Neighborhood Traffic Calming Manual











St. Johns County
Public Works Department
Traffic Engineering

NEIGHBORHOOD TRAFFIC CALMING PROGRAM (NTCP)

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1. INTRODUCTION:

The St. Johns County's Neighborhood Traffic Calming Program (NTCP) is committed to balancing the needs of neighborhoods with the operational and mobility needs of the County road system.

The program provides a process for identifying and addressing problems on local streets related to speeding, cut-through traffic and operational safety. The program is developed with authorization by the Board of County Commissioners through the direction of the County Engineer to administer the specifics of the program and develop administrative procedures for its implementation.

The NTCP considers traffic calming measures on local roads. Collector and arterial streets may be considered under special circumstances. These latter roads are those as defined in the County's Land Development Code.

Local Roads provide direct access to residential properties; accommodating traffic originating in or traveling to properties within a residential neighborhood.

Neighborhood Traffic Calming applies to local residential streets regarding traffic issues related to speeding and excessive cut-through traffic. The Traffic Operations Section works with residents within neighborhoods to evaluate the type and severity of the traffic problems. When the required concurrence by residents and approval is obtained, the County will install Traffic Calming measures on local streets to manage the pattern and flow of neighborhood traffic.

The intent of the program is to be "grass-roots" in nature, responding to the needs of neighborhood groups or individuals. These requests will be evaluated on a case by case basis. At anytime during the process the Traffic Operations Section shall be authorized to take corrective action should a traffic safety problem be discovered. It should be pointed out that a Triple "E" (Engineering, Education, and Enforcement) strategy should play a key partnership role in enhancing the safety and quality of life of County residents in a sustainable manner. The NTCP seeks to manage these components in a comprehensive way to foster sustainable, safer, and efficient traffic calming solutions

2. PROGRAM OBJECTIVES:

a) To improve the quality of life to neighborhood livability by moderating motorists' driving behavior on residential neighborhoods streets;

b) To promote safe and pleasant conditions for motorists, bicyclists and pedestrians on neighborhood streets;

c) To strongly encourage citizen involvement and participation in all phases of neighborhood traffic management activities;

d) To make efficient use of County resources by utilizing a rational approach to prioritizing Traffic Calming project requests and responses; and

e) To support the Traffic Circulation Element of the County's Comprehensive Plan to create and maintain traffic patterns that protect the livability of established residential neighborhoods.

3. DESIGN AND ENGINEERING PRINCIPLES:

It should be pointed out that "Stop" signs are specifically NOT considered traffic calming features. These traffic control devices are used exclusively to provide right-of-way control under specific design criteria. Further, full road closures are NOT considered traffic calming features as they serve to be divisive and do not play a role in meeting the balance of citizen access and mobility. The following list of principles will be used when designing Neighborhood Traffic Calming projects:

a) To ensure Emergency Services personnel and equipment have reasonable access to the public street system, emergency services personnel have been consulted in the development of this program and shall be consulted in the design of all NTCP projects. The Traffic Operations Section will work with Emergency Management Services staff to determine main routes that cannot have conventional vertical traffic calming features installed.

b) Neighborhood Traffic Calming Projects should be designed in a manner that encourages and enhances pedestrian, bicycle, and transit access to/from neighborhood destinations.

c) Traffic calming measures shall be planned and designed in keeping with sound engineering practices. The Institute of Transportation Engineers (ITE) guidelines and best practices shall be used in the development and implementation of these features. The Traffic Operations Section shall direct the installation of all traffic calming/control measures as needed to accomplish the objective in compliance with applicable standards. "Vertical" traffic calming measures such as speed humps, speed tables (and raised crosswalks), speed cushions, and raised intersections, shall only be considered for implementation on local roads with a maximum traffic volume of 2,000 vehicles per day. "Horizontal" traffic calming measures such as roundabouts, traffic circles, diverters, medians, curb extensions, and others may be considered for implementation on roads with higher volumes. Engineering judgment shall determine the extent of such measures as a function of traffic volumes, operating speeds, and adjacent land use. "Design Index Sheets" have been developed providing a standard/guideline for the County Engineer to implement the appropriate traffic calming feature(s).

d) The Traffic Operations Section shall process Neighborhood Traffic Calming requests according to applicable sections of the Policy and related administrative procedures and within the limits of available resources.

The Neighborhood Traffic Calming procedures shall:

- Encourage the submittal of study requests;
- Provide for the evaluation of such requests by County staff;
- Encourage citizen participation in plan development;
- Require the communication of any test results and specific findings to area residents and affected neighborhood organizations before the installation of permanent traffic calming measures;
- Ensure that alternative plans are developed should area residents not ratify the original plan, or consider the "No build" alternative; and
- Require that appropriate Board approval be granted prior to implementation of any NTC plan (subject to required funding).

