

Colorado Springs, CO

Neighborhood Traffic Management Plan



Date: July 2023



COS @ 150
Celebrating 150 Years of El Paso County

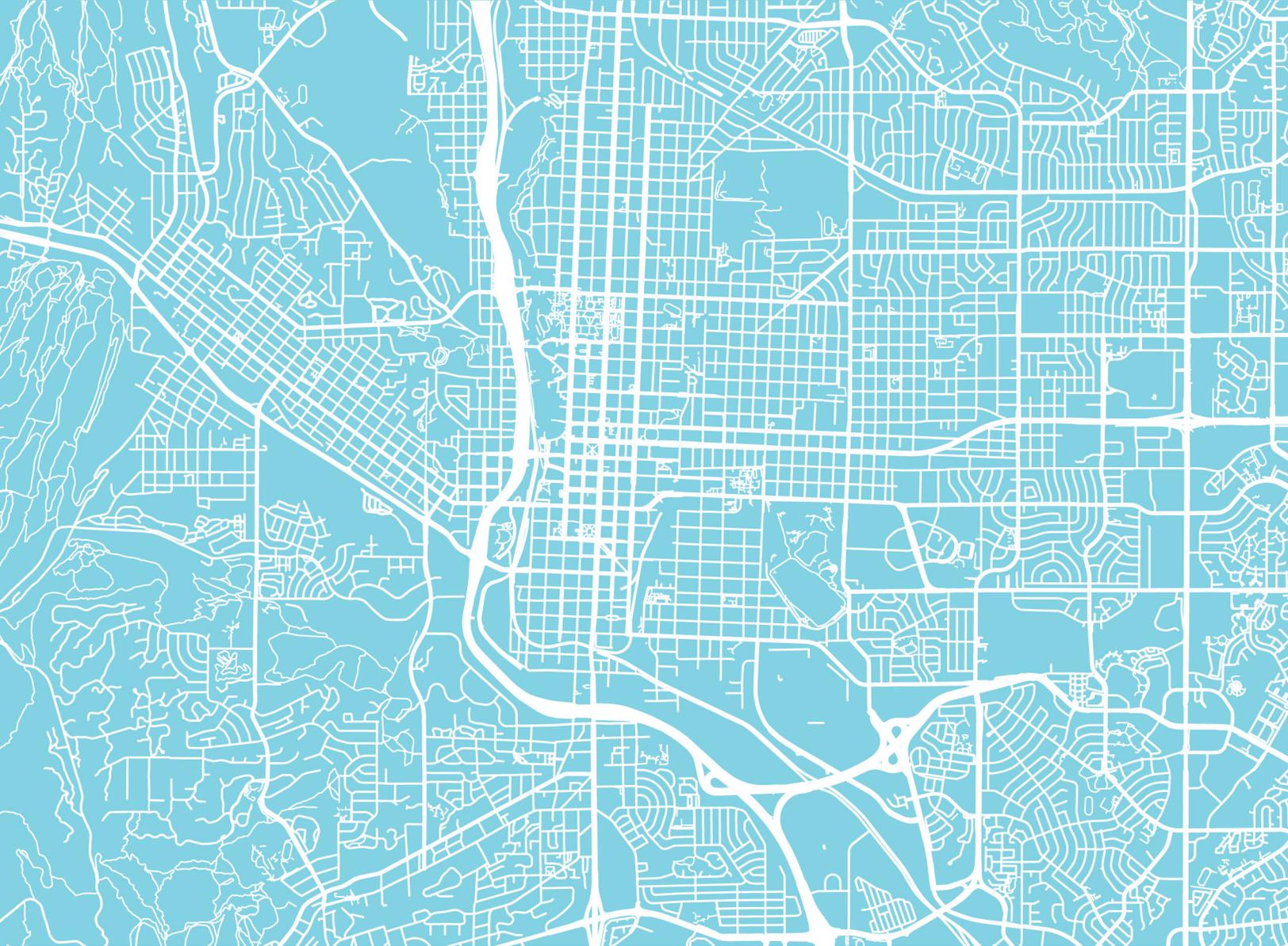
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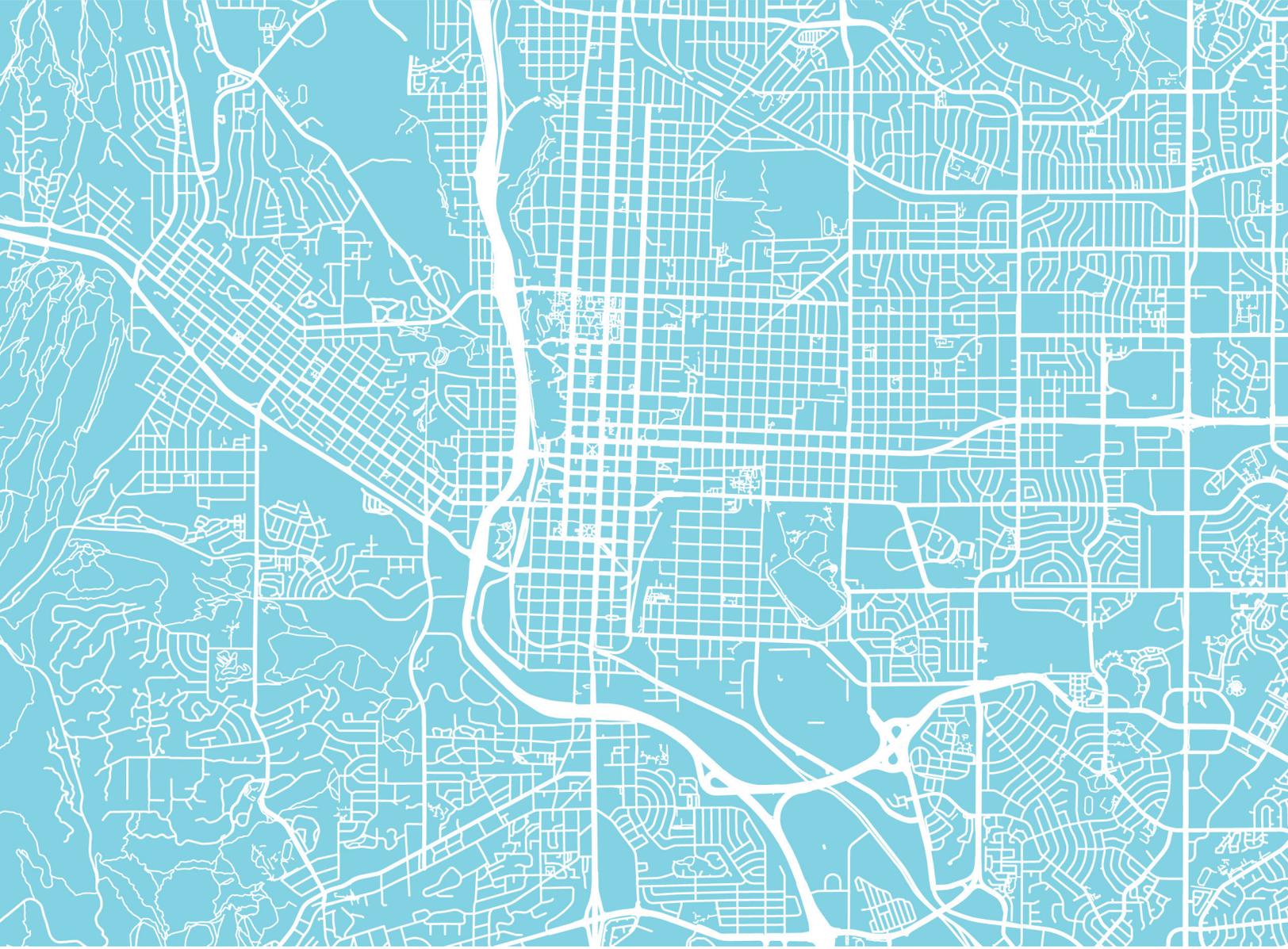
ACKNOWLEDGEMENTS

- Public Works - Traffic Engineering
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01 INTRODUCTION



INTRODUCTION



View of Uintah Street in Colorado Springs, CO.

This manual documents the traffic calming procedures and measures for eligible neighborhood and collector streets in the City of Colorado Springs. The purpose of traffic calming is to **support the livability and vitality of residential and commercial areas through improvements for safety, mobility, and comfort**. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network, which collectively improve safety for motorists and non-motorists alike as well as adjacent property owners.

Traffic calming measures may consist of horizontal, vertical, lane narrowing, roadside, and other features using self-enforcing physical or behavioral means. Research from the Federal Highways Administration (FHWA) and Institute of Transportation Engineers (ITE) has been instrumental in standardizing this practice nationwide and informs the processes and measures that make up this manual.

In an effort to advance the existing neighborhood traffic management program, this manual provides the City of Colorado Springs and its residents with:

- **THE PROCESS:** Procedures by which residents may request and the city may investigate and pursue traffic calming measures along its residential and collector streets.
- **THE TOOLBOX:** Guidance regarding the appropriate use, design, signing and pavement markings of traffic calming measures.

The traffic calming program is designed for residential and collector streets with posted speeds less than or equal to 30 mph and is not necessarily appropriate for multilane arterial corridors. This manual focuses on traffic calming measures for existing streets (retrofits). New streets should be designed in accordance with City design standards. Using best practices with roadway layout to minimize future traffic calming requests.

What is Neighborhood Traffic Calming?

Neighborhood Traffic Calming is Colorado Springs' term for the general topic of traffic calming, which refers to the use of physical design features and treatments that *"use self-enforcing physical or psycho-perception means to produce desired effects."* While cities have varied approaches and definitions to fit their goals, the essential elements of all traffic calming programs are the same:

1. Reduction of motor vehicle speeds and/or volumes
2. Use of physical measures
3. To improve quality of life in residential & commercial areas
4. Increase safety for pedestrians & bicyclists

Some potential treatments are not always considered "traffic calming," but rather basic traffic operations or residential requests. Four common requests from residents may include:

- Stop sign installation requests,
- Speed radar trailer, and/or
- Speed limit enforcement efforts by local police.

While stop signs, radar trailers and other traffic control signs *do manage* traffic, they are not always considered traffic calming devices. This is because they are not *self-enforcing*, meaning drivers are obligated to reduce their speed but require enforcement by authorities rather than voluntary change by the driver. Research overwhelmingly show that stop signs are not effective as a speed control device; and, in fact, have been found to aggravate drivers between traffic control locations and create other unintended consequences, like aggressive driving.

Higher Speed = Higher Risk of Fatality ☠

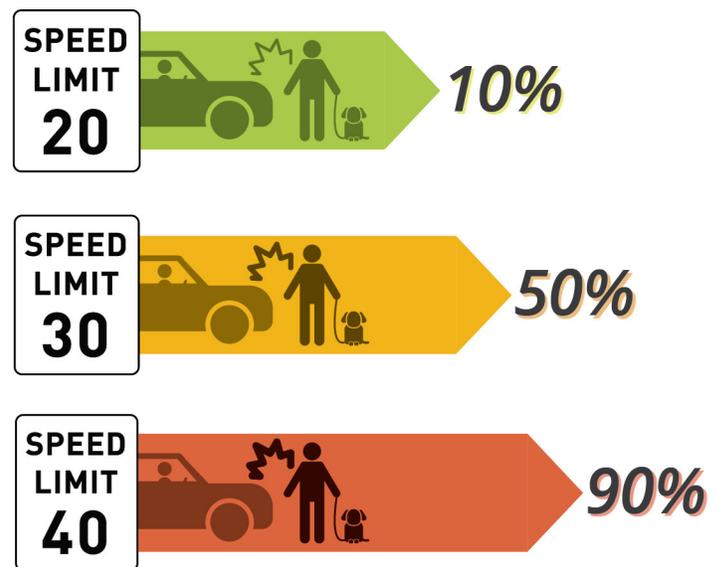


Figure 1.1: Relationship between vehicle speed and pedestrian fatalities.

