

# Report on the Traffic Survey carried out at the junction of Horndean Road (B2148) with New Brighton Road (B2147) on Monday 8 November 2004, between 7 am and 7 pm

A traffic survey was carried out between 7 am and 7 pm on Monday 8 November 2004. The purpose of the survey was to record the volume and type of vehicles going north and south along Horndean Road (B2148) and New Brighton Road (B2147).

A small team of 11 residents carried out the survey from cars parked outside the Catholic Church on New Brighton Road. Six groups (2 people in each group) recorded the volume and type of vehicle for two-hour sessions over a 12-hour period, starting at 7 am and ending at 7 pm. One person in each group recorded northbound traffic and the other recorded southbound traffic.

The vehicles recorded were divided into the following types: bicycles, motorbikes, cars, vans, lorries, buses/coaches.

The results of the survey are shown in the following tables and graphs.

**Table 1: Number and types of vehicles travelling north and south (7 am – 7 pm)**

	total	north	south
bike	221	111	110
car	9,114	4,525	4,589
van	1,208	591	617
lorry	139	72	67
bus/coach	93	47	46
motorbike	71	35	36
<b>Total</b>	<b>10,846</b>	<b>5,381</b>	<b>5,465</b>

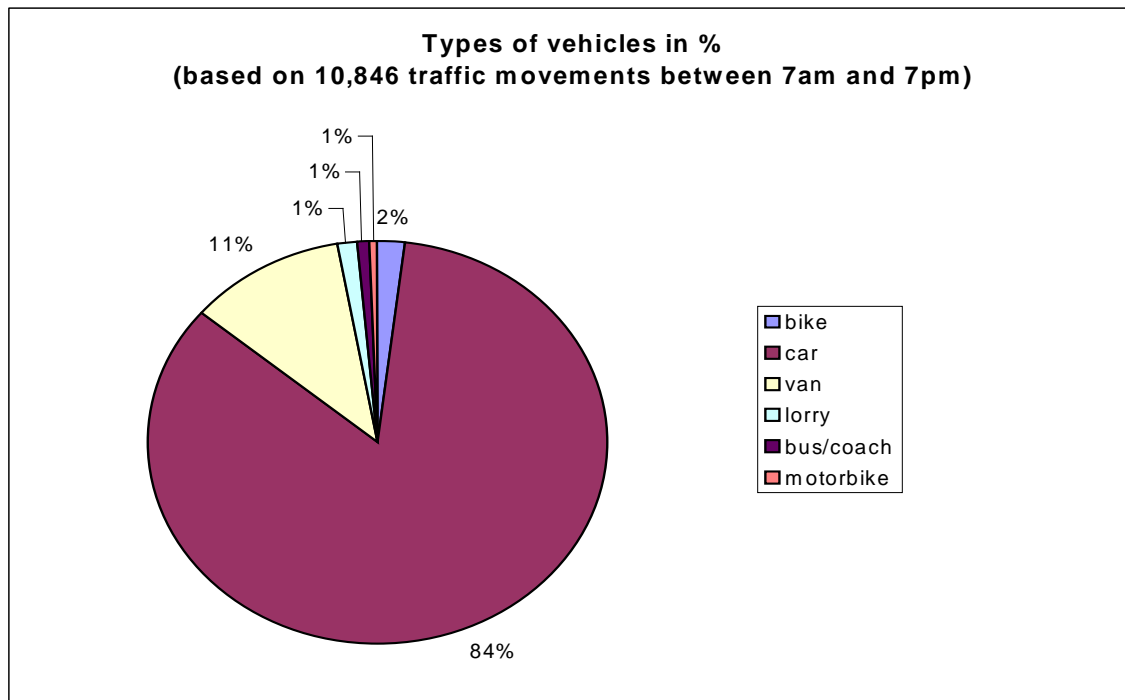


Table 1 shows that during the 12-hour period, a total of 10,846 traffic movements were recorded, 5,381 of which was northbound and 5,465 was southbound.

