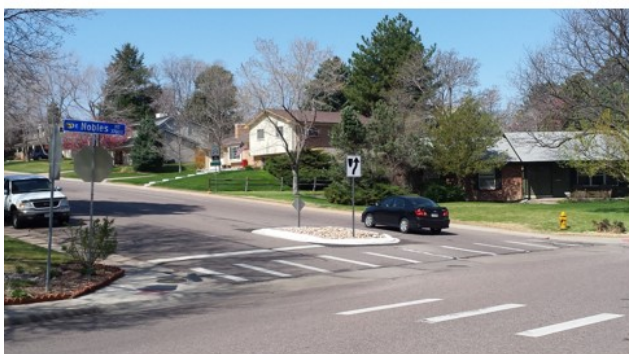


NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM





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Welcome to the City of Centennial Neighborhood Traffic Management Program

The City of Centennial created the Neighborhood Traffic Management Program (NTMP) to assist the City in considering residents' concerns about traffic speeds, cut-through traffic, and pedestrian safety. At the discretion of City Council, the program receives funds annually to implement City-approved traffic calming and mitigation plans. NTMP is open to all residents and neighborhoods of the City but the program is limited to residential streets. With this program, City staff works with neighborhood residents to develop, evaluate, and implement traffic calming and mitigation plans designed specifically for the neighborhood's traffic concerns. This guide presents the process of the NTMP. Thank you for taking an interest in improving the safety of your neighborhood!

Getting Started

What is the Neighborhood Traffic Management Program?

The Neighborhood Traffic Management Program (NTMP) is a program created by the City of Centennial to aid the City in understanding and potentially mitigating residents' concerns about excessive traffic speeds, cut-through traffic impacts, and protecting pedestrian safety. The NTMP is designed to foster a collaborative process between neighborhood residents and City staff.

How do I fill out an application for my street?

Before recommending the nominating party complete an application, the City will conduct a preliminary informal study of the speed and volume of the nominated street(s). If the data appears to meet the minimum threshold criteria for NTMP project eligibility, the City will forward to the nominating party an application outlining the specific steps required for NTMP processing. The minimum threshold criteria are available in Worksheet 1 of this policy. You may start the NTMP process consideration by calling the City's Citizen Response Center at 303-325-8000.

What happens after I submit my application?

After receiving a completed NTMP application and verifying the eligibility of the neighborhood or street for NTMP consideration, the application will be ranked against other applications for funding and participation consideration. Applications may be returned to the City via mail, email (send to workrequests@centennialco.gov), or in person at the Public Works facility at 7272 South Eagle Street, Centennial, Colorado 80112.

How much money is available?

Funds available for NTMP projects and the amount of money for each project will vary each year based on the City Council's annual budget allocation.

How long does it take to complete an NTMP project?

City staff begins working with the selected eligible neighborhood(s) in January of each year with the goal of implementing the approved NTMP project(s) within the same calendar year.

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Glossary of Terms

Adjacent Property Owner (or Adjacent Property)

An owner of property or the property that lies both within the project limits (as defined) and directly adjacent to a traffic calming device proposed by a traffic calming or mitigation plan. The City staff shall retain the authority to determine that a property is, or is not, adjacent to a proposed traffic calming device and such determination shall be conclusive for purposes of the NTMP.

ADT (Average Daily Traffic)

The average number of trips carried by a roadway in a 24-hour period. ADT counts are two-directional and usually obtained by placing a counter in the roadway for a 2-3 day period mid-week on a nonholiday week preferably when school is in session.

Arterial Street

A major roadway in the community designated by the City as an arterial street that connects to the highways leading in and out of Centennial. Arterials are designed to carry high volumes of traffic at speeds higher than those within residential areas. Because their main function is to carry traffic in, out, and through the community, few restrictions are placed on their ability to maintain higher traffic volumes. Examples of arterial streets within Centennial include Arapahoe Road, Quebec Street, Smoky Hill Road and Dry Creek Road.

Collector Street

A roadway classified by the City as a collector street and intended to serve to gather and move traffic from local streets to arterial streets. A collector street may be residential or commercial in nature. Collector streets typically carry higher volumes and speeds than local streets but lower volumes and speeds than arterial streets.

Cut-Through Traffic

Vehicular traffic originating from outside the residential neighborhood which travels through the residential neighborhood to avoid a congested arterial street. Vehicular trips that have an origin or a destination to or from a property within or adjacent to the neighborhood are not considered cut-through traffic. Such vehicular trips include, by way of example, those to nearby schools, libraries, and shopping centers.

85th Percentile Speed

The speed AT or BELOW which 85 percent of the motorists drive on a given road. It is often used as a guideline by traffic engineering for setting an appropriate speed limit on a roadway as it represents how drivers naturally respond to the roadway design condition.

Emergency Response, Emergency Response Providers

Fire, law enforcement, and ambulance service providers.

Homeowners Association or HOA

An association or organization of property owners formally incorporated (or by historical practice, recognized by the City as formally organized) for the purpose of managing or addressing issues and matters affecting a defined residential neighborhood within the City of Centennial. Such phrase includes associations or organizations bearing titles or names such as but not limited to "property owners' association," "civic association," or "community association." The City staff shall retain the authority to determine that an unincorporated association or organization is, or is not,

recognized by the City as formally organized for purposes of the NTMP and such determination shall be conclusive for purposes of the NTMP.

