



City of Rocky Mount Administrative Policy

Policy: Residential Traffic Management Policy

Section:	Public Works	Policy No. VII.17
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SECTION 1. PURPOSE

To set forth the policy of the City with respect to addressing concerns regarding speeding, cut-through traffic and neighborhood traffic safety on city maintained residential streets. Arterial and commercial collector streets are excluded from the program.

SECTION 2. DEFINITIONS

1. Traffic Calming – As defined by the Institute of Transportation Engineers, traffic calming is “the combination of physical measures that reduce the negative effects of motor vehicles use, alter driver behavior and improve conditions for non-motorized street users”.
2. Cut-Through Traffic – Traffic which originates outside of, and is not affiliated with, the land uses in the vicinity of the street under consideration. Such traffic is typically associated with the use of a residential street to travel between two facilities with a higher classification (e.g. use of a local residential street to travel between a collector street and a thoroughfare).
3. Local Residential Street – The most prevalent type of public street. These streets are primarily intended to provide access to residential land uses, typically narrow (27 feet back-to-back, 42-foot right-of-way), carry low traffic volumes and have lower operating speeds (35 MPH or less).
4. Collector Street – Collector streets carry traffic from local residential streets to minor or major arterials. These streets tend to carry higher traffic volumes than local residential streets and are designated as a collector street on the City’s adopted Street Classification Map and/or Collector Street Plan Map.

SECTION 3. GOALS AND GUIDELINES

While the program includes a variety of techniques to address residential traffic related issues, the program will also emphasize public awareness, citizen involvement and driver education. The program's goal is to implement the least obtrusive alternative(s), which addresses concerns regarding speeding or traffic volumes, and ensures that residential streets deliver the appropriate level of access, safety and convenience for all travel modes. In general, the program will promote an incremental approach to addressing a residential traffic management related complaint with physical deterrents used only when less obstructive measures are demonstrated to be insufficient.

SECTION 4. RESIDENTIAL TRAFFIC MANAGEMENT (RTM) PROCESS

To initiate a study in conjunction with the City's RTM Program, a resident (or representative from a homeowner's association (HOA) or neighborhood group will need to submit a RTM Request Form to the City of Rocky Mount Public Works Department. This form can be obtained by contacting the Public Works Department at 972-1121 or by visiting the Public Works Residential Traffic Management webpage on the City of Rocky Mount's website (www.rockymountnc.gov).

The first step in the evaluation will include a preliminary review of the request. This review would consist of evaluating the accident history along the subject street, consulting with the Rocky Mount Police Department (RMPD) and a preliminary field review. In the event a preliminary review by the Public Works Department suggests that traffic calming would be appropriate to address the concerns identified on the RTM Request Form, one of two following actions will be taken. If the street in question is maintained by the North Carolina Department of Transportation, a formal request will be forwarded to the NCDOT Division 4 Office and the neighborhood representative will be notified. The request will be accompanied by a summary of the accident experience at the location of interest, as well as any pertinent information resulting from the City's preliminary review of the request.

For requests involving city maintained streets, the City will provide the neighborhood representative with acknowledgment of receipt and data collection will be scheduled. Upon completion of data collection and review, a meeting with the neighborhood representative(s) will be scheduled to review the results. In the event the study confirms the presence of speeding or other traffic safety concerns, one or more alternatives will be identified. After working with the neighborhood representative(s) to identify a preferred course of action, the neighborhood representative will be responsible for coordinating with the residents in the study area. In the event the measure requires a petition to be circulated, the neighborhood representative will be responsible for obtaining the signatures required (the actual number of signatures will

depend on the study area and the strategy selected). Once the petition is returned with the required number of signatures in support of the traffic calming measure, the City will proceed with required approvals and installation. A follow-up study may be conducted to evaluate the impact of the traffic calming measure on speeds and traffic volumes. In the event the follow up study indicates that additional action is warranted, the neighborhood representative would be consulted on how to proceed.

