CITY OF JOPLIN
COUNCIL AGENDA ITEM

ITEM
Council Bill 2019-137 Approval for the amending of Article 10, Traffic Control Devices, of Chapter 114, Traffic, of the Code of Ordinances of the City of Joplin by enacting a new Section 114-798, Neighborhood Traffic Calming.

MEETING DATE
July 1, 2019

ORIGINATING DEPARTMENT
Public Works – Engineering

ATTACHMENTS
CB 2019-137, traffic Calming Ordinance

REVIEWED BY
Director of Public Works: David Hertzberg; Director of Finance: Leslie Haase; City Attorney: Peter Edwards; Interim City Manager; Dan Pekarek.

SUMMARY
This Council Bill approves the amendment to the Joplin City Code of Ordinances by amending Article 10, Traffic Control Devices, of Chapter 114, Traffic, of the Code of Ordinances of the City of Joplin by enacting a new Section 114-798, Neighborhood Traffic Calming, which includes new regulations pertaining to neighborhood traffic calming measures, and setting a date as to when this ordinance shall become effective.

BACKGROUND
In recent years City staff has received requests from Citizens for traffic calming measures to be implemented on residential streets. After researching the policies and methods from various communities, the staff determined that a policy for traffic calming measures needs to be in place. The policy will provide steps to follow which will allow the City staff to provide consistent service to each resident request.

RECOMMENDATION
Amending the Joplin City Code of Ordinances by enacting a new Section 114-798, Traffic Calming Policy Ordinance which includes new regulations pertaining to neighborhood traffic calming measures and setting a date as to when this ordinance shall become effective.

Neighborhood Traffic Calming Policy *Final Draft 2019*



City of Joplin Public Works Department

Traffic Calming Review Process

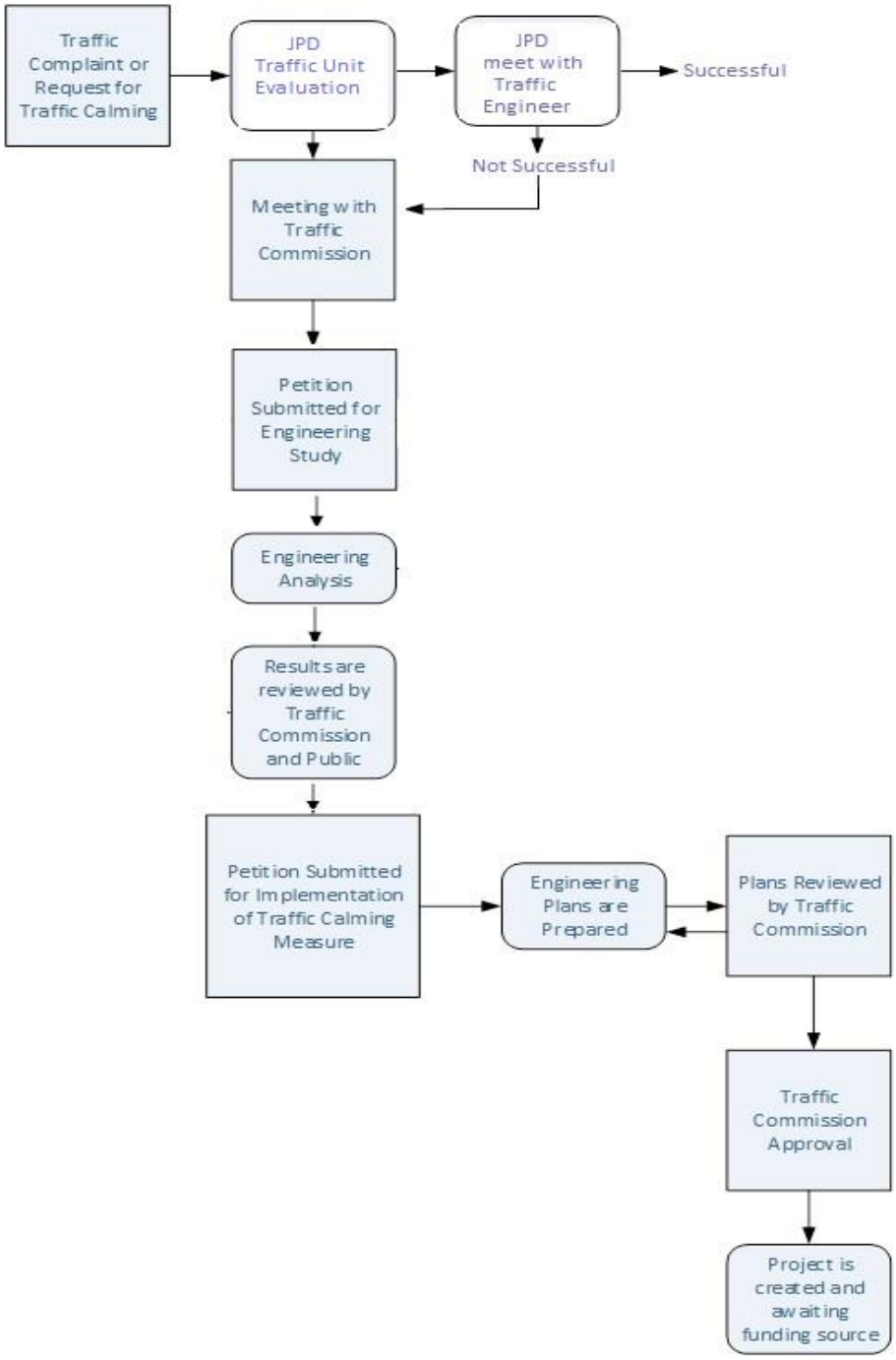


Figure 1-Flow Diagram of Traffic Calming Policy

Objective

The objective of the City of Joplin Traffic Calming Policy is to improve the livability of our neighborhoods and to minimize adverse impacts of vehicular traffic on residential and pedestrian safety through a system of education, enforcement, and engineering.

Goals

The following is a list of goals the City wishes to accomplish with this policy:

- Reduce the speed of vehicles on residential streets where an engineering study shows there is a speeding issue.
- Increase safety by reducing crash patterns on impacted residential streets.
- Develop and emphasize focused neighborhood educational programs, which address residential traffic problems.
- Implement selective enforcement actions in neighborhoods with traffic problems.
- Eliminate, or discourage, non-local, cut-through traffic on residential streets.

In implementing the Program Goals, care will be taken to:

- Encourage citizen participation throughout the Program by seeking the input of affected residents and non-resident property owners through neighborhood meetings, written communications, open forum opportunities with Traffic Commission, and with City Council.
- Minimize impacts on emergency vehicle response times caused by the implementation of neighborhood traffic calming measures.
- Respond to complaints in a timely manner.

Program Overview

This Traffic Calming Policy has been designed to ensure that each neighborhood with a proven traffic problem, determined by Traffic Analysis, has access to neighborhood traffic calming measures. The program will require significant citizen involvement. The policy has been designed to address neighborhood concerns in a timely manner by relying on staff to take the initial steps to address a perceived problem. Final traffic calming measures must be reviewed by the Traffic Commission and approved by the City Council. The level of traffic control measures, which may be implemented, is subject to available funding.

Process

The process by which a perceived problem is identified, reviewed, and possibly mitigated is a series of education, enforcement, and engineering steps. The process from notification to solution is illustrated using a flow diagram, see Figure 1.

The process is summarized in the following steps:

1. Initial Complaint and Site Review

The initiation of City involvement in mitigating a neighborhood traffic problem begins with a complaint by an individual resident or a group of residents. The complaint generally involves a perception that a significant number of motorists traveling through a neighborhood are violating the law in some way.

2. Site Review by Staff

Staff conducts a field review of the complaint and responds to the complaint within 15 working days.

