

City of Hayward Neighborhood Traffic Calming Program Summary



September 2016



This summary provides key information you need
to get a full understanding of Hayward's
Neighborhood Traffic Calming Program (NTCP)

Angled parking and corner bulbouts at B Street and Mission Boulevard



This page intentionally left blank.

TABLE OF CONTENTS

What is NTCP?	1
Decision Making Flow Charts.	5
List of Measures & Details	8
Petition & Application	25

Traffic circle at Orchard Avenue and Joyce Street



This page intentionally left blank.



High visibility crosswalk on B Street

WHAT IS NTCP?

The City of Hayward has developed its first comprehensive Neighborhood Traffic Calming Program that will provide a well-defined toolkit to utilize the most proper and effective solutions with community outreach and collaboration. This document is developed as a guide for the City Staff, elected officials and residents to become acclimated to the policies and procedures for successful implementation of traffic calming solutions that will benefit Hayward residents and businesses with a variety of traffic safety related concerns.

Traffic calming involves strategies and solutions that may reduce vehicular speeds and cut through traffic; improve safety for all users, and enhance quality of life for residents in City's the neighborhoods. The Program will benefit the City in various perspectives, including:

- Improve driver attention and awareness, and attempt to change driving behavior that brings long term benefits
- Enhance safety for all users – auto, transit, bicyclists, and pedestrians
- Encourage non-auto modes of transportation such as walking and bicycling
- Encourage citizen involvement with neighborhood traffic management in the City
- Provide a fair and consistent process to address public concerns about speeding
- Enhance livability of residential neighborhoods

THE FOUR E'S

The Program explores traffic calming strategies and solutions in the four categories – Education, Empowerment, Enforcement, and Engineering.

- **Education** – Strategies and solutions through a variety of educational events and materials to convey the importance of neighborhood traffic safety, such as the Street Smart Program.
- **Empowerment** – Strategies involve community members to take initiative in solving traffic related problems.
- **Enforcement** – Solutions involve compliance of traffic regulation and enforcing violated traffic activities.
- **Engineering** – Physical improvements on street configurations, signage improvements, and other special treatments.



Speed lumps on Belmont Avenue.

THE THREE TIERS

The traffic calming solutions are presented in three Tiers:

- **Tier I** – Low-cost improvements that require little or no engineering design and construction.
- **Tier II** – Improvements that require some engineering analysis, design, and construction.
- **Tier III** – Requires extensive analysis, design, community outreach, and funding.

Detailed traffic calming measures and their evaluation thresholds are provided in this document starting from **Page 5**.

ROLES AND RESPONSIBILITIES

The City

The City is responsible for maintaining a transportation system that provides safe access for various travel modes. The City's Public Works - Engineering and Transportation Department will continue to accept traffic related concerns from the community and utilize the most appropriate approaches identified in this document.

The Community

The Community acts as the informant to the City, sharing any traffic related issues and concerns that negatively affect their safety, comfort, and livability. To make this program successful, it is important that the community becomes more engaged in understanding the traffic calming issues and identifying solutions that are beneficial to the community, without negatively impacting other neighborhoods within the City.

IDENTIFICATION OF SOLUTIONS

Public Works staff identifies all potential solutions upon receipt of a complaint. The problem is filtered by severity into one of the three available tiers of solutions (Tier I, Tier II or Tier III). The screening process is the first step for any traffic safety concern, as it will determine what types of strategies are available to remedy the problem and the level of community engagement.

The easily addressed and simple solutions are included in Tier I, where solutions are low-cost and do not require extensive data collection, analysis, design or community engagement. Tier II and III strategies are implemented where Tier I solutions are not likely to be effective. Such strategies require additional data collection, engineering analysis, design, community engagement, petitions, etc. Typically, Tier II and III solutions require much higher staffing resources and funding, and take longer from project inception to completion. Such solutions may also provide benefits that last for longer duration than most Tier I improvements.



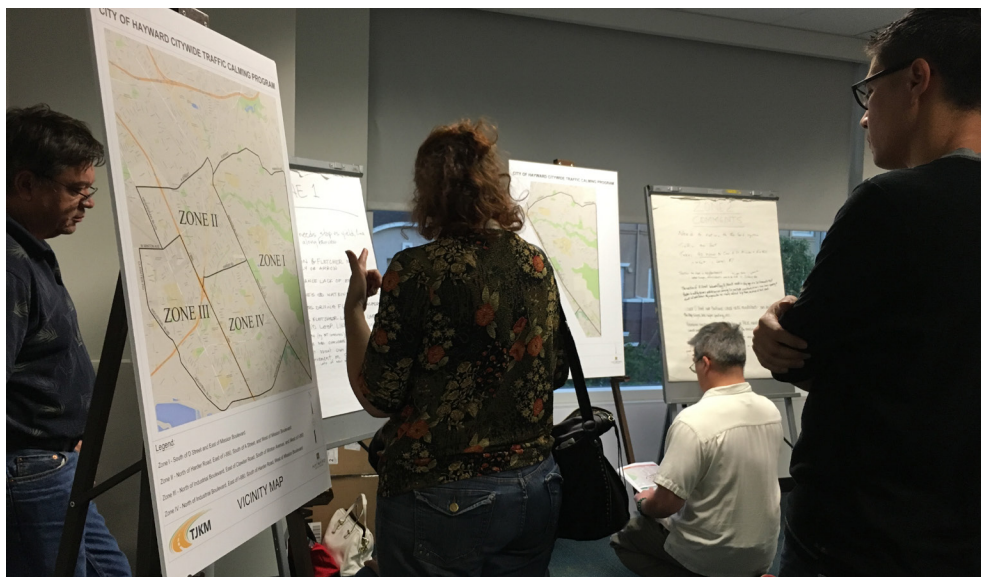
Corner bulbouts on Dixon Street and Valle Vista Avenue.

