



CITY of MODESTO

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SPEED HUMP POLICY*

City of Modesto
Community and Economic Development Department
Traffic Engineering & Operations Division

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Speed Hump Fact Sheet

➤ **What are Speed Humps?**

Speed humps are raised asphalt structures on the pavement. They are twelve feet in length across the traveled way and between three and four inches in height. In general, two to three humps, located about three to four hundred feet apart are needed to effectively decrease speeds.

A speed bump is also a raised asphalt structure-but it is much shorter in length than speed humps (6-12 inches). These have been used on private streets and in parking lots for many years.

➤ **Advantages of Speed Humps**

Decrease speeds if placed strategically. May divert traffic to the main streets, away from residential areas.

➤ **Disadvantages of Speed Humps**

Slow response time of emergency vehicles. May divert traffic to parallel residential streets. There is a possibility of increased noise and pollution for residents living immediately adjacent to the speed humps.

➤ **All Streets are not Suitable for Speed Hump Installation.**

In order for a street to qualify for speed hump installation, certain engineering criteria (e.g., traffic volumes, speeds, street function, etc.) have to be met. For instance, a street, which is on a transit route or one that is a main emergency access street for the neighborhood would not be suitable for speed humps.

➤ **What About my Neighbors?**

Speed humps affect the entire neighborhood. At least 60% of the residents living on the street (and parallel streets if applicable) should approve the installation of speed humps. Seventy-five percent of residents immediately adjacent to the hump should explicitly agree to the installation.

➤ **Who Pays for the Speed Humps?**

Residents of the street who request speed humps have to pay for the construction, striping, and signs. The City will bear the cost of design.

➤ **How Much do They Cost?**

The cost changes as equipment, materials, and labor costs change. In 1995, the cost for construction, striping, and signs was approximately \$3,200 each.

➤ **Steps to Follow For Speed Hump Installation:**

1. Complete the attached Speed Hump Request Form and return it to the Traffic Engineering & Operations Division. You will act as the neighborhood facilitator.
2. If all the engineering criteria are satisfied, Traffic Engineering staff will send you a petition form.
3. Collect the signatures of all residents (whether they approve or disapprove) on the street and parallel streets if applicable. Return the petition to the Traffic Engineering & Operations Division.
4. Traffic Engineering staff will prioritize the requested speed hump locations. If a street qualifies for installation that year, the Traffic Engineering staff will complete the design and contact the residents with the planned locations of the humps and each household's share of the cost.
5. Collect the approval signatures and the money from each resident (Check or money order only. Made payable to: City of Modesto) who approved the speed hump installation.
6. The speed humps will be installed by the end of the year.

Speed Hump Installation Policy

1. Speed humps are an appropriate mechanism for reducing speeds, but will achieve their intended goals only when installed on streets that meet specific criteria with respect to traffic data, street function, and resident acceptance. Evidence of resident acceptance should be obtained in the form of a petition from the entire neighborhood affected by speed hump installation. There is a possibility of increased noise and disturbance to residents living immediately adjacent to the speed humps. Therefore, explicit acceptance should be obtained from these residents before installing the humps.
2. Speed humps should only be used on local residential streets and minor collector streets where the primary function is to provide access to abutting residences. An average motorist has to reduce to 16 mph before crossing the hump. To expect motorists on streets intended to serve more than just abutting residences to reduce speeds to 16 mph every 300 feet would be detrimental to traffic flow. Such an installation would inevitably lead to extreme driver frustration and substantial negative public reaction to speed humps. Installation of speed humps on streets other than local residential and minor collector streets will prevent emergency services from providing a timely response during crises and likely create diversion of through traffic onto local residential streets and minor collector streets. There are no absolute criteria, which distinguish a purely residential street from other low volume streets that provide important services to residents (in addition to those immediately abutting the street in question). In general, when the traffic volumes are above 2,500 vehicles per day, the street is a major collector or arterial street. However, in cases where the traffic volumes do not provide a clear guidance as to the function the street performs, professional engineering judgment will play a major role in determining whether the street is suitable for speed hump installation.
3. Speed humps should not be installed on a street unless it is determined that speeding exists to an unacceptable degree.
4. The speed limit on streets eligible for speed hump installation should not be greater than 30 mph. The need to reduce speeds substantially at speed humps would make these devices inappropriate for streets with speed limits higher than 30 mph because of the severe speed differential such an installation would create along the street. Such a speed differential could contribute to accidents.
5. The street should not be an important emergency vehicle access route. The factors to be considered are whether the street is an important primary emergency route and whether the speed hump installation will significantly increase response times. They should not be installed on transit routes.
6. Speed humps should be installed only on those streets where there is adequate vertical and horizontal alignment and sight distance to accommodate the installation of speed humps.
7. The installation of speed humps on a street should not significantly divert traffic to adjoining residential streets. The potential for such a diversion should be examined by the Traffic Engineering staff on a case-by-case basis and engineering judgment should be used. If there is a significant diversion to adjoining streets, concurrence from residents on these streets should be obtained.

