

# CITY OF ST. JOHN



## TRAFFIC MANAGEMENT PROGRAM

January 2009

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## I. INTRODUCTION

Conditions of residential streets can greatly affect neighborhood livability. When our streets are safe and pleasant, the quality of life is enhanced. When traffic problems become a daily occurrence, our sense of community and personal well being are threatened. As the population of the area continues to grow, major roadways and intersections become more congested. As motorists resort to the use of residential roadways to bypass congested areas, speeding and cut through traffic may occur through neighborhoods. This often results in neighborhood residents expressing their concern to the City about the overall operation of the roadway system in their neighborhood.

The City of St. John is implementing a Traffic Management Program to address the local street/residential roadway related traffic concerns of its residents, in addition to the major thoroughfares throughout the City. Under this program, staff will work with residents to identify traffic problems in their neighborhoods and create a neighborhood traffic plan that consists of solutions that are acceptable and appropriate. The program will also address issues relating to major streets and intersections. A Traffic Management Program will be another part of the City's commitment to the safety and livability of residential neighborhoods, as well as address safety concerns on the major streets and intersections.

To address the issues of speeding, violating traffic control devices and *cut-through*<sup>1</sup> traffic, municipalities across the country are turning to "*traffic management*." The purpose of traffic management is to preserve or restore the planned intent of the roadway. In the context of local neighborhoods, streets are intended to provide access to properties and not to provide high-speed connections between collector and arterial roadways. With respect to the major roadways, technology and enforcement programs are implemented to make the roadways as safe as possible for motorists and pedestrians.

One of the components of an overall traffic management program, the City of St. John's program provides information on the different types of treatments that may be used in a neighborhood traffic plan and the methodology that will be used to evaluate requests for traffic concerns. Traffic management treatments such as selective radar enforcement, a radar trailer for on-site studies, modified intersections or a combination of all treatments can restore a sense of livability to neighborhood streets that are not operating within the intent upon which they were planned.

The City Traffic Management Team (CTMT), which will address traffic management issues and create neighborhood traffic plans, was assembled to develop solutions to traffic-related problems in St. John neighborhoods. Team membership includes: the City Manager (Team Leader), representatives from the Police Department, appropriate Fire District, and the Public Works Director. When a problem is identified, this document outlines the policy to be used.

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<sup>1</sup> Throughout the manual there are certain terms that are highlighted and in italics. The terms are defined in the glossary located in Appendix A.

It is important to note that throughout the process, interaction between City staff members/representatives and the public is essential. It is also noted that requests are also reviewed by the City Traffic Management Team (CTMT) for other possible solutions. If the preliminary review shows that a hazard to the public exists, the City may address the problem separately from the Traffic Management Manual. The City Manager may install traffic devices without requiring a formal traffic management request, in accordance with the authority granted under section 310.010 of the Municipal Code of the City of St. John.

In addition to engineering solutions, many traffic problems should and must be addressed through traffic regulation enforcement. The St. John Police Department's Traffic Management Team (PDTMT) addresses the local street/residential roadway related traffic concerns of residents and provides information on the different types of enforcement techniques that may be used in a neighborhood traffic plan and the methodology to be used to evaluate the problems identified. The team provides traffic management treatments, such as selective use of speed radar, monitoring of high accident locations and directive patrol of problem locations. The team works with other city departments to address traffic issues and create neighborhood traffic plans, develop solutions to traffic-related problems in city neighborhoods and on major public thoroughfares..

It is also important in any traffic management program to utilize current and modern technological advances. ***Automated Traffic Enforcement Solutions***, authorized by law, are recognized acceptable solutions in situations where traditional enforcement procedures creates additional traffic related problems or unsafe conditions to the enforcing police officer or the driving public. These solution have proven to significantly improve public safety by reducing the number of traffic violations and accidents in those area where utilized.

This manual contains all the information you need to request traffic management devices for your neighborhood. Please complete the enclosed application, and submit the application package to the following location:

City of St. John  
Office of the City Manager  
8944 St. Charles Rock Rd.  
St. John, MO 63114

ATTENTION: Traffic Management Team

## II. GOAL, OBJECTIVES AND POLICIES

Traffic Calming is the combination of mainly physical measures, which reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for pedestrians or bicyclists. Traffic calming may be a component of a traffic management plan.

