



# City of Trenton Safe Streets for All Complete Streets and Bike Plan

Complete Streets Summit  
November 1, 2023

# Complete Streets – The Beginnings

## **Provide the framework to implement Trenton's Complete Streets Resolution**

Resolution passed in 2012

Trenton began using a Complete Streets checklist from NJDOT

Checklist resulted in some improvements, such as sharrows

During Trenton 250, citizens asked for the Resolution to be implemented



**Vision Zero is the goal and Complete & Green Streets are how we get there.**

But severe crashes are not just happening on Route 129

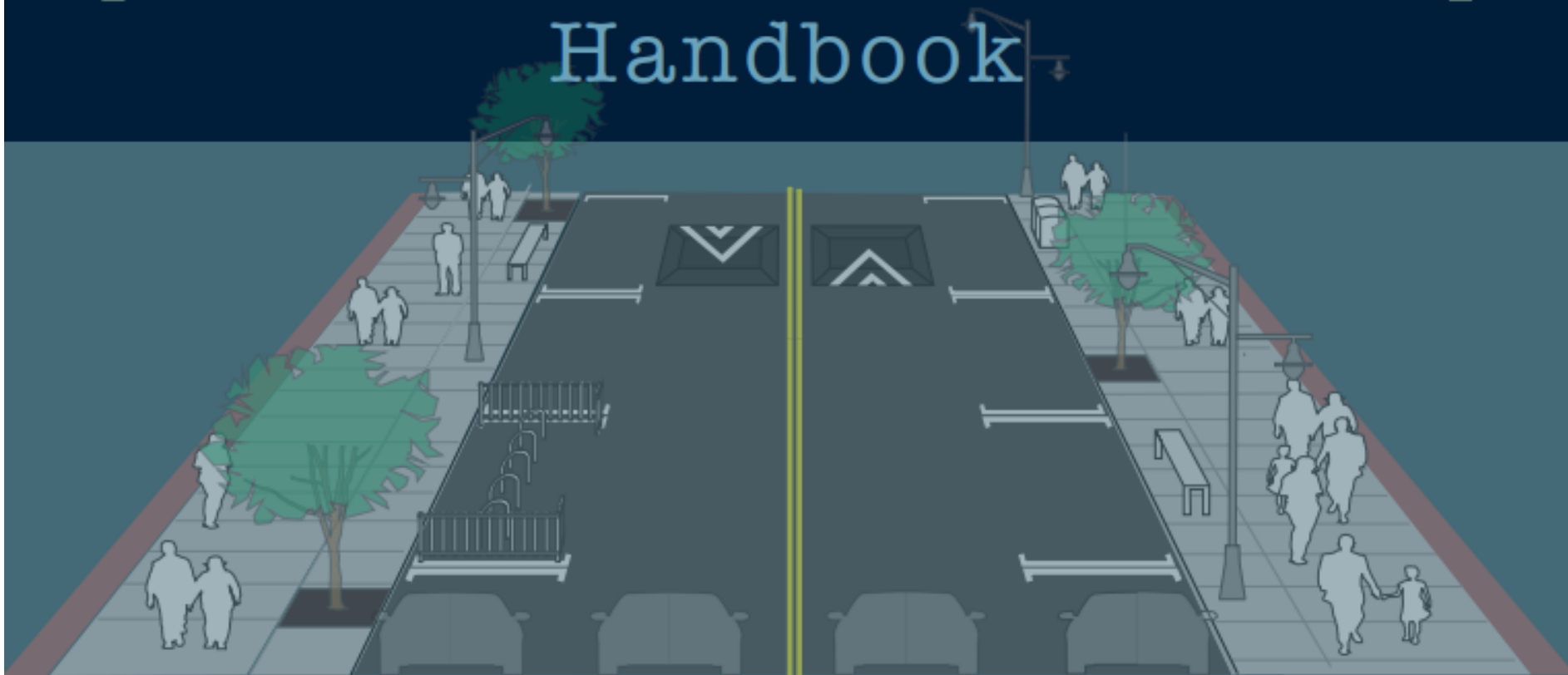
## Trenton Vision Zero High Injury Network

- **Two-thirds** of all **killed** and **serious injury crashes** occur on just **16%** of Trenton streets

