



Town of Los Altos Hills

Traffic Calming Guide

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Introduction

The Town of Los Altos Hills is committed to providing safe streets for everyone. There are many methods for accomplishing this through traffic calming devices and methods, road improvements, improving visibility of signage, foliage trimming to improve visibility, etc.

Purpose, Goals, and General Policies

Purpose

The purpose of this guide is to provide:

- The goal and policy framework for implementing traffic calming measures in Los Altos Hills
- An outline of the key program elements for identifying and executing specific traffic calming methods
- A description of the major implementation steps
- An understanding of the various tools available for traffic calming

The success of traffic calming relies on the cooperation of concerned citizens working in conjunction with the town staff and their coordination with county, neighboring cities, and state. The program described in this guide is intended to help citizens become involved and team with Town staff to address traffic problems.

Note: It is not the purpose of this guide to address provisions of pathways, road routing, or non traffic related issues.

Goals

This document supports the Los Altos Hills General Plan and Circulation and Scenic Roadways Element and intends to achieve the following specific goals through the provisions of the traffic calming program.

- Improve driver attention, awareness and behavior
- Promote safe and pleasant conditions for motorists, pedestrians, equestrians and bicyclists, with attention to streets, bike trails, and pathways
- Preserve and enhance pedestrian, equestrian, and bicycle access to destinations within the Town.
- Encourage citizens to be involved in traffic management activities
- Provide a process to equitably address citizen requests
- Preserve safe response times for Sheriff and Fire Departments

- Ensure traffic measures are consistent with the character of the town as documented in the General Plan (e.g. by “preserving the semi-rural character of the community” as prescribed in paragraph 102 of the Land Use Element)

Policies

A number of overarching policies create the framework for traffic calming as described in this guidebook. The Town supports the following policies:

- Signage should be minimal and as unobtrusive as possible to preserve the semi-rural nature of the town (ref. Goal C-5 of the Circulation Plan). “The Town should orient and locate street signs in a manner that does not create a cluttered look. This should not be at the expense of safety.”
- Signs and devices that include lighting should avoid light spillover and nuisance to residents (ref. Goal C-5 of the Circulation Plan: “New streetlights shall be generally prohibited to avoid light spillover and nuisance to residents.”)
- Most of our roadways are shared. As such, impacts on all users (vehicles, pedestrians, cyclists and equestrians) will be taken into account, particularly in areas where pathways do not exist.
- The Town will work cooperatively with residents and schools to implement a variety of measures to reduce traffic speeds and/or volumes on town streets if appropriate and feasible
- In accord with Sheriff and Fire Department guidelines, impacts on emergency vehicle response times will be minimized
- Permanent traffic calming measures will be designed and installed in conformance with sound engineering and planning practices
- Consideration will be given to the effect traffic calming measures on one street may negatively impact other streets

Priorities

Town resources are limited. When addressing traffic calming issues, the following general rules may be applied to prioritize multiple requests:

1. **Documented and Recurring Safety Issues:** Well documented problems with frequent occurrence will take top priority. Examples: areas of frequent car or bike accidents, or areas that cause confusion between different types of roadway users (bikes, vehicles, pedestrians).
2. **New Safety Issues:** The first step for newly reported issues will be to document and verify the scope of the problem.
3. **Traffic Flow Issues:** Examples are obstructions, poor sight lines, constrictions that preclude sharing of the road between different users, etc.
4. **Funding:** The Town should take advantage of Grants or related project funding when available.

5. **Nuisance and Aesthetic Issues:** Examples are parking issues, bad signage, etc.

Traffic Safety Committee (TSC)

The Traffic Safety Committee is a liaison among council, staff, and citizens to address traffic, pedestrian, and bicycle safety issues. Committee members are local residents selected by the Town Council.

TSC hears requests that cannot be handled administratively by staff, and is responsible for recommending actions to the Town Council and staff for final evaluations and decisions concerning traffic safety device implementation and costs.

TSC meetings are open to the public, and offer opportunity for public comment.

Key Program Elements

The Four Es

Education, Enforcement, Engineering, and Emergency response are commonly accepted elements of traffic calming programs.

Education

The foundation of an effective traffic calming program is an educated community. Effective traffic education begins in the family and the neighborhood, with the end result being everyone driving appropriately and safely. The Town helps by providing educational materials and facilitating citizen discussions and meetings, but the responsibility at this level is with the residents.

Enforcement

Targeted sheriff enforcement supplements community education in areas where traffic problems are evident. Sheriff enforcement increases community awareness of traffic issues. Deployment is always subject to resources, staffing, and scheduling.

Engineering

Where education and enforcement are not sufficient, alterations to street design, enhanced landscape management, or other measures may be appropriate. Each issue is evaluated individually with consideration given to possible unintended consequences. Engineering measures are generally costly to design, construct, and maintain.

Emergency Response

Emergency response must be considered in any level of traffic calming. Both Sheriff and fire departments must be engaged in such discussions. Their issues, concerns, and guidelines must be considered, and where specified their approvals obtained, before proceeding with any projects.

Traffic Calming Measures

Every traffic calming measure considered by the Town falls into one of three program levels, each requiring varying degrees of community involvement and Town oversight. In addition, the design of any method implemented will adhere to the Circulation Plan, Goal C-5: “The roadways of Los Altos Hills are scenic and rural. The design and maintenance of the roadways should preserve these qualities.”

