A POLICY ON THE EVALUATION AND INSTALLATION OF SPEED HUMPS IN THE CITY OF YONKERS

Revision 1
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Background

The desire of the community to control the speed of traffic in neighborhoods has created a need to address and resolve this concern through methods beyond constant police enforcement. The modern solution, known throughout the traffic engineering industry as *traffic calming*, consists of several methods that mostly require a physical alteration to the street in order to produce the desired mitigation. One traffic calming method being used in urban areas throughout the country, including our own, is the installation of *speed humps*, which are undulations in the pavement surface that are discomforting to drive over at higher-than-desired speeds. Speed humps are commonly used in series and have proven to be effective in reducing speeds when installed in the appropriate locations. Therefore, the use of speed humps in the City of Yonkers needs to be thoroughly evaluated with respect to traffic engineering policies, standards, and guidelines to ensure that each installation is made for the correct reasons and will not present traffic safety or operational problems.

This Policy prescribes the procedures, criteria, and warrants associated with speed humps and their installation on streets within the City of Yonkers. It is important to understand that while speed humps can successfully ameliorate one quality of life issue—speed of traffic—they come with several latent disadvantages, which will be identified in a later section. Therefore, speed humps will not be considered by the Traffic Engineering Division without considerable support from the residents of the neighborhood where the speed humps are proposed.

Speed humps and *speed bumps* are not the same. Speed humps are typically 20 feet wide and 4 inches high with a gentle parabolic shape designed to permit vehicles to traverse them at reasonable speeds without significant discomfort to the passengers. Speed bumps are typically 1-2 feet wide and 2-4 inches high. They require the driver to decelerate to less than 5 miles per hour in order to be traversed without significant discomfort. Speed bumps are not used on public streets.

Advantages and Disadvantages of Speed Humps

1. What are the *advantages* of installing speed humps?

    a. Speed humps may effectively reduce travel speeds on residential streets when used in series or when coupled with other traffic calming and traffic control devices. Some studies have demonstrated that the 85th percentile travel speed decreased by as much as 7 miles per hour after the speed humps were installed.

    b. Speed humps may reduce cut-through traffic in residential neighborhoods since it becomes less advantageous from a time-

savings perspective for motorists to take a route with traffic calming devices such as speed humps.

2. What are the *disadvantages* of installing speed humps?

    a. There is a potential for more vehicle noise due to deceleration before and acceleration after traversing the speed hump, as well as noise created by the vehicle's suspension (e.g., bottoming out).

    b. Speed humps, together with the warning signs and pavement markings that accompany their installation, are not altogether aesthetically pleasing. Residents, when asked, have sensed a perception of reduced property value.

    c. Traversing speed humps may cause discomfort to those with medical conditions, such as back or neck problems.

    d. Speed humps will slow emergency response units, such as fire trucks and ambulances.

    e. Some drivers may actually accelerate significantly after traversing a speed hump in order to recover lost time and, in doing so, travel at a greater speed than before the speed hump was installed.

    f. Since speed humps are tapered at either end to maintain adequate drainage along the gutters, motorists may drive toward the curb as they approach a speed hump in an attempt to lessen the resulting impact on their vehicle's suspension. This may negatively impact pedestrians and vehicles parked on the street.

    g. As presented in 1.b., neighboring streets must be considered since the installation of speed hump may result in diversions to other neighborhoods and residential streets.

Procedures

1. Petition

    All requests for speed humps shall be made in the form of a formal petition that will be provided by the Traffic Engineering Division and is made part of this Policy (see Exhibit A *City of Yonkers Speed Hump Petition*).

    Before the Traffic Engineering Division will consider a speed hump request, the petitioner must complete and sign Exhibit A thereby acknowledging an understanding of the contents of this Policy and the advantages and

disadvantages of speed humps. He or she must then solicit the signatures of the residents of each property having frontage on the street where the speed hump is proposed, including corner properties that have a different street address but have frontage on the street where the speed hump is proposed. It is the petitioner's responsibility to obtain the valid signatures.

The solicitation of signatures must indicate the support of at least seventy-five percent (75%) of the residents residing on the street where the speed hump is proposed. Those residents who are opposed to the installation of the speed hump(s) should also be identified on Exhibit A. Completed petitions shall be delivered via mail, fax or in person to:

Traffic Engineering Division
Attn: Traffic Engineer
City Hall, Fifth Floor
40 S. Broadway
Yonkers, NY 10701
Fax (914) 377-6922

If the petition does not satisfy the requirements of this Policy, the Traffic Engineering Division will notify the primary petitioner (i.e., the person who initiated the request) in writing with an explanation of why the petition was found to be invalid. If the petition is acceptable, the Traffic Engineering Division will examine the street under consideration with respect to a series of geometric requirements.

Petitions generally will be handled in the order in which they are received by the Traffic Engineering Division. However, this does not always mean that petitions will not be reviewed concurrently, but patience from the community is appreciated to afford Traffic Engineering staff the time needed to properly examine each request. This becomes increasingly important if the street under consideration meets the geometric requirements and therefore justifies a traffic engineering study. The latter is time consuming because it requires a significant amount of field work and data analysis.