City of Hayward Neighborhood Traffic Calming Program Summary

COMMUNITY ENGAGEMENT AND SUPPORT

A complete petition process is developed to standardize traffic calming implementation procedures to make City's long-term administration efficient and systematic.

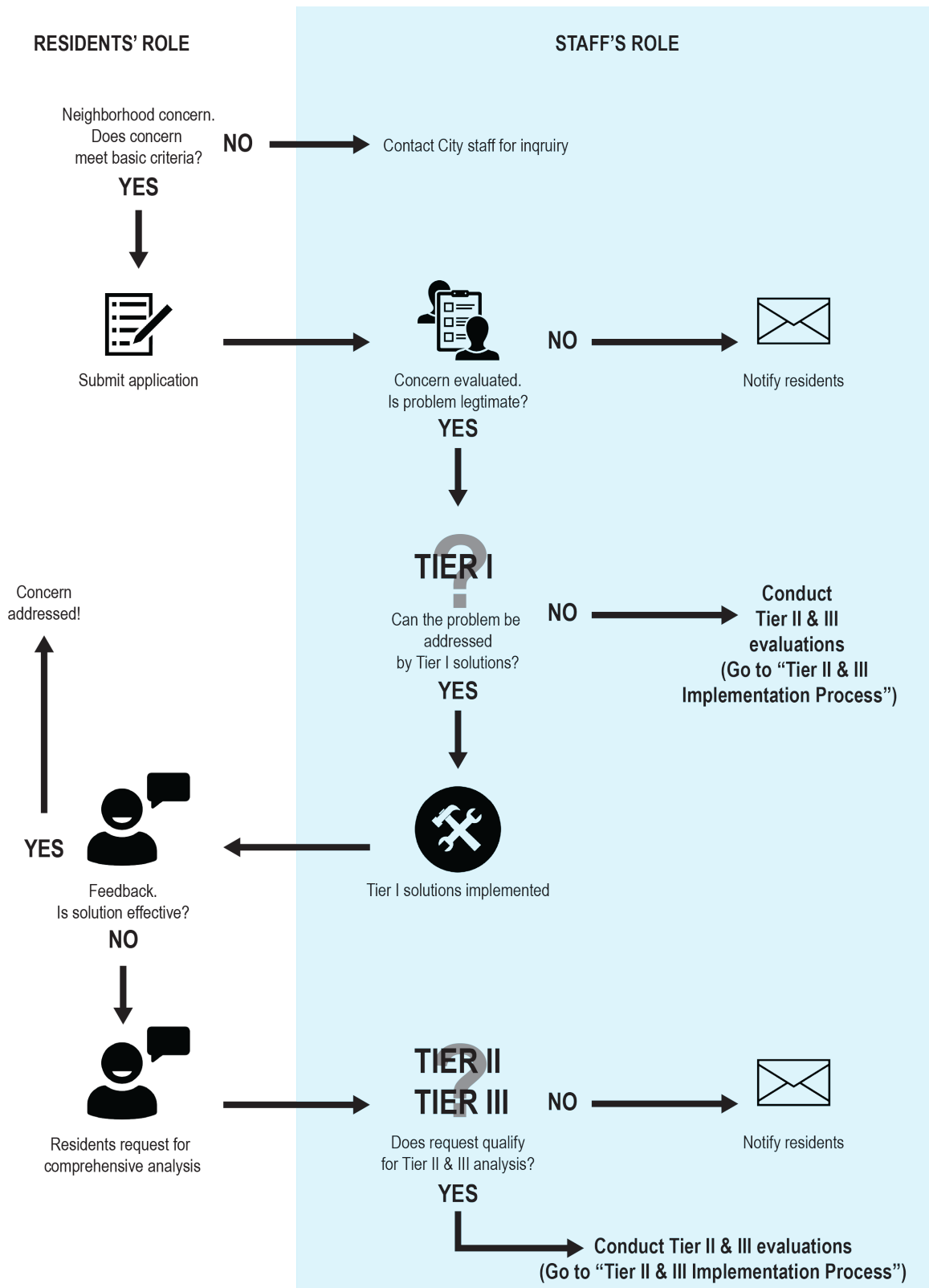
Initial Application and Petition Forms are attached in this document. An Initial Application is required prior to beginning any evaluation. This will assure that the problem being addressed is not just a "perceived" problem by one individual; it is a concern commonly shared by a few residents. The Initial Application will result in follow up evaluation, studies and identification of solutions through community engagement. Once a solution is identified, a formal petition process may be required for any Tier II or Tier III improvements. The following flow charts illustrate roles and actions to be taken if any concern is raised from the community.



