CITY OF MANTECA TRAFFIC CALMING PROGRAM

2025 Citywide Guidelines





CITY OF MANTECA

CITY OF MANTECA TRAFFIC CALMING PROGRAM (MTCP)

ENGINEERING DEPARTMENT



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TABLE OF CONTENTS

TABLE (OF CONTENTS	2		
1.1 1.2 1.3 1.4	BACKGROUND DEFINITION OF TRAFFIC CALMING PROGRAM GOALS AND OBJECTIVES COMMENTS OR QUESTIONS ERROR! BOOKMARK NOT DEFIN	4 4		
SECTIO	N 2 – STAGE 1 TRAFFIC CALMING PROCESS	5		
2.1 2.2 2.3 2.4 2.5	STEP 1 – PROJECT INITIATION STEP 2 – RESIDENT PETITION FOR SPEED LUMPS OR HUMPS STEP 3 – LIST OF TRAFFIC CALMING REQUESTS STEP 4 –TRAFFIC CALMING MEASURES STEP 5 – IMPLEMENTATION AND ASSESSMENT	6 7 7		
SECTIO	N 3 – STAGE 2 TRAFFIC CALMING	9		
3.1 3.2 3.3	TRAFFIC CALMING MEASURES DEPARTMENT AND MANTECA CITY COUNCIL APPROVAL IMPLEMENTATION AND ANALYSIS	9		
SECTIO	N 4 – TRAFFIC CALMING MEASURES	9		
4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 4.10 4.11 4.12 4.13 4.14 4.15 4.16 4.17	LANE NARROWING. SPEED LIMIT FEEDBACK SIGN. SPEED RADAR TRAILER. HIGH-VISIBILITY CROSSWALKS. CENTERLINE TREATMENTS. SPEED ENFORCEMENT. SPEED HUMPS. SPEED LUMPS. SPEED TABLES. RAISED CROSSWALKS. TRAFFIC CIRCLES. BULBOUTS. PEDESTRIAN ISLANDS. CHICANE. PARTIAL STREET CLOSURE. FULL STREET CLOSURE. STOP SIGNS.	10 10 11 11 12 12 12 13 13		
SECTION 5 – MTCP FLOWCHART15				
SECTION 6 – TRAFFIC CALMING REQUEST FORM16				
SECTION 7 - RESIDENT PETITION FOR SPEED LUMPS OR HUMPS				

SECTION 1 – INTRODUCTION

1.1 Background

The City of Manteca has had a traffic calming program since September 2000. However, since the first traffic calming program was initiated, the number of neighborhoods, local streets, traffic volumes, and residents have all increased as the City continues to grow. The Public Works and Engineering Departments have completed several successful traffic calming projects, but the demands and requests from Manteca residents continue to increase. Staff resources and funding have historically been and continue to be a limitation on the responsiveness to the community demands and the success of further traffic calming efforts will depend upon maintaining appropriate staffing and funding levels.

In September 2018, Engineering provided City Council with a presentation on traffic calming. Following this presentation staff completed a more thorough review of similar traffic calming programs that have been developed and adopted by other local agencies.

Engineering hosted a Public Meeting in November 2018 at which it presented the proposed City of Manteca Traffica Calming Program (MTCP). The comments, suggestions and recommendations from the participants and multiple City departments were reviewed and incorporated into the MTCP. The original Manteca Traffic Calming Program was submitted for approval by the City Council on November 20, 2018.

After more than 5 years of implementing the Manteca Traffic Calming Program City staff has identified the need to streamline and simplify the process. With the assistance of Traffic Consultant Fehr & Peers, the City has compared our program to other local agencies programs and used lessons learned from the past 5 years to make the process easier for residents and City staff.

1.2 Definition of Traffic Calming

As defined by the Institute of Traffic Engineers (ITE), July 1997, Traffic Calming is "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."

The City of Manteca also expands this definition to include non-physical measures such as educating motorists and enhanced enforcement.

