THAMES GATEWAY BRIDGE - PUBLIC INQUIRY

CONSIDERATION OF TFL TRAFFIC SURVEY EVIDENCE ON A406

1 2005 observed flows on the northbound carriageway, reading from south to north, AM and PM peak hours: pcu/hr: source TFL/200 attachment 2.

Northbound Links	AM Peak		PM Peak	
	Effect on mainline flow	Mainline Flow	Effect on mainline flow	Mainline Flow
A13				
Jn 3, flow entering A406	+2374		+3853	
A406, Jn 3 to Jn 2		2374		3853
A124				
Jn 2, flow leaving A406	-105-161-87		-129-21-342 -222	
A406 through Jn 2		2021		3139
Jn 2, flow joining A406	+1059		+1422	
A406, Jn 2 to Jn 1		3080		4561
A118				
Jn 1, flow leaving A406	-625		-697	
A406 through Jn 1		2455		3864
Jn 1, flow joining A406	+994		+717	
A406, Jn 1 to Jn 24		3449		4581
A12				
Jn 24, flow leaving A406	-924		-1847	
A406 through Jn 24		2525		2734
Jn 24, flow joining A406	+1600		+2090	
A406 north of Jn 24		4125		4824

2 Corresponding data for the southbound carriageway:

Southbound Links	AM Peak		PM Peak	
	Effect on mainline flow	Mainline Flow	Effect on mainline flow	Mainline Flow
A13				
Jn 3, flow leaving A406	-3753		-2992	
A406, Jn 2 to Jn 3		3753		2992
A124				
Jn 2, flow joining A406	+447		+929	
A406 through Jn 2		3306		2063
Jn 2, flow leaving A406	-1174		-1214	
A406, Jn 1 to Jn 2		4480		3277
A118				
Jn 1, flow joining A406	+759		+953	
A406 through Jn 1		3721		2324
Jn 1, flow leaving A406	-663		-704	
A406, Jn 24 to Jn 1		4384		3028
A12				
Jn 24, flow joining A406	+798		+812	
A406 through Jn 24		3586		2216
Jn 24, flow leaving A406	-1405		-1489	
A406 north of Jn 24		4991		3705

3 Comparing the above with data from TFL/230:

	2005 Surveyed flows (pcu)		2001 Model (veh)	2016 Modelled AM flow (veh)	
	AM	PM	AM	No TGB	With TGB
Links Between Junctions					
Northbound					
A406, A118 to A12 (Jn1 to Jn24)	3449	4581	3107	3280	3443
A406, A124 to A118 (Jn2 to Jn 1)	3080	4561	3150	3543	3862
A406, A13 to A124 (Jn3 to Jn 2)	2374	3853	2927	2817	4000
Southbound					
A406, A12 to A118 (Jn24 to Jn1)	4384	3028	3192	3022	3370
A406, A118 to A124 (Jn1 to Jn2)	4480	3277	3152	3439	4028
A406, A124 to A13 (Jn2 to Jn3)	3753	2992	2012	2418	3600
A406 Mainlines Through Junctions					
Northbound					
A12 (Jn24)	2525	2734	2762	2801	2958
A118 (Jn1)	2455	3864	2040	2339	2608
A124 (Jn2)	2021	3139	2358	2440	3034
Southbound					
A12 (Jn24)	3586	2216	3108	2447	2441
A118 (Jn1)	3721	2324	2361	2337	2751
A124 (Jn2)	3306	2063	1663	2173	2946

4 There are three lanes between junctions and two lanes through junctions on this section of the A406 (TFL/230, 3). If it were the case that the A406 here is an urban all-purpose type 1 road in the terms of TA79/99 (D552, DMRB, Volume 5 Section 1 Part 3), if the traffic lanes are each about 3.65m wide, if the HGV proportion of the traffic is not greater than 15%, if there are no gradients greater than 6% and if there is not a high proportion of vehicle weaving then the corresponding capacity of the road, in vehicles per hour, is indicated by TA79/99 to be:

Links between junctions, 3 lanes wide: 5200 veh/hr

Mainlines through junctions, 2 lanes wide: 3600 veh/hr.

5 Questions to TFL:

i) Do paragraphs 1-3 properly reflect TFL's evidence?

ii) Are the estimated link capacities in paragraph 4 correct?

iii) Consider the modelled AM peak in 2016 if the scheme was not built, and compare that with the 2005 surveyed flows. Why is it reasonable to expect southbound traffic on the A406 to fall during those 11 years by between about 1000 and about 1300 pcu or vehicles per hour?

iv) If the modelled reductions in AM traffic on the A406 between 2005 actual and the 2016 "do minimum" case did not occur, and the scheme added about 400 veh/hr and about 800 veh/hr to the 2016 southbound traffic through junctions 1 and 2 respectively (as the model suggests), would congestion be likely to result at those locations?

v) If congestion would result (iv above), are the estimates of travel time savings produced by the model likely to be over-optimistic?

vi) Would traffic conditions on the A406 in 2016 with the Scheme be better or worse in the PM peak than in the AM peak?

M Ellison Inspector
J Watson Assistant Inspector

14 February 2006