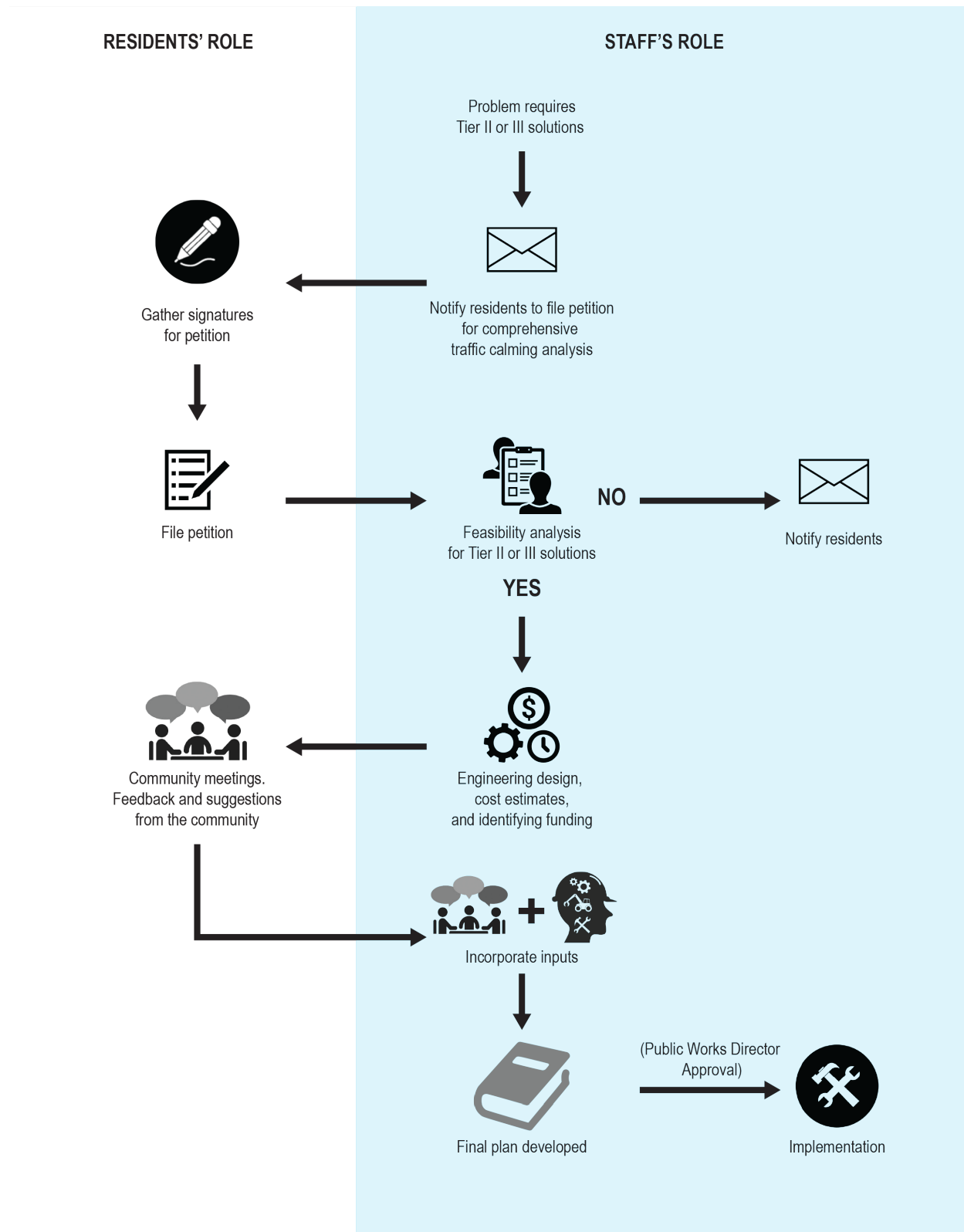
DECISION MAKING FLOW CHARTS

The decision making flow charts demonstrate how a traffic safety concern is notified to the City staff and how the staff and the community play their roles in improving traffic safety and enhancing quality of living in their neighborhoods.

NTCP DECISION MAKING PROCESS (TIER I)



NTCP DECISION MAKING PROCESS (TIER II AND III)



LIST OF MEASURES & DETAILS

This section summarizes the list of feasible traffic calming solutions for the Hayward neighborhoods, as well as illustrations that provide conceptual idea of each measure.



Regular Flashing Beacon on Second Street.

