

RESOLUTION NO. 2008-090

Adopted by the Sacramento City Council

February 12, 2008

APPROVE THE YEAR 2008 TRANSPORTATION PROGRAMMING GUIDE (TPG) PROJECT LIST DEVELOPMENT AND SCORING CRITERIA AND THE ADDITION OF A NEW PEDESTRIAN IMPROVEMENTS SECTION

BACKGROUND

- A. The Transportation Programming Guide process consists of several tasks including: developing project scoring criteria for each program area; scoring and ranking projects; and writing the final text of the document.
- B. On July 25, 2006, the City Council approved the Pedestrian Master Plan.
- C. The Speed Hump Program Guidelines were last amended and approved by the City Council on January 27, 2004.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. The 2008 Transportation Programming Guide (TPG) Project List Development and Scoring Criteria, shown in Exhibit A, for the following program areas are approved: Major Street Improvements, Street Maintenance, Street Reconstruction, Traffic Signals, Bicycle, Bridge Replacement/Rehabilitation, Streetscape Enhancement, and Speed Humps, and Train Horn Quiet Zones.
- Section 2. A new section of the Transportation Programming Guide; the Pedestrian Improvements Section, shown in Exhibit A, is approved.
- Section 3. The Speed Hump Program Guidelines are approved as shown in Exhibit B.

Table of Contents:

- Exhibit A: The 2008 Transportation Programming Guide project list development and project scoring criteria – 45 pages
- Exhibit B: Speed Hump Program Guidelines – 10 pages

Adopted by the City of Sacramento City Council on February 12, 2008 by the following vote:

Ayes: Councilmembers Cohn, Hammond, McCarty, Pannell, Sheedy, Tretheway, Waters, and Mayor Fargo.

Noes: None.

Abstain: None.

Absent: Councilmember Fong.



Mayor Heather Fargo

Attest:


Shirley Concolino, City Clerk

Speed Hump Program Guidelines

Introduction

The City of Sacramento has had a speed hump program since 1980. Over the years, several revisions have been made to the program including street length criteria, a change from undulations to speed humps, a program name change, the addition of a minimum speed requirement and the installation of speed lumps on emergency response and bus routes. For simplicity of these guidelines, the term "speed hump" will refer not only to the traditional speed humps, but also the split hump design called "speed lumps" and speed tables. Designs for speed humps, speed lumps and speed tables are included in these guidelines.

Definitions

Speed Bump – Single asphalt bump covering approximately one foot and approximately 5 inches in height. Found in shopping centers and parking lots. Not installed on public streets.

Speed Hump – Single asphalt hump, parabolic in shape, covering 12 feet of street with a height between 3 ¼ and 3 ¾ inches. Installed on streets in Sacramento since 1996. Not installed on emergency response or bus routes.

Speed Lump – Asphalt mounds, parabolic in shape, covering 12 feet of street with a height between 3 ¼ and 3 ¾ inches. The center mound or lump, has a width of 5 ½ feet to accommodate the wheelbase of fire trucks and buses. The lumps adjacent to the center lump vary in width to accommodate the street width. Depending on the street width, a 5 ½ foot lump may be placed in each travel lane. First testing of speed lumps in Sacramento was done in February 2000. Speed lumps have been approved by the Fire Department for use on emergency response routes and by Sacramento Regional Transit for use on bus routes.

Speed Table – An elongated hump, incorporating a 10-foot flat surface in the middle and covering a total of 22 feet of street, with a height between 3 ¼ and 3 ¾ inches. Speed tables have been installed on streets in Sacramento as part of the Neighborhood Traffic Management Program (NTMP). With the 2008 Transportation Programming Guide, they are being added to the Speed Hump Program for use on minor collector roadways with park or school frontage and posted speeds of 35 mph. Speed tables have been approved by the Fire Department for use on emergency response routes and by Sacramento Regional Transit for use on bus routes on a case by case basis.

Speed Survey – A survey of traffic speeds and volume conducted by the use of a magnetic sensor(s) or air pressure hose(s) to determine the percentage of traffic exceeding the speed limit. The speed survey shall be 24-hours in length.

Undulations – A pair of adjacent speed humps placed on the street. Undulations were installed on Sacramento streets prior to 1995.

