THE CORPORATION OF THE

CITY OF WHITE ROCK

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POLICY TITLE: TRAFFIC CALMING

POLICY NUMBER: OPERATIONS / ENG. - 608

Date of Council Adoption: May 23, 2006	*Date of Last Amendment:* April 29, 2013
Council Resolution Number: 2013-134	
Originating Department: Engineering and Municipal Operations	*Date last reviewed by the Governance and Legislation Committee:* April 15, 2013

Policy:

All requests for traffic calming within the City shall be considered in accordance with the attached document titled “City of White Rock Traffic Calming Policy & Procedures”.

2006 MAY
REFERENCE: COUNCIL
APPROVED BY COUNCIL MAY 23, 2006

CITY OPERATIONS - NO. 608

POLICY: TRAFFIC CALMING

A. All requests for traffic calming within the City shall be considered in accordance with the attached document titled "City of White Rock Traffic Calming Policy & Procedures".

City of White Rock
Traffic Calming Policy & Procedures

The City of White Rock has implemented a range of traffic calming measures in the past several years at isolated locations throughout the City. In recent years, more requests for traffic calming measures have been received from City residents. These requests are primarily aimed at reducing through traffic and speeding impacts on residential streets. Rather than dealing with these requests on an ad-hoc basis, the City has chosen to develop this Traffic Calming Policy to guide the future application of traffic calming measures on local and collector roads and lanes in White Rock. The Policy provides a clear procedure with which to receive and review requests for traffic calming from White Rock residents.

1.0 Goals & Objectives

Traffic calming is defined in the *Canadian Guide to Neighbourhood Traffic Calming* as "the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users."

The two primary goals of traffic calming are to:

1. Enhance safety by reducing the potential for and lessening the consequences of conflicts between road users, and
2. Preserve neighbourhood livability by reducing the negative impacts of short-cutting or speeding traffic.

Although the traffic issues in each neighbourhood are unique, the general objectives of traffic calming are to:

1. Reduce vehicle speeds.
2. Discourage short-cutting through residential streets and lanes by non-local traffic.
3. Reduce traffic volumes where they exceed what would typically be expected.

2.0 Guiding Principles

Rather than simply implement traffic calming measures on an ad-hoc basis, the City will use the following guiding principles to influence the development of neighbourhood plans:

- **Quantify the problem.** It is important that the magnitude and extent of traffic problems be quantified for objective review and to ensure appropriate measures are selected. This generally means gathering traffic data, such as vehicle counts, speeds, and collision statistics.
- **Identify the real problem.** Often there is a vast difference between what residents perceive to be the problem and what is actually occurring. It is important to distinguish these because measures need to be selected that are effective at addressing the real problems. In some cases, attempting to address a perceived problem may lead to real problems being exacerbated.
- **Address the major streets first.** Often, traffic problems within neighbourhoods, such as short-cutting, are related to operational issues on the major roads. The City should generally attempt to address neighbourhood traffic issues first by improving

traffic operations on arterial and major collector roads to encourage appropriate use of the road system.

- **Consider spillover effects.** In many instances, measures that address a problem in one location lead to problems on other streets. It is important that these potential spillover effects at least be recognized and that potential mitigation be considered.
- **Avoid restricting access.** Restriction of access is often unfavourable to residents and emergency services and should be avoided wherever possible.
- **Use self-enforcing measures.** Generally, measures that force drivers to slow down or alter their behaviour are preferred to those measures that need enforcement to be effective, such as signage.
- **Target automobile and truck traffic.** Traffic calming measures should be designed to permit cyclists and pedestrians to travel unaffected, while requiring motorized vehicles to slow down.
- **Consider municipal services.** Impacts on transit, emergency, and municipal operations vehicles should be considered during the planning process.
- **Involve the community.** There will be a higher likelihood of community acceptance if residents are involved in the planning process from start to finish.
- **Monitor and follow-up.** Traffic data collected during the problem definition phase should be compared to data collected after implementation of traffic calming to evaluate the effectiveness of the program and to consider further projects.

3.0 When to Consider Traffic Calming?

Traffic calming measures should generally be used only if really necessary, particularly when the volumes, speeds, or non-local traffic exceeds what would normally be expected for a specific roadway classification.

The following criteria are to be used by the City and at the discretion of the Director of Municipal Operations to identify whether traffic calming should even be considered on local and collector roads and lanes:

1. Council will consider the application of traffic calming measures on designated **local streets** only where the following conditions are met:
    a. Average weekday or weekend traffic volume exceeds 1,000 vehicles per day, OR
    b. Short-cutting traffic volume is greater than 30% of total volume, OR
    c. 85th-percentile vehicle speed (measured over 24-hour period) exceeds the posted speed by 7 km/h or more.

