

ANNEXE B – ANALYSIS OF TRAFFIC SURVEY



ANALYSIS OF TRAFFIC SURVEY

Survey carried out by

Carried out by

Gloucestershire Highways in September 2019

Analysis of Traffic Survey

1 Traffic Movements

A traffic survey was undertaken in September 2019. Sensors were placed on the road in locations shown on Figure 1.



Figure 1 – Location of Traffic Sensors

2 Average Weekday Vehicle Movements

Tables 1 and 2 show average traffic flows over a weekday from 16 to 20 September 2019. There is no reason to believe that these data are untypical of any week: schools are back; the main holiday season is over.

All Traffic Movements from "East" to West

Sum of Average Weekend	Column Labels	Entering from Marston Meysey	Entering from Meysey Hampton	Entering from Poulton	All entering village (E to W)
Row Labels					
00:00:00		0	5	1	6
01:00:00		0	2	0	2
02:00:00		0	2	0	2
03:00:00		0	0	0	0
04:00:00		0	0	0	0
05:00:00		1	3	0	4
06:00:00		1	6	4	11
07:00:00		3	13	3	19
08:00:00		3	30	10	43
09:00:00		3	36	14	53
10:00:00		6	44	9	59
11:00:00		5	42	15	62
12:00:00		5	45	14	64
13:00:00		6	40	7	53
14:00:00		4	50	11	65
15:00:00		2	44	16	62
16:00:00		2	35	20	57
17:00:00		3	28	11	42
18:00:00		2	24	7	33
19:00:00		2	14	8	24
20:00:00		0	15	6	21
21:00:00		0	11	6	17
22:00:00		0	9	5	14
23:00:00		1	6	2	9
Grand Total		49	504	169	722

Table 1 – Average Vehicle Numbers Westwards

All Traffic Movements from West to "East"

Sum of Average Weekday	Column Labels	Entering from A419 Meysey	Leaving towards Marston Meysey	Leaving towards Meysey Hampton	Leaving towards Poulton	All leaving village (W to E)
Row Labels						
00:00:00		3	0	-2	0	-2
01:00:00		3	0	-2	0	-2
02:00:00		1	0	0	0	0
03:00:00		1	0	-1	0	-1
04:00:00		1	0	-1	0	-1
05:00:00		4	0	-3	0	-3
06:00:00		25	-3	-22	-4	-29
07:00:00		94	-6	-67	-31	-104
08:00:00		116	-5	-84	-40	-129
09:00:00		76	-6	-42	-22	-70
10:00:00		72	-5	-49	-14	-68
11:00:00		84	-6	-53	-18	-77
12:00:00		84	-6	-48	-14	-68
13:00:00		80	-5	-44	-18	-67
14:00:00		100	-6	-55	-16	-77
15:00:00		95	-7	-60	-20	-87
16:00:00		128	-7	-72	-20	-99
17:00:00		150	-4	-86	-18	-108
18:00:00		105	-4	-53	-19	-76
19:00:00		78	-3	-35	-13	-51
20:00:00		42	-1	-21	-9	-31
21:00:00		30	-1	-14	-4	-19
22:00:00		19	0	-11	-3	-14
23:00:00		8	-1	-4	-1	-6
Grand Total		1399	-76	-829	-284	-1189

Table 2 Average Vehicle Numbers Eastwards

The East to West and West to East annotation has been chosen to represent the approximate flow through the main part of the village. Negative values are movements out of the village and positive ones are into the village.

Looking at the weekday west to east traffic, it is evident there are two peaks entering from the A419, one between 7.00 and 9.00 (total 210) and the second between 16.00 and 19.00 (total 461); there is a minor peak between 14.00 and 15.00 (total 100); for the remainder of the middle of the day, the average movement is about 80 vehicles per hour. Evening traffic averages some 40 vehicles per hour. Leaving the village from all routes "east" (this includes towards Poulton), there are the same two peaks, one from 7.00 to 9.00 (total 233) and the second from 16.00 to 19.00 (total 283). Average middle-of-the-day movement is just over 70 vehicles per hour. Evening traffic averages nearly 30 vehicles per hour.

Analysis of Traffic Survey

Analysing the average flows the following main assumption has been made:

- There are few destinations within the village for people not living in Down Ampney – the School, the Shop, the Village Hall, the Football Club, and the Church are the main ones where a visitor might enter and leave the village along the same route, but on the whole traffic entering the village is either villagers returning home or non-villagers exiting the village in the opposite direction. To cater for this an assumption has been made that 5% of the incoming traffic from each direction is a trip that ends in Down Ampney. This leads to the total of non-resident trips into the village being 131 (61 from the “East” and 70 from the “West”). This appears reasonable.