### OUR GOAL

It is the City of St. John's goal to establish a transportation system that promotes neighborhood livability using sound technical planning, recognized enforcement procedures and engineering practices, as well as safe transit for those who traverse the major thoroughfares throughout the City..

### OBJECTIVES

1. To promote safe and pleasant conditions for residents, pedestrians, bicyclists and motorists on local streets. High volumes of traffic and excessive speeds are a threat to neighborhood security. When traffic is overwhelming, residents retreat into their homes and back yards. The abandonment of the street to vehicular traffic leads to a decreased sense of community and an air of insecurity. Reducing traffic volumes and speed through traffic calming measures is a powerful way to help residents realize the livability and vitality of their neighborhood.
2. To reduce cut-through traffic on local streets. As the City's arterial streets become congested, alternate routes are sought, creating cut-through traffic, which has neither its origin nor its destination within the neighborhood.
3. To reduce speeding on local streets. Many motorists, neighborhood residents, as well as those cutting through, drive too fast on local streets. While some speeding is by irresponsible drivers, the majority is done by normally responsible drivers who find their high speeds accommodated by the road's design features, such as a wide pavement, straight sections of the road and absence of vegetation. Danger to pedestrians, bicyclists and particularly the young and elderly, are increased due to excessive speed. In addition to safety issues, speeding vehicles degrade the quality of the street for all other users, and can impart a general feeling that things are "not right" in the neighborhood.
4. To preserve and enhance pedestrian and bicycle access to neighborhood destinations. The Comprehensive Plan identifies a Master Plan on arterials within St. John. All neighborhood traffic management plans should take this plan into consideration, to perpetuate and encourage pedestrian and bicycle circulation.
5. To create a positive community atmosphere and provide an opportunity for neighborhoods to interact by encouraging citizen involvement in the neighborhood planning process through surveys and neighborhood meetings.
6. To provide a process that will balance the needs of the neighborhood with that of the entire community when addressing traffic requests.

## POLICIES

1. State and County roadways and streets that are classified as arterial or collector roads will not normally be considered for traffic calming devices, unless a problem is identified or a traffic study is requested by the City Council.
2. Cut-through traffic should be routed back to collector and arterial roadways.
3. A certain amount of traffic will be distributed throughout the neighborhood as a result of a neighborhood traffic plan. Acceptable limits will be defined on a case-by-case basis.
4. Emergency vehicle access must be preserved.
5. Bicyclist and pedestrian access must be accommodated.
6. The City of St. John may employ a variety of *traffic calming devices* to achieve the neighborhood traffic plan. If implemented, such devices will be planned and designed in conformance with sound engineering judgment and planning practices.
7. Project priority will be established according to the criteria of traffic calming devices/methods such as volume and speed. The priority listing will be updated as new projects are approved or on an annual basis according to the budget year.
8. To implement the neighborhood traffic plan, certain procedures will be followed in accordance with applicable codes, related policies and within the limits of available resources. At a minimum, the procedures provide for:
  - a) submittal of application
  - b) evaluation of study area by staff
  - c) citizen participation in plan development and evaluation
  - d) methods of temporarily testing neighborhood traffic plans (when needed) or installation of permanent traffic calming devices
  - e) evaluation period

### III. TRAFFIC CALMING: AN APPROACH TO RECLAIMING LOCAL STREETS

Traffic calming is a method in which the city can modify a roadway or the driving environment to discourage the use of a roadway for purposes other than those associated with the roadways planned intent. In the context of local neighborhoods, this means discouraging high vehicle speeds, traffic control device violations and cut-through traffic. The appropriate application of traffic calming principles can restore the balance between traffic service and important neighborhood values, such as safety, walking and bicycling.

Traffic calming devices are engineering measures that attempt to change driver behavior. Typically, the intent of traffic calming devices is to cause motorists to drive slowly and with more care and/or to divert motorists to another route. Traffic calming techniques generally fall into two categories; physical and psychological.

