

Report of Traffic Counts on Stourmouth Road and Grove Road, Preston in
January and July 2014 – Cllr Alwyn Pidgen for Preston Parish Council

1. Introduction

As part of their planning application to build 73 houses between Grove Road and Stourmouth Road, Quinn Estates commissioned Bellamy Roberts to undertake an automated traffic survey as part of their Transport Statement. This took place between 13th and 19th July 2014 to monitor the number, speed and type of vehicles travelling northbound and southbound along Stourmouth Road. The checkpoint 'strips' were placed within the 30mph speed limit next to the proposed building site (now Preston Grange).

A 24-hour video survey was also undertaken on 15th January 2014 specifically to capture all Grove Road traffic (especially HGV traffic) bound for the Salvatori depot. One camera was sited overlooking the east and west entrances to the Salvatori site. Another was sited at the A257/Preston Hill junction looking northwards up the hill.

The data used in this report was taken from the Transport Statement published by Bellamy Roberts in August 2014.

2. The Automated Traffic Survey

a) Number of vehicles

A total of 11,700 vehicles passed this checkpoint in both directions during the 7-day period. A total of 6076 vehicles travelled northbound and 5624 vehicles travelled southbound. Traffic numbers were 32% fewer during the weekend compared to weekdays (Table 1).

b) Vehicle types

Daily traffic volume from each of the three main vehicle groups is shown in Tables 2 and 3. The numbers of vehicles from each of the 3 groups were calculated as a percentage of the total traffic volume (see below and Table 4). The great majority of vehicles came from Group 1.

Group 1. Cars + Light Goods Vehicles - includes, Cars, all small delivery vans, transit vans, small pickups, ambulances and milk floats. Also includes vehicles towing a trailer or caravan (86-88%).

Group 2. Buses + Ordinary Goods Vehicles 1) - includes all rigid vehicles with two or three axles including tractors, road rollers for tarmac pressing, box vans, large vans and middle-sized trucks (12-14%)

Group 3. Ordinary Goods Vehicles 2 - includes all large rigid vehicles with four or more axles and all articulated vehicles (0.2%)

Possible reasons for the low number of HGV's captured in the automated survey are discussed in Section 4.

c) Day v Night observations

The daily average overnight traffic numbers (Table 5) between midnight and 06.00h were very small in both directions (1 to 8 vehicles per hour).

Traffic numbers increased gradually after 06.00h with a daily average peak volume of 104 vehicles between 08.00 and 09.00h (southbound) and a daily average peak volume of 115 vehicles between 17.00 and 18.00h (northbound).

After 19.00h, traffic in both directions declined gradually from an average maximum of 45 vehicles (between 19.00 and 20.00h) to an average maximum of only 7 vehicles between 23.00h and midnight.

Average daily numbers of vehicles over the weekend were lower than during weekdays.

d) Impact during the start and end of school days.

At the start of the school day (Mon-Fri) an overall (N + S) daily average traffic volume of 170 vehicles passed the checkpoint between 08.00 and 09.00h. Results are shown in Table 6.

In addition, between the hours of 07.00 and 10.00h a daily average of 424 vehicles crossed the checkpoint

At the end of the school day between 15.00 and 17.00h a daily average of 311 vehicles passed the checkpoint during this period.

e) Speed – general observations

The overall daily average speed of vehicles passing this checkpoint northbound and southbound was between 29 and 31mph. However, these average values do not tell the whole story.

The Bellamy Roberts report did not list the actual number of vehicles who exceeded the 30mph speed limit, or the number that exceeded the ACPO limits. Instead they used speed groupings of <20mph, 21-35mph, 36-50mph and 51-100mph (see Tables 7, 8 and 9).

The results showed a different speed pattern between the directions of travel. Of the number of vehicles travelling northbound, 70% fell into the 21-35mph group and 24% in the 36 to 50mph group. Of the vehicles travelling

southbound, 84% were travelling in the 21-35mph group and 11% in the 36-50mph group.

It was not possible to assess the number of vehicles travelling at different speeds during the school day.

