

# TRAFFIC CALMING TOOLKIT



**EDUCATION**



**ENFORCEMENT**



**ENGINEERING**



**DEPARTMENT OF TRANSPORTATION**



## PURPOSE

The purpose of the Traffic Calming Toolkit is to provide residents and community leaders with information about the City of San José's Traffic Calming Policy (included in the Appendix). Effective traffic calming employs the **3 E's: Education, Enforcement and Engineering**. This Toolkit is designed to provide community leaders with a model to guide residents toward a better understanding of the available tools and the necessary steps to seek basic and comprehensive traffic calming services. Primary contacts for traffic calming services are:

For **traffic safety education**, contact San José's *Street Smarts* program at:

Website: [www.getstreetsmarts.org](http://www.getstreetsmarts.org)  
Email: [info@getstreetsmarts.org](mailto:info@getstreetsmarts.org)  
Phone: (408) 975-3238

For **traffic enforcement**, contact the Police Department's Traffic Enforcement Unit (TEU) at:

Website: [www.sjpd.org/TEU](http://www.sjpd.org/TEU)  
Enforcement requests: [www.sjpd.org/\\_forms/TEU\\_Request\\_Form.asp](http://www.sjpd.org/_forms/TEU_Request_Form.asp)  
Phone: (408) 277-4341

For **parking enforcement**, contact the Parking Compliance Unit at:

Website: [www.san Joseca.gov/parking\\_compliance](http://www.san Joseca.gov/parking_compliance)  
E-mail: [parking.compliance@san Joseca.gov](mailto:parking.compliance@san Joseca.gov)  
Phone: (408) 534-2900

For **traffic calming** issues regarding traffic engineering, contact the Department of Transportation (DOT) at:

Website: [www.san Joseca.gov/traffic\\_calming](http://www.san Joseca.gov/traffic_calming)  
E-mail: [traffic.safety@san Joseca.gov](mailto:traffic.safety@san Joseca.gov)  
Phone: (408) 535-3850 [ask for Neighborhood Traffic Management and provide your City Council District or nearest cross street]

More helpful contacts available at: [www.san Joseca.gov/department\\_contacts](http://www.san Joseca.gov/department_contacts)

# TABLE OF CONTENTS

## 1. WHAT IS TRAFFIC CALMING?

Traffic Calming Overview.....2

## 2. EVALUATION AND IMPLEMENTATION

Overview .....4  
 Traffic Calming Decision-Making Process .....5  
 Basic Traffic Calming .....6  
 Comprehensive Traffic Calming .....6  
 Threshold Criteria for Comprehensive Projects .....6  
 Prioritization of Eligible Comprehensive Projects .....7  
 Reassessment of Warranted Comprehensive Projects .....8  
 Community Support for Comprehensive Projects .....8  
 Comprehensive Project Schedule .....8  
 Reapplication for Comprehensive Traffic Calming.....9  
 Community Funding of Comprehensive Projects.....9  
 Outreach Requirements for Comprehensive Projects.....9  
 Policy Exemptions for Comprehensive Projects .....10



## 3. BASIC TRAFFIC CALMING MEASURES

Overview .....12  
**EDUCATION**  
 Traffic Safety Education Programs .....13  
**ENFORCEMENT**  
 Police Enforcement .....14  
 Parking Enforcement .....14  
**ENGINEERING**  
 Traffic Engineering Overview.....15  
 Curb Markings.....15  
 Traffic Signage .....16  
 Crosswalks.....16  
 High-Visibility Crosswalks .....17  
 Radar Trailer.....17  
 Stop Signs.....18  
 Edgeline Striping .....19  
 Truck Restrictions .....19  
 Residential Permit Parking .....20

CITY OF SAN JOSÉ  
 Department of Transportation  
 200 East Santa Clara Street,  
 8<sup>th</sup> Floor Tower  
 San José, CA 95113-1905  
 (408) 535-3850  
 Fax: (408) 292-6090

## 4. COMPREHENSIVE TRAFFIC CALMING MEASURES

Overview .....	22
----------------	----

### 4a. COMPREHENSIVE – LEVEL 1

Overview .....	24
Flashing Beacons (Crosswalks/School Zones).....	24
Radar Speed Display Signs .....	25
Mid-block Chokers.....	25
Medians .....	26
Bulbouts (Detached or Attached).....	27
Road Humps.....	29
Traffic Circles .....	30
Chicanes .....	31

### 4b. COMPREHENSIVE – LEVEL 2

Overview .....	33
Diverters.....	33
Extended Median .....	34
Partial Closure.....	35
Full Closure.....	36

## 5. APPENDIX

Appendix A: Traffic Calming Policy .....	38
Appendix B: Stop Sign Policy.....	44
Appendix C: Guideline to Traffic Calming Options .....	48
Appendix D: Summary of Traffic Calming Measures and Objectives.....	49

SECTION

1

## What Is Traffic Calming?



Traffic Calming is the management of vehicular and pedestrian traffic so that its negative impacts on neighborhoods and schools are minimized.

# TRAFFIC CALMING OVERVIEW

High traffic speeds and volumes, as well as inappropriate driver behavior, can adversely impact neighborhoods. These conditions can also have a negative effect on pedestrians and bicyclists, particularly near schools, community centers, libraries or parks. The City responds to these conditions by conducting traffic engineering studies which may result in the installation of traffic control devices, pedestrian and bicycle improvements or physical roadway features. San José’s Police and Transportation Departments may also deploy officers to enforce traffic and parking regulations and to provide education to school children and communities. These efforts are referred to as *traffic calming*.

San José’s Traffic Calming Policy describes the general processes and responsibilities related to traffic calming so that interested parties can effectively access this City service. San José’s traffic calming services are categorized into two levels: **Basic and Comprehensive**. A summary of traffic calming measures, objectives and guidelines are located in the Appendix. More general information on available traffic resources is located at the San José Department of Transportation (DOT) website at: <http://www.sanjoseca.gov/transportation>.

San José has two levels of traffic calming: Basic and Comprehensive

SECTION

2

Evaluation and  
Implementation



Comprehensive traffic calming can be considered when  
Basic traffic calming has not addressed adverse conditions.



## OVERVIEW

Individuals and organizations having traffic concerns may begin by contacting San José's Department of Transportation (DOT) at **traffic.calming@sanjoseca.gov** or **(408) 535-3850**.

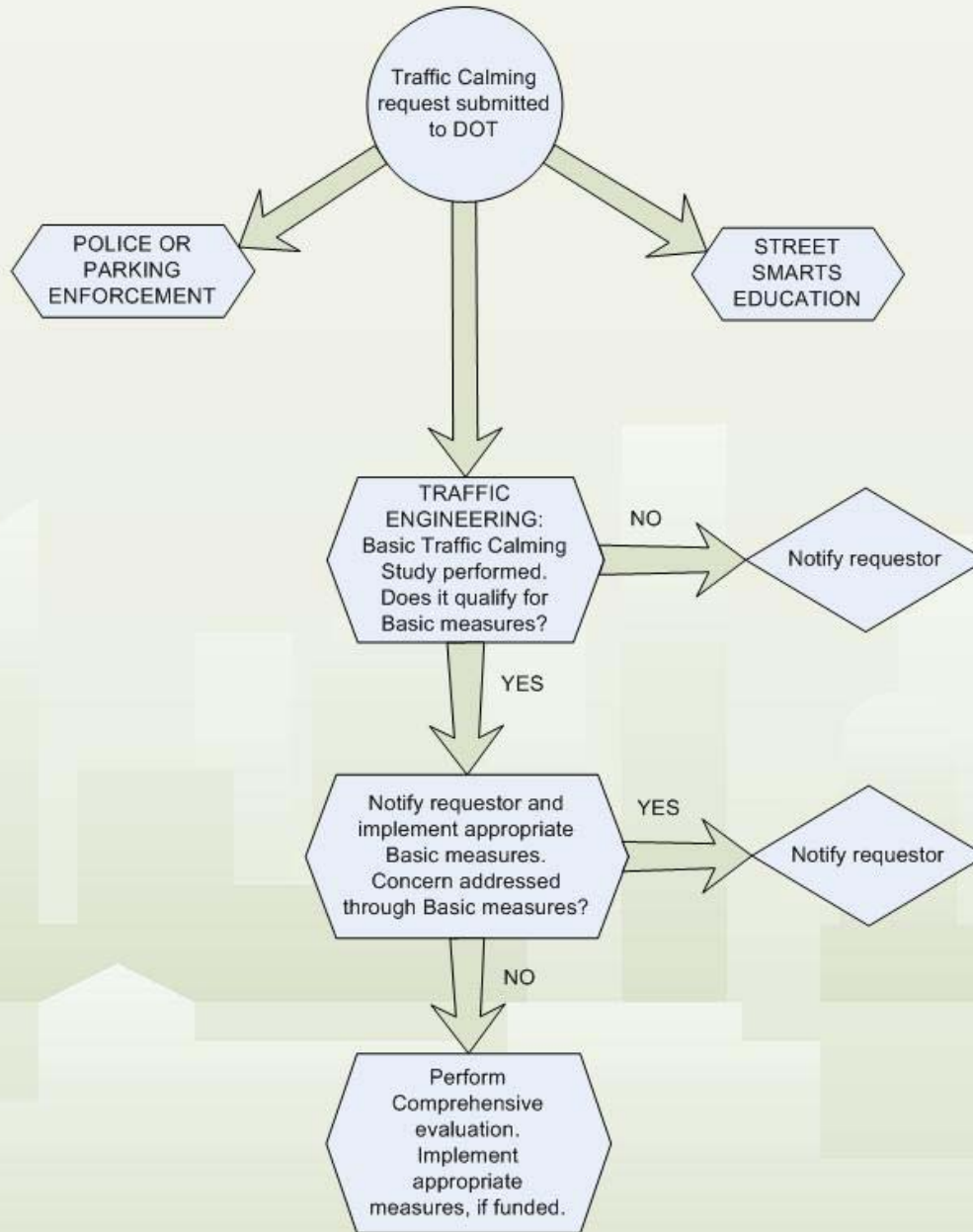
San José's Traffic Calming Policy establishes the criteria and procedures for traffic calming in the City. DOT will perform the appropriate study to address the requester's specific concern and situation. The nature and severity of the concern, verified through field observation and/or data collection, will determine which traffic calming measure(s) should be implemented. The goal is to complete Basic traffic calming engineering studies within 35 days of the receipt of the request (may vary based on staffing levels). Traffic enforcement is provided by the San José Police Department's Traffic Enforcement Unit, and enforcement requests will be completed based on their current staffing and workload levels. If traffic safety education is requested or recommended to address driver, pedestrian and/or bicyclist behavior, the goal is to perform a traffic safety education presentation within eight (8) weeks. However, the presentation schedule is often dependent upon coordination of a desired timeframe with neighborhood or school representatives. Traffic concerns that require Comprehensive measures will first have trial installations to assess the effectiveness and neighborhood support for the devices, as well as to allow for minor adjustments to size and shape before final permanent installation. Installation of major roadway features requires City Council approval, which will extend the time period before installation. The goal is to take the time to conduct an appropriate level of outreach to ensure sufficient community involvement and awareness of intended actions. The traffic calming decision-making process is shown in the following diagram:

The Street Smarts program provides traffic safety education.

SJPD's Traffic Enforcement Unit provides traffic enforcement.

Parking and Traffic Compliance provides parking enforcement.

# Traffic Calming Decision-Making Process



## BASIC TRAFFIC CALMING

Basic traffic calming services include the installation of traffic control devices (such as crosswalks, stop signs, residential permit parking, truck restrictions and bike lanes), traffic enforcement by SJPD’s Traffic Enforcement Unit, and traffic safety education from DOT’s Street Smarts program. The application of Basic and Comprehensive – Level 1 and 2 devices are subject to federal, state and local policies and guidelines.

## COMPREHENSIVE TRAFFIC CALMING

Neighborhoods that are experiencing adverse traffic conditions that cannot be addressed using Basic traffic calming services may be eligible for a Comprehensive traffic calming project. If an adverse traffic condition cannot be addressed through Basic traffic calming services, a Comprehensive traffic calming analysis can be initiated.

The implementation of Comprehensive traffic calming projects is limited to residential, 2-lane local or neighborhood collector streets, with a maximum posted speed limit of 30 mph. Streets designated as General Plan streets, transit routes or used as emergency response routes are generally not considered for Comprehensive traffic calming measures, except for dynamic speed signs and messaging systems. These roadways, by their classification or function, are intended to carry higher volumes of traffic to accommodate a large vehicle mix.

## THRESHOLD CRITERIA FOR COMPREHENSIVE PROJECTS

The following threshold criteria must be met to be considered for the implementation of Comprehensive traffic calming projects:

### Local Streets (25 mph posted speed limit, 1,000 – 3,000 vehicles/day):

- ✓ 85<sup>th</sup> percentile speed of 33 mph or more

or

- ✓ 40% or more of the daily traffic is cut-through traffic, where cut-through traffic is defined as traffic entering a neighborhood with a destination outside of that neighborhood

Comprehensive traffic calming projects are limited to residential, 2-lane local or neighborhood collector streets.

Neighborhood Collector Streets – connects local streets to major streets (25 or 30 mph posted speed limit, 1,000 – 6,000 veh/day):

- ✓ 85<sup>th</sup> percentile speed of 33 mph or more on 25 mph posted streets

or

- ✓ 85<sup>th</sup> percentile speed of 37 mph or more on 30 mph posted streets

**PRIORITIZATION OF ELIGIBLE COMPREHENSIVE PROJECTS**

Eligible Comprehensive traffic calming projects will be prioritized for implementation based upon the severity of the traffic conditions by taking into account the following cumulative traffic impacts: speeding, volume, cut-through traffic, crash history, proximity to pedestrian generators (like schools, parks, community centers) and unique roadway conditions. Priority points will be assigned per the following table:

Eligible Comprehensive projects are prioritized to be implemented based on traffic impacts.

Speed	2 points for each mph difference between the 85 <sup>th</sup> percentile speed and the posted or <i>prima facie</i> speed limit
Volume	1 point for each 500 vehicles over 1,000 vehicles per day; 5 points if 40 – 65% or more ADT on local street is cut-through traffic between arterials or major roadways; 10 points if higher than 65%
Crash History	5 points for each speed-related crash in the past 3 years
Pedestrian Generators (15 points max.)	5 points for each school, park or trail access, library or community center along roadway; 3 points if within 1 block; 2 points if within 2 blocks
Unique Conditions (15 points max.)	5 points for designation as a Bike Route or as a General Plan pedestrian corridor, or for proximity to neighborhood business district or existing/planned transit hub; 5 points for evidence of crashes or speeding, such as long skid marks or broken glass; 5 points for missing sidewalk section; 5 points for unique roadway geometry that substantially restricts visibility; 5 points for high crash rate

At the close of each funding cycle (fiscal year), the highest ranked projects will be considered for construction in the following fiscal year, dependent upon funding, resource availability and community support. However, adjustments in schedules of traffic calming projects may be made based on coordination with scheduled capital improvement or private development projects or on availability of funding specific to the project.

### REASSESSMENT OF WARRANTED COMPREHENSIVE PROJECTS

Projects not selected in a given funding cycle will remain on the priority list for consideration in the next funding cycle and prioritized along with any newly eligible projects. As resources permit, projects may be reassessed to ensure that the priority ranking reflects any significant changes in land use, speed, volume, crash history, pedestrian activity or other conditions that may have occurred on any given roadway(s).

### COMMUNITY SUPPORT FOR COMPREHENSIVE PROJECTS

Substantial community support is required for the installation of physical roadway devices on either a trial or permanent basis, including the active involvement of a neighborhood traffic committee. Generally, committee members must own property or reside within the affected project area. If the project area falls within a recognized Neighborhood Association, then the traffic committee should also include a member from that Neighborhood Association. Utilizing relevant data and community input, DOT and the traffic committee will develop a proposed traffic calming plan. Based on potential impacts of the proposed plan, DOT will determine the affected project area. The traffic committee will distribute a petition developed by DOT to all households, businesses, schools and absentee property owners within the project area. The petition must have majority support (50% + 1) of all affected households, businesses and schools within the project area for implementation of trial and permanent installations. In addition, some physical devices impact adjacent property owners more than others and have specific installation guidelines and criteria to meet.

### COMPREHENSIVE PROJECT SCHEDULE

Most Comprehensive projects will require a trial installation, which will generally occur within four (4) months from the date the plan was finalized

Substantial  
community  
support is  
required for the  
installation of  
physical  
roadway  
devices.

and supported by the community or approved by the City Council. The duration of the trial will normally be six (6) months, during which time City staff will evaluate the effectiveness of the installation. Minor adjustments may be made to the installation based upon review by City staff and input from the community. Based on all relevant data and community input, DOT (in coordination with the traffic committee) will develop a proposed plan and schedule for permanent installation of the Comprehensive project that will be presented to the community for approval.

The City may accept donations for implementation and ongoing maintenance of eligible Comprehensive projects.

Level 1 projects supported by the community will be programmed for installation. Community-supported Level 2 projects will be presented to the City Council for consideration and, if approved, programmed for installation. Installation of final Comprehensive projects will be dependent on the complexity of the project and the available resources for construction and ongoing maintenance of installed devices.

#### REAPPLICATION FOR COMPREHENSIVE TRAFFIC CALMING

Neighborhoods that do not qualify for a Comprehensive traffic calming project may reapply in two (2) years from the date of DOT's final consideration. The 2-year time period may be waived by the City Traffic Engineer if significant land use changes or other significant change has occurred.

#### COMMUNITY FUNDING OF COMPREHENSIVE PROJECTS

The City may accept donations from residents, neighborhoods, community groups, schools and/or businesses for the implementation and ongoing maintenance of Comprehensive traffic calming projects that are eligible for installation under the Traffic Calming Policy. Donations need to comply with all provisions of City Council Policy 1-17.

#### OUTREACH REQUIREMENTS FOR COMPREHENSIVE PROJECTS

Residents, businesses and schools that may be affected by the outcome of a Comprehensive traffic calming project must be notified in writing of any planned actions or schedule. Comprehensive projects that involve the

installation of physical roadway features will normally require at least one community meeting with the households, businesses and schools in the project area. Notices for any community meeting must be distributed at least ten (10) calendar days in advance. Notices are to be provided to all properties within the project area (see “Community Support for Comprehensive Projects” Section), consistent with notification methods in City Council Policy 6-30. Projects will also be coordinated with providers of emergency response services, transit services, utilities and related services.