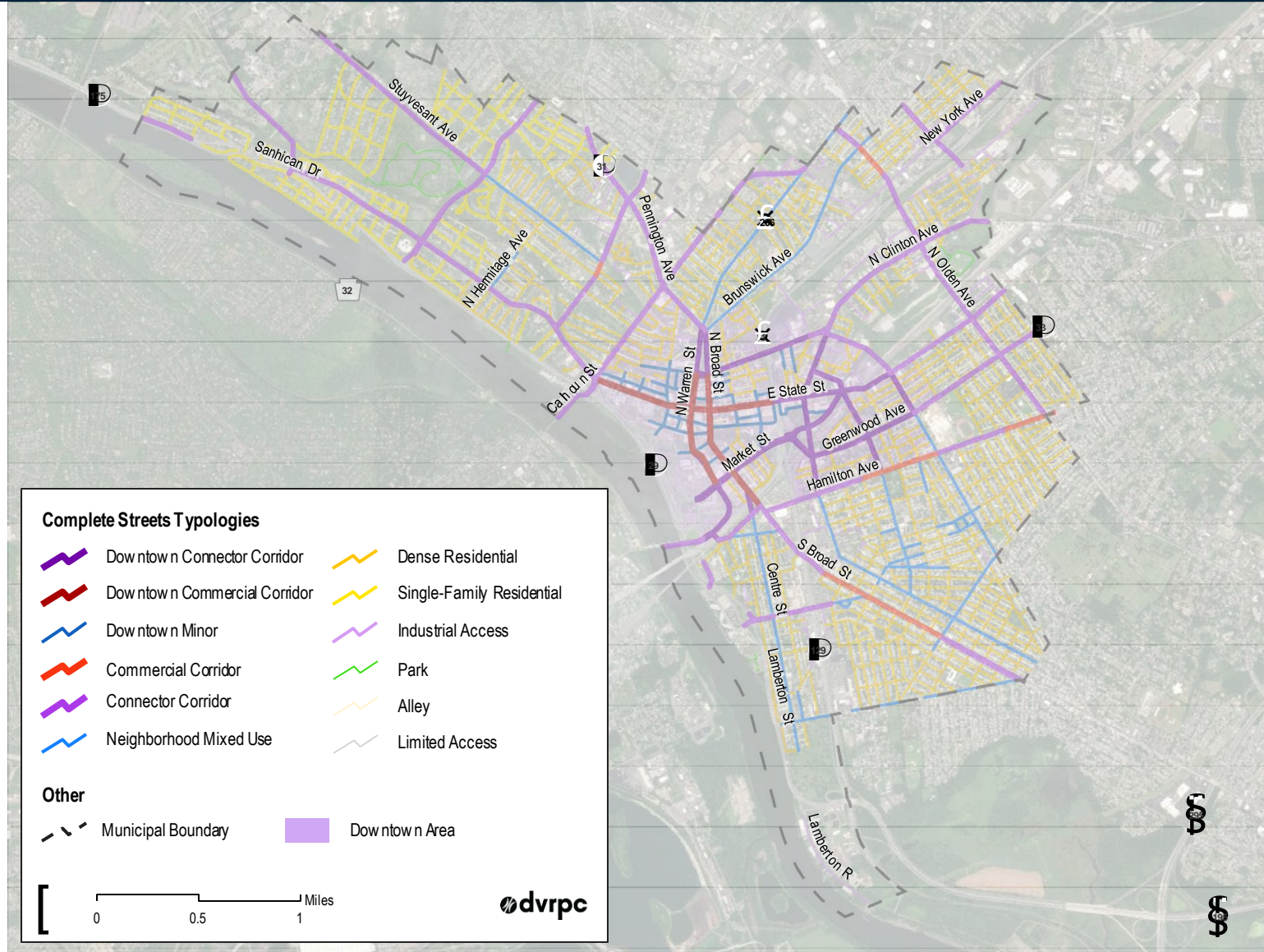
Source: NJDOT Crash Data (2016-2020)



