

Width restriction at Harper Road and Bath Terrace - Summary notes on traffic monitoring results and feedback



Photo of width restriction at Harper Road, October 2018

Introduction and method

Width restrictions were installed in Harper Road and Bath Terrace, under an Experimental Traffic order, in March 2018. Due to vandalism, the feature at Harper Road was reinforced on three occasions.

An online feedback questionnaire was made available for feedback and the project manager and highways email addresses were available for email submissions. Emergency services were actively engaged during the whole monitoring period.

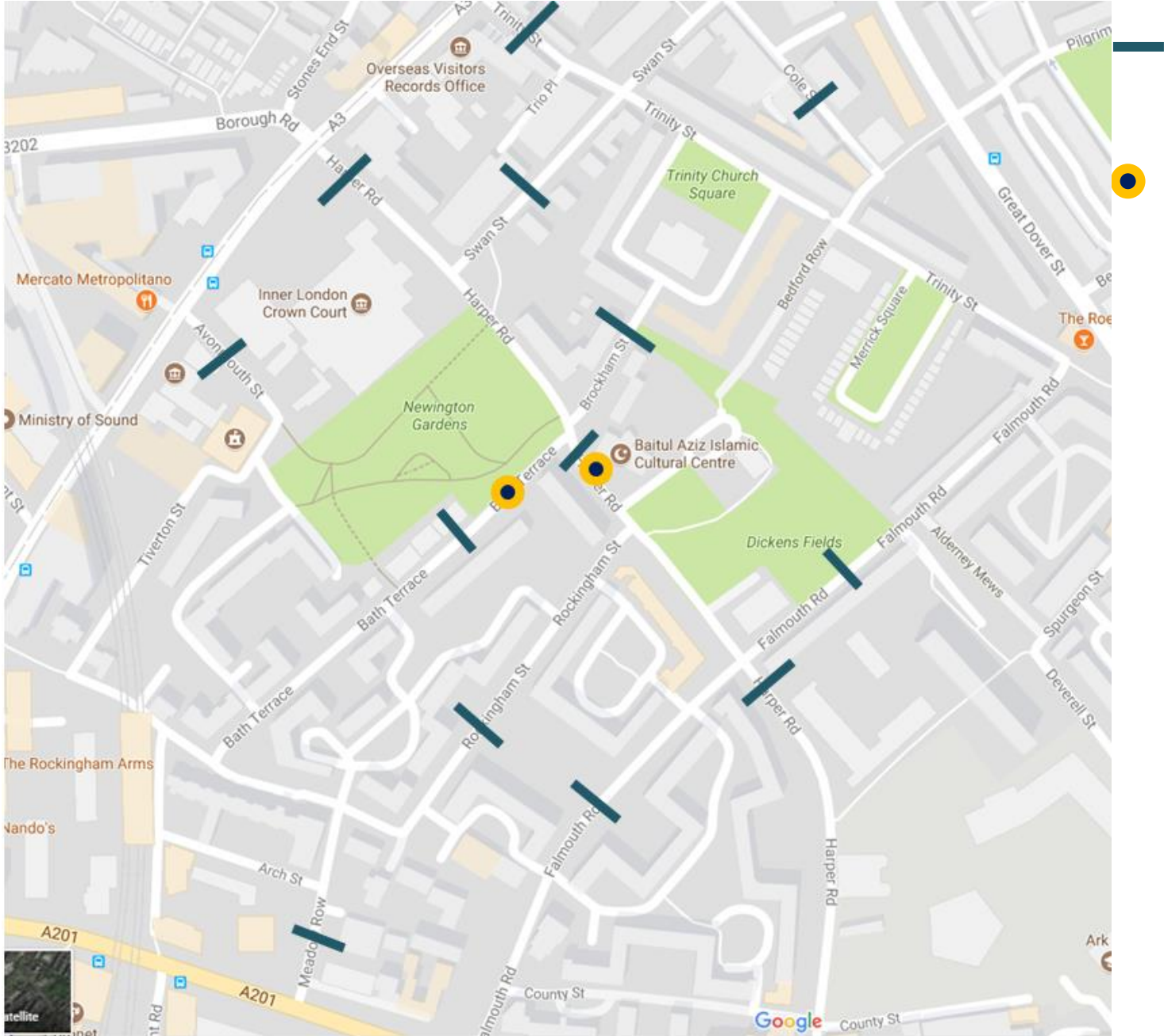
Baseline traffic counts were gathered in 2017 and follow up data was collected in September 2018 (see Figure 1 for locations) to compare traffic volumes and proportion of % large vehicles (i.e. HGVs) as per Healthy Street criteria.