3. Joplin Police Department Traffic Unit Evaluation

In the case of speeding, staff will request additional traffic enforcement by the police and/or schedule the placement of a radar speed trailer.

4. Traffic Commission Meeting with the Neighborhood

The Traffic Engineer will meet with the Traffic Commission. This meeting is scheduled on a bimonthly basis. This meeting will provide an opportunity for the neighborhood to express concerns and for staff and the commission to compare neighborhood conditions to the reasonable expectations of traffic volumes, traffic speeds, crash rates, etc. If the Traffic Commission determines that construction of a traffic calming device may be appropriate, City staff will prepare a petition for neighborhood consideration and make the petition available to residents to allow them to circulate the petition in the affected area. The City's Traffic Engineer will determine the size and definition of the affected area. The petition will describe the appropriate traffic calming device(s) and list potential benefits and problems associated with the device.

5. Engineering Analysis

If the first petition, signed by 60% of the residents (renters or owners) and allowing one signature per residence on the affected street, is submitted to the Public Works Department, City staff will conduct additional traffic analysis. A neighborhood traffic study will be prepared which reviews street cross-section, crash history, speeds, traffic counts, and conducts appropriate studies. The report will be reviewed by the Engineering Staff, Fire, Planning & Zoning, and Police, and will be made available to concerned residents.

Necessary Criteria for Consideration:

- Streets with no curb and gutter cannot have speed humps; other traffic calming devices will be considered.
- Crash history for previous three years will be reviewed. If there are no vehicular accidents within the three-year history, the street in question must meet all other criteria.
- Speed studies must indicate an 85th percentile speed of greater than 35 miles per hour or traffic calming devices will not be considered. Speed studies will only be conducted once per year per location.
- Traffic count must be over 500 average daily traffic or traffic calming devices will not be considered.
- City Staff will conduct other studies deemed appropriate for the location that could include site distance studies, pedestrian traffic, and vertical alignment.

6. Review by the Traffic Commission

The Traffic Commission and the Public, at a regularly scheduled meeting, will review the report outlining the various options and recommendations. If the City's Traffic Engineer determines that construction of a traffic calming device meets required criteria, and the Traffic Commission approves, City staff will prepare a second petition for neighborhood consideration and make the petition available to residents to allow them to circulate the petition to the affected area, as defined by the City's Traffic Engineer. The petition will describe the appropriate traffic calming device(s), list potential benefits and problems

associated with the device, and will include the City Traffic Engineer's opinion of probable cost for the improvement.

7. City Council

The City Council will review minutes from the Traffic Commission.

8. Plans Prepared and Publicly Reviewed

Upon completion, the plans will then be reviewed by the Fire Chief and Police Chief or Designee for Final Approval. Upon Approval, the Public, at a regular scheduled Traffic Commission meeting, would review the plans.

9. Traffic Calming Measure Implemented

Construction of traffic caliming device(s) will be dependent upon:

A. Construction Season - for example, traffic humps will be constructed by City's paving contractor as part of annual paving contract and will be scheduled as such.
B. City Budget – the City budget will have an account line for "Traffic Calming" and the amount available will be determined by City staff and approved by City Council during annual budget discussion. The traffic calming devices will be constructed based on a ranking system created by the City traffic Engineer and City staff using the Traffic Calming Project Ranking Criteria when total project requests are above budget allocations:
    I. 85th Percentile Speed
    II. Number of Accidents
    III. Average Daily Traffic
    IV. Pedestrian Safety
    V. Traffic Volume on Intersecting Side Streets
    VI. Verticle Alignment / Sight Distance
    VII. Street characteristics i.e. width / sidewalks/ surface/ C&G
    VIII. Order in which requests are received/approved (if needed to determine order of equally ranked projects)

10. Follow Up

The implemented traffic calming measures are monitored for effectiveness.

Approved Traffic Calming Devices

Higher Visibility Crosswalks

DESCRIPTION:
Using one of the following techniques use higher visibility crosswalks to increase driver recognition of a crosswalk:

1) Designing the crosswalk with paving blocks of contrasting colored concrete.
2) Painting the crosswalk with "zebra" stripes between the outer boundary stripes. Higher visibility crosswalks should only be used at uncontrolled crosswalks.

PURPOSE:
The primary purpose of a higher visibility crosswalk is to increase driver recognition of the crosswalk.

EFFECTIVENESS:
Higher visibility crosswalks provide more visibility to drivers than traditional crosswalks. They are also a stronger indicator of the accepted or preferred crossing location for pedestrians. As with any crosswalk, pedestrian may, however, place too high a level of reliance on the ability of the crosswalk to control diver behavior.

PARKING IMPACTS:
There are no direct parking impacts associated with installing a higher visibility crosswalk within an existing crosswalk. However, a minimum of 20-30 feet of curbside parking may need to be prohibited on each side of the crosswalk to provide increased visibility of the crosswalk.

TRANSIT SERVICE IMPACTS:
None.

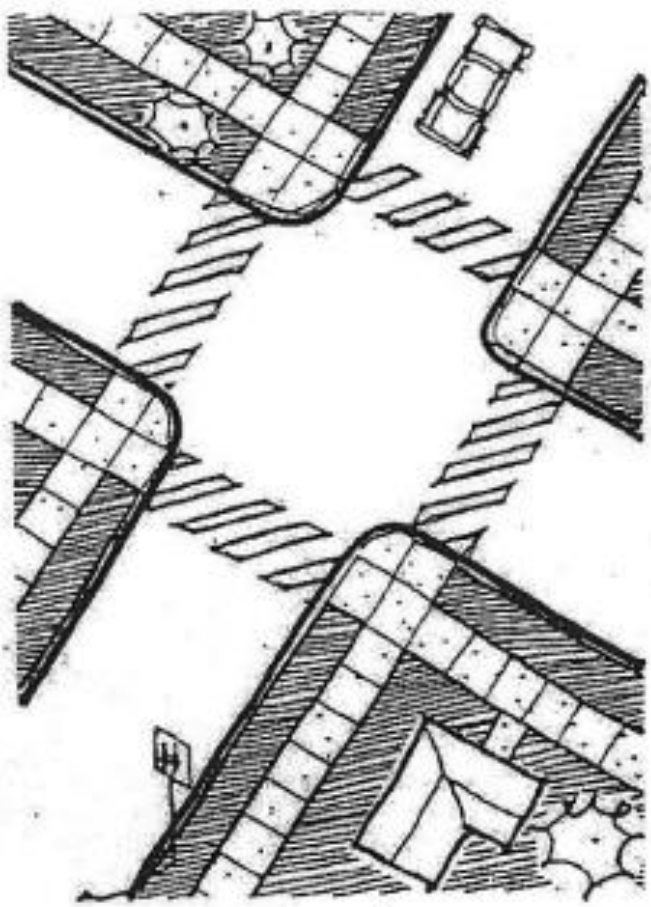
EMERGENCY SERVICE IMPACTS:
None.

NOISE IMPACTS:
Noise impacts are minimal for "zebra" striped crosswalks. Crosswalks designed with paving blocks or contrasting colored concrete can produce significant amount of noise, depending on the design.

OTHER CONSIDERATIONS:
Installation of higher visibility crosswalks would increase maintenance costs. There are also traffic control signs and pavement markings associated with crosswalks that are typically not attractive.

GUIDELINES:
The City Council may consider the installation of higher visibility crosswalks if the criteria listed below are satisfied.

1) A speed survey must demonstrate that a least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



Entrance Treatments

DESCRIPTION:
Entrance treatments consist of physical and textural changes to streets and are located at key entryways into a neighborhood.

PURPOSE:
Entrance treatment create visual, and in some cases audible, cues that tell drivers they are entering a local residential area or that the surrounding land uses are changing. The intent is a reduction in speed.

