



Corporate

Health and Safety Service

Health and Safety report into the proposal to make Itchen Bridge Toll Free for Motor Cycles

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A. Executive Summary

It is proposed to allow motor cycles to cross the Itchen Bridge toll free. At present, they have to present themselves at a toll booth in the same way as any other vehicles and pay 20p to the toll collector.

This report has identified a high probability that motor cyclists will not wait at the toll plaza once they know it is toll free and will attempt to ride through the booths at speed in light traffic conditions, or weave between the waiting cars during busy periods or use the cycle lane. It is therefore reasonably foreseeable that an accident could occur injuring staff or other members of the public using the bridge.

This Report concludes with two recommendations.

Recommendations

1. To provide a separate motor cycle channel by remodelling the areas on either side of the bicycle channel.
2. To request an amendment to the Statutory Order that sets the tolls for users of the bridge for the right to continue to travel through DVLA any motorcyclist who drives through a red light at the booth, thus maintaining a deterrent.

Background

Corporate Health and Safety were tasked by the Director responsible for health and safety to identify any risks associated with the proposal to make Itchen Bridge toll free for motor cyclists and produce a report with recommendations to mitigate any risks. On the 12th of December John Rothery visited the Itchen Bridge Toll Plaza and booths to conduct his review.

B. Introduction

John was shown the operation of toll collections by the manager, Mervyn Sinclair. It has been proposed that motor cycles should be allowed to cross the bridge without paying a toll. At present, they have to present themselves at a toll booth in the same way as any other vehicles and pay 20p to the toll collector. It has been claimed on behalf of motor cyclists that most bridges and tunnels make an exemption for motor cycles and the Itchen Bridge is being urged to do the same.

Photo 1 shows a general view of the toll booths.



Photo 1

This report describes the present situation and the application of health and safety legislation. It discusses probable increases in risk arising from reasonably foreseeable unsafe changes in the behaviour of motor cyclists, and the possibility of deterring those foreseeable changes in behaviour. It concludes with a recommendation that motor cycles should be given their own dedicated channel at the toll booths, if the foreseeable changes in behaviour cannot be deterred and to amend the Statutory Order allowing application to DVLA to trace number plates..

C. Main Report

At present only bicycles are allowed to cross the bridge free, and they are given a means to bypass the toll booths. There is a cycle lane provided for

them in both directions across the bridge. The cycle lane is adjacent to the footway and is painted green. A narrow dedicated channel (see photographs 2 and 3 below) provides for the cycle lane to bypass the toll booths.



Photo 2



Photo 3

Legislation

The toll collectors are employees of Southampton City Council. The toll plaza building, the toll booths and the bridge are owned by the City Council. Under the Health and Safety at Work Act, section 2, the employer must do all that is reasonably practicable for the safety of the employees. Under section 3 of that Act, the Council must conduct its undertaking (in this case, the management of the bridge and the collection of tolls) in a manner which, so far as reasonably practicable, protects the safety of non-employees (in this case, cyclists, pedestrians, drivers, passengers etc).

Although the Council is the owner, the bridge is covered by the Highway legislation and there is a duty to keep it open for traffic. Only the police have the authority to close the bridge.

The Management of Health and Safety at Work Regulations also apply, and this legislation requires a risk assessment. A risk assessment must be reviewed in the light of any changes in circumstances. In assessing risks, all reasonably foreseeable factors need to be taken into account. If deviant or potentially unsafe behaviour is reasonably foreseeable, decisions in the courts have ruled that this must also be taken into account.

Reasonably Foreseeable increases in risk

It can be reasonably foreseen, that once motor cyclists become aware that they need not pay a toll, they will not be content to accept any delay at the toll booths while they take their turn in a queue with vehicles that have to pay. It is therefore probable that they will try to avoid such a delay by finding a way through the traffic.

Scenario One

There is a high probability that motor cyclists will attempt to use the cycle lane. The channel for bicycles (see photos 2 and 3 above) is 1300mm wide between the kerbs. This is quite wide enough for a motorcycle (if not for a combination motorcycle plus sidecar). This would increase the risk to cyclists who could be struck by a motorcycle coming up behind them.