### POLICY EXEMPTIONS FOR COMPREHENSIVE PROJECTS

Local residential street and neighborhood collectors that do not meet the threshold criteria may be eligible for Comprehensive traffic calming measures if the City Traffic Engineer determines that a unique or unusual condition exists which results in negative traffic impacts caused by a high crash rate, vehicles traveling at excessive speeds, significant pedestrian activity or proximity to major traffic corridors or traffic generators that contribute to extraordinary changes to normal traffic conditions. These roadways will be prioritized along with roadways that meet the threshold criteria based on the methodology outlined in the Traffic Calming Policy.

General Plan streets, transit routes and emergency response routes may be eligible for dynamic warning signs or messaging systems if substantial levels of speeding are present as determined by DOT through an engineering traffic study, and as funding is available for their installation and ongoing maintenance.

Streets that do not meet threshold criteria for Comprehensive measures may be considered if there are unique or unusual conditions.



SECTION

3

Basic  
Traffic Calming  
Measures



Basic traffic calming measures are those traffic control devices and programs implemented on a day-to-day basis.



## OVERVIEW

Basic traffic calming consists of those traffic control devices and programs that can be implemented on a day-to-day basis to regulate, warn, guide, enforce and educate motorists, pedestrians and bicyclists. They include standard striping and signing elements as found in the California Manual on Uniform Traffic Control Devices, minor roadway design elements to improve visibility and safety, enforcement by police and parking compliance officers, and safety education programs.

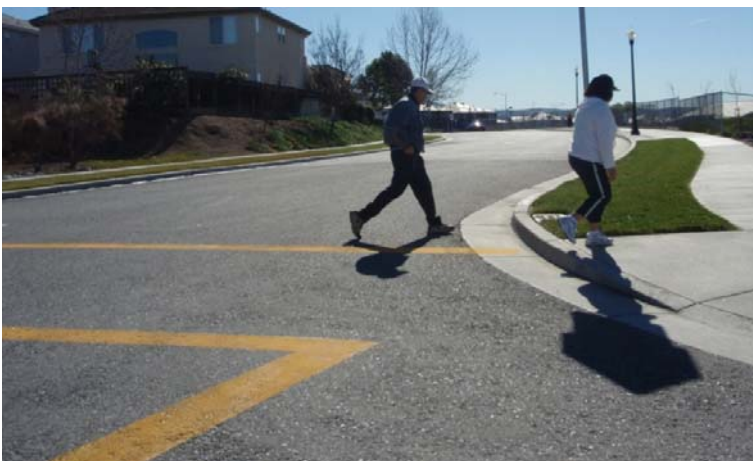
Basic traffic calming is used where most traffic concerns can be addressed using education, enforcement and/or engineering. Basic traffic calming measures include:

Traffic Safety Education Programs  
Police Enforcement  
Parking Enforcement  
Curb Markings  
Crosswalks  
Radar Trailer  
Edgeline Striping

High-Visibility Crosswalks  
High-Visibility Signs  
Stop Signs  
Traffic Signage  
Signed Turn Restrictions  
Truck Restrictions  
Residential Permit Parking

Basic traffic  
calming utilizes  
the 3 E's:

- ✓ Education
- ✓ Enforcement
- ✓ Engineering



## EDUCATION

### TRAFFIC SAFETY EDUCATION PROGRAMS

Ever run a red light, jaywalk or speed through a neighborhood or school zone? Many have, and that's why the City of San José created **Street Smarts**, a traffic safety education program to change driver, pedestrian and bicyclist behavior and enhance safety in school zones and neighborhoods. These behaviors are often the root cause of many traffic accidents, and that is why education has become the latest tool that communities are using, in conjunction with engineering and enforcement, to calm traffic. The Street Smarts program brings education about driver, pedestrian and bicyclist behaviors to schools, neighborhoods and senior centers to improve safety on San José streets.

Classroom safety posters, school safety flyers, school fence banners, traffic safety education classroom kits (available on CD-ROM) and parent education seminars are available to San José schools. The Street Smarts School Safety Education Program reaches an estimated 28,000 elementary and middle school students annually, through assemblies, bike "rodeos" and helmet fittings and giveaways. This program is provided at no cost to schools.

Each neighborhood that adopts the Street Smarts program receives approximately three hours of driver, pedestrian and bicyclist behavior education, which begins with an interactive and somewhat humorous presentation by DOT staff. This introductory presentation takes approximately one hour, including a question and answer session.

In addition, the volunteer receives a Street Smarts Neighborhood Kit and coordinates the distribution of materials from the kit to their neighborhood. Each kit contains items to reinforce the Street Smarts messages through family participation and discussions.

For more information about the nationally recognized Street Smarts traffic safety education program or to schedule a presentation for your school, neighborhood or senior center, please contact DOT's **Traffic Safety Education at (408) 975-3296**.

Contact DOT  
for the Street  
Smarts traffic  
safety education  
program.



[www.getstreetsmarts.org](http://www.getstreetsmarts.org)

# ENFORCEMENT

## POLICE ENFORCEMENT

Police enforcement entails the presence of police to monitor speeds and other inappropriate driving behavior and issue citations when necessary. This method is used as an initial attempt to increase driver compliance on streets. It is most applicable on streets with documented speeding problems or notable stop sign/red light violations that need quick mitigation. It can also be used during the learning period when new devices or restrictions are first implemented. For police enforcement, contact the **Traffic Enforcement Unit (TEU)** of the Police Department via their **on-line enforcement request form** or at **(408) 277-4341**.

### Positive Aspects

- ✓ Effective while officer is actually present at the location
- ✓ Can target specific times deemed to be most problematic
- ✓ Can be implemented on short notice
- ✓ Targets violators without affecting normal traffic



### Negative Aspects

- ✓ It is a temporary measure
- ✓ Enforcement may be delayed and/or limited, due to police availability and other policing duties

## PARKING ENFORCEMENT

Enforcement of parking regulations is done by DOT's **Parking Compliance**. They also have a team of officers dedicated to enforcing parking regulations in school zones and for vehicle abatement, to address vehicles parked for more than 72 hours. To request parking enforcement, contact the Parking Compliance Unit at **parking.compliance@sanjoseca.gov** or **(408) 534-2900**.

### Positive Aspects

- ✓ Effective while officers are actually present at the location
- ✓ Can be targeted to specific time periods that are deemed to be most problematic



### Negative Aspects

- ✓ It is a temporary measure
- ✓ Enforcement may be delayed and/or limited, due to officer availability and other parking duties

# **ENGINEERING**

## **TRAFFIC ENGINEERING OVERVIEW**

Traffic engineering includes the installation of traffic control devices – as governed by federal, state and local policies and guidelines – to address speeding, volume and/or pedestrian safety concerns. DOT will conduct an evaluation to determine the appropriate measures that can be implemented to address the concern. Examples of traffic engineering tools within Basic traffic calming are detailed below.

## **CURB MARKINGS**

Curb markings are special curb paintings that restrict or limit parking along the curb to enhance safety and/or increase visibility of pedestrians and bicyclists or provide specific parking based on an area's parking needs. Curb marking applications include:

- ✓ Red curb at pedestrian ramps
- ✓ Red curb at crosswalk or intersection to increase visibility
- ✓ Red curb at and/or between driveways to increase visibility
- ✓ Blue curb for disabled-accessible parking
- ✓ White and yellow curbs for passenger and freight loading zones
- ✓ Green curb for timed parking

### **Positive Aspects**

- ✓ Provides safer conditions for motorists, pedestrians & bicyclists
- ✓ Easy to install

### **Negative Aspect**

- ✓ Could result in loss of parking, increasing parking demand in the neighborhood



## TRAFFIC SIGNAGE

Traffic signs may be installed to make roadway users aware of a roadway condition, to fully utilize parking capacity or to restrict vehicular traffic. Examples include speed limit, curve warning, turn restrictions and parking signage.

### Positive Aspects

- ✓ Increases driver awareness of roadway conditions
- ✓ Parking signage maximizes utilization of available parking
- ✓ Turn restrictions can reduce cut-through traffic

### Negative Aspects

- ✓ Turn restrictions may redirect traffic to other neighborhood streets
- ✓ Too much signage may cause drivers to “tune out” most or all signs
- ✓ Signage is not self-enforcing



## CROSSWALKS

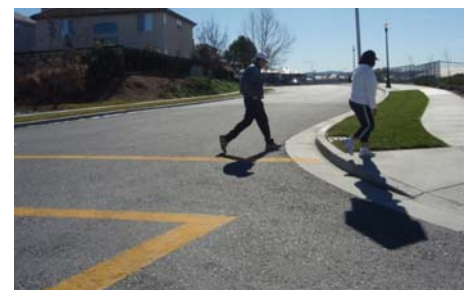
Pedestrians may legally cross any City street, except midblock between signalized intersections or where expressly prohibited by signage. A marked crosswalk (at intersection or mid-block) may be installed to help pedestrians to cross a street. The primary function of marked crosswalks is to guide and channelize pedestrians to a preferred crossing location. Marked crosswalks are most appropriate near schools, recreational facilities and other pedestrian generators.

### Positive Aspects

- ✓ Provides centralized location for pedestrians to cross street
- ✓ Increases driver awareness of pedestrians
- ✓ Easy to install

### Negative Aspects

- ✓ Can provide false sense of security to pedestrians entering traffic
- ✓ May require removal of parking near crosswalk



## HIGH-VISIBILITY CROSSWALKS

A high visibility crosswalk is a marked, uncontrolled crosswalk (uncontrolled means it has no Stop signs or traffic signals) that incorporates striping patterns and/or fluorescent green signage to improve the visibility of the crosswalk. High visibility striping is generally used at uncontrolled crosswalks, while high visibility signage is only used at uncontrolled crosswalks.