2. Council will consider the application of traffic calming measures on designated **collector roads** only where the following conditions are met:
    a. Average weekday or weekend traffic volume exceeds 3,000 vehicles per day, OR
    b. 85th-percentile vehicle speed (measured over 24-hour period) exceeds the posted speed by 7 km/h or more.

3. Council will consider the application of traffic calming measures on designated **lanes** only where the following conditions are met:
    a. Average weekday or weekend traffic volume exceeds 300 vehicles per day, OR

b. Short-cutting traffic volume is greater than 15% of total volume.

Another important feature is that traffic calming is a community-initiated process where the issues and solutions are identified by the community and facilitated by the City. Prior to initiating a traffic calming process, the City will work with the community and other agencies to understand the extent of the issues and community concern.

In fact, other initiatives may be tested prior to developing and implementing traffic calming. Other approaches to consider are discussed below.

Community Awareness

Residents must work with and have support from the broader community to identify neighbourhood traffic concerns. Residents may undertake a community-based speed watch program to raise awareness among motorists about speeding concerns.

Education

Residents may wish to increase community education about the impacts of short-cutting and speeding on their neighbourhoods. This may include distributing brochures throughout the community to educate motorists about rules of the road and neighbourhood impacts of traffic.

Enforcement

Police may be requested to monitor and enforce speeds on specific streets where speeding is identified as a particular concern.

Engineering Measures

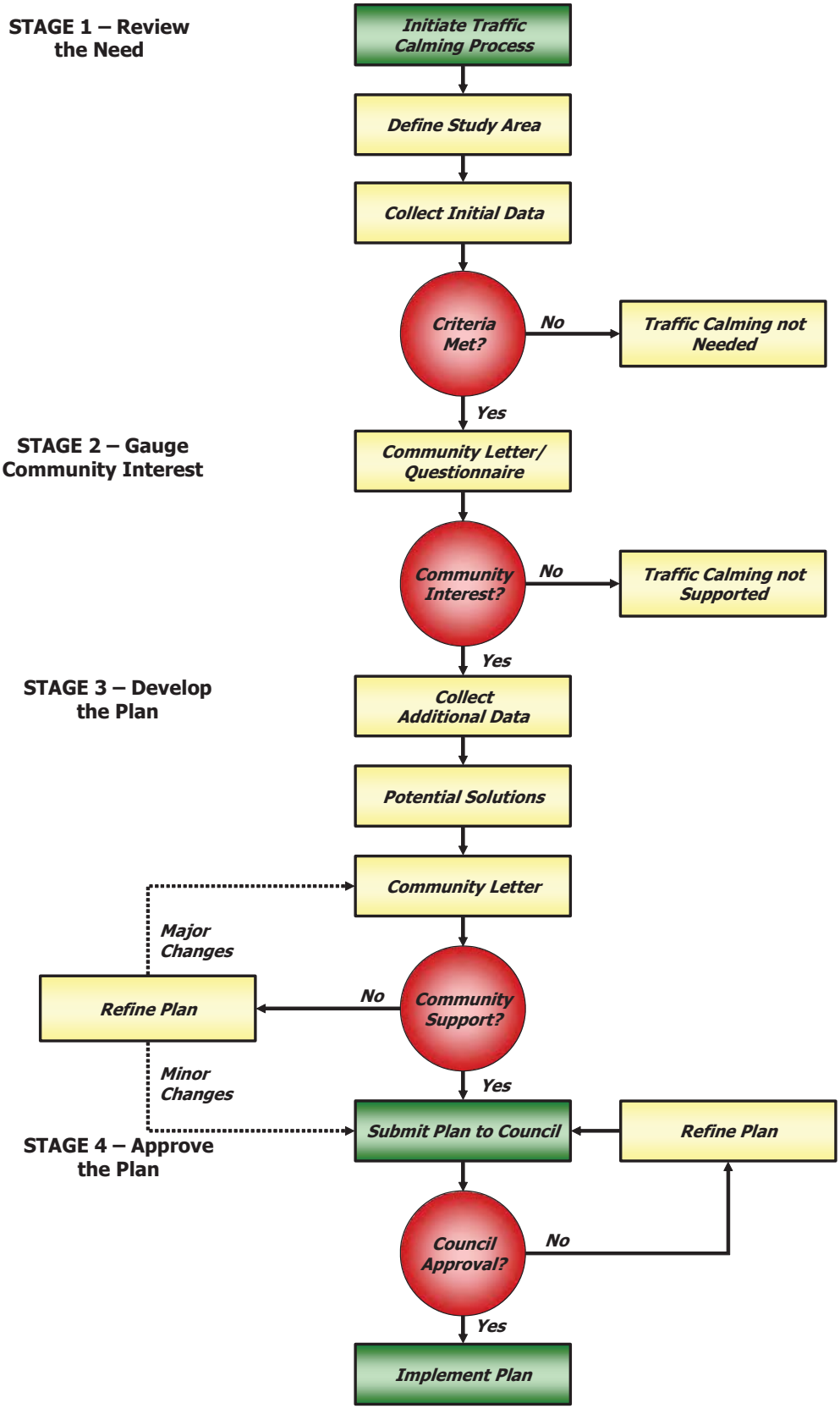
Engineering measures (traffic calming) may be considered by residents and the City if traffic-related issues persist after other approaches are used and if community interest in traffic calming is high.