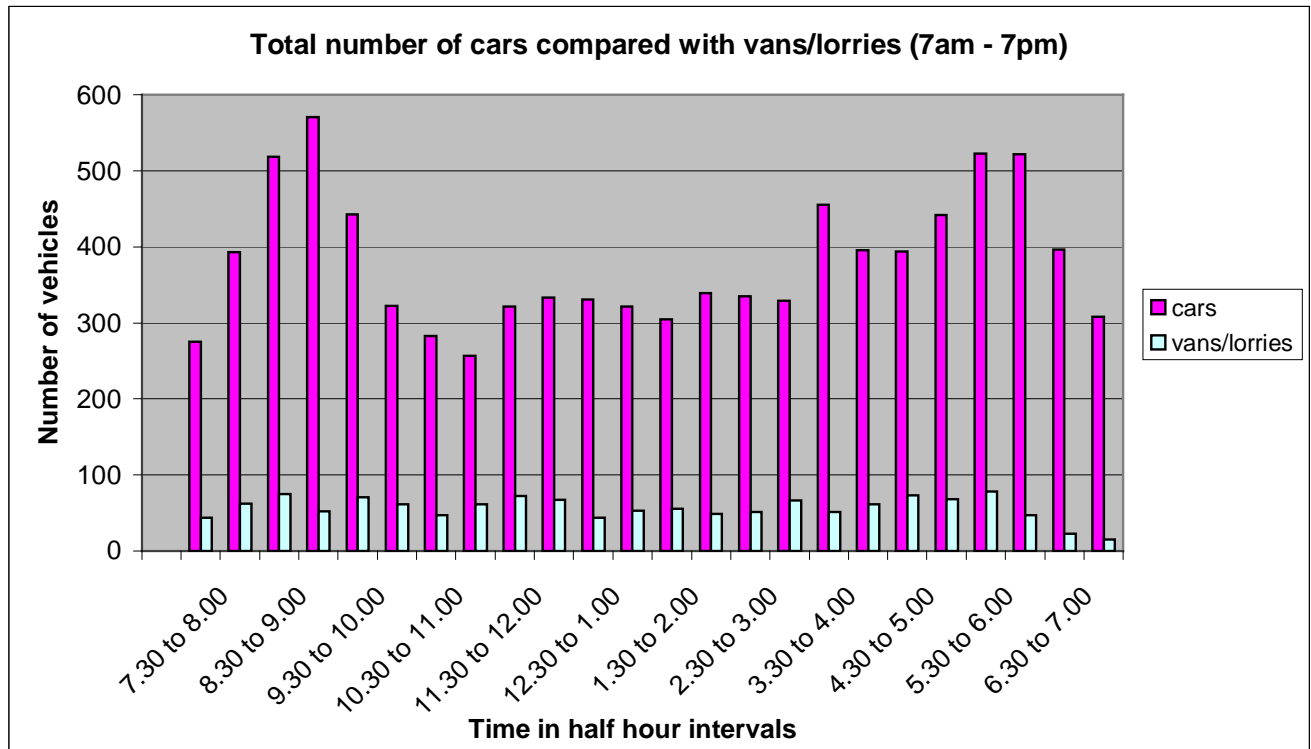
The pie chart shows that cars accounted for 84% of all traffic movements, with vans at 11% and bikes at 2%. The remaining 3% being accounted for by lorries, buses/coaches and motorbikes. It was encouraging to see so many bicycles, especially since the weather was rather wet. The number of bicycles is likely to be higher in better weather. This bicycle traffic should be encouraged by improving existing cycle paths and building new ones.

**Table 2: Total number of cars compared with total number of vans/lorries (7am-7pm)**

Table 2 compares the volume of cars with that of vans and lorries over the 12-hour period. The volume of car traffic is nearly 7 times greater than the van/lorry traffic.

The bar chart shows peak volumes for cars during the morning rush hour from 8 am to 9.30 am with highest volume between 8.30 and 9 am (571 cars). With a second peak between 3 and 3.30 pm (school run) and the evening rush hour between 5 and 6 pm (523 cars). The graph also shows there was a steady flow of cars throughout the day with numbers rarely falling below 300 in half an hour (equivalent to 10 cars a minute going either north or south). The fluctuation of numbers of vans/lorries over the 12-hour period was not very marked with a steady flow throughout the day. The highest numbers recorded between 8 and 8.30 am (75) and 5 and 5.30 pm (78).

