

Approved by City Council on \_\_\_\_\_



## NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM (NTMP)

SEPTEMBER 2020

1414 Mission Street, South Pasadena, CA 91030



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# Introduction

The City of South Pasadena Neighborhood Traffic Management Program (NTMP) is a city-wide initiative to empower citizens to address traffic calming concerns. The need for the program stemmed from the City's desire for an equitable, systematic and easily accessible approach to handling neighborhood traffic calming requests.

This document provides a framework for the selection, application, and implementation of traffic calming improvement measures, contingent upon available funding, in the City of South Pasadena. Annually the City Council will need to designate funding for the NTMP program to allow data collection, traffic studies, and implementation of traffic calming features.

This document shall be considered a "living document" in order to ensure the most current industry-wide information and tools are available to the City. This document may be updated at any time by the City Engineer/Public Works Director, as a new device, technique or policy is developed, tested and implemented.



## 1. Goals

Goals of the Program are:

- Reduce the speed of vehicles on residential streets, with demonstrated speeding problems, to levels consistent with speeds on more typical South Pasadena residential streets.
- Increase safety by reducing demonstrated accident patterns on impacted residential streets to levels consistent with those of typical South Pasadena residential streets.
- Develop and emphasize focused neighborhood educational programs that address residential traffic problems.
- Implement selective enforcement actions in neighborhoods with demonstrated or perceived traffic-related problems.
- Eliminate, or discourage, non-local, cut-through traffic on residential streets.
- Encourage citizen participation throughout the Program by seeking the input of affected residents and non-resident property owners through neighborhood meetings, written communication, and open forum opportunities with Public Works Commission, Public Safety Commission, and with City Council.
- Minimize impacts on emergency vehicle response times caused by the implementation of neighborhood traffic calming measures.
- Limit the potential for shifting traffic problems from one residential neighborhood to

another when implementing traffic calming measures.

- Provide an initial response to program inquiries within three business days of receipt and follow-up with an estimated time of completion.



## 2. Objective

The overall objective of the City's Neighborhood Traffic Management Program is to utilize where applicable, traffic calming measures to improve the livability of our neighborhoods, encourage multi-modal use of our traveled ways, promote walkability of our streets, and to minimize adverse impacts of vehicular traffic on residential streets through a system of education, enforcement, and engineering.



## 3. What is Traffic Calming?

South Pasadena residents have expressed concern about speeding and cut-through traffic in residential neighborhoods. In response to public interest, the City has developed a Neighborhood Traffic Calming Policy.

The Institute of Transportation Engineers defines "Traffic Calming" as the following:

"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 South Pasadena expands this definition to include non-physical measures such as educational programs and enhanced enforcement.



## 4. What are Traffic Calming Measures?

Neighborhood traffic calming measures are an attempt to enhance traffic and pedestrian safety and preserve neighborhood character and livability. These tools will be used to address South Pasadena's residential neighborhood traffic concerns. There are a number of traffic calming devices that are available to achieve this effect. Traffic calming measures are chosen from a toolbox and will be implemented after careful analysis and review of traffic concerns, consideration of roadway characteristics, and availability of funding. Specific traffic calming

measures can be used to address problems with speeding, cut-through traffic, increased volume, and safety.

There are several traffic calming devices that are available to achieve this effect.

Stage 1: Non-physical features include increased enforcement and traffic signing and striping

Stage 2: Physical features that may include speed humps, bulb-outs, and roundabouts\*

\*Note: Installation of Physical traffic control devices must be justified by an engineering traffic study



## STEP 1 Petition Request – Report the Problem

The NTMP process begins with a petitioner's request. If a resident feels as though there are speeding or traffic concerns on a residential street, the first step is to report the problem to the City of South Pasadena. City Staff will note your complaint and provide the resident with a Traffic Calming Petition Form. When the form is completed and submitted, City Staff will evaluate the complaint to determine the nature of the problem and ensure that the location first meets the following criteria:

- Street must be classified as a "Residential" roadway.

In order to qualify for NTMP consideration, the roadway segment(s) must be a local or residential street. The City will not implement traffic calming measures or conduct traffic calming studies on arterial or collector streets. Please see Figure 2 for the City's "Roadway Classification Map."

If a location does not qualify for traffic calming, the City may opt to deploy the speed feed-back trailer or utilize directed enforcement for a predetermined amount of time or discuss other options.



## STEP 2 Petition Screening & Neighborhood Consensus

City Staff will complete the screening process on a "first come -first serve" basis. The NTMP process will begin with a resident request by submitting a petition. City Staff will screen the petition, verify signatures, and confirm if the location is a residential street. If the roadway

segment meets criteria, then the petitioner would be required to obtain a minimum of 67% signatures from property owners/residents along the roadway street segment (s) of concern. Depending on the nature of the request, the area of impact may require additional signatures. The area of impact, which are streets in the immediate area that may be impacted by the proposed traffic calming solution, will be determined by City staff and will be communicated to the petitioner, as needed.



### STEP 3 Data Collection

If the 67% signatures are obtained, and City Staff deems the application complete, then City Staff will proceed with collecting traffic data (traffic volumes, speed data, and collision history) for the street roadway segment of concern, if funding for data collection is available.

To qualify for traffic calming consideration, at least one of the following criteria must be satisfied:

#### **Speeding Thresholds**

If 85% percentile speed is 10 miles per hour above the posted speed limit, then the street would be eligible for Traffic Calming.

#### **Traffic Volume Threshold**

If the average weekday daily traffic is at least 2,500 vehicles per day, then the street would be eligible for Traffic Calming.

