

III. Speed Cushion Installation Policy

1. General

This policy provides criteria and procedures for installation of safe and effective speed cushions.

A speed cushion is a device typically 3 inches in height, 5 to 6.25 feet in width, and up to 10 feet in length. A speed cushion is basically a "narrow track" speed hump which allows larger vehicles to straddle it while an ordinary passenger car, which has a smaller wheel track, has to ride over it with at least two wheels.

2. Eligibility Requirements

The following criteria must be satisfied for a street to be eligible for speed cushion installation:

A. Petition

1. A petition supporting the installation of speed cushions is required from a minimum of 70 percent of the residents and/or property owners residing on the street and the affected area. (The affected area is the neighborhood area most directly affected by daily/routine travel on the roadway and will be determined by the Department of Public Works and Transportation.) If the street was previously nominated for speed cushions and the request was denied, another petition will not be allowed for at least three years after the decision to deny the request (unless the Department of Public Works and Transportation is aware of a significant change in the traffic volume and/or speeds).
2. A statement from a city registered neighborhood association endorsing speed cushion installation on the project street is desirable.
3. The petition will identify "one vote for one lot." Multiple signatures from the same address will count for only one vote for that property.

B. Operational Characteristics of the Street

1. The street must be a local residential street or a residential collector street.
2. The street can be no wider than 38 feet. Speed cushions will not be allowed on 44-foot major collector streets or larger, due to the higher traffic volumes and speeds associated with these larger streets.

3. There must be no more than one moving lane of traffic in each direction.
4. Traffic volumes must be more than 500 and should be less than 3,000 vehicles per day.
5. Vehicle speeds must exceed an 85th percentile speed of 35 MPH for a posted speed of 30 MPH.
6. The street must not be identified as a primary route for emergency vehicles. This refers to a route that is heavily used due to its proximity to an emergency vehicle facility. These routes are subject to change.

C. Geometric Characteristics of the Street

1. The street must have adequate sight distances (determined by the Department of Public Works and Transportation) to safely accommodate the cushions and give drivers adequate advance warning.
2. The street must not have horizontal or vertical curves or grades or drainage limitations that prevent safe placement of the cushions. The cushion must not be located within a horizontal curve, or on a vertical grade greater than 8 percent, or on their immediate approaches.
3. The streets with no curb and gutter must use a special design to prevent vehicles from driving around the speed cushion.

3. Cost Responsibility

The speed cushion installation cost, including signs, speed cushion materials, shipping, pavement markings, and any special design features will be shared between the City and residents according to the relationship between the 85th percentile speed and the posted or statutory speed limit. The Director of Public Works or his designee reserves the right to waive the resident's share of the cost in cases of extenuating circumstances. This cost sharing is defined in the table below:

Cost Sharing Table for 30 MPH Posted Speed

<u>Actual 85th Percentile Speed</u>	<u>Residents' Cost Share</u>
Less than or equal to 35 MPH	100%
36 MPH - 38 MPH	50%
Greater than 38 MPH	0%

The cost of transportation engineering studies and maintenance of the speed cushions, street markings and signs will be the responsibility of the City. The residents' cost share is that percentage of the total cost (speed cushion materials, shipping, signs, and markings) which is not the City's responsibility. This share can be paid by one or more of the residents or from another private funding source within six months from the statement date and prior to installation. This share does not have to be paid equally by all property owners. Regardless of the provisions of this cost-sharing table, residents who wish to expedite speed cushion installations in their neighborhood may do so by voluntarily paying the total cost.

4. Speed Cushion Location

Many factors must be considered in locating speed cushions for optimal effectiveness. If not placed correctly, isolated cushions provide only localized speed reductions and do not achieve an overall speed reduction effect. Site details should be the dominant consideration in determining the actual location for each set of speed cushions rather than an exact separation distance. In addition to engineering judgment, the following guidelines will be considered when determining speed cushion location and spacing:

- A. Speed cushions must not be located in front of driveways.
- B. Speed cushions must not be located over manholes, water valves, or be located within 15 feet of a fire hydrant.
- C. Speed cushions must not be located within 300 feet of a controlled approach, or within 75 feet of a cross street.
- D. Speed cushions must not be located within 200 feet of a small radius curve.
- E. Speed cushions will, if possible, be located downstream of an existing drainage inlet.
- F. Speed cushions must not be located in front of drainage inlets or within 10 feet of any inlet opening and/or gutter transitions.
- G. Speed cushion installation must be coordinated with the existing or planned street lighting.
- H. A speed cushion and corresponding signs will not be located in front of a property if the occupant objects to its placement. It is the responsibility of the applicant(s) to obtain approval from the property owner(s) to place speed cushions and signs adjacent to or in front of all residences.