85th Percentile Speed – Otherwise known as the critical speed, is the speed at or below which 85% of the traffic is moving. The 85th percentile speed is used as one of the criteria to determine if a street qualifies for speed humps.

Program Categories

The City of Sacramento has three types of speed hump categories: Residential, Parks and Schools, and Bypass. The objectives, qualifying criteria, and priority ranking system for each of these categories are presented in subsequent sections of this report. Also in this report are construction specifications, locations selection guidelines, signs and markings, relocation and removal requirements, other funding, Regional Transit, Fire Department emergency response routes, and public notification. Between 1980 and 1995, the city installed undulations (2 humps) for traffic calming. Since 1995, the city has installed speed humps (one hump) because it was determined that one hump was just as effective at slowing traffic as two humps, less costly and easier to find spacing for installation on streets.

Program Objectives

Speed humps serve to reduce vehicular speeds as well as to reduce cut-through traffic on local residential streets. Both of these effects are realized when speed humps are installed on a street, regardless of the type of program for which a street qualifies. The principle purpose of each of the three programs is as follows: The Residential Speed Hump list and the Parks and Schools list serve to reduce vehicular speeds on streets with residential frontage or park and/or school frontage; and the Bypass Speed Humps list serves primarily to reduce inappropriate traffic volumes on certain streets.

Other, less costly, forms of traffic control (e.g., stop signs) should be considered the primary means of discouraging speeding and/or bypass traffic. Stop signs are less costly to install and can be installed immediately at locations which qualify. When these forms of traffic control are inappropriate, the location may be studied further to determine whether or not it qualifies for speed humps. The application of speed humps is limited to streets where geometric configuration or design fails to passively deter many drivers from exceeding the speed limit or from using streets as bypass routes. The proper application of speed humps enhances public safety.

Qualifying Criteria

In order for a residential street to be studied for speed humps, a petition from ten residents from the affected street must first be submitted.

A street segment qualifies for the installation of speed humps when the results of an investigation demonstrate that the criteria presented on page three of this document are met for the respective types of programs. Once a street has qualified, it will be assigned points and ranked with other qualifying streets based on the ranking system shown on page four of this document.

Qualifying Criteria by Category

Residential

The segment must be 750 feet in length between traffic controls, four way intersections, and/or curves with less than a 250-foot radius.

The street is comprised of contiguous segments with no stop controls and all side streets entering the segments are stopped. The total length of the contiguous segments must be at least 750' in length.

Posted speed limit must be 30 mph or less.

Street frontage of subject street segment must be at least 75% residential.

Street will not be considered for speed humps, but will be considered for speed lumps if it is a part of the Regional Transit bus network, or identified as an emergency response route by the Fire Department.

A minimum of 25% of ballots mailed shall be returned and a two-thirds majority of residents that vote are in favor of the installation of speed humps. **

A speed survey shall indicate that the 85th percentile speed is at five or more miles per hour over the speed limit.

Parks & Schools

The segment must be 500 feet in length between traffic controls, four-way intersections, and/or curves with less than a 250-foot radius.

Posted speed limit must be 30 mph or less or 35 mph when considering the placement of speed tables.

Street segment must be adjacent to a school * or park.

Street will not be considered for speed humps, but will be considered for speed lumps if it is a part of the Regional Transit bus network, or identified as an emergency response route by the Fire Department.

A minimum of 25% of ballots mailed shall be returned and a two-thirds majority of residents that vote are in favor of the installation of speed humps. **+

A speed survey shall indicate that the 85th percentile speed is at five or more miles per hour over the speed limit.

Bypass

The segment must be 500 feet in length between traffic controls, four way intersections, and/or curves with less than a 250-foot radius.

Posted speed limit must be 30 mph or less.

Street frontage of subject street segment must be at least 75% residential.

Street will not be considered for speed humps, but will be considered for speed lumps if it is a part of the Regional Transit bus network, or identified as an emergency response route by the Fire Department.

A minimum of 25% of ballots mailed shall be returned and a two-thirds majority of residents that vote are in favor of the installation of speed humps. **

Minimum average daily traffic (ADT) must be 500 vehicles per day.

