

# **TRAFFIC CALMING POLICY**

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## **MIDDLETOWN TOWNSHIP BUCKS COUNTY, PA**

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**MIDDLETOWN TOWNSHIP  
3 Municipal Way  
Langhorne, PA 19047**

**May 2003**

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## INTRODUCTION

The Middletown Township Traffic Calming Program reflects the commitment of the Board of Supervisors to address a wide range of community public safety and transportation mobility goals and objectives.

Traffic calming is a combination of mainly physical measures designed to reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized users of public streets.

### **PURPOSE, GOALS, AND OBJECTIVES**

Middletown Township's Traffic Calming Program addresses neighborhood traffic concerns, such as excessive speed and cut-through traffic, in residential areas of the Township. The goal is to reduce the speed and/or volume of traffic on local streets. The Township's Traffic Calming Program, working in cooperation with neighborhoods, seeks to provide a safe environment for pedestrians, preserve the residential character of neighborhoods, and improve the overall quality of life.

The Traffic Calming Program incorporates the following goals:

- Create safe and attractive streets;
- Reduce the negative effects, i.e., noise, pollution, and safety concerns, of motor vehicles on the environment;
- Increase the quality of life in the Township;
- Promote safe and pleasant conditions for motorists, pedestrians, and cyclists; and
- Maximize the efficiency of the local roadway network.

Traffic calming objectives include:

- Achieving safe, slow speeds for motor vehicles;
- Reducing cut-through motor vehicle traffic;
- Improving the safety and the perception of safety for non-motorized users of local streets;
- Reducing and redirecting the need for police enforcement;
- Reducing crash frequency and severity; and
- Increasing access for all modes of transportation.

The Township's traffic calming goals and objectives are best achieved by encouraging community involvement in safety conscious traffic management planning in order to promote community acceptance and to ensure successful plan implementation. All traffic calming projects must adhere to the following planning criteria and standards:

- The traffic calming planning and development process must be community-based and supported;

- Traffic calmed streets must incorporate a degree of self-enforcement of motor vehicle speeds through the design of physical features;
- Traffic calming must directly affect driver behavior;
- Traffic calming must improve the safety of the street for all roadway users, including pedestrians and bicyclists; and
- Traffic calming techniques must not unduly hamper access by emergency services organizations, such as police, fire and rescue.

## **DEFINITIONS**

*"85<sup>th</sup> Percentile Speed"* shall mean that speed at or below which 85% of motorists on a street are traveling. This speed is often used as a measure of the upper limit of reasonable speeds for prevailing conditions.

*"Arterial Road"* shall mean a roadway of considerable continuity used primarily as a main traffic artery and having the capability of carrying high volumes of traffic. Arterial roadways within Middletown Township are not eligible for traffic calming features. Traffic calming features may be constructed on an Arterial roadway as part of a Township sponsored streetscape or similar enhancement project.

*"Collector Road"* shall mean a road that carries traffic from minor roads to arterial roads and may include the principal entrance roads of a residential development and roads for circulation within such development.

*"Consensus Plan"* shall mean a proposed traffic calming plan detailing the locations of specific traffic calming features, developed by the Township in cooperation with a committee of property owners representing the neighborhood area. The consensus plan will become the traffic calming plan proposed for the neighborhood.

*"Generally Affected"* shall mean all property owners within a neighborhood area, the boundaries of which are determined by the Township staff, who have petitioned for traffic calming including those adjacent to roads on which traffic calming features may not be located.

*"Local Road"* shall mean a roadway with relatively low traffic volumes that serves short trips at low speeds. For purposes of this program, local roads are typically residential roadways.

*"Primary Access Route for Emergency Services"* shall mean those roadways, as determined by the Fire Marshall's Office, that serve as primary access routes into neighborhood areas. For purposes of the Traffic Calming Program, "Primary Access Routes for Emergency Services" shall not be eligible for traffic calming features that include vertical deflections such as speed humps and speed tables. These routes shall be shown on a map maintained by the Fire Marshall's Office.

*"Property Owner"* shall mean the person(s) or agency that possesses title to a parcel of land, as determined by the Township. Renters or residents other than the property owner are not included.

*"Specifically Affected"* shall mean property owners whose properties are located adjacent to roadways within a neighborhood area, as determined by the Township staff, who have petitioned for traffic calming and who are directly affected by traffic problems and the installation of traffic calming features. A specifically affected property must have at least one side or portion of the parcel abutting the roadway on which traffic calming features are being considered.

*"Speed Hump"* shall mean a geometric roadway design feature that provides a vertical deflection in the roadway.

*"Traffic Calming"* shall mean the combination of mainly physical features that reduce the negative effects of motor vehicle traffic use, alter driver behavior and improve conditions for non-motorized street users. *Traffic Calming* features are not traffic control devices, but rather physical parts of a roadway's design characteristics.

*"Transient Traffic"* shall mean non-local vehicular traffic using neighborhood streets as a short-cut to other areas or to by-pass an alternate route on a main collector and/or arterial; also referred to as "cut-through" traffic.

### **APPLICABILITY**

Township residents are often very concerned about traffic problems, real or perceived, in their neighborhoods. Reports from citizens are sometimes the only way the Township becomes aware of specific traffic concerns in residential areas. These concerns may involve speeding, transient traffic, real or potential risk from vehicle crashes, pedestrian safety, and other issues. Because the character of residential neighborhoods is a Township-wide concern and traffic calming programs affect daily living patterns of area residents and may involve public safety issues, the generally affected area (the whole neighborhood) shall be informed and involved in the development of any plan which involves major change or the expenditure of significant public funds. All residents in a neighborhood area shall be provided opportunities to offer their opinions on proposed traffic calming plans. A minimum number of specifically affected property owners shall demonstrate agreement by voting on the proposed traffic calming plan in order for it to be considered for implementation. Specifically affected residents are eligible to vote on traffic calming plans because they live directly along the roads most affected by traffic problems and the proposed traffic calming plan.