Impacted Resident

A resident of the City of Centennial who owns or leases residentially zoned or residentially used property that is located within the neighborhood or the project limits (as defined) of a project under NTMP consideration. The City staff shall retain the authority to determine the impacted residents for an NTMP project and such determination shall be conclusive for purposes of the NTMP.

Local (or Neighborhood) Street

A street that carries traffic within a neighborhood and provides access to residential properties that front upon the street. These streets generally are designed for lower volumes and lower speeds than collector streets and often allow for on-street parking and direct residential driveway access.

Moratorium

The three (3) year period after an NTMP process is completed when the street is ineligible for inclusion in the NTMP.

New Project

A first-time NTMP project that has met thresholds for inclusion and has not been through the NTMP process previously.

Owner

An owner of property as recorded in the records of the Arapahoe County Assessor's Office regardless of whether such owner is a resident.

Project Limits (or Project Area)

The physical boundaries that define an area that is subject to consideration under the NTMP. The City staff shall retain the authority to determine the project limits or area for a NTMP proposal or application and such determination shall be conclusive for purposes of the NTMP.

Repeat Project

A project which has previously completed the NTMP process, has reached the end of the moratorium, and is being applied for again with a new NTMP application.

Resident

A person who maintains their physical residence at a residential property located within the City of Centennial. Such person may be an owner or a lessee of such property.

Structural Devices

Traffic calming devices that involve placing physical improvements or treatments in the roadway (e.g., medians, traffic circles, curb extensions, or speed cushions), as opposed to non-structural devices (e.g., signage, roadway striping).

CITY OF CENTENNIAL NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

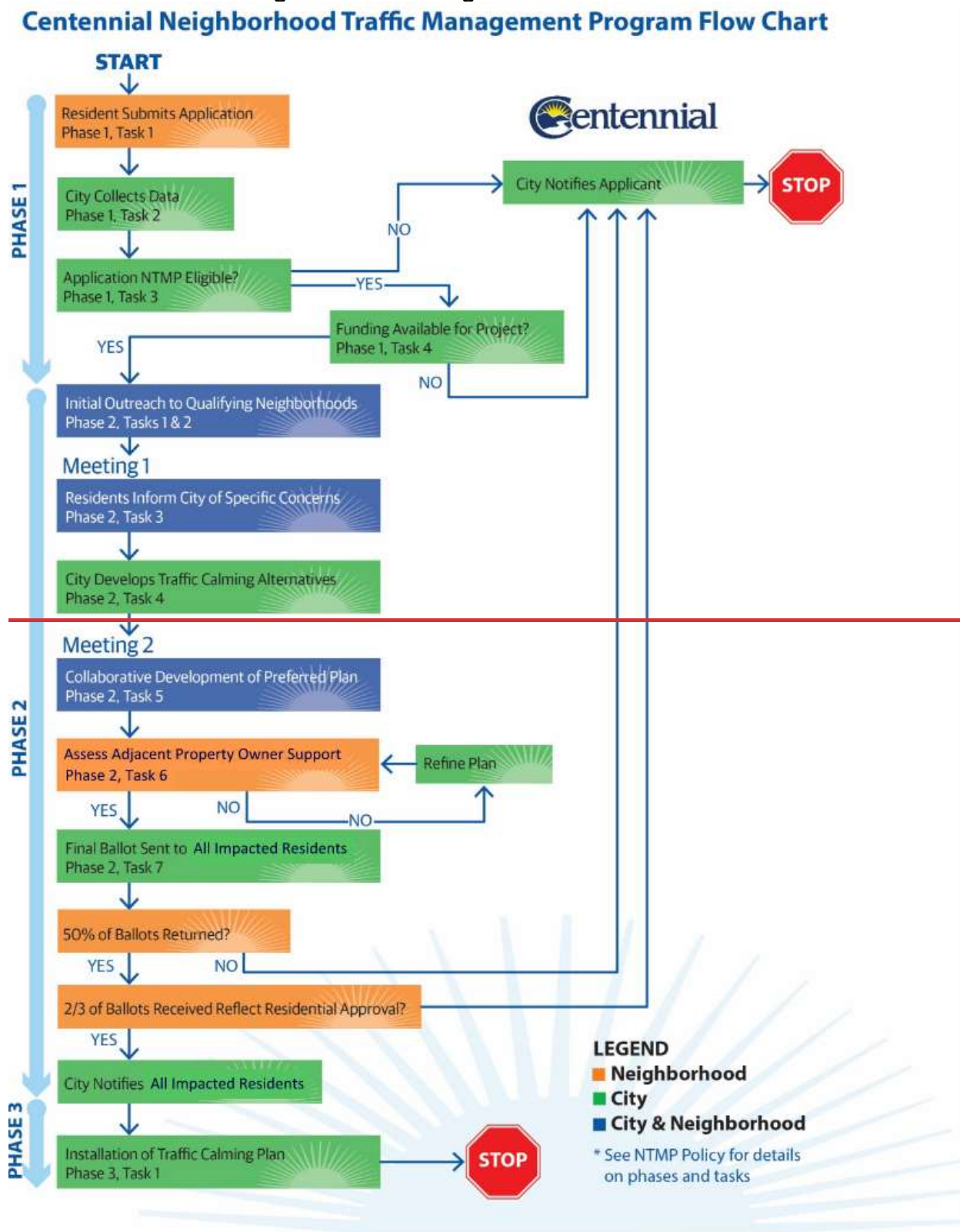
1.0 BACKGROUND

The City of Centennial created a Neighborhood Traffic Management Program (NTMP) to assist the City in considering the concerns of residents regarding traffic speeds, cut-through traffic, and pedestrian safety. Although the City may lawfully implement traffic calming or mitigation measures without consultation with residents, it is the City's policy to provide meaningful avenues for assessing resident concerns to support the City's management of its roadway systems.