**PHYSICAL:** In general, wider roads encourage higher automobile speeds. Many traffic-calming techniques are therefore designed to physically change the width of the street. If motorists can see far into the distance, their speed may increase. The interruptions of sight lines through changes in the road's direction, or breaking the road into smaller visual units using techniques such as chicanes and roundabouts, cause the drivers to slow down.

**PSYCHOLOGICAL:** Traffic calming may also be achieved by changing the psychological feel of the street. Streets using different surface types, vertical landscaping or narrowed lanes create the appropriate space for a relaxed, pedestrian-friendly atmosphere. These psychological changes give motorist cues that they are no longer on a major roadway, but are in a different environment that is shared with people.

There is an extensive "menu" of treatments that may be part of a traffic calming strategy. Such treatments include:

- ❖ **DEFLECTING PATHS:** *Deflecting* the vehicle path causes the driver to reduce speed and be more attentive to the task of driving. Deflection is done through changing the route of the automobile. Some measures apply at mid-block locations, while others are most appropriate for intersections. Designation of one-way streets is only one example of this.
- ❖ **DIVERTING TRAVEL ROUTES:** Diverting the driver's route increases travel time and encourages the driver to use another route. Traffic diverters, street closures, one-way streets, median closures and turning movement restrictions are examples of a diversion.
- ❖ **CHANGES TO PAVEMENT SURFACE:** Changing the pavement surface demands attention from drivers, and reduces the speed for comfortable driving (the "design" speed). Speed humps, paver bricks and special pavement materials are among the most frequent approaches to changing the pavement surface.

- ❖ **TRAFFIC CONTROL DEVICES:** Traffic control devices, where warranted, can be used to regulate traffic patterns.
- ❖ **ENFORCEMENT:** Intensified enforcement of traffic regulations can calm traffic, generally, by reminding drivers of posted speed limits and by enforcing the observance of traffic control devices. Police officers are the usual source of intensified enforcement, but automated traffic enforcement solutions, approved by law, are also a recognized method of enforcement.



## TRAFFIC CALMING REQUEST AND PROCESSING PROCEDURES

1. **COMPLETE AND SUBMIT PROJECT APPLICATION:** A preliminary traffic calming study can be initiated by a resident complaint, the request of a neighborhood association, or a Councilperson's request. The application in Appendix A of this document should be completed and submitted to the Traffic Management Team.
2. **EVALUATE APPLICATION:** City staff will identify the study area, collect preliminary data (the St. John Police Traffic Management Team will perform speed and volume studies), and complete the evaluation of the traffic calming request. To assist in evaluating the traffic calming request, staff will use the criteria described below.

The following speed and volume tables are the first criteria used to gauge whether a traffic calming study area warrants further research for possible development and implementation of a traffic calming plan.

### 20 MPH Posted Speed Limit

Points	85 <sup>th</sup> Speed
0.5	21-25 mph
1.0	26-29 mph
1.5	30-33 mph
2.0	34-37 mph
2.5	38-42 mph
3.0	42 mph +

Points	24 hr. volume
0.5	100-300 vehicles
1.0	301-500 vehicles
1.5	501-750 vehicles
2.0	751 vehicles +

### 25 MPH Posted Speed Limit

Points	85 <sup>th</sup> Speed
0.5	26-30 mph
1.0	31-34 mph
1.5	35-37 mph
2.0	38-40 mph
2.5	41-43 mph
3.0	44 mph +

Points	24 hr. volume
0.5	100-300 vehicles
1.0	301-500 vehicles
1.5	501-750 vehicles
2.0	751 vehicles +

i. Any street that ranks 2.5 or higher merits Traffic Calming consideration by the City Council. Due to the curvature of the roadway, and other design characteristics, some streets may not be suitable for traffic calming.

ii. Any street that ranks 2.0 should be studied by the Traffic Management Team. The following items may be included in the study:

- A review of accident/crash reports for a three calendar year period.
- Location of school, pedestrian oriented facility (elderly housing) or community facility (park) located on the subject street or within an established walking area.
- Driveway Density.
- Presence/Absence of sidewalks.