With each successively higher level, traffic calming measures and their implementation become more complex, difficult to implement, and expensive.

Traffic calming measures will have a general and consistent message tone, in support of the town’s scenic and rural nature. At major entry points to the town (such as Page Mill Road/280 intersection, El Monte, Arastradero, and Magdalena interfaces), the signage choice, design, and message will support the town’s commitment to traffic regulation standards and to safe and responsible travel within the town.

Whether driving, walking, bicycling, or in equestrian mode, respect for the traffic guidance, warnings, and laws will be expected of all residents and visitors.

Level 1: Education and Enforcement.

Level 1 is community driven; residents can take action to address immediate concerns. They can work together, with Town staff assistance to design and carry out actions to educate themselves and their neighbors on traffic safety and to heighten neighborhood awareness of safe driving habits. Typical methods include neighborhood education and increased Sheriff presence.

Level 2: Signage or Pavement Markings.

Level 2 tools typically include stop signs or crosswalk improvements, mirrors on blind curves, signage painted on the road, or other tools (compatible with policies described above) depending on needs. Routing of traffic by signage (such as “Dead End”, sharp curve symbol) can be used to modify flow.

Level 3: Physical Modifications to a Street.

Level 3 measures typically alter street geometry by diverting or otherwise altering traffic flow. This level usually requires engineering and traffic studies. Typical Level 3 devices could be curb extensions, speed humps, raised crosswalks, or traffic signals. Only under extreme circumstances would Level 3 changes be recommended.

Implementation Process

Getting Started

The implementation of a traffic calming tool begins at the community level, with local citizens initiating the process.

Process

1. Define the specific traffic, vehicle, bicycle, equestrian or pedestrian safety issue.
2. Send a request (as an individual or group) to Town staff, describing the traffic safety issue.

Town staff will review requests and strive to resolve them via maintenance or enforcement.

Requests not immediately solvable will be prioritized and categorized by Town staff. Town staff will evaluate the safety complaints, hear and compile public input, and make recommendations to TSC, council, citizen or citizen group. Staff requests sent to the TSC will include relevant traffic safety data reports.

Categories

The following are categories for identifying types of problems to be addressed by the TSC under these guidelines. The first step in the process will be to determine the appropriate category for a particular issue. These categories include:

1. Signage
2. Speed
3. Line of sight
4. Road configuration
5. Camber of the roadway
6. Pathway/road interface
7. Volume of occurrence of:
 - a. property damage/personal injury accidents,
 - b. violations, or public complaints
8. Emergency vehicle access/navigation

The solution analysis will consider the problem in the context of:

1. Determining the degree of awareness of a condition or traffic law
2. Considering if there is insufficient warning
3. Identifying whether there exists unsafe engineering design
4. Examining maintenance factors
5. Identifying whether there is ineffective control or no control

For maintenance requests, such as filling a pothole, sign maintenance, tree trimming for driver visibility, or street restriping, please fill out the Service Request form (online at http://www.losaltoshills.ca.gov/documents-forms/browse/cat_view/41-engineering-public-works-department/42-forms-and-applications) and submit it to the Town of LAH (email to rchiu@losaltoshills.ca.gov), or call (650)941-7222

Level 1 Implementation

Level 1: Education and Enforcement.

Examples

Community traffic education campaign
Community sign campaign
Local area maintenance and pruning
Speed display units
Collection of specific traffic survey data
Targeted sheriff enforcement

Level 1 Implementation Process

Relevant parties will:

- hold a community meeting to review problems, identify goals, and discuss education tools to implement
- discuss the issue with Sheriff Department and/or Town staff, and work with them to assist in providing educational materials and enforcement.

Level 1 Notification and Approval

Group	Notification	Approval
Fire District	Recommended	Recommended
Sheriffs Department	Required	Recommended
Town Staff	Required	Recommended
TSC	Required	Required
Town Council	Recommended	Recommended

Items brought to the TSC will be recorded in the meeting minutes and distributed to the relevant parties (listed above) and available to the public.

Level 2 Implementation

Level 2: Signage or Pavement Markings.

Examples

Botts dots and rumble strips
Crosswalk Improvements
Landscaping
Moveable/Temporary slow down signs
Moveable speed display units
Neighborhood signs
New regulatory signs
Striping narrow lanes and center lines
Supplemental signs and pavement markings
Improved visibility of street name signs
Movement of speed limit signs for better visibility

Level 2 Implementation Process

Hold a community meeting to review problems, identify goals, determine the study area, and identify affected citizens.

Collect data as relevant to measures being considered on roadway users, traffic performance, and driver behavior, as appropriate.

Work with staff on studies and engineering if requested.

Secure input from Sheriffs Department and Fire District.

Conduct a workshop with TSC to hear public input, review and refine the plan.

Present the plan at a TSC meeting for deliberation and public comment and/or recommendation to Town Council.

For changes requiring capital expenditures, staff may decide to notify and seek approval from the Town Planning Commission.

Submit the plan to the Town Council to hear public and staff input, and vote on approval and funding.

