

Installation and Operation of Vehicle Activated Signs

September 2022

Installation of VAS at new sites

The installation and use of VAS should be targeted at sites where road safety benefits are most likely. An unchecked proliferation of VAS may place additional strain on the County Council's maintenance budget. It is recommended that County Council supplied and maintained VAS should only be considered for installation at locations which meet all four of the County Council's proposed VAS Criteria (**Appendix A**). This will ensure that VAS are only installed where road safety benefits may be expected at sites with a demonstrable road safety risk.

It is possible that a site would not meet all four Criteria despite having a high personal injury collision (PIC) rate, e.g. because it does not satisfy the fourth criterion of Environmental Concern, but those cases are likely to be considered under separate road safety approaches, such as the Casualty Reduction Scheme. A wider range of engineering measures, which might include but are not confined to installation of VAS, may be considered under that Scheme.

Some locations may not have all of the data required to make a full assessment based on the four proposed Criteria. At such locations, where local communities are keen to see one or more VAS installed, it will be necessary to carry out activities such as the provision of speed and traffic flow monitoring equipment and/or a site survey. The local community will be required to fund the activities needed to obtain the missing data. The data collected will allow assessment against all the proposed VAS Criteria.

Potential removal of existing VAS

An assessment of the justification for retaining a VAS will be applied at the time that the VAS ceases to work. Owing to the absence of speed, traffic flow and site specific data in many VAS locations, this assessment focuses solely on one of the four proposed VAS Criteria, namely personal injury collisions (PIC), using the same weighted scoring system as detailed in Appendix A. A comparison of collision data before and after installation of the sign will be carried out. This will provide a robust assessment of the effectiveness or otherwise of the VAS in reducing such collisions.

The approach will remove signs which have had less road safety benefit than might reasonably be expected according to previous findings. These findings show that VAS may be expected to reduce the number of collisions by up to 35%.

Communities value measures to protect their local environments, especially

where road safety is concerned. To address this, only those VAS which have seen zero reduction in collision score over a ten year period before installation compared to a ten year period after installation, or the best comparable before and after periods where the sign has existed for less than ten years, and where the site currently has a low collision record, would be scheduled for removal when they stop working. This is a cautious approach to safety which acknowledges community concerns and recognises that even minimal road safety benefits are welcome.

For the purposes of this policy, a low collision record is considered to be a weighted PIC score of less than five in the five years before sign assessment.

Warwickshire County Council is committed to improving the county through a community powered approach and wants to create conditions for thriving and sustainable community involvement. A local community which wants to retain an existing VAS which is scheduled for removal as a result of the assessment process may do so by entering into a legal agreement with Warwickshire County Council to provide funding for the sign's maintenance and/or replacement.

Removal of VAS which do not fulfil a significant road safety role will reduce street clutter and maintenance costs for the County Council and help to ensure that VAS are retained and functional at sites where they are making a demonstrable contribution to road safety.

Appendix A

Criteria for the Installation and Operation of Vehicle Activated Signs

VAS Criteria

Four criteria have been established: history and nature of personal injury collisions (PIC), speeds, traffic volume and environmental concerns.

All four criteria must be satisfied for a new VAS to be approved.

1. **Personal injury collisions** (reported and taken from Police collision statistics). The site will have a PIC weighted score of at least **five** within **200m** of the proposed VAS location over the preceding **three years**. This timescale aligns with that used for interventions in our Casualty Reduction programme. Only those collisions whose cause may be directly influenced by the installation of a VAS will be included in the PIC count for the site. The weighted score will be applied to collision severity as detailed below:

| Severity of PIC | Weighted Score |
|------------------|----------------|
| Slight | 1 |
| Serious or Fatal | 3 |

For example, a site with two recorded slight injuries and one serious or fatal collision over the preceding three years would meet this particular criterion, if the causes of all the accidents would be mitigated by a VAS sign, as would a site with one fatal and one serious PIC. A weighted score of five would ensure that the location has a real collision risk associated with it, and not merely a perceived one.

2. **Speeds.** The site will have an 85th percentile speed above ACPO (Association of Chief Police Officers) limits, i.e. 15% of drivers would be exceeding ACPO levels (= speed limit + 10% + 2mph), through significant periods of the day. Without a recognised speed problem there is little benefit in reinforcing the speed limit. Thresholds are 35mph (in a 30mph limit), 46 (40mph limit), 57 (50mph limit) or 68 (60mph limit).
3. **Traffic Flows.** More than 3000 vehicles per day (24 hour, 2-way flow) will pass through the site. With low traffic flows, associated risk is likely to be reduced.
4. **Environmental Concerns.** The site will have an environmental weighted score of a least **five** within **200m** of the proposed location. The environmental weighting scores are detailed in the table below:

| Environmental Concern | Weighted Score |
|--|----------------|
| School/College/Nursery/Care Home | 3 |
| Community Facilities (Local Shop/Doctors Surgery/Church/Recreation Area/Village hall etc.) | 2 |
| Well used formal/informal crossing point(s) | 2 |
| Vulnerable users/insufficient footway | 2 |
| Busy highway resulting in community severance | 1 |

For example, a village with a school and a well-used crossing point would score 5 and meet this particular criterion (5 points).