PROPOSED NEW FLOORSPACE AND RELAXATION OF RESTRICTIONS, PEEL CENTRE, BARNSLEY
APPLICATION NUMBERS 2015/0987, 2015/0988 and 2015/1028

WEEKDAY ASSESSMENT

Introduction

1. This note has been produced by TTHC Ltd to provide results from a weekday PM peak LinSig assessment of the Harborough Hill Road gyratory, from which Peel Centre takes access. It has been provided specifically at the request of Barnsley Metropolitan Borough Council (BMBC) and their consultants Aecom, as they have stated that it will be useful in understanding the future operation of the junction at 2020. We understand that BMBC's key concern is the extent of queuing on Old Mill Lane from the north.

2. Of course, as set out in NPPF, the test in considering development applications is whether the impact would be significant enough to be deemed **severe**.

3. The TA submitted in August 2015 concentrates on the worst case Saturday peak assessment as this represents the worst case both in terms of background flows and development flows.

4. Following Aecom's review of the TA (comments dated 15 December 2015), TTHC provided a short supplementary note (January 2016) which provides further information in a number of areas, including calculations of weekday PM peak development traffic to compare against the Saturday flows, and comparative LinSig tests of the weekday PM and Saturday peak observed flows.

5. In summary this shows:

Weekday/Saturday Peak Operation and Development Impact Comparison		
	Weekday PM Peak	**Saturday Peak**
Existing Operational Practical Reserve Capacity	8.7%	- 5.7%
Modelled Queuing on Old Mill Lane (N)	16	27
Development traffic (two way in/out of site)	69	133

6. Aecom's response to that note (18 February 2016) confirms that any differences in opinion on the assumptions and methodology are not material, but they maintain their position that operational assessments should also be provided for the weekday PM peak in order that they can fully understand the impacts in detail on different parts of the gyratory.

Weekday PM Peak Flows

7. In order to undertake the requested weekday assessments the test flows must first be derived. The same assumptions and methodologies as set out in the TA and supplementary note have been adopted. The 2020 Base flows include background growth as well as the specific uplifts to allow for vacant and consented floorspace within Peel Centre, and also vacant floorspace at Twibell Street. The Development flows were set out in the previous supplementary note. These flow elements are summarised below and the calculations, including new and pass-by elements, are attached at **Appendix A**.

- Weekday PM peak period Tempro growth 2014 to 2020 of 7.73% (note this has been applied directly, with no factoring down to reflect peak hour conditions as opposed to the 3 hour Tempro peak period);
- Peel Centre vacant floorspace + 95 trips two way
- Peel Centre food sales uplift + 20 trips two way
- Twibell Street vacant floorspace + 142 trips two way
- Current development proposals + 69 trips two way

8. The assignment of each of the trip elements on to the gyratory is contained at **Appendix B**, and this includes the resulting '2020 Base' and '2020 Base plus Development' test flows.

9. The OD matrices at **Appendix B** show that the total flow through the gyratory would increase from 4621 to 4680 PCUs (a total increase of 59 movements i.e.10 movements less than accessing the site when taking account of the pass-by element). This equates to an overall increase in traffic at the gyratory at this time of 1.3%. This increase is less than the extent of typical day to day variation, and would not be perceptible to users of the junction. It is inconceivable that there could be any circumstances where such a level of impact could be considered as 'severe'.

Operational Assessment

10. Nevertheless, BMBC and Aecom have requested that operational assessments be undertaken. These are attached at **Appendix C** and summarised below.