3. The Video Traffic Survey

Points of access for vehicles traveling to the Salvatori site included:

1. Travelling into southbound into Preston (via Stourmouth) and then turning right onto Grove Road.
2. Travelling northbound into Preston from the A257 (via Wingham) and then turning left onto Grove Road.
3. Travelling southwards on the Grove Ferry road from the A253 towards Preston (not suitable for HGV's)

Once the Salvatori premises on Grove road had been reached there were 2 points of vehicular access (on opposite sides of the road)

A summary table is shown below covering a 12-hour time period. A total of 573 vehicle movements were captured at the Salvatori site on Grove Road of which 263 were HGV's (shown in brackets).

Grove Road Traffic

	Arrivals	Departures	Totals
AM Peak	32 (8)	26 (18)	58 (26)
PM Peak	29 (24)	41 (16)	70 (40)
Daily (12 hour)	283 (131)	290 (132)	573 (263)

The secondary purpose of the video cameras was to examine previous reports that Salvatori bound HGVs were blocking the flow of traffic at the A257/Preston Hill junction causing an obstruction. The report suggested that vehicles parked on Preston Hill were responsible by preventing a free flow of articulated HGV's in both directions.

4. Summary and Discussion

The Bellamy Roberts report showed that two separate traffic surveys were carried out. One in January 2014 and the other in July 2014.

It should be mentioned that the primary focus of the Quinn Transport Statement was to assess the number and type of HGV movements taking place at the Salvatori site in Grove Road. This involved placing surveillance cameras in Grove Road as well as on Preston Hill. The secondary objective

was to obtain the volume and speed of traffic on Stourmouth Road to assess the suitability of a proposed vehicle entrance on Stourmouth Road.

This traffic count used a single checkpoint sited at the north end of Preston village, capturing traffic travelling both northbound and southbound. It was carried out by Bellamy Roberts on behalf of Quinn Estates as part of their planning application to build 73 houses between Grove Road and Stourmouth Road.

Due to the siting of the strips, this survey only captured vehicles visiting the Salvatori site at Grove Road if they travelled southbound into Preston village along the Stourmouth Road then turned right into Grove Road. Vehicles leaving the Salvatori site only crossed the checkpoint if they turned northbound at the Grove Road junction with Stourmouth Road.

It is a well-known fact that the majority of HGV traffic (especially from Europe) visiting the Salvatori site travelled in a northbound direction from the A257 through the centre of Preston village along The Street, before turning into Grove Road. Also, vehicles leaving the Salvatori site would turn southbound at the Grove Road junction and travel along The Street through the centre of the village to join up with the A257. None of these vehicles would have crossed the checkpoint during their journey – but would have been picked up by the video cameras.

The results showed that a total of 11,700 vehicles passed this checkpoint in both directions during the 7-day period. Traffic throughput was 32% less during the weekend compared to weekdays.

Not surprisingly, 86-88% of all vehicles were either cars or light goods vehicles. Around 12% were buses, large vans or middle-sized trucks. Less than 0.2% comprised large rigid vehicles with four or more axles and all articulated vehicles.

Overnight traffic numbers between midnight and 06.00h were very small (< 10 vehicles per hour). Morning traffic volume increased gradually with an average peak of 104 vehicles per hour between 08.00 and 09.00h.

Afternoon traffic showed a similar peak traffic volume of 115 vehicles per hour between 17.00 and 18.00h.

In the evening traffic was fairly light, reducing from 45 vehicles (between 19.00 and 20.00h) to only 7 vehicles per hour by midnight.

At the start of the school day (Mon-Fri) between the hours of 07.00 and 10.00h a daily average of 424 vehicles crossed the checkpoint.

At the end of the school day, between 15.00 and 17.00h a daily average of 311 vehicles crossed the checkpoint.

The overall average speed of vehicles passing this checkpoint in both directions ranged between 29 and 31mph. However, these values only tell part of the story.

Disappointingly, Bellamy Roberts did not report the actual number of vehicles that exceeded the 30mph speed limit. Nor did it report the number of vehicles exceeding the ACPO limits. Instead they reported the rather strange speed groupings of <20mph; 21-35mph, 36-50mph and 51 to100mph.

