



Monaghan County Council Comhairle Contae Mhuineacháin



Draft Traffic Calming Policy

Adopted by Monaghan County Council on
05/11/18



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1. Introduction

In recent years there has been an increasing demand for traffic calming measures to be introduced in new and existing housing estates, access roads and distributor roads in towns and villages in Co. Monaghan.

This Policy intends to address the concerns, which the public and their elected representatives have regarding the negative impact of excessive or inappropriate traffic speed on public roads.

1.1 Definition

“Traffic Calming to Traffic Engineers is seen as a series of physical measures designed to reduce the adverse effects of traffic speed and/or volume in a street. To planners and architects it is seen more as a way of laying out the street and its built environment to reduce the dominance of motor vehicles and promote streets as living areas for people”. (Traffic Management Guidelines)

1.2 Traffic Speed and Road Safety

There is a higher risk of serious injury with higher vehicle speed as the tables (labelled 1.1 and 1.2) extracted from the Traffic Management Guidelines show. A proven link exists between speed reduction and road safety. It is in the pursuit of improving road safety through reduced traffic speed that the need for traffic calming has arisen.

Percentage of Pedestrians killed and injured when hit by a car at various speeds	
Speed of car	% of pedestrians killed
40mph (64kph)	85
30mph (48kph)	45 (and many seriously injured)
20mph (32kph)	5 (few seriously injured, 30% no injury)

Table 1.1 – Traffic Management Guidelines Extract.

Probability of serious injury to a car occupant	
Speed of car	% probability of serious injury
40mph (64kph)	80
30mph (48kph)	48
20mph (32kph)	16

Table 1.2 – Traffic Management Guidelines Extract.



Traffic Management Guidelines states that a combination of factors influence speed management.

These include:

- Education, training and publicity for drivers and riders
- Setting appropriate speed limits
- Improving enforcement
- Road design and traffic calming
- Technology

Within the recommendations for speed management given in the Traffic Management Guidelines the incorporation of highway engineering features to control speed are included in 'Road design and traffic calming'. The pre-emptive inclusion of control measures within new developments is included in 'Road Design' and retrospective Traffic Calming Schemes in 'Traffic Calming'.

2. Legislation

The Roads Act 1994 confers upon the Roads Authority the responsibility of maintenance and the construction of public roads within Co. Monaghan. In addition, under Section 38 of the Road Traffic Act, 1994, "A Road Authority may, in the interest of safety and convenience of road users, provide such traffic calming measures as they consider desirable in respect of public roads in their charge". The Council shall have regard to The Road Traffic (Bollards and Ramps) Regulations, 1988 (S.I. No.32 of 1988) when it is proposed to provide traffic calming measures. These regulations give details of the geometric specification for the construction of ramps, including restriction on the proximity to other road features.

3. Guidance Documentation

In 2003, the Department of the Environment and Local Government and the Dublin Transportation Office published the "Traffic Management Guidelines". This is a comprehensive manual that deals with all aspects of traffic management with emphasis on the safety of vulnerable road users. This manual will be used by Monaghan County Council as the definitive guidance document for all traffic calming measures and schemes in Co. Monaghan.

In 2013, the Department of Transport, Tourism and Sport published the "*Design Manual for Urban Roads and Streets*". This manual complements the "Traffic Management Guidelines"; however, it is now mandatory that Local Authorities ensure that the principles, approaches and standards of the manual are applied as appropriate.



4. Policy Objectives and Aims

The objectives of this policy are to:

- Improve Safety.
- Reduce and control vehicular speed.
- Improve driver awareness of vulnerable road users.
- Enhance the environment.
- Reduce noise, disturbances and anxiety in the area being assessed.

To achieve these objectives, Monaghan County Council's Traffic Calming Policy includes the following aims:

- Incorporate traffic-calming measures at planning and design stage of any new schemes. Monaghan County Council will adopt a pro-active approach to traffic calming at pre-planning/planning stage with developers. It is the intention that all planning applications for new residential or commercial development will be assessed from a speed perspective.
- Introduction of an appraisal system for traffic calming on existing roads and estates. Monaghan County Council will introduce a standardised appraisal system, which will be used in the County.
- The Introduction of a prioritising and scheme selection system for traffic calming schemes on existing roads and estates. Monaghan County Council will develop a scheme selection system, which will prioritise traffic calming schemes.
- Introduction of a Central Database for Traffic Calming Schemes. Monaghan County Council will set up a central database that will hold all requests for traffic calming measures from the public and elected representatives.

5. Traffic Calming Measures

5.1 Traffic Calming Measures on New Schemes

It is desirable that the layout of any new development is designed in such a way as to limit the speed of traffic to safe values without the use of vertical ramps. With good design and the application of design principles that encourage low speeds the speed reduction measures can be inherent within the development of any new schemes.

