city of san luis obispo

neighborhood traffic management guidelines

San Luis Obispo Public Works Department
919 Palm Street, San Luis Obispo, California 93401
Telephone (805) 781-7200; FAX (805) 781-7198
www.slocity.org

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Introduction

Vehicular volume and speed continue to be a concern for neighborhood residents. The City has responded to community concerns by installing various traffic control devices and conducting focused enforcement campaigns. The Neighborhood Traffic Management Program is designed to provide consistent citywide guidelines for neighborhood traffic management to ensure equitable and effective solutions. This program represents a commitment to enhance the safety and quality of life in San Luis Obispo's neighborhoods.

The information contained in this document is intended to assist San Luis Obispo's residents in participating in the program thereby identifying and prioritizing neighborhood traffic issues and choosing the appropriate traffic management measures to address those issues. Traffic management measures consist of educational, enforcement, and physical measures used to positively influence the behavior of neighborhood street users.

The City's Neighborhood Traffic Management (NTM) Program encourages neighborhood participation and consensus. For more information about San Luis Obispo's Neighborhood Traffic Management Program, contact the Department of Public Works at 919 Palm Street, San Luis Obispo, California 93401, telephone (805) 781-7200, FAX (805) 781-7198, website: www.slocity.org.

Program Scope

The scope of the NTM program is the application of neighborhood traffic calming measures for the purposes of addressing excessive vehicular speeds and volumes. The scope is limited to the criteria detailed in these guidelines for residential class streets as identified on the streets classification map on Page 11. The objective of the NTM program is to encourage citizens to be directly involved in addressing neighborhood traffic concerns and to provide a process that results in equitable and affordable solutions to the traffic problems in a neighborhood. Neighborhood traffic safety & operational issues on all other streets and intersections fall under the scope of the City's *Annual Traffic Safety* and *Biennial Traffic Operations Programs*. Neighborhood parking issues fall under the scope of the *City's Residential Parking District Program*.

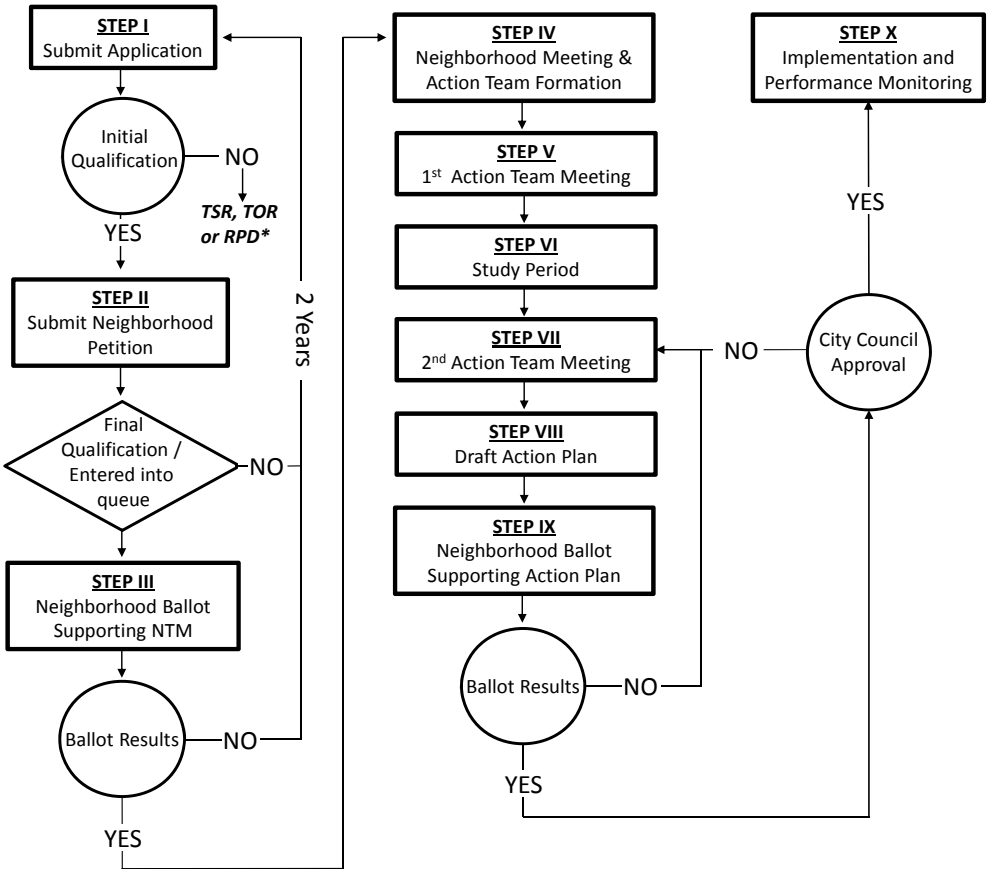
Design Standards: Neighborhood traffic management projects should be consistent with overall City transportation goals and objectives as set forth in the City's Circulation Element and must comply with applicable operational and design guidelines including City and State Engineering Standards. NTM plans must not result in an unreasonable or unacceptable liability exposure for the City. Some traffic control devices, such as stop signs and traffic signals, may be installed when warranted and deemed appropriate by the City.

Traffic Diversion: Streets are a community resource and not intended to serve as a benefit to one particular neighborhood or area at the detriment of another. Traffic calming projects should not shift or divert traffic to other residential local or collector class streets. Traffic calming measures may shift traffic to adjacent arterials if it is determined by the City that doing so would not reduce the level of service on the arterial beyond what is specified in the City's Circulation Element. To help identify traffic diversion, adjacent streets that could serve as alternate routes shall be included in the boundaries of an NTM study area.

The Neighborhood Traffic Management Process

This section describes how citizens, staff members, and the City Council work together to address neighborhood traffic problems. For most traffic concerns, residents need only contact the Traffic Engineering Division of the Public Works Department. For problems that require neighborhood-wide support a more complex process is required that involves neighborhood residents in developing equitable and affordable solutions. Depending on the scope and complexity of the traffic concerns and the neighborhood it may take as much as one year or more to develop an action plan and another one to two years to implement that plan.

Due to the potential secondary impacts that NTM devices may have on a neighborhood, the NTM process described in the following pages is intended to develop and maintain neighborhood support. If traffic conditions do not exceed standards set forth in these guidelines, or if neighborhood support is not established through a petition or ballot, the NTM process will end.



* ***TSR***- **Traffic Safety Program** ***TOR***- **Traffic Operations Program** ***RPD***- **Residential Parking District**

Figure 1-Summary of Neighborhood Traffic Management Process

Step I: NTM Program Application and Initial Qualification

The first step in initiating a Neighborhood Traffic Management Program is to submit the NTM application form. The Neighborhood Traffic Management (NTM) application form is included in these guidelines as Appendix C on page 12. The application form will help City staff determine which street(s) are impacted by traffic and the types of issues that need to be addressed. The application should be specific in describing the problem and include the location, time and day of traffic concern(s).

Types of Issues that may qualify for the Neighborhood Traffic Management Program:

- Excessive vehicular speeds within a neighborhood.
- Excessive traffic volumes within a neighborhood
- Other Vehicle, Pedestrian, and Bicycle safety issues.

