Stratfield Mortimer Parish Council

Planning and Highways Committee 02/04/2026

Agenda Item 25/223.2

Report on Smiley SID Deployments November to March 2026

The two Smiley SIDs (strictly Smiley Vehicle Activated Signs) have been deployed since 6th November 2025. The idea is that they are moved around the village on sites that have been approved by WBC. WBC recommend two weeks at a site. So far twelve sites have been approved. Full details are available at ...Parish Council - Documents - Sites for Smiley Sids - All Documents. For convenience the sites are referred to by short labels as below. Note the last letter denotes the direction in which the traffic is going (N north, W west etc). Specific deployments at each site are identified by adding1, 2, 3 etc at the end of the site reference.

The sites can be seen on the map on the next page.

HHN is on Hammonds Heath by the big Fairground gate with SID on the nearside for traffic going North away from the Village. (SMPC ref SVAS01, WBC ref 80000228)

HHS is the same site as HHN but with SID on the offside of the road for traffic going South from the Burghfield direction. (SMPC ref SVA02, WBC ref 80000227)

CATS is in is St Catherines Hill on the nearside of the road near Birchland Close for traffic heading South away from Burghfield/Victoria Road. (SMPC ref SVAS03, WBC ref 80000226)

CATN is the same site as CATS but with SID on the offside of the road for traffic going North towards Burghfield/Victoria Road. (SMPC ref SVAS04, WBC ref 80000225)

CATJ is St Catherines Hill on the nearside of the road for traffic going North towards Burghfield/Victoria Road. It is further north than CATN, on the road sign advising of the junction with Victoria Rd and the road with no name. SMPC ref SVAS05, WBC ref 80000224) (This site has not yet been used).

GR is on Victoria Rd for traffic coming in from Burghfield. It is on the roundabout sign about 100 yards west of the Groves Lea / Stephens Rd mini roundabout (SMPC ref SVAS06, WBC ref 80000223)

VICE is Victoria Road east of the library on the Elderly People sign for traffic going East. (SMPC ref SVAS07, WBC ref 80000235)

VICW is the same post as VICE with SID on the offside for traffic going West. (SMPC ref SVAS08, WBC ref 80000236)

KILNE is on the Street on the bend before Kiln Lane for traffic heading East down The Street. SMPC ref SVAS09 WBC ref 80000231)

KILNW is the same post as KILNE but on the offside for traffic coming west up The Street. SMPC ref SVAS10, WBC ref 80000232)

WESTW is the far end of West End Road after 'the farm gate' for traffic heading west out of the village. SMPC ref SVAS11, WBC ref 80000233)

WESTE is the same post as WESTW but is on the offside of the road for traffic heading east into the village. SMPC ref SVAS12, WBC ref 80000234)

The various sites for deployments of SID (S), Smiley SIDS (V) and the ASWC (C). The letters are shown on both sides of the road so for example on the Street V is possible for both directions near Kiln Lane but S is only available for eastbound traffic.

Data and Reports

The Smiley SIDS capture a lot of data. First contact is normally made about 90 metres away. It records four speeds for each vehicle: peak speed – the highest value for that vehicle, the average speed whilst that vehicle is in contact, the entry speed and the exit speed. Peak speed is the normal parameter to use. Exit speed is not considered reliable because of geometry close to the sign. Entry speed is usually similar to peak speed. Some comparisons between peak and average speeds are given at the end of this document. If vehicles are close together then the SID may switch from one to another so that the average is not necessarily over the whole distance.

The system has a standard report format. The first page is an overall summary for the duration of the deployment. That page for the first deployment at WESTW1 is below. Counts of vehicles are given in 5 mph bands (classes). Midnight to noon has a purple background and noon to midnight a pink background, with maximum values in those periods in bold. (Increase the magnification / zoom if you want to see the numbers more clearly).

