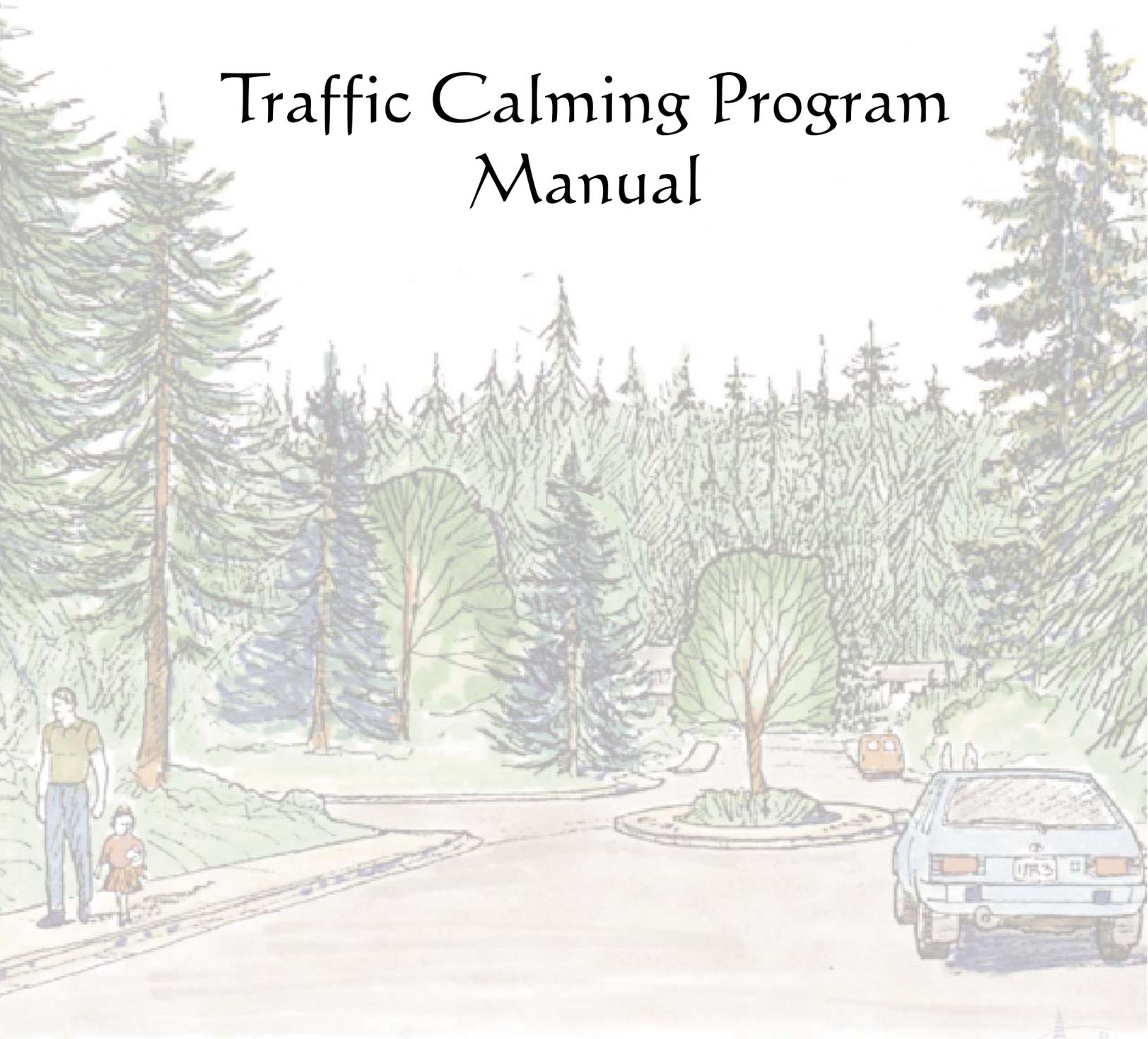


City of Bothell
Department of Public Works

Traffic Calming Program Manual



City of Bothell

Traffic Calming Program

.....
January 23, 2007

Traffic Calming

The Bothell Traffic Calming Program is developed to respond in a uniform manner to traffic related issues on local residential streets with Average Daily Traffic (ADT) of less than 3,000 vehicles and a posted speed limit of 25mph. It is the intent of the City to review this program every two years and modify the program as necessary to continue to respond to the needs of our neighborhoods.

While the Traffic Calming Program's focus is on local residential streets, many of the recommendations in the program can be utilized on arterial streets in residential areas. If improvements to arterial streets in residential areas are identified under this program, they need to be developed through the City's Capital Improvement Program.

Citizen involvement is an important part of all traffic calming projects. The people who live and work in the study area have the opportunity to become actively involved in the planning and decision-making process.

What is the Traffic Calming Program?

Bothell's Traffic Calming Program is part of the City's commitment to the safety and livability of our neighborhoods, and shall incorporate the goals, policies, and objectives of the City's Comprehensive Plan. It is a collaborative effort of City staff and local residents to reduce the impacts of traffic on local streets when traffic solutions are implemented. Through active participation by area residents, the City can identify the problem, plan the approach, implement the solutions, and evaluate the effectiveness. Traffic calming for residential areas is a concept that seeks harmony between automobiles and people.

The intent of this program is to **solve** the traffic problem where it exists, not **move** the problem to another local street.

What is Cut Through Traffic?

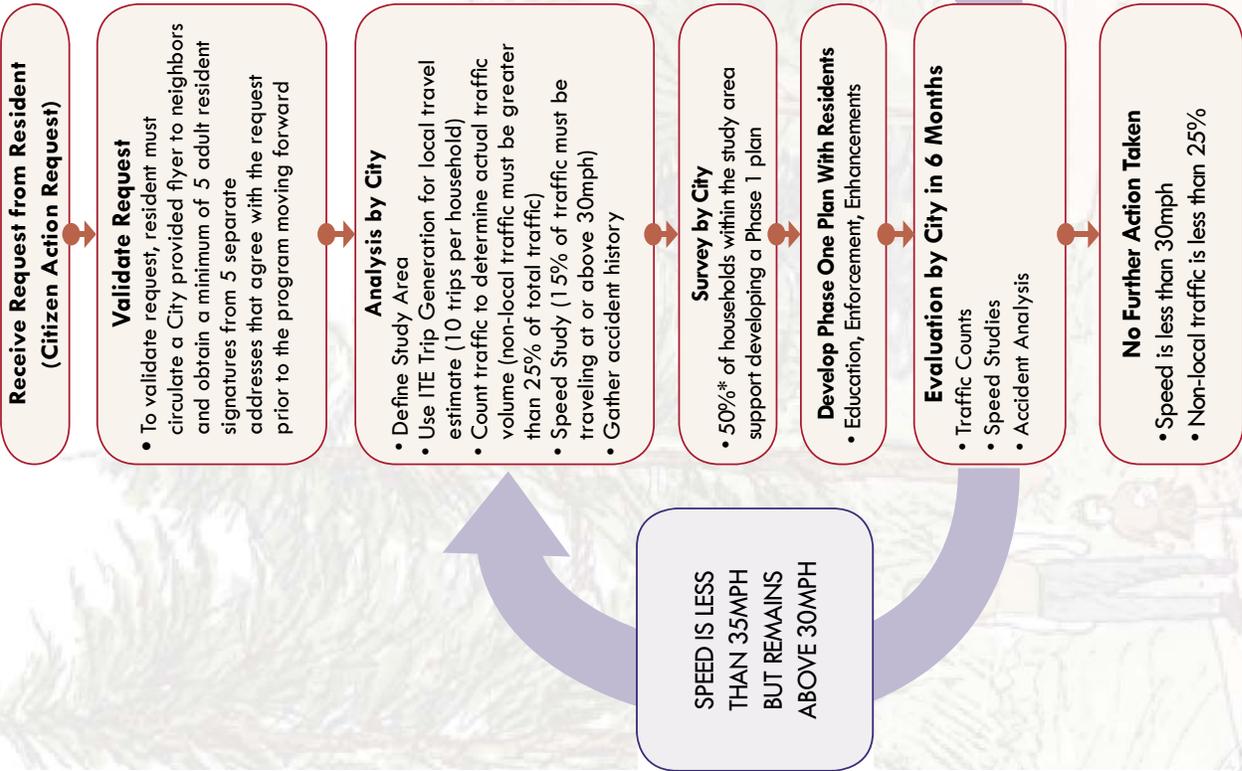
Cut through traffic is any traffic that doesn't have an origin or destination on the corridor or in the area being studied.

How does the program work?

