 Interim Mitigation Scheme

1.4.1 The estimated cost of the interim scheme is £2.3M.

1.4.2 At no point, has Jubb or the applicant stated that the delivery of the interim scheme would jeopardise the delivery of the enhancement to the footpath along the railway.

1.4.3 At this stage, it is not considered that the cost of the scheme should be a factor in whether or not the proposed scheme is suitable. The highway authority should only consider whether the interim scheme is suitable in terms of its design. The cost of the scheme will then be put into the overall development costing when it can then be decided if the delivery of the scheme can be accommodated and whether it is at the cost of other items or not; at this point the highway authority can decide on the priorities that they want to be delivered.

- 1.4.4 The existing junction is the critical constraint on the highway network that has brought about the need for the delivery of the Strategic Link Road to enable development in NW Bicester to come forward. The forward funding for the Strategic Link Road has been reallocated due to time constraints on spending of the money. The cost of the Strategic Link Road is significant and commercially the delivery will only be forthcoming once a significant number of dwellings have been delivered. Our modelling shows that the Interim Solution can release some 1,250 dwellings before the delivery of the SLR, and as such this quantum of development seems reasonable. Without agreement from the highway authority on an interim scheme or the acceptance that the existing junction remains in place with the delivery of 1,250 dwellings until the delivery of the Strategic Link Road and a final solution scheme, with additional delays on the network, the delivery of any development at Hawkwell Farm is at risk.
- 1.4.5 The scheme which offers significant interim capacity benefits also offers significant pedestrian improvements and removes conflict points for cyclists
- 1.4.6 It should be noted that a Stage 1 Road Safety Audit has been undertaken and raises no areas of concern in terms of road safety associated with the proposal.

Precedent Set by Providing a No Objection Response to Firethorn Development with No Mitigation at the Howes Lane / Bucknell Road / A4095 Junction

- 1.4.7 OCC have raised no objection to the Firethorn application (530 dwellings) delivering no capacity or pedestrian / cyclist mitigation at the Howes Lane / Bucknell Road / A4095 junction.
- 1.4.8 The Traffic Flow Diagrams in the Firethorn TA development predict that 530 dwellings will generate an additional 132 and 89 vehicles through the Howes Lane / Bucknell Road / A4095 junction in the AM and PM peak hours respectively.
- 1.4.9 In the 12th January 2023 committee report (para. 7.12) OCC accept a 50% increase in delay from 6 to 9 minutes through the southern priority junction¹ when comparing the 2026 situation with and without the predicted increase in traffic due to the Firethorn development.
- 1.4.10 This sets a clear precedent of enabling development that gives rise to additional delay on the highway network and the acceptance that a **9 minute delay** at this junction is acceptable. It also sets a precedent that **pedestrian and cyclist safety within the current layout is considered to be suitable** with an additional 132 vehicles using the junction.
- 1.4.11 This decision also sets a precedent that, subject to contributions to identified schemes, the delivery of 530 dwellings whether or not at Firethorn, does not have a 'severe' impact on the highway network.

1.5 Howes Lane / Bucknell Road / A4095 Final Solution Scheme

- 1.5.1 When the SLR has been delivered, the level of traffic travelling through the Howes Lane (A4095) / Bucknell Road / A4095 junctions will decrease providing an opportunity to deliver a 'final solution' scheme which concentrates on active travel movements through the junction.

Proposed 'Final Solution' Scheme

- 1.5.2 The interim scheme provided walking and cycling improvements whilst focussing on improving capacity of the junction for vehicle movements in order to enable the occupation of up to 1,250 dwellings with sale monies enabling the funding/construction of the SLR.
- 1.5.3 The 'final solution' prioritises active travel movements over vehicle movements ensuring policy compliance with the OCC LTCP.

¹ Despite the proximity of the two junctions and their interaction due to queueing vehicles, OCC accepted capacity modelling of only the southern priority junction with no modelling of the roundabout junction being provided.

1.5.4 The design, attached as shown in **Figure 1.1**, significantly narrows down the carriageway and reallocates road space to enable significant pedestrian and cycle improvements across the junction.