### **ELIGIBLE STREETS**

A street will be considered for installation of traffic calming features, provided that the street meets all of the following criteria.

- The street is located in an area zoned residential.
- The street is classified as a collector or local road.
- The posted speed limit is 30 mph or less.
- The street is at least 800 feet in length and the road grade is 5% or less.
- The street has an average daily traffic (adt) volume of 1000 vehicles per day (vpd) or the peak hour volume exceeds 100 vehicles.

- Two thirds of the street must front on residences, parks, and/or schools.
- The minimum 85<sup>th</sup> percentile speeds (or average speeds) are 25 mph on a 15 mph street, 35 mph on a 25 mph street and 40 mph on a 30 mph street.
- The street is not an alley.
- The street is not part of a public transportation route.
- The street is owned and maintained by the Township.
- When transient traffic is the primary issue, the cut-through traffic shall be 40% or more of the total one-hour, single direction volume. In addition, a minimum of 100 cut-through trips in one hour, in one direction, shall be the minimum requirement.

Streets that are owned and maintained by a homeowners' association or by a developer shall be eligible for traffic calming features, provided that the full cost and expense of installation and maintenance is funded by the association or developer. The association and/or developer shall be required to obtain the consent of the Township prior to installation of any traffic calming features. All such features shall comply with the standards for traffic calming published by the Pennsylvania Department of Transportation, "Pennsylvania's Traffic Calming Handbook," publication No. 383, dated January 2001, as amended, and this policy.

#### **LOCATION GUIDELINES**

- The minimum distance from an intersection to a traffic calming device shall range from 0 to 200 feet.
- Any traffic calming feature shall be visible to oncoming traffic for at least the minimum safe stopping sight distance based on the 85<sup>th</sup> percentile speed.
- Traffic calming shall take into account existing drainage features and bicycle facilities.
- Where possible, features shall be located to minimize impacts to on-street parking.
- The following shall apply where feasible: features should be placed near street lights and related signage should be placed on property lines.
- Diverters should not be installed where traffic is likely to be rerouted to other residential streets.

#### **AMERICANS WITH DISABILITIES ACT**

Traffic calming measures must be designed to accommodate all people in the community. To accomplish this goal, features that are implemented to improve pedestrian safety, or have an effect on pedestrian travel, must be designed to meet the requirements of the federal Americans with Disabilities Act.

## TRAFFIC CALMING FEATURES

### ELEMENTS OF TRAFFIC CALMING

The selection of traffic calming features shall be based on:

1. The feature's potential to address traffic problems on affected roadways;
2. The type of roadway; and
3. Physical constraints.

Specific measures can be grouped into categories based upon the means by which they impact traffic. The following is a description of the various categories.

- *Vertical deflection* - refers to traffic calming measures that create a change in the height of the roadway. When designed properly, vehicles must slow down over these measures in order to avoid unpleasant bumping sensations. As with horizontal deflection measures, vertical deflection measures are mainly used to reduce vehicle speeds, with only minor effects on traffic volumes. Vertical deflection measures can also be used to improve the safety of pedestrian crossings.
- *Horizontal deflection* - refers to two types of traffic calming measures. The first type hinders the driver's ability to drive in a straight line by creating a horizontal shift in the roadway. This shift forces drivers to slow their vehicles in order to safely navigate the measure. The second type of horizontal deflection measure is designed to narrow the width of the travel lane. Doing so reduces the usable surface of the roadway causing drivers to slow their vehicles to maintain an acceptable level of comfort. Although horizontal deflection measures are mainly used to address speed concerns, applications that narrow the travel lane can improve pedestrian safety by reducing the width of the crossing. Horizontal deflection measures may also have the secondary effect of reducing volumes; however, the effects will typically be minor.
- *Physical Obstruction* - refers to features that prevent particular vehicle movements, thereby discouraging or eliminating cut-through traffic. The overall traffic volume reduction depends upon the nature of the traffic calming feature and the number of movements obstructed.
- *Landscaping* - refers to the installation of trees, bushes, shrubbery and/or other plant materials as part of a Traffic Calming Plan. The Township will maintain a list of acceptable plantings to be used and determine which types of plantings would be best suited for the adjacent neighborhood area. The installation of landscaping in conjunction with raised curbing will prevent drivers from driving around the traffic calming features, help reinforce the reduced pavement width, and also narrow the drivers' field of vision and encourage them to reduce travel speeds. The curbing also helps protect the landscaping.
- *Change in texture and color* - refers to the use of specialty concrete, asphalt or paver bricks to aid in notifying the driver of a change in pavement design and to provide an aesthetic value.
- *Alternative education and enforcement tools* - refers to information on education methods to increase awareness of neighborhood traffic concerns. These alternative education tools include, but are not limited to: neighborhood awareness brochures on traffic issues, such as

speeding and its impacts, prepared and approved by the Township and distributed by area residents; increased neighborhood enforcement by the Police Department; and the use of a mobile speed-alert sign posted by the police at problem locations to advise motorists of the speeds at which they are traveling.

### **SPECIFIC TRAFFIC CALMING FEATURES**

Traffic calming features that may be considered by the Township are described briefly below. All designs are subject to the approval of the Township.