TRAFFIC CALMING MEASURES AND CRITERIA

#	Types of Measures	Type of Problem					Residential			Non-Residential		Roadway Classification		Bus or Emergency Response Route	Other Considerations	Approximate Cost
		Speeding	Traffic Volume	Vehicle Accidents	Pedestrian Safety	Noise	Midblock	Intersection	Boundary of Area	Midblock	Intersection	Local Streets	Collectors			
TIER I	1.1 Edgeline/Centerline Striping	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph; Street width ≥ 15 feet	ADT < 10,000; Speed Limit ≤ 35 mph; Street width ≥ 15 feet	<div></div>	None	\$0.50 - \$1.00 per linear foot of striping
	1.2 Targeted Speed Enforcement	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$5,000 - \$15,000
	1.3 Speed Legends	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$250 - \$ 500
	1.4 Signage	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$250 - \$500
	1.5 Botts Dots / Raised Reflectors	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$1,500 - \$2,000
	1.6 High Visibility Crosswalks	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$3.00 - \$4.50 per linear foot of striping
TIER II	2.1 Increased Patrol and Warning/Citations	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	Varies
	2.2 Speed Feedback Signs	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$5,000 - \$15,000
	2.3 Flashing Beacons	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph	ADT < 10,000; Speed Limit ≤ 35 mph	<div></div>	None	\$15,000 - \$25,000
	2.4 Road Diet	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Width ≥ 48 feet; Speed Limit ≤ 35 mph	ADT < 10,000; Width ≥ 48 feet; Speed Limit ≤ 35 mph	<div></div>	None	Varies
	2.5 Angled Parking	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 3,200; Width ≥ 48 feet; Speed Limit ≤ 35 mph	ADT < 4,000; Width ≥ 48 feet; Speed Limit ≤ 35 mph	<div></div>	Not with bike lanes	Varies
TIER III	3.1 Pace Car Program	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	Petition Process	Petition Process	<div></div>	None	Varies
	3.2 Bulbouts	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 16,000; Speed Limit ≤ 35 mph	ADT < 20,000; Speed Limit ≤ 35 mph	<div></div>	None	≥ \$50,000 per intersection
	3.3 Two-Lane Chokers	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 16,000; Speed Limit ≤ 35 mph; Length ≥ 1,500 feet	ADT < 20,000; Speed Limit ≤ 35 mph; Length ≥ 1,500 feet	<div></div>	None	\$25,000 - \$50,000
	3.4 Center Island Narrowing/Pedestrian Refuges	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 16,000; Speed Limit ≤ 35 mph	ADT < 20,000; Speed Limit ≤ 35 mph	<div></div>	None	Varies
	3.5 Traffic Circles	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 6,000; Speed Limit ≤ 35 mph	ADT < 7,500; Speed Limit ≤ 35 mph	<div></div>	Grade ≤ 8%	≥ \$25,000
	3.6 Roundabouts (Single-Lane)	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 16,000; Speed Limit ≤ 45 mph	ADT < 20,000; Speed Limit ≤ 45 mph	<div></div>	Grade ≤ 6%	≥ \$50,000
	3.7 Lateral Shifts	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 8,000; Speed Limit ≤ 35 mph; Street width ≥ 15 feet	ADT < 10,000; Speed Limit ≤ 35 mph; Street width ≥ 15 feet	<div></div>	Grade ≤ 10%	Varies
	3.8 Chicanes	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 4,000; Speed Limit ≤ 35 mph; Length ≥ 1,500 feet; Street width ≥ 15 feet	ADT < 5,000; Speed Limit ≤ 35 mph; Length ≥ 1,500 feet; Street width ≥ 15 feet	<div></div>	Grade ≤ 8%	\$25,000 - \$50,000
	3.9 Speed Lumps	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 3,200; Speed Limit ≤ 25 mph;	ADT < 4,000; Speed Limit ≤ 25 mph;	<div></div>	Grade ≤ 8%	\$7,000 - \$10,000 per location
	3.10 Raised Crosswalks	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 6,000; Speed Limit ≤ 35 mph	ADT < 7,500; Speed Limit ≤ 35 mph	<div></div>	Grade ≤ 8%	\$10,000 - \$20,000
	3.11 Raised Intersections	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 6,000; Speed Limit ≤ 35 mph	ADT < 7,500; Speed Limit ≤ 35 mph	<div></div>	Grade ≤ 8%	≥ \$50,000 will vary
	3.12 Diagonal Diverters	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 5,000; > 25% non-local traffic	<div></div>	<div></div>	None	25000
	3.13 Partial Closures	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 5,000; > 25% non-local traffic	<div></div>	<div></div>	None	≥ \$25,000
	3.14 Full Closures	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 5,000; > 25% non-local traffic	<div></div>	<div></div>	None	≥ \$25,000
	3.15 Forced Turn Islands	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	ADT < 4,000; > 25% non-local traffic	ADT < 5,000; > 25% non-local traffic	<div></div>	None	25000

LEGEND:



Appropriate



May be considered



Not Appropriate



Not Applicable

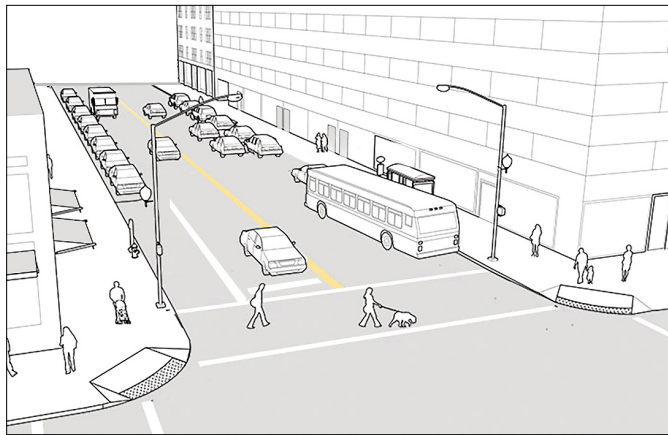


This page intentionally left blank.

EDGE/CENTERLINE STRIPING

TIER I

Edge/Centerline striping creates narrowed roadways to slow vehicle speeds.



Suitable for:

- Residential streets
- Collector streets

Not Suitable for:

- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. • Street width greater than or equal to 15 feet. 	\$0.50 - \$1.00 per linear foot of striping	City's discretion to approve, provided that criteria are met.