Scenario Two

A second probability is that it is reasonably foreseeable that a motorcycle will pull out of the queue and try to pass the vehicle which is stationary at the booth while the driver is paying the toll. The channels for vehicles are 3 metres wide between the kerbs to allow the passage of all sizes of vehicle. However, a small car takes up little more than half of this width, and would leave approximate 1250mm (equivalent to the width of the bicycle channel) between its passenger side and the adjacent kerb. See photo 4 below.



Photo 4

There would be an increased risk to toll collectors. When passing from the toll booths to the toll plaza building, collectors take care to cross a vehicle channel only when the traffic light is at red and after they have made eye contact with the driver who is paying the toll. They would not easily notice a motor cycle trying to pass the stationary vehicle on its passenger side, which would be the far side from them. This would be especially so in the case of 'Transit' type vans, motor homes etc. See photo 5 below.



Photo 5

There is also a circumstance in which toll collectors have to verify that the vehicles of mobility allowance recipients are entitled to their exemption from toll. Only the highest category of recipient is exempt, and this category has to be ascertained from the road tax disc. Such discs are normally displayed in the corner of the windscreen on the passenger side. The toll collector is expected to leave the booth, and walk round the front of the vehicle to examine the tax disc, which would put him/her in line to be struck by any motorcycle trying to pass the stationary vehicle on the passenger side.

Although it is not a risk to personal safety, there is the risk that the passenger side of the stationary vehicle could be scraped and damaged by a motor cyclist who misjudges the space available. This would give rise to an expectation from the vehicle owner that the Council should be liable for compensation.

Scenario Three

A third and lesser possibility, but reasonably foreseeable all the same is that motor cyclists will try to pass between the island and the barrier, to use a channel that is (during off peak times) not being used to collect tolls. Each vehicle channel has a hinged barrier which is normally folded back into a niche of the island's brickwork. When a channel is out of use, the barrier is swung out across the carriageway. There is however a gap of 800mm between the end of the barrier and the kerb of the adjacent island. See photo 6 below.



Photo 6

In this circumstance, there is a risk that a toll collector, passing between the toll booths and the toll plaza for a break, will not be on the look-out to avoid being struck by a passing vehicle while crossing a vehicle channel that has been closed by its barrier.

Scenario Four

Other groups of people at risk are vehicle passengers, because of their reasonably foreseeable unsafe behaviour of getting out of a vehicle while it is stationary at the booth or waiting in the queue. This occurs regularly in the vicinity of the toll booths and places them at risk of being struck by a passing motor cyclist. This group do not have the benefit of wearing high visibility jackets.

The four scenarios considered above are related to the presence of a queue at the toll booth. There is a fifth scenario which can be foreseen when there is no queue.

Scenario Five

Motor cyclists are likely to feel that, because they do not have to stop and pay the toll, they are entitled to drive at full speed past the booth when there is no queue. (Many other bridges and tunnels have across each vehicle channel a rise & fall barrier which obliges all vehicles to stop, even if they are going to be allowed through without payment.) A motor cycle passing at speed would not be an increased risk to a collector in the booth, because the booths are protected from impact by piers of brick and concrete.

There would be an increased risk to toll collectors passing on foot between the booths and the plaza building. Their present procedure involves making eye contact with the driver at the booth and waiting for the control light to be at red. It would not be possible to do either if a motor cyclist was not intending to slow down or stop. Toll collectors in this circumstance would have to rely on being extra vigilant as they cross. Bus drivers would also have to be extra vigilant as they turn out of or into their dedicated approach road.

On the occasions when charity collectors are permitted to collect from motorists at the booths, there would be an increased risk to them if motor cyclists were allowed to pass the booths without slowing down. See photo 7 below.