The City's 2043 General Plan Amendment of the Manteca General Plan 2043 specifies the following guidance in Chapter 4. Circulation.

- C-2.9 Signals, roundabouts, traffic circles, and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.
- C-4.2 Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

The MTCP expands Traffic Calming measures to include Speed Humps, Speed Lumps, Speed Tables, Raised Crosswalks, and Pedestrian Islands.

1.3 Program Goals and Objectives

City staff frequently receive requests from residents to install measures such as speed bumps to slow or divert traffic.

While such measures may be effective in alleviating one type of problem consequences of improperly placed measures can result in increased traffic problems, shift of the problem to adjacent streets, and reduce the ability of emergency vehicles to maintain adequate response times. Additionally, the City does not currently have abundant funding or staffing to plan and construct measures throughout Manteca.

The MTCP objectives are summarized as follows:

- 1. Define a process for residents to request traffic calming measures for specific streets, areas, or neighborhoods.
- 2. Provide guidance for the types of traffic calming measures that may be considered, both as part of the resident's request and during the City's review of new developments.
- 3. Evaluate resident requests for traffic calming based on a community need.

The MTCP goals are summarized as follows:

1. Alter driver behavior and improve conditions for all street users.

- 2. Maintain adequate access for emergency vehicles.
- 3. Reduce cut-through traffic where existing levels are inappropriate and where the remedy will not create a problem on adjacent streets.
- 4. During plan review for new developments, the City may require appropriate traffic calming measures from the MTCP to be included in improvement plans. Traffic calming measures shall be implemented near parks, schools, and on Residential Streets.

Comments or questions on the Manteca Traffic Calming Program can be directed to:

City of Manteca
Engineering Department
1001 W Center Street, Ste. E
Manteca, CA 95337
Attn: City Engineer

Phone: (209) 456-8460

Email: mantecaeng@manteca.gov

Section 2 – Traffic Calming Request Process

This section describes the process for residents to request traffic calming measures. For a brief overview of the process, see the MTCP Flowchart (Section 5).

2.1 Step 1 – Project Initiation

If residents have traffic concerns on residential streets and collector roads, the first step to initiate the MTCP is to report the problem(s) to the City of Manteca Engineering Department by completing a Traffic Calming Request form on the City's website at:

https://www.manteca.gov/home/showpublisheddocument/6413/638411021391270000

The MTCP guidelines and Traffic Calming Request Form (Section 6) along with additional information are also available on the City's website at:

https://www.manteca.gov/departments/engineering/transportation-engineering.

When the form is submitted, City staff will evaluate the request to determine the nature of the problem and make sure that the requested location meets the eligibility requirements for Step 1 shown below.

Roadways are separated into the following categories:

 Residential Streets serve primarily to provide access for traffic emanating from adjacent residential properties and the street width is generally less than 36 ft from face of curb to face of curb. Homes being present along a roadway does not mean the roadway is categorized as a "Residential Street".

- Collector Roads are roadways collecting traffic from residential streets and discharging them onto arterial roads or collector roads.
- Arterial Roads are major roadways collecting traffic from multiple collector roads.

MTCP will be applicable only to "Residential Streets" and "Collector Roads" that have a speed limit of 30 mph or less and meet the following additional requirements:

- Road must be a two-lane road or a two-lane road with a two-way-left-turn lane (TWLTL).
- 75% of the adjacent land uses must be residences, schools, parks, or medical facilities.

The Director of Engineering reserves the right to alter the requested location along the same street at any point during the process and may also direct the use of other methods not described in these guidelines to determine the need for traffic calming.

The City <u>will not</u> implement traffic calming measures or conduct traffic calming studies on "Arterial Roads". The City <u>will not</u> implement traffic calming measures or conduct traffic calming studies on "Collector Roads" that have a speed limit above 30 mph.

If requesting an exception to any of the above eligibility requirements due to unusual situations or unusual circumstances, a detailed explanation must be submitted by the requesting individual. Submission does not guarantee an exception will be granted. City staff will evaluate each request for exception on a case-by-case basis and recommendation must be given by the Director of Engineering with City Council approval.