Level 2 Notification and Approval

Group	Notification	Approval
Fire District	Required (in writing)	Not required, but allow review and comment
Sheriffs Department	Required (in writing)	Not required, but allow review and comment
Neighbors Bordering Change	Required	Not required, but allow review and comment
Citizens within 300 ft of Change (or further as determined by Town staff)	Required	Not required, but allow review and comment
TSC	Required	Required (recommend for Council regular agenda or disapprove)
Planning Commission	As determined by Staff	As determined by Staff
Town Council	Recommended	Required

Level 3 Implementation

Level 3: Physical Modifications to a Street.

Examples

Gateway

Landscaping

Median Island

Curb Extension/Bulb Outs

Choker and Slow Pinch Point

Traffic Circle/Roundabout

Speed Hump/Bump/Table

Speed Cushions

Raised Crosswalk

Raised Intersection

Restricted Movement Signage

Traffic Signals and Permanent Regulatory Signage

Street Closure

Forced Turn Barrier/Diverter

Forced Turn Island

Street Improvements such as widening or changing the camber of the road

Level 3 Implementation Process

Hold a community meeting to review problems, identify goals, determine the study area, and identify affected citizens.

Collect data as relevant to measures being considered on roadway users, traffic performance, and driver behavior, as appropriate.

Work with Town staff on studies and engineering.

Secure input and approvals from Sheriffs Department and Fire District.

Hold a Community Meeting to hear public input, review and refine the plan.

Present the plan at a TSC meeting for deliberation and public comment and/or recommendation to Town Council.

Submit the plan to the Planning Commission to hear public and staff input, and vote on approval and funding.

Submit the plan to the Town Council to hear public and staff input, and vote on approval and funding.

Level 3 Notification and Approval

Group	Notification	Approval
Fire District	Required (in writing)	Required
Sheriff Department	Required (in writing)	Required
Neighbors Bordering Change	Required	Not required, but allow comment in public meetings
Citizens within 300 ft of Change (or further as determined by Town staff)	Required	Not required, but allow comment in public meetings
Other Affected Citizens	Required	Not required, but allow comment in public meetings
TSC	Required	Required (recommend for Council regular agenda or disapprove)
Planning Commission	Required	Required
Town Council	Required	Required

Implementation Suggestions

Be clear, concise, and quantitative.

- Use the Service Request as a tool to clearly define a problem, and illustrate the level of community involvement and support.
- Use speed and traffic measurement and evaluation forms available at the town office and Sheriff’s Department to show a quantitative view of the problem.

Take it one step at a time.

- Level 1 tools—education and enforcement—should be the first step in resolving a traffic concern.
- Don't focus on a single device. Look at the complete range of solutions to achieve an optimal result.

Take advantage of available assistance.

- Use TSC as a resource. The group is made up of local citizens acting in an advisory capacity to assist in traffic safety and calming issues. Meeting times are posted in the town office and on the town web site.
- Work with the Town staff on problem assessment, studies, engineering concepts, or to help support community meetings.

Keep neighboring citizens involved for their support and ideas.

- Get neighbors involved in the process.
- Involve all traffic elements when appropriate: autos, commercial, pedestrians, cyclists
- Give ample, widespread notice for community meetings to ensure that neighbors can participate and provide input.
- Include citizens from all sides of an issue in Community meetings, and strive to stay solution focused.

Maintain Strong Communication

- Develop calming plans that have strong, widespread support and the support of diverse groups. These carry greater weight in TSC evaluations and recommendations, and should carry greater weight in Town Council decisions.
- Coordinate with other plans that will effect traffic flow [such as the circulation Plan or circulation element in progress]
- Coordinate with the pathway committee as one way to keep the roads safer for pedestrians is to separate cars from non vehicular traffic.

Funding

Who pays?

Funding traffic calming measures in Los Altos Hills requires varied levels of contribution from residents, businesses, and town government. Each plan will be evaluated separately on merit and scope in line with the current town resources. While it would be ideal for local government to fund every measure, the town's limited budget may necessitate citizen contribution for local areas.

Measures that are warranted with state traffic safety standards may be funded largely by the town.

Measures that do not meet warrant levels are considered discretionary, and usually require neighborhood funding.

Information on traffic warrant levels, as defined in the Manual of Uniform Traffic Control Devices, is available: <http://www.dot.ca.gov/hq/traffops/signtech/signdel/trafficmanual-current.htm>

Alternative Funding Sources

The Town can assist the TSC with identification of grant opportunities that the TSC might pursue for direct grant awards to the community group.

Other funding sources include:

- Resident contributions
- Neighborhood block grants
- National, state, and county grants
- Local and special interest foundation grants
- Local organizations and civic groups

Town Sponsored Projects

In addition to traffic calming proposals that are generated by the community, the Town of Los Altos Hills will from time to time generate projects that are 1) included as a part of a capital improvement project, 2) discretionary projects brought forth by the Town staff, or Town Council members, and 3) mandatory projects that are necessary to meet federal or state warrants based upon findings and recommendations of a licensed traffic engineer.

In the first two instances, projects shall be subject to a process consistent with the process defined in this Traffic Calming Guide for community driven projects. Although the actual steps in the process may be accomplished in a somewhat different manner, the critical procedural steps for Level 2 and 3 projects set forth in this Guide shall be followed, including providing notice to affected residents, obtaining Sheriff Department and Fire District approvals, initiating studies as dictated by the nature of the project, and obtaining signatures of residents, as required, to verify community input and consent.

In the case of projects to meet federal or state warrants, much of the normal process may be waived, if it is deemed by the Town Council that not executing the project will jeopardize the safety of the community.

