POLICY AND PROCEDURE
FOR
SPEED HUMP INSTALLATION

CITY OF JURUPA VALLEY

November 2020

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FOR
SPEED HUMP INSTALLATION

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INTRODUCTION TO SPEED HUMPS

WHAT IS THE PURPOSE OF A SPEED HUMP?

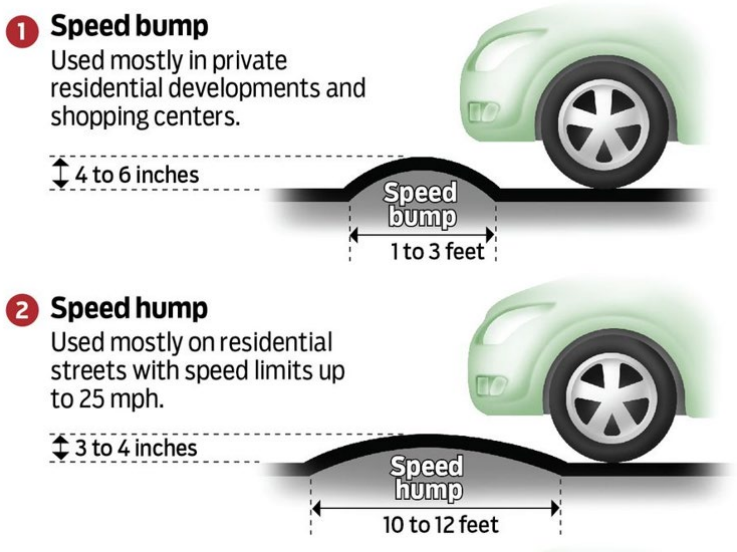
The purpose of the speed hump is to reduce the speed of vehicles on residential streets where excessive speeding occurs. Excessive speed is defined as the 85th percentile speed (the speed at which 85% of the drivers travel at or under) is 10 or more miles per hour above the posted speed limit.

Speed Humps are not designed to reduce the volume of traffic on residential streets; however, some drivers may divert to other streets to avoid the humps.

WHAT IS THE DIFFERENCE BETWEEN A SPEED HUMP AND A SPEED BUMP?

Speed Humps are used on public streets in residential areas to reduce traffic speeds. Speed humps are typically 12 feet wide and between 3 to 4 inches high. Their parabolic shape is designed to permit vehicles to traverse them at reasonable speeds without significant discomfort to the passengers.

Speed Bumps are not used on public streets. They are typically found in shopping centers and other private properties. Speed Bumps are usually 1 foot to 3 feet wide and 4 inches to 6 inches high. They usually cannot traverse comfortably at speeds greater that 5-10 miles per hour.



WHERE ARE SPEED HUMPS USED?

Speed Humps are not intended for use on all streets. They are permitted on residential streets that have at least 800 feet of uninterrupted length between stop signs or other traffic control devices. They are not permitted on arterial streets or on streets that serve as Collectors or primary routes for emergency service vehicles.

HOW MANY SPEED HUMPS DO YOU INSTALL ON A STREET?

The number of humps will depend on the length of the street. For the humps to be effective, they should be installed in a series between 260 feet to 500 feet apart. Special circumstances may call for the humps to be placed closer.

ARE SPEED HUMPS EFFECTIVE?

Speed humps have been shown in some cases to reduce the speed of vehicles on residential streets. Studies indicate the 85th percentile speed decreased by 6 to 7 miles per hour after speed humps were installed.

ARE THERE DISADVANTAGES TO HAVING SPEED HUMPS INSTALLED ON MY STREET OR MY NEIGHBOR'S STREET?

There is a potential for more vehicle noise and emergency response times are delayed.

Some drivers will drive closer to the curb so that only one side of the car goes over the speed hump. While this places the vehicle closer to the pedestrian areas, studies have shown these vehicles do not travel faster than other vehicles.

Some residents feel the additional traffic signs and street markings that accompany the installation of speed hump detract from the appearance of their neighborhood and could affect the property values.

Some drivers will speed up between humps to make up for time lost while slowing down to go over the humps.