2.2 Step 2 – Resident Petition for Speed Lumps or Humps

After receiving the request form, City Staff will:

- 1. Determine if situation meets the eligibility requirements provided in Step 1
- 2. Determine if the use of speed lumps or humps would be appropriate traffic calming measure using the criteria in Step 4.
- 3. Provide the requesting party a list of affected addresses. The requesting party will be responsible for circulating a petition to the residents on this list to verify that they approve the installation of the speed lumps or humps in the requested street segment as a potential traffic calming measure. See Section 7 for the petition form.

The signed petition must:

• Be supported by at least two-thirds (2/3) of the residents within the requested street

segment, with only one signature allowed per address.

- The requested street segment must include a minimum of ten (10) households. In cases where meeting the minimum of ten (10) households is not feasible due to specific circumstances, exceptions may be considered by the City.
- Properties fronting any proposed speed lump placement must consent.

This step for neighborhood consensus is a vital component for the MTCP and to install speed lumps or humps. If the petition is not supported by at least two-thirds (2/3) of residents, the City may not move forward.

2.3 Step 3 - List of Traffic Calming Requests

After completion of Step 2, City staff will add the project to an Active Traffic Calming Project list ("Active List"). The Active List contains all projects ready for action to be taken by the City. When a project is delayed beyond control of the City, it will be moved to an Inactive Traffic Calming Project list ("Inactive List"). The Inactive List contains all projects pending action from the requesting party. When a project becomes active again it will be moved to the bottom of the Active List. Please note, the City may limit the number of projects per City Council District within the fiscal year to ensure that any one District does not use all available funding for the fiscal year.

2.4 Step 4 -Traffic Calming Measures

After completion of Step 3, City staff will explore possible solutions from the following Stage 1 traffic calming measures:

❖ Traffic Enforcement

 This is a traditional enforcement increase whereby the Police Department provides attention to the requested street segment in question. The intent is to modify behavior to result in a safer situation for all motorists, residents, and non-motorized activities

❖ Speed Radar Trailer

 Solar powered speed radar trailers can be used on a temporary basis to educate motorists of their driving speed and encourage speed limit compliance.

Traffic Signs and Pavement Markings

 City staff will review the existing traffic signing and pavement markings within the requested street segment. If necessary, staff will design and install additional signing or pavement markings or amend existing.

Speed Humps and Speed Lumps

Speed humps are vertical traffic calming devices intended to slow traffic speeds on low volume, low speed roads. The speed lump is a variation on the speed hump, adding wheel cut-outs designed to allow some emergency vehicles and buses to pass with minimal slowing while limiting most passenger cars, SUVs, and pickup trucks from fully passing through the cutouts. The City of Manteca prefers and has been utilizing speed lumps. Please see requirements below. Traffic calming measures consisting of installing speed humps or lumps must meet the following requirements:

- The Director of Engineering must recommend the installation of the speed lumps or humps.
- The Manteca Fire Department must concur with the placement of the speed lumps or humps.
- The Manteca Police Department must concur with the placement of the speed lumps or humps.
- The City will attempt to obtain 100% approval from property owners or residents whose property/residence is fronting the location of the proposed speed lumps or humps. The City will attempt a maximum of two (2) notifications. Notification method is at the discretion of the City. An example of this could be, one initial attempt using regular mail and if no response is received, the City may send one as certified mail. Non-responses will be considered as an approval.
- The street must not be a dead-end street.
- The street must have a minimum of 250 feet of straight and uninterrupted length between stop signs, traffic signals, other traffic controls, or bends in the road.
- Speed lump or hump installations should be separated from each other by at least 400 feet and from other in road traffic calming measures (such as traffic circles, etc.).
- Speed lumps or humps should not introduce traffic diversions. If the City has
 concerns of traffic diversions we may require the addition of affected street
 segments. The requesting party will be responsible for completing a petition for
 any additional street segments.
- Speed lumps or humps shall be considered only where a minimum safe distance can be provided from the closest intersection.
- Funding for the purchase and installation of speed lumps and humps must be identified and available.

