

SURREY COUNTY COUNCIL

LOCAL COMMITTEE (MOLE VALLEY)

DATE: 13 MARCH 2019



SURREY

LEAD OFFICER: DUNCAN KNOX, ROAD SAFETY & ACTIVE TRAVEL TEAM MANAGER

SUBJECT: A24 MICKLEHAM BYPASS AVERAGE SPEED CAMERA SCHEME EVALUATION

DIVISION: DORKING HILLS

SUMMARY OF ISSUE:

This report provides an evaluation of the effectiveness in reducing speeds and casualties of the average speed camera scheme implemented in Summer 2018 on the A24 Mickleham Bypass. The scheme replaced a spot speed camera that was becoming obsolete, and which was supported by enforcement by mobile camera van on other parts of the route from time to time.

The evaluation shows increased compliance with the speed limit. It is too early to draw any strong conclusions over the effect on collisions, but the emerging results are encouraging.

RECOMMENDATIONS:**The Local Committee (Mole Valley) is asked to note:**

- (i) The average speed camera system has improved compliance with the speed limit on the A24 Mickleham Bypass over a longer length of road.
- (ii) It is too early to draw any strong conclusions over the effect on collisions, but the emerging results are encouraging.
- (iii) There has not been any increase in speeds or traffic on the parallel Old London Road in Mickleham.

REASONS FOR RECOMMENDATIONS:

It is important to evaluate the success of interventions designed to reduce road casualties to check that they are working as hoped. Findings will inform upon future interventions.

1. INTRODUCTION AND BACKGROUND:

- 1.1 Speeding increases the risk of collision and also increases the likely severity of injury should a collision occur. Speeding is also a prime concern of Surrey residents as it is anti-social and can make places less pleasant to live in. Speed cameras are one of the tools used by Surrey County Council and Surrey Police to encourage improved compliance with the speed limit. In

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Surrey, in accordance with national guidance, safety camera enforcement is prioritised at sites where there has been a serious history of collisions and where speeding has been confirmed as being part of the problem.

- 1.2 In 2004 the Surrey Safety Camera Partnership was created. Subsequently analysis of personal injury collisions recorded by the police showed that the A24 Mickleham Bypass was a serious collision hotspot. Speed surveys also confirmed excessive speeding on this 50 mph dual carriageway. Consequently a safety scheme was implemented that consisted of:
 - Spot speed “Gatso” camera enforcing in the northbound direction on the immediate approach to the junction with Old London Road
 - Electronic vehicle activated signs that illuminate to remind drivers of the 50 mph speed limit and warn of the camera enforcement
 - Central reservation safety fencing
- 1.3 Prior to enforcement beginning in April 2005, there were 36 collisions in three years on the 1.5 km stretch of road in the vicinity of the camera. These collisions resulted in 56 casualties, including seven suffering serious injury and two fatalities. In the three subsequent years after enforcement began there were 6 collisions resulting in slight injury to 6 people on the same 1.5 km stretch of road (an 83 per cent reduction in the number of collisions and 89 per cent reduction in the number of casualties).
- 1.4 In 2012 the southern extent of the 50 mph speed limit was moved southwards from a point near the junction with Swanworth Lane to a point just to the north of the roundabout junction with Pixham Lane. This extended the length of 50 mph speed limit road (which had previously been national speed limit 70 mph) by about 2.5 km.
- 1.5 The previous “Gatso” camera used “wet film” technology, whereby a camera and camera film is loaded and unloaded in the housing then taken by hand to be processed. This technology was becoming obsolete and the licensed supplier of “Gatso” products to the UK has indicated that they can no longer guarantee that they will be able to provide spare parts to maintain the cameras. Therefore to maintain the enforcement deterrent the existing camera needed to be replaced with new digital camera technology. This has the advantage of allowing offence images to be transmitted to the back office remotely without the need to visit the site. This reduces the time and risk of injury for personnel to load and unload the camera at the road side.
- 1.6 The need to upgrade the existing speed camera provided an opportunity to consider the latest types of speed enforcement systems available. Average speed cameras are now in use in many locations across the country. The camera systems work by automatically reading the number plate of vehicles and noting the time that vehicles enter and exit the zone covered by the camera system. The system then calculates the average speed from the time taken to travel between the entry and exit cameras. If the average speed of a vehicle exceeds a set threshold over the posted speed limit then the details of the offence and images are sent electronically to the Police back office to be processed. Information and images of vehicles that do not exceed the speed limit are not retained. The enforcement zones are highlighted to drivers using “Average speed check” signing.

