

Date: 13 March 2013

Item 12: Safety Camera Replacement Project

This paper will be considered in public

1 Summary

- 1.1 The Mayor will shortly publish his Road Safety Action Plan, which sets out the vision to reduce the number of people Killed or Seriously Injured (KSIs) on London's roads by 40 per cent by 2020. The Plan is supported by a more than doubling in TfL's Business Plan funding for Road Safety; an increase from £106m to £250m, and emphasises that improved road safety is one of the Mayor and TfL's key pledges. Its content reflects the core principles of road safety in applying a range of measures based on education, engineering and enforcement. As part of this, safety cameras have a key part to play in delivering the reduction in casualties.
- 1.2 The Road Safety Action Plan includes a three pronged approach to safety camera enforcement. The first element, and the subject of this paper, is the Safety Camera Replacement Programme (SCRIP) to replace old wet film cameras with new digital technology (including average speed cameras) and removing the small number of cameras that have proven to be ineffective. Upgrading the existing safety camera network, will continue to ensure the effective prevention of casualties on the network, which is currently estimated to prevent 500 KSIs a year, with – in addition – more effective technology and deployment, delivering an estimated further reduction of around 30 KSIs per annum. This element is fully funded within the TfL 10 Year Business Plan.
- 1.3 The second and third elements of the overall safety camera strategy comprise the installation of new safety cameras on the Transport for London Road Network (TLRN), funded within the TfL 10 Year Business Plan, at locations where clear fatal and serious injury reduction benefits can be demonstrated; and a similar strategy for the borough roads, which will be funded through the Local Implementation Plan (LIP) budgets.
- 1.4 TfL's analysis suggests that there are a number of sites on both the TLRN and borough roads where the installation of new safety cameras will reduce the number of deaths and serious injuries on London's roads. This analysis shows that there are 73 roads on the TLRN where the casualty history would warrant the installation of safety cameras. Collectively these roads experience around 126 KSIs occurring annually. The casualty reduction performance of existing safety cameras suggests that installing cameras at these new locations could potentially prevent 72 KSIs from occurring each year. There are a further 48 TLRN junctions where the casualty history would support the introduction of red light cameras. This would have the potential to prevent a further nine KSIs each year.

- 1.5 There are a further 88 roads and 82 junctions on the borough network which have been identified as likely to benefit from the installation of safety cameras. A total reduction of 98 KSIs could be achieved by installing new cameras at these locations.
- 1.6 There is support from the majority of boroughs to the strategy proposed above, and at least 15 have intimated that they propose to investigate further camera installations on their roads.
- 1.7 The overall benefit of implementing the second and third elements of the strategy outlined above (new cameras at appropriate sites on the TLRN and borough roads) would therefore be a potential KSI reduction of around 180.
- 1.8 Further discussion on the deployment of cameras at new sites on the TLRN will take place via the new Road Safety Reference Board, due to meet in summer 2013. In addition, guidance will be provided to Boroughs in the LIPs Annual Spending Guidance due to be published in May 2013.
- 1.9 These two elements of the overall safety camera strategy have discrete funding routes separate from the first element – the Safety Camera Replacement Project (SCRP) – which is the subject of this paper. TfL's road safety budgets will be used to fund the installation programme of new sites on the TLRN, with the installation prioritised according to the severity of risk at each location. Funding for the additional installations on the borough roads will come from either the LIP funding for road safety and/or direct from their own budgets.
- 1.10 In summary, the overall safety camera strategy will deliver:
 - (a) an increase in the number of safety cameras deployed in London, with around 300 sites identified as suitable for possible camera installation over the period of TfL's ten year business plan;
 - (b) an increase in the number of areas and sites benefitting from more effective speed control; and
 - (c) most importantly, a reduction in the number of people being killed or seriously injured – with an estimated potential additional reduction of more than 200 KSIs annually.
- 1.11 This paper therefore seeks approvals required for the delivery of the SCRPs in line with the policies set out in the draft Road Safety Action Plan.
- 1.12 The SCRPs element is being presented to the Committee because it is proposed that three contracts will be let for the installation and maintenance of cameras for a period of up to 20 years. The reasons for the extended contract periods are outlined in section 5.
- 1.13 At its meeting on 8 January 2013, the Projects and Planning Panel noted the proposals and that further discussions were needed to clarify the scope of the programme and the strategy underpinning the project.
- 1.14 A separate paper is included on Part 2 of the agenda, which contains exempt supplemental information. The information is exempt by virtue of paragraph 3 of

Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendations

2.1 The Committee is asked to:

- (a) note the paper and the related paper on Part 2 of the agenda;**
- (b) approve the project authority required to enable the implementation of the project, as set out in the related paper on Part 2 of the Agenda**
- (c) note that, following the conclusion of the current procurement exercise, Procurement Authority will be sought from the Commissioner (or, in his absence the Acting Commissioner or, in the absence of both, the Managing Director, Finance);**
- (d) note the proposed contracts have full Financial Authority to 2021/22 as currently set aside in the TfL Business Plan. However, as the contracts have an option to be extended to 20 years, future TfL Business Plans will need to provide for the remaining years of operation up to 2031/32; and**

3 Background: Policy Context

- 3.1 Reducing the number of people who are killed or seriously injured on London's roads is a key priority for the Mayor and TfL. London has been successful in reducing road casualties over the last decade, with a 57 per cent decline in KSIs on London's roads in the ten years to 2010, reflecting sustained effort and investment by TfL, London boroughs and the Metropolitan and City Police Forces in a range of approaches. These include engineering changes to road layouts, education and information provision as well as enforcing traffic offences including speed and red light violations through the London safety camera network.
- 3.2 In order to continue with this successful approach, the Mayor has set an ambitious target for reducing KSIs by 40 per cent (against a 2005/09 baseline) by 2020 and has recently consulted on a draft Road Safety Action Plan which sets out how this can be achieved. The consultation feedback included broad support for the focus on vulnerable road user safety, the Plan's actions and the casualty reduction target.
- 3.3 With particular reference to the safety camera network, the draft Road Safety Action Plan outlined proposals that:
 - (a) maximise the effectiveness of London's safety camera network via a major programme to replace all ageing 'wet film' safety cameras with modern digital technology, in partnership with the London boroughs;
 - (b) replace all cameras at sites where they can deliver or sustain cost-effective casualty reductions;

- (c) work with Police and boroughs to review safety camera policy to target KSI problems;
 - (d) explore the potential of joint working in sub-regions by boroughs regarding the installation of safety cameras, including average speed cameras, to make them more affordable and effective in reducing casualties;
 - (e) install and monitor the effectiveness of average speed cameras on priority routes for casualty reduction in London;
- 3.4 The Road Safety Action Plan is now being finalised and is due for publication in Spring 2013. It is supported by a significant uplift in TfL's Business Plan funding for Road Safety, the budget for which has been increased from £106m to circa £250m over the period of the Business Plan. This funding includes the delivery of the SCRP.

The Role of Safety Cameras

- 3.5 Safety cameras play an important part in an overall programme of casualty reduction. TfL analysis of casualties over a three year period before and after the installation of speed cameras shows that KSIs fell by an average of more than 50 per cent at the locations where safety cameras were introduced. On this basis, London's existing safety camera network helps prevent around 500 deaths and serious injuries each year. It is important that these KSI reductions continue.
- 3.6 The effectiveness of safety cameras as a road safety measure is reflected in public support for their use. For example:
- (a) an AA survey published in autumn 2010 that showed, on average over the last eight years, driver acceptance of safety cameras has remained above 70 per cent; and
 - (b) a survey titled "Public Opinions of Speed Cameras, June 2010", conducted by the Institute of Advanced Motorists (IAM) reported that "*The survey of more than 1,000 respondents also shows that support generally for speed cameras is high at 79 per cent. The highest level of support is in London (85 per cent approval) and the lowest in the North East (67 per cent)*".

4 Developing the Safety Camera Replacement Policy

- 4.1 This paper covers the first element of the overall safety camera strategy - the replacement of cameras in the existing network that use technology that will shortly become obsolete.
- 4.2 London's existing safety camera network comprises around 900 safety cameras and includes both digital technology and cameras using old 35mm 'wet film' technology. The wet film cameras (711 in total) account for 80 per cent of London's safety cameras and are responsible for the prevention of about 400 of the 500 KSI collisions noted in paragraph 3.5 above. Wet film camera technology will become obsolete by 2015 and these cameras will cease to function. Therefore, in support of the draft Road Safety Action Plan, the existing wet film cameras that have demonstrated a casualty reduction benefit need to be replaced with a digital alternative.