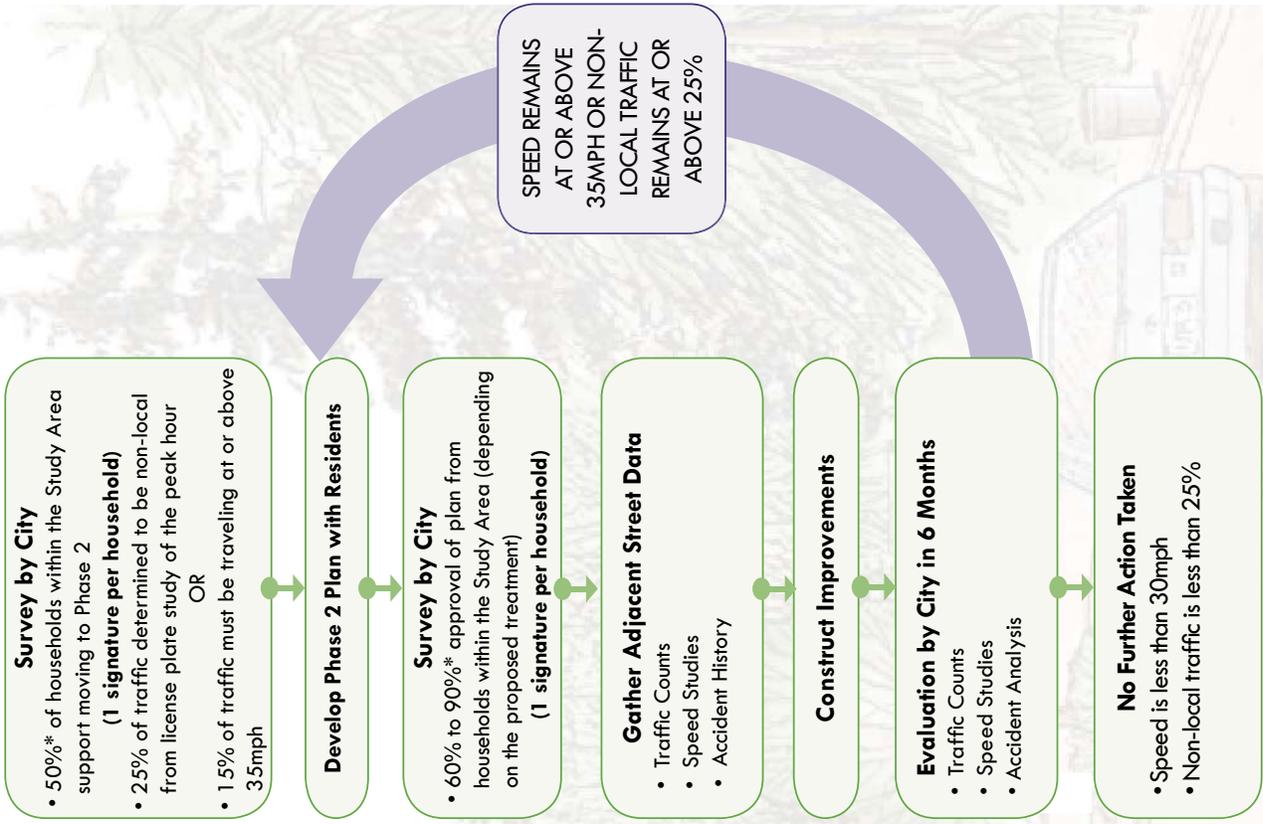
The program works in two phases. Phase I focuses on passive, less restrictive measures like educational programs, enforcement, pavement markings, and signage. Should the Phase I measures prove ineffective at reducing excessive speeds or traffic volumes within a given time frame, then we proceed to Phase II of the program, which includes more restrictive methods.

Traffic Calming Program

Phase 1

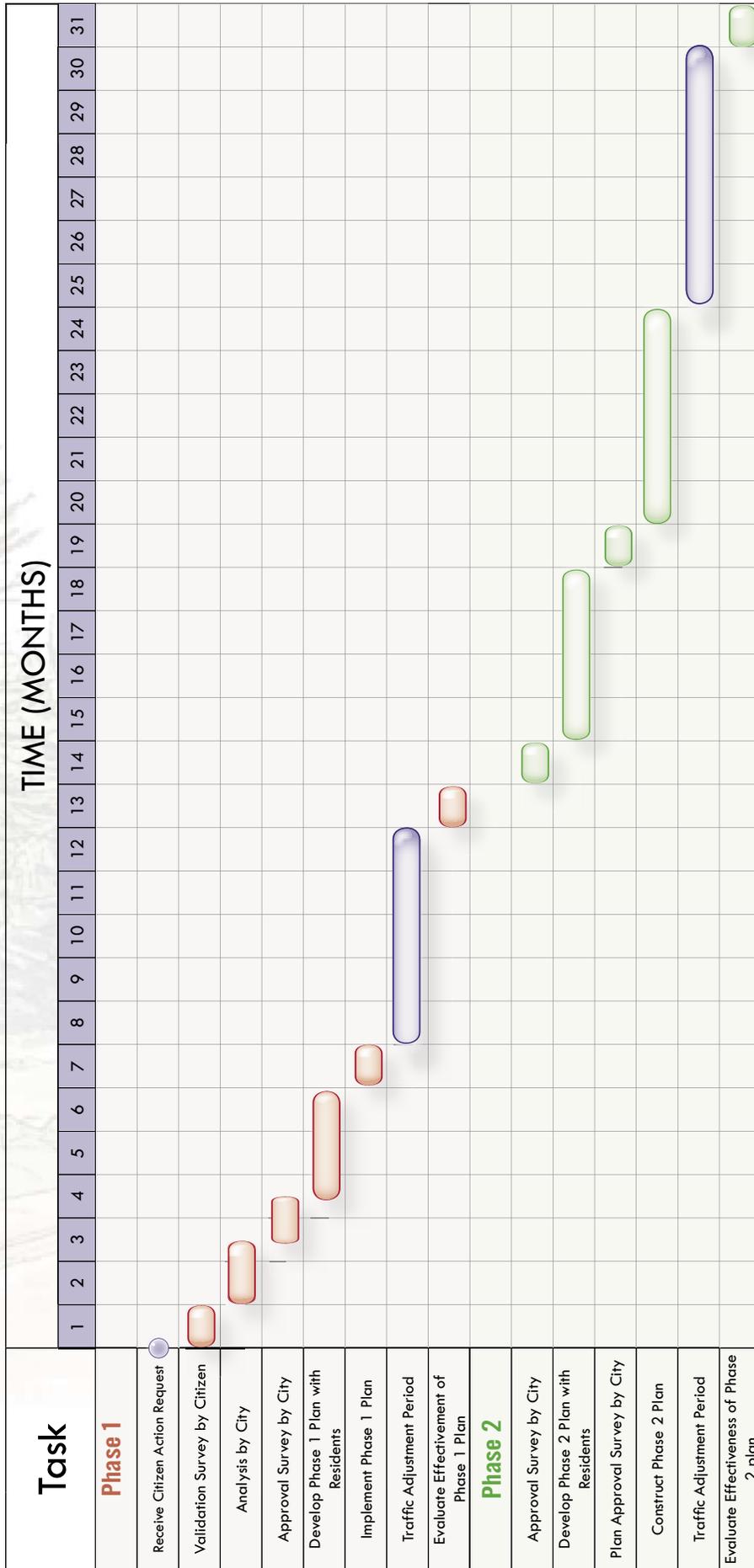


Phase 2



* Approval percentages are based on returned ballots only

Traffic Calming Program Typical Implementation Timeline



Phase I

Phase 1 of the Traffic Calming Program begins when a Citizen Action Request Form is submitted to the City by a resident.

Once this occurs, the City will prepare a Validation Flyer that outlines the requested action for circulation by the resident. A minimum of 5 adult resident signatures from 5 separate addresses showing their support for starting a Traffic Calming Program will be required prior to going forward with the program.

Once the flyer is returned to the City showing neighborhood support, the City will define the study area and collect data from speed studies, accident histories, and traffic counts. This information, along with insights and suggestions from area residents, will help to determine which of the Phase 1 solutions to recommend to improve safety on local streets.

STUDY AREA DEFINITION

The study area will be determined by City Staff and will be influenced by configuration of the street system in the area, travel routes for elementary schools or local parks, and potential alternative local street routes where traffic could move to. Factors that will be considered when defining the Study Area will include:

- Location of arterial streets
- Potential parallel local street routes
- School boundaries
- Subarea boundaries as defined in the City's Comprehensive Plan
- Location of local parks

Once the City defines the proposed study area, a notice will be mailed to all households extending 500 feet beyond the proposed study area boundary. The notice will describe the traffic calming concern, identify the proposed study area boundaries, and solicit input from the citizens. This step allows for refinement of the study area boundary based on citizen input prior to finalizing the boundary.