#### **Collision Threshold**

Within the study area, there are at least three preventable collisions in the past five years.



### STEP 4 Stage 1 Non-Physical Traffic Calming

If the roadway street segment(s) identified in the petition are ineligible for NTMP consideration based on criteria outlined in Step 3, then the request is denied, and the matter is closed.

If the resulting data collection satisfies the thresholds identified in Step 3, City Staff will first suggest a Stage I approach, which may include the following:

- Radar Speed Trailer Deployment

- This is a temporary and mobile electronic device that displays the posted speed limit sign above the real-time travel speed of the passing vehicle. The purpose of this tool is to alert motorists that may be exceeding the posted speed limit.
- Directed Enforcement Actions
  - This is traditional enforcement activity on the part of the Police Department's traffic enforcement officers. The intent is to deter unsafe behaviors at specific times and locations in residential areas.
- Traffic Signing and Pavement Markers
  - Public Works Staff will review all the existing traffic signing and pavement markings in the area. If necessary and if funding is available, Staff will install additional signing and/or striping. When appropriate, changes and additions will be reviewed with interested neighbors.



## STEP 5 Post Data Evaluation

Post traffic data will be collected six months after the Stage 1 Traffic Calming measures are implemented if funding is available. City Staff will analyze traffic data (i.e., speeds, volume, and collisions) to determine if the Traffic Calming measures were successful. If the post data collected reduces conditions to below the thresholds limits in Step 3, traffic calming is achieved, and the petition will be closed out. If post data continues to range above Stage I minimum criteria, then City Staff will recommend possible Stage 2 Traffic Calming methods.



## STEP 6 Stage 2 Traffic Calming Study

Once post data is evaluated, and City Staff determines the study area (boundaries of the impacted area), the application will advance to Stage 2, if funding is available. A formal Traffic Calming Study will be conducted by the City's Traffic Engineer to identify the appropriate improvement measure to address the traffic concerns. City Staff will coordinate and communicate with the petition lead to inform the residents and property owners of the traffic calming process and the recommended Stage 2 improvements. Stage 2 traffic calming methods may include the following:

- Speed Humps:
  - Speed humps are raised traffic calming devices installed across the roadway to slow vehicles by elevating the wheelbase of the vehicle. Speed humps are approximately 12 feet in width and vary from 2.5 to 3.5 inches in height and should

be placed in close proximity to street/safety lighting. Speed hump consideration must comply with the City's Speed Hump Policy.

- Speed Tables:
  - Speed tables are raised long, flat-topped devices generally used at crosswalk locations. Both speed humps and speed tables included signing, roadway pavement markings, and appropriate lighting to make their presence known to motorists.
- Traffic Circles:
  - Traffic circles are raised circular islands located in the center of an intersection. This device forces traffic to meander around the traffic circle and prevents straight-through movements, and forcing vehicles to yield. Yield signs may be installed to alert motorists to slow down when entering the intersection.
- Curb Extensions, Chokers, Chicanes:
  - These devices are raised additions of the sidewalk that extend into the roadway, typically no further than the width of the parking lane. These can be done at street entries and exits as well as mid-block locations. These various methods narrow the roadway resulting in reduced vehicle speed and provide pedestrians with shorter crossing distances at intersections.
- Median Entry/Exit Islands:
  - Center island narrowing features are raised island locations along the centerline of a street, which narrows the travel lanes to limit traffic volumes. These are traffic islands used to create narrower roadway passages at entry and exit points.
- Median Barriers:
  - Median barriers are raised island located along the center of a roadway and continue through an intersection as to block through movement at a cross street.
- Raised Crosswalk:
  - Raised crosswalks are speed tables striped with a crosswalk on a top flat section. Raised crosswalks are accompanied by appropriate pedestrian signage and lighting to provide pedestrians with an enhanced, more visible, level street crossing.
- Forced Turn Islands, Barriers, Channelization:
  - Forced-turn islands are raised that prohibit specific movements at an intersection.



- Diagonal Diverters:
  - Diagonal diverters are barriers placed diagonally across an intersection to restrict through movements. These barriers may be staggered throughout a neighborhood to create a more circuitous road network.
- One-Way Streets:
  - This is when traffic on the street is regulated only to allow traffic to flow in one direction. Usually, this is accomplished through sign placement.
- Partial/Half-Street Closure:
  - Partial or half street closures are barriers that block entry to a street in one direction on otherwise two way streets.
- Street Closures and Cul-de-sacs:
  - A full closure restricts vehicles access to a street in order to reduce overall traffic and cut-through traffic.

Before considering the installation of any Stage 2 traffic calming device, the following criteria must be met:

1. Installation must not result in traffic diversion to other neighborhood streets.
2. At least 67% of the impacted residents and 100% of the residents within 100 feet of the proposed device shall support the installation.
3. Devices shall be located a minimum of 25 feet from driveways, utility holes, drain inlets, water valves, street monuments, and other appurtenances.
4. Devices shall be located a minimum of 25 feet from fire hydrants.
5. Devices shall be installed only where a minimum safe stopping distance can be provided.
6. South Pasadena Police and Fire Departments must approve the plan to assure that emergency response times or access are not negatively affected.

### **Stage 2 - Community Approval Process**

The City's consulting traffic engineer will develop a conceptual plan with appropriate traffic calming improvements to address existing and potential issues within the neighborhood. A voting survey with a conceptual plan will be mailed to affected residents/property owners. Voting is required to ensure the community accepts the Stage II traffic calming improvements.