Initial Qualification Criteria: Once the application is received City staff will review it for satisfaction of the following criteria:

Approved Streets: Streets approved for the Neighborhood Traffic Management Program are generally limited to local & residential collector class streets as identified in the City's Circulation Element. In some cases it will be necessary to include adjacent collector and arterial street sections, particularly if they have a direct impact on those streets. Traffic safety issues, congestion related issues on collectors, arterials and on other streets that are not approved for the NTM program will be addressed thru the *City's Annual Traffic Safety* & *Biennial Traffic Operations* programs. Information on these programs can be obtained from City Public Works Department, 919 Palm Street, San Luis Obispo, CA 93401 and from the City's website (slocity.org/publicworks).

Scope of Traffic Issue: In many cases specific traffic issues that do not have potential secondary impacts on other neighborhood residents or other adjacent streets can be addressed directly without having to proceed through the NTM process. City staff will work directly with the applicant to address these issues outside the formal NTM process.

Waiting Period: Neighborhoods which have participated in an NTM program previously are not eligible to apply for the NTM process for a 2 year period from the date of completion or termination of that previous NTM program. Neighborhoods are exempted from this criterion if City staff determines that any major change in the adjacent land use or the street network has occurred since the previous NTM program.

Step II: Neighborhood Petition and Final Qualification

If a neighborhood fulfills the initial qualification criteria, the second step in initiating a Neighborhood Traffic Management program is to circulate a petition form among neighborhood residents for signatures to raise awareness and obtain neighborhood support for the traffic concerns. The petition shall at a minimum be signed by at least 65% of the residents of the street that applied for NTM. City staff can work with the applicant to determine the petition area (see Figure 2-Eligible Street and Neighborhood Boundaries). The petition form is provided as

Appendix D on pages 13 and 14 of these guidelines. In order for the petition to be complete and to move forward with the NTM process, *a minimum of 65% of the neighborhood households within the study area must sign the petition* (one signature per household).

Final Qualification Criteria: Once the completed neighborhood petition is received, City staff will conduct an initial study of Neighborhood Speeds, Volumes, and Collision Rates. This data will be reviewed for satisfaction of the following criteria.

Table 1-Qualification Criteria

	Min. Daily Volume	Min. Predominant Speed	Min. Collision Rate
Local Residential	1,800 ADT	27.5 mph	1.2 PMVM
Residential Collector	3,600 ADT	27.5 mph	1.2 PMVM

***ADT*- Average Daily Traffic Volume** ***MPH*- Miles Per Hour** ***PMVM*- Collision Per Million Vehicle Miles Traveled**

These criteria are based on thresholds of what is considered to be *excessive* per the City's Circulation Element. The actual values of these criteria differ slightly from the Circulation Element because they more closely represent on-going exceedance of those general plan conditions, rather than sporadic spikes in volumes and speeds that are often observed when collecting field data. An NTM project will move forward in the process if one or more of the criterion shown in Table 1 is met.

The Neighborhood Traffic Management Program is a "first-come, first-served" process. Neighborhoods meeting qualification criteria will be placed into a queue behind other neighborhoods that have already been accepted into the program. Due to limited City resources only a limited number of NTM projects may be completed in each two-year budget cycle.

Step III: Initial Ballot Supporting NTM

The third and final step in initiating a Neighborhood Traffic Management Program is a vote of the neighborhood to support establishment of a Program in their neighborhood. The ballot to support an NTM program will be sent out to all the households within the initial study area. An example of the NTM ballot is provided as Appendix E on page 15 of these guidelines.

An NTM project will move forward in the process if 51% or more of all the households within the study area complete and return the ballot and 67% of the returned ballots support starting an NTM program for their neighborhood.

Step IV: Initial Neighborhood Meeting & Action Team Formation

With neighborhood support for the preparation of a Neighborhood Traffic Management Plan, and the preliminary qualifications met, a neighborhood meeting will be held. City staff will organize a community meeting so that members within the study area can voice their concerns. The purpose of this meeting is to discuss and summarize the traffic concerns of the neighborhood and form a Neighborhood Action Team.

The Action Team: At the community meeting, neighbors within the study area will be invited to join a *Neighborhood Action Team*. The purpose of the team is to represent the neighborhood and work with City staff to develop equitable, affordable solutions to the traffic concerns of the neighborhood. The following will guide the formation and operation of the Action Team:

- The Action Team should have more than three but less than twelve citizen members.
- An Action Team quorum will be a simple majority of the citizen members. The Action Team will make decisions by general consensus or voice vote when required. Successful voice votes will require the majority of the quorum.
- At least one representative from each street within the study area should attend each meeting.
- Action Team members should attend *all* Action Team meetings.
- Action Team members should be available to the neighbors they represent to answer questions and address comments or concerns about the Action Plan.
- The Action Team members are encouraged to conduct their own informational campaign within the study area to raise awareness of the traffic concerns and that an Action Plan will be prepared to address these concerns.

Step V: First Action Team Meeting

At the first Action Team meeting, team members will review and summarize the issues and concerns expressed at the initial community meeting. Action Team members will work with City staff to identify the boundaries of the study area and discuss the data collection methods necessary to quantify the traffic concerns of the neighborhood.

Notifications will be mailed out to all study area households after the first Action Team meeting. The notification should include the contact information for the Action Team, an update on the NTM process, and a summary of the traffic concerns that were identified at the community meeting.

Step VI: Study Period

City staff will work with the Action Team to determine a study methodology that will help quantify the traffic concerns of the neighborhood. These concerns will be quantified through a series of traffic studies that may include but are not limited to radar speed studies, traffic volume counts, intersection turning movement counts, sight distance studies and parking studies. Once the studies and analysis are complete, the Action Team will meet to develop an Action Plan that addresses the neighborhood concerns.

Traffic Studies: Traffic studies are typically scheduled during Winter, Spring and Fall and in the middle of the week while all schools are in normal session and when there are no special events or inclement weather as this gives a more accurate account of traffic patterns.

Step VII: Second Action Team Meeting

Staff will present the results of the traffic studies to the Action Team once the study period has concluded. The traffic study report will characterize the existing conditions, the traffic flow patterns of the neighborhood and identify appropriate traffic calming measures (see Appendices G1-G4 on pages 17-26 for examples of traffic calming measures). Based on the traffic study results, the Action Team will then set goals and objectives for the Action Plan. While appropriate traffic calming measures will be identified by Staff, the Action Team is encouraged to choose the project(s) that they believe will be acceptable to the neighborhood.

Limits on Applying NTM Projects: Selecting the right NTM tool may be limited by the traffic conditions in the area, the geometric design or the functional classification of a roadway. NTM Action Plans should consider the effect that NTM projects would have on emergency vehicles. Access to designated routes (see map on page 10) for emergency vehicles must be maintained for timely response during emergencies.