To Qualify for a Phase 1 plan, the following criteria must be met:

- EITHER -

15% of the traffic will be travelling at 30mph or higher

- OR -

25% of the traffic is determined to be non-local, based on ITE trip generation guidelines

- AND -

50%* of the households within the study area show support for developing a Phase 1 Plan

Resident volunteers will be available to attend meetings to help develop a plan

* Approval Percentages are based on returned ballots only

Phase I Solutions

Examples of Phase I actions include:

Traffic Safety Campaign

An informational letter is prepared by the City and mailed to residents within the study area. The letter explains traffic volumes and speed study results in your area. Recommended traffic calming measures, along with information about traffic laws, pedestrian and bicycle safety are included in the letter. The goal is to heighten traffic safety awareness within the neighborhood. Many of the inattentive drivers who cause the majority of the traffic problems likely live in the immediate area.

Signage

Posting appropriate traffic control signs is a Phase I solution. Signs may include speed limit, parking, dead-end, school signs, etc.

Pavement Markings

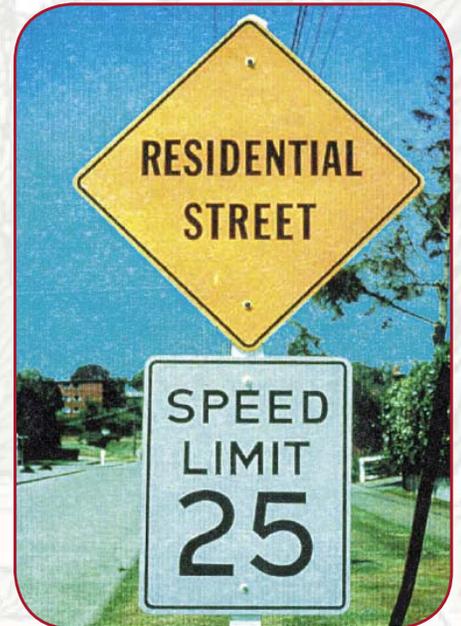
Painting legends and other markings on local streets can also be a Phase I solution. Pavement markings can include centerlines, fog lines, identification of school crossings, and speed limits.

Trimming Brush

Obscured lines of sight can create hazardous conditions. Sight distance can be improved when brush is trimmed and vegetation is cleared by homeowners or City crews.



Neighborhood Speed Reduction Program



Signs



Pavement Markings

Phase I

Target Police Enforcement

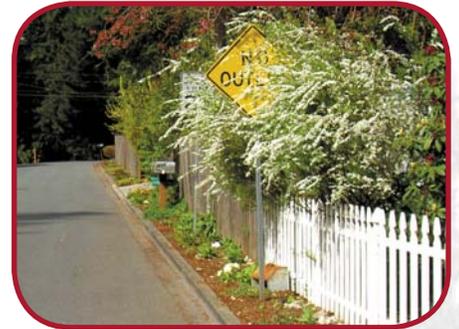
Increased enforcement by the Bothell Police Department's Traffic Division can be a part of a recommended Phase I solution.

Speed Watch Program

Bothell Police offer the Speed Watch Program. Residents who participate in the Speed Watch program are trained by police staff to use radar equipment to record vehicular speed. Records are turned over to Bothell Police, who contact by letter the registered owners of those vehicles found traveling at or above 30mph. These letters are not citations, but serve to remind drivers about the posted speed limit and the concern for community safety.

Radar Speed Trailer

A portable trailer equipped with a radar unit detects the speed of passing vehicles and displays it on a digital reader board. This device shows drivers their "actual" speed versus the posted speed limit. This information helps to promote compliance with the posted speed.



Sign Obscured by Bush



Police Radar



Radar Speed Trailer

Phase 2

Lack of progress in meeting the goals of traffic calming in the study area upon completion of the Phase 1 Plan may qualify your street for Phase 2 consideration.

Phase 2 begins approximately 9-12 months from the implementation of Phase 1 measures. We will again collect data on speed, accidents, and volume and compare it to the previously obtained information.

For your street to qualify for a Phase 2 Plan, the following criteria must be met:

- EITHER -

15% of the traffic must be traveling at or above 35mph

OR

25% of the traffic is determined to be non-local traffic, based on a license plate study of the Peak Hour

- AND -

50%* of the households within the study area show support for moving into a Phase 2 Plan

Resident volunteers will be available to attend meetings to help develop a plan

60% to 90%* (depending on the proposed treatment) of the households within the study area must approve the Phase 2 Plan before proceeding to construction

* Approval Percentages are based on returned ballots only

Possible Phase 2 Solutions

The concept upon which a Phase 2 Plan is developed is based on the use of more active physical treatments to address traffic calming concerns.

Examples of Phase 2 improvements include:

Curb Extensions

Curb Extensions are used to narrow the roadway and increase sight distance at selected locations along a street corridor.

Speed Cushions

A raised area of road, approximately 3 inches high and either 12 or 22 feet long, used to slow vehicles by forcing them to decelerate in order to pass over them comfortably.

Traffic Circles / Speed Dots

Traffic Circles are built in the center of intersections or at mid-block locations that slow traffic by forcing it to keep to the right and travel in a counter-clockwise direction in order to continue on their traveling path.

Medians

Medians are raised islands that separate the traffic lanes and narrow the travel path, causing the traffic to slow down.

Chicanes

Chicanes are curb extensions that alternate from one side of the street to the other, forming S-shaped curves causing traffic to slow down.



Curb Extension



Speed Cushion



Traffic Circle



Median



Chicane

Entry Treatments

Usually consisting of pavement treatments or medians, Entry Treatments can potentially not only provide substantial enhancement to the community entry point, but also reduce the speed of the traveling motorist.

Stationary Radar Signs

Similar to the Radar Speed Trailer, Stationary Radar Signs can be used to draw a driver's attention to their actual speed and the local speed limit. Since many people do not realize how fast they are traveling in residential neighborhoods, these devices are installed to alert motorists of their traveling speed.

Diverters

Diagonal diverters are barriers placed diagonally across an intersection, blocking through movements and creating two separate, L-shaped streets.

Turn Restrictions / Partial Closures

Partial Closures involve closing down one lane of a two lane roadway along with a "Do Not Enter" sign, in order to reduce cut through traffic.

Full Closures

Full Closures are exactly that, closing the whole road to prevent all cut through traffic. Sidewalks and bike lanes are kept open. Also, access for emergency vehicles will need to be provided at these locations. This is an extreme measure to be used only when all other measures have failed.