TARGETED SPEED ENFORCEMENT

TIER I

A portable speed feedback sign setup on-street to alert drivers to vehicle speeds.



Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns
- High pedestrian activity areas

Not Suitable for:

- Intersections
- Significant roadway curvature

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$5,000 - \$15,000	City's discretion to approve, provided that criteria are met.

SPEED LEGENDS

TIER I

Speed legends are used to inform drivers of the current speed limit.



Suitable for:

- Residential streets
- Collector streets

Not Suitable for:

- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$250 - \$ 500	City's discretion to approve, provided that criteria are met.

SIGNAGE

TIER I

Signage improves awareness to speed limits, pedestrian crossings, and other potential hazards.



Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns
- High pedestrian activity areas
- Significant roadway curvature

Not Suitable for:

- Intersections

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$250 - \$500	City's discretion to approve, provided that criteria are met.

BOTTS DOTS/RAISED REFLECTORS

TIER I

Botts dots provide tactile feedback to drivers moving across travel lanes or approaching intersections.



Suitable for:

- School zones
- Residential streets
- Collector streets
- T-intersections

Not Suitable for:

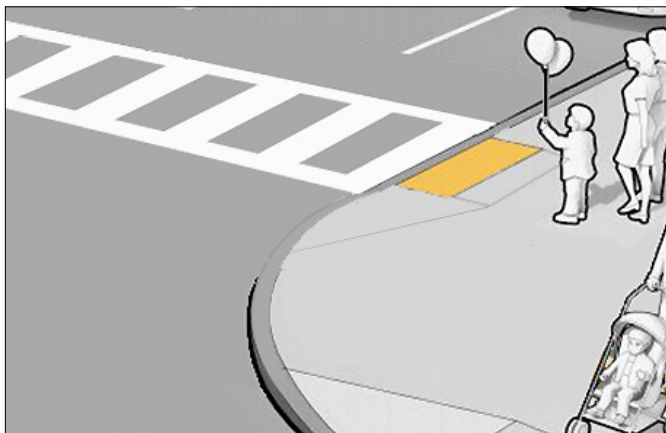
- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$1,500 - \$2,000	60% residents need to approve

HIGH VISIBILITY CROSSWALKS

TIER I

Ladder markings and defined crosswalk widths heighten awareness of pedestrian crossings.



Suitable for:

- School zones
- Residential streets
- Collector streets
- Arterial streets
- Mid-block crossings
- Intersection crosswalks
- High pedestrian activity areas

Not Suitable for:

- Low pedestrian volume locations

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$3.00 - \$4.50 per linear foot of striping	City's discretion to approve, provided that criteria are met.

INCREASED PATROL AND WARNING/CITATIONS TIER II

Increased patrol and warning/citations can effectively reduce speeding and inappropriate driving.



Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns

Not Suitable for:

- N/A

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph 	Varies	City's discretion to approve, provided that criteria are met.

SPEED FEEDBACK SIGNS

TIER II

Speed feedback signs are permanently installed to alert drivers of their speeds versus posted limits.



Suitable for:

- School zones
- Residential streets
- Collector streets
- Arterial streets
- Locations with speeding concerns
- High pedestrian activity areas

Not Suitable for:

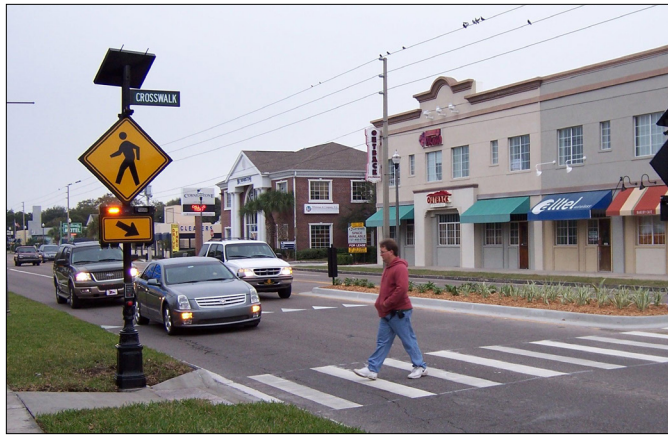
- Intersections
- Significant roadway curvature

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$5,000 - \$15,000	City's discretion to approve, provided that criteria are met.

FLASHING BEACONS

TIER II

Flashing beacons warn drivers of pedestrians at an uncontrolled crossing.



Suitable for:

- School Zones
- Mixed-use areas
- Residential streets
- Collector streets

Not Suitable for:

- N/A

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. 	\$15,000 - \$25,000	City's discretion to approve, provided that criteria are met.

ROAD DIET

TIER II

A road diet reduces the number of travel lanes to accommodate other modes and slow vehicle speeds.



Suitable for:

- Wide residential streets
- Collector streets
- Downtown areas
- High pedestrian activity area
- High bicycle traffic
- Locations with speeding concerns

Not Suitable for:

- Narrow roadways

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Street width greater than or equal to 48 feet. • Speed limit below or equal to 35 mph 	Varies	City's discretion to approve, provided that criteria are met.

ANGLED PARKING

TIER II

Angled parking narrows travel lanes to slow vehicle speed and increases parking supply.



