



You Need to Calm Down: Traffic Calming in Lancaster City

April 2026

visionzerolancaster.com





About Lancaster City

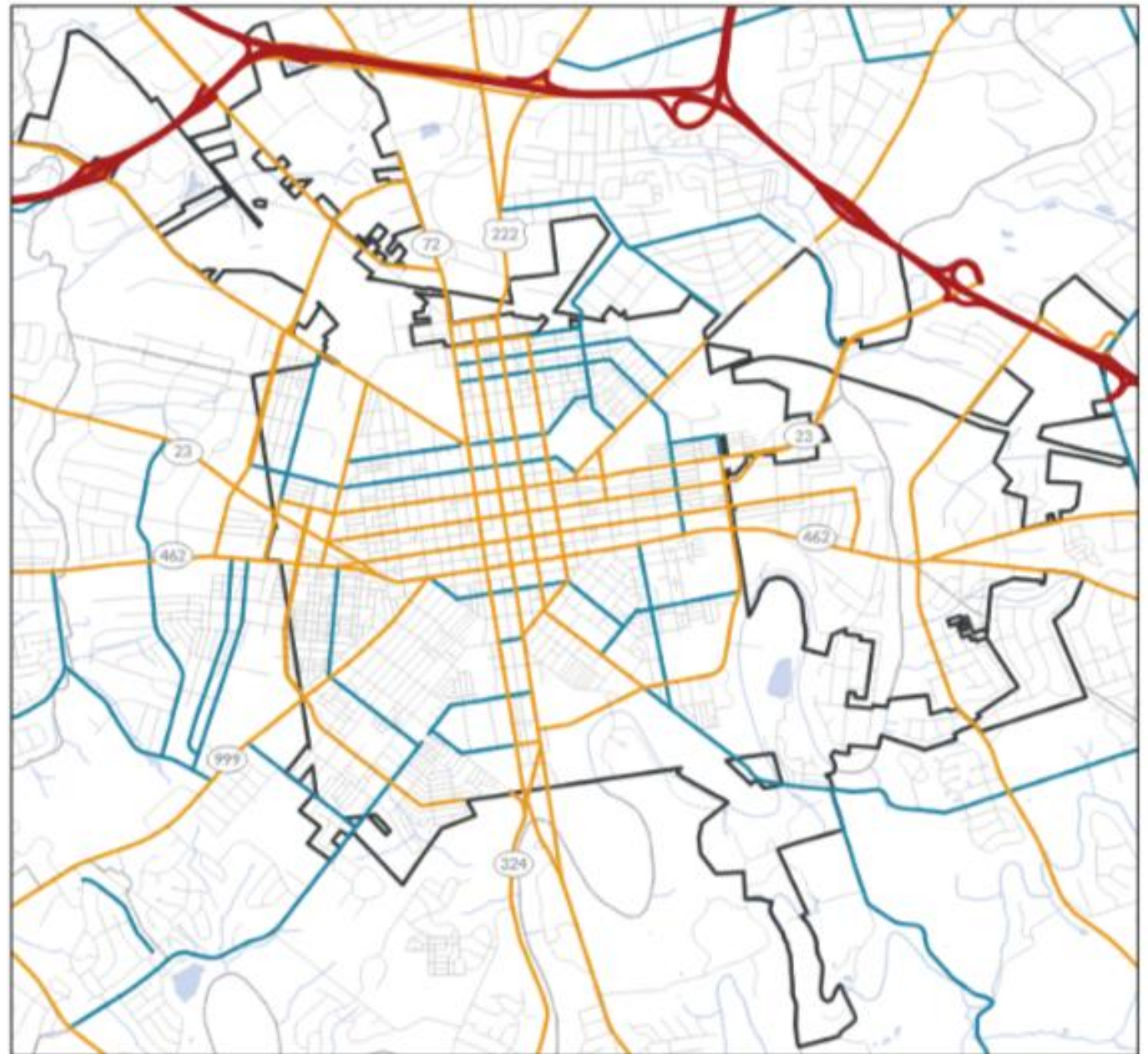
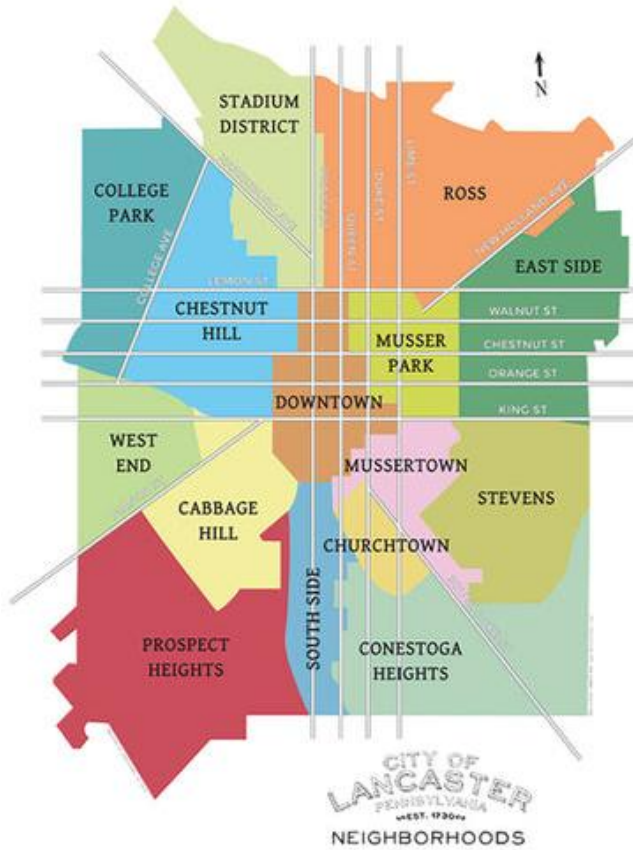
visionzerolancaster.com