- 4.3 The replacement of the ageing wet film camera network with a digital alternative has provided TfL with an opportunity to maximise the potential to develop an efficient safety camera operation capable of maintaining existing KSI reductions and delivering additional casualty reductions.
- 4.4 To support this approach a review was commissioned in 2011 by TfL to identify whether the correct approach was being taken to ensure KSI benefits of the existing safety camera network were maintained and that the future network would operate in the most efficient way. The review was based on assessing the performance of all safety cameras in London.
- 4.5 Government guidelines on the installation and use of safety cameras were also considered when assessing safety camera performance. Originally issued in 2002, this guidance specifies that safety cameras should be installed at locations where there has been a history of collisions which have resulted in death or serious injury.
- 4.6 For a speed camera installation to be recommended there must have been four or more KSIs in a three year period, of which two must have been as a result of speeding. For red light cameras, there must have been one KSI and one slight injury collision, both on the same arm of the junction and both as a result on red light running. The Metropolitan Police Service has the final decision as to whether a site will progress after assessing the site's capabilities for casualty reduction.
- 4.7 A similar KSI criteria based approach was applied to determine the effectiveness of all existing safety cameras in London in order to inform the wet film replacement strategy.

The SCRP in Detail

- 4.8 The analysis undertaken for the SCRP as part of the review showed that 629 camera locations had demonstrated a reduction in KSI collisions, i.e. the rate of KSI collisions had come down demonstrably in the period after the installation of the cameras compared with the period before their installation.
- 4.9 It is proposed that at all these sites (629 in total) the existing wet film cameras should be replaced with digital cameras, in order to maintain the KSI reduction benefit and help deliver improved road safety in line with the draft Road Safety Action Plan. If this group of cameras were not replaced, evidence from elsewhere in the UK suggests that KSIs would increase at the sites where the installation of safety cameras had previously reduced them. In Oxfordshire, for example, the local authority turned off safety cameras in 2011 due to a lack of funding. The council subsequently announced the cameras would be switched back on after a six month period, during which time collisions increased by more than 18 per cent when compared to the same period the year before.
- 4.10 TfL's analysis also suggested that 82 wet film cameras had been installed where there was no record of KSIs prior to installation. These cameras were typically installed before 2002 when the national guidelines for camera installation were introduced (see paragraph 4.5). The cameras in this group are not delivering any KSI reduction benefits (as there were no casualties recorded prior to installation) and do not meet the DfT criteria for new camera installations (see paragraph 4.5). Hence, it is proposed that they should not be replaced. If these cameras were to

be replaced, this would add an estimated £4m in cost to the project without maintaining any existing KSI benefits or delivering additional casualty reductions. In addition the new network would contain camera sites that did not meet new Government guidelines for camera installation.

Camera Replacement: Approach Proposed

- 4.11 The three types of digital cameras available for use in replacing the wet film cameras are:
- (a) red light cameras which, in addition red light running, can also monitor speeding during the green phase of the traffic lights (unlike wet film cameras);
 - (b) spot speed digital cameras, which for cameras on a central reserve can operate in both directions simultaneously, unlike the wet film cameras; and
 - (c) average speed cameras which monitor speeds over a length of road rather than a specific location.
- 4.12 The review concluded that the majority of wet film safety cameras could be replaced by a like for like digital alternative. However, the review also highlighted that there were four roads that contained 35 existing wet film spot speed cameras within the bounds of the four roads, and these would benefit from using average speed technology as a replacement. Experience from previous installations suggests that these four average speed camera systems would bring additional casualty reduction benefits.
- 4.13 As an example, a multi-lane average speed camera system was installed on the A13 in 2010, replacing existing wet film spot speed cameras. Initial monitoring data shows, that during the 18-month period following the A13 installation, total KSIs reduced by ten (58 per cent); with seven KSIs occurring, compared to seventeen KSIs which occurred in the eighteen months prior to installation of the average speed camera system.
- 4.14 The four new stretches of road identified for average speed camera systems are the A40, the A2, north-west section of the A406 and the A316. The average speed camera systems would be installed as an alternative to the like for like replacement of the existing spot speed cameras. The review suggested there would be an additional reduction of 28 KSIs at these locations, above and beyond the existing KSI reduction benefits that have been demonstrated by the existing wet film spot speed cameras in place.
- 4.15 Further to the additional benefits from average speed cameras, each of the other systems listed in paragraph 4.17 will, in different ways, increase the potential to reduce KSIs further. Existing wet film spot speed cameras on a central reserve cannot operate in both directions simultaneously. New digital cameras can operate in both directions, permanently increasing the overall camera coverage. Furthermore, unlike wet film, new digital red light cameras can also monitor speeding during the green phase of the traffic lights, increasing the coverage of speeding mitigation.