Photo 7

Considering all these scenarios, motor cyclists are at present deterred from behaving in these unsafe ways, because the bridge authority has the right to take the registration number of a vehicle evading the toll and to get the owner's details from DVLA in order to pursue the owner for payment. If motor cycles are exempted from the toll, this procedure would no longer apply. Any of the three foreseeable possibilities might very well be a contravention of the highways legislation enforced by the police, but would no longer be an evasion of toll. The bridge authority would have no right to information from DVLA; it would have to notify the police of the apparent contravention of highway or driving legislation. Motor cyclists would become aware that police action was very unlikely and the deterrent would be removed.

It might be possible to keep the deterrent in place. John has spoken to Roger Mortimer (Principal Officer, Traffic Management) about the Statutory Order that sets the tolls for users of the bridge. The Order will have to be amended to remove the toll for motorcycles and it ought to be possible to include in the amendment a clause that makes it possible to keep in force the right to trace through DVLA any motorcyclist who drives through a red light at the booth, or uses any of the three 'unauthorised' routes to bypass the booths. Maintaining the effectiveness of the deterrent should ensure that motor cyclists will still queue up with other vehicles at the booth, and will still stop at a red light before the collector gives the green light to let them through without payment.

D. Summary of control measure options

1. No change

If the present behaviour of motor cyclists can be maintained by an amendment to the tolls Statutory Order, there will be no increase in risk and the precautions being taken under the present risk assessment will not need to be changed. This is, however, unlikely, and it is reasonably foreseeable that the attitude of motor cyclists will change. Knowing that they are entitled

to use the bridge without payment, they will assume that they ought to be able to pass the toll booths without delay. Even if they are aware that the bridge authority still has the right to trace them, they may very well assume that nobody is prepared to take the time and trouble to do so if there is no payment for the bridge authority to claim. It is foreseeable that they will attempt to pass the booths in the ways described above. There will be an increased risk and action will have to be taken to deal with the increased risk.

2. Bus slip road

The least-cost option is to allow motor cycles to get onto the bridge by the route presently provided for buses. However, this has already been discounted because of the number of bus stops on this short approach road. Passengers alighting from buses could quite foreseeable step out to cross the carriageway and be struck by a passing motorcycle which the bus had prevented them from seeing. The toll-free motorcycles will have to get on and off the bridge via the toll booth area.

3. Barriers

The provision of rise & fall barriers for the vehicle channels could eliminate the possibility of motor cycles passing at speed; or attempting to bypass a deployed stationary barrier; or attempting to pass a stationary vehicle at the booth. Such barriers would not prevent motor cycles attempting to use the cycle channel.

4. Dedicated motor cycle access

To deal, as far as reasonably practicable, with the risks from all of the five scenarios described above, motor cycles should be given their own channel separate from the bicycle channel and the toll booth channels.

Deterrent

5. Maintain a deterrent to motor cyclists by capturing their number plates and reporting them where unsafe behaviour has occurred.

E. Conclusion

This reports concludes it is highly probable that the behaviour and attitude of motor cyclists will change once they are aware that they do not have to stop and pay a toll at the Itchen Bridge. They will seek by any means a way of weaving through the traffic and by passing the toll booth during high traffic build up or speeding though the toll booths when traffic is light. It is therefore reasonably foreseeable that a significant accident will occur at some point in the near future if the proposal to make motor cyclists toll free is put into effect without introducing additional control measures.

F. Recommendations

Corporate Health and Safety therefore make the following two recommendations.

1. Provide separate motor cycle channel.

This would appear to be a reasonably practicable control measure to provide a separate motor cycle channel by remodelling the areas on either side of the bicycle channel. It can be seen from photo 1 (westbound) that there is on one side some shrubbery and a brick paved verge of 1400mm, and on the other side an island (without a booth) which is 1800mm wide. Photo 2 (eastbound) shows a similar island on one side of the cycle channel and shrubbery on the other. It should be possible to insert motorcycle and bicycle channels within these spaces.

2. Trace number plates of motor cyclists performing unsafe actions

To request an amendment to the Statutory Order that sets the tolls for users of the bridge the right to trace through DVLA any motorcyclist who drives through a red light at the booth, thus maintaining a deterrent.

John Rothery
Corporate Health and Safety Officer 20.12.07

As revised by Clyde Jackett, Corporate Health and Safety Adviser Jan 2008