



APRIL 2021

Proof of Evidence of Clive Burbridge

Proposed Development of Land South of the A421 West of Far Bletchley North of the East West Rail Link and East of Whaddon Road Buckinghamshire, MK17 0EG

LPA Ref: 15/00619/FUL

DTLR Ref: APP/Y0435/W/20/3252528

Iceni Projects Limited on behalf of
Newton Longville Parish Council
and West Bletchley Town Council

April 2021

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LONGVILLE PARISH
COUNCIL AND WEST
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Proof of Evidence of Clive Burbridge
PROPOSED DEVELOPMENT OF LAND SOUTH OF THE
A421 WEST OF FAR BLETCHLEY NORTH OF THE EAST
WEST RAIL LINK AND EAST OF WHADDON ROAD
BUCKINGHAMSHIRE, MK17 0EG

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1. QUALIFICATIONS AND EXPERIENCE

- 1.1. My name is Clive Burbridge, I am a Member of the Royal Town Planning Institute (MRTPI), a Fellow of the Chartered Institution of Highways and Transportation (FCIHT), Fellow of the Institute of Highway Engineers (FIHE) and Chartered Member of the Institute of Logistics and Transportation (CMILT). I hold a BSc (Hons) in “Planning and the Environment”, together with a MSc in “Transportation Planning and Management”.
- 1.2. I am an equity Director of Icen Projects Ltd and a Director of Transportation, benefiting from 30 years’ experience in the design, implementation and assessment of transportation related matters in both the public and private sectors. I also sit on the Essex Quality Review Panel as part of a team providing independent planning audits. I am qualified with the Royal Society for the Prevention of Accidents (RoSPA) as part of their Road Safety Engineering Accident Investigation and Prevention certification (July 1995), which has continued to inform my engineering judgements/experience.
- 1.3. During my 30 years’ experience in transport planning, I have dealt with almost all land uses throughout the country and have a wide range of experience. This experience includes work on numerous residential developments from 2 houses to 17,000 homes, with associated complimentary land uses and infrastructure.
- 1.4. I can confirm I have a full understanding of my duty to the Inquiry and have complied, and will continue to comply, with that duty. I also confirm that the evidence which I have prepared identifies all facts which I regard as being relevant to the opinion that I have expressed and that the Inquiry’s attention has been, or will be, drawn to any matter which would affect the validity of that opinion, irrespective of by whom I am instructed. I believe that the facts stated within this proof are true and that my opinions expressed are correct and in accordance with my professional institutions. This proof of evidence supersedes my evidence of September 2020, which should now be discarded as the work within this and following work on a rebuttal is now abortive with the issue of TRN3.
- 1.5. I can also confirm that I have been involved with the detail of this site since Icen’s instruction on Friday 5th June 2020 by Newton Longville Parish Council and West Bletchley Town Council, following refusal of the application.
- 1.6. This Proof of Evidence deals with application 15/00619/FUL, which has been refused by Milton Keynes Council (MKC) for a single reason which relates specifically to highway matters. The application is for a proposed mixed-use development of up to 1,855 dwellings, an employment area (B1 use), a neighbourhood centre including retail (A1/A2/A3/A4/A5) and community (D1/D2) uses with a primary and secondary school proposed at land south of the A421 west of Far Bletchley north of the East West Rail Link and east of Whaddon Road, Newton Longville. This is an outline planning

application with all matters reserved except for access which includes a new roundabout onto Buckingham Road, a priority junction onto Whaddon Road and an exit only slip on Standing Way. To avoid any ambiguity my evidence mainly deals with the current Transport Response Note 3 (TRN3) by WSP dated January 2021, which is understood to provide a modified approach to the model calibration and validation process that supersedes the Updated TA.

- 1.7. In general terms, the junction capacity assessment and proposed mitigation in TRN3 presents an updated set of results which largely supersede the Updated TA. The trip generation and traffic flows used in TRN2 have been adopted for use in TRN3. As such, this evidence reflects the work in TRN3 unless explicitly stated otherwise.
- 1.8. The single reason for refusal states:

“That in the opinion of the Local Planning Authority there is insufficient evidence to mitigate the harm of this development in terms of increased traffic flow and impact on the highway and Grid Road network, with specific reference to Standing Way and Buckingham Road, thus will be in contravention of Policies CT1 and CT2 (A1) of Plan:MK.”

- 1.9. My evidence firstly deals with the Plan:MK 2016 – 2031 Policies CT1 and CT2 (A1) together with National Planning Policy Framework (NPPF) paragraphs 108 and 109. In Section 3 I turn to address the Reason for Refusal as it relates to highways and transportation. In Section 4 of my Proof of Evidence I set out my conclusions, which are also a Summary of my evidence.

2. TRANSPORTATION RELATED POLICY AND GUIDANCE

- 2.1. It is appreciated that the policies are contained in the Core Documents and the witnesses are encouraged not to repeat these. However, I feel it is helpful to identify the key sections of each policy, CT1 & CT2 upon which my evidence relies.

Plan:MK 2016 – 2031 (Adopted March 2019)

Policy CT1

- 2.2. Policy CT1 relates to the sustainability of future developments within Milton Keynes and states the following:

Sustainable Transport Network

- A. The Council will promote a sustainable pattern of development in Milton Keynes, minimising the need to travel and reducing dependence on the private car. Milton Keynes Council will:
 - 1. Promote a safe, efficient and convenient transport system
 - 2. Promote transport choice, through improvements to public transport services and supporting infrastructure, and providing coherent and direct cycling and walking networks to provide a genuine alternative to the car
 - 3. Promote improved access to key locations and services by all modes of transport and ensure good integration between transport modes
 - 4. Manage congestion and provide for consistent journey times
 - 5. Promote and improve safety, security and healthy lifestyles
 - 6. Continue to engage with relevant stakeholders along the East-West Rail line and Expressway to identify operational benefits, which provide additional support for a more sustainable transport strategy and/or economic growth of the city
 - 7. Engage with the National Infrastructure Commission to set in place connections from Central Milton Keynes to surrounding communities, including a fifth track constructed between Bletchley and Milton Keynes Central
 - 8. Promote the usage of shared transport schemes in the borough

Note: My underlining of the issue pertinent to this Inquiry

- 2.3. The policy clearly states that future developments need to manage congestion and provide for consistent journey times. I will explain within my evidence how the Appellant's own analysis does not support this policy.

