

Part 4 ▶ Traffic and Road Safety



4.1 Introduction

This part of **The Warwickshire Design Guide** describes the processes and policies relating to various aspects of traffic management and road safety. This includes Traffic Regulation Orders, setting of speed limits, measures to control speeds and Road Safety Audits.



4.2 Traffic Regulation Orders

Traffic Regulation Orders (TRO's) are required to legally enforce a new restriction or an alteration to an existing restriction to traffic. Examples of when a TRO is required are below:

- Changes to speed limits
- Alterations and creation of parking restrictions
- Weight/height limits
- One-way streets
- Parking

TROs follow a statutory process and are a legal document. They are undertaken by Warwickshire County Council (WCC) to ensure the process complies with The Local Authorities' Traffic Orders (Procedure) (England) Regulations 2012.

The timescales for a TRO from concept to implementation are varied. Typically, TROs take between 12 and 18 months to deliver. However, complex or contentious TROs often extend these timescales. If developers suspect that TROs will be required as part of their development, then they should highlight and discuss this with the Highway Development Management Team during pre-application discussions (see Part 2).

The process for a Traffic Regulation Order typically includes the below stages:

- Feasibility work
- Preparation for statutory processes- includes design work
- Statutory consultation
- Consideration of objections - including communication to attempt to resolve them
- Referral for a decision under WCC's constitution - if objections are unresolved
- Making of the TRO including sealing of the order
- Implementation of the TRO – Physical changes on site

The consultation for a TRO is important as it can lead to modifications to the design of a scheme or abandoning the scheme completely. Numerous groups are consulted as part of a TRO which usually include but are not limited to the below:

- Police, Fire and Ambulance Services
- District and Parish Councils
- Road Haulage Association, Freight Transport Association
- Action Grounds (Mobility, Cycling, Bus Operators)

As part of the TRO consultation there is a period of time in which representation can be received expressing views on the proposed TRO. Objections must be resolved and considered before the TRO can be made.

Developers and designers should therefore allow sufficient time in their development programme for the statutory process required for TROs.

30 | 4.3 Speed Limits

WCC's Local Transport Plan provides the objectives for Speed management within Warwickshire.

Speed limits on non-trunk roads in Warwickshire are set in accordance with Department for Transport guidance.

In short, speed limits should be set at the appropriate level for the road environment to ensure compliance with the limit and to ensure safety for all road users. Speed limits should be evidence-led, self-explaining and seek to reinforce people's assessment of what is a safe speed to travel and encourage self-compliance. They should be seen by drivers as the maximum speed rather than a target speed at which to drive irrespective of conditions.

For speed limits to be effective they need to be set with support from the local community, the police and other local services and with consideration of whether engineering measures are necessary to reduce vehicle speeds. There needs to be consideration as to whether the speed limit is set unrealistically low for the particular road function and condition. A lack of consideration may lead to ineffective speed limits and drivers may not comply with the speed limits.

If drivers do not comply with the speed limits, the risk of collisions and injuries would increase, and significant and avoidable enforcement activity would be needed.

Factors that are considered in speed limit decisions are:

- History of Personal injury collisions (PIC's)
- Road geometry and engineering
- Road Function
- Composition of road users
- Existing traffic speeds
- Road environment

Speed limits should not be used to attempt to solve the problem of isolated hazards, such as a single road junction or reduced visibility.

WCC will not support speed limit reductions as a consequence of designers wishing to avoid departures from standards. Speed limit reductions must be as a last resort and be part of a package of mitigation measures in addition to any camera enforcement that is proposed (see 4.7 Average Speed Cameras below).

The minimum length of speed limit should not be less than 600 metres to avoid too many changes of speed limit along a route.

4.4 Traffic Calming and Speed Management

Residential roads such as Category 3b or 4a (see Table 1.1 for road hierarchy descriptions) should be designed with a design speed no greater than 20mph; 30mph maximum if a bus route.

Traffic calming should only be used where good highway design does not reduce speeds to an acceptable level. New road layouts should normally be designed in such a manner that speeds are controlled by the horizontal and vertical layout of the highway and the location of buildings in relation to the highway. This can be achieved by avoiding lengths of straight roads or shallow bends.

Where traffic calming is demonstrably necessary on a new or existing section of highway, the characteristics and restrictions of the road network must be fully considered to determine the most appropriate scheme. The likely impact any scheme will have on motorised and non-motorised users must be assessed (with particular thought being given to the needs of cyclists - refer to LTN 1/20) and the future impact on highway maintenance must also be considered.

Development should refer to current DFT guidance for information on design and good practice for installing traffic calming features.

Where traffic calming measures are proposed on the existing highway network, consultation should be undertaken with WCC's Traffic and Road Safety Team to confirm that any scheme accords with the requirements of the Authority.



