

FINAL – October 25, 2001

## TRAFFIC-CALMING POLICY FOR NEIGHBORHOOD STREETS

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### INTRODUCTION

Reducing excessive speeds on residential streets is an important objective in ensuring the safety of pedestrians, cyclists, animals, and vehicles in neighborhoods, and in creating a calmer and more livable environment. Methods for discouraging speeding include enforcement, education, and engineering efforts. While police enforcement remains the most effective means of dealing with speeding, limited resources prevent officers from covering all of the problem locations at all times. In response to this concern, Bernalillo County has developed this policy which addresses “traffic-calming” options for new development as well as retrofit use in existing neighborhoods.

### TRAFFIC-CALMING

Posted speeds on local streets typically are set at 25 miles per hour but can range from 15 mph to 30 miles per hour. Many drivers ignore statutory and posted speed limits and, if the design of the road will allow them to do so, will drive at speeds exceeding those which suit the conditions prevailing in residential areas. In an attempt to discourage this activity, various physical devices have been developed. These include, but are not limited to:

- Speed Humps
- Diverters/Barriers
- Cul-de-Sacs
- Mid-Block Islands
- Raised Medians
- Traffic Circles

Traffic-calming devices can be deployed where the desired speed is in the range of 15-30 mph. In each case, the County Engineer will evaluate appropriate devices and desired speed ranges and utilize accepted design profiles to achieve the appropriate result.

### SPEED HUMPS

Speed humps are asphalt mounds constructed on streets intended to reduce speeds along a length of the street. A common type of traffic-calming device, speed hump designs can

vary due to differing conditions of the roadway, traffic conditions, and desired speed reduction.

#### DIVERTERS/BARRIERS

Diverters/Barriers limit access or turns to and from side streets and/or driveways and can be effectively used to discourage cut-through traffic. They are constructed from materials such as concrete, asphalt, or flexible materials such as plastic or fiberglass. Designs are unique to each intersection and can take a variety of forms.

#### CUL-DE-SACS

Cul-deSacs are complete closures of the street, either mid-block or at an intersection. They are intended to completely eliminate access from one end of a local street while allowing adequate turnaround for most vehicles. Designs must provide for an adequate turning radius for Emergency vehicles.

#### MID-BLOCK ISLANDS/CHOKERS

A Mid-Block Island is an obstacle placed in the center of the road, which effectively narrows the roadway. Mid-block speeds are reduced when drivers are forced to slow in order to maneuver around the island. Mid-Block Chokers are created by extending the sidecurb, thus narrowing the roadway and forcing vehicles to slow as they maneuver around the obstruction.

#### RAISED MEDIANS

Raised Medians can effectively slow speeds by creating mid-block or at intersection barriers which can be used to divert or modify access points entering and exiting roadways at intersections.

#### TRAFFIC CIRCLES

Traffic Circles are raised islands placed at the center of an intersection. Benefits of Traffic Circles are that they slow traffic and they reduce the number of angle and turning collisions.

### **TRAFFIC-CALMING POLICY GUIDELINES**

Alternative traffic management strategies should always be pursued before the decision is made to install speed humps, or other traffic-calming devices. These strategies include:

1. Reviewing, establishing, and/or revising and enforcing general laws and ordinances pertaining to speed limits and other traffic control management items.

2. Educating residents and neighborhood groups so they can better understand causes of traffic problems, potential solutions to these problems and the advantages and disadvantages of implementing different solutions.
3. Installing specific regulatory, warning, or guide signs and other traffic control devices.

Traffic-calming Devices are effective for safely reducing vehicle speeds on certain types of streets. In order for traffic-calming-device installations to be effective, they should be located selectively in accordance with defined transportation engineering criteria. Proper installation will also minimize driver frustration and encourage safe driving practices. The County maintains a technical reference of appropriate devices that satisfy engineering and safety criteria such as the *Manual on Uniform Traffic Control Devices (MUTCD), 2001* and *Traffic-calming, State of the Practice, ITE, 1999*. Examples of traffic-calming devices based on design guidelines and recommendations contained in these documents are included in this document for immediate reference.

All proposed traffic-calming-device applications will be subject to consultative review by Bernalillo County Fire Department and the Bernalillo County Sheriff's Office prior to implementation. Special consideration and/or exclusions may be granted based on accessibility issues such as whether the candidate roadway is designated as a critical response route.

This policy is intended for individual roadway facilities. Traffic-calming devices recommended as part of a system-level analysis to address traffic flow and control for a particular area of the County will not be subject to the provisions of this policy.

The County of Bernalillo reserves the rights to install, remove, or alter any traffic-calming device for health, welfare, and safety of the public. The process for traffic-calming device removal or alteration by residents is the same as the process for installation.

