DRAFT

Traffic Calming Criteria

South Dublin County Council

February 2017

1. **Introduction**

 As a result of the increase volume of traffic in our county, the demand by Residents’ groups and elected Members for traffic calming measures in residential estates has grown considerably. Speed is a factor in many road accidents. Speeding vehicles affect the quality of life of residents and pedestrians, children, the elderly and other vulnerable road users may feel intimidated by inappropriate vehicle speeds. Traffic calming includes traditional and new methods designed to reduce and control the adverse effect of inappropriate vehicle speeds.

The following were consulted in informing and formulating the following Traffic Management Criteria.

*Road Traffic Act, 1994 (section 38) as updated 16th April 2013 (Part V)*

*Department of Transportation Traffic Management Guidelines, Initial Publication June 2012.*

*Design manual for Urban Roads and Streets, (DMURS), 2013*

*Circular RSD 01/2014 on control of Vehicle Speeds in Housing Estates.*

*Transportation Strategic Policy Committee Report 30th January 2003*

*Traffic Calming Policy in Residential Estate 2016-Cork County Council*

*Fingal County Council –*

*Dun Laoghaire County Council -*

1. **Historical Background**

In 1988, the Road Traffic (Bollards and Ramps) Regulations (S.I. No. 32 0f 1988) and later part amended by (S.I. 291 of 1998) were introduced. These allowed road authorities to construct ramps subject to quite stringent restrictions. Although revoked by 2012, they provide useful guidance on when and where ramps should/should not be used. The main feature were:-

*Ramps shall be provided in the following manner:-*

1. *There shall be a distance of at least 20 meters and not more than 200 metres between any two ramps on any roadway.*
2. *Where a road has a gradient of more than 10 degrees, a ramp shall not be provided within 30 metres of the top of the gradient and the distance between any two ramps on the gradient shall not be greater than 70 metres.*
3. *There shall be not less than two ramps on any roadway.*

*Where ramps are provided, they shall not be positioned –*

1. *So as to obstruct an entrance for vehicles to premises or land adjoining the road,*
2. *On or within 30 metres of a location on a roadway where a school warden operates,*
3. *At or within 30 metres of a locating on a roadway where a school warden operates,*
4. *At or within 30 metres of a bridge, tunnel, culvert or other structure over which the roadway passes,*
5. *Under or within 30 metres of a structure over the roadway any part of which is 6.5 metres or less above the roadway.*
6. *At or within 8 metres of a junction or a 45 degree bend with an inner kerb radius of less than 50 metres,*
7. *Be within 30 metres of a railway level crossing.*

*A ramp shall not be provided unless it is within 5 metres of a street light.*

*Ramps shall not be provided on a roadway where the road concerned is –*

1. *A road in respect of which a speed limit exceeding 30 miles per hour applies,*
2. *A national road,*
3. *A dual carriageway,*
4. *A road on which an omnibus service operates,*

*Each ramp shall –*

1. *Be constructed of hot rolled asphalt,*
2. *Extend across the width of the roadway between channels or cycleway*
3. *Be 3.7 metres in length in the direction of the roadway,*
4. *Have a maximum height at the centre above the road surface of 10 centimetres,*
5. *Be properly secured so as to prevent movement*
6. *Be painted with reflectorized white paint.*
7. **Current Situation**

These 1988 Regulations were relaxed in the Roads Traffic Act, 1994 (and subsequently revoked). Under Section 38 of the 1994 Road Traffic Act a road authority may, in the interest of the safety and convenience of road users, provide such traffic calming measures as it is considers desirable in respect of public road in its charge.

Section 46 of the Public Transport Regulations Act 2009 re measures to enhance public bus services – traffic calming measures amends Section 38 of the Road Traffic Act 1994 by substituting a new subsection (9) and including definitions for bus and public bus service.

Section 46 provides clarity on which types of traffic calming measures come under the remit of Section 38 of the Road Traffic Act 1994 as it states,

 *‘and included for the purposes of the above the provision of traffic signed, road marking, bollards, posts, poles, chicanes, rumble areas, raised, lowered or modified road surfaces, ramps, speed cushions, speed tables or other similar works or devices, islands or central reservations, roundabouts, modified junctions, works to reduce or modify the width of the roadway and landscaping, planning or other similar works.’*

There is no longer the same consistency of approach by local authorities in regard to the provision of traffic calming. This has led to an over reliance on the speed ramp as a solution to all speed problems in residential estates.

In mid-2003 a new manual ‘**Traffic Management Guidelines’** was jointly published by the Department of the Environment, the Department of Transport and The Dublin Transportation Office.

This is a very comprehensive manual which deals with a whole range of issues including Road Safety, Consultation & Monitoring, Speed Management & Traffic Calming, Junction Design, Various Road Users types (Pedestrians, Cyclists and Disabled People etc.), Public Transport and Parking.

In 2013, the **Design manual for Urban Roads and Streets, (DMURS)** was published. This gives guidance on how to incorporate a variety of traffic calming measures into the Design of new roads and retrofitting into existing roads. Its emphasis is on horizontal control measures such as Chicanes, tightening of junction radii and narrowing of the carriageway width. Also, it promotes distinction between different surface types to highlight pedestrian priority over vehicle priority.

