Wiltshire Council
Where everybody matters

DEPARTMENT OF NEIGHBOURHOOD & PLANNING

TRAFFIC & NETWORK MANAGEMENT

B3109 Bradford Road, Corsham

Pedestrian Crossing Assessment Report

Wiltshire Council
Where everybody matters

Document Control Sheet

Project Title: **B3109 Bradford Road, Corsham - Pedestrian Crossing**

Report Title: **B3109 Bradford Road, Corsham - Pedestrian Crossing Assessment Report**

Revision: **Version 1**

Status: **Issue**

Date: **May 2011**

Record of issue

Issue	Status	Author	Date	Check	Date	Authorised	Date
1	Issue	GTR	11/05/11	DMT	11/05/11	DMT	11/05/11
2							

1.0 Introduction and background

This report is in response to a request for the provision of a pedestrian crossing in the vicinity of the junction of B3109 Bradford Road and Westwood Road Rudloe, Corsham. The location has been identified as a point of conflict for pedestrians who wish to access the facilities to the south of Bradford Road, and those who wish to access the Corsham Junior School (former Box Highlands) site. There is a perception that community severance is brought about by traffic using the B3109 and it is considered that a crossing will reduce this, make the road safer, and encourage greater numbers of pedestrians to walk.

The location has also been identified by the local cycle forum as a location with poor cycle links to the remainder of the existing network within Corsham and a suitable crossing will provide a substantial improvement.

Further guidance relating to the types of crossing used on the highway is given in Appendix B.

2.0 Data Collection

Site observations

A completed site assessment record can be found at Appendix A.

Pedestrian numbers

A pedestrian count survey took place on Wednesday 30th March 2011 to establish the numbers and locations of pedestrians currently crossing the road. The survey was carried out from 7.00 am to 7.00 pm. The length of carriageway from the western side of the junction with Skynet Drive to a point 160m east of the junction with Rudloe. This was subsequently divided into 3 zones and Pedestrian numbers were recorded within each zone with the busiest crossing point also being identified. A plan showing the extents of the zones and the busiest crossing points can be found at Appendix C.

A summary is shown below:

	Northbound (To Estate)		**Southbound (To Skynet Drive)**		**ZONE TOTAL**
ZONE	**AM** (7.00-12.00)	**PM** (12.00-19.00)	**AM** (7.00-12.00)	**PM** (12.00-19.00)	
A	19	48	21	13	101
B	0	0	0	0	0
C	0	0	1	0	1
				Total Pedestrians	102

Traffic speeds and volumes

A traffic counter was placed on the B3109 Bradford Road, to the west of the junction with Skynet Drive. Total vehicle movement and speeds were recorded. A summary is shown below.

	To Corsham	**To Bradford**
Av. Speed (mph)	34.5	35.2
85th% le (mph)	40.9	42.4
Traffic Volume (vehicles per day)	2362	2581
Total Traffic Volume in both directions (vehicles per day)	4943	

Collision data

An investigation of the Police collision database shows that there has been one recorded personal injury collision in the latest three year period. This occurred approximately 160m east of the junction with Westwood road in March 2010. This involved a single vehicle travelling in a south westerly direction failing to negotiate a slight bend and colliding with a tree.

The police database highlights fatigue as a likely contributory factor to the collision. No pedestrians or cyclist were involved.

Ref:	**Location:**	**Casualties:**
EF079/10	160m East of junction with Westwood Road	1 x Serious 1 X Slight

Other Site Observations

- A bus stop with associated shelter is located to the south of the B3109 Bradford Road, along with existing dropped kerbs.

- There is no footway located on the southern side, other than in the immediate vicinity of the bus shelter.

- Skynet Drive is not currently recorded as being maintainable Highway and is identified as being the responsibility of the Ministry of Defence.

3.0 Analysis

Wiltshire Practise with regard to formal pedestrian crossings requires a minimum level of pedestrian flow before consideration is given to their installation. A minimum level of 50 pedestrians per hour (counting vulnerable pedestrians as 2) over the four peak hours is required. The results show that the busiest periods of crossing movement took place from 13.00 to 14.00, 15.00 to 16.00, 16.00 to 17.00, and 17.00 to 18.00.