The following general criteria must be met in order to proceed to the final design and implementation phase for any Stage 2 traffic calming measure:

1. The City will develop a concept plan, host a meeting to discuss the plan, and then petitioner to obtain signatures/approval of the plan. At least 67% minimum approval of the affected residents must vote "YES." 100% "YES" vote from the residents immediately adjacent to the proposed measure. The above criteria must be met, and funding must be secured in order to proceed to the final design and implementation phase.
2. If funding is not available, then the process stops, and the petition will be closed out.

Residents, property managers, and property owners can all participate in the survey.

If the 67% approval rate and 100% of the immediately adjacent residents/property owners are not met, then the process stops, and the petition will be closed out.



#### STEP 8 City Council Approval

Once the survey is complete with the required approval rating, then the solution will be presented to City Council for authorization and funding to begin design drawings. Once final design plans are completed, they will be presented to the City Council for final approval and construction funding. This process will include a formal Public Hearing.



#### STEP 9 Implementation

After the formal Public Hearings and City Council approval, implementation of the project will be scheduled and added to the Capital Improvement Program for funding prioritization. If the Project remains unfunded for three years, and if funding does not become available within the three years, then the Project will be closed out, and the neighborhood will need to be re-evaluated.

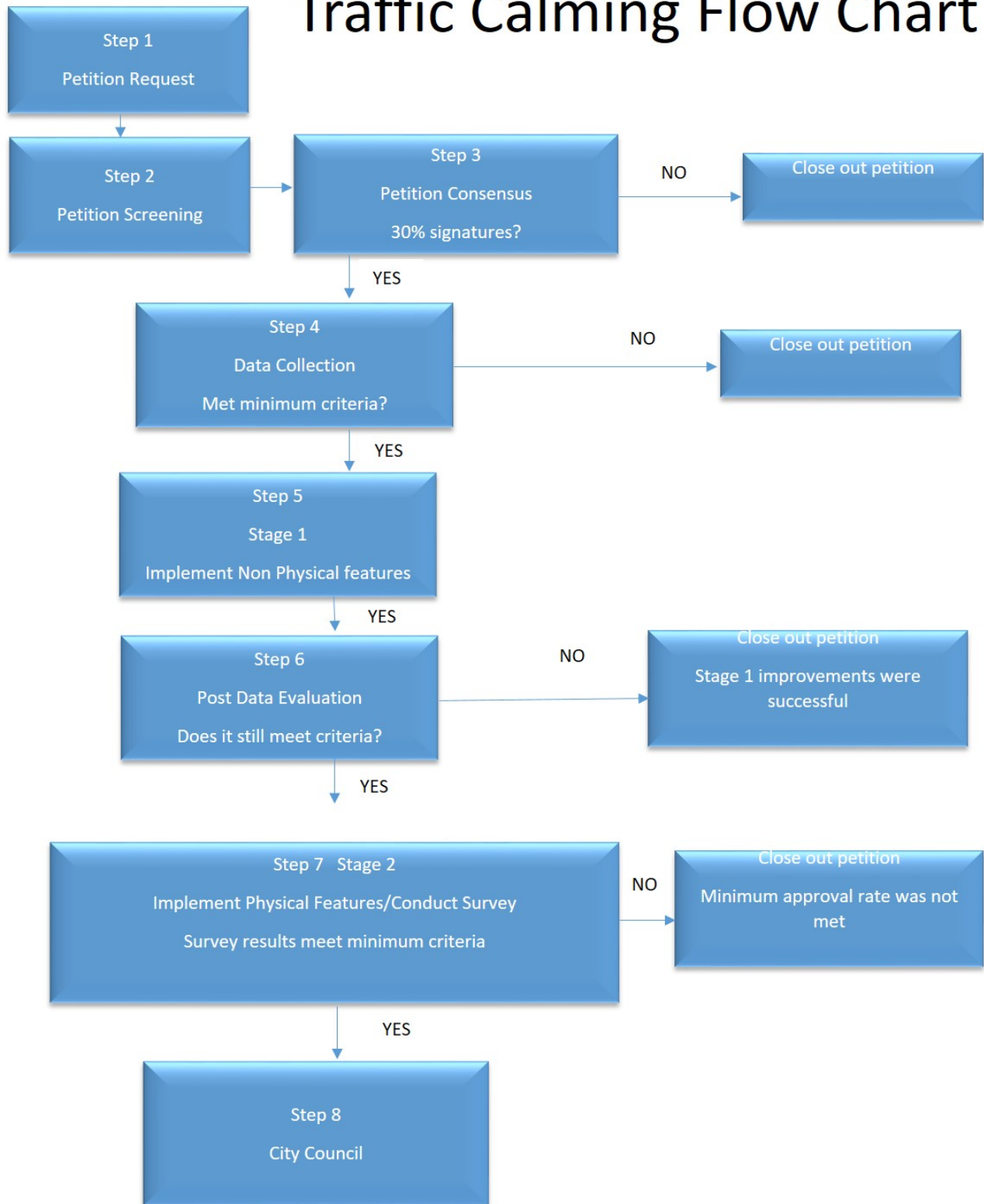
## Traffic Calming Plan Development

When selecting items for traffic calming improvement projects, City Staff will take into consideration a range of factors including:

- Impacts on all users, including emergency vehicles, pedestrians, and cyclist
- Prevent spillover issues to adjacent streets
- Recommend the most cost-effective traffic calming measures to increase the overall effectiveness
- Characteristics of each roadway
- Placement of traffic calming measure to achieve desired results