High visibility crosswalks are mainly used on high volume, multi-lane roadways.

### Positive Aspects

- ✓ Further increases driver awareness of pedestrians
- ✓ May slow traffic
- ✓ Requires minimal maintenance for striped crosswalks and signage

### Negative Aspect

- ✓ Can provide false sense of security to pedestrians entering traffic



## RADAR TRAILER

A mobile radar display trailer informs drivers of their speeds. The radar trailer is applicable on any street where speeding is a problem and there is adequate roadside capacity to accommodate the trailer without creating a hazard.

### Positive Aspects

- ✓ Educational tool
- ✓ Good public relations for neighborhoods
- ✓ Effective for temporary speed reduction

### Negative Aspects

- ✓ Not self-enforcing
- ✓ Duration of effectiveness is limited
- ✓ May require temporary loss of parking





## STOP SIGNS

The California Manual on Uniform Traffic Control Devices states that “Stop signs should not be used for speed control.” Stop signs are intended to assign the right-of-way among motorists, pedestrians and cyclists at an intersection. Although many citizens believe that stop signs help reduce speeds on their street, numerous studies have shown that speeds are as high or higher at mid-block than those locations without stop signs. To address speeding concerns, other measures may be available. Stop signs are installed based on San José City Council Policy 8-1 (also located in the Appendix). Criteria for Stop signs include crash history, conflicting vehicular traffic at the intersection, proximity to schools or parks and any unusual conditions, such as the layout of the intersection.

Stop signs are typically used on non-arterial streets and intersections.

### Positive Aspects

- ✓ Reduces right-of-way conflicts at an intersection
- ✓ Increases opportunities for pedestrians to cross the roadway
- ✓ May discourage cut-through traffic



### Negative Aspects

- ✓ Unwarranted stop signs increase unnecessary delay for the main approaches
- ✓ Pedestrian safety compromised if motorists do not comply
- ✓ Penalizes all motorists on the main street, even those obeying the speed limit
- ✓ Potential traffic diversion onto other streets
- ✓ May increase speeds mid-block, as drivers attempt to make up perceived “lost time” from stopping
- ✓ Potential increase in noise and air pollution in the vicinity of the stop from added stops/starts

More Stop sign information is available on the San José DOT webpage at:  
[http://www.sanjoseca.gov/transportation/traffic\\_signsmarkings.htm](http://www.sanjoseca.gov/transportation/traffic_signsmarkings.htm).

## EDGE LINE STRIPING

Edgeline striping is used to create narrow travel lanes which give the impression of a narrow street. This visual narrowing may help reduce overall speeds. Striping can be at curb end or midblock to create a median. Edgeline striping is most applicable on long, wide residential streets with speeding traffic.

### Positive Aspects

- ✓ May slow traffic
- ✓ Easy to install and modify as necessary
- ✓ Low cost of implementation

### Negative Aspects

- ✓ May not be self-enforcing
- ✓ Painted medians may require loss of parking



## TRUCK RESTRICTIONS

Restricting the entry of trucks over 5 tons into residential neighborhoods may be achieved through the posting of truck restriction signs. This method is most applicable on residential streets to help reduce cut-through traffic of commercial vehicles not doing business within that neighborhood. Consideration is given to those streets where truck volumes are 2 – 5% or more of the total daily volume, or there are more than 50 heavy trucks consistently using the street. This element requires City Council approval.

### Positive Aspects

- ✓ Redirects commercial traffic onto main streets
- ✓ Reduces noise, air pollution and street degradation due to trucks on residential streets

### Negative Aspects

- ✓ Not self-enforcing
- ✓ Does not apply to local trucks doing business in the area





## RESIDENTIAL PERMIT PARKING

This program is administered primarily to address continuous parking shortage in residential neighborhoods due to non-residential parking intrusion from outside the neighborhood that cannot be resolved through standard parking prohibitions. Under this program, the neighborhood is designated as a permit parking area via City Council approval. Upon approval, residents must purchase permits for themselves and their visitors to park on streets within that permit parking zone.

Permit parking is not an appropriate solution when the area is experiencing a shortage of parking due to neighborhood parking demand.

Residential permit parking zones have been established in the City of San José to address severe parking shortages adjacent to the HP Pavilion Arena, San José State University, the Convention Center, Civic Center, the Berryessa Flea Market and other areas.



More information on the Residential Permit Parking program is available on San José DOT's webpage at:

**[http://www.sanjoseca.gov/transportation/permits\\_parking.htm](http://www.sanjoseca.gov/transportation/permits_parking.htm)**.

### Positive Aspects

- ✓ Protects the neighborhood from invasive commercial and business parking demand
- ✓ Preserves parking spaces for residents and guests

### Negative Aspects

- ✓ Costly to implement, administer and maintain
- ✓ Regular enforcement is necessary for effectiveness
- ✓ Could result in unexpected citations issued to guests
- ✓ Inconvenient for residents due to the renewal process, guest permits, etc.

SECTION

4

Comprehensive  
Traffic Calming  
Measures



Comprehensive traffic calming uses physical design features or dynamic signage and warning systems to enhance pedestrian safety or slow traffic within, or divert traffic from, residential neighborhoods.

## OVERVIEW

Neighborhoods that are experiencing adverse traffic conditions that cannot be addressed using Basic traffic calming may be eligible for a Comprehensive traffic calming project. Procedures and threshold criteria to determine adverse traffic conditions are detailed in Section 2 – “Evaluation and Implementation.” Comprehensive traffic calming projects are classified into two categories – Level 1 and Level 2. All physical features placed in the roadway must not impede emergency response.



SECTION

# 4a

## Comprehensive – Level 1



Level 1 measures are intended to address speeding, volume and/or safety concerns using devices that go beyond Basic traffic calming.

## OVERVIEW

Level 1 traffic calming generally consists of physical roadway design features or dynamic signage and warning systems designed to slow vehicular traffic within, or divert traffic from, residential neighborhoods, or to enhance pedestrian safety. They are employed when the use of Basic traffic calming measures do not effectively address these concerns. Level 1 traffic calming measures include:

Flashing Beacons  
(School zones or crosswalks)  
Radar Speed Display Signs  
Median Islands

Road Humps  
Chokers  
Bulbouts  
Traffic Circles

## FLASHING BEACONS (CROSSWALKS/SCHOOL ZONES)

Flashing beacons are flashing amber lights that can be placed at entrances to school zones (on streets with posted speed limit above 25 mph) or at uncontrolled crosswalks to enhance the visibility of the school zone or crosswalk. Flashing beacons for school zones are activated during the school's pick-up and drop-off times. Flashing beacons at uncontrolled locations with high vehicle and pedestrian volumes are generally activated by pedestrian push-buttons.

### Positive Aspects

- ✓ Increases driver awareness of reduced speed limit or crosswalk
- ✓ For schools, can be activated only during school pick-up and drop-off times
- ✓ For uncontrolled crosswalks, can be activated by pedestrian push-button to be visible to drivers only when pedestrians want to cross

### Negative Aspects

- ✓ May create false sense of security for pedestrians
- ✓ Added cost to install and maintain
- ✓ At crosswalks, pedestrians may not use push-button
- ✓ Long-term effectiveness may be limited for everyday drivers





## RADAR SPEED DISPLAY SIGNS

Radar speed display signs are a permanent version of the radar trailer, where drivers are informed of their speeds. These signs are intended for multi-lane streets with higher speed limits and moderate volumes.

### Positive Aspects

- ✓ Increases driver awareness of reduced speed limit
- ✓ Can be activated only during school pick-up and drop-off times
- ✓ Educational tool

### Negative Aspects

- ✓ Added cost to install and maintain
- ✓ Long-term effectiveness may be limited for everyday drivers



## MID-BLOCK CHOKERS

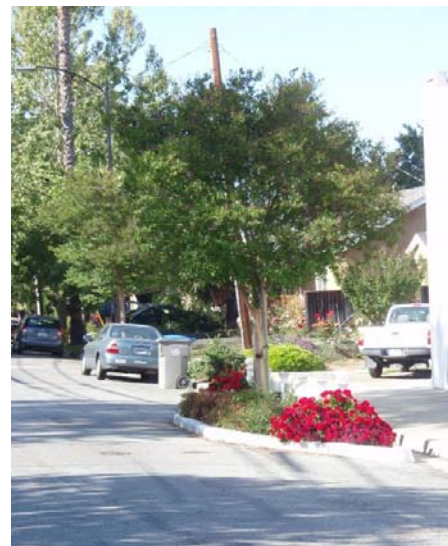
Chokers are raised islands in the parking zone that can be detached from the curb-line to allow for drainage. Mid-block chokers narrow the roadway and are most applicable on wide streets with long blocks having speeding and cut-through problems. Chokers can have the same narrowing effect as parked vehicles on streets where there is little or no on-street parking. Chokers may be installed with either landscaping or hardscape treatment.

### Positive Aspects

- ✓ Narrowed travel lanes can slow vehicle speeds
- ✓ Breaks up driver's sight-line
- ✓ Increases pedestrian and motorist visibility

### Negative Aspects

- ✓ Likely loss of parking
- ✓ Narrow lanes redirects bicyclists into vehicular travel lane
- ✓ Debris can collect in between choker and gutter
- ✓ High cost to construct and maintain



## MEDIANS

Medians are raised islands in the center of the roadway that separate traffic directions. Medians are used on wide streets to narrow the travel lanes and ease pedestrian crossings. The San José Fire Department must approve this feature, as it may impact their response times.

