

South West Milton Keynes Consortium

SOUTH WEST MILTON KEYNES

Rebuttal Proof of Evidence re MKC of Martin J Paddle BSc CEng CWEM MICE FCIHT MCIWEM, in regard to Transport, Highway and Accessibility Matters: PINS ref: APP/Y0435/W/20/3252528 LPA ref: 15/00619/FUL

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TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 70069442 OUR REF. NO. SWMK: REBUTTAL PROOF OF EVIDENCE RE MKC OF MARTIN J PADDLE

DATE: 27 APRIL 2021

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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	First Draft			
Date	April 2021			
Prepared by	Martin Paddle			
Signature	NT. Paar.			
Checked by				
Signature	5.10000			
Authorised by				
Signature	NT. Paar.			
Project number	70069442			
Report number	Rebuttal PoE			
File reference	70069442			

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1 INTRODUCTION AND SCOPE OF EVIDENCE

- 1.1 This Rebuttal Evidence addresses points raised in evidence in relation to transport, highway and accessibility matters by Mr McKechnie on behalf of Milton Keynes Council (MKC) in relation to the Appeal Development at South West Milton Keynes, as described in my Main Proof. In producing this rebuttal evidence, I have also had regard to the evidence of Mr Burbridge on behalf of Newton Longville Parish Council and West Bletchley Council (NLPC & WBC) and Mr Bedingfeld on behalf of Buckinghamshire Council (BC) in relation to highways matters and in relation to planning matters of Mr Hyde for the Appellant, Mr Keen for MKC and Ms Bayley for BC.
- 1.2 My Rebuttal Evidence is structured as follows and is supported by appendices bound separately prefixed 'MJP'.
 - Introduction and Scope of Evidence;
 - Previous Discussions;
 - Previous Transport Assessments;
 - Points of Access;
 - Transport Response Note 3;
 - Policy; and
 - Conclusion.

2 PREVIOUS DISCUSSIONS

LIAISON WITH THE APPELLANT

- 2.1 I acknowledge that Mr McKechnie and I have corresponded and met on a number of occasions as indicated in his section 1.4 of his main Proof, but it is not correct to suggest that MKC have been proactive given that MKC has primarily in large part been requesting further information as opposed to providing either substantive comments or suggesting solutions that would satisfy the Council's concerns..
- 2.2 The first substantive response from MKC to the planning application was the holding response to BC on 11th Feb 2021. Prior to that I had not received any comprehensive response to the Updated TA or TRN1 from either of MKC's consultants Mr McKechnie of Hydrock or Nigel Weeks of SMT. The first comprehensive response I received, which I understand has also been replicated in part in Mr McKechnie's main Proof, was on the 12th April 2021.
- 2.3 I refer the Inquiry to Section 1.4 paragraphs 1.4.1-1.4.5 of Mr McKechnie's main Proof and comment briefly as follows:
 - I initially made contact with Mr McKechnie on 21 July 2020, having been informed that his company Hydrock had been retained to advise MKC on transport matters. Mr McKechnie requested further information from WSP as indicated by his email to me of 22 July 2020 included as Appendix A to his main Proof;
 - My colleagues and I then attended a meeting with Mr McKechnie (virtually via TEAMS) on 29 July 2020, during which various matters were discussed, including those raised by his earlier email. Raw traffic data and traffic distribution/assignment spreadsheets were subsequently issued to Mr McKechnie on 27 July 2020 and 28 August 2020;
 - A draft note of the meeting held on 29 July 2020 was prepared by me and issued to Mr McKechnie on 17 August 2020 (MJP29), together with a draft agenda for a further meeting to be held on 18 August 2020; Mr McKechnie asked if we had assessed the potential for traffic reassignment;
 - iv. The WSP team confirmed that this had not been quantified given the agreed modelling methodology to develop individual 'static' junction models. My first draft of the meeting note (MJP29) confirms my response at points 4.3 and 4.4, in that the unique nature of the road

network in Milton Keynes would accommodate reassignment of traffic away from more congested areas;

- A further iteration of the note of the draft meeting held on 29 July 20209 was issued by me on 7 September 2020 with tracked changes and is included at Mr McKechnie's Appendix B in his main Proof. Although the note remains in draft, it appears that Mr McKechnie has accepted the proposed changes as agreed record of our discussion;
- vi. Mr McKechnie asserts at his fifth bullet at paragraph 1.4.1 of his main Proof that the minutes of the draft note of the meeting held on 29 July 2020 record agreement that traffic would be likely to redistribute away from areas of congestion. Notwithstanding that the note at Appendix B of Mr McKechnie's main Proof still remained in draft, paragraphs 4.3 and 4.4 make my position clear, that; "*the unique nature of the road network in Milton Keynes would accommodate reassignment away from more congested areas*". This point was reiterated in my later email to Mr McKechnie dated 3 November 2020 (his Appendix E);
- vii. I held another virtual meeting with Mr McKechnie on 18 August 2020; a draft meeting note was issued and is included at Appendix C of Mr McKechnie's main Proof. Point 3.1 – 3.4 set out the further broad discussion relating to reassignment/diversion which my team and I had with Mr McKechnie on this matter;
- viii. Mr McKechnie incorrectly asserts that "WSP confirmed that no additional modelling would be undertaken to indicate the scale, location and traffic diversion." In this regard, WSP has never indicated that additional modelling would be undertaken. Points 3.1 – 3.4 of the draft meeting note of 18 August 2020 set out WSP's position on reassignment/diversion and confirm that a strategic model would be required to assess any potential reassignment should this occur. In this regard, the use of the MKMMM and the Buckinghamshirer County Strategic Model (BCSM) was discussed with both MKC, BC and their respective consultants. In view of the concerns expressed at that time, the development of a methodology that adopted a network of static junction models was deemed to be the most appropriate to provide a robust and worst case assessment;
- ix. Having clearly set out my views on the need for the use of a strategic model to test whether reassignment would occur, the action was left at point 3.4 of the meeting note for Mr McKechnie to consider the matter of reassignment further.
- x. In this regard, neither Mr McKechnie nor Mr Weeks of SMT has ever reverted to either me or members of the WSP team with their requirements for any further modelling;

- xi. The very nature of the agreed methodology using static junction models as agreed with MKC, BC and their respective consultants during scoping, does not have the functionality to predict whether drivers would reassign to other parallel routes, change mode or potentially travel ouwith the peak AM and PM periods. As I have explained in my evidence, the thecharacteristics of junction modelling and the potential outcomes were recognised byall parties during scoping discussions; and would therefore represent a robust approach to determine the impacts;
- xii. On 30 September 2020, Mr Hyde sent an email to Mr Keen at MKC which raised a number of points in light of the initial postponement of the Inquiry to February 2021. This highlighted the need for the Appellant to understand MKC's preferred approach to securing the proposed mitigation. At that time, neither MKC nor their consistants Mr McKechnie/Mr Weeks raised the question of the need for further strategic modelling work;
- xiii. I sent a further email to Mr McKechnie and Mr Keen on 16 October 2020 requesting clarification on how Road Safety Audits should be completed. A response was received later that day from Mr McKechnie and I provided further clarifications shown in red in my response dated 16 October 2020 (MJP29);
- xiv. On 1 October 2020, I responded to Mr McKechnie's email of 30 September 2020 to address the s106 and cost estimates for the proposed highway improvements. This was followed by a further email to Mr McKechnie dated 6 October 2020 with an update (MJP29). The current s106 was issued to Mr McKechnie on 9 October 2020, although I understand that it would have been previously available to MKC;
- xv. On 16 October 2020 I confirmed to Mr McKechnie that my team were reviewing the Tattenhoe junction and would revert under separate cover in regard to the Road Safety Audits (MJP29);
- xvi. In light of the previous comments from MKC and Mr McKechnie, I sought their agreement to the RSA process on 16 October 2020 (MJP29) to enable WSP to mobilise their audit team given that MKC were undecided whether the proposed mitigation should be secured by way of a s106 contribution or s278.
- I also requested confirmation from MKC why there had been a shift away from the basic premise of securing a commuted contribution via s106 for a more specific contribution (MJP29).

- xviii. I then responded to a further email from Mr McKechnie on 16 October 2020 with my comments in red requsting further clarity on the Council's position (MJP29);
- xix. On 19 October 2020, I informed Mr McKechnie that plans for the Bottledump and Tattenhoe junctions were being updated (MJP29). I also chased Mr McKechnie to secure his urgent approval of Curricula Vitae for the WSP RSA team given MKC's preference for the proposed mitigation to be delivered by way of s289 of the Highways Act 1980;
- xx. On 2 November 2020, Mr McKechnie confirmed details of what he was still expecting to receive from WSP;
- xxi. I replied to his email on 3 November 2020 with my comments in red (MJP29).
- xxii. The matter of the potential for the reassignment of traffic is considered further at point 9 of the email, where I set out WSP's position given the availability of the Milton Keynes Multi Modal Model (MKMMM) evidence that supports Plan:MK;
- xxiii. At poitpointpoit 10a of the email, I questioned Mr McKechnie's response to understand whether MKC considerconsideredconsider than an appropriate and proportionate level of mitigation could be agreed;
- xxiv. At the final paragraph, I asked Mr McKechnie for his comprehensive response which was not forthcoming until more recently following the recent exchange of evidence;
- xxv. During the period November to December 2020, WSP continued to progress the Road Safety Audits (RSAs) and Designer Responses as requested by Mr McKechnie and MKC. In addition, further work was completed to consider the impacts within the jurisdiction of BC. Transport Response Note 2 (TRN2) was submitted to all parties on 18 December 2020;
- xxvi. During January 2021, the RSAs and TRN3 were completed and submitted to all parties on 29 January 2021;
- xxvii. Following the Case Management Conference held on 9 February 2021, I contacted Mr
 McKechnie on 12 March 2021 and a meeting was arranged for 23 March 2021. The agreed meeting note is included at MJP26;
- xxviii. Mr McKechnie asserts at paragraph 1.4.2 of his main Proof that *"it is disappointing that there have been significant delays in the provision of information and that some of the comments remain unaddressed in WSPs latest submission"*. I disagree with this statement.