Policy CT2 (A1)

2.4. Policy CT2 relates to the movement and access of developments and states the following:

Movement and Access

- A. Development proposals will be required to minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low carbon future. Development proposals will be permitted that:
 1. Integrate into our existing sustainable transport networks and do not have an inappropriate impact on the operation, safety or accessibility to the local or strategic highway networks;
 2. Mitigate impacts on the local or strategic highway networks, arising from the development itself or the cumulative effects of development, through the provision of, or contributions towards necessary and relevant transport improvements including those secured by legal agreement;
 3. Ensure that development proposals do not prejudice the future development or design of suitable adjoining sites;
 4. Provide safe, suitable and convenient access for all potential users;
 5. Provide on-site layouts that are compatible for all potential users with appropriate parking and servicing provision in line with the Milton Keynes Parking Standards Supplementary Planning Document (January 2016);
 6. Do not result in inappropriate traffic generation or compromise highway safety;
 7. Offer maximum flexibility in the choice of travel modes, including walking and cycling, shared transport, and with accessibility for all potential users;
 8. Protect and where possible enhance access to public rights of way;
 9. Provide a public transport connection to the main points of service provision including nearest district or town centre, or community facilities; and
 10. Where possible incorporate the use of shared transport and low carbon “green” travel modes such as electric vehicle charging capacity.

Note: my underlining of the issues pertinent to this Inquiry

2.5. The policy clearly draws attention to the impact on the local highway network as a result of the traffic generated by developments. The TRN3, which supersedes the TA (May 2020) identifies multiple junctions that will operate over capacity with the proposed development traffic and has failed to identify sufficient improvements to mitigate the impact or modelling to understand the residual effects. As such, the development as currently presented is contrary to policies CT1 and CT2 (A1).

National Planning Policy Framework (NPPF) – February 2019

2.6. Part c of Paragraph 108 of the NPPF clearly states that significant impacts from development on the transport network in terms of capacity and congestion should ensure that they can be cost effectively mitigated to an acceptable degree. Irrespective of my own concerns on the credibility of the TRN3 or subsequent documents, WSP’s own work has shown that further analysis of the network would be required to understand the impact of the development; in the absence of this the modelling presented shows significant delays/capacity issues at a number of key junctions.

- 2.7. The NPPF at paragraph 109 goes on to state that unacceptable impacts on highway safety or severe residual cumulative impacts on the road network would result in the development being refused on highway grounds. As previously mentioned and explained further in the next section of my evidence, reading WSP's own TRN3, the impact on the network is severe and the wider impact on Milton Keynes has not been considered.
- 2.8. In summary, the work undertaken within the TA has failed to demonstrate that suitable mitigation can be provided at the Tattenhoe Roundabout to accommodate the proposed site access and crossing on Buckingham Road. The impact as currently presented shows the resultant development would have a severe impact on these junctions and cumulatively over the network, including other key junctions in Milton Keynes as identified by WSP. On the basis of the evidence before this inquiry it has not been demonstrated that those impacts will be mitigated. We do know that several junctions are predicted to be significantly over capacity and that the full impact of the development has not been modelled. As the developer has not sought to provide the necessary wider assessments/considerations, and in the absence of suitable information including offsite junctions/network, it stands to reason that the development must be contrary to both local and national policy. Thus, what we do know at present is that the current modelling shows that with mitigation the development will still result in a severe impact and WSP appear to still rely of traffic finding alternative routes (which have not been assessed).

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3. HIGHWAYS AND TRANSPORTATION CONSIDERATIONS

- 3.1. Within this section of my evidence I will explain my position in greater detail and justify why I feel the proposed development results in a severe impact on the network both at individual junctions and cumulatively, and as a result is contrary to both national and local policy.
- 3.2. I have broken my concerns down into three main topics. These being:
- Impact across the highway network, taking WSP's TRN3 at face value;
 - Concern over the Tattenhoe Roundabout and neighbouring site access; and
 - Additional areas of concern which could invalidate/undermine the modelling.
- 3.3. Although I may not necessarily fully agree with the contents of the TRN3 and aspects of the methodology undertaken, the general approach to the development trips (with the exception of the secondary school), distribution and growth factors appear reasonable. Therefore, my main concern is that WSP have not provided sufficient and/or deliverable mitigation at several junctions, whilst also disagreeing how they have modelled the Tattenhoe Roundabout in LinSig and the proposed site access roundabout on Buckingham Road. To avoid any misunderstanding, I have not looked into the detailed modelling of the other junctions within the WSP TRN3 in any great detail due to the time available and the diminishing Parish resources effectively considering this work for a third time. As such, I would not wish my lack of checking of these junctions to be taken as agreement to their modelling.
- 3.4. It is understood that there have been three Transport Assessments along with three Transport Response Notes, submitted relating to the proposed development with the latest version provided in the form of a TRN3, produced by WSP in January 2021 being the one predominantly before the Inquiry. The methodology within this report somewhat differs from previous reports as a modified approach to the model calibration and validation process along with the junction capacity assessment and proposed mitigation in TRN3 presents an updated set of results which supersede the Updated TA. To reiterate, I have based my evidence on the January 2021 TRN3 unless otherwise stated. I have concentrated my evidence on the capacity implications of the development and have not sought to test the sustainability of the site. As such, to avoid ambiguity, for the purpose of the Inquiry I am not reviewing (and therefore not contesting) the sustainability, that is not to say however that I agree that the location is sustainable and leave this to the Inspector and others to consider.
- 3.5. I would however add that the sustainability of the site largely rest on bus accessibility which will be affected by congestion on the network and my concerns over the modelling impact.

Impact Across the Highway Network based on WSP modelling

- 3.6. My concern lies primarily with the congestion and revised impact across the highway network.
- 3.7. The Appellant fails to assess the impact of the traffic that will re-route because of the increased congestion in the area as a result of the proposed development. The wording in the TA was as follows *“this level of queueing and delay is unlikely to be accepted by motorists who will either re-route or re-time their journey”* – this attempt to defend the severe impact is mentioned at numerous junctions found in paragraphs 7.3.18, 7.3.24, 8.3.25, 8.3.33, 8.3.46, 8.3.54 and 8.3.61 of the TA. Given the severe congestion still being modelled the appellant still apparently relies on re-routing. Irrespective of relying on this or not, re-routing will occur and it has not been modelled. The Appellant has failed to provide a micro simulation model (or any alternative redistribution modelling scenarios) which would assess the impact of the traffic re-routing, instead assuming it will distribute onto the highway network with no severe impact.