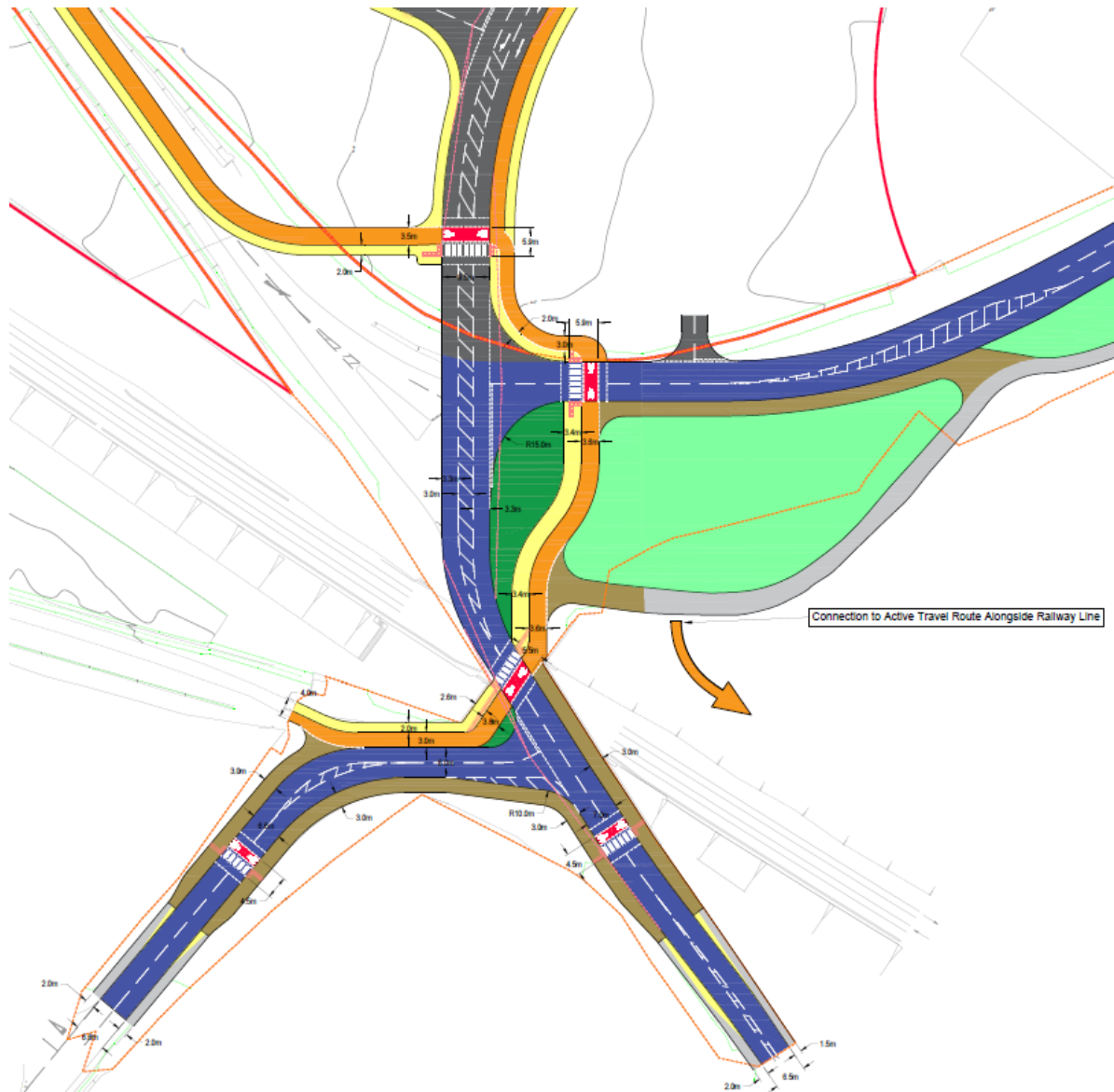


Figure 1.1 – Proposed Junction Layout

1.5.5 The design seeks to introduce a 20mph zone within which pedestrians and cyclists are afforded priority through the introduction of five at grade parallel 'Tiger' crossings providing a demand responsive solution. The carriageway between the 'Tiger' crossings will be buff coloured bound surface to raise drivers' awareness that they are entering an area where vehicles are not the dominant form of transport.

1.5.6 For the main desire routes it is proposed that a minimum 5m wide active travel corridor (2m footway + 3m cycleway) will be provided. A 3m shared surface is proposed for the remaining routes around the junction. All routes will connect via the five at grade 'Tiger' crossings. The shared use cycleways on Howes Lane and Bucknell Road (southern arm) will be provided with dropped kerbs to enable cyclists to transfer to/from the off-road cycling provision from/to the carriageways.

1.5.7 The reallocation of the road space retains the ability for north/south HGV movements (i.e. between the SLR and the town centre) if the Local Highway Authority deem these vehicle movements are necessary.

1.5.8 The removal of the interim scheme signal heads and reduction in road space requires HGVs turning left from Howes Lane to use both lanes of Bucknell Road (as is the current situation and deemed suitable and safe by OCC²). The SLR will replace the majority of the east/west HGV movements and two options can be considered: firstly that the left turn HGV movements from Howes Lane will be minimal and southbound vehicle movements on Bucknell Road will be reduced, vehicles will be travelling at low speeds and as currently occurs southbound vehicles will 'give-way' to enable HGVs to undertake the manoeuvre or secondly a ban on this HGV movement is introduced.

