



**NEIGHBORHOOD
TRAFFIC
CALMING PROGRAM**

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1. **Introduction and Background**

Tulsa County residents live among a highly mobile population where there is continual travel to and from home, work, school, shopping, entertainment and many other destinations. We are most dependent on motorized vehicles; however, we do walk and bike to destinations.

Thanks to careful planning efforts, the destinations are linked by a hierarchy of streets that include primary and secondary arterials, collectors, and local residential streets. Residential streets may fit into any of these categories except arterials, both primary and secondary.

Today, because of the increased dependency of vehicles for mobility, we see a dramatic increase in vehicle speeds and daily neighborhood traffic volume on local streets. Additionally, as delay on arterials has increased, some motorists have decided to bypass the congested arterials and use neighborhood streets to get from one arterial to another or as a shortcut to their destination. For these reasons the Tulsa County Commissioners and Tulsa County Engineering Department offer neighborhoods participation in the Tulsa County Traffic Calming Program.

1.1. **Traffic Calming Program Principles**

The purpose of traffic calming is to restore streets to their intended function. To do this, Tulsa County takes an integrated approach, called the 3 E's, which includes:

- **Community Education** and participation,
- **Enforcement** of established regulations, and the
- **Engineering** and application of traffic control devices that singly or collectively reduce speed and/or traffic volume by physical changes to the roadway in combination with existing speed and volume reducing measures already in place

The Tulsa County Sherriff's office will continue to implement a sustained presence and will conduct selective speed enforcement on our neighborhood streets.

Tulsa County Engineering will work with registered neighborhood associations and other neighborhood groups who collectively seek traffic calming measures for their residential streets. In addition, residential and commercial developers are encouraged to propose designs that seek to mitigate additional, adverse traffic impacts to residential neighborhoods.

1.2. Recommended Practices for Engineering

Speed humps are the primary traffic calming device used in Tulsa County for existing residential collector streets. Design and application of speed humps follow the Institute of Transportation Engineers (ITE) Guidelines for the Design and Application of Speed Humps.

Speed humps are raised lengths of pavement extending across the width of the street. A tapered edge near the curb accommodates stormwater runoff. Speed humps in use by Tulsa County are typically twenty-two (22) feet in length as you drive across them and three (3) inches tall in height.



Figure 1: 22-Foot Speed Hump

Based on the research and discussions, the following highlights a list of common factors that are used in developing traffic calming plans:

- Consideration of **safety** first in all aspects of the planning, design and implementation of traffic calming measures
- Consideration of all **services** (school buses, transit, fire, snowplowing, garbage, ambulance, etc.)
- Consideration of **environmental impacts** and where possible, removal of existing multi-way stop intersection locations in favor of an environmentally friendly traffic calming application that minimizes vehicle acceleration and deceleration
- Identification of the **issues and concerns** brought forth by citizens, citizen groups or registered neighborhood associations
- Assessment of **operations of adjacent arterials** and consideration of improvements to the arterial network first, thereby reducing or removing incentives for motorists to intrude on residential collector and local residential streets
- Measurement of **existing conditions**
- Avoidance of intentionally **diverting traffic** off of the target street to other adjacent neighborhood streets
- Avoidance of restricting **ingress/egress** to residences
- Promotion of **alternate modes of transportation** (bicycles, buses, walking and carpooling)
- Emphasizing of traffic calming measures on residential collector and local residential streets adjacent to **schools** and those designated or known as school routes where children walk or bicycle to school

2. Traffic Calming Process

2.1. Participation Application

Individual residents or neighborhood associations can initiate traffic calming requests. An application to participate in Tulsa County's Neighborhood Traffic Calming Program (see Appendix 2) can be downloaded from the County's website at www.tulsacounty.org/Tulsacounty/dynamic.aspx?id=644 or requested by calling the Tulsa County Engineering Department at (918) 596-5733. Please mail or email completed applications to:

Tulsa County HQ
Tulsa County Engineering
218 W. 6th St.
Tulsa, OK 74119-1004
engineering@tulsacounty.org

2.2. Planning

On receipt of a traffic calming application, Engineering staff will first identify site-specific project limits and work directly with the contact person to clearly define the problem. Acknowledgement will be sent to the individual (contact person) making the inquiry. That person must reside on the requested street segment within the boundaries defined on the traffic calming application. The acknowledgement will confirm that a study is underway and will indicate an anticipated completion date.