- 4.16 It should be noted that the nature of the average speed camera technology means that the overall number of camera heads on London's existing safety camera network will increase compared to the number in the current network. Moreover, the additional functionality of the three types of digital camera systems over wet film cameras means that the replacement network of cameras will almost double the area of influence (from 400km to 750km) in which the danger from excessive speed or red light running is reduced, without increasing the number of camera poles. It is estimated that not only will the new digital camera infrastructure maintain the existing KSI reductions stated in paragraph 3.12, but will also prevent an additional 28 KSIs each year, resulting from the increase in 350km of road covered by the average speed systems on the areas between existing spot speed cameras.

Consultation with Boroughs and Stakeholders

- 4.17 Throughout the review TfL has consulted with London boroughs on the proposed replacement of wet film safety cameras in London. This consultation has included:
- (a) Presentation and acceptance of initial proposals to the London Councils Transport and Environment Committee (TEC) members in April 2011 and a more detailed presentation to the TEC in October 2012;
 - (b) Meetings with officers from 32 of the 33 London boroughs (a meeting with City of London is pending) individually to discuss the Safety Camera Replacement Project as well as their borough's specific needs for safety cameras. There has been no opposition to the replacement programme and all meetings concluded with full support from borough officers for the project.

5 Developing the Safety Camera Replacement Policy

- 5.1 Whilst the scope of this camera replacement project does not include new installations, the procurement framework established for the SCRIP project will facilitate future camera installations should they be considered appropriate and in line with the guidance set out above. TfL is consulting with boroughs about the use of safety cameras on local roads to ensure a consistent approach to deployment and operation and hence ensure an effective safety camera operations policy is maintained in London. This dialogue will continue on an ongoing basis and TfL will continue to keep camera deployment under review.

6 Camera Standards: Requirement for 10 Year Contract with Option to Extend

- 6.1 The equipment used for speed and red light enforcement is specialised and needs to be Home Office Type Approved (HOTA) in order to be used for enforcement. The manufacturers generally operate on a relatively small scale. Attaining HOTA for systems is difficult and costly.
- 6.2 It was considered doubtful whether one company could manage the whole planned replacement programme. In order to encourage greater competition, the invitation to tender has therefore been split into lots: spot speed, red light and average speed which will be let as separate contracts.

- 6.3 The cameras have an expected life span of 20 years and HOTA requirements are such that the maintenance of the cameras must be carried out by a HOTA approved company. In practice, however, only the companies that install the cameras have certified status to maintain their own cameras. Recent experience suggests that the Association of Chief Police Officers, HOTA suppliers and their agents are unwilling to extend their certified status to third party contractors. Consequently, the letting of camera maintenance contracts by TfL to third party contractors would likely impact upon the admissibility of evidence from the cameras, which would seriously undermine their benefits.
- 6.4 Therefore, it is proposed that, while the maintenance contracts could be let for up to 20 years, the initial contract term is 10 years with an option for TfL to extend after this, enabling TfL to take advantage of any market developments whilst protecting TfL's commercial interests.

7 Views of the Projects and Planning Panel

- 7.1 At its meeting on 8 January 2013, the Projects and Planning noted the proposals. It suggested that, prior to being submitted to the Committee, further discussions were required to clarify the scope of the programme and the strategy underpinning the project. This paper reflects the outcome of those discussions.

List of appendices to this report:

A paper on Part 2 of the agenda contains exempt supplemental information

List of Background Papers:

None

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