



Traffic Calming Policy

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Article I. Introduction

The Liberty Township Traffic Calming Policy (the "Policy") represents the continual effort and commitment of Liberty Township to improve the safety and quality of life for its citizens in our residential neighborhoods. The Policy's mission is to provide a criteria and processes for evaluating the need within a residential area for the installation of traffic calming devices, within a prescribed time frame as outlined herein. Further, the Policy provides a process for identifying and addressing problems related to speeding and traffic volumes on residential streets. An outline of the process to be followed under the Policy is shown on the flow chart attached as Exhibit F.

Liberty Township Trustees receive frequent complaints regarding speeding vehicles on residential streets. Property Owners in such areas are concerned about the potential for personal injury, property damage and a reduction in their property valuation as a result of speeding traffic. Enforcement of the speed limit by the Delaware County Sheriff's Department is the most effective means for reducing speeds; however, limited resources do not allow such enforcement on a regular and permanent basis. To overcome this problem our community is focusing on alternative neighborhood traffic calming measures; specifically the installation of speed tables.

This Policy focuses on speed table installation on residential neighborhood streets experiencing frequent speeding problems. Statistics from communities which have installed speed tables in residential areas show that this traffic calming device is successful in reducing speeds on local streets without affecting the safe operation of motor vehicles traversing the device. The guidelines as provided in this Policy provide a basis for establishing the eligibility and installation criteria for speed tables.

Through this Policy, Property Owners can become actively involved in the decision-making process on projects involving their neighborhoods.

Article II. Speed Table Installation Guidelines

Section 2.01 General

The purpose of this policy is to provide guidelines for the application of speed tables. A Speed table is a gradual rise and fall of pavement surface across the width of the roadway. It is typically 22 feet long in the direction of travel with 6 foot ramps on each end and a 10 foot flat section in the middle; the most common height is between 3 to 4 inches. A speed table differs from a speed "bump", which is more abrupt, having a height of three to four inches over a length of one to three feet.

Research has shown that speed tables are effective in safely reducing speeds along a roadway. In order for speed tables to be effective, their provision should be in compliance with established engineering criteria as provided by the Delaware County Engineer's Office. As is the case with all traffic calming devices, proper installation will encourage compliance and safe driving practices. This policy provides criteria and procedures for installation of safe and effective speed tables.

The Liberty Township Trustees reserve the right to change any or all of the criteria and procedures in this Policy as deemed necessary.

Section 2.02 Street Eligibility Requirements

All of the following criteria shall be satisfied for a street or a segment thereof to be considered eligible for review and study for possible speed table installation.

- | The project street shall provide access to residential properties by way of abutting driveways or on-street parking; and/or, abutting local or collector streets. Residential properties may include multiple dwellings such as apartment complexes.
 - (a) The project street shall not have more than one traffic lane in each direction.
 - (b) The project street shall have a regulatory speed limit of 25 mph or less as determined in accordance with the State Law.
 - (c) The project street must be under the authority of and be maintained by Liberty Township.
 - (d) An adjacent loop street (one that connects directly into the project street) may be considered as eligible for review and possibly for speed table installation when said loop street could be adversely affected by traffic detouring around the project street. The affect of traffic on the loop street shall not override the eligibility of the project street.

Section 2.03 Request for Review

- (a) Request - If the Property Owners on a segment of a residential street want consideration for the installation of speed tables, they shall submit a written traffic calming request (the "Request") to the Township Administrator for review to determine eligibility. The Request must be accompanied by the signatures of a minimum of 40% of those property owners whose property is adjacent to the project street.
- (b) Verification - A verification statement is included as part of the Request and must be signed by the applicant (the "Applicant") confirming the signatures on the Request are valid and represent 40% of those property owners whose property is adjacent to the eligible street. (Request Form attached as *Exhibit A*)

Section 2.04 Preliminary Township Review

If a street segment is determined eligible for review, the Township will initiate a study in sufficient depth to determine if the street segment meets the minimum criteria for vehicular speed, and volume and shall determine a preliminary estimate of cost sharing, if any, between the Township and the property owners on the eligible street segment. This review by the Township will be completed within three months of receiving the Request (barring mitigating circumstances) and shall confirm that:

- (a) The minimum speed criterion is that the 85th percentile of speed shall be at least 5 miles per hour over the posted speed.
- (b) The average volume shall be at least 200 vehicles per day.

