

# Residential Traffic Calming Program Guide



Town of Ashland, Virginia

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## TABLE OF CONTENTS

<b>A.</b>	<b>INTRODUCTION</b> .....	<b>1</b>
<b>B.</b>	<b>GOALS</b> .....	<b>1</b>
<b>C.</b>	<b>CRITERIA</b> .....	<b>1</b>
<b>D.</b>	<b>IDENTIFYING NEIGHBORHOOD TRAFFIC CONCERNS</b> .....	<b>2</b>
<b>E.</b>	<b>PROCESS STEPS</b> .....	<b>2</b>
1.	Initial Contact and Review .....	2
2.	Speed Study, Engineering Study/Review and Traffic Count .....	3
3.	Traffic Calming Plan Development .....	4
4.	Assess Community Support for Traffic Calming .....	4
5.	Project Implementation .....	5
6.	Evaluation .....	6
<b>F.</b>	<b>TRAFFIC CALMING MEASURES</b> .....	<b>6</b>
1.	Selections of Traffic Calming Measures.....	6
2.	Types of Traffic Calming Measures.....	6
3.	Traffic Calming Toolbox Guidelines .....	7
<b>G.</b>	<b>LEARN MORE</b> .....	<b>8</b>

## APPENDIX - Forms

## A. INTRODUCTION

The Town of Ashland's Residential Traffic Calming Program (RTCP) incorporates education, enforcement and engineered street design into protecting the quality of life in Town neighborhoods. The Town developed the RTCP to provide residents with the opportunity to raise neighborhood traffic concerns and to participate in the selection of strategies that promote safe and pleasant conditions for residents, pedestrians, bicyclists and motorists in Town neighborhoods.

Traffic calming is defined by the Institute for Transportation Engineers as "the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users." With the RTCP as a framework, staff will work with neighborhoods to develop a plan to calm traffic in order to meet the goals listed below.

The RTCP is focused on addressing issues on existing streets. **Ideally, new residential developments would implement traffic calming concepts within the initial roadway design.** In lieu of or in addition to these, the various traffic calming measures in the RTCP may be considered as well. The design and review of subdivision development plans should identify and address traffic management concerns and incorporate geometric designs and traffic calming concepts that make streets less desirable for speeding and cut-through traffic.

## B. GOALS

The goals of the RTCP are:

- Provide protection to residential neighborhoods from traffic operating at excessive speeds
- Increase access, safety, comfort and convenience for pedestrians and bicyclists
- Foster a collaborative working relationship between Town staff and residents to develop traffic calming measures

## C. CRITERIA

Local residential streets and certain collector streets are eligible for inclusion in the RTCP. The posted speed limit must not exceed 25 mph. Local residential streets provide access to abutting land uses and serve mainly to provide mobility within the neighborhood. Traffic on these streets is expected to be entering or exiting from the residences. Certain roads, although classified as collector roads, function as local residential streets. Residential collector streets that meet the following conditions may be included in the RTCP:

- a. a posted speed limit of 25 mph or less
- b. traffic volumes of less than 4,000 vehicles per day

- c. a two-lane roadway
- d. a minimum of 12 dwellings fronting on the street per 1000 ft of roadway including both sides

The Director of Public Works shall confirm the appropriate residential area for consideration.

In addition, for a neighborhood to qualify for RTCP assistance, one or more of the following criteria must be met:

- Speeding: 15% of motorists travel at 6 mph or more above the posted speed limit
- Safety: Significant pedestrian and bicycle activity, such as proximity to schools, playgrounds, shopping areas
- History of motor vehicle accidents in area

These criteria are consistent with successful traffic calming programs in other localities. The Town will conduct traffic surveys to determine whether the criteria are met.

## **D. IDENTIFYING NEIGHBORHOOD TRAFFIC CONCERNS**

The Town will assist a neighborhood in defining traffic problems. A neighborhood consensus on that definition should be reached. Typically, the broad problems are speeding and traffic volume, but there may be additional issues that need addressing as well.