The City has developed this manual to define a set of policies and procedures which will guide how to receive and respond to these requests. This manual outlines the City's Neighborhood Traffic Management Program, including program goals, objectives, policies, and tools available for use on neighborhood streets. Figure 1 represents the overall NTMP program process.

Although the NTMP is an administrative program designed to assist the City in making decisions concerning the management and operation of its public rights of way, the City reserves complete authority in the management and operation of the public rights of way. Therefore, the process and procedures of the NTMP may be modified or eliminated at the City's discretion at any time. The City may terminate consideration of an NTMP project at any time for any reason. The NTMP does not confer upon any applicant, owner, or resident any particular right or entitlement to benefits, action, or inaction, under the NTMP and all decisions made by the City in implementing the NTMP shall remain at all times administrative in nature and not subject to judicial review. Nothing in the NTMP shall limit or preclude the City Council or the City staff from initiating a traffic management or calming solution or improvement deemed necessary or reasonable by the City for the management and operation of the City's public rights of way.

Figure 1. NTMP Program Process Flowchart



2.0 PROGRAM GOAL AND OBJECTIVES

The Goal of the City of Centennial Neighborhood Traffic Management Program is stated as follows:

To provide a consistent, context-sensitive, feasible, and manageable procedure for safely addressing neighborhood traffic concerns on residential streets where a documented speeding problem, unacceptable cut-through volume, or other traffic factors adversely affecting residential safety and quality of life exist.

The objectives of the program are to:

- *Improve neighborhood livability by mitigating the impact of vehicular traffic on residential streets and encouraging appropriate driver behavior.*
- *Calm speeds on neighborhood streets as appropriate.*
- *Encourage resident involvement in solutions to neighborhood traffic concerns.*
- *Effectively balance the public safety interests of traffic calming or mitigation and emergency response.*
- *Efficiently allocate the use of City resources by establishing minimum criteria to “qualify” streets for projects and by prioritizing project requests.*

3.0 POLICIES

The following policies provide detail regarding specific aspects of the Neighborhood Traffic Management Program.

3.1 Compatibility with Existing Policies

Neighborhood traffic calming or mitigation projects should be implemented consistent with current City practices. To the extent possible and practicable, City staff will consider warrants, placement guidelines, standards, and practices contained in the Manual on Uniform Traffic Control Devices (MUTCD), the American Association of State Highway and Transportation Officials (AASHTO) policy manuals, and the then-current City of Centennial Roadway Design and Construction Standards Manual.

3.2 Neighborhood Involvement

An important element in developing an effective traffic calming or mitigation plan for a neighborhood is to reasonably assess the interests and support of residents of property within the neighborhood to be potentially impacted by the NTMP process. A resident submitting an NTMP nomination of streets for NTMP consideration shall be required to participate as the neighborhood’s lead contact person in the NTMP process. At the discretion of City staff, if the staff determines that there is a lower than expected turnout at the first neighborhood meeting to explore the initiation of the NTMP process, the City may require the neighborhood to more directly demonstrate that sufficient support exists for traffic calming or mitigation through one of the following means of documenting neighborhood support for the project:

- i) A petition signed by residents representing a minimum of 25 percent of the residential properties within the impacted neighborhood supporting interest in traffic calming measures.
- ii) Another method of assessing neighborhood support for the plan approved in advance by the Director of Public Works, or their designee, including but not limited to a documented telephone survey or email responses of the owners within the impacted neighborhood area.

Residents within the impacted neighborhood should provide input on the extent and nature of the concerns. Each neighborhood will experience its own set of concerns, some more apparent than others. It becomes clear how complex many neighborhood issues can be when representatives from throughout a neighborhood meet to share their various perspectives.

3.3 Neighborhood Focus

The implementation of neighborhood traffic management will be on a street-by-street basis with consideration of the impact to the impacted neighborhood. This approach is necessary to comprehensively meet the goal and policies of the program. The NTMP is not intended to mitigate or address concerns regarding hazardous intersections, improve access to/from neighborhoods from/to arterial roadways, mitigate noise from arterial streets, redesign the overall transportation/roadway classification system, or to reduce the use of automobiles.

3.4 Minimum Threshold Determination

A neighborhood must have documented traffic conditions that meet or exceed defined minimum thresholds for traffic volume and speed to be eligible for participation in the full NTMP process. Roadways with a documented crash patterns are given special consideration. Minimum thresholds are summarized on Worksheet 1. Average daily traffic (ADT), traffic speeds, a 3-year crash history, and other information will be compiled by City staff along the subject street to determine basis for appropriate traffic calming measures. City staff review may also support implementation of traffic calming measures outside of the full NTMP process.