8. The cost of speed humps will change as materials and labor costs change. The Speed Hump Fact Sheet has the latest cost estimate for speed hump construction. Since speed humps directly benefit the residents on the streets, they shall be financed by residents who approve their installation. While the City can bear the cost of design and ongoing maintenance, the residents of the street should pay for the cost of construction, striping, and signs (labor, equipment, and materials). The collection of money should be made before the speed humps are installed.
9. Speed humps should not be located close to existing controls. The minimum spacing between humps should be such that the effect of two humps does not overlap. According to guidelines set by the Institute of Transportation Engineers (ITE)*, the effect of speed humps is between 200 to 600 feet depending on the length of the street block. Spacing of speed humps should be as per these guidelines, though the exact spacing should be determined on an individual basis based on engineering judgment.
10. Speed humps are still relatively new design features. Therefore, the Traffic Engineering staff shall have the authority to make any alterations in design or procedures relating to speed humps as future circumstances dictate.

* Recommended guidelines for the design and application of speed humps, ITE Special Task Force, Institute of Transportation Engineers, May 10, 1991.

Installation of Speed Humps Procedure

The following procedure shall be used to determine a street's eligibility for speed hump installation:

1. The request for speed humps shall be initiated by a citizen(s) in writing. When Traffic Engineering staff receives a request for speed humps from a citizen (by telephone, writing, or e-mail), the Traffic Engineering staff shall first send the requester the standard Speed Hump Request form together with a Speed Hump Fact Sheet. The Speed Hump Fact Sheet describes in brief, the salient aspects of speed humps, the criteria for installation, and cost policies. The requester shall return the completed form to the Traffic Engineering & Operations Division.
2. Subsequent to receipt of request, City staff shall conduct a traffic and engineering study to check if all the criteria for speed hump installation are met. The warrant sheet with the following requirements shall be used at a minimum:
 - The street or street segment shall be a two-lane residential or a minor collector street where the primary function is to provide access to abutting residences. Engineering judgment should be used while making a decision as to the exact function the street performs.
 - The posted speed limit on the street shall not be more than 30 mph.
 - At least 15 percent of the vehicles shall exceed the posted speed limit.
 - At least 10 percent of the vehicles shall exceed speed limit by at least 10 mph.
 - The traffic volumes on the street shall be between 500-2,500 vehicles/day.
 - The street or street segment shall be at least 750 feet long.
 - The installation of speed hump(s) shall not adversely affect response times of emergency services. This shall be determined by Traffic Engineering staff in conjunction with the affected emergency service(s).
 - The street is not part of a transit route.
3. The Traffic Engineering staff shall inform petitioner(s) of the decision. If all of the above requirements are met, the petitioner(s) shall obtain the approval/disapproval of all residents on the street on forms supplied by the City. If the Traffic Engineering staff find that there would be a substantial diversion to parallel streets (more than 25%) due to speed hump installation, the petitioner(s) shall also obtain the approval/disapproval of residents on the parallel streets. All the residents (of the street requesting speed humps only) who approve the speed hump installation are required to bear the construction and labor costs of the speed humps. The City shall contribute, as its share, the design cost and the on going maintenance costs. For vote counting purposes, each household (house, apartment, or condominium) is counted as one vote. For eligibility at least 60% of the households on the street (or the neighborhood as the case may be) need to approve the installation of speed humps. Once the design is complete, the Traffic Engineering staff shall inform the petitioner of the location of the speed humps. The petitioner shall then obtain the explicit concurrence of at least 75% of the residents living next to the humps (75 feet in both directions). If 75% of the residents living next to the hump do not agree to the location of the hump, the Traffic Engineering staff shall meet with the petitioner(s) and/or affected residents and discuss alternate locations. In any case, unless 75% of the residents living immediately adjacent to the speed humps concur, the street shall not be eligible for speed hump installation. If the residents concur, then the street is eligible for speed hump installation.