In the event of a critical, urgent traffic safety need requiring immediate action of the town, the town, with traffic engineering and public safety review, has the right to take whatever action it deems necessary to mitigate the problem; provided, however, that such measures or solutions imposed by the town shall be for a period of not more than 120 days, to allow the town time to propose more permanent solutions, if needed, through the regular procedures set forth in this guide. If the nature of the mitigating measures is such that more than 120 days are required, the measures shall be reviewed by the Town Council every 120 days.

Nothing in this guide shall prevent the town from repairing or maintaining existing traffic related installations or facilities, nor prevent the town from ordering and installing curb striping or colored curb zones to regulate parking and other curb use rules.

Additional Information

Common Questions

Is it possible to get a street posted for lower speed?

A common belief is that posting a speed limit will influence motorists to drive at that speed. The facts indicate otherwise. Research over several decades has shown that drivers are influenced more by the appearance of the roadway itself and prevailing traffic conditions than by posted speed limit.

Certain speed limits are established by law and include the 25 MPH limit in residential districts, the 15 MPH limit at blind intersections, and a part-time 25 MPH limit in school zones when children are going to and from school. These speeds are not always posted but California motorists are expected to know them and are enforceable.

Speed limits may be established by local authorities on the basis of traffic engineering surveys. Such surveys include analysis of road conditions, accident records, and the prevailing speeds of prudent drivers. It has been shown that if speed limits are posted lower than needed to safely meet road conditions, many drivers will simply ignore them. Thus, artificially lowering the speed limit does not necessarily produce a traffic calming effect.

It must be noted that the Sheriff cannot legally use radar to enforce speed limits that are not justified by traffic engineering surveys.

Are stop signs effective?

A stop sign is one of the most valuable and effective traffic control tools when used at the right place and under the right conditions. The intent is to help drivers, pedestrians and bicyclists focus on right-of-way at an intersection. Misplaced stop signs can create a false sense of security for pedestrians.

It is a misuse of stop signs when the intent is to arbitrarily stop through traffic. The resulting inconvenience can often force the traffic to use other routes which in turn can cause other traffic problems.

Where stop signs are installed as “nuisances” or “speed breakers,” drivers often intentionally ignore them—slowing rather than stopping—and making up for lost time by speeding between intersections.

What are “warrants” and how are they used?

Warrants are national guidelines for traffic safety measures which are based on hard research data, not anecdotal evidence. The Town will use the state standards for warrants.

In stop sign considerations, warrants have been developed to indicate when and where a stop sign should be installed. Among other issues, warrants take into consideration the probability of vehicles arriving at an intersection simultaneously, the length of time traffic must wait to enter the intersection, and the availability of safe crossing opportunities for pedestrians.

Information on traffic warrant levels, as defined in the Manual of Uniform Traffic Control Devices, is available at <http://www.dot.ca.gov/hq/traffops/signtech/signdel/trafficmanual-current.htm>

When are temporary measures used?

The Town of Los Altos Hills generally avoids installing temporary Level 2 or Level 3 traffic calming measures. The town prefers to implement traffic calming measures that are immediately effective and permanent. In addition, the issue of resources must also be considered. It's not unusual for the cost of designing and installing a permanent measure to be only marginally greater than the cost of a temporary one.

Another consideration is that temporary measures are often less attractive than permanent ones, especially where landscaping could be used to soften the visual impact of a permanent measure. Citizens are concerned that town roadways are attractive, especially those in their own neighborhoods.

However, when a "fix" is not easily identified, a temporary measure may be implemented to test out a fix.

It should be noted that all traffic calming measures, temporary or permanent, require processing in the manner described in this guide.

The Santa Clara County Fire Department's position on Level 3 devices

Meeting response time goals is the top priority. However, the Fire District recognizes the community's desire for pedestrian safety. As a result, the SCCFD will work with neighborhood groups to find solutions that meet both needs.

The SCCFD's position on Level 3 devices is that they should be considered on a case-by-case basis, as some treatments would be acceptable on certain roadways and not on others. Level 3 measures should generally be considered only after less aggressive measures have been tried and have been proven unsuccessful.

Santa Clara County Fire Department Policy Statement on Traffic Calming Devices

A critical concern about the use of traffic calming devices is the delay they may create for emergency response vehicles, including fire engines, ladder trucks, ambulances and command vehicles. It is important to be aware of the trade-offs when making decisions about the use of traffic calming devices. The more aggressive devices for slowing traffic (Level 3) will slow emergency vehicle responses, and in some cases may be cause for safety concerns. The SCCFD has an adopted "Standards of Coverage" document that identifies its emergency response goals. The District has set a standard of 7 minutes or less total response time to medical emergencies in urban areas and 14 minutes to rural areas. The 7 minute figure is based on its correlation to survivability in cardiac arrest events. The District has set a standard of 8 minutes or less total response time for the first unit to arrive at fire incidents in urban areas and 14 minutes to rural areas. Personnel responding to fire incidents must don special personal protective equipment (PPE) before boarding the fire apparatus that is not required for standard medical responses. The 8 minute figure is based on its correlation to rapid fire progression and flashover for structure fires. The total response time is measured from receipt of the 911 call, to the arrival of a fire unit at the incident

It is important to note that both fire engines/trucks and ambulances respond to many life threatening emergencies within the communities such as heart attacks and strokes in addition to all types of fire responses. Fire stations have been spaced throughout the District to be as far apart as practical, while attempting to still meet the SCCFD's response time goals. Thus, for

responses to areas already at the limits or exceeding current response time goals, the installation of any significant traffic calming device will cause response time failures.