2.3. Warrants for Installation Eligibility

After the project limits and scope of the problem are defined, Engineering staff will commence with both data collection and review of existing operational and geometric characteristics of the street in question. Eligibility for a traffic calming installation will be verified by checking collected data to the warrants and a review of the operational and geometric characteristics of the street segment. Traffic calming warrants are based on the following primary factors:

- **85th percentile speed**

The 85th percentile speed on the street section must be at least 5 mph over the posted speed limit. The 85th percentile speed on residential collectors with homes facing away from the street must be 7 mph over the posted speed limit.

- **24-hour traffic volume**

The average daily traffic must be between 600 and 5,000 vehicles per day to qualify for speed humps.

The following factors shall also be reviewed in determining if a request meets the warrants:

- 2.3.1. The street shall provide access (via a driveway or on-street parking) to abutting residential properties (residential local or collector streets). Multiple dwellings, such as apartment complexes, are considered to be residential properties; however, they are considered to be one (1) residence. The owner of the multiple dwelling is required be applicant of record.
- 2.3.2. The street shall not have more than one traffic lane in each direction.
- 2.3.3. The street segment or block under consideration must be at least 300 feet in length.
- 2.3.4. The street shall have a regulatory speed limit of 30 mph or less.
- 2.3.5. Streets can may or may not have curb and gutter. In warranted cases, special care should be used to accommodate drainage and prevent vehicle run-arounds for non-curb and guttered streets.
- 2.3.6. Street segment boundaries identified for traffic calming should be uninterrupted segments of street, i.e. no stop signs. If an applicant does identify a street segment with interrupted points, then the project plan may direct the existing interrupted points be removed.
- 2.3.7. No consideration will be given to speed hump installation on a residential collector street segment where traffic signals are located at beginning and ending terminal points with a higher classified roadway than a collector street. Additionally, the County will reserve the right to remove any traffic calming devices on a residential collector street segment that if at a later date, traffic signals are installed on the terminal points of a segment.

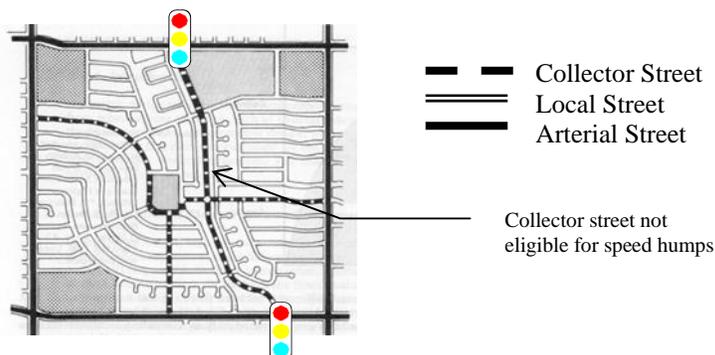


Figure 3: Roadway Classification

If the requested street does not meet criteria and warrants, the requestor will be notified through the U. S. Postal Service, or email. No further study action will be taken. Reconsideration for the street segment in questions will not be undertaken for another 36 months unless compelling evidence is otherwise shown.

Petitions, Verifications and Endorsements

If the street segment meets criteria and warrants for traffic calming, residents living along the affected street segment will be asked to complete a petition (see **Appendix 6**) to show that the neighborhood is in support of participation in the Tulsa County Neighborhood Traffic Calming Program. By participating in the program, residents are agreeing that they are in favor of having speed humps installed on their street.

A verification statement (see **Appendix 4**) confirming the signatures on the participation petition are valid and represent at least two-thirds (67%) of the residences adjacent to the project street is required from the contact person.

Registered neighborhood associations adjacent to the street segment area will be asked to sign an endorsement statement (see **Appendix 5**), endorsing the traffic calming installation.

The contact person will be responsible for soliciting the neighborhood(s) for signatures and submitting the petition along with any other required documents as detailed in their petition packet.