# Trenton [ COMPLETE STREETS DESIGN ] Handbook



# Typologies overviews



# Overlays development

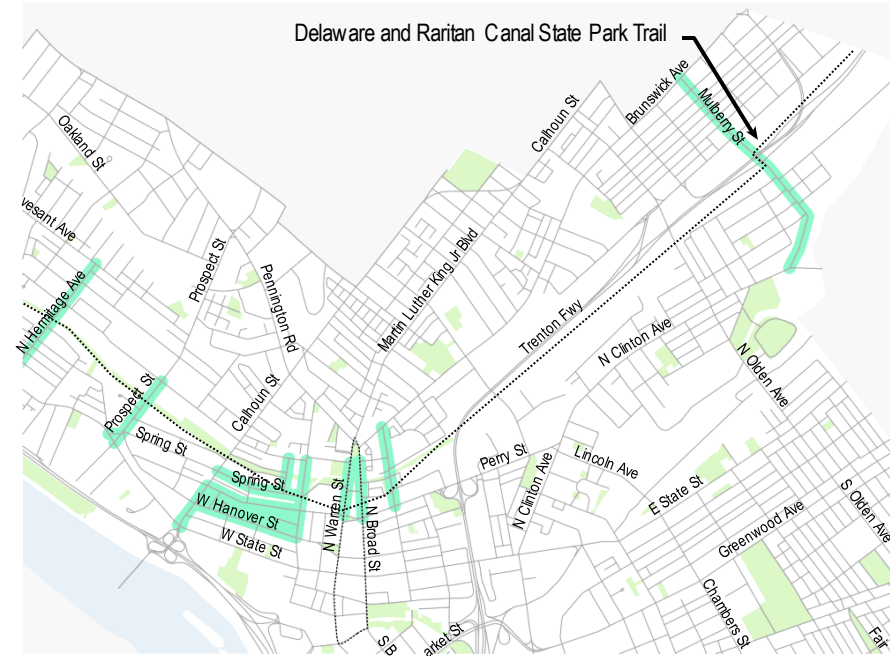
## Park Access



Access streets to parks

200' from each segment adjacent to points

## Trail Access



Trail access points

Extends to signalized intersections

# Typology Spread

## Dense Residential

**Goal:** Create safe, comfortable spaces that prioritize access for all users of the street and for neighborhood uses

**Primary Land Use:** Residential

**Density:** Above Average

**Average Estimated Traffic Volume:** 1,300 vehicles/day

**Miles:** 149.1 miles

**Examples:** Genesee Street

### Overview

Dense residential streets are characterized by multi-family developments and attached single-family homes. These streets are primarily residential, but may include some small commercial or institutional land uses such as corner stores, churches, and schools. These streets should be designed for local traffic and the comfort of all users.

\*Note that intersection elements are not included in the graphic, but may still be required.