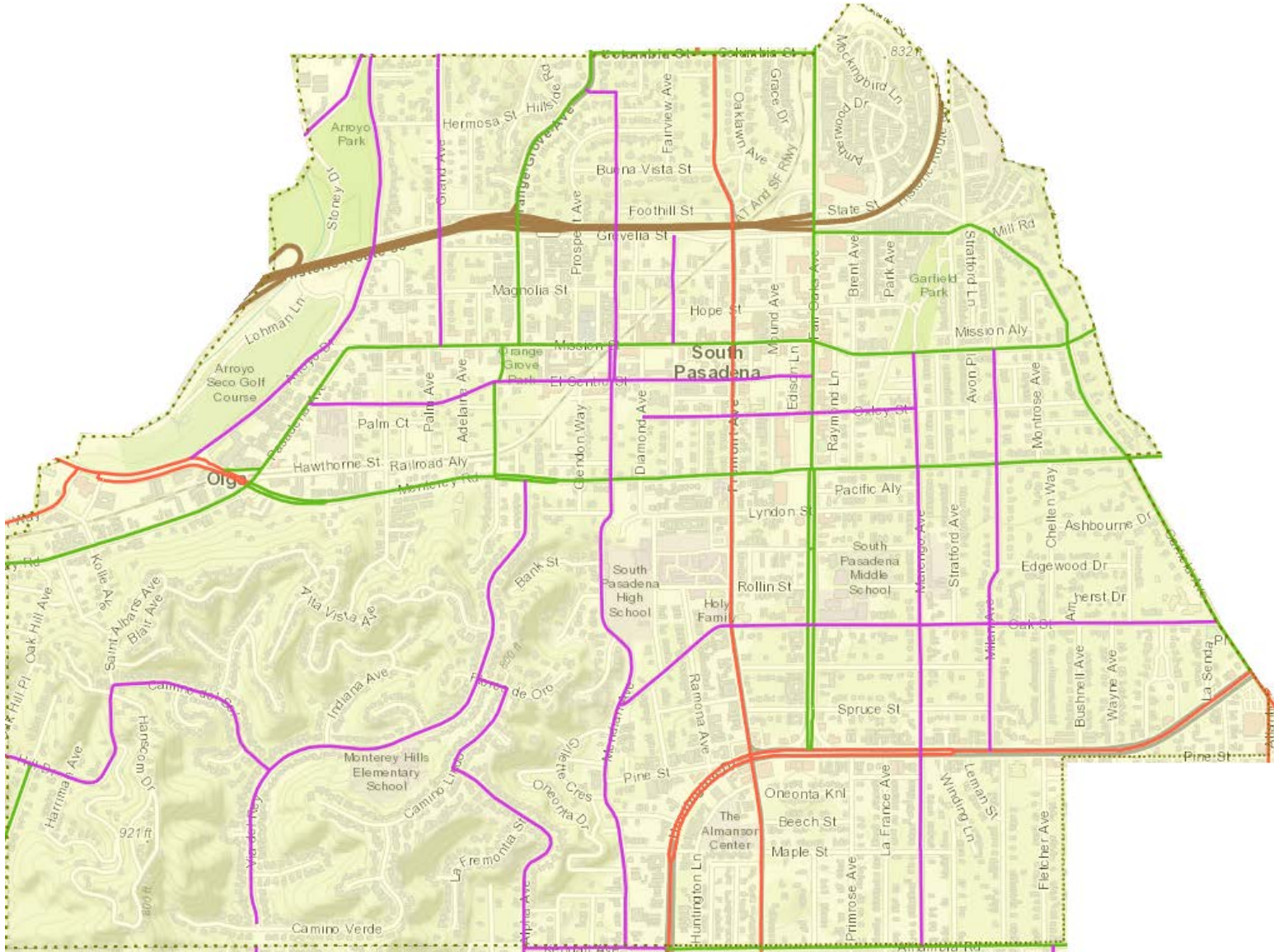
## Traffic Calming Flow Chart

# Traffic Calming Flow Chart





# Figure 1 South Pasadena Roadway Classification Map



- Interstate
- Other Fwy or Expwy
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

## Appendix 1 Traffic Calming Request Form

### Neighborhood Traffic Calming Request Form

The purpose of this form is to initiate a possible traffic calming study within a neighborhood in accordance with the City of South Pasadena Neighborhood Traffic Management Program. The form must be filled out in its entirety and submitted to:

**Department of Public Works**

City Hall - Public Works and Engineering

1414 Mission Street, 1st Floor

South Pasadena, CA 91030

Phone: (626) 403-7240; Fax: (626) 403-7241

1. Petitioner Lead Contact Information:

Name:

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Address:

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Phone Number:

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Email:

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2. Please describe the location of the traffic concern. Attach a map or picture if necessary:

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3. Please describe the nature of the traffic calming issue (attach additional sheets if necessary):

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## Appendix 2 Traffic Calming Petition Signature Form

**Petitioner Lead Name:**

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The petition must be signed by at least 67% of the residents/property owners on the affected street in order to continue with the traffic calming procedures.

THE UNDERSIGNED AGREE TO THE FOLLOWING:

1. All persons signing this petition do hereby certify they reside within the impacted area, which is hereby defined as the street segment of:

---

Street Name/Location

2. All persons signing this petition do hereby agree of the following traffic concerns at the following location:

---

Street Name/Location

Neighborhood Petition Form				
	Name	Address	Phone #	Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

## Appendix 3 Traffic Calming Toolbox

### TRAFFIC CALMING TOOLBOX

The purpose of the Traffic Calming Toolbox is to provide City traffic engineers with a guide on implementing the best traffic measures for developing neighborhood traffic management plans. The devices vary in their ability to treat various traffic-related concerns. This Appendix provides guidance on selecting the most appropriate devices given the type of specific traffic-related concern and streets being treated.