Sum of Average Weekday		Column Labels			
Row Labels	All entering village (E to W)	Assume 5% from "east" remains in village	Entering from A419	Assume 5% from west remains in village	
00:00:00	2	0	3	0	
01:00:00	1	0	3	0	
02:00:00	1	0	1	0	
03:00:00	0	0	1	0	
04:00:00	3	0	1	0	
05:00:00	10	1	4	0	
06:00:00	37	2	25	1	
07:00:00	96	5	94	5	
08:00:00	126	6	116	6	
09:00:00	72	4	76	4	
10:00:00	67	3	72	4	
11:00:00	70	4	84	4	
12:00:00	71	4	84	4	
13:00:00	57	3	80	4	
14:00:00	78	4	100	5	
15:00:00	96	5	95	5	
16:00:00	135	7	128	6	
17:00:00	103	5	150	8	
18:00:00	61	3	105	5	
19:00:00	38	2	78	4	
20:00:00	22	1	42	2	
21:00:00	16	1	30	2	
22:00:00	17	1	19	1	
23:00:00	8	0	8	0	
Grand Total	1187	61	1399	70	

Table 3 Trips from Outside assumed to end in Down Ampney

Further analysis leads to the number of trips generated from within the village and also to the number of through trips of passing traffic. This is shown in Table 4.

Sum of Average Weekday		Column Labels				
Row Labels	Trips westwards originating from DA	Trips eastwards originating from DA	Total trips originating from DA	Through traffic westwards	Through traffic eastwards	Total through traffic
00:00:00	0	0	0	-1	-2	-3
01:00:00	-1	0	-1	-1	-2	-3
02:00:00	0	0	0	-1	0	-1
03:00:00	0	0	0	0	-1	-1
04:00:00	-2	0	-2	-3	-1	-4
05:00:00	-8	0	-8	-9	-3	-12
06:00:00	-12	-5	-17	-35	-24	-59
07:00:00	-39	-15	-54	-91	-89	-180
08:00:00	-40	-19	-59	-120	-110	-230
09:00:00	-26	0	-26	-68	-70	-138
10:00:00	-16	0	-16	-64	-68	-132
11:00:00	-18	0	-18	-66	-77	-143
12:00:00	-15	0	-15	-67	-68	-135
13:00:00	-12	0	-12	-54	-67	-121
14:00:00	-7	0	-7	-74	-77	-151
15:00:00	-22	0	-22	-91	-87	-178
16:00:00	-16	0	-16	-128	-99	-227
17:00:00	-8	0	-8	-98	-108	-206
18:00:00	-4	0	-4	-58	-76	-134
19:00:00	-12	0	-12	-36	-51	-87
20:00:00	-9	0	-9	-21	-31	-52
21:00:00	-1	0	-1	-15	-19	-34
22:00:00	-1	0	-1	-16	-14	-30
23:00:00	0	0	0	-7	-6	-13
Grand Total	-269	-39	-308	-1124	-1150	-2274

Table 4 Average Weekday Trips

3 Average Weekend Vehicle Movements

Tables 5 and 6 show average traffic flows over the weekend of 21 and 22 September 2019. The data show a much more even spread of vehicle movements over the day than the weekday figures. This is hardly surprising.

Analysis of Traffic Survey

All Traffic Movements from "East" to West

Sum of Average Weekend	Column Labels	Entering from Marston Meysey	Entering from Hampton	Entering from Poulton	All entering village (E to W)	Leaving towards A419
Row Labels	Labels	Labels	Labels	Labels	Labels	Labels
00:00:00		0	5	1	6	-5
01:00:00		0	2	0	2	-6
02:00:00		0	2	0	2	-4
03:00:00		0	0	0	0	0
04:00:00		0	0	0	0	-1
05:00:00		1	3	0	4	-4
06:00:00		1	6	4	11	-10
07:00:00		3	13	3	19	-31
08:00:00		3	30	10	43	-59
09:00:00		3	36	14	53	-82
10:00:00		6	44	9	59	-87
11:00:00		5	42	15	62	-71
12:00:00		5	45	14	64	-85
13:00:00		6	40	7	53	-67
14:00:00		4	50	11	65	-72
15:00:00		2	44	16	62	-70
16:00:00		2	35	20	57	-68
17:00:00		3	28	11	42	-49
18:00:00		2	24	7	33	-42
19:00:00		2	14	8	24	-30
20:00:00		0	15	6	21	-21
21:00:00		0	11	6	17	-18
22:00:00		0	9	5	14	-16
23:00:00		1	6	2	9	-11
Grand Total		49	504	169	722	-909

Table 5 Average Vehicle Numbers Westwards

All Traffic Movements from West to "East"

