

To ensure members are aware of the full and final comments made by Parsons Brinkerhoff in relation to queuing around Hercies Road, these are provided below.

The text replaces the conclusions made by Parsons Brinkerhoff (bottom of page 283 and page 284) and the queuing information reported by Vectos (bottom of page 284 and top of page 285).

### Queuing in Hercies Road

The modelled entry link length effectively caps the queue length which can be recorded in VISSIM, in this instance 75m or 13 PCUs, beyond which point new vehicles are prevented by VISSIM from being loaded on to the network until there is space. Table 4.2 of Appendix F of the Vectos Technical Note October 2013 provides a summary of updated queue lengths on Hercies Road, including excess vehicles not loaded on the network. PB has been unable to reproduce from the error file the numbers of excess vehicles quoted by Vectos in that table.

Table 2 below provides corrected numbers of vehicles not loaded onto the VISSIM model at Hercies Road, taken from the error files provided with the VISSIM models by averaging six results.

**Table 2: Vehicles in VISSIM not loaded onto Hercies Road in 2014 and 2022 PM (expressed in PCUs)**

Year & period	Do Minimum (no Morrisons)	Do Something (with Morrisons)	Difference
2014 PM (Morrisons TA Assumptions)	63 ( <i>Scenario 2</i> )	118 ( <i>Scenario 3a</i> )	55
2014 PM (Sensitivity Assessment Tesco Assumptions)		175 ( <i>Scenario 3b</i> )	112
2022 PM (Morrisons TA Assumptions)	103 ( <i>Scenario 5</i> )	309 ( <i>Scenario 6a</i> )	206
2022 PM (Sensitivity Assessment Tesco Assumptions)		356 ( <i>Scenario 6b</i> )	253

Queues extending beyond the modelled entry link length are therefore forecast to be present in 2014 Do Minimum and increase with Morrisons development.

An increase of 55 vehicles not loaded onto Hercies Road in 2014 on the basis of Morrisons TA Assumptions is apparent in Table 2. This is not apparent in paragraph 4.17 of the Vectos Technical Note October 2013, which suggests no increase with development in 2014 on the basis of Morrisons TA assumptions.

A comparison of PM peak flows on Hercies Road and the opposing flows on Freezeland Way is given in Tables 3 and 4.

**Table 3: PM peak flow on Hercies Road towards Freezeland Way**

<b>Year</b>	<b>Do Minimum (no Morrisons)</b>	<b>Do Something (with Morrisons)</b>	<b>Difference</b>
2011 Base	786	n/a	n/a
2014 PM (Morrisons TA Assumptions)	818	838	+20
2022 PM (Sensitivity Assessment Tesco Assumptions)	887	906	+19

**Table 4: PM peak flow westbound on Freezeland Way (opposing Hercies Road)**

<b>Year</b>	<b>Do Minimum (no Morrisons)</b>	<b>Do Something (with Morrisons)</b>	<b>Difference</b>
2011 Base	486	n/a	n/a
2014 PM (Morrisons TA Assumptions)	500	639	+139
2022 PM (Sensitivity Assessment Tesco Assumptions)	543	753	+210

The increases in excess vehicles on Hercies Road between Do Minimum and Do Something in Table 2 are out of proportion to increases in flow on Hercies Road and Freezeland Way in Tables 3 and 4. This results from addition of further traffic to a pre-existing queuing situation which originates from the base traffic model.

Significant pre-existing queuing is present in the Base and 2014 Do Minimum traffic scenarios. No measures for Hercies Road/Freezeland way junction are proposed to improve base traffic conditions or to mitigate committed developments.

In practice the addition of traffic generated by committed development and this development may give rise to fewer queuing vehicles than suggested by error files. This may occur as a result of peak spreading and/or redistribution of traffic to the wider network in the PM peak by drivers seeking to avoid an unacceptable wait on Hercies Road.

Vectos Technical Note October 2013 indicates that excess vehicles are not present and queuing does not significantly increase in base or development scenarios in the AM or Saturday peaks.

