

December 2005

Section 1 – Introduction

✚ What is Traffic Calming?

Speeding and unsafe driving habits are a major concern throughout communities in the United States. The Municipality of Anchorage is no exception with many neighborhoods expressing similar concerns. In order to assist residents, Community Councils, and decision makers in addressing the major concerns of neighborhood speeds and safety, the Municipality has developed this Traffic Calming Policy Manual. "Traffic calming involves changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and cut-through volumes in the interest of street safety, livability, and other public purposes." (As defined in the Institute of Transportation Engineers' (ITE), *Traffic Calming State of the Practice*, Ewing, 1999.) Non-engineering measures such as enforcement, signage and striping are not included. Traffic control devices, particu-

larly STOP, SPEED LIMIT and CHILDREN AT PLAY signs, require increased enforcement and are not a part of the program. Traffic calming measures, by contrast, are intended to be self-enforcing.

In March of 2001 the Municipal Traffic Department published the *Traffic Calming Protocol Manual*, (TCPM) prepared by DOWL Engineers. The TCPM provides a toolbox of traffic calming measures, their effectiveness and some basic guidelines for their implementation. This Manual provides a complete picture of the traffic calming program.



The Municipality's traffic calming program is outlined as follows:

1. Introduction

- a. Overview of Traffic Calming Program
- b. Types of traffic calming measures
- c. Location of traffic calming
- d. Service Area Factors

2. Temporary Speed Hump Program

- a. Introduction
- b. Street Criteria
- c. Petition
- d. Data Collection
- e. Speed and Volume Criteria
- f. Placement

3. Permanent Speed Hump Program

- a. Introduction
- b. Criteria
- c. Placement

4. Specific Area Studies

- a. Introduction
- b. Study Process
- c. Types of Traffic calming Measures

5. Summary of Traffic Calming Measures

1a. Overview of Traffic Calming Program

The Municipality of Anchorage's traffic calming program is intended to work as a partnership between the Traffic Department and the community. Each group has specific responsibilities in order to make the program work. Traffic calming can and should be considered with all new developments. All traffic calming devices, including type, use and design, must be approved by the Municipal Traffic Engineer.

There are three distinct categories of the traffic calming program. The Program is designed to cover the full spectrum of measures by providing short, intermediate and long term solutions.

Temporary Speed Humps are a rubberized device that extends across a roadway providing a 3 inch rise over a 14 foot length. Temporary speed humps are used during summer months only and are considered a short term measure. The program functions with the use of a petition so the

local residents can decide if it is an acceptable technique for slowing traffic in their neighborhood. Volume and speed warrants are used to ensure the humps are placed in critical locations. Due to installation requirements, temporary speed humps can only be placed on roadways improved with asphalt paving. More specifics on the temporary speed hump program are discussed in Section 2 of this manual.

Permanent Speed Humps are an extension of the temporary speed hump program. After placement of temporary speed humps for up to two seasons, the Traffic Department will work with the local residents and the area Community Council to determine if permanent speed humps are desired. A permanent speed hump can be installed without the placement of a temporary first; however:

1. a petition and Community Council approval is required,

2. the installation must meet the same volume and speed criteria as temporary speed humps,

3. and is subject to funding availability.

