



Traffic Calming Program

January 25, 2022

1. Purpose

Establish a process that considers public input, education, data, and traffic calming techniques to maintain maximum mobility and access for all users of the streets in residential areas and generally reduce the negative impacts of motor vehicles. Users include, but are not limited to pedestrians, cyclists, motorists, transit, and emergency service vehicles. This program is intended to address potential traffic calming installations at the request of the public. This program does not prevent the City from implementing traffic calming measures as part of a new development, City project, or as a stand-alone project.

2. Criteria

Many factors are important to consider when evaluating a location for potential traffic calming measures which can include but are not limited to pavement width, traffic volume, posted speed limit, measured speeds, and roadway classification. To be considered for installation of traffic calming measures under this program, streets should meet the following criteria at a minimum:

- a) Primarily a residential street with a two-lane pavement width of 26' or more
- b) Posted speed limit of 25mph or less
- c) Average Daily Traffic (ADT) between 300 and 2000 vehicles per day
- d) Speed study shows measured speeds (85th-percentile speed) exceed posted speed limit by >5mph
- e) Not be classified as an arterial, major collector, or primary emergency response route*

* Emergency response routes include Bonhomme Ave, Brentwood Blvd, Carondelet Ave, Forsyth Blvd, N Bemiston Ave (10 block), N Central Ave (10 block), N Meramec Ave, S Bemiston (10-200 blocks), S Central (10-200 blocks), S Meramec (10-200 blocks), Wydown Blvd

Each circumstance is unique and there is no one size fits all approach to speed and volume management. While this program provides opportunities for community input at various stages, the City shall have final authority to determine the appropriate traffic calming measures, if any, to install at a particular location. If at any point the City, at its sole discretion, determines the traffic calming measures are not warranted, not effective, or pose a detriment to the City or first responders, the City may refrain from installing or may remove such traffic calming measures.

3. Process

This program has three progressive stages that involve varying levels of evaluation, enforcement, and traffic calming. The process shall be initiated by a resident that lives on the block where the traffic calming is being requested. Stage 1 may be initiated by contacting the Police Department or Public

Works Department to notify them of the concern. To progress to stage 2 or 3 the resident shall submit the attached “Traffic Calming Program Request Form” to the City of Clayton on which the resident(s) shall identify the location of the traffic circumstance of concern (“Area of Concern”) with reasonable specificity and describe the traffic condition giving rise to the concern. This form will be distributed to Public Works, Police, and Fire for review. It will also be shared with City administration and the elected officials.

Stage 1 – Resident Concern (individual or group), no petition.

Goal is to increase awareness and education of drivers. Activities may include, but are not limited to;

- a) Increased enforcement of posted speed limits
- b) Installation of temporary speed trailer/signs
- c) Public service announcement or outreach targeted at neighborhood
- d) Notify resident of Traffic Calming Program
- e) Suggest residents notify HOA trustees and place on agenda for discussion amongst neighborhood if they wish to proceed to further stages.

Stage 2 – Resident Petition (51% within 500’) and HOA support letter (if applicable)

Initiated by submitting a completed “Traffic Calming Request Form” along with a petition subscribed on behalf of 51% of the residential households residing in properties that have frontage on either side of the street within the Area of Concern and on either side of the street within 500’ in each direction of the Area of Concern. If the Area of Concern is located at an intersection the petition area shall be measured along all streets entering the intersection. It is recommended that this item be placed on an HOA meeting agenda (if applicable) for discussion to determine resident support before submitting the “Traffic Calming Request Form” and petition to the City.

Goal is to collect input and data that can be used to evaluate the area for further traffic management activities. Activities may include, but are not limited to;

- a) Enhanced enforcement of posted speed limits
- b) City staff review site condition and discuss concerns with residents/HOA
- c) Speed/volume study (includes installation of traffic counters for data collection)
- d) Evaluation of crash data
- e) Evaluate against qualifying criteria in Section 2, above
- f) City staff shares findings of the study with residents/HOA
- g) Consideration of low-cost temporary measures for evaluation before permanent installations (3-6 months for initial evaluation)
- h) If speeds or volumes fall to acceptable levels with any traffic management activities listed above, staff may determine that this location will not proceed to Stage 3 and will be placed on a list for periodic traffic management activities.