SECTION 5. RTM MEASURES

For the purposes of this program, the traffic calming measures available will fall into one of two categories; active and passive. Both active and passive measures have been proven to be effective in mitigating traffic calming concerns and may be implemented in accordance with the criteria outlined below.

Passive Measures

Passive speed control measures are utilized with the intent of reducing operating speeds to a level deemed compatible with the characteristics of the subject roadway and the adjacent land use(s) without the use of physical devices. Roadways that are narrow, have limited sight distance, are curvilinear in nature or have numerous street intersections will tend to require lower operating speeds. Streets in the vicinity of schools, parks and other similar land uses will also require lower operating speeds. When the existing speeds along a roadway exceed the level deemed appropriate for the facility, the following passive measures may be utilized in lieu of or in concert with, installation of physical traffic calming devices.

1. Installation of 35 MPH Speed Limit Signs

In terms of speed control measures, the addition of signage where the existing speed limit is not posted is likely the least expensive treatment at a given location. In general, this alternative will be the first alternative evaluated when attempting to reduce travel speeds. The installation of 35 MPH speed limit signs should pre-date, or at least coincide with, the use of any other speed control alternative (ie. spot enforcement, speed radar signs, striping, speed cushions, neighborhood traffic circles). To avoid the proliferation of signage, it is recommended that the use of 35 MPH signs only be installed at those locations where the 85th percentile speed exceeds 40 MPH.

2. Speed Radar Signs

As a temporary measure, speed radar signs (if available) could be considered on a short-term basis. The signs would display the actual speed of the motorist and would help raise driver awareness of their travel speed.

3. Residential 25 MPH Speed Limit Program

This alternative is limited to streets where the 85th percentile speed is less than ~~35~~ 40 mph. If the operating speeds are in excess of ~~35~~ 40 MPH, compliance with a posted speed limit of 25 MPH is unlikely. The alternative is also limited to use on city maintained local residential streets. The determination of street classification will be determined by referencing the City of Rocky Mount Street Classification Map and/or the Collector Street Plan Map. When applying this alternative, the City will identify the "impact area" for the proposed speed limit change and relay this information to the petitioner(s). A form provided by the City, will then be used by the neighborhood representative to collect the required signatures. A 75% approval rate is required to implement the speed limit reduction.

4. Multi-Way Stop

In terms of residential traffic management, the use of a multi-way stop controlled intersection is one possible alternative to address a cut-through traffic problem. The ability of this alternative to deter cut-through traffic is a function of the additional inconvenience (or delay) that results at a multi-way stop controlled intersection. By introducing this additional delay, the motorist is dissuaded from using the local street system due to the reduction in the perceived time savings.

In terms of the installation of a multi-way stop, the minimum requirements include:

- average daily traffic volume on through streets greater than 500 vehicles per day.
- minimum through street length of 750 feet.
- minor street volume should be at least 40% of the total intersection volume.
- 3-way stops will only be considered where residential collector streets intersect.
- through street should have a posted speed limit of 35 MPH or less.
- minimum of 75% approval within 500 ft radius of subject intersection.
- proximity to an adjacent multi-way stop controlled intersection (or stop sign along the primary street) should exceed 750 feet.

In addition to these requirements, it is important to note that the use of multi-way stop control at an intersection may require the use of overhead flashers or post top mounted flashers. The need for such a device would be a function of the available sight distance and/or driver expectancy issues. Should the use of a flasher be required, staff will advise the applicant prior to circulation of the petition for signatures.

5. Longitudinal Pavement Markings

In some cases, the width of a streets makes it difficult to get drivers to obey a 35 MPH speed limit. Longitudinal Pavement Markings are a low-cost measure that can be used to narrow the travelway without introducing a physical device. In this application, white edgelines would be utilized to narrow the travelway width to between 18 and 20 feet. This can be a stand alone measure or operate in conjunction with other measures.