The WSP team has responded as quickly as possible to answer Mr McKechnie's queries and provide the additional information that he requested;

- xxix. At paragraph 1.4.5 of his main Proof, Mr McKechnie asserts that "it is clear that MKC has in fact provided substantial input in respect of the Appellants [sic} evidence base during the appeal process."
- xxx. Putting aside the initial exchange of evidence on 15 September 2020 (now superseded) and Mr McKechnie's consistent requests for further information subsequent to his company's appointment in July 2020, WSP has never received a comprehensive response from either Mr McKechnie or Mr Weeks until April 2021;
- xxxi. MKC's first formal response to the updated planning submission was received as a 'holding' response dated 11 February 2021 (MJP30), followed by the Council's more comprehensive response on 12 April 2021 (MJP30) within two working days of the agreed date for the exchange of evidence scheduled for 13 April 2021. I also note that much of the response from Mr Weeks at SMT is embedded within the body of Mr McKechnie's main Proof;
- xxxii. I issued a letter to Mr Keen at MKC on 7 April 2021 (MJP31) with outstanding queries and a response was received from the Council on 13 April 2021 (MJP31). A formal response has yet to be provided by the Appellant to MKC's letters of 9 and 13 April 2021.
- 2.4 I therefore dispute Mr McKechnie's assertion at paragraph 1.4.5 of his main Proof that:

"MKC has in fact provided substantial input in respect of the Appellants [sic] evidence base during the appeal process."

- 2.5 In this regard, WSP has acted professionally with all due diligence and integrity to respond as quickly as possible to his requests for further information and to assist in clarifying matters where appropriate.
- 2.6 I would emphasise that prior to 13 April 2021, MKC failed to provide either me or my team with a full and comprehensive technical response.

Response to Mr Keen

2.7 I refer to paragraphs 4.9 – 4.11 of the evidence of Mr Keen. He correctly asserts that the Updated Transport Assessment (TA) of May 2020 supersedes the 2016 TA. It was agreed by Officers of both MKC, BC and their respective consultants during detailed scoping discussions that given the age of the data collected in 2015 and also the reliance on the Milton Keynes Traffic Model (MKTM)

with base data and network coding that extended to 2009, that it would be necessary to update the TA with 2020 surveys that should extend across the local highway network using static junction modelling.

2.8 Given the prevailing circumstances and the passage of time, the process of updating transport related data and modelling techniques is entirely acceptable and was welcomed by MKC, BC and their respective consultants. Mr Keen also refers to

"a mass of extensive further evidence which supersedes elements of the 2020 TA."

- 2.9 In this regard, I would emphasise that the WSP has responded in the most appropriate manner with due diligence to the comprehensive and detailed points raised by BC which is not unusual and a process that Mr Weeks acknowledges at paragraph 2.6 of his Statement at Appendix G of Mr McKechnie's main Proof.
- 2.10 TRN3 was prepared at the request of BC to reflect a common approach across the highway networks within MKC and BC's jurisdiction. Stage 1 Road Safety Audits (RSA) including the audit briefing document were prepared by the WSP team following MKC's indecision over how the proposed highway improvements should be secured (i.e. either as a s106 commuted contribution or s278 of the Highways Act 1980). TRN1 and TRN2 were prepared to respond to points raised by BC.
- 2.11 Mr Keen asserts at his paragraph 4.11 that:

"In addition to the unreasonableness of late information and the insufficiency of the information provided, the chronology also demonstrates that there have been delays in MKC receiving information when it has been requested."

- 2.12 In this regard, the WSP team has acted with due diligence and integrity in attempting to respond to the request for further information and data from MKC's consultant representative Mr McKechnie. I respond in this rebuttal to Mr McKechnie's section 1.4 of his main proof where he sets out the chronology referred to by Mr Keen. Putting aside Mr Keen's incorrect assertion over delays, the WSP team has only recently received MKC's comprehensive response dated 9 April 2021 which is signed by SMT on behalf of MKC and is also replicated in Mr McKechnie's main Proof.
- 2.13 At paragraph 6.5, Mr Keen also asserts that it is unusual for the evidence base of a TA to be changed prior to an appeal, although he acknowledges that it is

"something more appropriate and expected under a new planning application."

- 2.14 I have previously explained in evidence that it my experience and contrary to Mr Keen's assertion, it is not unusual for matters to be updated leading to an appeal. In this case, a revised planning submission was made contemporaneous with the appeal against the refusal of planning permission by MKC and therefore it was entirely appropriate to ensure that the appeal and planning submission were consistent.
- 2.15 I also disagree with Mr Keen who asserts at his paragraph 6.5 that it is unreasonable for more information and evidence to be submitted. Mr Weeks has in fact stated in his Statement at paragraph 2.6 that *"the agreement of the scope (or approach) is thus just the first stage in the process."* The inference is that MKC had anticipated at the outset that further consultation would be required to agree any supplementary work.
- 2.16 Mr Keen also suggests at paragraph 6.5 of his main Proof, that my request to consider draft wording for a Highway Works Delivery Scheme (HWDS) demonstrates "the unreasonable procedural path the Appellant has followed and wasted time and work in responding to such requests." Given the uncertainty presented by MKC over how the highway improvements should be secured and delivered, I proposed the draft HWDS in a constructive way in which the Council could secure the works via s278 of the Highways Act 1980 and fail to see how Mr Keen considers this matter to be indicative of "wasted time and work."
- 2.17 At paragraph 6.6 of Mr Keen's main Proof he suggests *"a lack of sufficient detail at the appeal stage."* In my opinion, the extent of the documentation submitted with the Appellant's Statement of Case in May 2020 was comprehensive. Further information has been provided in response to comments raised by MKC/BC which is not unusual.
- 2.18 At paragraph 6.8 of his main Proof, Mr Keen refers to *"missing or potentially inaccurate information"* and suggests that geometric designs should have been completed on a topographical survey base. In my experience, it is entirely reasonable for outline designs that accompany planning submissions to be completed using Ordnance Survey (OS) base mapping, particularly where highway improvements are proposed over such a large area. This is also consistent with the approach previously accepted by MKC Officers in 2015/16.
- 2.19 Mr Keen also raise the matter of the red line boundary which is addressed in evidence by Mr Hyde. In my opinion, the scale and geometric designs for the proposed highway improvements are deliverable as I indicate in my evidence. However, neither Bottledump nor Tattenhoe junctions are access points to the Proposed Development; instead, they are part of the highway network that is nearest to the Appeal/Proposed Development. Notwithstanding, the land in question at J6

Bottledump falls entirely within the highway boundary in Buckinghamshire Council's administrative area and the land in question at J5 Tattenhoe falls entirely within the highway boundary. I am therefore of the opinion that any matters arising could be suitably controlled through the implementation of appropriate planning conditions if required.

2.20 I note that at paragraph 6.9, Mr Keen raises a point relating to the Travel Plan as proposed by the Appellant. In my opinion, the Framework Travel Plan establishes the options for sustainable transport options that would be cascaded to all the proposed land uses and subsequently addressed in more detailed Plans in due course. In this regard, the Travel Plan Action Plan included as Table 9-1 in TRN2, demonstrates the significant long term investment that would be made by the Appellant, that in my opinion, would provide effective benefits to influence behaviour and deliver long term sustainable travel options. I therefore disagree with Mr Keen's assertion that the Framework Travel would not have any benefits that could be relied upon.

Statement of Mr Weeks

- 2.21 I refer to Appendix G of Mr McKechnie's main proof: Statement on Highway Matters by Mr Weeks of Stirling Maynard Transportation (SMT). During the scoping process for the Updated TA, Mr Weeks liaised with my team and took an active role in the scoping process for the Updated TA. I understand that SMT are currently retained by the Council to advise on transport issues that relate to the planning submission for the Proposed Development.
- 2.22 My team's first contact with Mr Weeks was via email on 3 February 2020, which included a copy of the updated scoping note and minutes of the meeting held with MKC and BC on 15 January 2020 that was attend by Martin Tate at MKC together with Christine Urry (now Head of Planning) from Buckinghamshire Council (BC) and their term consultant James Bedingfeld of Jacobs.
- 2.23 Martin Tate of MKC subsequently responded to my colleague Stephanie Howard on 3 February 2020 and made a couple of minor additions to the note of the meeting held on 15 January 2020; those changes are tracked at points 3.1 and 3.5 on the agreed meeting note (MJP4).
- 2.24 Mr Weeks of SMT then contacted my colleague Justin Sherlock on 25 February 2020 and confirmed that Phil Caves of MKC had asked him to respond directly to the draft scoping note that had been issued on 3 February 2020. The email from Mr Weeks of 25 February 2020 (MJP4) sets out his and MKC's position that:

"In general, I have no issues with the proposed scope which is comprehensive but I have just a few observations which I set out below:"

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2.25 Mr Weeks indicates in his email at point i) that:

"I note that Buckinghamshire County Council have decided that the MK model is not suitable for the analysis of junctions within Milton Keynes. I do accept the model base data is old and the proposed approach is robust so I do not propose to revisit this argument but please note my comment on distribution below."

2.26 Mr Weeks asserts in paragraph 2.2 of his Statement that:

"....some parties thought the Milton Keynes Model was now too old and out of date. Given that "count and multiply" gives a robust analysis I did not feel the need to challenge this."

- 2.27 The reference by Mr Weeks to *"count and multiply"* refers to the robust process that my team subsequently adopted to survey key junctions and links and use TEMPro factors to provide network base traffic flows in 2033. During scoping, Mr Weeks chose to neither challenge the view on the preferred methodology nor comment on the potential for redistribution/reassignment as he considered the approach to be robust and would represents a worst case.
- 2.28 MKC and their consultant accepted the proposed methodology adopted with the acknowledgment and understanding that the use of a *"count and multiply"* process that would lead to the development of static junction models and in doing so, provide a robust analysis to consider the impact of traffic movements across the combined highway networks. This position is reaffirmed by Mr Weeks in paragraph 2.2 of his Statement
- 2.29 At paragraph 2.4 of his Statement, Mr Weeks suggests that the scope of the analysis would not automatically lead to the way the assessment is completed and conclusions reached. The inference is that Mr Weeks and MKC appear to be disputing the previously agreed approach and the methodology adopted with the full knowledge that the modelling would not consider reassignment. There is in my view no justification for either MKC and their consultant representatives Mr Weeks and Mr McKechnie now to seek and insist on adopting a different modelling methodology in light of the previous agreements and the comprehensive modelling work completed by my team hitherto.
- 2.30 Mr Weeks refers to the position of MKC who would be influenced by the contents of the Updated TA and the extensive supplementary work that was completed to respond to constructive points raised by BC. In this regard, the first comprehensive response received from MKC was dated 9 April 2021. If this response had been provided to me and my team in a timely manner, then this would have enabled a more constructive and meaningful dialogue.