The foregoing considerations may potentially limit the weight which can be given to the impact on Hercies Road.

### **Queuing on Morrisons development access**

The modelled entry link length effectively caps the queue length which can be recorded in VISSIM, in this instance 120m or 21 PCUs, beyond which point new vehicles are prevented by VISSIM from entering the network until there is space. The model output files show the queue

reaching this limit in all scenarios. Numbers of vehicles not able to enter the network are taken from the error files provided with the VISSIM models and are recorded in Table 5 below.

**Table 5: in VISSIM not loaded onto the access road (expressed in PCUs)**

<b>Year &amp; period</b>	<b>Do Something (with Morrisons)</b>
2014 PM (Morrisons TA Assumptions)	0 ( <i>Scenario 3a</i> )
2014 PM (Sensitivity Assessment Tesco Assumptions)	21 ( <i>Scenario 3b</i> )
2022 PM (Morrisons TA Assumptions)	3 ( <i>Scenario 6a</i> )
2022 PM (Sensitivity Assessment Tesco Assumptions)	33 ( <i>Scenario 6b</i> )

The internal junction leading to the commuter car park is approximately 80m or 14 PCUs away from the access roundabout on Western Avenue. Since the maximum queue is predicted to exceed this distance in all development scenarios, there is a chance that vehicles leaving the commuter car park and looking to join the exit queue could block inbound traffic entering from the roundabout, which could consequently affect traffic operation on the public highway.

Blocking at the commuter car park junction could be addressed for example by ‘keep clear’ markings.

## **CONCLUSIONS**

The revised site access roundabout is acceptable. The proposed over-run areas should be given an appropriate upstand during detailed design.

The width of the proposed shared-use footway along the north side of Freezeland Way is now acceptable.

The access for cyclists to and through the private housing core is now acceptable, subject to a condition that the doors should be power-assisted.

Our previous review expressed concerns with the proposed shared foot/cycleway north of the service yard entrance. This aspect has not been amended in the current plans. These concerns could potentially be resolvable, but may require reconfiguration of the drop-off/bus area to achieve a satisfactory result. LB Hillingdon may therefore wish to consider whether conditions or suitable provisions in the S106 agreement would be effective in securing a satisfactory solution.

The presented ARCADY and VISSIM models are considered to represent an acceptable evidence base for estimating the likely impact from the development proposals put forward by the applicant. The likely impacts are as follows:

- The presented journey time results suggest that, in principle, the proposed highway improvements would more than offset the forecast increase in traffic generated by the Hillingdon Circus development using Long Lane. The modelling also suggests that the other approaches (Freezeland Way and Western Avenue) would operate within capacity with just the Hillingdon Circus development in place.
- Pedestrians and local bus services are expected to benefit from a net improvement in journey times following the introduction of the proposed highway improvements for the Hillingdon Circus development.
- In traffic terms, the modelling has demonstrated that in 2014 and 2022 the network can be mitigated to accommodate the flows produced by the Hillingdon Circus development.
- A residual impact has been identified in terms of increased PM peak queuing in 2014 and 2022 development scenarios on Hercies Road, although significant pre-existing

queuing is already present in the Base and 2014 Do Minimum scenarios, which may potentially limit the weight of this point.

- Scenarios 4 and 7 have not been modelled in this iteration. However, from the evidence of the other scenarios modelled, it is highly likely that the combination of demand from the Hillingdon Circus development and the Master Brewer site would overwhelm the capacity provided by the proposed highway mitigation measures.

In the context of paragraph 32 of NPPF it is unlikely that the residual cumulative traffic impacts of the Morrisons development (only) are demonstrably severe. The weight which may now be attached to LB Hillingdon's Policy AM7 should be reviewed in the light of paragraph 215 of the NPPF. Our advice should not be taken to imply any significance of cumulative impact of the Tesco development in determination of the Morrisons application or vice versa.