Traffic Report

Traffic Overview from Mon Feb 2 2026 to Mon Feb 16 2026

Vehicle Speed Classes (Mph)

Time of day	<15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	>70	Total	85th Percentile
00:00	8	0	0	15	34	34	28	10	5	4	0	1	**1**	140	44.0
01:00	10	0	0	4	17	19	9	6	3	1	0	0	0	69	42.6
02:00	2	0	0	3	8	9	6	4	1	0	0	0	0	33	44.1
03:00	0	0	0	0	4	10	14	6	0	2	1	0	0	37	**45.7**
04:00	0	0	0	2	20	14	18	6	2	1	0	0	0	63	43.9
05:00	10	0	2	31	98	108	72	46	16	3	0	0	0	386	44.4
06:00	7	3	15	371	778	473	**262**	**77**	**19**	**11**	**2**	**2**	0	2020	39.8
07:00	2	6	**38**	**722**	**1439**	**579**	148	33	5	4	0	0	0	**2976**	36.2
08:00	0	4	9	584	1148	475	168	36	10	0	1	0	0	2435	37.0
09:00	10	5	17	363	771	341	147	46	12	1	0	2	0	1715	37.9
10:00	7	**7**	15	371	731	383	150	31	11	0	0	0	0	1706	37.8
11:00	**22**	4	11	424	785	422	146	42	8	3	0	1	0	1868	37.7
12:00	9	5	18	436	837	466	175	39	5	4	0	0	0	1994	37.8
13:00	7	**8**	19	371	814	444	184	50	6	3	1	1	0	1908	38.3
14:00	1	3	13	437	785	**532**	183	44	12	1	0	0	0	2011	38.1
15:00	9	2	14	421	787	509	190	**59**	7	2	0	0	0	2000	38.4
16:00	6	5	17	413	918	492	**191**	45	8	2	0	0	**1**	2098	38.1
17:00	6	1	**29**	**523**	**946**	444	173	27	9	1	0	0	0	**2159**	37.4
18:00	10	3	29	368	792	435	135	27	4	**5**	0	0	0	1798	37.5
19:00	**16**	1	22	233	436	320	126	44	11	0	0	0	0	1209	39.0
20:00	14	0	6	99	256	245	93	38	5	2	0	0	0	758	40.1
21:00	4	0	3	74	195	139	79	31	11	2	0	0	0	538	40.9
22:00	1	2	2	43	138	115	71	46	**16**	1	**3**	1	1	440	44.1
23:00	0	0	2	21	47	58	35	23	11	4	3	**2**	0	206	**46.0**
AM Total	78	29	107	2890	**5833**	2867	1168	343	92	30	4	6	1		
PM Total	83	30	174	3429	**6951**	4199	1635	473	105	27	7	4	2		
Total	161	59	281	6319	**12784**	7066	2803	816	197	57	11	10	3		
Percent	0.53%	0.19%	0.92%	20.67%	**41.82%**	23.12%	9.17%	2.67%	0.64%	0.19%	0.04%	0.03%	0.01%		

Total Vehicles :	30567
30th Percentile :	29.8 MPH
50th Percentile :	32.0 MPH
85th Percentile :	38.3 MPH
95th Percentile :	42.6 MPH
Average Speed :	33.4 MPH
Highest Speed :	73.3 MPH
Speed Limit:	30 Mph
Total Over Speed Limit:	77.7 % (23747 / 30567)

It shows a total of 30,567 vehicles, an average speed of 33.4 mph, an 85th percentile of 38.3 mph and a maximum speed of 73.3 mph. Numbers and the 85th percentile are also broken down by hour. 77.7% of vehicles were over the 30 mph limit. Note that the 85 percentile is above 40 mph from midnight to 6am and again from 8pm to midnight.

Graphs show vehicle count per hour, counts per speed class (both shown on the next page)as well as average speed per hour, a cumulative speed distribution curve and a record of battery voltage These are not shown here but can be seen by accessing the full report at ...Parish Council - Documents - Sites for Smiley Sids - All Documents.

The report then (optionally) repeats the above format for each individual day, so this particular report is 95 pages. But this does permit differences between days etc to be identified.