### NEIGHBORHOOD TRAFFIC MANAGEMENT DEVICES

The toolbox is divided into different sections based on whether each tool is applicable to Stage I and Stage II.



#### Stage I: NON-PHYSICAL DEVICES TRAFFIC CALMING DEVICES

Stage I improvements are non-physical devices that do not require physical changes to the roadway. Stage I improvements are intended to increase driver's awareness of surroundings and influence driver behavior without physical devices. This category includes the following devices:

- Targeted Speed Enforcement
- Speed Feed-back Trailer
- Signage
- Centerline/Edge line stripe
- Speed Legends



## TARGETED SPEED ENFORCEMENT

City Staff will identify locations for temporary, targeted enforcement, based on personal observations and survey comments. A request can be submitted to the City of South Pasadena Police Department for the desired enforcement. Depending on Police Department resources, the targeted enforcement may be limited in duration. Targeted enforcement may also be used in conjunction with new neighborhood traffic management devices to help drivers become aware of the new restrictions.



### Advantages

- Inexpensive if used temporarily
- Does not physically slow emergency vehicles or buses
- Quick implementation
- Can be applied on roadways that are non-qualifying for NTMP

### Disadvantages

- The Police Department may have limited resources for traffic calming concerns
- Effectiveness is temporary

### Cost

No Cost Anticipated, Depends on Available Police Resources

## SPEED FEED-BACK TRAILER

Speed feed-back signs measure approaching vehicle's real-time speeds, which is displayed to drivers on an electronic sign that flashes when the vehicles' speeds exceed the posted speed limit. Speed feed-back signs are typically mounted on or with speed limit signs and are most common in school zones.



### Advantages

- Real-Time speed feedback
- Does not physically slow emergency vehicles or buses
- Permanent installation

### Disadvantages

- May require power source
- Only effective for one direction of travel
- Long-term effectiveness uncertain
- Subject to vandalism
- Requires specialized maintenance

### Cost

No Cost Anticipated, Depends on Available Police Resources

## SIGNAGE

Signage may help increase motorist's awareness of restrictions and help to deter unsafe behavior:

- Truck Restriction Signs
- "Cross Traffic Does Not Stop" Signs



### Advantages

- Inexpensive and easy to install
- Restrictions can reduce cut-through traffic
- Does not impact emergency response or buses

### Disadvantages

- May become ineffective over time
- Effectiveness may be limited by motorists acceptance of regulations

### Cost

\$100 - \$250

### CENTERLINE/EDGE LINE LANE STRIPING

Lane striping can be used to delineate the edge of bicycle lanes, parking lanes, parking pavement markings, or edge lines. Edge line striping is reserved for locations to mark shoulders less than 5-feet. If there is more than a 5-foot shoulder, hatch striping shall be included. Striping can serve to visibly narrow the travel lanes for vehicles and encourage drivers to lower their speeds.

<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>▪ Inexpensive</li> <li>▪ Does not physically slow emergency vehicles or buses</li> <li>▪ May reduce vehicle speed</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>▪ Requires regular maintenance</li> <li>▪ Reduce on-street parking</li> </ul> <p><b>Cost</b></p> <p>\$1,000 - \$5,000</p>
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### SPEED LEGEND

Pavement legends are numbers painted on the roadway, indicating the posted speed limit. They are typically placed in conjunction with a posted speed limit sign to act as a reminder of the posted speed limit. Pavement legends can be useful in reinforcing a reduction in speed



limit between one segment of a roadway and another segment. They may also be placed at major entry points into a residential area and school zones.

<p><b>Advantages</b></p> <ul style="list-style-type: none"> <li>▪ Inexpensive</li> <li>▪ Helps to reinforce speed limit or a changed condition</li> <li>▪ Does not impact emergency response or buses</li> </ul> <p><b>Disadvantages</b></p> <ul style="list-style-type: none"> <li>▪ Requires regular maintenance</li> </ul> <p><b>Cost</b></p> <p>\$500</p>
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## STAGE II – PHYSICAL TRAFFIC CALMING DEVICES

Stage II are physical traffic calming measures that use variations in pavement height and alternative paving materials to physically reduce travel speeds. Stage II devices in the toolbox could include:

- Speed Tables/Raised Crosswalks
- Speed Lumps / Humps
- Traffic Circles
- Roundabout
- Neckdown/Choker/Chicanes
- Center Island Narrowing
- Two-Lane Choker
- Partial Closure
- Diagonal Diverter
- Forced Turn Island
- Turn Restriction Signage

The above listed Stage II devices are examples and should be considered only after justified by an engineering study of by engineering judgment and are not guaranteed.

### SPEED TABLES

Speed tables are flat-topped speed traffic calming devices that lift the wheelbase of vehicles. They are approximately 22 feet long and 3 to 3.5 inches high. The long flat fields, plus ramps that are more gently sloped than speed lumps, give speed tables higher design speeds than lumps and thus may be more appropriate for streets with higher ambient speeds. Brick or other textured materials improve the appearance of speed tables, draw attention to them, and may enhance safety and speed reduction.

The magnitude of reduction in speed is dependent on the spacing of speed tables between points that require drivers to slow. On average, speed tables achieve an 18% reduction in speeds.