A61 / A635 Harborough Hill Gyratory Operational Performance Comparison

Weekday PM Peak

		Existing		2020 Base		2020 Base plus Dev	
Link - Entries		**DoS**	**Queue**	**DoS**	**Queue**	**DoS**	**Queue**
1/1	Twibell Street (entry)	18.2 %	1	56.9%	3	56.4%	3
2/1	Dryden Road (entry) Left	7.6%	0	9.6%	1	10.7%	1
2/2	Dryden Road (entry) Left	9.3%	1	12.1%	1	13.5%	1
2/3	Dryden Road (entry) Ahead	19.5%	1	25.2%	2	28.2%	2
2/4	Dryden Road (entry) Ahead	31.7%	2	39.5%	3	43.8%	3
3/1	A61 Harborough Hill Road (entry)	27.6%	3	27.0%	3	26.0%	3
3/2	A61 Harborough Hill Road (entry)	80.6%	11	81.5%	13	78.9%	13
3/3	A61 Harborough Hill Road (entry)	81.9%	11	82.9%	13	80.2%	13
4/1	Meadow Street (entry)	3.9%	1	4.3%	1	4.3%	1
5/1	A635 Old Mill Lane (entry)	72.8%	12	82.8%	15	75.9%	13
5/2	A635 Old Mill Lane (entry)	67.8%	12	77.0%	14	70.7%	13
6/1	Canal Way (entry)	55.8%	3	63.5%	4	64.2%	4
6/2	Canal Way (entry)	64.8%	4	73.1%	5	74.2%	5
7/1	PC world (Egress)	8.2%	0	8.5%	0	8.8%	0
8/1	A61 Old Mill Lane (SB) – Bus Lane	20.4%	2	21.9%	1	21.9%	1
8/2+8/3	A61 Old Mill Lane (SB)	82.8%	16	89.2%	22	90.2%	23
Internal Circulating							
10/2+10/1	Gyratory East (Ahead & Left)	41.3%	4	47.9%	5	50.2%	4
10/3	Gyratory East (Ahead)	38.6%	7	40.9%	4	40.8%	4
10/4	Gyratory East (Right)	74.0%	14	83.4%	13	85.3%	13
10/5	Gyratory East (Right)	27.2%	1	31.7%	3	32.5%	3
12/1	Gyratory West (Left)	36.8%	1	39.9%	1	40.2%	1
12/2	Gyratory West (Right)	62.4%	6	66.1%	6	71.3%	9
12/3	Gyratory West (Right)	43.6%	2	47.1%	1	50.7%	2
16/1	Gyratory North (Right)	40.8%	5	57.3%	7	61.1%	8
16/2	Gyratory North (Right)	72.6%	9	76.2%	10	76.2%	10
24/1	A61 Old Mill Lane (NB)–Ped Crossing	42.7%	2	48.7%	2	49.3%	4
24/2	A61 Old Mill Lane (NB)-Ped Crossing	51.3%	2	52.5%	2	52.2%	5
Cycle Time		90 seconds		90 seconds		90 seconds	
Overall PRC		8.7%		0.9%		-0.2%	

DoS = Degree of Saturation (%) PRC = Practical Reserve Capacity

11. The comparison of future year operation with and without development shows that the overall Practical Reserve Capacity (PRC) would reduce from +0.9% to -0.2% (a change of just 1.1%), and the junction would clearly be operating at a better level than the Saturday peak as reported in the TA.

12. Comparison of the queuing shows very little change between 'Base' and 'Base + Development' scenarios across the whole gyratory.

13. Specifically in relation to Old Mill Lane southbound the Degree of Saturation (DoS) increases very slightly from 89.2% to 90.2%. The corresponding queue increases from 22 to 23 PCUs. The queue increase on the opposing section of circulating carriageway is also just 1 PCU. Such changes would clearly be imperceptible.

14. The Old Mill Lane queue length is less than half that recorded on the Saturday and would not extend over the bridge.

Conclusion

15. The operational assessments confirm TTHC's original conclusion that the weekday development impact is not material, and that it is the Saturday peak which represents the worst case scenario in all respects.

16. We trust that the additional work which has been undertaken at the specific request of BMBC and Aecom now provides them with the comfort which they seek.

17. Clearly, the development impact is not material, and most certainly cannot reasonably or credibly be described as 'severe'. The conclusion from the TA that there are no transport related issues which would prevent granting of planning permission is reinforced by this further work.