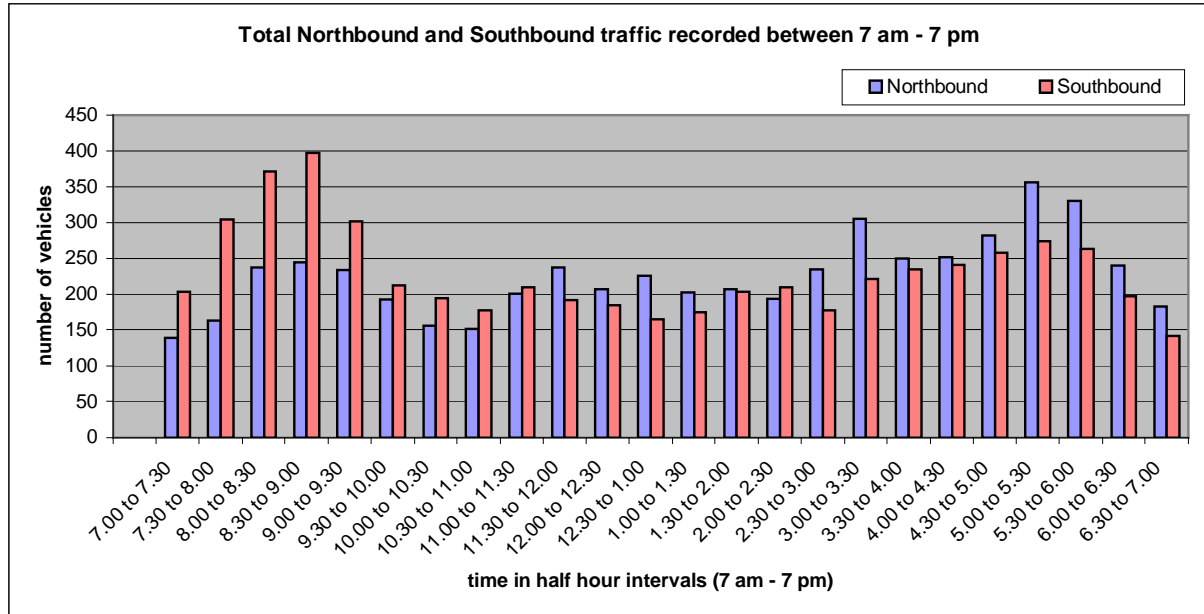
Time in half hour periods	Total Cars	Total vans/lorries
7.00 to 7.30 am	275	44
7.30 to 8.00	393	62
8.00 to 8.30	519	75
8.30 to 9.00	571	52
9.00 to 9.30	443	71
9.30 to 10.00	322	61
10.00 to 10.30	283	47
10.30 to 11.00	257	61
11.00 to 11.30	321	72
11.30 to 12.00	333	67
12.00 to 12.30 pm	331	44
12.30 to 1.00	321	53
1.00 to 1.30	305	56
1.30 to 2.00	339	49
2.00 to 2.30	335	51
2.30 to 3.00	329	66
3.00 to 3.30	455	51
3.30 to 4.00	396	61
4.00 to 4.30	394	73
4.30 to 5.00	442	68
5.00 to 5.30	523	78
5.30 to 6.00	522	47
6.00 to 6.30	397	23
6.30 to 7.00	308	15
<b>Total</b>	<b>9,114</b>	<b>1,347</b>



**Table 3: Volume of northbound and southbound traffic recorded between 7 am and 7 pm**

Time in half hour periods (7am-7pm)	Northbound	Southbound
7.00 to 7.30	139	203
7.30 to 8.00	163	305
8.00 to 8.30	238	371
8.30 to 9.00	244	397
9.00 to 9.30	233	301
9.30 to 10.00	193	212
10.00 to 10.30	156	195
10.30 to 11.00	152	177
11.00 to 11.30	201	210
11.30 to 12.00	238	191
12.00 to 12.30	207	185
12.30 to 1.00	226	165
1.00 to 1.30	202	175
1.30 to 2.00	207	203
2.00 to 2.30	194	210
2.30 to 3.00	235	177
3.00 to 3.30	306	222
3.30 to 4.00	250	235
4.00 to 4.30	252	241
4.30 to 5.00	282	258
5.00 to 5.30	356	274
5.30 to 6.00	330	264
6.00 to 6.30	240	197
6.30 to 7.00	183	142
<b>Total</b>	<b>5,381</b>	<b>5,465</b>