The data analysed was ARX classes 5-12 (see Figure 2) compared to total motorised vehicles, between 7am and 7pm, on an average day. Peak-hour flows for Harper Road were also analysed, as were indicative DfT classified counts for cyclists.

Results and analysis

The feedback during the monitoring period included submission to the online questionnaire as well as emails from residents, resident associations and the emergency services. Overall feedback was positive with reports of decreased HGVs and related vibration and noise, and a more pleasant environment for cycling. Cyclists and Southwark Cyclists have requested for a road closure to further reduce general through traffic. The emergency services requested a modified width restriction to ensure access to Rockingham Estate.












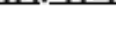
Figure 1. Width restriction traffic count locations



Automated Traffic Counts (ATCs) taken September 2018

Locations of width restrictions

Figure 2. ARX classification of large vehicles (i.e. HGVs)

ARX Classification Scheme					
Class No.	No. Axles	Axle Groups	Description	Aggregate	Vehicle Example
1	2	1 or 2	Very Short - Bicycle or Motorcycle	Light	
2	2	1 or 2	Short - Car, 4WD or Light Van		
3	3/4/5	3	Short Towing - Trailer, Caravan etc.		
4	2	2	2-Axle Truck or Bus	Medium	
5	3	2	3-Axle Truck or Bus		
6	>3	2	4-Axle Truck		
7	3	3	3-Axle Articulated Vehicle or Rigid Vehicle & Trailer	Heavy	
8	4	>2	4-Axle Articulated Vehicle or Rigid Vehicle & Trailer		
9	5	>2	5-Axle Articulated Vehicle or Rigid Vehicle & Trailer		
10	>=6	>2	6 (or more) Axle Articulated Vehicle or Rigid Vehicle & Trailer		
11	>6	4	B-Double or Heavy Truck & Trailer		
12	>6	>=5	Double or Triple Heavy Truck & 2 (or more) Trailers		

Large vehicles

Results and analysis (cont.)

Baseline traffic data before the width restriction showed that the proportion of HGVs was initially high (above 5%) in a number of locations in the area (% , actual number of HGVs/total traffic) (see Table 3).

Table 1. Pre-width restriction traffic numbers for locations with high %HGV

	Total traffic	Number HGV	% HGV
Harper Road - middle	3810	219	5.8%
Trinity Street	1613	177	11.0%
Brockham Street	771	91	11.8%
Meadow Row	720	80	11.2%

Monitoring traffic data , with the restriction in place, showed that the proportion of HGVs dropped in Harper Road and Brockham Street. The proportion remained above 5% in Trinity Street and Meadow Row, however actual numbers dropped (see Table 3). In Harper Road there was a reduction of 86% HGVs and 23% (889) motorised vehicles.

Table 2. Pre-width restriction traffic numbers for locations with high %HGV

	Total traffic	Number HGV	% HGV
Harper Road - middle	2921	29	1.0%
Trinity Street	1597	140	8.8%
Brockham Street	484	17	3.5%
Meadow Row	580	67	11.6%

Results and analysis (cont)

HGV traffic in side streets to the north of Harper Road has decreased. Other traffic has increased slightly. In Cole Street the HGV traffic reduced slightly from 7 to 6 vehicles but overall traffic increased from 227 to 259. In the section of Falmouth Road which links Cole Street/Globe Street/Trinity Street to Harper Road, the overall traffic increased from 231 to 262 (by 32 vehicles). This represents 3% of the traffic that no longer travels through the middle of Harper Rd (889 vehicles) (see Table 3). A certain number of large vehicles visit Trinity Street regularly for rehearsals at Henry Wood Hall, which may explain the proportion of large vehicles there remaining at 8.8%.

