

August 14, 2013

## SANTA FE COUNTY TRAFFIC-CALMING POLICY

Santa Fe County Public Works Traffic Department  
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### **INTRODUCTION**

The Traffic Calming Program is designed to coordinate the collaboration of County staff and citizens, in an effort to produce effective traffic calming throughout Santa Fe County's Communities. This program focuses on local transportation issues such as cut-through traffic and speeding vehicles on County maintained roads. The information and tools presented in this document will be applicable on local roadways in an effort to reduce traffic speeds and volume while balancing multiple uses. Local roadways are defined as a County-maintained road that provides direct access into a residential neighborhood to connect individual homes to collector and arterial streets. The Traffic Calming program outlines a variety of measures to improve quality of life in local residential neighborhoods. The program provides opportunities for residents to work closely with Santa Fe County staff to identify traffic issues and concerns, and determine appropriate solutions.

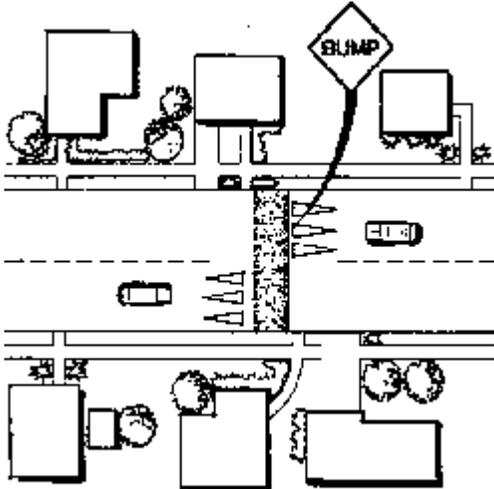
### **TRAFFIC-CALMING**

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
- Chicanes
- Radar Speed Monitoring Trailer

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

## SPEED HUMPS



### Definition:

Speed humps are asphalt mounds engineered and 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.

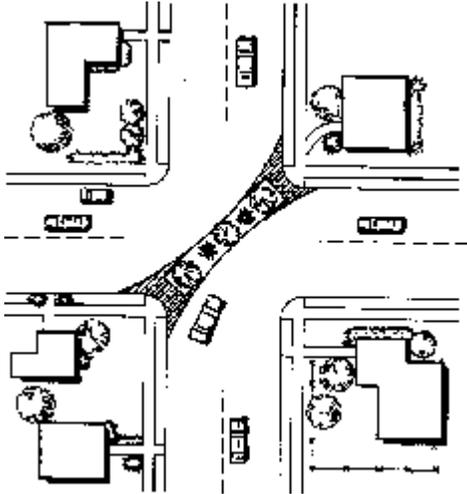
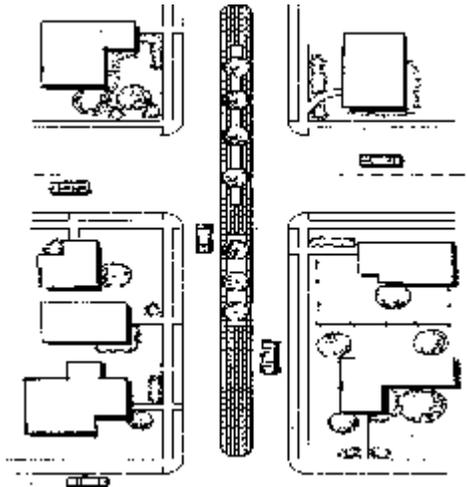
### Advantages:

1. Slows traffic immediately.
2. Self-enforcing.

### Tolerable Impediments:

1. Greatly increases response time for emergency vehicles.
2. Motorists tend to speed up between humps.
3. Increases noise and pollution in neighborhood.
4. High installation and maintenance costs.

\*See attached sheet for Speed Hump Detail.

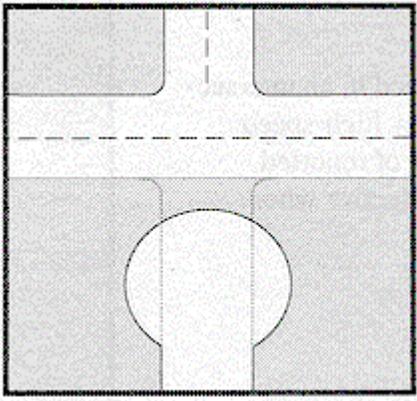
**DIVERTERS****Barriers**Definition:

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.