#### Advantages

- Effective at reducing speeds
- Aesthetics can be improved through alternative materials

#### Disadvantages

- Increased noise
- Delayed Emergency Response
- Textured treatment could be costly

#### Cost

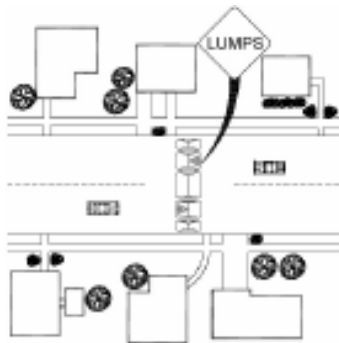
\$2,500



**SPEED LUMPS/HUMPS**



Speed lumps are rounded raised traffic calming devices installed across the roadway to slow vehicles by elevating the wheelbase. Speed lumps also feature a two-wheel cut-out designed to allow emergency vehicles to pass with minimal slowing. The spacing of cut-outs does not allow standard vehicles to bypass the lumps but requires to travel over the lump. They are slightly less than four inches high, typically parabolic in shape, and have a design speed of 15 to 20 MPH. They are usually constructed with a taper on each side to allow unimpeded drainage between the lumps and curb. When placed on a street with rolled curbs or no curbs, bollards are placed at the ends of the speed lump to discourage vehicles from veering outside of the travel lane to avoid the device.



**Advantages**

- Effective in reducing speeds
- Does not impact emergency response or buses
- Bicycle friendly

**Disadvantages**

- Wide wheel based vehicles can pass through wheel cut-outs
- Increased noise
- Delayed Emergency Response
- Aesthetics

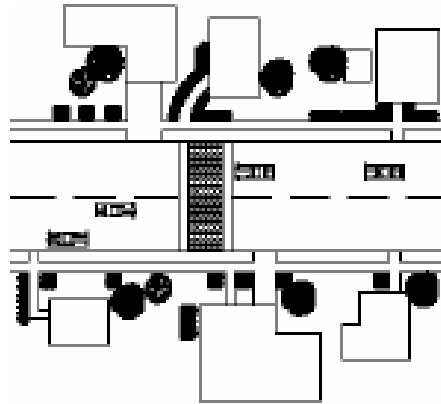
**Cost**

\$2,500

## RAISED CROSSWALK

Raised Crosswalks are speed tables striped with crosswalk markings and signage to channelize pedestrian crossings, providing pedestrians with a level street crossing. Also, by raising the level of the crossing, pedestrians are more visible to approaching motorists.

The magnitude of reduction in speed is dependent on the spacing of raised crosswalks between points that require drivers to slow. On average, raised crosswalks to achieve an 18% reduction in speeds.



### Advantages

- Improves safety
- Aesthetic opportunities
- Effective at reducing speeds

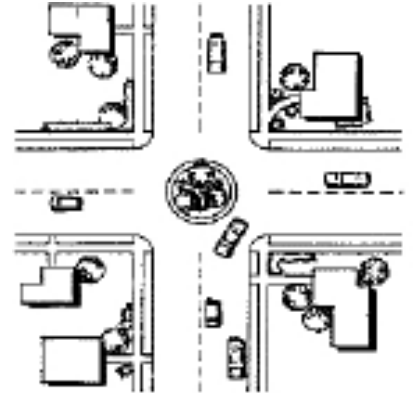
### Disadvantages

- Crosswalk treatment can be expensive
- Potential impacts to drainage
- Delayed Emergency Response
- Textured treatment could increase noise

### Cost

## TRAFFIC CIRCLE

Traffic circles are raised islands located in the center of intersections, which force traffic circulate around them. Traffic circles prevent drivers from speeding through intersections by impeding the straight-through movement and forcing drivers to slow down to yield. Depending upon the size of the intersection and circle, trucks may be permitted to turn left in front of the circle. Traffic circles may be installed with yield signs to further manage traffic.



## ROUNDAABOUTS (SINGLE-LANE)

Similar to traffic circles, roundabouts require traffic to circulate counterclockwise around a center island. But unlike traffic circles, roundabouts are used on higher volume streets to allocate right-of-way among competing movements. They are found primarily on collector streets, often substituting for traffic signals. They are larger than neighborhood traffic circles, have raised splitter islands to channel approaching traffic to the right, and do not have stop signs. Due to a large amount of required right-of-way and construction costs, roundabouts may be most appropriate for new developments or redevelopment areas. Roundabouts have an insignificant effect in reducing traffic speeds but serve to allocate right-of-way at an intersection similar to a traffic signal.



### Advantages

- Forces vehicles to slow down while navigating through roundabout
- Vehicles must yield at approach
- Less expensive than traffic signal to maintain
- Can have positive aesthetic value

### Disadvantages

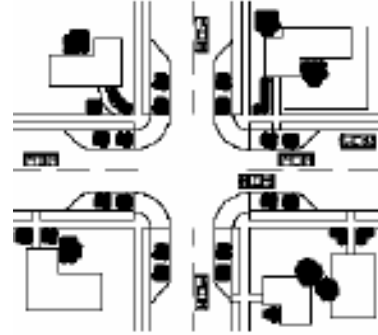
- May require major reconstruction
- Loss of parking
- May present obstacles to visually impaired
- Loss of on-street parking

### Cost

\$150,000 - \$250,000

## NECKDOWN/BULBOUT

Neckdowns/bulbouts are raised curb extensions to the sidewalk that extend into the roadway, typically no further than the parking lane. Neckdowns/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.