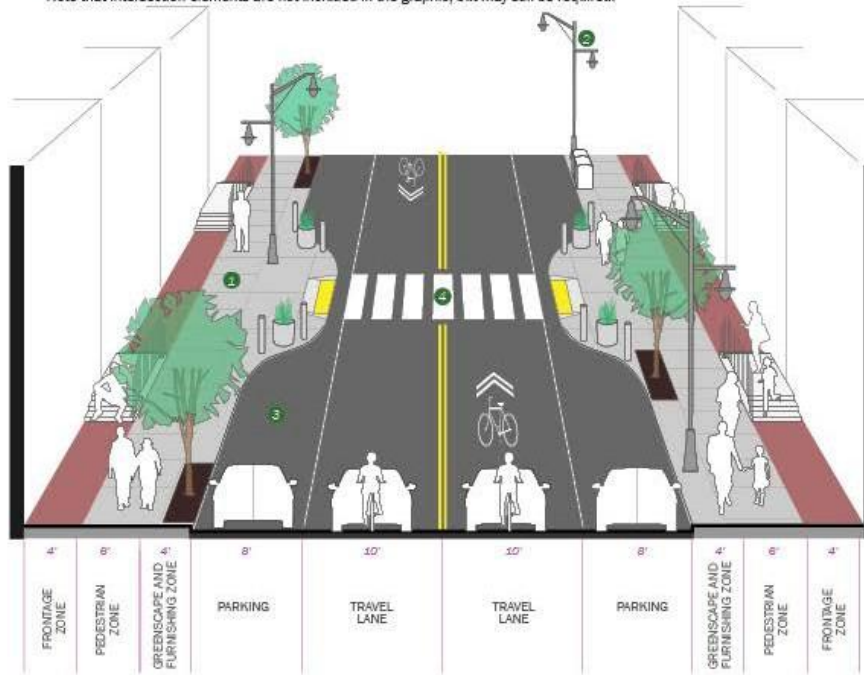


Figure 6 Model cross-section of a Dense Residential street

Source: DVRPC, 2019

### Design Considerations

	ELEMENT	✓	STIPULATIONS
SIDEWALK	Frontage Zone	As Needed	
	Pedestrian Zone <sup>1</sup>	Required	5' - 6' sidewalk should be standard cast-in-place concrete up to 6'
	Greenscape-Furnishing Zone	Recommended	stormwater planters, tree trenches, rain gardens
	Drainage/ Green Stormwater Infrastructure	As Needed	
	Sidewalk Cafes and Plazas	As Needed	
	Street Trees	Recommended	small-medium stature, spaced at least 20' apart
SIDEWALK ELEMENTS	Street Furniture	As Needed	may be placed by residents if Pedestrian Zone can be maintained
	Lighting	Recommended	alternating across street, 75'-120' spacing
	Bus Stop Amenities	As Needed	provide seating, add shelter if possible
	Bike Parking	As Needed	
CURB	Driveways / Entrances	As Needed	no more than 10'-12' wide, at least 20' from signalized intersections
	curb Extensions	As Needed	
	Bus Loading curb Extensions	Not Recommended or Not Applicable	
	On-street Parking <sup>2</sup>	As Needed	parallel parking
ROADWAY	Road Facing	As Needed	
	Parklets	As Needed	
	Loading Zones	Not Recommended or Not Applicable	
	Lane Narrowing	Recommended	maximum of 10', unless road used by buses
	Traffic Calming Strategies <sup>3</sup>	Recommended	use speed cushions if road used by buses or heavy vehicles
TRANSIT	Vertical Deflection	As Needed	use where speeding is a problem
	Chicanes	As Needed	
	Neckdowns	As Needed	use in areas with high pedestrian volume, mid-block crossings
	Dedicated Bus Lane	Not Recommended or Not Applicable	
BIKES	Bicycle Facilities <sup>4</sup>	As Needed	consider sharrows and creating Neighborhood Greenways
	Crosswalks <sup>5</sup>	Recommended	continental style at all controlled intersections
	Pedestrian Signals and Warning Signs	Not Recommended or Not Applicable	install countdown timers and LPIs at all signalized intersections
INTERSECTION	Pedestrian Safety and Priority	Not Recommended or Not Applicable	
	Pedestrian Refuge Island	As Needed	
	Bike Boxes	Recommended	install at signalized intersections with bike facilities
BIKES	Two-stage Turning Boxes	As Needed	use where there is high bike turning volumes and/or cycle tracks
	Vertical Deflection and Turn Calming	Recommended	use at intersections with corridors and where speeding is a problem

<sup>1</sup>**Pedestrian Zone:** Six foot Pedestrian Zone is recommended, but porches and stoops are permissible as long as a five foot Pedestrian Zone is maintained.

<sup>2</sup>**On-Street Parking:** Spaces dedicated to short-term parking and drop-off zones may be used near some land uses like apartment buildings, churches, corner stores, or schools.

<sup>3</sup>**Roadway - Traffic Calming Strategies:** Traffic calming is permissible to keep speeds low, especially where speeding and speeding-related crashes are common.

<sup>4</sup>**Bicycle Facilities:** Vertical and horizontal deflection, signage and other tools can be used to keep speeds and volumes low and create Neighborhood Greenways. These sets of treatments are used to slow vehicular traffic and prioritize bicyclist movements.

<sup>5</sup>**Crosswalks:** Midblock crossings can be used as needed, likely around pedestrian trip generators.

Legend: ■ Required ■ Recommended ■ As Needed ■ Not Recommended or Not Applicable ★ Not shown in graphic but required