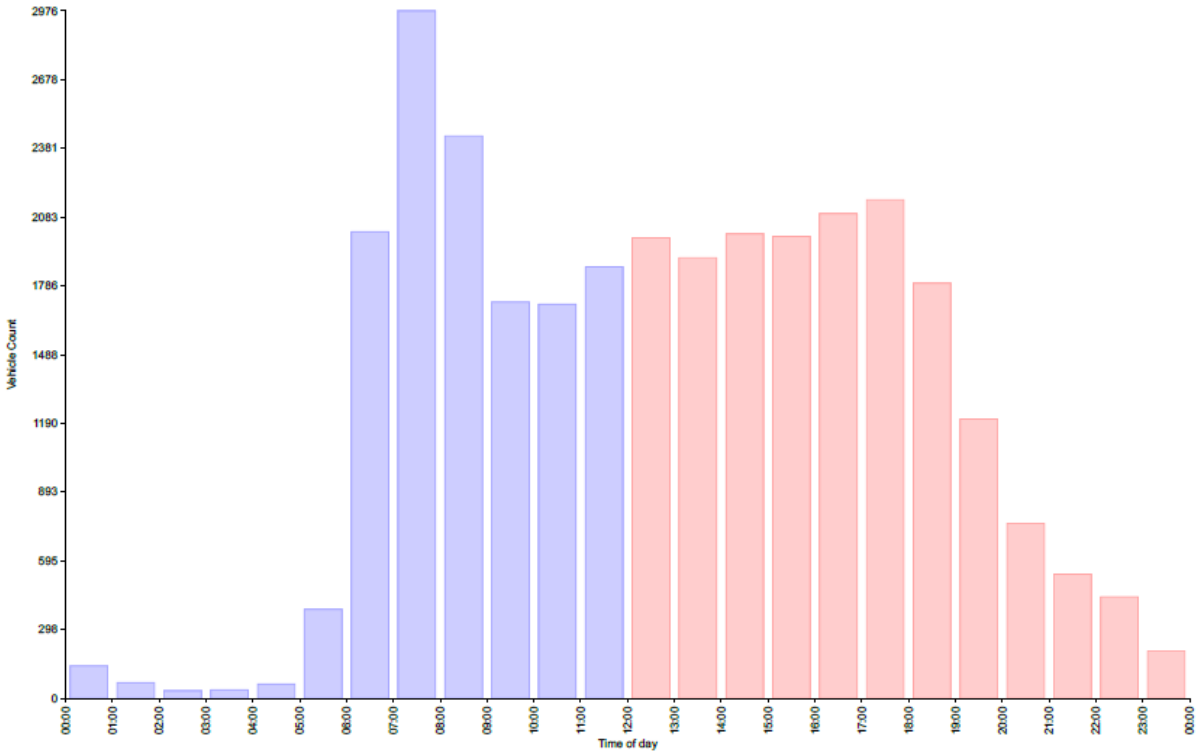
The summary statistics for each deployment have been transferred to a spreadsheet with the addition of two other pieces of information obtained by looking at the records for individual days. These are the maximum daily volume of vehicles and the timing of the maximum speed for the deployment.

Here the maximum daily volume was 2824 vehicles. The maximum speed of 73.3 mph occurred between 0000 and 0100 on Friday 13th February.

One feature that surprised me was the number of vehicles heading out of the village between 0600 and 0700, presumably many going to AWE. We have used the speed camera there from 0700 but the data suggests we should be starting earlier when daylength and light permit. Note the 85 percentile for 0600 to 0700 was 39.8 mph based on 2020 vehicles.