Entry Treatment



Radar Sign

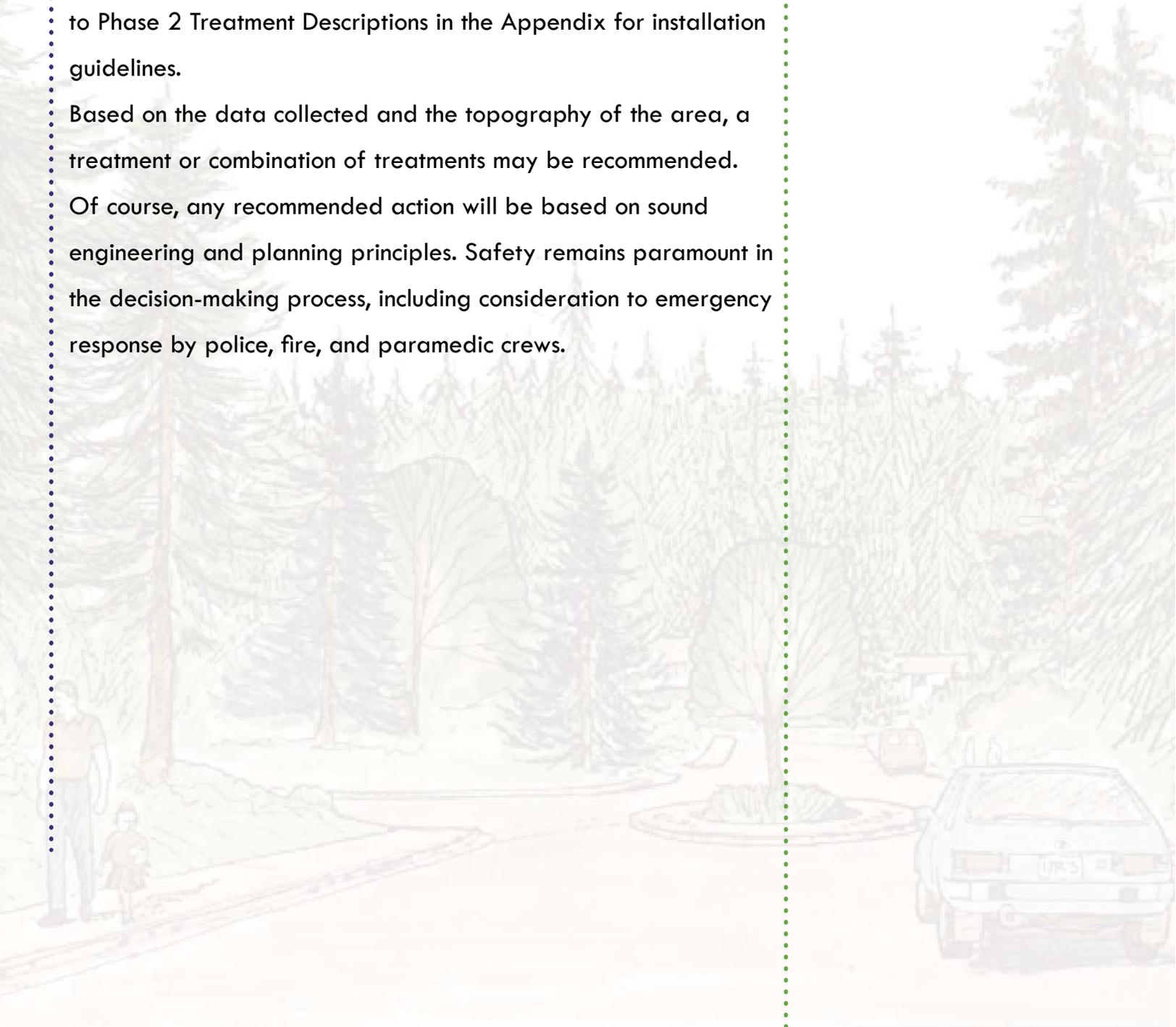


Partial Closure

Each of the treatments is unique, and specific guidelines have been established for when and where they may be used. Refer to Phase 2 Treatment Descriptions in the Appendix for installation guidelines.

Based on the data collected and the topography of the area, a treatment or combination of treatments may be recommended.

Of course, any recommended action will be based on sound engineering and planning principles. Safety remains paramount in the decision-making process, including consideration to emergency response by police, fire, and paramedic crews.



City of Bothell
TRAFFIC CALMING PROGRAM
City-Wide Traffic Calming Characteristics
Summary

	PHASE 1	PHASE 2
Qualification Requirements	<p style="text-align: center;">15% of traffic traveling at or above 30 MPH</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">25% of peak hour traffic is non-local</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">At least 50% of households are supportive of developing a Phase 1 plan (based on returned ballots)</p>	<p style="text-align: center;">15% of traffic traveling at or above 35 MPH</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">25% of peak hour traffic is non-local</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">At least 50% of households supportive of moving into Phase 2, (based on return ballots)</p>
Treatment Options	<ul style="list-style-type: none"> • Traffic Safety Campaign • Signage • Pavement Markings • Trimming Brush • Target Police Enforcement • Speed Watch Program • Radar Speed Trailer 	<ul style="list-style-type: none"> • Curb Extensions • Speed Cushions • Traffic Circles / Speed Dots • Medians • Chicanes • Entry Treatments • Stationary Radar Signs • Diverters • Turn Restrictions / Partial Closures • Full Closures

City of Bothell
TRAFFIC CALMING PROGRAM
Phase 2 Household Support
Summary

Requiring 60% Approval

- Curb Extensions
- Speed Cushions
- Traffic Circles/Speed Dots
- Medians
- Chicanes
- Entry Treatments
- Stationary Radar Signs

- Diverters*
- Turn Restrictions*
- Partial Closures*
- Full Closures*

* Also require 90% approval from households whose only access is provided by the street proposed for these treatments.

City of Bothell

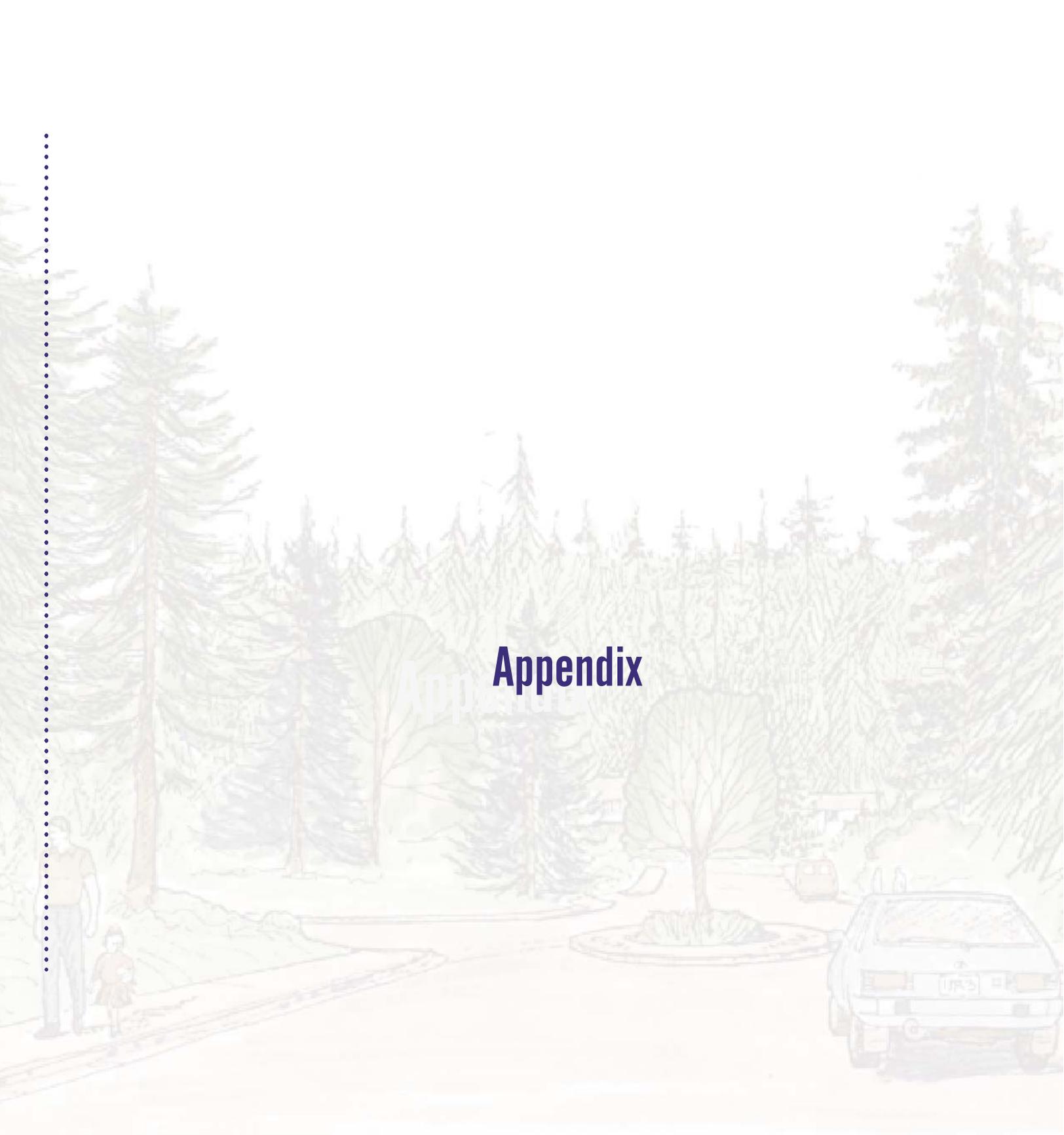
TRAFFIC CALMING PROGRAM

PROJECT PRIORITIZATION SCORING

(To be used when more than 1 Study Area
is under consideration for funding)

CRITERIA	POINTS
<u>Average Daily Traffic (ADT)</u> 501 - 1000 1001-2000 2001-3000	 1 2 3
<u>Traffic Speeds (85th Percentile)</u> 5-7 8-10 More than 10	 2 4 6
<u>Non-Local Traffic</u> 25%-49% 50%-74% More than 74%	 1 2 3
<u>Parks / Schools</u> Greater than 1/2 mile Between 1/4 and 1/2 mile Within 1/4 mile	 1 2 3
<u>Accident History (Accidents / Year)</u> 1 2 3 More than 3	 3 4 5 7
<u>Street Conditions</u> Sidewalks both sides Sidewalks on one side No sidewalks	 1 2 3

Note: A maximum of 25 points available



Appendix

Appendix

Traffic Calming - Citizen Action Request Form

Contact Name:

Address:

.....

City: Bothell State: WA Zip Code:

Daytime Phone:

E-mail Address:

Location of Concern:

.....

.....

What concerns do you have about the above location?

.....

.....

.....