EFFECTIVENESS:
Entrance treatments have minimal influence on a familiar drivers' routine behavior. Overall speeds and total volumes are not influenced, but it is believed that drivers are made more aware of the environment in which they are driving and are more considerate of pedestrians. Unfamiliar drivers may be influenced to avoid the use of a neighborhood street with an entrance treatment when searching for a through route.

PARKING IMPACTS:
None

TRANSIT SERVICE IMPACTS:
None

EMERGENCY SERVICE IMPACTS:
None.

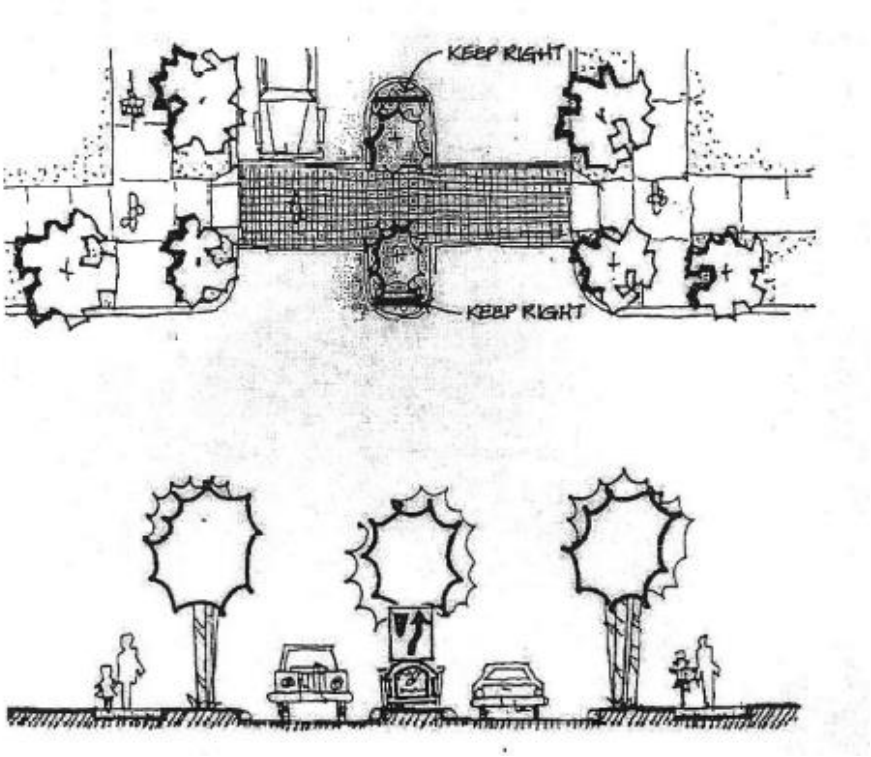
NOISE IMPACTS:
Textured pavements will introduce some new noise.

OTHER CONSIDERATIONS:
None.

GUIDELINES:
The City Council may consider the installation of entrance treatments if the criteria listed below are satisfied.

1) A speed survey must demonstrate that a least 2/3 (67%) of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than or approximately 1,500 vehicles per 24-hour period or 150 vehicles per hour, total in both directions

on an average weekday.



Speed Humps

DESCRIPTION:
Speed humps are pavement undulations installed along a roadway for the purpose of regulating traffic speed. There is a significant difference between speed humps and speed bumps, which are devices commonly used in shopping center parking lots. A speed bump is an abrupt pavement feature, three or four inches high and only one to three feet in length at the base (measured in the direction of vehicle travel). A speed hump, on the other hand, is generally 3 inches in height, but much gentler in configuration, with a length of at least 12 feet at the base. Speed humps properly designed and placed in appropriate locations control speed without the "jarring" effect of speed bumps. Each installation should consist of a minimum of three humps, spaced at 300-400 feet apart. Because visibility of the speed humps is very important, they will be identified with appropriate signs and markings.

PURPOSE:
Speed humps are intended to reduce vehicle speeds and/or divert traffic.

EFFECTIVENESS:
Twelve-foot speed humps may be effective at encouraging 25-mph vehicle speeds. Speeds determined by height and spacing; speeds between humps have been observed to be reduced between 20 and 25 percent on average.

PARKING IMPACTS:
None

TRANSIT SERVICE IMPACTS:
Like other vehicles, buses must cross a speed hump at reduced speeds. Transit service representatives must have an opportunity to review all speed humps that are proposed.

EMERGENCY SERVICE IMPACTS:
Like other vehicles, emergency response vehicles must cross a speed hump at reduced speeds. The speed hump design selected for a street takes into consideration whether it is used as a primary response route. The Fire Department has an opportunity to review all speed humps that are proposed. An opportunity to comment on proposed speed humps must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council will consider these comments in their review.

NOISE IMPACTS:
Speed humps generate some noise. The only mitigation is to consider a hump's proximity to homes when determining where humps might be located.

GUIDELINES:
Traffic volumes typically decrease slightly after speed humps are constructed. Additional signage may be objectionable to residents.

The City Council may consider the installation of speed humps if the criteria listed below are satisfied.

1) Speed humps will be considered for a particular street section only after persistent attempts to resolve speeding by all appropriate conventional methods (posting of a speed trailer, increased enforcement, etc.) have been exhausted.

2) The street segment on which speed humps are proposed must be fairly straight and at least ¼ mile (1320 ft) long and must meet the City of Joplin's definition of a residential street. The street must include a logical segment for installation of speed humps (isolated or very short segments along a continuous street, relatively short cul-de-sacs that are less than 850 feet, and L-intersection corner areas are generally not appropriate for speed hump installations).

3) The speed limit on the proposed street must be the posted or prima facie 25 miles per hour or less.

4) A speed survey must demonstrate that at least 2/3 (67%) of the motorists exceed the 25-mile per hour speed limit.

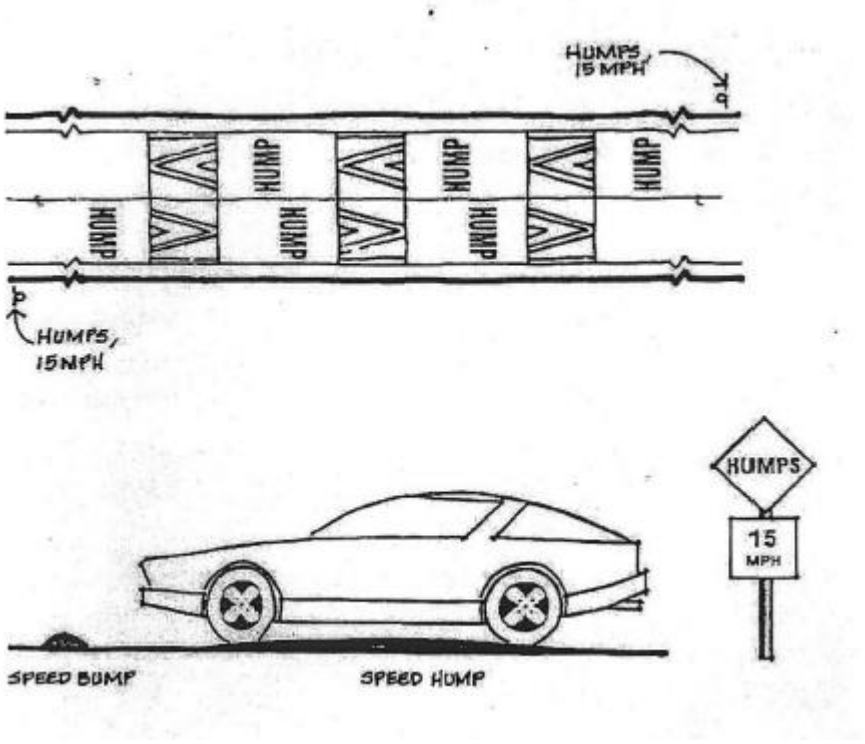
5) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.