3.5 Roadway Classifications

Roadways in Centennial are grouped into three distinct classifications: (1) arterial streets; (2) collector streets; and (3) local or neighborhood streets. These roadway classifications relate to the volume and nature of traffic on the street and typical street cross section. Arterial and collector streets are intended to carry a higher volume of traffic over a longer distance than local or neighborhood streets and generally operate at higher speeds. Typically (and always in newer residential developments), residences do not front or directly access arterial or collector streets.

A current classification map can be found on the City of Centennial website.

3.6 Managing Traffic on Existing Facilities

Traffic calming and mitigation under the NTMP is intended to calm traffic on local or residential streets and to encourage rerouting of traffic that is using local or residential streets as an alternative to the use of an arterial street. The intent of traffic calming is not to relocate the problem from one local or residential street to another local or residential street. City staff will consider potential shifts in traffic with all project requests. If the potential for shifting the problem to other local or residential streets exists, staff may: (a) require that a parallel or an adjacent street be included in the project limits; (b) require creation of a separate NTMP project for one or more

parallel or adjacent streets with special consideration given to the anticipated future traffic shift to that roadway; or (c) deny or reject the original request for traffic calming. Opportunities for rerouting non-local cut-through traffic from local streets to arterial streets will be encouraged.

3.7 System of Devices vs. a Single Device

Where traffic calming devices or treatments are installed, a system of devices and/or treatments is often preferable to a single, isolated device or treatment because traffic calming devices and treatments are most often effective when installed as a system. A system may be a combination of different types of calming devices and/or treatments.

When a request for traffic calming is processed by City staff, consideration will be given to the length of the street and the number of devices and/or treatments needed to create an effective system. In order to discourage speeding between devices or treatments, calming devices or treatments should be installed at frequent intervals. Optimal maximum separation of devices in most cases is 400-600 feet. However, it should be noted that optimal separation will not always be feasible in a built environment.

3.8 Emergency Response

Reasonable emergency vehicle access and response will be preserved. Because the goals of traffic calming can conflict with the goal of providing the most effective emergency response times, impacts to emergency response time will be considered with every project. All traffic calming project requests will be referred to the local emergency response provider(s) for review, and the provider's input will be considered before any plan approval. The emergency response provider(s) will be invited to neighborhood public meetings where implementation of traffic calming devices or treatments is being considered so residents may better understand the potential impacts of traffic calming on emergency response times.

3.9 Landscaping and Aesthetics

Landscaping and other aesthetic treatments can enhance the effectiveness of certain neighborhood traffic management tools and enhance the impact of the device or treatments upon the aesthetics of the neighborhood. Some devices, such as medians, roundabouts, and curb extensions are more effective when combined with the use of landscaping or other aesthetic treatments to change the character of the street and break up the line of sight for drivers. Simply changing the geometrics of the street often affects drivers only at the location of the device and does little to enhance the livability or aesthetics of the street. A device with landscaping or other aesthetic treatments incorporated may be more effective in changing driver perception and driver behavior. Therefore, the City will typically consider, promote, or encourage; and may require the installation of landscaping and aesthetic treatments with the construction of traffic calming devices or treatments, subject to the availability of funding and formal commitment for ongoing maintenance. The installation and maintenance of landscaping and aesthetic treatments may be funded through a general improvement district (GID), homeowners association, school district, special district, or other lawfully established organization that can demonstrate the ability to fund and permanently maintain the aesthetic treatment. The City may choose to fund or commit to maintenance of landscaping or other aesthetic treatments at its sole discretion.

A commitment to ongoing and permanent maintenance of landscaping and aesthetic treatments will be secured by a maintenance and license agreement with the City. In the absence of an

available party to undertake the maintenance of landscaping, the City may, at its sole discretion, provide maintenance for landscaping installed for traffic calming purposes.

3.10 Permanent vs. Temporary Installations

Traffic calming devices and/or treatments will be planned using a comprehensive neighborhood process that results in the permanent installation of these devices. Temporary devices are rarely as attractive or effective as permanent devices. However, if a neighborhood supports the installation of calming devices such as raised medians or roundabouts as part of a traffic calming plan, the neighborhood may request for consideration the use of temporary devices, such as traffic cones or drums, to simulate the permanent devices in order to gain a better understanding of device layout and the potential impacts on traffic. Temporary devices will be allowed for a trial period not to exceed 60 days, which may be adjusted by the Public Works Department to coincide with school days or as otherwise deemed appropriate by staff.

3.11 Drainage, Maintenance, and Other Considerations

Consideration of storm flows and their impacts on adjacent properties will be required with all requests for installation of traffic calming devices. In some cases, consideration for drainage impacts may limit or restrict the use of specific traffic calming devices. Similarly, the availability of, or limitations on, snow removal and snow storage will be a consideration. With all devices, the funding for and ability to reasonably maintain a device will be a consideration.

3.12 Device Removal

It is the intent of this policy to create a system of traffic calming devices that effectively addresses traffic management concerns in neighborhoods and that such devices will become permanent installations within a neighborhood. However, if traffic calming devices are found by the City to be ineffective or to create objectionable conditions within a neighborhood, devices may be considered for removal. Residents of property in the neighborhood impacted by traffic calming devices may be invited to provide feedback to the City concerning the effectiveness and operation of devices.

Any neighborhood-initiated requests for removal of traffic calming devices shall require 90% resident approval documented in accordance with the same procedures for assessing neighborhood support that was employed to install the device. Removal of a device following a neighborhood-initiated request will require the neighborhood to fund the cost of removal as determined by the City. For neighborhoods represented by a homeowners association, the City will provide reasonable notice to the homeowners association of the plan for removal before removal of any device.

