

**HIGHWAYS & TRANSPORT
TRAFFIC & NETWORK MANAGEMENT**

BROADCHALKE

**20mph Speed
Restriction Assessment**

Document Control



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1.0 Introduction and background

Following the publication of Wiltshire Councils policy for 20mph speed limits, the authority committed to undertaking assessment across the 18 Community Areas. Each of the Community Areas were requested to nominate a defined area for assessment during 2014/15.

The village of Broadchalke, has been locally identified and selected by the Community Area Transport Group as a possible suitable location for a 20 mph speed restriction.

This report sets out the analysis of this location against “Wiltshire Policy on 20mph Speed Limits and Zones” and the Department of Transport (DfT) Circular 01/2013 “Setting Local Speed Limits”.

The above guidance will be used to determine if this area is a suitable location for a 20mph speed restriction. Full extents of the area selected to be studied is set out in Appendix A.

2.0 Data Collection

Average speed and volume of traffic was recorded using a device called a Metrocount. This is a roadside unit with sensors placed across the road.

Metrocounts were installed at various locations throughout Broadchalke and were put in place from 2nd December – 11th December 2014.

The exact location of each counter is identified in Appendix A.

Table 1 below sets out a summary of the results of each metrocount:

Metro Count Number	Total Traffic Volume (annual average daily traffic)	85th %ile Speed (mph)	Mean Average Speed (mph)
1	1321	44.7	38.1
2	1241	33.6	28.6
3	1912	25.3	19.9
4	1807	37.6	32.7
5	885	34.2	28.9
6	1047	33.6	27.8
7	681	37.8	32
8	587	30.2	25.6
9	292	28.9	22

Table 1 – Summary of metrocount results

3.0 Collision Data

An investigation into the Police Collision Database shows there have been 2 recorded Personal Injury Collisions in the 6 years prior to this report.

This resulted in 2 slight injuries, 1 of which involved a cyclist.

One slight injury occurred to a cyclist travelling downhill on Narrow Lane, whom skids and loses control colliding with car coming in the opposite direction (2014).

4.0 Analysis against Wiltshire Council Policy

It is important to remember that all speed limits should be set where it can be expected that overall compliance with the limit can be realistically achieved. Higher recorded speeds are generally not reduced with signing alone and are likely to require hard engineering measures such as alteration to the road layout and/or road humps.

With the above in mind, there are two different types of 20mph speed restriction – a 20mph Zone or a 20mph Speed Limit.

Wiltshire Council policy has considered previous studies into 20mph speed limits and zones as well as the guidance from DfT Circular 01/2013. Wiltshire Council policy identifies the options to consider when implementing 20mph zones and limits within Wiltshire:

20mph Zones:

20mph zones are defined as areas subject to a 20mph speed restriction which cover a number of roads and are supported by the appropriate traffic order and signs.

Typically there will be traffic calming measures at regular intervals throughout the zone to ensure speeds remain consistent in the area. This could include the addition of road humps and raised junctions as well as build outs, chicanes or pinch points.

20mph zones to be considered where:

- Roads are restricted to a 30mph speed limit
- A proven history of road user conflict with vulnerable users such as child pedestrians is apparent.
- New residential developments
- Where there is an alternative route existing, so drivers are able to avoid the zone.
- On major streets if there is a significant number of journeys on foot or bicycle and this outweighs the disadvantage of longer journeys for motorists.

20mph Speed Limits:

20mph limits are defined as streets where the speed restriction has been reduced to 20mph but where there are no physical calming measures. Drivers are alerted to the restriction by the use of terminal and repeater signs only.

20mph Speed Limits to be considered where:

- Mean before speeds are at or below 24mph (if they are just above this threshold lighter touch engineering measures to reduce speed may be implemented)
- On roads which do not have a strategic function or where motor vehicle movement is not the primary function.
- On major streets if there is a significant number of journeys on foot or bicycle and this outweighs the disadvantage of longer journeys for motorists.
- In rural areas where the location in addition to the above conditions meets the definition of a village as set out in Traffic Advisory Leaflet “01/04 – Village Speed Limits”.

5.0 Recommendation

Results have shown that the majority of mean average traffic speeds within the area of Broadchalke are above the guidance threshold of 24mph, with the exception of the area outside Broadchalke Church and Howgare Road.

Speeds recorded within the majority of the village were between 38.1mph and 25.6mph. It is very unlikely the speeds of traffic would be reduced by a sign-alone 20mph speed limit, therefore it is recommended the whole village is subjected to a 20mph zone. This would need to be accompanied by traffic calming features such as speed cushions, chicanes and associated alterations to increase street lighting.

This would significantly change the aesthetics of the village and is a high cost option, to reduce the speeds of vehicles within the village. Unfortunately such measures cannot be considered without a formal system of street lighting along the affected length which is currently not present within the village. It may be considered by some this would unnecessarily urbanise the village of Broadchalke.

The decision to implement physical traffic calming measures would be subject to a large amount of consultation. Traffic calming features can be a contentious issue, especially to those living on the roads subject to the features, as noise and increased traffic queues in the area can become apparent and it is recommended a large amount of consultation takes place before a decision is made.

The alternative option for Broadchalke is for it to remain as a 30mph limit. The mean average speeds recorded within the village show that the majority of vehicles adhere to the 30mph speed limit within the village, with the exception of the Western outskirts of the village as well as the Eastern approach to the village.

Based on the analysis of the speed and collision data for the area of Broadchalke and comparing these results with Wiltshire Council Policy on implementing 20mph speed limits and zones, it is recommended the whole of Broadchalke be considered for a 20mph zone with associated traffic calming features. A cost estimate is supplied in Appendix B.

6.0 Appendix A

Requested area of assessment and exact locations of Metrocounts:

7.0 Appendix B - Cost Estimate

Proposal: 20mph Zone

Item	No.	Cost	Total
Terminal points with gateway treatments	5	£4370	£21850
Traffic calming features (approx. every 80m)	46	£3500	£161000
Traffic control	2 months	£30 a day	£1800

Total Estimated Cost £185,000

It should be noted this is the expected cost required from the Community Area Transport Group and does not include development and legal costs which will be borne by Wiltshire Council centrally.