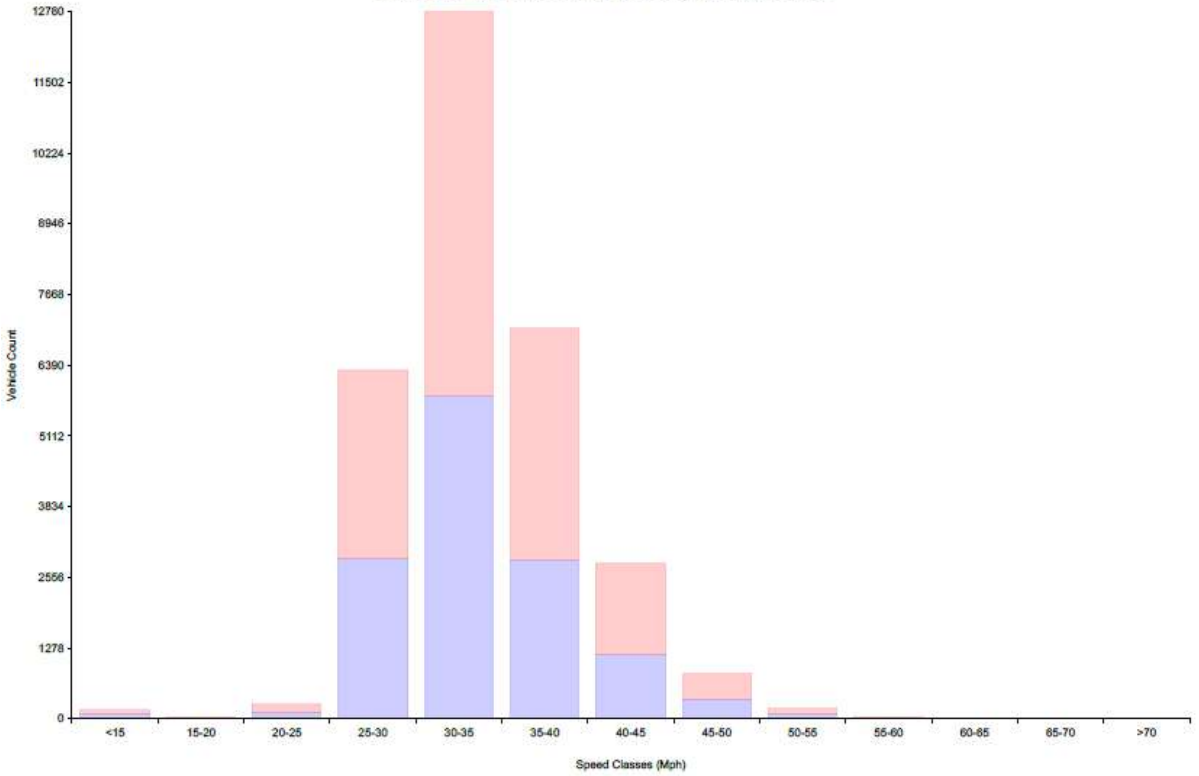
Vehicle Counts By Hour

Traffic Overview from Mon Feb 2 2026 to Mon Feb 16 2026
(60 Minute Resolution)



Vehicle Counts By Speed Class

Traffic Overview from Mon Feb 2 2026 to Mon Feb 16 2026



Deployments (updated 21 March 2026)

The duration of early deployments (5 to 6 days) was limited by battery life but the purchase of extra batteries so each SID has two batteries has extended the recording life to between 10 and 14 days. Placement of the SIDS reflected sites that had been approved. The first sites approved were in Hammonds Heath, St Catherines Hill and Victoria Rd near Groves Lea. Other sites became available in February. Some other sites will be submitted. We are shortly at the stage where we can revisit some of the earlier sites and have a more systematic scheme of placements.

REF	Start	End	No vehicles	50% mph	85% mph	95% mph	Av Speed	Max Speed	Time of Max	Max 24h volume	% > limit
GR1	06/11 @1100 Thur	09/11 @1100 Sun	7119	29.3	34.2	38.1	30.2	68.6	Thurs 1900	2805	52.6
GR2	11/11 @1100 Tues	17/11 @1300 Mon	15582	29.3	34.0	37.9	30.2	61.1	Sat 2000	2995	52.8
GR3	18/11@1200 Tues	24/11@0700 Mon	17291	29.4	34.1	38.0	30.4	79.9	Sun 1500	3635	54.1
GR4	27/11@1400 Thur	03/12@1300 Wed	17076	29.3	34.1	37.4	30.1	66.0	Sun 2100	3413	55.1
GR5	05/12/@1400Fri	11/12@1500 Thur	16814	29.4	34.1	37.9	30.3	67.6	Sun 0300	3143	54.3
HHS1	06/11@1200Thur	11/11 @2359 Tues	7575	30.1	35.9	40.1	31.1	68.6	Fri 1800	2650	60.6
HHS2	14/11@1600 Fri	22/11@1900 Sat	7806	31.4	37.8	41.8	32.7	67.8	Tues 1500	1275	71.6
HHS3	23/11@0000 Sun	01/12@1500 Mon	7989	31.4	37.8	42.3	32.7	69.0	Tues 1500	1194	72.2
HHS4	22/12/@)0000 Mon	09/01@0300 Mon	10418	30.7	37.1	51.5	31.8	75.6	Thur 01 1700	1327	66.1
HHS5	10/01@0000 Sat	27/01@1800 Tues	15975	30.9	36.9	41.1	32.1	63.0	Sat 17 1400	1572	68.8
HHN1	3/12 0000 Wed	14/12 Sun 2359	6282	28.2	32.4	36.1	28.6	53.6	6 in category	985	41.2
HHN2	14/12 @ 1200 Sun	22/12 @1200 Mon	4793	28.1	32.1	35.5	28.4	73.0	Wed @1800	972	39.7
CATN1	22/12@1100 Mon	05/01 @1500 Mon	9288	30.5	35.8	40.2	31.5	69.1	Sat 27 1700	947	66.5
CATS1	05/01@0000 Mon	22/01 @0100 Thur	14193	29.8	34.9	38.9	30.6	63.2	Mon 12 1400	1121	57.3
KILNE1	02/02 @1200	15/02 @ 1500 Sun	49878	29.5	33.3	36.5	30.4	62.3	Wed 04 0200	4425	56.4
KILNE2	15/02 @ 0000 Sun	28/02 @ 0700	49178	29.9	33.7	36.8	30.7	61.0	Wed 18 0000	4858	61.2
WESTW1	02/02 @ 1100 Mon	15/02 @0000 Sun	30567	32.0	38.3	42.6	33.3	73.3	Fri 13 0000	2824	77.7
WESTE1	17/02 @ 0000 Tues	02/03 @1800 Mon	27823	32.7	38.1	41.5	33.5	61.6	Mon 02 1400	2613	78.6
VICE1	09/03 @ 1500 Mon	20/03 @0800 Fri	30333	27.7	31.4	34.9	28.3	80.1	Mon 20 0000	3248	33.4

