

**DRAFT**

**NEIGHBORHOOD TRAFFIC CALMING  
PROGRAM**

**UPPER DUBLIN TOWNSHIP  
MONTGOMERY COUNTY, PA**

Prepared by:



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## INTRODUCTION

As traffic patterns naturally evolve over time, different traffic issues may arise in the form of resident complaints, often regarding speeding or not obeying existing traffic control devices. The purpose of this policy is to effectively deal with those complaints, provide available solutions, and act in the best interest of all parties involved as well as comply with applicable laws. Not all local roads are eligible for traffic calming due to various factors such as roadway typology, utilities, Snow Emergency Route, vertical grade/physical constraints, and various other constraints.

The primary focus of any roadway construction or alteration is safety. There are also, utility, grading, mandated pedestrian access issues, pedestrian safety, overall traffic flow and regulatory compliance conditions that must be considered for any traffic calming measures. To do that properly, the Township relies on a team consisting of the Township Traffic Engineer, Police Department and Public Works. That team is responsible for responding to all traffic calming related complaints and to provide alternatives to resolve the complaint where appropriate. The team will coordinate with other departments and agencies through the Township Manager. The team will regularly report to the Commissioners, a list of traffic complaints and action taken, with the list being available for public view on the Township website. At their discretion, the Commissioners may request alternatives, require conditions, as well as approve or deny funding.

Traffic control devices, such as regulatory signs and signals must follow a specific process in accordance with Pennsylvania State Law. Complaints regarding traffic control devices will follow that process. PennDOT State Routes (SR) are not the jurisdiction of the township, and must be addressed through a designated review and approval PennDOT permit process submitted by the Township Traffic Engineer. In some cases, complaints in state roadways will be forwarded to PennDot, or the appropriate State Representative.

## PURPOSE AND GOALS

Upper Dublin Township's Traffic Safety Policy is designed for traffic calming to address traffic concerns in residential areas of the Township, such as speeding or cut-through traffic. This Traffic Calming program, working in cooperation with neighborhoods, promotes the preservation of the residential character of the Township's neighborhoods and helps to improve the overall quality of life.

The Traffic Calming Program incorporates the following goals:

- Provide a responsive, data-driven and measurable traffic calming program to residents on eligible streets.
- Implement traffic calming measures where warranted to reduce speed and/or cut through traffic on eligible streets.
- Consider all transportation modes and comply with ADA standards when selecting traffic calming measures.
- Develop a traffic calming program that includes resident acceptance or "buy in" to minimize redundant efforts.

The following outcomes of implementing traffic calming measures may be measured in the Before and After condition to determine the level of effectiveness:

- Provide the local street network with the appropriate 85<sup>th</sup> percentile speed;

- Reduce the volume of cut through traffic;
- Reduce crash frequency and severity for all transportation modes;
- Reduce the need for police enforcement; and
- Increase or maintain emergency service response times.
- Traffic calmed streets incorporate a degree of self-enforcement of motor vehicle speeds through the design of physical features:
- Traffic calming directly affect driver behavior;
- Traffic calming improves the safety of the street for all roadway users, including pedestrians and bicyclists. Traffic calming must not unduly hamper access by emergency services.

## DEFINITIONS

*“85<sup>TH</sup> Percentile Speed”* shall mean that speed at which 85% of the free flowing vehicles are traveling, or below.

*“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 Upper Dublin Township are not eligible for traffic calming features** through the Traffic Calming Policy described herein. 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. The Consensus Plan will become the traffic calming plan proposed for the neighborhood during a final vote.

*“Eligible Street”* shall mean a road that meets parameters for traffic calming features as set forth later in this document.

*“Generally Affected”* shall mean all properties within a neighborhood area, the boundaries of which are determined by Township staff, petitioning 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, determined by The Chief of Police in consultation with the Fire Marshall that serve as primary access into neighborhood areas requiring their services. 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 Township Engineer.

*“Property Owner”* shall mean the person(s) or agency that possesses title to a parcel of land, as recorded at Montgomery County. Renters or residents other than the property owner are not included. **Only property owners are eligible to request traffic calming measures.**

*"Specifically Affected"* shall mean properties adjacent to roadways within a neighborhood area, as determined by Township staff, that are directly affected by traffic problems and/or 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, or the only access to said property is by way of said street (e.g. cul de sacs).

*"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.

*"Township Traffic Calming Team"* shall mean a designated group including the Public Works Director, UDPD Community Relations Unit leader and Township Traffic & Transportation Engineer. The team will include Township team members and other designated personnel as required to provide recommendations to the Board of Commissioners.

