Peel Hall, Warrington

Planning Application Number: 2016/28492

Appeal Reference: APP/M0655/W/17/3178530

Highways England Supplementary Update

25th June 2018

1. Introduction

1.1. I make this statement on behalf of Highways England to update the Inquiry on Highways England's current position with regards to the proposed Development on land at Peel Hall, Warrington.

1.2. I made an earlier statement on the 20th April 2018 setting out a number of issues of concern regarding how the impact of the proposed development had been assessed. Whilst we have now done further work to assess the impact at M62 Junction 9, the general concerns highlighted in that, and previous, submissions remain valid.

1.3. I am conscious that Highways England is not a main party to this Inquiry. I therefore do not intend to submit any further evidence concerning those wider matters of concern at this stage of proceedings. I am content for decisions on those wider issues, and the impacts on the local road network to be determined based on the evidence submitted by the main parties to the Inquiry, albeit in cognisance of our earlier representations. I can though confirm that we concur with the views made by the Council on those matters.

1.4. My statement here will focus on the impacts on junction 9 of the M62 and the recent assessment work commissioned by Highways England and undertaken by Atkins on our behalf. I submit this statement to inform the Inquiry of our conclusions drawn from that work and how those relate to the Secretary of State's policy requirements.

1.5. During the Inquiry the option to provide a new means of vehicular access at Poplars Avenue was removed. I can confirm that Highways England welcomes,

and fully supports, the removal of that proposed new means of access from the application. My comments that follow are therefore based on the assumption no new means of vehicular access at Poplars Avenue is to be provided.

2. Additional Assessments

2.1. With the removal of the Poplars Avenue junction, and given the concerns raised prior to and during the Inquiry, further assessment work on the impact of the development was requested. The areas for assessment included:

2.1.1. The junction of the M62 and A49 (M62 J9)
2.1.2. A49/Sandy Lane junction
2.1.3. A49/A50 junction

2.2. Key to those considerations was the interaction between the junctions.

2.3. Highways England (HE), Highgate Transportation (HTp) and Warrington Borough Council (WBC) highway officers met on Friday 27th April 2018, following the adjournment of the inquiry, to agree how best to make progress. At this meeting two alternative technical approaches were identified as an acceptable way forward by all parties:

- The use of LinSig to assess the direct impact of the development on M62 Junction 9, the A49/Sandy Lane Junction and A49/A50 junction.

- The use of Vissim microscopic simulation model to assess the impact of the development on M62 Junction 9 and the A49 corridor to the south

2.4. It was agreed that Atkins, on behalf of Highways England, will produce the LinSig Assessment for the junction of the M62 motorway and the A49 (M62 Junction 9). Highgate Transportation would produce the LinSig Assessments for the other A49 junctions.

2.5. Following completion of the LinSig assessments, it was agreed that decision would then be made on the need to undertake further microsimulation modelling.

2.6. Our assessment of the impact of this development on junction 9, undertaken by Atkins, is now complete. The results of that assessment have been shared with all parties and submitted to the Planning Inspectorate on the 14th June 2018. A copy is included in Appendix A. The methodology used to derive the flows, and the flows used in the assessment have also been shared with and agreed by all parties.

3. Context

3.1. Department for Transport Circular 02/2013 sets out the policy governing the way Highways England will engage with communities and the development industry to deliver sustainable development and economic growth, whilst safeguarding the primary function and purpose of the strategic road network. For the avoidance of doubt, where extracts are taken from the circular, references to Highways Agency can be read as Highways England. A copy of the Circular is attached at Appendix B.

3.2. As this development site is allocated within Warrington's adopted local plan, Section 21 of the circular applies. There it states:

> *"Where development proposals are consistent with an adopted Local Plan, the Highways Agency does not anticipate the need for engagement in a full assessment process at the planning application stage. In such circumstances, considerations will normally be limited to the agreement of the details of the transport solution, including any necessary mitigation measures, and to ensuring that the transport impacts are included in the overall environmental assessment provided to the local planning authority, rather than the principle of the development itself."*

3.3. Given the above, Highways England is neutral on the principle of the development on the Peel Hall site. Our role in this case is to ensure that its impacts are adequately assessed and mitigated, if necessary, to ensure that a severe impact on the Strategic Road Network and its users does not occur.

3.4. In Section 23 of the circular, it goes on to state:

"The Highways Agency will provide the local planning authority or other relevant consenting body with its assessment of the transport impact, as generally derived from a Transport Assessment or Transport Statement incorporating a Travel Plan as required in the National Planning Policy Framework, produced by the promoter of the development concerned in line with current Department for Transport guidance or on a basis otherwise agreed with the Highways Agency."