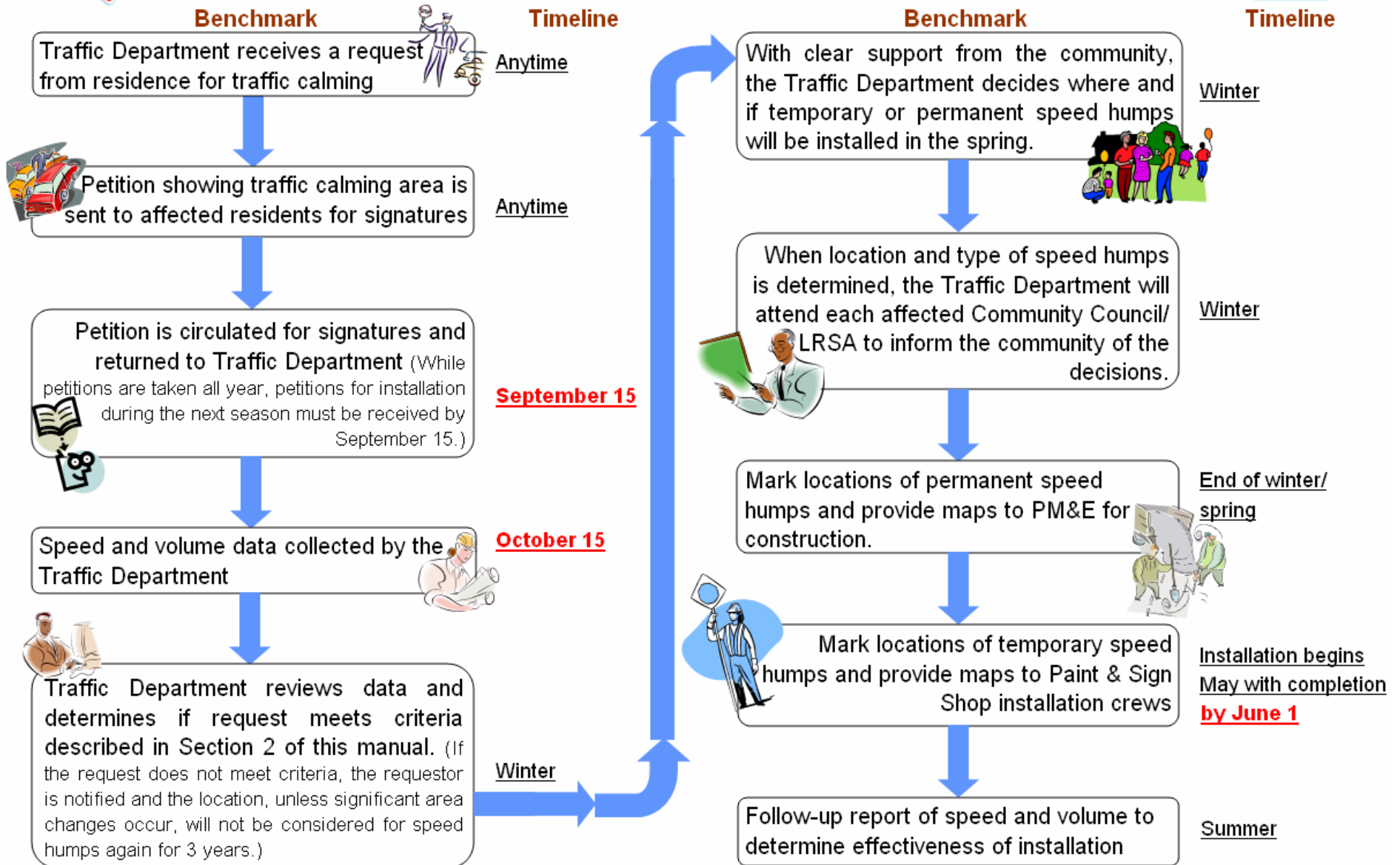
More specifics on the permanent speed hump program are discussed in Section 3. Temporary and permanent speed hump program benchmarks and timelines are shown in Table 1-1 on the following page.



Paint and Sign Shop installation crews work on the placement of a temporary speed hump.



Traffic Calming Policy and Timeline - Temporary and Permanent Speed Humps





Specific Area Studies encompass a wide area, usually defined as Community Council boundaries, which engage an entire community to determine broad measures which can be implemented to reduce traffic speeds and cut-through traffic as well as enhance safety and livability. A specific area study develops long term solutions. Multiple traffic calming measures are used to target identified locations. The various traffic calming measures available are discussed in greater detail in Section 4 with examples shown in Section 5.

The Traffic Department currently receives annual Anchorage Roads and Drainage Service Area bond funds for traffic calming. The bond is used to support traffic calming programs by allowing the Traffic Department to purchase and place temporary speed humps; to install permanent speed humps; install recommended traffic calming measures from previous area studies, and to initiate new studies.

✚ 1b. Types of Traffic Calming Measures

Traffic calming can be divided into three categories:

1. **Volume control measures:** consist of modifications that reduce the quantity of vehicles that use a specific roadway.
2. **Vertical speed control measures:** are elevated segments of roadway and gateway/landscape treatments which require vehicles to slow down.

- 3. **Horizontal speed control measures:** alter the typical straight line traveled way or narrow a specific roadway to reduce speed.

These three categories comprise the Municipality of Anchorage’s traffic calming toolbox and have varying effects on speeds and volumes. All categories of traffic calming can be utilized in some aspect of the traffic calming program.

Table 1-2 lists specific traffic calming measures which constitute the Municipality of Anchorage’s traffic calming toolbox. Greater detail on these measures, and their effectiveness, are shown in Section 5 of this Policy Manual or the Protocol Manual.