Recognizing the importance of achieving this emergency response time standard as a necessary service to the public’s safety and well being, all traffic calming devices should be designed to accommodate all emergency vehicles and to minimize impacts on emergency vehicle response times. Most arterial and collector streets are considered primary emergency vehicle response routes, and are used to access various parts of the District from the fire stations. In order to minimize impacts to emergency vehicle response times, particular attention should be paid to the types of devices used on arterials and collector streets. Devices that considerably limit, restrict, or slow emergency vehicle access on these type streets should only be allowed with the approval of the Fire District.

Emergency Response Policies

- Traffic calming measures should be designed to accommodate all emergency vehicles and to minimize their impacts on emergency vehicle response times.
- Level 3 traffic calming measures should be limited on primary emergency response routes, arterials, and collector streets and allowed only after approval of the SCCFD.
- Emergency vehicle access and response times should be preserved within the adopted District Response standards.
- If current emergency vehicle access or response times to an area do not meet the existing response standard, traffic calming measures should not further degrade response times.

The SCCFD must be involved in the development and review of all Level 3 traffic calming measures within its response jurisdiction

Forms

Document	Purpose
Service Request Form	Define a problem, make a request, illustrate community support

Contact Information

For issues relating to ...	Department	Contact
Reviewing current issues, downloading forms	Town of Los Altos Hills website	http://www.losaltoshills.ca.gov
Maintenance/Traffic Engineering	Engineering/Public Works	(650) 941-7222

Glossary

Traffic Calming

The management of vehicular traffic speeds and volumes by means of educational, enforcement and/or engineering measures

Traffic Safety Committee (TSC)

Committee of local residents selected by the Town Council to act as a liaison between Council, staff, and citizens to address traffic, bicycle, pedestrian, and equestrian safety issues.

Service Request

Form used by citizens to describe perceived safety problems related to traffic, bicycles, and pedestrians. The Service Request can also be downloaded from the town web site.

Community

A number of people residing in a specific area that comes together for a given purpose.

Warrant

A traffic condition analyzed to determine if a specific improvement is justified.

Appendix: Traffic Calming Tools

This chapter describes traffic calming tools that are available to address traffic and safety issues and that are appropriate for the Town of Los Altos Hills. This traffic calming “toolbox” will be updated as experience better defines the effectiveness and appropriateness of the various tools, or as new methods are developed


Application of Tools

A wide variety of traffic calming measures are available, some subtle, some very aggressive. Some measures are aimed at modifying driving behavior; others are intended to force traffic patterns and behaviors by altering the physical characteristics of streets. Some tools are effective alone; others work best when used in combination. The effectiveness of some measures is short lived, for others effectiveness can be permanent. Some measures cost very little, if anything, to implement; others can be very expensive to install and maintain. Given the wide variety of measures that can be applied, it is critical that selection of traffic calming solutions be done with considerable thought, and be carefully implemented. It is important to be aware that traffic calming measures installed in one location can alter traffic patterns such that undesirable impacts might develop in other areas. Such unintended consequences can usually be avoided through careful planning.

Level 1 Tools





Level 1 measures are all community driven, and allow community groups to take immediate steps to address its concerns. Residents take the initiative in forming speed watch groups, maintaining landscaping to improve street visibility, conducting education workshops, and undertaking other simple measures aimed at elevating traffic safety consciousness. Additionally, community groups can request use of the Town’s radar speed display unit and ask for targeted enforcement.




<p>Community Traffic Education Community traffic education campaigns can include:</p> <ul style="list-style-type: none">• Meeting and workshops• Personalized letters, blanket flyers and newsletters• Speed awareness signs and banners• Block parties• School programs <p>Campaigns focus on pedestrian, bicycle, and vehicular safety. The objective is to heighten community awareness through combinations of education and enforcement.</p>	<p>Advantages</p> <ul style="list-style-type: none">• Allows residents to discuss their views• Information is aimed to a specific audience• Can be applied quickly without format review process <p>Disadvantages</p> <ul style="list-style-type: none">• Effectiveness may be limited• Potentially time consuming• Block parties require police and fire approval• Enforcement likely still required
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<p>Community Sign Campaign Special signs conveying traffic safety messages can be effective when posted within a community area. These signs are more effective if they are moved from time to time. The town maintains a limited supply of special use signs that are much different in appearance than usual regulatory and warning signs. These signs are intended for temporary or semi-permanent installation in yards or within rights-of-way.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Novelty of new signs draws attention to the message • Requires multiple neighbors to support, therefore broadening the reach of the message • Short duration of sign placement helps keep the message fresh <p>Disadvantages</p> <ul style="list-style-type: none"> • Signs could be vandalized • Effectiveness will diminish with prolonged usage
<p>Speed Display Units A common kind of radar speed display is a portable trailer equipped with a radar unit that detects the speed of a passing vehicle and displays vehicle speed on a reader board. Most displays flash measured speed if a speed is detected over the posted speed limit. The units discourage speeding along routes where the units are used, and are very effective when used in conjunction with enforcement by police officers on motorcycles or other vehicles. Multiple trailers can be pooled from adjacent cities as part of saturation campaign.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Effective educational tool and good public relations for Police • Encourages speed compliance and can reduce speeds temporarily • Provides immediate feedback to drivers on their driving speed • Allows residents to see how fast vehicles are moving on their neighborhood streets • Has no adverse impact on emergency vehicles • Easily to deploy  <p>Disadvantages</p> <ul style="list-style-type: none"> • Effectiveness may be temporary • Less useful on multi-lane streets and less effective on high volume streets • Subject to vandalism • Requires town staff for set-up and removal • Aesthetics unacceptable to some persons
<p>Targeted Sherriff Enforcement The official law enforcement agency of the town of Los Altos Hills, which as of 2012 is the Santa Clara Sheriffs Dept, may on its own direction or direction of the town of Los Altos Hills provide enhanced enforcement of town and DMV rules at specific locations.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Periodic reminder of driving regulations • Demonstrates that this is an issue for residents <p>Disadvantages</p> <ul style="list-style-type: none"> • Short term solution—traffic usually reverts to old behavior after police cars leave

