VILLAGE OF TARRYTOWN
SPEED HUMP POLICY

Contact: Village Administrator's Office
914-631-1785
Administrator@tarrytownny.gov

Adopted by BOT November 1, 2021

Tarrytown Residential Speed Hump Program Manual

I. Purpose of the Program

The Tarrytown Residential Speed Hump Program Manual has been established to address certain neighborhood traffic concerns of the residents of Tarrytown. This program was developed based on the experiences of numerous communities as well as documented studies of Speed Humps throughout the United States and documented studies of Speed Humps by the Institute of Transportation Engineers, the New York State Department of Transportation and other organizations and agencies.

The purpose of this program is to reduce the speed and manage the volume of traffic traveling on residential streets. Although it is realized that each situation is unique, the policies and procedures outlined in this document are to be applied uniformly to ensure that the Village's resources are used appropriately. In some cases, other traffic calming or engineering measures may be more or equally effective in improving safety on a particular street. The Village Administrator's office is the primary department responsible for the implementation of this manual.

It should be noted that due to resource constraints and the need to plan for and fund capital projects, the speed hump process from start to finish (from application, to permanent speed hump) may take as long as a year or more to complete.

II. Definitions

Major Roads – Arterial highways and collector roads.
Arterial Highways – Streets that typically emphasize a high level of traffic mobility and accommodate higher levels of traffic and serve longer distance trips (ex: Benedict Avenue, Broadway, Neperan Road, White Plains Road – Rt. 119).
Collector Roads – Roadways that link the local street system with arterial highways. Typically balance traffic mobility and property access. (ex. Prospect Avenue, Highland Avenue, Franklin Street).
Local Roads and Streets – Roadways that provide access to transportation network from developed land uses.
Midblock – Any location between intersections.
85^{th} percentile speed – The speed which 85% of vehicles travel at or below, normally considered a comfortable speed at which to travel based on the design of the road.

Speed Humps

A. Description:

- Rounded raised areas of pavement for permanent applications and stretch across the street from curb to curb.
- Sometimes placed in a series (typically spaced 300 to 600 feet apart)
- Different from speed bumps which are not as long and are usually used only in parking lots.

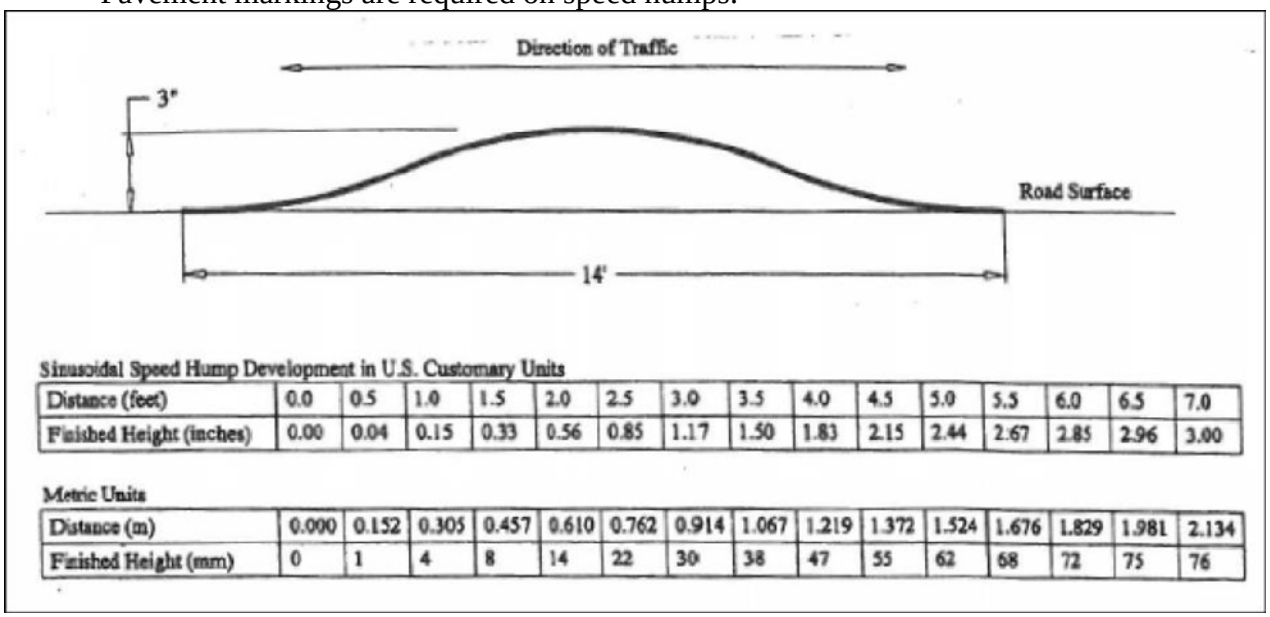
B. Applications:

- Residential streets.