2.31 Mr Weeks asserts at paragraph 2.6 of his statement that it is:

"common for industry practice whereby an approach is agreed, some questions over the implementation of that approach are raised and further work is required." [sic]

2.32 As a general principle this is not unusual. However, Mr Weeks then states:

"The main difference here is the extent of the additional work that has been required."

- 2.33 In this regard, my team completed supplementary work evidenced by the Transport Response Notes1, 2 and 3 that addressed the comprehensive reviews completed by BC.
- 2.34 Notwithstanding the initial contact and discussions held with Mr James McKechnie between 29 July 2020 and 12 September 2020 (i.e. the initial date of exchange for evidence), I did not receive any response from Mr Weeks to provide MKC's formal response to the planning submission, although I was aware from an informal discussion with him in August 2020, that his company had previously responded to MKC with their comments.
- 2.35 I had no indication from MKC at that time what their formal position would be whilst continuing to engage with Mr McKechnie as described above. The first 'holding' response from MKC to BC relating to the Updated TA and supplementary Response Notes is dated 11 February 2021. This is followed by a more substantive response on 11 April 2021. Prior to this date, I had no indication what additional work may be necessary to address MKC's concerns.
- 2.36 Mr Weeks asserts at paragraph 3.2 of his Statement that there is no reference to redistribution of traffic due to congestion in the Scoping report. In this regard, I make the following points:
 - i. Mr Weeks and MKC had previously accepted the robustness of the methodology agreed during scoping of the Updated TA, having full regard to the appropriateness of outputs that would arise using static junction models based on the industry standard software Junctions 9 that neither limit queue lengths nor consider the potential for reassignment of traffic away from congested areas. If that had been a real concern for MKC then the matter should have been raised by either Officers of MKC or Mr Weeks during scoping;
 - ii. With exception of the sensitivity test to consider Shenley Park which is allocated in the draft VALP, Mr Weeks did not question the need to consider redistribution/reassignment during scoping as indicated in his email of 25 February 2020. In this context, Mr Weeks acknowledges in that email that:

"It actually is less of a concern in some ways for the main analysis because if traffic is not reassigned from the H8 corridor, which is the most congested, then a worst case will be tested.

iii. In paragraph 3.2 of his Statement, Mr Weeks suggests that:

"It follows therefore that if this is to be relied upon as part mitigation additional data is [sic] required to justify the extent and the ability of the network to accommodate. Without this it is impossible to judge whether there is any spare capacity on adjacent routes or whether this would merely shift the congestion."

- iv. Whilst the unique and flexible nature of the Grid Road network may enable reassignment etc during periods of congestion, which benefits are not accounted for in the spreadsheet-based approach, the mitigation proposals submitted by the Appellanthave been determined on the basis that reassignment to alternative routes would not occur and therefore the assessment represents a worst case – this is as was agreed by MKC and Mr Weeks.
- v. I note that in paragraph 3.4 of Mr Weeks' Statement that scoping discussions took place in anticipation of a new planning application. Notwithstanding, I fail to see the relevance of this point, given that the views of Mr Weeks and MKC should remain consistent for both and appeal and the planning submission;
- 2.37 The change in case being presented by MKC and their approach to the previously agreed modelling methodology was only made known to me and my team several months following the submission of the appeal and updated planning application.

MODELLING

- 2.38 The previous methodology was agreed with limited use of the MKTM¹ with the application of static models as agreed with both authorities. The Updated TA was produced in light of the age of the traffic data from 2015 and the base data in the MTKM from 2009. It is perfectly acceptable and expected for the Appellant to update matters relating to transport impacts given the passage of time and the potential for variation in data, as acknowledged by Mr Weeks at paragraph 3.3 of his Statement (Mr McKechnie's Appendix G).
- 2.39 In reference to paragraph 2.2.5 of Mr McKechnie's main Proof, a previous view was expressed by WSP in relation to the broad correlation of results contained within the MKMMM, the strategic

¹ Milton Keynes Traffic Model

modelling to support the draft VALP, and the 2016 TA. Mr Weeks confirmed to MKC that he agreed with the conclusions drawn by my team and that the information provided previously required no updating (MJP32).

- 2.40 With reference to paragraph 2.2.6 of Mr McKechnie's main Proof and his assertion that there was a 'lack of sufficient evidence' with which to determine the application positively, I disagree. I had worked with both BC and MKC to provide all the information and assessments requested to allow Officers at both authorities to come to a recommendation regarding the Proposed Development. Both authorities recommended approval, with Mr Weeks and Mr Keen speaking positively for the application in relation to both policy and technical evidence at the Planning Committee at MKC in November 2019. Members chose to refuse planning permission against Officer's recommendations.
- 2.41 In summary, and in response to paragraph 2.2.16 of Mr McKechnie's main Proof, there was sufficient technical evidence before Members to demonstrate the impact of the Proposed Development, but Members refused to grant consent against the advice of their technical Officers.

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3 2020 WSP SUBMISSIONS

TRANSPORT ASSESSMENT

- 3.1 BC were insistent that they would not accept an Updated TA based on the use of the MKMMM² given the age of the origin-destination data (paragraph 7.2, 2nd bullet of Mr Bedingfeld's main Proof) and particularly sought to have a common approach to the modelling methodology. Scoping and pre-application discussions are a fundamental part of identifying suitable and appropriate methodologies for completing transport assessments. MKC did neither object to the use of a static junction model methodology nor insist that WSP should use the MKMMM. Indeed, MKC's transport consultant agreed that the static junction model methodology provides a robust approach (paragraph 2.2 and Appendix 1 point (i) of the Statement of Mr Weeks (Mr McKechnie's Appendix G)).
- 3.2 WSP did not have access to the MKMMM model and therefore were not in a position to consider the model extent parameters and key metrics that would influence potential outcomes. It was well understood by all that the benefits of redistribution would not be accounted for in the spreadsheet-based approach, such that it was agreed that the methodology would present a robust, worst-case. . Mr Weeks, on behalf of MKC, confirmed that the MKMMM model was able to reflect redistribution on the road network, which was one of the strengths of the MKC network which would not be reflected in the static modelling.
- 3.3 Notwithstanding, the opinion Mr Weeks expressed was that this meant that the agreed static methodology would test the 'worst case' because it would not reassign traffic away from the most congested area along the H8 corridor (Appendix 1 point (iii) of the Statement of Mr Weeks (Mr McKechnie's Appendix G). Both MKC and BC therefore agreed that the use of static models was robust and would test a worst case scenario, with no requirement for further modelling.
- 3.4 I do not rely directly on the MKMMM to provide evidence of the modelled redistribution of traffic specific to the Proposed Development, in that my transport evidence proposes mitigation to address impacts that would arise absent such redistribution, but I do have the comfort of knowing that the MKMMM includes the Proposed Development within the Reference Case, which considers the potential for dynamic assignment and redistribution effect and presents a forecast of the performance of the local highway network in 2031. Where appropriate, it is perfectly reasonable to

² Milton Keynes Multi Modal Model

refer to the MKMMM Forecasting Report (CD12/A) to demonstrate the robustness of the assessments completed within the Updated TA and subsequent TRNs.

3.5 It is in my view unreasonable, having agreed a modelling methodology and a considerable amount of work completed by the Appellant, for an authority to subsequently insist then on a different methodology such as using the MKMMM. This would be disproportionate, unacceptable and unduly confusing given the availability of the evidence base that currently supports Plan:MK.

TRAVEL PLAN

- 3.6 I refer to Paragraphs 3.2.4 to 3.2.5 of Mr McKechnie's main Proof. TRN2³ provides a clear funding commitment to the 2020 Framework Travel Plan with a detailed breakdown of the funding allocation for all of the measures and initiatives associated with the residential and employment land uses. A commitment is provided to fund the Travel Plan Manager (TPM) for 14 years, consisting of the anticipated first occupation of the development through to full occupation plus five years.
- 3.7 In regard to Paragraph 3.2.3 of Mr McKechnie's main Proof, implementation and a funding commitment for the School Travel Plan referenced within the 2020 Framework Travel Plan would be the responsibility of the education authority and would be secured at reserved matters stage.
- 3.8 In respect of paragraphs 3.2.7 and 3.2.8 of Mr McKechnie's main Proof, only seven of the 20 sites used in the TRICS residential trip rate are recorded within the TRICS database as having Travel Plans in place. This is only 35% of the sites selected. A review of the TRICS trip rates identifies that if these seven sites are removed, the trip rates in fact reduce, indicating the impact of these sites is to increase the vehicular trip rate rather than decrease it. Their inclusion is therefore considered appropriate and the use of a separate travel planning scenario also appropriate.
- 3.9 With reference to paragraph 3.2.8 of Mr McKechnie's main Proof, the 2020 Framework Travel Plan⁴ provides a robust commitment to Travel Planning across the site commensurate with the outline stage of the planning application with a range of measures to be implemented across all modes of travel. Further detail would normally be secured by condition and provided at the reserved matters stage. It is therefore considered that the Framework Travel Plan is sufficient for this stage of the planning application with funding commitment detailed within TRN2⁵.

³ Transport Response Note 2, December 2020, WSP Section 9.1.1 and Table 9-1 (CD16/B)

⁴ Updated Framework Travel Plan, May 2020, WSP (CD10/H/B)

⁵ Transport Response Note 3, January 2021, WSP (CD16/C)

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3.10 Mr McKechnie suggests that in order to place any reliance on a travel planning scenario, the measures included within the Travel Plan would need to be greater than generally expected. This goes against the advice in the PPG which states that the assessments within a TA:

*"may consider those impacts net of any reductions likely to arise from the implementation of a Travel Plan".*⁶

3.11 The proposed mitigation has been determined on the basis of DS1 as a worst case excluding the implementation of the Travel Plan as requested by both MKC and BC however the Appellant intends to make a significant commercial commitment to implement the FTP as indicated in TRN2.⁷

⁶ Planning Practice Guidance, March 2014, paragraph 42-005-20140306 (CD/9)

⁷ Transport Response Note 2, December 2020, WSP, Table 9.1 (CD16/B)

4 POINTS OF ACCESS

A421 LEFT-IN ONLY ACCESS

- 4.1 I refer to paragraphs 5.2.1 to 5.2.3 of Mr McKechnie's main Proof. The proposed Left-in Only access on the A421 has been designed in accordance with relevant design standards and there is no requirement for a capacity assessment being a free flow access to the development. Further information is provided within my Proof of Evidence (paragraphs 4.39 and 4.48). Mr Bedingfield, on behalf of BC, concurs that this access does not require a capacity assessment (see the second bullet point of paragraph 3.2 of Mr Bedingfield's proof).
- 4.2 The drawing presented within the Updated TA includes measurements in respect of the deceleration taper and is provided to scale, allowing additional measurements to be taken if desired. In my opinion there is no need for additional measurements to be provided on the drawing. Given the relatively flat topography the proposals have been developed to a sufficient level of detail and providing the design on a topographic base is not necessary at this stage of design.
- 4.3 In respect of paragraphs 5.2.4 to 5.2.7 of Mr McKechnie's main Proof the desire line for pedestrians and cyclists has been incorrectly interpreted by Mr McKechnie (Paragraphs 5.2.4 to 5.2.6). The redundant section of highway known as Old Buckingham Road is not currently accessible for vehicles, pedestrians or cyclists as it is physically closed at both the Whaddon Road and Buckingham Road ends of the link with bollards and earth mounds at the access and circa 10m along the track (Figure 4-1) at the western end and with a locked barrier at the eastern end (Figure 4-2).



