



**SURREY COUNTY COUNCIL LOCAL
COMMITTEE**

A30 EGHAM BYPASS SAFETY FENCE

11 MAY 2007

Key Issues

Surrey County Council is obliged to consider provision of central reservation safety fencing on all high-speed roads.

There have been a number of Personal Injury Accidents on the A30 Egham Bypass in which a vehicle has crossed the central reservation.

The provision of a new safety fence on the A30 Egham Bypass between Egham Hill and Runnymede Road would necessitate the permanent closure of the eastbound outside lane.

Summary

Between 2002 and 2006 there were 19 Personal Injury Accidents on the A30 Egham Bypass. The central reservation was struck in 5 of these accidents; in 3 of these accidents a vehicle crossed the central reservation.

In March 2007 a new safety fence was installed in the central reservation between Runnymede Road and the Runnymede Roundabout. This new safety fence will greatly reduce the probability of an errant vehicle crossing the central reservation in the event of a collision.

There is no safety fence between Egham Hill and Cooper's Hill Lane; the existing safety fence between Cooper's Hill Lane and Runnymede Road does not comply with the latest standards, and is only single-sided.

To accommodate a new safety fence between Egham Hill and Runnymede Road, which complies with the latest standards, it would be necessary to close permanently the eastbound outside lane between Egham Hill and Runnymede Road. This lane closure has been trialled using an experimental road layout to determine the possible impact on traffic congestion. Results suggest that there would be an occasional increase in the eastbound queue.

The opportunity to prevent serious injury is considered to outweigh the possible increase in congestion.

Officer Recommendations:

- a) **That a new safety fence is provided in the central reservation of the A30 Egham Bypass, and that the eastbound outside lane is closed permanently between Egham Hill and Runnymede Road to accommodate the new safety fence**

1.0 Local Transport Plan related targets

- 1.1 The number of road casualties is reducing in Surrey. The first Local Transport Plan (LTP) included a number of successful strategies for casualty reduction including education, engineering and traffic management. In addition the success of the Surrey Safety Camera Partnership was reported to Committee in February 2007, complementing the enforcement activity of Surrey Police. This threefold combination of education, engineering and enforcement is recognised across the industry as essential to continued reduction in road casualties.
- 1.2 In this context a number of demanding targets were set in the second LTP cycle (LTP2), based on the mean casualty numbers between 1994 and 1998:
- To reduce the number of people killed or seriously injured by 59% by 2010
 - To reduce the number of children killed or seriously injured by 66% by 2010
 - To reduce the number of slight casualties by 13% by 2010
- 1.3 These targets are significantly more demanding than those set by Government:
- To reduce the number of people killed or seriously injured by 40% by 2010
 - To reduce the number of children killed or seriously injured by 50% by 2010
 - To reduce the rate of slight casualties per 100M vehicle km by 10% by 2010
- 1.4 Surrey County Council has a Local Public Service Agreement to meet the Government's targets by 2007 – three years early – in return for increased funding from Government to reduce road casualties. The level of additional funding will depend on how Surrey County Council performs against the 2007 targets.

2.0 Safety Fencing Background

- 2.1 Safety fencing does not prevent accidents. However safety fencing can reduce the severity of an accident considerably. Central reservation safety fencing prevents errant vehicles colliding with on coming vehicles. Nearside safety fencing prevents errant vehicles colliding with posts, bridge abutments and so on.
- 2.2 Surrey County Council is obliged to consider provision of central reservation safety fencing on all high-speed roads – these are roads with a speed limit of 50mph or above. A central budget has been allocated; there is a rolling programme prioritised according to accident frequency. The A30 Egham Bypass was identified in 2005 as being the next highest priority.
- 2.3 Safety fences are designed to deflect in the event of a collision. Therefore there must be enough width within a central reservation to accommodate this deflection.

3.0 Existing Situation

- 3.1 For the purposes of this report, the A30 Egham Bypass has been divided into three sections – these are illustrated in Annex 1.
- 3.2 *Section 1: Runnymede Roundabout to Runnymede Road*
In March 2007 a new safety fence was installed in the central reservation of the A30 Egham Bypass between the Runnymede Roundabout and Runnymede Road. In the five years 2002 to 2006 there had been ten Personal Injury Accidents on this section. One of these accidents involved a vehicle crossing the central reservation, and resulted in a serious casualty. This section was completed first as it was the least technically challenging, and sufficient funding was available.