*"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

Upper Dublin Township residents are often very concerned about traffic problems, real or perceived, in their neighborhood. 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, safety, or other issues.

Because the character of residential neighborhoods is a Township-wide concern and because traffic calming programs affect daily living patterns of area residents and may involve public safety issues, the generally affected area (the whole neighborhood) should be informed and involved in the development of any plan which involves a major change or expenditure of public funds. All residents in a neighborhood area are provided opportunities to offer their opinions on proposed traffic calming plans. A minimum number of specifically affected properties must then formally agree by voting on the proposed traffic calming plan in order for it to be implemented. Specifically, affected residents are eligible for the formal vote because they live directly along the roads most affected by traffic problems and traffic calming.

## ELIGIBLE STREETS

A street defined as an "Eligible Street" to be considered for the installation of traffic calming features, provided that the street meets all of the following criteria:

- The street is owned and maintained by Upper Dublin Township.
- The street is located in an area zoned residential per the current Zoning Map posted on the Upper Dublin Township website.
- The street is classified as a collector or local road (not arterial) by the PennDOT Functional Classification Map.

- The posted Speed Limit is 25 mph or less. Roadways classified as a Collector with posted a Speed Limit of 35 mph will be considered; however, will not allow vertical deflection.
- The street is at least 1000 feet in length.
- The street is at least 1000 feet in length and the road grade is 8% or less if a vertical deflection measure is proposed.
- Where transient traffic (cut through) is a concern – The street has an Average Daily Traffic (ADT) volume which exceeds the calculated average weekday trips based on the ITE Trip Generation Manual (current edition) for the number of units along the street being considered or the peak hour volume exceeds the calculated average peak hour of adjacent street traffic trips based on ITE Trip Generation Manual (current edition) for the number of units along the street being considered.<sup>1</sup>
- Where speeding is a concern, the 85<sup>th</sup> percentile speed is at least 5 MPH over the Speed Limit.
- The proposed measures cannot impact public transportation routes (ie. SEPTA), without public transportation stakeholder input.

## LOCATION GUIDELINES

The minimum distance from an intersection to a traffic calming device shall range from 150 feet for unsignalized intersections to 250 feet for signalized intersections.

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 features shall take into account existing drainage features and bicycle facilities.

Where feasible, the features shall be located near street lights for improved nighttime visibility of the feature and required signage should be placed on property lines, if possible, as opposed to directly in front of a residence.

Traffic calming features 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 MEASURES, DESIGN GUIDELINES AND SIGNAGE

The Township adopts and incorporates herein by reference Chapters 5 and 6 of “Pennsylvania’s Traffic Calming Handbook,” in their entirety, as if set forth fully herein. The latest edition of the Handbook will apply unless specifically modified by the Township.

## TRAFFIC CALMING DEFINED

The Institute of Transportation Engineers characterizes traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicles, alter driver behavior and improve conditions for non-motorized street users” (ITE Journal, January 1997). It is the retrofitting of physical devices into the roadway to reduce traffic speeds and cut-through traffic, thereby generally making the street environment more safe and pleasant for pedestrians, other drivers and residents.

Traffic calming has several significant benefits and some drawbacks. Summarized below are benefits and drawbacks of traffic calming.

## BENEFITS OF TRAFFIC CALMING

- Reducing speeds.
- Reducing collision frequency and severity.
- Increasing the safety for non-motorized uses of the street.
- Enhancing the street environment (streetscape).
- Reducing transient vehicle traffic (cut through).
- Increasing the quality of life.
- Incorporating the traffic calming preferences of the people using the area along the street(s).
- Reducing negative impacts of vehicles on the environment and neighborhood.
- Reducing the need for police enforcement, hence reducing costs (cost is quickly offset by the reduced need for police enforcement).

## DISADVANTAGES OF TRAFFIC CALMING

- Potentially may increase emergency response time.
- Vehicles may be damaged and people injured by inappropriate driver behavior (e.g., driving too fast or inattentive).
- Some treatments can restrict resident access.
- Snow removal is more difficult and time consuming.
- Installation costs.
- Additional signs and lighting may be required.
- Increased maintenance<sup>1</sup> especially if landscaping is included.
- Annoying to some residents (noise and inconvenience).

<sup>1</sup> The Township reserves the right to require a Maintenance Agreement.

## IMPLEMENTATION PROCESS

**The process of administering resident traffic complaints shall be as follows:**

1. The complaint is received.

Upper Dublin Township will be proactive and log complaints as the township is made aware by property owners via the Upper Dublin Township Traffic Concern Reporting Form located on the

Upper Dublin Township website. Regardless of how the complaint is received, the form will be created by either the property owner, Upper Dublin Police Department, Upper Dublin Township Public Works, or Upper Dublin's Traffic and Transportation Engineer.