- Not to be used on major roads, bus routes, or primary emergency response routes.
- Midblock placement; not at an intersection.
- Not used on grades steeper than 8 percent.

C. Design/Installation Considerations:

- Speed hump sizing to be based on engineering standards, but generally are 3” in height.
- Edges tapered near curbs to allow gap for drainage.
- Advance warning and advisory speed signage required.
- Pavement markings are required on speed humps.



Sinusoidal Speed Hump Development in U.S. Customary Units

Distance (feet)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Finished Height (inches)	0.00	0.04	0.15	0.33	0.56	0.85	1.17	1.50	1.83	2.15	2.44	2.67	2.85	2.96	3.00

Metric Units

Distance (m)	0.000	0.152	0.305	0.457	0.610	0.762	0.914	1.067	1.219	1.372	1.524	1.676	1.829	1.981	2.134
Finished Height (mm)	0	1	4	8	14	22	30	38	47	55	62	68	72	75	76

Figure A. Representative Permanent Asphalt Sinusoidal Speed Hump (side view)

To aid in providing consensus for the project, the Village will only allow for the installation of permanent asphalt speed humps after temporary, removable, speed humps have been installed on the street for a time period of approximately 3-6 months. Temporary speed humps will not be installed or allowed to remain in place during winter months due to potential plowing damage. **Figure B. Temporary Speed Hump→**

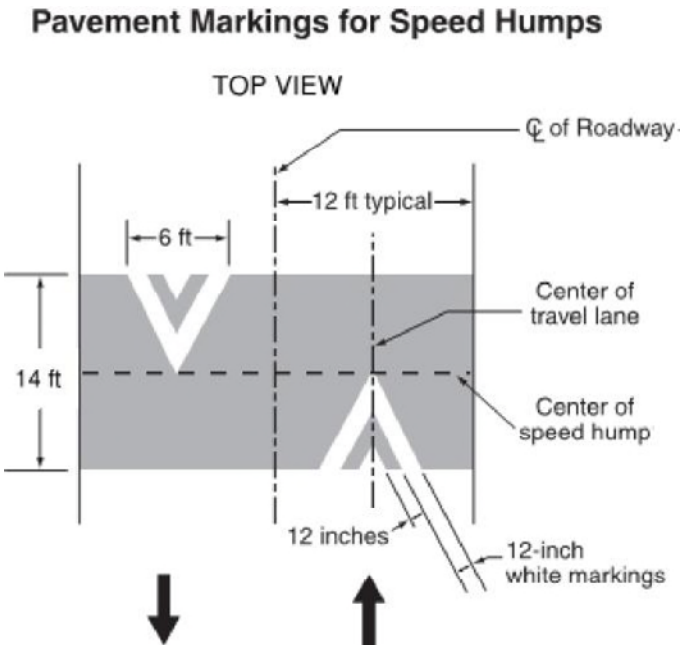


Figure C. Speed Hump Striping (overhead view)

D. Operational Considerations:

- Speeds between humps have been observed to be reduced between 20 and 25 percent on average.
- Speeds typically increase approximately 0.5 mph midway between humps for each 100 feet of separation.
- Studies indicate that traffic volumes have been reduced on average by as much as 18 percent depending on alternative routes available.
- Studies indicate that collisions have been reduced by an average of 13 percent on treated streets (not adjusted for traffic diversion).
- Possible increase in traffic noise from braking and acceleration of vehicles, particularly buses and trucks.
- Emergency Response Issues:
    - Concern over jarring of emergency rescue vehicles.
    - Approximate delay of between 3 and 5 seconds per speed hump for fire trucks and up to 10 seconds for ambulance with patient.