- 3.3 *Section 2: Runnymede Road to Cooper's Hill Lane*
Between Runnymede Road and Cooper's Hill Lane the existing safety fence does not comply with the latest standards. In the five years 2002 to 2006 there were five Personal Injury Accidents on this section. None of these accidents involved a vehicle crossing the central reservation. The existing safety fence is one-sided, and faces the westbound carriageway. It is not possible to connect the existing safety fence to a new safety fence.
- 3.4 *Section 3: Cooper's Hill Lane to Egham Hill*
Between Cooper's Hill Lane and Egham Hill there is no central reservation safety fence. In the five years 2002 to 2006 there were four Personal Injury Accidents on this section. The central reservation was struck in all four of these accidents; in two cases a vehicle crossed the central reservation. The central reservation in this section is not wide enough to accommodate a new safety fence.
- 3.5 There is a history of speeding on the A30 Egham Bypass. Surrey Police carry out regular enforcement, and have reported speeds well in excess of the 50mph limit.

4.0 Provision Of A New Safety Fence

- 4.1 The highest priority for provision of a new safety fence is section 3, between Cooper's Hill Lane and Egham Hill. It is this section where there is no safety fence at present; it is this section that has witnessed the most accidents in which a vehicle crossed the central reservation.
- 4.2 The provision of a new safety fence in section 3 would necessitate the replacement of the existing safety fence in section 2, as it is not possible to connect existing and new safety fences together. In any case the safety fence in section 2 is only single-sided; the provision of a double-sided safety fence necessitates the replacement of the existing safety fence, to ensure that the complete system complies with the latest standards.
- 4.3 In sections 1 and 2 the central reservation is too narrow to install a safety fence compliant with the latest standards. There is not sufficient land available to widen the entire road – this would be prohibitively expensive. Therefore to widen the central reservation it is necessary to close permanently the eastbound outside lane, to provide space in which to widen the central reservation.

5.0 Effect On Traffic Congestion

- 5.1 The permanent closure of the eastbound outside lane between Egham Hill and Runnymede Road reduces the capacity of the A30 Egham Bypass as a highway link. The capacity of the Egham Hill Roundabout itself will not be affected as the Egham Bypass exit is already a single lane. However it is recognised that the bypass itself is highly traffic sensitive, and there are regularly long queues on the approach to the Runnymede Roundabout at its eastern end.
- 5.2 An experimental road layout was employed to determine the effect of the proposed lane closure. The proposed lane closure will result in a 540m single lane between Egham Hill and Runnymede Road, and two lanes for 700m on the approach to Runnymede Roundabout. Therefore if the queue on the approach to Runnymede Roundabout is regularly longer than 700m, the proposed lane closure will exacerbate the existing traffic congestion at this location. The lane closure was set out using cones between Monday 16th April and Friday 21st April 2007. Queue length surveys observed the following maximum queue lengths during the morning and evening peak periods:

- Tuesday 17th April: 275m at 0810hrs; 200m at 1635hrs
 - Wednesday 18th April: 300m at 0810hrs; 425m at 1800hrs
 - Thursday 19th April: over 700m for 35 minutes between 0820hrs and 0920hrs; 350m at 1755hrs
- 5.3 There were no specific incidents reported on the 19th April – it may be assumed that the observed congestion was not unusual. The queue was never stationary on the morning of the 19th April, but at times extended to Cooper's Hill Lane and slightly beyond. The queue dissipated within 20 minutes after 0920hrs.
- 5.4 At the time of writing further queue length surveys are being commissioned, and are due to take place between Monday 30th April and Friday 4th May 2007. These additional surveys will determine whether the traffic congestion observed on 19th April is regular or occasional.
- 5.5 At the time of writing the results of the experimental road layout and queue length surveys suggest that the proposed permanent lane closure will exacerbate existing traffic congestion occasionally. The results of the additional surveys will be reported verbally to Committee.

6.0 Consultation

- 6.1 Surrey Police were consulted once the results of the experimental road layout became known. Surrey Police recommended that further queue length surveys be commissioned to find out whether the traffic conditions observed on Thursday 19th April were regular or occasional.
- 6.2 As mentioned above further queue length surveys are being commissioned. The results of the additional queue length surveys will be presented to Surrey Police, and their formal response reported verbally to Committee.

7.0 Finance

- 7.1 Any scheme will be funded centrally and not from the devolved LTP budget available to Committee.

8.0 Conclusion

- 8.1 The provision of a new central reservation safety fence on the A30 Egham Bypass, between Egham Hill and Runnymede Road, would reduce the likely severity of any Personal Injury Accident on this section.
- 8.2 The proposed new safety fence would necessitate the permanent closure of the eastbound outside lane between Egham Hill and Runnymede Road. This lane closure will exacerbate existing traffic congestion occasionally.
- 8.3 It is considered of greater importance to reduce the likely severity of an accident, than to minimise traffic congestion. Therefore it is recommended to construct the new safety fence as detailed above.

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Background Papers: **None**

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