- 1.7 Consequently an average speed camera system was installed covering the length of road approximately 3.9 km long from Givons Grove Roundabout junction with A246 Young Street at the northern end to the Burford Bridge Roundabout junction with Old London Road at the southern end. The equipment was installed along with “Average speed check” signing in July 2018. The cost of the scheme was about £150,000 and was paid for from part of a project funded by the C2C Local Enterprise Partnership at no cost to the county council or police.

2. ANALYSIS:

Collisions

- 2.1 Every time there is a collision resulting in personal injury that is reported to the police, then the police complete a national standard form to record the details of the incident. This includes a range of information that describes the location, the time and weather, the vehicles, road users and severity of injuries. This information is shared with the highway authority and plotted on computer mapping. This facilitates analysis to identify locations and stretches of road with higher than usual numbers of collisions, and to then diagnose any patterns of collisions that could be addressed by highway improvements or enforcement. A summary version of this information is available via www.crashmap.co.uk
- 2.2 The following Table 1 presents the numbers of collisions on the stretch of the A24 Mickleham Bypass between Givons Grove Roundabout and Burford Bridge Roundabout in the three year period to the end of June 2018 (prior to the average speed camera system being installed). It also presents the number of collisions in the four month period since the scheme was installed to the end of November 2018 (the most recent period for which we have data from the police), for comparison.

Table 1

	36 months before installation	4 months after installation
Fatal	0	0
Serious	2	0
Slight	10	0
All Collisions	12	0

- 2.3 It can be seen that there have been no collisions since the scheme was installed. There is an insufficiently long “after” period for a robust comparison, but so far the emerging results are encouraging.

Speeds

- 2.4 “Before and after” speed surveys were conducted using automatic traffic counter at two locations on the A24 within the zone being enforced by the cameras. A before/after survey was also undertaken the B2209 Old London Road (which runs parallel to the A24) to assess any impacts on this route. The results are presented within Appendix A. The following Table 2 shows the

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dates of the before/after surveys for each of the three sites.

Table 2

Site	Before period	After period
Site 1 (near site of old Gatso camera)	June 2017	Week beginning 17 November 2018
Site 2 (just south of Swanworth Lane)	Week beginning 24 March 2017	Week beginning 17 November 2018
Site 3 (Old London Road, Mickleham)	Week beginning 12 September 2016	Week beginning 17 November 2018

- 2.5 It can be seen from the summary data in Appendix A that average speeds have remained consistently below the speed limit at Site 1 (the site of the old spot speed camera) and have reduced at Site 2 (close to Swanworth Lane). This shows that the average speed cameras have improved compliance with the speed limit over a longer stretch of road than the previous spot speed camera.
- 2.6 The 85th percentile speed is the speed above which the fastest 15 percent of vehicles travelled. The 85th percentile speeds have reduced more substantially at both Sites 1 and 2. This indicates that the presence of the average speed cameras and their associated signing have had an especially beneficial effect on reducing the speed of the fastest drivers, over a longer stretch of road.
- 2.7 The survey data for the B2209 Old London Road (Site 3) demonstrates that speeds have remained consistent since the installation of the average speed cameras and that there has been a slight reduction in traffic volume on this route. This shows that the scheme has not had any negative effect on the volume or speed of traffic using B2209 Old London Road.