Suitable for:

- Downtown areas
- Commercial areas
- Mixed-Use areas
- Residential streets
- Collector streets

Not Suitable for:

- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 4,000. • Speed limit below or equal to 35 mph. • Street width greater than or equal to 48 feet. 	Varies	City's discretion to approve, provided that criteria are met.

PACE CAR PROGRAM

TIER III

A community-driven program focusing on raising awareness to speed reduction in the neighborhoods.



Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- High pedestrian activity areas

Not Suitable for:

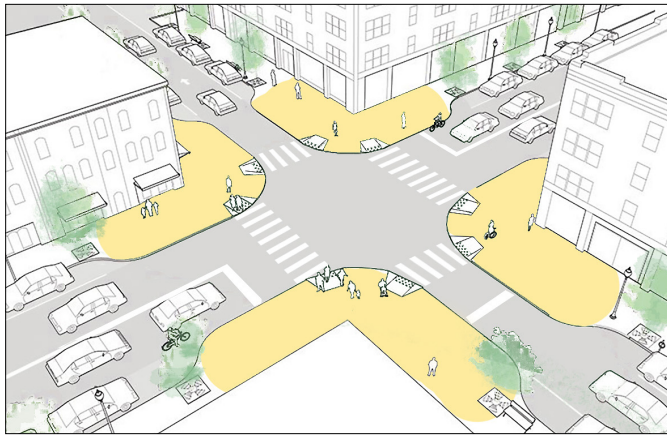
- Low pedestrian activity areas

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Petition Process 	Varies	City's discretion to approve, provided that criteria are met.

BULBOUTS

TIER III

Bulbouts are curb-extensions that slow vehicle speeds with the impression of a narrowed roadway.



Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- Arterial streets
- High pedestrian activity areas
- Long pedestrian crossing distances

Not Suitable for:

- Low pedestrian activity areas
- Narrow streets
- High truck volumes

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 20,000. • Speed limit below or equal to 35 mph. 	<p>≥ \$50,000 per intersection</p>	<p>City's discretion to approve, provided that criteria are met.</p>

TWO LANE CHOKERS

TIER III

Two lane chokers function similarly to bulbouts but at mid-block locations.



Suitable for:

- Wide streets
- High cut-through volumes

Not Suitable for:

- Emergency access routes
- High on-street parking demand
- High bicycle volumes

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 20,000. • Speed limit below or equal to 35 mph. • Street length greater than or equal to 1,500 feet. 	<p>\$25,000 - \$50,000</p>	<p>City's discretion to approve, provided that criteria are met.</p>

CENTER ISLAND NARROWING/PEDESTRIAN REFUGE TIER III

Concrete medians that define travel lanes and secure pedestrian right-of-way.



Suitable for:

- Wide residential streets
- Collector streets
- Mid-block crossings
- Long crossing distances
- High pedestrian activity areas
- Locations with speeding concerns

Not Suitable for:

- Narrow roadways

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 20,000. • Speed limit below or equal to 35 mph. 	Varies	City's discretion to approve, provided that criteria are met.

TRAFFIC CIRCLES TIER III

Traffic Circles require drivers to slowly maneuver through an intersection.



Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns
- High accident rate

Not Suitable for:

- Horizontal curvature
- Vertical curvature

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 7,500. • Speed limit below or equal to 35 mph. 	≥ \$25,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

ROUNDBABOUTS (SINGLE LANE)

TIER III

Roundabouts require drivers to slowly maneuver through an intersection operating with yield control.



Suitable for:

- Collector streets
- Arterial streets
- Locations with speeding concerns
- High accident rate

Not Suitable for:

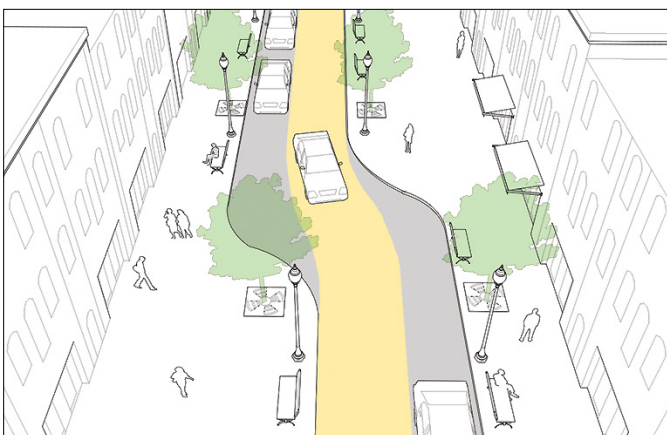
- Horizontal curvature
- Vertical curvature

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 20,000. • Speed limit below or equal to 45 mph. 	≥ \$50,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

LATERAL SHIFTS

TIER III

Lateral shifts force drivers to make slight maneuvers, resulting in slower vehicle speeds.



Suitable for:

- Residential streets
- Collector streets
- Arterial Streets
- Locations with speeding concerns

Not Suitable for:

- High vehicle volumes

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 10,000. • Speed limit below or equal to 35 mph. • Street width greater than or equal to 15 feet. 	Varies	60% residents need to approve + City's discretion to approve, provided that criteria are met.

CHICANES

TIER III

Chicanes functions similarly to lateral shifts and require less roadway reconfigurations.