# Applying elements to types of projects

Category	Element	Project Type 1	Project Type 2	Project Type 3	Project Type 4	Project Type 5	Project Type 6	Project Type 7	Project Type 8	
SIDEWALK	Sidewalk Zones	Pedestrian Zone	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Greenscape-Furnishing Zone	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
	Sidewalk Elements	Drainage/Green Stormwater Infrastructure	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Sidewalk Cafes and Plazas	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Street Trees	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Street Furniture	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Lighting	Required	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Bus Shelters	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Bike Parking	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	Required
		Driveways / Entrances	Required	Required	Required	Required	Required	Required	Required	Required
CURB	Sidewalk Facing	Curb Extensions	Required	Interim Strategy	Interim Strategy	Required	Required	Required	Required	
		Bus Loading Curb Extensions	As Needed	Interim Strategy	Interim Strategy	Required	Required	Required	Required	
	Road Facing	On-street Parking	As Needed	Required	Required	Required	Required	Required	Required	
		Parklets	As Needed	Not Applicable	Not Applicable	Required	Required	Required	Required	
		Loading Zones	As Needed	Required	Required	Required	Required	Required	Required	
		Lane Narrowing	Required	Required	Required	Required	Required	Required	Required	
ROADWAY	Traffic Calming Strategies	Vertical Deflection	Required	Interim Strategy	Interim Strategy	Required	Required	Required	Required	
		Chicanes	Required	Interim Strategy	Interim Strategy	Required	Required	Required	Required	
		Neckdowns	Required	Interim Strategy	Interim Strategy	Required	Required	Required	Required	
	Transit	Dedicated Bus Lane	As Needed	Required	Required	Required	Required	Required	Required	
Bikes	Bicycle Facilities	As Needed	Required	Required	Required	Required	Required	Required		
INTERSECTION	Pedestrian Safety and Priority	Crosswalks	Required	Required	Required	Required	As Needed	Required	Required	
		Pedestrian Signals and Warning Signs	Required	Required	Required	Required	As Needed	Required	Required	
		Pedestrian Refuge Island	Required	Not Applicable	Not Applicable	Required	Required	Required	Required	
	Bicycle Safety and Priority	Bike Boxes	Required	Required	Required	Required	Required	Required	Required	
		Two-stage Turning Boxes	Required	Required	Required	Required	Required	Required	Required	
Traffic Calming	Vertical Deflection and Turn Calming	Required	Interim Strategy	Interim Strategy	Required	Required	Required	Required		

■ Required 
 ■ Interim Strategy 
 ■ As Needed 
 ■ Not Applicable

# Checklists

**LOCATION:** \_\_\_\_\_

**TPOLOGY: DENSE RESIDENTIAL**

**Are you including all required elements (refer to Included table)? Yes or No**

**If not, describe why.** \_\_\_\_\_

**Are you including most or all recommended elements (refer to table)?**

**Yes or No**

**If not, describe why.**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

		ELEMENT	STIPULATIONS AND GUIDANCE	
SIDEWALK	Sidewalk Zones	Frontage Zone		
		Pedestrian Zone <sup>1</sup>	5' - 6', sidewalk should be standard cast-in-place concrete	
		Greenscape-Furnishing Zone	up to 6'	
	Sidewalk Elements	Drainage/Green Stormwater Infrastructure	stormwater planters, tree trenches, rain gardens	
		Sidewalk Cafes and Plazas		
		Street Trees	small-medium stature, spaced at least 20' apart	
		Street Furniture	may be placed by residents if Pedestrian Zone can be maintained	
		Lighting	alternating across street, 75'-120' spacing	
		Bus Stop Amenities	provide seating, add shelter if possible	
		Bike Parking		
CURB	Sidewalk Facing	Driveways / Entrances	no more than 10'-12' wide, 20'-40' from signalized intersections	
		Curb Extensions		
		Bus Loading Curb Extensions		
	Road Facing	On-street Parking <sup>2</sup>	parallel parking	
		Parklets		
ROADWAY	Traffic Calming Strategies <sup>3</sup>	Lane Narrowing	maximum of 10', unless road used by buses	
		Vertical Deflection	use speed cushions if road used by buses or heavy vehicles	
		Chicanes	use where speeding is a problem	
		Neckdowns	use in areas with high pedestrian volume, midblock crossings	
	Transit Bikes	Dedicated Bus Lane		
	INTERSECTION	Pedestrian Safety and Priority	Bicycle Facilities <sup>4</sup>	consider sharrows and creating Neighborhood Greenways
			Crosswalks <sup>5</sup>	continental style at all controlled intersections
Pedestrian Signals and Warning Signs			install countdown timers and LPIs at all signalized intersections	
Bicycle Safety and Priority	Priority	Pedestrian Refuge Island		
		Bike Boxes	install at signalized intersections with bike facilities	
	Two-stage Turning Boxes	use where there is high bike turning volumes and/or cycle tracks		
Traffic Calming	Vertical Deflection and Turn Calming	use at intersections with Corridors and where speeding is a problem		

■ Required 
 ■ Recommended 
 ■ As Needed 
 ■ Not Recommended or Not Applicable

# Design Elements Overview

## Design Elements

### Overview

The design elements in this chapter are organized into four sections: sidewalk, curb, roadway, and intersection. This organization helps to identify project components, but it also highlights how different design elements are connected. For example, bumpouts are part of the curb zone, but they also serve as a traffic calming device in the roadway.