5. Spacing

Based on engineering studies and site characteristics, speed cushions typically will be placed from 300 to 600 feet apart. A longer spacing between cushions leads to higher speeds between the cushions and also a greater speed differential. Speed differential is defined as the average vehicle speed between cushions minus the average vehicle speed at the cushions. A large speed differential will usually be undesirable as it may lead to increased exhaust emissions, increased noise nuisance, and increased passenger discomfort, particularly if it is associated with rapid acceleration and deceleration. The following guidelines will be considered when determining speed cushion spacing:

- A. On single short blocks (300 feet to 500 feet) a single set of cushions positioned near mid-point is usually sufficient.
- B. On single blocks of moderate length (500 feet to 1,000 feet) two sets of cushions are usually adequate.
- C. On very long blocks (1,000 feet to 1,600 feet) three or more sets of cushions may be necessary.

6. Speed Cushion Layout

Rubber Speed Cushions

The design of rubber speed cushion schemes is also influenced by the roadway width. Figure 1 illustrates two types of rubber speed cushion layouts:

Type 1: A set of three rubber cushions are more suitable on 28-foot wide roads.

Type 2: A set of four rubber cushions are suitable for installation on 38-foot wide roads.

Gaps between cushions and the curb vary from 2 feet to 4 feet. Gaps between cushions vary from 2 feet to 4 feet. Gaps greater than 4 feet encourage drivers to drive between cushions rather than over the cushions.

Asphalt Speed Cushions

Figure 2 illustrates the typical asphalt speed cushion layout for any roadway width up to and including 38 feet.

Gaps between cushions and the back of curb are typically 2 feet. Gaps between cushions vary from 2 feet to 4 feet.

7. Speed Cushion Removal

If a petition containing the signatures of 70 percent of all residents and/or property owners living on the street and within the petition area is submitted requesting removal of speed cushions, they will be removed. The cost for the removal of cushions will be determined by the City, and it will be the petitioner's responsibility to pay the entire

removal cost prior to the removal of the speed cushions. The ownership of the speed cushion materials and signs will revert back to the City.

IV. Procedures for Speed Cushion Installations

1. Project Request

The initial request for installation of speed cushions must originate from the property owners residing on the street. A request in writing, including at least five signatures (one per residence) of residents along the proposed street must be forwarded to: City of Arlington, Department of Public Works and Transportation, Mail Stop 01-0220, Post Office Box 231, Arlington, TX 76004-0231.

2. Review

Upon receipt of the request, the Department of Public Works and Transportation will conduct an investigation of the street's eligibility in regards to the operational, geometric, layout guidelines, and emergency response considerations within 90 calendar days.

- A. If the street is determined not to be eligible, the applicant will be notified in writing of the reasons.
- B. The decision may be appealed in writing to the Director of Public Works within 10 working days of the notification date. The director will review the determination and respond to the applicant within 20 working days of the appeal request.
- C. If it is determined that the street is eligible for consideration of speed cushion installations, a meeting will be arranged between the applicants and staff to explain the necessary actions required to install the speed cushions. The applicant will then be instructed to submit a petition containing the signatures of 70 percent of all residents and/or property owners residing on the street and within the petition area in support of the installation of the speed cushions within 30 calendar days. Only petition forms supplied by the Department of Public Works and Transportation (or unaltered photocopies) may be used for this purpose.
- D. Upon receipt of a petition, the Department of Public Works and Transportation will verify the legitimacy of all signatures. Once the signatures have been verified, the proposed street will then be placed on a list of streets eligible for speed cushion installation.
- E. Once placed on the "Eligible Street List," all property owners on this street will be notified of the proposed action by the Department of Public Works and Transportation. If property owners living within the speed cushion placement area

object to the speed cushion placement within 30 calendar days, and no other functional locations can be found, the street will then be removed from the list of streets for installation. The applicant, the owners of all property within the study area, and the area neighborhood associations will be notified in writing of the department action.