3.5. To steer assessment of development impact, the circular sets out the following requirements:

3.5.1. *"25. The overall forecast demand[7] should be compared to the ability of the existing network to accommodate traffic over a period up to ten years after the date of registration of a planning application or the end of the relevant Local Plan whichever is the greater. This is known as the review period[8]."*

3.5.2. *"26. The Highways Agency expects the promoters of development to put forward initiatives that manage down the traffic impact of proposals to support the promotion of sustainable transport and the development of accessible sites. This is particularly necessary where the potential impact is on sections of the strategic road network that could experience capacity problems in the short or medium term."*

3.5.3. *"27. Where the overall forecast demand at the time of opening of the development[9] can be accommodated by the existing infrastructure, further capacity mitigation will not be sought."*

It also includes the following explanatory text:

- *"[7]The overall forecast demand will be the existing flow plus traffic likely to be generated by development already committed, plus traffic likely to be generated by the development under consideration, less any reduction arising from any travel plan or demand management measures that are being proposed."*

- *"[8]The length of the review period, at the discretion of the Secretary of State for Transport, can be amended for individual cases, where there is a wider political and economic imperative or, for example, where proposals will take a long time to develop fully. This would only be in exceptional circumstance."*

- *"[9]The opening of the development shall be taken to be the date at which the development first becomes available for occupation, unless agreed otherwise."*

3.6. For the purpose of our assessment at J9 of the M62 it was agreed that the opening year of the development should be considered to be 2021 and the assessment review year should be 2030.

3.7. Where it is determined that the overall forecast demand cannot be accommodated by the existing infrastructure then additional capacity enhancements will be required. In those circumstance, the following requirements are set out in the circular:

3.7.1. *"34. Where insufficient capacity exists to provide for overall forecast demand at the time of opening, the impact of the development will be mitigated to ensure that at that time, the strategic road network is able to accommodate existing and development generated traffic. Any associated mitigation works should be appropriate to the overall connectivity and capacity of any affected part of the strategic road network."*

3.7.2. *"36. Where a development will be brought forward in phases, any mitigation needs will be assessed based on the opening of the final phase. However it may be necessary to implement some mitigation measures in line with the opening of certain phases of development according to the impacts that they generate."*

3.8. The requirements for mitigation set out above are those of the Secretary of State for Transport. They reflect his requirements for mitigation of impacts that may affect the Strategic Road Network. It should be noted that many local authorities have their own requirements that may also need to be taken into account.

4. Additional Modelling & Assessment Results

4.1. Given the further information requested, there are two elements to report on here. The first is to clarify if further microsimulation modelling is required. The second is to inform the Inquiry of the outcome of our assessment of junction 9 of the M62.

4.2. The need for microsimulation is based on the complex nature of the traffic movements at, approaching and leaving the motorway junction. It is the most reliable tool to show how traffic between adjacent junctions interact.

4.3. There are other modelling tools designed to assess how junctions operate. Included within those is the proprietary traffic signal junction modelling tool LinSig. LinSig, and other modelling tools are also to provide required to effectively run the microsimulation models. However, there are limitations to those tools. Most critical amongst those limitations in this case is that they assume all vehicles can leave a junction, or individual link, unhindered. They do not accurately reflect situations where the exit from a junction or link is blocked by queuing traffic.

4.4. An explanation of the LinSig software, including an explanation of its limitations, is contained within Section 1.3 of the Atkins M62 J9 assessment report.

4.5. Given the discussions concerning the validity of the models available, the M62 J9 assessment report has been prepared using the distribution of development traffic from both the Peel Hall Saturn Model and the updated Warrington 2016 Model.

5. Summary of findings from the Atkins M62 J9 Assessment

5.1. Based on the results of the Atkins report it can be demonstrated:

5.1.1. That there can currently be queueing traffic on the local road network that can restrict traffic exiting the junction.

5.1.2. There is congestion currently occurring on the approaches to the junction.

5.1.3. The junction currently operates in excess of its practical reserve capacity and an optimised junction based on the existing layout will continue to operate over its practical reserve capacity in the opening year for the development of 2021.

5.1.4. In either modelled scenario, Peel Hall Saturn or Warrington 2016 Saturn, the operation of the junction worsens with the addition of development traffic in both the opening year (2021) and in the review year (2030).

5.1.5. In either modelled scenario, Peel Hall Saturn or Warrington 2016 Saturn, it is clear that the overall forecast demand cannot be accommodated by the existing infrastructure in the year of opening.