The street(s) must serve to bypass *** major streets with a four-way stop, a signalized intersection, or another street with speed humps.

* Preschool, Day care school, elementary, middle, or high school.

** One vote per household is allowed; voter(s) must reside at the household (whether they are owners or tenants), as they are the primary users of the street being considered for speed humps.

+ If the survey of residents on a parks and schools street does not demonstrate a two-third majority favoring the installation of speed humps, the City Council member representing the district in which the street is located may override the survey.

*** To be considered a "bypass" location, the ADT must be at least 50% higher than the volume that would be expected using the following trip generation rates: 10-trips/day/single family residential (SFR) unit, 6-trips/day/multi family residential (MFR) unit. Land uses which do not front the bypass location itself, but which could reasonably be expected to use the bypass street(s) should be considered when determining the expected volume.

When Voting Requirement Not Met

If a street fails to receive the necessary two-thirds majority approval, the street may not

be considered again for speed humps/lumps for five (5) years.

Priority Ranking System

The following point allocation method will be used in order to rank streets qualifying for the speed hump categories:

Residential

One point for every 50 vehicles traveling the street in a 24-hour study period.

One point for each residential unit fronting the street, plus one point for each 25 feet of apartment frontage.

Five points for every 85th percentile speed of traffic exceeding the speed limit.

Parks & Schools

One point for every 50 vehicles traveling the street in a 24-hour study period.

One point for each residential unit fronting the street, plus one point for each 25 feet of school, park, playground, or apartment frontage.

Five points for every 85th percentile speed of traffic exceeding the speed limit.

Bypass

One point for every 50 vehicles traveling the street in a 24-hour study period.

One point for each residential unit fronting the street, plus one point for each 25 feet of apartment frontage.

One point for every 10 vehicles that are considered "bypass traffic."

Construction Specifications (Single Hump)

Upon installation of the single humps, the asphalt concrete speed hump will have a width of 12 feet, a minimum height of three and one-quarters inches and a maximum height of three and three-quarters inches (3 ¼" to 3 ¾"), and a vertical curvature of 72 feet (Refer to Pages 10 - 12). The speed hump will extend from lip of gutter to lip of gutter. There will be a two-foot (2') horizontal taper originating at the crest of the speed hump and converging at the lip of curb. Asphalt concrete shall be mixed and placed in accordance with Section 22 of the City of Sacramento Standard Specifications. (Refer to Page 10 for the proposed speed hump cross section).

Construction Specifications (Speed Lumps)

Upon installation of speed lumps, the asphalt concrete speed lumps will have a width of 12 feet, a minimum height of three and one-quarter inches and a maximum height of three and three-quarters inches (3 ¼" to 3 ¾"), and a vertical curvature of 72 feet (refer to Figure 2). The center lump (or lumps if the design requires one lump in each travel lane) will be five and one-half (5 ½') feet across. There will be a gap between lumps of one-foot (1') to accommodate the wheelbase of fire trucks and buses. The outside speed lumps will extend from the center lump to the lip of gutter. There will be a two-foot (2') horizontal taper originating at the crest of the speed lump and converging at the lip of curb. Asphalt concrete shall be mixed and placed in accordance with Section 22 of the

City of Sacramento Standard Specifications. (Refer to Page 11 for a drawing of the proposed speed lump cross section for a typical residential street of 33 feet or less in width).

Construction Specifications (Speed Tables)

Upon installation of speed tables, the asphalt concrete speed tables will have a width of 22 feet, made up of a 6' long vertical curvature of 72 feet reaching a minimum height of three and one-quarter inches and a maximum height of three and three-quarters inches (3 ¼" to 3 ¾") on each end of a 10' long flat surface (Refer to Page 12). There will be a two-foot (2') horizontal taper originating at the crest of the speed table and converging at the lip of curb. Asphalt concrete shall be mixed and placed in accordance with Section 22 of the City of Sacramento Standard Specifications. (Refer to Page 12 for the proposed speed hump cross section).