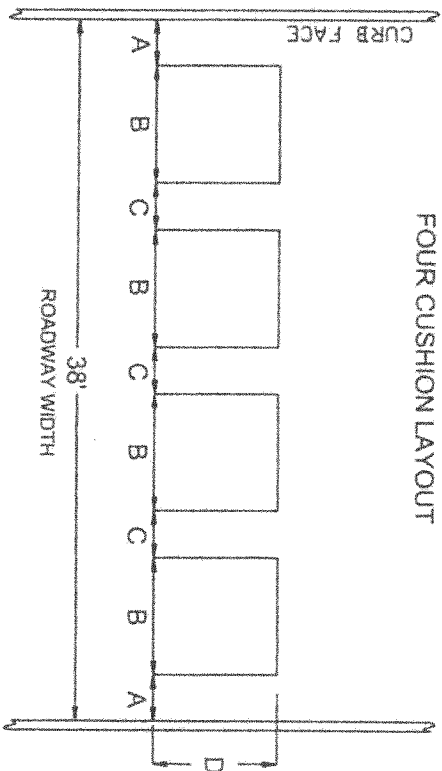
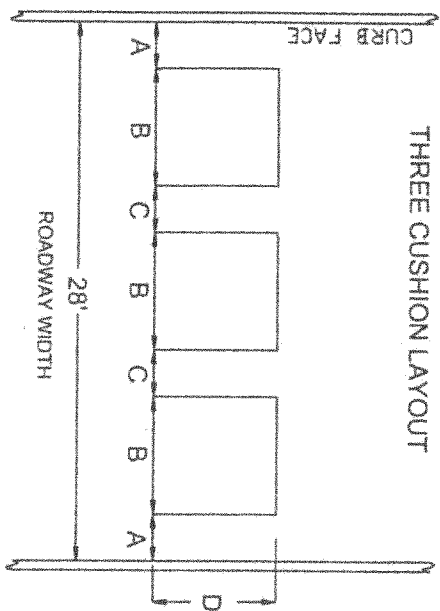
3. Funding

Once a street is placed on the list of streets approved for speed cushion installation, the Department of Public Works and Transportation will develop a cost estimate for the total installation cost and the cost sharing responsibility of the residents according to the cost-sharing table. The City will then submit a statement to the representative of the residents for the cost of the speed cushion installation. The full amount will be made in one payment.

- A. For projects where there is no City participation in the cost of the speed cushion installation, it will be the responsibility of the requester(s) to ensure the speed cushion installation cost is paid to the City within six months of the statement date. Upon receipt of full payment, the cushions will be installed as scheduling permits, and the Department of Public Works and Transportation will notify the Fire, Police, Emergency Services, the appropriate school district, and the Post Office of the speed cushion installation schedule. If full payment has not been received within six months from the statement date, the street will be removed from the list of streets approved for speed cushion installation.
- B. An eligible street that does not receive speed cushion installation funding approval in the first year will automatically be considered in the following years.
- C. Based on available funding for each fiscal year the Department of Public Works and Transportation will determine which installation(s) will be funded from the budgeted amount. Representatives of the applicants for all speed cushion installation requests will be notified as to which requests will be funded in the coming fiscal year.
- D. If an installation is not approved for funding in a particular year's budget, the cushions may be installed in that year as scheduling permits if their full installation cost is voluntarily paid by the residents of the street.
- E. The City will submit a statement to the representatives of the residents for any cost based on the provision of the Speed Cushion Policy. It will list the total costs, the portion to be paid by the residents and the portion to be paid by the City. Upon funding approval and receipt of payment of the residents' share, the speed cushions will be installed as scheduling permits. If payment of the residents' share has not been received within six months from the statement date, the speed cushion installation will not occur.