2.5 Step 5 – Implementation and Assessment

Installation of traffic calming measures will typically be completed by the City Public Works Department and will be dependent on their workload. If the City Public Works Department cannot perform the work the City may opt to use a qualified contractor to perform the work. However, this would significantly increase the implementation time and cost depending on the scope of the work.

After Stage 1 traffic calming has been implemented, City staff may do additional assessment and decide to analyze the possibility of stage 2 as described in section 3. The assessment will

determine if the traffic calming measure(s) was effective. If the traffic calming measure(s) has been successful, the process will end at this point. Not all measures are appropriate for all streets and for some street no additional measures may be appropriate.

Section 3 – Stage 2 Traffic Calming

3.1 Traffic Calming Measures

City staff will conduct a focused study to identify if there are any appropriate solutions to the traffic challenges. Results of the study may be presented to the affected parties through public outreach. Potential solutions could involve physical modifications of the street intended to control traffic speeds and/or volumes. Since these solutions are more costly and may take considerable time to implement, Stage 2 traffic calming measures will be subject to funding availability.

Not all measures are appropriate for all streets and for some streets no additional measures may be appropriate.

3.2 Department and Manteca City Council Approval

If City staff determines additional traffic calming measures are appropriate, a proposal will be brought to the Director of Engineering and may receive input from the Traffic Solutions Committee and Fire Department for initial approval. Final approval will be subject to funding for implementation and decided by the Manteca City Council during a scheduled City Council meeting.

3.3 Implementation and Analysis

When Stage 2 traffic calming measures are implemented and have been in use for a period of at least six months, City staff will perform an effectiveness assessment to evaluate before and after conditions. This follow-up evaluation allows the City to gauge the success of implemented traffic calming for the particular street segment in which it was installed. In this way, refinement of future traffic calming could be done to ensure the effectiveness of projects.

Section 4 – Traffic Calming Measures

The following traffic calming measures constitute the standard toolbox of devices available when developing traffic calming solutions.

This list of the traffic calming measures reflects what would be potentially available through the MTCP. Sufficient funding should be identified and developed for implementation and long-term maintenance.

4.1 Lane Narrowing

Lane striping can be used to create formal bicycle lanes, parking lanes, buffered bicycle lanes, or simple edge lines. As a traffic calming measure, they are used to narrow the travel lanes for vehicles, to encourage drivers to lower their speeds.





4.2 Speed Limit Feedback Sign

Permanent Solar powered speed limit signs can be used to educate motorists of their driving speed and encourage speed limit compliance.



4.3 Speed Radar Trailer

Temporary solar powered speed radar trailers can be used to temporarily educate motorists of their speed and encourage speed limit compliance.

Residents can request a speed radar trailer by submitting a request using the City's Government Outreach on the City of Manteca website at:



https://www.manteca.gov/residents/report-an-issue

4.4 High-Visibility Crosswalks

High-visibility crosswalks use special marking patterns and raised reflectors to increase the visibility of a crosswalk at night. Although the effectiveness of this traffic calming measure in school zones is high, it requires more maintenance than normal crosswalks.



4.5 Centerline Treatments

Streets with curves may benefit from the installation of enhanced centerline treatments such as raised pavement markers, reflectors, or intermittent grind patterns. This traffic calming measure can help keep drivers in the appropriate travel lane on curves and under low visibility conditions and encourages reduced speeds.



4.6 Speed Enforcement

When appropriate, the Engineering Department will work with the Manteca Police Department to target specific areas identified during the data collection process to enforce speed limits and other traffic laws in neighborhoods. By sharing key traffic data, officers can focus their patrols on the times and places where speeding most often occurs. Long-term periodic daytime speed enforcement on certain problem corridors may result in driver changes over time. This traffic calming measure can be used in areas that do not qualify for engineering solutions to traffic challenges.