Mini traffic circle

Table 1-2

Traffic Calming Measures	
Volume Control	Full Street Closures
	Half Street Closures
Vertical Speed Control	Forced Turn Islands
	Diverters
Horizontal Speed Control	Speed humps
	Speed Tables
	Gateway/Landscape
	Raised Crosswalks
Horizontal Speed Control	Raised Intersections
	Mini traffic Circle
	Roundabouts
	Road Narrowings
	Lateral Shifts
	Chicanes
Horizontal Speed Control	Neckdowns
	Chokers
Horizontal Speed Control	Island Narrowings

1c. Location of Traffic Calming

Traffic calming is primarily suited to residential streets and low volume neighborhood collector streets. Collector streets, or streets that act as the main access to a particular neighborhood, will generally have horizontal traffic calming measures

only; however, some raised intersections and/or raised crosswalks can be considered for locations where posted speeds are 30 miles per hour or less. Vertical measures are designed for the lower speed limits and cannot be installed on routes with posted speeds greater than 30 miles per hour.

In addition, emergency response must be considered on the collector streets and main neighborhood access streets. Emergency vehicle access routes must be identified and accounted for when deciding the types of traffic calming measures to employ. Some vertical measures on critical routes can significantly slow emergency response.

1d. Service Area Factors

Service areas are identified areas which are established to perform a specific maintenance function. Section 9.01 of the Anchorage Charter provides for the creation of service areas within the Municipality of Anchorage. Alaska Statute Section

29.35.450 states: *Special services include services not provided by the unified municipality or a higher or different level of services.* While the Traffic Department's responsibilities are areawide, capital improvement bonding is done by service areas. The Traffic Department works to implement traffic calming measures jointly with the following service areas:

- Anchorage Roads and Drainage Service Area (ARDSA)
- Chugiak, Birchwood, Eagle River Rural Road Service Area (CBERRRSA)
- Limited Road Service Areas (LRSA) - various
- Glen Alps Service Area (GASA)
- Girdwood Valley Service Area (GVSA)

In addition, for the purpose of the traffic calming program, the Traffic Department will also work with the Home Owners Associations (HOA) outside of any other service area.

Maps showing the individual service areas are shown below. All service areas will follow the

same criteria outlined in the Sections which follow.

ARDSA traffic calming requests and studies will be accomplished by the Municipality of Anchorage Traffic Department in conjunction with the requesting community. Costs for all studies and construction of identified improvements will use traffic bond funds.

Limited Road Service Area (LRSA) and Homeowner's Association (HOA) within Anchorage traffic calming requests will be investigated and analyzed by the Traffic Department in association with the requesting service area. All traffic calming requests must meet the same criteria for placement and installation as presented in this Manual. Cost for the purchase of temporary speed humps or the construction of permanent speed humps (including permitting, temporary traffic control, and signing and striping) is the responsibility of the specific service area. All work in the

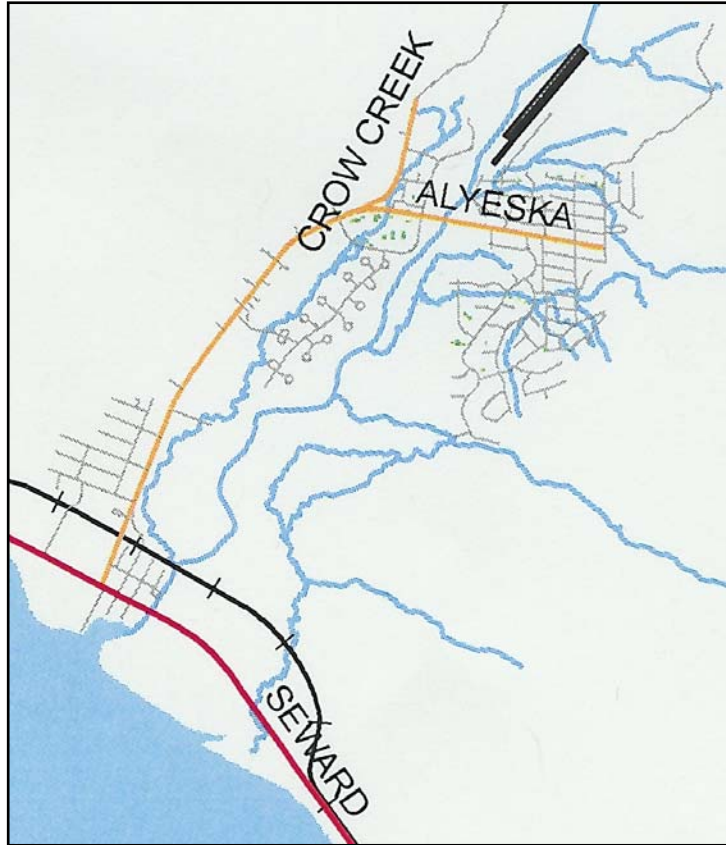
right-of-way must have a right-of-way permit (which includes location and design of all proposed improvements) before work can take place. If a service area desires an area study, as outlined in Section 4, the responsibility for payment of the study resides with the particular service area. Consultant selection for the study must follow Municipal purchasing procedures and the project will be managed by the Traffic Department. Construction costs associated with improvements identified in the specific area study are the responsibility of the service area. This does not, however, eliminate the possibility of the use of other traffic calming measures in addition to speed humps.