Active Traffic Calming Measures and Eligibility

Active traffic calming measures may include but are not limited to Speed Cushions, Neighborhood Traffic Circles, Chicanes, Chokers, Intersection Bulb-Outs, Diagonal Diverters, Lateral Shifts, Forced Turn Barriers, Median Islands, On-Street Parking, Raised Intersections, Realigned Intersections, Road Diet, Roundabouts and Speed Tables.

Minimum eligibility for installation of traffic calming devices is as follows:

- Minimum length 750 ft
- 85th percentile speed is 5 mph or greater than the posted speed limit
- Average daily traffic (ADT) > 500 vehicles per day (vpd)
- Review and approval by the Fire Department for impact to critical emergency access routes.
- 75% approval for installation of improvements from property owners.
- Minimum score of 45 points

Traffic Calming Scoring System

1. Speed (points awarded for speeds above speed limit):
 - 25-30 mph (1 pt per mph 85th > 25 mph)
 - 30-35 mph (2 pts per mph 85th > 30 mph)
 - > 35 mph (5 pts per mph 85th > 35 mph)
2. Pedestrian Activity:
 - 5 pts within 1,500' of a public/private school
 - 5 pts within 1,500' of a park, pool, playground, greenway
 - 5 pts on a transit route
 - 5 pts no sidewalk on either side of street
 - 5 pts on a bike route in adopted Bike Plan
3. Crash History:
 - 5 pts each crash in the last 3 years
4. Volume (Average Daily Traffic):
 - Points = ADT/250
5. Physical Street Conditions:
 - 5 pts for vertical grade > 5% anywhere along the street

- 5 pts for one or more horizontal curves

Device Specific Criteria

1. Speed Cushions

Speed cushions are designed as several small speed humps installed across the width of a road with spaces in between them to allow fire trucks and ambulances to straddle the speed cushions without slowing down. Cars will not be able to straddle the speed cushions and will have to reduce their speed to drive over them.

Speed humps, as opposed as to speed cushions, are not permitted on city maintained streets due to the increase in emergency response times and potential damage to fire trucks.

2. Neighborhood Traffic Circles

Neighborhood traffic circles are raised islands placed at intersections to help reduce speeds and improve safety. Each traffic circle must be individually designed to fit the intersection without having to modify the street width or corner radii. Most of Rocky Mount's local streets are 30 feet wide or less, and traffic circles would typically be 12-18 feet in diameter. While they are designed so that fire trucks should be able to pass around them, traffic circles would be constructed with a mountable curb that allow fire trucks or larger vehicles to run over the curb without damaging the vehicle or the circle. Neighborhood traffic circles are among the more expensive traffic calming devices and considerable evaluation is required before a location can be approved.

In terms of the installation of a neighborhood traffic circle, the minimum requirements include:

- intersection should include 4 approaches: no "T-intersections".
- primary street should have a posted speed limit of 35 mph or less.
- minimum of 75% approval of residents within 500 ft radius of subject intersection.
- standard traffic circle does not include landscaping; landscaping may be installed by agreement with the homeowners to maintain or by approval from the City Manager's office for the City to maintain.

Cut-Through Traffic

Cut-through traffic is defined as vehicles that use a facility with a lower functional classification to travel between two facilities with a higher functional classification. As this behavior is typically a function of a motorist's desire to reduce travel time

and/or avoid delays, excessive travel volume and speeding tend to accompany a cut-through traffic problem. Travel between adjoining neighborhoods is not considered cut-through traffic.

Where excessive cut through traffic is confirmed, devices such as half or full intersection closures may be constructed to increase travel time.

SECTION 6. FUNDING AND IMPLEMENTATION

Funding for the measures included in the City's Residential Traffic Management Program will come from Powell Bill funds. Powell Bill funds include those funds provided to municipalities through the State Aid Allocation of funds resulting from motor fuel tax collections within North Carolina. These funds are intended to be used by the cities for maintaining, repairing, constructing or widening city maintained streets.

The City will fund the cost of implementing those measures associated with the Residential Traffic Management Program. Requests will be evaluated and implemented on a first-come, first-served basis. Funds will be limited to those approved on an annual basis.