Section 2.05 Project Approval / Disapproval

If, after the initial study, it is determined the street segment qualifies for speed table installation, the Township Trustees may unanimously vote that traffic calming is of critical importance to the health safety and welfare of the applicable residential area and, pursuant to Ohio Revised Code (ORC) 5573.01, the project can move directly to Article III, Section 3.02, "Project Prioritization". Under ORC 5573.01, 100% of the cost will be assumed by the township and no petition process is required.

If a unanimous vote is not achieved under ORC 5573.01, the request shall move forward under Ohio Revised Code 5571.07. Under ORC 5571.07, a majority vote of two or more Trustees is required to move the request to the petition phase as outlined in Article III, Section 3.01 below. The Township Administrator shall provide a Project Petition Packet (the "Packet") to the Applicant. The packet shall include the traffic calming petition (the "Petition") and the projected cost sharing associated with the design and installation of the speed tables. If the street segment does NOT qualify for Speed Table Installation, the Township will notify the Applicant in writing and the request shall be closed. (Petition Form attached as *Exhibit B*)

Article III. SPEED TABLE IMPLEMENTATION PROCESS

Section 3.01 Project Petition Process

When the project is approved and the Packet is received by the Applicant, the Applicant shall proceed to complete and submit the Petition to the Township Administrator. The following items shall be completed prior to submitting the Petition to the Township Administrator:

- (a) The Petition shall be signed by a majority of the property owners (one signature per property) whose property is adjacent to the eligible street segment.
- (b) Each property owner who signs the Petition shall acknowledge its willingness to pay its proportionate share of the Property Owners' share, if any, of the projected design and installation cost for the speed tables as stated in the petition.
- (c) The completed petition must be returned to the Township Administrator within six (6) months of the date the Packet is sent to the Applicant. If the deadline is not met, the trustees may cancel the project unless mitigating circumstances warrant an extension of the deadline.

Section 3.02 Project Prioritization

Speed table projects are prioritized on a Township wide basis. This will ensure proper allocation of the Township resources. The projects will be ranked according to the criteria ("Project Prioritization Criteria") attached as *Exhibit C*.

Property Owners willing to cover 100% of the cost may move forward with their speed table installation upon township approval.

Section 3.03 Cost Responsibility

The cost for speed table installation (including tables, signs, pavement markings, and if necessary, special features) may be shared between the Township and the property owners according to the criteria ("Cost Sharing Criteria") attached as *Exhibit D*. The property owners cost is that percentage of the total cost which is not the Township's responsibility and which shall be outlined in the Packet. Property Owners may be able to expedite table installation by voluntarily paying the full installation cost

Section 3.04 Design, Construction, and Maintenance

Design standards and installation procedures for speed tables and related features such as signs and pavement markings shall be prepared by the Delaware County Engineer. The Construction of speed tables will be administered by the Liberty Township Trustees. Property Owners who completely fund their speed tables may utilize vendors of their choice so long as all Delaware County Engineering criteria are met. The Liberty Township Road Department (the "Road Department") shall maintain the speed tables and all related features. Optional beautification upgrades (e.g. signage, landscaping, use of brick pavers) may be included providing the upgrades are completely paid for by the property owners. If the property owners choose to proceed with the beautification upgrades, the full cost of maintenance, repair and replacement shall also be completely paid for by the property owners.

Section 3.05 Funding

Generally, funds will be allocated once per year. Township funding will proceed in descending order from the top of a priority list. The Cost Sharing Criteria will be used to determine the property owner's share, if any, of the installation cost for the speed table(s). The Property Owners' share shall be divided equally between lots. Circumstance may arise where it is desirable for the project to proceed even though the specific funds have not been made available through the normal budget process, but are available through the general road funds or other funds allotted to special projects.

The Township Administrator shall submit a statement to the applicant of each approved project indicating the estimated total cost associated with the speed table installation. Included in the installation cost estimate, will be the Township's cost share (if any), the property owners' cost share (if any), and the project's ranking on the priority list. For projects eligible for partial Township funding, it will be the responsibility of the township trustees to ensure the property owners' cost share is paid to the Township by assessment via 1) upfront payment by all the requesting Property Owners; or, 2) tax duplicate.

If the project does not receive high enough priority to receive full or partial Township funding, the Property Owners shall have the option to proceed with the installation by agreeing to pay for one hundred percent (100%) of the costs.

