



Traffic Calming Guidebook

Traffic Calming Overview

Traffic calming is divided into three categories: intervention, passive traffic calming and active traffic calming. Each of the categories contains multiple traffic calming practices. Different streets may require different practices, and the purpose of this document is to outline the suite of potential solutions. There are no proven countermeasures to stop all speeding. Despite our best efforts, drivers will still choose to speed and endanger themselves and the public. Roughly 1/3 of all fatal crashes in Washington State involve speeding as a major factor. Drivers under the influence of drugs and alcohol tend to speed more than sober drivers. The countermeasures identified in this Guidebook will not eliminate speeding in our community. The decision to illegally drive over the speed limit is a personal one and cannot be controlled by the City.

The City has limited resources to implement the traffic calming measures identified in this Guidebook. Many of these traffic calming measures are very expensive. It is simply not possible given these resources for these strategies to be implemented throughout the City and in every instance where they may be warranted or beneficial. Many of the calming devices identified in this Guidebook also require maintenance, which is expensive.

This Guidebook and the process it outlines are discretionary for the City of Monroe and its officials and employees. The prioritization contemplated by this Guidebook and set forth in the process it outlines are discretionary and reflects the City's policy decision based on a conscious balancing of risks and advantages of publishing this Guidebook and adopting the process it outlines.

Functional Classification

Streets are categorized, by hierarchy, into four functional classifications: major arterial, minor arterial, collector, and local. Arterials are designed to move larger volumes of traffic across and through town. Collector streets move moderate volumes of traffic from local neighborhoods to the arterial streets. Local streets are designed to provide access to residential properties.

The objective of the traffic calming program is to attempt to maintain travel speeds and volumes in neighborhoods at levels that are appropriate for the street classification and promote livability of the neighborhoods.

Traffic Calming Categories

Intervention

Intervention is focused on general speed awareness, education and enforcement. No physical changes are made to the roadway. All street types, except state highways, are eligible for intervention measures.

Intervention Measures:

Education

Enforcement

Radar Trailer Placement
Radar Speed Feedback Signs

Passive Traffic Calming

Passive traffic calming aims to reduce speed by changing driver behavior using visual stimuli on the roadway including signs and striping. Passive measures allow the vehicle and driver to passively engage with the traffic calming as the roadway geometry is not physically altered. All street types, except state highways, are eligible for passive traffic calming.

Passive Measures:

Centerline Striping
Speed Limit Signs
Curb Markings
Transverse Speed Striping

Active Traffic Calming

Active traffic calming is designed to physically encourage a change in driver speed at the location of the measure. These include traffic circles, speed humps and other physical changes to the roadway. The purpose of these changes is to force drivers to actively engage in navigating the traffic calming measure with the goal of reducing speed.

Active traffic calming is divided into two categories: vertical and horizontal. These categories are based on how the measure deflects the vehicle path.

Active traffic calming is much more expensive than other traffic calming as it requires significant design, construction, road closures and detours, and maintenance. Only 2-lane local and collector streets are eligible for active traffic calming. Arterial streets are not eligible through this program.

Active Measures (Category):

Speed Humps (*Vertical*)
Speed Cushions (*Vertical*)
Raised Intersections (*Vertical*)

Street Eligibility Requirements

Before a study can be done to determine if a street meets criteria for implementation of traffic calming, eligibility for traffic calming should be determined.

Intervention: All local and collector streets are eligible for intervention and without the need for a study.

Passive: All local and collector streets that meet all of the following criteria are eligible for passive traffic calming:

- Speed limit 25 mph
- Two-lane roadway
- Traffic volumes:

- >250 vpd for local street
- >500 vpd for collector

Active: All local streets that meet all of the following criteria are eligible for all types of active traffic calming.

- Speed limit 25 mph
- Two-lane roadway
- Traffic volumes:
 - >500 vpd for local street
 - 1,000-5,000 vpd for collector
- Minimum corridor length of 1,000 ft

Implementation Criteria

If a street is determined to be eligible for traffic calming, a study can be performed to determine if the minimum necessary criteria are met for implementation of traffic calming.

Below are descriptions of the different criteria which are broken into two categories:

1. Primary Criteria - Those minimum thresholds that indicate a speeding or safety issue may exist.
2. Neighborhood Conditions. Assess conditions where speeding can affect the quality of life for residents in a neighborhood.

Each of the criteria has an associated point value. This point score is used to determine if an eligible street meets the criteria for implementation of passive or active traffic calming.

Further, this point score may be used to prioritize qualified projects in the event that requests exceed budget in any given year.

Scoring Criteria

Critical Speed

Points are allocated based on the actual measured critical speed on the roadway. This is defined as the 85th percentile speed or the speed 85 percent of vehicles are traveling at or below.

Collision History

It is not necessary that collisions have occurred within the study area to be eligible for traffic calming. However, points are assigned based on the number of collisions that have occurred in the three years prior to the study. For a collision to be included in the count, it should be speed related or susceptible to correction by the addition of traffic calming.

Neighborhood/Resident Requests

Streets that are reported to the City by local neighborhood residents or that have a history of neighborhood related traffic concerns about speed and safety should be assigned higher points for traffic calming measures.