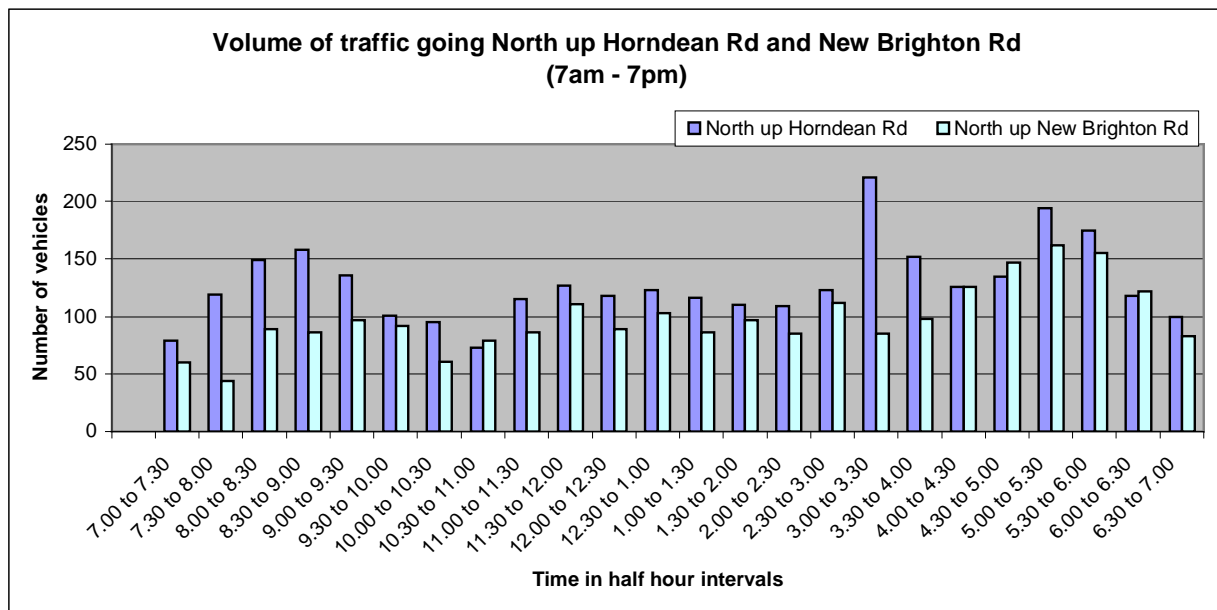
Table 3 shows the total volume of traffic going north (5,381) and total volume going south (5,465). Highest volumes for northbound traffic were between 3 and 3.30 pm (306 vehicles) due primarily to the school run and during the evening rush hour between 5 and 6 pm (356 and 330 vehicles). This is an average of more than 11 cars a minute or 1 car every 6 seconds. Whereas the highest volume of southbound traffic recorded was in the morning between 7.30 and 9.30 am with the highest between 8.30 and 9 am (397 vehicles or 13 cars a minute, 1 car every 4.6 seconds).