- *Mini-Traffic Circles*: Raised circular structure constructed in an intersection that horizontally deflects the flow of traffic entering the intersection to slow traffic and help reduce the number and severity of crashes. All approaches become a "Yield" condition.
- *Medians*: Elongated, curbed median islands constructed approximately midway in a roadway segment to separate driving lanes and reduce lane widths.
- *Entrance Way Features*: Treatments that provide landscaping at the entrances to the neighborhood to help give identity and remind drivers to maintain slow speeds throughout the residential area. Also referred to as "gateway features".
- *Roadway Narrowings*: Reduction in pavement width of a roadway section while maintaining two-way traffic. Landscaping planted in conjunction with the narrowing reinforces the impression of limited pavement area and narrows the field of vision.
- *Speed Humps*: A standard speed hump is a parabolic, curved hump 12 to 14 feet long and 3 to 4 inches high (not to be misunderstood as a "speed bump"). Flat top speed humps, or "speed tables", may be used as raised pedestrian crosswalks, primarily at locations near playgrounds or schools.
- *Semi-diverter*: A partial ("directional") closure of a roadway created by physically blocking half the street. Creates a narrowed roadway section, which is designated for one-way traffic.
- *Textured Crosswalks*: The use of paver bricks or other materials to demarcate crosswalks and alert motorists that they are entering a pedestrian-friendly area.
- *Intersection Redesign*: Consists of several different possible designs based on the specific needs and unique characteristics of the location. May involve eliminating excess pavement areas, creating horizontal deflections on approaches or realigning intersection to 90-degrees.

### **LANDSCAPING**

The landscaping installed with traffic calming features shall be determined by the Township and be compatible with the adjacent area. To reduce time and resources expended on individual landscaping designs for each traffic calming feature, the Township shall maintain a list of trees, shrubs and other vegetation alternatives that may be used. Existing adjacent irrigation systems shall be adjusted as needed as part of the construction of the traffic calming features.

Sight distance requirements shall be considered in the selection of landscaping. Landscaping shall not introduce "fixed objects" which may pose a potential hazard if struck by errant vehicles. Plant type, growth, and location shall be considered when landscaping is proposed for a traffic calming project.

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## MAINTENANCE

The property owners adjacent to the traffic calming features shall be responsible for the maintenance and irrigation of the landscaping. The Township will contact the adjacent property owners in an attempt to obtain agreement for the installation of the traffic calming features. Middletown Township shall maintain the roadways, signs, curbs, pavement, decorative paver bricks, and pavement markings within the public right-of-way in accordance with existing standard maintenance operations.

If a property owner does not agree to have a traffic calming feature installed adjacent to his or her property, the Township shall attempt to find an alternative location or modify the traffic calming plan. If all reasonable attempts have been made, without success, to identify an alternative location or other traffic calming solution and the traffic calming feature must be installed at a location where the adjacent property owner does not agree, the adjacent property owner shall be responsible for maintenance of the landscaping pursuant to the Code of Ordinances of Middletown Township, Chapter 21, Part 5, Section 502(2).

A neighborhood association, a group of property owners, a property owner, or a developer who funds the installation of traffic calming features shall be responsible for any maintenance, irrigation and watering required for landscaping associated with those features. The Township may require a maintenance agreement to be executed by the responsible party. If the responsible party fails to maintain the landscaping or irrigation or to pay any required charges, the Township may remove the landscaping or other features.

A property owner who opts to plant landscaping in the roadway right-of-way, other than the landscaping approved and installed by the Township, may do so subject to Township consent.

## SIGNAGE

Standard signing and pavement markings shall be in accordance with the Federally adopted *Manual of Uniform Traffic Control Devices* (MUTCD). Signage shall include a yellow warning sign at each feature. In the event a series of features are installed without intersecting side street conflicts, one advance warning sign may be used to warn motorists of the series. Minimal additional signage and/or pavement markings, such as white edgeline striping and raised pavement markers (small reflector buttons), may also be necessary.

In an effort to reduce the number of overall warning and regulatory signs in neighborhoods, a regulatory sign shall be used where a comprehensive traffic calming plan has been constructed on a neighborhood-wide basis. The sign will be a specially designed regulatory sign establishing a speed limit compatible with the design parameters of the specific traffic calming plan. The sign shall be installed at every entrance to the traffic calmed neighborhood where in the past a speed limit sign typically existed. This sign will combine regulatory speed limit information with the necessary advanced warning signage for traffic calming. Township staff will review each neighborhood traffic calming plan for signage needs and will develop a signage plan accordingly.

## IMPLEMENTATION

### PROCESS

The following nine steps shall be followed for each traffic calming project.

1. **Inquiry:** Initial contact made by residents inquiring about traffic calming; petitions, forms, and other documents will be available for distribution.
2. **Informational presentation:** If requested by 10% of the specifically affected property owners, staff will schedule a preliminary public meeting to present background information on traffic calming and explain the Township's traffic calming policy. This will be an open public meeting.
3. **Petition:** After the staff reviews the minimum petition requirements (i.e., *50% of generally affected property owners*) with residents and a petition has been submitted, the staff shall establish a study committee formed of residents in the neighborhood area.
4. **Traffic studies:** Accident histories shall be reviewed and speed and volume traffic studies performed.
5. **Develop consensus plan:** A neighborhood traffic calming plan shall be developed by the Township staff in coordination with the study committee.
6. **Adjacent property owners agreement:** Property owners adjacent to each proposed traffic calming feature shall be contacted to obtain written agreements.
7. **Public meeting:** One public information meeting shall be held with all generally affected residents to disseminate information on the proposed traffic calming plan and receive input, after which the neighborhood traffic calming plan will be finalized.
8. **Vote:** Specifically affected property owners only may vote. *A minimum return of fifty percent (50%) of ballots shall be required, and of those sixty percent (60%) must vote in favor of the project* for the Township to proceed with implementation.
9. **Approval by Board of Supervisors and construction:** If the result of the vote is favorable, the neighborhood traffic calming plan shall be submitted to the Board of Supervisors for review and, if approved by the Supervisors, placed on a schedule for installation of the traffic calming features.