HGV traffic in side streets to the south of Harper Road has decreased except in Avonmouth Road where it increased slightly from 7 to 10 vehicles and Bath Terrace where it increased from 3 to 15 (presumably to access the Estate). The overall numbers in Avonmouth Road increased by 83 from 408 to 491 however numbers in adjoining streets (Bath Terrace and Meadow Row) do not have corresponding figures that would indicate through running (see Table 3). Although HGV traffic increased as a proportion of total traffic in Falmouth Road from 4% to 5.9%, the total number of HGVs vehicles remained unchanged (22) and the increase in % HGV figure due to overall traffic decreasing by 175 vehicles (see Table 3).

DfT cycle classified counts have shown that cycle numbers in the area have increased along routes: up 76% from 201 to 354 in Falmouth Road south (quietway 7), up 25% from 368 to 462 in Meadow Row (LCN route), and up 29% through the middle of Harper Road (future quietway/Southwark Spine) (see Table 4). Manual traffic counts would confirm the numbers.

PM hourly peak flows in Harper Road (middle section) showed a drop of 24% (from 534 to 405). These reflect 6pm-7pm, ARX traffic two way, Thurs 19 Oct 2017 vs Tues 25 Sept 2018, excluding respective DfT pedal cyclists numbers (80/82) (see Figures 3 and 4).

Table 3. Change in proportion/number of HGVs and total motorised traffic since width restrictions

	%HGV before and after width restriction		Total number motorised vehicles with width restriction	Change in total motorised vehicles compared to 2017 figures	Total number HGVs with width restriction	Change in HGV numbers compared to 2017 figures	% change in HGV numbers	% change in all motorised traffic	% change in pedal cycle numbers (indicative DfT)
	2017	Sep 2018							
Harper Rd 1	2.2%	1.3%	2978	-275	38	-33	-47%	-8%	29%
Harper Rd 2	5.8%	1.0%	2921	-889	29	-191	-87%	-23%	-64%
Harper Rd 3	3.1%	1.3%	2856	-100	38	-54	-59%	-3%	-13%
Trinity St	11.0%	8.8%	1597	-16	140	-37	-21%	-1%	2%
Brockham St	11.8%	3.6%	484	-286	17	-74	-81%	-37%	22%
Cole Street	3.5%	2.5%	259	32	6	-1	-19%	14%	-10%
Swan Street	2.2%	1.2%	370	-209	4	-9	-67%	-36%	-7%
Falmouth Rd N	2.5%	2.7%	262	31	7	1	23%	13%	-2%
Falmouth Rd S	4.0%	5.9%	370	-175	22	0	0%	-32%	76%
Meadow Row	11.2%	11.6%	580	-140	67	-13	-17%	-20%	25%
Rockingham Street	4.3%	1.4%	258	5	4	-7	-67%	2%	921%
Avonmouth Rd	1.6%	2.0%	491	83	10	3	48%	20%	236%
Bath Terrace	0.7%	4.9%	303	-78	15	12	478%	-20%	0%

Table 4. Classified data (ARX output)

Classified counts 7am-7pm - summary

BEFORE: 2017 baseline counts: Number of vehicles - classified, 7-19, two way, average 7 day week

ARX Class	Pedal Cycles-DfT	Motorcycles		Cars with trailer		Lorry/Bu s								Total motorised (excl Dft PC)	Total HGVs	% HGV
		+PC ARX	Cars	LGV		Lorry	Lorry	Lorry	Lorry	Lorry	Lorry	Lorry	Lorry			
	N/A	1	2	3	4	5	6	7	8	9	10	11	12			
Harper Rd 1	220	512	2396	18	477	18	38	2	6	1	4	0	1	3254	70	2.2%
Harper Rd 2	408	705	3130	28	137	95	95	2	8	3	12	1	2	3810	219	5.8%
Harper Rd 3	215	464	2242	21	352	68	21	0	2	0	1	0	0	2956	92	3.1%
Trinity St	851	1097	1052	7	131	30	107	1	3	2	21	7	5	1613	177	11.0%
Cole Street	109	136	169	0	24	3	4	0	0	0	0	0	0	228	8	3.5%
Swan Street	120	236	381	1	68	8	3	1	0	0	1	0	0	579	13	2.2%
Falmouth Rd N	254	251	200	1	28	1	4	0	0	0	0	0	0	231	6	2.5%
Falmouth Rd S	201	357	320	0	47	1	20	0	0	0	0	1	0	545	22	4.0%
Meadow Row	368	557	392	1	58	4	57	0	1	1	12	3	3	720	80	11.2%
Rockingham St	2	29	187	0	28	1	10	0	0	0	0	0	0	253	11	4.3%
Brockham St	261	464	468	1	8	51	36	0	0	1	3	0	1	771	91	11.8%
Avonmouth St	9	54	305	0	51	5	1	0	0	0	0	0	0	408	7	1.6%
Bath Tce	70	113	324	0	11	0	2	0	0	0	0	0	0	381	3	0.7%