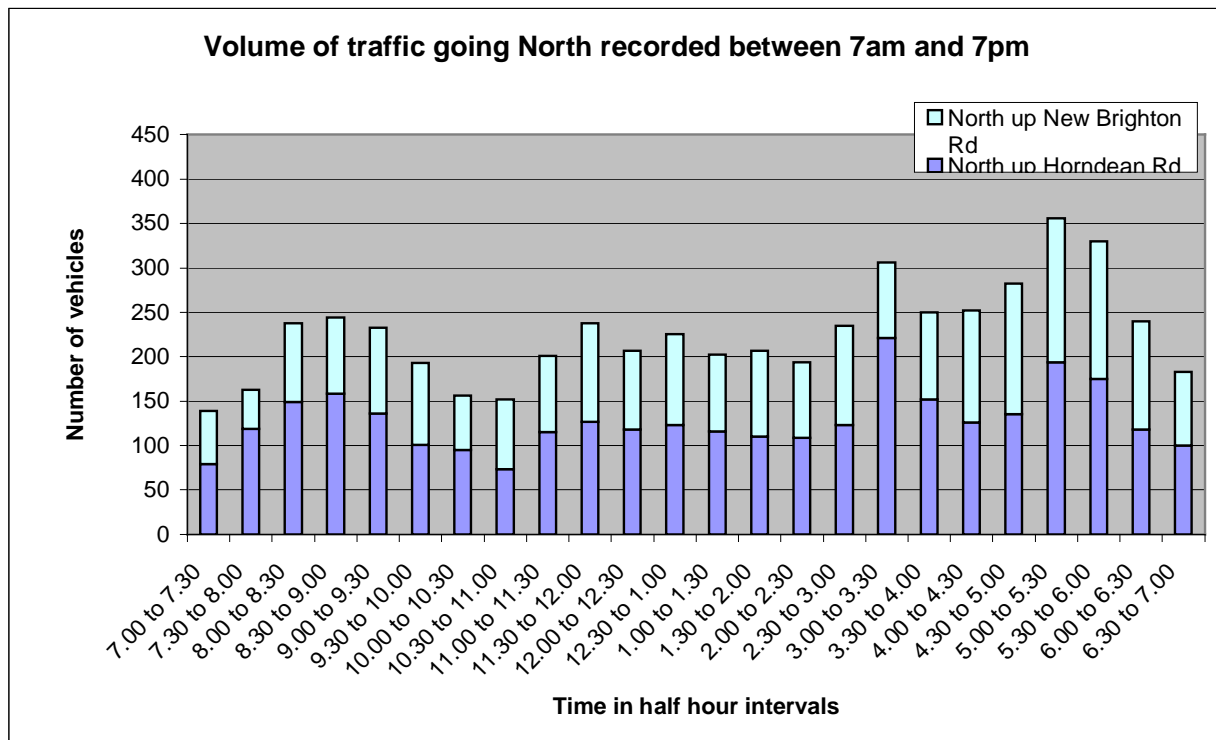


**Table 4: Total volume of traffic going North up Horndean Rd and New Brighton Rd (7am-7pm)**

Time in half hour periods	North up Horndean Rd	North up New Brighton Rd	Total Northbound
7.00 to 7.30 am	79	60	139
7.30 to 8.00	119	44	163
8.00 to 8.30	149	89	238
8.30 to 9.00	158	86	244
9.00 to 9.30	136	97	229
9.30 to 10.00	101	92	189
10.00 to 10.30	95	61	154
10.30 to 11.00	73	79	150
11.00 to 11.30	115	86	200
11.30 to 12.00	127	111	237
12.00 to 12.30 pm	118	89	207
12.30 to 1.00	123	103	225
1.00 to 1.30	116	86	198
1.30 to 2.00	110	97	204
2.00 to 2.30	109	85	191
2.30 to 3.00	123	112	234
3.00 to 3.30	221	85	304
3.30 to 4.00	152	98	240
4.00 to 4.30	126	126	249
4.30 to 5.00	135	147	277
5.00 to 5.30	194	162	356
5.30 to 6.00	175	155	330
6.00 to 6.30	118	122	240
6.30 to 7.00	100	83	183
<b>Total</b>	<b>3,072</b>	<b>2,309</b>	<b>5,381</b>

Table 4 shows the total volume of traffic going north (5,381) with 3,072 vehicles going up Horndean Road and 2,309 going up New Brighton Road. The highest volume recorded was between 3 and 3.30 pm with 221 vehicles (school run) with a smaller peak (194) between 5 and 5.30 pm. The highest volume of traffic going north up New Brighton Road was between 5 and 5.30 pm and 5.30 and 6 pm (162 and 155, respectively). This is the highest volume of traffic going north recorded over the 12-hour period (356 vehicles). This is approx. 12 vehicles a minute. During the rest of the period, there was a constant flow of traffic going up Horndean Road which rarely went below 100 vehicles in half an hour.