Our City



Street Grid & Neighborhoods

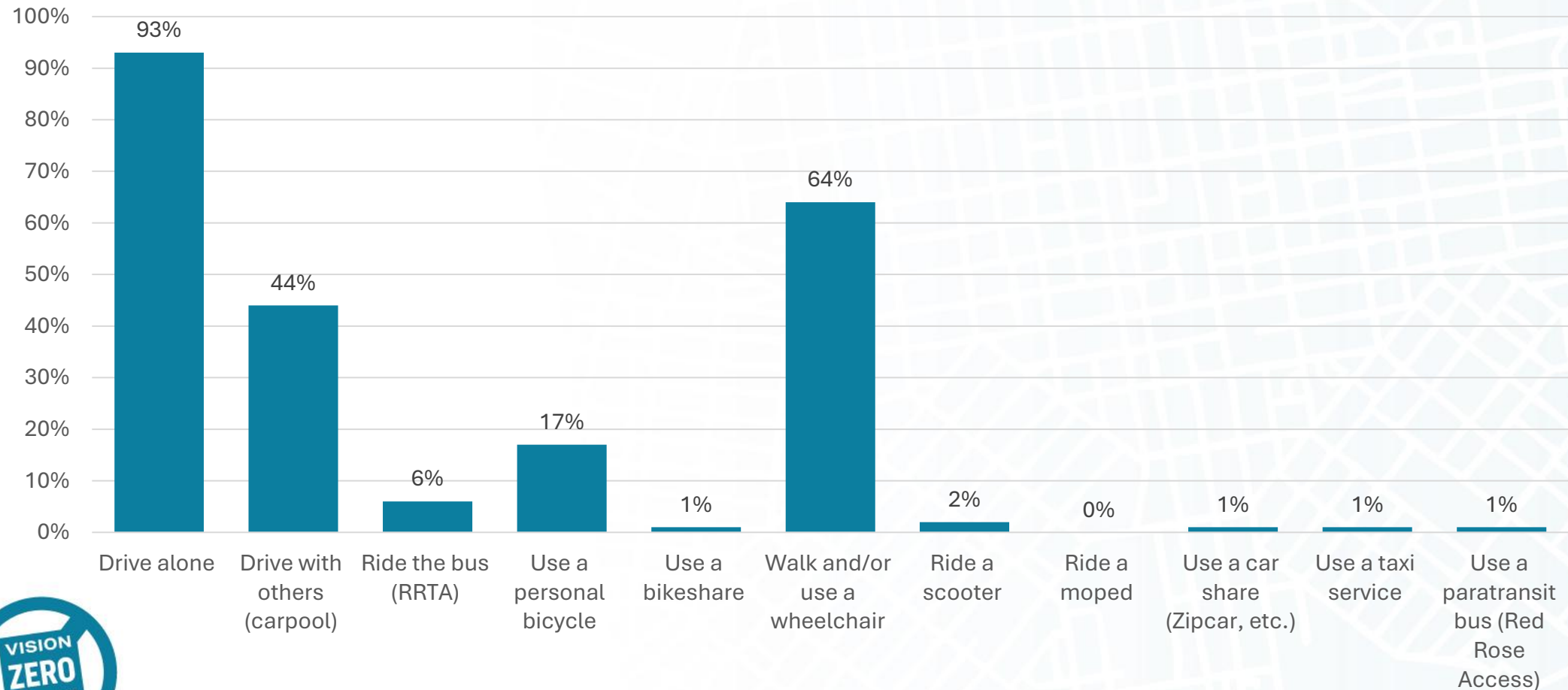


- Interstate/Freeway
- Arterial
- Collector
- Local
- City Limits



visionzerolancaster.com

In the past week, what methods of transportation have you or your household used to move around the city?



visionzerolancaster.com

Source: Residential Permit Parking Survey (2024)

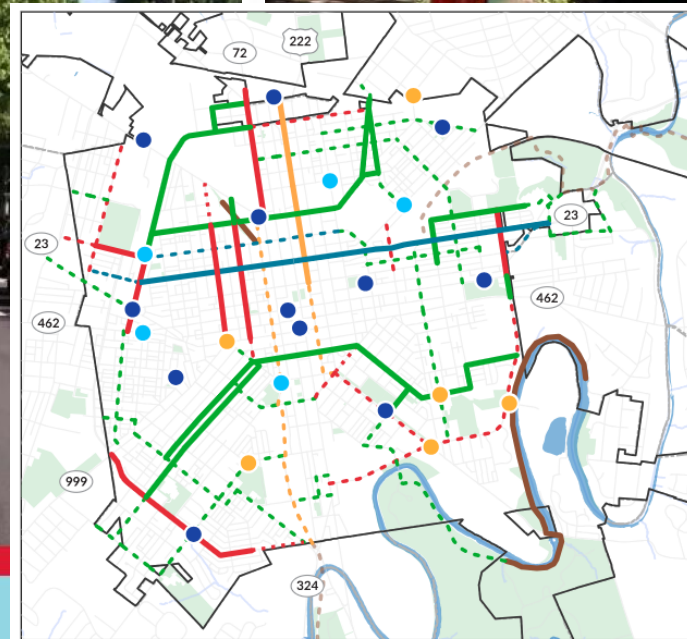


**CITY OF
LANCASTER**



POLICY

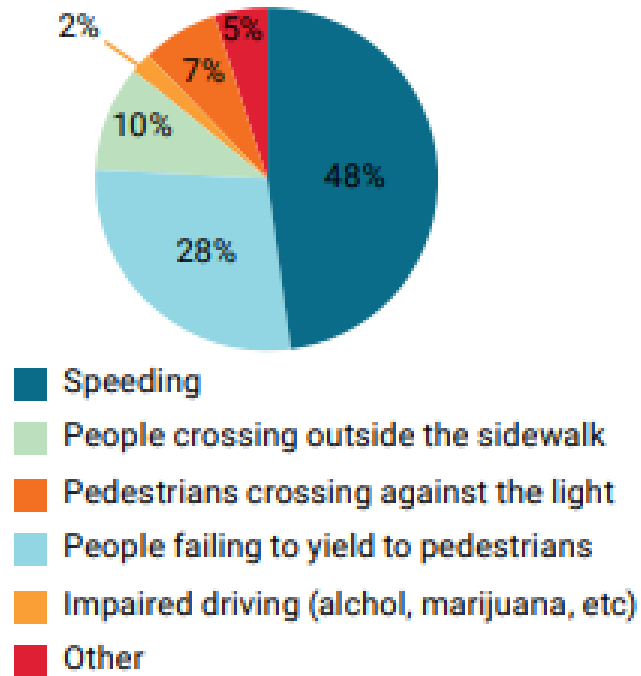
Our Plans



- | Existing | Proposed | |
|---------------------|---------------------|-------------|
| Bike Boulevard | Bike Boulevard | City Limits |
| Protected Bike Lane | Protected Bike Lane | Waterbodies |
| Bike Lane | Bike Lane | Parks |
| Shared Street | Shared Street | |
| Trails | Trails | |
| Bike Share Station | Station Location | |
| Virtual Station | | |

Safety

Figure 11: Responses on Behaviors Believed to Lead to Traffic Safety Issues



QUOTES FROM THE PUBLIC

WHAT DID THE PUBLIC TELL US ABOUT THEIR EXPERIENCES BIKING AND WALKING?