Why is Traffic Calming important?

By reducing vehicle speeds and/or volumes, traffic calming measures help to make our community safer for drivers, bicyclists, and pedestrians alike, and increases our quality of living. Crashes occur throughout our communities, regardless of the different street types or land use context. As vehicle speeds increase, the safety risk for pedestrians and bicyclists increases, and the likely severity of crashes between vehicles does as well. Calming traffic encourages vehicle travel to and through Colorado Springs' residential streets at speeds that are safer for all users.

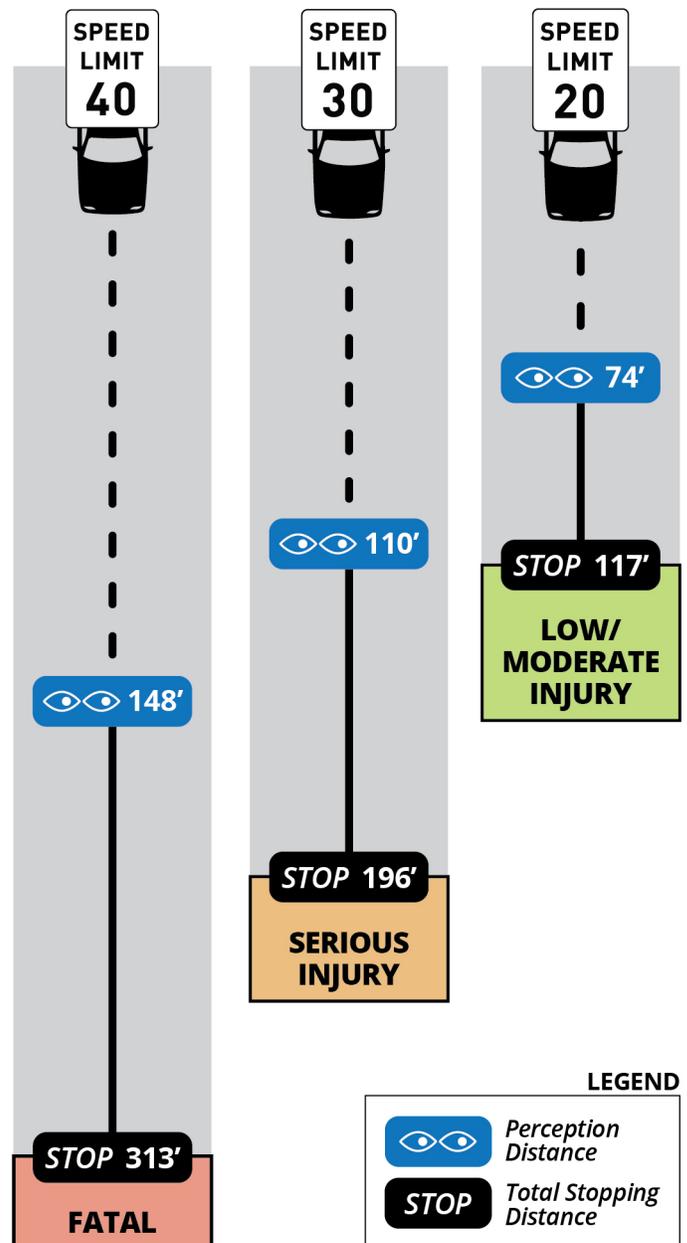
BROAD TRAFFIC CALMING GOALS:

- Increasing the quality of life;
- Incorporating the preferences and requirements of the people using the area (e.g., working, playing, residing) along the street(s), or at intersection(s);
- Creating safe and attractive neighborhoods;
- Helping to reduce the negative effects of motor vehicles on the environment (e.g., pollution); and/or
- Promoting pedestrian, bicycle & transit use.

Source: ITE website: <https://www.ite.org/technical-resources/traffic-calming/>



Figure 1.2: Relationship between speed, stopping distance, and serious injury.



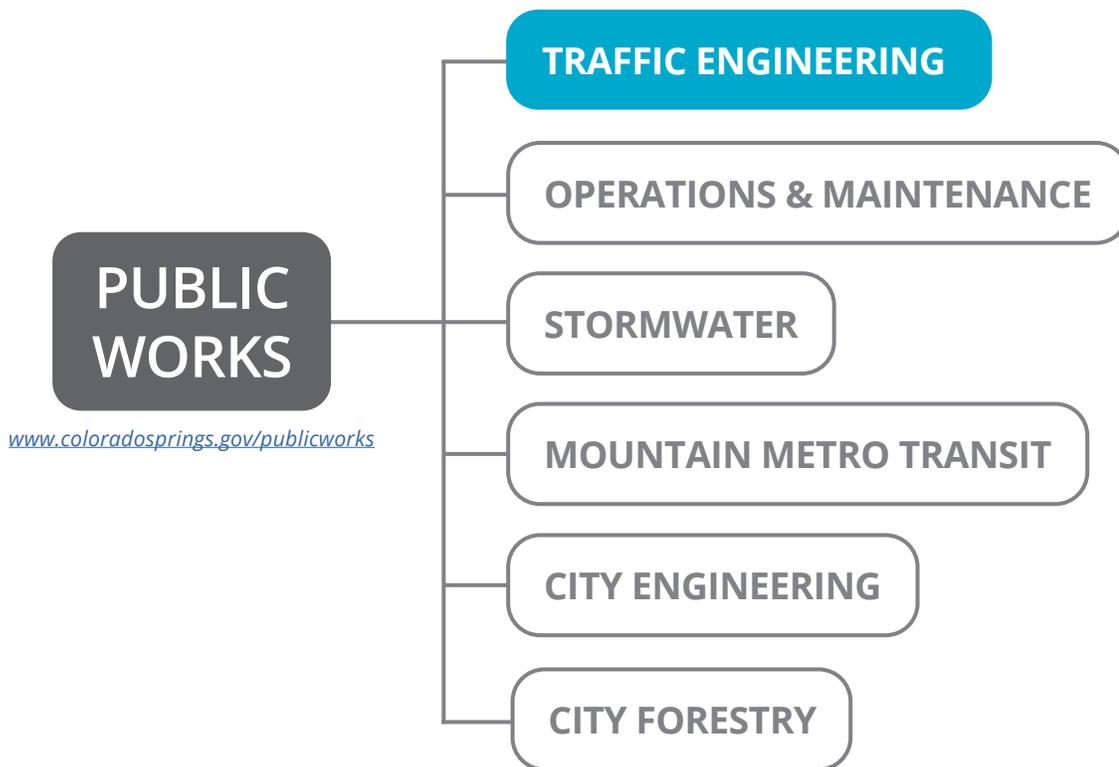
Who administers the Neighborhood Traffic Management Program?



Report and track issues, request a service, contact the City

Get Started

The Neighborhood Traffic Management Program is administered by the City of Colorado Springs Traffic Engineering (TE) Division, a part of the Public Works Department. Team members receive traffic calming requests through the GoCOS app and by phone call, determine eligibility and validate data, and engage with residents on appropriate solutions to the problems they face.

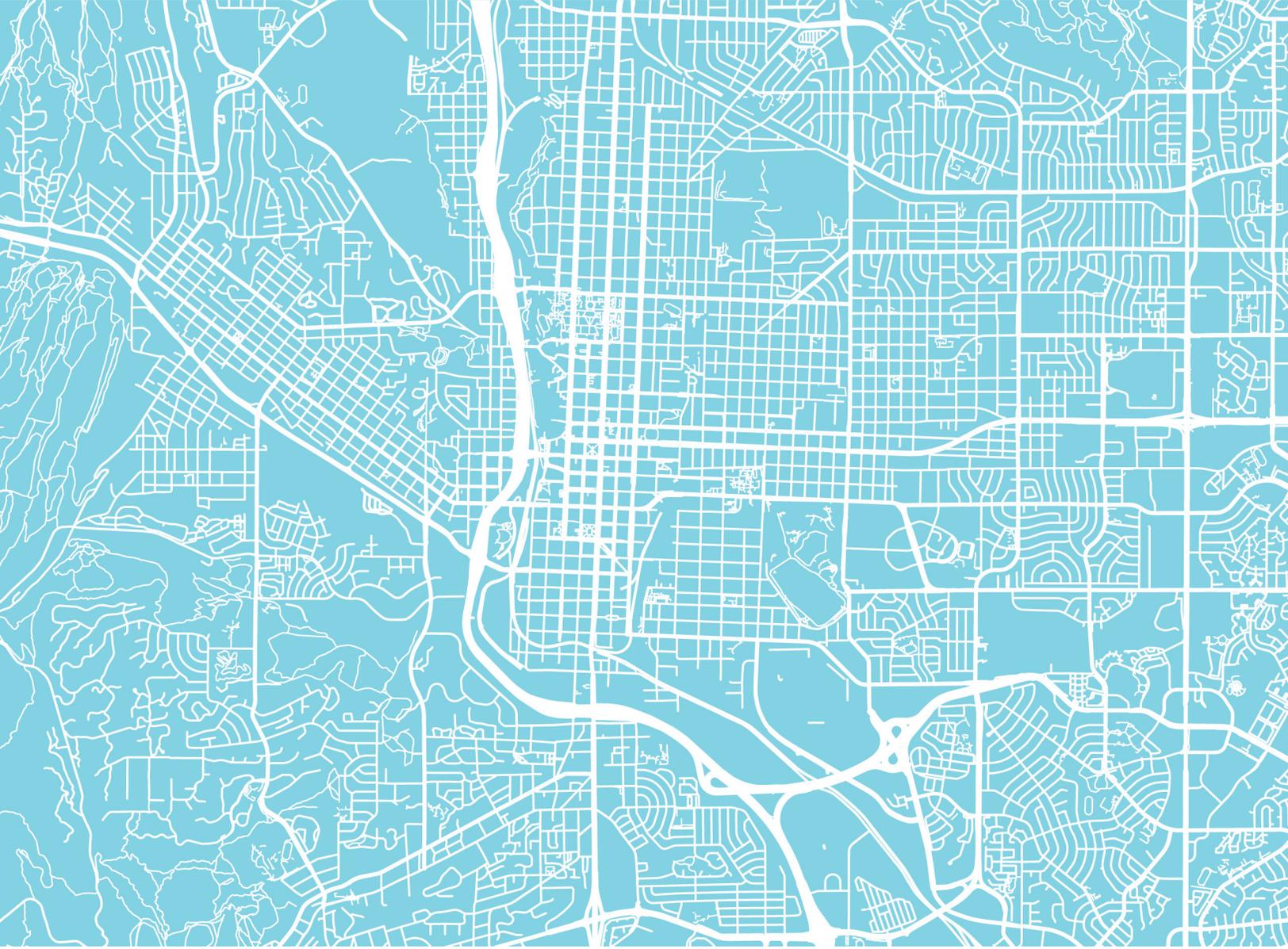


Use of the term “**City Staff**” refers to all staff within the City of Colorado Springs, and its traffic calming review departments.

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02 THE PROCESS



SUBMITTAL OF TRAFFIC CALMING REQUEST



The process begins with a request for traffic calming, which can come from either the GoCOS! App, a phone call, or by filing an online complaint form.

All requests follow the same general process:

1. SCREENING:

Public Works Staff screen the request to determine whether the location is eligible for traffic calming measures. Only residential streets and collector streets are eligible for neighborhood traffic calming measures; issues on larger arterial streets are managed through different engineering improvements. Site context matters too, Depending on length of facility and other factors: cul-de-sac streets may not require traffic calming, or relatively new neighborhoods that are under construction.

2. DIAGNOSIS:

If eligible, Traffic Engineering (TE) staff verify speed and cut-through traffic data to determine whether either condition is present, and potentially solvable.

- a. If average measured speeds fail to exceed 10 miles per hour over the posted speed limit, **or** if traffic volume exceeds 40% greater than base volumes, or the problem cannot be solved through traffic calming: the process ends here, but can be re-evaluated following a two-year period.
- b. If there appears to be a traffic issue, but which requires a simple solution: projects that can be solved through striping or signage, for example, can be implemented without further consideration.