During these time periods a total of 39 pedestrians crossed the road, the vast majority of which were adults with only 1 aged under 16. Counting these as 2 gives a total pedestrian movement of 40. When this is averaged over the 4 peak hours it gives an average of 10 pedestrians per hour and therefore a formal crossing can not be considered in this instance.

The pedestrian movements which are recorded have been identified as happening between the junctions of Skynet Drive and Bradford Road.

Further consideration has also been given to informal crossing provisions. These are listed in the following table

Factor	Do nothing	Uncontrolled crossing	Refuge island
Difficulty of crossing, average wait in seconds	N/A	<30 seconds	<30 seconds
Vehicle delay in peak periods	None	None	None
Road capacity	Not reduced	Not reduced	Not reduced
Crossing type appropriate for recorded pedestrian numbers	N/A	Yes	Yes – crossing movement sporadic throughout day.
Physical constraints	N/A	Dropped kerb crossing already located in the vicinity.	Road width is insufficient to accommodate minimum width island. Utility apparatus will prevent associated widening of carriageway to allow installation.
Budget construction costs	N/A	N/A	N/A
Does solution meet 85%ile speed criteria	N/A	N/A	Yes
Possible solution?	No	No	No

4.0 Recommendation

It should be noted that the fundamental and overriding consideration when introducing a new pedestrian crossing facility must be the safety of pedestrians. The justification for any pedestrian crossing must be that it makes crossing the road safer for users. Pedestrian crossings do not automatically make crossing the road safer. Badly sited, underused or misused crossings can detract from road safety, as can an inappropriate choice of crossing facility.

Taking into consideration the recorded data and the site specific information it is not possible to recommend the introduction of any measures at this time which can further assist those pedestrians who already cross at this location.

The area of Rudloe has been identified for inclusion within the expansion of the Corsham Cycle Network. The ongoing work to enable the inclusion of Skynet Drive will prove a significant driver for the future demand and type of crossing user. Whilst the current pedestrian demand is not considered sufficient to justify the introduction of a formal pedestrian facility, the current recorded information does not preclude this location being reviewed at a future date, particularly given these expected changes to usage levels.

Appendix A – Site Assessment record

Site Location:

Carriageway Type:	**Single**	Double
	One-Way	**Two-Way**
	No. of Lanes: **2**	
Carriageway Width:	**7.3m approx**	
Footway Width:	Side one:	Side two: **N/A**
Refuge Island:	Yes/**No**	

Road Lighting Standard – BS5489 classification

Is lighting below/above standard? **Below**

Full assessment needed? **Yes**

Are amendments to lighting needed? **Expected**

Minimum visibility

Pedestrian to vehicle:	To BOA : **90**m approx	To A4 : **150**m approx
Vehicle to crossing:	To BOA : **90**m approx	To A4: **150**m approx

Waiting/Loading/Stopping restrictions

At prospective site?	Yes/**No**	Double Yellows?	Yes/**No**
Within 50m of site?	Yes/**No**	Double Yellows?	Yes/**No**

Public Transport stopping points

At prospective site?	**Yes**/No
Within 50m of site?	**Yes**/No

If yes provide details of approx locations etc: **At the location identified during the survey as the busiest crossing point.**

Nearby junctions

Distance to significant traffic junction — North East bound: **Less than 30m**

South West bound: **Less than 30m**

Other Crossings

Distance to next crossing:

North East bound: **N/A** Type:

South West bound: **N/A** Type:

School crossing patrol

Distance if less than 100m: **No**

Carriageway skid risk / condition

Does surface meet skid resistance requirements **Yes**/No (Visual only)

Surroundings (entrances within 100m)

Hospital/Sheltered Housing etc	Yes/**No**
School	Yes/**No**
Post Office	Yes/**No**
Railway/Bus Station	Yes/**No**
Pedestrian leisure/shopping area	Yes/**No**
Sports stadium/entertainment venue	Yes/**No**
Junction with cycle route	Yes/**No**
Equestrian centre/junction with bridal path	Yes/**No**
Others – car park	Yes/**No**

CROSSING TRAFFIC INFORMATION

Flow and Composition

Pedestrian Count:	**102**
Prams/Pushchairs:	**Not known**
Elderly:	**0**
Unaccompanied young children:	**10**
Disabled:	**0**
Crossing cyclist:	**Not known**
Equestrians:	**Not known**
Others:	**Not known**

Time to cross road

Able pedestrians	**5** seconds		
Elderly or disabled	**10** seconds		
Difficulty of crossing			
Able pedestrians	**Low**	Average	High
Elderly/Disabled	Low	**Average**	High
Latent Crossing Demand			
Estimate	**Unlikely**	Likely	Very Likely

OTHER NOTES

No advance warning on the B3109 of either junction / road layout.