A full list of treatments are listed on the next page and explored in depth throughout this chapter. Some design elements can be built quickly with low-cost materials. These interim strategies typically utilize easy-to-install elements like planters or delineator posts and can be used to test designs or build public support before replacing with concrete. Treatments that may utilize interim strategies are indicated by a green icon (see "Key" below). Many elements have benefits to safety, including crash reduction. Orange icons indicate where an element has been included in Federal Highway Administration's (FHWA) Proven Safety Countermeasures,

and the crash reduction benefit is listed. Most elements include technical specifications to ensure that concerns like minimum clearances or sight lines are addressed. The guidance in this document is not exhaustive, however, and is tailored to focus on specifications that support Complete Streets implementation. Additional guidance documents are referenced for many design elements.

A Complete Street should unify each of the four sections by providing facilities that work with other elements of the street. Bicycle lanes are incomplete without bicycle storage. Bus lanes are incomplete without dignified shelters and stops. Each element works together with others to unify the streetscape, providing amenities for all street users.

### Key

*Interim Design Strategy*

*FHWA Proven Safety Countermeasure*



One-way street, Trenton, NJ

Source: Jay Watson

## Design Treatment List

### Sidewalk (pp. 76-87)

#### Sidewalk Zones

##### Sidewalk Elements

- Drainage & Green Stormwater Infrastructure
-  Sidewalk Cafes & Plazas
- Street Trees
- Street Furniture
- Lighting
- Bus Shelters
- Bike Parking

### Curb (pp. 88-95)

#### Sidewalk Facing Elements

- Driveways & Entrances
-  Curb Extensions
-  Bus Loading Curb Extensions

#### Roadway Facing Elements

- On-street Parking
- Loading Zones
-  Parklets
- Drainage & Green Stormwater Infrastructure

### Roadway (pp. 96-103)

#### Traffic Calming Strategies


- Lane Narrowing
-  Lane Reductions
-  Vertical Deflection
- Speed Humps
- Speed Tables
- Speed Cushions

-  Chicane

-  Neckdown

#### Prioritizing Transit

-  Dedicated Bus Lane




-  Bicycle Facilities

### Intersection (pp. 104-116)

#### Pedestrian Safety and Priority Elements

-  Crosswalks
- Pedestrian Signals and Warning Signs
-  Countdown Timers and LPIs
- In-Street Crossing Signage
-  RRFBs and Pedestrian Hybrid Beacon
-  Pedestrian Refuge Islands

#### Bicycle Safety and Priority Elements

- Bike Signals
-  Bike Boxes
-  Two-Stage Turning Boxes
-  Intersection Crossing Markings

#### Traffic Calming Strategies

- Vertical Deflection
- Raised Intersections
-  Raised Crosswalks
-   Roundabouts
-  Right-turn Traffic Calming
-  Left-turn Traffic Calming
- Diverter

# Safe Streets for All Committee

reference the **Trenton Complete Streets Design Handbook**, including completion of the checklist. City agencies and boards will be required to review the checklist as part of their approval process.