### Positive Aspects

- ✓ Narrowed travel lanes can slow vehicle speeds
- ✓ Provides shorter distance for pedestrians to cross travel lanes
- ✓ Breaks up driver's sight-line
- ✓ Opportunity for landscaping and visual enhancements to the neighborhood

### Negative Aspects

- ✓ May interrupt driveway access and result in U-turns at the end of medians
- ✓ Likely loss of parking
- ✓ High cost to construct and maintain



## BULBOUTS (DETACHED OR ATTACHED)

Bulbouts narrow the street width at intersections, creating a shorter and safer pedestrian crossing while encouraging drivers to slow down. These may contain special paving or landscaping and are generally used at intersections where parking is already restricted.

Detached bulbouts may be striped or raised islands containing special paving or landscaping while maintaining existing drainage patterns. Attached bulbouts require altering the curb, gutter and sidewalk. These installations also affect the existing drainage patterns, possibly requiring installation of additional storm drains.

### **Positive Aspects**

- ✓ Pedestrian crossing distance is reduced
- ✓ Narrowed roadway section may contribute to reduction of speeds
- ✓ Breaks up driver's sight-line
- ✓ Opportunity for landscaping and visual enhancements to the neighborhood

### **Negative Aspects**

- ✓ May reduce visibility for cyclists who are less visible to turning and cross traffic
- ✓ May require partial or total loss of parking
- ✓ High cost to construct and maintain
- ✓ May increase emergency response times
- ✓ Debris can collect in gutter and crosswalk in detached bulbout installations
- ✓ Care should be taken to keep motorists from hitting bulbouts





**Detached Bulbout**



**Attached Bulbouts**

## ROAD HUMPS

Road humps are areas of pavement raised three (3) inches in height over a minimum of 12 feet in length. Road humps have pavement markings, advisory signs and advanced warning signs.

Road humps can be used on residential 2-lane local or minor neighborhood collector roadways, with a maximum posted speed limit of 30 mph to address speed problems. It may also be used to deter cut-through traffic. The San José Fire Department must approve this feature, as it may impact their response times. Road humps are not used on streets designated as primary response routes for emergency vehicles and should not be used along transit routes.

### Positive Aspects

- ✓ Slows speeding traffic, with minimal impact to non-speeding traffic
- ✓ May decrease volume
- ✓ Requires minimal maintenance

### Negative Aspects

- ✓ Likely increase in traffic noise in the vicinity of the hump
- ✓ May increase emergency response times
- ✓ Difficult to replace when street is being resurfaced





## TRAFFIC CIRCLES

Traffic circles are raised circular medians that direct traffic counterclockwise within an intersection. Vehicles must change their direction of travel to maneuver around the circle. Per the State guidelines, traffic circles are controlled by “Yield” signage on all approaches. Traffic circles can help manage speeds, reduce volume and improve side street access. The San José Fire Department must approve this feature, as it may impact response times. Traffic circles may contain low growth landscaping and/or a tree.

### Positive Aspects

- ✓ Slows traffic as drivers maneuver around traffic circle
- ✓ Provides increased access to main street from side street
- ✓ Breaks up sight-lines on straight streets
- ✓ Changes the look of the street, making it more aesthetically pleasing

### Negative Aspects

- ✓ Possible driver confusion entering traffic circle after yielding to traffic already in circle
- ✓ Likely impact on left turns by large vehicles
- ✓ May impact emergency response
- ✓ Bicyclists must merge with traffic around circle



## CHICANES

Chicanes create a curved street alignment that can be designed into new developments or retrofitted in existing right-of-ways. The curvilinear alignment requires additional maneuvering and shortens drivers' sight-lines, resulting in lower overall speeds.

This device can be applied to any street where speed control is desired, provided the street is wide enough to accommodate the curvilinear design. Chicanes may require additional right-of-way for construction.

### Positive Aspects

- ✓ May slow down traffic and reduce cut-through traffic
- ✓ Changes the look of the street, making it more aesthetically pleasing
- ✓ Has minimal impact on emergency response

### Negative Aspects

- ✓ Requires extensive design and expensive implementation
- ✓ Requires major modification of drainage features and likely other utilities
- ✓ May require partial or total removal of street parking
- ✓ May have little or no impact on cut-through traffic



SECTION

# 4b

## Comprehensive – Level 2



Level 2 measures are traffic control devices and roadway design features primarily designed to discourage cut-through traffic on residential streets.

## OVERVIEW

Level 2 traffic calming services are physical roadway features primarily designed to redirect cut-through traffic away from residential streets. Level 2 projects require extensive neighborhood involvement and outreach and City Council approval. Level 2 measures include:

Diverters  
Partial Street Closure

Extended Medians  
Full Street Closure

## DIVERTERS

Diverters are raised areas placed across a four-way intersection that prohibit through movements and force turns for approaches. Diverters can be considered on local streets where cut-through traffic is a major problem.

### Positive Aspects

- ✓ Reduces cut-through traffic
- ✓ Channels traffic flow, thus eliminating vehicular conflicts at an intersection
- ✓ Can be designed to accommodate emergency vehicles
- ✓ Opportunity for landscaping and visual enhancements to the neighborhood

### Negative Aspects

- ✓ Will redirect traffic to other local streets
- ✓ Causes increased travel time for local residents
- ✓ High cost to construct and maintain
- ✓ Is a permanent measure, even though problem may be limited to certain times of day
- ✓ May require removal of parking near intersection
- ✓ Needs significant warning and guiding signs





## EXTENDED MEDIAN

Medians are raised islands in the center of the roadway that separate traffic directions. Extended medians continue through an intersection, thus eliminating through traffic along the cross-street and all left turns. Medians can be considered on wide streets to narrow the perceived street width, break up sight-lines on straight streets and ease pedestrian crossings. Extended medians can also be considered to discourage cut-through traffic through a neighborhood.

### Positive Aspects

- ✓ Narrowed travel lanes can slow vehicle speeds
- ✓ Opportunity for landscaping and visual enhancements to the neighborhood
- ✓ Reduces cut-through traffic on cross-street

### Negative Aspects

- ✓ Has a significant impact on emergency access and operations
- ✓ May interrupt driveway access and result in added U-turns
- ✓ High cost to construct and maintain
- ✓ May require removal of parking near intersection



## PARTIAL CLOSURE

A partial closure is a physical barrier that restricts vehicles from turning into a street, while still allowing for bicycle access. The adjacent lane is left open to allow vehicles to exit, while two-way traffic is maintained for the remainder of the block. Partial closures can be considered on local streets with cut-through traffic.

### Positive Aspects

- ✓ Restricts movements into a street while maintaining full access and movement within the street block for residents
- ✓ Reduces cut-through traffic into street
- ✓ Provides shorter distance for pedestrians to cross travel lanes

### Negative Aspects

- ✓ May redirect traffic to other local streets
- ✓ May increase trip length for local drivers
- ✓ Is a permanent measure, even though problem may be limited to certain times of day
- ✓ High cost to construct and maintain



## FULL CLOSURE

A complete closure of the street blocks both lanes of travel, so that the street becomes a cul-de-sac. This measure eliminates all through traffic and limits street access to local residents. This measure is applicable to local streets with major cut-through concerns where an emergency vehicle response route does not exist. The closure location may be designed as a pocket park with through bicycle and pedestrian access, depending on roadway geometrics.

### Positive Aspects

- ✓ Restricts all through traffic
- ✓ Effective volume and speed control measure
- ✓ Improves the aesthetic quality of the street

### Negative Aspects

- ✓ May re-direct traffic to other local streets
- ✓ High cost to construct and maintain, including possible right-of-way acquisition
- ✓ May increase trip length for local drivers
- ✓ May require partial removal of on-street parking
- ✓ Not applicable for designated emergency vehicle response routes



SECTION

5

Appendix



APPENDIX A: TRAFFIC CALMING POLICY

*City of San José, California*

**COUNCIL POLICY**

<b>TITLE</b> TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS	<b>PAGE</b> 1 of 6	<b>POLICY NUMBER</b> 5-6
<b>EFFECTIVE DATE</b> April 25, 2000	<b>REVISED DATE</b> June 17, 2008	
<b>APPROVED BY COUNCIL ACTION</b> 4/25/2000, Item 9j, Res. Nos. 69541 and 69542; 6/26/2001, Item 6.11, Res. No. 70524, 6/17/2008, Item 6.2(a), Res. No. 74443		

**BACKGROUND**

High traffic speeds and volumes, as well as inappropriate behavior of motorists can adversely impact San José neighborhoods. Traffic can also have a negative effect on pedestrians and bicyclists, particularly near schools, community centers and parks. The City responds to these conditions by conducting traffic engineering studies which may result in the installation of traffic control devices, pedestrian and bicycle improvements, or physical roadway features. The Police and Transportation Departments may also deploy officers to enforce traffic and parking regulations, and provide traffic safety education to school children and adults. For the purpose of this policy, these efforts are referred to as *traffic calming*.

**PURPOSE**

The purpose of this Council policy is to provide a framework for the general processes, responsibilities and outreach related to traffic calming so that interested parties can effectively access this City service. The performance measure goals contained in this policy are desirable, but subject to available City resources and the level of active community involvement.