6) The average traffic volume must be approximately 1,500 vehicles per 24-hour period or 150 vehicles per hour, total in both directions on an average weekday.

7) The street must have a sustained longitudinal grade of 6% or less. Exceptions may be allowed for steeper street grades where the steeper grades prevail over relatively short distances. For instance, grades up to 8% may be acceptable for up to 400 feet and grades up to 10% may be acceptable for up to 200 feet.

8) The street must have a horizontal and vertical alignment such that there is adequate sight distance, as determined by the Director of Public Works. Example: A proposed speed hump must be visible from a three and one-half foot height at 150 feet.

9) An opportunity to comment on proposed speed humps must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council in their review will consider these comments.



Curb Extensions or Chokers (bulb-outs)

DESCRIPTION:
Curb extensions or chokers narrow the street by widening the sidewalk or the landscaped parking strip.

PURPOSE:
These devices are employed to make pedestrian crossings easier, to narrow the roadway, or to slow traffic.

EFFECTIVENESS:
Curb extensions effectively improve pedestrian safety by reducing the street crossing distance and improving sight distance. They also influence driver behavior by changing the appearance of the street.

PARKING IMPACTS:
Parking impacts are minimal. However, each curb extension occupies street area that might otherwise be available for curbside parking.

TRANSIT SERVICE IMPACTS:
Curb extension do not adversely impact transit service. Curb extensions at transit stops enhance service by moving the curb so riders step directly between the sidewalk and bus door.

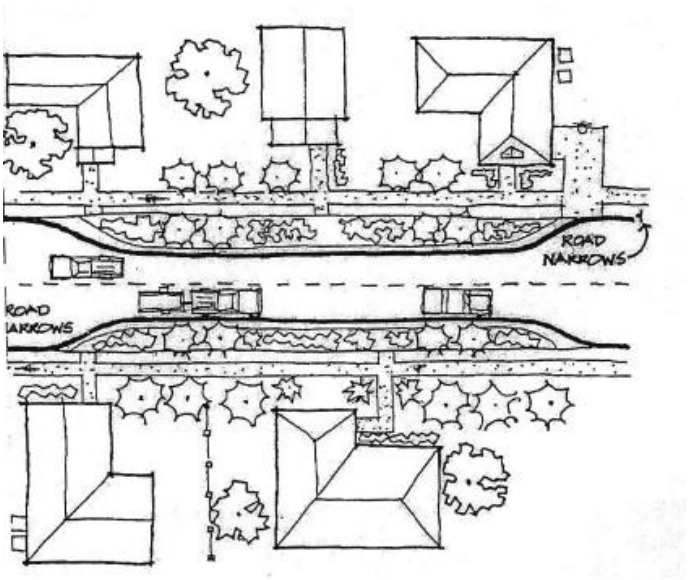
EMERGENCY SERVICE IMPACTS:
None.

NOISE IMPACTS:
None.

OTHER CONSIDERATIONS:
Where the crowns of the street are steep, curb extensions may actually go "uphill" because the new curb is higher than the original curb. If poorly designed, this can result in puddles on the sidewalk.

GUIDELINES:
The City Council may consider the installation of higher visibility crosswalks or curb extensions if the criteria listed below are satisfied.

1) A speed survey must demonstrate that a least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



Traffic Circles

DESCRIPTION:
Traffic circles require drivers to slow to a speed that allows them to comfortably maneuver around them. Traffic circles are three or more road intersections with raised islands placed at the center of the intersection. They may be landscaped with ground cover and street trees.

PURPOSE:
The primary purpose of traffic circles is to slow high-speed traffic. An additional benefit is that they reduce the number of angle- and turning-type collisions.

EFFECTIVENESS:
Traffic circles are very effective at lowering speeds in their immediate vicinity. Traffic circles are most effective when constructed in a series on a local service street.

PARKING IMPACTS:
A minimum of 30 feet of curbside parking must be prohibited along the through street at all four corners of the intersection.

TRANSIT SERVICE IMPACTS:
Buses can maneuver around traffic circles at slow speeds provided vehicles are not illegally parked near the circles.

EMERGENCY SERVICE IMPACTS:

Fire trucks can maneuver around traffic circles at slow speeds provided vehicles are not illegally parked near the circles. An opportunity to comment on proposed traffic circles must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council in their review will consider these comments.

NOISE IMPACTS:

Noise impacts are minimal. There may be some noise related to vehicles decelerating and accelerating near the circles.

OTHER CONSIDERATIONS:

If well maintained, traffic circles can be very attractive. However, there are also a lot of traffic control signs and pavement markings associated with circles that are not as attractive. Traffic circles are less effective at T-intersections and very difficult to design for offset intersections.

GUIDELINES:

The purpose of these design criteria is to provide, at the lowest cost possible, a traffic circle that will reduce traffic speeds and crash while allowing for the movement of large vehicles through the intersection. These design criteria will also provide the largest possible traffic circle, and thereby allow maximum landscaping for beautification (as funding allows), and to visually warn drivers of the obstruction.

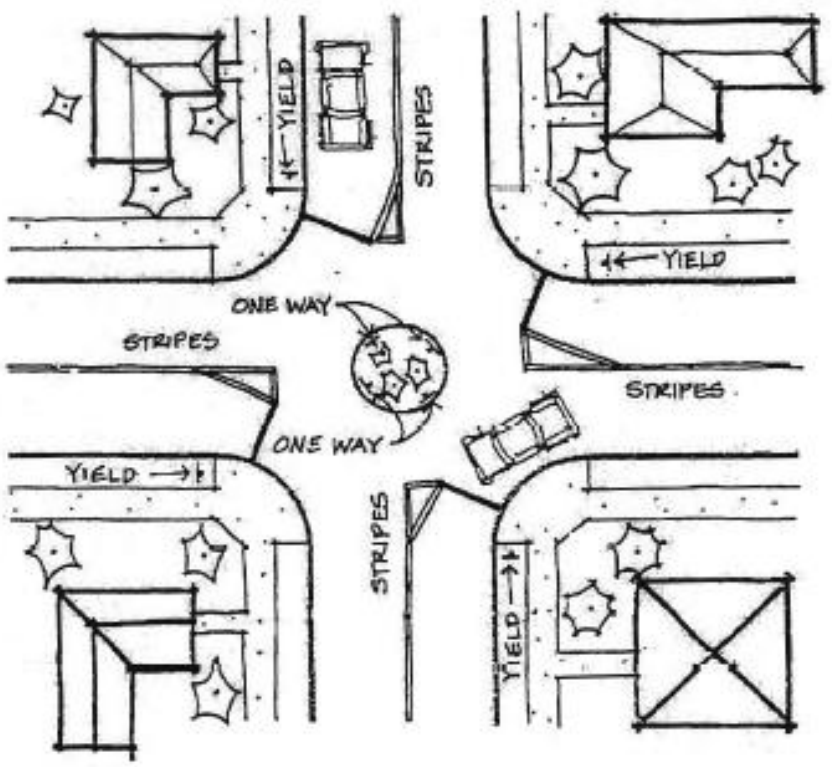
There will be cases where these design criteria cannot be totally followed and or where one or more curb returns have to be reconstructed. Some of these cases occur where intersecting streets are of different widths, and or where one or more of the intersecting streets are offset or angled. There will also be situations requiring that special attention be given to landscape and aesthetic considerations. In these cases, engineering judgment will be used in following the design criteria as closely as possible, with traffic safety and operation of prime concern.