4. APPLICABLE TRAFFIC CALMING STUDIES:

The Neighborhood Traffic Calming Program has been developed to manage Local Street Studies and/or Neighborhood-wide Area Studies on a prioritized ranking basis.

a) Local Street Studies are intended to respond to intersection problems, speeding and through traffic on one local street in a neighborhood;

b) Neighborhood-wide Area Studies:

- respond to excessive cut-through traffic, speeding and problem intersections on more than one local street in a neighborhood;
- generally require more time for completion than Local Street Studies as these study areas are larger and the traffic concerns are more complex;
- require more research and analysis, and greater involvement by the neighborhood;
- generally follow the boundaries of established residential/business neighborhoods.

5. PRIORITY RANKING SYSTEM CRITERIA:

The Traffic Operations Section will utilize the Priority Ranking System criteria as shown in Table No. 1 to:

- rank projects according to need; and
- group projects into three categories providing flexibility for implementation.

The criteria factors include: operating speed, traffic volume, crash data, school / pedestrian trip generators, roadway connectivity, bicycle paths, and community funding. Depending on the overall ranking score, project requestors will be provided with the choice of remaining on the list in ranked order for development of a full traffic calming project, or may request that the County implement non-physical traffic calming features immediately as outlined in Table No. 1.

The criteria factors are detailed below.

PRIORITY RANKING CRITERIA FACTORS

CRITERIA	POINTS ALLOCATED
85th Percentile Speed - The 85th percentile speed is the speed at which 85 percent of all of the recorded vehicles are traveling at or below. Points will be assigned based on the **difference between the posted speed limit and the 85th percentile speed**.	▪ **0 points**, less than 5 mph ▪ **10 points,** 6 to 10 mph ▪ **20 points**, 11 to 15 mph ▪ **30 points**, 16 to 20 mph ▪ **40 points**, greater than 20 mph
Volume – The total vehicles per day (VPD) within the project area or limits.	▪ **0 points**, 0 to 1,000 VPD ▪ **3 points,** 1,001 to 3,000 VPD ▪ **5 points**, more than 3,000 VPD
Highest Peak Hour Volume – The Daily Peak Hour Volume as a percentage of the Average Annual Daily Traffic (AADT) volume within the project area or limits.	▪ **0 points**, Peak less than 10% of AADT ▪ **5 points**, Peak is 10% or more of AADT
AADT Volume – The Average Annual Daily Traffic (AADT).	▪ **0 points**, AADT less than 10 trips per household ▪ **5 points**, AADT 10 or more trips per household
Cut Thru Volume – Where applicable, the **non-local traffic** volume as a percentage of the Average Annual Daily Traffic (AADT) volume within the project area or limits.	▪ **0 points**, 0 to 20% ▪ **5 points**, 21 to 40% ▪ **10 points,** 41 to 60% ▪ **15 points,** 61 to 80% ▪ **20 points,** 81 to 100%
Reported 3-Year Crash Data – Crash history for the last 3-year period on record with the County will be considered.	▪ **0 points**, 0 accidents ▪ **5 points**, 1 to 5 accidents ▪ **10 points**, 6 or more accidents
Trip Generators (Schools) – Schools up to secondary level shall be considered for trip generators.	▪ **0 points**, No generators ▪ **4 points**, Tech or High Schools ▪ **6 points**, High Schools w/crossings ▪ **8 points**, Middle or Elementary Schools ▪ **10 points**, Middle or Elementary School w/ crossings
Trip Generators (Pedestrians) – Community level generators will be considered for trip generators.	▪ **0 points**, No generators ▪ **4 points**, Community Center ▪ **6 points**, Neighborhood park ▪ **8 points**, Play ground ▪ **10 points**, Senior Center
Connectivity – Neighborhood accessibility through local street network will be considered.	▪ **0 points**, good accessibility ▪ **3 points**, medium accessibility ▪ **5 points**, poor accessibility
Bikeway or Pedestrian Facilities – Facilities are defined as a portion of the roadway designated for the preferential or exclusive use of bicyclists and pedestrians. Consideration will be given for **the lack of** existing facilities throughout the project area or limits.	▪ **0 points**, existing or planned facilities ▪ **3 points**, partial facilities ▪ **5 points**, no facilities
Community funding participation – The local neighborhood's desire to participate financially will be considered.	▪ **0 points,** Non - participation ▪ **3 points,** 25% funding ▪ **5 points,** 50% of funding ▪ **8 points,** 75% of funding ▪ **10 points,** 100% of funding.

Maximum 125 points

6. PROGRAM OPERATION:

The Neighborhood Traffic Calming Program provides specific steps that assist the County, in partnership with its residents, to develop practical and sustainable solutions to speeding and excessive cut-through traffic volume concerns. The following steps have been developed to streamline the design and implementation of a traffic calming plan.