**POLICY**

It is the policy of San José to minimize the negative impacts associated with traffic on all streets, particularly within residential neighborhoods and near schools, by applying education, enforcement, and sound engineering solutions developed with strong community involvement. Traffic calming solutions are categorized into two levels: basic and comprehensive.

*Basic traffic calming services* are those traffic control devices and programs that are implemented on a day-to-day basis to regulate, warn, guide, enforce and educate motorists, pedestrians and bicyclists; and generally apply to all streets. Residential neighborhoods with traffic impacts that cannot be addressed through basic traffic calming services may be eligible for additional traffic calming measures referred to as comprehensive traffic calming projects.

*Comprehensive traffic calming projects* are physical roadway design features or dynamic signage and warning systems which are intended to slow traffic within, or divert traffic from residential neighborhoods, or to enhance pedestrian safety.

All traffic calming services and projects are to be coordinated with other transportation policies and be consistent with the General Plan; and where possible, coordinated with other capital and private development projects. Traffic calming projects should be designed and implemented with the goal of not transferring negative traffic conditions from one neighborhood roadway to another. For the purpose of this policy, 'cut-through' traffic is defined as traffic that is using a local residential street to avoid arterial or major collector roadways, and is not traffic that has an origin or destination within the immediate neighborhood.



TITLE	PAGE	POLICY NUMBER
TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS	2 of 6	5-6

**BASIC TRAFFIC CALMING SERVICES**

A. Request for Traffic Calming Services

Individuals or organizations with concerns about negative impacts of traffic should contact the City's Department of Transportation (DOT) to request a traffic engineering analysis. If the concern regards the enforcement of traffic or parking regulations, the Traffic Enforcement Unit (TEU) of the Police Department, or the Parking Compliance Unit of DOT will be notified. If the concern regards the need for education, a traffic safety presentation will be scheduled.

B. Services and Schedules

DOT performs a wide variety of traffic engineering studies. The appropriate study will be performed to address the requester's particular concern and situation. If traffic control devices, such as signs or pavement markings are needed, DOT will coordinate the installation. The performance measure goal for evaluating a concern and installing an appropriate device is 35 calendar days from the date the request is received.

Some studies require extensive data collection and field observations, or are subject to independent policies and guidelines, such as those for stop signs, crosswalks, and bike lanes, and will require additional time. In addition, devices that require City Council approval, such as heavy truck restrictions may require several months for analysis, public review and implementation. The goal is to take the time and conduct an appropriate level of outreach to ensure sufficient community involvement and awareness of intended actions.

If traffic safety education is requested or recommended to address driver, pedestrian or bicyclist behavior, the goal is to perform a traffic safety education presentation within eight weeks. However, the presentation schedule is often dependent upon coordination of a desired timeframe with neighborhood or school representatives.

**COMPREHENSIVE TRAFFIC CALMING PROJECTS**

A. Initiation of Comprehensive Traffic Calming Projects

Neighborhoods that are experiencing adverse traffic conditions that cannot be addressed using Basic Traffic Calming Services may be eligible for a comprehensive traffic calming project. If an adverse traffic condition cannot be addressed through basic traffic calming services, DOT will automatically initiate a comprehensive traffic calming analysis.

B. Comprehensive Traffic Calming Projects

A comprehensive traffic calming project generally involves the construction of a physical roadway feature(s) or installation of a dynamic warning sign or message system, and includes the following types of projects:

- **Level 1 traffic calming projects** are intended to reduce vehicular speed or enhance pedestrian safety. Level 1 projects require neighborhood involvement and outreach as described in Section F and Outreach Requirements. Examples of roadway features or signage include, but are not limited to, median islands, chokers, traffic circles, road humps, enhanced crosswalks, and school zone beacons or radar speed display signs.
- **Level 2 traffic calming projects** involve the redirecting of traffic to address excessive volumes resulting from cut-through traffic. Level 2 projects require extensive neighborhood involvement and outreach as described in Section F and Outreach Requirements, and ultimately, City Council approval. Examples of projects and features in this category include traffic diversion islands, full or partial street closures, and changing the direction of travel on a street.

TITLE	PAGE	POLICY NUMBER
TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS	3 of 6	5-6

Examples of roadway features, dynamic warning signs and message systems are contained in DOT's Traffic Calming Toolkit, which is available for community use. The Toolkit can be viewed at [www.sanjoseca.gov/transportation/forms/toolkit.pdf](http://www.sanjoseca.gov/transportation/forms/toolkit.pdf) and is intended to provide information regarding the various traffic calming services that are available.

C. Eligible Roadways

The implementation of comprehensive traffic calming projects is limited to residential, 2-lane local or minor neighborhood collector roadways, with a maximum posted speed limit of 30 mph. Streets designated as General Plan streets, transit routes, or used as emergency response routes are generally not eligible for comprehensive traffic calming measures, except for dynamic speed signs and messaging systems. These roadways by their classification, or function, are intended to carry higher volumes of traffic and accommodate a large vehicle mix.

Threshold Criteria:

The following threshold criteria must be met for the implementation of comprehensive traffic calming projects:

Local Streets: (posted speed limit of 25 mph and 1,000—3,000 vehicles per day)

- 85<sup>th</sup> percentile speed of 33 mph or more, or
- 40% or more of the daily traffic is 'cut-through' traffic

Neighborhood Collector Streets: (posted speed limit of 25 mph or 30 mph and 1,000—6,000 vehicles per day)

- 85<sup>th</sup> percentile speed of 33 mph or more on 25 mph posted streets, or
- 85<sup>th</sup> percentile speed of 37 mph or more on 30 mph posted streets

D. Prioritization of Comprehensive Projects

Eligible comprehensive traffic calming projects will be prioritized for implementation based upon the severity of the traffic conditions by taking into account the following cumulative traffic impacts: speeding, volume, cut-through traffic, crash history, proximity to pedestrian generators such as schools, parks and community centers and unique roadway conditions. Priority points will be assigned as shown below.

<b>TITLE</b>	<b>TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS</b>	<b>PAGE</b>	<b>4 of 6</b>	<b>POLICY NUMBER</b>	<b>5-6</b>
--------------	---	-------------	---------------	----------------------	------------

**Priority Ranking**

Speed	2 points for each mph difference between the 85th percentile speed and the posted or prima facie speed limit
Volume	1 point for each 500 vehicles over 1,000 vehicles per day 5 points if 40—65% or more ADT on local street is cut-through traffic between arterials or major roadways, 10 points if higher than 65%
Crash History	5 points for each speed related crash in the last 3 years
Pedestrian Generators (15 points max.)	5 points for each school, park or trail access, library, or community center along roadway  3 points if within 1 block, 2 points within 2 blocks
Unique Conditions (15 points max.)	5 points for designation as a bike route or as a General Plan pedestrian corridor, or for proximity to neighborhood business district, or existing/ planned transit hub;  5 points for evidence of crashes or speeding, such as long skid marks or broken glass;  5 points for missing sidewalk section;  5 points for unique roadway geometry that substantially restricts visibility;  5 points for high crash rate

\*ADT - average daily traffic

At the close of each funding cycle (fiscal year), the highest ranked projects will be considered for construction in the following fiscal year, depending upon funding, resource availability and community support. However, adjustments in schedules of traffic calming projects may be made based upon coordination with scheduled capital improvement or private development projects, or availability of funding specific to the project.

**E. Reassessment of Warranted Comprehensive Projects**

Projects not selected in a given funding cycle will remain on the priority list for consideration in the next funding cycle and prioritized along with newly eligible projects. As resources permit, projects may be reassessed to ensure that the priority ranking reflects significant changes in land use, speed, volume, crash history, pedestrian activity, or other conditions that may have occurred on any given roadway(s).

**F. Community Support for Selected Comprehensive Projects**

Substantial community support is required for the installation of physical roadway devices on either a trial or permanent basis, including the active involvement of a neighborhood traffic committee. Generally, committee members must own property or reside within the affected project area. If the project area falls within a recognized Neighborhood Association, then the traffic committee should also include a member from that Neighborhood Association. Utilizing relevant data and community input, DOT and the traffic committee will develop a proposed traffic calming plan. Based upon potential impacts of the proposed plan, DOT will determine the affected project area. The traffic committee will distribute a petition developed by DOT to all households, businesses, schools, and absentee property owners within the project area. Some physical devices impact adjacent property owners more than others, and have specific installation guidelines and criteria that must also be met.

Trial Installations: The petition must have 50% + 1 support of all affected households, businesses and schools within the project area before a trial installation is implemented (Level 1 projects) or presented to City Council (Level 2 projects) for authorization to proceed.



TITLE	PAGE	POLICY NUMBER
TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS	5 of 6	5-6

Permanent Installations: The petition must have 50% + 1 support of all affected households, businesses and schools within the project area for implementation of the final plan (Level 1 projects) or to be scheduled for presentation to City Council (Level 2 projects) for approval.

G. Comprehensive Project Schedule

Most comprehensive projects will require a trial installation, which will generally occur within four months from the date the plan is finalized and supported by the community or approved by City Council. The duration of the trial will normally be six months, during which time City staff will evaluate the effectiveness of the installation. During the trial, minor adjustments may be made to the plan based upon review by City staff and input from the community. Based on all relevant data and community input, DOT, in coordination with the traffic committee, will develop a proposed plan and schedule for permanent installation of the comprehensive project that will be presented to the community for approval.