A successful petition must document that at least two-thirds (67%) of all residences adjacent to the project support the installation of speed humps. In addition, eighty percent (80%) of properties within the affected area must be accounted for, either by signature and indication of preference (in favor or oppose) or by written statement by the contact person why a specific property was not represented. Petitions must be completed and returned to the Tulsa County Engineering Department by no later than 5 p.m. on the due date indicated. Neighborhoods will be given 45 days from the date that the petition package is mailed to complete their petition and return it to the County.

If a petition is not received by the deadline, the requestor will be notified through the U.S. Postal Service. No further study action will be taken. Reconsideration for the street segment in questions will not be undertaken for another 36 months unless compelling evidence is otherwise shown.

Engineering staff will prepare a participation packet of information including petition forms and program information for the contact person to use in collecting signatures. Specific locations will not be given at this stage. The petition is an affirmation of participation in the program only. Locations and design will be prepared by Traffic Operations staff and presented to the residents for comment only upon receipt of a successful petition for participation.

Please Note: Upon successful completion of the petition, the neighborhood agrees to the installation of speed humps and associated signs on their street regardless of location or number of speed humps which are determined necessary in the Traffic Calming Plan to address the speeding problem. The speed humps or signs may be placed in front of any residence located within the project area. Requests will be considered during the comment period, but may or may not be accommodated.

2.4. Traffic Calming Plan

Upon receipt of a successful petition, Engineering staff will begin development of a traffic calming plan to determine the number of speed humps needed as well as their recommended locations. The criteria listed in Section 1.2 for recommended engineering practices will be used in developing the plan along with the following spacing guidelines:

- 2.4.1. Speed humps will typically be placed 200 to 600 feet apart. Other spacing may be used upon based on engineering judgment.
- 2.4.2. On single short blocks (300 to 500 feet), a single speed hump will typically be positioned near the mid-point.
- 2.4.3. On single blocks of moderate length (500 to 1,000 feet), a two speed hump configuration at third points will typically be used.
- 2.4.4. On very long blocks (1,000 to 1,600 feet), three speed humps will typically be placed on approximate quarter points.
- 2.4.5. On lengthy continuous street segments or segments comprised of a number of blocks, desirable interior speed hump spacing will typically be 400 to 600 feet.

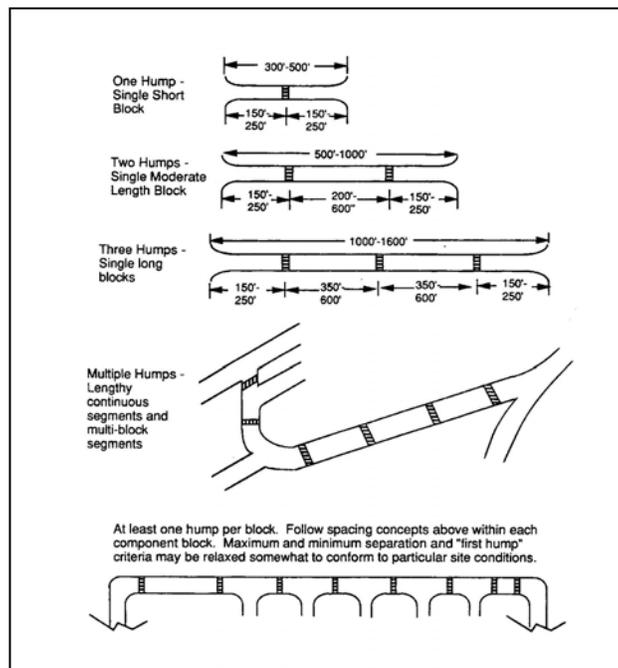


Figure 4: Speed Hump Spacing

2.5. Public Meeting and Comment Period

A successful traffic calming program must involve the public and participation by those living along the affected street and adjacent registered neighborhood associations is essential.

When the Traffic Calming Plan is completed, the plan will be presented to residents via a letter and a public meeting. The contact person will be responsible for locating a suitable meeting site for the public meeting. Once the date of the public meeting is set, a letter and a map showing the proposed speed hump locations will be mailed to each street address located in the project area to alert residents of the meeting and the plan one week prior to the meeting date.

Comments on the Traffic Calming Plan will be taken from residents beginning on the date of mailing of the meeting notification letters and ending five (5) days after the Public Meeting is held.