Stage 3 – Resident Petition (67% within 1000’ or “Affected Area”) and HOA support letter (if applicable)

Initiated by submitting a completed “Traffic Calming Request Form” along with a petition subscribed on behalf of 67% of the residential households residing in properties that have frontage on either side of the street within the Area of Concern and on either side of the street within 1000’ in each direction of the Area of Concern. If the Area of Concern is located at an intersection the petition area shall be measured along all streets entering the intersection. If, however, City staff determines, in its sole professional discretion, that potential traffic calming measures in the Area of Concern can reasonably be expected to have a meaningful impact on travel by households outside the 1000’ petition area described above that may use the subject route as their primary access route, the City staff may require that the petition area be expanded to encompass the “Affected Area” as determined by the City. Each Affected Area can be unique depending on the Area of Concern and the traffic condition giving rise to the concern. It is recommended that the applicant contact the Clayton Public Works Department to determine if the concern they have would warrant use of an Affected Area petition area rather than the 1000’ default measurement described above.

Goal is to determine if and what measures are to be installed to further manage traffic.

Activities may include, but are not limited to;

- a) City determines/revises “Affected Area” as needed
- b) City staff meets with residents/HOA to discuss potential traffic calming measures
- c) City staff or traffic consultant reviews data from Stage 2, considers input from residents/HOA, and proposes appropriate traffic calming measures
- d) The Police Department, Fire Department, and other affected departments provide feedback/approval on traffic calming measures under consideration.
- e) Preliminary design and cost estimate prepared by City or traffic consultant for potential traffic calming measure(s) identified by City staff.
- f) City surveys “Affected Area” (1 vote per household). A 67% vote in favor of a traffic calming measure is required for approval to become a “Neighborhood Preferred Project”.
- g) Once a “Neighborhood Preferred Project” is identified a source of funding will need to be identified before implementation can take place.
- h) Traffic calming measure is considered by the Board of Aldermen for approval.
- i) Neighboring cities to be notified if “Affected Area” falls within their boundaries.

4. Implementation

Once a “Neighborhood Preferred Project” is identified and approved by the Board of Aldermen, it is eligible to move to the implementation phase. Implementation actions can include securing funding, preparing the final engineering design, and constructing or installing the traffic calming measures. Project funding and timing are subject to budget appropriation and available resources. Projects may be placed on a waiting list until funds are available.

5. Evaluation

City staff will conduct a study of the project area 6-18 months after project completion to determine the effectiveness of the installed traffic calming measure. The study should be performed as close as possible to the same time of year as the initial study (school schedules, weather, and other factors should be considered). Traffic and speed data will be recorded for comparison and shared in an update to the City Manager. This update should also include any new relevant accident data.

6. Requests for Removal

Two years or greater from the date of installation, and following City evaluation, residents may submit a "Traffic Calming Program Request Form" and petition of at least 51% of residential households living within the area upon which the sufficiency of the initiating petition was calculated to have the permanent traffic calming measures removed. City staff will review the application, verify the petition, and notify the applicant if the "Affected Area" has changed. The City will conduct a vote (1 vote per residential household) to determine if the traffic calming measure should be removed. A 67% vote in favor of removal is required. As a standard of practice, future traffic calming requests will not be considered in an area where traffic calming devices were removed unless otherwise directed by the City Manager or Board of Aldermen.

7. Traffic Calming Measures

Traffic calming measures are typically physical measures installed in the right of way to manage the speed or volume of traffic. Although most traffic calming measures have some effect on both volume and speed, they are usually classified according to their dominant effect. Measures that manage speed typically do so by creating vertical deflections, horizontal shifts, and road narrowing. Measures designed to manage volume are diverters, half closures, full closures, and median barriers. Generally, the city would not desire to close or permanently prohibit movements on streets.