Speeding

Pedestrian Safety

Accidents

Sight Distance

Traffic Volume

Other (Please describe above)

Return to:
City of Bothell
Attn: Traffic Engineering Division
18415 101st Ave NE
Bothell, WA 98011
425-806-6772
jamal.mahmoud@bothellwa.gov
www.bothellwa.gov



Sample Validation Flyer

We the Residents of _____, would like the City of Bothell to initiate a Comprehensive Traffic Calming Study in our neighborhood because of the following concerns:

- Speeding
- Cut-Through Traffic
- Commercial Vehicle Restriction

We understand that the Comprehensive Traffic Calming Study involves the active participation of our community. The decision making process requires us to hold neighborhood meetings and conduct petition member campaigns.

Please sign and return the form to:

City of Bothell
Attn: Traffic Engineering Division
18415 101st Ave NE
Bothell, WA 98011
425-806-6772
jamal.mahmoud@bothellwa.gov
www.bothellwa.gov

NOTE: One signature per household.

NEIGHBORHOOD REQUEST FOR COMPREHENSIVE TRAFFICE CALMING STUDY

Neighborhood/Street _____ Page ___ of ___

No.	Name	Address	Phone	Signature One Per Household
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				



PHASE 2
TREATMENT DESCRIPTIONS

Curb Extensions
Speed Cushions
Traffic Circles / Speed Dots
Medians
Chicanes
Entry Treatments
Stationary Radar Signs
Diverters
Turn Restrictions / Partial Closures
Full Closures

Curb Extensions

PHASE 2

APPLICATION

- At intersections to increase sight distance and narrow roadway
- Mid-block to narrow roadway and shorten pedestrian crossings

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
- OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Reduces pedestrians' crossing distance
- Narrowed lanes can slow vehicles
- May increase sight distance at intersections

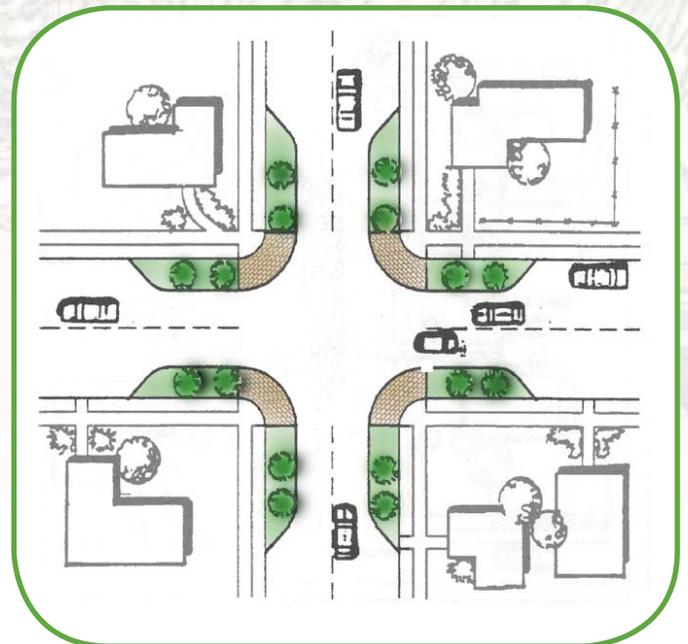
DISADVANTAGES

- May require removal of some on-street parking
- Effective curb extension design may limited marked bicycle lanes

SPECIAL CONSIDERATIONS

- Consideration of marked bicycle lanes and roadway widths
- Landscape Maintenance

COST - Moderate to High



Speed Cushions

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- Neighborhood streets where cut-through traffic is to be discouraged

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots
- Traffic volume is less than 2000 vehicles per day

ADVANTAGES

- Slows traffic - potentially 5-10mph decrease in the vicinity of the speed cushion
- May divert traffic if adjacent arterial street exists
- Self-enforcing

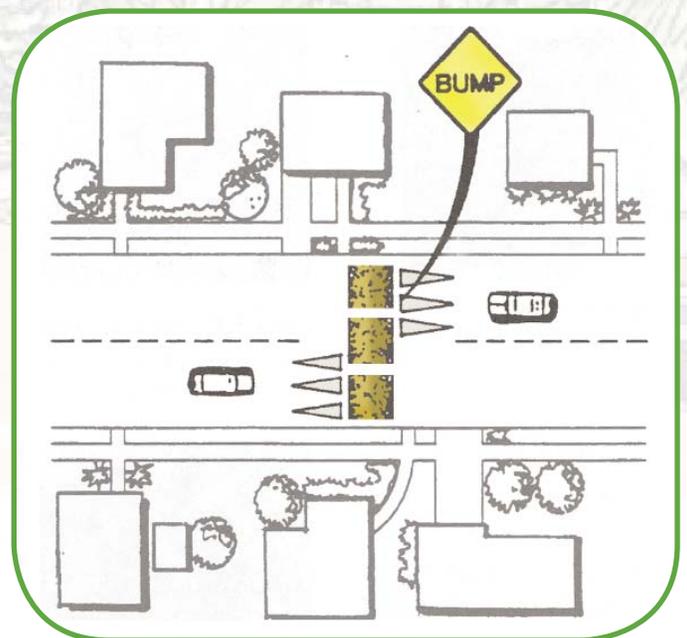
DISADVANTAGES

- May cause diversion of traffic to adjacent neighborhood streets
- Acceleration/deceleration noise adjacent to speed cushion

SPECIAL CONSIDERATIONS

- Adjacent to school zones or neighborhood parks
- Use of 22 foot design on higher volume roadways
- Minimum of two cushions per project site for speed control

COST - Low to Moderate



Traffic Circles / Speed Dots

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- Neighborhood intersections where right-angle accidents are occurring
- Mid Block Locations (Speed Dots)

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots
- Traffic volume is less than 2,000 vehicles per day

ADVANTAGES

- Slows traffic with potentially 5-8mph decrease
- May divert traffic if adjacent arterial street exists
- Opportunity for landscaping and beautification

DISADVANTAGES

- Emergency response delay between 1 and 9 seconds
- May cause diversion of traffic to adjacent neighborhood streets
- May require removal of some on-street parking

SPECIAL CONSIDERATIONS

- Adjacent to school zones or neighborhood parks
- Landscape Maintenance

COST - Moderate to High



PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- In conjunction with a pedestrian crossing to provide a refuge area

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Narrowed lanes can slow vehicles
- Prevents passing
- Opportunity for landscaping and visual enhancement
- Separates opposing traffic

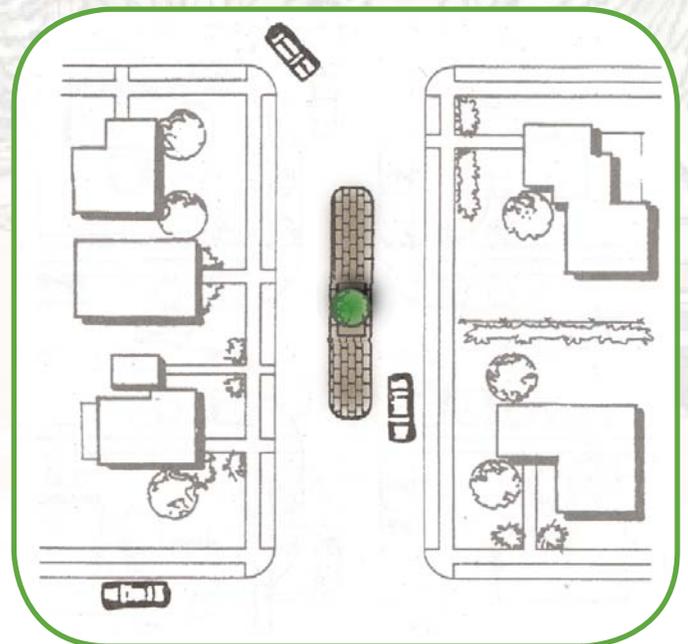
DISADVANTAGES

- May require removal of some on-street parking
- May prohibit or limit driveway access
- May affect emergency response during inclement weather, if installed on a grade

SPECIAL CONSIDERATIONS

- Roadway grades
- Consideration of bicycle lanes and road way width
- Landscape Maintenance

COST - Moderate to High



Entry Treatments

PHASE 2

APPLICATION

- Placed in the roadway to define the main entrance(s) into a neighborhood

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
- OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Notifies drivers that they are entering a neighborhood or residential area
- Narrowed lanes can slow vehicles
- Opportunity for landscaping and/or neighborhood signs
- May discourage non-local traffic