After review of the above study, the project MUST be supported by the the Traffic Management Team. The neighborhood street would require 2/3 voter approval from residents and is subject to roadway design. Due to the curvature of the roadway, and other design characteristics, some streets may not be suitable for traffic calming.

iii. Any street that scores less than a 2.0 and is determined to not be an appropriate location based on the study completed will not be eligible for testing for 12 months after the speed/volume study is conducted. After two years of testing, if the street does not qualify for traffic calming, the project is ineligible for re-testing for 24 months.

The following issues will also be taken into consideration in determining whether an area is suitable for traffic calming strategies.

**CONSISTENCY WITH TRAFFIC CIRCULATION ELEMENTS:** It should be recognized that a non-functional arterial network might cause the neighborhood traffic problem. Solutions may require changes to the City and/or County adopted traffic circulation elements.

In some cases, physical traffic modifications may be proposed on collector roads, whose function is usually described as “providing access and traffic circulation for the predominant land use within neighborhoods, commercial and industrial areas.” If collectors are found to be carrying a high volume of cut-through traffic, physical traffic modifications may be appropriate provided that collectors’ traffic circulation role for the predominant land use is maintained.

**CONSISTENCY WITH CITY AND MoDOT SHORT-RANGE AND LONG-RANGE TRANSPORTATION PLANS AND PROGRAMS:** Every effort will be made to ensure that any proposed physical traffic modifications will be consistent with City and County short and long range transportation plans and programs. However, this may require recommendations to change the priority of previously adopted plans and programs in order to more rapidly improve the efficiency of the arterial network near the affected neighborhood.

**LAND USE COMPATIBILITY/ZONING:** Every effort will be made to ensure that any physical traffic modifications are consistent with land use/zoning. The land use within neighborhoods, commercial and industrial areas will be reviewed carefully, and the determining factor for the classification of the road would be the predominant land use.

**CRIME:** Principles will be employed through the Crime Prevention Environmental Design concept to the neighborhood and residential streets when recommending physical traffic modification.

3. **CONDUCT NEIGHBORHOOD WORKSHOP:** If the area of concern meets the minimum criteria outlined in this document, City staff will schedule a neighborhood “workshop” meeting with residents to review the results of preliminary studies and to receive comments on the preliminary design of the traffic calming plan.

Citizen participation is an essential ingredient in the development and implementation of a successful neighborhood traffic plan. Neighborhood residents offer insight into the nature and extent of traffic and safety problems. These residents are most directly affected by the problems and potential mitigating measures, and they are frequently the source of innovative solutions. The following are two levels of community involvement:

- A. Participatory programs involving community leaders and interested citizens.
  - B. Outreach programs attempting to communicate with the silent citizens, normally the vast majority or residents. Implementation of an effective traffic management program, which incorporates resident participation, will provide many benefits to the community. Benefits include effective transportation control, community safety and an enhanced quality of life.
4. **CONDUCT VOTE:** Once the study is complete and a neighborhood meeting has been held, a ballot will be sent to each affected property owner. Approval of at least two-thirds (2/3) of the affected property owners is needed to proceed with the traffic calming plan.
  5. **PRIORITIZE PROJECT:** Projects are prioritized Citywide based on the point score determined in Step 2, Request Evaluation. The highest-ranking projects are undertaken first. The number of projects initiated each year depends on City resources. The City notifies all project requesters of the status of their request after project approval. The City also notifies the appropriate neighborhood associations or homeowner associations of the status of the neighborhood projects within their neighborhood and asks for their comments.
  6. **DESIGN AND IMPLEMENT PROJECT:** City staff will finalize the design and implementation process for the proposed traffic calming devices. Specific techniques may be installed as a "test site", while others will be installed permanently. "Test sites" will be monitored and evaluated for effectiveness. After a period of evaluation, measurable objectives and performance measures will be established on a case by case basis. It is noted that the City's Traffic Engineering Standards will be consulted for adherence in relation to any proposed traffic calming measures.
  7. **EVALUATE PROJECT:** Immediately following the installation of the project, City staff will begin an evaluation of the project's effectiveness. This evaluation includes, but is not limited to, field observations, traffic counts, speed studies and other data collection (as needed). If the project has not met the objectives during the evaluation period, staff will notify the community's representatives. City staff and community representatives may then decide to make modifications to the current plan. These modifications may include the implementation of additional or different techniques, or the removal of the traffic calming devices.