Thoughts on the Deployments

The GR (incoming From Burghfield) deployments were very similar with the 85 percentiles between 34.0 and 34.2 mph. It has a high maximum speed of 79.9 mph.

HHS (Hammonds Heath coming in from Burghfield) has 85 percentiles of 35.9 to 37.8 mph. Note the max speeds here were between 63.0 and 75.6 mph.

HHN (Hammonds Heath going away from the War Memorial) has lower speeds, 85 percentiles of 32.4 and 32.1 mph. The SID was visible as soon as drivers turned into Hammonds Heath from the Street when they were presumably travelling slowly and as a result did not accelerate to higher speeds before passing the sign.

In St Catherines Hill the CATN results showed slightly higher speeds than CATS. *5 percentiles were 35.8 and 34.9 mph respectively. The maximum speed were 69.1 mph and 63.2 mph respectively.

KILN (The Street eastwards on the bend just before Kiln Lane had the highest daily volume of all sites (max 4858 vehicles per day). 85% percentiles were 33.3 and 33.7 mph and maximum speed was 62.3 mph. These slightly lower speeds that most other sites may well result from the fact that the sign is just before the bend which drivers should be slowing for.

The two sites at the end of West End Road have similar 85 percentiles of 38.3 and 38.1 mph which are the highest in the village. The absolute maximum was 73.3 mph for traffic heading out but only 61.0 mph for incoming traffic. This is presumably traffic heading outwards has a long straight stretch before the Sid whereas that incoming has rounded the bend after the junction with St Catherines Hill.

VICE (Victoria Rd eastwards near the library had an 85 percentile of 31.4 mph, the lowest so far. But it did have the highest maximum speed measured so far of 80.1 mph just before 1 am on Friday 20th March.

The % of vehicles exceeding the 30 mph limit ranged from 33.4 % for VICE to 77.7 % for WESTW and 78.6 %for WESTE. Other figures are mostly in the range 50 to 72%.

It is possible that some of the higher maximum speeds such as 80.1 mph in Victoria Road could be from emergency vehicles. In the past I have seen police vehicles travelling at high speed in Victoria Rd.

Comparison of Peak, Entry, Average and Exit Speeds

This continues on the next page.

Comparison of Peak, Entry, Average and Exit Speeds

This has been done for done for three deployments.

	Peak	Entry	Average	Exit		En -Pe	Av - Pe	Ex-Pe		Dataset
30%	30.2	29.3	27.8	25.9		-0.9	-2.4	-4.3		WESTE1
50%	32.7	32.0	29.8	27.9		-0.7	-2.9	-4.8		
85%	38.1	37.4	35.1	33.2		-0.7	-3.0	-4.9		
95%	41.5	40.7	38.5	36.8		-0.8	-3.0	-4.7		
Average	33.5	32.6	30.9	28.9		-0.9	-2.6	-4.6		
Highest	61.6	59.1	57.9	56.6		-2.5	-3.7	-5.0		
% Over	78.6	71.7	57.1	30.3		-6.9	-21.5	-48.3		

	Peak	Entry	Average	Exit		En -Pe	Av - Pe	Ex-Pe		Dataset
30%	28.0	27.4	26.1	24.2		-0.6	-1.9	-3.8		KILNE1
50%	29.5	28.9	27.5	25.7		-0.6	-2.0	-3.8		
85%	33.3	32.8	30.8	28.9		-0.5	-2.5	-4.4		
95%	36.5	35.8	33.7	31.6		-0.7	-2.8	-4.9		
Average	30.4	29.7	28.2	26.3		-0.7	-2.2	-4.1		
Highest	62.3	62.3	55.4	50.4		0.0	-6.9	-11.9		
% Over	56.4	48.0	29.9	14.6		-8.4	-26.5	-41.8		