4.7 Speed Humps

Speed humps are rounded raised areas placed across the street approximately 3 inches high at their center and extending the full width of the street, tapering near the drain gutter to allow unimpeded bicycle travel. The traditional hump ranges from 14 feet to 22 feet in length. The longer humps, also known as speed tables, are much gentler for larger vehicles. This raised pavement serves to physically force motorists to reduce their



speed. This measure shall not be approved on Emergency Response Routes and other locations shall be carefully considered in order to avoid impacts to emergency vehicles and bus routes.

Speed humps are different from speed bumps, which are commonly used in parking lots or on private streets. The City of Manteca does not allow speed bumps on public streets.

4.8 Speed Lumps

Speed lumps are a variation on the speed hump, adding wheel cut-outs designed to allow large vehicles, such as emergency vehicles and buses, to pass with minimal slowing. The design limits passenger cars, SUVs, and pickup trucks from fully passing through the cutouts unimpeded.

Speed lumps have a similar reduction in speeds when compared to speed humps. Speed lumps shall be carefully considered in order to avoid impacts to emergency vehicles and bus routes.



4.9 Speed Tables

Speed tables are flat-topped speed humps with a long flat section that are generally used at crosswalk locations and can be used on streets with posted speed of 25 mph or less. These are typically long enough for the entire wheelbase of a passenger car to rest on top. Their long flat fields and ramps that are sometimes more gently sloped than speed humps, give speed tables higher design speeds than speed humps.



Speed humps, lumps, and tables require signing and roadway markings to make their presence known to motorists and other roadway users.

4.10 Raised Crosswalks

Raised crosswalks are speed tables striped with crosswalk markings and signage to channelize pedestrian crossings, providing pedestrians with a level street crossing. This measure shall not be approved on Emergency Response Routes.



4.11 Traffic Circles

Traffic circles are raised islands, placed in intersections, around which traffic circulates. Stop signs or yield signs can be used as traffic controls at the approaches of the traffic circle. Traffic circles prevent drivers from speeding through intersections by impeding the straight-through movement and forcing drivers to slow down. Depending upon the size of the intersection and circle, trucks may be permitted to complete turn



left in front of the circle. This measure could potentially affect emergency response times and bicyclists must merge with traffic around traffic circle.

4.12 Bulbouts

Bulbouts are raised curb extensions that narrow the travel lane at intersections or midblock locations. Bulbouts "pedestrianize" intersections by shortening the crossing distance and decreasing the curb radii, thus reducing turning vehicle speeds. Both of these effects increase pedestrian comfort and safety at the intersection.



4.13 Pedestrian Islands

A pedestrian island is a raised section of pavement between minimum two lanes of traffic moving in opposite directions. While pedestrian islands may be used on both wide and narrow streets, they are generally applied at locations where speeds and volumes make crossings prohibitive, or where three or more lanes of traffic make pedestrians feel exposed or unsafe in the intersection.



4.14 Chicane

Chicanes consist of a series of curb extensions that narrow the street at selected points and force motorists to slow down to maneuver between them. They alternate from one side of the street to the other to form S-shaped curves. Chicanes design features can create a park-like environment and encourage additional landscaped area but must be designed carefully to avoid drivers from deviating out of the appropriate lane.



4.15 Partial Street Closure

Partial street closures are barriers that block vehicle travel in one direction for a short distance on otherwise two-way streets. Bicycle travel is typically not diverted.

This measure is often used in sets to make travel through neighborhoods with gridded streets circuitous rather than direct. Partially closing access to a neighborhood street will certainly



increase traffic on surrounding streets. These should be used as measures of last resort and only considered if other less restrictive physical measures have failed.

4.16 Full Street Closure

Full street closures are barriers placed across a street to close the street completely to through traffic, usually leaving only sidewalks or bicycle lanes open. The barriers may consist of landscaped islands, walls, gates, side-by-side bollards, or any other obstructions that leave an opening smaller than the width of a passenger car.



Fully closing access to a neighborhood street will certainly increase traffic on surrounding streets. These should be used as measures of last resort and only considered if other less restrictive physical measures have failed.