While each situation is unique and will require individual evaluation, attached Exhibit A has some standard traffic calming measures that may be appropriate for use within Clayton under this program. The City may consider other traffic calming measures not listed in Exhibit A to address speed and volume concerns. All installed measures are subject to approval by the Board of Aldermen.

The descriptions and costs provided in Exhibit A are from the Federal Highway Administration (FHWA). The estimated costs include design, materials, and construction, but not right-of-way costs. Temporary or lower-cost implementation to achieve the desired results will be evaluated for use where possible. Exhibit A also contains information on commonly requested items that are not traffic calming devices.

Traffic Calming Measures

Exhibit A

1. Targeted Speed Limit Enforcement

The City can provide targeted speed limit enforcement in response to citizen concerns. This is generally a low-cost option that can be quickly deployed and does not slow emergency vehicles. This measure typically only provides a temporary benefit, since speed limit enforcement typically is not performed on a regular, ongoing basis.



2. Radar Trailer/Sign Placement

A radar trailer/sign is a temporary device that measures an approaching vehicle's speed and displays it next to the posted speed limit. This can serve as a reminder to the driver of both the vehicle's speed and the posted speed limit. To be most effective, the placement of the trailer/sign should be in the clear view of the oncoming driver's line of sight. These trailers/signs can be placed on a roadway for a limited amount of time and then relocated to another roadway, allowing a single trailer/sign to be effective in many locations. Like targeted speed limit enforcement, the placement of a radar trailer/sign provides a temporary benefit for reduction of vehicular speeds; speeds tend to increase after the trailer/sign is moved.



3. Public Service Announcements/Neighborhood Outreach

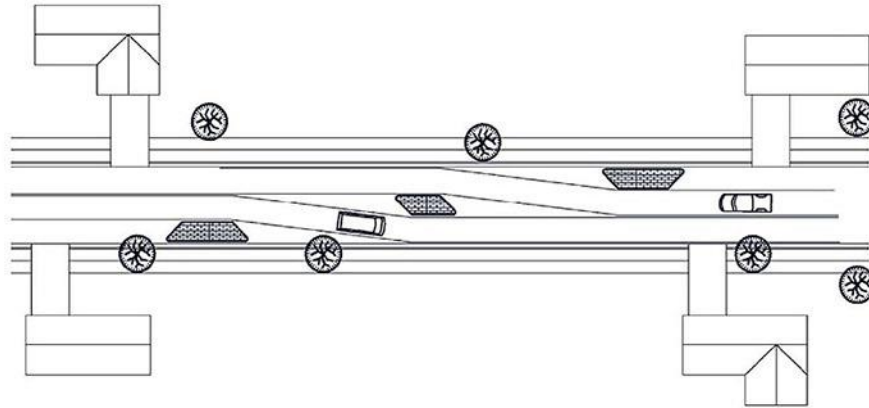
Many times, the people speeding in the residential area are the people that live in the area. The City can utilize various communications channels and contacts for the associated homeowner's association to notify residents of the concerns to gain compliance.

4. Horizontal Deflections

a) **Lateral Shift**

A lateral shift is a realignment of an otherwise straight street that causes travel lanes to shift in one direction. The primary purpose of a lateral shift is to reduce motor vehicle speed along the street.