Junction 1 - Sherwood Drive/Water Eaton Road/B4034 Buckingham Road Roundabout Junction

- 3.8. It is also noted that this junction has been assessed using the ‘Lane Simulation’ feature within the Junctions 9 package due to clear uneven lane usage across the junction. As such, the junction is to be assessed in terms of Queues and Vehicle delay rather than via the more conventional Relative Flow to Capacity (RFC). It should, however, be noted that Junctions 9 provides the following ‘Error Warning’ when the ‘Lane Simulation’ feature is used:

‘This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.’

- 3.9. This is discussed further within the Junctions 9 User Guide at Section 3.2.1 Lane Simulation Page 12, where it highlights that Lane Simulation mode results can vary slightly from run to run due the stochastic nature of simulation. It also states that the source code has been developed more recently and although the ‘Lane Simulation’ feature does make use of the core ARCADY/PICADY models, it is not in itself derived from empirical studies. Therefore, engineering judgement should be applied to both the application of the model and the interpretation of the results.

- 3.10. The user guide also states the following on Page 202:

*‘It is important to note that the ARCADY empirical model was developed from a dataset that would have included a variety of lane configurations. In other words, the ARCADY model inherently includes some allowance for lane usage. However, if there is **significant** unequal lane usage, then the Lane Simulation Mode may prove useful.’*

- 3.11. Whilst the above extract may lend itself to concluding that this junction should be assessed using the Lane Simulation, the Junctions User Guide then makes the following statement, again on Page 202:

'Lane Simulation Mode in Junctions 9 is provided as a tool to investigate alternative lane configurations at roundabouts. It should not be taken as forecasting junction performance to the same level of accuracy as the main ARCADY model'.

- 3.12. Given this, it should be known that whilst I do not have an issue with part of this junction assessment being undertaken using Lane Simulation, I feel that it should also be supplemented with a traditional ARCADY assessment to ensure the correct engineering judgements have been made and ensure that where necessary the lane simulation model can be compared to a traditional model. WSP have failed to undertake this additional modelling, as I suspect based on the previous work it would show significant concerns with regard to the operation of the junction. In the absence of this it is difficult to fully comprehend the full impact of their proposals.
- 3.13. Notwithstanding the above, I have reviewed the results for Junction 1 (Sherwood Road/Water Eaton Road/B4034 Buckingham Road). I have ignored all junction analysis in terms of Level of Service (LoS) within the WSP summary as this is based on the Highway Capacity Manual 2000 (The United States Transportation Research Board) which is founded on research undertaken in the United States and is not used when assessing UK roads.
- 3.14. From Table 4.1 within TRN3, it is clear that the junction operates well over capacity in the 2020 Base Scenario with maximum queues of 27 occurring in the AM and PM peaks respectively. The junction performance reduces further with a maximum queue of between 243 and 324 vehicles on the B4034 Buckingham Road Junction in the AM peak in all Development Case scenarios. As such, it is clear that a mitigation scheme must be considered at this junction.
- 3.15. The mitigation proposed, involves providing two straight ahead lanes on the Buckingham Road (B4034) arms of the junction, with respective formalisation of two lane exist merges, and minor kerb amendments to the Water Eaton Road and Sherwood Drive arms. These changes are logical with some very minor amendments to the geometries of the roundabout which are to be expected.
- 3.16. Whilst the mitigation in the Do Something 1 Scenario does reduce the queuing on Water Eaton Road and B4034 Buckingham Road when compared to the 2033 Base Case Scenario, the queues on the Sherwood Drive and B4034 arms increase and are significantly over capacity in the AM peak. In the PM peak, the Sherwood Drive and Water Eaton Road queues increase and whilst reducing, the B4034 queues are still significantly over capacity.
- 3.17. In the Do Something 1 Scenario, the queue on Sherwood Drive is expected to be 46 vehicles and a vehicle delay of 3 minutes in the AM peak, an increase of 15 queuing vehicles. Assuming an average

vehicle length of 5.75m, a queue of 46 vehicles is approximately 265m. This results in blocking of both Selwyn Grove and the Bletchley Railway Station Access which have not been modelled as part of this junction.

- 3.18. In the PM peak, the maximum queue on the Do Something 1 Scenario occurs on the B4024 arm with a maximum queue of 45 vehicles (85 across both lanes). Again, using an average vehicle length of 5.75m this results in a queue length of 260m which in turn causes queuing back and into the B4034/V7 Saxon Street/Duncombe Street Roundabout, located 250m to the east as well as causing blocking on the Zebra Crossing located on the B4034 exit arm. The queue at the Water Eaton Road arm is also expected to increase in the PM peak when compared to the 2033 Base Scenario with the queue increasing from 43 vehicles to 59 vehicles and an increase delay of three minutes to a total delay of eight minutes. This results in a potential queue length of over 300m, causing blocking of all four accesses between the B4034 and the railway bridge.
- 3.19. Based on the above it is clear that the impact of the development traffic on this junction is severe with clear impacts on the operation of Sherwood Drive, Water Eaton Road, the B4034 and the potential for queuing to be so severe that it impacts on the operation of the B4034/V7 Saxon Street/Duncombe Street. The development traffic with mitigation has effectively moved the problem around and caused an issue which did not exist.

Junction 6 – Bottle Dump Roundabout

- 3.20. The Appellants have revised their work at Junction 6 (Bottle Dump Roundabout). As a result of this I have undertaken a review of the geometries contained with TRN3 for this junction. This has highlighted that the inputted Effective Flare Lengths have been entered as zero for both the A421 Standing Way and Whaddon Road arms. This is incorrect as the entry width and approach road half widths on the A421 Standing Way are circa 7.5m and 7m respectively, which naturally leads to a flare being present. The entry width and approach road half widths on Whaddon Road are circa 4m and 7.4m and again, a flare (the distance over which the widening occurs between the approach road half width and entry width) should be present here. Due to these incorrect geometries, the existing junction model are incorrect and as such, the existing roundabout has not been properly assessed. This overestimation would also have a significant effect on the capacity of the Whaddon Road arm, as currently the model is coded in such a way that it has a two-lane approach rather the real world scenario of a single lane approach. This results in the model overestimating the capacity on this arm as a two-lane approach to the junction would clearly be able to accommodate more traffic than a single lane approach.
- 3.21. As a result of the above, the calibration and validation assessment contained with TRN3 for this junction cannot be assessed appropriately. As the fundamental geometries of the roundabout are incorrect the model cannot be correctly calibrated as you are essentially calibrating the observed

queues to a different junction. When you then model the proposed scenario, the modelled junction will not perform in the same way as it would on site.