AFTER: 2018 (Sept) monitoring counts: Number of vehicles - classified, 7-19, two way, average 7 day week

ARX Class	Pedal Cycles-DfT	MC (+PC) Cars		Cars with trailer		Lorry/Bu s								Total motorised (excl Dft PC)	Total HGVs	% HGV
				LGV		Lorry	Lorry	Lorry	Lorry	Lorry	Lorry	Lorry	Lorry			
	N/A	1	2	3	4	5	6	7	8	9	10	11	12			
Harper Rd 1	283	553	2261	17	393	9	18	2	4	1	2	0	1	2978	38	1.3%
Harper Rd 2	147	397	2429	18	195	4	11	5	4	0	4	0	1	2921	29	1.0%
Harper Rd 3	187	467	2113	20	404	9	15	4	6	1	3	0	0	2856	38	1.3%
Trinity St	871	1089	1068	6	163	9	92	1	2	2	22	6	6	1597	140	8.8%
Cole Street	98	126	186	1	38	2	3	0	0	0	1	0	0	259	6	2.5%
Swan Street	112	167	259	1	50	2	2	0	0	0	0	0	0	370	4	1.2%
Falmouth Rd N	248	288	179	0	35	1	5	1	0	0	0	0	0	262	7	2.7%
Falmouth Rd S	354	439	231	0	33	1	20	0	0	0	1	0	0	370	22	5.9%
Meadow Row	462	530	386	1	57	3	50	0	0	0	10	3	1	580	67	11.6%
Rockingham St	20	35	215	0	26	2	2	0	0	0	0	0	0	258	4	1.4%
Brockham St	317	372	362	1	48	2	13	0	0	0	1	0	0	484	17	3.6%
Avonmouth St	30	64	374	1	72	4	6	0	0	0	0	0	0	491	10	2.0%
Bath Tce	70	98	245	0	15	1	14	0	0	0	0	0	0	303	15	4.9%

Figure 3. 2017 combined hourly flows – Middle of Harper Road

60-min Volume Summary

Avg W'kday Total **6,607**
7 Day Avg Total **6,248**

3. Harper Road - south of Brockham Street - 51.49749,-0.0947

Combined

Time	Day of Week							W'kday Avg	7 Day Avg
	Mon 16-Oct	Tue 17-Oct	Wed 18-Oct	Thu 19-Oct	Fri 20-Oct	Sat 21-Oct	Sun 15-Oct		
AM Peak	411	418	358	354	390	161	131	385	312
PM Peak	538	565	569	616	564	410	418	570	523
00:00	95	108	116	147	150	179	226	123	146
01:00	49	88	61	78	94	151	196	74	102
02:00	49	47	41	45	46	92	141	46	66
03:00	23	36	46	37	40	81	130	36	56
04:00	32	58	47	45	45	64	104	45	56
05:00	77	66	64	71	52	54	86	66	67
06:00	189	197	185	167	160	81	103	180	155
07:00	258	264	240	242	215	99	90	244	201
08:00	411	418	358	348	390	154	107	385	312
09:00	315	413	344	354	310	161	131	347	290
10:00	298	286	308	313	302	212	214	301	276
11:00	330	299	322	266	307	210	236	305	281
12:00	303	314	333	302	342	291	281	319	309
13:00	351	356	397	363	384	376	278	370	358
14:00	361	395	385	375	351	312	301	373	354
15:00	402	389	455	422	380	324	300	410	382
16:00	486	492	485	479	474	410	303	483	447
17:00	536	565	541	488	498	389	376	526	485
18:00	538	563	569	616	564	391	418	570	523
19:00	381	416	442	387	386	330	353	402	385
20:00	305	293	314	335	367	346	330	323	327
21:00	253	248	261	266	288	253	269	263	263
22:00	185	189	239	252	240	228	169	221	215
23:00	154	158	195	216	247	231	145	194	192
Total	6381	6658	6748	6614	6632	5419	5287	6607	6248