SAFETY

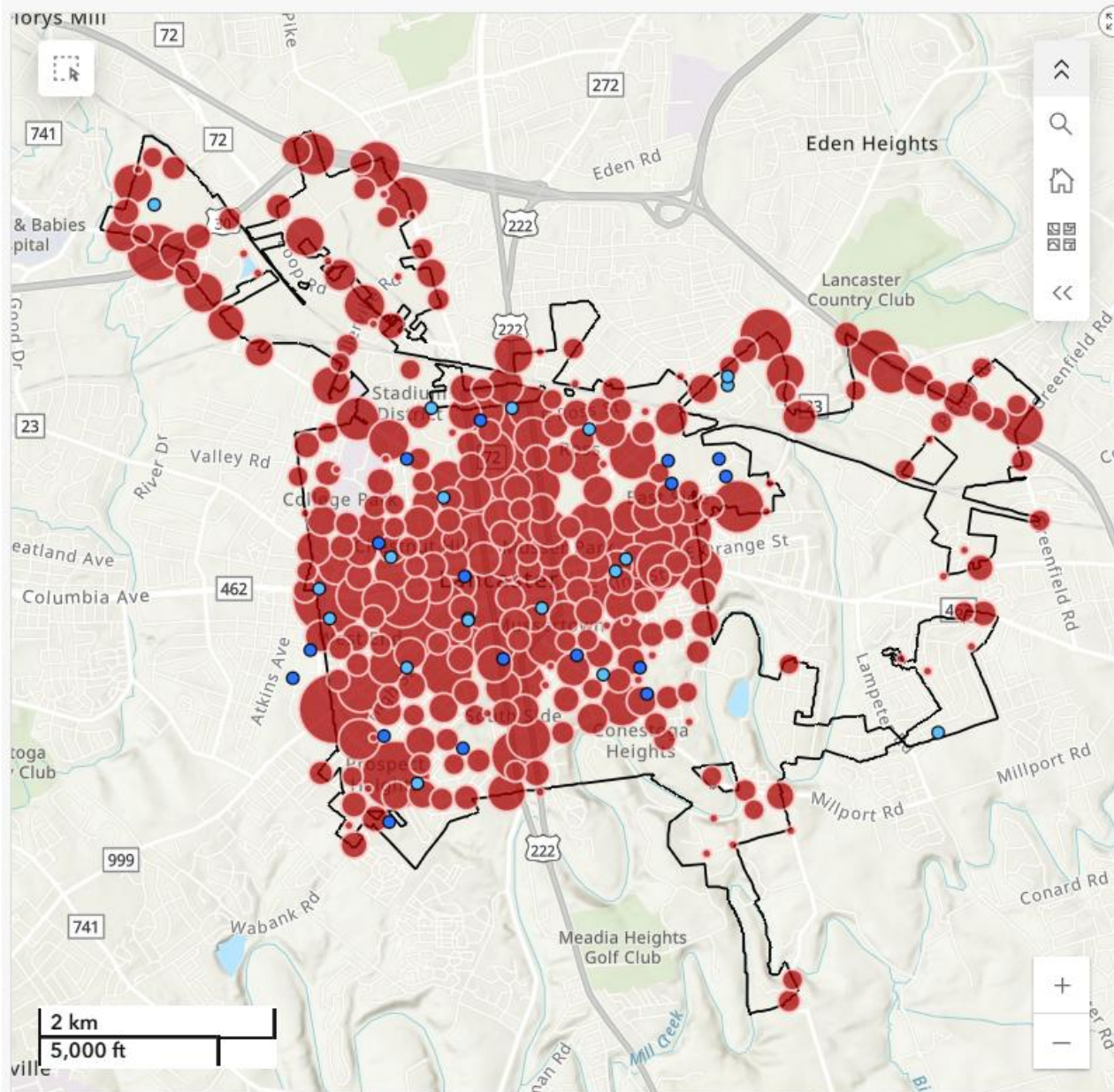
- “We love to bike with our young kids in bike seats but often do not feel safe because of motorists. Also I have had a few scary moments crossing streets when pushing my stroller with my children because of careless drivers not respecting the pedestrian crossing signals.”
- “I have been very interested in biking downtown but have been too afraid to do it. Drivers don’t always pay attention to bikers, and bikers don’t always follow proper road rules. It makes it too nerve wracking to attempt on a regular basis, for me.”
- “It is dangerous to bike many places in the county. I am newly retired and would leave my car at home if I could safely bike to central market, grocery stores, and restaurants. Please make that possible!”



visionzerolancaster.com



City of Lancaster Crash Data Dashboard

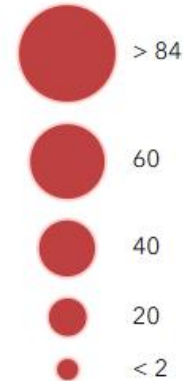


Schools

- Public
- Private

City Crash Data

Number of features



Click -> ...