It is recommended that a neighborhood traffic advisory committee be formed to work with the County during the traffic study process. The committee should include representation from each street within the impact area boundary (see below). Tenants shall be required to notify and receive approval from their landlord to participate in the group as a neighborhood resident. The traffic committee's role is to provide neighborhood input into the Neighborhood Traffic Calming process. The committee's functions include:

- reviewing the study data with County staff;
- defining the neighborhood traffic problem(s) and petition study area boundaries; and
- assisting staff in developing options for solving the problem.

STEP 1: PETITION FOR INCLUSION IN THE PROGRAM:

Traffic calming requests can be made by:

- the President of a Homeowner Association signed on appropriate letterhead;
- Board of Directors of a taxing district; or
- ten separate property owners on the subject street or within the impacted area.

The project location will be registered by the Traffic Operations Section and staff shall gather preliminary data, including volume, speed and accident information. If deemed necessary, other County departments will be notified of the request and asked for any additional information that may be relevant such as violations data by the Sheriff's Department. This data will be used to rank the potential project according to comparative need; the "Priority Ranking System" shall be used.

Staff will then review the request for possible correction by standard traffic control devices. If the preliminary review shows that a traffic safety hazard to the public exists, the County shall address the problem immediately and separately from the Neighborhood Traffic Calming Program.

STEP 2: PRIORITY RANKING OF PROPOSED PROJECTS:

The "Priority Ranking System" (PRS) shall be used to rank all projects to determine the projects' relative need based on established criteria within the PRS matrix.

The ranking list shall be presented to the Board of County Commissioners, with a cost estimate, concurrent with the Annual Budget Process. The Board will adopt the County Engineer's recommendations or modify the list of funded projects to be undertaken during the next fiscal year. The adopted budget will include designated funding for traffic calming projects not on the recommended list to facilitate a more rapid response when warranted.

STEP 3: SPECIFIC PROJECT PLAN DEVELOPMENT:

a) First Public Meeting

The Traffic Operations Section shall call a public meeting of the local residents within the project area. At the meeting, staff will provide procedures, data, the traffic calming "tool box", and program information. Residents will provide staff with their specific issues and concerns regarding traffic speed and/or volume within the project limits.

The Traffic Operations Section, with the assistance of area residents, will establish an impact area boundary for the project. Each street within the impact area will include those households and businesses that front, back, side, or have only one point of access/aggress to and from the affected street(s).

b) Second Public Meeting

The Traffic Operations Section shall call a second public meeting of the local residents within the project area. At this meeting, staff will present:

- the comments of the first public meeting;
- a draft conceptual traffic calming plan for the project; and
- a draft impact area boundary.

Staff will hear comments from the residents on these three elements and will utilize these new comments to develop a final traffic calming plan and an impact area boundary. It should be pointed out that only residents in the impact area boundary may "vote" on any traffic calming plan.

c) Preparation / Distribution of a Formal Ballot Petition

The Traffic Operations Section shall prepare a document outlining on a property data map, the traffic calming plan with a brief explanation of the plan and voting procedures. Utilizing the official County property data listings, all property owners in the impact area boundary shall receive this document via US mail,

including a postage paid return ballot. The property owner shall have 30 days to return the ballot by mail or in person at the Traffic Operations Section.

d) Ballot Tabulation

Each property owner is entitled to one vote per single family residential unit. Tenants may not vote. Multi-family property owners get one vote. The following tabulation shall be followed:

- all properties (100%) in the impact area boundary shall receive a ballot document;
- at least 30% of all County-mailed ballots must be returned and appropriately marked as per instructions on the ballot; and
- a minimum of 75% of the returned ballots must be affirmative in order for the County to consider the plan further.

STEP 4: FORMAL PLAN CONSIDERATION:

The Traffic Operations Section shall confirm that all of the program procedures and balloting methodologies have been complied with. If confirmed, staff shall prepare a report to the BOCC with the appropriate recommendation regarding the traffic calming plan on the Board's Consent Agenda.

STEP 5: DESIGN AND IMPLEMENTATION:

Upon approval of the traffic calming plan by the BOCC, staff shall provide the appropriate engineering designs for the project and formulate a construction/inspection plan in accordance with established County procedures.

STEP 6: PROJECT EVALUATION:

The Traffic Operations Section shall conduct an evaluation study of the implemented traffic calming plan to determine its effectiveness in terms of operational speed, safety, volume, and other specific objectives that may have been identified by the project team.

7. EXCEPTIONS AND AUTHORIZATION:

Nothing in this policy shall be interpreted to restrict or prohibit the County from implementing measures to improve traffic safety, correct accident causing situations or mitigate traffic operational problems within and around residential neighborhoods. The authority outlined in County Code shall remain intact. Staff may make recommendations to the BOCC to amend to the program from time-to-time depending on operational, citizen based needs, and budgetary issues.

8. CONTACT INFORMATION:

St. Johns County
Public Works Department, Traffic Operations Section



Neighborhood Traffic Calming Program

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