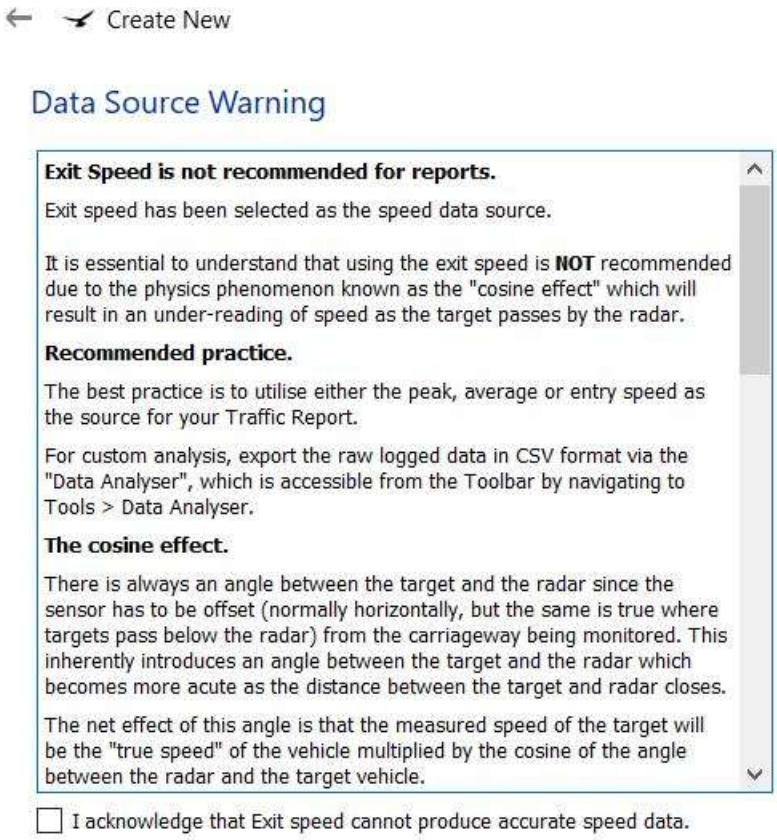
	Peak	Entry	Average	Exit		En -Pe	Av - Pe	Ex-Pe		Dataset
30%	28.4	27.7	26.5	24.6		-0.7	-1.9	-3.8		KILNE2
50%	29.9	29.2	27.9	26.0		-0.7	-2.0	-3.9		
85%	33.7	33.0	31.2	29.3		-0.7	-2.5	-4.4		
95%	36.8	36.0	34.0	32.0		-0.8	-2.8	-4.8		
Average	30.7	30.0	28.6	26.7		-0.7	-2.1	-4.0		
Highest	61.0	61.0	57.1	52.6		0.0	-3.9	-8.4		
% Over	61.2	52.0	34.0	16.8		-9.2	-27.2	-44.4		

Obviously, peak speed is the highest. Peak speed is that which is normally used for reporting and statistics. For the percentiles, entry speed is a typically about 0.7 mph less than the peak, suggesting it takes some time for drivers to see /react to the sign (bear in mind first contact may be 90 m from the sign).

The average speed percentiles are about 2 to 3mph less than the peak speed showing that in general drivers do slow down on seeing the sign (highlighted in yellow). The reduction is about 2mph at the lower speeds (30th percentile) to about 3 mph at the 95 percentiles. However, if you stand and watch the sign some drivers do speed up.

% over is the % exceeding 30 mph and this drops significantly when average speed is considered , eg from 78.6% to 57.1% at WESTE1 and 56.4% to 29.9% for KILN1. This suggests to me that many drivers must be slowing down to near 30mph .

I have also in this document included exit speed but this is not recommended, see warning that comes when you download it. Highlighted in grey to warn you.



I have included it here out of curiosity.

While it would be nice to have , the geometry means that it should not be used.

If you look at the raw data as suggested there is one line for each vehicle with date, time and the four speeds. So the KILN Lane deployments have almost 50,000 rows each.

In some cases the exit speeds are virtually the same as the average speeds but in others there may be a 10 mph or greater difference. Presumably the cosine effect has had a big effect in these cases. I have left this in the document to make the point that exit speed should not be used.

Mike Dennett

March 2026