

Technical Note

Project	One Horton Heath	Project No	13888
Subject	PV ² assessment	Date	28 March 2024
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A PV² calculation has been undertaken to assess the proposed zebra crossing to the north of the school access. It is noted that the PV² methodology dates from 1987 and while a formal update has not been issued, many local authorities now require the ADPV² method to be used, which includes for Accidents ("A") and Difficulty to cross ("D"), in addition to Pedestrians ("P") and Vehicles ("V").

Accidents (A)

These are calculated where $A = (1 + N/10)$, where N = number of recent accidents. As this is a new scheme, no accidents are recorded, i.e.: $1 + 0/10 = 1$

Difficulty to cross (D)

This is based upon the road width relative to a standard 7.3m carriageway, where $D = W / 7.3$, where W = road width in metres. In this case the proposed road width is 6.0m so D is calculated as: $6.0 / 7.3 = 0.822$

Pedestrians (P)

These are based on the number of persons crossing and for the ADPV² assessment, all under 16 year-olds are multiplied by four. The Transport Statement noted 240 pedestrians and cyclists. Those approaching from the north and west will use the northern crossing and those approaching from the south will use the crossing adjacent to the school access. Therefore, assuming an equal distribution, this results in 80 students using the crossing. Therefore $P = 80 \times 4 = 320$

Vehicles (V²)

The number of vehicles has been taken from Tables 4.7 – 4.10 in the Transport Statement for both the 2036 AM and PM scenarios as well as the 2036 sensitivity test AM and PM scenarios. The values are set out in calculation table below. HGVs have been included at a rate of 3% and a factor of 2.5 has been applied to them.

Calculation

Scenario	A	D	P	V	V ²	result	ADPV ²
2036 AM	1	0.822	320	375	140,625	36,900,000	0.369×10^8
2036 PM	1	0.822	320	395	156,025	40,940,960	0.409×10^8
2036 AM (S)	1	0.822	320	535	286,225	75,105,440	0.751×10^8
2036 PM (S)	1	0.822	320	565	319,225	83,764,640	0.838×10^8

(S) = sensitivity test flows.

CampbellReith understand that for a crossing to be considered then the following criteria apply:

- For ADPV² values between 0.2×10^8 and 0.7×10^8 a controlled crossing would not be recommended, however alternatives such as a pedestrian refuge or zebra crossing should be considered.
- For values between 0.7×10^8 and 1×10^8 , then a crossing would be monitored to determine if a controlled version was required.

As a result, the crossing type is considered to be appropriate to the level of use expected.