In cases where there is a clear and present safety issue, the Township is compelled to act to protect the safety of the public. These issues will be addressed outside of this process.

2. An investigation is opened.

The team will determine if the complaint received is on an Eligible Street for traffic calming features. If eligible, Upper Dublin Police Department Traffic Safety will open and log the appropriate investigation. In addition, the site is visited and reviewed by the Township Traffic Calming team.

3. If warranted a Traffic Study is performed.

The Township Traffic Calming team will determine if the complaint warrants further study. If there is not enough evidence to support further study, then a response will be provided to the property owner and the form will be closed.

If warranted, a traffic study, to review crash records, perform traffic count and measure speeds may be performed. As required, other studies may be performed related to sight distance, roadway geometry, etc. This provides the raw data needed for engineering and design of traffic calming devices.

During this time, the Specifically Affected and Generally Affected areas will be defined by the Township Traffic Calming Team if a traffic study is determined to be warranted. Property owners within the Specifically Affected Area will be notified that a traffic study will be performed and a request will be made for their comments regarding the complaint issue.

4. The complaint, traffic study and field conditions are reviewed by the Township Traffic Calming Team.

During the review, the number and content of property owners that responded from the Specifically Affected area will be considered.

5. Viable options with a recommendation for possible solution is developed and, where necessary, plans are prepared.

6. In warranted cases a public meeting will be held to present the traffic study findings and review the viable proposed designs to define a Consensus Plan.

The meeting will provide an overview of the issues, approach, and the proposed solutions. Residents will be given an opportunity to comment and communicate directly with the Township Traffic Calming team and township staff. Notification of the meeting will be provided to the property owners located within the Specifically Affected and Generally Affected areas.

Traffic calming devices may impact individual property owners or several property owners and the township wants to ensure those affected can provide feedback and that would be given consideration prior to any construction or installation. The township will give weighted consideration to feedback provided by those property owners from the **Specifically Affected area. At least 70% of these property owners must concur with the Consensus Plan through submittal of the Petition in Appendix C.**

7. Funding.

In most cases where project costs are minimal, and work can be completed by township crews the work will be scheduled within weeks or a few months depending on the scope and other priorities.

In some cases, the project may be incorporated into other anticipated projects, such as annual road paving so that there is no overlap of work resulting in wasted resources.

When costs are above a low cost threshold, or there are a large number of requests, there may need to a budget request made to the Commissioners as part of the townships annual budget process.

8. Testing Period.

Where appropriate or required the township will monitor the installation for a period no less than 3 months after implementation to ensure its effectiveness. If necessary and available, adjustments will be made. Depending upon the implemented traffic calming feature, the testing period may be lengthened to assess effectiveness over the winter months when snow removal and salting operations occur.

## OTHER TRAFFIC CALMING PROGRAM ISSUES

### REMOVAL OR MODIFICATION OF TRAFFIC CALMING FEATURES

Upper Dublin Township, on its own initiative, may modify or remove any installed traffic calming features in the interest of public safety. The property owners of an area in which traffic calming has been implemented may also request the removal of the traffic calming features. A petition to remove the traffic calming features may be considered by Township staff, subject to the following conditions:

- The traffic calming features have been in place for at least **three (3) years**;
- 70% of the specifically affected property owners must vote in favor of the removal; 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 being petitioned to be removed.

### 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 the roadway to effectively change

the design speed. Traffic calming features are generally implemented retroactively and traditional design standards may require interpretation and modification. A set of guidelines and policies to follow, engineering judgement and coordination with 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 the roadway. They are not traffic control devices and therefore State or Federal specifications, warrants or regulations may not apply.

## EMERGENCY SERVICES

Studies show traffic calming features may cause delay in emergency response times to residences 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, due to the increased safety on the roadways within a traffic calmed area.

## SUMMARY

The Traffic Calming Policy allows Upper Dublin Township staff and property owners in Upper Dublin Township to work together to develop neighborhood traffic calming Consensus Plans. It also provides an interactive and transparent procedure for the development of traffic calming Consensus Plans.

This Traffic Calming Policy shall serve as the supporting guidelines for the Upper Dublin Township Traffic Calming Program. It supports Upper Dublin Township transportation, planning, environmental, economic and social goals, objectives and principles.