5.1.6. The mitigation proposed will not be sufficient to bring the junction back to operating within it practical reserve capacity on a number of approaches or links. However, the mitigation does offer some benefits and in many situations the operation of the mitigated junction would be similar, or slightly better than that which would be experienced if no development had taken place and the junction wasn't improved beyond the already planned optimisation.

5.1.7. The modelling software used has limitations. The results from it will only be valid if exits from the junction are not obstructed by queueing traffic.

5.1.8. There are also highlighted some significant differences in flows used in the Atkins assessment of this junction from those presented in earlier submissions to this Inquiry made by HTp.

6. Conclusions

6.1. Microsimulation

6.1.1. The first question to answer is whether microsimulation modelling is required. It is clear that the LinSig model used to assess the operation of the

motorway junction will only be valid if traffic on the local network does not queue back and block the exits of the junction.

6.1.2. Under the current junction layouts, queueing up to, and in some cases through the junction currently occurs. This is shown in the report. If that queuing remains then the outcome of the LinSig assessment undertaken would not be meaningful or realistic. However, if mitigation can be provided at the junctions upstream and downstream of the motorway junction that reduces those queues to an extent that they no longer reach the motorway junction then I am satisfied that the need for a microsimulation model in this case can be avoided.

6.1.3. It has therefore been agreed that further mitigation on the upstream junction Delph Lane will be developed and a proposal has now been submitted for those works. I am content to accept the views of the council on the suitability or adequacy of those works.

6.1.4. The applicant is also proposing mitigation at the junction of the A49 and Sandy Lane. I do not intend to make any further representations from Highways England in respect to those works or the assessments undertaken of those junctions. I am content for a decision to be made on the evidence presented by the council and the applicant in respect of those works. If the Inquiry can be satisfied that those works are sufficient to limit the extent of queuing from that junction then I am content that the assessment undertaken by Atkins for the motorway junction would be a valid representation of the impact of the development, and the mitigation proposed, on that junction.

6.1.5. Given the above, it has been agreed by all parties that further microsimulation is now not required to be undertaken.

6.2. Impact on M62 Junction 9 and Need for Mitigation

6.2.1. The Atkins report has shown that forecast demand cannot be accommodated by the existing infrastructure provision. I am therefore

satisfied that the requirements of Section 27 of Circular 02/2013 are not met. Works to provide mitigation at the junction are therefore required.

6.2.2. Mitigation works at the junction of the M62 and A49 have been proposed by the applicant. The works proposed do not bring the junction back to within its practical reserve capacity nor are they sufficient to enable the Strategic Road Network to accommodate all traffic in the development's year of opening. The requirements of Section 34 of Circular 02/2013 in this case have therefore not been met.

6.2.3. However, the mitigation works proposed do represent some improvements and some benefits to the operation of the junction when compared to the scenario where no development and no improvements take place.

6.2.4. Given the degree of movements generated by the development traversing the motorway junction, on balance, I am satisfied that the woks proposed in mitigation at that junction are reasonable in terms of the scale of the development and its impact.

6.2.5. The development is a phased development. As a result, a trigger for when the works at the junction should be in place for is reasonable. At present there is currently no agreement to what that figure should be. HTp initially suggested a figure of 1000 dwellings would be appropriate. They have now revised that and provided a methodology to suggest that a trigger point of 840 houses would now be appropriate.

6.2.6. The reduction in number is welcome. However, as the junction operates over capacity even a small increase in traffic can have significant impacts. HTp have not presented an assessment of the impact of the 840 vehicles. I have therefore arranged for additional runs of the Atkins LinSig model to take place to see what the impact of different trigger points may be. The results of those runs are set out below.

	2021 Forecast Assessment			
	PRC		Max DoS	
Number of Dwellings	AM	PM	AM	PM
0 (2021 base)	-4.2	-9.0	93.80%	98.10%
400	-4.4	-10.2	94.00%	99.20%
600	-5	-11	94.50%	99.90%
840	-5.1	-11.6	94.60%	100.40%

6.2.7. As can be seen from this table, the junction operates significantly above its practical reserve capacity in all scenarios. Additional traffic without mitigation is therefore going to result in a worsening of the queues currently experienced. For 840 dwellings the maximum degree of saturation at the roundabout would be beyond its absolute capacity of 100% and is therefore not an appropriate trigger level.

6.2.8. Given the above table there is justification to insist that the mitigation works be undertaken before any part of the development is occupied. However, should that be deemed unreasonable, and I appreciate that there are arguments to support that case, I would suggest a trigger level be no higher than 600 dwellings.

Kristian Marsh, Asset Manager
Highways England

Appendices

A- Peel Hall - Analysis of Direct Impact on M62 Junction 9 produced by Atkins 11/6/18

B- DfT Circular 02/2013