After the comment period concludes, Engineering staff will review the comments and make adjustments to the Traffic Calming Plan to accommodate the requests within reasonable limits without compromising the plan objectives or safety.

2.6. Project Prioritization

Once a Traffic Calming Plan has been presented to the public and any adjustments made, traffic calming projects will be prioritized on a countywide basis. This ensures proper allocation of County resources and it ensures an equitable process to Tulsa County citizens. Projects will be ranked for funding and installation based on engineering judgment and points assigned on the basis of

- 85th percentile speed,
- 24-hour traffic volume,
- Total number of reported crashes over a two-year period, and
- Proximity to special traffic generators.

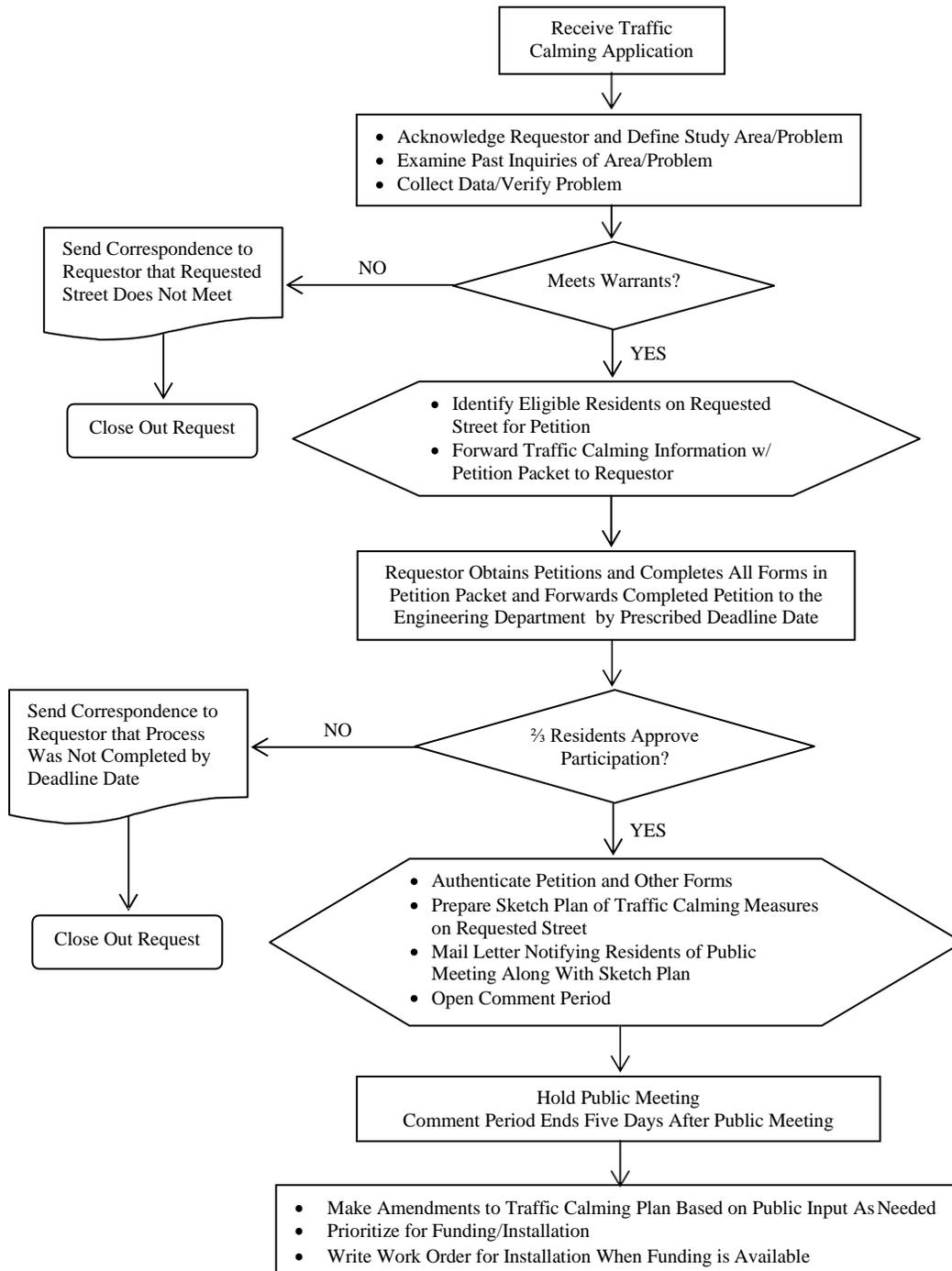
The street segment installation accumulating the greatest number of points will be considered to have the highest priority. Among project installations with the same rank, higher priority will be given to the application with the earliest application date subsequent to the effective date of the traffic calming program. Installation will commence and continue based on the availability of capital funding.

