From: James Parker
Sent: Monday, November 16, 2026 6:42 PM
To: Adrian Chadha
Cc: Ben T Dutton; Emma Baumber2; David Baker-Brook ; David Cowan ; Tom Park ; Adam Key

Subject: 25/00931/FUL Cliff Hill, Markfield - National Highways Ref: NH/25/13260

Dear Adrian,

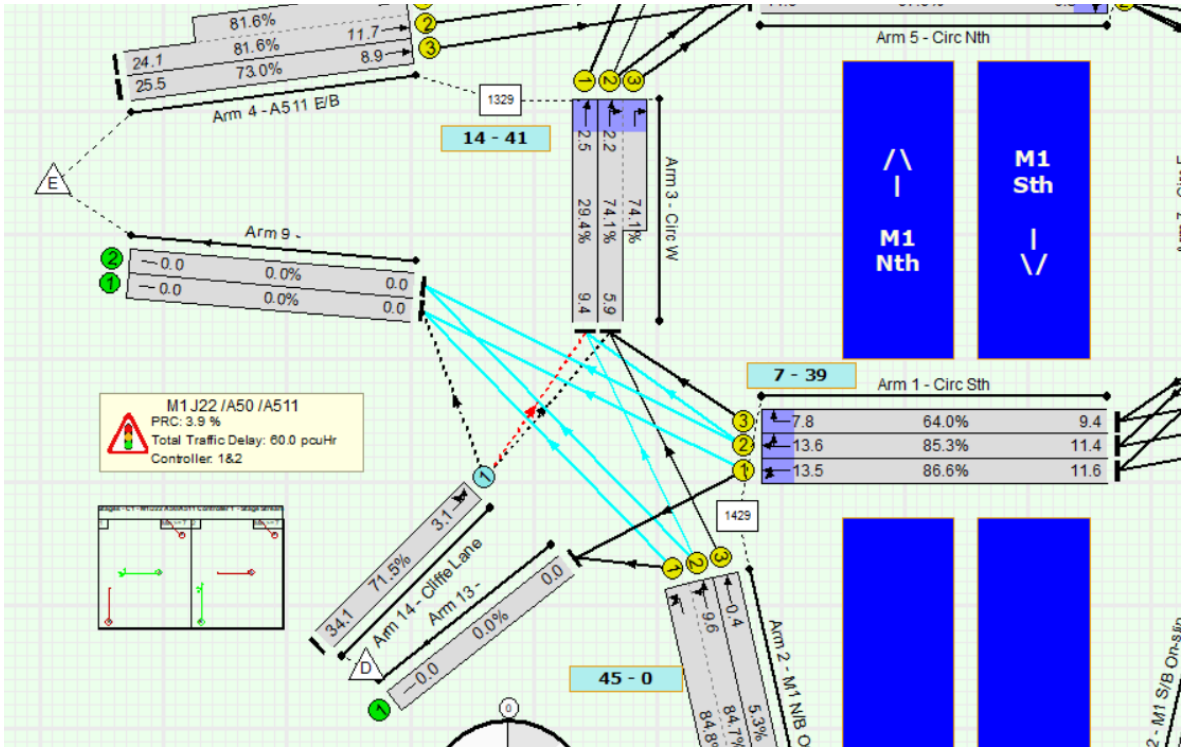
I hope this email finds you keeping well.

Please find below and attached our response to the latest NH comments dated 4th November 2026:

NH Comment	Initial Thoughts/Response
Whilst the LinSig model has been provided by Leicestershire County Council (LCC) as used in another development, the model still needs to be accurate. This will allow National Highways to compare the current on-site conditions and model accuracy against the 2025 traffic survey data. We therefore consider that the LinSig model you have received can be used as the starting point for your analysis, rather than assuming any accuracy checks of that model are not required. You should look to	As noted previously, this model of the junction has previously been approved by LCC and NH (for similar commercial development applications) which we consider carries significant weight. The junction currently operates under MOVA control with variable cycle timings – LinSig models use a fixed cycle time; therefore, it is worth noting that it will not be possible to validate the model completely on every approach and every single lane for that reason alone. In trying to do so, the modelling team would simply end up chasing queues around the junction. Therefore, we have sought to check the model outputs against the observed queues from the traffic count data, and from our own site observations when visiting the site.

revalidate your model against the survey data, so any existing input parameters can be updated if needed to demonstrate the validation of your new models.	We have provided this comparison in our submissions (see additional response below to your subsequent query) and consider that even though the junction runs on variable cycle times, the LinSig model validates well to the observed operation.
Technical Note 8 states that the updated base and proposed LinSig models have been provided alongside the technical note, but we have only received the model output files included within the appendices. As the output files do not contain all of the LinSig input data, the actual LinSig models need to be provided.	We have sent these across previously to the LPA, but attach them again for your information.
The model validation analysis spreadsheet was previously requested but has not yet been provided for review. National Highways requests this so that we can understand how you have analysed the observed queue data that has been presented in Table 4 of your response. It should be noted that reviewing the LinSig storage graphs can provide an indication of	Our initial response to the queries regarding the model validation was provided in our Technical Note 6, where we included the traffic count data with the queues as Appendix D, to demonstrate that the LinSig queues were a reasonable representation of the count data. The subsequent NH response indicated that these needed to be converted to PCUs, hence this is what is shown in Technical Note 8 at Table 4.