- 3.22. I would also raise the issue that vehicle tracking has not been provided for all turning movements at this junction and the movements that have been provided indicate that HGVs would over run the adjacent lanes. In some cases, this overrun means that they could collide with a car running alongside.
- 3.23. In addition, it has been noted that this junction has been assessed using the 'Lane Simulation' feature within the Junctions 9 package, however, it is not clear why this has been done. There is no clear assessment showing that lane usage is uneven and indeed within the model, the lane use is evenly split. This lends itself to the conclusion that a traditional ARCADY model would be appropriate. Our previous concerns in regard to Lane Simulation models remain for this junction assessment.
- 3.24. Notwithstanding the above, I have reviewed the results for Junction 6 (Bottle Dump Roundabout). I have once again ignored all junction analysis in terms of Level of Service (LoS) within the WSP summary as this is based on the Highway Capacity Manual 2000 (The United States Transportation Research Board) which is based on research undertaken in the United States and is NOT (my emphasis) used when assessing UK roads.
- 3.25. Based on the modelling results in Table 4.4 of TRN3, the junction is expected to operate well over capacity in the 2033 Base Case without any development traffic added to the network. There is expected to be maximum queue of 48 and 98 in the AM and PM peaks respectively. When development traffic is added to the junction, the maximum queue in the AM peak increases by 61, to 109 and in the PM peak increases by 27, to 125. As such, if the junction assessment was considered accurate, mitigation is clearly required.
- 3.26. The revised package of mitigation facilitates two lanes of traffic to travel straight ahead between the Whaddon Road and A421 Buckingham Road as well as widening of the entry widths on the Whaddon Road arm A421 Buckingham Road arm to 8.2m in order to accommodate increased stacking space. However, DMRB document CD 116 Geometric Design of Roundabouts page 34 states the following:

3.14.1 – At the give way line, a lane width value of 4.5m should be used at single lane entries.

3.14.2 – At the give way line, lane width values of between 3m and 3.5m should be used at multi-lane entries.

- 3.27. As such, the mitigation proposals on this arm do not conform with design standards as a two-lane entry arm would have a maximum entry width of 7m (two 3.5m lanes). As such, the proposed mitigation does not conform to Design Standards. Put simply you cannot widen a lane to reduce the

impact modelled in Arcady, when in reality such geometric proposals would not be deliverable on site. Although arguably highlighted to the Road Safety Auditors, although not specifically for each junction, this is not an RSA issue but about deliverability. The RSA states that *“entry widths, circulatory carriageway widths and deflection at a number of junctions may not be compliant with the desired standards set out in CD 116, however these junctions are not part of the trunk road network. The current network layouts do not comply with CD 116”*. Although I will accept these are not Trunk Roads is it national practice to adopt the standards within CD 116 for the design of the junctions on the network currently under consideration. It is not acceptable to dismiss or ignore such standards. Indeed, WSP would not have highlighted this to the auditor had it not been conventional practice to use these standards. As the drawings do not contain the measurements and WSP have not highlighted each departure individually the credibility of the audit is also in question as it would be difficult to tell the difference in entry width from the drawings.

- 3.28. Based on these numerous issues with the model, it is clear that the assessment undertaken by WSP is insufficient and cannot be considered accurate enough for a planning decision to be made.

Junction 15 – Bleak Hall Roundabout

- 3.29. From Table 4.8 within TRN3, the junction operates just over capacity in the 2020 Base Scenario with RFC's between 1.02 to 1.05 in the AM peak and 0.99 to 1.07 in the PM peaks. The junction performance reduces further in the 2033 Base Case scenario where no development traffic is added with RFC values between 1.14 and 1.24 across the junction in each peak. Queues also increase significantly with a maximum queue of 154 vehicles occurring on the A421 Standing Way (E) arm in the AM peak and 166 vehicles on the A421 Standing Way (W) arm in the PM peak.
- 3.30. When development traffic is added to the junction in the Do Something 1 Scenario, a maximum RFC of 1.42 occurs on the A421 Standing Way (W) arm in the AM peak and a maximum RFC of 1.36 occurring on the V6 Grafton Street (S) arm in the PM Peak. As such, it is clear that impact of the development traffic at this junction is severe and a mitigation proposal is required.
- 3.31. WSP continue to propose the mitigation scheme contained within the 'Updated TA' (widening of Grafton Street (N), Grafton Street (S) and A421 Standing Way (N)). As a result of the existing junction assessment within TRN3, additional mitigation has now been proposed which results in three entry lanes being provided on each arm. However, I have concerns with these mitigation proposals which I will discuss below, taking each arm in turn.
- 3.32. Beginning with the Grafton Way (N) arm, the entry width has been increased from 9.3m to 10.76m to accommodate three lanes, resulting in approximate lane widths of 3.6m. As stated previously in this section, DMRB document CD 116 Geometric Design of Roundabouts states that at the give way line, lane width values of between 3 metres and 3.5 metres (maximum) should be used at multi-lane entries. As such, the mitigation proposals on this arm do not conform with design standards and

would not be delivered on site. I would suggest these parameters have likely been designed to 'maximise' the model by increasing the 'effective flare length' which can be seen as an easy way to increase arm capacity without any regard to "buildability". I discussed previously my concerns with regard to the implications this being properly drawn to the attention of the RSA auditor as they are unlikely to spot the difference between 10.5 maximum allowed and 10.76 show – but this will improve the modelling.

- 3.33. This issue is replicated on the Grafton Street (S) arm where the entry width increases from 9.7m to 11.2m (3.73m lane widths) and Standing Way (S) arm where the entry width increases from 8.5m to 10.88m. Again, the fact that the entry width of the Standing Way (S) seems to be an arbitrary number with no consideration to design standard leads me to believe that this arm has also been designed to 'maximise' the model.
- 3.34. In the WSP summary they state that an increase in queuing of 13 vehicles would be considered negligible and how the mitigation improves the operation of the junction. I would question whether 13 vehicles is negligible as this is circa 75m additional queue. More importantly I would also state that the mitigation does not necessarily improve the operation of the junction as suggested, but moves issues to different arms, which is not mitigating the impact of the development.
- 3.35. Based on the above, I have major concerns with the assessment of this junction and do not feel that an accurate assessment has been undertaken. This is highlighted by the fact that the mitigation proposals do not accord with standards set out within DMRB CD116. If the proposed mitigation scheme was designed in accordance with these standards, the mitigation proposals are unlikely to show an improvement over the 2033 Base Case scenario and indeed the modelling results would almost certainly be significantly changed for the worse. As such, the impact of the proposed development at this junction must currently be considered severe.