#### 1. **Inquiry**

Upon initial contact made by a resident or property owner inquiring about traffic calming in his/her neighborhood, the Township staff will discuss the program procedures and petition requirements. Staff will then determine the area affected and the neighborhood boundary lines. A resident usually calls concerning traffic problems on one specific roadway section. However, if the implementation of traffic calming on one roadway section may transfer the problems to a parallel local roadway, the affected neighborhood area shall be addressed as a whole. This affected neighborhood area is called the *generally affected area* and will be determined by Township staff, taking into consideration the natural, constructed, and traffic boundaries of an area.

Minimum petition requirements may be discussed and explained to residents via the telephone. A preliminary field review by Township staff may be required and a meeting with the residents may

also occur if needed. Petition forms, informational brochures and maps detailing the generally affected area boundaries shall be provided to the residents.

## **2. Informational presentation**

If requested by 10% of the specifically affected property owners, staff will schedule a preliminary public meeting to present background information on traffic calming and explain the Township's traffic calming policy. This will be an open public meeting.

Staff will provide information on the boundaries of the generally affected neighborhood, minimum petition requirements, petition forms, and any informational brochures to residents wishing to pursue traffic calming in their neighborhoods. Notification of the public meeting will be made by regular United States Postal Service mail. In addition, the residents and/or homeowners association initiating the request for traffic calming may produce and distribute flyers at their own cost. Any other advertisements initiated and paid for by neighborhood residents must be approved in advance by the Township. The meeting notice shall be mailed at least 20 days before the public meeting date.

## **3. Neighborhood committee and petitions**

A neighborhood committee shall be formed for the petitioning area. The committee shall be made up, at a minimum, of four (4) to six (6) property owners who live in the neighborhood. They may be generally or specifically affected property owners. The neighborhood committee shall designate one liaison who will serve as the main contact person between the Township and the committee. The committee will, among other duties, coordinate with Township staff on the development of the traffic calming plan, help contact property owners adjacent to potential traffic calming feature locations, distribute appropriate information to neighbors as needed, be available to answer questions from area residents about traffic calming, help organize the public meeting, and present the proposed traffic calming plan to their neighbors.

In order for a neighborhood to proceed with a traffic calming program, a petition shall be submitted to the Township signed by property owners from a minimum of 50% of the total number of generally affected properties within the neighborhood boundaries determined by Township staff. In the event there are multiple owners of a property, only one property owner shall be counted for that parcel. The purpose of obtaining signatures from owners of a minimum of 50% of the generally affected properties is to verify that there are a significant number of residents interested in traffic calming before proceeding through the remainder of the Traffic Calming Program. Signatures from generally affected property owners within the neighborhood boundary are required so that representatives from multiple streets within the neighborhood may be included. Although only specifically affected property owners may vote on the final traffic calming plan, all generally affected property owners should remain informed during the development process and be provided opportunities for input.

## **4. Traffic studies**

After the petition has been received, Township staff will schedule traffic studies on the critical roadways to determine average speed and/or 85<sup>th</sup> percentile speed and average daily and/or peak

hour traffic volumes. A review of the crash history will also be performed for a period of three (3) years. Township staff will analyze the traffic data and evaluate it based upon the criteria and point system detailed in Appendix A.

Points will be totaled per street. In areas involving multiple roadways, the neighborhood will be prioritized based on the street with the highest single point value. After this analysis, petitioning neighborhood areas which score less than 25 points minimum from the combined ranking scale in Appendix A will be not eligible for the construction of traffic calming features through this program. Petitioning neighborhood areas that score 25 points or more will be eligible for construction of traffic calming features through this program and may proceed with the remaining steps described herein. If initial traffic studies show that there are other potentially impacted roads in the area, additional traffic studies on those roads may need to be conducted.

Petitioning neighborhood areas, which score less than the minimum 25 points, may repetition a minimum of three (3) years from the date the previous petition was received by Township staff, unless the staff determines a change in traffic conditions has significantly impacted the neighborhood area since the previous petition was reviewed. Such significant changes may include new construction, roadway improvements, changes in land use, or similar changes creating regional impacts. Petitioning neighborhood areas that score less than the minimum 25 points may pursue alternative education methods and enforcement by the Police Department to increase awareness of traffic concerns within the neighborhood.

#### **5. Develop consensus plan**

Township staff will develop a proposed traffic calming plan. For a particular roadway section, traffic calming features may be most effective if applied in a series. The locations will be determined by Township staff and will depend on several factors, including but not limited to adequate spacing between features, driveways connections to road right-of-ways, intersecting side streets, horizontal or vertical curvature of the roadway, and drainage. Selection of locations must also take into consideration existing infrastructure such as fire hydrants, drainage inlets, utility boxes, manholes, poles, etc.