4.0 Development of Traffic Calming Plans

A streamlined approach to the traffic calming process has been developed to guide the City's preparation of traffic calming plans after other approaches are attempted and issues remain or when engineering measures are considered the desirable solution. The process used in each case, however, will depend on the size of area being considered, the scope of traffic-related issues, and the resources available to manage and implement a plan. In some cases, additional community consultation may be warranted than what is included in the following process.

Council supports the development of traffic calming plans through a defined process that incorporates consultation with affected residents before and during the planning process. The following process, illustrated in Figure 1 and discussed in more detail below, will guide the traffic calming program in White Rock.

Figure 1: General Process for Traffic Calming



Phase 1 – Review the Need

The primary objective of this phase of the traffic calming planning process is to collect and review initial data to quantify the reported issue(s). These data will be used to develop solutions that are appropriate to the actual problem.

1. If neighbourhood concerns are appropriately addressed through traffic calming, the study area for a traffic calming plan will be determined by the Director of Municipal Operations or his/her designate. The factors to be considered in the identification of the study area will include the location(s) of issues raised by residents, the potential for spillover effects to occur, and the physical boundaries of the community in terms of the road network and/or other natural barriers.

2. The City will collect data to identify and quantify any traffic-related problems. These data will be used to assess whether the traffic calming guidelines specified in this policy are met. If the guidelines are not met, traffic calming will generally not be considered further for the requested location/area unless City staff deem that traffic calming would be an appropriate response. If traffic calming is not to be pursued, written responses will be sent to those residents that identified the problem(s) explaining the reasons why traffic calming will not be considered.

Phase 2 – Gauge Community Interest

During this phase of the process, the City will gauge interest among the community in traffic calming as a potential solution of neighbourhood concerns. If the community in the affected area does not support the development of a plan, then the process will be discontinued.

1. The City will distribute a survey to registered property owners within the study area asking whether they support or oppose the development of a traffic calming plan.

2. A traffic calming plan will be developed for a neighbourhood or street if at least two-thirds (67%) of respondents to the community survey are in agreement with the preparation of a plan. The response rate for this survey should be similar to community participation in municipal elections.

Phase 3 – Develop the Plan

This phase of the planning process involves the development of a plan to address observed traffic-related issues. The plan will be presented to neighbourhood residents for review and approval before it is taken to Council.

1. A draft traffic calming plan identifying potential solutions and survey will be circulated to registered property owners of the community (within the defined study area) prior to Council consideration of the plan. A public open house may also be held to present the draft plan to the community. At least two-thirds (67%) of respondents to the survey must support the proposed plan prior to Council considering it. The response rate for this survey should be similar to community participation in municipal elections.

2. The City will involve emergency services (police, fire, ambulance), municipal operations staff, and transit service providers in the development and review of traffic calming plans.

3. In the event that major changes to the plan are needed to address significant community concerns, a revised plan will be distributed to affected residents. At least two-thirds (67%) of respondents to the survey must support the revised plan prior to Council considering it. The response rate for this survey should be similar to community participation in municipal elections.

Phase 4 – Approve the Plan

Neighbourhood traffic calming plans must be approved by Council for capital planning and budgeting before implementation.

1. Council will review the community-supported traffic calming plan but may request refinements to the plan before final approval.

2. The final traffic calming plan must be approved by Council prior to being considered in the annual capital planning process.

