

Local Highway Panels Members' Guide

1 Road Safety Schemes



Essex Highways is responsible for the following functions:

- **The Data Analysis Team** validates road collision data and provides analysis which steers the work of SERP and allows us to monitor performance.
- **The Safety Engineering Team** analyses collision data to identify cost effective sites for road safety interventions intended to reduce collisions, particularly those causing death or serious injury.
- **The Education, Training and Publicity (ETP) team** delivers ETP to key target groups, often in partnership with other stakeholders.
- **The Bikeability Team** delivers nationally recognised cycle training to children and adults.
- **The County Council's Driver Improvement Team** delivers national educational courses (known as NDORS) on behalf of Essex Police, and works closely with the partnership manager who organises the safety camera function across Essex (including Southend-on-Sea, Thurrock and Highways England cameras).

2. Typical Problems

'That road is dangerous!'

'There are always accidents happening at that junction'

'Does someone have to be killed before anything gets done?'

'It's an accident waiting to happen!'

3. Things to Consider

There are many occasions where minor collisions occur but no one is injured. In these cases the damage is rarely reported to the police and it is not possible to monitor the sites. Local Authorities do not have access to insurance claims to enable them to analyse damage only collisions.

All local authorities have a statutory duty to analyse the collisions that occur resulting in road casualties and investigate whether engineering solutions are available to reduce the number of casualties.

3. Things to Consider continued...

The LHP budget available for Road Safety is mainly Capital money which can only be used for the Safety Engineering Schemes. Education, Training, Publicity and Enforcement cannot be funded from the LHP budget. The Safer Essex Road Partnership (SERP) has been set up to address these elements of Road Safety. Information about SERP activities can be found on its website at [Safer Essex Roads Partnership](#)

If there are safety concerns being raised by the public that have not resulted in injury collisions these can be investigated to establish whether there are any options that will reduce the perception of danger in the area. These can be funded as LHP schemes but will not be classified as Safety Schemes. Alternative solutions may be found in the other sections within the Members' Guide.

3.1 Priorities and Targets

Although there are currently no government targets for casualty reduction, the Safer Essex Roads Partnership has set targets for 2020 against the baseline average of casualties between 2005 and 2009:

Essex County Council Road Safety Targets					
	2005-2009² Casualties	2015 Casualties	2015 % Reduction	2020 Target	2020 Target % Reduction
All KSI¹	839	633	25	483	40%
Slight Casualties	4371	3320	24	3278	25%

¹KSI = Killed or seriously injured

²2005-2009 Base line average

3.2 Sites selected for engineering-based highway schemes

The severity of the collisions are taken into account when prioritising remedial sites, with those sites where there are killed or seriously injured casualties are given a higher priority.

With the current level of injury collisions in Essex it is necessary to tackle the sites where road casualties are already happening.

The County's Road Safety Team is responsible for identifying Road Safety Remedial sites, analysing any contributory factors and developing engineering options to address the collisions. It prioritises sites for remedial measures using the Department for Transport economic justification which is based on an estimated First Year Rate of Return. This is the monetary benefits to be gained in accident savings in the first year set against the cost of the scheme.

4. Typical Measures

4.1 Engineering solutions

The pattern of collisions may indicate which aspect or aspects of the highway environment road users are failing to cope with. Sometimes the pattern relates to one particular road user group such as elderly drivers, young pedestrians or motorcyclists. At other sites it may be rear end shunts due to poor visibility at a junction. Each site will be unique and not all sites have a common causation factor for the collisions that are occurring.

Safety Schemes must be identified and promoted by a qualified Safety Engineer. The safety engineering solutions will differ depending on the causation factors and then designing engineering solutions that will reduce the likelihood of similar collisions.

All Safety Engineering schemes are designed with the specific purpose of reducing the number of casualties at the site taking into account the causation factors leading to the collisions that have occurred.

The scheme design can be reviewed and the LHP can request alternative designs but the design must address the causation factors that have been identified and must be approved by the Road Safety Team.

If alternative schemes are implemented that do not address the safety issues then there is a risk that in the event of a further fatality the decisions taken by the LHP leading to the alternative scheme design could be taken into account at an inquest.

4.2 Education Training and Publicity

Not all sites are suitable for engineering-based highway schemes. Sites having clusters involving similar types of road user, or similar behaviours not suitable for engineering treatment, are targeted through other forms of remedial action such as police enforcement, education or training.

More information about education, training and publicity resources can be found on the following Safer Essex Roads' website pages.

- [Education](#)
- [Training](#)
- [Publicity Campaigns](#)



4.3 Enforcement

Essex Police undertake enforcement. The police website states that “excessive and inappropriate speed is the cause of many road traffic collisions throughout the county every year and has been identified as a priority for many communities through neighbourhood policing.” More information can be found on the [Essex Police Website](#).

