Christchurch Road Speed Limit Review
January 2007

Executive summary

This report undertakes a comprehensive review of the existing 40mph speed limit on Christchurch Road, Virginia Water.

It takes into account:

- existing vehicle speeds,
- traffic flows,
- type of road,
- accident data,
- views of the Police and applies
- SCC speed management policy.

This report concludes that the existing speed limit should be maintained at 40mph.

The Existing Environment

Christchurch Road is the B389 and forms part of classified road network in Surrey. As such it carries a significant amount of traffic. Data from March 2006 shows a significant daily two-way traffic flow with nearly 5% goods vehicles.

The speed limit along Christchurch Road is 40mph between its junction with the A30 (London Road) to close to its junction with Station Approach. The also A30 has a speed limit of 40mph where it meets Christchurch Road.

The Police undertook a speed survey in March 2006. The speeds were measured from a point between Christchurch school and Woodside Way. There have been no material changes along this road over the past year so there is no reason why the data should be inaccurate. The average vehicle speeds are shown below;

	To Callow Hill	To A30
AM off Peak (mean) 11.00-11.30	37mph	37mph
PM off Peak (mean) 16.00-16.30	37mph	33mph

The accident data had revealed that there have been 4 personal injury accidents in the 40mph section of Christchurch Road over the last 3 years and the first 9 months of 2006.

Analysis of theses accidents show:

- 3 have been classified as slight and 1 as serious,
- 2 have been at Callow Hill Roundabout,
- 2 have been in the dark,
- Only one accident has involved cyclist (at the roundabout),
- None of the accidents involved pedestrians,
- None of the accidents reports state excessive speed or speeding as a factor,
- There have been no accidents near the school since 1992.

Speed Assessment

Christchurch Road is classed as a "Local Distributor Road" (tier 2) in SCC speed management policy. This means that a 40 or 50mph limit could be suitable. However the distinction on the speed limit is dependant on the collision rate.

The policy requires the collision rate to be calculated per 100 million vehicle kilometres in order to create a standard assessment that takes into account how busy the road is, the duration of the study and the types of accident.

The formula used is shown below:

$$\text{Collision rate} = \frac{\text{Number of collisions} \times 100{,}000{,}000}{\text{No.of days in period} \times \text{Traffic Flow} \times \text{Length of Route}}$$

The collision rate looks at KSI (Killed or Seriously Injured) and all PI (personal Injury) accidents. The difference in the suitable speed on this type of road is based on the collision rate. There is a threshold of 66 PI's per 100 million vehicle kilometres and 9.9 KSI's per 100 million vehicle kilometres, collision rates above this threshold are recommended as a 40mph limit and 50mph for those below.

Calculations show the KSI collision rate as 3.36 and the PI collision rate as 13.43. These are well below the threshold and suggest that a 50mph limit could be suitable. However other road factors also need to be taken into account.

Although this road is predominantly a "Local Distributor" it also has other uses. There are pockets of development with a density greater that 6 dwellings per 100m, but generally the density of the dwellings is such that it would not be classed as a village. The SCC speed management policy recommends rural roads like this be subject to a 40mph limit.

The location of the school also requires careful consideration. There are certain cases where 20mph zones or limits have been installed outside schools. However for a *20mph zone* traffic calming would be required to make the zone self-enforcing. Traffic calming on a classified road carrying this much traffic would not be acceptable and could not be recommended. In order to implement a *20mph limit* the average speeds need to be 20mph or less. The existing vehicle speeds are much higher than this and therefore this limit is not suitable. The Department for Transport recommend 20mph zones are appropriate outside schools where there is a poor child safety record. In this case the safety record in the vicinity of the school is very good.

Police Comments

The Police believe the 40mph speed limit is appropriate and support the recommendation of this report.

If local residents believe that speeding is still an issue the Police would support them setting up and operating a Community Speed Watch.

Conclusion

As with many roads in the County a balance needs to be struck with regard to the speed limit and the uses of the road.

In this case looking solely at the good safety record and traffic flows the road should clearly be a 50mph limit. However taking into account the pockets of residential development a 40mph limit may be applicable and the school may have attracted a lower limit still if there had been a poor child safety record.

As the A30 is subject to a 40mph limit where it joins Christchurch Road and the average vehicle speeds are just below 40mph it makes sense to retain the existing speed limit.

Officers Recommendation

To retain the existing 40mph limit in this section of Christchurch Road

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