07:00-19:00	4589	4754	4737	4568	4517	3329	3035	4633	4218
06:00-22:00	5717	5908	5939	5723	5718	4339	4090	5801	5348
06:00-24:00	6056	6255	6373	6191	6205	4798	4404	6216	5755
00:00-24:00	6381	6658	6748	6614	6632	5419	5287	6607	6248

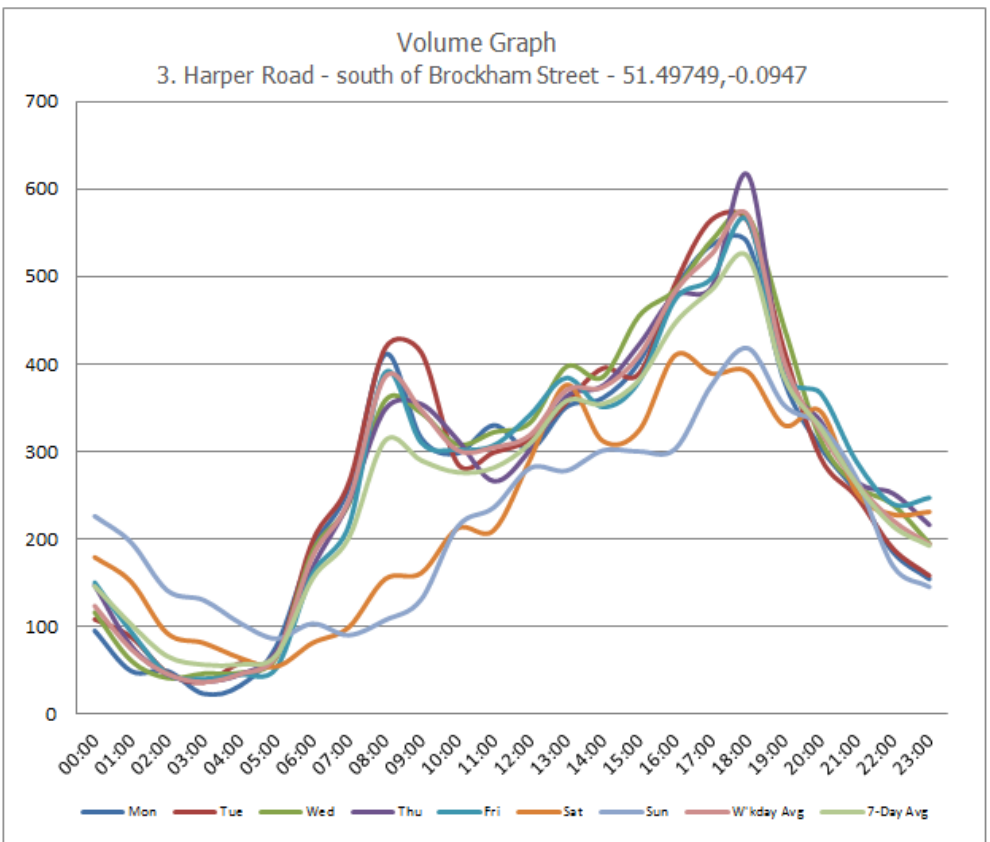
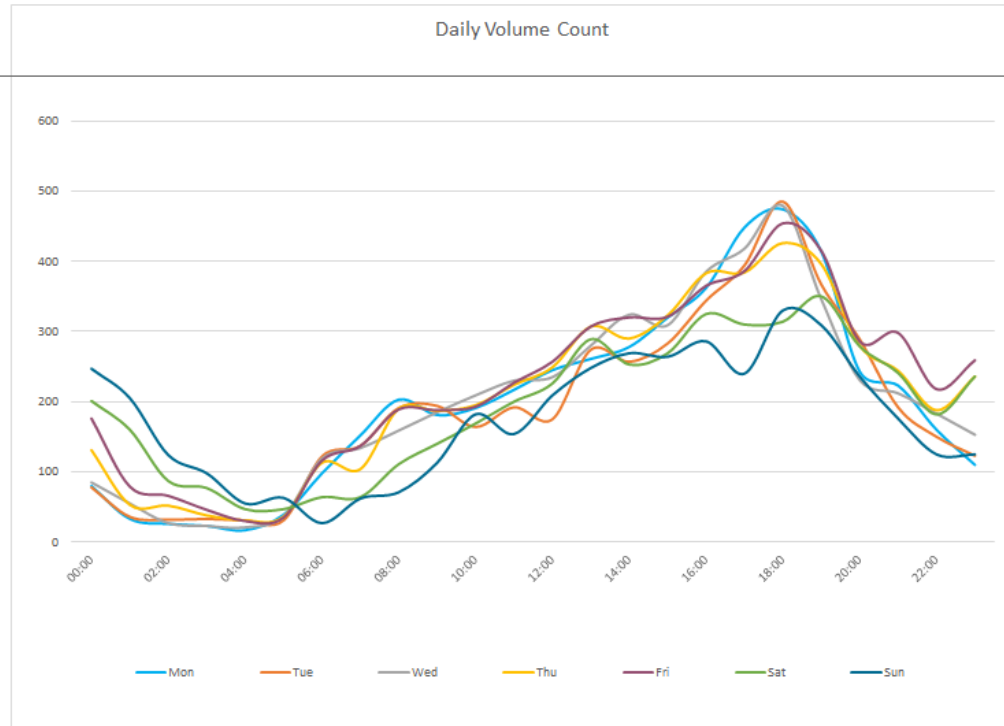