The plan will be developed in coordination with the neighborhood committee. This will enable the committee to remain informed of where traffic calming features are proposed to be located and how the locations were determined. Input from the committee will also be sought during the decision-making process, and the committee will help contact area residents during the review of alternative traffic calming feature locations. They will also help field questions from residents. Field reviews or committee meetings may occur as needed.

Where applicable, Township staff will coordinate development of the traffic calming plan with representative of PENNDOT and adjacent municipalities. If required, additional traffic studies will be completed to assess the impact of constructing traffic calming measures and to obtain any required permits.

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## **6. Adjacent property owners agreement**

Property owners will be responsible for the landscaping maintenance associated with traffic calming features, per the Code of Ordinances of Middletown Township, Chapter 21, Part 5, Section 502(2). The Township will adjust any adjacent sprinkler systems that are currently maintained by the adjacent property owners.

Township staff will attempt to obtain written agreements with property owners adjacent to proposed traffic calming features prior to finalizing their locations. Township staff will work with the neighborhood committee and adjacent property owners to coordinate potential traffic calming feature locations. The committee will also help determine potential traffic calming feature locations by polling residents, canvassing the neighborhood, contacting property owners, etc. Upon a property owner's agreement, verification will be made in writing clarifying his or her responsibilities for irrigating and maintaining the landscaping on the sides of the feature, although the Township will pay for the installation and adjustment of any irrigation systems during construction. If a property owner does not agree to the installation of a traffic calming feature adjacent to his or her property, Township staff will try to find an alternative location without compromising the effectiveness of the traffic calming plan for the neighborhood. However, the Township shall determine the ultimate locations of the traffic calming features.

## **7. Public meeting**

All generally affected residents within the neighborhood area being considered for traffic calming will be mailed notice of a public hearing so that their views and opinions may be expressed regarding the proposed traffic calming plan for their neighborhood. The notice will include the purpose of the public meeting, identify the neighborhood committee members, and provide a description of the proposed traffic calming plan for the neighborhood.

Notification of the public meeting will be made by regular United States Postal Service mail. In addition, the residents and/or homeowners association initiating the request for traffic calming may produce and distribute flyers at their own cost. Copies of information brochures describing the traffic calming program will be made available to the neighborhood committee and/or homeowners association for distribution to affected residents in the area.

On occasion, signs advertising the public meeting may be posted at strategic sites in the neighborhood, and news releases may be provided to local media. Any other advertisements initiated and paid for by neighborhood residents must be approved in advance by the Township. The meeting notice should be mailed at least 20 days before the public meeting date.

Township staff and the neighborhood committee will conduct the public meeting. Township staff will:

- Briefly present background information on traffic calming in general and the Township's traffic calming program and process;
- Review the boundaries of the generally affected area and identify specifically affected properties;

- Review results of the traffic studies from the affected area and other applicable data as needed; and
- Explain the further steps required to implement the plan.

The neighborhood committee will:

- Review the neighborhood concerns which initiated the traffic calming process and any other background information as needed; and
- Help present the proposed traffic calming plan developed for the affected area.

At the public information meeting, official minutes may be taken, if deemed necessary by the Township staff. Township staff present at the meeting will receive and record any concerns of the residents in the generally affected area. After the public meeting, Township staff and the committee will consider any concerns brought up at the meeting and investigate any issues before the neighborhood traffic calming plan is finalized.

### **8. Vote**

A notice, which describes in detail the final proposed traffic calming plan, will be mailed by the Township to the owner(s) of each parcel of property in the generally affected area, as defined by the boundaries previously determined by Township staff. Those specifically affected parcels eligible to vote will receive a ballot along with a copy of the final traffic calming plan. Property ownership will be determined from the most recent general update of the records of the Township. The notice will contain the following information, as applicable:

- Written and graphic description of the proposed traffic calming plan;
- Summary of data which support implementation of traffic calming;
- Description of boundaries of the generally affected area;
- Identification of specifically affected properties;
- Estimated cost of the traffic calming plan and funding sources;
- Timeline for implementation of the traffic calming plan;
- Notice that a minimum of 50% of the specifically affected property owners must return a ballot and that of those returned, at least 60% must vote in favor of the project for it to go forward; and
- An official voting ballot for the specifically affected property owners who are eligible to vote, ballot return instructions, and the deadline for return of the ballots to the Township.

All notices and voting ballots will be mailed by Middletown Township through regular United States Postal Service to the mailing address on record for the property owners. In order for the proposed traffic calming plan to be implemented, at least 50% of the properties in the specifically affected area must return a vote and at least 60% of the votes returned from the specifically affected properties must be in favor of the proposal. Each specifically affected property parcel shall be counted as one vote. In the case of multiple property owners for one parcel, only one vote signed by one of the owners shall be counted for that property. In the case of a property owner owning multiple properties within the specifically affected area that is eligible to vote, one vote for each

property owned will be accepted. If an agency or group entity (such as a real estate company) is the official property owner of record, an official agent of the company must sign the official voting ballot.

Only official ballots will be accepted; no copies or duplicates will be accepted. A replacement ballot may be provided upon a property owner's request. A property owner requesting a replacement ballot shall contact Township staff directly, and another official ballot will be prepared by Township staff and mailed through regular United States Postal Service to the address of the property owner of record. No replacement ballots will be mailed to alternative addresses. Replacement ballots may also be given out in person to a property owner, if proper identification and proof of homeownership is provided. If a new homeowner is not included on the most recent general update of the Township's records, he or she may request a replacement ballot upon providing proof of homeownership. In such a case, a duplicate ballot for the same parcel mailed to the previous homeowner will not be accepted.