There could be a diversion of traffic to adjoining parallel streets from streets where speed humps are installed.

REVIEW AND INSTALLATION OF SPEED HUMPS

A. Request Process

1. The initial request for the installation of speed humps must originate from a resident, school, or other entity whose property is abutting the requested street segment. The requester must be willing to act as the primary contact and take responsibility for notification and the compilation of evidence of support for their requested street should it be determined eligible.

2. The request should identify the street and blocks where the applicant(s) desires speed humps, and the name, phone number and address for a contact person. Submitted segments may be divided or otherwise revised at the sole determination of Engineering Department staff. Use **Attachment 1 - Application Request for Speed Hump Study** of this policy as the application packet for requesting the installation of speed humps. Please sign and return the form and completed petition to:

   City of Jurupa Valley
   Engineering Department
   Speed Hump Program
   8930 Limonite Avenue
   Jurupa Valley, CA 92509

   A neighborhood petition that contains the names addresses and signatures of at least 75% of the residents/businesses within a 300-foot driving path of the requested location(s) in favor of the request must also be submitted. The City can assist in identifying 300-foot area if needed.

3. Engineering Department staff reviews the request to determine if the street meets identified minimum standards to be eligible for traffic calming measures. The City will also determine if the requested device may be a stand-alone installation or should be part of a larger area-wide initiative. If a larger area-wide initiative is recommended, then a traffic management study may be required to identify options for, and alternatives to, the requested action.

4. If the street/area is eligible, either a meeting will be held with area residents or a summary of the proposed action(s) will sent to residents showing the proposed action(s) in order to obtain the required level of support for the traffic calming measure(s) proposed to be implemented.

B. Eligibility

1. Engineering Department staff will conduct the necessary traffic engineering studies and determine the street's eligibility for speed hump installation based on the following policy criteria:

   a. The street may not be a private street and must be accepted into the city maintained street system.

   b. The street must be designated as a local road or a “residence district” as defined in the California Vehicle Code on the California Roadway Systems (CRS) Map and the City’s General Plan Mobility Element. It may not be designated by the City as an Arterial Highway, Major Highway, Secondary Highway, or Collector Street. A residence district or residential street shall be defined as follows:

      i. For the purposes of this policy a residential street, or “residence district,” as defined in the California Vehicle Code section 515 is that portion of a highway and the property contiguous thereto, other than a business district, (a) upon one side of which highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of which highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business

structures. A residence district may be longer than one-quarter of a mile in the above ratio of separate dwelling houses or business structures to the length of the highway exists. The "residence district" determination shall be consistent with California Vehicle Code Section 240.

ii. A local street is defined as a road intended primarily to provide direct access to abutting residential buildings. Residential buildings include separate dwelling houses, apartment buildings, or multiple dwelling houses.

c. Streets such as Industrial Collectors may be considered for vertical speed controls if the posted speed limit is 25 miles per hour and there is a documented need, such as street racing, that such controls would curtail. Intermittent speeding is not considered a cause for installing vertical speed control devices;

d. The posted speed limit on the residential street is no more than 25 miles per hour;

e. Primary Access Route for Police or Fire Services as identified by the Riverside County Sheriff's Department and/or CalFire shall not be considered for traffic calming. RCSD and CalFire shall review all requests and concur on approval for any vertical speed controls. The street will be considered an emergency response route if the installation of speed humps will significantly increase response times to other local streets within the residential area;

f. The street may not be designated as an RTA transit route or commercial vehicle truck route;

g. The minimum length of the street or street segment under consideration for speed humps shall not be less than 800 feet which, is uninterrupted by stop signs or any other traffic control device. Speed humps will not be considered for installation on cul-de-sacs unless they have an uninterrupted street length of 1,000 feet or more;

h. Streets with more than two lanes, including medians, shall not be considered for traffic calming;

i. Most residential/local streets in Jurupa Valley are 32 to 40 feet wide. Streets 36 feet wide and less at their widest tangent section shall qualify for review. Streets in excess of 36 feet wide shall be considered for traffic calming only per direction of the City Engineer;

