- 1. With reference to the network rail statement of case document section 8.6.7 Meldreth Road crossing was one of the top two with objections.
 - A number of objectors raised the crossing at Shepreth in their responses
 - a. OBJ-18 A Davis "I would like to state my objection to the proposed 'upgrading' of the Meldreth road level crossing at Shepreth in South Cambridgeshire to a double barrier crossing controlled remotely from a distance similar to the one we had forced on us at Shepreth station several years ago. The changes at this crossing have severely impacted the quality of life of Shepreth residents trying to catch a train towards Cambridge or drive towards Barrington from Shepreth because of the very long delays entailed and with no tangible safety advantages...."
 - b. OBJ-23 S Nash "I've come to the conclusion you clearly think people have nothing better to do then site at this crossing while the traffic builds up because you thought it would be a good idea to change the barriers for whatever stupid reason this was done, seriously it's a joke and a total inconvenience that you changed these barriers to a crossing that had never had any issues and the fact I have to use this route daily to work puts more time on my journey while waiting for the invisible train that appears sometimes 10 minutes after the barriers have gone, so seriously sort the timing out and for god sake don't make meldreth the same inconvenience. About time you lot started listening to the people that your stupid railway crossing barriers actually affect. My journey to work now because of the incompetent idiots changing barriers has become a pain in my life and others im sure...."
 - c. OBJ-08 T Davey "In response to your request for comments re the above level crossing I would like to say that I object to any changes. Whilst the risk assessment suggests that improvements should be made there are no reported cases of near miss at this site, [at least not recorded on the associated website]. The length of time the double barrier is closed at Shepreth station can be very long [ditto Foxton level crossing]. On the minor road from Shepreth to Meldreth the barrier is closed for a much shorter time. The locals know that the barrier won't be closed for too long so respect the red flashing lights & don't take chances like those that are occasionally seen & reported at Shepreth Station & Foxton station..."

Is it fair to say that those residents appear unhappy or even frustrated with the Shepreth station crossing?

- 2. Do you believe reading the objections that the villagers have found the crossing at Shepreth to have impact on their lives and journeys and their real life experience of the MCB type crossing has been adverse?
- 3. Do you know of any surveys of the residents or users of the Shepreth crossing to assess its success?
- 4. Were there any traffic surveys to assess the types of journeys by the crossing users?
- 5. Are shorter journeys impacted more by long delays?
- 6. Do you know the proportion of journeys over the Meldreth Road crossing that are short journeys?

- 7. Does the position of the signals and nearby stations create a more complex arrangement for the level crossings in Shepreth that is causing the frustration of the residents?
- 8. Do you agree that an AHB+ barrier system would improve the safety at the Meldreth road crossing compared to the current AHB barrier?
- 9. Table 9 from the Meldreth road risk assessment (APP-14) states that the AHB+ crossing gives an improvement of 68% compared to the AHB type, do you agree that this a significant improvement on the current AHB system?
- 10. In the risk assessment of Meldreth Road blocking back is not a known issue at the crossing. How likely therefore is this residual risk of the box not being clear going to materializing?
- 11. Are AHB crossings monitored by CCTV generally to check intermittently for issues?
- 12. Whilst the modelling concludes no significant impact on the highway network, it does not conclude there will be no change in behaviour or no delay, the MCB type level crossing increases down time and this is associated with frustrating drivers (ref Meldreth Road risk assessment) and causing behaviour changes such as misuse of the crossing or rerouting, where are these risk accounted for as an FWI value in the MCB data?
- 13. What is the total annual time delay created by the MCB crossing for users of the level crossing? In economic and productivity terms how is this accounted for over the operational life of the MCB crossing? i.e. the cost benefit analysis has the MCB type crossing as similar cost to an AHB+ but it does not factor in the economic cost of delay.
- 14. Has there been a study into the signal positions that trigger the MCB system and are they located in the most optimal locations for the village. Would moving the signals reduce the down time?
- 15. Accepting there may be cost in moving the signalling system, how do these costs compare with reducing the residual risk from frustrating drivers and the economic impact of delay to drivers.
- 16. Why are two signals required for the proposed level crossing type. Would an MCB-CCTV type with one signal system not be a safe system?
- 17. The MCB-CCTV type as proposed relies on a signaller to check the box on CCTV. Is there a residual risk of human or technology error?
- 18. Point 11.37 of your statement discusses that there are operational efficiencies in the MCB type barrier. How significant are these efficiencies?
- 19. Are the efficiencies for Network rail more important than the impact on travel times of local residents?
- 20. Looking at APP-39 the modelling, Do you believe that the input data for the trains used in the modelling is appropriate where the data is based on the Hinxton Road crossing?
- 21. What is the distance to the trigger signals at Hinxton Road for its MCB crossing?
- 22. What is the proposed distance to the trigger signals at Meldreth road?
- 23. Given the nearby stations at Meldreth road, is the average train speed the same as Hinxton road or slower or faster? It is noted on the Meldreth Road risk assessment that the down line is 65MPH.
- 24. If there is a variance in the speed, distance to triggers and presence of stations how can you be confident in the use of the Hinxton road data?