Location Selection Guidelines

In selecting precise locations for the speed hump installation, the following guidelines shall be adhered to:

- Speed humps shall not be located over manholes, water valves, or street monumentation, or whenever possible, within twenty-five feet of fire hydrants, as they prevent/impede access to these facilities.
- Speed humps should be located five to ten feet away from driveways, whenever possible, to minimize their effect on driveway access.
- Speed humps should be located on or near property lines, whenever possible, to minimize the impact on (access to) individual properties.
- Speed humps should be located near streetlights, whenever possible, in order to enhance their visibility at night.
- Speed humps should be located a minimum distance of 200 feet from corners, whenever possible, and should never be located within a corner radius.
- No speed humps shall be located on any horizontal curve(s) with less than a 650' radius.
- Speed humps shall be spaced at a minimum interval of 250 feet and a maximum interval of 600 feet. Speed humps will be placed no closer than 200 feet from traffic control devices or four-way intersections.
- Where possible, at least two speed humps will be placed on a residential or parks and schools street or qualifying contiguous segments, as two humps are the minimum for effective speed control. When speed humps are to be installed at a

Bypass location, one hump may be placed if the street segment or one of the streets in a series of street segments is less than 600 feet in length. The maximum number of speed humps is dictated by street length and spacing requirements.

- To deter driver from driving around speed humps where no vertical curb exists, a two-inch (2") pipe shall be set in the sidewalk, centered on the speed hump in each approach direction. The pipes shall be placed at a maximum of six inches (6") from the back of curb and shall allow a minimum of 48" of clear sidewalk width to allow for wheelchair access. (Refer to Pages 10 -12).

Signs and markings

All signs and markings required with the speed humps shall be part of the contract bid package, unless these items are to be installed by City crews.

There are two types of advanced warning devices used to alert motorists of upcoming speed humps: street signs and pavement markings. The signing includes a 30-inch sign stating "SPEED HUMP" in four-inch (4") letters and a second line with an advisory speed of 15 MPH. Above this text is a pictorial of a speed hump. (Refer to Pages 10 and 11). Signage for a speed table includes a 30-inch sign stating "SPEED TABLE" in four-inch (4") letters and a second line with an advisory speed of 20 MPH. Above this text is a pictorial of a speed table. (Refer to Page 12).

Pavement markings for speed humps and speed tables shall include twelve-inch (12") wide stripes, forming a chevron, extending six feet (6') from the approach edge of the speed hump to the apex of the speed hump and centered in each travel lane. Sixty feet (60') of centerline shall be striped across the hump, extending thirty feet (30") from the apex of the speed hump in both directions. Speed tables shall be striped with seventy feet (70') of centerline, extending thirty-five feet (35') from the apex of the speed table in both directions. Pavement markings for speed lumps shall include diamond striping on the center lump(s) and chevron markings on the side lumps. A reflective pavement marker will indicate the middle of the center lump(s) to assist RT and fire truck drivers to center their vehicle over the lump. (Refer to Pages 10 -12).

Additional Speed Humps

Adding additional speed humps on a street may be considered when all of the criteria listed below are met.

1. For Residential and Parks and Schools Locations: Where speed humps are ineffective in reducing speeds of vehicles based on speed survey conducted for 24-hour period. The 85th percentile speed must be 5 mph or greater than the posted or prima facie speed on the street segment.

For Bypass Locations: Where speed humps are ineffective in reducing the volume of vehicles, based on an average daily traffic (ADT) count. Traffic volumes must

be reduced by less than 10% from the street's ADT count prior to the installation of speed humps in order to be considered ineffective.

2. Existing speed humps must be at least five hundred feet (500') apart.
3. There is a petition with ten signatures requesting additional humps. One resident signature per household having driveway access onto the street in question is allowed; a resident may be either an owner or tenant.
4. If all criteria are met, the segment will be ranked on the speed hump list. The segment will be balloted prior to installation. A minimum of 25% of ballots mailed shall be returned and a two-thirds majority of residents that vote are in favor of the installation of speed humps. **

Relocation of Speed Humps

Changing the location of speed humps on a street may be considered when all of the criteria listed below are met.