2.7. Authority and Scope

The Tulsa County Engineer issues and administers the traffic calming program. The Tulsa County Engineer retains the full authority to install or remove traffic calming devices for cause independent of this guideline.

The Tulsa County Engineering Department will prepare and maintain current design standards and installation and removal procedures for speed humps and other traffic calming devices in accordance with current Tulsa County design practices and the criteria herein established.

2.8. Implementation



3. Removal Procedures

3.1. Maintenance or Construction Activities

Any traffic calming speed hump that is removed or damaged during the course of publicly funded construction will be reinstalled upon completion of that construction at Tulsa County's expense. Speed humps partially or completely removed during routine Tulsa County maintenance activities will be repaired or reconstructed to original conditions upon completion of those maintenance activities at Tulsa County's expense.

Any speed hump that is removed or damaged during the course of privately funded maintenance or construction will be reinstalled upon completion of those activities at the expense of the party damaging the speed hump.

The replacement of speed humps completely removed through the above actions is not automatic, but contingent upon a review for conformance with current policies and procedures.

3.2. Citizen Requests

3.2.1. Request Process

Citizens may request a street segment be reviewed for the possible removal of some or all of the existing humps. An application (see **Appendix 3**) can be downloaded from the County's website at www.tulsacounty.org/Tulsacounty/dynamic.aspx?id=644 or requested by calling (918) 596-5733. Forward completed applications by mail or email to:

Tulsa County HQ
Tulsa County Engineering
218 W. 6th St.
Tulsa, OK 74119-1004
engineering@tulsacounty.org

The removal request must originate from a resident whose property is within the affected segment area. The affected area will be determined by Traffic Operations staff and will include primarily those properties facing or abutting the street segment on which speed humps are located. A property will be considered part of the affected area if its only ingress and egress route requires traveling over existing speed humps requested to be removed.

3.2.2. Eligibility

The Tulsa County Engineering Department will determine eligibility for removal consideration by these factors:

- a. A request for removal of the subject speed humps must not have

been denied within the past three (3) years.

- b. The same residences included in the petition area for the original Traffic Calming Plan for installation must be included in the petition area for the removal of the speed humps.
- c. The speed humps must have been in place for at least one year or at least one year has elapsed since any previous speed hump removal occurred.

3.2.3. Notification / Evidence of Support

Subsequent to the determination of eligibility for speed hump removal on a segment, a map of the affected area will be prepared, and a petition packet sent to the contact person for documenting support for the removal. All properties within the affected area must be accounted for, either by signature and indication of preference (in favor or oppose) or by written statement by the contact person why a specific property was not represented. There must be at least a 67 percent evidence of support to further the process. Requests with either no petition, or with a petition that does not account for all properties, will be considered incomplete and will be delayed for review until a complete petition is submitted. If no petition is submitted within 60 days of the application, the application will be considered “denied.”

3.2.4. Removal Determination

The specific street segment indicated on the removal application will be the basis to identify the speed humps for removal. Final determination for the removal will be at the discretion of the Tulsa County Engineering Department staff. Based on engineering judgment, the review process may recommend removal of none, some, or all of the speed humps. Factors considered, but not limited to, are:

- a. Existing speed hump locations and spacing
- b. Stop/yield signs along the segment
- c. Historical and existing traffic speed and volume information
- d. Collision History
- e. Presence or absence of sidewalks, schools and parks

If speed studies conducted along the requested segment or portions of the segment show the 85th percentile speed is greater than or equal to 8 mph over the posted speed limit, then no hump removal will occur along the segment or portion of the segment represented by the study.