Junction 16 - Enfield Park Roundabout

- 3.36. From Table 4.9 within TRN3, the junction operates just over capacity in the 2020 Base Scenario with RFC's between 0.95 to 1.04 in the AM peak and 1.01 to 1.09 in the PM peak in addition, excessive queuing (>20 vehicles) occurs on all arms of the junction in both peaks. The junction performance reduces further in the 2033 Base Case scenario where no development traffic is added with RFC values between 1.13 and 1.27 across the junction in each peak. Queues also increase significantly with a maximum queue of 151 vehicles occurring on the A421 Standing Way (N) arm in the AM peak and 170 vehicles on the A421 Standing Way (S) arm in the PM peak.
- 3.37. When development traffic is added to the junction in the Do Something 1 Scenario, a maximum RFC of 1.38 occurs on the A421 Standing Way (S) arm in the AM peak and a maximum RFC of 1.40 occurring on the A421 Standing Way (N) arm in the PM Peak. As such, it is clear that the impact of the development traffic at this junction is severe and a mitigation proposal is required.

- 3.38. WSP continue to propose the mitigation scheme contained within the 'Updated TA'. As a result of the existing junction assessment within TRN3, additional mitigation has now been proposed which results in three entry lanes being provided on each arm. I do however, have concerns regarding the roundabout exits on Watling Street (W) and Watling Street (E) as these continue to be designed as single lane exits, with Watling Street (E) having a noticeably narrower exit, reducing from circa 7.5m to circa 3.5m over a distance of 15m. This results in a lane reduction taper of 1:5, where a more appropriate taper distance for a junction where the downstream link is a single carriageway road would 1:15 to 1:20. This is confirmed in DMRB CD116 Geometric Design of Roundabouts page 48 which states:

3.28.3 – Where the downstream link is a single carriageway road, the exist width should reduce at a taper of 1:15 to 1:20. Starting at the end of the exit from the roundabout, ensuring 6m at the of the traffic island, to avoid existing vehicles encroaching onto the opposing lane.

Note – The additional width allows traffic to pass a broken down vehicle

2.28.5 – where traffic is required to merge after exiting, sufficient distance should be provided from the exit to allow the merging manoeuvre to take place in a safe and efficient manner

- 3.39. A merge of this length essentially gives a single car length between two vehicles trying to merge together. I would suggest this is not appropriate design practice and would be unlikely to be approved at the detailed design stage.

Junction 17 – Emerson Roundabout

- 3.40. As demonstrated in Table 4.10 within TRN3, the junction operates just within capacity in the 2020 Base Scenario with RFC's between 0.83 to 0.98 in the AM peak and 0.90 to 0.95 in the PM peak. The junction then operates significantly over capacity in the 2033 Base Case scenario where no development traffic is added with RFC values between 0.97 and 1.38 in the AM peak and 1.04 to 1.22 in the PM peak. Queues also increase with a maximum queue of 99 vehicles occurring on the V3 Fulmer Street arm in the AM peak and 107 vehicles on the A421 Standing Way (N) arm in the PM peak.
- 3.41. When development traffic is added to the junction in the Do Something 1 Scenario, a maximum RFC of 1.61 occurs on the V3 Fulmer Street arm in the AM peak and a maximum RFC of 1.35 occurring on the Shenley Way arm in the PM Peak. As such, it is clear that impact of the development traffic at this junction is severe and a mitigation proposal is required.
- 3.42. WSP continue to propose the mitigation scheme contained within the 'Updated TA'. As a result of the existing junction assessment within TRN3, additional mitigation has now been proposed which results in three entry lanes being provided on each arm. I do however, have concerns regarding the roundabout exits on Fulmer Street and Shenley Road as these continue to be single lane exits, with

Shenley Road having a noticeably narrower exit. The Shenly Road exit reduces from circa 8m to circa 3.5m over a distance of 30m. This results in a lane reduction taper of 1:10, where a more appropriate taper distance for a junction of this type would be 1:15 to 1:20 as stated within DMRB CD166 Geometric Deign of Roundabouts. I would suggest this is not appropriate design practice and would be unlikely to be approved at the detailed design stage.

- 3.43. Table 5.10 within TRN3 shows that the junction will continue to operate above capacity should the mitigation scheme be implemented. The results also show that the mitigation proposals reduce the RFC on the V3 Fulmer arm and Shenley Way arm. However, RFC increases occur on the both the A421 Standing Way arms, with a maximum increase of 0.13 in the PM peak. As such, it is clear that the proposed mitigation strategy at this junction is insufficient to negate the impact of the development traffic and the proposed development will have a detrimental impact on the junction moving the issue from one arm to another.
- 3.44. It is clear that the Appellant's own work clearly demonstrates a severe impact on the network using WSP's own modelling presented to the Inquiry, which in itself is questionable. WSP's own answer appears to rely on the TA where they ask the reader to trust that the network will balance out as people re-route or find alternative journey times. Others may call this rat-running and peak spreading. It is a reasonable assumption for WSP to make that where severe queueing is predicted, car drivers may choose to seek alternative routes. However, in the absence of testing this hypothesis with a dynamic microsimulation model (or any redistribution scenarios) we are only left with the information as presented which categorically demonstrates a severe impact on the network. In order to determine/understand/quantify the impact of the development it is normal practice to model the impact and suggest appropriate mitigation where necessary. It is not acceptable to acknowledge a severe impact and ask the reader to trust this would resolve itself without testing this hypothesis and presenting the evidence. Further such peak spreading which WSP have suggested would need to be contained in any Environmental Assessment which should consider all impacts.