Level 1 projects supported by the community will be programmed for implementation. Community supported Level 2 projects will be presented to City Council for consideration, and, if approved, programmed for implementation. Installation of final comprehensive projects will be dependent upon the complexity of the project and available resources for construction and ongoing maintenance of installed devices.

H. Reapplication for Comprehensive Traffic Calming Project

Neighborhoods that do not qualify for a comprehensive traffic calming project may reapply in two years from the date of DOT's final consideration. The two-year time period may be waived by the City Traffic Engineer if significant land use changes or other significant change has occurred.

**COMMUNITY FUNDING FOR COMPREHENSIVE TRAFFIC CALMING PROJECTS**

The City may accept donations from residents, neighborhoods, community groups, schools and/or businesses for the implementation and ongoing maintenance of comprehensive traffic calming projects that are eligible for installation under the provisions of this policy. Donations will need to comply with all provisions of City Council Policy 1-17.

**OUTREACH REQUIREMENTS**

Residents, businesses and schools that may be affected by the outcome of a comprehensive traffic calming project, will be notified in writing of any planned actions and schedule. Comprehensive projects that involve the installation of physical roadway features will normally require at least one (1) community meeting with households, businesses and schools in the project area. Notices for any community meeting will be distributed at least ten (10) calendar days in advance. Notices will be provided to all properties within the project area as defined in Section F. The methods of notification will be consistent with those contained in Council Policy 6-30. Projects will also be coordinated with providers of emergency response services, transit services, utilities and related services as needed.

**POLICY EXEMPTIONS**

Local residential streets and neighborhood collectors that do not meet the threshold criteria in Section C may be eligible for comprehensive traffic calming measures if the City Traffic Engineer determines that a unique or unusual condition exists which results in negative traffic impacts caused by a high number or rate of crashes, vehicles travelling at excessive speeds, significant pedestrian activity, or proximity to major traffic corridors or traffic generators that contribute to extraordinary changes to normal traffic conditions. These roadways will be prioritized along with the roadways that meet the threshold criteria based upon the ranking methodology in Section D.

TITLE	PAGE	POLICY NUMBER
TRAFFIC CALMING POLICY FOR RESIDENTIAL NEIGHBORHOODS	6 of 6	5-6

General Plan streets, transit routes, emergency response routes, may be eligible for dynamic warning signs or messaging systems if substantial levels of speeding are present as determined by DOT through an engineering traffic study, and funding is available for their installation and ongoing maintenance.

**DEVELOPMENT IMPACTS IN EXISTING NEIGHBORHOODS**

All proposed private and public development projects will be reviewed for potential traffic calming or pedestrian safety issues and a study will be required when necessary as determined through the City's development review process. DOT, Public Works and other City staff or consultants will be actively involved in the review of any proposed development that is determined to potentially create or significantly increase an adverse traffic condition in an existing neighborhood. It is the intent of this involvement that the development will be designed or that traffic calming or pedestrian or bicycle conditions will be placed on the developer to eliminate or minimize the portion of the adverse impacts that are a result of the development.



## APPENDIX B: STOP SIGN POLICY

### *City of San José, California*

## COUNCIL POLICY

TITLE	CRITERIA FOR THE INSTALLATION OF STOP SIGNS	PAGE	POLICY NUMBER
		1 of 4	8-1
<b>EFFECTIVE DATE</b> April 3, 1972		<b>REVISED DATE</b> April 3, 2001	
<b>APPROVED BY COUNCIL ACTION</b> 4/3/72; 7/5/79—Item 9a; Ordinance Nos. 204 & 20500 adopted 2/10/81; 5/7/85—Item 12a; 3/22/94—Item 9l; 4/3/01, Item 6.3, Resolution No. 70257.			

### BACKGROUND

Stop signs are installed to establish right-of-way at intersections between motorists, cyclists, and pedestrians, reduce delay, and enhance safety for all roadway users.

### PURPOSE

To state Council Policy relative to the designation of stop intersections.

### POLICY

It is the policy of the City Council that the City install stop signs in locations where the City Traffic Engineer, in the exercise of his/her engineering judgment, determines that such installation is appropriate. The City Traffic engineer should consider installation of a stop sign at an intersection that meets or exceeds the minimum guidelines set forth in this Policy. Potential conflicting City policies such as the Intersection Level of Service shall be considered, and may form the basis for the denial of stop signs despite other justifying factors. It is also the policy of the City Council that stop signs be installed at intersections as authorized by the City Traffic Engineer under the direction of the City Council or the Traffic Appeals Commission. In addition, stop signs are placed at entrances to through highways designated by the City Traffic Engineer or at intersections designated by the City Traffic Engineer as stop intersections in accordance with Title 11, Chapter 11.36, Section 11.36.030, 11.36.035 of the Municipal Code.

### CRITERIA FOR INSTALLATION OF STOP SIGNS

#### A. Two-Way (or One-Way) Stop Sign Analysis.

The City Traffic Engineer should consider installation of two-way (or one-way) stop signs if an intersection obtains a minimum of 18 points as determined below:

1. **Volume conflicts (maximum 9 points)**
  - a. **Higher Volume Street:** One point for every 100 vehicles per day entering the intersection in excess of 600 vehicles per day. (Maximum 5 points).
  - b. **Lower Volume Street:** One point for every 100 vehicles per day entering the intersection in excess of 300 vehicles per day. (Maximum 4 points).
2. **Visibility Conditions** - One point for each one MPH that the safe approach speed to the intersection is less than 20 MPH.
3. **Crash experience** - Six points for each crash during any 12-month period within two years prior to investigation that might have been prevented by the vehicles complying with properly placed stop signs.
4. **School Warrant (maximum 6 points)** - The City Traffic Engineer shall assign points for the intersection being adjacent to or within two blocks from the school (kindergarten to twelfth grade).

TITLE	CRITERIA FOR THE INSTALLATION OF STOP SIGNS	PAGE	POLICY NUMBER
		2 of 4	8-1

If an intersection is adjacent to or within two blocks of several schools, then additional points will be assigned using the same point distribution:

INTERSECTION	SCHOOL 1	SCHOOL 2	SCHOOL 3
Adjacent	3 points	3 points	3 points
One Block	2 points	2 points	2 points
Two Block	1 point	1 point	1 point

5. **Unusual conditions (maximum 9 points)**

Points may be assigned considering the severity of:

- a. High pedestrian and bicycle activity because of proximity to recreational facilities including school facilities, parks, senior centers, high-density housing, neighborhood library, transit stops, and other facilities that generate high pedestrian and bicycle activity;
- b. Average speeds in excess of the speed limit;
- c. Visual signs of emergency maneuvers such as skid marks and crash debris;
- d. Unique geometric conditions exist.

B. **All Way Stop Sign Analysis For Non-General Plan Streets.**

The criteria for the all-way stop analysis recognizes that delays are superseded by the desire to reduce potential crashes. An intersection qualifies for this analysis if it has residential frontage, a street not on the City's adopted General Plan, and does not exceed an average daily traffic volume of 6,000. If both streets at an intersection are residential, then the installation of all-way stop signs should be considered if the intersection obtains a minimum of 20 points as determined below.

1. **Volume conflicts (maximum 12 points)** - One point for every 100 conflicting movements per day in excess of the first 400 conflicting movements for a four-way intersection. One point for every 100 conflicting movements per day in excess of the first 300 conflicting movements for a three-way intersection.
2. **Crash experience** - Six points for each crash during any 12-month period within two years prior to investigation that might have been prevented by the vehicles complying with properly placed stop signs.
3. **School Warrant (maximum 6 points)** - Points shall be assigned for the intersection being adjacent to or within two blocks from the school. Multiple schools will generate additional points using the same point distribution:

INTERSECTION	SCHOOL 1	SCHOOL 2	SCHOOL 3
Adjacent	3 points	3 points	3 points
One Block	2 points	2 points	2 points
Two Block	1 point	1 point	1 point

5. **Unusual conditions (maximum 12 points)**

Points may be assigned considering the severity of:

- a. High pedestrian and bicycle activity because of proximity to recreational facilities including school facilities, parks, senior centers, high-density housing, neighborhood library, transit stops, and other facilities that generate high pedestrian and bicycle activity;
- b. Intersections within a pedestrian corridor or zone as identified in the General Plan;
- c. Average speeds in excess of the speed limit;
- d. Visual signs of emergency maneuvers such as skid marks and crash debris;
- e. Unique geometric conditions exist;
- f. Visibility concerns exist.

TITLE	CRITERIA FOR THE INSTALLATION OF STOP SIGNS	PAGE	POLICY NUMBER
		3 of 4	8-1

**C. All-Way Stop Sign Analysis for General Plan Streets.**

The criteria for non-residential General Plan streets recognizes the desire to enhance safety reduce potential crashes and the desire to minimize unnecessary delays. The City Traffic Engineer should consider installing all-way stop signs if the intersection obtains a minimum of 28 points as determined below:

**1. Volume conflicts and overall delays (maximum 15 points)**

Higher Volume Approach Four-Hour Volume	Points	Lower Volume Approach Four-Hour Volume	Points
0—1400	0	600—800	1
1401—1700	1	801—1000	2
1701—2000	2	1001—1200	3
2001—2300	3	1201—1400	4
2301—2600	4	1401—1600	5
2601—2900	5	1601—1800	6
2901—3200	4	1801—2000	7
3201—3500	3	2001—2200	8
3501—3800	2	2201—2400	9
3801—4100	1	2401—Over	10
4101—Over	0		

**2. Delay on higher volume street (maximum 5 points)**

Points assigned in accordance with the following table:

**Higher Volume Street to Lower Volume Street  
24-Hour Volume Ratio**

Volume Ratio	Points
1.0:1 to 1.4:1	5
1.5:1 to 1.9:1	4
2.0:1 to 2.9:1	3
3.0:1 to 3.9:1	2
4.0:1 to 4.9:1	1
Greater than 5.0:1	0

**3. Crash Experience** - Six points for each crash during any 12-month period within two years prior to investigation that might have been prevented by the vehicles complying with properly placed stop signs.