Figure 4-1 - Old Buckingham Road Closure at Whaddon Road; western end of link (Source: WSP Site Visit)



Figure 4-2 - Old Buckingham Road Closure at Buckingham Road; eastern end of link (Source: Google)

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4.4 There is the potential for pedestrians and cyclists to access via the Redway network using an existing underpass adjacent to Steinbeck Crescent (**Figure 4-3**), however, the actual link is overgrown, poorly surfaced, unlit and unsafe, thereby providing little amenity to existing users (**Figure 4-4**).



Figure 4-3 - Redway Underpass Access to Old Buckingham Road (Source: WSP Site Visit)

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Figure 4-4 - Old Buckingham Road in Vicinity of Proposed Development Access (Source: WSP Site Visit)

4.5 Any desire line for pedestrians or cyclists will therefore be created by the development for which adequate provision will be made within the design and can be secured through the reserved matters application process. The crossing proposed on the drawing⁸ was provided to show how a crossing point could be incorporated into the design. As no desire line currently exists or is likely to be created by the Proposed Development to cross the Old Buckingham Road where the access is proposed the reference by Mr McKechnie (paragraphs 5.2.6 - 5.2.7) is incorrect.

BUCKINGHAM ROAD ACCESS

I refer to paragraph 5.3.3 of Mr McKechnie's main Proof. The Toucan crossing proposed on
 Buckingham Road between the site access and the Tattenhoe Roundabout (Figure 4.5 of my main
 Proof) has been sited to tie into the existing uncontrolled crossing point from the shared

⁸ Transport Response Note 1 – Figure 4-3

cycle/footway which forms part of National Cycle Route 51 on the northern side of Buckingham Road (**Figure 4-5**). The location could easily be achieved with an amendment to the bellmouth access to Old Buckingham Road which would be dealt with as part of any S278 design in due course, noting that the access to Old Buckingham Road is closed off (**Figure 4-2**) and is subject to the prohibition of use by all motor vehicles.



Figure 4-5 - Uncontrolled Crossing of Buckingham Road (Source: WSP Site Visit)

- 4.7 The proposed crossing and routes leading to it can be made compliant with LTN1/20 through minor amendments to the design which will be further reviewed at the detailed design stage as part of the S278 agreement and will at that time be subject to a Stage 2 Road Safety Audit. In my opinion, the proposed crossing is compliant with current guidance and is deliverable.
- I refer to paragraph 5.3.5 of Mr McKechnie's main Proof in regard to visibility splays to the new
 Buckingham Road access roundabout. The provision of the new roundabout on Buckingham Road
 would significantly reduce vehicle speeds and therefore the visibility requirements of motorists

exiting New Leys would certainly be made no worse and may in fact be improved by the proposals, as set out in my main Proof at paragraph 4.52 and Figure 4.6.

- 4.9 With reference to paragraph 5.3.6 of Mr McKechnie's main Proof, the drawings provided within the Updated TA are to scale. Hence, there is no need for additional measurements to be provided on the drawing. Given the relatively flat topography the proposals have been developed to a sufficient level of detail and providing the design on a topographic base is not necessary at this stage of design.
- 4.10 It is therefore not necessary to provide any additional information to support either the planning application or appeal process in relation to the Buckingham Road access proposals.

5 TRANSPORT RESPONSE NOTE 3 (TRN3)

MKC PLAN: MK MODELLING

5.1 Paragraph 6.2.6 of Mr McKechnie's main Proof is incorrect. I have never questioned the validity of the MKMMM. The concerns with the MKMMM were raised by Buckinghamshire Council, as is made clear within the Proof of Evidence of Mr Bedingfeld (paragraph 7.2). The use of the model was discussed at scoping and it was agreed that neither the MKMMM nor the Buckinghamshire Countywide Strategic Transport Model would be suitable for assessing the impacts of the Proposed Development. This is confirmed in the statement from Mr Weeks and his accompanying email of February 2020 in which he says:

"I note Buckinghamshire County Council have decided that the MKC model is not suitable for analysis of junctions within Milton Keynes. I do accept the model base data is old and the proposed approach is robust."

5.2 In relation to the ability of WSP to produce its own micro-simulation model (Paragraph 6.2.6-6.2.7 of Mr McKechnie's) this would not be possible or appropriate for the reasons outlined within my Proof of Evidence (paragraph 6.22 and MJP14). As part of the scoping discussions, it was never suggested by BC or MKC that a micro-simulation model should be produced.

JUNCTION MODEL UPDATES

Junction 6: Bottledump Roundabout

- 5.3 I refer to paragraphs 6.3.4 to 6.3.6 of Mr McKechnie's main Proof where he incorrectly interprets the methodology for the use of lane simulation modelling.
- 5.4 To clarify this point, the use of lane simulation was discussed with MKC at the scoping stage and 'welcomed' by Nigel Weeks of SMT, as set out in Appendix A point (ii) of his Statement (Appendix G of Mr McKechnie's main Proof). Lane simulation mode was utilised to reflect the existing situation where traffic on the eastern arm (A421 Standing Way) is signed to use the offside lane to travel straight ahead and nearside lane to turn left only which results in unequal lane usage at the junction. Additionally, lane simulation mode was used to accurately reflect the queueing on the upstream Buckingham Road arm to ensure satisfactory calibration of the model. Lane simulation mode is also used to assess the mitigation proposals to accurately reflect the amendments to the Buckingham Road exit arm, and to allow comparison of the DN and DS scenarios.

- 5.5 With reference to paragraph 6.3.5 of Mr McKechnie's main Proof, it is not necessary to alter the default lane allocation away from 50:50 as the base lane simulation model has been constructed to only allow traffic in the nearside lane to turn left. Similarly, the offside lane has been coded to only allow traffic to travel straight ahead and right.
- 5.6 With reference to paragraph 6.3.6 of Mr McKechnie's main Proof, the use of flare lengths within lane simulation mode has been previously researched and I included reference to a research paper on this matter in my Proof of Evidence⁹. This paper explains that lane simulation mode accounts for the flare within the lane length and to avoid double-counting the approach road half width and entry width should be matched with the effective flare length reduced to zero. Mr Bedingfeld agrees and also explains this point at paragraph 8.30 of his main Proof.
- 5.7 In summary, the use of lane simulation mode is the only way to accurately reflect the existing arrangement at the junction; the methodology has been applied correctly, and the modelling is therefore accurate and robust.

Junction 5: Tattenhoe Roundabout

5.8 I refer to paragraphs 6.3.8 to 6.3.11 and 6.4.24 of Mr McKechnie's main Proof. The suggestion that queues could build up within the internal junction links and block back is not agreed. It is the 'Maximum Back of Uniform Queue' (UQ) instead of the 'Mean Maximum Queue' (MMQ) that should be used to assess blocking within the internal circulatory of a signalised roundabout. The MMQ also includes the random and oversaturated aspects of a queue, however, given all the arms into the junction would be signalised, the traffic entering the circulatory arms would be fully controlled and as acknowledged within the guidance would be platooned and non-random. In addition, signal timings are co-ordinated to ensure the circulatory stop lines are kept well within capacity, hence the oversaturated aspect of a queue within LinSig would also not be relevant. As set out within the LinSig v3 User guide¹⁰:

"when a Lane has a degree of saturation less than 80% the uniform queue will be a good estimate of queuing". The signal timings can be optimised for Junction 5 when

⁹ Unequal Lane Usage in ARCADY using Junctions 9 – DRAFT 23/08/18, Consultancy (CD13/L)

¹⁰ Linsig Version 3.1 User Guide, May 2011, Page 38 (MJP44)

installed to ensure that the UQ on the internal circulating arms of the junction would not extend back and block the preceding arms of the junction.

- 5.9 Nonetheless, as stated in TRN3¹¹ the longest UQ at this location is 3.13 PCU, which equates to approximately 18m of queue, therefore a corresponding stacking capacity of 16-20m has been provided.
- 5.10 As with any installation of traffic signals, the junction's final signal timings would be calibrated on site and adjustments made to ensure that queues do not build up that would block the operation of the junction. Furthermore, there is potential for greater capacity enhancement (i.e. a matter which is covered in the MKC mobility strategy), through the inclusion within MKC's Urban Traffic Control (UTC) systems.
- 5.11 One of the core transport strategy options within Milton Keynes Council's Transport Infrastructure Delivery Plan¹² is for expansion of the UTC network (paragraph 5.40 of my main Proof), which would include signalised bus priority measures at key pinch-point junctions and signalisation at junctions to maximise junction efficiency and monitor success. This illustrates that signalisation of junctions is being promoted across Milton Keynes as an effective means to manage demand. The mitigation measures at this junction therefore accord with MKC's own transport policies to maximise junction efficiency.
- 5.12 I am of the opinion that there will not be a problem with blocking across the circulatory carriageway because the signal staging has been set up to ensure that the arms run with a 'green wave', so that when the preceding entry arm turns green, the circulatory arm is already green. This will reduce the incidence of blocking of the exits as suggested by paragraphs 6.3.12 and Figure 6.1 of Mr McKechnie's main Proof. Nonetheless, supplementary swept path analysis is provided in MJP33 to demonstrate that vehicles are able to pass a HGV waiting at the circulatory stop line.
- 5.13 Potential blocking on a circulatory carriageway is a common issue that occurs at many signalised roundabouts across the UK and is controlled through the application of traffic management measures, such as a 'Keep Clear' marking for part time signals and 'Yellow Box' hatching for full time signals.
- 5.14 I refer to paragraphs 6.3.13 to 6.3.15 of Mr McKechnie's main Proof. The use of 'Keep Clear' markings at a part-time signalised roundabout is not uncommon (with examples provided in **Figures**

¹¹ Transport Response Note 3,(January 2021, WSP Paragraphs 5.2.11-5.2.12 (CD16/C)

¹² Transport Infrastructure Delivery Plan, October 2019, MKC (CD12/K)

5-1 and 5-2) and are permitted for use by the Traffic Signs Manual, as set out in Mr McKechnie's main Proof (Appendix H).