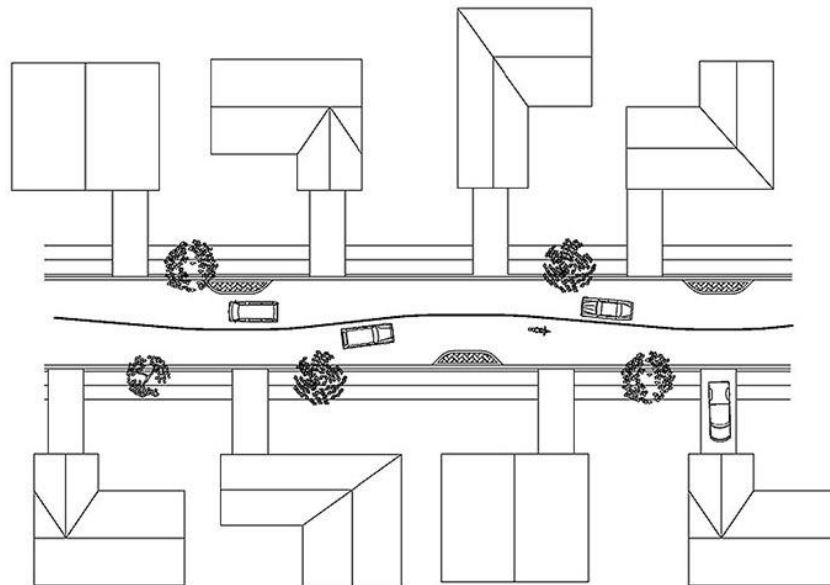
Est. Cost - \$6,000-\$15,000



b) **Chicane**

A chicane is a series of alternating curves or lane shifts that are located in a position to force a motorist to steer back and forth out of a straight travel path. The curvilinear path is intended to reduce the speed at which a motorist is comfortable traveling through the feature. The lower speed could in turn result in a traffic volume reduction.

Est. Cost - \$8,000-\$10,000 typical, up to \$25,000



c) Traffic Circle

A traffic circle is a raised island, placed within an unsignalized intersection, around which traffic circulates. A circle forces a motorist to use reduced speed when entering and passing through an intersection, whether the vehicle path is straight-through or involves a turn onto an intersecting street.

Est. Cost - \$10,000-\$25,000



d) Small Roundabout

A small modern roundabout and mini-roundabout is a raised island, placed within an unsignalized intersection, around which traffic circulates. The center island forces a motorist to use reduced speed when entering and passing through an intersection, whether the vehicle path is straight-through or involves a turn onto an intersecting street. It is also expected to reduce the number of angle and turning collisions.

Est. Cost - \$15,000-\$60,000



5. Vertical Deflections

a) **Speed Table**

A speed table is a raised area placed across the roadway designed to physically limit the speed at which a vehicle can traverse it.

Est. Cost - \$2,500-\$8,000

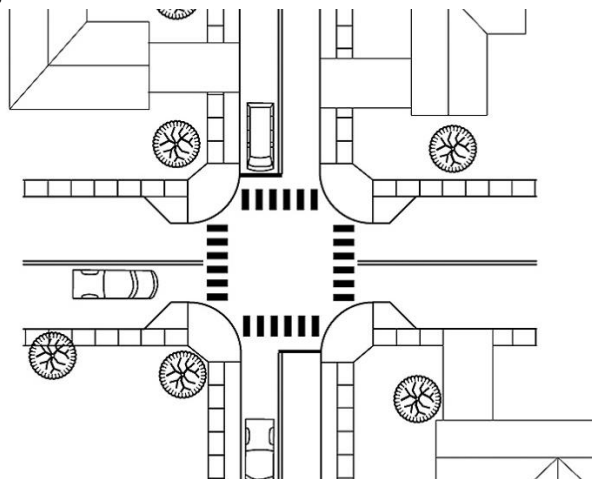


6. Street Width Reduction

a) **Corner Extension/Bump Out**

A curb extension is a horizontal extension of the sidewalk into the street resulting in a narrower roadway section. Its primary purpose is to "pedestrianize" an intersection. A corner extension (with a reduced corner radius) slows automobile turning speeds, shortens pedestrian crossing distance, and increases pedestrian visibility.