1. Speed humps were placed in a location conflicting with the adopted guidelines, and another location exists which does not conflict with the adopted guidelines.
2. There is a petition with a two-thirds majority of the street's residents in favor of the speed hump relocation. One resident signature per household having driveway access onto the street in question is allowed; a resident may be either an owner or tenant.
3. A community meeting should be held, with the support of the district's City Council member, to discuss the advantages of speed humps. If the decision is made to relocate existing speed humps, a Council report and resolution must be drafted. When approved by the City Council, the relocation procedures may be initiated. Relocation of speed humps which may have been installed for less than two years will only be considered if the City is compensated by those requesting speed hump relocation for the full cost of relocating the speed humps, including design, construction, inspection, and administration.

Removal of Speed Humps

Removing speed humps from a street may be considered when all of the criteria listed below are met:

1. For Residential and Parks and Schools Locations: Speed humps are ineffective in reducing speeds of vehicles based on speed survey conducted for a 24-hour period. The 85th percentile and average speeds must each be

less than 2 mph lower than those speeds demonstrated prior to the installation of speed humps in order to be considered effective.

For Bypass Locations: Speed humps are ineffective in reducing the volume of vehicles, based on an average daily traffic (ADT) count. Traffic volumes must be reduced by less than 10% from the street's ADT count prior to the installation of speed humps in order to be considered ineffective.

2. Speed humps were placed in a location conflicting with the adopted guidelines, and no other location exists which does not conflict with the adopted guidelines.
3. There is a petition with a two-thirds majority of street's residents' signatures in favor of the speed hump removal. One resident signature per household having driveway access onto the street in question is allowed; a resident may be either an owner or tenant.
4. A community meeting should be held, with the support of the district's City Council Member, to discuss the advantages of speed humps. If the decision is made to remove existing speed humps, a Council report and resolution must be drafted. When approved by the City Council, the removal procedures may be initiated. Removal of speed humps which have been installed for less than two years will only be considered if the City is compensated by those requesting speed humps removal for the full cost of the original installation, including design, construction, inspection, and administration. This would not apply if a street became a Regional Transit bus route.

Other Funding

A street segment which qualifies for any one of the speed hump categories may be funded by an individual or a group of individuals. The individual or group of individuals must enter into a memorandum of understanding (MOU) with the City of Sacramento, wherein they agree to pay for all costs associated with the installation of speed humps on their street (construction, inspection, administration, etc). Once a MOU is executed, the location to receive speed humps shall be included in the next City CIP speed hump project. Private payment for speed humps does not relieve a location from the requirement of a two-thirds majority of residents favoring the installation of speed humps, or from any other criterion set forth in these guidelines.

Regional Transit

Regional Transit (RT) adopted a policy on bus routing with regard to speed humps in 1982. This policy authorizes RT staff to modify bus routes so they do not utilize streets

with existing or future speed humps, and to coordinate future placement of such devices. The Department of Transportation policy is to provide RT with the locations of future speed humps so that problems, which this might create, can be avoided. Speed humps will not be placed on streets where RT bus service exists. However, RT has approved speed lumps for placement on bus routes.

Fire Department Emergency Response Routes

The City of Sacramento Fire Department has expressed concerns regarding speed humps, and desires that they not be placed on streets, which they identify as emergency response routes. The Department of Transportation's policy is to provide the Fire Department with the locations of future speed humps so that they can identify emergency response routes. Speed humps will not be placed on streets, which the Fire Department identifies as emergency response routes. However, the Fire Department has approved speed lumps for emergency response routes on a case-by-case basis.

At the request of the Fire Department Public Information Officer, the Department of Transportation will consider including the conversion of existing speed humps to speed lumps in the annual Speed Hump Project installation. Residents will be notified prior to the conversion.

Public Notification

Public notifications, which are used for balloting and to inform residents of purposed speed humps and to have them vote, may be distributed by the following method:

Ballots may be mailed out to residents of affected streets.

Note: Ballots with a response requested should be sent far enough in advance to reach the public two and one half (2 ½) weeks prior to the response deadlines.

Street Participation in the Neighborhood Traffic Management Program (NTMP)

The NTMP reviews all streets within a neighborhood for possible traffic calming measures. In doing so, streets are evaluated for speed humps. If the traffic calming plan approved by balloted residents and City Council does not include speed humps on a street, that street is ineligible to be considered for further traffic calming measures such as speed humps for a minimum of one-year after the NTMP project has been closed.

Revised June 1 2007