Tolerable Impediments:

1. Improves intersection safety by reducing the number of conflicting movements.
2. Reduces cut-through traffic.
3. Allows signs to be located favorably within motorists' line of sight.
4. Impedes emergency vehicle, snow plow, and other service trucks such as garbage and delivery trucks.
5. May divert traffic to adjacent neighborhood streets.
6. May become obstacles for motorists to drive into.
7. High installation cost

## CUL-DE-SACS



### Definition:

Cul-de-Sacs 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 emergency vehicles. Designs must provide for an adequate turning radius for emergency vehicles.

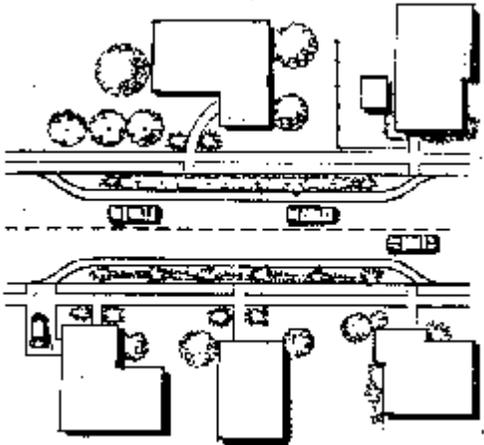
### Advantages:

1. Eliminates through traffic volumes.
2. Reduces noise and speeds in the vicinity of the closure.
3. Improves safety for non-motorized users.
4. Creates space for landscaping.

### Tolerable Impediments:

1. Impedes emergency vehicles, snow plows, and service vehicles such as garbage and delivery trucks.
2. May divert traffic to adjacent neighborhood streets.
3. Will need adequate turning radius causing vehicles to back up when turning around
4. May require part or all of on-street parking removal.
5. Drainage may be affected if used as a part of a traffic calming project.
6. High installation cost.
7. Increased maintenance.
8. An inconvenience for residents.

## MID-BLOCK ISLANDS/CHOKERS



### Definition:

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.

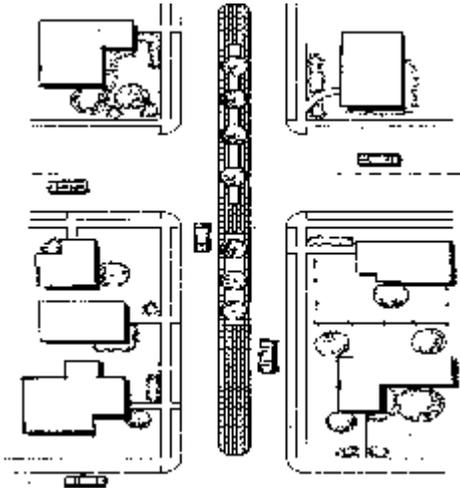
### Advantages:

1. May reduce speeds by giving motorists the sense of limited space.
2. Improves motorist-pedestrian visibility of each other.
3. Intersection crossing distance for pedestrians is reduced.
4. Creates space for landscaping.

### Tolerable Impediments:

1. Impedes emergency vehicle, truck and other service vehicle access.
2. Bicyclists may feel “squeezed in” due to narrower roadway.
3. May require modification or reconstruction of drainage features and other utilities.
4. May become obstacles for motorists to crash into.
5. May require part or all of on-street parking removal.
6. High installation cost.
7. Increased maintenance.

## RAISED MEDIANS



### Definition:

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.