Level 2 Tools

Level 2 measures focus on measures that are easy to implement yet relatively low-cost, such as enhancing visibility of street markings, provision of informational signage, speed limit and other traffic control, and traffic control signage. Traffic control signage usually requires some engineering study to meet engineering standards and accepted safety warrants.

<p>Botts Dots and Rumble Strips</p> <p>Botts Dots and raised reflectors (raised pavement markers) are small bumps lining the centerline or edgeline of the roadway. Often they are used on curves where vehicles have a tendency to deviate outside of their travel lane, risking collision. Pavement reflectors improve nighttime visibility of roadway edges, and are helpful for defining pavement limits during periods of poor visibility.</p> <p>Dots and reflectors can be arranged in arrays that span width of roadway, creating a “rumble strip”.</p> <p>Rumble Strips can be useful at approaches to traffic signals or other traffic controls where driver’s attention is important.</p> 	<p>Advantages</p> <ul style="list-style-type: none"> • Relatively inexpensive • Best installed during a pavement repaving or striping project • Does not slow service or emergency vehicles • Can improve safety by helping motorists stay within travels lanes • Can help “awaken” drivers when approaching traffic signals and controls • Improve nighttime visibility and visibility when conditions are otherwise poor  <p>Disadvantages</p> <ul style="list-style-type: none"> • Create noise when vehicles pass over dots or reflectors • Can be dangerous for bicycles if riders are not paying attention
<p>Crossing Improvements</p> <p>These can be crossings (for walks, trails, or paths) designed for high visibility, or crossings created by painted “zebra” stripes, in-pavement flashing lights, or other stark markings. Distinctive crossings can be built with especially stamped/colored pavements materials, which can be very effective and quite durable. Improvements should be consistent with town character, location and environment (e.g. rural vs. schools)</p> 	<p>Advantages</p> <ul style="list-style-type: none"> • Indicates preferred pedestrian or equestrian crossing location • When pedestrians are present, drivers are likely to slow • Focuses crossing by pedestrian at particular location • Can be designed to increase visibility under low-visibility conditions  <p>Disadvantages</p> <ul style="list-style-type: none"> • Pedestrians may be lulled into false sense of security • Mid-block locations Must be carefully selected • May require more maintenance than traditional crosswalks

<p>Landscaping Abundant street trees, median treatment, corner treatments, decorative signs, park benches, pathways, and contrasting colors are all elements of landscaping that can provide a calming effect on traffic. If properly installed, and well maintained, landscaped streets will appear narrower than in reality, thereby causing motorists to lower their speed.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Can be used to make drivers aware of their speed • Improves aesthetics combined with provides opportunities to be creative with response to traffic concerns • Alerts drivers to changed road conditions  <p>Disadvantages</p> <ul style="list-style-type: none"> • Can entail high installation costs • Requires continual maintenance
<p>Moveable/Temporary Slow Down Signs Moveable, temporary signs are an alternative to permanent signs. Signs can feature unusual designs and bright colors that are eye-catching. However, with prolonged exposure, even highly unusual permanent signs become part of the landscape and become increasingly ineffective the longer they are in place. The town can install permanent posts at selected locations, which can be used for temporary signs (and also for speed monitoring devices, discussed below).</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Novelty of new signs attracts attention of motorists • Avoids long-term clutter • Posts can be used for portable Speed Monitoring devices  <p>Disadvantages</p> <ul style="list-style-type: none"> • Long-term benefits may be negligible • Could result in excessive clutter, if not controlled • Requires Town staff to install and remove • Advisory only, not enforceable
<p>Moveable/Temporary Speed Monitoring Devices Speed monitoring devices are battery or solar-powered units that detect vehicle speed by radar, and flash "YOUR SPEED" at approaching vehicle (similar to a Speed Trailer, p 22). These devices are an effective alternative to signs. The town can install permanent posts at selected locations for moveable speed monitoring devices, such that the monitoring devices can be relocated to different locations with relative ease.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Shows speed with flashing display • Novelty of device attracts attention of motorists • Avoids long-term clutter • Posts can be used for portable Temporary Signs  <p>Disadvantages</p> <ul style="list-style-type: none"> • Long-term benefits may be negligible • Requires Town staff to install and remove • Batteries usually require frequent charging • Solar power is high-maintenance