4,356
Crash Incident
Records

Crash Totals by Year

All Crashes



KSI Crashes

Killed shown in red. Suspected serious injury shown in faded red.



By Year

By Month

By Day

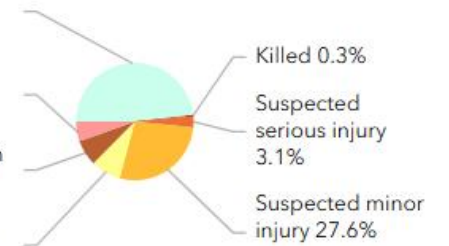
All Crashes by Severity

Not injured
48.2%

Unknown if
injured 5.5%

Injury/Unknown
severity 7.1%

Possible injury
8.3%

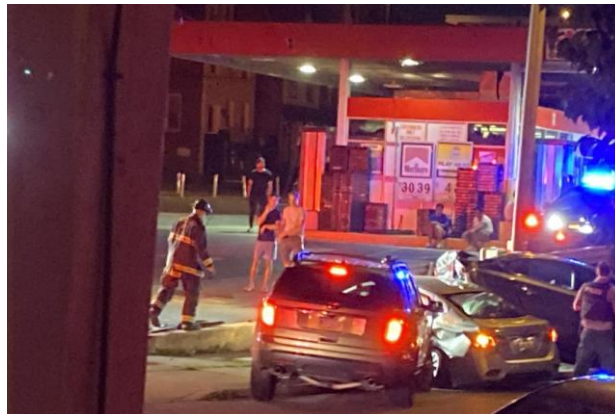
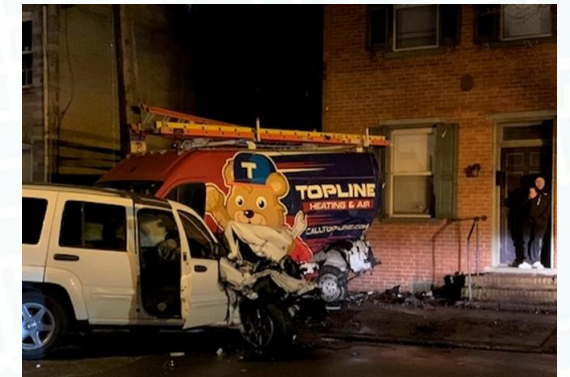


By Severity

We hear about speeding. A lot.



TRAFFIC COMMISSION



Slow Speeds: The Backbone of Vision Zero



visionzerolancaster.com

Many of the streets in downtown Lancaster are narrow and, even on the sidewalk, people are walking close to motor vehicles. Slower speeds will allow drivers to see pedestrians sooner and adjust their actions.

Lancaster City's High Injury Network

CRASH TRENDS



Almost **two thirds** of all crashes happened along the HIN corridors.



Angle crashes made up **51%** of all crashes.



Pedestrian-involved crashes made up **9%** of all crashes but were responsible for **28%** of all fatal and suspected serious injury crashes.