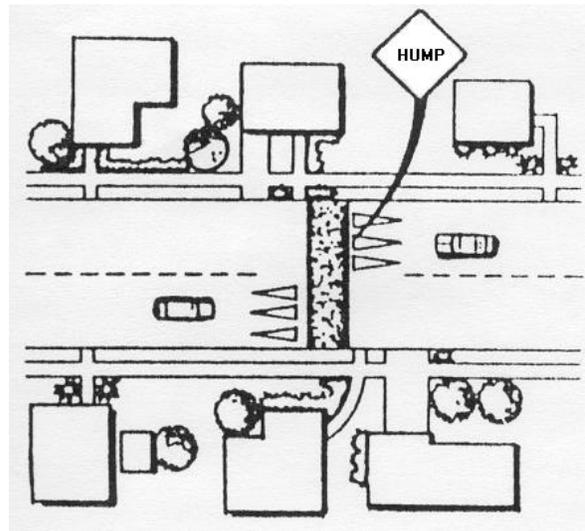
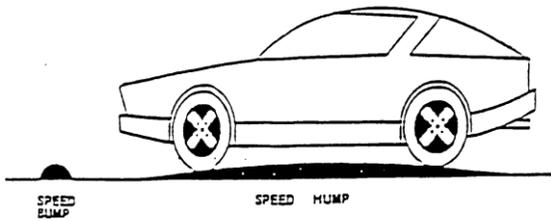
Following the removal of any speed hump, the segment may not be reconsidered for additional hump removal or reinstallation for at least three years. A new application must be submitted to have a segment receive consideration for additional removal.

APPENDICES

Appendix 1 – Speed Humps

Speed Hump

Definition: Speed humps are parabolic-shaped humps in the street. The height of the speed hump determines how fast it may be traversed without causing discomfort to the driver or damage to the vehicle. Discomfort increases as speed over the hump increases. Typically speed humps are placed in a series rather than singularly. Speed humps are gradual changes in the roadway surface usually 12-24 feet long and 3-4 inches high and differ dramatically from speed bumps that were traditionally installed on private property. Speed bumps are about 1-2 feet long, and are much more abrupt. Speed humps are generally placed approximately 300 feet apart and require signage and pavement markings in each direction that warns the driver to slow down. Speed humps are effective in reducing speed while not creating hazards to emergency response and transit vehicles.



Advantages	Disadvantages
<ul style="list-style-type: none"> Reduces vehicle speeds in the vicinity of the hump without increasing crashes. Better if used in a series at 300' to 500' spacing Self enforcing Relatively inexpensive 	<ul style="list-style-type: none"> May create noise particularly if there are loose items in the vehicle or trailer If not properly designed, drivers may try to skirt around to avoid impact May be a problem for emergency vehicles May impact drainage Driver may speed up between humps May increase volumes on other streets Difficult to properly construct Required signage/markings may be considered unsightly

Evaluation Considerations						
Safety	Speed Reduction	Traffic Reduction	Fuel Consumption	Pollution	Cost	Emergency Services
Possible Improvements	Yes	Possible	Small Increase	Small Increase	Low to Medium	Possible Problems

Appendix 2. – Application for Traffic Calming

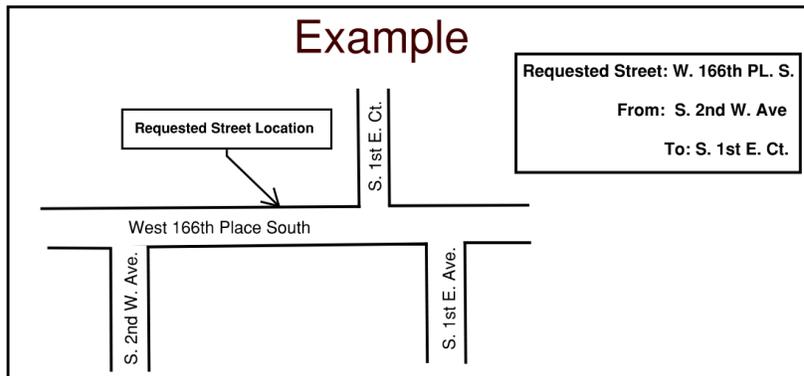


TULSA COUNTY
Tulsa County Engineering Department
Application For Traffic Calming

A. Street Study Information

Please provide the name of the street to be considered (Requested Street). Indicate the boundaries of the street segment by identifying intersecting streets (From and To). Consideration will be given for only the described segment. Complete additional applications for other street segments.