If there are additional costs over the projected cost (e.g. signage that conforms to pre-defined neighborhood standards) as outlined by township estimates/standards, the property owners shall pay one hundred percent (100%) of the additional upgrade costs.

Section 3.06 Speed Table Installation

Upon final approval of the petition and the allocation of funds (Property Owners' share vs. Township's share), the speed table(s) will be installed as scheduling permits within the current fiscal year. The

construction of the speed table(s) and the placement of any signs and markings will conform to the current design standards as established by the Delaware County Engineer's Office and/or the standard signs used in the residential subdivision.

Section 3.07 Speed Table Removal and Alteration

The process for speed table alteration or removal requested by the Property Owners of a street segment is the same as the process for installation, except that one hundred percent (100%) of the costs shall be the responsibility of the Property Owners who petition to have the speed tables altered or removed. A petition for the alteration or removal of speed tables shall require the signatures of at least seventy-five percent (75%) of the Property Owners adjacent to the street segment in question. Those signing the petition for alteration or removal of the speed tables will be required to provide one hundred percent (100%) of the funds before any work will begin. Petitions to alter the speed tables may occur no sooner than six months after installation. Petitions to remove the speed tables may occur no sooner than three years after the speed tables are installed, unless so designated by the township trustees, with cause.

In case the Township determines that an unforeseen safety problem exists due to the addition of speed table(s), the tables may be redesigned or removed by the Township. If removed, the Township shall refund the costs originally funded by the Property Owners and the Township shall bear the full cost for removal. Any refund shall be paid on a prorate basis to those who contributed to the initial speed table installation.

EXHIBIT A - TRAFFIC CALMING STUDY REQUEST FORM

Project Street: _____

Contact Person: _____

Home Phone : () _____

Work Phone: (_____) _____

We, the undersigned hereby request a Traffic Calming Study be conducted on _____ between _____ and _____ according to the Liberty Township Traffic Calming Policy.

NOTE: The above named street will be considered for the study only if the signatures below represent a minimum of forty percent (40%) of the properties adjacent to the subject street. In the case where there is more than one owner of a property, only one of those property owners' signatures will be allowed. Optional beautification upgrades as outlined in Section 3.04 of this Policy must be submitted in writing along with this signed request form. Costs associated with these upgrades shall be the responsibility of the requestors.

EXHIBIT B - TRAFFIC CALMING PETITION FORM

Project Street: _____

Contact Person: _____

Home Phone : (_____) _____

Work Phone: (_____) _____

We, the undersigned hereby petition for speed tables to be constructed on _____
_____ between _____ and _____
_____ according to the Liberty Township Traffic Calming Policy.

The Project, including upgrades, is estimated to cost \$_____. The
Property Owners adjacent to the subject street will pay _____ % of the standard installation costs
and 100% of any upgrade costs, for a total assessment of \$_____ per property. The
assessment may be paid as a single lump-sum amount prior to the start of the project, or, at the
Property Owner's option, may be incorporated as a special assessment into its real estate taxes and
paid over a period of ten (10) year period.

NOTE: *In order for this Petition to be valid a minimum of fifty one percent (51%) of the properties
adjacent to the subject street must be represented below. In the case where there is more than one
owner of a property, only one of those property owners' signatures will be allowed.*

Name (PRINT)	Signature	Address	Work Phone	Home Phone

EXHIBIT C - PROJECT PRIORITIZATION CRITERIA

Speed table projects will be ranked according to the criteria established in this section. Projects will be assigned points on the basis of speed and volume studies and on the presence of schools, and/or other special pedestrian generators in the area ("Neighborhood Criteria")

Speed and volume points shall be combined with eighty percent (80%) of the weight assigned to Speed Points and twenty percent (20%) of the weight being assigned to Volume Points and then combined as seen in the Table of Weighted Average Points Earned as outlined below in this Exhibit C. In addition to the points generated on the Table of Weighted Average Points Earned the value of those points earned as a result of the Neighborhood Criteria (see below) shall also be added to determine the overall Project Prioritization and Cost Sharing Summary.

Speed Criteria

The speed criteria considers the difference between the 85th percentile speed during the study period and the posted speed limit (85th percentile speed is the speed at or below which 85% of the traffic is traveling and is commonly used to describe a roadway status).