j. Street must have curb and gutter or at a minimum asphalt concrete dikes along the entire section where traffic calming is requested to be installed. Street without barrier-type edge treatment shall be considered only if the provision if a barrier edge is included to also be installed;

k. The sum of traffic volumes on the local street or residence district for both directions must be more than 500 but less than 2,500 vehicles per day;

l. The measured 85th percentile from the 24-hour speed profile must exceed the established posted speed limit by 10 miles per hour or more OR there must be five (5) or more reported speed-related traffic collisions within the subject street segment during the last 12 months of recorded data;

m. Speed humps should not be placed within 150 feet from any intersection or traffic control device such as stop signs, signals, etc.;

n. Other factors such as, but not limited to, severe horizontal or vertical curves, excessive street downgrades or upgrades (>+5%), and there are no deficient sight line issues. Inadequate sight distance to the humps will affect consideration for eligibility.

2. On a case-by-case basis, staff may recommend speed hump installation on streets that have a paved street width greater than 36 feet not to exceed 44 feet wide. The following criteria are in addition to the criteria above and are only recommended if the following conditions are met:

a. The street or street segment must be defined as of local residential density as described in the California Vehicle Code and;

b. The street must be designated a local street by the City's General Plan Mobility Element and CRS maps. In the case that the street or street segment has not been submitted or is not shown on the latest Mobility Element, a local street or road" means a street or road that primarily provides access to abutting residential property and meets the following three conditions:

- Roadway width of not more than 44 feet.
- Not more than one-half of a mile of uninterrupted length by official traffic control devices.
- Not more than one traffic lane in each direction.

c. The street must have an established speed zone of 25 MPH. Any street with an established speed zone of 30 MPH or greater serve as a Collector designation and will not be considered.

d. The sum of traffic volumes for both traffic directions must not have an average daily traffic that exceeds 2,500 vehicles per day or the street will be considered of Collector designation and may not be considered for speed hump installation.

3. The Engineering Department, based on the criteria set forth in this policy and safety concerns, will make a determination whether it is feasible to install speed humps on streets with a paved width between 36-44 feet wide.

4. If the street is determined not to be eligible for speed humps, the applicant(s) will be notified in writing of the reason for ineligibility and other traffic safety strategies will be considered.

C. Notification/Evidence of Support

A study is initiated to collect data on the design and operational parameters of the street. This included geometric measurements, speeds, volumes, collisions, pedestrian volumes, area land uses, etc.

- If the thresholds for implementation are met, then appropriate treatments are identified and costs for each are determined.
- Once costs are identified, the means for funding the improvements must be identified. This may include local resident funding of the measures identified.

1. If the street is determined to be eligible for consideration, Engineering Department staff will define the approximate speed hump location(s) on a map, which will be provided to the applicant(s) with a petition of notification on which to gather evidence of support. The petition area will be determined by Engineering Department staff and will include primarily those properties facing or abutting the street segment on which a speed hump is proposed to be located.

2. Notification/evidence of support must be submitted on forms produced by Engineering Department staff or exact duplicates of it. Documents with missing required information will not be accepted as valid under any circumstances.

3. Notification/evidence of support petitions must be completed and returned to Engineering Department staff by the established deadline for the segment to be considered in the ranking process. Requests without petitions will be considered incomplete and will be deferred for further consideration in the subsequent funding cycles until the subject requests are re-submitted with the required support petitions.

4. Each property identified by Engineering Department staff within the petition area must be represented on the petition by signature. Any property not properly identified with a petition signature will be considered as opposed to the installation of speed humps.

5. Resident property managers or landowner signatures may be considered as approval for all units of multi-family properties of four or more units. The manager or landowner must be properly identified on the petition form.

6. Any person who wishes to alter their indication of support on the petition form after its submittal must do so by individual letter of request to Engineering Department staff.

7. A 67% (two-thirds majority) vote must be met to continue for speed hump installation.

If there is still local support for the measures, the plan must be approved by the Traffic Safety Committee and the City Council for funding and implementation.

D. Funding Criteria

1. Funds for speed hump installation will be determined by the Jurupa Valley City Council. Funding must be identified at the time the request is taken to the City Council for approval.