### Advantages

- Reduced pedestrian crossing distance & exposure to vehicles
- Improve turning radii for large vehicles/trucks
- Minimal impact to emergency vehicles
- Can be used in combination with landscaping for improved aesthetics

### Disadvantages

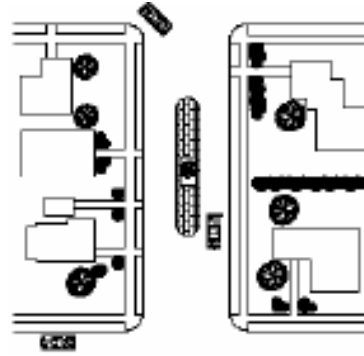
- May slow right-turning emergency vehicles
- Potential loss of some on-street parking spaces
- May require vehicles and bike to share the road

### Cost

\$20,000 - \$30,000

## ISLAND NARROWING/ENTRY FEATURE

Center island narrowing devices are raised islands located along the centerline of a street that narrows the travel lanes at that location. Placed at the entrance to a neighborhood, and often combined with the textured pavement, they are referred to as "Entry Features." Fitted with a gap to allow pedestrians to walk through at a crosswalk, they are often called "pedestrian refuges." They can also be landscaped to increase visual aesthetics.



### Advantages

- Can increase pedestrian safety
- Can have positive aesthetic value
- Reduces traffic volumes if alternate routes are available

### Disadvantages

- Potential loss of on-street parking

### Cost

\$50,000 – \$60,000

## TWO-LANE CHOKER

Chokers are curb extensions at midblock that narrow a street. Chokers typically maintain the number of travel lanes but narrow the travel lane widths to encourage slower vehicle speeds. Implementing a two-lane choker may result in potential loss of parking.

### Advantages

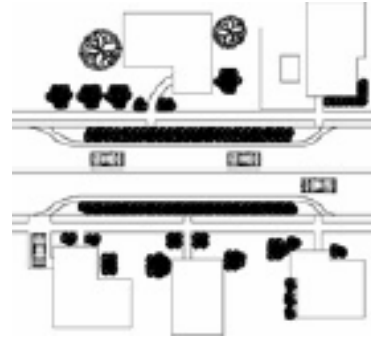
- Easily negotiable by emergency vehicles and buses
- Can have positive aesthetic value
- Reduces both speeds and traffic volumes

### Disadvantages

- Loss of on-street parking
- Cyclist & vehicles must share the road
- Build-up of debris in the gutter

### Cost

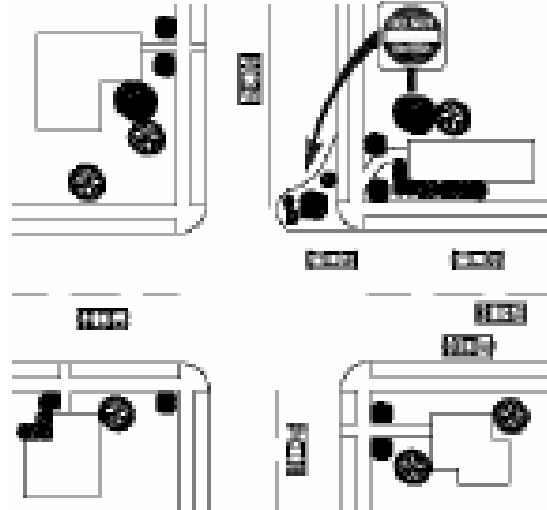
\$20,000 - \$30,000





## PARTIAL CLOSURE

Partial closures (or half street closures) are barriers that block entry to a street in one direction on otherwise two-way streets. Partial closures are among the most common volume control measure after full street closures. Partial closures are often used in sets to make travel through neighborhoods with "gridded" streets circuitous rather than direct.



### Advantages

- Effective in reducing cut through traffic
- Maintain pedestrian and bicycle access

### Disadvantages

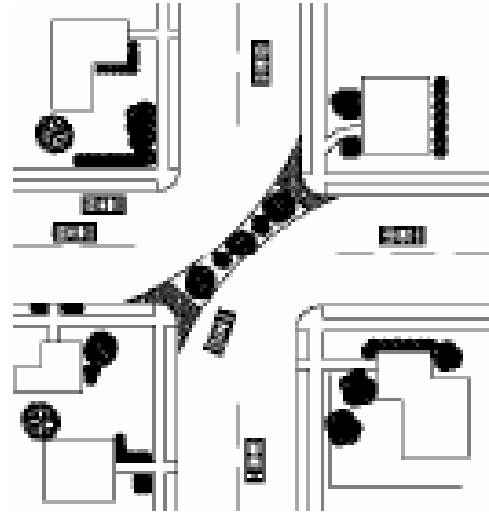
- May limit access to businesses
- Drivers can bypass the barrier

### Cost

\$10,000 - \$30,000

## DIAGONAL DIVERTER

Diagonal diverters are barriers placed diagonally at an intersection restricting through movements. Similar to half closures, diagonal diverters may be staggered throughout a neighborhood to create a more circuitous road network.