3. SELECTION:

If a problem that is only solvable through traffic calming measures is identified, TE staff will contact the person who submitted the request to begin the selection process.

- a. Petition: before identifying a treatment, the person(s) submitting the request must gather signatures from adjacent residents requesting traffic calming measures.
- b. Selection: Working with residents, city staff will identify a preferred potential traffic calming treatment to address the problem.

4. EVALUATION:

Once a solution is selected, TE staff will design and construct the preferred treatment. Evaluation of the constructed treatment takes place after an observation period (6 to 18 months): if data shows the treatment is effective in calming traffic, it will remain. If ineffective, TE staff will re-engage with residents to determine next steps.

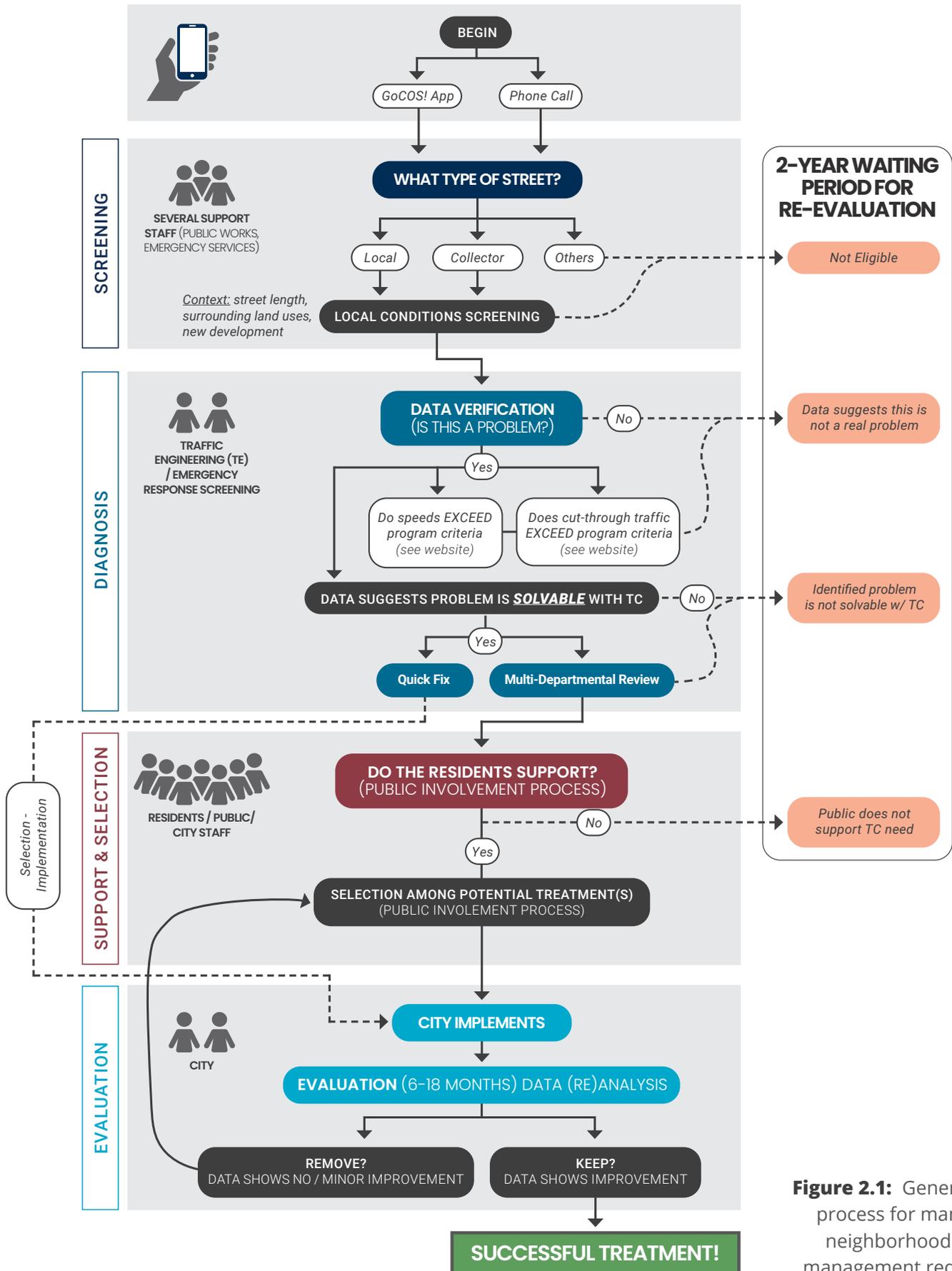


Figure 2.1: Generalized process for managing neighborhood traffic management requests.

Submitting a Request

Submitting a request for traffic calming is simple. Through the GoCOS! App, follow these simple steps to begin the traffic calming process:

1. SELECT TRAFFIC ISSUES

Neighborhood traffic calming requests are “traffic issues” and directed to the TE division. You can select this option under **Popular Requests**, or search for the issue.

OTHER WAYS TO MAKE A REQUEST:

- GoCOS! works on computers as well as mobile devices. **Submit a request online.**
- Review our Online Dashboard
- Give us a call! **(719) 385-5908**

Source: <https://coloradosprings.gov/public-works/page/neighborhood-traffic-calming>

2. IDENTIFY THE LOCATION

Drag the pin (found on the in-app map) to the location where you’d like to make the request. This location must be within Colorado Springs’ limits.

3. TELL US MORE

Describe the issue(s) you have observed at the location. This can be brief, or as detailed as you’d like to make it, but provide enough information for us to determine potential problem(s) that may be eligible for traffic calming.

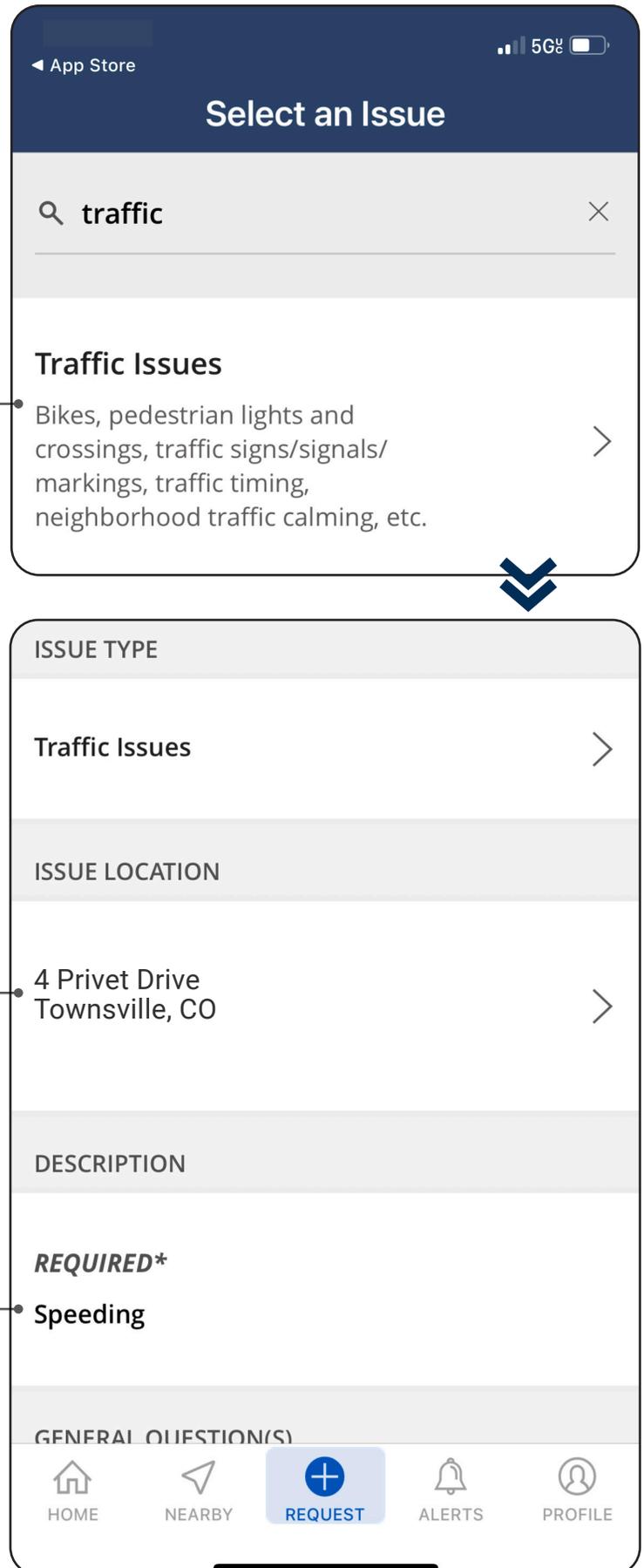
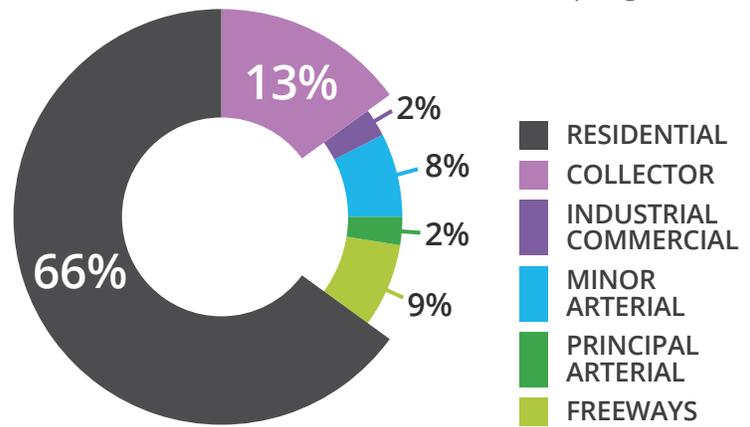


Figure 2.2: Screen captures of GoCOS! App submittal content.

Figure 2.3: Approximate distribution of street typology mileage within City of Colorado Springs, CO.

Street Typologies

Not all streets in Colorado Springs are eligible for traffic calming, and not all traffic calming treatments will be effective on all streets. For the neighborhood traffic calming program, only **residential streets** and **collector streets** are eligible for traffic calming, with differences based on total street width. This is a “living document,” so future adjustments to eligible streets types are possible, if not likely.



WHAT ARE OUR STREET TYPES?

Colorado Springs classifies its streets based on its function and its role in our mobility network:



Residential: serve the local needs of the neighborhood and to provide direct access to abutting residential properties.



Collectors: serve the local needs of the neighborhood, provide direct access to non-residential, abutting properties, and, in limited situations, direct access to residential properties.



Industrial Commercial: serve facilities within industrial or commercial areas and to connect such areas with major arterial and collector streets.

Minor Arterials: carry high volumes of inter- and intra-city traffic which connect major land use elements.

Principal Arterials: Major function is to serve through traffic. The secondary function is to serve abutting properties.

Freeways, Expressways & Parkways: permit rapid and unimpeded movement of traffic through and around the City.