In 2014 the department issued a Circular on the control of Vehicle Speeds in Housing estates, which introduced an option to employ a 30kph speed limits category for Housing Estates and associated appropriate signage. These recommendations are incorporated into the **2015 Guidelines for Setting and Managing speed limits in Ireland, March 2015**

Advice on warrants for speed control devices were set out in a report published by the ERU in 1993 (Author; Finbarr Crowley) entitled **‘Speed Control Devices for Residential Roads’.** The report sets out 5 conditions, ALL of which had to apply before the provision of speed ramps should be considered.

These were:

1. *The road represents a reasonably straight uninterrupted run of at least 0.5kms.*
2. *The mean car speeds are at least 30mph.*
3. *The road is being used for through traffic, although there is an alternative route, to the extent that the ratio of through traffic to traffic starting or termination on the road exceeds 4:1.*
4. *The road is not a bus route.*
5. *One child accident has been reported or the local authority is satisfied that residents’ fears for the safety of their children are justified.*

These requirements made the decision making process very simple and also meant that there was consistency throughout the country in relation to the provision of speed ramps and because the requirements were quite restrictive the number of ramps installed throughout the country was small.

A recent nationwide survey carried out by DTTaS indicated that of the 8,725 housing estates nationally, on average approximately 14% of estates have ramps installed and that the average cost of installing a ramps is €3.200 (2015 prices).

1. **Aims**

The aim of South Dublin County Council’s traffic calming policy is to provide consistency on how traffic calming is provided, using the various methods of traffic calming available and as a guide on how to best manage perceived/real speeding within our county. Traffic ramps should not be considered the primary method of traffic calming in our county.

1. Incorporate traffic calming measures at planning and design of schemes.

South Dublin County Council will adopt a pro-active approach by specifically addressing speed control issues at pre-planning discussions with Developers. The traffic calming issue should be included in the Design of New housing estates at the outset. It will assess all planning applications for new residential or commercial developments from speed control perspective. The following documents should be consulted to inform advice or examination of planning applications for housing developments:-

*Department of Transportation Traffic Management Guidelines, Initial Publication June 2012.*

*Circular RSD 01/2014 on control of Vehicle Speeds in Housing Estates.*

*The Design Manual for Urban Roads and Streets 2013*

1. Respond to complaints or representations received regarding perceived speeding issues. All locations within housing estate or on any road reported will be recorded. Assess the extent of the issue and prioritise between locations.
2. Subject to funding restrictions, implementing traffic calming on existing road on a phased basis where the need has been established.
3. South Dublin County Council aims to ensure that the majority of the resident of a street where speed limits are required, are in favour of traffic calming. However, numbers of persons in favour will not influence the decision to provide these measures unless it has been established that a need truly exists.

**NOTE**: Traffic calming schemes will consist of a combination of measures and the techniques chosen should be based on the most appropriate and effective measures for each individual situation. Speed limit reduction in Housing Estates will be a major consideration, where problems with speeding having been established to exist, by means of traffic speed surveys. Ramps should only be chosen if no other suitable measures can be used - *(Traffic Management Guidelines, Department of Transportation etc.)*

1. **Objectives**
2. To ensure the design stage of a development can influence the speed control element in keeping with occupants of the developments.
3. To reduce and control speed to a level commensurate with activities taking place on a road.
4. To improve driver awareness of vulnerable road users through signage.
5. Enhancement of the environment.
6. Improve accessibility for public transport, cyclists and pedestrians.
7. Reduce disturbance and anxiety due to speeding.
8. **Assessing Traffic Calming Requests**
9. Due to the large number of requests already received and the volume of locations being added to the requests, it is not intended to assess each location at the outset.
10. Once funding has been identified for a traffic management scheme, the current list of locations will be provided to the elected members to ascertain what they consider priority locations.
11. Having short listed the location to a manageable number, the locations will be assessed for suitability under the **following criteria**:-
12. ***The site should be inside an urban 30 kph speed limit zone.***
13. ***The minimum road length (straight or slow curve) must be 100m as measured on the predominant driving route.***
14. ***The majority of residents should be in favour of the introduction of traffic calming.***
15. The specific traffic calming measures to be chosen will be those deemed appropriate by the Senior Engineer. The measures considered will be those recommended in the Traffic Management Guidelines/other technical guidance documents and may include:-
16. ***Width reduction***
17. ***Traffic regulation measures including prohibition or restriction of selected categories of traffic***
18. ***Traffic Islands***
19. ***Mini Roundabouts***
20. ***Staggered parking***
21. ***Improved street lighting, signage, lines and marking***
22. ***Landscaping***
23. ***Coloured or textured surfacing***
24. ***Horizontal deflections – build outs, pinch points and chicanes***
25. ***Vertical deflections – speed ramps, tables & Cushions***
26. ***Driver feedback signs – on temporary basis only as they lose effectiveness.***