Appendix B - Types of crossing

Further detail on crossing types, the advantages and disadvantages of each type, and other details can be found in the Wiltshire Practise for Pedestrian Crossings. Below is a summary of the crossing types.

Dropped kerb crossing

Dropped Kerb crossings consist of a localised lowering of the footway to carriageway level on either side of the road to provide a defined location for pedestrians to cross. Tactile paving can be provided to assist blind and partially sighted people to align themselves to the crossing direction. Where possible consideration should be given to combining dropped kerb crossings with footway buildouts to minimise the crossing width for pedestrians.

Enhanced dropped kerb crossing

Enhanced dropped kerb crossings are as the standard dropped kerb crossing but in addition are provided with either or both bollards in the footways and coloured surfacing on the carriageway. The additional features help to define the crossing location to both pedestrians and motorists and highlight its presence. Bollard type and size is site specific to the location. In rural environments timber bollards are the preferred option whilst in urban area bollards can be timber, cast or composite. It is possible for signs to be fixed to the bollards giving road safety advice to pedestrians. The use of footway buildouts should be considered.

Pedestrian Refuge island

Pedestrian refuge islands consist of kerbing, bollards and signs in the middle of the road to enable pedestrians to cross more easily in two stages. Pedestrian refuges can provide a series of crossing points along a road where it would be impractical to install Zebras or signal controlled crossings at each crossing location. Pedestrians do not have priority at refuges and therefore the onus is on them to establish a safe gap in the traffic before crossing.

The absolute minimum width (across the road) for a pedestrian refuge is 1.2m, and the recommended minimum is 1.5m, although 2m is preferred to accommodate pushchairs, wheelchairs and cycles. The minimum through lane width for traffic is normally 3 to 3.5m. In certain circumstances, it may be possible locally to widen the road to accommodate a central refuge but this would obviously incur additional expense and should not result in sub-standard footway widths of less than 1.8m.

Zebra crossing

Zebra crossings are indicated by black and white bands painted on the road surface and by flashing orange “Belisha” beacons. Zigzag markings are provided on both approaches to alert drivers to the crossing and prevent parking. Drivers are required, under the Highway Code, to stop for pedestrians on Zebra crossings. Legally, pedestrians have to establish precedence by setting foot on the crossing.

Zebra crossings are considered inappropriate on high speed roads or roads with high volumes of traffic. They can also be inappropriate where heavy flows of pedestrians such as children leaving school would cause unacceptable delays to drivers. However, in town centres where the desire might be to discourage through traffic, Zebras are preferred especially as they are considered to be less visually intrusive than signal controlled crossings. Zebra crossings result in reduced delay to pedestrians when compared to signal

controlled crossings and are therefore considered to be more pedestrian friendly.

Signal controlled crossings

Signal controlled crossings are particularly useful at locations where it is necessary to interrupt heavy and/or fast traffic flows to allow pedestrians to cross or where the pedestrian flow is so heavy that breaks are needed to allow vehicles to proceed.

Two types of stand alone signal controlled crossing are used in the UK. The older type is the Pelican crossing but this is gradually being superseded by the Puffin crossing. All new installations in Wiltshire are of the Puffin type.

Pelican crossing

Pelican crossings are a stand-alone signal controlled crossing where pedestrians wishing to cross push a button to register a demand. The Pelican crossing has a far-side red/green man signal. Pedestrians are given a green man signal to cross the road and towards the end of this period the green man flashes. The advice in the Highway Code is that pedestrians should not begin to cross while the green man is flashing. Drivers are presented with the usual traffic light signals except for a flashing amber light that permits drivers to go if all pedestrians have cleared the crossing.

Puffin crossing

Puffin crossings are the most modern type of signal controlled crossing and have been developed to overcome some of the shortcomings of the Pelican. Puffins have a near-side steady red/green man signal which can more easily be seen by pedestrians with sight difficulties. As the pedestrian signals are located on the near side and not visible to a pedestrian on the crossing, there is no confusion or anxiety caused by a flashing green man signal.

Appendix C – Pedestrian Survey Locations