**Table 5: Total volume of traffic coming South from Horndean Rd and New Brighton Rd 7am-7pm**

Time in half hour periods	South from Horndean Rd	South from New Brighton Rd	Total southbound
7.00 to 7.30 am	99	104	203
7.30 to 8.00	143	162	305
8.00 to 8.30	182	189	371
8.30 to 9.00	182	215	397
9.00 to 9.30	150	151	299
9.30 to 10.00	101	111	208
10.00 to 10.30	101	94	194
10.30 to 11.00	86	91	177
11.00 to 11.30	102	108	204
11.30 to 12.00	78	113	187
12.00 to 12.30 pm	84	101	183
12.30 to 1.00	81	84	162
1.00 to 1.30	79	96	175
1.30 to 2.00	90	113	202
2.00 to 2.30	96	114	209
2.30 to 3.00	87	90	174
3.00 to 3.30	84	138	220
3.30 to 4.00	106	129	233
4.00 to 4.30	107	134	236
4.30 to 5.00	122	136	255
5.00 to 5.30	126	148	271
5.30 to 6.00	124	140	261
6.00 to 6.30	92	105	197
6.30 to 7.00	60	82	142
<b>Total</b>	<b>2,517</b>	<b>2,948</b>	<b>5,465</b>

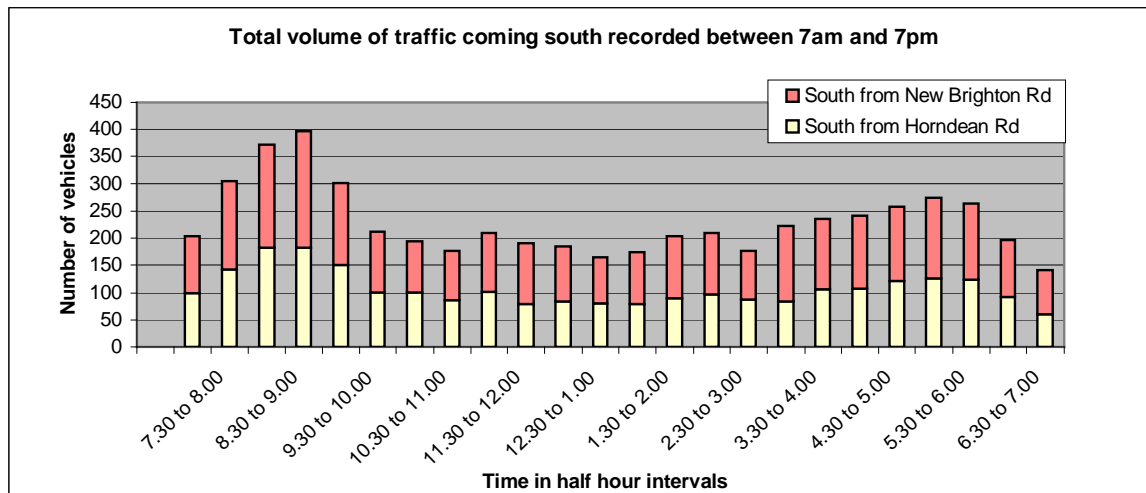
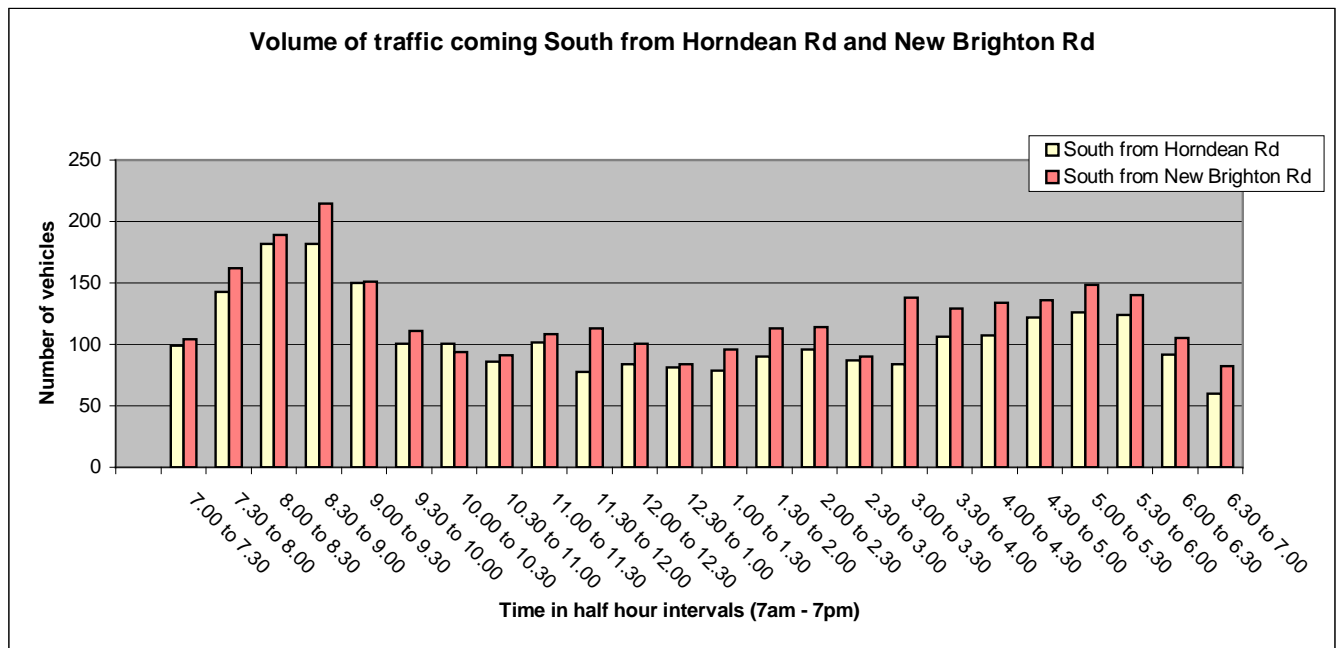