- 25. Are you confident that the modelling takes into account the complexity of the signal positions at Meldreth Road?
- 26. There has been further verification at Shepreth Station to check the in use down times of the barriers as included in APP-W7-1 table 5.13, completed circa 8 weeks ago. This highlights that there are delays at Shepreth station crossing much longer than VISSUM model output but also that the average delay at Shepreth road of 203 seconds (ref Roger Faires calculation submitted 12th April) is greater than the modelled 169 seconds. If the data used in the modelling is not accurate or new data supersedes the previously used data should the modelling not be rerun?
- 27. It is understood there was some discussion on the use of Mean and medium times and it was conveyed that the mean time did not appear representative. On what basis was this decision made to use the median time if the data for Shepreth station was only completed in 2023?
- 28. Is it not possible to work out the timings using maths and train decelerations and accelerations based on actual distances to the various stations and trigger points along with the timetable?
- 29. What level of delay or disruption would be too much for NR to impose on the crossing users?
- 30. In the event a crossing was found to be so complex that it caused an unacceptable level of disruption to install an MCB type crossing what would NR propose?
- 31. If a mum on a school run was to add that modest average delay from the new crossing to their school run time there is still a fair chance of a larger delay to their journey. So the individual traveller must make a judgement for the additional time to allow, if they over estimate and arrive early the time is still lost if they underestimate then they are late for school, meetings, trains etc. Has there been any consideration for this perceived delay the new crossing type creates by polling the local residents? Would this not give a more accurate data set for a more informed decision.

Questions/Cross examination for Mr Contentin

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 Looking at the objectors; a number of objectors raised the crossing at Shepreth in their responses
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- 3. Do you know of any surveys of the residents or users of the Shepreth crossing to assess its success?
- 4. Were there any traffic surveys to assess the types of journeys by the crossing users?
- 5. What is the total time delay for the year created by the MCB crossing for users of the level crossing?
- 6. Looking at APP-39, Do you believe that the input data for the trains used in the modelling is appropriate as the data is based on the Hinxton Road crossing?
- 7. Given there are different types of trains that traverse the level crossing, does the modelling allow for different train types and their variable down times?
- 8. Are you confident that the modelling takes into account the complexity of the signal positions at Meldreth Road?
- 9. The original report has validation, which is shown in table 8.6 of App 39. Is it usual for the modelled data and the surveyed data to align with no difference? Where is the methodology of this validation?
- 10. There has been further verification at Shepreth Station to check the in use down times of the barriers as included in APP-W7-1 table 5.13, completed circa 8 weeks ago. This highlights that there are delays at Shepreth station crossing much longer than VISSUM model output but also that the average delay at Shepreth road of 203 seconds (ref Roger Faires calculation submitted 12th April) is greater than the modelled 169 seconds. If the data used in the modelling is not accurate or new data supersedes the previously used data should the modelling not be rerun?
- 11. The cyclists at Meldreth road are non-segregated, with reference to TfL, Traffic Modelling Guidelines TfL Traffic Modelling Guidelines in your evidence appendix page 468 of that document "If any cyclists queue with traffic and occupy space that would otherwise be taken up by vehicles, at any stopline, then these should be

- included in the model as part of the flow, saturation flow and DoS measurements." Are the cyclists modelled at Meldreth road? Given the road width, is there any risk that vehicles will stack up behind slow moving cyclists as they are released from the crossing if there is a cyclist at the head of the queue?
- 12. The Shepreth verification relies on the Meldreth road crossing having a similar arrangement with respect to train speeds and distance to the station. What is the distance and train speed to the various trigger points and signals for both Meldreth road and Shepreth station?
- 13. If there is a variance in the speed, distance to triggers and presence of stations how can you be confident in the use of the Shepreth station data to validate the model?
- 14. It is understood there was some discussion on the use of Mean and medium times and it was conveyed that the mean time did not appear representative. On what basis was this decision made to use the median data if the data for Shepreth station was only completed in 2023?