5. Scheme Investigation

5.1 Investigating fatal collisions

Sites where collisions have occurred, in which at least one road user has died as a result of injuries sustained in the collision, are investigated within 10 working days of the authority being notified.

The investigation is undertaken by an Essex Highways Road Safety Engineer together with the police and includes a visit to the site of the collision to determine whether there are any highway improvements that could be made to prevent further collisions in the same location, or to determine whether the collision forms part of a pattern at the site that should be further addressed through other forms of remedial action such as education, training or police enforcement.

5.2 Investigating collision sites

Schemes are prioritised at a countywide level on the basis of the cost benefit in the predicted reduction in people killed or seriously injured and the cost of implementing the scheme.

If a pattern in the collisions is identified, road safety engineering specialists determine the sort of measures that could be cost effectively applied to address the pattern. Guidance contained in the RoSPA Road Safety Engineering Manual, together with the experience of local highway and traffic engineers, is used to develop such measures. This approach ensures that limited resources are invested to the best effect to reduce collisions.

Where there has been a pattern of personal injury collisions, recorded by the police, involving vehicles losing control/skidding on a wet or flooded road surface within a three-year period; such a pattern indicates that the condition of the road surface may need further investigation with surface condition data. Sites requiring surface treatment, identified via this process, are usually included in a future road maintenance programme.

If there are a number of personal injury collisions along the length of a route rather than at a specific location, these can also be analysed to determine whether there are treatable patterns. For example, whether all the left-hand bends are the scene of one or two collisions, whether people turning right from the major route are experiencing problems, or where a number of junctions along a route are the scene of repeated collisions.

It is not normal practice to recommend treatment at sites where there are insufficient injury collisions to meet the selection criteria, or there is not an acceptable return on the level of financial investment required. However account will be taken of information supplied by members of the public as to where non-injury collisions are occurring on a regular basis. This information, combined with the recorded personal injury data, can help to determine a more complete picture of the issue.

Each identified collision site is monitored on a regular basis in case of further collisions, or a change in the collision pattern, occur. Treated sites are monitored to determine whether the predicted return on the financial investment has been achieved and to ensure the treatment has had the desired effect.

5.3 Prioritising Road Safety engineering sites

Sites will be prioritised on the basis of collision sites where people have been killed or seriously injured and the benefit in terms of reduction in those injuries in the first year after implementation against the cost of the scheme. This is the accepted prioritisation process and is known as the First Year Rate of Return (FYRR).

6. Costs and Timescales

The Essex County Council contract with Ringway Jacobs is a target cost contract and not a fixed price contract. This type of contract was chosen as the best type of contract to deliver savings and efficiencies and also to promote partnering between ECC and Ringway Jacobs.

An explanation of the process can be found in [Appendix 1](#)

The costs and timescales for specific schemes can be found in the separate sections of the appendix.

1.2 Speed and Traffic Management	1.6 Traffic Signals
1.3 New Pedestrian Footways	1.7 Cycling Schemes
1.4 Signs and Road Markings	1.8 Passenger Transport
1.5 Crossings	1.12 Parking Restrictions

A safety engineer will look at all the options and present a scheme that will have the most cost effective benefits in reducing casualties at that site. The success of road safety engineering solutions is measured and reported based on the first year rate of return; this is the cost of the scheme in relation to reduction of casualties at that site.

When delivering prioritised road safety schemes, it is important to deliver the scheme as quickly as possible to reduce the likelihood of future collisions. If a scheme is delayed and further fatalities occur the reason for the delay may be taken into account during an inquest.

When proposing the scheme the Safety Engineering Team will advise on costs and timescales. Any safety schemes that are over the budget available to the LHP will be put forward as a separate scheme through the Council's capital budget allocation.

7. Glossary of Terms

AVL	Automatic Vehicle Location (similar to RTPI)
CMA	Cabinet Member Action
CMB	Cabinet Member Briefing
EA	Environment Agency
ECC	Essex County Council
EH	Essex Highways
LHP	Local Highways Panel
NEPP	North Essex Parking Partnership
PP	Parking Partnership
RTPI	Real Time Passenger Information
S106	Section 106 (Money provided by a Developer to County Council to implement infrastructure as an obligation of the planning permission)
S278	Section 278 (Infrastructure required to be implemented by the Developer as an obligation of the planning permission)
SERP	Safer Essex Roads Partnership
SID	Speed Indicating Device
SEPP	South Essex Parking Partnership
SLO	Speed Limit Order
SSSI	Site of Special Scientific Interest
TRO	Traffic Regulation Order
TSRGD	Traffic Signs Regulations and General Directions
VAS	Vehicle Activated Sign