Figure 5-1 - Part-time Signals at A3/A240 Tolworth Roundabout, Kingston-upon-Thames¹³ (Source: Google Earth)

¹³ Prior to conversion to full-time signal control



Figure 5-2 - Part-time Signals at Army & Navy Roundabout, Chelmsford, Essex (Source: Google Earth)

5.15 I refer to paragraphs 6.3.17 and 6.3.18 of Mr McKechnie's main Proof. There will not be a problem with blocking back through the junction, and as described above, the traffic signals would be calibrated on site and any issues identified with internal queuing could be addressed through amendments to the signal timings.

MITIGATION PROPOSALS

5.16 I refer to paragraphs 6.4.1 to 6.4.2 of Mr McKechnie's main Proof. The level of detail provided for the off-site highway mitigation measures is appropriate and commensurate with the level of detail

expected for an outline planning application. The reference to the local validation list is incorrect as this relates to points of access to the development rather than off-site mitigation measures.

- 5.17 I also note there are consistent references by both Mr McKechnie and Mr Burbridge to the level of detail made on the outline mitigation plans. I disagree with the comments made that the plans would be inadequate for "*planning determination purposes*"; they are "in my opinion (and that of BC who have not requested further detail) satisfactory to demonstrate the extent of improvements required to mitigate the impact of the Proposed Development. Notwithstanding, I provide further detail to assist the Inquiry to indicate where exiting street furniture would be relocated and considered further during the detailed design stage.
- 5.18 In addition, given the nature of the highway network in the study area with wide verges and relatively flat topography there is no requirement at this stage to undertake a topographic survey. As I will go on to explain the 'issues' highlighted by Mr McKechnie are minor and would be dealt with as the design is developed in relation to the s278 agreement.
- 5.19 The evidence submitted by both Mr McKechnie and Mr Burbridge consistently refers to the DfT Design Manual for Roads and Bridges as an appropriate design standard for urban roads. However, the roads within the study area where mitigation is proposed are not trunk roads to which the DMRB applies. The DfT's Manual for Streets 2¹⁴ aims to provide a more relevant and appropriate standard for urban roads such as A421, the MK grid road network and B4034 Buckingham Road. MfS2¹⁵ states:

"DMRB is the design standard for Trunk Roads and Motorways in England, Scotland, Wales and Northern Ireland. The strict application of DMRB to non-trunk routes is rarely appropriate for highway design in built up areas, regardless of traffic volume."

5.20 In essence, both Mr McKechnie and Mr Burbridge are trying to assert that if a design is not DMRB compliant then it cannot be delivered, however they have disregarded the purpose of DMRB which is to design new trunk roads and motorways and not to retrofit capacity improvements to the non-trunk local highway network. As with any junction improvement scheme on the local highway network, compliance with DMRB is not mandatory and a degree of flexibility is required along with experienced engineering judgement.

¹⁴ Manual for Streets 2, 2010, DfT (CD13/B)

¹⁵ Manual for Streets 2, 2010, DfT, page 4 (CD13/B)

5.21 I have also noted that in the context of Mr McKechnie's main Proofs refer to 'severity' but I would note that the test of severity is based on the assessment of <u>'residual cumulative impact'</u> (i.e. subsequent to the implementation of mitigation).

Junction 1: Buckingham Road/Sherwood Drive/Water Eaton Roundabout

5.22 I refer to paragraphs 6.4.5, 6.4.5 and 6.4.10 of Mr McKechnie's main Proof. The footway on Sherwood Drive is unaffected by the proposals whilst the street lighting columns around the junction would be relocated as part of the mitigation proposals to ensure that adequate levels of lighting are provided. A street lighting review would be undertaken as part of the detailed design (a part of the S278 process) and appropriate amendments to the lighting columns made if necessary. This is a normal part of the design process and would not be necessary to determine at this stage of the process. This approach is endorsed by BC in the main Proof of Mr Bedingfeld at paragraph 8.41 where he states that:

> "small amendments to design such as this are common as part of the detailed design process".

- 5.23 With reference to paragraph 6.4.8 of Mr McKechnie's main Proof, it is acknowledged that entry path curvature will be marginally reduced on the Buckingham Road eastern arm when compared to the existing layout, however there are no accidents identified at this location from the data presented in the Updated TA.¹⁶ Therefore, there is no accident pattern that would be exacerbated by the revision to the design of the junction.
- 5.24 I refer to paragraph 6.4.9 of Mr McKechnie's main Proof. The visibility to the right at the roundabout on Water Eason Road is currently limited and there is no existing safety problem at this junction, as detailed previously. Any slight reduction in visibility as a result of the proposals will not present a safety concern and has not been raised during RSA.
- 5.25 In summary, there will be sufficient provision for pedestrians/cyclists at the junction and the improvements are deliverable.

Junction 2: Buckingham Road/Shenley Road Mini-Roundabout

5.26 I refer to paragraphs 6.4.13 to 6.4.14 of Mr McKechnie's main Proof. It is not proposed to remove half of the footway width on the northern side of Buckingham Road. This would be addressed through the detailed design process (a stage of the S278 process). However, to address this point

¹⁶ Updated Transport Assessment, 2016, WSP, Section 3.9 (CD2/E)

for the purposes of the Inquiry we have provided additional detail on the plan below to show how the footway would be accommodated and street furniture relocated. This is shown in **Figure 5-3** and Appendix MJP34.

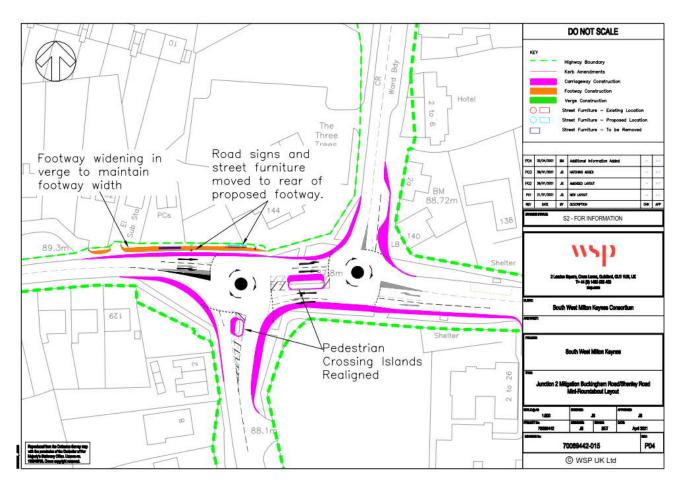


Figure 5-3 - Junction 2: Buckingham Road/Shenley Road Mini-Roundabout Mitigation

5.27 I refer to paragraph 6.4.15 of Mr McKechnie's main Proof. Even after removal of the lay-by on Shenley Road a footway of over 2m would be retained. The layout proposed whereby a vehicle cross-over is provided over a footway before a drive-way (whether gated or not) is commonplace throughout the UK and the design would be compliant with guidance in Manual for Streets regarding pedestrian cross-falls¹⁷. Pedestrians would be aware of the presence of the drive-way through the provision of the vehicle crossover.

¹⁷ Manual for Streets, 2007, DfT, paragraph 6.3.28-6.3.29 and Figure 6.12 (CD13/A)

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- 5.28 With reference to paragraph 6.4.16 of Mr McKechnie's main Proof, the pedestrian refuge islands and crossing points would be retained and this has been clarified on the updated version of the drawing (Figure 8).
- 5.29 With reference to paragraph 6.4.17 of Mr McKechnie's main Proof, the mini-roundabout road marking location would be confirmed as part of the detailed design (a part of the S278 process) and the location adjusted from that shown if required. Mr Bedingfeld confirms that small amendments to design drawings are a common part of the detailed design process (paragraph 8.4.1 of his main Proof)
- 5.30 I refer to paragraph 6.4.18 of Mr McKechnie's main Proof and the reduction in visibility for pedestrians waiting to cross Newton Road on the eastern footway. As the junction is a double mini-roundabout, motorists using the junction have to negotiate each mini-roundabout in turn as if they are individual junctions. As such, it would not be apparent what the intentions of a motorist were until they had exited the Shenley Road mini-roundabout. The maximum visibility requirement is therefore from the exit of the Shenley Road mini-roundabout not from the middle of the mini-roundabout as suggested by Mr McKechnie. Vehicle speeds would be circa 15mph through the junction, therefore applying MfS¹⁸, a 17m SSD would be required, which is available as demonstrated by paragraph 6.4.18 and Figure 6.2 of Mr McKechnie's main Proof.
- 5.31 With reference to paragraph 6.4.20 of Mr McKechnie's main Proof, TRN3 does not erroneously compare the Do Something 1 scenarios. Instead, the comparison of PM peak delay in paragraph 5.2.7 is a discrepancy referring to an earlier iteration of modelling. The correct comparison shows that delay on Buckingham Road East (eastern junction) increases by 320 seconds, rather than the 293 seconds stated.
- 5.32 I refer to paragraph 6.4.21 and Figure 6.3 of Mr McKechnie's main Proof which refer to the maximum queue identified in the modelling. The 'one hour' profile has been used in Junctions9 which creates a synthesised peak hour. This level of queuing represents a worst case which would only occur in the PM peak i.e. for a short period of time only. The impact of which is therefore not significant. In addition, the reference to congestion outside of Holne Chase Primary School is misleading as the queue is only evident in the PM peak hour (17:00-18:00) when the school would not be in operation.
- 5.33 Overall, the mitigation proposals for Junction 2 have been developed to an appropriate level of detail for an outline planning application, with an improvement in the performance of the junction overall.

¹⁸ Manual for Streets, 2007, DfT, Table 7.1, page 91 (CD13/A)

Mr Bedingfeld confirms in his main Proof (paragraph 8.48) that he also considers that overall the junction will see an improvement.

Junction 5: Tattenhoe Roundabout

5.34 I refer to paragraphs 6.4.25 to 6.4.26 of Mr McKechnie's main Proof. The peak hour 85th percentile speeds of traffic on the A421 approaches to the junction are shown in **Table 2-1**.