the level of queuing being predicted on the short (flared) lanes.	Other than the information already provided, it isn't clear what is now being requested – Table 4 shows the base model queues against the observed queues, in PCUs; it demonstrates that the model validates well to the observed, despite running on a fixed cycle (compared to the variable MOVA cycle at the junction).
Drawing T22523.015 has been referenced to demonstrate the flare length on the A50 East approach existing layout, but this has not been included within the submitted technical note. This should be submitted to National Highways for review.	We note that this was missed in TN8 – please find attached.
We note the updates to the give way parameters on the Cliffe Lane approach (Arm 14). However, we query whether the movement to Arm 3 Lane 1 should also give way to the vehicles that are entering the adjacent Arm 3 Lane 2. The requirement to include these movements should be determined by the accuracy of the model validation on this approach.	The movement is coded as per the LinSig user guide, i.e., the movements it gives way too are those that it will interact with in the model (shown red below). Notwithstanding this, despite our observations showing that the model matches site observations, we have updated the model as a sensitivity test to provide a further set of tests with this now included for the Cliffe Lane approach arm.

	
With your clear conflict calculations your use of variable cruise speeds on each of the two upstream arms has produced an unusual anomaly whereby the longest distance from the southern circulatory (lane 1) produces a lower clear conflict value (9 seconds) than the offside lane which has a shorter distance (a clear conflict value of 10 seconds). Are the variable cruise speeds	Notwithstanding that we have used the cruise speed times in the approved LCC model, we have checked the model and updated the cruise speeds to 40kph throughout, which represents a cruise speed of 25mph; we consider that this is reasonable given that our ATC speed survey indicated average exit speeds eastbound along the A50 of 32-33mph.

across the different lanes from the approach and circulatory in this short section of the roundabout realistic? Whilst we appreciate your comments about receiving the models from LCC, we can't understand the variation of modelled cruise speeds across the roundabout (varying between 31kph and 48kph). It is not clear if this previous modelling work recorded observed cruise times across the roundabout. Some of the connectors in your model have an entered cruise time, but also a directly entered custom lane length. As the entered mean cruise time will overwrite any contribution of the custom lane length, we are unsure why a custom lane length value has been entered. We therefore recommend that you undertake a review of the modelled cruise speed values to ensure your model produces realistic stopline to stopline cruise time values.	This update has been incorporated into the updated modelling, the results of which are set out in the attached tables and the LinSig model and modelling outputs are also attached.
As you have taken the modelled cycle times from the models you received from LCC, they have different cycle times for the east	The statement regarding platoons of traffic isn't correct – having two controllers with different cycle times makes no difference to whether there would be platoons of traffic between the east and west side of the roundabout, because the controllers would be

and west sides of the roundabout. As the LinSig model has different cycle times, the model will not see platoons of vehicles travelling from one side of the roundabout to the other. Although the distance between the two sides of the roundabout is approximately 150 metres, this issue may make it harder for you to demonstrate the validation of the model. This is not seen as a critical issue, so we will review again once we receive your model validation analysis.	linked; stage/phase timings are the important element regarding whether or not traffic would platoon between arms and the MOVA control on the ground would ensure that the overall operation is as efficient as possible in this respect, including the platooning of traffic, if appropriate – that is the point of MOVA after all.
Whilst reviewing the latest submission, we have noticed an unusual issue with the surveyed traffic flows on the roundabout that requires some further explanation. Your 2025 traffic surveys show that there is a noticeable number of vehicles entering the roundabout on the M1 Southbound offslip (Arm A) who leave the roundabout via the M1 Southbound onslip (Arm C), which seems an unusual movement to undertake in normal traffic conditions. Your October 2025 traffic survey shows the following	We have noted this and have raised it with the survey company who have confirmed that there was an error in their output spreadsheet. They have now provided the updated numbers (that traffic was turning towards the A511 west, not going straight on to the southbound on-slip) and the modelling has been revised accordingly; the updated assessments and results tables are attached.

number of vehicles that make this manoeuvre: • 07:00 to 08:00 – 111 vehicles • 08:00 to 09:00 – 125 vehicles • 09:00 to 10:00 – 35 vehicles • 16:00 to 17:00 – 99 vehicles • 17:00 to 18:00 – 79 vehicles • 18:00 to 19:00 – 20 vehicles We have seen another traffic survey of this junction from April 2026 and this movement is being undertaken by a very small number of vehicles (low single digit values per peak hour). Please can you therefore confirm whether these recorded movements were actually being undertaken or whether there has been a data input error in the survey spreadsheets you received? If vehicles were undertaking this manoeuvre, it should be	

explained why they were doing it, for example by using available camera footage. Due to the flow methodology you have followed, the 2036 future base flows on this movement increase to 164pcu in the AM Peak hour.	
Although we have not yet reviewed the analysis undertaken as part of your sensitivity test chapter, we ask that you submit your updated traffic flow analysis spreadsheet so that we can understand how the modelled traffic flows have been derived.	The traffic flow spreadsheets are attached which include the amended count data as set out above.

Please note that the results of the additional work undertaken and attached is not significantly different when compared to the previous assessment work undertaken; therefore, the previous conclusions reached remain – that the proposed development is acceptable in highway terms and thus a positive recommendation to the application can be provided in due course.

Please let me know if you have any queries.

Regards,

James Parker | Partner

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