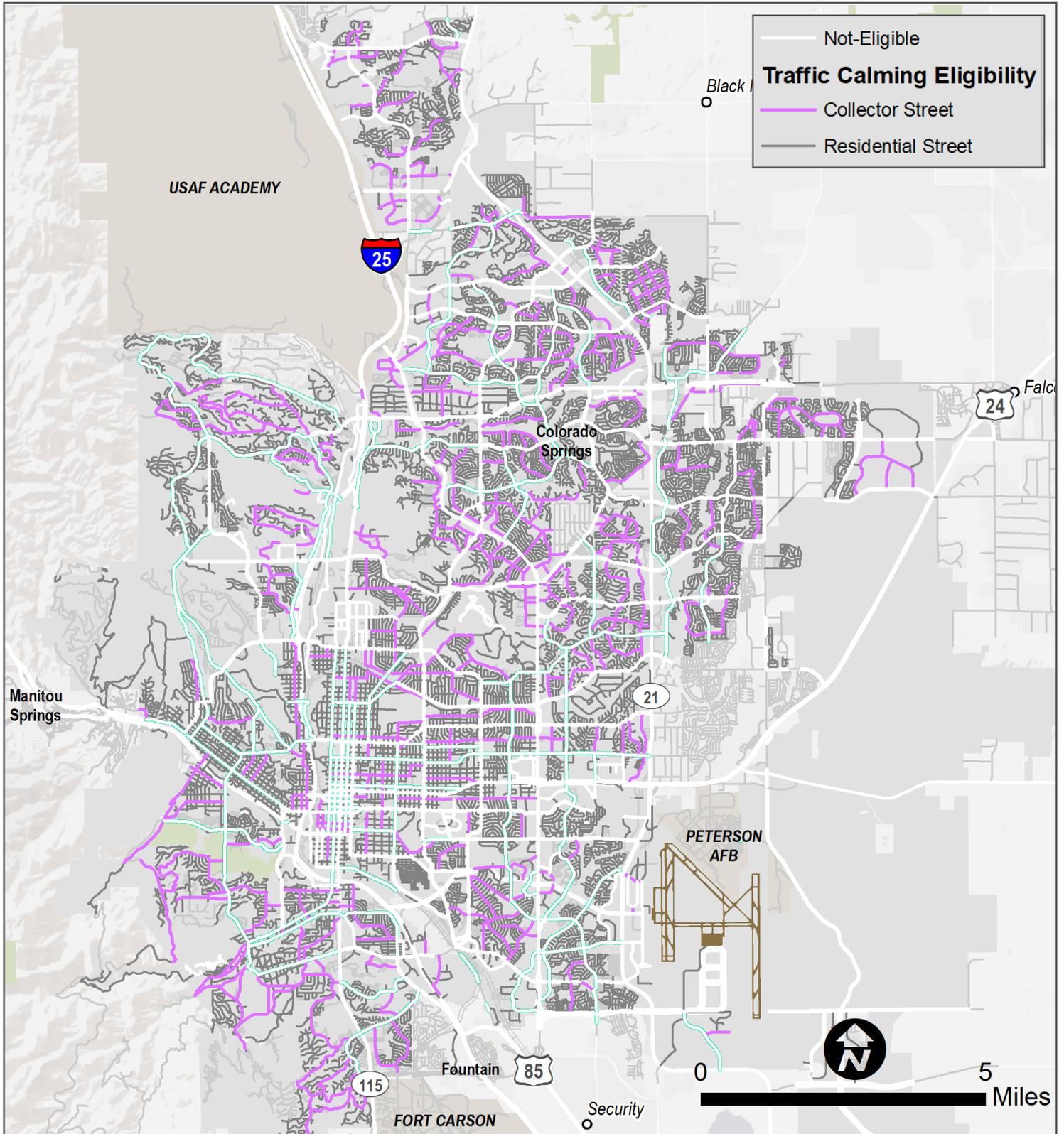


Figure 2.4: Map of street types, and eligibility for the Neighborhood Traffic Calming Program.

Qualifying Criteria

With the appropriate data collected, the next decision point is whether the reported traffic calming request **meets or exceeds the established Criteria Warrants**, which are minimum criteria for correction. This correlates with the Diagnosis portion of Figure 2.1, under the Data Verification heading. The minimum criteria, or warrants, represent thresholds above which city staff will consider appropriate traffic calming treatments, and are based on both national research (FHWA), local roadway characteristics, and available data resources. Program criteria (thresholds) are intended to be adjusted as necessary over time to remain appropriate for local conditions, and industry best practices.

An assessment that satisfies these program criteria proceeds to the next decision point, consideration of methods and treatment options, presented in the next section. An assessment that does not satisfy these criteria will not advance for traffic calming treatments, and will instead fall into the 2-year waiting period before re-evaluation is possible.



**Criteria 1:
EXISTING TRAVEL SPEEDS
EXCEED PROGRAM CRITERIA**

OR

**Criteria 2:
CURRENT TRAFFIC VOLUMES
EXCEED PROGRAM CRITERIA**

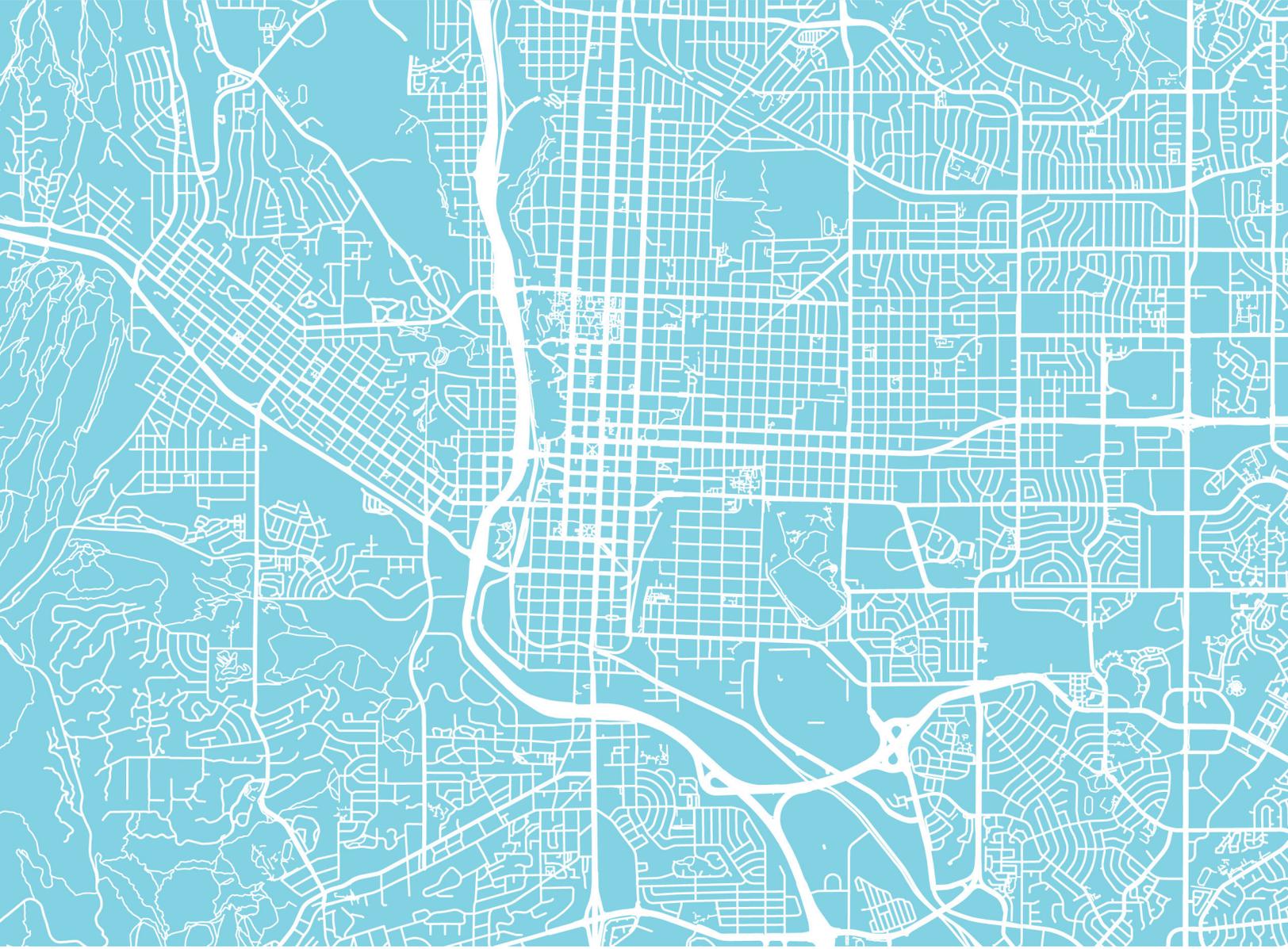
See website for current # / % program criteria.

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METHODS & TREATMENTS



METHODS & TREATMENTS

Different streets, in accordance with our Street Typologies, will merit different types of traffic calming measures. Once Traffic Engineering (TE) determines that thresholds are met and traffic calming is warranted, the next step in the process is to determine the most appropriate treatment.

This section describes the traffic calming measures that make up Colorado Springs' "toolbox". Each treatment is described, its advantages and disadvantages given, and a range of measures including typical design detail and cost categories provided. Not all traffic calming treatments apply to every street typology. Engineering judgment will be incorporated into the consideration of any potential design.

 **Table 3.1:** Matrix of traffic calming treatments by street typology.

		RESIDENTIAL		COLLECTOR	
		<= 28 ft.	> 28 ft.	<= 36 ft.	> 36 ft.
LOW-IMPACT PHYSICAL DESIGN	Speed Hump	●	●	●	●
	Speed Dip	●	●	●	●
	Curb Extension	●	●	●	●
	Choker	●	●	●	●
	Chicane (<i>off-set choker</i>)	●	●	●	●
HIGH-IMPACT PHYSICAL DESIGN	Raised Crosswalk	●	●	●	●
	Raised Intersection	●	●	●	●
	Neighborhood Traffic Circle (<i>mini</i>)	●	●	●	●
	Pedestrian Refuge Island	—	●	●	●
	Median Island	●	●	●	●
	Semi-Diverter / Partial Closure	●	●	●	—
	On-Street Parking	●	●	●	●
	Restriping	—	—	●	●
OTHER	Unique Signage	●	●	●	●
	Streetscaping	—	—	—	●
	Speed Safety Camera (<i>mobile</i>)	—	●	●	●
	Speed Safety Camera (<i>fixed</i>)	—	—	●	●

NOTE: All treatments are site-specific. Measurements assume pavement mat (excluding gutter).

● Recommended

— Not Recommended

Speed Hump

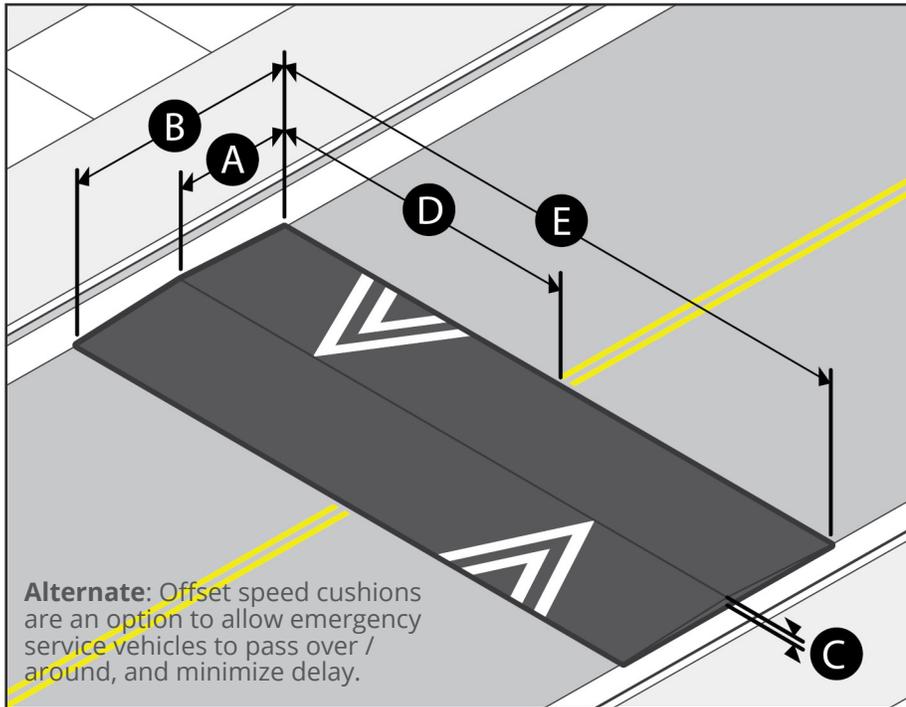
SPEED REDUCTION: -6 TO -8 MPH
REDUCTION FACTOR: HIGH

AKA: SPEED CUSHION

Elongated mound in roadway, perpendicular to traffic flow, that uses vertical deflection to slow motorists. Typically 12' to 14' in depth depending upon speed and volume. Typical spacing of 300' to 500'.