Suitable for:

- Wide residential streets
- Wide Collector streets

Not Suitable for:

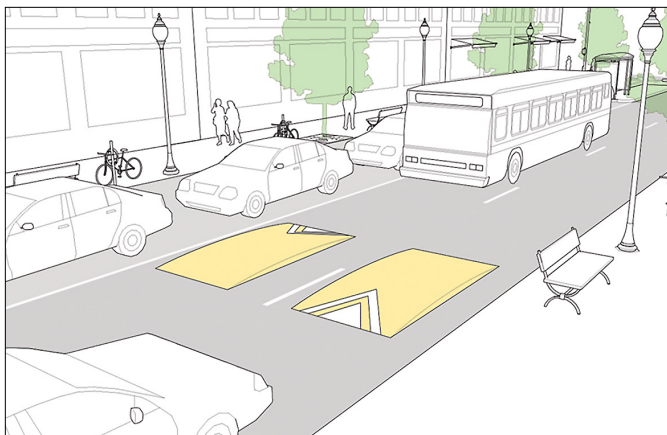
- Arterial streets
- Emergency access routes
- High on-street parking demand
- High bicycle traffic

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 5,000. • Speed limit below or equal to 35 mph. • Street length greater than or equal to 1,500 feet. • Street width greater than or equal to 15 feet. 	\$25,000 - \$50,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

SPEED LUMPS

TIER III

Speed lumps slow driver speeds with vertical roadway deflections.



Suitable for:

- Residential streets
- Persistent speeding
- High cut-through volumes

Not Suitable for:

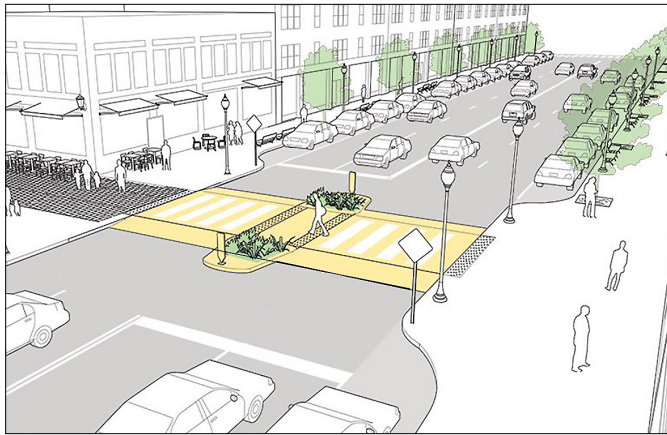
- Collector streets
- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 4,000. • Speed limit below or equal to 25 mph. 	\$7,000 - \$10,000 per location	60% residents need to approve + City's discretion to approve, provided that criteria are met.

RAISED CROSSWALKS

TIER III

Raised crosswalks slow driver speeds with vertical deflections and emphasis of pedestrian right-of-way.



Suitable for:

- School zones
- Residential streets
- Mid-block crossings
- High pedestrian activity areas

Not Suitable for:

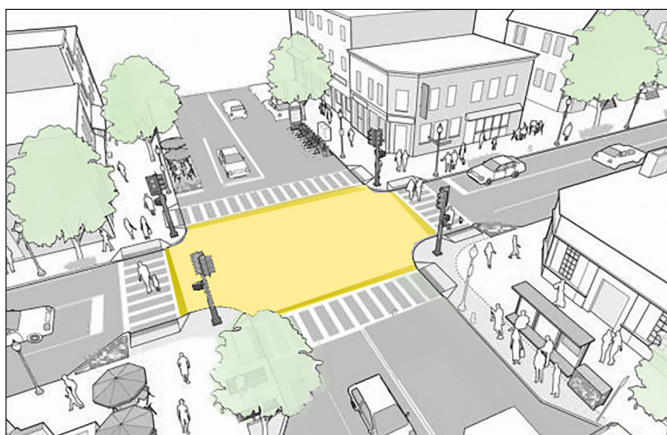
- Arterial streets
- Intersections

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 7,500. • Speed limit below or equal to 35 mph. • Grade below or equal to 8 percent. 	\$10,000 - \$20,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

RAISED INTERSECTIONS

TIER III

Raised intersections slow drivers speed by emphasizing a "shared zone" with pedestrians and bicyclists.



Suitable for:

- Downtown areas
- High pedestrian activity areas
- High vehicle speeds

Not Suitable for:

- Residential streets
- Collector streets
- Arterial streets

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 7,500. • Speed limit below or equal to 35 mph. 	≥ \$50,000 will vary	60% residents need to approve + City's discretion to approve, provided that criteria are met.

DIAGONAL DIVERTERS

TIER III

Diagonal diverters reduce traffic entering neighborhoods by permanently detouring certain routes.



Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 5,000. • Greater than 25% non-local traffic. 	\$25,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

PARTIAL CLOSURES

TIER III

Partial closures reduce traffic entering neighborhoods by permanently restricting one direction of traffic.



Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 5,000. • Greater than 25% non-local traffic. 	\geq \$25,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

FULL CLOSURES

TIER III

Full closures reduce traffic entering neighborhoods by permanently restricting vehicular access.



Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 5,000. • Greater than 25% non-local traffic. 	≥ \$25,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

FORCED TURN ISLANDS

TIER III

Raised concrete islands separate turning traffic from through traffic when approaching an intersection.



Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns
- Limited access desired

Not Suitable for:

- N/A

Implementation Threshold	Approximate Cost	Approval
<ul style="list-style-type: none"> • Average Daily Traffic Volumes below 5,000. • Greater than 25% non-local traffic. 	\$25,000	60% residents need to approve + City's discretion to approve, provided that criteria are met.

PRIORITIZATION

Limited funds available to address the number of requests received by the City staff, far exceeds what can realistically be funded in a given year. Establishing a project priority list is essential to allocating resources more effectively. To develop a prioritization list, the NTCP proposes to incorporate an established process that places emphasis on speeds, accidents, volumes, schools, and pedestrian generators pertinent to traffic calming. With this process in place, the City will look to first fund those projects which are most critical to public safety. The proposed process and scoring criteria can be found below in the table.

Criteria		Point Definitions	Points Available
Primary	85th percentile speed	2 points for every 1 MPH above the posted speed limit (85th percentile speed must be at least 5 MPH over the posted speed limit to be considered for traffic calming)	30
	Crash History	3 points for each preventable crash within the last three years	30
Secondary	Vicinity to Schools	7.5 points per school if street fronts or provides access to a school, or if street is a designated Safe Route to School	15
	Pedestrian Generators	10 points if location is within 1,000 feet of a major transit access point or a civic facility; or peak hour pedestrian volume at any adjacent intersections exceeds 100	10
	Traffic Volumes	1 point for 0 – 500 average daily traffic 2 points for 501 – 1,000 average daily traffic 3 points for 1,001 – 1,500 average daily traffic 4 points for 1,501 – 2,000 average daily traffic 5 points for > 2,000 average daily traffic	5
	Cut-through Traffic	2 points if at least 25% of traffic volume is cut-through; 1 points for each additional 5% (Up to 40% max)	5
	Additional Concerns	1 point if visibility restrictions result from roadway geometry; 1 point if segment is a designated Bike Route or pedestrian corridor; 1 point if street has no sidewalks; 1 point if segment is > 1,000 feet in length; 1 point if segment is > 40 feet in width	5
Total			100

PETITION & APPLICATION

A petition and application is included in this section. For more information please visit our website at www.hayward-ca.gov or contact City of Hayward Public Works at (510) 583-4781





Step 1: APPLICATION FOR EVALUATION NEIGHBORHOOD TRAFFIC CALMING PROGRAM

Primary Contact Information

_____ Name	_____ Email Address	_____ Phone Number
_____ Street Address		_____ Zip Code

Locations and Concerns

_____ Street Name	from	_____ Cross Street	to	_____ Cross Street
_____ Street Name	from	_____ Cross Street	to	_____ Cross Street
_____ Street Name	from	_____ Cross Street	to	_____ Cross Street

Types of Concerns (Select all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Excessive Traffic | <input type="checkbox"/> Speeding | <input type="checkbox"/> Illegal Parking |
| <input type="checkbox"/> Cut-through Traffic | <input type="checkbox"/> Limited Visibility | |
| <input type="checkbox"/> Other concerns: _____ | | |

Please provide more detailed information about your concerns in this area:

*The City staff will evaluate the existing conditions and develop solutions as necessary. The goal of the Neighborhood Traffic Calming Program is to maintain effective traffic operations and enhance neighborhood safety.

Neighborhood Support

To initiate an evaluation for traffic calming, you must obtain signatures from at least 20 percent of the property owners within the block/blocks where traffic calming evaluation is being requested. For example, if there are 20 addresses in the block, at least four signatures must be collected. If needed, please use an additional sheet of paper to collect more signatures. For more information, please visit www.hayward-ca.gov/NTCP, email at NTCP@hayward-ca.gov, or call (510) 583-4781. The Engineering & Transportation staff will review and respond to your inquiries in a timely manner.

Print Name	Street Number / Street Name	Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Next Step

Submit the completed form via email to:

NTCP@hayward-ca.gov
Subject Line: "Traffic Calming
Application"

OR

Submit the completed form via mail to:

City of Hayward Public Works - Engineering &
Transportation
777 B Street, 2nd Floor, Hayward, CA 94541

This page intentionally left blank.



Step 2: PETITION FOR NEIGHBORHOOD TRAFFIC CALMING PROGRAM

The City staff has conducted an evaluation in response to the application submitted on _____ (mm/dd/yyyy).
The evaluation shows that the following traffic calming measures may improve traffic operations and enhance neighborhood safety:

Locations	Measures
_____ from _____ to _____ <i>Street Name</i> <i>Cross Street</i> <i>Cross Street</i>	_____
_____ from _____ to _____ <i>Street Name</i> <i>Cross Street</i> <i>Cross Street</i>	_____
_____ from _____ to _____ <i>Street Name</i> <i>Cross Street</i> <i>Cross Street</i>	_____

We, the undersigned, hereby petition the City of Hayward to proceed with the installation of these traffic calming measures on the listed locations. Include the Primary Contact signature in #1. **NOTE: Your signature on this petition form indicates you support for the above mentioned improvements in the neighborhood.**

#	Print Name	Street Number / Street Name	Signature
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____
10	_____	_____	_____
11	_____	_____	_____
12	_____	_____	_____
13	_____	_____	_____
14	_____	_____	_____
15	_____	_____	_____
16	_____	_____	_____
17	_____	_____	_____
18	_____	_____	_____
19	_____	_____	_____
20	_____	_____	_____

This page intentionally left blank.