Proximity to Schools and Safe Routes to School

Roads that are identified by distance to a school (as defined in RCW 46.61.440, 2) or designated as a Safe Route to School should be prioritized for traffic calming measures.

Evaluation and Implementation Process

Initial Study Request

To initiate a traffic study, a resident must contact the Public Works Department to identify the area of desired traffic calming.

Eligibility Check & Criteria Evaluation

Upon receipt of a request, Public Works staff should determine eligibility of the street requested and if eligible, may initiate a traffic calming criteria study during the upcoming study cycle.

Upon completion of the study, one of the following may occur:

1. **Criteria Not Met** – Public Works staff should contact the petitioner with study results and discuss intervention options for the corridor.
2. **Criteria Met – Passive Traffic Calming** – proceed to next step in Evaluation & Implementation Process.
3. **Criteria Met – Active Traffic Calming** – proceed to next step in Evaluation & Implementation Process.

Project Prioritization and Notification

If, during any cycle, more streets are found to be qualified for traffic calming than can be funded, the projects will be prioritized/ranked according to the Scoring Criteria. Projects should be implemented in score priority order.

Depending on available funding, separate prioritization of active and passive traffic calming may occur to allow implementation of as many projects as possible. Requests will be compiled into a list that should be reviewed semi-annually and prioritized.

Residents should be notified of the corridor eligibility, whether the corridor was prioritized for funding and, if prioritized, the anticipated schedule for implementation. Residents may request that projects not prioritized for funding be re-evaluated in the following cycle.

Implementation

Corridors that are eligible for traffic calming installation, prioritized for funding, and with funding available, should be processed through the following steps:

Step 1: Traffic Calming Plan Preparation

Passive Traffic Calming

A plan should be prepared identifying the appropriate passive traffic calming measures for the selected corridor.

Active Traffic Calming

A plan should be prepared identifying the appropriate active traffic calming measures for the selected corridor and the affected area, which is other streets that may be impacted by traffic rerouting as a result of a planned measure.

Step 2: Internal Plan Review

Passive Traffic Calming

Public Works Department staff should coordinate with staff from Fire, and Police to evaluate the proposed traffic calming to determine if the proposal is appropriate to the corridor.

Active Traffic Calming

Public Works Department staff should coordinate with staff from Fire and Police to evaluate the proposed traffic calming devices. This review will determine if the proposal is appropriate to the corridor, verify there are no significant, detrimental impacts to public safety access or response times and confirm that no considerable increase in operation or maintenance costs will result from implementation.

Public Notice of Project

Upon neighborhood approval of an Active Traffic calming plan, a public notice should be issued by the City to all property owners and residents deemed to be affected by the installation areas. This notice should provide project details, staff contact information for concerns and, if applicable, the date, time and location of the Council meeting, where the project will be presented to Council.

Timeline for Implementation

The timeline for funding, completion of design, and construction will vary by size and complexity of the project, as well as the availability of funding. Once funding is approved the design phase can proceed. This is often a lengthy process, the duration of which is often outside of the City's control. When design is complete, the process of public bidding and award is completed, and followed by construction when possible/feasible.

Incremental Implementation

At the discretion of the City Engineer, during the planning stage and before the installation of any permanent traffic calming measures, intervention and/or passive traffic calming measures may be implemented on the corridor and their effects evaluated. If these alternate measures do not alleviate the issue, the corridor may, where deemed appropriate by the City Engineer or their designee(s), continue through the implementation process for active traffic calming. Depending on the project scope, prioritization score, and/or other factors, the incremental implementation may, in extraordinary circumstances, occur simultaneously with the traffic calming plan preparation process.

Eligible Projects that Do Not Qualify

If a study finds that traffic calming criteria is not met, a new study will not be completed for at least two years from the date of the original study. Exceptions to the two-year requirement may, in extraordinary circumstances, be made for areas where significant changes to roads or adjacent land uses (e.g., land development) may have impacted traffic.

Proposed Criteria

Eligibility Requirements:

Criteria	Active Eligible	Passive Eligible	Basis for Eligibility
Street Type & Functional Class			Active only on 2-lane, local & collector streets
Existing Posted Speed			Active only on 25 mph streets
Volume			Active: >500 trips/day on local street; 1,000-5,000 on collector Passive: >250 trips/day on local street; >500 on collector

Primary Criteria:

Criteria	Max. Points	Points	Basis for Point Allocation
Critical Speed	10	On 25 MPH streets, 85th percentile speed:	
		0	≤26 mph
		2	27-28 mph
		4	29-30 mph
		6	31-32 mph
		8	33-34 mph
10	≥35 mph		
3 Year Collision History	10	1-10	points assigned based on collision history within the past 3 years.

Neighborhood Conditions:

Criteria	Max. Points	Basis for Point Allocation
Traffic Infractions	5	1 point for each ticketed speeding violation on the street of concern, with a maximum of 5 points.
Safe Routes to School Priority Area	5	5 Points if located on a mapped SRTS route
Customer Request Count	5	1 Point for every neighbor on the street that has filed a request for calming with a maximum of 5 points.

Implementation/Prioritization Score:

	Active	Passive
Min. Total Points Required	20	10
Min. Primary Criteria	8	6