Step VIII: Draft Action Plan Development

Based on results from the traffic studies and direction from the Action Team City staff will develop appropriate traffic calming measures that serve to meet the goals and objectives of the Action Team, and fit into the neighborhood. A well-developed plan that fits into the context of the neighborhood and solves the initial concerns has a greater likelihood of being approved by the neighborhood. The NTM Action Plan should include the following features:

- A Background Statement including a summary of the; initial petition, ballot supporting an NTM program, community meeting, Action Team meetings, ballot supporting Action Plan.
- A map showing the boundary of the study area and adjoining areas, private property lines, all public streets, and the location of all proposed NTM projects.
- A Statement of Objectives.
- A brief description, accompanied by photographs or drawings, of the different types of traffic calming measures to be used.
- An estimated schedule for installing all of the NTM devices that includes provisions for phasing as appropriate.
- Cost estimates for installing all permanent facilities and a description of the intended method for financing the installation of NTM devices. If cost estimates exceed the funding available for the proposed improvements, a description of property owner or household responsibilities for helping to pay installation and maintenance costs.
- A description of the performance monitoring process that will be used to determine the effectiveness of the NTM devices.

The Transportation staff will write the draft Action Plan and present the plan to the Action Team for review. The Action Team will then have an opportunity to review and approve of the NTM Plan’s final draft content.

Step IX: Neighborhood Ballot Supporting Draft Action Plan

The final step in developing an NTM Action Plan is a vote of the neighborhood to support the draft plan. The final ballot will be sent out to all the households within the study area. An example of the ballot to approve an Action Plan is provided as Appendix F on page 16 of these guidelines.

If 51% or more of all the households within the study area complete and return the ballot and 67% of the returned ballots support the Draft Action Plan, the plan will be submitted to the City Council for approval**.**

Voting on the Final Draft Action Plan: A vote to approve a draft NTM Action Plan will be considered successful when a minimum of 51% of the study area's households complete and return the ballot *and* 67% of the returned ballots support the plan. Ballots for a draft Action Plan that contain multiple projects may be structured so that each individual project is voted on. Separating out the projects on a ballot may help the Action Team and City Staff identify neighborhood approval or disapproval for a particular project.

If the vote is unsuccessful for all of the projects, *the NTM process will end*. If one or more of the projects received the required approval, the Action Team may choose to amend or modify the draft plan and resubmit it to the study area households for approval. If the second ballot for supporting a draft Action Plan is unsuccessful the Action Team may consider submitting the plan with only the approved projects, to the City Council or the NTM process will end.

City Council Approval: Once the draft NTM Action Plan is approved by the neighborhood, the plan will be presented to the City Council for consideration and approval. The Council may choose to approve the plan as submitted, alter the plan, or direct staff and/or the Action Team to modify the plan. If the City Council does not approve the Action Plan, the Action Team may choose to modify the Action Plan to address the concerns of the Council and resubmit it to the neighborhood for approval. If the ballot for supporting the amended or modified draft Action Plan is unsuccessful the NTM process will end.

Step X: Implementation and Performance Monitoring

With a City Council approved Action Plan, Public Works staff will design and construct the permanent facilities. In some cases temporary trial measures maybe installed for a period prior to installation of permanent facilities.

After of the completion of all permanent facilities, staff will evaluate conditions in the study area to determine the impact of the facilities, the effectiveness of the NTM projects and make adjustments as necessary for a 12 month period. The City may extend the monitoring period when the initial results are inconclusive or when unanticipated changes in traffic conditions have occurred.

Modification and/or removal of traffic calming devices may be necessary if traffic conditions degrade or they prove to be ineffective.

NTM Project Funding

Funding for NTM projects will be provided by the City's annual NTM allocation, funding for approximately one action plan should be available each fiscal year. If an NTM project is estimated to exceed the available funding for that year, the cost overrun will be paid for by the study area households and/or property owners or the Action Team may choose to modify or remove projects from the Action Plan. Study area households and/or property owners will be asked in ballot format if they support funding the cost overruns. The ballot will indicate the funding methods and the costs of the proposed projects. If the neighborhood does not support funding the cost overrun the Action Team can modify the plan or the NTM process will end.

When study area households or property owners are required to help pay for the implementation of an NTM Action Plan, the City will consider a range of funding strategies including but not limited to:

- Fund raising activities organized by the neighborhood. The Action Team will be responsible for securing the funding required to construct the Action Plan projects.

- Establishing a Benefit-Assessment District consistent with the provisions of California Law (reference Proposition 218). This option applies mostly to higher-cost NTM solutions.

- Establishing municipal code provisions that enables the City to pay for the installation of NTM facilities then assess individual property owners as part of their annual property tax bill (similar to the way that sidewalks are paid for under Municipal Code Chapter 12).

Voting Procedures

All residents, property owners and businesses within a designated study area will be surveyed. Only one ballot per household (street address) will be counted. If the owner and occupant vote differently, the owner's vote will take precedent. Owners of multiple units are asked to complete one ballot for each unit owned. Ballots must be completed by the household that received the ballot, copies of ballots will not be accepted. City staff will make every effort to ensure that each household owner and occupant within the study area receive a ballot, in the event a ballot was not mailed a replacement ballot will be issued. Replacement ballots will not be issued in the event of a lost or misplaced ballot.

Ballots mailed to residents & property owners will be labeled with the property's address information so that the voting trends can be established either by street, block or area. The specific address/parcel and information listed on the ballots is confidential and will be used for analysis only.

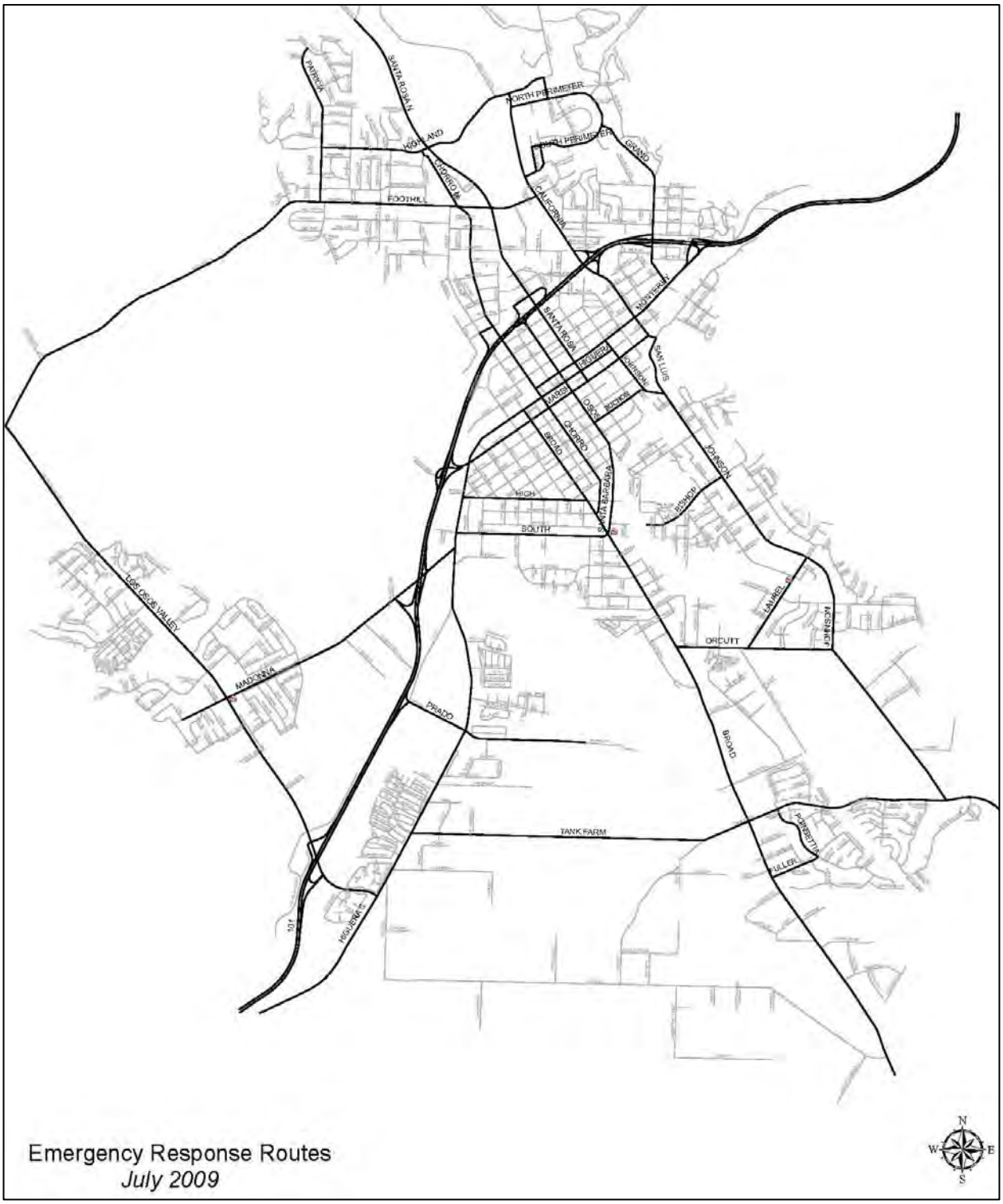
Concerned residents are encouraged to conduct their own promotional campaign within the study area prior to the due date listed on the ballot. If a ballot is not successful the process will end. Streets/neighborhoods that do not support a Neighborhood Traffic Management project will not be eligible for the NTM program for a period of not less than 24 months.