Table 5 shows total volume of traffic coming south of 5,465 vehicles with 2,517 from Horndean Road and 2,948 from New Brighton Road. The highest volume was between 8.30 and 9 am (397) which is 13 vehicles a minute. The flow of traffic was fairly steady throughout the rest of the day with flows of southbound traffic rarely going below 100 vehicles/half an hour from either Horndean Road or New Brighton Road. Total southbound traffic did not go much below 200 vehicles/half hour.

**Table 6: Volume of northbound traffic turning right into New Brighton Rd compared with volume of traffic coming south along Horndean Rd**

Time in half hour periods (7am-7pm)	North up New Brighton Rd	South down Horndean Rd
7.00 to 7.30 am	60	99
7.30 to 8.00	44	143
8.00 to 8.30	89	182
8.30 to 9.00	86	182
9.00 to 9.30	97	150
9.30 to 10.00	92	101
10.00 to 10.30	61	101
10.30 to 11.00	79	86
11.00 to 11.30	86	102
11.30 to 12.00	111	78
12.00 to 12.30 pm	89	84
12.30 to 1.00	103	81
1.00 to 1.30	86	79
1.30 to 2.00	97	90
2.00 to 2.30	85	96
2.30 to 3.00	112	87
3.00 to 3.30	85	84
3.30 to 4.00	98	106
4.00 to 4.30	126	107
4.30 to 5.00	147	122
5.00 to 5.30	162	126
5.30 to 6.00	155	124
6.00 to 6.30	122	92
6.30 to 7.00	83	60
<b>Total</b>	<b>2,309</b>	<b>2,517</b>