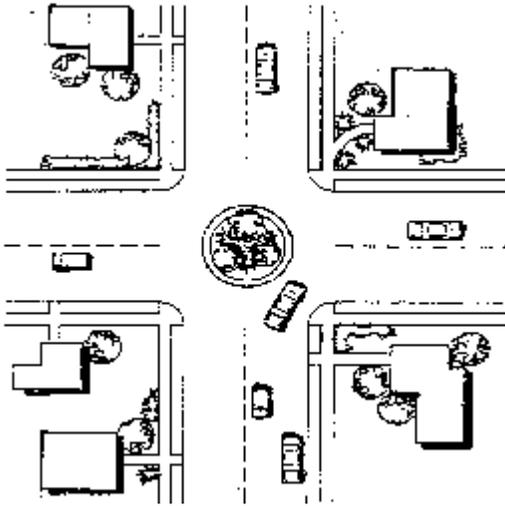
### Advantages:

1. Visually appealing
2. Offers opportunity for landscaping
3. Separates opposite lanes of traffic

### Tolerable Impediments:

1. Less cost effective for a wide median
2. Landscaping introduces a hazard in the median
3. Increased maintenance
4. High installation costs
5. Requires wide road easement
6. May require modification or reconstruction of drainage features and other utilities.
7. May become obstacles for motorists to crash into.
8. May require part or all of on-street parking removal.

## TRAFFIC CIRCLES



### Definition:

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.

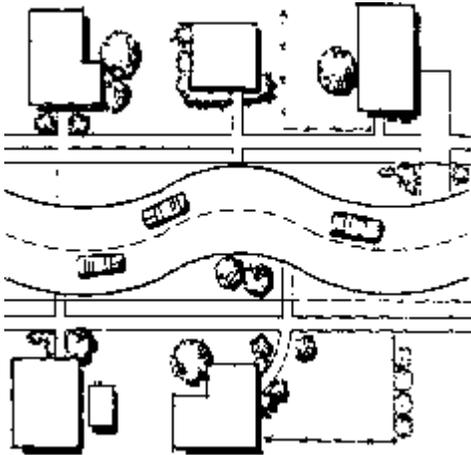
### Advantages:

1. Traffic Circles are very effective in moderating speeds and improving safety.
2. If designed well, they can have positive aesthetic value.
3. Placed at an intersection, they can calm two streets at once.

### Tolerable Impediments:

1. They are difficult for large vehicles (such as fire trucks and snow plows) to circumnavigate.
2. They must be designed so that the circulation lane does not encroach on the crosswalks.
3. They may require the elimination of some on-street parking.
4. Landscaping must be maintained.

## Chicanes



### Definition:

Chicanes are artificial blockages on opposite sides of the street to create an S-curvature on naturally straight street. Chicanes require vehicles to meander through the roadway alignment.

### Advantages:

1. May slow down vehicles.
2. Can be very effective in changing the initial impression of the street.
3. Creates space for landscaping.

### Tolerable Impediments:

1. Impedes emergency vehicle, snow plows and services such as garbage trucks and delivery trucks.
2. Bicyclists may feel “squeezed in” due to narrower roadway.
3. May require modification or reconstruction of drainage features and other utilities.
4. May require part or all of on-street parking removal.
5. High installation cost.
6. Increased maintenance.

## **Radar Speed Monitoring Trailer**



### Definition:

A mobile radar display sign that informs drivers of their traveling speed.

### Advantages:

1. Passive informational tool.
2. No impact on emergency services.

### Tolerable Impediments:

1. Not an enforcement tool.
2. Not effective as a long term solution or for repeat street location travelers.

### **Initial Qualifications for Streets Requesting Traffic Calming:**

For a street to be considered for traffic calming it first must meet the following operational criteria:

- a. The candidate road must be a County maintained roadway.
- b. If the volume on a street exceeds 3,000 vehicles per day the street is not eligible for traffic calming. If the volume on a street is less than 600 vehicles per day the street is not eligible for traffic calming. If a street does not meet the minimum volume but another street within the study area meets the requirements, engineering judgment may be used, as installing traffic calming devices on one street may cause traffic to be diverted another street which may not have met the volume requirements.
- c. Streets identified as a minor arterial with an ADT of 3000+ or an arterial on the SFC Sustainable Land Development Code Chapter 7.11 Road Design Standards or currently adopted plan shall not be considered for traffic calming.
- d. The posted speed limit of the roadway segment is 30mph or less.
- e. The roadway has a vertical grade of 8 percent or less.
- f. The roadway segment is asphalt paved.
- g. Permanent mount Driver Feedback Signs may be considered for non-paved roads.
- h. The roadway segment has only one moving lane of traffic in each direction.
- i. The section length is greater than or equal to 2 blocks or 1200 feet.
- j. The width of the street is greater than 18 feet.