NTM Program Administration

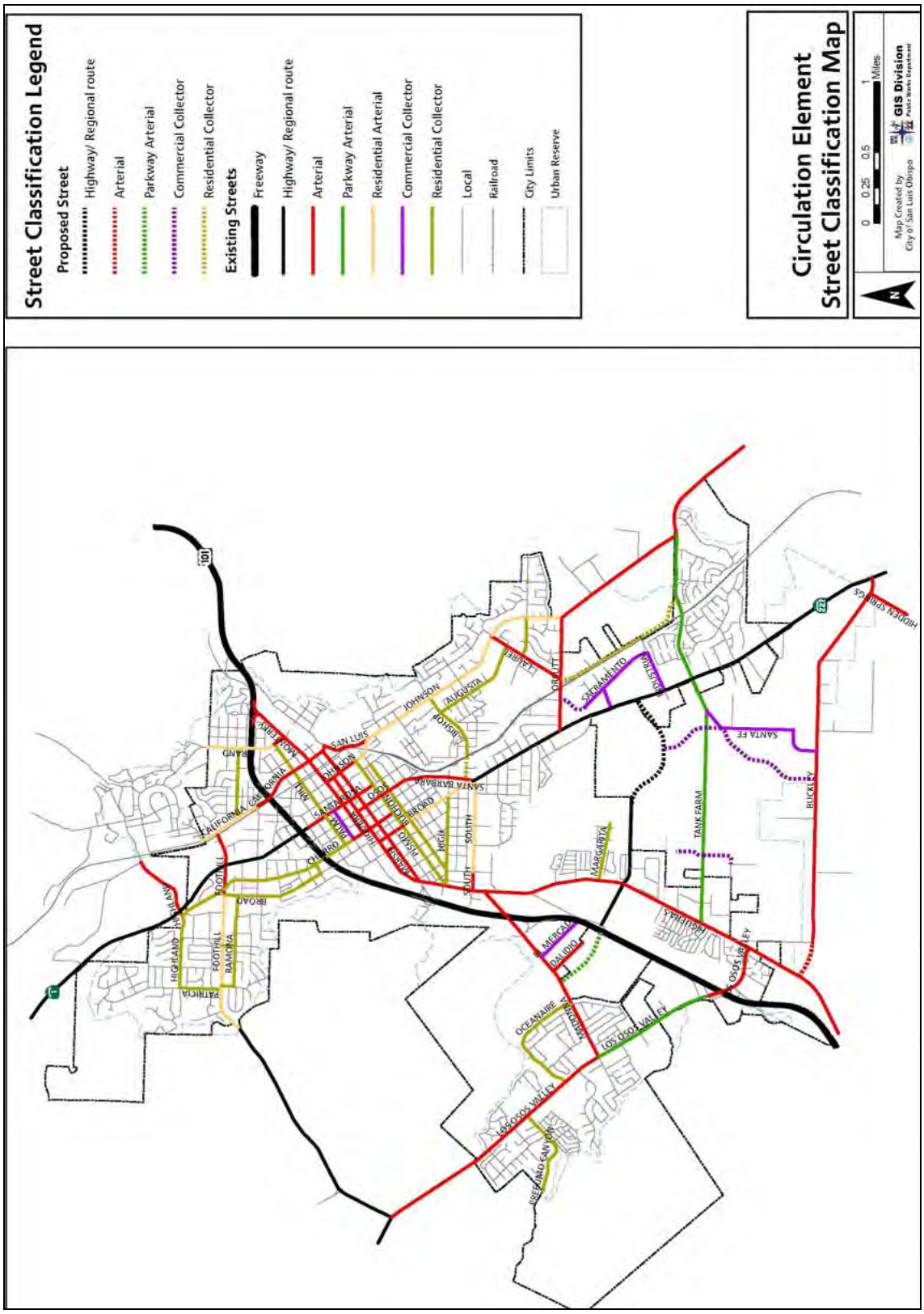
The San Luis Obispo Department of Public Works Transportation staff is responsible for administering these guidelines. Within the Department, key staff members that will answer questions and provide assistance include the Traffic Engineers and the Principal Transportation Planner. They may be reached at 919 Palm Street, San Luis Obispo, California 93401, Telephone (805) 781-7200, FAX (805) 781-7198.

Appeals of decisions made as part of this NTM Program shall be made in writing to the San Luis Obispo City Council. Appeals must be filed at the Department of Public Works, 919 Palm Street, San Luis Obispo, CA 93401 and will be considered by the City Council at an advertised public hearing.

APPENDIX A: Emergency Response Routes



APPENDIX B: Street Classification Map



APPENDIX C: Sample Application for NTM Program

Request # _____

city of san luis obispo

Public Works Department 805-781-7210
919 Palm Street San Luis Obispo, California 93401-3218

Application for Neighborhood Traffic Management

Instructions: Thank you for your interest in the Neighborhood Traffic Management (NTM) Program for your neighborhood/street. Please fill out all fields of this application. If your neighborhood/street qualifies, a petition will be need to be signed and submitted with 65% of the households within the designated petition area agreeing with the traffic concern(s) listed. Following the petition a preliminary traffic study will be performed. If the initial traffic study shows that the neighborhood meets the NTM criteria, a neighborhood-wide ballot to support the NTM project will be mailed out with a 51% requirement to proceed. Consensus about the traffic concern is essential and awareness about the traffic concerns should be established at the beginning of a project.