If a location fails to meet any of the following criteria, the placement of speed humps should not be recommended:

#### OPERATIONAL CRITERIA

1. The functional classification of the roadway is a local, major local street, or collector\*.
2. Average weekday daily traffic (AWDT) volumes on the roadway segment are greater than 700 vehicles per day (vpd) and less than 3,000 vpd.
3. The posted speed limit of the roadway segment is 30 miles per hour (mph) or less.
4. The 85<sup>th</sup> percentile speed measured on the roadway segment exceeds the posted speed limit by 10 mph or more. This criterion may be waived for dead-end streets.
5. The roadway segment is fronted by primarily (more than 50 percent) residential land uses.

\* Collector Streets eligible as per the "exceptions rule" identified below

## GEOMETRIC CRITERIA

1. The roadway has a vertical grade of 8 percent or less.
2. The roadway segment is paved.
3. The roadway segment has only one moving lane of traffic in each direction.
4. The section length is greater than or equal to 2 blocks or 1200 feet.
5. The width of the street is greater than 18 feet.

The following general conditions should also be considered when locating traffic-calming devices:

- Motorists should have adequate sight distance to react to traffic-calming devices.
- Traffic-calming devices should not be placed over manholes, gate valves, utility vault accesses, or other similar features.
- If a drainage inlet is near where a traffic-calming device would be placed according to the general spacing criteria, an attempt should be made to locate the device just downstream of the inlet.
- Traffic-calming devices should be placed to take advantage of existing street lighting.
- Traffic-calming devices should not be placed in front of driveways when possible.
- Traffic-calming devices should be placed at property lines if possible, rather than directly in front of a residence.
- Traffic-calming devices are placed perpendicular to the direction of travel.
- Traffic-calming devices should not be placed within an intersection.
- Traffic-calming devices should not be placed within a horizontal curve.
- When curves are not present, alternate means should be provided to discourage motorists from driving around the traffic calming device.
- Emergency vehicle response times are significantly reduced.

## EXCEPTIONS

On roadways that are classified as collectors, an exception may be granted to allow for speed humps if the traffic volume on the roadway is less than 3,000 vpd. The procedure for installation shall remain the same as outlined in this policy. Each case will be reviewed individually by County staff and a determination will be made based on consideration of adjacent land uses, function in the transportation system, emergency response provider consultation, and safety. In cases where speed humps are installed, the speed humps will be removed when the roadway volume exceeds 3,000 vpd, except as noted above.

## **NEIGHBORHOOD SUPPORT**

Property owners on the roadway segment must be in concurrence with the placement of traffic-calming devices and will be allowed one vote of record. The signing of a petition to the Public Works Director/designee will indicate concurrence. Only petition forms supplied by the Public Works Division or exact duplicates may be used for this purpose. The formula

for calculating the percentage required for petition acceptance is as follows: **Percent of Lot Owners Supporting the Placement of Speed Humps in the Petition Area = 75 – (.25 (percent Absentee Lot Owners in Petition Area))**. The petition will clearly state that those signing the petition would accept all warning signs and restricted parking associated with the placement of the speed humps(s).

## **EVALUATION, PRIORITIZATION, AND IMPLEMENTATION**

The initial request for the installation of traffic calming devices must originate from an owner of property on the candidate street. The evaluation and petition forms are contained in the appendix of this document. The County Public Works Division will prioritize pending projects on a fiscal year basis by reviewing the rankings as assigned through the application process and criteria outlined below. Projects will be reviewed on a first come, first served basis, and will be scheduled for detailed design and implementation based on their evaluation by County staff and the capital improvement funds available for the fiscal year.

After verification of the petitions, the Division will conduct the associated transportation engineering studies i.e., spot speed studies, volume counts, field checks, etc., on the candidate facility before proceeding with the installation. Comments and recommendations from other departments and/or agencies will also be solicited at this point in time in order to identify any additional impacts of any proposed traffic-calming installation.

Evaluation will be as follows:

**Speed:** **Two (2) points** will be assigned for every 1-mph that the 85<sup>th</sup> percentile speed exceeds the posted speed limit for the facility.

**Volume:** Points will be given to the facility, based on the daily volume schedule below:

24 hour count:	Score:
700-930	0
931-1160	1
1161-1390	2
1391-1620	3
1621-2080	4
2081-2310	3
2311-2540	2
2541-2770	1
2771-3000	0

**Accidents:** An extra **three (3) points** may be assigned to any street that exhibits an above average occurrence of speed-related accidents. Accident data will be solicited from the University of New Mexico, Division of Government Research published accident reports. Reported roadway accident data (if available from this source) will be compared to average accident rates by functional classification as compiled and published by the Middle Rio

Grande Council of Governments annual roadway statistics documentation. If no accident data is available in these reports, this criterion will not be considered in the evaluation.