3. Depending on the number of request locations that meet the guidelines for traffic calming throughout White Rock, the City may establish priorities for implementation based on criteria that could include, for example:
   - Magnitude of speed issue relative to other areas
   - Magnitude of short-cutting issue relative to other areas
   - Presence of school or safe route to school
   - Reported collisions
   - Presence of sidewalks in pedestrian areas
   - Pending road network improvements
   - Pending road rehabilitation programs
   - Degree of success of alternative approaches to speed management (education and enforcement) to mitigate problems

5.0 Potential Traffic Calming Measures

The *Canadian Guide to Neighbourhood Traffic Calming* provides a comprehensive listing of 25 measures that are commonly used across Canada. However, not all of these measures are actually appropriate for achieving the objectives of neighbourhood traffic calming within White Rock. The selection and application of measures will be guided by the following considerations:

1. Council will consider the use of those traffic calming measures identified in Table 1 below. These measures are recognized in the *Canadian Guide to Neighbourhood Traffic Calming*, published by the Transportation Association of Canada, and are acceptable to the City's operations department and emergency services.

Table 1: Traffic Calming Measures to be Considered in White Rock

	Road Classification			Other Considerations	
	Lanes	Local Roads	Neighbourhood Collector Roads	Emergency Response Routes	Transit Routes
Vertical Deflection					
• Speed Hump	✓	✓	✓	X	X
• Raised Crosswalk	X	✓	✓	X	X
• Sidewalk Extension	X	✓	X	X	✓
• Textured Crosswalk	X	✓	✓	✓	✓
Horizontal Deflection					
• Curb Extension	X	✓	✓	✓	✓
• Curb Radius Reduction	X	✓	X	X	X
• On-Street Parking	X	✓	✓	✓	✓
• Raised Median Island	X	✓	✓	✓	✓
• Traffic Circle	X	✓	✓	X	X
• Road Diets	X	✓	✓	✓	✓
Obstruction					
• Directional Closure	X	✓	X	X	X
• Diverter	X	✓	X	X	X
• Raised Median Through Intersection	✓	✓	✓	✓	✓
• Right-In/Right-Out Island	✓	✓	X	X	X
Signage					
• Traffic Calmed Neighbourhood	X	✓	✓	✓	✓
Key					
✓ - applicable			X – not applicable		

2. The City is currently reviewing the roadway classification system and is likely to adopt a revised network in the near term. The table in Appendix B shows the applicable traffic calming measures for the preliminary classification system and would apply upon adoption of the revised system.

3. The traffic calming measures that may be considered for a given location or area will take account of the range of limiting factors that influence the applicability of various measures, including:

   a. **Issue(s) to be addressed.** The selection of candidate measures to be considered in a community will be influenced by the identified issues and concerns – such as speeding, short-cutting, and traffic volumes. The *Canadian Guide to Neighbourhood Traffic Calming* provides direction on the appropriateness of various measures for addressing specific issues.

   b. **Emergency response and transit routes.** The traffic calming measures to be implemented along lanes and local and neighbourhood collector streets will give special consideration to primary emergency response routes (as defined by the White Rock Fire/Rescue Department and shown in Appendix B) and transit routes.

c. **Physical and/or design constraints.** The traffic calming measures that may be considered will be significantly influenced by physical and/or design constraints and whether certain measures can feasibly be implemented. The *Canadian Guide to Neighbourhood Traffic Calming* provides design guidelines for traffic calming measures and identifies physical constraints that may affect implementation. For example, speed humps and raised crosswalks are not recommended on grades exceeding 8%. Other surrounding conditions may present additional constraints on the selection of certain measures. Selected traffic calming measures will require careful consideration by an engineer to confirm their suitability and to identify any special provisions that may be necessary. This thorough review of these physical and/or design constraints will be undertaken to limit the City's exposure to liability issues.

d. **Community support.** The selection of candidate traffic calming measures will depend on the support of the broader community, as measured through the community survey(s).

Appendix A

Applicable Traffic Calming Measures for Preliminary Revised Classification System

The City is presently completing a Strategic Transportation Plan (STP) to guide White Rock's transportation system for the next 20 years and beyond. An important component of the STP is a review of the City's roadway classification system, which does not currently reflect the form or function of the road network.

The revised roadway classification system would add a new class of collector roadway and most of the existing arterials (e.g., Johnston Road, Thrift Avenue, etc.) would be redesignated as major collectors. Most of the existing collectors (Pacific Avenue, Roper Avenue, etc.) would be classified as neighbourhood collectors.

The following table identifies those traffic calming measures that would be considered for each roadway class under the revised classification system.

