SURREY
COUNTY COUNCIL

A324 Pirbright Arch, Pirbright

Local Committee (Woking)
2 November 2006

Proposed Signal Modification Controlled Pedestrian Crossing

Members Briefing Note

Background.

Surrey County Council's Traffic Systems group were commissioned by the West Area Transportation Service to carry out a Feasibility Study into considering options for and impacts of proposed improvements at the existing traffic signal controlled junction of A324 Pirbright Arch to provide a safer environment for pedestrians.

Surveys

Pedestrian and traffic surveys were undertaken at the location including all turning movements using the roads either side of the arch.

The assessment of the operation of the current and modified signal arrangements was assessed using Linsig as the study tool.

Proposed Layout

- The proposed scheme is to reconfigure the existing controller to provide a separate pedestrian phase.
- Relocation of the existing posts and erection of additional push-button units and pedestrian indicators.
- Kerbside call/cancel pedestrian indicators (as per Puffin type operation).
- Pedestrian on-crossing microwave detectors.

- Optionally, the provision of a Vehicle Message Sign activated by the signal controller to advise pedestrian stage operating.
- Alteration to footways at each end of the arch to accommodate waiting pedestrians.
- Carriageway markings to improve delineation between pedestrians and vehicles and to encourage pedestrians to keep within their designated space.
- General upgrading and refurbishment of existing signs and carriageway markings.

Conclusion

Pedestrian flow in the area and particularly through the Pirbright Arch is light even at peak periods with maximum values recorded of just 20 and 29 morning and evening respectively. It should however be noted that the afternoon figure occurs at school time, about an hour before that evening traffic peak period.

Pedestrians walking through the arch are encouraged to use the 0.8m edge margin provided on the west side of Connaught Road, but there is insufficient width for construction of a formal footway particularly as it could not accommodate two pedestrians passing. As it is, when this occurs there is no alternative to one party stepping out into the designated carriageway as gaps in traffic permit in order to pass by. A kerbed footway would present a significant trip hazard.

The environment is clearly unsuited to sharing pedestrian and vehicular use and is only sustainable due to the very low pedestrian usage.

There is little doubt that pedestrian safety would be improved by the provision of a controlled pedestrian stage through the arch for those prepared to wait for the pedestrian stage to appear.

The pedestrian crossing signals associated with a controlled crossing are not mandatory and pedestrians would therefore not be required to wait for the “Green Man” pedestrian stage when all vehicular movements would be stopped.

Anyone walking through the arch during a vehicular stage is likely to be at greater risk as motorists would be less likely to expect to encounter a pedestrian in the arch during a vehicle stage.

Regrettably, experience suggests that with such high signal cycle times the delay to pedestrians would be so great that many would be likely to walk through the arch during a vehicle stage rather than wait for the pedestrian stage to appear.

The existing traffic signals are operating just over capacity during peak periods due mainly to the considerable “Lost Time” required to provide the necessary clearance periods through the arch or competing traffic demands.

However, peak hour traffic flows are relatively light and congestion and delay is just about manageable.

If the proposed signal and pedestrian arrangements were put in place it is predicted that there would be an anticipated high incidence of non-compliance by pedestrians and this must be taken into consideration when considering the benefits of the additional pedestrian stage against the disbenefits in terms of additional traffic delay, which is predicted by the Linsig model.

Paul Fishwick
Local Transportation Manager (Woking)

2 November 2006