Defining the problem occurs on two levels. The first level is clearly understanding what the residents' concerns are; determining if there is, in fact, a basis for those concerns and then expressing those concerns. The second level of the problem definition is the accumulation of data to support the identified problem(s).

## **E. PROCESS STEPS**

### **1. Initial Contact and Review**

Citizens wanting to participate in this program must make a request to the Town of Ashland Department of Public Works. They should express their most serious traffic concerns. There is no deadline for making the request.

This request should include the following (see Appendix for Request Form):

- Street segment where the problem(s) exists (e.g., X Street between Y Place and Z Avenue)
- Time of day when the problem(s) occurs
- Posted speed limit
- Possible causes of the problem

- Perceived dangers to pedestrians, bicyclists, residents and property as a result of the problem

## **2. Speed Study, Engineering Study/Review and Traffic Count**

Town staff will conduct an engineering review, speed study and traffic count as follows to determine if the street is suitable for traffic calming and document important related features.

- a. An engineering field review determines the suitability of the street for traffic calming considering the extent of horizontal curves and grades and any related sight distance issues, roadway drainage appurtenances, extent and location of road access points etc., that may affect the location, extent and type of traffic calming implemented.
- b. A speed study determines the operating speed (typically via the 85<sup>th</sup> percentile method). In order to be eligible for further consideration of traffic calming, the street must have an operating speed 6 mph or more above the speed limit (e.g. 31 mph or more where the speed limit is 25 mph) in at least one travel direction.
- c. The number of vehicles per day determines the type and extent of traffic calming considered. A traffic count is conducted to determine the average daily traffic (ADT) volume including both travel directions. A traffic count conducted for a period of 48-hours, on a Wednesday and Thursday is the common practice in order to capture the average daily traffic. Traffic counts on other days of the week are more likely to represent non-typical traffic, particularly weekends.
  - Streets with a daily traffic volume between 600 and 4,000 vehicles per day (VPD) are appropriate for consideration of the full range of traffic calming measures in the [Traffic Calming Guide for Neighborhood Streets](#), VDOT, Traffic Engineering Division, 9/23/2018.
  - Streets with less than 600 VPD may be a consideration for some of the lower cost, non-intrusive actions such as community education, additional signage and pavement marking.
  - Streets with more than 4,000 VPD are not eligible for this program.
- d. Speed and traffic volume data should be collected on weekdays (preferably Wednesdays and Thursdays), September through May, when public school is in session.

After collecting and analyzing this data, Town staff will determine whether 1) the data supports the problem(s) identified by the residents and 2) the street segment meets the criteria for traffic calming; and make a recommendation to the Town Manager.

- a. If the data collected indicates that the situation does not meet the criteria for implementation of RTCP, staff will report back to the residents that the problem did not warrant any specific action. The situation may be eligible in the future.

- b. If the data confirms the existence of a problem and the road geometry is deemed appropriate, staff will recommend the area for the RTCP to the Town Manager (or designee) for approval.

### **3. Traffic Calming Plan Development**

Once approval has been received, Town staff will work with members of the community where a problem was confirmed to begin drafting a traffic calming plan. The proposed solutions will focus on the scope and nature of the traffic problems, and the traffic calming measures that can most realistically address the traffic concerns. Town staff will work with the community to develop preliminary designs and cost estimates. The traffic calming plan will be provided for review by the neighborhood. This information may be distributed by mail or electronically, or at a public meeting. Public input may be provided by similar means.

Solutions will be approached in two phases. Phase I will consist of non-physical measures, additional signage and pavement marking, and will be implemented first. If Phase I measures are not effective enough, Phase II may be implemented. Phase II includes physical measures (see Section F.3 Traffic Calming Toolbox).

Input from the Fire Department/EMS will be requested to determine any specific emergency concerns or requirements.