Applicant: _____ Phone: _____

Signature: _____ Email: _____

Address: _____ Date: _____

Location and time of Traffic Concern(s) :

Please be Specific, this section is used to determine if this request qualifies for NTM

Location(s):

1. Street_____From:_____To:_____Days of Week: M W T W Th F Sa Su
2. Street_____From:_____To:_____Days of Week: M W T W Th F Sa Su
3. Street_____From:_____To:_____Days of Week: M W T W Th F Sa Su
4. Street_____From:_____To:_____Days of Week M W T W Th F Sa Su

Issue(s):

Location: 1. _____
2. _____
3. _____
4. _____

Preferred Solution:

Location: 1. _____
2. _____
3. _____
4. _____

For Official Use Only:

Step 1-Initial Qualification

☐-Neighborhood/Street(s) does not qualify for NTM

☐ Neighborhood/Street(s) are not approved for NTM, Staff will address any issues as part of Annual Traffic Safety Report.

☐ Traffic Issue is isolated and does not require full neighborhood support. Staff will address issue outside NTM.

Staff Recommended Action: _____

_____

_____

☐ A review of this neighborhood/street was conducted on_____(date), and is not eligible for review again until_____(date)

☐ Neighborhood/Street has *preliminary* qualification for NTM. In order to proceed with the NTM process please circulate and return attached the petition form. _____(#) of signatures are required (65% of the households within the designated petition area).

_____

Traffic Engineer's Signature Date

APPENDIX D: Sample Petition Form

Request # _____

city of san luis obispo

Public Works Department 805-781-7210
919 Palm Street San Luis Obispo, California 93401-3218

Petition to Support Neighborhood Traffic Management

Instructions: Resident(s) within your neighborhood have identified traffic concerns that they feel should be addressed. By signing this petition (one signature per household, per street address) you are in agreement with the traffic related concerns listed below. _____ (#) of signatures are required in order for a preliminary traffic study to be conducted. Once the required signatures are returned, staff will conduct a preliminary traffic study to determine if the neighborhood/street(s) exceed established speed, volume, and collision thresholds for the Neighborhood Traffic Management Program (NTM). If the project qualifies for NTM, a ballot will be mailed out to determine if the neighborhood supports the preparation of an Action Plan to address the concerns listed below. Neighborhood consensus about the traffic concern is essential and awareness about the traffic concerns should be established at the beginning of a project.

Neighborhood Representative:_____(name/phone #)

Summary of Concerns: _____

_____

_____

_____

_____

_____

_____

_____

For Official Use Only:

Step 2-Neighborhood Petition and Criteria

☐-Neighborhood/Street(s) does not qualify for NTM, eligible for review again_____(Date)
☐ The required number of signatures were not collected.
☐ Volume, Speed, or Collision rate thresholds are not exceeded.

	Location 1		Location 2		Location 3		Location 4	
	Required	Observed	Required	Observed	Required	Observed	Required	Observed
Volume								
Speed								
Collision Rate								

☐ Neighborhood/Street(s) qualifies for NTM.

PETITION TO SUPPORT NEIGHBORHOOD TRAFFIC MANAGEMENT

#	Name	Address	Phone Number	Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				

APPENDIX E: Sample Ballot Form for Supporting NTM

city of san luis obispo

Public Works Department 805-781-7200
919 Palm Street San Luis Obispo, California 93401-3218

VOTE NOW ON A PLAN FOR YOUR NEIGHBORHOOD

IMMEDIATE ACTION REQUESTED

BALLOT FOR SUPPORTING NEIGHBORHOOD TRAFFIC MANAGEMENT

Instructions: Residents within your neighborhood have identified traffic concerns that they feel should be addressed. If you support the preparation of a plan to address these concerns please check the appropriate box below. A Neighborhood Traffic Management (NTM) project will move to the next step in the NTM program if 51% or more of all the households within the study area complete and return this ballot *and* 67% of the returned ballots support starting an NTM program for the _____neighborhood. The next step in the NTM process will be a **Community Meeting** where City Staff will summarize the neighborhood concerns and form a Neighborhood Action Team. An Action Team is made up of 4-11 members from your neighborhood.

A vote to support the preparation of an NTM Action Plan means that you agree the traffic issues stated below exist. Also a vote to support means you support a cooperative effort between City staff and a group of neighborhood representatives to study these issues, develop a plan for improvements, and to return to the entire neighborhood with another ballot to support the specific improvements.

In addition, a vote to support NTM means that in the case the recommended improvements exceed the available City budget, you support the preparation of a cost sharing plan between the City and the neighborhood to cover any additional funding needed and to return to the entire neighborhood with ***another ballot*** to support that specific funding strategy if needed. The Action Team will work with City Staff to develop equitable and affordable solutions to the traffic problems in your neighborhood. The deadline for returning this ballot is_____

Summary of Concerns: _____

Please check the appropriate boxes:

Only one ballot per household will be counted. Please indicate if you are the Owner and/or Occupant, as only one vote per household (per street address) will count. If the owner and occupant vote differently, the owner's vote will be the vote counted. Owners: Please complete ONE ballot for EACH unit you own.

☐ **Yes,** I support the preparation of a Neighborhood Traffic Management Plan to address traffic problems in my neighborhood.

☐ **No,** I do not support the preparation of a Neighborhood Traffic Management Plan to address traffic problems in my neighborhood.

If No, please indicate why:

☐ More enforcement needed Don't change the streets

☐ Streets should not be changed

☐ Potential for cost sharing

☐ Other, please indicate below:

☐ Potential for Type of Device (i.e. sidewalk bulb-out, traffic circle, speed table)

☐ There is not a problem

Other: _____

_____

This section is for analysis purposes only. This information is confidential and will not be released in any form.