TYPICAL DIMENSION RANGE

- A** 6' - 7' } NOT speed bumps!
- B** 12' - 14' }
- C** 3" - 4"
- D** Lane Width
- E** Pavement width



Alternate: Offset speed cushions are an option to allow emergency service vehicles to pass over / around, and minimize delay.



SPEED

 Posted Speeds up to 45 MPH

TRAFFIC & VOLUME


(Low - Moderate)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck **X**

 Transit **X**

 Steep Grades 8+% **X**

COST


(Low)

ADVANTAGES

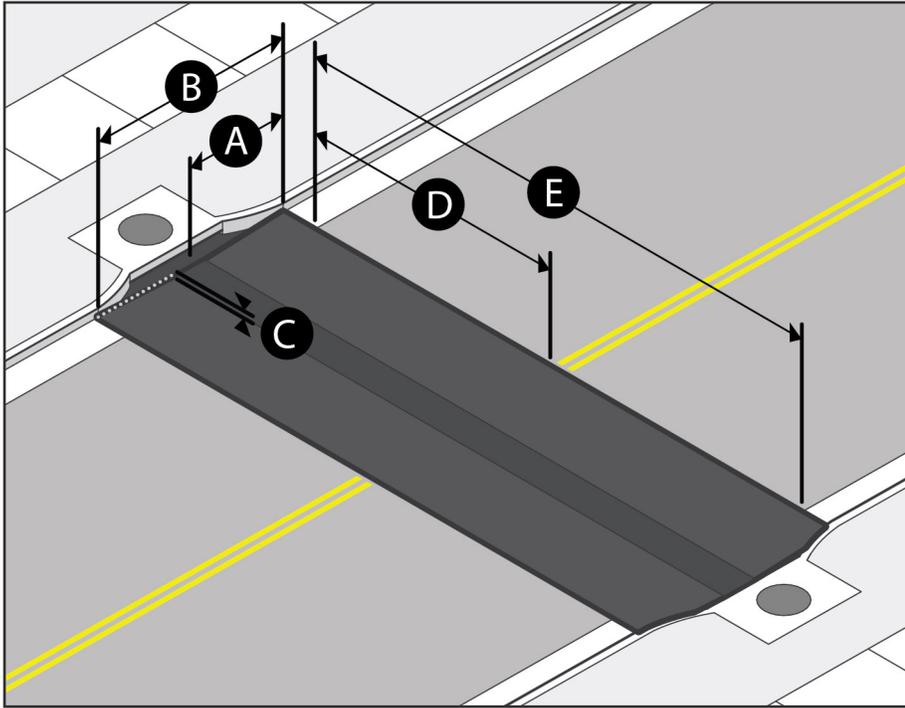
- No impact to bike safety
- Volume reductions up to 20%
- Cushion variation accommodates emergency, transit

DISADVANTAGES

- Noise levels (acceleration after passing over)
- Damage from snow plows (winter)
- Little effect as singular treatment

Speed Dip

SPEED REDUCTION: -6 TO -8 MPH
REDUCTION FACTOR: HIGH



Speed dips are similar in design to speed humps or tables, only depressed (concave).

TYPICAL DIMENSION RANGE

- A** 6' - 7'
- B** 12' - 14'
- C** 2" - 4"
- D** Lane width
- E** Pavement width



SPEED

Posted Speeds up to 30 MPH

TRAFFIC & VOLUME

(Low - Moderate)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

Truck **X** Transit **✓** Steep Grades **X** (8+%)

COST

(Low)

ADVANTAGES

- Suitable for local and collector streets
- Similar benefit to Speed Hump

DISADVANTAGES

- Stormwater considerations (ponding)
- Noise levels
- Sight distance / warning signs needed

Curb Extension

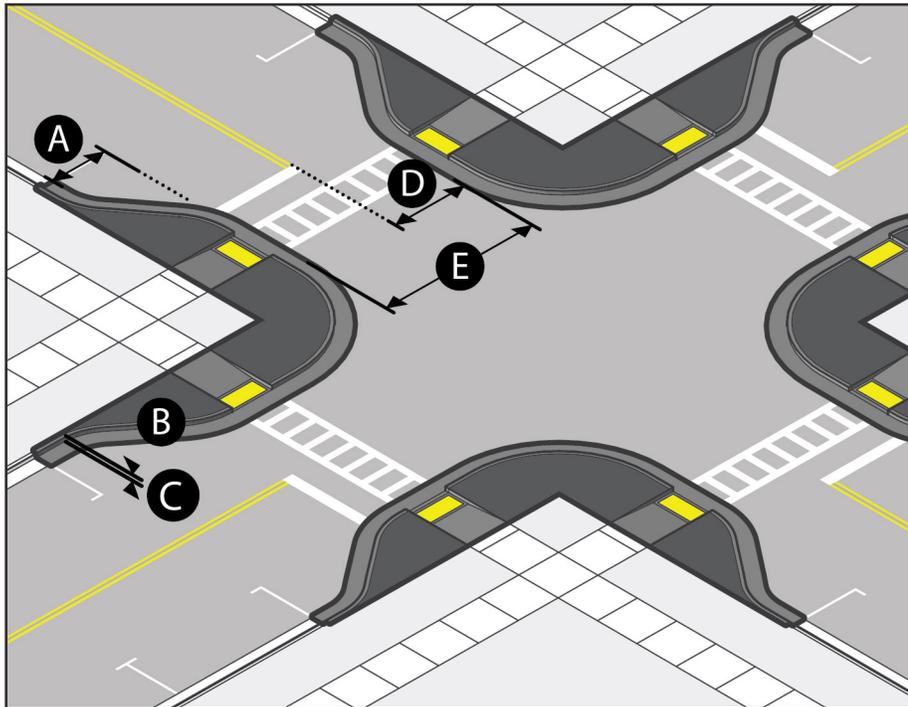
SPEED REDUCTION: -3 TO -4 MPH
REDUCTION FACTOR: MEDIUM

AKA: BULBOUT

Horizontal extension of sidewalk and pedestrian zone into the street at an intersection. Narrows roadway to near the travel lane width. Size, shape, and materials may vary.

TYPICAL DIMENSION RANGE

- A** 8'
- B** 45-degree
- C** 3" - 6"
- D** 10' - 11'
- E** 20' - 22'



SPEED

 Posted Speeds up to 45 MPH

TRAFFIC & VOLUME


 (Low - Moderate)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades 8+%

✓ ✓ ✓

COST


 (Moderate)

ADVANTAGES

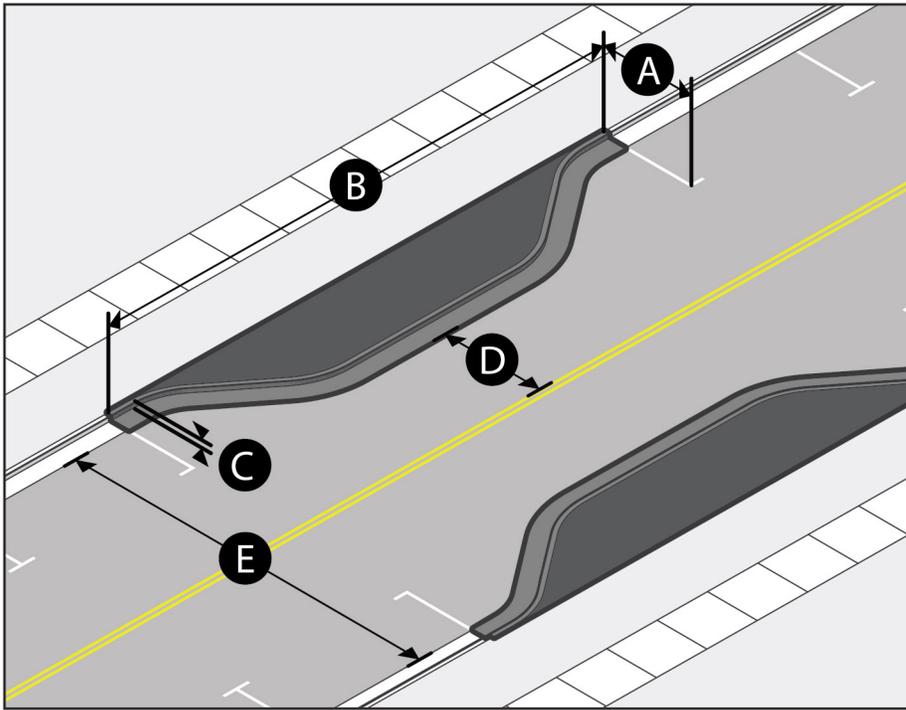
- Slows turning speeds
- Increases pedestrian visibility
- Shortens crossing distances

DISADVANTAGES

- Drainage, utilities relocation considerations
- Difficult for large vehicles
- May require parking removal near intersections

Choker

SPEED REDUCTION: -3 TO -4 MPH
REDUCTION FACTOR: MEDIUM



Narrowing of roadway with paired curb extensions or roadside islands at a midblock location. May be combined with on-street parking or crosswalks.

TYPICAL DIMENSION RANGE

- A** 8' - 10'
- B** 20'+
- C** 3" - 6"
- D** 10' - 12'
- E** Pavement width



SPEED

Posted Speeds up to 55 MPH

TRAFFIC & VOLUME

(Low)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

Truck Transit Steep Grades 8+%

Truck and Transit have green checkmarks. Steep Grades has a red X.

COST

(Moderate)

ADVANTAGES

- Mid-block crossing opportunities
- Protection for on-street parking
- Can accommodate dedicated bike facilities

DISADVANTAGES

- Drainage, utilities relocation considerations
- May require parking removal near intersections
- Potential for higher costs

Chicane (off-set choker)

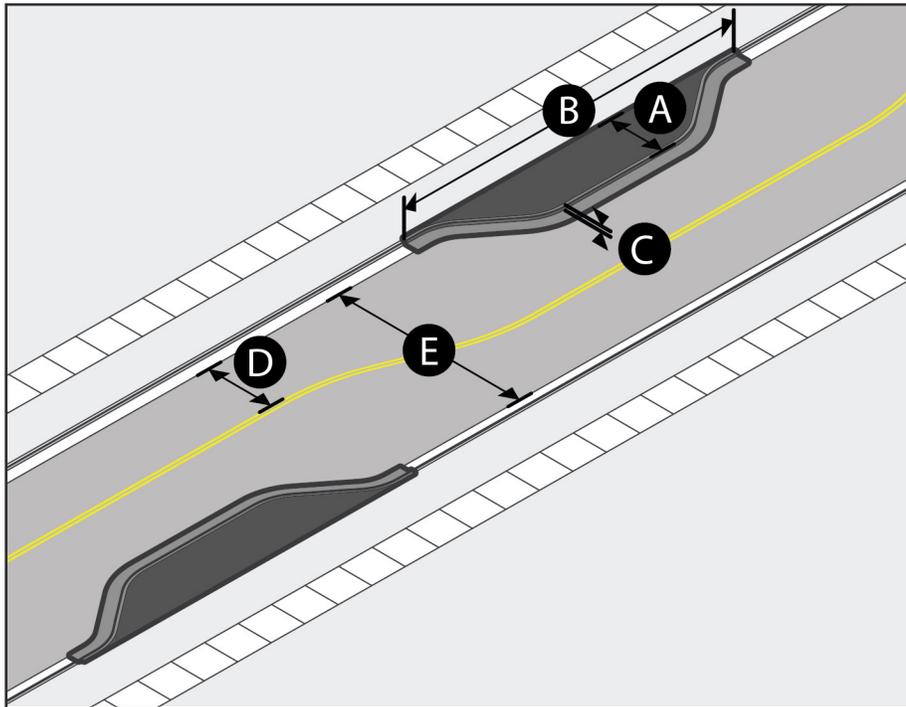
SPEED REDUCTION: -6 TO -9 MPH
REDUCTION FACTOR: HIGH

AKA: LATERAL SHIFT

Alternating curves or lane shifts that force a motorist to steer back and forth. Created with alternating curb extensions; can also be achieved by alternating on-street parking.