The City reserves the right to remove any traffic calming devices at the City's cost and expense where the City determines that the removal will serve traffic safety or management goals.

3.13 Traffic Calming Toolbox

A toolbox of devices and treatments that may be available for neighborhood traffic calming is included in the Appendix of this manual. The toolbox includes examples of a variety and range of devices and treatments that, depending upon the specific resident traffic concerns (e.g., speeding, cut-through, traffic volume, pedestrian safety), may or may not be appropriate for a particular project. Some of the devices and treatments are targeted for specific types of traffic conditions and may not be suitable for use on other projects. The range of devices and treatments includes

educational, enforcement, engineering (structural), and enhancement elements. The toolbox contains a brief discussion of the pros and cons for each device and treatment, as well as potential impacts to emergency response services and device and treatment cost estimates.

As a general rule, traffic calming devices or treatments will not be considered for use on roadways classified as collectors; however, there may be situations where City staff may determine that traffic calming devices or treatments (e.g., pedestrian refuge medians, curb extensions at a pedestrian crossing) are appropriate.

Some devices have specifically been **excluded** from the Toolbox and shall not be considered for use in the City of Centennial. The excluded devices, as well as the bases for their exclusion, follow:

- **Speed “Dips”.** *Speed “dips” are cross pans traditionally used for drainage purposes, not for speed control. “Dips” can cause undue delays and/or damage to fire response vehicles and can be negotiated more comfortably at higher speeds than speed cushions, humps, bumps, or tables.*
- **Speed “Bumps”.** *The term speed “bump” typically refers to a tall and narrow asphalt or concrete surface impediment often found in parking lots which is designed to mandate very slow traffic speeds to avoid vehicle damage and occupant discomfort. In contrast, speed cushions, which are approved for use in the City of Centennial, are much wider and often shorter than speed “bumps,” and are designed to allow vehicles to travel over the speed cushions comfortably at or below the posted speed limit, and are less likely to cause vehicle damage at reasonable speeds than speed “bumps.” Speed cushions present less negative impact on fire response than speed “bumps”.*
- **Rumble Strips.** *Rumble strips are not suitable for use on residential streets due to the increased exterior noise levels associated with these devices and the maintenance requirements associated with them.*
- **Stop Signs for Speed Control Purposes Only.** *Where stop signs are installed solely for the purpose of speed control, studies show that there may be an increase in intentional violations and drivers may tend to speed up between the stop signs to “make up for lost time.” This behavior is the opposite of that desired. Improper use of stop signs can create pedestrian safety issues, increased vehicular accidents, increased speeds between intersections, increased noise and air pollution, and can breed disrespect for all traffic control devices. Staff will not recommend installation of stop signs that are not supported by an engineering determination.*

4.0 FUNDING

The City of Centennial determines annually a budget for neighborhood traffic management projects. Any funds committed to an approved project not completed by the end of the fiscal year in which the approved project is initiated will be considered for re-appropriation in the next fiscal year subject to the discretion of the City Council.

This funding policy is intended to promote an annual multi-project program. When multiple project applications are under consideration to receive funds, staff shall prioritize these applications using a scoring metric based on key criteria as generally referenced in this document. Each year, the

deadline to submit an NTMP application to determine if a street meets the minimum threshold requirements defined in Worksheet 1 is September 30. Each application will be scored to determine if they meet the minimum thresholds to be entered into the program. Only applications which meet the minimum thresholds will be considered for funding. Project applications meeting the minimum threshold requirements will be added to a comprehensive prioritization tracking list on a rolling basis and then re-prioritized annually in the fourth quarter of the calendar year in preparation for project selection to occur the following year. New applications received after the annual prioritization has been completed will be scored, and those meeting the minimum threshold requirements will then be added to the comprehensive prioritization tracking list to be ranked with all eligible applications the following year, except for applications that staff may elevate as a high priority due to documented safety concerns. Staff will proceed into the full NTMP process for the neighborhood having the highest ranked application and consider opportunities for succeeding applications based on available funds.

To support an annual multi-project program, all approved projects will be capped financially according to the annually approved budget and the number of approved projects. Projects with a cost that is expected to exceed \$50,000 may be funded separately through the City's Capital Improvement Program (CIP). Projects funded through the CIP will be required to go through the CIP project ranking system to determine if the project qualifies for inclusion in the next fiscal year's CIP budget and list of projects. Alternatively, projects may be fully or partially (the amount in excess of the annual project cap) funded through cost sharing, such as a partnership between the City and the neighborhood, homeowners' association, school district, metropolitan district, general improvement district (GID), special improvement district (SID), or other such entity. Alternate project funding methods are discussed in additional detail below.

To further support an annual multi-project program, staff will consider accelerating small-scale projects (less than \$10,000) when funding for these projects will not affect funding for higher-priority projects. To identify potential small-scale projects, staff will correspond with each NTMP applicant at the conclusion of the annual prioritization of applications to determine each neighborhood's goals.