To facilitate this good design, Monaghan County Council will continue to adopt a pro-active approach with developers in the introduction of traffic calming features into new road layouts.



Specifically Monaghan County Council will examine all planning applications for new residential or commercial developments and they shall be assessed from a speed and safety perspective.

To achieve good designs, which will limit vehicular speed in new schemes the following should be adhered to:

- Where the proposed development has a major impact on existing roads, the developer is requested to submit a Traffic Impact Assessment (TIA) Report. The need for this can be identified during the Traffic and Transport Scoping Study.
- The developer will be required to carry out a Stage 1/2/3 Road Safety Audit
- A requirement that all residential/commercial developments shall comply with the recommendations contained in the Traffic Management Guidelines and the Design Manual for Urban Roads and Streets.
- Where pre-planning discussions occur, traffic management and calming issues shall be addressed at those meetings.
- Monaghan County Council Roads Engineers shall be involved in any pre-planning discussions and shall be involved the assessment of planning applications.

On new roads however it is possible to constrain speeds without the need to resort to crude remedial treatments such as ramps. The opportunity exists to use horizontal alignment constraints backed up by good urban design to keep speeds low. The careful positioning of buildings, landscaping and the use of different materials can help to reinforce the need to reduce speed and reduce the dominance of motor vehicles. It is possible to integrate such traffic calming measures with the sustainable development philosophy, and provide safer more attractive places for people to live. On new roads, vertical deflections should be a last resort where site constraints give no opportunity for other methods of keeping speeds low. Speed tables and speed cushions should only be used in these exceptional circumstances. It should not be necessary to use ramps on new roads and mini-roundabouts are not recommended in new residential layouts. (Traffic Management Guidelines)

Measures deemed acceptable within new developments are shown in Table 5.1.

Speed Restraint Measure	Access Road	
	Major	Minor
Entry Treatment	✓	✓
Shared Surface	×	✓
Carriageway narrowings and chicanes	✓	✓
Speed reduction bend	✓	✓
Speed control island	✓	✓
Change of priority at junction	✓	✓
Traffic island	✓	×
Speed table/cushion (exceptional circumstances only)	✓	×

Table 5.1 - Traffic Calming for New Residential Roads



5.2 Traffic Calming Measures on Existing Schemes

In existing developments there may be little capacity to modify the road layout, therefore traffic calming measures may have to be retrofitted within the limitations of the existing road layout. Traffic calming measures for existing roads as defined in the Traffic Management Guidelines can be categorised as follows:

- Road closures
- Traffic islands (Refuges)
- Gateways and entry treatments
- Overrun areas and rumble devices
- Mini-roundabouts
- Horizontal deflections – build-outs, pinch-points and chicanes
- Vertical deflections – speed tables and speed cushions
- Ramps

Ramps can be chosen if no other suitable measure can be utilised. In 2013, the Department of Transport, Tourism and Sport published the *“Design Manual for Urban Roads and Streets”*. This manual complements the *“Traffic Management Guidelines”*; however, it is now mandatory that Local Authorities ensure that the principles, approaches and standards of the manual are applied as appropriate.

With the increasing demands being put on Monaghan County Council to introduce traffic calming on public roads the following procedures are to be followed: data collection, scheme assessment, scheme prioritising and scheme design.

5.2.1 Data Collection

A central database will be set up and maintained for all requests from the public and elected representatives for traffic calming in the County. Potential projects can also be listed by Monaghan County Council own staff based on their judgement of a need for traffic calming at a particular location.

5.2.2 Scheme Appraisal/Assessment

Once a request is received an initial appraisal of the scheme will be carried out. This appraisal will determine if the proposed scheme meets the basic criteria listed below. Any proposed scheme must meet the basic criteria before it received further consideration.

The **Basic Criteria** are as follows:

- The site must be inside a speed limit zone of 50kmph or less (unless otherwise agreed).
- In the case of a through road, the minimum length of road shall be 300m.
- In the case of a cul-de-sac, the minimum length of road shall be 150m.
- The traffic calming measures must be located on reasonably straight sections of road greater than 100m.
- It must be designed in accordance with the relevant design manual and guidelines.



5.2.3 Prioritising of Schemes

Once a scheme has passed the basic criteria, further assessment of the proposed scheme will be carried out to establish where the request will be placed on a list of priority schemes.

The assessment of the proposed scheme shall be examined under the following headings:

- Accident History/Data
- 85th Percentile Vehicular Speed
- Vulnerable Road Users
- Traffic Volumes
- Local Conditions

Marks shall be awarded for each heading in accordance with the Priority Assessment Form, which is included in Appendix A. The total marks awarded for each scheme will determine where a scheme will be on the priority list.