Town Staff will attempt to secure agreement from each affected property owner of a residence where the physical location of a proposed traffic calming device or some portion (excluding warning signs posted for a device) lies within the roadway frontage of the property boundary. Note: the affected property owner may agree to the device affecting their property without agreeing with the entire traffic calming plan. Where a particular property owner does not concur with a particular device as it affects their property, other options such as shifting the location or proposing an alternate device should be considered.

Once the preliminary designs have been developed, community support must be gained by petitioning or ballot (see Appendix for Example Petitions and Ballot).

### **4. Assess Community Support for Traffic Calming**

Prior to soliciting community approval, Town staff identifies the survey area and coordinates with the local community. The survey area comprises of the households that are affected by implementing the traffic calming plan.

The proposed traffic calming plan, along with the supporting information below, is presented or provided to the community within the survey area for their review for minimum of 30 days. This will be done through an electronic/postal distribution, or some other means or combination thereof that serves to inform the community of the proposal.

## Supporting Information:

- a. A map that indicates the location and approximate footprint of the proposed traffic calming devices along the street and the affected property boundaries.
- b. A map that indicates the survey area including residences and the connecting streets.
- c. Information about the nature and features of the proposed traffic-calming devices such as contained in the Traffic Calming Guide for Neighborhood Streets, VDOT, Traffic Engineering Division, 9/23/2018.
- d. The process and procedures that will be used to measure and document community support (e.g. petition, ballot survey etc.).

The next step in the implementation process is to obtain the required level of community support to be eligible for final design and funding. This may be obtained by physical or electronic petition or ballot. (see example petitions and ballot in Appendix). Only one resident (homeowner or renter) of each affected home may vote. The petition/ballot will indicate that by signing they accept the possibility that traffic calming device may be implemented in front of their home. To assist the community, staff will prepare a map and/or brochure explaining what the proposed measures will look like and where each traffic calming measure will be located.

For condominiums or apartments with 25 or more units, approval from all residents will not be required. Instead, written support of the traffic calming plan will be obtained from the condominium association or property management company. The building/complex may either approve or disapprove of the traffic calming plan.

### a. Plan Receives Sufficient Support

Sufficient support for the traffic calming plan will involve receiving concurrence by affected households at appropriate percentages (see section F.3). Town staff will begin gathering resources, assessing funding sources and developing a schedule for the implementation of the plan.

### b. Plan Does Not Receive Sufficient Support

If the traffic calming plan does not receive sufficient support, the plan will not be implemented until it does receive sufficient neighbor support.

## 5. Project Implementation

The RTCP will be implemented using a two-phase approach. During Phase I, only non-physical measures will be implemented. If the Phase I measures are not successful, physical measures will be implemented as Phase II. Physical and non-physical measures are discussed in the next section.

As part of implementation of either phase, staff performs the following actions:

- Determines funding requirements

- Secures funding if available
- Develops construction drawings based on the preliminary design
- Acquires right-of-way and/or easements, if required
- Schedules construction
- Notifies affected residents of construction schedule
- Coordinates and oversees construction or notice to private contractor to proceed
- Monitors all work for compliance to design specifications

## **6. Evaluation**

After Phase I measures have been implemented for 6 months, staff will evaluate whether they are effective. Evaluation methods may include one or more of the following: placing radar trailer, additional police surveillance, other means of traffic monitoring, resident response.

If Phase I is determined to be unsuccessful, a preliminary design will be prepared and implemented for Phase II. Phase II measure will be evaluated on the same schedule and by the same means as Phase I measures.

If the other problems arise from the implementation of a traffic calming measures (e.g., difficulties for emergency vehicles, drainage or maintenance issues, etc.) staff will examine the causes and potential fixes. Additionally, citizens who feel that the RTCP process needs refinement may bring their issues to staff for discussion and consideration.