Design Criteria (refer to the Traffic Circle Diagram for an explanation of terminology):

1) The distance between a traffic circle and the street curb projection (offset distance) will be determined based upon intersection geometry.
2) The width between a traffic circle and a curb return (opening width) will be determined based upon intersection geometry.
3) As the offset distance decreases, the opening width shall increase based upon intersection geometry.
4) The outside 2 feet of the traffic circle will be constructed with a mountable monolithic cement concrete curb and pavement surface doweled to the existing pavement.
5) Where landscaping is installed, traffic circles less than 15 feet in diameter will have one tree centered along with other plantings.
6) Where landscaping is installed, traffic circle greater than or equal to 15 feet in diameter will have three trees equally spaced and set back 4 feet from the curb face along with other plantings.

The City Council may consider the installation of traffic circles if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



Roundabout

DESCRIPTION:
A roundabout is a modern version of a traffic circle with approach diverter islands. A circular island is placed in the center of an existing local street intersection. Traffic approaching the intersection is guided around the circular island. Roundabouts are generally designed to require approaching traffic to slow down when entering the intersection, while allowing a relatively easy exit movement for traffic exiting the intersection.

PURPOSE:
The purpose of a roundabout is to reduce intersection approach speeds and reduce the potential for angle and turning-type crashes, while maintaining or possibly increasing the capacity of an intersection.

EFFECTIVENESS:
Roundabouts are very effective at lowering speeds in their immediate vicinity. They are also very effective at reducing turning-type collisions; however, the potential for crashes could increase initially until drivers become accustomed to the change.

PARKING IMPACTS:
Due to the approach diverter islands associated with a roundabout, 30-50 feet of curbside parking prohibitions may be required at all four corners of an intersection.

TRANSIT SERVICE IMPACTS:
Buses can maneuver around roundabouts at slow speeds, provided that vehicles are not illegally parked near the roundabout.

EMERGENCY SERVICE IMPACTS:
An opportunity to comment on proposed roundabouts must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council will consider these comments in their review.

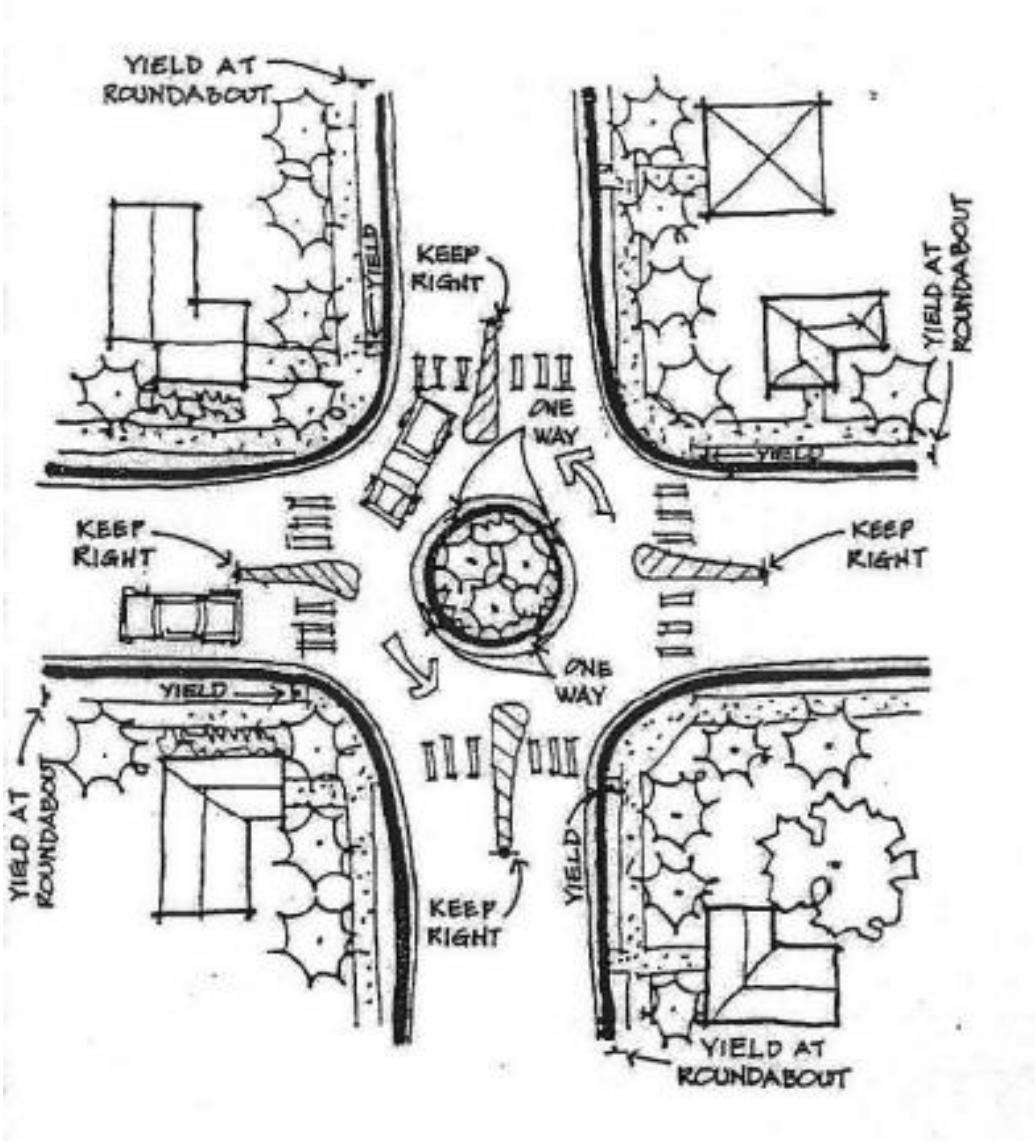
NOISE IMPACTS:
Noise impacts are minimal. There may be some noise related to vehicles decelerating near a roundabout.

OTHER CONSIDERATIONS:
If well maintained, roundabouts can be very attractive. However, there are also a lot of traffic control signs and pavement markings associated with roundabouts that would likely be unattractive.

Roundabouts are very difficult to design at T-intersections, skewed intersections, and offset intersections.

GUIDELINES:
The City Council may consider the installation of a roundabout if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



One-way Street(s)

DESCRIPTION:
One or more streets within a neighborhood can be designated as "one-way", thereby redefining traffic patterns within the neighborhood.

PURPOSE:
The primary purpose of one-way street (s), as a traffic-calming tool, is to prohibit certain neighborhood cut-through movement.

EFFECTIVENESS:
One-way streets can be very effective at eliminating cut-through traffic in the prohibited direction of travel. However, a series of one-way streets can actually increase travel

distances to certain residences thereby increasing overall traffic volumes on individual roadway segments.

PARKING IMPACTS:
None.

TRANSIT SERVICE IMPACTS:
Buses would be required to follow the one-way direction of travel. The length of a bus route could consequently increase due to the installation of one-way streets.

