

## Traffic Management Schemes

Traffic Management schemes are introduced to solve an identified problem in one or more roads. The need for a scheme can be identified in a variety of ways. It may, for example, be a bad accident record or the concerns of residents that prompts an investigation. Sometimes the Council adopts an "area wide" approach to traffic problems, for example, where there is a demand from several residential roads for "Speed Control Humps". To deal with this, priority is given to the worst problems first.

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### Potential schemes are assessed against the following policies:

- to achieve safe movement by reducing accident levels.
- to promote and accommodate the maintenance and improvement of public transport.
- to restrain traffic and safeguard the environment.
- to seek equitable levels of mobility and accessibility for all groups of people, particularly for those presently disadvantaged in mobility terms i.e. people with disabilities, children, women, the old and the infirm.
- to reduce the impact of commuter parking.
- to improve pedestrian safety, accessibility and convenience.
- to promote cycling.

### Consultation

The Council consults residents for their views before the introduction of any new traffic measures. In addition, many traffic measures require the publication of a formal Notice in the press. A three week period is allowed for objections to be received. Formal objections are considered, and schemes may need to be re-designed with further Notices being published, before a legally enforceable Traffic Order can be made and the scheme introduced. The Council, as Highway Authority, is responsible for introducing and maintaining the physical measures and for making any necessary Traffic Orders but with the exception of parking schemes, enforcement of Traffic Orders is the responsibility of Police.

### Components of Schemes

There is no single solution to problems associated with traffic management. A variety of measures are used sometimes in combination.

#### Speed Control Humps and Tables



"Pillow" or "Cushion" Humps. These are a form of speed control hump, which are wide enough to allow a wide wheelbase vehicle to pass unhindered. Buses or a fire engines are not affected by them, whereas a smaller wheelbase vehicle, such as a car, would have to have at least one set of wheels on the hump. Thus cars are slowed, whereas other traffic is generally unaffected. These are intended to overcome the objections of the Emergency Services and Bus Companies. They make possible speed reduction measures in roads that would otherwise not have been introduced.

#### "Chicanes" and "Throttles"



Chicanes and throttles are intended to reduce traffic speed by reducing the available carriageway width throughout a short length. Chicanes introduce a physical deflection into the vehicles' horizontal path, thereby further reducing the vehicle speed. Throttles narrow the road, frequently to provide a safe crossing point for pedestrians, sometimes in conjunction with a speed table.

## Kerb Build Out



At some road junctions visibility is often reduced because of the shape of the road or because of parked cars. Building out the kerb into the carriageway can help solve this problem. It provides protection for motorists emerging from a side road as they can safely pull further out to see, and be seen. Pedestrians are similarly protected, have more space to stand and can also see and be seen better. Cars are forced to park further from a junction or crossing point.

## Width Restrictions

Width restriction is a self enforcing means of restricting access for large vehicles. Posts or bollards are placed in the road about 2.1 metres (7 feet) apart, such that vehicles wider than this cannot pass between them. There must be an alternative route available for large vehicles such as refuse collection vehicles and this sometimes limits their application in residential areas.

Sometimes a gate is provided for use of fire engines and other emergency vehicles. The gate is kept locked but emergency vehicles carry keys.

Many residents mistakenly ask for width restrictions to be introduced as a means of slowing down traffic. Width restrictions do not, and are not intended to, reduce traffic speed.

## One Way Streets, Banned Turns and No Entry

These help control traffic movements, without completely restricting access. They can stop commuter "rat-runs" which occur.

One-way working may be for the whole length of a street, or in a short length at one end - a one-way plug.

A suitable alternative route must be identified and available for traffic travelling in the opposite direction to the one-way street, or for traffic needing to turn in the direction of the ban. This alternative would not normally be via a residential road.

One-way streets often lead to an increase in traffic speed. Short lengths are difficult to enforce if drivers are irresponsible and determined enough to drive against the one-way. This is dangerous and illegal. Some residents find one-way streets and banned movements inconvenient as they may result in reduced levels access to their homes.

## Road Closures

These are an effective, self-enforcing, means of stopping all through traffic movements. Roads are usually closed by a barrier with an emergency access gate for Police, Fire and Ambulance vehicles. Near to a road closure, it is necessary to make provision, on either side, for large vehicles to turn round. That is why it is not used in many residential areas. It may also be inconvenient to some residents as Road Closures limit access.

