

Technical Note - A4 Chippenham (Pewsham) to Calne Speed Limit Assessment

References:

1. Department for Transport Traffic Advisory Leaflet 1/04 - Village Speed Limits
2. Department for Transport Traffic Advisory Leaflet 2/06 - Speed Assessment Framework
3. Department for Transport Circular 01/2013 - Setting Local Speed Limits
4. Speed Limit Strategy - Wiltshire County Council July 2007
5. Atkins A4 Chippenham (Pewsham) to Calne speed limit assessment drawings numbered 5215073-ATK-DR-040 & 041 (sheets 1 & 2).

The team used the information above to produce the framework drawing indicated at Reference 5 in accordance with the DfT Traffic Advisory Leaflets and Circular. The calculation in the table based on government advice produces assessed speed limits as shown. Recorded injury collisions are a significant part of the assessment process according to the DfT. There is then the opportunity for the experienced engineers to use that assessed limit and other information, such as environmental factors (layout of the road, number of accesses onto the highway, nature of the traffic, etc.) to produce a recommended speed limit.

Traffic volumes were measured over a week and vehicle injury collision data obtained from the police records for the most recent six years.

There were a total of thirty-one injury collisions over the six-year period, one resulting in fatal injuries, six in serious injuries, the other twenty-four involved slight injury. Most of these collisions resulted in more than one casualty, but the numbers shown on the table are for collisions, not casualties.

The mean speed of traffic is measured in accordance with the requirements in the documents above. This is achieved by undertaking journey time surveys. Each section of the route is timed whilst following other vehicles to gain a true reflection of how the road is driven by the general public. This is repeated a number of times to determine an average journey time and hence the mean speed is derived.

The following are comments explaining the recommended speed limits:

Section 1: The existing speed limit is 40mph, the measured speed of traffic was 29.8mph, the assessed limit is 40mph. It is therefore recommended that the speed limit should remain at 40mph.

Section 2: The existing speed limit is 60mph, the measured speed of traffic was 48.0mph, the assessed speed limit is 60mph. It is recommended that the speed limit is lowered to 50mph to try to reduce the number of injury collisions. The existing speed of traffic fits in with this speed limit and it will reduce the number of speed limit changes on the route. It will also encourage drivers to keep to a lower speed either side of this section, especially the approach to Studley Lane crossroads.

Section 3: The existing speed limit is 50mph, the measured speed of traffic was 37.7mph, the assessed speed limit is 50mph. All seven of the reported collisions on this section occurred at or very close to the Studley Lane crossroads. Further analysis of these collisions and engineering recommendations may be able to reduce the incidence of injuries at this location. The recommended speed limit is 50mph.

Section 4: The existing speed limit is 60mph, the measured speed of traffic was 50.9mph, the assessed speed limit is 60mph. It is recommended that the speed limit is lowered to 50mph. The existing speed of traffic fits in with this speed limit and it will reduce the number of speed limit changes on the route. It will also encourage drivers to keep to a lower speed either side of this section, especially the approach to Derry Hill junction and also Studley Lane crossroads.

Section 5: The existing speed limit is 40mph, the measured speed of traffic was 36.5mph, the assessed speed limit is 50mph. Partly because of the Derry Hill junction in this section, it is recommended that the limit remains at 40mph.

Section 6: The existing speed limit is 50mph, the measured speed of traffic was 44.9mph, the assessed speed limit is 60mph but it is recommended that the speed limit remains as existing at 50mph.