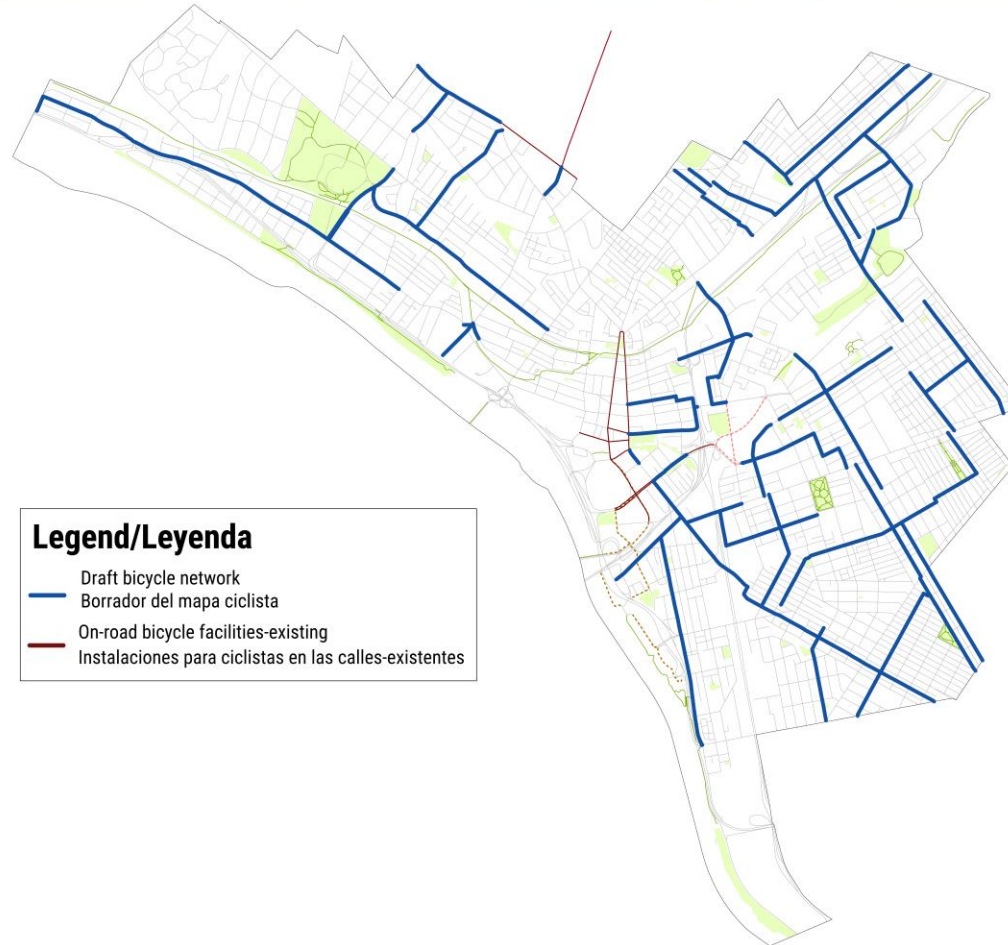
## 41. Establishing a “Safe Streets for All Steering” Committee

- l. A **Safe Streets for All Steering Committee** comprising of a broad group of public and non-public sector members/stakeholders shall be established to advise on the implementation of the Complete and Green Streets Policy. Public sector membership shall correspond with the officials’ tenure, or if the member is the Mayor’s designee in the absence of the Mayor, the designee shall serve at the pleasure of the Mayor during the Mayor’s official tenure. Non-public sector membership shall be for a term of 2–years and shall run from January 1 of the year in which the appointment is made.
- m. Members of the Safe Streets for All Steering Committee, through the coordination of the Department of Housing and Economic Development, will consist of the following:
  - (1) The following stakeholders shall be members of the Committee. The Chair will be determined by these members:
    - i. Mayor or designee;
    - ii. Business Administrator or designee;
    - iii. City Council member or designee;
    - iv. Police Director or designee;
    - v. Public Works Director or designee;
    - vi. Director of Housing and Economic Development or designee;
    - vii. Public Health Director or designee;
    - viii. Director of Emergency Medical Service or designee;
    - ix. Fire Chief or designee; and
    - x. Director of Recreation, Natural Resources, and Culture or designee.
  - (2) The following stakeholders may be members of the Committee:
    - i. Mercer County Engineer or designee;
    - ii. Mercer County Planner or designee;
    - iii. Delaware Valley Regional Planning Commission representative;
    - iv. New Jersey Department of Transportation Local Aid representative;
    - v. School Superintendent or designee; and
    - vi. NJ Transit representative.
  - (3) The following stakeholders may be members of the Committee with an appointment from the City Council:
    - i. One (1) community member representing each ward;
    - ii. Other members of the community, including persons with disabilities, representatives of senior and youth organizations, persons representing low- and moderate-income communities, persons with limited or no access to a vehicle, people with limited English proficiency, and persons of racial/ethnic

# Trenton Bicycle Network

If streets aren't changed, this is what is left of the bike network, because 10' is needed for any kind of bike lane, and 11'-12' for any kind of protected bike lane.

Si las calles no se cambian, esto es lo que queda de la red ciclista, porque se necesitan 10' para cualquier tipo de carril bici, y 11'-12' para cualquier tipo de carril bici protegido.