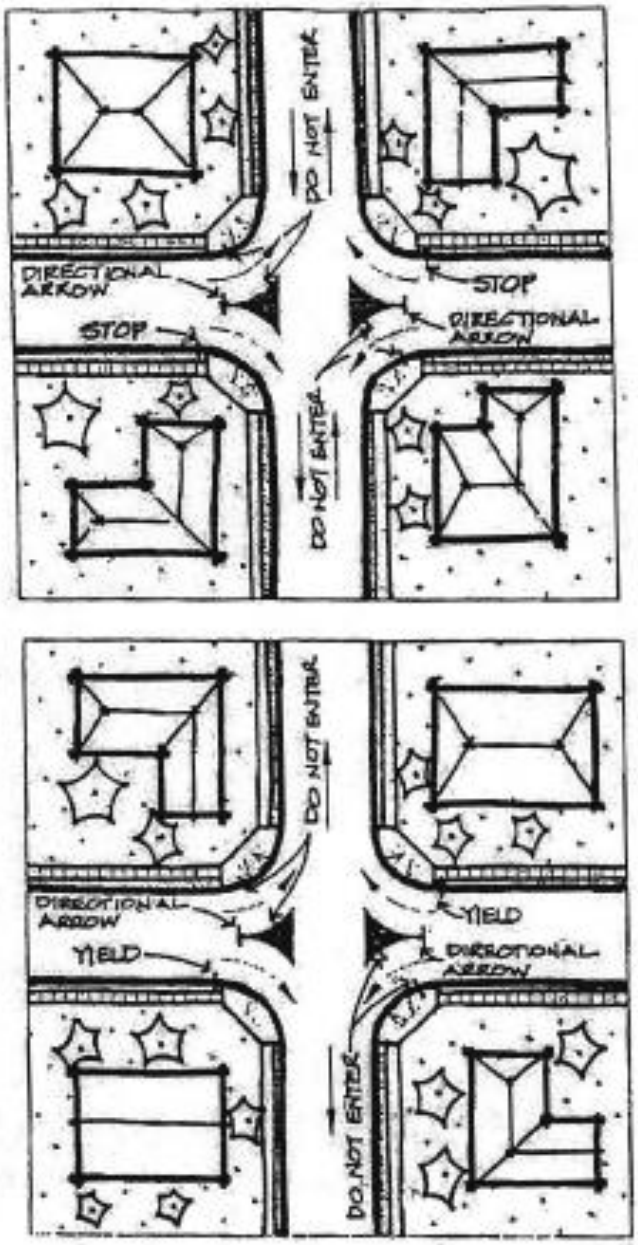
EMERGENCY SERVICE IMPACTS:
Fire trucks and other emergency vehicles could proceed along a one-way street in the wrong direction of travel required for an emergency. An opportunity to comment on proposed one-way streets must be provided to appropriate emergency service agencies and transportation service agencies. These comments will be considered by the Traffic Commission and the City Council in their review.

NOISE IMPACTS:
None

OTHER CONSIDERATIONS:
If a wide residential street is converted to a one-way street, an unfamiliar motorist exiting a residential driveway along the street may not easily understand the direction of one-way travel. A substantial number of "one-way" signs, corresponding to the number of driveways along the street, would be required to indicate the proper direction of travel to unfamiliar motorists. These signs would likely be perceived as very unattractive. 'Wrong-Way" and "Do Not Enter" signs, located at the end of a one-way street, would also be aesthetically unpleasing.

GUIDELINES:
The City Council may consider the installation of a one-way street if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.


DO NOT ENTER
DIRECTIONAL ARROW
STOP
STOP
DIRECTIONAL ARROW
DO NOT ENTER
DO NOT ENTER
DIRECTIONAL ARROW
YIELD
YIELD
DIRECTIONAL ARROW
DO NOT ENTER

Median Barriers

DESCRIPTION:
A median barrier is a concrete curb or island that is located along the centerline of a street and continues through the street's intersection with a given cross street.

PURPOSE:
Strategically located median barriers reduce traffic volumes on a street. Median barriers can be designed to prevent left turns from the through street and left turns and through moves from the cross street. They can also be designed to permit left turns into the cross street, while prohibiting left and through movements from the cross street.

EFFECTIVENESS:
Median barriers are very effective in reducing volumes.

PARKING IMPACTS:
Medians may not significantly impact curbside parking opportunities, but in some cases parking would be prohibited to accommodate the remaining turning movements or to make room for a wider median barrier.

TRANSIT SERVICE IMPACTS:
Median barriers would prevent transit service on the cross street that is blocked.

EMERGENCY SERVICE IMPACTS:
The turn restrictions imposed by a median barrier would apply to emergency vehicles as well and are not typically used when the street being blocked is a primary fire response route. An opportunity to comment on proposed median barriers must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council in their review will consider these comments.

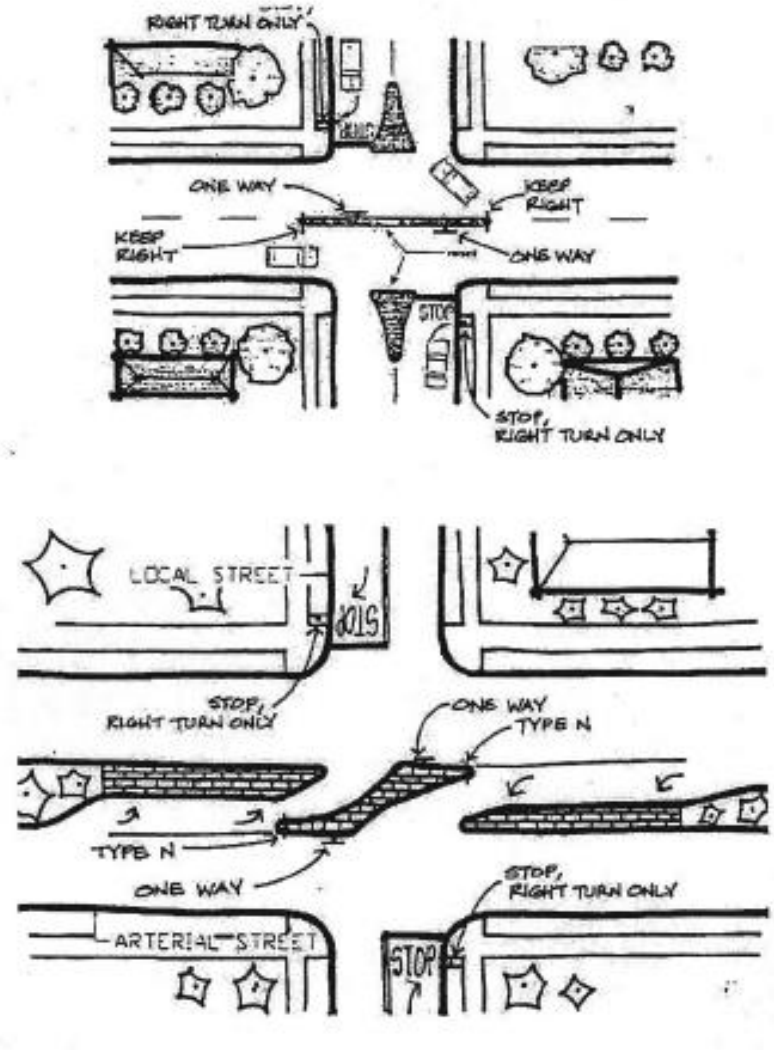
NOISE IMPACTS:
None.

OTHER CONSIDERATIONS:
Median barriers apply to all drivers, including local residents. Very special care must be taken to consider the availability, capacity, and appropriateness of the alternative routes drivers might use if a semi-diverter is constructed.

Provision should be made to make median barriers passable for pedestrians and bicyclists.

GUIDELINES:
The City Council may consider the installation of median barriers if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



Semi-Diverters or Half Closures

DESCRIPTION:
Semi-diverters or half closures are located at intersections and limit access to a street by blocking the "receiving" lane of the street. They prevent drivers from entering certain legs of an intersection.

PURPOSE:
Strategically located semi-diverters can effectively reduce traffic volumes on a street.

EFFECTIVENESS:
Semi-diverters are very effective in reducing volumes.

PARKING IMPACTS:
Semi-diverters do not significantly impact curbside parking opportunities.