Tattenhoe Roundabout (Junction 5) Mitigation – Interaction with Site Access and Crossings

- 3.45. The appellant has revised their work at Junction 5 (Tattenhoe Roundabout). It is clear that the junction in its existing form will not operate within capacity when the development is fully occupied and as such, a mitigation strategy must be proposed. As a result of this I have undertaken a review of provided LinSig model and proposed mitigation drawings. Unlike the models previously discussed in my Proof of Evidence, there are a number of 'building blocks' which come together to form a functioning and appropriate LinSig model. Each of these aspects of the model have been assessed in the below model audit.

Mitigation Design

- 3.46. I have some concerns over the design of the proposed mitigation at this junction. The first being that the mitigation drawing lacks important details such as road markings and information regarding the re-provision/relocation of street furniture. Finally, the vehicle tracking drawings provided indicate the potential for HGVs to collide with other vehicles running alongside on the circulatory of the carriageway. As such we have to start with the question – “is the mitigation even deliverable?”

Link Lengths

- 3.47. The lengths recorded for the nearside flare lanes on both the A421 Standing Way approaches are incorrect with the west modelled at 50m but measuring at 4m and the east modelled at 50m and measuring at 5m. Amending the lengths of these lanes significantly affects the capacity on these approaches meaning Standing Way west is expected to operate over capacity in all AM and PM. Standing Way east is expected to operate over capacity in the PM.
- 3.48. Paragraph 5.3.12 of the TRN3 references the queue at the start of green and what the extension of the queue is likely to be as the mean maximum queue in PCUs. The queue at the start of green in some cases extends past the point in which the queue is expected to block other vehicles. In addition the mean maximum queue extends past this point in all cases apart from on the inside lane of gyratory west and the inside lane of gyratory south.
- 3.49. There is therefore no doubt that the queues on the circulatory will block the exits to the roundabout and will in fact be even longer if road users adhere to the keep clear markings. There has been no attempt in the model to account for this blocking back using underutilised green time.
- 3.50. Underutilised green time will reduce the capacity on the links in which it is applied; LinSig does not account for this blocking back without having it applied manually. Should this roundabout be signalised as suggested by WSP there will be instances of blocking back which not only causes concern around capacity, but also safety for road users. This would not have formed part of the RSA unless the auditor was given the modelling and fully understood Linsig.

Queue De-silver Value

- 3.51. Queue de-silver values had been added to all internal gyratory lanes even though the warning did not appear on every lane. As per TfL Model Audit Guidelines, the de-silver value used should be the lowest possible value to remove the presence of the warning in the model and should always be lower than 1.
- 3.52. Queue de-silver values are not required on lanes J1:5/2, J1:5/3, J1:6/1 and J1:8/1. All values on other links can be reduced to 0.1. In some instances, a value of 2 had been used in the model and as such it was artificially reducing the queue lengths on the gyratory links. This will affect the modelling result allowing the junction to appear to operate better than it would in reality.

Flow Assignment

- 3.53. Flows in the model appear to have been assigned using 'customised delay-based assignment'. For roundabouts we would expect the flows to be applied manually particularly for the movements between the two Standing Way approaches. The volume of traffic going ahead between the two lanes should be replicated from the base scenario or a cautious approach that divides the total flow using the two lanes (ahead and right) as 70:30, with the greater volume of traffic using the middle lane. In the model there are currently scenarios where there is a greater volume of traffic using the outside lane and this is unrealistic; vehicles typically prefer to use the nearside lane.
- 3.54. With regard to the more cautious approach I mention above, this has been discussed within Chris Kennett's Merging Traffic at Signalled Junctions document (August 2015) published as part of the JCT Consultancy 2015 Symposium. This concluded that that traffic flow in lanes approaching a merge are predictable and can be modelled. Furthermore, there is a consistent bias towards the nearside lane resulting in the nearside lane flow being representative of 73.5% of the total flow. For the benefit of the inquiry JCT produce the LinSig modelling package and advise on how this should be used within the parameters of their software. The WSP analysis has not had regard to this on the matter of lane assignment.

Conclusion

- 3.55. It can be assumed that the model of junction 5, Tattenhoe roundabout, underestimates the impact of the mitigation due to the way in which the flows have been assigned, the incorrect flare lengths on Standing Way and the fact that there has been no attempt to account for any blocking back.
- 3.56. Even if the queues on the internal links were to clear every cycle there would be instances where vehicles cannot enter the roundabout on green as the internal links block back and this has not been represented using underutilised green time.
- 3.57. It was also found that queue de-silver values were used when not required and on occasion the value used was much too high; as such the queue lengths on the internal links were being underestimated.
- 3.58. As such, it is clear the junction assessment provided is not of sufficient standard for the inspector to make a decision on its acceptability and in the absence of micro simulation modelling we have no real knowledge how the junction will interact with Buckingham Road site access or the pedestrian crossings.

Buckingham Road Site Access

- 3.59. The Appellants have revised their work at Buckingham Road site access junction within TRN3. Again, I have concerns that this site access junction has not be designed in accordance with the standards set out with DMRB CD116. For example, drawing number D017 REV D shows a four-arm layout with

three arms providing a single lane entry and the Buckingham Road (E) arm showing a two-lane entry. As such, the maximum entry width on the Grid Road Reserve, Site Access and Buckingham Road (W) should be 4.5m in accordance with standards, whereas they have been modelled as 4.49m, 5.18m and 5.10m respectively. This means that the Site Access and Buckingham Road (W) arm have not been designed to standard and as a result, wide entry widths (and resultant entry flare lengths) have been used in the model. This leads to the ARCADY model overestimating capacity on a junction which would not reasonably be built at detailed design stage.

- 3.60. The results of this assessment within TR2 demonstrate that the proposed site access junction will operate within capacity in both the AM and PM peak scenarios with a maximum RFC of 0.59 and 0.66 respectively in the 2033 Do Something 1 Scenario on the Buckingham Road (W) arm. However, as previously stated, the capacity of the junction has been significantly over estimated as a result of entry widths being provided in excess of design standards. This could result in the RFC being above the acceptable threshold of 0.85 for new junctions. It is also not clear how this junction will interact with the very busy Junction 5 Tattenhoe Roundabout or pedestrian crossings and consideration should be given to providing a link junction assessment model at this location or a micro simulation model.

As such, it is clear the junction assessment provided is not of sufficient standard for the inspector to make a decision on its acceptability.