2. Geometric Requirements

The installation of speed humps on public streets within the City of Yonkers will be considered only if all of the following conditions are satisfied over the entire proposed street segment, as determined by the Traffic Engineer. (Speed humps installed prior to this Policy are exempt from these criteria, but may be revisited by the Traffic Engineering Division upon written request.)

a. The street under consideration shall be designated as a local residential street.

b. The street surface (i.e., pavement) shall be in good condition and the street shall provide adequate drainage.

c. The street shall not have more than one (1) lane of traffic in each direction.

d. The street shall not be a “Dead End” or a “No Outlet.”

e. The speed limit of the street shall not be greater than 30 miles per hour.

f. The street shall not have a grade greater than 6% approaching the proposed speed hump location in order to ensure effective drainage and safe vehicle operations.

g. The street shall not have a horizontal curve(s) that would obstruct proper visibility to the speed hump. A minimum stopping sight distance of 250 feet shall be provided.

h. Speed humps shall not be considered in close proximity to a traffic signal or an unsignalized intersection as determined by engineering judgment, in an intersection, or in front of a driveway or fire hydrant.

i. When used in series, speed humps shall be spaced approximately 300 feet apart unless a different spacing is permitted by the Traffic Engineering Division.

j. Speed humps shall not be installed on designated truck or transit routes or on routes commonly used by emergency vehicles as access corridors.

Priority and/or special consideration will be given to requests for speed humps on streets adjacent to schools and parks. However, streets adjacent to schools may experience a significant volume of school bus traffic, which needs to be evaluated by Traffic Engineering staff for safety and operational reasons.

During this stage, Traffic Engineering staff will also research the motor vehicle accident history on the street under consideration. This information will also be factored in the speed hump evaluation process.

If the Traffic Engineering Division concludes that the street on which a speed hump is proposed conforms to the geometric requirements above, a traffic engineering study will be initiated. If the street does not satisfy these minimum geometric requirements, the primary petitioner will be notified in writing.

3. Traffic Volume and Speed Warrants

   If the geometric criteria are satisfied, the Traffic Engineering Division will conduct a traffic engineering study consisting of a volume and speed analysis of the street where the speed hump is proposed. This study shall yield the following results:

   a. The average daily traffic (ADT) volume is between 500 vehicles per day and 3,500 vehicles per day on the street under consideration. If the street is part of a comprehensive traffic management plan, a higher ADT volume may be considered.

   b. The 85th percentile speed on the street under consideration is at least 6 miles per hour over the posted or statutory speed limit.

   c. The 50th percentile speed on the street under consideration exceeds the posted or statutory speed limit.

4. Recommendation for Approval or Denial and Installation Guidelines

   The Traffic Engineering Division will notify the primary petitioner in writing of the results of the traffic engineering study, indicating whether the installation of a speed hump(s) is approved or denied. If approved, the Traffic Engineering Division will be responsible for determining the exact location of each speed hump and requesting its installation as part of the city's street paving contract, which is administered annually by the City of Yonkers Department of Engineering.

   The Traffic Engineer may consider other factors not identified in this Policy as justification for the approval or denial of a speed hump request.

   All requests for speed hump installations are subject to the approval of the City of Yonkers Fire Department.

   The date of the recommendation for approval and the status of the current street paving contract on that date will determine when the speed hump will be scheduled for installation. For example, if the approval is issued during the winter when street paving is suspended, the installation of the speed hump would be requested as part of the next contract. Additionally, the Traffic Engineering Division will exercise discretion if the number of valid installations would have a negative financial impact on the street paving contract. The Traffic Engineering Division reserves the right to suspend the installation of speed humps if funding is not available.

5. Maintenance of Speed Hump and Associated Traffic Control Devices

   The City of Yonkers will be responsible for maintaining the speed humps throughout the duration of their usable life. This includes the traffic control warning signs and pavement markings that are associated with the speed hump installation. Requests for maintenance should be directed to the Traffic Engineering Division at 914-377-6739.

6. Removal of Speed Humps

   The removal of an existing speed hump follows a similar process as the request to install one. The properties that were surveyed for the requisition of a speed hump shall be the properties surveyed for the removal of a speed hump, regardless of continuity of residency. At least seventy-five (75%) percent of residents must demonstrate the desire to remove the speed hump under scrutiny. Upon receipt of this documentation, the Traffic Engineering Division will refer the request to remove the speed hump to the Department of Engineering or the Department of Public Works.

   The Traffic Engineer reserves the right to order the removal of any speed hump(s) at any time if it is determined through a traffic engineering analysis that said speed hump significantly interferes with traffic operations and/or creates a hazardous condition.

EXHIBIT A
CITY OF YONKERS SPEED HUMP PETITION

A signature on Exhibit A, Table A represents a resident who supports the installation of one or more speed humps on the street on which he or she resides or, in the case of a corner property, fronts on. A signature on Exhibit A, Table B represents a resident who, being connected in the same way to the speed hump, is opposed to its installation or supports its removal. A signature on Exhibit A also represents an understanding of *A Policy on the Evaluation and Installation of Speed Humps in the City of Yonkers*, dated March 3, 2017.

Circle one: INSTALLATION | REMOVAL Date _____

1. **Street information**

   Name of street _____

   From _____ to _____

   Describe reason(s) for requesting the installation or removal of speed hump(s)
   _____
   _____
   _____
   _____
   _____

   Councilperson_____

2. **Primary petitioner information** *(This person will be the City's contact for all correspondence relating to this petition.)*

   Print name _____

   Address _____

   Phone Nos. _____

   E-mail _____

   Signature _____

3. Other petitioners' information

Table A
Residents in Support of Speed Hump Installation

Name	Address	Phone No.	Signature

Table B
Residents Opposed to Speed Hump Installation or in Support of Speed Hump Removal

Name	Address	Phone No.	Signature

(Additional names can be included by attaching a separate sheet of paper.)

Mail, fax, or hand deliver completed petition to:

Traffic Engineering Division
Attn: Traffic Engineer
City Hall, Fifth Floor
40 S. Broadway
Yonkers, NY 10701
Fax (914) 377-6922