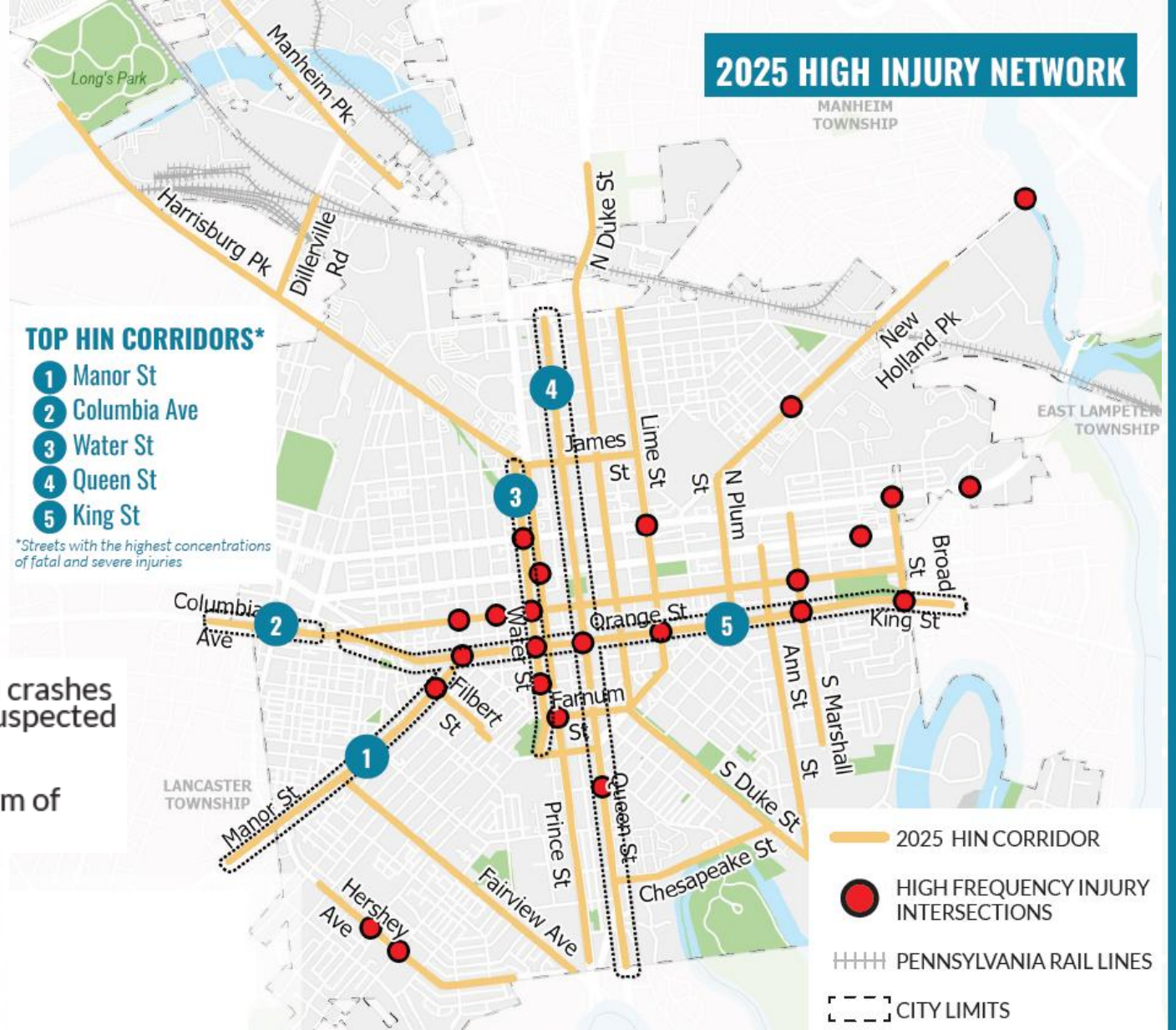


Vulnerable Road User crashes resulted in a form of injury nearly **100%** of the time.