1.6 Upgrading of Footpath Alongside the Railway Line

1.6.1 Following a site visit two options for the upgrading of the existing route (Footpaths Bicester 129/12/10 and Bicester 129/12/20) alongside the railway line have been investigated:

- Option 1 - 2m footpath + 3m cyclepath; and
- Option 2 - 3m shared foot/cyclepath.

1.6.2 The 3m shared foot/cyclepath has been explored in conjunction with the segregated 2m footpath + 3m cycleway in the event of concerns being raised in relation to loss of vegetation and impact on ecology. As recognised by OCC in correspondence³ with IMA (transport consultants for the Firethorn development). OCC's Cycling Design standards only relate to new roads.

1.6.3 The estimated cost for the two options is:

- Option 1 - £712,914.67
- Option 2 - £559,388.63

1.6.4 The upgrade of the route alongside the railway line will not only provide a benefit to the pedestrians and cyclists from the proposed Hawkwell Village development but also to the wider NW Bicester allocation and therefore, it is proposed that the cost of the improvements should be proportionally shared by developments. OCC⁴ have stated that other developments are contributing to other active travel improvements; it is requested that OCC clearly set out the active travel improvements/costs that other developments have / will make contributions towards in order that, given the benefit to all NW Bicester developments of the route alongside the railway line, that each development's contribution to the active travel network is fairly proportioned.

1.7 Bucknell Road Link Road

1.7.1 The coding of Bucknell Road in the BTM is confirmed to be traffic calmed with a 30mph speed limit.

1.7.2 The Bucknell Road link road in the previous application(14/01384/OUT), commonly referred to as the 'Bucknell Hook', was moved south to enable a better masterplan layout to be delivered and to enable the link to come forward without the need for the delivery of expensive infrastructure (bridge) in the early stages of the development. Since the submission of the planning application, discussions with OCC have led to a requirement to safeguard land for a possible extension to the primary school and the link road has been moved to the north. **Figure 1.2** shows the three positions of the link road illustratively.