Sum of Average Weekend	Column Labels	Entering from A419	Leaving towards Marston Meysey	Leaving towards Hampton	Leaving towards Poulton	All leaving village (W to E)
Row Labels	Labels	Labels	Labels	Labels	Labels	Labels
00:00:00		8	0	-5	-2	-7
01:00:00		5	0	-3	-1	-4
02:00:00		5	0	-2	0	-2
03:00:00		1	0	-1	0	-1
04:00:00		1	0	-2	0	-2
05:00:00		3	0	-4	0	-4
06:00:00		6	0	-7	-1	-8
07:00:00		20	-2	-12	-7	-21
08:00:00		34	-4	-20	-12	-36
09:00:00		58	-3	-33	-15	-51
10:00:00		79	-5	-50	-13	-68
11:00:00		87	-6	-55	-15	-76
12:00:00		100	-7	-51	-17	-75
13:00:00		95	-5	-51	-13	-69
14:00:00		76	-7	-35	-22	-64
15:00:00		77	-2	-37	-13	-52
16:00:00		78	-2	-36	-14	-52
17:00:00		80	-2	-41	-11	-54
18:00:00		52	-3	-31	-9	-43
19:00:00		46	0	-25	-11	-36
20:00:00		22	0	-15	-9	-24
21:00:00		19	-2	-8	-3	-13
22:00:00		17	-1	-9	-3	-13
23:00:00		9	0	-3	-1	-4
Grand Total		978	-51	-536	-192	-779

Table 6 Average Vehicle Numbers Eastwards

An identical analysis has been carried out on the average weekend figures, except that it is likely that more externally generated trips end in Down Ampney from people visiting the Tennis Club, Village Hall and general social visiting; the figure has been set at 10% (Table 7).

Sum of Average Weekend	Column Labels	All entering village (E to W)	Assume 10% from "east" remains in village	Assume 10% from west remains in village
Row Labels	Labels	Labels	Labels	Labels
00:00:00		6	1	8
01:00:00		2	0	5
02:00:00		2	0	5
03:00:00		0	0	1
04:00:00		0	0	1
05:00:00		4	0	3
06:00:00		11	1	6
07:00:00		19	2	20
08:00:00		43	4	34
09:00:00		53	5	58
10:00:00		59	6	79
11:00:00		62	6	87
12:00:00		64	6	100
13:00:00		53	5	95
14:00:00		65	7	76
15:00:00		62	6	77
16:00:00		57	6	78
17:00:00		42	4	80
18:00:00		33	3	52
19:00:00		24	2	46
20:00:00		21	2	22
21:00:00		17	2	19
22:00:00		14	1	17
23:00:00		9	1	9
Grand Total		722	70	978

Table 7 Trips from Outside assumed to end in Down Ampney

Analysis of Traffic Survey

This leads to the figures for trips at the weekend shown in Table 7.


Sum of Average Weekend	Column Labels 					
Row Labels	Trips westwards originating from DA	Trips eastwards originating from DA	Total trips originating from DA	Through traffic westwards	Through traffic eastwards	Total through traffic
00:00:00	0	0	0	-5	-7	-12
01:00:00	-4	0	-4	-2	-4	-6
02:00:00	-2	0	-2	-2	-2	-4
03:00:00	0	0	0	0	-1	-1
04:00:00	-1	-1	-2	0	-1	-1
05:00:00	0	-1	-1	-4	-3	-7
06:00:00	0	-3	-3	-10	-5	-15
07:00:00	-14	-3	-17	-17	-18	-35
08:00:00	-20	-5	-25	-39	-31	-70
09:00:00	-34	0	-34	-48	-51	-99
10:00:00	-34	0	-34	-53	-68	-121
11:00:00	-15	0	-15	-56	-76	-132
12:00:00	-27	0	-27	-58	-75	-133
13:00:00	-19	0	-19	-48	-69	-117
14:00:00	-14	0	-14	-58	-64	-122
15:00:00	-14	0	-14	-56	-52	-108
16:00:00	-17	0	-17	-51	-52	-103
17:00:00	-11	0	-11	-38	-54	-92
18:00:00	-12	0	-12	-30	-43	-73
19:00:00	-8	0	-8	-22	-36	-58
20:00:00	-2	-4	-6	-19	-20	-39
21:00:00	-3	0	-3	-15	-13	-28
22:00:00	-3	0	-3	-13	-13	-26
23:00:00	-3	0	-3	-8	-4	-12
Grand Total	-257	-17	-274	-652	-762	-1414

Table 8 Average Weekend Trips

4 Conclusion

The majority of the vehicle movements in Down Ampney arise from through traffic; nearly 2300 vehicles per day for weekdays and 1400 vehicles per day at weekends. Vehicle movements originating in Down Ampney account for just over 300 vehicles per day for weekdays and fewer than 275 vehicles per day for weekends.

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