Figure 4. 2018 combined hourly flows – Middle of Harper Road

Combined ▼

Time	Combined							5 Day Avg	7 Day Avg
	Mon 24-Sep	Tue 25-Sep	Wed 19-Sep	Thu 20-Sep	Fri 21-Sep	Sat 22-Sep	Sun 23-Sep		
00:00	80	78	85	131	176	201	247	110	143
01:00	33	36	55	53	79	160	205	51	89
02:00	26	32	27	52	66	87	124	41	59
03:00	23	33	23	38	46	77	98	33	48
04:00	17	31	21	31	30	47	55	26	33
05:00	39	31	37	36	35	47	63	36	41
06:00	98	122	119	113	116	64	27*	114	105
07:00	152	137	134	104	137	64	62	133	113
08:00	203	191	159	190	189	111	71	186	159
09:00	181	194	185	187	188	140	113	187	170
10:00	191	164	209	195	193	169	182	190	186
11:00	217	192	230	224	227	200	154	218	206
12:00	245	175	235	249	257	226	209	232	228
13:00	261	274	280	307	307	289	248	286	281
14:00	278	257	324	290	320	253	269	294	284
15:00	320	283	309	323	321	269	264	311	298
16:00	362	344	385	383	365	325	286	368	350
17:00	448	394	418	384	386	310	240	406	369
18:00	474	485	479	426	454	314	330	464	423
19:00	414	367	346	396	415	350	309	388	371
20:00	243	289	231	280	286	279	236	266	263
21:00	223	192	212	244	298	241	176	234	227
22:00	160	150	183	188	218	182	125	180	172
23:00	110	123	153	236	259	236	125	176	177
07-19	3332	3090	3347	3262	3344	2670	2428	3275	3068
06-22	4310	4060	4255	4295	4459	3604	3176*	4276	4034
06-00	4580	4333	4591	4719	4936	4022	3426*	4632	4384
00-00	4798	4574	4839	5060	5368	4641	4218*	4928	4797



Conclusion

In conclusion, the width restriction has reduced traffic flows with a substantial decrease in HGV traffic in Harper Road and in the surrounding area. Peak PM traffic flows have dropped to below 500 per hour and cycle flows have also increased in most of the area.

Feedback has been given careful consideration and has informed further designs as part of proposed preliminary street improvements: the width restrictions are proposed as permanent with a more robust feature at Harper Road and the feature at Bath Terrace to be replaced with moveable bollards/gate. We are consulting on these proposals as part of the overall street improvements.