<u>Speed Difference Between the 85th Percentile Speed and the Poster Speed Limit of 25 mph</u>	<u>Points Assigned</u>
10 mph (35 mph)	30
9 mph (34 mph)	25
8 mph (33 mph)	20
7 mph (32 mph)	15
6 mph (31 mph)	10
5 mph (30 mph)	5

NOTE: Speeds less than 30 mph do not meet the minimum needed for approval. Speeds over 35 mph shall be extrapolated using the same pattern.

Traffic Volume Criteria

Traffic volume (two-way) in a 24 hour period is ranked as follows:

<u>Average Vehicles Per Day</u>	<u>Points Assigned</u>
2,000	20
1,600	16
1,200	12
800	8
400	4
200	2

NOTE: Average daily volume less than 200 does not meet the minimum needed for approval. The points for specific volume levels shall be interpolated and volumes over 2,000 shall be extrapolated

Table of Weighted Average Points Earned

Speed in MPH	MPH Above Posted Speed	Points Earned	Average Daily Volume					
			200	400	800	1,200	1,600	2,000
35 mph	10	30	24.4	24.8	25.6	26.4	27.2	28.0
34 mph	9	25	20.4	20.8	21.6	22.4	23.2	24.0
33 mph	8	20	16.4	16.8	17.6	18.4	19.2	20.0
32 mph	7	15	12.4	12.8	13.6	14.4	15.2	16.0
31 mph	6	10	8.4	8.8	9.6	10.4	11.2	12.0
30 mph	5	5	4.4	4.8	5.6	6.4	7.2	8.0

Neighborhood Criteria

Points shall be assigned to the Project if there are special pedestrian generators including, but not limited to, schools, parks, elderly housing, community centers, shopping centers, etc.

<u>Neighborhood Factors</u>	<u>Points Assigned</u>
Absence of sidewalks or bike paths	2
Schools located within a ½ mile radius	1
Other generators	1

EXHIBIT D - COST SHARING CRITERIA

Project Prioritization and Cost Sharing Summary

<u>Points Earned From the Weighted Average Speed/Volume Table and Neighborhood Criteria</u>	<u>Township Share of Costs Assuming a Majority Vote (NOT UNANIMOUS)</u>
20	100%
19	95%
18	90%
17	85%
16	80%
15	75%
14	70%
13	65%
12	60%
11	55%
10	50%
9	45%
8	40%
7	35%
6	30%
5	25%
4	20%

Note: A unanimous vote in favor of a speed table project will automatically provide 100% funding by the Township.

Points can be earned over 20 for determining a higher project priority

EXHIBIT E - SUGGESTED DESIGN STANDARDS

1. Dimension and Cross-Section

A Speed table is a gradual rise and fall of pavement surface across the width of the roadway. It is typically 22 feet long in the direction of travel with 6 foot ramps on each end and a 10 foot flat section in the middle; the most common height is between 3 to 4 inches.

On streets with barrier curbs, tables should extend fully across the road from curb joint to curb joint. A 12-inch minimum taper may be considered for drainage. For tables installed on non curbed roadways, special treatment such as delineator posts should be considered to prevent vehicle run-arounds.

2. Spacing and Location

Speed tables will usually be placed between 200 feet to 600 feet apart. Other spacing may be used based upon engineering judgment.

A. The following guidelines will be considered when determining speed table spacing.

- (1) On single short blocks (300 ft. to 500 ft.) a single table positioned near mid-point is usually sufficient.
- (2) On single blocks of moderate length (500 ft. to 1000 ft.) a two table configuration is usually adequate.
- (3) On very long blocks (1000 ft. to 1600 ft) three or more tables may be necessary.
- (4) On lengthy continuous street segments or for tables provided over a series of blocks, interior tables may be placed 400 ft. to 600 ft. apart.

B. The following points should be considered when locating speed tables:

- (1) A speed table should not be located in front of a driveway or within an intersection. Speed tables should not be located within 250 feet of a traffic signal or within 50 feet of an intersection.
- (2) Speed tables should not be located over or contain manholes, or be located adjacent to fire hydrants.
- (3) For tables located near drainage inlets, the table should be placed just downstream of the inlet. If this is not feasible, special treatment should be considered for drainage.
- (4) If possible, tables should be located on property lines rather than directly in front of a residence.

- (5) The advantage of existing or planned street lighting should be given consideration when determining table locations.

C. Traffic Control

Traffic control consisting of signs and markings should be provided to advise roadway users of a speed table's presence and to guide their subsequent action. Traffic signs and pavement markings should conform to Ohio Manual of Uniform Traffic Control Devices standards.