TOP HIN CORRIDORS*

- 1 Manor St
- 2 Columbia Ave
- 3 Water St
- 4 Queen St
- 5 King St

*Streets with the highest concentrations of fatal and severe injuries



visionzerolancaster.com

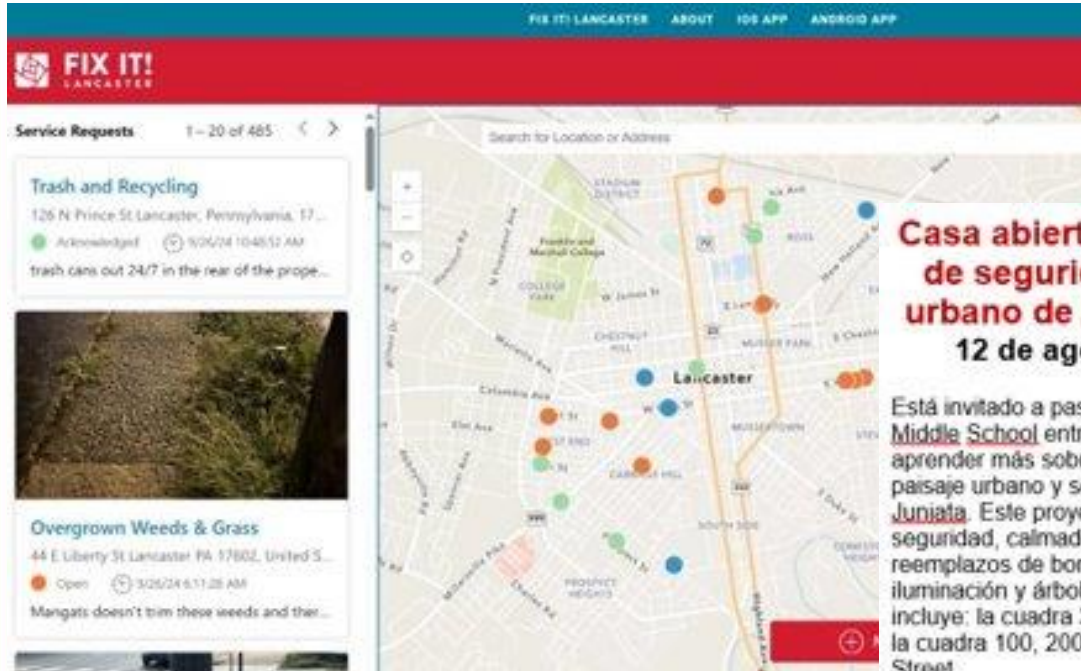


CITY OF LANCASTER

Creating Accessible Engagement Opportunities

Fix It! Report Issues, Help Maintain Our City!
<https://fixit.cityoflancasterpa.gov/>

Engage Lancaster!
<https://engage.cityoflancasterpa.gov/en/>



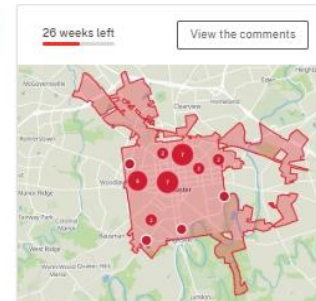
Casa abierta del proyecto de seguridad y paisaje urbano de Ann & Juniata 12 de agosto de 2025

Está invitado a pasar por el Jackson Middle School entre las 5 y las 7 p.m. para aprender más sobre el proyecto de paisaje urbano y seguridad de Ann & Juniata. Este proyecto incluye mejoras de seguridad, calmado del tráfico, reemplazos de bordillos y aceras, iluminación y árboles. El área del proyecto incluye: la cuadra 300 de S. Ann Street y la cuadra 100, 200, 500 y 600 de Juniata Street.

Para obtener más información sobre el proyecto, visite: engage.cityoflancasterpa.gov.



Martes, 12 de agosto de 2025
5:00-7:00pm
Jackson Middle School
431 South Ann Street



Street Safety Concerns

Use this map to tell us about locations where don't your feel safe as you travel around the City of Lancaster. What are the



Safe Routes to School Projects

Safe Routes to School (SRTS) is a national program that exists to promote safe walking and biking to school. This folder



3 South East Parks Design: Ewell Gantz, Joe Jackson, South End



visionzerolanaster.com





QUICK SURVEY

visionzerolancaster.com



Would you yield to a pedestrian here?



visionzerolancaster.com



Would you yield to a pedestrian here?



visionzerolancaster.com



Would you yield to a pedestrian here?



visionzerolancaster.com



Would you yield to a pedestrian here?



E Walnut St & N Shippen St



visionzerolancaster.com



**CITY OF
LANCASTER**



TOOLS

VISION ZERO SAFETY TOOLBOX

Treatments that have the greatest impact on improving traffic safety



TRAFFIC CALMING

⚡ Slows down cars

Appropriate on all VZ projects



Speed Hump



Parking Chicane



Painted Lane Edges



Medians



CURBSIDE MANAGEMENT

⚡ Provides space for parking, loading + transit

Most appropriate on High Injury Network (HIN), Two-Way Restoration, and some Safe Routes to School projects



On-Street Parking



Parking Garage Access



Bus Stops



Loading Zone



TRAFFIC FLOW

⚡ Keeps traffic moving safely

Most appropriate on High Injury Network (HIN) and Two-Way Restoration projects



Two-Way Restoration



Left-Turn Lane



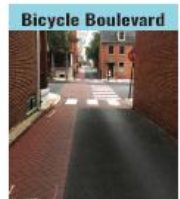
Traffic Signal Upgrades



BICYCLE FACILITIES

⚡ Provides space for bicyclists

Most appropriate on High Injury Network (HIN) and Safe Routes to School projects



Bicycle Boulevard



Separated Bicycle Lane



Shared Use Path



Bicycle Conflict Markings



Bicycle Box



INTERSECTION SAFETY

⚡ Improves visibility

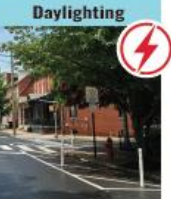
Appropriate on all VZ projects



Slow Turn Wedge



Paint + Post Curb Extension



Daylighting



High Visibility Crosswalk



Hardened Centerline



Curb Extension with Green Infrastructure



Mini Roundabout



ADA Ramps



RRFB



Median Refuge Island



Raised Crosswalk/Intersection



visionzerolancaster.com



Quick-build tools or projects can be implemented more quickly and at a lower cost using road paint and flex posts