TRANSIT SERVICE IMPACTS:
Semi-diverters are typically only considered on non-transit streets

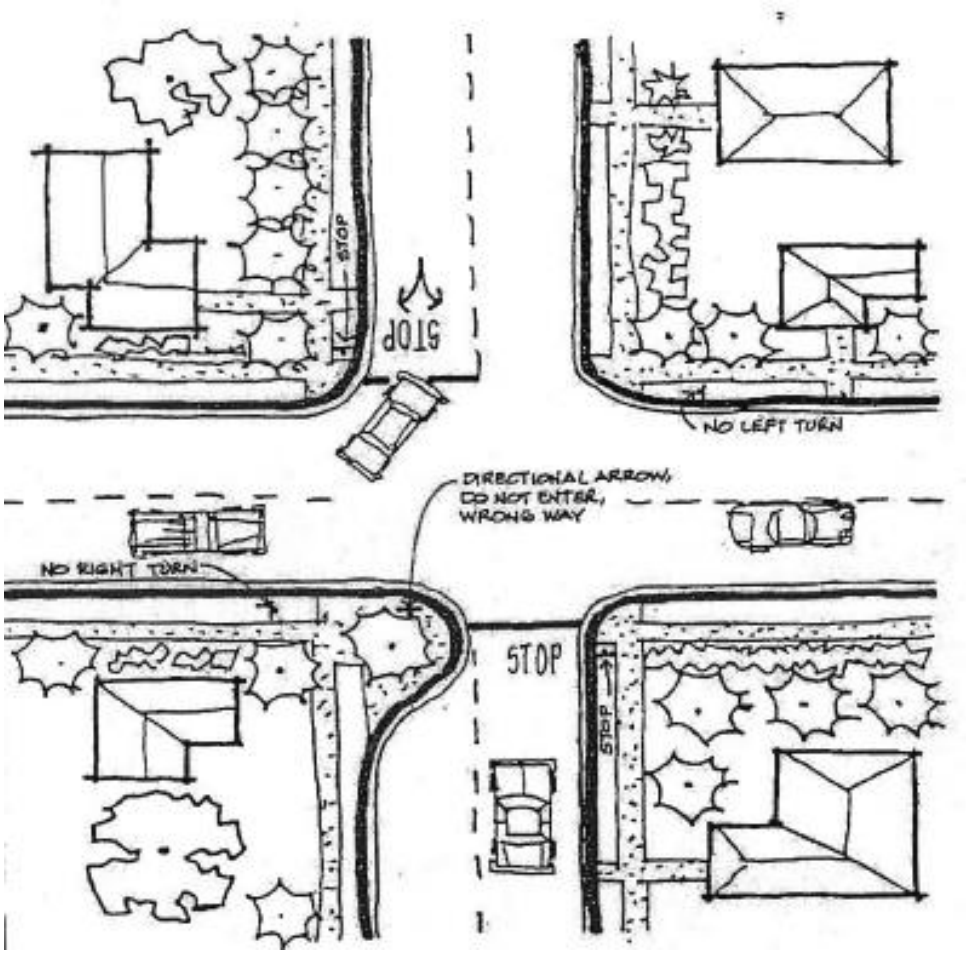
EMERGENCY SERVICE IMPACTS:
Semi-diverters allow a higher degree of emergency vehicle access than cul-de- sacs or diagonal diverters. Semi-diverters can be designed to allow emergency vehicle access, but careful consideration needs to be given to their use on primary fire response routes. An opportunity to comment on proposed semi-diverters or half closures must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council in their review will consider these comments.

NOISE IMPACTS:
None.

OTHER CONSIDERATIONS:
Semi-diverters apply to all drivers, including local residents. Very special care must be taken to consider the availability, capacity, and appropriateness of the alternative routes drivers might use if a semi-diverter is constructed.

GUIDELINES:
The City Council may consider the installation of semi-diverters or half closures if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24-hour period or 150 vehicles per hour, total in both directions on an average weekday.



Diagonal Diverters

DESCRIPTION:
Diagonal diverters place a barrier diagonally across an intersection, disconnecting the legs of the intersection.

PURPOSE:
Strategically located diagonal diverters reduce traffic volumes on a street. Diagonal diverters prevent all through moves at an intersection.

EFFECTIVENESS:
Diagonal diverters are very effective in reducing volumes.

PARKING IMPACTS:
None.

TRANSIT SERVICE IMPACTS:
Diagonal diverters should not be considered on transit streets.

EMERGENCY SERVICE IMPACTS:
Generally, the turn restrictions imposed by a diagonal diverter would apply to emergency vehicles as well and are typically not used on primary fire response routes. However, diagonal diverters can be designed and installed to provide for emergency vehicle access. An opportunity to comment on proposed diagonal diverters must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council will consider these comments in their review.

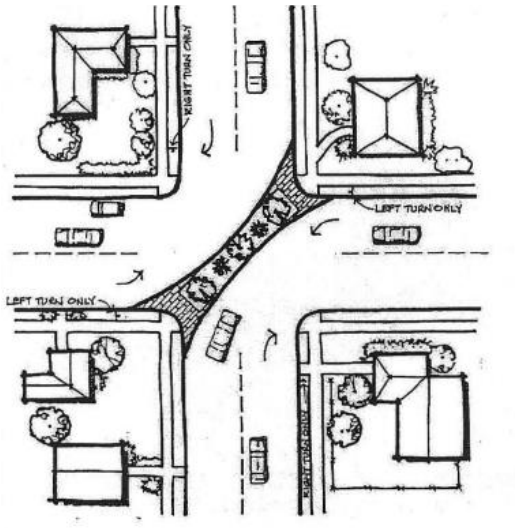
NOISE IMPACTS:
None.

OTHER CONSIDERATIONS:
Diagonal diverters apply to all drivers, including local residents. Very special care must be taken to consider the availability, capacity, and appropriateness of the alternative routes drivers might use if a diagonal diverter is constructed.

Provision should be made to make diagonal diverters passable for pedestrians and bicyclists.

GUIDELINES:
The City Council may consider the installation of diagonal diverters if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.



Cul-de-sac or Street Closures

DESCRIPTION:
Either closing a street at an intersection or at a mid-block location creates cul-de-sacs. Pedestrian access is provided across a landscaped island. The closure must be located away from driveways.

PURPOSE:
The purpose of a cul-de-sac is to eliminate through traffic and/or reduce speeding on long uninterrupted sections of roadway.

EFFECTIVENESS:
Cul-de-sacs are very effective at reducing traffic volumes on the cul-de-sac roadway; however, diverted traffic can increase traffic volumes on adjacent roadways.

PARKING IMPACTS:
Up to 150 feet of curbside parking must be prohibited at the location where cul-de-sac(s) are being installed.

TRANSIT SERVICE IMPACTS:
Cul-de-sacs can block transit service routes, necessitating the rerouting of transit services.

EMERGENCY SERVICE IMPACTS:
Cul-de-sacs can negatively affect response times for emergency services, particularly if they are installed on primary emergency service access routes. The landscaped island that forms the cul-de-sac can be designed as a traversable island for emergency purposes. An opportunity to comment on a proposed cul-de-sac or street closure must be provided to appropriate emergency service agencies and transportation service agencies. The Traffic Commission and the City Council in their review must consider these comments.

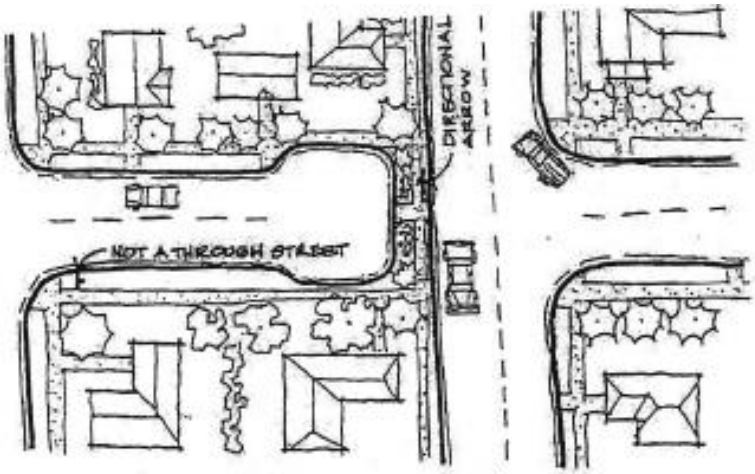
NOISE IMPACTS:
Noise impacts are minimal. In fact, there may be a reduction in noise levels due to decreased traffic volume at the cul-de-sac location.