2. A street segment's ranking score is determined by summing the following factors:

Ranking Criteria	*Point Given*	*Per*
Speeding Factor	+0.1 point	Vehicle exceeding the 25-mph speed limit by 5 miles per hour or more in a 24-hour period (Based on speed survey)
Collision Factor	+10 point	Reported speeding-related accident occurring within the segment during the most recent 12- month period
Vehicular Access Factor	+1 point	Single-family residential driveway along the segment. Vacant land will not be counted.
	+1 point	Multi-family residential driveway along the segment. Vacant land will not be counted
Institution Factor	+10 points	School or park within the segment or adjacent to the segment
Pedestrian Access Factor	+10 points	Absence of sidewalks within the segment or portions of the segment. A segment or portion of a segment with a sidewalk on at least one side of the street is considered to have sidewalks.
Evidence of Support Factor	+1 point	Every 5 percent over the required 60% of petitioners supporting the installation of speed humps.
Undesirable Factors	-10 point	Sharp horizontal or vertical curve exists within the segment (based on engineering judgment)
	-10 point	Poor sight distance exists within the segment (based on engineering judgment)
	-10 point	Inadequate lighting exists within the segment (based on engineering judgment)
	-10 point	Excessive street downgrade or upgrade exists within the segment (based on engineering judgment)

3. *Traffic Diversion:* Prior to the construction of speed humps along a street segment, traffic studies will be conducted along adjacent alternate routes to provide base data to document any occurrence of traffic shifts. If the adjacent alternate route is requested to be considered for speed humps at a later date, the results of the "before" and "after" study will be compared. If the segment is eligible for speed hump consideration and any

increases in either traffic speeds or volumes are shown, consideration for those increases will be given in the funding process as follow:

- For every percent of increase of the "before" 85th percentile speed: +2 points;
- For every percent of increase of the 24-hour volume: +2 points.

4. The street segment with the higher-ranking score will be considered to have the higher priority. The street with the earliest application date will have the higher priority among streets with the same ranking score.

E. Cost Responsibility

1. The City of Jurupa Valley will be responsible for all costs associated with design and installation of the speed humps, unless the project is privately funded (See Section E-4).

2. A location that does not receive speed hump installation funding approval will automatically be considered in the following cycles, for a maximum of three (3) additional years (three funding cycles). After the three year time period, the request expires. Incomplete requests that later become complete within the three-year limit will not receive additional time for funding consideration. A new written request may be submitted subject to the policies and procedures in effect at the time of request. Each request requires a separate and independent evidence of support petition.

3. These procedures do not preclude Engineering Department staff from completing any eligible requests out of ranking order, should alternative funds become available.

4. Private Funding

   a. Once a location is determined to be eligible for speed hump installation, but not funded under the designated annual budget, installation may be expedited by either voluntary payment of 100% of all costs or voluntary payment of 50% of all costs. A notification/evidence of support petition exhibiting a 75% or greater support factor must be presented.

   b. Requests for a private funding estimate of cost must be made in writing to Engineering Department staff.

   c. Voluntary payments must be submitted in one payment for the full cost of installation, according to the cost statement provided to the applicant(s). No partial payments will be accepted.

   d. Upon receipt of payment of 100% of the cost, the humps will be installed no later than the next fiscal year as scheduling permits.

   e. Upon receipt of payment of 50% of the cost, +30 extra ranking points will be given in the City funding process to location that is at least 50% privately funded.

5. If funded and approved, the traffic controls will be scheduled through the City Engineer's office and coordinated with the City's Capital Improvements Program. Devices to be installed on streets that are programmed for reconstruction or resurfacing may be given priority if the work can be scheduled to be included as part of the capital project work.

6. Funding options may include, programmed funds through the City's Capital Improvement Program, funds provided by residents requesting the device, or other discretionary funds as directed by the City Council.