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

1. Any traffic calming device shall only minimally impede snow removal operations.
2. Santa Fe County will NOT utilize stop signs or children at play signs to slow traffic under any circumstance in accordance with the current Manual for Uniform Traffic Control Devices (MUTCD).
3. Motorists should have adequate sight distance to react to traffic-calming devices.
4. Traffic-calming devices should not be placed over manholes, gate valves, utility vault accesses, or other similar features.
5. 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.
6. Traffic-calming devices should be placed to take advantage of existing street lighting.
7. Traffic-calming devices should not be placed in front of driveways when possible.
8. Traffic-calming devices should be placed at property lines if possible, rather than directly in front of a residence.
9. Traffic-calming devices are placed perpendicular to the direction of travel.
10. Traffic-calming devices should not be placed within an intersection.
11. Traffic-calming devices should not be placed within a horizontal curve.
12. Emergency vehicle response times are significantly reduced.
13. It shall always be considered that Traffic Calming devices turn roadways into “high resistance routes.”

## **TRAFFIC CALMING POLICIES & PROCEDURES:**

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. If a location fails to meet any of the following criteria, the placement of Traffic Calming devices should not be recommended.

Santa Fe County's Traffic Division has developed policies and procedures for Traffic Calming in order for Traffic Calming Devices to be installed in a neighborhood. This section defines these policies, procedures and criteria for Traffic Calming. 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: Reviewing, establishing, and/or revising and enforcing general laws and ordinances pertaining to speed limits and other traffic control management items, installing specific regulatory, warning, or guide signs and other traffic control devices, educating residents and neighborhood groups so they can better understand causes of traffic problems, providing potential solutions to these problems and the advantages and disadvantages of implementing different solutions. 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)*, and current *Traffic-calming, State of the Practice, ITE (Institute of Transportation Engineers)*.

### **Procedure**

#### **A. Request:**

The initial request for the installation of traffic calming devices must originate from an owner of adjacent property on the County-maintained candidate street within the subdivision or neighborhood within the affected area. The evaluation and petition forms are contained in the appendix of the Traffic Calming Initiation packet (Exhibit A). Pending 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. A resident contacts Traffic Division Staff to discuss perceived traffic problems in their neighborhood. The resident is sent a Traffic Calming Initiation Packet which describes traffic calming and lists its goals and objectives. The packet contains an application which requests information about the neighborhood, the perceived traffic problems and the names of 5 to 10 other residents who agree to form a traffic calming project Steering Committee. The packet and application are shown in attached Exhibit A.

#### **B. Application, Initial Meeting, and Petition:**

The resident is asked to complete the application and return it to the Traffic Division. Before proceeding, the Traffic Division will conduct volume studies to determine if the affected streets meet the minimum volume requirements necessary to proceed with the petition process. The applicant will be notified of the results of this study. If the initial volume requirements are not met, no further action will be pursued. Otherwise, Staff will meet with the Steering Committee which consists of residents who signed the initial application included in the packet. At the initial meeting of the Steering Committee, the prescribed steps of a traffic calming project will be

presented. These steps are depicted in the attached flowchart. The committee is also asked to indicate their concerns. After the meeting, staff determines the area of impact/study area which will establish the boundaries of the specific traffic calming area. A petition is prepared by staff and sent to the Steering Committee for the collection of signatures from more than 50% of the residential units within the study area. This petition is shown in attached Exhibit A. Only one signature per address is needed to satisfy this petition; if property is being rented, the property owner must sign the petition. Once the petition is returned, County staff reviews the signatures for completeness.

### **C. Collection of Data:**

After determining the petition meets the “more than 50%” threshold, Staff will begin collecting neighborhood traffic data. The collection of data may include, but is not limited to, road tube counts, speed studies, traffic turning movement counts, crash reports, determining roadway widths, and regulatory signage. The collection of traffic related data can be performed any day of the work week during the school year, except during holidays or weekends.

