CITY OF LEXINGTON
POLICY FOR TRAFFIC CALMING IN RESIDENTIAL AREAS

The City of Lexington wishes to promote a high quality of life in our neighborhoods. This Policy for Traffic Calming in Residential Areas identifies a process for residents to request an evaluation for speed reduction on a defined residential street maintained by the City. NCDOT maintained roadways or private streets are not covered under this policy. The guidelines identified herein will assist City staff in determining an appropriate course of action upon receiving a citizen's request.

What is Traffic Calming?

The Institute of Transportation Engineers defines traffic calming as "the combination of measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users." Traffic calming intentionally slows vehicle speeds through a variety of improvements to reduce speed and accidents while improving safety for pedestrians and bicyclists. This includes both non-physical measures such as signage and pavement markings as well as physical measures like speed humps/bumps and raised crosswalks.

Examples of Traffic Calming

There are many innovative traffic calming treatments that can be considered in the right context. In some situations, it may be appropriate to use a combination of treatments. Below is a list of treatments that may be incorporated under certain conditions:

Signage: Installing signs like Speed Limit, Curve Warning, No Outlet, and Pedestrian Crossing is a non-physical way to alert drivers to conditions on a street.

Pavement markings: Pavement markings that narrow lanes, marked crosswalks, textured pavements, and rumble strips is another non-physical means to inform motorists of street conditions.

Speed humps/bumps: Speed humps/bumps are a speed control device generally constructed of asphalt and designed to cause a driver to slow to approximately 20 MPH. Greater speeds may cause the driver to experience discomfort as the vehicle hits the hump. Streets that have these devices typically see a 5% to 10% reduction in speeds. Speed humps/bumps are often placed in series, about 260 to 500 feet apart. Speed humps are less aggressive than speed bumps and are more appropriate for residential connector streets.

Bulb-outs: Bulb-outs are horizontal extensions of sidewalk into the street, which narrows a roadway section and provide added safety for pedestrians. They also tighten the curb radii at the corners, reducing the speeds of turning vehicles. When located mid-block, these are called chokers.

Chokers: Chokers are like bulb-outs but installed mid-block rather than at intersections. Two-lane chokers leave the street cross section with two lanes that are narrower than the normal cross section. One-lane chokers narrow the width to allow travel in only one direction at a time, like one-lane bridges. Chokers are good for areas with substantial speed problems and no shortage of on-street parking.

Raised crosswalk: Raised crosswalks are speed humps with crosswalk markings and signage to channelize pedestrian crossings, providing pedestrians with a level street crossing. Also, by raising the level of the crossing, pedestrians are more visible to approaching motorists.

Raised Intersection: Raised intersections are flat raised areas covering an entire intersection with ramps on all roadway approaches. These devices are the same elevation as the sidewalk, or slightly below to provide a "lip" that is detectable by the visually impaired. By modifying the level of the intersection, the crosswalks are more readily perceived by motorists to be "pedestrian territory".

Median Islands: Median islands are raised center islands located along the street centerline, whose purpose is to narrow travel lanes at that location. Median islands can be landscaped to provide a visual amenity and are often located at the entrance to neighborhoods. Fitted with a gap to allow pedestrians to walk through at a crosswalk, they are often called "pedestrian refuges."

Mini-Roundabouts: Mini-roundabouts are circular raised islands located in the middle of an intersection around which traffic circulates. While raised, trucks and other large vehicles can off-track over it when necessary. These devices provide traffic calming benefits to neighborhood intersections by reducing speeds and crash severity.

Chicanes: Chicanes are a series of alternating curves or lane shifts that force drivers to steer back and forth rather than traveling in a straight path. Chicanes can also be created by alternating on-street parking, either diagonal or parallel, between one side of the street and the other. Each parking bay can be created either by restriping the roadway or by installing raised, landscaping islands at the ends of each parking bay.