Table 5-1 - 2020 85th Percentile Peak Hour A421 Approach Speeds to Tattenhoe Roundabout

Peak Hour/Location	Eastbound (west of junction)	Westbound (east of junction)
AM Peak (07:45-08:45)	58.9mph	62.4mph
PM Peak (17:00-18:00)	57.4mph	60.7mph

- 5.35 **Table 2-1** demonstrates that the 85th percentile speed (i.e. the speed used to calculate the design speed of a road) is below the 65mph threshold set out in CD116. Furthermore, the presence of a signalised roundabout within a 70mph speed limit zone is not uncommon, for example, the Kelly's Kitchen Roundabout on the A5/A4146 within Milton Keynes.
- 5.36 With reference to paragraphs 6.4.27 to 6.4.28 of Mr McKechnie's main Proof, the desirable minimum stopping sight distance on the A421 approaches is in fact 215m on the eastbound approach and 295m on the westbound approach. As the roundabout is existing, the level of forward visibility to the junction itself would also need to meet this requirement at present. MKC must therefore have already accepted that the levels of forward visibility to the junction are sufficient otherwise it would be expected that additional warning would be provided on the approaches, which it is not. On Buckingham Road, the presence of the site access roundabout will significantly reduce vehicle speeds on this approach and therefore suitable levels of forward visibility can be achieved (**Figure 5-4** and MJP35).

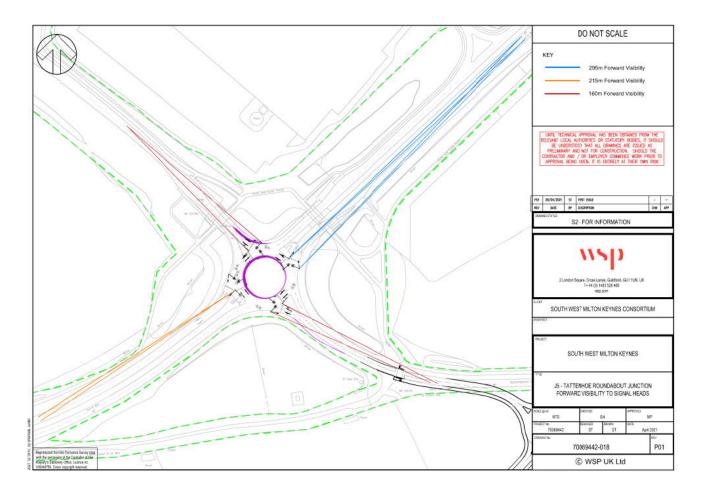


Figure 5-4 - Forward Visibility to J5 Tattenhoe Roundabout

- 5.37 With reference to paragraph 6.4.29 of Mr McKechnie's main Proof, the swept path analysis completed demonstrates that there is little risk of an HGV striking a car when manoeuvring at the junction, given driver behaviour to allow HGVs additional space. The issue of lane over-running by HGVs is commonplace at junctions which feature part-time traffic signals and is not considered to be a safety related issue given typical behaviour of car drivers to provide HGVs with more space to manoeuvre.
- 5.38 With reference to paragraph 6.4.30 of Mr McKechnie's main Proof, the junction is currently noncompliant with DMRB design standards as the entry path radius should not exceed 100m. The minor change proposed is therefore unlikely to result in a safety problem and has not been highlighted by the Road Safety Audit as a concern.
- 5.39 With reference to paragraph 6.4.31 of Mr McKechnie's main Proof, the taper used to develop the additional lane on the Snelshall Street arm has been designed to maximise queuing space and benefit motorists when the highway network becomes congested (a daily occurrence). The existing junction suffers from over-running of the verge during the peak hours and the amended kerb line

seeks to address this existing issue. No safety issue was raised with this design proposal as part of the Road Safety Audit.

5.40 With reference to paragraph 6.4.32 and 6.4.33 of Mr McKechnie's main Proof, I do not consider that any further assessment is required to determine that the proposed mitigation is deliverable, however, notwithstanding, additional detail is provided on the layout plan (with no changes to the proposed mitigation itself) to identify the existing street furniture with an option for where, if necessary, it could be relocated. This is presented in Figure 5-5 and Appendix MJP36. **Figure 5-5** demonstrates that not only have some items of street furniture been erroneously highlighted by Mr McKechnie as an issue but that simple measures can be taken to address the other points of concern.

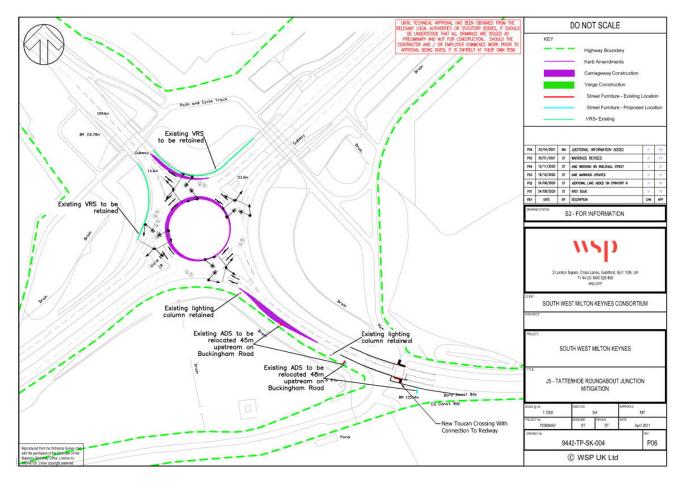


Figure 5-5 - Junction 5: Tattenhoe Roundabout Mitigation Layout

5.41 With reference to paragraph 6.4.34 of Mr McKechnie's main Proof, a small section of the carriageway widening on V1 Snelshall Street extends beyond the red line, however the improvement will be contained within the highway boundary. It is commonplace for mitigation related to a

development to be completed under s278 to fall outside of the red line boundary and in my opinion is not an issue.

Junction 6: Bottledump Roundabout

- 5.42 I refer to paragraph 6.4.38 of Mr McKechnie's main Proof which erroneously suggests that it is the responsibility of the Appellant to address existing issues with the highway network. Whilst it is not the responsibility of the Appellant to address existing issues with the highway network, the revisions to the central island of the roundabout proposed as part of the mitigation will provide additional circulatory carriageway space and help to alleviate the existing issue of HGVs over-running the nearside kerb on the eastern arm of the junction.
- 5.43 With reference to paragraph 6.4.40 of Mr McKechnie's main Proof, I have been satisfied that there would be no problem with potential collisions on the roundabout and in order to demonstrate this for the inquiry in the light of Mr McKechnie's point, additional swept path analysis has been undertaken and is presented in Appendix MJP37. This demonstrates that there are no issues with potential vehicle collisions at the junction with the amended geometry.
- 5.44 With reference to paragraph 6.4.45 of Mr McKechnie's main Proof the access to the recycling centre is closed except when a vehicle is either entering or exiting the facility, minimising the potential for conflict. Signing would be added at the detailed design stage (part of the S278 process) to warn both motorists and equestrians of the potential hazard.
- 5.45 With reference to paragraph 6.4.46 of Mr McKechnie's main Proof, the forward visibility along Buckingham Road to the signal heads of the Pegasus crossing passes over land within the site boundary. If this land is deemed to be necessary to achieve adequate forward visibility it would be dedicated to the highway authority for adoption as part of the S278/S38 process.

Junction 12: Kingsmead Roundabout

5.46 I refer to paragraph 6.4.51 of Mr McKechnie's main Proof which implies that the Vehicle Restraint System (VRS) may need to be relocated to accommodate the mitigation proposals. This is incorrect and a 1.2m setback from the amended carriageway edge can still be achieved to the VRS. This is illustrated in **Figure 5-6** and appendix MJP38.

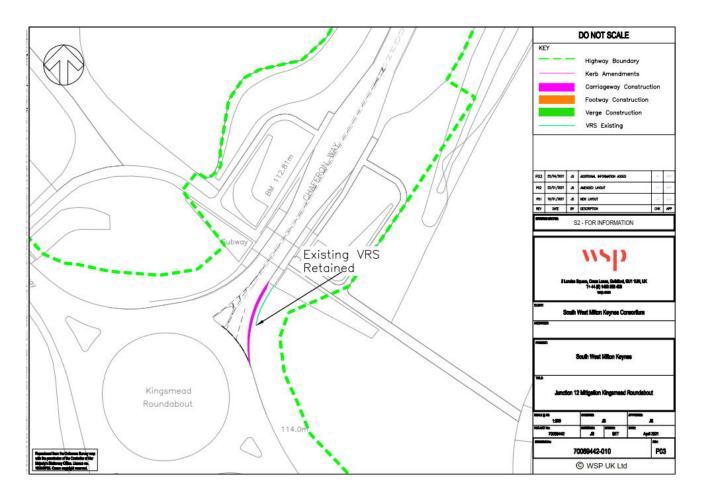


Figure 5-6 - Junction 12: Kingsmead Roundabout Mitigation Layout

5.47 With to paragraph 6.4.52 of Mr McKechnie's main Proof, there is no issue with side-swipe collisions and it is not necessary to provide swept path analysis of the mitigation proposals given the scale of the improvements. However, to assist the Inquiry in the light of Mr McKechnie's point, I have provided additional swept path analysis to show the impact of the minor widening on the Chaffron Way approach to the junction in Appendix MJP39.