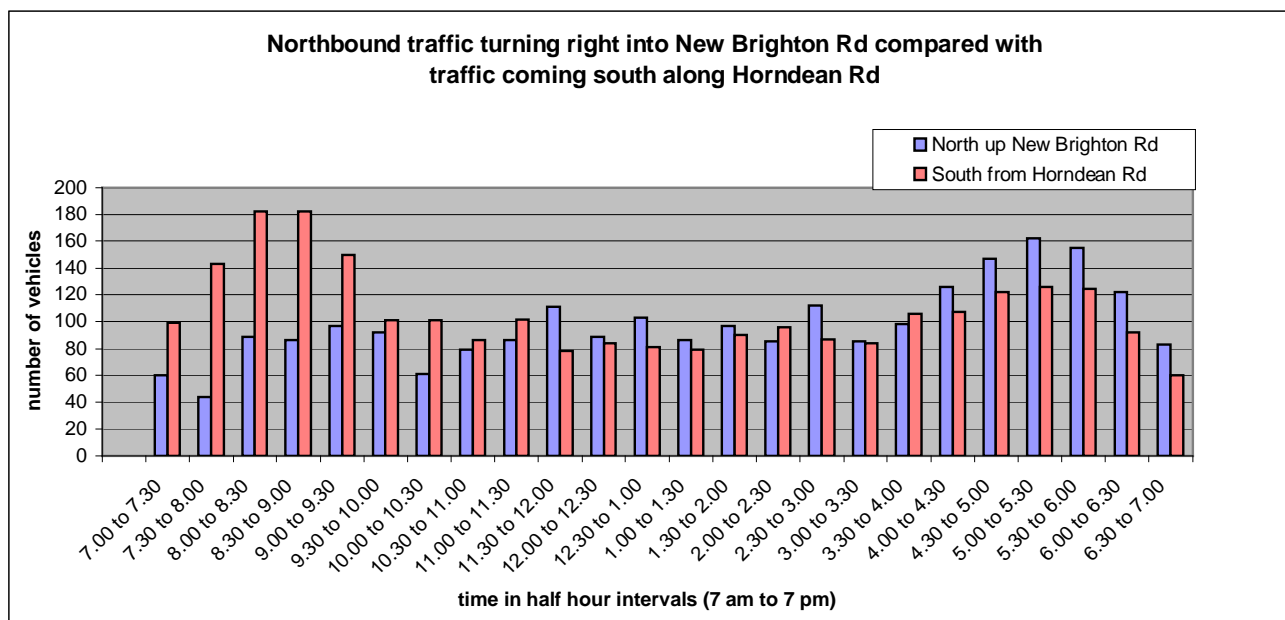


Table 6 makes a comparison between northbound traffic turning right up New Brighton Road with traffic coming south from Horndean Road. During the morning rush hour, the volume of southbound traffic from Horndean Road is nearly twice that going north up New Brighton Road. The traffic flow only evens out later on in the morning and continues at a steady rate for the rest of the afternoon. Traffic going north up New Brighton Road starts building up from 4 pm, reaching a peak at 5 – 5.30 pm (162). In addition, traffic going north up Horndean Road is also increasing at this time (194 see Table 4). Furthermore, traffic coming south from Horndean Road also increases between 5 and 6 pm (122, 124). The result of all this build up of traffic around this junction is that traffic backs up under the two bridges as far south as the railway station. Vehicles wanting to turn right into New Brighton Road have to wait for gaps in the southbound traffic and since there is only one lane here, traffic wanting to go north up Horndean Road is also held up. A solution to this problem could be to widen the road here or to put in a mini roundabout.

### **Conclusion:**

This is a busy section of B road (junction of B2148 and B2147) with approx. 5,500 vehicles travelling in both directions over a 12-hour period (total average volume of more than 400 vehicles an hour). Although there is rarely any congestion and the traffic flows freely most of the time apart from at peak times during the evening rush hour, there is always a steady flow of traffic from early morning to early evening (7 am to 7 pm). This section of road is just about at full capacity and any changes which would increase and/or restrict the flow of traffic would cause considerable congestion especially at peak times e.g. during the morning and evening rush hour and during the afternoon school run (3 – 4 pm).

An additional restriction here is the width of the railway bridge. The road here gets badly flooded especially in the winter and vehicles are forced to go into the middle of the road taking up two lanes. This is very likely to be the cause of a serious accident especially if traffic volumes were to increase substantially. This is not a location where additional traffic capacity can be easily absorbed without considerable inconvenience to residents, car drivers, local shops and businesses alike.

### **Future industrial developments between the railway line and the A27**

The results of this traffic survey show that any substantial increase in traffic along this section of the B2148 would cause substantial congestion, especially at peak times. The proposed industrial development on the Interbridges site as well as the substantially larger industrial development on the opposite side of the road between the A27 and the railway line would certainly increase the volume of traffic on this road. A condition imposed by HBC on the developers is to put traffic lights between the two bridges to control traffic coming out of these two industrial developments. Because of the narrowness of the railway bridge, it would be virtually impossible to construct a filter lane for traffic turning into either of these potential industrial developments. This would result in traffic backing up south down North Street and north up Horndean Road with the ensuing traffic chaos and the adverse effects on the rest of Emsworth.

Report compiled by Frances Jannaway 12 November 2004.