*Pedestrian activity and facilities:* **Ten (10) points** will be assigned if the street has no sidewalks; or, **five (5) points** will be assigned if there are sidewalks on only one side or has discontinuous sidewalks. **Ten (10) points** will be assigned for each pedestrian generator along the roadway section, for instance, a school, playground, or park.

*Bikeway facilities:* **Five (5) points** will be assigned if the roadway includes on-road bike route or bike lane designation.

*Street width:* **Five (5) points** will be assigned if the combination of street width and parking characteristics results in areas of single lane, alternating flow.

All traffic calming applications will be evaluated and ranked according to the policies and guidelines contained in this document. When a budgeted amount for traffic-calming devices has been approved, the Division will determine the installations that will be funded from this amount based on the ranking of the applications using the criteria as outlined above. As funding allows, preference shall be given to those roads qualifying for traffic-calming where other improvements are already planned to be constructed.

## APPENDIX:

**STAFF EVALUATION FORM/FLOW SHEET – (ATTACH TO APPLICATION FORM)**

LOCATION: \_\_\_\_\_

FROM: \_\_\_\_\_ TO: \_\_\_\_\_ LENGTH: \_\_\_\_\_

DATE OF APPLICATION: \_\_\_\_\_ DATE OF FIELD CHECK: \_\_\_\_\_

REQUESTOR'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE/EMAIL: \_\_\_\_\_

**MEETS ALL MINIMUM CRITERIA ON ATTACHED APPLICATION SHEET? ..... Y N**  
**(FAILURE TO MEET ANY ONE, THEN NOT RECOMMENDED FOR FURTHER EVALUATION)**

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**ENGINEERING CRITERIA:**

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Posted Speed: \_\_\_\_\_ 85<sup>th</sup> Percentile Speed: \_\_\_\_\_ points:

Pace Speed: \_\_\_\_\_ Difference (85<sup>th</sup> - Posted Spd. X 2) = \_\_\_\_\_

High occurrence of Speed-Related Crashes (max 3pts) = \_\_\_\_\_

Choose one of the following:

No sidewalk on either side (10 pts)

Sidewalk on one side or discontinuous (5pts) = \_\_\_\_\_

Pedestrian generator(s), i.e., school, playground, park (each X 10 pts) = \_\_\_\_\_

On street bikeway facilities (5 pts) = \_\_\_\_\_

Street width/parking results in 1 lane of flow (5 pts) = \_\_\_\_\_

Traffic Volume (0 – 4 pts) = \_\_\_\_\_

**TOTAL POINTS = \_\_\_\_\_**

Evaluated by: \_\_\_\_\_ Date: \_\_\_\_\_

Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

**Recommended:** \_\_\_\_\_ Planning \_\_\_\_\_ Engineering  
\_\_\_\_\_ Maintenance \_\_\_\_\_ Sheriff Dept.  
\_\_\_\_\_ Fire Dept.

**TRAFFIC-CALMING DEVICE APPLICATION FORM – TO BE FILLED OUT BY APPLICANT**

STREET LOCATION: \_\_\_\_\_

FROM: \_\_\_\_\_ TO: \_\_\_\_\_

REQUESTOR'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE/EMAIL: \_\_\_\_\_

DATE OF APPLICATION: \_\_\_\_\_

APPLICATION BY PHONE? (Y or N): \_\_\_\_\_

PETITION ATTACHED? (Y or N): \_\_\_\_\_

**Below For Staff Use Only:**

Preliminary Criteria to be filled out by County Staff

**MINIMUM CRITERIA (FAILURE TO MEET ANY ONE, THEN NOT RECOMMENDED FOR FURTHER EVALUATION):**

Functional classification as a local or major local street .....	Y	N
AWDT volumes are more than 700 vpd and less than 3,000 vpd .....	Y	N
Posted speed limit is 30 mph or less .....	Y	N
85 <sup>th</sup> percentile speed exceeds posted speed limit by at least 10 mph	Y	N
Land uses fronting section are more than 50% residential .....	Y	N
Vertical grade of roadway is 8 percent or less .....	Y	N
Roadway is paved .....	Y	N
Street has only one lane of traffic in each direction .....	Y	N
Section length is greater than or equal to 2 blocks or 1200 feet ....	Y	N
Street width is greater than or equal to 18 feet.....	Y	N
<b>MEETS ALL CRITERIA? .....</b>	<b>Y</b>	<b>N</b>

Evaluated by: \_\_\_\_\_ Date: \_\_\_\_\_

Revised by: \_\_\_\_\_ Date: \_\_\_\_\_