Junction 14: Furzton Roundabout

5.48 I refer to paragraph 6.4.54 of Mr McKechnie's main Proof which implies that street furniture would need to be relocated to accommodate the mitigation proposals. There is no issue with the relocation of street furniture within the highway boundary, however a supplementary layout plan (with no change to the mitigation scheme itself) has been produced to demonstrate how the existing street furniture would be relocated and accommodated within the proposals. This supplementary detail is shown in **Figure 5-7** and Appendix MJP40

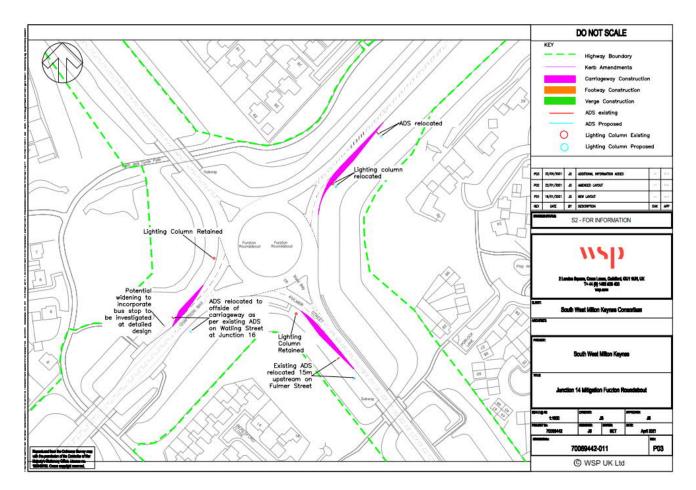


Figure 5-7 - Junction 14: Furzton Roundabout Mitigation Layout

Junction 15: Bleak Hall Roundabout

- 5.49 I refer to paragraphs 6.4.58 to 6.4.59 of Mr McKechnie's main Proof which questions whether the three lane approaches could be accommodated at the junction. Supplementary swept path analysis was completed and presented in Appendix MJP20 of my main Proof. This demonstrates that there is sufficient space to accommodate three vehicles at the junction.
- 5.50 I refer to paragraph 6.4.59 of Mr McKechnie's main Proof which questions whether the circulatory width lies within 1-1.2 times the entry width in accordance with DMRB CD116. I refer to my earlier comments on the applicability of DMRB to the local highway network, however, it should be noted that the existing roundabout layout does not comply with the standard quoted, with a circulatory carriageway of 7.6 to 7.8m and entry widths of 7.6m, 8.4m, 9.3m and 9.9m across the four arms. The circulatory width is therefore between 0.77 and 1.02 times the entry widths as existing. When retrofitting improvements to an existing junction which is non-compliant, it is not appropriate to

attempt to meet the standard set for the trunk road network, but instead, provide cost effective mitigation to an acceptable degree¹⁹ that is both deliverable and safe.

- 5.51 With regard to paragraphs 6.4.60 and 6.4.61 of Mr McKechnie's main Proof in relation to entry angles and entry path curvature. The existing roundabout is not currently designed in accordance with DMRB and only minor modifications are proposed. The mitigation proposals have been the subject of Road Safety Audit (RSA) and a Designer's Response was produced that agrees that the proposals are acceptable and safe.
- 5.52 With reference to paragraph 6.4.62 of Mr McKechnie's main Proof, the offset from the amended kerb line to the bridge parapet and lighting column has been reviewed. An offset of 1.7m is still achievable as illustrated on the layout below showing additional detail in **Figure 5-8** and Appendix MJP41. There is no issue with the deliverability of the proposed mitigation.

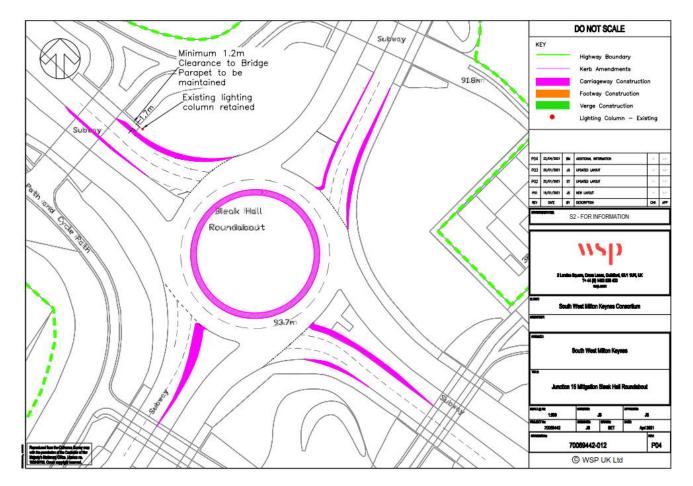


Figure 5-8 - Junction 15: Bleak Hall Roundabout Mitigation Layout

¹⁹ National Planning Policy Framework, February 2019, MHCLG, paragraph 108c (CD/8)

- 5.53 With reference to paragraphs 6.4.63 to 6.4.65 and Figure 6.8 of Mr McKechnie's main Proof, Mr McKechnie has neglected to recognise the reduction in queues at these junctions between the DN and DS1 with mitigation scenarios and instead has focussed on what is in his opinion the worst queuing on specific arms during the AM and PM peak periods (as a result of his (unjustified) criticism of the FTP he also ignores the results of DS2).
- 5.54 Furthermore, I disagree with his analysis. My team has undertaken a review of peak hour queue lengths. Figure 6-9 of this Rebuttal Evidence provides a summary of the queue lengths anticipated at J15 in the PM peak hour. Our analysis reaches different conclusions to that presented by Mr McKechnie and it is questioned how the queue lengths shown in Figure 6.8 were derived as there is no explanation of the methodology used.
- 5.55 Our methodology has involved taking a vehicle length as 5.75m and accounting for the number of lanes on the approaches to the junction as Junctions9 outputs the total number of vehicles in a queue per arm not by lane²⁰. We have compared the 2033 Do Nothing scenario (shown in green) with the 2033 Do Something 1 Post Mitigation (shown in red) and the 2033 Do Something 2 Post Mitigation (shown in blue). Our analysis provides significantly different results and without any explanation of his methodology, indicates that Figure 6.8 of Mr McKechnie's main Proof is incorrect and misleading.

²⁰ Junctions9 User Guide, 2018, TRL, page 93 (CD13/I)

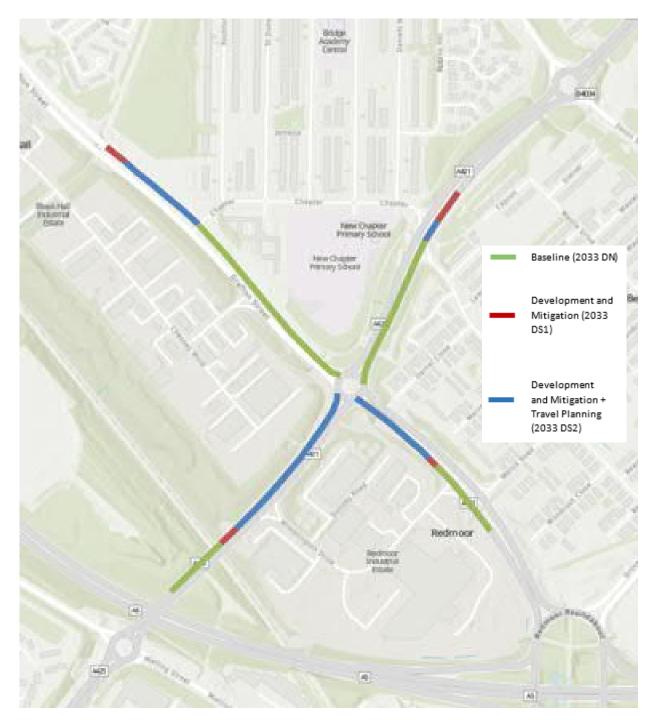


Figure 5-9 - Junction 15: Bleak Hall Roundabout PM Peak Maximum Queue Lengths

5.56 **Figure 5-9** demonstrates that there would be no interaction between J15 and Coffee Hall Roundabout to the northeast, to J16 Elfield Park to the southwest, nor to A5 Redmoor Roundabout to the southeast, with significantly shorter queues than suggested in Figure 6.8 of Mr McKechnie's main Proof. Furthermore, **Figure 5-9** demonstrates the reduction in the queue on the A421

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eastbound arm and on Grafton Street South in DS1 and DS2 with mitigation as compared to the baseline (without proposed development) scenario.

Junction 16: Elfield Park Roundabout

5.57 I refer to paragraphs 6.4.59 to 6.4.71 and Figures 6.9 and 6.10 of Mr McKechnie's main Proof.
Again, the information presented regarding queue lengths differs from our own analysis. Without an explanation of the methodology used, I can only conclude that Mr McKechnie's figures are incorrect and misleading. Figures 5-10 and 5-11 of this Rebuttal Evidence present my team's analysis of queue lengths for the AM and PM peaks.



Figure 5-10 - Junction 16: Elfield Park Roundabout AM Peak Maximum Queue Lengths

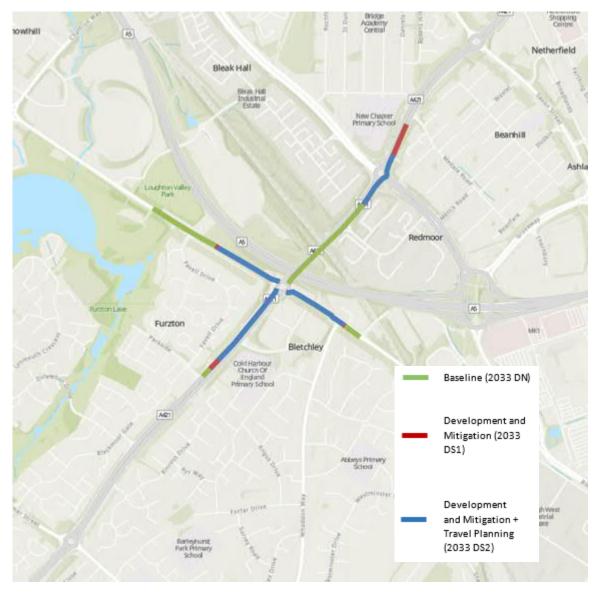


Figure 5-11 - Junction 16: Elfield Park Roundabout PM Peak Maximum Queue Lengths

- 5.58 **Figures 5-10** and **5-11** demonstrate that overall, there is a benefit in junction queuing in the AM and PM peak periods. The only possible potential interaction of vehicles between junctions 16 and 15 would be in the PM peak on the northern arm of A421. In the context of the urban highway network that serves Milton Keynes, which is not dissimilar to many other congested metropolitan areas, the queue shown on A421 in 2033 in the DS1 post mitigation scenario is in my opinion acceptable.
- 5.59 Furthermore, my response to this is subject to a separate letter issued to Buckinghamshire Council as part of the planning application which can be found in Appendix MJP21 of my main Proof. This letter demonstrates that only a small variation in flow would be required for this queue to not reach the upstream junction. Given the robust approach to the adopted assessment and the general uncertainty regarding the future growth of traffic (MJP21), the risk of this occurring is not considered

to be significant. The potential for blocking back to Junction 15 is not significant as agreed with BC and highlighted by Mr Bedingfeld in his main Proof at paragraphs 8.106 and 8.107.

- 5.60 Regarding paragraphs 6.4.73 and 6.4.75 of Mr McKechnie's main Proof, I refer to my earlier comments within this Rebuttal Evidence regarding the applicability of DMRB and requirements for retrofitting improvements to existing junctions. The existing junction features a sub-standard design that does not comply with DMRB as existing, with a circulatory carriageway width of between 8.43m and 8.55m and entry arms of 8.74m, 9.17m, 9.37m and 9.47m, resulting in a ratio of 0.89 to 0.98.
- 5.61 Only minor changes to the geometry are proposed and in relation to the entry path curvature there is no serious or fatal collision history at this junction that would be made worse by the proposed mitigation. The proposals are considered acceptable and safe, and no concerns were raised within the RSA that cannot be addressed at detailed design.