The City recognizes that there may be insufficient City funds to address all ranked applications in a given year. In the event that a neighborhood, a homeowners' association, special district, general improvement district, special improvement district, or other entity would like to contribute funding for such a project, the neighborhood or such entity is encouraged to approach the City to discuss the project and funding possibilities. In the event that a neighborhood does not have source for funding through an organization or entity, the NTMP applicant is encouraged to meet with staff to discuss alternatives and the steps involved in forming a proper funding vehicle. Projects that are proposed to be cooperatively funded will be processed simultaneously with higher-ranked projects, contingent on staff having the time available to simultaneously process multiple applications. In the event a proposed cooperatively funded project is on hold due to limited staff availability, the NTMP applicant may be offered the option to cover the cost of additional engineering staff support to keep their project moving forward.

The City may permit a project to move forward with cooperative funding (via a public/private partnership or intergovernmental agreement) in accordance with the following process:

1. The project must meet the minimum requirements based on Worksheet 1 (minimum threshold determination), to justify traffic calming measures.

2. If the project qualifies for the NTMP but funding is not available, the homeowners' association, special district, general improvement district, special improvement district, or other entity will meet to discuss funding options with the City.
3. Preliminary costs estimates will be prepared by a pre-selected City contractor, addressing areas of engineering/design, consulting fees, permits, construction, and any on-going maintenance needs.
4. Because the project work is an estimate, cost over-runs and under-runs may occur. As a contingency, collateral or surety in a form and amount acceptable to the City may be necessary for the project.
5. If the parties agree to proceed based on these cost estimates and any required collateral, the City and the neighborhood or entity will enter into a written agreement for the funding of the project, including the parties' agreement on project cost sharing.
6. Any agreements must be approved by the City.

If non-City funds are used, it will be the responsibility of the neighborhood to raise the funds needed to support the project.

Every year, there are competitive demands on the City's limited financial resources. The decision to provide funding for the NTMP shall remain within the exclusive discretion of the City Council as part of its overall responsibility for adopting an annual budget that the Council determines best meets the numerous public health, welfare and safety interests of the City and its residents.

Regardless of neighborhood funding contribution on a particular project, all projects will be required to meet the minimum criteria (speed, volume, etc.) established in this manual (see Worksheet 1). City resources, including staff time, will not be allocated towards full NTMP process projects where a documented problem does not exist.

Because traffic calming measures are located within the City right-of-way, staff must be supportive of the proposed traffic calming measures. However, whenever possible, staff will work with the neighborhood to identify a system of traffic calming measures that are favorable to all parties involved.

In order to promote an equitable distribution of funds, a three-year moratorium shall be placed on participation in the NTMP for streets that have already participated in a full NTMP process. A street has participated in the full NTMP process on the earlier of: (1) the date the final ballot in Task 2, Phase 7 fails to meet the minimum threshold(s); or (2) the date an approved traffic calming plan is completed. Neighborhoods that meet one of those conditions may not re-apply for subsequent funding for a period of three (3) years from that date. This moratorium ensures that all neighborhoods within the City will have an opportunity to apply for funding, where merited. However, traffic calming plans addressing documented public-safety issues in a neighborhood or traffic impacts due to a new development, redevelopment or other changed circumstance may be implemented during the moratorium period using NTMP funds, where NTMP funds are available and where staff supports the use. The moratorium does not apply to traffic calming projects approved by the City for which the funding shall be exclusively provided by the neighborhood, homeowners association, special district, general improvement district, special improvement district, or other entity.

5.0 NEIGHBORHOOD TRAFFIC CALMING PROCEDURES

The City of Centennial NTMP provides goals, policies and procedures directed at creating the best neighborhood traffic calming plan. The goal and policies have been discussed in the previous sections. This section outlines procedural steps for a new project, organized in three (3) phases, to address traffic calming concerns within a neighborhood. The three phases are as follows:

- Phase 1 – Project Initiation**
- Phase 2 – Traffic Calming Plan Development**
- Phase 3 – Project Implementation**

The major procedural steps included in each phase are summarized in the NTMP Process flow chart provided in Figure 1 (page 3). The procedural steps are as follows:

Phase 1: Project Initiation

Phase 1, Task 1 – Nomination and Application Submittal. The full NTMP process may be commenced at the City's initiative or following the City's receipt of a completed application for NTMP consideration of a street or streets located within the City of Centennial. Streets may be nominated for inclusion in the NTMP by a resident or homeowners association. Projects nominated by a resident must be made by a resident that maintains his or her primary physical residency on the street being nominated for traffic calming consideration.

Before recommending the nominating party complete an application, the City will conduct a preliminary informal study of the speed and volume of the nominated street(s). If the data appears to support a successful NTMP project, the City will forward to the nominating party an application outlining the specific steps required for NTMP processing. If the preliminary study does not appear sufficient, the City will not send an application to the nominating party but may propose participation in a different City program.

The resident must return the completed application to the City to be considered for inclusion in the NTMP. The application deadline each year to be considered for the following year's NTMP cycle is September 30. Once submitted, an application may only be withdrawn in the City's sole discretion either upon the City's initiative or following the City's receipt of a written request to withdraw the application submitted by one or more persons who submitted the application.

References to "application" in this policy are intended to refer to a written form submitted by a nominating party to request the City's administrative consideration in the NTMP process and does not refer to or establish a formal right or entitlement to the NTMP process. Even if initial study of the speed and volume of a nominated street appear to support a successful NTMP project, it is not conclusive.