Additional Issues

- 3.61. As mentioned previously, there are also further underlying issues with the WSP work which would question the credibility of the modelling which has been undertaken and flows which have largely been taken at face value in my evidence. For simplicity I will summarise each of my additional concerns in the following paragraphs.
- 3.62. The 2020 TA (which we assume is still current for the internalisation) applied a 50% internalisation factor to all modes of travel associated with the secondary school education trips. I tend to agree that 50% of pupils would live within the site, but you cannot apply a 50% discount across all modes as a result, as this distorts the traffic impact. Pupils that live within the site would be more likely to walk or cycle to/from school. The school attendee by car would normally come from outside the site. As such, the 50% discount applied to pupils who would come from within the site are probably nearly all walking and cycling already – not the car element this discount is being applied to. Whilst I accept there will be an element of linked trips (pupils dropped off whilst the parent continues to work), I cannot accept the significant discount of 50% being applied, which leads to an under estimation in the traffic by circa 84 vehicles in the AM peak. This will have the greatest effect on the junctions close to the site where the removal of trips as a percentage will be greater (before they disperse over the

network). As such, this would add additional pressure to the Site access on Buckingham Road and Tattenhoe Roundabout.

- 3.63. The 2033 Do Something 2 scenario applied a 12% car driver modal share reduction to the trip generation assessment as a result of the Framework Travel Plan (we assume this still to be the case as I have not been informed differently). I believe this cannot be applied as the sites within the TRICS assessment would have already included travel planning and therefore this reduction would already be accounted for within the total person trip assessment. Therefore a 12% reduction is not realistic for what is being offered/proposed within the Framework Travel Plan and in my opinion all the modelling related to Scenario 2 in the WSP report should be dismissed. Put simply the recent sites used within TRICS will almost certainly include for travel planning as part of their permissions (as this has been standard practice for a number of years). As such you cannot apply any Travel Planning discount to the traffic generation in the absence of additional exemplar travel planning measures.
- 3.64. The flow diagrams provided within the 2020 TA classify the proposed site access on Buckingham Road as a 3-arm roundabout, whereas within the modelling this changes to a 4-arm roundabout. There is no mention of the distribution between these site arms and therefore I have had to calculate the distribution from the modelling as best possible. Appropriate flow diagrams should have been provided and explained in the TA consistent with the junction proposals so these could have been checked. Despite requests for this information it has never been provided.
- 3.65. The Appellant removed 1,061 dwellings from the TEMPro assessment (paragraph 6.7.4 of the TA) as they believed this many households from Kingsmead South and Tattenhoe Park were already occupied at the time of the traffic surveys and therefore did not want to double count trips. Whilst on-site, I visited the marketing suite in which they advised only 28 households had been occupied (on 15th June 2020). Based on this, only 998 households should have been removed, rather than 1,061. This would lead to a slightly higher TEMPro growth factor. Given these trips are just north of the Tattenhoe Roundabout, which I have already expressed concerns on its operation, the capacity would likely be further detrimentally impacted by a more accurate assessment of future traffic flows.
- 3.66. The 2020 TA stated in paragraph 6.9.3 bullet 2 that the geometries were validated through a site visit undertaken in February 2020. I do not believe this to be correct as my on-site measurements differ considerably. The effective entry width measured on-site is often much less, and can be identified by the build-up of gravel/debris near the kerb, where the car tyres do not pass. On-site measurements show differences of up to circa 1m at some junctions which could reduce capacity considerably, when compared to the actual effective entry width being used by vehicles.
- 3.67. WSP claim (para 6.9.1 of the TA) that the observed survey data revealed no inconsistency in the area during the survey dates and therefore the data can be interpreted as typical. While this might be valid for the survey period, the Appellant has not considered or mentioned the effect of two major

road closures on V4 and on Calverton Lane that were in operation several weeks prior to the survey and only completed in August 2020. I understand that both Buckinghamshire County Council and MKC told the survey contractor that the traffic data would therefore not be representative. Their advice to delay the survey was ignored and, as such, there is a question as to the reliability which can be placed on the base data.

Conclusions

- 3.68. The work submitted in support of the application clearly demonstrated that the impact from the development would have a severe impact on the Tattenhoe Roundabout and proposed site access on Buckingham Road. The Appellant's own work fundamentally demonstrates that geometric modelling parameters have been used which would not normally be allowed as part of any detailed design. As such, the development is contrary to both national and local policy as it currently demonstrates a severe impact which would be exacerbated by appropriate design modelling.
- 3.69. To agree to a contribution towards improving sustainable travel in the local area rather than creating additional highway capacity will not solve the issue, especially as buses would be caught in the same congestion. Indeed, the Framework Travel Plan lacks any real commitment. Finally, as mentioned at the start of this section of my Proof, the impact on the network goes beyond the Buckingham Road site access and Tattenhoe roundabout as shown within WSP's own modelling. Several junctions experience severe impact and WSP still seek to rely on re-routing (rat running) and different journey times (peak spreading) would result. Many of the mitigation measures proposed do not meet current design standards and in my view would not be delivered on site following the detailed design stage. All we do know is the current modelling shows that with mitigation the development still results in a severe impact.

4. SUMMARY AND CONCLUSIONS

- 4.1. My name is Clive Burbridge, I am a Member of the Royal Town Planning Institute (MRTPI), a Fellow of the Chartered Institution of Highways and Transportation (FCIHT), Fellow of the Institute of Highway Engineers (FIHE) and Chartered Member of the Institute of Logistics and Transportation (CMILT). I hold a BSc (Hons) in “Planning and the Environment”, together with a MSc in “Transportation Planning and Management”.
- 4.2. I am an equity Director of Icen Projects Ltd and a Director of Transportation, benefiting from 30 years’ experience in the design, implementation and assessment of transportation related matters in both the public and private sectors. I also sit on the Essex Quality Review Panel as part of a team providing independent planning audits. I am qualified with the Royal Society for the Prevention of Accidents (RoSPA) as part of their Road Safety Engineering Accident Investigation and Prevention certification (July 1995), which has continued to inform my engineering judgements/experience.
- 4.3. This Proof of Evidence deals with application 15/00619/FUL, which has been refused by Milton Keynes Council (MKC) for a single reason which relates specifically to highway matters. The application is for a proposed mixed-use development of up to 1,855 dwellings, an employment area (B1 use), a neighbourhood centre including retail (A1/A2/A3/A4/A5) and community (D1/D2) uses with a primary and secondary school proposed at land south of the A421 west of Far Bletchley north of the East West Rail Link and east of Whaddon Road, Newton Longville. This is an outline planning application with all matters reserved except for access which includes a new roundabout onto Buckingham Road, a priority junction onto Whaddon Road and an exit only slip on Standing Way. To avoid any ambiguity my evidence mainly deals with the current Transport Response Note 3 (TRN3) dated January 2021 by WSP, which it is understood largely supersedes previous TAs and elements of TRN1 and TRN2. As such, any mention of the TRN3 throughout my evidence is in reference to this document unless explicitly stated otherwise.
- 4.4. The only reason for refusal states that:

“That in the opinion of the Local Planning Authority there is insufficient evidence to mitigate the harm of this development in terms of increased traffic flow and impact on the highway and Grid Road network, with specific reference to Standing Way and Buckingham Road, thus will be in contravention of Policies CT1 and CT2 (A1) of Plan:MK.”