Votes are final once received by Township staff. If a property owner wishes to change his or her vote after submitting the official ballot to the Township and it is within the voting period, the property owner may request a replacement ballot as previously described. No ballots or replacement ballots shall be received after the official voting deadline has passed. Votes mailed to the Township must be received before the expiration of the voting period.

The neighborhood liaison and committee members will be responsible for contacting area residents who are eligible to vote in order to obtain the required majority approval. This may include follow-up contact with owners of any vacant specifically affected property or the owners of a specifically affected property that may reside out of town. Updates may be given to the area liaison, if requested, on the status of the number of votes received before the end of the voting period. If needed, the Township will provide the neighborhood liaison with copies of mailing lists or a list of those property owners who have not returned a ballot as the voting deadline approaches, as appropriate.

The voting period shall be 60 calendar days from the date of the official ballot. No votes will be accepted after the expiration of the voting period. A one-time extension of an additional 30 days may be granted according to the following criteria: If, at the time of the original voting deadline, at least 50% of the votes from specifically affected properties have been returned and 45% of the votes returned are in favor of the traffic calming plan, a one-time extension may be requested by the neighborhood committee in order to obtain the required 60% majority. The extension must be requested by the neighborhood traffic calming committee or the neighborhood liaison within five (5) calendar days from the expiration of the voting period. If an extension is granted, the additional 30 days will be measured from the previous voting deadline.

Voting ballots may be returned by mail or hand delivered directly to the Township prior to the voting period deadline. At the conclusion of the voting period, official ballots received by Township staff will be verified. If at least 50% of the specifically affected properties have returned ballots and 60% of those returned are in favor of the traffic calming plan, the neighborhood traffic calming or consensus plan will be presented to the Board of Supervisors for final approval and priority ranking. After conclusion of the voting period, Township staff will notify the area liaison, neighborhood

committee, and/or applicable homeowners' associations of the final voting results. It will be the responsibility of the area liaison and the committee to notify all specifically and generally affected property owners of the results, whether by canvassing the neighborhood or including the results in an area newsletter. Township staff will provide all available information to the area liaison and/or committee for this purpose, but will not directly contact each property owner.

If the necessary voting majority has not been achieved within the full voting period provided or the results of the vote are not in favor of the proposed traffic calming plan, the area shall not be reconsidered for traffic calming for a period of three (3) years from the date the petition was received by the Township, unless the Township determines that a significant change in area conditions affecting traffic has occurred. Such significant changes may include new construction, roadway improvements, changes in land use, or similar changes creating regional impacts. A new petition will be required after the three (3) year waiting period in order to initiate the traffic calming process.

### **9. Approval by the Board of Supervisors and Construction**

All neighborhood-approved traffic calming plans shall be submitted to the Middletown Township Board of Supervisors for review and consideration at a regularly scheduled public meeting. Written notice of the Supervisors' meeting shall be given to the neighborhood committee and liaison at least ten (10) days in advance. The Board of Supervisors may approve, modify, condition or deny any proposal for traffic calming features, regardless of the extent of public support.

The implementation of traffic calming plans shall be prioritized and ranked in accordance with the criteria set forth in Appendix A. Projects will be implemented as funds become available. A waiting list may be developed by the Township staff until such time as the plan features can be constructed.

During the initial stages of construction, necessary temporary signs and other warning devices may be installed, as needed, to alert drivers to an upcoming traffic calming project or to call attention to traffic calming features that have been installed in a neighborhood.

### **PRIORITIZATION**

A point system shall be used for evaluating and prioritizing traffic calming requests. The point system criteria are based on traffic volumes, 85<sup>th</sup> percentile vehicular speeds, historical crash report data, the number of school crossings and pedestrian generators, and the availability of pedestrian facilities. The point total or rank received will determine the priority for the allocation of funding and scheduling of construction for traffic calming projects. A minimum of 25 points, with at least 10 points from each of the speed and volume criteria, is required for a traffic calming petition to be considered. Petitioning neighborhood areas, which score less than 25 points or do not meet the minimum threshold for speed and/or volume, will not be eligible for traffic calming through this program, unless the neighborhood area homeowners' association or a group of property owners provide full funding for a proposed traffic calming project (see "Funding Section", below).

A priority list for the purposes of allocating funds for traffic calming projects and scheduling such projects for construction shall be maintained by the Township. The list shall show the order of

neighborhoods to receive traffic calming. One consolidated priority list will be maintained, as opposed to a separate priority list by year.

The priority list will be reviewed each year to re-rank those consensus plans that have been waiting for one or more years. One additional point will be added to the point total of those consensus plans waiting more than one year from the date the voting period expired. If a neighborhood consensus plan is delayed a second year or more, it will receive an additional point each year the prioritization list is reviewed and updated.

The prioritization list shall be used as a guideline for the installation of traffic calming features. However, if one neighborhood requires additional time to complete the development of its traffic calming plan and has a higher point total than another neighborhood that has completed its plan and voting process, construction of the traffic calming project should proceed in the neighborhood ready to go so that the Traffic Calming Program continues in an efficient and timely manner.

### **TEMPORARY TRAFFIC CALMING FEATURES**

After a traffic calming plan has been approved by the neighborhood, the Board of Supervisors and PENNDOT (when state highways are involved), the traffic calming features can be installed on either a temporary or permanent basis.

Temporary features provide an opportunity to review the plan design in the field without a costly removal expense if the plan does not satisfy the original goals.

Traffic calming features that are installed on a temporary basis must resemble permanent features as much as possible and shall be marked, signed, and lit as if the features are permanent. Such temporary features shall also be designed using crashworthy devices to reduce or eliminate safety hazards.