# APPENDIX A: TRAFFIC CALMING TOOLBOX

## INTRODUCTION

In keeping with the Policy Statement, the toolbox has been designed with three tiers of “tools” from subtle to aggressive. In all cases, it is necessary to begin with Tier 1 tools before moving to Tiers 2 or 3. With no exceptions, all traffic calming measures follow Pennsylvania Department of Transportation’s Pub. 383 Pennsylvania’s Traffic Calming Handbook and the Manual on Uniform Traffic Control Devices (MUTCD).

### Tier 1 Tools

Tier 1 tools are neighborhood driven and allows a neighborhood to take immediate action to address concerns. Residents take the initiative in conducting a neighborhood education program and undertake other measures such as trimming of landscaping that obstructs sight distance. Additionally, neighborhoods can request targeted police enforcement. The need for an engineering traffic study is not needed for Tier 1 measures. The following are Tier 1 traffic calming measures:

1. Neighborhood Education Program

Neighborhood education programs can include: personalized letters, flyers and newsletters as well as meetings, workshops and neighborhood speed awareness signs. Programs focus on subjects such as pedestrian safety, enforcement and speeding impacts in order to heighten community awareness both consciously and subconsciously.

Neighborhood speed awareness signs may be provided to a study area on a short-term basis in order to raise awareness of speeding on residential roads. Signs can be provided to all residents within the study area or to a limited number of residents. Signs can also be relocated within the neighborhood to different locations/residences within this period with the purpose of making signs more visible to motorists/pedestrians since the signs are perceived as new signs.

This program may include the national program “Keep Kids Alive Drive 25” which was developed as a safety campaign targeting observance of residential speed limits by raising awareness.

2. Targeted Police Enforcement

Deployment of police officers for a period of time may be considered. The presence of officers should have an immediate effect on travel speeds. Repeated short-term deployments at differing times have been found to be more effective since it conditions drivers to anticipate enforcement. A single deployment would not have the same effect as drivers typically resort back to normal driving behaviors if no police presence is anticipated.

### Tier 2 Tools

These measures focus on easily implemented and still relatively low-cost features. All Tier 2 measures require an Engineering Traffic Study. After installation, a test period ranging from three to twelve months should be considered to determine the effectiveness of the device. Shorter test periods may allow for the relocation of temporary traffic calming measures if they are not achieving the desired results. Furthermore, during this period a neighborhood survey should be conducted to gauge neighborhood support for the implemented traffic calming measures. The following are Tier 2 traffic calming measures:

## 1. Temporary Speed Warning Devices

Installation of temporary, post-mounted, speed warning devices may be considered. These devices alter the drivers of their current speed while traveling on the roadway. These devices can be installed for either short-term or long-term deployments and may include the following options: solar power, wireless Bluetooth connectivity and data collection capabilities (speeds and volumes). The presence of these signs is expected to have an immediate effect on travel speeds.

## 2. Temporary Speed Humps and Speed Cushions

Measures such as temporary speed humps or speed cushions may be considered. This method would allow for the determination of the effectiveness of the traffic calming measure and aid in the determination of appropriate placement/modifications without the need for costly installations or removals of permanent measures. Temporary traffic control measures should resemble the permanent measures to the greatest extent possible including appropriate signage and pavement markings.

### **Tier 3 Tools**

Tier 3 tools consist of permanent installation of traffic calming measures as developed by the Traffic Engineer. The plans may utilize one or more traffic calming devices, including but not limited to, speed humps, new regulatory signage, chokers, center islands, median barriers and realigned intersections.

Traffic calming measures must follow the Pennsylvania Department of Transportation's Pub. 383 Pennsylvania's Traffic Calming Handbook and the Manual on Uniform Traffic Control Devices (MUTCD).

APPENDIX B: NEIGHBORHOOD TRAFFIC CALMING REQUEST FORM

## APPENDIX C: NEIGHBORHOOD TRAFFIC CALMING PETITION FORM

1. All persons signing this petition do hereby certify that they reside within the area, which is hereby defined as the street segment of: \_\_\_\_\_

from: \_\_\_\_\_ to: \_\_\_\_\_

2. All persons signing this petition do hereby agree there is the following problem in the defined specifically affected impacted area:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. All persons signing this petition do hereby agree that the following contact person(s) \_\_\_\_\_ represent(s) the neighborhood as facilitator(s) between the neighborhood residents and the Upper Dublin Township staff in matters pertaining to Items 1 and 2 above:

**BY SIGNING BELOW, I OFFER CONCURRENCE WITH THE PRESENTED CONSENSUS PLAN FOR TRAFFIC CALMING FEATURES TO ADDRESS IDENTIFIED ISSUE**

**NOTE: 70% of Property Owners within the Specifically Affected Area are Required to Sign this Form Before Final Consideration and Implementation**

No.	Name	Address	Phone	Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				