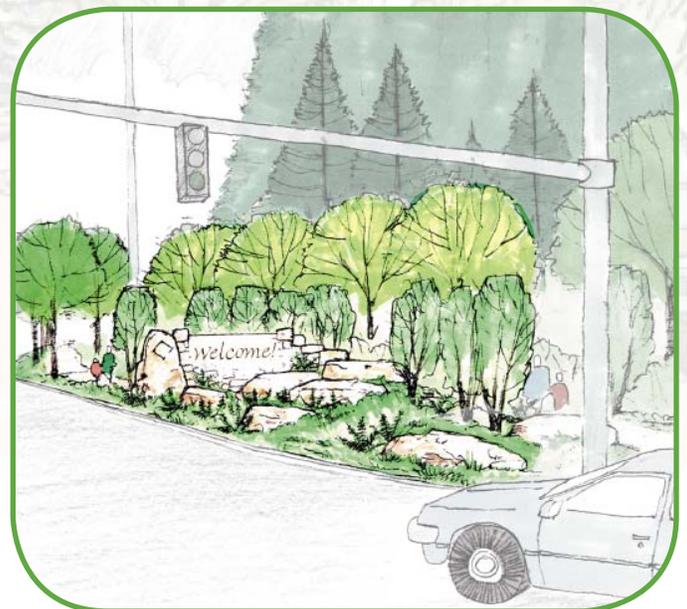
DISADVANTAGES

- May require parking removal near the treatment

SPECIAL CONSIDERATIONS

- Maintenance and upkeep of pavement treatments
- Landscape Maintenance

COST - Moderate to High



Stationary Radar Signs

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

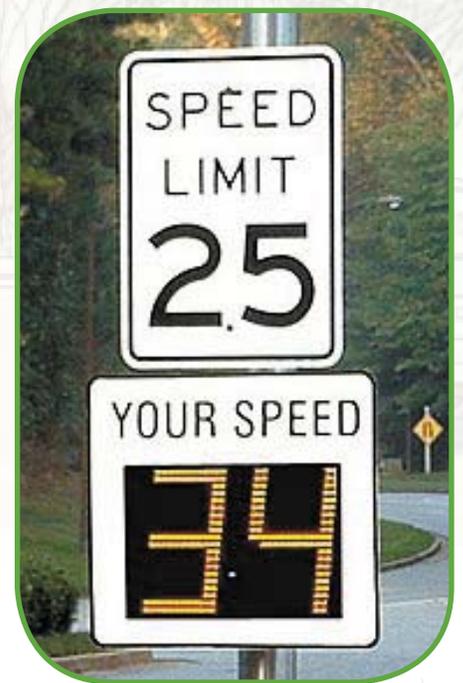
ADVANTAGES

- Heightens driver awareness to the posted speed limit
- Does not impact emergency response vehicles
- Slows traffic - potentially 1-6mph decrease in the vicinity of the sign
- May be installed on roadways which do not qualify for other devices due to roadway slopes, volumes, or other characteristics

DISADVANTAGES

- Installation sites must be near power source
- Effectiveness may decrease over time

COST - Moderate to High



PHASE 2

APPLICATION

- To restrict through movements and force a turn in all directions. Diverters are generally used only in neighborhoods with a gridded street system
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

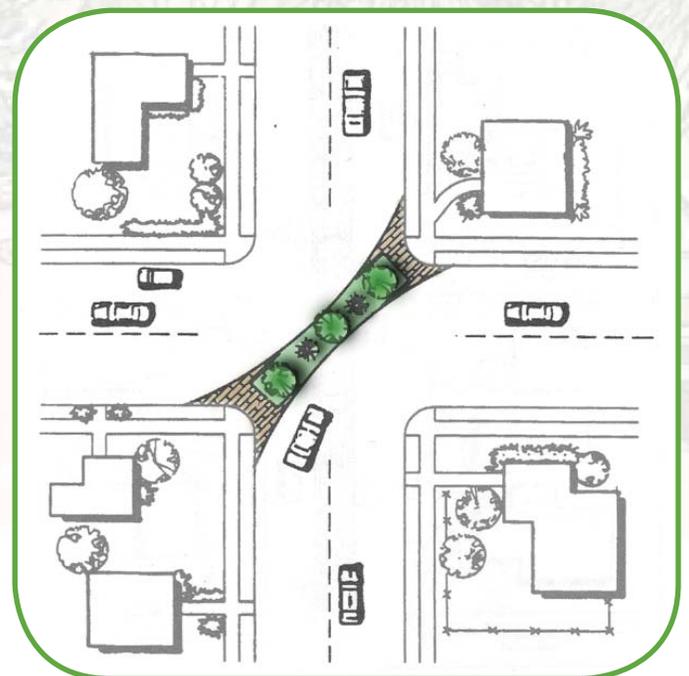
- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation
 - Traffic volume is less than 2,000 vehicles per day

ADVANTAGES

- Reduces cut-through traffic
- Channels traffic flow, eliminating conflicts at intersections
- Opportunity for landscaping and visual enhancements

DISADVANTAGES

- May redirect traffic onto other local streets
- Increased travel time for local residents
- High installation costs
- May require removal of parking
- Not applicable for emergency response routes



COST - Moderate to High

Turn Restrictions / Partial Closures

PHASE 2

APPLICATION

- To close down either the entrance or exit lane of a street
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation
- Traffic volume is less than 2,000 vehicles per day

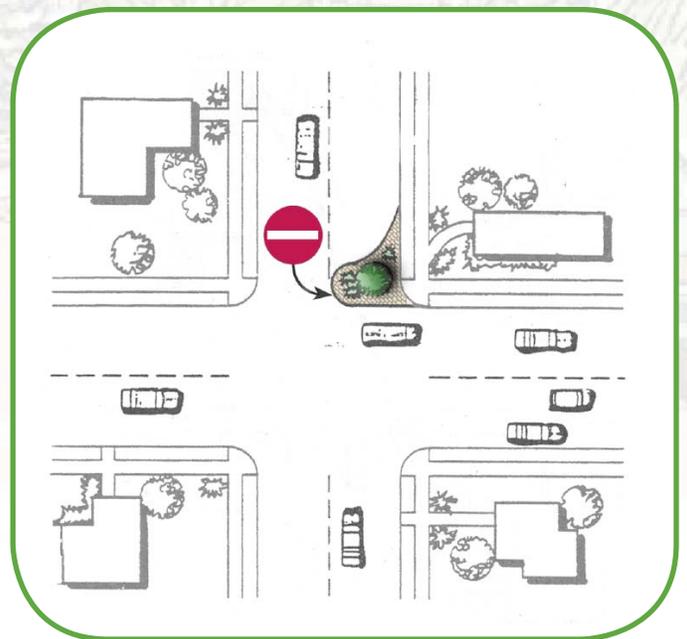
ADVANTAGES

- Reduces cut through traffic
- Pedestrian crossing distance reduced
- Landscaping opportunity

DISADVANTAGES

- May require removal of on-street parking
- May redirect traffic onto other local streets
- May increase trip length for local drivers

COST - Moderate to High



Full Closures

PHASE 2

APPLICATION

- Blocks both lanes of traffic, eliminating all through traffic
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour

-AND-

- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation

- Traffic volume is less than 2,000 vehicles per day

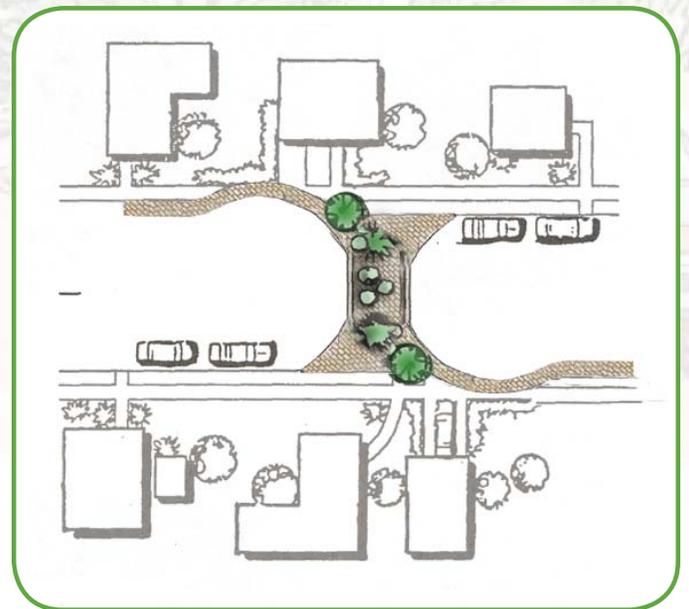
ADVANTAGES

- Restricts all through traffic
- Effective volume control measure
- Improves aesthetic quality of the street

DISADVANTAGES

- May redirect traffic to other streets
- May increase trip length for local drivers
- May require partial removal of on-street parking
- Not applicable for designated emergency response vehicle routes
- May result in difficult turn around conditions
- High Installation Costs