F. Design, Construction, and Maintenance of Speed Humps

1. Engineering Department staff shall prepare and maintain current design standards and installation and removal procedures for speed humps in accordance with this policy. The final location of all speed humps will

be determined by staff in accordance with the City of Jurupa Valley Standards and current engineering principles.

a. Speed humps will generally be placed approximately 260 to 500 feet apart. Other spacing may be used based upon engineering judgment.

b. A speed hump should not be located in front of a driveway or within an intersection.

c. Speed humps should not be located over, or contain manholes, water valves or other subsurface utilities access features.

d. Speed humps should not be located adjacent to fire hydrants.

e. For humps located near drainage inlets, the hump should be placed just downstream of the inlet. If this is not feasible, a special treatment may be considered for drainage.

f. To improve nighttime visibility, coordinating hump location with existing or planned street lighting should be considered.

g. Preferences of requesters or property owners adjacent to speed hump locations will not be considered unless unique or special circumstances exist that warrant relocation. Engineering Department staff will consider these circumstances on a case-by-case basis.

h. Street without barrier-type edge treatment shall be considered only if the provision if a barrier edge is included to also be installed.

i. Speed humps shall not be extended across marked bicycle lanes.

j. Traffic studies will be conducted along adjacent alternate routes to provide base data to document any occurrence of traffic diversions (See Section D-3).

2. Construction or removal of the speed humps and associated pavement markings and signs will be the responsibility of Engineering Department staff. Traffic control consisting of signs and markings shall be installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Jurupa Valley Standard Plans to advise roadway users of the presence of speed humps.

3. Department of Public Works staff will maintain the speed humps and all related features.

4. After installation of the measure(s), a follow-up analysis will be conducted to make sure the measured implemented have had the desired effect and that the issue that were to be addressed have not just migrated to adjacent corridors.

5. Removal of Speed Humps by Maintenance or Construction Activities

   a. Any speed hump that is removed or damaged during the course of City-funded construction shall be reinstalled upon completion of that construction at the City's expense.

   b. Any speed hump that is removed or damaged during the course of privately funded maintenance or construction shall be reinstalled upon completion of those activities at the expense of the private constructor. This includes utilities and Community Facilities Districts.

   c. The replacement of speed humps completely removed through the above actions is not automatic, but contingent upon a review for conformance with current policies and procedures.

6. Relocation of constructed speed humps:

Any relocation of constructed speed humps at citizen's request must be approved by Engineering Department staff and relocated at the requesting citizen's cost. The requester must secure evidence of support by properties adjacent to both the existing location and the proposed location. Payments must be submitted in one payment for the full cost of relocation, according to the cost statement provided to the applicant(s). No partial payments will be accepted. Upon receipt of payment of the cost, the humps will be relocated as scheduling permits.

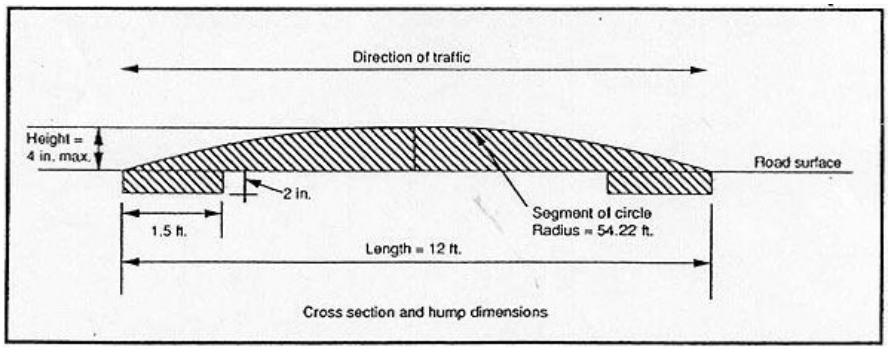


Figure 2: SPEED HUMP CROSS-SECTION

DEFINITIONS

Speed Hump means a geometric design feature of a roadway, consisting of a raised area in the roadway pavement surface extending transversely across the travel way, whose primary purpose is to reduce the speed of vehicles traveling along that roadway. The base of the hump is approximately 10 to 12 feet wide and gradually slopes to a maximum height of approximately 3 to 4 inches.

Asphalt or Concrete Dikes are raised curbing at least 6 inches tall and no more than 8 inches tall.

Arterial Highway, **Major Highway**, **Secondary Highway**, **Industrial Collector** and **Collector** mean street classifications in City of Jurupa Valley Standard No. 100.