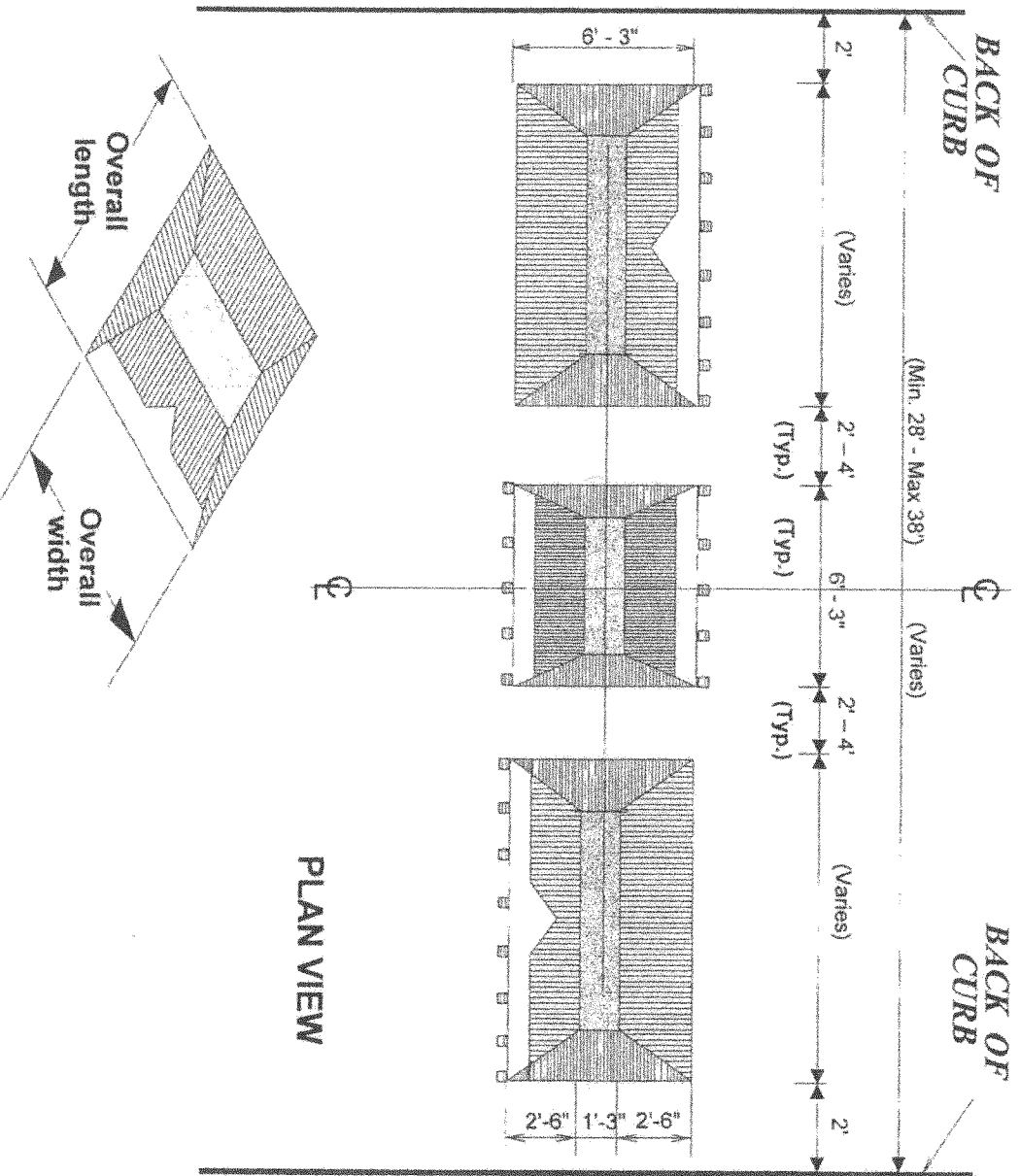
- F. If any City funds become available due to the non-payment of invoiced provisions, these funds can be applied to the next highest ranked, non-funded installation on the ranking list. Should these funds be insufficient to cover the City's portion of the installation and the applicants do not want to voluntarily pay the difference, these funds will be made available to the next highest ranked, non-funded installation on the ranking list.

FIGURE 1



LAYOUT DIMENSIONS			CUSHION DIMENSIONS	
ROADWAY WIDTH	CUSHION/ CURB GAP	CENTRAL GAP	WIDTH	LENGTH
	'A'	'C'	'B'	'D'
28' & 38'	2' - 3'	2' - 3'	6.25'	6.5'

FIGURE 2



Resolution No. 06-182

A resolution amending the Neighborhood Traffic Management Policy for Speed Cushion Installation

WHEREAS, the City Council adopted the Neighborhood Traffic Management Policy for Speed Cushion Installation (Policy) on February 13, 2001, by Resolution No. 01-120; and

WHEREAS, the Policy is limited to the installation of rubber cushions; and

WHEREAS, an evaluation of asphalt cushions has shown that asphalt cushions are a more economical alternative; NOW THEREFORE

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ARLINGTON TEXAS:

I.

That the Neighborhood Traffic Management Policy for Speed Cushion Installation is hereby amended to include asphalt speed cushions.

II.

A substantial copy of the Policy is attached hereto and incorporated herein for all intents and purposes.

PRESENTED AND PASSED on this the 25 day of April, 2006, by a vote of 8 ayes and 0 nays at a regular meeting of the City Council of the City of Arlington, Texas.


ROBERT N. CLUCK, Mayor

ATTEST:


BARBARA G. HEPTIG, City Secretary

APPROVED AS TO FORM:
JAY DOEGEY, City Attorney

BY 