Requested Street	
From:	
To:	



B. Contact Person Information

Each request must provide a contact person who lives on the requested street within the study area boundary. The contact person will receive all correspondence and be responsible for gathering evidence of support when requested.

Name: _____

Address: _____

City: _____ **Zip Code:** _____ **Daytime Phone #:** _____

Email Address: _____

I understand this request will be processed according to the procedures detailed in the Neighborhood Traffic Calming Guideline. I agree to be the contact person for the above request.

Signature of Applicant: _____ **Date:** _____

Appendix 3. – Application for Removal of Traffic Calming



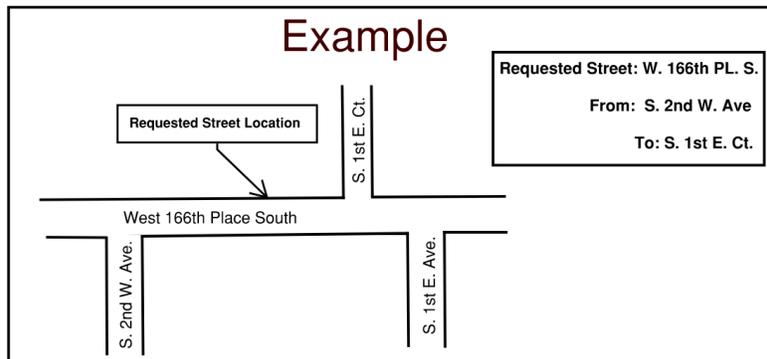
TULSA COUNTY
Tulsa County Engineering Department
**Application For Removal
Of Traffic Calming**

The following is a request to remove traffic calming devices. Please complete the information in Parts A. and B. below.

A. Street Study Information

Please provide the name of the street to be considered (Requested Street). Indicate the boundaries of the street segment by identifying intersecting streets (From and To). Consideration will be given for only the described segment; however, the residences in the area that originally approved the installation of the speed humps will be notified regardless of the segment requested on this application. Complete additional applications for other street segments.

Requested Street	
From:	
To:	



B. Contact Person Information

Each request must provide a contact person who lives on the requested street within the study area boundary. The contact person will receive all correspondence and be responsible for gathering evidence of support when requested.

Name: _____

Address: _____

City: _____ **Zip Code:** _____ **Daytime Phone #:** _____

Email Address: _____

I understand this request will be processed according to the procedures detailed in the Neighborhood Traffic Calming Guideline. I agree to be the contact person for the above request.

Signature of Applicant: _____ **Date:** _____

Appendix 4. – Verification Statement



TULSA COUNTY
Tulsa County Engineering Department
Verification Statement
Speed Hump Petition

Request No.: _____

There are a total of _____ properties adjacent to _____ between _____ and _____. There are _____ valid signatures on the speed hump petition, which represent _____ percent of the properties adjacent to the street within the aforementioned section.

I verify that the signatures on the speed hump petition are valid and only one signature per residence has been considered in the above percentage.

Signature of Contact Person: _____ **Date:** _____
(Must be the same as that on the *Application for Traffic Calming*)

Name:
(FIRST) (LAST)

Address:

City: **Zip Code:** **Daytime Ph. #:**

Email Address:

Appendix 5. – Endorsement Statement



TULSA COUNTY
Tulsa County Engineering Department
Endorsement Statement
Speed Hump

Request No.: _____

In a meeting held on the _____ day of _____, 20____, the:

1. _____
2. _____
3. _____
4. _____

Neighborhood Association(s) approved and endorsed the speed hump project on _____
from _____ to _____. The association(s) acknowledge(s)
that because of installation of speed humps on the above mentioned street, there may be an increase in
traffic on nearby streets.

The contact person has confirmed that signatures on the speed hump petition are valid and represent
two-thirds of the residences adjacent to the speed hump street within the section mentioned above.

	HOA Officer Printed Name	HOA Officer Signature	Date
1.			
2.			
3.			
4.			