In terms of assessing vehicle speed, it is not possible to state the percentage of vehicles travelling within the 30mph speed limit, nor is it possible to state the percentage of vehicles that were breaking the 30mph speed limit. All that can be said with certainty is that 24% of all vehicles travelling northbound past the checkpoint were travelling between 36 and 50mph, while < 0.2% were travelling over 50mph. Numbers were lower for vehicles travelling southbound, with 11% travelling between 36 and 50mph and no vehicles travelling over 50mph.

Appendix of Tables

Day	Northbound	Southbound	Total	Daily average N + S (w/d)
Monday	911	825	1736	1841
Tuesday	902	873	1775	
Wednesday	963	934	1897	
Thursday	967	878	1845	
Friday	1030	923	1953	
				Daily average N + S (w/e)
Saturday	767	690	1457	1247
Sunday	536	501	1037	
Grand Total	6076	5624	11,700	

Table 1. Daily volume of traffic at checkpoint over 7 days

% reduction in traffic at weekends = 32%

Table 2. Volume by vehicle type travelling Northbound

Vehicle type	Weekday					Weekend		Total
	Mon	Tues	Wed	Thu	Fri	Sat	Sun	
Cars + LGV	788	780	850	839	885	708	510	5360
OGV1 + Bus	121	120	111	126	145	58	25	706
OGV2	2	2	2	2	0	1	1	10
Total	911	902	963	967	1030	767	536	6076

Table 3. Volume by vehicle type travelling Southbound

Vehicle type	Weekday					Weekend		Total
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Cars + LGV	687	713	801	749	774	628	478	4830
OGV1 + Bus	138	156	130	128	147	61	23	783
OGV2	0	4	3	1	2	1	0	11

Total	825	873	934	878	923	690	501	5624
-------	-----	-----	-----	-----	-----	-----	-----	------

Table 4 Vehicles types split into groups and shown as percentages.

	Northbound	Southbound
Vehicle Group	% of total traffic volume	% of total traffic volume
Cars and LGV's	88.2	85.9
OGV1 and Buses	11.6	13.9
OGV2	0.2	0.2

Table 5. Total number and daily average of traffic flow during weekdays – northbound and southbound

Time period (h)	Northbound		Southbound		Daily Average traffic volume N + S
	Grand Total	Daily Average	Grand Total	Daily Average	
00 - 01	4	1	7	1	2
01 - 02	1	0	10	2	2
02 - 03	2	0	4	1	1
03 - 04	1	0	10	2	2
04 - 05	1	0	21	4	4
05 - 06	27	5	39	8	13
06 - 07	78	16	136	27	43
07 - 08	175	35	406	81	116
08 - 09	332	66	520	104	170
09 - 10	354	71	334	67	138
10 - 11	277	55	268	54	109
11 - 12	249	50	259	52	102
12 - 13	306	61	260	52	113
13 - 14	297	59	270	54	113
14 - 15	329	66	304	61	127
15 - 16	425	85	321	64	149
16 - 17	480	96	328	66	162
17 - 18	573	115	306	61	176
18 - 19	371	74	200	40	114
19 - 20	224	45	139	28	73
20 - 21	127	25	108	22	47
21 - 22	76	15	75	15	30
22 - 23	43	9	71	14	23
23 - 00	21	4	37	7	12
Total	4773		4433		

Speed (mph)	Weekday					Weekend		Total
	Mon	Tues	Wed	Thu	Fri	Sat	Sun	
0-20	55	57	44	56	61	49	33	355
21-35	646	635	684	657	712	538	394	4266
36-50	209	210	234	253	254	179	109	1448
51-100	1	0	1	1	3	1	0	7
Total	911	902	963	967	1030	767	536	6076

Table 6. Volume of traffic travelling Northbound at selected speed intervals.

Table 7. Volume of traffic travelling Southbound at selected speed intervals.

Speed (mph)	Weekday					Weekend		Total
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
0-20	44	38	55	37	57	41	37	309
21-35	695	730	771	737	775	593	417	4718
36-50	86	105	108	104	91	56	47	597
51-100	0	0	0	0	0	0	0	0
Total	825	873	934	878	923	690	501	5624

Table 8. Percentage of total volume of traffic at selected speed intervals

Speed (mph)	Northbound	Southbound
	% of total traffic volume	% of total traffic volume
0- 20	5.8	5.5
21 - 35	70.0	83.9
36 - 50	24.0	10.6
51 - 100	0.2	0