<p>Neighborhood Signs</p> <p>Neighborhood signs are custom made and are placed on local streets within neighborhood, often at the entrances to the neighborhood. They display messages designed by the neighborhood. The signs oftentimes are permanent, and require conformance to the town’s sign ordinance.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Notifies drivers that they are entering a neighborhood or residential area • Signifies to drivers the residents’ concern for safe driving • If well-designed, signs can be eye catching  <p>Disadvantages</p> <ul style="list-style-type: none"> • Are not standard signage, and can cause some confusion • Might not have much impact on speeding • Could be vandalized • Require Town staff to install
<p>New Regulatory Signs</p> <p>Stop signs can be installed when based on warrants determined by engineering study. New speed limit postings must be properly justified in order for radar enforcement to be admissible. Certain classes of vehicles can be excluded from specific streets if approved by the Town Council. Similarly, parking restrictions can be posted if properly authorized.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Can improve safety if warranted <p>Disadvantages</p> <ul style="list-style-type: none"> • May degrade safety if not warranted • May require police enforcement in order to be effective  
<p>Striping Narrow Lanes and/or Centerlines</p> <p>Striping can create narrower travel lanes—often 10 feet wide—which causes most drivers instinctively to slow down. Centerline stripes help drivers stay on the “right” side of road. Striping is an effective way to mark pavement outside of travel lanes that are designated for bicycle use and/or parking.</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Can be implemented quickly • Relatively inexpensive, especially if done as part of repaving project • Can slow vehicle speeds • Can delineate bicycle lanes and/or parking areas on pavement  <p>Disadvantages</p> <ul style="list-style-type: none"> • Not always perceived as an effective traffic calming tool • Some might object to striping on neighborhood streets

Supplemental Signs and Pavement Markings

Permanent pavement markings can help provide motorists advance warning; provide supplemental directions, etc. These can include such messages as “TRAIL CROSSING AHEAD”, “LIMITED SIGHT DISTANCE”. Optical Speed Bars can help drivers gauge their speed (see the white “hash” marks). This style of marking usually requires engineering study and design to be done effectively.



Advantages

- Might highlight lesser known roadway features
- Increases awareness
- Can help reduce driver confusion where roadway configuration is not clear
- Relatively inexpensive to install



Disadvantages

- Adds additional signage and markings
- Potential clutter in neighborhoods
- Pavement markings can be slippery for pedestrians, equestrians, and/or bicyclists when wet
- Flexible signs mounted in the pavement are often treated as Targets by motorists who make sport out of running them down

Level 3 Tools

Level 3 measures typically alter the configuration, and possibly the visual character, of streets. Some Level 3 measures are intended to control traffic flow through signalization or diversion methods. Whatever their purpose, Level 3 measures require more engineering and landscaping design, cost much more, and require more community input than Level 2 measures. One common disadvantage of most Level 3 measures is that they are not consistent with the rural character of our town.

Landscaping

Abundant street trees, median treatment, corner treatments, decorative signs, park benches, pathways, and contrasting colors are all elements of landscaping that can provide a calming effect on traffic. If properly installed, and well maintained, landscaped streets will appear narrower than in reality, thereby causing motorists to lower their speed

Landscaping can be considered Level 2 if it does not obscure sight lines.

Advantages

- Can be used to make drivers aware of their speed
- Improves aesthetics combined with provides opportunities to be creative with response to traffic concerns
- Alerts drivers to changed road conditions



Disadvantages

- Can entail high installation costs
- Requires continual maintenance

Median Island

Raised islands in the center of a street can be used to narrow lanes for speed control. Islands can also be used for controlling left turns into or from a side street. When placed across an intersection, an island serves to force traffic entering from a side street to make a right turn. And a Median Island can serve as pedestrian refuge in the middle of a crosswalk. Median Islands can also support attractive landscaping.



Advantages

- Effective speed reducing method
- Can reduce collision potential
- Effective for channeling traffic
- Effective for blocking crossing traffic
- Shortens pedestrian crossing distance
- Opportunity for significant landscaping
- Can be part of effective neighborhood entrance feature

Disadvantages

- Potential loss of on-street parking
- Could adversely impact emergency vehicles
- Could result in unwanted traffic diversions
- Requires continual maintenance, especially if planted

Curb Extension/Bulb Outs

Curb Extensions on otherwise straight streets can be designed such that traffic lanes are altered to bend one way and then bend back the other way. If properly designed, curb extensions can be used on collector streets, and even arterials, where traffic volumes are relatively high. Curb Extensions can be designed to provide additional on-street parking on pavement that has been eliminated from travel use. Curb Extensions provide opportunities for breaking up long stretches of otherwise barren streets with attractive landscaping.

Curb Extensions/bulb outs should not be used on streets with bike lanes unless there are gaps in the concrete barriers for the bikes to proceed and remain in the lane. Bikes should not be forced to merge with autos.