Junction 17: Emerson Roundabout

- 5.62 I refer to paragraph 6.4.78 of Mr McKechnie's main Proof and note the comment that widening into the splitter island on Shenley Way will reduce entry deflection. No evidence is provided by Mr McKechnie to demonstrate this but I am of the opinion that entry path curvature will be improved rather than reduced as a result of this amendment. There is no serious or fatal collision history at the junction that would be made worse as a result of the proposed mitigation.
- 5.63 With reference to paragraph 6.4.79 of Mr McKechnie's main Proof where he mentions a "*sharp flare*", no issue has been raised by the RSA and I consider this to be acceptable and safe. In respect of the existing vegetation and utilities on this arm, the vegetation can easily be removed as it is currently over-grown and clearly not maintained. Additional information is provided to illustrate how the existing street furniture would be relocated within the scheme. This additional detail is shown in **Figure 5-12** and Appendix MJP42.

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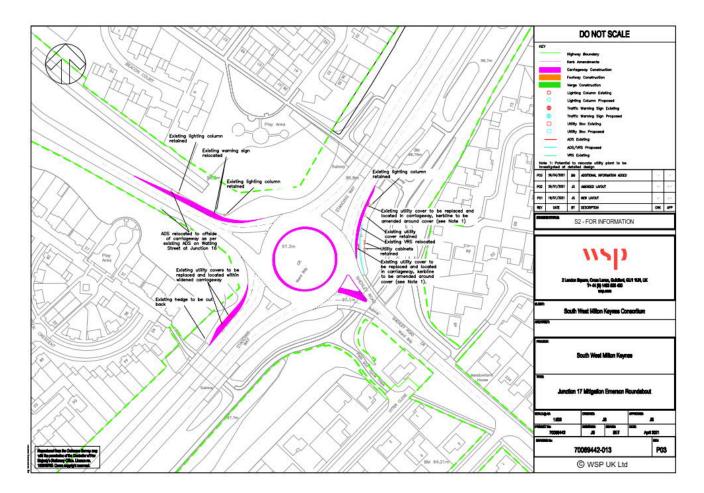
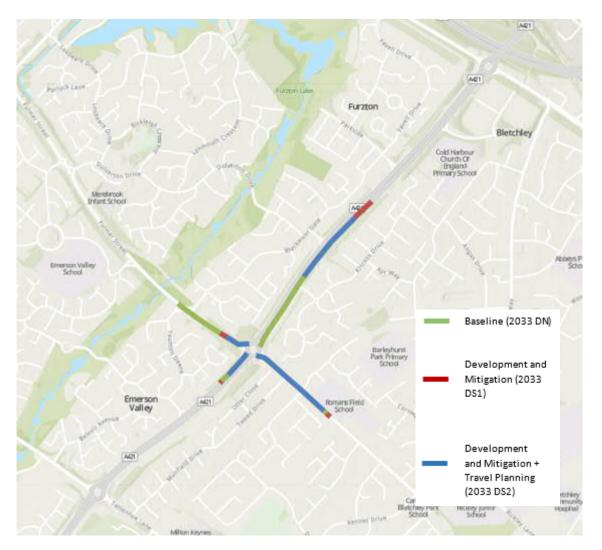


Figure 5-12 - Junction 17: Emerson Roundabout Mitigation Proposal

- 5.64 With reference to paragraph 6.4.80 of Mr McKechnie's main Proof, and a supplementary layout has been prepared to demonstrate how the street furniture would be relocated within the proposals. This is shown in **Figure 5-12** and within Appendix MJP42. There is unlikely to be any impact on the trees within the verge as these are located some 5.5m from the edge of the existing carriageway. The widening seeks to increase the carriageway width by 2.6m and therefore there would still be some 2.9m from any tree trunk.
- 5.65 With reference to paragraph 6.4.83 of Mr McKechnie's main Proof, I refer to my earlier comments within this Rebuttal Evidence regarding the applicability of DMRB and requirements for retrofitting improvements to existing junctions. The existing junction features a sub-standard design that does not comply with DMRB as existing, with a circulatory carriageway width of between 7.9m and 8.1m and entry arms of 7.8m, 7.9m, 9.3m and 10.6m, resulting in a ratio of 0.75 to 1.04. In order to illustrate that a HGV and a car can use the roundabout at the same time following implementation of mitigation, a swept path drawing was provided in MJP20 of my main Proof for this junction.

5.66 In respect of paragraphs 6.4.85 to 6.4.87 and Figure 6.11 of Mr McKechnie's main Proof, the queue analysis suggested is incorrect and misleading, as I detailed earlier. My team's analysis of the potential queuing is presented in **Figure 5-13** for the PM peak which shows that there would be no blocking back of queues to Junction 16.





Junction 18: Windmill Hill Roundabout

5.67 I refer to paragraph 6.4.90 and 6.4.91 of Mr McKechnie's main Proof and provide a layout plan showing additional detail (with no change to the mitigation proposals) to demonstrate how the street furniture would be accommodated within the scheme proposals. (Figure 5-14 and Appendix MJP43).
 Figure 5-14 demonstrates that the mitigation proposals do not require amendment and are deliverable.

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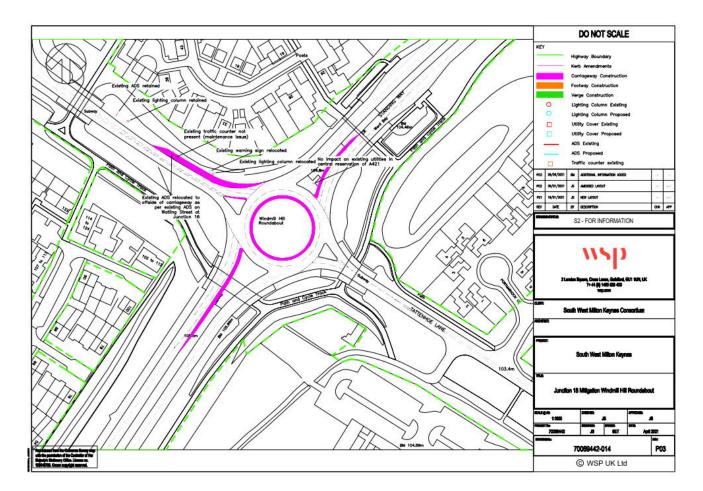


Figure 5-14 - Junction 18: Windmill Hill Roundabout Mitigation Proposal

- 5.68 I refer to paragraph 6.4.92 of Mr McKechnie's main Proof. Swept path analysis was completed and is provided in MJP20 to demonstrate that the widening would not result in a safety issue on the highway network. With minor amendments to signage and lining to be included at detailed design, the RSA conclude the junction proposals are safe.
- 5.69 With reference to paragraph 6.4.94 and Figure 6.12 of Mr McKechnie's main Proof, the extent of queuing suggested is incorrect and misleading. As previously, **Figure 5-15** shows that there would not be any interaction between junctions, and that queuing on three arms of the roundabout would be significantly improved as a result of the proposed mitigation.

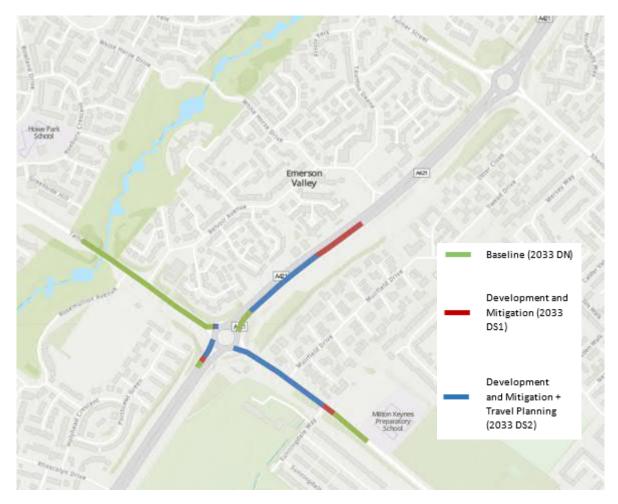


Figure 5-15 - Junction 18: Windmill Hill Roundabout PM Peak Maximum Queue Lengths

6 POLICY

6.1 I provide my detailed response to all of the policy references in my main Proof Section 5 and at MJP13.

EIA REGULATIONS

6.2 I refer to paragraph 7.4.3 of Mr McKechnie's main Proof which discusses the potential for redistribution and suggests that such information should be contained in the ES. The assessment of traffic impacts in the Updated TA and TRNs 1 – 3 presents a worst case scenario which does not account for the benefit of reassignment. I am advised that environmental assessments should assess reasonable worst case scenarios, and I consider that the reasonable worst case has indeed been assessed. I have already noted that in his email of 25 February 2020, Mr Weeks on behalf of MKC, considered that if traffic was not reassigned from the most congested parts of the network in the agreed static modelling approach, then a worst case would be tested.

MAJOR ROAD NETWORK (MRN)

- 6.3 I refer to paragraph 7.5.1 of Mr McKechnie's main proof where he notes that the A421 is part of the MRN of the busiest and most economically important local authority 'A' roads. As my evidence demonstrates, the impact on this part of the network is acceptable. The objective of the MRN programme is to provide a funding stream to alleviate congestion, support economic growth and unlock land for new housing developments.
- 6.4 As part of the MRN, MKC are able to put forward business cases to a specific funding pot for scheme improvements on the A421 specifically for the purposes of relieving congestion to allow housing and economic growth to progress. Given that MKC do not have an 'in principle' objection to the development, the A421 being part of the MRN is beneficial, as additional funding/improvements beyond that provided by the Appellant to mitigate the impact of the development could be available to alleviate the forecast levels of congestion a result of growth that could potentially occur in the 2033 DN scenario.

7 CONCLUSION

7.1 I note that Mr Bedingfeld concludes at paragraphs 8.127 and 8.128 of his main Proof that the residual impacts after mitigation would not be significant and that:

"the proposed mitigation package is considered to be deliverable (whilst being subject to detailed design and further Road Safety Audit process), cost effective and proportionately related to the forecast impacts."

7.2 I remain of the opinion that my evidence before this Inquiry submitted hitherto, and this Rebuttal Proof, demonstrate that the impacts of the Appeal Development and the Proposed Development would be acceptable in 2033 and the proposed mitigation is deliverable in accordance with national and local planning policies.



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