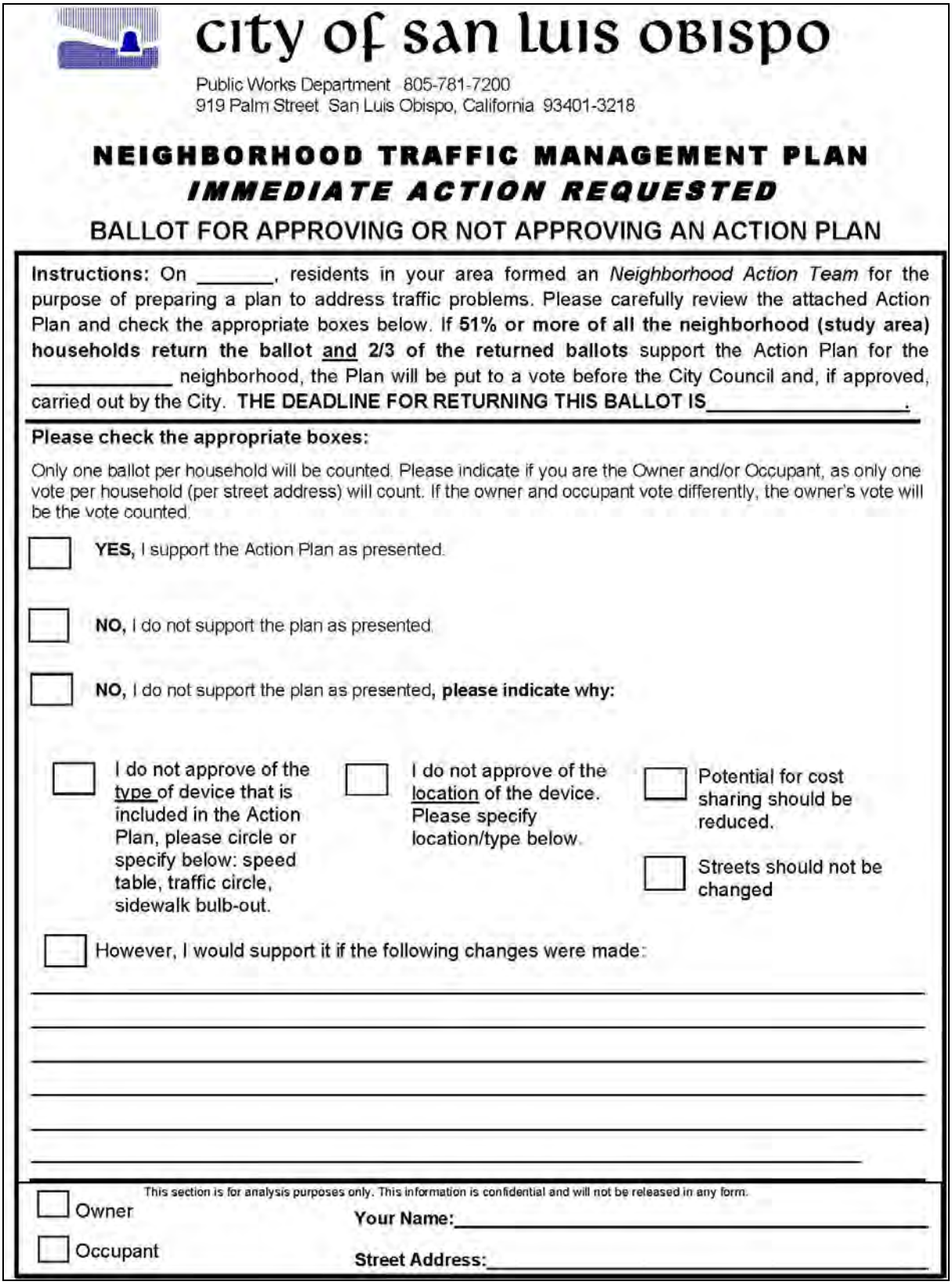
☐ Owner

☐ Occupant

Your Name:_____

Street Address:_____

APPENDIX F: Sample Ballot for Approving an Action Plan



city of san luis obispo

Public Works Department 805-781-7200
919 Palm Street San Luis Obispo, California 93401-3218

NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

IMMEDIATE ACTION REQUESTED

BALLOT FOR APPROVING OR NOT APPROVING AN ACTION PLAN

Instructions: On _____, residents in your area formed an *Neighborhood Action Team* for the purpose of preparing a plan to address traffic problems. Please carefully review the attached Action Plan and check the appropriate boxes below. If **51% or more of all the neighborhood (study area) households return the ballot and 2/3 of the returned ballots** support the Action Plan for the _____ neighborhood, the Plan will be put to a vote before the City Council and, if approved, carried out by the City. **THE DEADLINE FOR RETURNING THIS BALLOT IS_____.**

Please check the appropriate boxes:

Only one ballot per household will be counted. Please indicate if you are the Owner and/or Occupant, as only one vote per household (per street address) will count. If the owner and occupant vote differently, the owner's vote will be the vote counted.

☐ **YES,** I support the Action Plan as presented.

☐ **NO,** I do not support the plan as presented.

☐ **NO,** I do not support the plan as presented, **please indicate why:**

☐ I do not approve of the type of device that is included in the Action Plan, please circle or specify below: speed table, traffic circle, sidewalk bulb-out.

☐ I do not approve of the location of the device. Please specify location/type below.

☐ Potential for cost sharing should be reduced.

☐ Streets should not be changed

☐ However, I would support it if the following changes were made:

_____

_____

_____

_____

_____

_____

This section is for analysis purposes only. This information is confidential and will not be released in any form.

☐ Owner

☐ Occupant

Your Name:_____

Street Address:_____

APPENDIX G1: The Neighborhood Traffic Management Toolbox

NTM Tools: The NTM toolbox will be used by the Action Team and City staff to identify appropriate measures to address the concerns of the neighborhood. Appendix G2 details the applicability of traffic calming measures, note that while some measures may be used for speed reduction they may not be suitable for reducing traffic volumes. Some NTM tools may reduce traffic volume but may adversely affect neighborhood or emergency access, Appendix G3 details the implications and relative installation costs of different traffic calming measures. Devices not shown in the NTM toolbox may be used on a trial basis if approved by the Director of Public Works.

APPENDIX G2: Applicability of Traffic Calming Measures

Measure		POTENTIAL BENEFITS			
		Speed Reduction	Volume Reduction	Conflict Reduction	Environ-ment
Vertical Deflection	Raised crosswalk	●	○	◐	◐
	Raised intersection	◐	○	◐	◐
	Rumble strip	○	○	○	○
	Sidewalk extension	◐	○	◐	○
	Speed hump	●	◐	●	◐
	Textured crosswalk	○	○	◐	◐
Horizontal Deflection	Chicane — one-lane	●	●	●	◐
	Chicane — two-lane	◐	○	◐	◐
	Curb extension	◐	○	○	●
	Curb radius reduction	◐	○	○	◐
	On-street parking	◐	○	○	◐
	Raised median island	◐	○	◐	○
	Traffic circle	●	◐	●	●
Obstruction	Directional closure	○	●	◐	◐
	Diverter	○	●	◐	◐
	Full closure	○	●	●	◐
	Intersection channelization	○	◐	◐	◐
	Raised median through intersection	○	●	◐	◐
	Right-in/right-out island	○	●	◐	◐
Signing*	Maximum Speed	◐	○	○	○
	Right (Left) Turn Prohibited	○	◐	◐	◐
	One-Way	○	●	◐	◐
	Stop	○	◐	◐	○
	Through Traffic Prohibited	○	◐	◐	◐
	Traffic-Calmed Neighbourhood	○	○	○	◐
	Yield	○	○	◐	○

● = Substantial benefits ◐ = Minor benefits ○ = No benefit

* The primary purpose of signing is to regulate traffic movements, not to calm traffic.

Source: Canadian Guide to Neighborhood Traffic Calming-December 1998

APPENDIX G3: Implications of Traffic Calming Measures

MEASURE		POTENTIAL DISBENEFITS					
		Local Access	Emergency Response	Other Travel Modes	Enforce-ment	Mainte-nance	Emplace-ment Cost
Vertical Deflection	Raised crosswalk	○	◐	◐	○	◐	$ to $$
	Raised intersection	○	◐	◐	○	◐	$$$
	Rumble strip	○	○	◐	○	●	$ to $$
	Sidewalk extension	○	○	○	○	◐	$$
	Speed hump	○	◐	◐	○	◐	$ to $$
	Textured crosswalk	○	○	◐	○	◐	$ to $$
Horizontal Deflection	Chicane — one-lane	○	◐	◐	○	◐	$$ to $$$
	Chicane — two-lane	○	○	○	○	◐	$$
	Curb extension	○	○	◐	○	◐	$ to $$
	Curb radius reduction	○	○	○	○	◐	$ to $$
	On-street parking	○	◐	◐	○	◐	$ to $$
	Raised median island	◐	○	○	○	◐	$ to $$
	Traffic circle	○	◐	◐	○	◐	$$ to $$$
Obstruction	Directional closure	◐	○	◐	◐	◐	$$
	Diverter	◐	◐	◐	○	◐	$$ to $$$
	Full closure	●	●	◐	○	◐	$$ to $$$
	Intersection channelization	◐	◐	○	○	◐	$$ to $$$
	Raised median through intersection	◐	◐	◐	○	◐	$ to $$
	Right-in/Right-out island	◐	◐	◐	◐	◐	$$
Signing	Maximum Speed	○	○	○	●	○	$
	Right (Left) Turn Prohibited	◐	○	○	●	○	$
	One-Way	◐	◐	◐	○	○	$
	Stop	○	◐	○	●	○	$
	Through Traffic Prohibited	◐	○	○	●	○	$
	Traffic-Calmed Neighbourhood	○	○	○	○	○	$
	Yield	○	○	○	○	○	$