Phase 1, Task 2 – Data Collection. Traffic engineering staff will collect average daily traffic (ADT) counts and vehicle speeds at one or more locations along the street within the neighborhood during typical weekday conditions. Data collection may include adjacent or nearby streets where the potential for a shift in traffic or speeds exists. Additionally, a

3-year crash history will be compiled from crashes reported to the Arapahoe County Sheriffs' Office.

Phase 1, Task 3. Minimum Threshold Determination. Using Worksheet 1, City staff will determine if the project street meets minimum thresholds to continue with the program. If the project does not qualify, the street will not be considered for additional study or treatment through this program and the City will notify the applicant.

The minimum threshold criteria to be considered for the NTMP are as follows:

EITHER

- The roadway segment has a documented traffic crash history of three or more correctable crashes* in a 12-month period within the previous 36 months

OR

- The roadway segment has at least 500 vehicles per day or at least 20% documented cut-through traffic (if cut-through traffic is identified as the primary concern)

AND

- A roadway **without** a school, park, trail crossing, or recreation center/clubhouse (or other public facility that generates pedestrian traffic on a daily basis) immediately adjacent to it has an 85th percentile speed of 5 miles per hour or greater above the posted or unposted regulatory speed limit. The 85th percentile speed shall be based on the highest "directional" speed measured;
- OR
- A roadway **with** a school, park, trail crossing, or recreation center/clubhouse (or other public facility that generates pedestrian traffic) immediately adjacent to it has an 85th percentile speed of 3 miles per hour or greater above the posted or unposted regulatory speed limit. The 85th percentile speed shall be based on the highest "directional" speed measured;

** Correctable crashes are those that were not caused by weather or driver impairment.*

Applicants will be notified by the City if their NTMP application meets or does not meet minimum thresholds. If it does not, it is not eligible for the full NTMP process and staff will discuss other options with the applicant. If it does meet minimum thresholds, it will be ranked against other applications for funding and participation consideration.

Phase 1, Task 4. Funding Determination. Each year, the City of Centennial City Council will determine a budget for the NTMP. The budget will vary and therefore impacts the number of projects (which have met the minimum thresholds) that will be funded. If the NTMP is funded, then the highest ranked application will be included in the full NTMP process for the year. If there is funding to support a second project, the second highest ranked application will be included, etc. Those projects meeting the minimum thresholds but not funded, will remain in the NTMP tracking list and will be included in the re-prioritization of applications the following year. Applications that initially met the minimum threshold requirements to get into the NTMP prioritization process and fail to meet minimum thresholds in a subsequent year will receive one strike for each year the

minimum thresholds are not met. After receiving three strikes, an NTMP application will no longer be included in the annual re-prioritization process, and the neighborhood must resubmit an application to be considered for inclusion in the NTMP.

Phase 2: Traffic Calming Plan Development

Phase 2, Task 1. Initial Outreach. City staff will reach out to the accepted applicant(s) in the January following timely submission of an application prior to the September NTMP cycle deadline. The goal of the initial outreach is as follows:

- To ensure the applicant still has an interest in moving forward with the application.
- To educate the applicant about the NTMP in greater detail.
- To define the expectations the City has of the applicant as a liaison between the City and the neighborhood.
- To define the expectations the applicant should have of the NTMP.
- To determine if in person, virtual, or a combination of both meetings would best serve the project.
- To identify a preferred location within close proximity to the neighborhood where neighborhood meetings will be held.
- To establish a working relationship between the City's Traffic Engineering Services (TES) staff and the applicant.

Phase 2, Task 2. Define Project Limits. The proposed boundaries for a potential NTMP project will be defined by City staff given the nature of the traffic concerns. The project boundaries should typically begin and end at intersecting streets and should include the area of the identified concerns. Staff will determine if the project limits should be expanded to address the potential diversion of traffic to other neighborhood streets and if additional speed/volume/crash data (outside of the immediate area of concern) should be collected.

Based upon the determined project limits, the City staff will identify the impacted residents for purpose of the NTMP process.

Phase 2, Task 3. Neighborhood Meeting 1. Staff will conduct the first public informational meeting to inform the impacted residents about the program, the concerns described in the application, and the results of the data collection and evaluation. This meeting can be held in person, virtually, or a combination of both. It is important that the impacted residents and staff have an opportunity to express their perspectives of the traffic concerns in the neighborhood and to hear the views and experiences of their neighbors. Through this process, a shared definition of the concerns can be refined and appropriate treatments can be identified.

At the City's discretion, other potentially interested parties may be involved in this initial informational meeting including any homeowners association, emergency service provider(s), nearby schools, park and recreation facilities, nearby businesses, and other individuals or organizations that may be directly impacted by any proposed traffic management plan.

Following the first meeting, staff will develop a draft traffic calming plan based on engineering analysis and judgment, and further informed by the public input received.

Phase 2, Task 4. Development of Traffic Calming Alternatives. Staff will consider possible alternatives for incorporation in a draft traffic calming plan that is based on engineering analysis and judgment as well as informed by the input gathered from residents in Meeting 1. As part of the planning process, input will be sought from fire district or other emergency service providers if proposed traffic mitigation measures may impact their performance metrics. Staff will collect geometric data and other data as applicable to determine feasibility for each proposed toolbox item. Collaboration may take place with other departments such as Community Development. From the alternatives considered, staff will develop a recommended draft plan. A planning-level cost estimate will be developed with the plan.