## **F. TRAFFIC CALMING MEASURES**

### **1. Selections of Traffic Calming Measures**

When selecting the appropriate traffic calming measure(s), several principles need to be taken into consideration. In general, the traffic calming measure(s) selected should have all or most of the following attributes:

- Is consistent with Virginia law and meets the standards set out in the Manual on Uniform Traffic Control Devices and the American Association of State Highway and Transportation Officials guidelines
- Addresses the problem in the most efficient and cost-effective way possible
- Accommodates the geometrics of the street (e.g., a traffic circle can only be built in an intersection that is large enough for it)
- Is compatible with the needs of the Fire Department and Emergency Medical Services
- Addresses the needs of nearby schools

### **2. Types of Traffic Calming Measures**

Two types of traffic calming measures are considered in the RTCP: (1) Non-physical Measures and (2) Physical Measures. The table below contains a list of the non-physical and physical measures to be considered.

Only non-physical measures will be considered during Phase I of implementation. Non-physical devices are defined as low cost measures that do not physically restrict driver maneuvers. Examples of non-physical traffic calming measures include public education, additional police enforcement, signing, and pavement markings to narrow travel lanes.

Physical measures will be considered only if non-physical measures have been implemented, evaluated and found to be unsuccessful. Physical measures are treatments that reduce speed by creating a vertical, or horizontal shift in the roadway or travel lanes or that create a safer vehicle-pedestrian design.

### 3. Traffic Calming Toolbox Guidelines

Issue	Measure	Description	Criteria	Minimum Community Support Needed	Expense
<b>Phase I Traffic Control Measures</b>					
Bicyclist Safety	Bike Lanes, Signage and Street Symbols	Improve safety of bicyclists and visually narrow streets to slow traffic	American Association of State highway and Transportation Officials Bicycle Facility guide	No Minimum	Low
Speeding	Traffic Safety Education	Flyer or newsletter describing traffic concerns and traffic safety tips	Any citizen complaint	No Minimum	Low
	Signing: speed limit (including pavement marking), pedestrian crossing, school, etc.	Reminds motorists of the speed limit and that pedestrians/children may be present	Any citizen complaint	No Minimum	Low
	Police Enforcement	Continued enforcement by Ashland Police Department	Any citizen complaint	No Minimum	Low
	Variable speed display board	Radar unit and board alert motorist to their travel speed	Speeding criterion is met	No Minimum	Medium
	Increased speeding fines	Fines up to \$200. Install warning signs.	Speeding criterion is met	75% of households	Low
	Street markings	Center yellow line(s), white lines on edge of lanes/bike lanes, arrows to slow traffic	Manual on Uniform Traffic Control Devices	60% of households	Low

Issue	Measure	Description	Criteria	Minimum Community Support Needed	Expense
Pedestrian Safety	Crosswalks	Crosswalks at intersections to highlight pedestrian crossing area.	Pedestrian activity	No Minimum	Low
	Mid-block crosswalk	Provide greater visibility To crossing pedestrians	Significant pedestrian traffic	No minimum	Low
	Brush Trimming	Homeowners or Town trim brush for better sight distance.	Any citizen complaint	No Minimum	Low
<b>Phase II Traffic Control Measures</b>					
Speeding	Street narrowing	Physically narrow street to slow traffic	Speeding criterion is met	60% of households	High
	Median	Narrows streets to prevent turns at intersections or slow traffic	Speeding criterion is met	60% of households	High
	Chicane	Winding street causes motorists to drive slower	Case by case basis	60% of households	High
	Speed hump/ Speed lump/ Raised Crosswalks	Effective at slowing vehicles 5 - 10mph when crossing the bump	Speeding criterion is met	75% of households	Medium
	Speed Table	Similar to speed hump with top area sized to accommodate typ. vehicle	Speeding criterion is met	75% of households	High
	Traffic circle	Circular intersection appropriate for local streets	Case by case basis	75% of households	High
	Raised Intersection	Speed table concept at the area of the intersection	Case by case basis	75% of households	High
	Roundabout	Circular intersection appropriate for streets with higher volumes of traffic	Case by case basis	75% of households	High
Pedestrian Safety	Pedestrian refuge island	An island in the middle of the street to break the crossing into two sections	Speeding criterion is met	60% of households	High
	Bulb-outs	Shorten distance to cross the street and slow traffic	Speeding criterion is met	60% of households	High