Chugiak Birchwood Eagle River Rural Road Service Area (CBERRRSA)

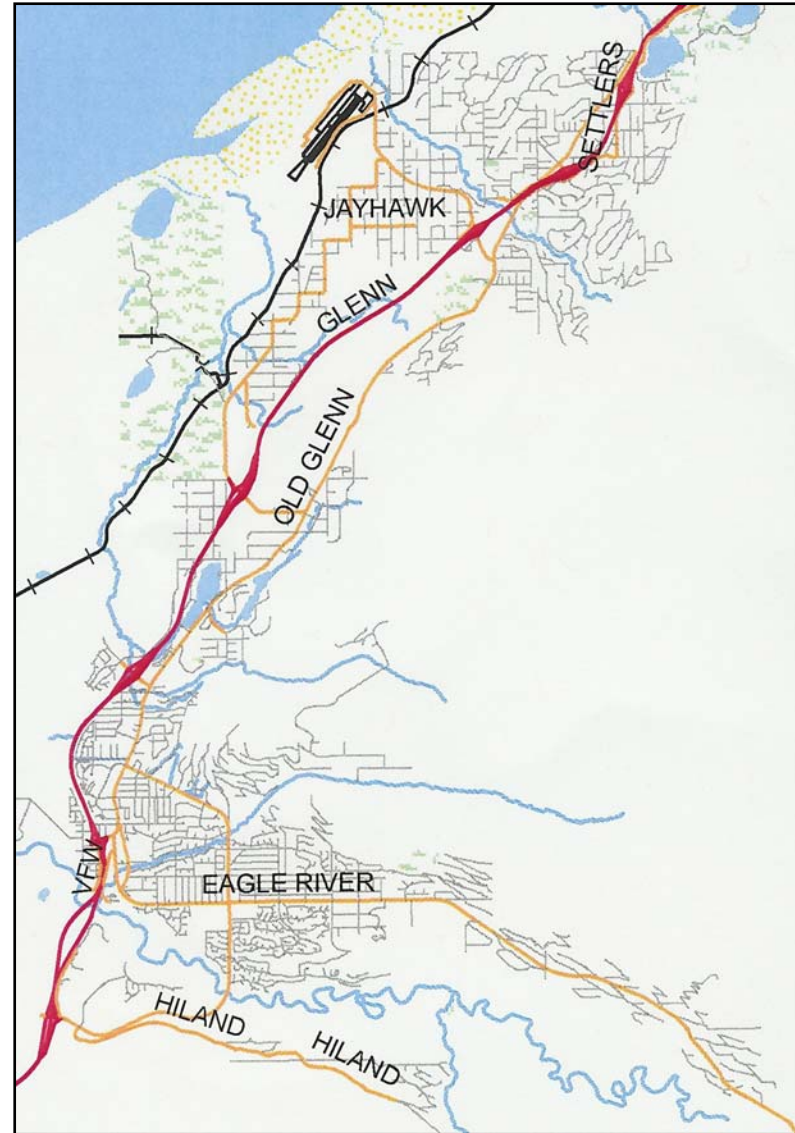
Similar to our process for traffic calming projects throughout Anchorage, a local resident of the

CBERRRSA will contact the Traffic Department and obtain a petition to collect the signatures of the adjacent residents supporting the project. The roadway must meet the criteria established in the MOA Traffic Calming Policy Manual in order to install speed humps. A letter supporting the traffic calming devices and accepting maintenance and construction financial responsibility has to be supplied by the Home-owners Association (if applicable) and sent to the Traffic Department. Based upon a Traffic Department review of the request, the petitioner will request an approval/non-objection motion from the CBERRRSA Board. Following CBERRRSA review, a letter or a copy of the meeting minutes stating approval (non-opposition) from the CBERRRSA must be supplied to the Traffic Department.

GVSA



CBERRRSA



ARDSA