² 28.03.23 Meeting between Jubb and OCC

³ Email 9th March 2023

⁴ Telephone call 12th June 2023

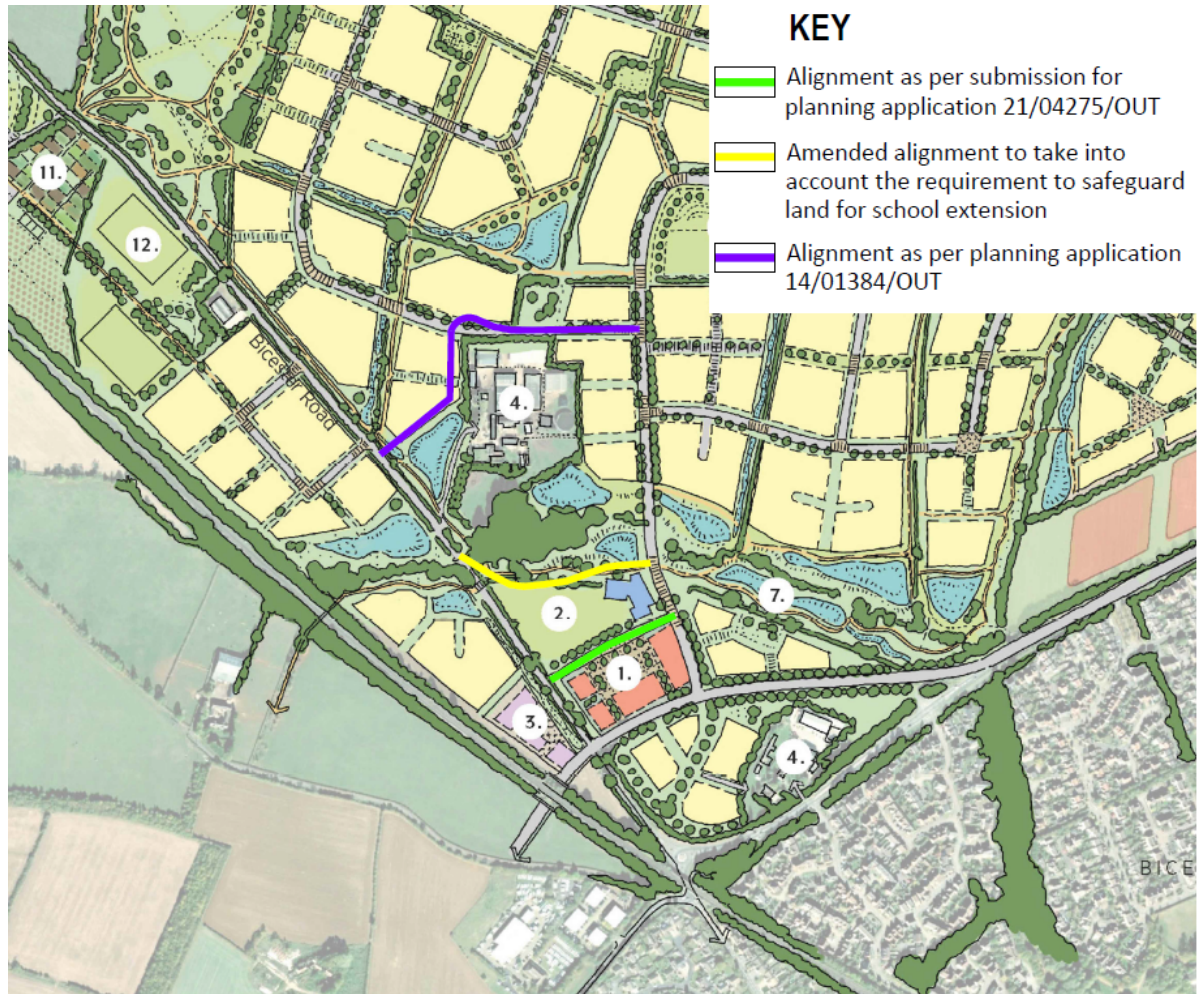


Figure 1.2 – Historical Positions of the Bucknell Road Link Road (Illustrative)

- 1.7.3 A journey time analysis has been undertaken to understand the difference in journey times between the positioning of the ‘Bucknell Hook’ in the previous application and the current proposal (south of Hawkwell Farm).
- 1.7.4 The assessment shows that there is no significant difference in journey times between the current and previous proposals for the Bucknell Road link road. For vehicles routing to/from the east and west the current proposal will increase the journey time by 19 seconds and for vehicles routing to/from the south the current proposal reduces the journey time by 9 seconds.
- 1.7.5 A comparison of vehicles predicted by the BTM to route through the Middleton Road / Bainton Road junction has been undertaken and is shown in **Table 1.1**.

Peak Hour	Previous Application	2031 Base	2031 Base + Committed	2031 Base + Committed + Development BTM Trip Rates	2031 Base + Committed + Development Vision Trip Rates
AM	544	664	764	827	780
PM	683	514	562	695	648

Table 1.1 – Vehicles Routeing Through Middleton Road / Bainton Road Junction

- 1.7.6 The results indicate similar / less vehicle movements in the PM peak hour when comparing the proposed Bucknell link road to the 'Bucknell Hook'.
- 1.7.7 In the AM peak hour the BTM predicts an additional 236 – 283 vehicles travelling through the Middleton Road / Bainton Road junction which can be seen to be mainly due to the increase in background and committed traffic.
- 1.7.8 It is noted that OCC's programme of introducing 20mph speed limits includes a completed scheme within Bucknell village. The implementation of the reduced speed limit through the village will deter vehicles from using the route. As Hawkwell Village will alter the Bucknell Road environment it will meet many of the criteria for a reduction in speed to 20mph (i.e. residential frontages, school walking route, an area where greater active travel is being promoted, aid better air quality) and therefore, the 20mph speed limit could be extended further reducing the attractiveness of the route.

1.8 Summary

- 1.8.1 This short Technical Note has set out the main six items where it is felt necessary for OCC to provide a strategic response:
- The suitability of the BTM to assess the impact of the development;
 - The acceptance that the delivery of active travel improvements at the site access will affect the capacity for traffic and that the introduction of additional capacity would not be beneficial to the delivery of the LTCP policies;
 - It has been shown, that an interim scheme at the Howes Lane / Bucknell Road / A4095 junction provides a suitable and safe design which offers improved capacity for vehicles and improved safety for pedestrians and cyclists – OCC are requested to confirm that the design is suitable to be temporarily introduced until the Strategic Link Road is opened; direction is also sought given the decision on the Firethorn application if OCC would consider an initial phase of 1,250 dwellings to be occupied prior to the delivery of the SLR and without a mitigation scheme;
 - Given that the active travel corridor alongside the railway line will benefit all developments in NW Bicester and Hawkwell Farm is being requested to fund the scheme in its entirety that contributions to be made by all parts of the allocation is/will be fair and equitable;
 - The moving of the Bucknell Hook does not offer benefits that have significant impact and the introduction of a 20mph speed limit on Bucknell Road would be acceptable.
- 1.8.2 A timely response from OCC is sought to enable the delivery of 3,100 dwellings which form part of a strategic allocation that has failed to be delivered over the last decade, and is critical for Cherwell District Council's housing delivery.