Phase 2, Task 5. Neighborhood Meeting 2. Staff will conduct the second public informational meeting to present the traffic calming plan(s). The meeting can be held in person, virtually, or a combination of both. This meeting is intended to be interactive and allow staff an opportunity to explain the pros and cons of the alternatives and allow the impacted residents to provide input and ask questions regarding the recommended plan. Staff will solicit comments from impacted residents with respect to the draft plan(s). Staff will then finalize the traffic calming plan with consideration for any additional comments and within the policy framework provided in this document. After the second informational meeting, one final plan will be developed by the City to be presented on the final ballot pending notification of adjacent property owners as appropriate, preparation of final design, and availability of funding.

Phase 2, Task 6. Assessing Adjacent Property Owner Support for Certain Toolbox Items. When, in the determination of the City staff, a draft or final neighborhood traffic calming plan includes one or more toolbox item(s) that may directly and significantly impact adjacent property owners, the City may conduct additional outreach to the adjacent property owners regarding the toolbox items. The need for and the extent of additional outreach will be determined by the City and may vary with project specifics and scope.

Phase 2, Task 7. Final Ballot to Impacted Residents. A ballot showing the final traffic calming plan will be sent to all impacted residents. Such ballot will be a “yes” or “no” ballot in which a “yes” vote will support implementation of the final traffic calming plan. Impacted residents will vote on the final traffic calming plan as a whole.

There must be a two-thirds majority of the ballots returned with a “yes” vote for the project to be eligible for implementation. The plan will not be implemented without this criteria having been met, nor if more than 50% of the ballots mailed out are not returned (as either “yes” or “no” votes). A ballot returned which indicates the vote is conditional or subject to any limitation shall be counted as a “no” vote. The City reserves the right to alter the methodology of assessing impacted resident support for a project.

If the required ballot response and “yes” vote minimums are not achieved the final traffic calming plan will not move forward with implementation and the moratorium outlined in Section 4.0 will apply. The City reserves the right to make any modifications within the City right of way or install any traffic control devices deemed necessary or appropriate.

Phase 3: Traffic Calming Plan Implementation

Phase 3, Task 1. Final Design and Implementation. Once project funding is secured, final engineering plans, specifications, and a detailed construction cost estimate will be

prepared for approved projects by staff based on City standards. Design reviews will include referral to applicable emergency response providers for comment to verify that no response impacts will result.

Phase 3, Task 2. After Study. In order to assess the results of the traffic calming plan implementation, the City may conduct an after study to compare traffic volume, speed, safety, and/or cut-through data from before and after the implementation of the plan. Additional information or feedback received from the residents may also be sought.

5.1 Repeat Project

Over time, traffic conditions or the sentiment in a neighborhood towards traffic calming may change and residents may want to submit a new application to be considered for inclusion in the NTMP. Repeat projects could include either previous NTMP projects where the traffic calming plan was approved by residents and constructed or where the traffic calming plan was not approved by residents and therefore not constructed. The repeat project must not be subject to a moratorium at the time of the application. A repeat project will follow the same process as a new project.

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM WORKSHEET

WORKSHEET 1 - Minimum Threshold Determination

Roadway Segment Being Considered: _____

- | | |
|--|--|
| 1. Roadway Type | Residential Collector _____ |
| | Local Access _____ |
| 2. Weekday 24-hour traffic volume, both directions | _____ |
| 3. Posted regulatory or unposted statutory speed limit (mph) | _____ |
| 4. 85 th percentile speeds (mph) and directions of travel | _____ |
| 5. Is weekday 24-hour traffic volume greater than 500,
or, is there 20% or greater cut-through volume? | Yes _____ Go to 6
No _____ Go to 9 |
| 6. Is 85 th percentile speed 5 mph or more over the speed limit? | Yes _____ Go to 10
No _____ Go to 7 |
| 7. Is a school, park, trail crossing, recreation center/clubhouse
or other public facility present along or adjacent to the roadway? | Yes _____ Go to 8
No _____ Go to 9 |
| 8. If "yes" to Question #7 above, is 85 th percentile speed
3 mph or more over the speed limit? | Yes _____ Go to 10
No _____ Go to 9 |
| 9. Are there three or more traffic crashes that could be subject to correction that have
occurred within a 12-month period during the previous 36 months? | Yes _____ Go to 10
No _____ Go to 11 |
| 10. YES _____ | This roadway IS ELIGIBLE for the Neighborhood Traffic Management Program |
| 11. NO _____ | This roadway IS NOT ELIGIBLE for the Neighborhood Traffic Management Program |

APPENDIX A

Traffic Calming Toolbox Device or Treatment Examples

For location of existing traffic calming devices installed in the City of Centennial through previous NTMP processes, see the map on the City's website.

- Neighborhood Education Programs
- Speed Limit Signing
- Restricted Movement Signing
- Enhanced At-Grade Pedestrian Crossing
- Striping/Visual Narrowing
- Traditional Speed Enforcement
- Entry Islands
- Entrance Barrier
- Speed Cushions
- Raised Pedestrian Crossing
- Curb Extensions
- Medians
- Roundabouts
- Restricted Movement Barrier
- Curvilinear Street
- Realigned Intersection
- Electronic Speed Feedback Signs
- Additional devices or treatments current with the state of the traffic engineering and calming practice not explicitly listed here..