4.17 Stop Signs

Stop signs are considered Traffic Control Devices and not Traffic Calming Measures. Stop signs are intended to control the flow of traffic and assign right-of-way. It is common for residents in many communities to request installation of stop signs at specific locations to slow travel speeds or discourage cut-through traffic. However, stop signs should be used only when warranted by traffic engineering standards. They may encourage higher midblock speeds to compensate for time lost and increase noise and air pollution.



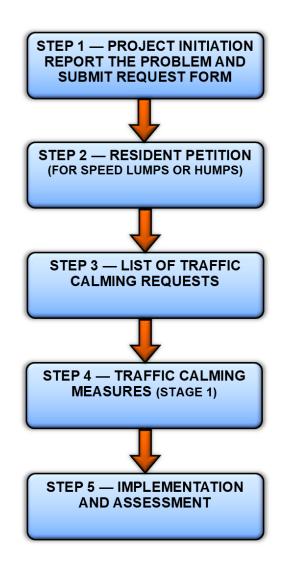
The City of Manteca supports the following provisions from the Caltrans Traffic Manual:

- Stop signs should not be used for speed control.
- Care should be taken not to install too many signs. Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness.

Section 5 - MTCP Flowchart



Flowchart for the Manteca Traffic Calming Program (MTCP)



After Stage 1 is complete, City may do additional assessment and decide to analyze the possibility of Stage 2 and additional traffic calming measures. Not all measures are appropriate for all streets and for some streets no additional measures may be appropriate.

Section 6 – Traffic Calming Request Form

The purpose of this form is to enable residents to request the possible initiation of a traffic calming project in accordance with the City of Manteca Traffic Calming Program. The form must be filled out in its entirety and submitted by mail or in person to:

City of Manteca Engineering Department 1001 W Center Street, Ste. E Manteca, CA 95337 Attn: Traffic Engineering

Or by Email to: mantecaeng@manteca.gov, Subject: Traffic Calming Request

Feel free to attach additional sheets containing photos, maps, or additional texts if the space provided is insufficient.

1.	Re	equesting Individual's Contact Information:
	*	Name:
		Address:
		Phone Number:
		Email Address:
2.		equested location for traffic calming (example: A Street between 1 st Avenue d 2 nd Avenue):
3.		ease describe the nature of the traffic problem you are concerned with tach additional sheets or maps if necessary):

Section 7 – Resident Petition for Speed Lumps or Humps

City of Manteca Traffic Calming Program (MTCP) Petition Form

All persons signing this petition do hereby agree that the following person(s) represent the neighborhood as facilitator(s) between the neighborhood and the City of Manteca staff regarding the speeding issue at the following segment: Broadway Street from A Street to B Street

ĺ		NAME OF APPLICANT	ADDRESS / PHONE NO.	EMAIL
	1			
ĺ	2			

START PETITION HERE - REQUIRED TO OBTAIN 2/3 ^{RDS} OF LISTED ADDRESSES - ONLY ONE SIGNATURE PER ADDRESS (DUPLICATES DO NOT COUNT)						
NAME	ADDRESS	PHONE NO.	EMAIL	SIGNATURE *	DO YOU CONSENT TO HAVE SPEED LUMPS IN FRONT OF YOUR PROPERTY? ** YES/NO	ARE YOU THE PROPERTY OWNER? YES/NO
						_
		ADDRESS	ADDRESS	ADDDESS	ADDRESS	NAME ADDRESS PHONE NO. EMAIL SIGNATURE * DO YOU CONSENT TO HAVE SPEED LUMPS IN FRONT OF YOUR PROPERTY? **

^{*} Signing and submitting the petition does not guarantee installation of speed lumps.

^{**} Speed lumps will not be installed in front of driveways.

^{**} Minimum of 4 properties required to consent to speed lump placement fronting their property. The 4 properties must provide a feasible and appropriate location for speed lump installation that aligns across the roadway.

Notes