TYPICAL DIMENSION RANGE

- A** 8' - 10'
- B** 20'+
- C** 3" - 6"
- D** 10' - 12'
- E** 28' - 36'



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 (Low)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades 8+%

COST

 (Moderate)

ADVANTAGES

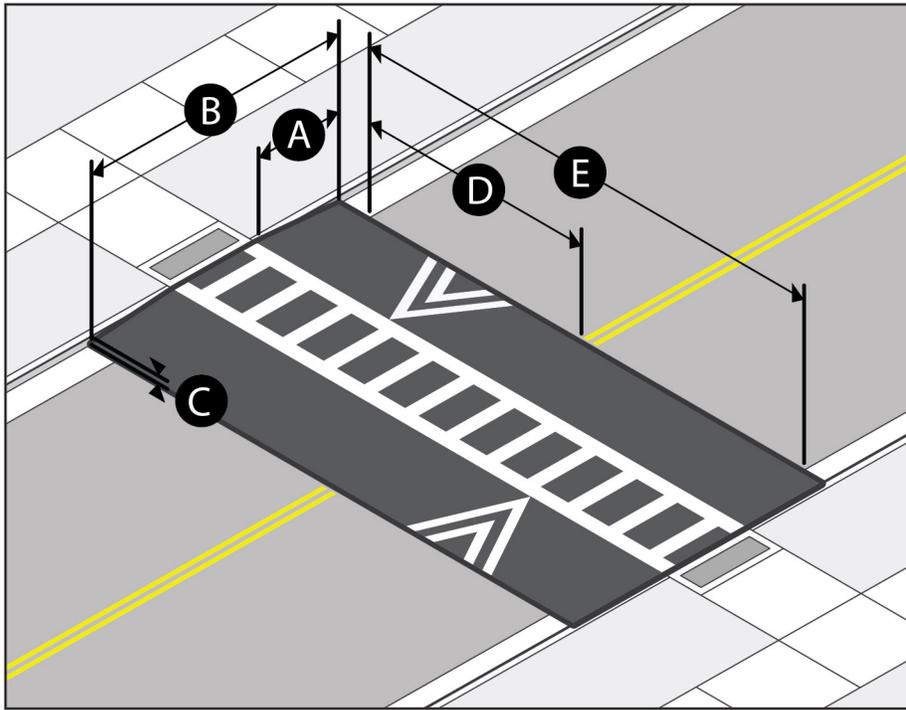
- Urban and suburban-appropriate
- Landscaping creates green space
- Horizontal shift slows traffic

DISADVANTAGES

- Bikes and vehicles must share lane
- Drivers can cut straight paths with poor design

Raised Crosswalk

SPEED REDUCTION: -6 TO -9 MPH
REDUCTION FACTOR: HIGH



AKA: SPEED TABLE

Raised area perpendicular to roadway with pedestrian crosswalk atop, using vertical deflection to reduce vehicle speeds. Height varies based on roadway type. Appropriate at midblocks & intersections.

TYPICAL DIMENSION RANGE

- A** 4' - 6'
- B** 12' - 20'
- C** 3" - 4"
- D** Lane width
- E** Pavement width



SPEED

Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

(Low)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

Truck
 Transit
 Steep Grades 8+%

COST

(Low)

ADVANTAGES

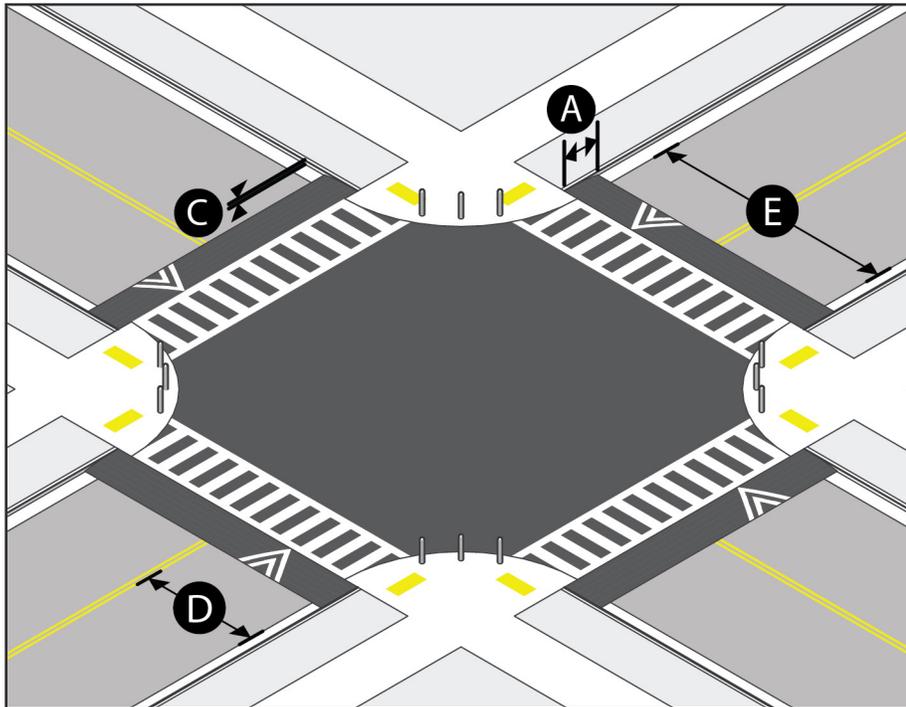
- Improves walkability, and crossing
- Reduces speeds between crosswalks
- Low impacts to bike safety

DISADVANTAGES

- Damage from snow plows (winter)
- Increase in noise
- Traffic may shift to adjacent streets

Raised Intersection

SPEED REDUCTION: -1 TO -2 MPH
REDUCTION FACTOR: LOW



Flat, raised area covering an entire intersection, including crosswalks, with ramps at all approaches. May be accompanied by brick or other decorative materials and textures.

TYPICAL DIMENSION RANGE

- A** 6' - 12'
- B** Intersection width
- C** 3" - 6"
- D** Lane width
- E** Pavement width



SPEED

 Posted Speeds up to 30 MPH

TRAFFIC & VOLUME

 (Low)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades

✓ ✓ ✓

COST

 (High)

ADVANTAGES

- Improves accessibility
- Residential and commercial-appropriate
- Effectively slows large trucks

DISADVANTAGES

- May lose roadway edge definition
- Drainage / utilities modification necessary
- Potential for higher costs

Neighborhood Traffic Circle (mini)

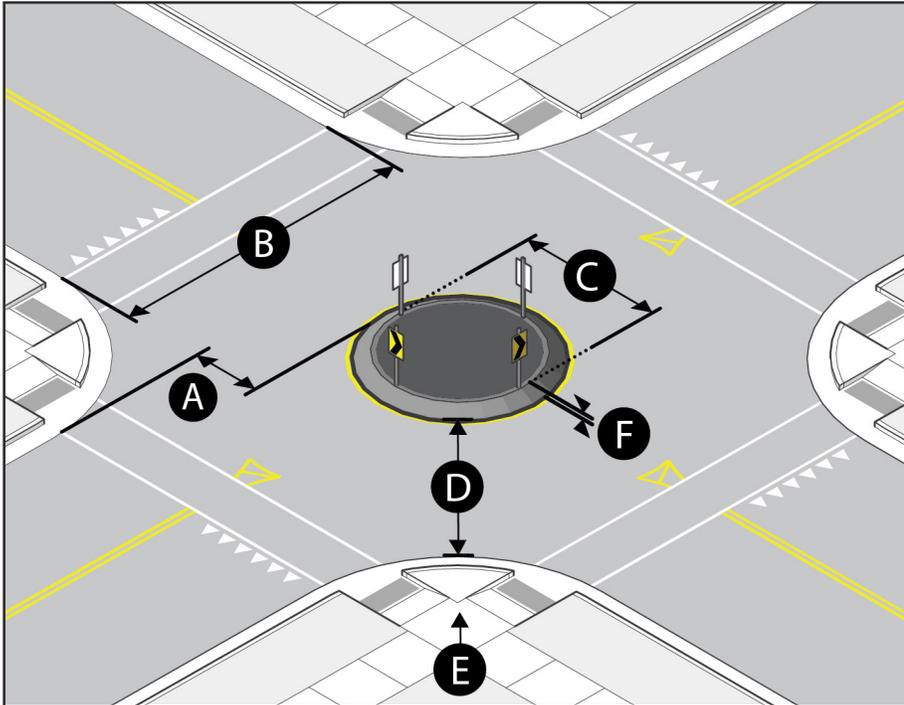
SPEED REDUCTION: -2 TO -4 MPH
REDUCTION FACTOR: LOW

AKA: MINI ROUNDABOUT

Raised circular island within an unsignalized intersection around which traffic passes. Unlike roundabouts, there is no horizontal deflection on approach; may use Stop or Yield signs instead.

TYPICAL DIMENSION RANGE

- A** 5.5' maximum
- B** 20' - 40'
- C** 9' minimum
- D** 16' - 20'
- E** 10' - 25' radius
- F** 3" - 6"



SPEED

Posted Speeds up to 30 MPH

TRAFFIC & VOLUME

(Low)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

Truck **X** Transit **X** Steep Grades **✓** (8+%)

COST

(Moderate)

ADVANTAGES

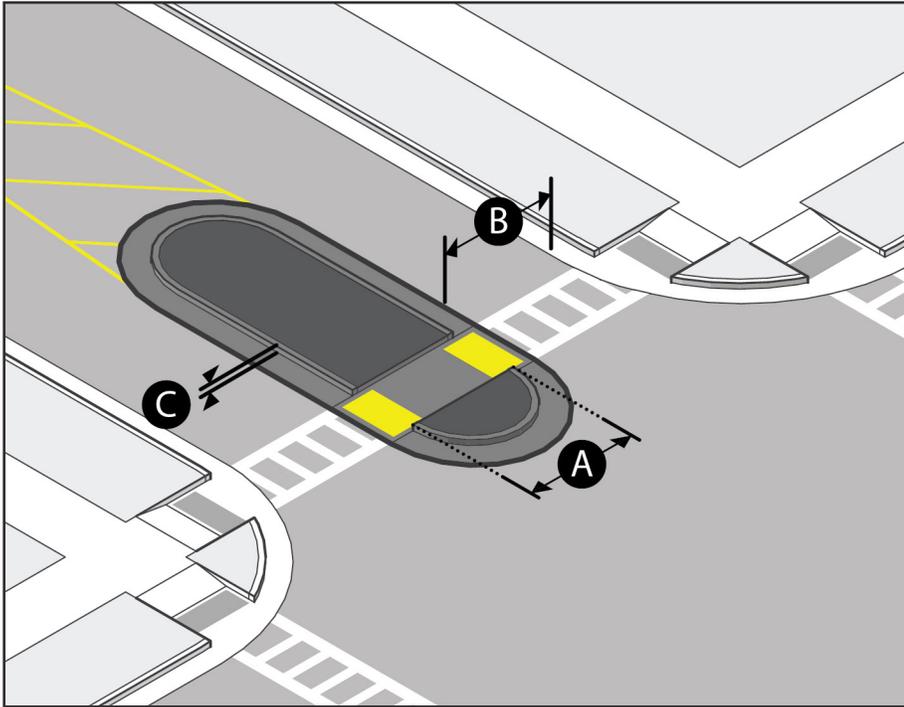
- Urban and suburban-appropriate
- Landscaping creates green space
- Horizontal shift slows traffic

DISADVANTAGES

- Drainage, utilities relocation considerations
- Potential for higher costs
- Large, left-turning vehicles may cut intersection

Pedestrian Refuge Island

SPEED REDUCTION: -3 TO -6 MPH
REDUCTION FACTOR: MEDIUM



Raised island located along the centerline of the roadway at an intersection, with a center cutout for pedestrians to rest while crossing. Islands narrow lane width and reduce pedestrian crossing distance.