**4. School Warrant (maximum 6 points)** - Points shall be assigned for the intersection being adjacent to or within two blocks from the school. Multiple schools will generate additional points using the same point distribution:

INTERSECTION	SCHOOL 1	SCHOOL 2	SCHOOL 3
Adjacent	3 points	3 points	3 points
One Block	2 points	2 points	2 points
Two Block	1 point	1 point	1 point

**5. Unusual conditions (maximum 12 points)**

Points may be assigned considering the severity of:

- a. High pedestrian and bicycle activity because of proximity to recreational facilities including school facilities, parks, senior centers, high-density housing, neighborhood library, transit stops, and other facilities that generate high pedestrian and bicycle activity;
- b. Intersections within a pedestrian corridor or zone as identified in the General Plan;
- c. Average speeds in excess of the speed limit;

TITLE	CRITERIA FOR THE INSTALLATION OF STOP SIGNS	PAGE	POLICY NUMBER
		4 of 4	8-1

- d. Visual signs of emergency maneuvers such as skid marks and crash debris;
  - e. Low volume street;
  - f. Unique geometric conditions exist;
  - g. Visibility concerns exist.
6. The City Traffic Engineer shall do an analysis of the following items prior to installing an all-way stop on a General Plan street:
- a. Determine the crash rate for the intersection for the previous one year and three year period and compare with the City-wide average of that particular type of intersection (e.g., major collector/local controlled by two-way stop);
  - b. Determine the proximity of the subject intersection with existing traffic signals and planned traffic signals;
  - c. Determine if the subject intersection is warranted for a traffic signal;
  - d. Determine the possible diversion of through traffic due to delays caused by an additional stop, including an assessment of the impact on other streets;
  - e. Level of service shall be calculated for the intersection to assess peak hour congestion.

**APPEAL OF DENIAL OF REQUEST FOR STOP SIGNS**

If, after a citizen request to install stop signs at a particular intersection, the City Traffic Engineer decides for any reason not to install such stop signs, then the Traffic Appeals Commission is authorized, pursuant to the San José Municipal code, to hear an appeal. If, after hearing all the facts presented to it on appeal, the Traffic Appeals commission determines that installation of a stop sign is appropriate and safe, then it shall order the City Traffic Engineer to install such stop sign. The Traffic Appeals Commission shall order the installation of a stop sign that does not meet the warrants set forth in this Council Policy only upon making a specific written determination that installation of such stop sign is consistent with the public safety. The City Traffic Engineer shall be authorized to install stop signs as directed by the Traffic Appeals Commission.

## APPENDIX C: GUIDELINE TO TRAFFIC CALMING OPTIONS

Ref	Measure	Traffic Investigation and/or Analysis Req'd?	Estimated Cost to Implement	Funding and Resource Options Available to the Community (SNI, consultants, volunteers, private funding)	Council Policy or City Guidelines
<b>BASIC MEASURES</b>					
1	Police Enforcement	Possible	Subject to resources	May require neighborhood involvement	Enforcement is driven by number of complaints, crash history, proximity to schools
2	Parking Enforcement	Possible	Subject to resources	May require neighborhood involvement	Presence of parking restrictions, proximity to schools, requests
3	Radar Trailer	Possible	Subject to resources		Level of speeding, requests
4	Safety Education	None	Subject to resources	Requires neighborhood involvement	
5	Curb Markings	Minor	Minor		City guidelines
6	Striping	Minor	Minor	May require neighborhood involvement and support	State and City guidelines
7	Signs (speed limit, curve warning, parking restrictions, etc)	Minor-Major, depends on signs	Minor	May require neighborhood involvement and support	State law and guidelines, City guidelines
8	High-Visibility Signs	Minor	Minor		City guidelines
9	Crosswalks	Minor	Minor		State and City guidelines
10	High-Visibility Crosswalks	Minor	Minor		City guidelines
11	Truck Restriction	Major	Minor		City guidelines, and by ordinance
12	Stop Signs	Minor	Minor		City Policy
13	Residential Permit Parking	Major	Depends on area size New zones have fee per permit (cost to residents)	Requires neighborhood involvement	City guidelines, and by ordinance
<b>COMPREHENSIVE – LEVEL 1 MEASURES</b>					
14	Radar Speed Display Signage	Minor	\$15K-20K/sign ongoing O&M	SNI or private funding	Traffic Calming Policy
15	School Zone Beacons	Minor	\$12K-\$15K/pair ongoing O&M	SNI or private funding	Traffic Calming Policy
16	Enhanced Crosswalks (flashing beacons or textured - asphalt)	Minor	\$30K-\$50K/location ongoing O&M	SNI or private funding	Traffic Calming Policy
17	Road Bumps	Major	\$7K each	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
18	Bulb-outs	Major	\$60K-\$600K/pair	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
19	Traffic Circle	Major	\$60K-\$100K ongoing O&M if landscaped	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
20	Chokers	Major	\$20K/pair (detached) ongoing O&M if landscaped	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
21	Medians	Major	\$20K-\$40K each ongoing O&M if landscaped	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
22	Chicanes	Major	\$10K each (detached) ongoing O&M if landscaped	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
<b>COMPREHENSIVE – LEVEL 2 MEASURES</b>					
23	Diverter	Major	Depends on design	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
24	Partial Closure	Major	Depends on design	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
25	Extended Median	Major	Depends on design	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy
26	Full Closure	Major	Depends on design	SNI or private funding. Requires neighborhood support.	Traffic Calming Policy



## APPENDIX D: SUMMARY OF TRAFFIC CALMING MEASURES AND OBJECTIVES

Measure		Impact of Traffic Calming Objectives – Desirable Effects						Impact of Traffic Calming Objectives – Undesirable Effects					
		Reduce Speed	Reduce Volume	Increase Driver Safety	Increase Pedestrian Safety	Increase Biking Safety	Increase Aesthetics	Noise Increase	Pollution Increase	Loss of Parking	Restricts Access	Emergency Impacts	Increase Maintenance
<b>BASIC MEASURES</b>													
1	Traffic Safety Education	Yes	No	Yes	Yes	Yes	None	No	No	No	No	No	No
2	Police Enforcement	Yes	No	Yes	Yes	Yes	None	No	No	No	No	No	No
3	Parking Enforcement	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No
4	Curb Markings	No	No	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes
5	Crosswalks	No	No	No	Yes	No	No	No	No	Yes	No	No	Yes
6	High-Visibility Crosswalks	No	No	Possible	Yes	No	No	No	No	Yes	No	No	Yes
7	High-Visibility Signs	Yes	No	Yes	Yes	Possible	No	No	No	No	No	No	Yes
8	Stop Signs	No	Possible	Yes	Yes	Yes	No	Yes	Yes	Possible	No	No	Yes
9	Radar Trailer	Yes	No	Yes	Yes	Yes	None	No	No	No	No	No	No
10	Traffic Signage (ex. speed limit, curve warning)	Possible	No	Yes	Yes	Yes	No	No	No	Possible	No	No	Yes
11	Edgeline Striping	Possible	Possible	Yes	Possible	Yes	Possible	Possible	No	Possible	No	No	Yes
12	Truck Restrictions	No	Possible	No	Yes	Yes	No	No	No	No	No	No	Yes
13	Residential Parking Permit	No	No	No	No	No	Possible	No	No	No	No	No	Yes
<b>COMPREHENSIVE – LEVEL 1 MEASURES</b>													
14	Flashing Beacons (crosswalks or school zones)	Yes	No	Yes	Yes	Yes	No	No	No	No	No	No	Yes
15	Radar Speed Display Signs	Yes	No	Yes	Yes	Yes	No	No	No	No	No	No	Yes
16	Medians	Yes	Possible	No	No	No	Yes	No	No	Yes	Possible	Yes	Yes
17	Mid-block Chokers	Yes	Possible	No	No	No	Yes	No	No	Yes	No	Yes	Yes
18	Bulb-outs (detached or attached)	Yes	Possible	No	Yes	No	Possible	No	No	Yes	No	Yes	Yes
19	Road Humps	Yes	Possible	No	Yes	No	No	Yes	Possible	Possible	No	Yes	Yes
20	Traffic Circles	Yes	Possible	No	No	No	Yes	No	No	Yes	Possible	Yes	Yes
21	Chicanes	Yes	Possible	No	No	No	Yes	No	No	Yes	Possible	Yes	Yes
<b>COMPREHENSIVE – LEVEL 2 MEASURES</b>													
23	Diverters	Possible	Yes	No	No	No	Possible	No	Possible	Possible	Yes	Yes	Yes
24	Extended Median	Possible	Yes	No	No	No	Possible	No	Possible	Possible	Yes	Yes	Yes
25	Partial Closure	Possible	Yes	No	Yes	No	Possible	No	Possible	Possible	Yes	Yes	Yes
26	Full Closure	Possible	Yes	No	Yes	No	Possible	No	Possible	Possible	Yes	Yes	Yes