Eligibility

Before the traffic calming process begins, Engineering Services staff will ensure the street has the proper speed limit and necessary signage. In cases where the posted speed limit is 35 mph or greater, the City Engineer will determine if the street segment meets the criteria for speed reduction, and in all cases if the street segment has the proper signage. If warranted, the Engineering Services Director will make a formal request to amend the appropriate section of the City's traffic schedules. If approved by City Council and after posting, a three-month trial period must elapse before traffic calming measures will be considered. For a street to qualify for residential traffic calming, it must be a two-lane residential street maintained by the City of Lexington. For physical changes (speed humps/bumps, bulb-outs, etc.) to be made to a street, the following additional criteria must also be met:

- Street segments must be less than one mile in length, but at least two block lengths, or 800 feet, whichever is greater.
- Street grades must be less than or equal to 8%.
- The stopping sight distance must meet the minimum requirements for the posted speed.

Steps in the Traffic Calming Process

Step 1-Request and evaluation: Any citizen may initiate this process by submitting a request form on the City's website. The City Engineer will determine if the street in question meets the eligibility requirements, and if so, will work with the Police Department to collect speed data and crash history. The presence of pedestrian generators such as sidewalks, crosswalks, and recreational areas will also be a consideration in traffic calming. Eligible streets with 85th percentile speeds (the speed exceeded by the fastest 15% of vehicles) exceeding the posted speed limit by more than 5 mph will move to Step 2, as will streets with two (2) or more speed-related crashes within a three (3) year period. If traffic calming is not warranted, the City will not perform any subsequent engineering studies on the affected block or intersection for at least one year.

Step 2-Awareness and Enforcement: A combination of awareness and enforcement is the next step and is comprised of several options used to raise neighborhood and motorist consciousness about traffic safety concerns. Raising neighborhood and driver awareness may significantly reduce or eliminate the identified problem. This includes using speed monitoring devices that display the speed of the motorist in an attempt to promote a change in driving behavior.

While heightened awareness may be all that is needed for most neighborhoods, some areas may require the police to monitor traffic safety concerns and enforce as appropriate. Engineering Services will work with the Lexington Police Department on speed monitoring and other traffic safety issues during this time. After a three-month period, data will once again be evaluated to determine if the problem still exists. If so, the request will move to Step 3.

***Step 3-Non-Physical measures*:** Additional traffic calming measures are an option used only when education and enforcement do not reduce or eliminate the traffic safety concern. When appropriate, non-physical measures including signage and pavement markings will be attempted. If put in place, these measures will be evaluated for three months before major physical changes to the street are undertaken. If the data still suggests the need for traffic calming, the request will move to Step 4.

***Step 4-Physical measures*:** Installation of a traffic calming device is an option used only when awareness, enforcement, and non-physical measures do not reduce or eliminate the traffic safety concern. In these cases, the City will perform an engineering analysis to determine the appropriate calming device and the location of this device.

***Step 5-Gathering consensus*:** Once the traffic calming device and location is determined, Engineering Services staff work with the City of Lexington Fire and Police departments to ensure the selected device will not be detrimental to the provision of emergency services. If determined appropriate by the Fire and Police departments, the City will gather public consensus from area residents affected by the traffic calming device through the mailing of a neighborhood specific survey to all surrounding residences. If 75% of the respondents agree with the traffic calming measure, and sufficient funds are available for the project, the process will continue.

Step 6-City Council support: Councilors may use Neighborhood Funds when available for traffic calming projects. However, residents will not be permitted to install their own treatments on public streets. Once approved, installation of the traffic calming measure(s) generally takes 30-60 days.

***Step 7-Effectiveness evaluation*:** Staff will evaluate the effectiveness of the project after three months and annually for a period of three years. The removal of ineffective projects, as substantiated by a compilation and comparison of "before" and "after" data (speeds, crash histories, etc.) may be recommended by staff.

Questions?

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