## Standard Roundabouts



Standard roundabouts are intended to assist at a junction where there is a heavy right turning movement. They work best where traffic flows on each arm are reasonably well balanced and they allow traffic to flow comparatively freely.

## Mini Roundabouts

Mini roundabouts are introduced both as a means of reducing accidents, by slowing traffic, and to assist right turning movements. Their advantage over full size roundabouts is that they can often be accommodated within the existing road space, without expensive road widening. As at a full size roundabout, the rule at a mini roundabout is "give way to traffic from the right".

## Pedestrian Crossings

The Council installs or upgrades several pedestrian crossings, (i.e. zebra or signalled crossings) each year. Requests are often made by residents and each is examined on its individual merits. Many requests are not justified because of low levels of pedestrian movement.

The following factors are taken into consideration in assessing the need for a crossing :

- the record personal injury accidents involving pedestrians.
- the volumes of vehicular and pedestrian traffic and the potential for conflict between pedestrians and vehicles.
- the difficulty that pedestrians face from traffic speed and volumes.
- the length of time pedestrians have to wait before they can cross.
- proximity of locations, which attract pedestrian activity through the day, e.g. proximity to stations.

Pedestrian crossings do have shortcomings and are not the answer in every case. Motorists who use the road regularly tend to ignore crossings if not often used. Similarly pedestrians can rely on the crossing and, rather than watching the traffic, assume that, because a "green man" is showing, the traffic will stop. Both of these problems can result in an increased risk to pedestrians rather than a decreased risk.

## Pelican Crossings



These signalled crossings are used on roads, which have high traffic volumes, high traffic approach speeds or very high pedestrian flows. The time allocated for pedestrian crossing movement is dictated by DETR's guidelines and is based upon the width of the road.

## Zebra Crossings



These are used on roads of less importance, with lower pedestrian or traffic flows.

## Traffic Islands/Pedestrian Refuges



Where a formal pedestrian crossing is not justified these can be installed. They assist pedestrians by letting them cross the road in two stages. The restriction to the use of this measure is the width of the carriageway. It must be at least 7.8m wide to allow for the island and two lanes of traffic.

### School Crossing Patrols



School Crossing Patrols can be assigned outside or near to schools where there is a need.

### Facilities for the Disabled



Tactile paving is now used at all new zebra and pelican crossings to help people with impaired vision. Similar tactile paving is also used at many ramped crossing points. Many single pelican crossings have audible signals, as well as the green man signal, to indicate when it is safe to cross the road.

Some staggered two stage pelican crossings and some junction signals are fitted with a tactile knob on the pedestrian push-buttons, rather than an audible signal. This is so that visually impaired people can tell which part of the staggered crossing or junction is safe to cross.

### Junction Entry Treatments



A junction entry treatment is placed across the carriageway of the minor road at a road junction. The object is to show motorists that they are leaving a main road and entering a residential area and to raise the priority for pedestrians crossing the junction. This treatment often has a speed table, kerb build out and gateway features.

### White Carriageway Markings

Carriageway markings are a cheap and cost effective way of reducing accidents. At junctions they provide an indication of priorities, and as centre or lane lines, they indicate the best line for vehicles to follow. White markings are generally advisory.

Lane arrows are used on the approaches to traffic signalled junctions to indicate which lane should be used for turning and straight ahead movements. Lane arrows are generally not permitted on the approaches to roundabouts. SLOW markings are often used on the approach to a hazard.

Areas of central cross hatching, commonly called "ghost island" markings, are useful as a means of reducing accidents by separating on-coming traffic, reducing traffic speed and providing safe right turning areas. These, along with central traffic islands, have been shown to play a major part in reducing motorcycle accidents.

### **Continuous White Lines**

Continuous white centre line markings must not be crossed and are generally used to prevent overtaking and reduce speeds in roads with poor visibility due to bends or the crests of hills. These are also used sparingly so that they are more effective and have more impact when they are used. There are criteria for the introduction of these markings based upon the speed of traffic and the visibility distances.

It is also an offence to park in any section of road that is marked with a continuous white line. Continuous white lines may only be crossed by traffic that is turning right.

### **Traffic Signals**

Traffic signals and control traffic signals are designed to optimise and control traffic at a junction by sharing out the time to different arms of the junction and to pedestrians. Traffic signals do not always solve accident problems.