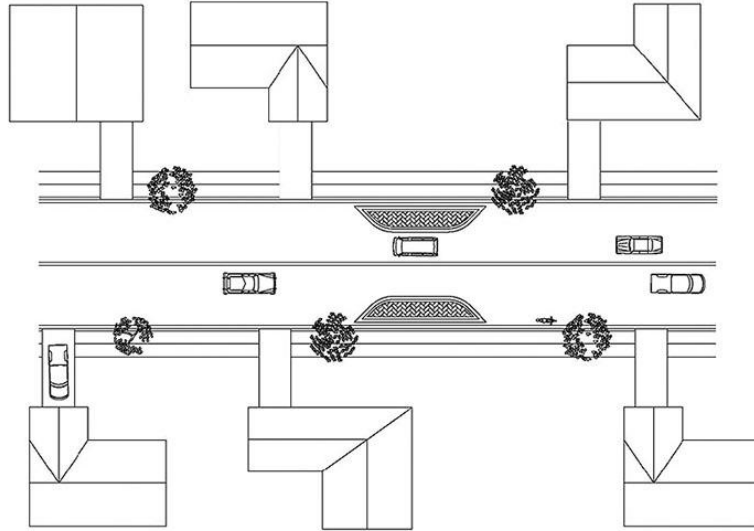
Est. Cost - \$8,000-\$40,000



b) Choker

A choker is the narrowing of a roadway through the use of curb extensions or roadside islands. It can be created by a pair of curb extensions at a midblock location that narrows the street by widening the sidewalk or tree lawn at that location. A choker can also be created using roadside islands. This narrowing is intended to discourage motorist speeding and to reduce vehicle speeds in general.

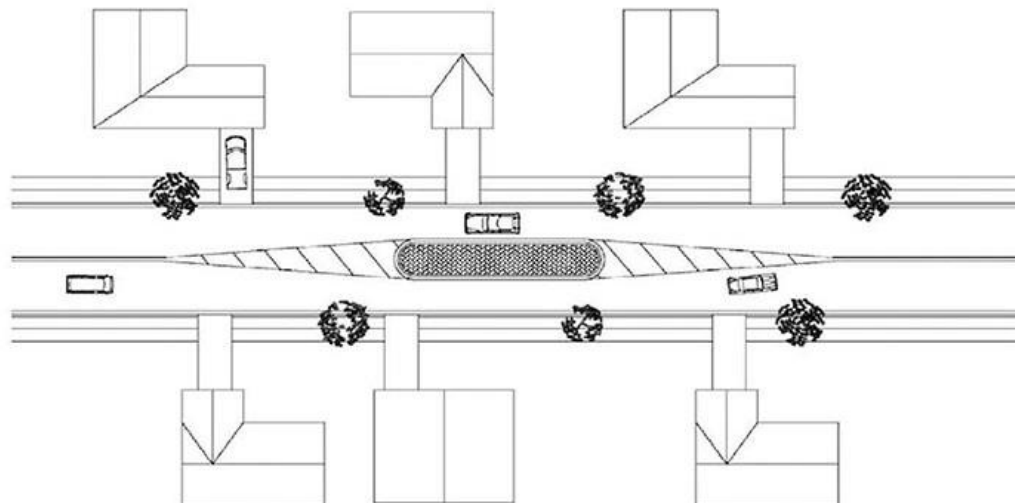
Est. Cost - \$10,000-\$25,000



c) Median Island

A median island narrowing is a raised island located along the street centerline that narrows the travel lanes at that location. The visual appearance of narrowed lanes encourages a motorist to slow.

Est. Cost - \$15,000-\$50,000



d) On-Street Parking

On-street parking can effectively narrow the roadway travel lanes by adding side friction to the traffic flow. Whether on-street parking can be an appropriate traffic calming measure is a direct function of its actual or potential usage (i.e., parking demand). For the presence of on-street parking to be an effective and safe traffic calming measure, it must be occupied with parked vehicles during the time when traffic calming is desired.

Est. Cost – minimal

7. Signalization

a) Rectangular Rapid Flash Beacon (RRFB)

Rectangular rapid flashing beacons are highly visible warning signs, using flashing yellow LED lights to supplement standard pedestrian crossing warning signs at mid-block and unsignalized crossing locations where driver compliance is low. Typically user-activated, they promote increased yield rates and improved pedestrian safety. This measure is typically implemented at high-volume pedestrian intersections.