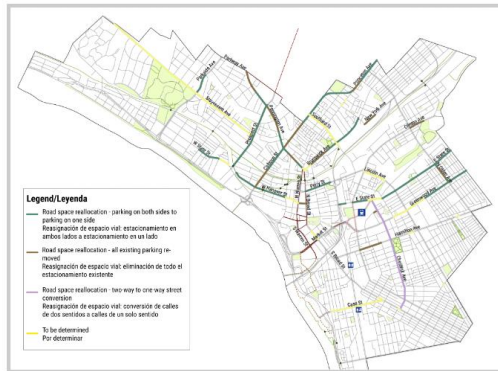
## Legend/Leyenda

- Draft bicycle network  
Borrador del mapa ciclista
- On-road bicycle facilities-existing  
Instalaciones para ciclistas en las calles-existentes



Tell us where you are willing to try changing the way street space is used.

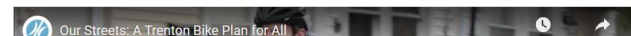
Díganos lo que opina: ¿Dónde estaría dispuesto a probar el reasignación de espacio vial?



Learn more about the project goals and background. *Obtenga más información sobre los objetivos y antecedentes del proyecto.*

For closed captions, click the YouTube button in the bottom right.

Para ver los subtítulos, haga clic en el YouTube botón de la parte inferior derecha.



What is the Trenton bike plan? ¿Cuál es el plan de bicicletas de Trenton?

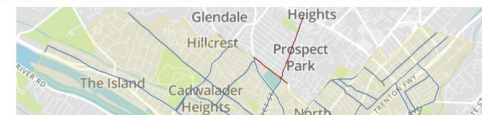
Watch the one-minute video about the plan below. For closed captions, click the YouTube button in the bottom right. After, click "CC".

Vea el video de un minuto sobre el plan. Para ver los subtítulos, haga clic en el YouTube botón de la parte inferior derecha. Después, haga clic en "CC".



Tell us what you think about the draft bicycle map by dropping pins on the map.

Díganos lo que opina sobre el borrador del mapa ciclista añadiendo marcadores al mapa.



- Our Streets event at Samuel Naples Community Center  
May 07 2023
- Share your thoughts online  
May 24 → August 05 2023
- Last day to share your thoughts online  
August 05 2023
- Our Streets event at East Trenton Collaborative  
August 05 2023

Project Milestones

- Public Survey Responses  
Public survey responses were gathered from September to November of 2022. Surveys were available in English and Spanish, online and in-person. In-person survey distribution efforts included the Art All Day/Ciclovia event at Artworks Trenton, Food Bazaar (Roebling Market), and Downtown Trenton (at the intersection of Warren Street and State Street).
- Our Streets Public Events  
EVERYONE WELCOME! Come to the Our Streets events for free food and Mister Softee ice cream, bring your bike for a free tune-up, enter to win bikes and grocery store gift cards, and more. Spanish translation and family-friendly activities will be available. Bring your neighbors and tell us what you think.  
RSVP [here](#) for the event on Tuesday April 25, 2023 from 6-8pm at Jenny Stubblefield Senior Center

# Our Streets: Bike Plan Open House

Photo credits: Kathy Deal, Amy Bernknopf, Clyde Scott, Kevin Murphy, Alison Hastings, Corey Hannigan



Feedback booths



"Attractors"



Giveaways



**NUESTRAS CALLES**

Presente esta tarjeta en cada uno de los siguientes módulos de participación. Recibirá una perforación en cada módulo que visite.

Quando visite 5 módulos, puede participar en el sorteo para ganar una bicicleta o una tarjeta de regalo con \$50 para un supermercado. ¡Si visita los 8 módulos puede participar dos veces en el sorteo!

5 PERFORACIONES = 1 BOLETO      8 PERFORACIONES = 2 BOLETOS

1 2 3 4 5 6 7 8



# The first two events by the numbers



Photo credit: Kathy Deal, event volunteer

**What we spent:** \$5,000

**What we got:**

- 3 DVRPC projects engaging
- 450 feet of pop-up bike lanes demonstrating
- 50+ volunteers interacting
- 22 bikes given away
- 6 grocery store gift cards given away
- 150+ ice cream cones served
- 45 pizzas eaten
- 5 translators translating
- 2 community centers hosting
- 1 graffiti blaster blasting
- 1 mayor hand-shaking
- 1 councilman note-taking

***And tons of lessons learned!***





**Thank You!**  
**Write me at:**  
**[mkolber@trentonnj.org](mailto:mkolber@trentonnj.org)**

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