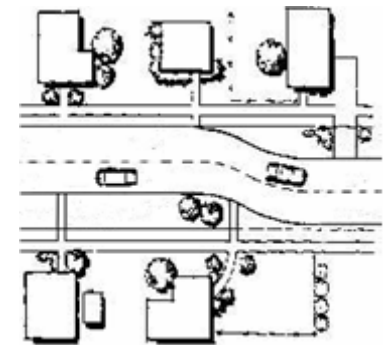
Advantages

- Can accommodate higher traffic volumes than many other traffic calming measures
- Need not impede emergency vehicles
- Where a wide roadway is narrowed, on-street parking opportunities might be available
- Improves sight distances for pedestrians
- Offers landscaping opportunities



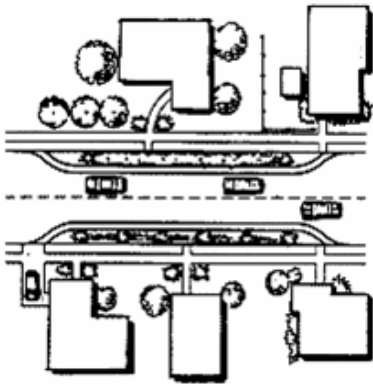
Disadvantages

- Not as effective as some other traffic calming measures
- If applied to a narrow roadway, on-street parking might be lost
- Must be designed carefully to discourage drivers from deviating out of the travel lanes



Choker and Slow Pinch Point

Curb Extensions at intersections, or mid-block, that narrows a street on both sides by extending the sidewalks or widening planting strips are effective measures for reducing vehicle speeds and, in some cases, traffic volumes. The usual purpose is to reduce traffic volumes and speed by making lanes narrow so vehicles will slow down. Suitable for streets where speed limits are under 35 MPH.



Advantages

- Discourages high speeds by forcing traffic through horizontal deflection
- Suitable for high volume streets where speeding is an issue
- Easily negotiable by emergency vehicles
- Does not restrict access to and from side streets
- Can make pedestrian crossing easier



Disadvantages

- Not as effective as some other traffic calming measures
- If applied to a narrow roadway, on-street parking might be lost
- Must be designed carefully to discourage drivers from deviating out of their travel lanes
- Can be costly to install, especially if there are drainage issues created by the roadway realignment

Traffic Circle and Roundabout

These measures are based on a raised circular island at intersections. Circles are usually modest in size relative to a Roundabout (also called a "Rotary"), which is usually much larger. Both traffic circles and roundabouts require drivers to slow down to comfortably maneuver around. Both measures are suitable for relatively flat terrain and for low volume streets where speeds are 35 MPH or less. If thoughtfully designed, they can provide opportunities for attractive landscaping.



Advantages

- Very effective in reducing vehicle speeds
- Provides better side street access
- Stop signs not always necessary
- Can add aesthetic value, especially through well designed landscaping

Disadvantages

- Generally unsuitable for steep grades
- Difficult for large emergency vehicles to maneuver, particularly small diameter circles
- Can impede large service vehicle access
- Can create motor vehicle/bicycle conflicts
- Crosswalks need to be modified
- On-street parking loss is possible
- Landscaping requires maintenance by town, neighborhood groups, or service groups

Restricted Movement Signage

Permanent signs posted that state prohibitions such as “NO LEFT TURN”, “NO RIGHT TURN”, “DO NOT ENTER”, “ONE WAY” are intended to prevent undesired turning movements onto certain residential streets. Oftentimes these restrictions can apply for only certain times of the day, such for peak hour limitations. In most cases, Restricted Movement Signage is used to restrict cut-through traffic.

Advantages

- Redirects traffic to main streets and reduces cut-through traffic
- Can address time-of-day problems, such as peak hour congestion
- Low cost measure



Disadvantages

- Can adversely impact emergency responders by complicating access routes
- May divert traffic onto other residential streets
- Requires enforcement

Traffic Signals and Permanent Regulatory Signage

Traffic signals are primarily for regulating traffic flow, not for traffic calming. Traffic signals are appropriate only where traffic control warrants are backed by traffic flow studies. As such, they require detailed study.



Advantages

- Can improve safety if justified
- Can be used for warning drivers of intersections and crosswalks where sight distances are limited

Disadvantages

- May degrade safety if misused
- Could expose town to additional liability
- Requires enforcement
- Traffic signals are costly to install and require maintenance

Street Closure

Partial street closures block one way of traffic at an intersection, leaving the rest of the street for two-way traffic. They are an effective way to reduce the volume of through traffic, while retaining access to residences on the street that is partially closed. A partial closure is an effective way to reduce cut-through traffic. Any degree of street closure will impede access by emergency vehicles, and any closure needs to be thought through before selecting this measure.

Street closures work especially well on a grid pattern of streets. However, grids are not common in Los Altos Hills where neighborhood streets are usually small loops and cul-de-sacs off larger collector streets. Full street closures would rarely be appropriate in Los Altos Hills, where multiple routes into most neighborhoods are rare. In some areas, partial closures might be appropriate.

Advantages

- Effective way to reduce traffic volumes and cut-through traffic
- Does not impact bicycle traffic
- Does not eliminate on-street parking



Disadvantages

- Makes intra-neighborhood circulation more difficult
- Complicates and degrades emergency and service vehicle access
- Drivers can easily circumvent/ignore the barrier



Acknowledgements

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Document created by: The Traffic Committee Subcommittee

- Martha Bowden
- Dru Anderson
- Steve Bristow
- Steve Schmidt

LOS ALTOS HILLS



CALIFORNIA

26379 Fremont Road
Los Altos Hills, CA 94022
650.941.7222
www.losaltoshills.ca.gov