Est. Cost - \$10,000 per crossing



8. Not Traffic Calming Measures

The following are items are not traffic calming measures and will not be considered as part of this program.

a) STOP sign

Studies show that unjustified STOP signs reduce speed near the signs but increase speeds along the roadway immediately after the signs. This is caused by motorists “making up for lost time”. Inappropriate STOP signs also increase air pollution, waste fuel, and create more traffic noise. When confronted with unreasonable and unnecessary restrictions (such as inappropriate STOP signs), motorists are more likely to violate them and develop contempt for all traffic signs.



b) CHILDREN AT PLAY sign

Studies have shown that many signs in residential areas, which are installed to “warn” people of normal conditions, fail to improve safety. Warning signs can be effective tools if used sparingly and only to warn motorists of uncommon hazards that are not apparent to drivers. CHILDREN AT PLAY signs can give parents a false sense of security since drivers often disregard these signs. Since children live on nearly every residential block, CHILDREN AT PLAY signs would need to be placed on every roadway. Residential blocks with no signs might imply that no children live there, so it is acceptable to exceed the posted speed limit. The Manual on Uniform Traffic Control Devices (MUTCD) no longer identifies these as approved signs.



c) SPEED LIMIT sign

The posted speed limits for roadways are typically established based upon recognized engineering criteria related to the roadway design. For this reason, additional signage and/or adjusting the posted speed limit of a roadway are not considered to be traffic calming measures.



d) Rumble Strips

These measures are raised pavement sections that can be closely spaced along a roadway at regular intervals. As the motorist travels over the rumble strips, the vehicle experiences both noise and vibration to alert the motorist. They are typically installed along freeways and higher-speed roadways to alert motorists that may begin to veer from the travel lane to the shoulder. Rumble strips can also be installed across the travel lane itself when unusual conditions exist ahead. Rumble strips should not be used as traffic calming measures. These measures become less effective over time as the motorists grow accustomed to them. Rumble strips also increase noise levels for nearby residents and commonly require additional maintenance.



e) Speed Bumps

Speed bumps are vertical obstructions often found in privately-owned parking lots (shopping centers, schools, churches, parks, etc). Speed bumps typically measure between three (3) and four (4) inches in height and twelve (12) inches in length and are often designed for a design speed that is much lower than a typical posted speed limit along a public roadway. Traffic calming measures should be designed and implemented with the purpose that vehicles



will be able to comfortably travel at the posted speed limit. In contrast, speed bumps require vehicles to travel much slower to attain a comfortable travel speed. Speed bumps can also lead to traffic using an alternate route which creates a problem at another location. Emergency service vehicles can experience delays and damage to equipment due to speed bumps. In summary, speed bumps should not be installed on public roads and are not considered to be a traffic calming measure.



Traffic Calming Program Request Form

Exhibit B

Request Type

Installation of traffic calming measure Removal of traffic calming measure

Applicant

Name _____ Date _____

Address _____, Clayton, MO 63105

Phone _____ Email _____

Location

Description of Concern (speeding, etc...)

Please describe the area in your neighborhood where your concern is most evident. List specific streets, blocks, or intersections.

Which day(s) of the week do these concerns seem most noticeable? What time(s) of the day?

Is there any other information you would like the City of Clayton to be aware of or consider?



Traffic Calming Program Petition

Exhibit C

The undersigned agrees to the following:

All persons signing this petition do hereby certify that they reside with the affected area, which is hereby defined as:

All persons signing this petition do hereby agree to the following problem in the defined affected area:

All persons signing this petition do hereby agree that the following contact person(s) represent the neighborhood as a facilitator(s) between the neighborhood residents and the City of Clayton staff in matters related to traffic calming at the location above:

	Name	Address	Phone	Email
1				
2				
3				



Traffic Calming Program Petition

See page first page of the petition for petition information. One signature per household.

	Name	Address	Phone	Email	Signature	Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						