### **D. Data:**

The collected data is analyzed to determine if the neighborhood streets meet or exceeds evaluation criteria for traffic calming using the following procedure. The street(s) must first satisfy conditions A and D on page 10 of this document to be considered for traffic calming. The street(s) then must also satisfy one of the three criteria for non-local traffic, speed and crashes as described below:

#### **1. Non-Local Traffic:**

Road tube counts are used to determine the amount of vehicles entering and exiting the identified study area. The number of single family dwelling units in the study area is then determined. Using 12 trip ends per dwelling unit per day and multiplying by the number of dwellings in the neighborhood, the expected amount of traffic entering/exiting the neighborhood per day is calculated. This number is compared to the actual amount of vehicles entering/exiting the neighborhood (road tube counts) to determine the amount of projected non study area generated traffic, or “non-local” traffic.

#### **2. Speed:**

Vehicle speeds from field data collected are compared to the posted speed limit. If the 85<sup>th</sup> percentile speed of the vehicles is greater than 7 mph over the posted speed limit during any consecutive 4 hours of a typical weekday, and the total hourly volume exceeds 34 vehicles per hour for those same 4 hours, then the criteria for traffic calming is met.

#### **3. Collisions:**

If there are multiple reported intersection or spot location motor vehicle collisions attributed to speeding within a year on a street in the neighborhood, the criteria for traffic calming is met.

### **E. Analyze Data Collected and Notification:**

Staff will analyze data collected and compare it to the aforementioned criteria contained herein. If the criterion is met, a neighborhood meeting with SFC Staff, the steering committee, and local Home Owners Association (HOA) members regarding the study area will be held.

### **F. Neighborhood Meeting:**

Correspondence is sent to the residents within the boundaries of the neighborhood study area informing them of a time, date, and location for a neighborhood meeting with SFC Staff. The purpose of the meeting is to brief residents on traffic calming, discuss completed studies, identify traffic calming concepts, and to allow the residents to determine possible solutions to their neighborhood traffic problems. The residents will define, with

input from Staff, the objectives of the project, i.e. what decrease in speeds or volumes they expect the traffic calming project to accomplish. The Traffic Division feels it is important affected residents participate in developing a plan they can call their own and therefore encourage input and feedback from the residents in the neighborhood. The possible solutions from the neighborhood representatives are also discussed.

### **G. Analyze Suggestions From Residents:**

Traffic Division Staff will analyze possible solutions from residents while also considering the negative impacts to all emergency service providers. These preliminary solutions will be compiled into a single plan. If staff determines there is a need for additional meetings with the Steering Committee to help finalize the plan such meetings may be held.

### **H. Evaluation & Design**

Traffic staff will evaluate and design a traffic calming plan based on engineering and design principles and as set forth in the latest edition of the Institute for Traffic Engineers (ITE) *Traffic Calming: State of Practice* and the current edition of the *Manual for Uniform Traffic Control Devices (MUTCD)*

### **I. Proposed Plan and Petition Sent to the Neighborhood Residents:**

Traffic staff will meet with the steering committee and propose a detailed traffic calming plan. If plan meets the objectives and can be agreed upon by all parties, the steering committee will request signatures for the 75% petition from the affected residents identified in the study area. A copy of the Traffic Calming Plan as agreed upon by Traffic Division staff, the steering committee and residents will be included on the back of each page of the petition.

If more than 75% of the residential units' representatives sign the petition indicating approval of the plan as presented, the plan will continue to the next step. The attached Exhibit A is a copy of an example petition.

### **J. Petition Signature Verification and Report:**

Once the petition process is completed and signatures are verified, a written report detailing the Traffic Calming plan will be submitted to the Santa Fe County Board of County Commissioners for informational purposes. Emergency Services, including the Santa Fe County Sheriff's Office (SFCISO), SFC Fire Department, and Local School Bus Transportation carrier will be notified. *(All proposed traffic-calming-device applications will be subject to consultative review by Santa Fe County Fire Department and the Santa Fe 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 by the Fire Marchall as a critical response route).*

### **K. Funding**

Once the study area has been established and funding has been identified, the project will be scheduled for detailed design and implementation based on the evaluation by Traffic Division staff. Funds must be allocated for traffic calming for the current fiscal year. If funding is unavailable, the project will be placed on hold until capital money can be identified.