COST - Moderate to High



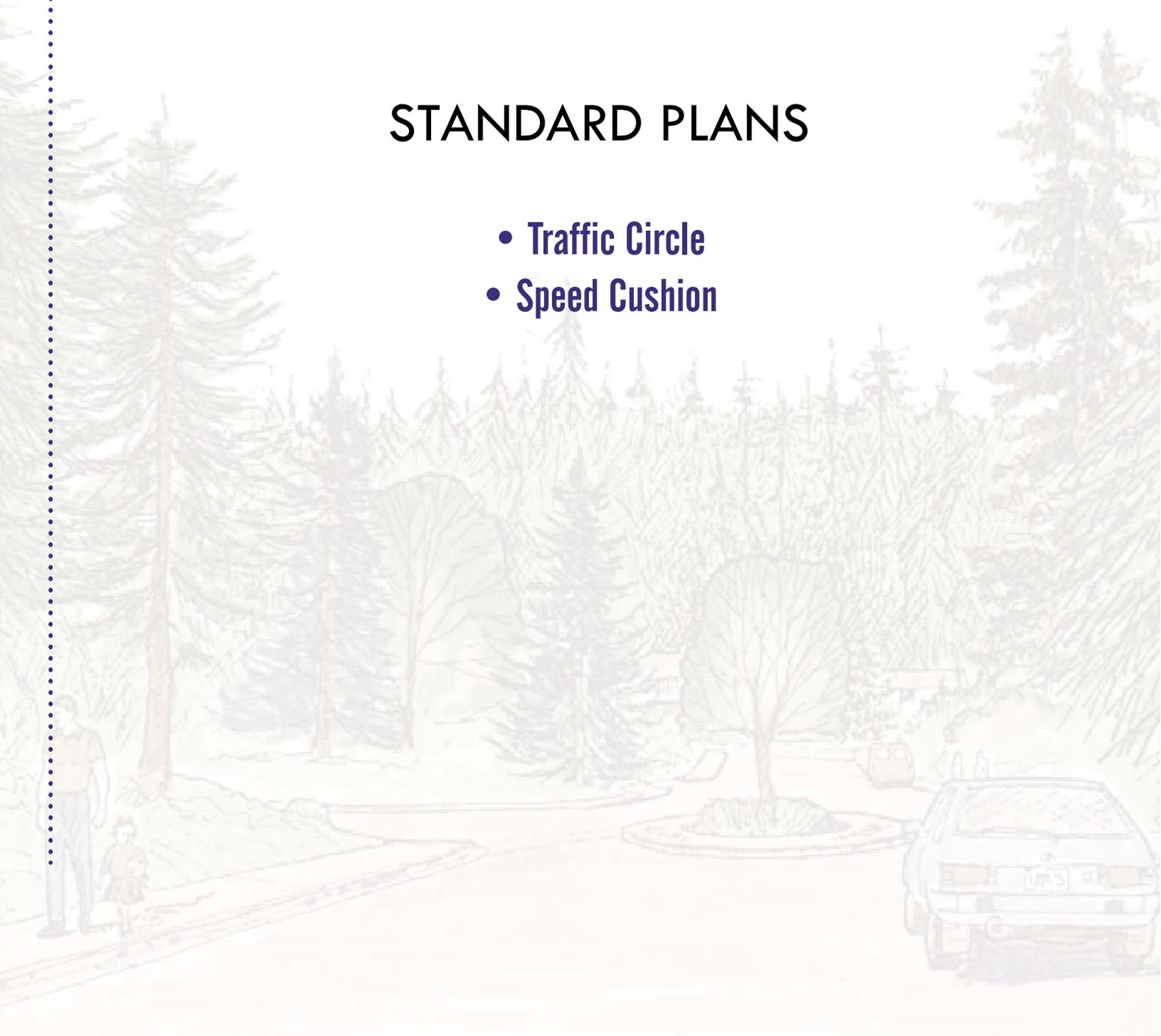
Technical Feasability, Constraints, Guidelines, and Factors Affecting Design

The following technical aspects would be considered when a physical treatment is considered:

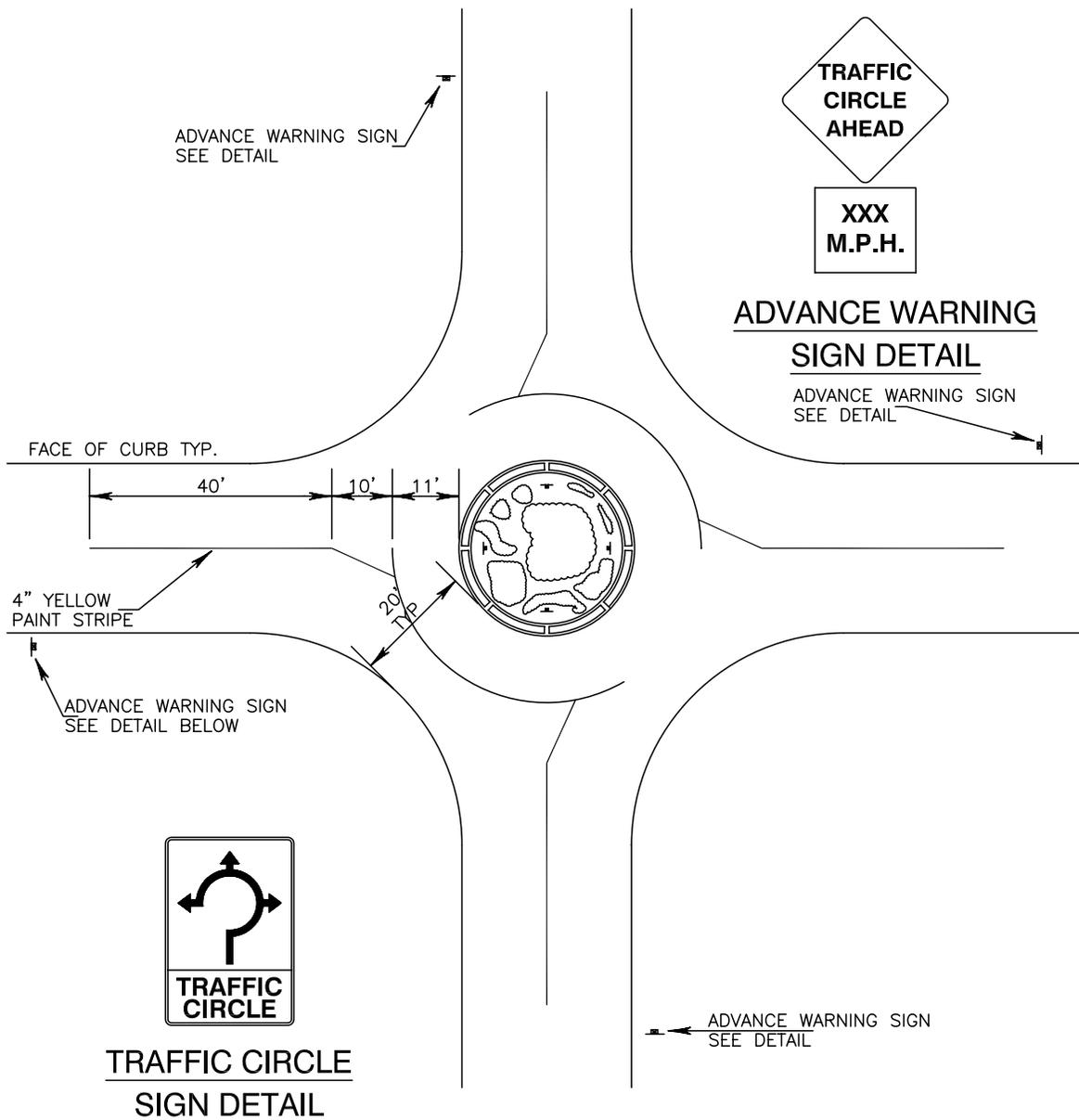
- It must be determined that the treatment will work for the defined problem
- Impact on parallel streets needs to be considered and addressed
- Stopping sight distance standards need to be evaluated
- Adequate provisions for buses (school, transit) garbage collection, moving vans, construction equipment, pedestrians and bicyclists need to be made
- Ensuring that the treatment will allow adequate drainage
- If curbs and gutters are not present, the design of individual traffic control treatments may need to be modified to restrict drivers from using the shoulders to avoid them
- The proximity to other calmed areas and intersections
- Physical treatments would only be installed on paved roadways with good surface conditions
- Appropriate spacing between treatments
- Roadway grade considerations. Some treatments will not be used on grades exceeding 8%
- Effect of treatment on street sweeping and other maintenance activities
- The cumulative effect of physical treatments on emergency vehicle response times would be considered
- Potential loss of on-street parking
- Increase in concentration of noise and air pollution levels due to the physical treatment
- Sight distance obstructions related to landscaping, fences, roadway alignment, grade, etc.
- Impact on driveway access to adjacent properties