## V. SUMMARY

The Traffic Calming Policy Manual lays the groundwork for traffic calming within St. John neighborhoods. The manual contains details on how a neighborhood, a resident, association, property owner, etc. begins a request for a traffic management study. Under this program, staff will continue to work with residents to identify traffic concerns in their neighborhoods and find solutions that are acceptable and appropriate. A Traffic Calming program will support the City's commitment to the safety and livability of neighborhoods. Citizen involvement is a vital part of all traffic calming projects. The people who live and work in the project area have the opportunity to become actively involved in the planning and decision-making process.

## APPENDIX A GLOSSARY

**AUTOMATED TRAFFIC CONTROL SYSTEM** – A system consisting of devices with one or more motor vehicle sensors working in conjunction with traffic control devices to automatically produce photographs, micrographs, a video tape or other recorded images of motor vehicles entering an intersection in violation of red traffic signal indications, stop sign or otherwise violating the City of St. John traffic control ordinances.

**ARTERIALS** – A major highway primarily for through traffic, usually on a continuous route.

**CHANNELIZATION** – Traffic islands to prevent or ensure turning movements.

**CHICANE** – Deviations in the path traveled, so that the street is not straight.

**CHOKER** – Physical barrier at an intersection or mid-block reducing pavement width.

**COLLECTORS** – Routes which collect and distributes traffic between local roads or arterials roads and serves as a linkage between land access and mobility needs.

**CPTED** – Crime Prevention Through Environmental Design.

**CUT-THROUGH** – Vehicles which neither have their origin or destination in the area.

**DEFLECTING PATH** – The offset of a vehicles path from a straight line.

**DIVERTER** – A barrier placed across the road width to prevent through travel.

**MITIGATING** – To make or become less severe.

**NECKDOWNS** – Physical reduction of road width at intersections or mid-block.

**RADII** – Corner curves.

**ROUNDABOUT** – A raised circular area (similar to a median) placed in the intersections in which vehicles can no longer travel in a straight line and where vehicles must yield upon entry.

**SINGLE LANE USAGE** – Physical reduction of road width to one lane.

**SPEED HUMP** – A raised section across a roadway designed to permit safe speed and deter excessive speed on a residential roadway.

**STREET FURNITURE** – Those items installed along or over a roadway such as; park benches, street lights, trash cans, guard rails, etc.

**TRAFFIC CALMING DEVICES** – A “toolbox” of devices, which may be employed to reduce vehicular speed on residential streets, i.e., speed humps, roundabout, etc.

**TRAFFIC CIRCLE** – Raised circular area placed in an existing intersection.

**TRAFFIC FLOW** – The characteristics of traffic on a street, i.e., volume, classification and speed.

**TRAFFIC MANAGEMENT** – All of the techniques utilized by Traffic Engineers, planners, and Government officials to obtain efficient and safe operation of roadway.

**TRAFFICWAYS PLAN** – The official plan of the arterial and collector network (roadways) that reserves rights-of-way. Some traffic ways are yet to be built.

APPENDIX B

ST. JOHN TRAFFIC MANAGEMENT TEAM  
PROJECT APPLICATION

CONTACT NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

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

HOME PHONE: \_\_\_\_\_ DAY PHONE: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

WHICH NEIGHBORHOOD STREET (S) ARE OF CONCERN:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WHAT TRAFFIC CONCERNS HAVE BEEN OBSERVED?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NUMBER OF HOMES/BUSINESSES WITHIN THE AFFECTED AREA: \_\_\_\_\_

RETURN COMPLETED APPLICATION TO:

CITY OF ST. JOHN  
TRAFFIC MANAGEMENT TEAM  
8944 ST. CHARLES ROCK ROAD  
ST. JOHN, MO. 63114  
ATTN: CHIEF OF POLICE  
OR: e-mail [stjohn@cityofstjohn.org](mailto:stjohn@cityofstjohn.org)