### **L. Temporary Installation of Traffic Calming Devices:**

The Traffic Division Staff will design install the traffic calming devices on a temporary basis at the locations specified in the approved plan, provided funding is adequate.

**M. Monitor Area:**

Once the temporary traffic calming devices have been installed for duration of six months, the study area will be reevaluated for changes in volume and/or speed in the “after” condition. The Traffic Division's evaluation will include but is not limited to field observations, traffic counts, speed studies, and other data as needed.

**N. Analyze Data:**

The “after” data is analyzed by Traffic Division Staff.

1. If the project has not met the objectives agreed upon by both the neighborhood and Traffic Division Staff; then Staff can consider alternative TC measures at their discretion. The new plan will be modified as needed and returned to the steering committee for signatures.
2. If the objectives are met, then the devices will remain but are subject to consideration for future removal pursuant to O herein if approved by the BCC. Staff will prepare a report and submit to BCC and Traffic Calming Steering Committee. If agreed upon, move forward with permanent Traffic Control Device installation.

**O. Removal of Traffic Calming Devices:**

1. The County of Santa Fe reserves the rights to install, remove, or alter any traffic-calming device for health, welfare, and safety of the public.
2. Any request for traffic calming device removal must be initiated by a property owner directly affected by the traffic calming area. The request shall be in form of written petition (Exhibit A) containing the signatures of residents representing at least 75% of the properties that abut directly on or access the affected road. All such requests shall be reviewed by the Traffic Division Manager. The petition for traffic calming device removal shall be forwarded to the Santa Fe County Board of County Commissioners along with recommendation from the Traffic Division regarding whether removal is appropriate based on the request. The request for traffic control device removal shall be reviewed by the Santa Fe County Board of County Commissioners for appropriate action.

**Miscellaneous Provisions**

- a) Returned petitions may be verified by Traffic Division Staff using available resources.
- b) Traffic Calming Program has a maximum one-year timeframe from the date the petition is transmitted by the Traffic Manager, or his designee, to a member of the respective steering committee to complete a petition. If not successfully completed in one year from the same date, the applicant must start the petition process over.
- c) Where there are 2 competing plans and if a specific plan cannot be determined, then both plans can be sent for signatures such that the plan with the highest number of signatures will be considered for implementation. However, the plan implemented must have at least 66% approval.

**STAFF USE ONLY**

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

Location: \_\_\_\_\_ County Road Name: \_\_\_\_\_

From: \_\_\_\_\_ To: \_\_\_\_\_ Length: \_\_\_\_\_

Date of Application: \_\_\_\_\_ Date of Field Check: \_\_\_\_\_

Requestor's Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email: \_\_\_\_\_

**MEETS ALL MINIMUM CRITERIA ON ATTACHED APPLICATION SHEET: Y\_\_N\_\_**  
(FAILURE TO MEET ANY ONE, THEN NOT RECOMMENDED FOR FURTHER EVALUATION)

**ENGINEERING CRITERIA:**

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

Difference (85<sup>th</sup> Minus Posted Speed x 2)= \_\_\_\_\_

High occurrence of Speed Related Crashes? Y\_\_N\_\_ Sidewalks? Y\_\_N\_\_

Pedestrian Generator i.e., school, playground, park? Y\_\_N\_\_ Roadway bicycle facilities? Y\_\_N\_\_

Street Parking? Y\_\_N\_\_ Traffic Volume: \_\_\_\_\_

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

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

Traffic Division Recommendation: \_\_\_\_\_

Land Use Planning: \_\_\_\_\_

Road Maintenance: \_\_\_\_\_

Sherriff's Office: \_\_\_\_\_

Fire Department: \_\_\_\_\_

**STAFF USE ONLY**

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

Functional classification as a local or major local street? Y\_\_\_ N\_\_\_

AWDT volumes are more than 600 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 7 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 asphalt 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\_\_\_

**MEETS ALL CRITERIA? Y\_\_\_ N\_\_\_**

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

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_