STANDARD PLANS

- **Traffic Circle**
- **Speed Cushion**



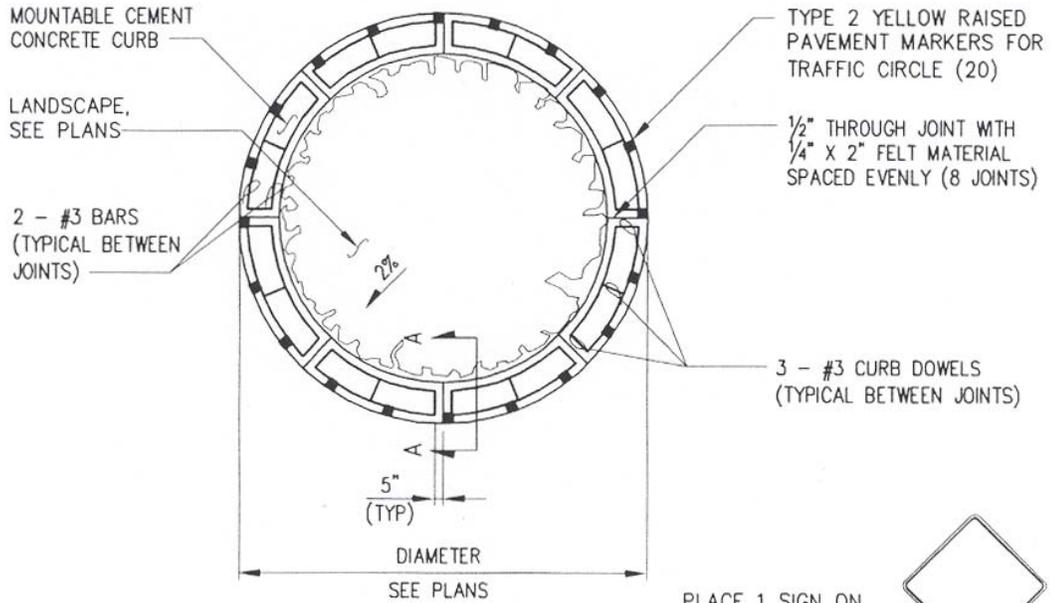
Standard Traffic Circle



TYPICAL TRAFFIC CIRCLE
DESIGN FOR 20 M.P.H.

 <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p>	 <p>EDDIE K. LOH PROFESSIONAL ENGINEER EXPIRES 08-29-05</p>	<p>TRAFFIC CALMING DEVICES TRAFFIC CIRCLE</p> <p><small>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</small></p>	<p>326 Revision Date Oct, 2000</p>
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Standard Traffic Circle

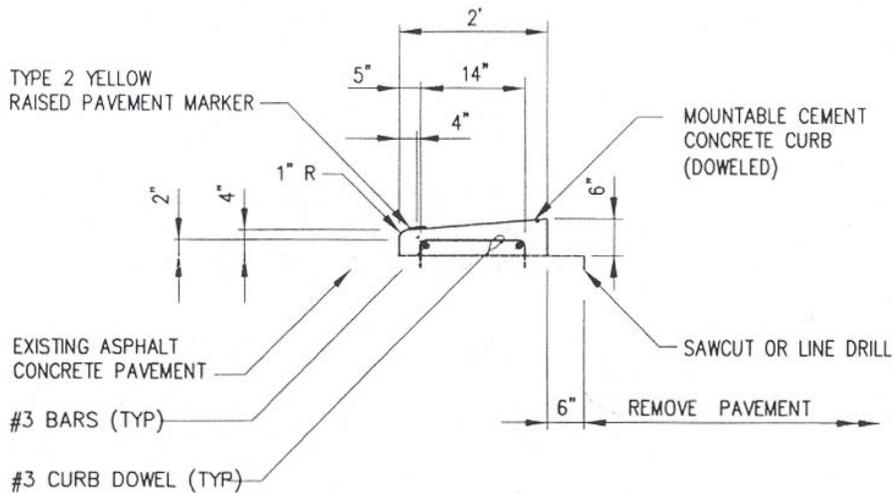


PLAN VIEW

PLACE 1 SIGN ON 4" X 4" WOOD POST ON EACH APPROACH OF TRAFFIC CIRCLE



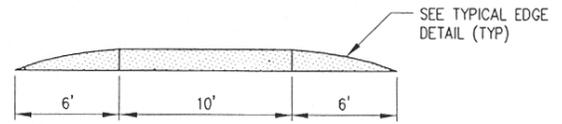
SIGN 1
18" X 18"
PLAIN YELLOW
MUTCD TYPE 1
OBJECT MARKER



SECTION A-A

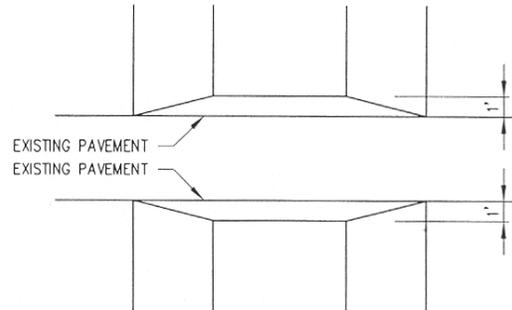
 <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p>	 <p>EDDIE K. LOW PROFESSIONAL ENGINEER EXPIRES 02-29-02</p>	<p>TYPICAL TRAFFIC CIRCLE & MOUNTABLE CURB DETAIL</p> <p><small>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</small></p>
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Standard Speed Cushion



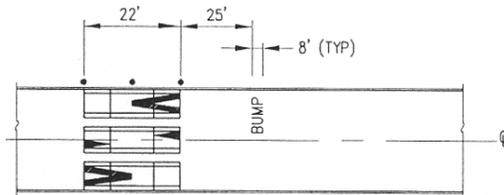
SPEED CUSHION SECTION

NTS



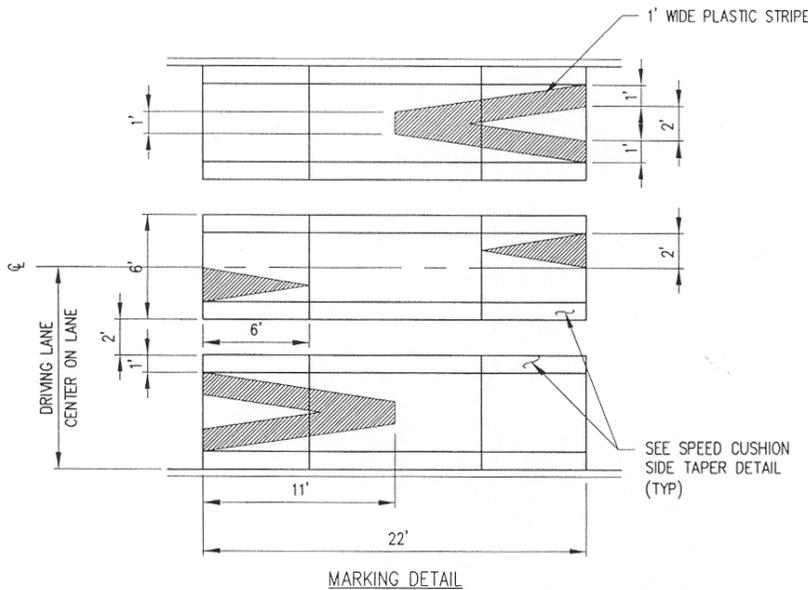
SPEED CUSHION SIDE TAPER DETAIL

NTS



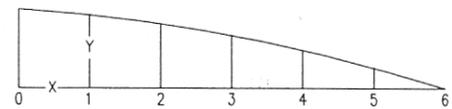
NOTE:

1. MARKINGS TYPICAL BOTH DIRECTIONS OF TRAVEL.
2. SIGNS TO BE PLACED BY OTHERS.
3. ALL SPEED HUMP MARKINGS SHALL BE PLASTIC, SEE SPEED CUSHION DETAIL, THIS SHEET.



SPEED CUSHION

NTS



NOTE:

SEE VERTICAL DIMENSION CHART

VERTICAL DIMENSION CHART

X(FT.)	Y(FT.) = INCHES
0	0.25 = 3.0
1	0.243 = 2.92
2	0.222 = 2.67
3	0.186 = 2.25
4	0.139 = 1.67
5	0.077 = 0.92
6	0.00 = 0

TYPICAL EDGE DETAIL

NTS

 <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p>	 <p>EDDIE K. LOW PROFESSIONAL ENGINEER EXPIRES 02-29-05</p>	<p>TRAFFIC CALMING DEVICES SPEED CUSHION</p>
<p>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</p>		