E. Initial Speed Hump Eligibility Criteria

In order for a roadway to be eligible and considered for speed humps it must meet the following criteria:

- Must be a residential street, not a major road;
- Must not be a dead end block;
- Must not be designated as an Emergency Response Route or bus route;
- The land use fronting street is zoned for residential use;

- Not used on grades steeper than 8 percent;
- Not used on winding roads or on curves as per engineering standards;
- Mid-block use only (not at intersections);
- Westchester County and New York State Department of Transportation owned roads are not acceptable for humps; those jurisdictions will need to be approached directly;
- Should not be scheduled to be repaved within 2-3 years; or scheduled for capital upgrades (gas, electric, sewer, water).

Because speed hump funding is limited, it may not be possible for all eligible projects to be funded. As such, there are certain deadlines that must be met to fit into the fiscal cycle.

III. Application Process

The following is the list of application process steps which describes the application process in greater detail (note that section IV of this manual lays out deadlines and general timing of a request):

- Resident (s), Neighborhood Association or interested party contacts the Administrator's office to request a speed hump. **Use form in Appendix A.**

- Upon receipt of request, the project will be assigned a project name.

- Administrator's office will consult with DPW, Police and Fire Departments to determine if the roadway is eligible for speed humps based on the initial eligibility criteria cited above, and if these or other traffic calming alternatives should be considered, the study area limits will be determined based on the request (the entire length of the street AND any other areas as determined by Village Officials.) Administrator's office will notify the requestor within 30 days of eligibility.

- If the roadway meets the initial eligibility check, the requestor will be required to canvas the defined study area and petition using **form in Appendix B.** The petition must be signed by 67% of the households within the study area. The purpose of the petition is to make the area residents aware of the project and initiate citizen participation through the design process.

- Upon receipt of the signed petition, a request for a traffic study of the project area will be submitted to the Board of Trustees and conducted depending on budgeted resources, using the rating and engineering study requirements listed in Appendix C. At the conclusion of the study, a rating score will be determined and used to place the project on a priority list. A project must have a minimum score of 65 out of 100 points to move forward.

- Upon approval by the Board of Trustees, temporary speed humps will be installed by Tarrytown in priority order based on the priority list and based on availability of resources (funding.) They will remain in place for a trial period of approximately three months. Winter months will be excluded due to weather concerns.

- After the trial period has been completed, the Village will solicit feedback from the study area requesting the original requesters complete a final petition requesting permanent speed hump construction if it is the neighborhood's desire that a permanent fixed speed hump (or humps) be installed using the form in Appendix D.

- Upon receipt of the Final Petition confirming support by at least 75% of residents the study area and approval by the Board, the Village will commence construction of the permanent speed humps (if resources are budgeted). Installation will require hiring a contractor for using standard procurement procedures which may take several months. Construction is also weather and season dependent.

- The effectiveness of the installed permanent speed humps will be evaluated periodically for a minimum of one year. After a period of one year, if residents want to remove one or more permanent asphalt speed humps, they must submit a petition from at least 75% of the neighborhood.

IV. Speed Hump Consideration Schedule

We recommend that all speed hump requests be submitted between May 1 and November 1. Any requests received outside of this period could be delayed until the following fiscal year. Projects will be reviewed on a rolling basis, with the initial project reviews completed no later than December 15. If the project is determined to be eligible, the requester will need to complete an initial petition requesting speed hump study (as outlined in Appendix B.) Such petition will need to be submitted no later than January 31 to be considered for funding in the upcoming fiscal capital budget.

Once a project is deemed eligible, the petition requirements are met, and funding has been budgeted for the specific project(s), a formal engineering study must be completed. Such study will commence for all active projects at once (to meet economies of scale). The timing of the study will depend on the number of project requests received. Projects will be ranked and considered according to the criteria as set forth in Appendix C. The number of areas and/or temporary speed humps to be installed will depend on budgeted resources.

Temporary speed humps will be installed for a period of approximately 3 to 6 months; such humps will not be installed or remain during the period of November 15 – March 31.

After the trial period has completed, the Village will solicit feedback from the requestors. The original requesters will have to complete a final petition requesting permanent speed hump construction if it is the neighborhood's desire that a permanent fixed speed hump (or humps) be installed. This petition shall be submitted no later than January 31st to be considered for funding in the next fiscal budget, to receive final authorization from the Board of Trustees. The permanent hump will be installed if a petition is received and after funds are budgeted by the Board of Trustees and project(s) have gone through the procurement process.