● = Substantial disbenefits ◐ = Moderate disbenefits ○ = No disbenefits
$ = Low cost $$ = Moderate cost $$$ = High cost

Source: Canadian Guide to Neighborhood Traffic Calming-December 1998

APPENDIX G4: Volume Control Measures

Volume Control Measures are typically used to reduce the volume of through traffic on local streets. These types of measures can significantly change access into and out of a neighborhood and should only be used to shift traffic to adjacent arterial streets.

Full street closures are barriers placed across a street to completely close the street to through vehicle traffic. Designed with sidewalks and possibly openings for bicycle access, this is one of the most restrictive measures used to reduce traffic volumes.

Figure 2-Full Street Closure
Santa Barbara St. and Morro St.

Half street closures are barriers that block vehicle travel in one direction. This type of closure can be effective when used in combination with half closures on adjacent streets or staggered so that through traffic cannot directly drive through the neighborhood. While effective at reducing through volumes, half street closures can affect access for neighborhood residents.

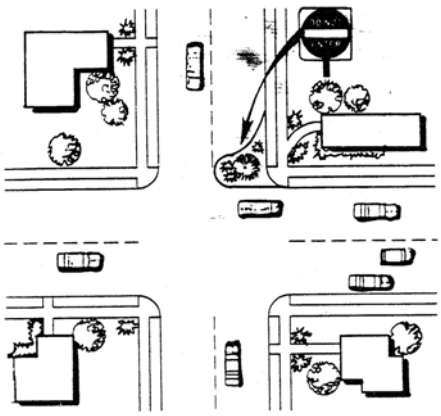


Figure 3-Half Street Closure
Pasadena-San Pasqual and S. Mentor Ave.
(http://www.ite.org/traffic/tcdevices.asp)

Diagonal diverters are barriers placed diagonally across an intersection. This type of device can be designed to allow for through bicycle access. Compared to a full closure this type of device maintains neighborhood access from one of the side streets.

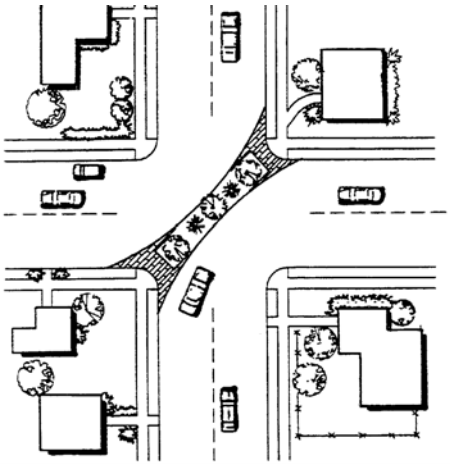


Figure 4-Diagonal Diverter

Median Diverters are raised concrete islands located in the middle of an intersection. The purpose of this type of device is to restrict the through movement of vehicles while maintaining through access for bicycles and pedestrians. This type of device forces vehicles on one street to make a right while traffic on the intersecting street cannot turn left.

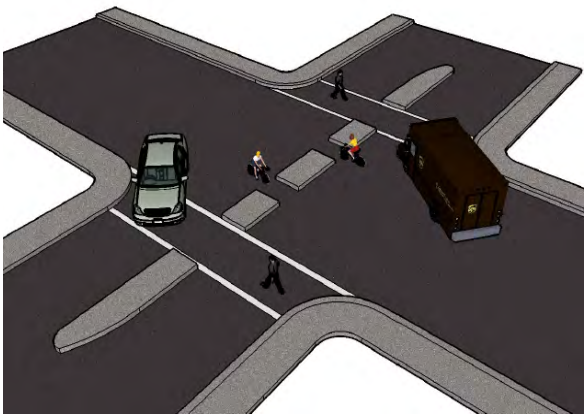


Figure 5-Median Diverter
(Morro at Buchon St.)

APPENDIX G5: Speed Control Measures

Speed Control Measures can be either vertical or horizontal devices and are intended to address excessive vehicle speeds. These types of measures typically do not change through a neighborhood but may result in increased noise or inconvenience for neighborhood residents.

Speed Humps are raised areas of pavement that extend across the roadway. Speed humps are much less abrupt than traditional speed bumps and are typically designed 3" to 4" in height, 12' to 14' in length, parabolic in shape and are installed in series spaced 300-600 feet apart. In exchange for traffic volume and speed reductions, speed humps can cause an increase in traffic noise from braking and acceleration of vehicles, particularly buses and trucks. This increase in noise may be offset by an overall reduction in noise due to reduced vehicle speeds. Another drawback is that people with mobility impairments may experience problems when driving over a speed hump.

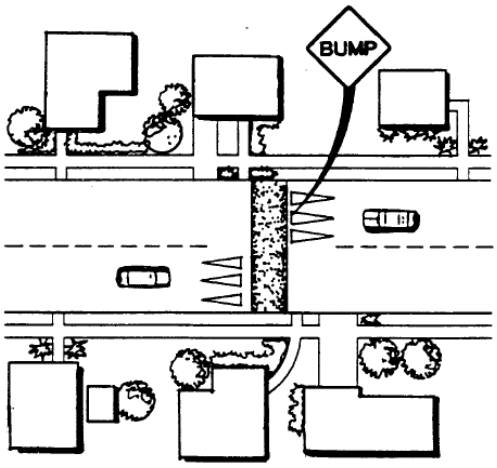


Figure 6-Speed Hump Madonna Road

Speed Tables are typically designed 3" to 4" in height, 22' in length, with a large flat section in the middle and ramps on the ends. Speed tables can serve as raised crosswalks and are less jarring to motorists than speed humps, but have higher crossing speeds than speed humps. While effective at reducing vehicle speeds, speed tables can cause an increase in traffic noise due to the deceleration and acceleration of vehicles (though not to the extent that speed humps would), though this may be offset by a reduction in noise due to reduced vehicle speeds.

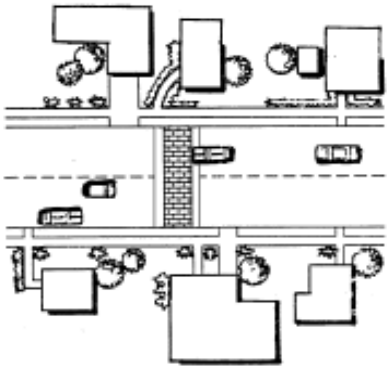


Figure 7- Speed Table Ella Street

A **Roundabout** is an intersection design that modifies the geometry of a typical intersection so that traffic circulates counterclockwise around a center island. Roundabouts are used on higher volume streets such as collectors or arterials. Typically used to assign right of way, roundabouts are often used in place of traffic signals or stop signs and have raised splitter islands to channel approaching traffic to the right. While roundabouts may reduce vehicle speeds through an intersection they can require a significant amount of right of way to construct.