4.5 Vehicle Activated Signs Criteria

If designers consider the installation of Vehicle Activated Signs as a form of mitigation, they will only be considered where the following four criteria are met;

1. **Personal injury collisions** (reported and taken from Police database)
The site shall have a PIC (Personal Injury Collision) score of at least 5 within a 200 metre radius of the proposed VAS (Vehicle Activated Signs) location over the preceding 3 years. The weighted score should be applied to collision severity as detailed below:

Severity of PIC	Weighted Score
Slight	1
Serious or Fatal	3

For example, a site with 2 recorded slight injuries and 1 serious or fatal over the preceding 3 years would meet this particular criterion, as would a site with 1 fatal and 1 serious PIC. A weighted score of 5 would ensure that the location has a real collision risk associated with it, and not a perceived one. It should be noted that when it comes to assessing PIC's, Officer discretion should be used in relation to the specifics of the causation (i.e., inappropriate speed / drunk driver etc.) and what impact this has on the assessment.

2. **Speeds**
The site will have an 85th percentile speed above ACPO (Association

of Chief Policy 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), 46mph (40mph limit), 57mph (50mph limit) or 68mph (60mph limit).

3. **Traffic Flows**
More than 3000 vehicles per day (24 hour, 2-way flow) shall pass through the site (Officers discretion can be used in exceptional circumstances). 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 5 within a 200 metre radius of the proposed location (Officers discretion can be used in exceptional circumstances). The weighting scores are detailed below:

Environmental Concern	Weighted Score
School/College/Nursery/Care Home	3
Community Facility(s) (Local Shop/Doctors Surgery/Church/Recreation Area/Village Hall etc.)	2
Well used formal/informal crossing point(s)	2
Vulnerable users/insufficient footway	2
Isolated/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).

If only three criteria are met WCC will consider the use of Vehicle Activated Signs at pre-application meetings where some flexibility at appropriate sites can be considered. This will be solely at WCC's discretion and would need to be fully justified.



4.6 High Friction Surfacing

The use of high friction surfacing within Warwickshire should be used to treat locations where there are demonstrable safety concerns linked to braking only. It should only be considered at locations with a history of collisions with contributory factors identified as a result of excess speed and loss of control.

Without these factors the use of high friction surfacing is not encouraged for use. A preferable alternative solution to high friction surfacing would be to resurface the carriageway using a high PSV surface course as these have been shown to be more durable and more economical to maintain.



4.7 Average Speed Cameras

WCC will only consider the use of average speed cameras on routes within the county where there is an identified history of Personal Injury Collisions attributed to speeds in excess of the current speed limit. All other engineering measures to address the identified speeding issue must also have been attempted and proven to be ineffective before Average Speed Cameras can be considered.

Developers should not submit proposals for the use of such cameras unless these criteria can clearly be shown to have been met. These proposals would then be subject to review and approval by WCC. These proposals would also have to be supported by Warwickshire Police who would ultimately be responsible for the enforcement of average speed cameras.



4.8 Passively Safe Street Furniture

Passively safe furniture is used to create a safer roadside to reduce the severity of collisions involving errant vehicles. Street furniture such as street lighting columns, traffic sign posts and cabinets are available to comply with Passive Safety guidelines.

The furniture is specifically designed to provide less resistance during impact and to reduce sudden decelerations during collisions which may result in injury to vehicle occupants.

WCC has a duty of care under the Highways Act 1980 to aid the safe passage of traffic on the highway.

The County's *Use of Passively Safe Street furniture document (Annex 4.2)* provides detail regarding the requirements for passively safe furniture within Warwickshire. It allows users to assess the site location to identify whether furniture at a particular location needs to be designed to confirm with passive safety guidelines.



4.9 Road Safety Audit

Warwickshire County Council's Road Safety Policy RS25 set out in the Local Transport Plan 2011-2026 states that WCC will carry out Road Safety Audits on all new schemes and alterations to the existing road network proposed by ourselves or others.

WCC's procedures are based on, and should be read in conjunction with, National Highways GG119 – 'Road Safety Audit' of The National Highways Design Manual for Roads and Bridges (DMRB). These procedures also reflect the Institute for Highways and Transportation (IHT) Road Safety Audit Guidelines 2008, which suggests areas where National Highways HD Standard can be relaxed to suit local circumstances.

The procedures are included as *Annex 4.1* and apply to all non-trunk road schemes within Warwickshire, including developer funded schemes on non-trunk roads in the County.

Four levels of Road Safety Audit are prescribed in the procedure;

- Road Safety Audit, Type A (RSA/A), a Road Safety Audit carried out in accordance with GG119 guidance.
- Road Safety Audit, Type B (RSA/B), a Road Safety Audit carried out by qualified Road Safety Auditors in accordance with the procedures in *Annex 4.1*.

- Road Safety Assessment, Type C (RSA/C), an assessment carried out by an independent Assessor.
- Road Safety Audit Review, Type D (RR), an approval of a Road Safety Audit carried out by an external organisation.

WCC will carry out a Road Safety Audit Type A, B or C on behalf of a developer for an appropriate fee. However, developers are free to commission qualified third parties to carry out Road Safety Audit Type A, B or C should they wish. Where third party Road Safety Audits are commissioned, Highways Development Management will request a Road Safety Audit Review Type D.