5.2.4 Scheme Design and Consultation

A detailed examination of a proposed scheme on the agreed priority list will be undertaken to determine the best measures to be installed to control vehicular speeds. The measures that will be considered are those measures recommended in the Traffic Management Guidelines, Design Manual for Urban Roads and Streets, and other technical documents that are referred to in the Traffic Management Guidelines.

The Council will then prepare a design and cost the scheme. When this detailed examination/design is being carried out consultation will take place with Residents Groups, An Garda Síochána, Fire, Ambulance and Bus Services where relevant or applicable.

5.2.5 Additional Policies

Traffic calming schemes will be installed in their entirety. Individual items such as ramps shall not be installed on a piecemeal basis.

Having regard to the fact that:

- The Traffic Management Guidelines emphasise that vertical deflections (ramps, speed cushions and tables) should only be used as a last resort and that all other measures should be considered first. The guidelines also advise that where vertical deflections are being considered, they should be used to maintain low speeds. The Design Manual for Urban Roads and Streets also states that raised tables are primarily used to reinforce low speed environments. Poor design practice is to have features that encourage harsh braking and heavy acceleration.
- Ramps and/or rumble strips do have unwelcome side effects such as additional noise, vehicle damage and possible personal injury
- The Ambulance Service, generally, are not in favour of ramps and have concerns about the effect of ramps on people with spinal injuries travelling over ramps
- The Fire Services are also concerned that ramps delay the response time of their fire tenders



As a result of the above, **it is the policy of Monaghan County Council that:**

- Vertical deflections (ramps) shall only be used:
 - within a 50km/h zone
 - On National Roads (when all other options have been considered and justification for their need detailed and following approval by the TII)
 - Regional Roads (when all other options have been considered and justification for their need detailed)
 - District Distributor Roads (when all other options have been considered and justification for their need detailed)

Ramps should only be used when all other methods of Traffic Calming have been ruled out.

5.2.6 Financial Considerations

A decision to proceed with any developed scheme will be subject to funding being made available.

5.2.7 Formal Process

Once a scheme has being designed, cost analysis completed and is assigned a position on the priority list for construction within each Municipal District, the formal consultation process should take place. This shall be carried out in accordance with the requirements listed in Section 38 of the Road Traffic Act, 1994, - publication of proposals and public submissions sought.

5.2.8 Reference Documentation

- Road Traffic Act, 1994
- Road Traffic (Bollard and Ramps) regulations (S.I. No. 32 of 1988)
- Traffic Management Guidelines
- NRA Design Manual for Roads & Bridges (NRA DMRB)
- Design Manual for Urban Roads and Streets.
- TII relevant design publications



Appendix A



<p>Monaghan County Council</p> <p>Traffic Calming Policy Assessment Form</p>
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Scheme Description	
Scheme Name:	
Road Number:	
Municipal District:	
Current Speed Limit:	
Brief Description:	

Qualification (Meeting the Basic Criteria as set out in Section 5.2.2)				
Description	Yes	No	N/A	Remark
Site inside 50kmph Speed Limit (Unless otherwise agreed)				
Public Consultation undertaken if required				
Length of Through Road 300m or greater				
Length of Cul-De-Sac Road 150m or greater				

If the proposed scheme has meet the basic criteria please proceed to page 2 of this form.



Prioritising Scheme (Ranking of Scheme in accordance with Section 5.2.3)				
Description			Marks Awarded	
Accident History/data (Due to excessive speed)	Zero Incidents	0		
	Low frequency	10		
	High frequency	20		
85th Percentile Vehicular Speed	Less than 30km/h	0		
	Between 30 & 40 km/h	10		
	Between 40 & 50 km/h	20		
	Greater than 50km/hr	30		
Vulnerable Road users (Play Areas, Shops, Schools in the area)	No	0		
	Yes	25		
Traffic Volumes	Less than "x" vehicle per hour	0		
	Greater than "x" vehicle per hour	5		
<u>Local Conditions</u>	<u>Yes</u>	<u>No</u>		
Option 1 Road width < 4m, Forward sight distance <20m Kerbside Parking both sides				0
Option 2 Road width >4m and 5m, Forward sight distance >20m but <50m Kerbside Parking one side only				10
Option 3 Road width >5m, Forward sight distance >50m No Kerbside Parking				20
Total Marks Awarded (Out of 100)				
Estimated Cost of the Proposed Scheme			€	

Note 1 – The "x" figure will be dependent on the number of residential/commercial units.



Signed: _____

Date: _____