A three (3) to twelve (12) month test period should be considered when temporary features are installed.

Following the temporary installation period, modifications may be made to the neighborhood traffic calming plan.

### **FUNDING**

The Township intends to support the Traffic Calming Program on an on-going basis by allocating funds annually through the budgetary process. However, there is no guarantee that funds will be budgeted in any given year. Developers may also contribute funding on a voluntary basis to a specific project in an effort to address community concern. For a development or redevelopment project that impacts an adjacent residential roadway in a neighborhood that has petitioned for traffic calming, the developer may install one or more traffic calming features, such as an enhanced speed hump feature, mini-traffic circle or other during the construction of the project. If it is not feasible for a developer to install traffic calming as part of a project, the developer may donate funds to the Township. Such funds will be reserved for use when the Township installs traffic calming in the

adjacent affected neighborhood area. Any contributions to the Traffic Calming Program by developers will be on a voluntary basis.

In cases where a homeowners' association or group of property owners within a neighborhood wish to provide full funding for traffic calming, the proposed traffic calming plan shall be coordinated with and approved by the Township. Although the timeline for implementation may be reduced, the proposed traffic calming plan shall be subject to the same petitioning and voting procedures and policy guidelines described under this Traffic Calming Policy. The written consent of the Township and conformance with PENNDOT and Township rules, regulations, and guidelines will be required for a homeowners' association or group of property owners to proceed with construction of a traffic calming project.

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## **OTHER TRAFFIC CALMING PROGRAM ISSUES**

### **CONTINUAL MONITORING**

After the construction of each neighborhood traffic calming plan is complete, follow-up traffic studies may be performed to continuously monitor the project for safety and effectiveness and to identify any remaining traffic problems. A summary report of the results in each neighborhood may be compiled for informational purposes, and copies may be distributed to the neighborhood committee and/or liaison, as appropriate.

### **REMOVAL OF TRAFFIC CALMING FEATURES**

The property owners of an area in which traffic calming has been implemented may request the removal of the traffic calming features. A petition to remove the traffic calming features may be considered by the Township, subject to the following conditions:

- The traffic calming features have been in place for at least three (3) years;
- A request for the removal of the traffic calming features must be signed by at least 50% of the generally affected property owners within the same neighborhood boundaries used for the petition initiating the original traffic calming process;
- A 60% majority vote from the specifically affected property owners is required for removal, with a minimum of 50% of the votes returned (i.e., the same voting requirements as above for installation); and
- The removal of one or more traffic calming features may not make the remaining overall traffic calming plan less effective, unless the entire traffic calming project is petitioned to be removed.

If the Township determines that specific traffic calming features are no longer fulfilling their intended purpose or that a traffic calming feature installed under these guidelines has become a hazard, the Township staff may arrange immediate removal or work with the specifically affected property owners to develop alternate traffic calming plans.

### **RECONSIDERATION OF TRAFFIC CALMING PETITIONS**

If a neighborhood fail to achieve the required voting majority within the specified voting period, the area shall not be considered again for traffic calming for at least three (3) years from the date the initial voting period expired. A new petition will be required after the three (3) year waiting period to initiate the traffic calming process. The Township may allow the area to submit a new petition prior to this three (3) year waiting period if it is determined that significant change has taken place affecting traffic conditions in the area. Such significant change may include, but is not limited to, new development, roadway modifications, and changes in land use or similar changes creating clearly defined neighborhood impacts.

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## **GENERAL DEVELOPMENT CONSIDERATIONS**

In an effort to encourage motorists to slow down and drive responsibly, traffic calming purposely introduces additional self-enforcing physical features in the design of a roadway to effectively change the design speed. Traffic calming features are generally implemented retroactively and traditional design standards may require interpretation and modification. The adoption of proper guidelines and policies that are consistent with sound engineering practices and judgment, and the participation and involvement of neighborhood property owners are key elements in the development of traffic calming plans.

Traffic calming measures are design features intended to modify the character of a roadway. Such measures are not traffic control devices, and, therefore, state and federal specifications, warrants or regulations may not apply.

## **EMERGENCY SERVICES**

Studies show that traffic calming features may cause delays in emergency response times to residences located in neighborhood areas where traffic calming projects have been installed. Property owners participating in the Traffic Calming Program will be provided information regarding the potential delay of emergency services due to traffic calming features. However, traffic calming features and reduced vehicular speeds may also reduce the number of incidents requiring emergency services.

Traffic calming is not permitted on roads designated as "Arterials". Traffic calming is limited to features that do not include vertical deflection on roadways designated as "Collectors" and "Primary Accesses for Emergency Services". The Fire Marshall's Office will determine those roads designated as "Primary Access Routes for Emergency Services". The Police Department and Fire Marshall's Office will participate in the planning process and will be provided copies of all proposed traffic calming plans for review and comment during the plan design phase and prior to the public meeting at which the plan is presented to the public

## **SIDEWALKS**

The Township may recommend that neighborhood residents pursue the installation of sidewalks, where applicable, to enhance pedestrian safety. Or, if the Township determines that sidewalks are necessary for pedestrian safety, the Township will install sidewalks and the costs thereof shall be assessed against the abutting properties in accordance with state law. If approved, construction of both traffic calming and sidewalk installation projects may be coordinated to provide for the efficient use of resources. However, funding for sidewalks is not provided through the Traffic Calming Program and must be pursued by a separate special assessment and petition process or other funding sources.