This is a purposely deliberative process that respects the neighborhood residents as such requests draw upon on both time and dollar resources, and as such, it should be noted that a speed hump may take several years to be fully implemented from start to finish.

Appendices

A. REQUEST FOR SPEED HUMP INVESTIGATION

B. INITIAL PETITION REQUESTING SPEED HUMP STUDY

C. NEIGHBORHOOD PROJECT RANKING SYSTEM AND ENGINEERING STUDY REQUIREMENTS

D. FINAL PETITION REQUESTING PERMANENT SPEED HUMP CONSTRUCTION

Appendix A

REQUEST FOR SPEED HUMP INVESTIGATION

Please fill out this form in its entirety. The responses you provide will allow the Village to allocate the proper resources to review your request and evaluate the area appropriately. Please attach additional sheets or sketches to clarify your point as necessary. The impact of traffic on nearby streets will be considered by the Village.

Please identify the streets, as well as street numbers to be included for speed hump(s). Also include the limits of the area along those streets.

_____

_____

_____

Please describe the traffic issues that need to be addressed (speeding, traffic volume, etc.) the time of day the issues are most prevalent and who is affected (pedestrians, other drivers, homeowners.)

_____

_____

_____

_____

_____

_____

Contact Name:_____Address:_____

Daytime Phone:_____E-Mail_____

Return this form to:
Village of Tarrytown
Village Administrator
1 Depot Plaza
Tarrytown, NY 10591

Or E-Mail to: administrator@tarrytowngov.com

Appendix B - Template

INITIAL PETITION REQUESTING SPEED HUMP STUDY

Description of Street(s) _____

Primary Contact Name:_____ Daytime Phone**:**_____

"As evidenced by my signature, I support the investigation of potential speed hump(s) for the above referenced street/area _____(project id). I understand that 67+1 percent of the households of this area must support this request for the area to be evaluated." **Only 1 resident per household or apartment unit may sign.**

Street Address	**Name Printed/ Signature**	**Phone**	**Email**

Please print additional pages if necessary

Appendix C Scoring / Engineering Study Requirements

TABLE 1 NEIGHBORHOOD PROJECT RANKING SYSTEM		
Criteria	Points	Basis for Point Assignment
Speed	0 to 20	Extent by which 85% speeds exceed posted speed limit; 2 points assigned for every 1 mph.
Volume	0 to 25	Average daily traffic volumes (1 point assigned for every 120 vehicles above the 500 vehicle threshold.)
Accidents	0 to 10	1 point for every accident reported within past 5 years
Schools/Child Care	0 to 10	5 points assigned for each school/childcare crossing on the project street, 2 points assigned for school crossings within 2/10ths of mile
Pedestrian Generators	0 to 15	5 points assigned for each public facility (such as parks, community centers, and schools) or commercial use that generates a significant number of pedestrians.
Pedestrian Facility	0 to10	5 points assigned if there is no continuous sidewalk on one side of the street; 10 points if lacking on both sides.
Housing Density	0 to10	Low Density (2 points) Medium Density (5 points) High Density (10 points)
Total points Possible	100	

The sum of points assigned for each criterion will determine the priority of the Speed Hump Project.

The following shall also be considered as a part of the engineering study on a “Pass/Fail” basis. Should any of the below fail, a speed hump shall not be installed.

- Installation of speed humps would not divert significant amounts of traffic to other residential streets;
- Installation of speed humps does not provide an unreasonable liability or public hazard due to existing roadway conditions that cannot be changed;
- Roadway conditions (curvature, roadway width and roadway surface) must meet acceptable engineering standards.

Appendix D - Template

FINAL PETITION REQUESTING PERMANENT SPEED HUMP CONSTRUCTION

Description of Streets: _____

Primary Contact Name: _____ Daytime Phone: _____

"*As evidenced by my signature, I support the construction of permanent speed hump(s) for the above referenced study area _____ (project id). I understand that 75 percent of the households of this area must support this request for the permanent installation to proceed."* **Only 1 resident per household or apartment unit may sign.**

Street Address	**Name Printed/ Signature**	**Phone**	**Email**

Please print additional pages if necessary