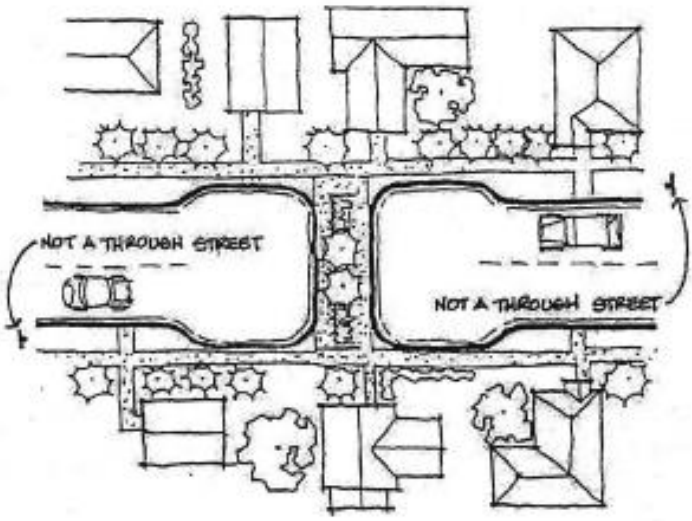
OTHER CONSIDERATIONS:
In large neighborhoods, installing a cul-de-sac on a roadway could shift a problem elsewhere, unless a strategic pattern of neighborhood traffic-calming tools is used. Cul-de-sacs can also generate confusion on the part of users searching for an address along a street. This can be resolved by renaming a portion of the street on one side of the cul-de-sac. Provisions should be made to

make the cul-de-sac (s) passable for pedestrians and bicycles.

GUIDELINES:
The City Council may consider the installation of a cul-de-sac or street closure if the criteria listed below are satisfied.

1) A speed survey must demonstrate that at least 67 percent of the motorists exceed the 25-mile per hour speed limit.
2) The street must have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 1,500 vehicles per 24- hour period or 150 vehicles per hour, total in both directions on an average weekday.





Traffic Calming Signs

DESCRIPTION:
Traffic Calming Signs are generally signs with friendly messages to motorist reminding them they are entering a residential neighborhood. The signs are posted at entrances to neighborhoods and designed in such a way as to attract motorist attention while not appearing to be a regulatory or warning sign. Signs are rotated periodically to help keep the message fresh and continue to attract the attention of drivers familiar with the neighborhood.

PURPOSE:
Traffic Calming Signs are intended to increase public awareness and support other neighborhood efforts to reduce traffic speeds and encourage safe driving practices.

EFFECTIVENESS:
Traffic Calming Signs are likely to have minimal influence on the majority of drivers. No specific tests or studies have been conducted to determine the effectiveness of the program to date. Elements of the program are intended to help maintain the long-term effect of the signs.

PARKING IMPACTS:
None.

TRANSIT SERVICE IMPACTS:
None.

EMERGENCY SERVICE IMPACTS:
None.

NOISE IMPACTS:
None.

OTHER CONSIDERATIONS:
None.

GUIDELINES:
The Traffic Commission may consider the installation of Traffic Calming Signs if the criteria listed below are satisfied.

1) A petition submitted requesting the installation of Traffic Calming Signs representing a majority of households in the neighborhood.

Or

1) A request submitted by a duly authorized representative of a Homeowners Association representing the majority of homeowners in the neighborhood.

2) The street on which the sign is to be installed shall be an entrance to the neighborhood and shall have no more than two traffic lanes; one traffic lane in each direction for two-way streets or one traffic lane for one-way streets.
3) The average traffic volume must be greater than 500 vehicles per 24-hour period or 50 vehicles per hour, total in both directions, on an average weekday.

The process for obtaining traffic calming signs will be an exception to the standard process for other traffic calming measures. Elements of the standard process, which will be excluded from the process for considering traffic calming signs, are:

Step 4 - Traffic Commission Meeting with the Neighborhood
Step 7 - Consideration by City Council
Step 8 - Plans Prepared and Publicly Reviewed
Step 10 – Follow-up

In addition, Step 5 - Engineering Analysis, will be limited to the review of potential installation locations and preparing schematic installation plans and cost estimates.

PETITION FORM

Petition to modify the traffic flow on _____ between

_____ and _____.

BEFORE YOU SIGN THIS PETITION, KNOW WHAT YOU ARE SIGNING! IT IS RECOMMENDED THAT YOU FIRST READ THE CITY'S TRAFFIC CALMING POLICY AND PROCEDURE GUIDELINE. Note: The street mentioned above will be considered for a traffic calming engineering study & cost Analysis only if the signatures below represent 60% or more of all households on the impacted street from the nearest Arterial/Collector Road in each direction. Only one signature from each household will be considered. All persons signing this petition do hereby certify that they reside within the area impacted by the traffic calming device.

Address	Name (Please Print)	Signature	Whether Owner or Renter	Phone Number		Ok if Installed in Front of My Residence (Please Initial)
				Home	Work	

Remit to: City of Joplin, Engineering Department, 602 South Main Street, Joplin, MO 64801

CITY
OF JOPLIN, MISSOURI

APPLICATION FOR TRAFFIC CALMING

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

Street Study Information	
Requested Street:	
From:	
To:	

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

Contact Person Information		
Name:		
Address:	**Phone Number**	
	Home:	**Work:**
Email Address:	**Cell:**	

I understand this request will be processed according to the procedures detailed in the Residential Traffic Calming Policy and Procedure by the City of Joplin. I agree to be the contact person for the above request.

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

Remit to: City of Joplin, Engineering Department, 602 South Main Street, Joplin, MO 64801

References:

- Traffic Calming State of the Practice, Reid Ewing, Federal Highway Department

- City of Bartlesville OK Residential Subdivision Traffic Calming Policy & Procedure

- Springfield/Greene County Comprehensive Traffic Plan
https://www.springfieldmo.gov/DocumentCenter/View/22165/Transportation-Plan-PDF

COUNCIL BILL NO. 2019-137 ORDINANCE NO

AN ORDINANCE amending Article 10, Traffic Control Devices, of Chapter 114, Traffic, of the Code of Ordinances of the City of Joplin, by enacting a new Section 114-798, Neighborhood Traffic Calming.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF JOPLIN, MISSOURI, as follows:

WHERAS, the City of Joplin has received complaints from residents about vehicles travelling at high rates of speeds on residential streets in neighborhoods; and,

WHEREAS, the City of Joplin has determined that a Neighborhood Traffic Calming Policy is necessary to address this concern and for the overall health, safety and welfare of its citizens.

NOW, THEREFORE, BE IT ORDAINGED BY THE COUNCIL OF THE CITY OF JOPLIN, MISSOURI, as follows:

Section 1. That Article 10, Traffic Control Devices, of Chapter 114, Traffic, of the Code of Ordinances of the City of Joplin, is hereby amended by enacting a new Section 114-798, Neighborhood Traffic Calming, to read as follows:

"Sec. 114-798. – Neighborhood Traffic Calming

All traffic calming measures, including signs, signals, and devices, requested in residential areas are subject to the policy entitled "Neighborhood Traffic Calming Policy", attached hereto and incorporated herein as Exhibit A. All traffic calming devices approved under this chapter for the purpose of neighborhood traffic calming shall comply with Section 114-782, to the extent it is practicable."

Section 2. That this Ordinance shall be in full force and effect from and after its passage and approval.

PASSED BY THE COUNCIL OF THE CITY OF JOPLIN, MISSOURI, this _____ day of _____, 2019, by a vote of _____.

_____
Gary L. Shaw, Mayor

ATTEST:

_____
Barbara J. Gollhofer,
City Clerk

APPROVED AS TO FORM:

_____

Peter C. Edwards,
City Attorney