TYPICAL DIMENSION RANGE

- A** 4' - 10'
- B** 10'+
- C** 3" - 6"



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades

✓ ✓ ✗

COST

 (Moderate)

ADVANTAGES

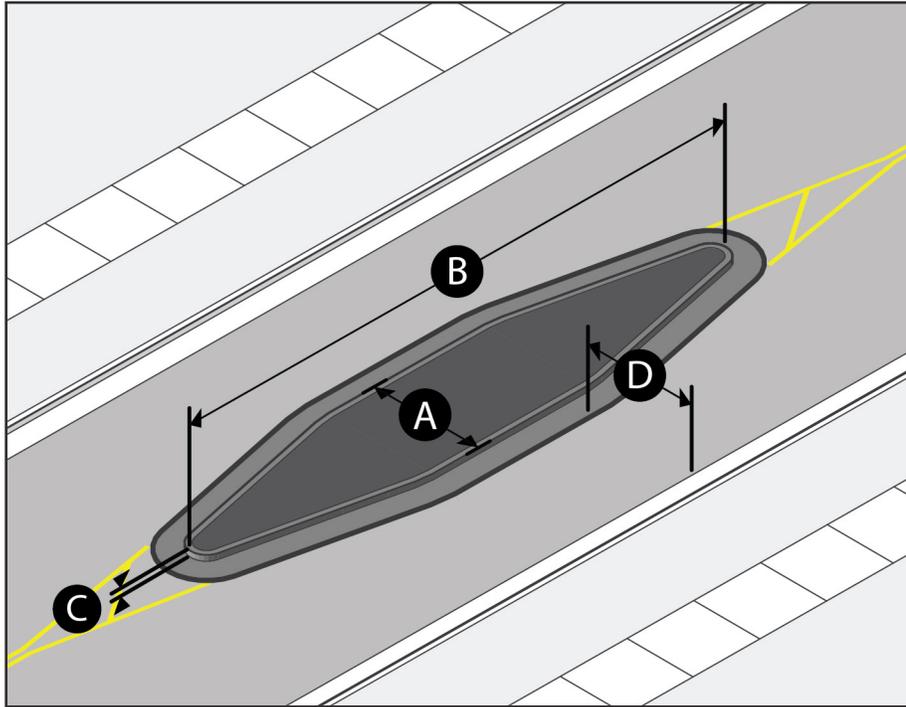
- Increases pedestrian visibility
- Shortens crossing distances
- Raised curb improves nighttime safety

DISADVANTAGES

- Landscaping can increase maintenance costs
- Drainage / utilities relocation considerations
- Turning radius impacts for large vehicles

Median Island

SPEED REDUCTION: -3 TO -6 MPH
REDUCTION FACTOR: MEDIUM



Raised island along a street centerline that narrows the travel lane width at midblock locations. May be a raised curb (preferred) or painted area, and with or without landscaping.

TYPICAL DIMENSION RANGE

- A** 4' - 10'
- B** 20'+
- C** 3" - 6"
- D** 10' - 11'



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades 8+%

COST

 (Moderate)

ADVANTAGES

- Raised curb improves nighttime safety
- Reduces vehicle conflict points (turning, or crossover)
- Can function as mid-block refuge island

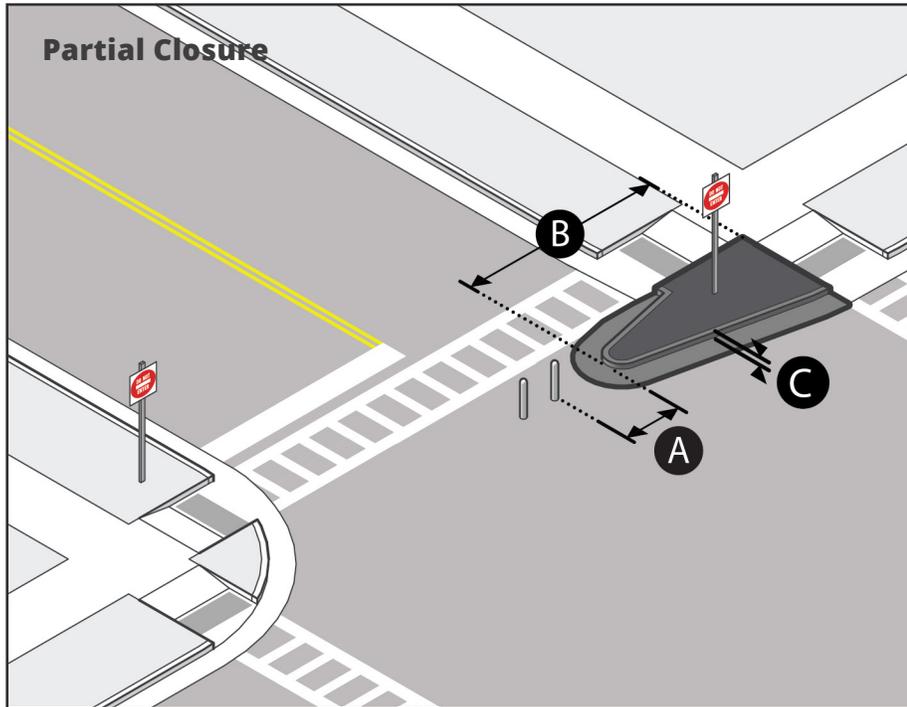
DISADVANTAGES

- Bikes and vehicles must share lane
- Drainage / utilities relocation considerations
- Damage from snow plows (winter)

Semi-Diverter / Partial Closure

SPEED REDUCTION: -4 TO -6 MPH
REDUCTION FACTOR: MEDIUM

AKA: DIAGONAL DIVERTER



Physical barrier blocking vehicle travel in one direction for a short distance on an otherwise two-way street. May block entering or exiting depending on its placement.

TYPICAL DIMENSION RANGE

- A** 4' - 6'
- B** Up to 12'
- C** 3" - 6"



SPEED

Posted Speeds up to 35 MPH

TRAFFIC & VOLUME



ROUTE TYPES (ADDITIONAL CONSIDERATIONS)



COST



ADVANTAGES

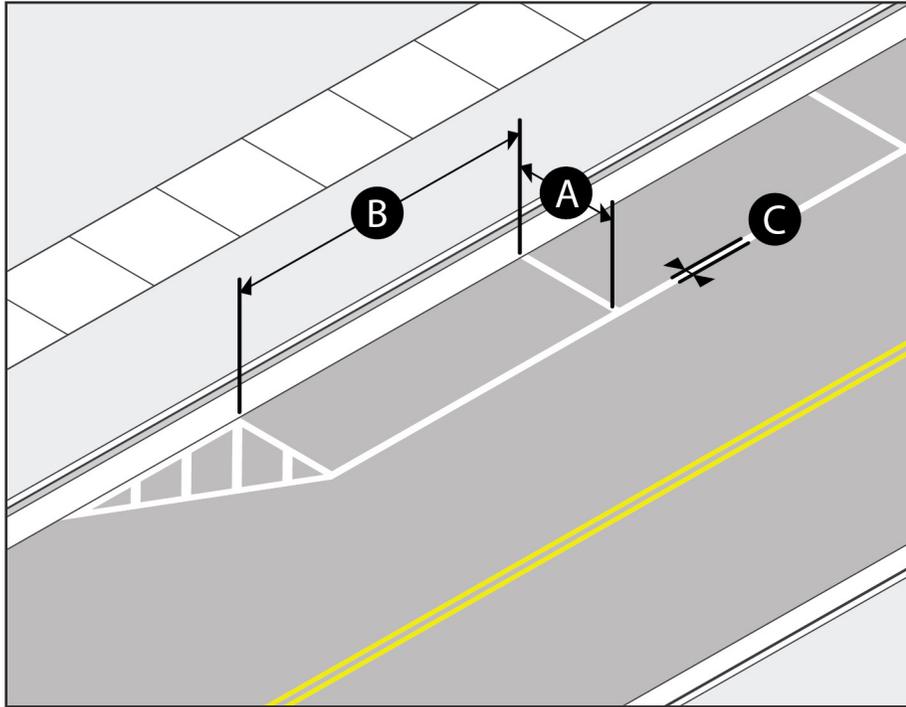
- Improves bike and pedestrian safety
- Lowers volumes for the closed travel lane
- Landscaping creates green space

DISADVANTAGES

- Traffic may shift to adjacent streets
- Impacts property accessibility
- Reduces overall vehicular traffic, while retaining bike & pedestrian access

On-Street Parking

SPEED REDUCTION: -1 TO -5 MPH
REDUCTION FACTOR: LOW



Parking spaces in the roadway located next to travel lanes that increase side friction to traffic flow. May be angled, parallel, or reverse-angled. Alternate along a corridor to mimic a chicane.

TYPICAL DIMENSION RANGE

- A** 7' - 8'
- B** 20'
- C** 6" stripe



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck ✓
 Transit ✓
 Steep Grades 8+% ✗

COST

 (Low)

ADVANTAGES

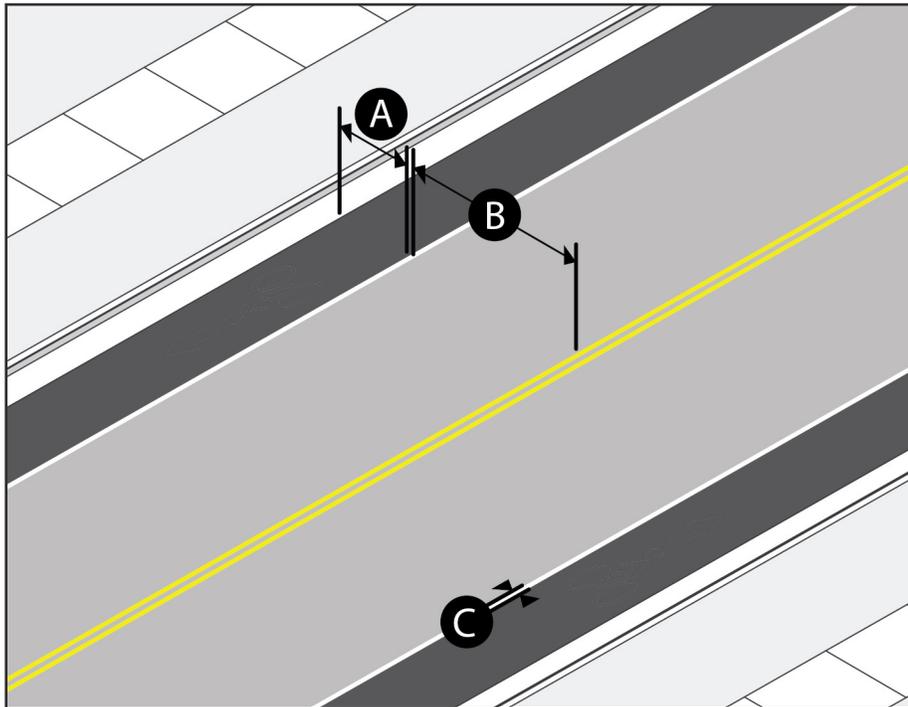
- Speed reduction likely
- Improves property accessibility
- Improves bike / ped safety as buffer from traffic

DISADVANTAGES

- Use engineer's judgment on truck, emergency routes
- Negligible effect without parking demand
- Little impact to vehicle conflicts

Restriping

SPEED REDUCTION: -1 TO -2 MPH
REDUCTION FACTOR: LOW



Reducing the width of a travel lane for use by bicyclists, or parked cars, through pavement markings and/or signage.