## G. LEARN MORE

To learn more about traffic calming and view images of a variety of measures, visit any of the following Websites:

- Alexandria Neighborhood Complete Streets Website: <https://www.alexandriava.gov/CompleteStreets>

- Arlington, VA, Neighborhood Complete Streets Website: <https://projects.arlingtonva.us/programs/neighborhood-complete-streets/>
- Henrico County Traffic Calming Program: <https://henrico.us/works/traffic/traffic-calming-program/>
- Institute of Transportation Engineers (ITE) Traffic Calming Measures: <https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>
- Pedestrian & Bicycle Information Center Image Library: [www.pedbikeimages.org](http://www.pedbikeimages.org) and click on “Traffic Calming and Management”
- Richmond Regional Transportation Planning "Complete Streets" website: <https://planrva.maps.arcgis.com/apps/Cascade/index.html?appid=1351385d59d44dd78a0096a536045917>.
- Virginia Department of Transportation: <http://www.virginiadot.org/programs/resources/Traffic-Calming-Guide-For-Neighborhood-Streets.pdf>  
<http://www.virginiadot.org/programs/is-VDOTCommunityPrograms.asp>

# **APPENDIX**

# Traffic Calming Request Form

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_

Email Address: \_\_\_\_\_

**Location of Concern.** \_\_\_\_\_

Provide street segment  
where the problem(s)  
exists (e.g., X Street  
between Y Place and Z  
Avenue).

What **problems** have  
you **identified with**  
the above **location**?

**Time of day** when the  
problem(s) occurs

**Posted speed limit**

**Possible causes** of the  
problem

**Perceived dangers** to  
pedestrians, bicyclists,  
residents and property  
as a result of the  
problem

**Example Town of Ashland**  
**Residential Traffic Calming Program**

**BALLOT**

**Family Name:** \_\_\_\_\_

**Check One:**            Owner \_\_\_            Renter \_\_\_

**Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Date:** \_\_\_\_\_

(name and address will be kept confidential)

**Description of measure being proposed (Drawing attached)**

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**We support the proposed traffic calming measure**            \_\_\_\_\_

**We oppose the proposed traffic calming measure**            \_\_\_\_\_

**Comments:**

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**Return to** \_\_\_\_\_ **by** \_\_\_\_\_

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**EXAMPLE MULTIFAMILY BUILDING PETITION VALIDATION**

**\*Note: This form is to be used instead of the Petition for condominiums and apartments with over 25 residences.**

Building Name: \_\_\_\_\_

Building Address: \_\_\_\_\_

Number of Residences: \_\_\_\_\_

Building or Complex Type (circle one): Condominium / Apartment

***For Condominiums:***

The president of the condominium board should sign below to show its Association’s support for the traffic calming plan.

Approval Signature: \_\_\_\_\_

Name of Condominium Association president: \_\_\_\_\_

Street Address and Phone of  
Condominium Association president: \_\_\_\_\_

***For Apartment Buildings:***

The property management company should sign below to show its support for the traffic calming plan.

Approval Signature: \_\_\_\_\_

Name of Property Manager: \_\_\_\_\_

Name of Property Management Company: \_\_\_\_\_

Street Address and Phone of  
Property Management Company: \_\_\_\_\_

Note: If this petition has sufficient support, traffic calming measures will be considered. Traffic calming measures are to be implemented in two phases. Phase I, which includes non-physical measures (e.g., speed limit signs, line painting, etc.), is to be implemented first. If Phase I does not prove to be effective, Phase II, which includes physical measures, is to be implemented (e.g., speed humps, traffic circles, raised cross walks).