***In extreme cases additional measures such as:-***

1. ***Through road closures***
2. ***Traffic regulation measures including prohibition or restriction of selected categories of traffic***

***-may be considered***

1. The locations that have been deemed suitable, and the type of traffic management proposed, will then be presented to the elected members for their final choice.
2. Any locations chosen, can be accompanied by a written petition if available. This must show that the majority of the residents are in favour of the traffic management. (Show total number of houses and number in favour - One signature per household).
3. Once a scheme has been agreed and estimated budget is assigned, the formal planning process should take place. Depending on the extent of the scheme and its implications, the procedure to be followed will either involve the process outlined in Section 38 of the 1994 Road Traffic Act or Part VIII Planning Process. For minor schemes, it is only necessary to consult with those effected in the immediate area. *Part 3.2 of the Traffic Management Guidelines state:- ‘Additional procedures must be followed for traffic calming measures which are prescribed by the Minister (see sub-section 3 of Section 38 of the 1994 Road Traffic Act). To date, no traffic calming measures have been prescribed by the minister so these specific procedures are* ***NOT*** *required. However…it is prudent for the road authority to consult with affected parties.’*
4. Intended traffic calming measures should be publicised in a local newspaper, with a dedicated time allowed for consultation.
5. Once the locations have been agreed and publicised in a local paper, any submission will be assessed and the traffic calming will proceed to the design stage and the tenders requested.
6. **Prioritising Schemes Criteria**

Where there are large numbers of requests, the following should act as a guide on choosing which locations to be prioritised.

1. Recorded Accident History.
2. Measured speeds.  *Reference should be made to the 85th% speed rather than excessively slow or fast outliers.*
3. Proximity of schools.
4. Extent of direct access from frontage along a road. Proximity of schools.
5. Pedestrian generators, (shops, church, amenities etc.).
6. Location of green areas and play areas relative to the dwelling locations.
7. The degree of vulnerable road users (pedestrians, cyclists, buggies, wheelchairs etc.).
8. Road Alignment (horizontal and vertical).
9. Presence of ‘rat-runs’ where there is significant residential development fronting onto road.
10. Traffic Volumes.
11. Positive/Negative feedback from residents on the proposals to introduce traffic calming measures.
12. Through Roads.
13. Unique local conditions.
14. **Financial Considerations**

South Dublin County Council may assign some if its discretionary funding towards implementing traffic calming in some estates on a priority basis. There is no other source of funding for this programme.

Retrofitting traffic calming measures in existing residential estates could be expensive and may require a local contribution from resident in the order of 10% of the estimated cost of the works. Where a local contribution is paid in respect of a particular scheme, such a scheme may receive a higher priority. The works on public road may only be carried out by South Dublin County Council or its agents.

1. **Traffic Calming at Planning/Design Stage**

The best way to deal with speed control on new roads is at the design stage when the layout and geometric design can be prepared so as to limit excessive speed levels.

All developments should take account of the DTTAS Traffic Management Guidelines and the

*Department of Transportation Traffic Management Guidelines, Initial Publication June 2012.*

*Design manual for Urban Roads and Streets, (DMURS), 2013*

With the objective to restrict traffic to a speed of 30kph in residential areas using the variety of measures outlined in these publication, with an emphasis on horizontal measures and good layout design rather than vertical measures, which may be appropriate in certain locations.

In addition the use of varied surface types to give priority to the vulnerable road users, confining of road widths and limited curve radii at junctions.

Pre-planning discussions and planning decisions to include traffic management issues.

1. **Traffic Calming on existing Roads**

Traffic calming schemes on existing roads requires consideration of a wide variety of measures. Care must be taken that the objectives of the traffic calming policy are kept to the forefront and while ramps may be popular with the community they should not be installed if they do not achieve the stated objectives regardless of community pressure.

**Procedure**

The Department’s Circular *RSD 01/2014* suggests that the initial approach to an established speeding issue, in an estate is to introduce bye-laws to lower the speed limit within the estate to 30kph in conjunction with the erection of either the standard 30kph speed limit sign or a new combination sign, which it introduced in 2014. South Dublin County Council have prepared **DRAFT Road Traffic (Speed Limit) Bye-Laws 2016** which introduces the 30kph limit in all residential estates and some other routes as agreed with the elected members. (Due to be agreed/published in March/April 2017).

This provides ‘Slow Zones’ to add safety measures within a select area in order to change driver behaviour. The ultimate goal of a ‘Slow Zone’ is to lower the incidence and severity of crashes and to enhance quality of life.



1. **Conclusion**

South Dublin County Council is committed to providing a safe environment for all road users. To this end the introduction of 30kph speed limits in all residential areas is a pro-active step and the success of this will be monitored in the following year.

However the emphasis has to be on the Design Stage of new developments when the layout and geometric design can be prepared so as to limit excessive speed levels with particular emphasis on horizontal measures and good layout design rather than vertical measures, which may also be appropriate in certain locations.

All decisions on traffic calming measures should take into account the aforementioned Road Traffic Acts, Guidelines and Circulars.

**See Appendix 1 – Table to measure future traffic calming programmes.**

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