Table A.2: Traffic Calming Measures to be Considered in White Rock (Revised Roadway Classification System)

	Road Classification				Other Considerations	
	Lanes	Local Roads	Neighbour-hood Collector Roads	Primary Collector Roads	Emergency Response Routes	Transit Routes
Vertical Deflection						
• Speed Hump	✓	✓	✓	X	X	X
• Raised Crosswalk	X	✓	✓	X	X	X
• Sidewalk Extension	X	✓	X	X	X	✓
• Textured Crosswalk	X	✓	✓	✓	✓	✓
Horizontal Deflection						
• Curb Extension	X	✓	✓	✓	✓	✓
• Curb Radius Reduction	X	✓	X	X	X	X
• On-Street Parking	X	✓	✓	✓	✓	✓
• Raised Median Island	X	✓	✓	✓	✓	✓
• Traffic Circle	X	✓	✓	X	X	X
• Road Diets	X	✓	✓	✓	✓	✓
Obstruction						
• Directional Closure	X	✓	X	X	X	X
• Diverter	X	✓	X	X	X	X
• Raised Median Through Intersection	✓	✓	✓	✓	✓	✓
• Right-In/Right-Out Island	✓	✓	X	X	X	X
Signage						
• Traffic Calmed Neighbourhood	X	✓	✓	✓	✓	✓
Key						
✓ - applicable						

Appendix B

Emergency Response Routes

City of White Rock

TRAFFIC CALMING POLICY

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Figure A1: Primary Emergency Response Routes

Appendix C

Road Classification*

* Note: not for use for the purposes of access egress issues

URBANSYSTEMS

City of White Rock
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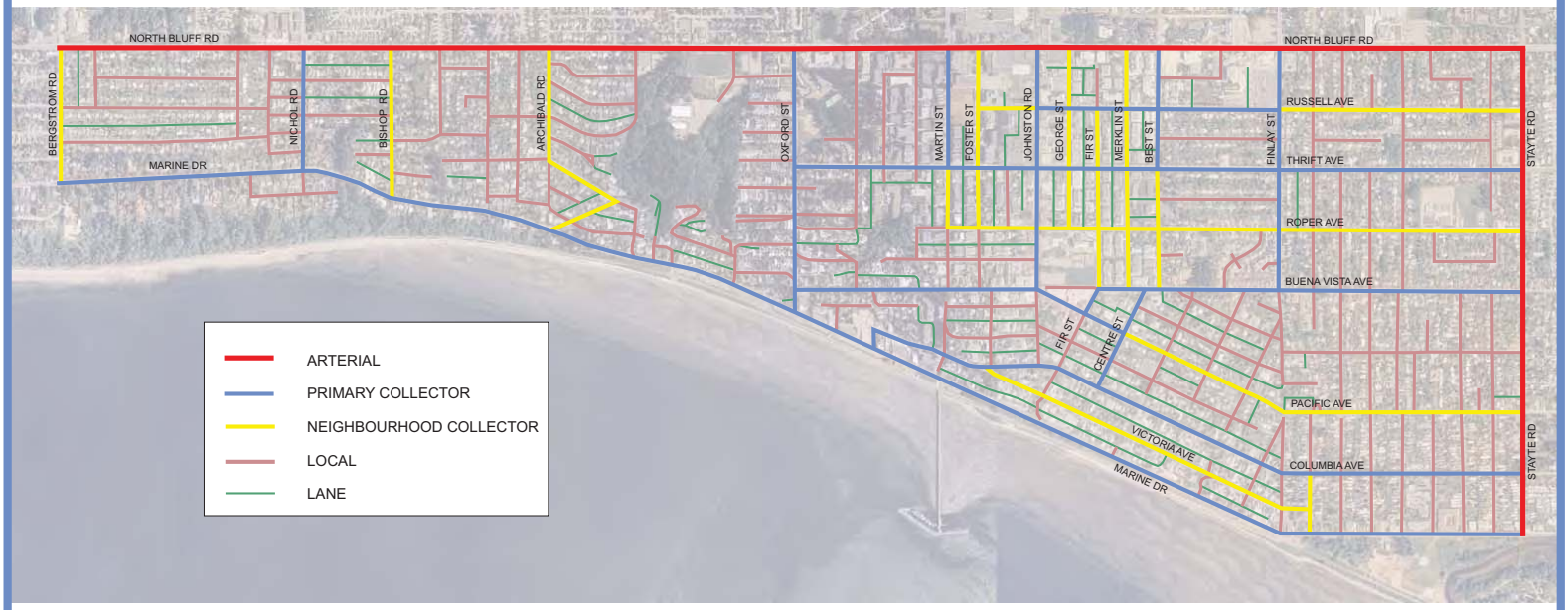

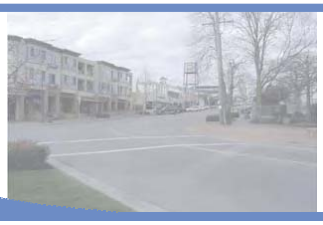

Recommended Roadway Classification