

Newmarket Horse Crossing Survey Review

Client name Suffolk County Council	Project name FHDC Local Plan	Date 29 June 2018	Prepared by B Carey
Approved by N Anderson	Checked by C Brooks		

Revision History

Revision	Revision date	Details	Authorised	Name	Position
1.0	29 June 2018	Draft for Client Issue	NA	N. Anderson	Regional Director
2.0	01 July 2018	Final for Issue	NA	N Anderson	Regional Direction

1.0 Introduction

- 1.1 During the Examination in Public for the FHDC Local Plan, Cottee Transport Planning, the transport consultants for the Horse Racing Industry, submitted new survey data for two horse crossings in Newmarket.
- 1.2 The purpose of this Technical Note is to review that data to determine if it has any impact on the findings of the AECOM assessment of the impact of signalising existing horse crossings in Newmarket.

2.0 Data Received

- 2.1 The survey reports the following information for both the Rayes Lane/ Fordham Road and Bury Road horse crossings in Newmarket:
 - Maximum queues in vehicles for each five minute interval between 08:00-09:00;
 - Total two-way horse crossing volumes per hour between 06:00 and 13:00;
 - Total two-way vehicular movements per hour between 06:00 and 13:00;
- 2.2 The survey information was provided for Tuesday May 1st, 2018 and Wednesday May 2nd, 2018.

3.0 Review of findings:

- 3.1 When assessing the traffic implications of signalising a horse crossing, it is necessary to determine the likely 'red time' for traffic as this is what will determine the impact on capacity or queuing. The 'red time' required to serve horses crossing is dictated by the length of crossing time required. This is related to the number of strings of horses and the number of horses in a string. The data provided does not provide any information regarding length of crossing time, number of strings of horses, or volume of horses per string. As such it is not possible to determine what the impact on 'red time' for vehicular traffic would be from this new survey. This data could not be used in the assessment of the proposed signalisation of the horse crossings.

Rayes Lane

- 3.2 The AECOM assessment identifies that the 'red time' demand would need to increase by 100% over 2012 levels to lead to queuing blocking back under predicted 2031 traffic conditions with FHDC Local Plan growth in place.
- 3.3 The 2012 survey of Rayes Lane used in the AECOM TN identified 190 horses crossing at Rayes Lane between 08:00 and 09:00. The survey data provided by Cottee Transport Planning identifies that 201 horses were recorded as crossing during that same period. This illustrates that the growth in horses crossing at this location over a six year period has been in the region of 5.8% in total. It is highly unlikely that over the coming 13 years that demand will suddenly increase by a further 94%.
- 3.4 Equally as pointed out in the AECOM TN it is very difficult to determine directly the impact of increased horse crossing demand on queue lengths for traffic, as it is not a linear relationship. The increase in horses may occur by the strings of horses getting longer or by additional strings of horses crossing. Some of the existing strings are very short and an increase to those strings would have little impact on the operation of a signalised crossing. The extension of longer strings would increase the red time for cars but not in proportion to the increase in horses.

- 3.5 As such, taking these two points into consideration, the new survey data supports the point that horse crossing green time demand will not increase by 100% over the Local Plan period, and as such the proposed signalised crossing will not operate over capacity.
- 3.6 The survey provided records maximum queues for every five minute period. It is not clear from this if those recorded queues are clearing between each horse crossing event. However, there is a high degree of fluctuation across the surveyed periods on both days, this suggests that the queues do clear between crossing events, and that the maximum queues recorded are limited to when a crossing event occurs, dissipating once traffic is given the green light again. Under these conditions blocking back would not be expected to occur.
- 3.7 The critical approach in terms of impact on town centre junctions, is for traffic heading northbound on Fordham Road at the Rayes Lane crossing. On this approach the maximum queue recorded in the May 2018 survey is 16 vehicles across both survey days. This is equivalent to a queue of approximately 96m. As explained in the AECOM TN dated June 20th, the Fred Archer Way junction, situated 140m south of Rayes Lane, could be kept clear of potential queueing with the provision of a yellow box. Any queueing round into Fred Archer Way would not impact on other traffic movements. Queueing on Fordham Road on the approach from the Clocktower junction, some 214m south of the Rayes Lane crossing, is not expected to be an issue as the time required to accommodate horse crossing activity would need to more than double before any queue would reach the Clock Tower.

Bury Road

- 3.8 In addition to the survey provided by Cottee Transport Planning for Rayes Lane/ Fordham Road, data was provided in relation to the horse crossing at Bury Road.
- 3.9 The points raised earlier in this section in relation to the Rayes Lane survey data also apply to Bury Road but there are further points worth considering.
- 3.10 The Bury Road Crossing is situated to the east of Newmarket, some 230m from the 'Clocktower' junction in the centre of Newmarket. The maximum queue recorded within any surveyed five minute period was 28 vehicles, equivalent to some 168m. This queue does not block back to the 'Clocktower junction'.
- 3.11 The proposed allocations in Newmarket within the Local Plan are situated at Hatchfield Farm on Fordham Road to the north of Newmarket and Queensbury Lodge to the south west of Newmarket. These developments would not be expected to lead to any significant increase in traffic on Bury Road given their proximity to Newmarket Town Centre and the strategic road network. The impacts of the proposed Local Plan main modifications growth on the Bury Road crossing will be limited to traffic arriving and departing from Newmarket from the areas to the north east of Newmarket for access to services and jobs.

4.0 Conclusions

- 4.1 In conclusion, the additional survey data has been reviewed and it has been found that:
- The May 2018 survey data could not be used in a detailed assessment of the proposed signalisation of horse crossings in Newmarket as there is no detail regarding length of crossing time, number of strings of horses, or volume of horses per string.
 - The survey data provided does not make it clear if queues dissipate between horse crossing events as only the maximum queue per five minute period is reported. The fluctuations in queues suggest that queues do dissipate, meaning the queueing would be limited to each crossing event only.
 - The limited growth in horse crossing volumes between the May 2018 survey and the 2012 survey, supports the position that horse crossing time demand is unlikely to reach levels which would cause the proposed Rayes Lane crossing to operate over capacity, leading to blocking back at nearby junctions. This confirms the conclusion of the AECOM TN dated 20th June 2018.
 - The Bury Road data is considered to have little relevance to consideration of the impact of the proposed local plan growth.
 - There is no evidence in the additional data provided to suggest that the proposed provision of signalised horse crossings would lead to blocking back or congestion in Newmarket.
 - As such the previous conclusion stand, in that based on the AECOM assessment, the signalisation of horse crossing is anticipated to have an acceptable impact on the operation of the local network whilst providing a safer crossing environment for horses.