4. In case of multiple requests from various neighborhoods, for the purpose of scheduling the installation, the speed hump requests shall be prioritized based on the following point system:

<u>No.</u>	<u>Description</u>	<u>Points</u>
1.	Percentage of vehicles exceeding speed limit (e.g., 40%)	40
2.	Vicinity to schools and parks (within one block) (e.g., yes)	+5
3.	On emergency service route (e.g., yes)	-5
4.	Percentage of households approving speed humps (e.g., 80%)	+80
5.	Number of reported accidents due to speeding (e.g., 2)	X5 <u>+10</u>
TOTAL POINTS		130

5. Speed humps shall be installed as a single project once a year. A fixed number of humps shall be installed each year, contingent upon available staff resources. The priority system will be used to rank the streets. On the basis of the street's rank in the priority list, the petitioner(s) shall be informed of the status of the speed hump installation. If the street does not qualify for speed hump installation that year, it will be given the highest priority next year.
6. The speed hump design shall typically be done in-house. The construction of speed humps shall typically be contracted out by bid. The striping and signing shall also be done in-house by the City's Traffic Paint and Traffic Sign Sections. If the street qualifies for speed hump installation in that year, the cost of speed hump construction and signs and striping (including labor, equipment, and materials) shall be collected from the residents who approve speed hump installation. The collection of money shall be made before the contract for speed humps is awarded.
7. The construction of speed humps shall be in accordance with the plans, Standard Provisions, State of California, Standard Provisions, City of Modesto, Special Provisions for Speed Humps.
8. Location of speed humps shall be at least 100 feet from existing traffic control devices unless decided otherwise by Traffic Engineering staff. The spacing between humps shall be based on guidelines set by the Institute of Transportation Engineers (ITE)*. The exact spacing shall be determined on an individual basis based on engineering judgment. Speed humps shall not be located on curves less than 300 feet in radius.
9. On streets where the curb is of roll-over type, typically, posts supplemented by type "P" reflective marker tape shall be installed on either side of the hump to prevent motorists from traveling over the curb.
10. Speed humps are relatively new design features. Therefore, the Traffic Engineering staff has the authority to make any alterations or modifications to the above installation procedure as needed by future circumstances.

* Recommended guidelines for the design and application of speed humps, ITE Special Task Force, Institute of Transportation Engineers, May 10, 1991.

Removal of Speed Humps Procedure

The following procedure shall be used to determine a street's eligibility for speed hump removal:

1. The request for speed humps shall be initiated by a citizen(s) in writing.
2. Since speed humps are installed and removed only once a year, speed humps shall not be considered for removal within one year of installation.
3. If the above requirements are met, the Traffic Engineering staff shall inform petitioner(s) of the decision. The petitioner(s) shall obtain the approval or disapproval of all households on the street on forms supplied by the City. All the residents who approve the speed hump removal are required to bear the cost of removal (labor and equipment). If 60% of the residents approve of the removal of the speed humps, the street will be eligible for speed hump removal.
4. The speed hump removal shall be contracted out to bid as part of the speed hump installation project.
5. The Traffic Engineering staff has the authority to make any alterations or modifications to the above removal procedure as the need may be, at anytime in the future.

* Recommended guidelines for the design and application of speed humps, ITE Special Task Force, Institute of Transportation Engineers, May 10, 1991.

CITY OF MODESTO
Speed Hump Request Form

I/WE, (names) _____

residing on (street name) _____ at (write address number below):

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

request the installation of speed humps on _____

between _____ and _____. I/WE will act as

the facilitator(s) between the neighborhood residents and the Traffic Engineering staff. The facilitator's duties will include collection of signatures from residents, and if speed hump installation is approved, collection of money from neighborhood residents.

Signature: _____ Date: _____

Printed Name: _____

Signature: _____ Date: _____

Printed Name: _____

Return the signed request form to:

City of Modesto
Community and Economic Development Department, 4th Floor
Traffic Engineering & Operations Division – Speed Hump Program
P. O. Box 642
Modesto, CA 95353