TYPICAL DIMENSION RANGE

- A** 5' - 8'
- B** Lane width
- C** 6" stripe



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades 8+%

COST

 (Variable - Site Conditions)

ADVANTAGES

- Reduces pedestrian crossing distance and vehicle speeds
- Reduces conflicts in roadway
- Offsets vehicles from curb

DISADVANTAGES

- Use engineer's judgment on truck routes
- Increased bike-vehicle conflict at intersections
- Congestion impacts from road diet

Unique Signage



SPEED REDUCTION: LOW
REDUCTION FACTOR: LOW

Non-regulatory signage that offer a unique branding or public art opportunity, and shifts driver behavior. Generally used as a gateway treatment. Requires City permitting and approval.

TYPICAL DIMENSION RANGE

Varies - see Manual on Uniform Traffic Control Devices (MUTCD).



SPEED

 Posted Speeds up to 35 MPH

TRAFFIC & VOLUME

 n/a

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades

✓ ✓ ✓

COST


 (Variable - Low Cost)

ADVANTAGES

- Creative opportunity for neighborhood residents
- Sense of place / ownership
- Opportunity for public art

DISADVANTAGES

- Non-standard signage within ROW
- Potential for distracted driving
- Maintenance costs / vandalism

Streetscaping

SPEED REDUCTION: VARIES
REDUCTION FACTOR: VARIES



Improvement of the public right-of-way (behind the curb) to enhance urban design quality. May incorporate vertical elements to create a sense-of-enclosure for drivers.

TYPICAL DIMENSION RANGE

Entirely context-sensitive to the neighborhood, and the preference of the residents.



SPEED

 Posted Speeds up to 45 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit  Steep Grades 8+%

✓ ✓ ✓

COST

 (Variable)

ADVANTAGES

- Improves walkability, aesthetics
- Slows speeds without impacting curblines
- Placemaking / public art opportunities

DISADVANTAGES

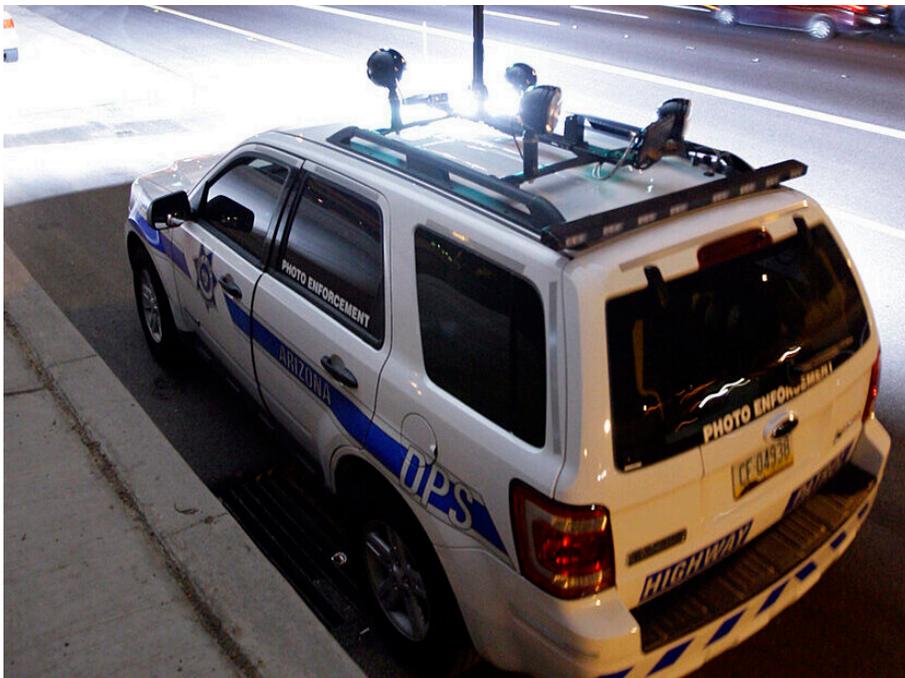
- Potential for higher costs
- May impact sight distances
- Drainage / utilities relocation considerations

Speed Safety Camera (Mobile)

SPEED REDUCTION: VARIES
REDUCTION FACTOR: MEDIUM

AKA: TEMPORARY

A road vehicle upfitted with speed camera equipment which can park at the side of the road, or on over bridges to monitor the speed of passing traffic. Typically staffed by a full-time police officer.



SPEED

 Posted Speeds up to 55 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck  Transit 
 ✓ ✓ ✓

COST


 (Variable)

ADVANTAGES

- Law enforcement is a strong deterrent
- Can move easily to needed locations

DISADVANTAGES

- Requires labor resources (two persons)
- Potential for higher costs (equipment)
- Legal status of camera programs may change

Speed Safety Camera (Fixed)

SPEED REDUCTION: LOW
REDUCTION FACTOR: LOW

AKA: PERMANENT

Fixed camera at permanent location, intersection or mid-block, that monitors the speeds of passing vehicle traffic. Citations are validated by staff prior to issuing fines by mail.



SPEED

 Posted Speeds up to 55 MPH

TRAFFIC & VOLUME

 (High)

ROUTE TYPES (ADDITIONAL CONSIDERATIONS)

 Truck
✓

 Transit
✓

 Steep Grades
✓

COST

 (Variable)



ADVANTAGES

- Automated; extends law enforcement resources
- May reduce crashes, red light running as well
- Can be easily installed in variety of locations

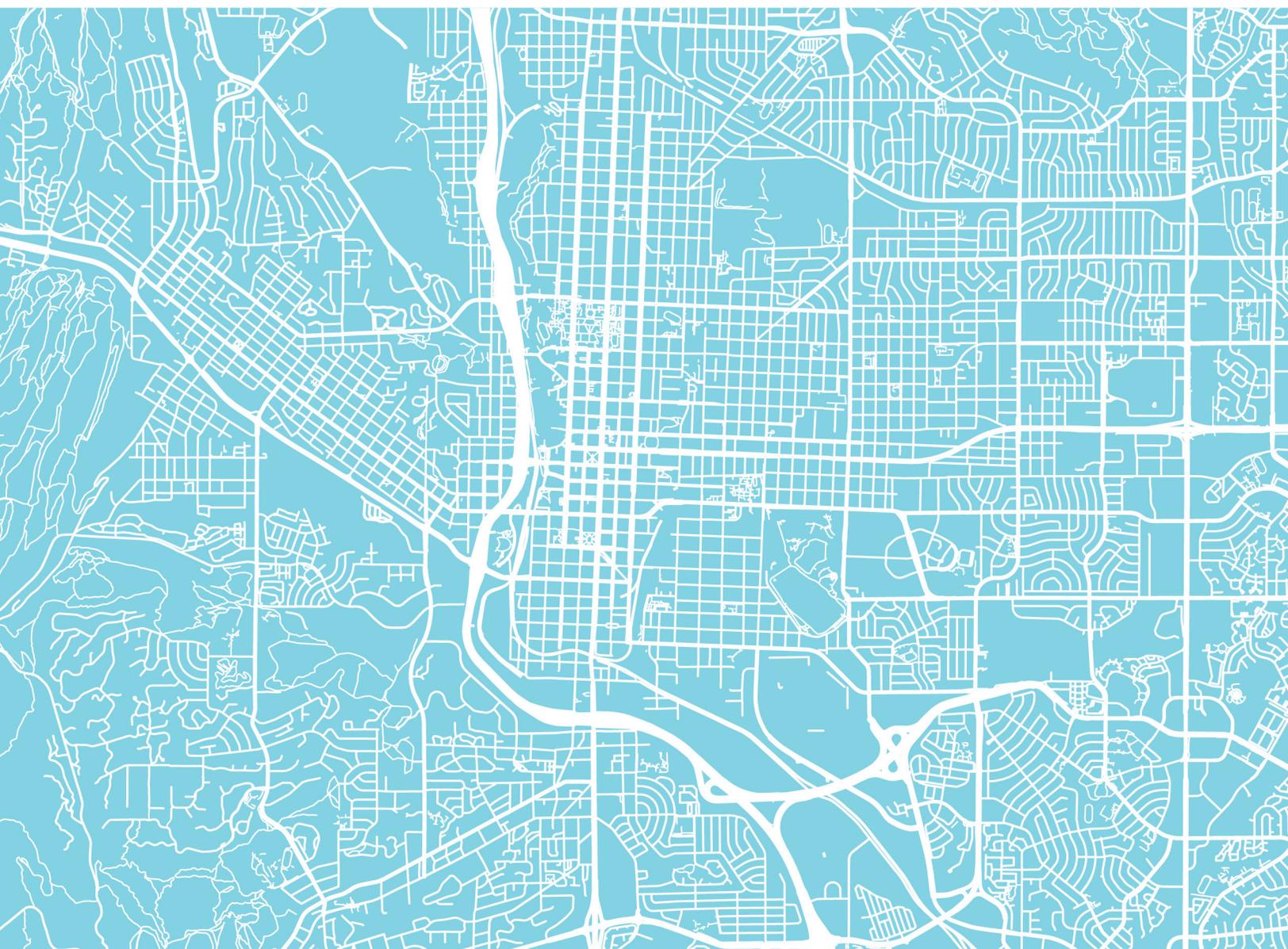
DISADVANTAGES

- Potential for higher costs
- Legal status of camera programs may change

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04 RESOURCES & CONTACTS



OTHER TRAFFIC CALMING RESOURCES

Previous chapters lay out the process, design treatments, and evaluation matrix for Colorado Springs' traffic calming program as it currently stands. But a good program must evolve over time to keep pace with trends and new challenges as they arise. Colorado Springs can look to the following resources to keep its program current and effective in responding to residents' concerns:

Standards

This Manual was created with reference to **national standards** for traffic calming devices and roadway design engineering. Standards have the force of authority, issued or adopted as official by government agencies, and must be met as a minimum standard of practice. These include the following:

- FHWA. Manual on Uniform Traffic Control Devices (MUTCD). Available: <https://mutcd.fhwa.dot.gov/index.htm>
- AASHTO. A Policy on Geometric Design of Highways and Streets. 7th Edition. Available: <https://aashtojournal.org/2018/09/28/aashto-releases-7th-edition-of-its-highway-street-design-green-book/>
- ICC. International Fire Code. Available: <https://coloradosprings.gov/fire-code-resources>



Guidance

Best practices may go beyond the standards established by governing agencies. **Guidance documents** often provide additional design details, threshold warrants, or selection criteria for traffic calming measures. Unlike standards, guidance does not have the force of authority, but may be issued by the same government agencies or industry associations that are highly regarded and recognized as having special expertise in the matter. These include, but are not limited to the following:

- FHWA Office of Safety. Traffic Calming ePrimer. Available: <https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer>.
- Institute of Transportation Engineers (ITE). Traffic Calming Measures Guide. Available: www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/.
- National Association of City Transportation Officials (NACTO). Urban Street Design Guide. Available: <https://nacto.org/publication/urban-street-design-guide/>



Peer Cities

Elements from similar Traffic Calming programs were reviewed during this planning process in an effort to remain consistent with industry-standard practices. Several peer city programs were reviewed, notably, the Cities of Peoria, AZ and Scottsdale, AZ, among others. Similar elements identified included:

- Program website and descriptions
- Emphasis on Traffic Engineering treatments
- Emphasis on residential streets
- Criteria (or thresholds) for selection with data collection
- Resident petition (request) process



Contact Us

NEIGHBORHOOD TRAFFIC CALMING WEBSITE:

- <https://coloradosprings.gov/public-works/page/neighborhood-traffic-calming>

TRAFFIC ENGINEERING:

- <https://coloradosprings.gov/traffic>
- (719) 385-5908

GOCOS! APP:

- In the App Store (iOS):
<https://apps.apple.com/us/app/gocos/id1483976080>
- In the Play Store (Android):
https://play.google.com/store/apps/details?id=com.accela.cosprings_co&hl=en_US&gl=US
- Desktop:
<https://coloradosprings.gov/gocos>