Figure 8-Roundabout
Madonna Road at De Vaul Ranch Drive

Chicanes are sidewalk extensions that are installed on alternate sides of a street in between intersections. While this design can accommodate emergency vehicles, chicanes can significantly reduce the amount of on-street parking spaces.

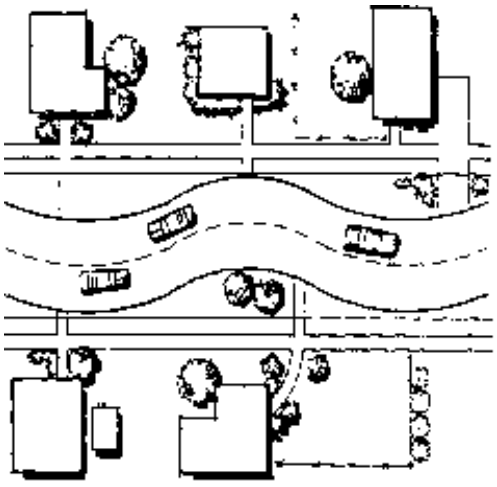


Figure 9-Chicane
(San Francisco-Beacon Street)

Bulbouts are sidewalk extensions that are typically installed at intersections or at mid-block locations. Bulbouts reduce the effective width of the roadway which reduces the crossing distance for pedestrians and appears to narrow the roadway for motorists. Sidewalk bulbouts can be effective at reducing vehicle speeds, however the effectiveness of the bulbouts are often dependent on the volume of traffic in the opposite lane.

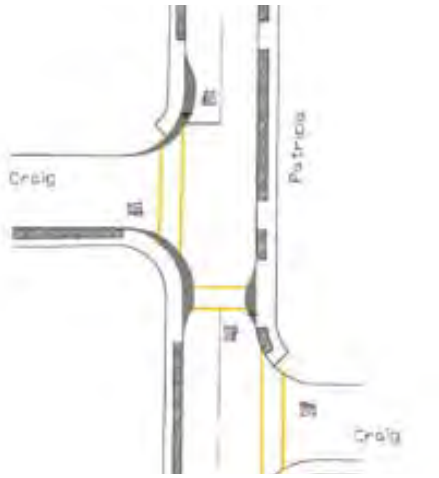
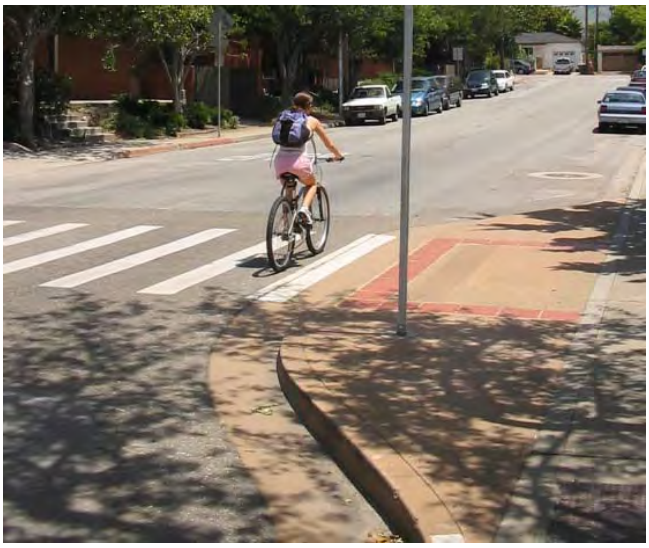


Figure 10-Intersection Bulbouts
(Patricia Drive at Craig Way)



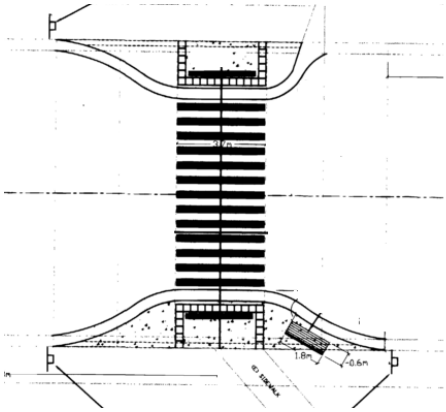


Figure 11-Midblock Bulbouts
Ramona Drive

Pavement Markings/Striping Modifications such as marked double yellow centerline can provide a visually narrowed street width and delineate travel lanes for motorists. Double yellow center lines are typically installed on arterial streets with high traffic volumes to separate directions of traffic, residential street applications are intended to prevent motorists from passing one another or to visually narrow the width of the roadway. White painted edge lines can also provide a visually narrowed street width. When used on narrow residential (33'-40') white painted edge lines may appear as bike lanes even though there may not be enough roadway width to support a bike lane. This type of installation should be used with caution as it can encourage bicyclists to ride in the "door zone", in between parked cars and the painted edge lines.

Figure 12-Centerline and Edge Lines
Ramona Drive

Other Speed Control Measures

The SMART program or Speed Monitoring Awareness Radar Trailer Program uses a portable monitoring device that measures the travel speed of passing vehicles. The speed is displayed adjacent to a sign with the actual speed limit for that street. The radar speed trailer is proven to reduce vehicle speeds and is a useful supplement to enforcement activities. Unlike the speed control measures shown above, it has the distinct advantage of impacting the offending drivers while not posing problems for compliant drivers.

Figure 13-Speed Display Trailer

Police Enforcement is an effective speed control measure an can be an important tool to remind motorists to obey traffic laws. The Traffic Division works closely with the Police Department to identify areas that require additional enforcement. While effective at reducing vehicle speeds, it is not practical to have police enforcement on every street.

Figure 14-Police Enforcement

APPENDIX H: Traffic Signs

Traffic Signs provide information about the rules of the road to motorists, bicyclists and pedestrians. Signs should only be used where they are justified by an engineering study and by Federal and State Standards. Listed below are examples of traffic signs that are often requested for reducing the speed and volume of traffic.

Speed Limit Signs are intended to remind drivers about the posted speed limits. The California Vehicle Code (CVC) establishes an enforceable speed limit of 25 mph on streets of this nature without having to post a sign. Only when the speed limit is changed to something other than 25 mph is it required to post a sign. Speed limit signs are not intended to slow traffic, rather they are a legal mechanism to allow enforcement against those who violate the speed limit.

Stop Signs can be effective when installed where Federal and State warrants are met. Unwarranted stop signs increase noise, air pollution, fuel consumption, mid-block vehicle speeds. Stop signs are intended to assign the right-of-way to vehicles at an intersection and should not be used for speed control. When traffic conditions do not warrant the installation of a stop sign, non-compliance can compromise safety for all.

Children at Play Signs can create a false sense of security for parents and children. "Children at Play" signs are direct and open suggestions to children that the street is an acceptable place to play. Use of “Children at Play” sign is not allowed under the California Vehicle Code (§21465).