- 4.5. Paragraph 109 of the NPPF states that:

“Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

- 4.6. Although I may not necessarily fully agree with the contents of the TRN3 and aspects of the methodology undertaken, the general approach to the development trips (with the exception of the secondary school), distribution and growth factors appear reasonable (although not checked in detail for errors).
- 4.7. A significant concern is that the Appellant fails to assess the impact of the traffic that will re-route because of the increased congestion in the area as a result of the proposed development. The wording in the TA (whether currently relied upon by WSP or would occur in practice due to the severe impact of queues) is as follows “this level of queueing and delay is unlikely to be accepted by motorists who will either re-route or re-time their journey” – this attempt to defend the severe impact is mentioned at numerous junctions found in paragraphs 7.3.18, 7.3.24, 8.3.25, 8.3.33, 8.3.46, 8.3.54, 8.3.61 of the TA. Although it has accepted the various junction modelling has changed since the TA was written the significant issue of overcapacity and likely resultant re-routing has not changed. The Appellant has failed to provide a micro simulation model (or any alternative modelling) which would assess the impact of the traffic re-routing, rather than assuming it will distribute onto the highway network with no severe impact.
- 4.8. The Appellant’s own work continues to clearly demonstrates a severe impact on the network using WSP’s own modelling presented to the Inquiry, which in itself I have questioned. The current mitigation cannot be relied upon as in many instances geometric parameters have been suggested in the modelling which would not be deliverable on site at detailed design as they fail to accord with DMRB CD116 which must be considered as the appropriate standards in accordance with national practice for the type of roads being modelled.
- 4.9. The site access roundabout on Buckingham Road has been incorrectly modelled and the resultant impact of the development underestimated. Entry widths have been modelled at the site access which would not be deliverable at detailed design.
- 4.10. The Linsig model of the Tattenhoe Roundabout has also been modelled incorrectly with inappropriate Link Lengths and Queue De-silver values in the model. Nevertheless, despite these errors, WSP own work still shows issues. Paragraph 5.3.12 of the TRN3 references the queue at the start of green

and what the extension of the queue is likely to be as the mean maximum queue in PCUs. The queue at the start of green in some cases extends past the point in which the queue is expected to block other vehicles and the mean maximum queue extends past this point in all cases apart from on the inside lane of gyratory west and the inside lane of gyratory south. There is therefore no doubt that the queues on the circulatory will block the exits to the roundabout and will in fact be even longer if road users adhere to the keep clear markings. There has been no attempt in the model to account for this blocking back using underutilised green time.

4.11. Concerns are also noted with some of the additional offsite junctions between the modelling parameters used and the acceptability of the suggested geometry at detailed design stage; These are not limited to, but include:

- Junction 6 – vehicle tracking demonstrates that the vehicles would overrun their lanes with the potential for side impact collisions. Geometric parameters used in the model which would not be delivered as part of the detailed design.
- Junction 15 - Geometric parameters used in the model which would not be delivered as part of the detailed design.
- Junction 16 – concern over one lane exits for a three lane approach. This may not be permitted at detailed design.
- Junction 17 – concern over one lane exits for a three lane approach. This may not be permitted at detailed design.

4.12. It would appear that the modelling has led the junction designs without regard or consideration over appropriate design standards. As a result of these concerns, the impact of the development has been underestimated compared with appropriate design standards in accordance with DMRB CD116 being used. Nevertheless, WSP own modelling shows the network is significantly over capacity and that the impact of the development at a junction of junctions would be considered severe on one of more of the arms.

4.13. There are also further underlying issues with the WSP TRN3 which could question the credibility of the modelling which has been undertaken and flows which have largely been taken at face value in my evidence. These are summarised below:

- The 2020 TA applied a 50% internalisation factor to all modes of travel associated with the secondary school education trips. The school attendee arriving by car would normally come from outside the site and the 50% reduction in pupil arrivals would come solely from within the site. These pupils are probably nearly all walking and cycling already. As such, this would add additional pressure to the Site access on Buckingham Road and Tattenhoe Roundabout.

- The 2033 Do Something 2 scenario applies a 12% car driver modal share reduction to the trip generation assessment as a result of the Framework Travel Plan. I believe this should not be applied as the sites within the TRICS assessment would have already included travel planning and the Framework travel Plan is relatively weak. As a result, Scenario 2 in the WSP report should be dismissed.
- The Road Safety Audit failed to clearly point out significant departures from standards which cannot readily be identified from the drawings.
- The Appellant removed 1,061 dwellings from the TEMPro assessment (paragraph 6.7.4) as they believed this many households from Kingsmead South and Tattenhoe Park were already occupied at the time of the traffic surveys and therefore did not want to double count trips. Only 998 households should have been removed as all 1,061 households are not built and/or occupied.
- The 2020 TA stated in paragraph 6.9.3 bullet 2 that the geometries were validated through a site visit undertaken in February 2020. I do not believe this to be correct. On-site measurements show differences of up to 1m at some junctions which would reduce capacity considerably if the correct effective entry width was used.
- WSP claim (para 6.9.1 of the TA) that the observed survey data revealed no inconsistency in the area during the survey dates and therefore the data can be interpreted as typical. This is in error as road works were ongoing at the time of the survey which have only recently been completed in August 2020.

4.14. In conclusion, the proposed development has failed to fully address and mitigate the impact on the network and as a result has a severe impact on several junctions and cumulatively across the network. Many of the mitigation proposals are not deliverable and as such the modelling is failing to present the real impact of the development traffic. Redistribution of traffic has been predicted, but no modelling undertaken to understand the wider implications. As such, I therefore respectfully request that the Inspector dismisses the Appeal on the basis the proposal is contrary to both local and national transport policy.