### Advantages

- Able to maintain full pedestrian and bicycle access
- Effective at reducing traffic volumes

### Disadvantages

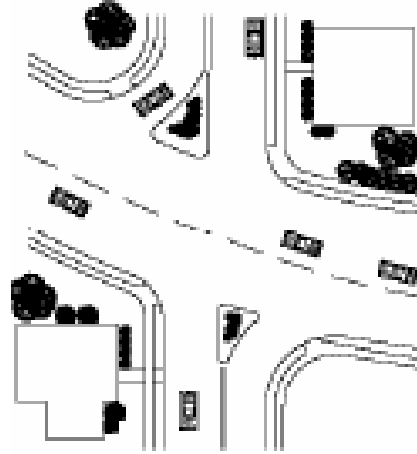
- Create circuitous routes for local residents
- Delays for emergency services
- May be expensive
- May require reconstruction of corner curbs

### Cost

\$10,000 - \$30,000

## FORCED TURN ISLAND

Forced-turn islands are raised islands that prohibit vehicle movements at the approach of an intersection, typically allowing only a single movement. This helps to reduce cut-through traffic on residential/local streets.



### Advantages

- Can improve safety at intersection by prohibiting critical turning movements
- Effective at reducing traffic volumes

### Disadvantages

- Drivers may maneuver
- May divert traffic to a different street

### Cost

\$5,000 - \$25,000

## TURN MOVEMENT RESTRICTIONS

Turn-movement restrictions utilize signs to prevent undesired turning movements without the use of physical devices. The restrictions may generally apply to turning movements in or out of a residential street to a larger street. The turn-movement restrictions may be permanent or only during peak commute hours.



### Advantages

- Can reduce cut-through traffic at specific time-of-day
- Can increase safety at an intersection by prohibiting certain turning movements
- Inexpensive and easy to install

### Disadvantages

- Restrictions apply to residents and non-residents
- Requires enforcement to be effective
- May divert traffic problem to another street

### Cost

\$250 - \$1,000

## Appendix 4 Frequently Asked Questions

### **What is the South Pasadena Neighborhood Traffic Management Program?**

The Neighborhood Traffic Management Program (NTMP) is a city-wide effort to improve safety and traffic concerns within and around residential neighborhoods. This program provides residents the opportunity to voice their concerns about traffic-related issues such as speeding, collisions, and cut-through traffic in their neighborhood.

### **How do I know if my street qualifies for the NTMP?**

In order for a roadway to qualify for the NTMP, it must be considered an eligible roadway. Only residential roadways, as identified in the City's General Plan, are eligible for traffic calming (refer to South Pasadena Roadway Classification Map). Eligible roadways will need to demonstrate issues of speeding, collisions, and increased volumes per the thresholds established in the plan.

### **What type of improvements may be included as part of the NTMP?**

The City will use tools to meet South Pasadena's residential neighborhood traffic concerns. The traffic calming improvement tools will include items from Stage I, which include increased enforcement and traffic signing and striping, and Stage II, which includes speed humps, bulb outs, and diverters. The data collection, traffic studies, and physical improvements under the NTMP program are subject to funding approval by the City Council, which may vary each fiscal year.

### **Can a stop sign or traffic signal be installed as a traffic calming solution?**

Stop signs and traffic signals are considered a traffic control device and not a traffic calming measure. They are intended to control the flow of traffic and assign right-of-way. Standard engineering thresholds, established by the State of California, Department of Transportation, are applied to determine if a stop sign or traffic signal is "warranted", thus they are not considered traffic calming devices. Consideration of stop signs and/or traffic signals must be evaluated and recommended with an engineering study in accordance with the State of California Manual of Uniform Traffic Control Devices (MUTCD).

### **How do I begin the petition process for NTMP?**

To request a petition or further information, please contact the City via phone or in person.

- NTMP Petition Form provided for download :  
<https://www.southpasadenaca.gov/government/departments/public-works>
- Speak with the City at 626-403-7240
- Return a completed physical copy of the petition form to City Hall - Public Works Department at 1414 Mission Street, 1<sup>st</sup> Floor, South Pasadena, CA 91030

## TRAFFIC CALMING PROCESS CHECKLIST

The following items shall be reviewed to identify if the roadway segment qualifies for traffic calming consideration

### **I. Petition Request**

#### A. Petition Screening

Roadway segment local/residential? Yes  No

#### B. Neighborhood Consensus

Required 67% signatures obtained? Yes  No

### **II. Data Collection: At least one of the following criteria must be met to continue with traffic calming process**

#### A. Speeding Threshold

85th percentile speed is 10 MPH above the posted speed limit? Yes  No

#### B. Traffic Volumes Threshold

ADT is at least 2,500 vehicles per day? Yes  No

#### C. Collision Threshold

At least three preventable collisions in the last 5-years? Yes  No

### **III. Stage I: Non Physical Traffic Calming Measures**

Non- Physical feature implemented: \_\_\_\_\_

Date Installed: \_\_\_\_\_

### **IV. Post Data Evaluation**

Post data collected on: \_\_\_\_\_

#### A. Speeding Threshold

85th percentile speed is 10 MPH above the posted speed limit? Yes  No

#### B. Traffic Volumes Threshold

ADT is at least 2,500 vehicles per day? Yes  No

#### C. Collision Threshold

At least three preventable collisions in the last 5-years Yes  No

*Data meets above criteria: Yes - Continue with Stage II No - Closeout Petition*

### **V. Stage II- Physical Traffic Calming Measures**

A. Response Provided to Petitioner Lead:

B. Surveys mailed on:

C. 67% neighborhood approval rate met: Yes  No

D. 100% "YES" vote from residents immediate adjacent: Yes  No

*Survey passed? (Both C and D must be "Yes "in order to continue to City Council approval)*

*Yes - Continue with City Council Approval*

*No - Closeout Petition*

### **VI. City Council Approval**

A. City Council Meeting date:

City Council Approved: Yes  No

*Yes - Continue with Stage II Implementation*

*No - Closeout Petition*