### **LIGHTING**

Street lighting installations shall not be required with the installation of traffic calming features in neighborhoods. Adequate signing and pavement markings, which will be reflective at night to sufficiently warn and guide motorists, will be installed with each feature.

If a neighborhood committee and/or area property owners desire to request street lighting in areas where traffic calming is proposed, they may request the installation of street lights separately by petition. All properties located within 250 feet of a street must pay a special street light assessment each year in addition to all other local taxes. Street lighting installations will not be required in conjunction with this Traffic Calming Policy.

### **DRAINAGE**

The installation of traffic calming features may change the drainage patterns of the roadways. The Township staff will review the drainage characteristics of roadways when determining which features are most appropriate.

### **SNOW REMOVAL**

Traffic calming features may have an effect on the removal of snow and ice. Features shall be clearly identified and equipment operators shall be made aware of the types of features that are installed. This will improve the snow removal operation and help prevent damage to the snow removal equipment and the traffic calming features.

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## SUMMARY

The Middletown Township Traffic Calming Program allows the Township staff and concerned property owners to work together in developing safer neighborhoods. It also provides a fair and balanced prioritization process, a participative procedure for the development of traffic calming plans, adequate public notice and public meeting requirements, and a method to encourage and promote the involvement of area residents in decisions affecting the quality of life in their communities.

This Traffic Calming Policy establishes the supporting guidelines and standards for the Middletown Township Traffic Calming Program. It supports Middletown Township's public safety, transportation, planning, environmental, economic and social goals, objectives and principles.

PETITION FOR TRAFFIC CALMING STUDY

\_\_\_\_\_ DATE

The undersigned property owners hereby petition the Board of Supervisors of Middletown Township to consider the installation of traffic calming devices to mitigate speeding problems and/or cut-through traffic on

\_\_\_\_\_  
Street name, block number, cross streets, etc., and Post Office (Langhorne or Levittown)

This action is deemed necessary to provide a reasonable quality of life on our street and alleviate problems the Petitioners have faced in regard to excessive speeds and/or volumes of traffic. By signing this petition, Petitioners hereby acknowledge that they have a basic understanding as to the effect of traffic calming devices as follows:

1. Traffic calming devices may require reduction of on-street parking.
2. In some cases, access to areas may be reduced to lower the volume of cut-through traffic.
3. In advance of each area, warning signs and support posts will be installed in the public right-of-way [typically six (6) inches behind the sidewalk.] Please note: The signs may be located within view of some property owners' residences.
4. Traffic calming devices may delay emergency services vehicles.

The Traffic Calming Policy of Middletown Township, which contains complete information on petition requirements, may be obtained by contacting the Township Manager's office at 215.750.3800, Ext. 142.

Therefore, the undersigned petitioners respectfully request of the Township of Middletown to schedule our street for a traffic calming study.

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**CONTACT PERSON**

\_\_\_\_\_  
Name Work Phone \_\_\_\_\_ Home Phone  
\_\_\_\_\_  
Address \_\_\_\_\_ Email  
\_\_\_\_\_  
Address \_\_\_\_\_ Signature

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**PLEASE WRITE LEGIBLY**

\_\_\_\_\_  
Signature \_\_\_\_\_ Address  
\_\_\_\_\_  
Print Name Work Phone \_\_\_\_\_ Home Phone

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PETITION FOR INFORMATIONAL MEETING  
MIDDLETOWN TOWNSHIP TRAFFIC CALMING PROGRAM

\_\_\_\_\_ DATE

The undersigned property owners of \_\_\_\_\_

\_\_\_\_\_ Street name, block number, cross streets, etc. and Post Office (Langhorne or Levittown)

hereby petition the Board of Supervisors of Middletown Township to schedule an informational meeting regarding the Township's Traffic Calming Program

The Petitioners are desirous of restoring a reasonable quality of life on our street by alleviating problems the Petitioners have faced in regard to excessive speeds and/or volumes of traffic. By signing this petition, Petitioners hereby acknowledge that the meeting is for the purpose of discussing the Traffic Calming Program, so that they have a basic understanding as to the effect of traffic calming devices.

Therefore, the undersigned Petitioners respectfully request of the Township of Middletown to schedule a preliminary public meeting to learn more about the Township's Traffic Calming Program.

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**CONTACT PERSON**  
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\_\_\_\_\_ Name Work Phone Home Phone

\_\_\_\_\_ Address Email

\_\_\_\_\_ Address Signature

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**PLEASE WRITE LEGIBLY**  
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\_\_\_\_\_ Signature Address

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**APPENDIX A**  
**RANKING SYSTEM**

The following are criteria to be used for the evaluation of traffic data in neighborhoods petitioning for traffic calming. Each roadway will be analyzed individually within the petitioning neighborhood area according to the below criteria. The highest point value received on an individual roadway segment within the area petitioning for traffic calming will be the point total assigned to the neighborhood petition for the purposes of ranking and prioritizing.

**PROJECT RANKING SYSTEM**

CRITERIA	POINTS	BASIS FOR POINT ASSIGNMENT
Speed	0 to 30	Extent by which 85 percentile 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)
Crashes	0 to 10	1 point for every crash reported within past 3 years.
Elementary or Middle Schools	0 to 10	5 points assigned for each school crossing on the project street.
Pedestrian Generators	0 to 15	5 points assigned for each public facility (such as parks, community centers and high schools) or commercial use that generates a significant number of pedestrians.
Pedestrian Facility	0 to 10	5 points assigned if there is no continuous sidewalk on one side of the street; 10 points if missing on both sides.
<b>Total points possible</b>	<b>100</b>	