3. OPTIONS:

- 3.1 This report is for information and there are no options to consider.

4. CONSULTATIONS:

- 4.1 Surrey Police were consulted and supported the proposal to implement the average speed camera system on this stretch of road. A meeting was held with representatives of Mickleham Parish Council and West Humble Residents' Association prior to the scheme being implemented to advise them of the proposals and rationale.

5. FINANCIAL AND VALUE FOR MONEY IMPLICATIONS:

- 5.1 The cost of the scheme was about £150,000 and was paid for from part of a project funded by the C2C Local Enterprise Partnership at no cost to the county council or police. The ongoing costs of maintenance and processing of offences will be recovered by part of the fee paid by motoring offenders to attend driver

rehabilitation courses (such as speed awareness courses).

5.2 The government's latest estimate (2017) of the value of preventing road collisions for use in cost benefit analysis thus:

- Fatal collisions (where one or more casualties were killed) - £2,130,922
- Serious collisions (where one or more casualties were seriously injured) - £243,635
- Slight collisions (where one or more casualties were slightly injured) - £25,451
- Average for all severities - £90,424

5.3 It can be seen therefore that if the scheme results in an enduring reduction in the number of injury of collisions (as we very much expect), there is likely to be a substantial economic benefit to society.

6. EQUALITIES AND DIVERSITY IMPLICATIONS:

6.1 Safety camera enforcement by its very nature is indiscriminate. Increased compliance with the speed limit may improve the safety and ability of people with mobility impairment to cross the road safely.

7. LOCALISM:

7.1 The average speed camera system will benefit the local area by reducing the pain grief and suffering associated with road death and injury. It would also reduce the disruption to travel derived from collisions on this section of road network.

8. OTHER IMPLICATIONS:

Area assessed:	Direct Implications:
Crime and Disorder	Set out below.
Sustainability (including Climate Change and Carbon Emissions)	Set out below.
Corporate Parenting/Looked After Children	No significant implications arising from this report.
Safeguarding responsibilities for vulnerable children and adults	No significant implications arising from this report.
Public Health	Set out below.

8.1 Crime and Disorder implications

The scheme has improved compliance with the speed limit on this stretch of road and could help deter anti-social motorcycling.

8.2 Sustainability implications

The scheme has promoted smoother vehicle flow and increased compliance with the speed limit and so will lead to a reduction in carbon emissions from vehicle engines.

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8.3 Public Health implications

The scheme will reduce the risk of death and injury. It will also promote smoother vehicle flow and increased compliance with the speed limit and so would also lead to a reduction in reduce harmful vehicle emissions and improved air quality.

9. CONCLUSION AND RECOMMENDATIONS:

- 9.1 The wet film “Gatso” camera, supported by enforcement by mobile camera van on other parts of the route from time to time, had been successful in reducing speeding and road casualties on the A24 Mickelham Bypass. However it was becoming obsolete and needed to be replaced.
- 9.2 An average speed camera system was installed in July 2018 to replace the “Gatso” camera and mobile camera van enforcement. Speed surveys have shown that this has encouraged even greater compliance with the speed limit, in both directions.
- 9.3 There have been no injury collisions in the four month period since the scheme was installed. This is an insufficiently long “after” period for a robust comparison, but so far the emerging results are encouraging.

10. WHAT HAPPENS NEXT:

- 10.1 Enforcement using the average speed camera system will continue, and we will continue to monitor the effect on speeds and collisions.

Contact Officer:

Duncan Knox, Road Safety & Active Travel Team Manager

Consulted:

Surrey Police

Mickleham Parish Council

Westhumble Residents’ Association

Annexes:

Appendix A – Summary of Speed Survey Data

Sources/background papers:

A24 Dorking Road & London Road “Mickleham Bends” Average Speed Camera Scheme Report to Mole Valley Local Committee 13 September 2017