



**OFFICER REPORT TO LOCAL COMMITTEE
(WOKING)**

ST JOHN'S HILL ROAD BRIDGE UPDATE

26 SEPTEMBER 2012

KEY ISSUE

Temporary barriers and traffic signals have been in place at St John's Hill Road Bridge to manage the risk of vehicle incursion onto the railway line below since 1995.

SUMMARY

A permanent scheme to address the risk of vehicle incursion onto the railway line in the vicinity of the bridge will now be progressed. It is proposed to remove the temporary barriers and to revert to the un-signalled priority system that prevailed at this site before the current temporary traffic signals were installed. The proposed new permanent vehicle containment measures will solve the drainage problems currently experienced at the site.

OFFICER RECOMMENDATIONS

The Local Committee (Woking) is asked to note the contents of this report.

1. INTRODUCTION AND BACKGROUND

- 1.1 A vehicle came off the M62 motorway at Great Heck near Selby and struck a passenger train resulting in 10 fatalities in February 2001. This prompted the development of the national guidance document “Managing the accidental obstruction of the railway by road vehicles” which was published by the Department of Transport (DoT) in 2003. The document introduced a risk ranking process to select sites where safety improvements could be implemented to minimise the risk of accidental obstruction of the railway by road vehicles.
- 1.2 To put the risk posed by these sites into context, the data quoted in the DoT publication suggests that, nationally, incidents where vehicles end up on rail tracks at such sites will kill one train occupant every 10 years and one vehicle occupant every two and a half years.
- 1.3 The HSC (Health and Safety Commission) report ‘Obstruction of the railway by road vehicles’ published in February 2002, and referred to in the guidance, concluded that “risk is small in relation to other elements of railway risk and tiny in relation to other elements of road risk but it is nonetheless worth considering ways of reducing it.”
- 1.4 The DoT publication includes a scoring sheet to quantify the risk at each site by considering all the factors that affect the level of risk and this produces a numerical score for each site. The main considerations for each site are the effectiveness of roadside containment, the likelihood of traffic accidents and the likelihood of vehicle debris fouling the track in the event of an accident.
- 1.5 Sites where containment is clearly inadequate and the probability of injury to train occupants is high are likely to score 100 or over and authorities are recommended to build a safety fence at these sites that is appropriate to the type of site and the type of traffic.
- 1.6 Sites scoring less than 100 may also warrant some treatment and risk reduced to a level that is reasonably practicable.
- 1.7 In a joint exercise, SCC Structures and Network Rail scored St John’s Hill Road at 106 in 2003/4 and temporary barriers and traffic signals were put in place in response to this relatively high score. (Prior to this, traffic was controlled by priority working arrangement.)

2. ANALYSIS

- 2.1 Following a re-organisation of the Structures Group in April 2012, this site was reviewed so that a permanent scheme could be progressed.
- 2.2 As each corner of the bridge presents a different level of risk, it was felt that the previous score was overly conservative and the site was rescored on a corner by corner basis as recommended by the DoT document.

- 2.3 The rescoring process was carried out jointly by SCC Structures and Network Rail on the 8th of August 2012 and resultant scores for each of the four corners the bridge ranged between 91 and 98. An initial design which included a number of measures to reduce the risks presented to an acceptable level was subsequently agreed by SCC and Network Rail.
- 2.4 These measures include the installation of bollards on the approaches and improvements to the signing and lining of the previous priority system layout. Detailed design on this scheme is now underway.

3. OPTIONS

- 3.1 The option of retaining the current arrangement has been rejected as the traffic signals are very costly and the temporary barriers interfere with drainage at the site.
- 3.2 The option of installing permanent signals at the site has also been rejected. The cost cannot be justified as traffic signals do not offer a tangible safety advantage over a signed priority system.

4. CONSULTATIONS

- 4.1 Consultation is not necessary as the risk assessment process is governed by National Guidance.

5. FINANCIAL AND VALUE FOR MONEY IMPLICATIONS

- 5.1 The DoT publication (2003) gives some advice on the level of expenditure that is appropriate for various different scores.
- 5.2 The RIAB (Rail Accident Investigation Branch) Report on the Bridge Strike and road vehicle incursion onto a passing train near Oxshott station on 5 November 2010 also considers the amount of expenditure that could be considered reasonable in counteract these risks. (See extract below.)

“Safety benefits (avoidance of injuries and deaths) can be expressed as a monetary value. The Department for Transport’s guideline figure for the ‘value of preventing a road fatality’ is currently £1,585,510. The railway industry currently uses a figure of £1,674,000 as its value of preventing a fatality. The use of ‘weighted injuries’ allows major and minor injuries to be accounted for in cost benefit analysis, as well as fatalities. The estimated risk from all bridge strikes of 0.069 FWI*/year equates to an expenditure of £115,000 per year on measures to mitigate the total risk from bridge strikes (ie on measures at all sites where bridge strikes that affect the railway could occur), and therefore a much smaller sum of money for individual sites.”

*(Fatalities and Weighted Injuries)

5.3 At St John's Hill Road, initial estimates indicate that the level of expenditure will comply with this guidance and so be appropriate for the level of risk presented at this site.

6. EQUALITIES AND DIVERSITY IMPLICATIONS

6.1 The width of the footpath will be slightly reduced by the presence of the bollards but a minimum clear width of 900mmm will be maintained and the route will remain usable by wheelchairs and pushchairs.

7. CRIME AND DISORDER IMPLICATIONS

None

8. CONCLUSION AND RECOMMENDATIONS

N/A

9. REASONS FOR RECOMMENDATIONS

N/A

10. WHAT HAPPENS NEXT

10.1 Officers proceed with the design of the scheme which is programmed for construction on site in January 2013. Works will be carried out under a full road closure and it is currently anticipated that works will be executed in a single weekend. Local Members will be kept informed of progress

LEAD OFFICER: Zena Curry, Structures Team Manager
TELEPHONE NUMBER: 03456 009009

E-MAIL: structures@surreycc.gov.uk

CONTACT OFFICER: Maureen Robson, Senior Engineer
TELEPHONE NUMBER: 03456 009009

E-MAIL: structures@surreycc.gov.uk

BACKGROUND PAPERS:

Version No. 01 Date: 11/09 Time: Initials: MER No of annexes: 2