Institution may be a park or school that could reasonably be anticipated to generate volumes of pedestrian traffic.

RTA Bus Route means any roadway segment designated by the Riverside Transit Authority (RTA) as a bus route.

Emergency Service Travel Route means any street segment designated by Riverside County Sheriff's Department or CalFire as an emergency access route.

Residential means any single family residence, townhouse, duplex, triplex, fourplex, condominium, or apartment complex or any other structures used as dwelling units.

85th percentile speed meaning the measured speed at or below which 85% of vehicles are traveling.

CITY OF JURUPA VALLEY
Engineering Department
Speed Hump Program
8930 Limonite Avenue, Jurupa Valley, CA 92509
Phone (951) 332-6464 Fax (951) 332-6995

APPLICATION REQUEST FOR SPEED HUMP STUDY

The following is a formal request for a speed hump study. Each request must contain the completed information as indicated in the Speed Hump Program Policies and Procedures.

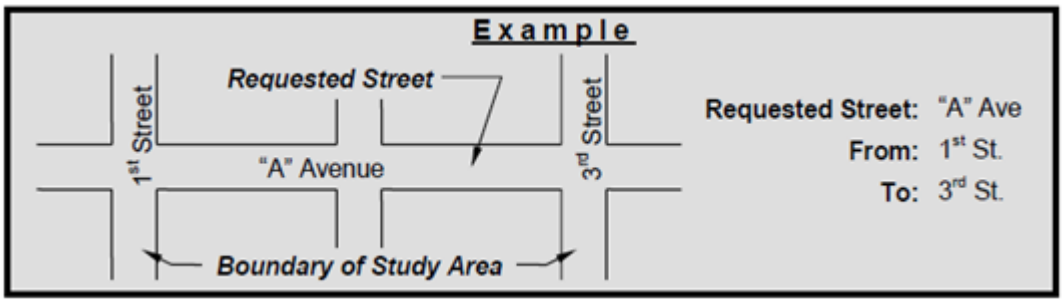
A. Street Study Information

Each request must provide the name of the street on which a study is requested, and the boundaries of the street segment. Traffic studies will be conducted only within the boundaries indicated. Please use streets for boundary limits, not block ranges.

Requested Street: _____

From: _____

To: _____



B. Contact Person Information

Each request must provide a contact person who lives on the requested street within the study area boundary. The contact person will receive all correspondence and be responsible for gathering evidence of support when requested and be responsible for submitting the required resident response survey. [1]

Name: _____

Address: _____

Phone #: _____ **Email:** _____

I agree to be the contact person for the above request. I have read and accepted the conditions required in the City of Jurupa Valley Policies and Procedures for Speed Hump Installation and Removal.

Signature of Applicant: _____ **Date:** _____

[1] See Page 2 of the City of Jurupa Valley *Policy and Procedure for Speed Hump Installation* document for more information.

C. Statement of Need

Please describe the traffic-related issue(s) that generate the need for speed humps. Use additional pages if needed.

SPEED HUMP STUDY REQUEST PETITION

Dear Neighbors,

This petition is to request the City of Jurupa Valley Engineering Department conduct a study for providing speed humps on _____ between _____ and _____. It is required that 75% of the residences/businesses in the area on the attached map indicate they are in favor on this petition for the City to review this request. Please sign and print your name and your address in the area below and indicate if you are in favor or not in favor of the City conducting such a study.

Please Read Request Before Signing					In Favor	
#	Name	Property Address	Date	Signature	Yes	No
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3						
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*__NOTE__: Signing and/or submittal of this petition to the City of Jurupa Valley does not guarantee that the requested traffic mitigation will be approved and installed. The request for mitigation will be reviewed by the required City and public safety agencies for study and will require review by the Jurupa Valley Public Works Committee and City Council for approval. If a study is conducted, a public hearing will be held to review the results and recommendations at an upcoming meeting of the Public Works Committee.

Please mail (or deliver) **original** completed petition only (**no copies**) to address below:
City of Jurupa Valley; Engineering Department; 8930 Limonite Avenue, Jurupa Valley, CA 92509