CITY OF LANCASTER

High Visibility Crosswalks



High-visibility crosswalks can reduce pedestrian injury crashes up to

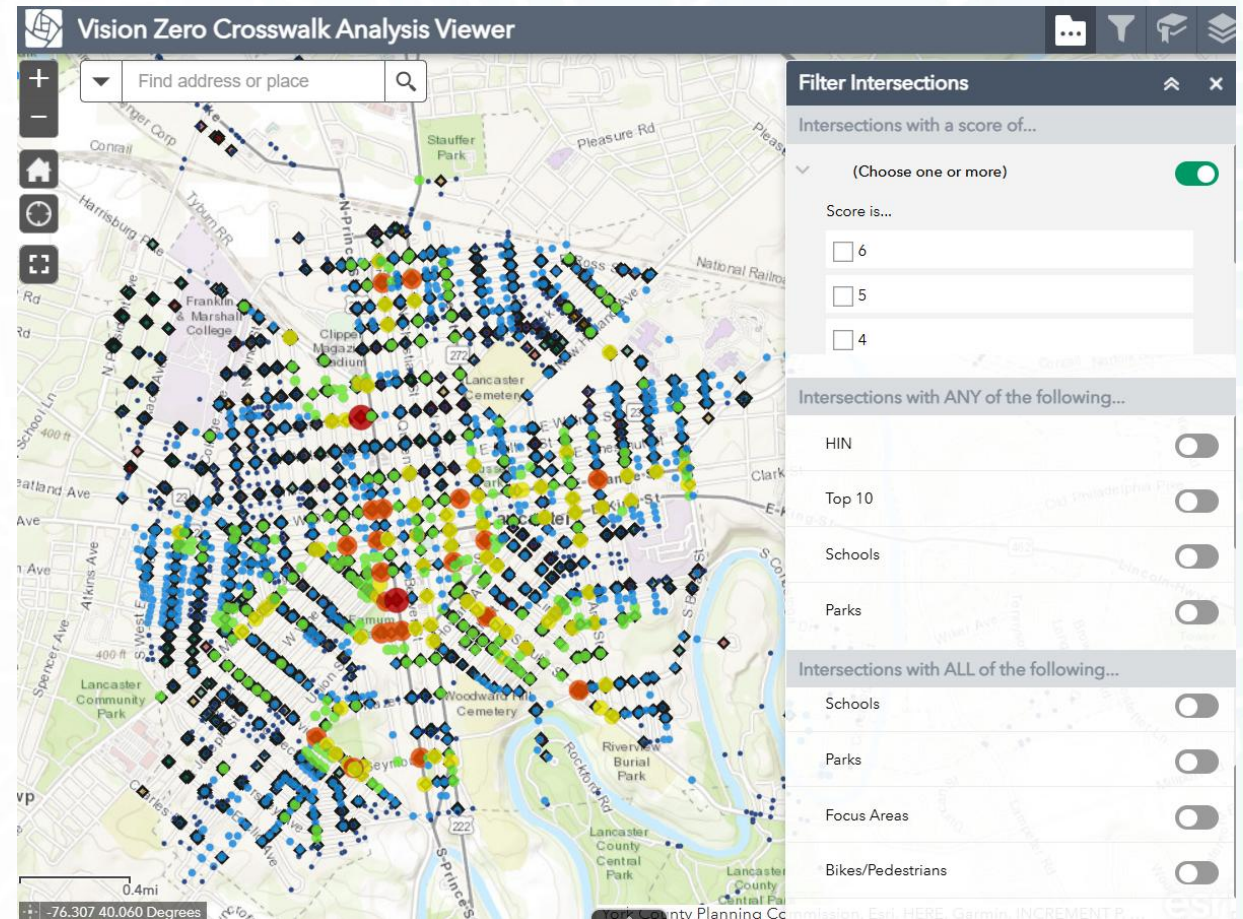
40%

Chen, L., C. Chen, and R. Ewing. The Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections - Lessons from a New York City Experience. (2012).

Manor St & Fourth St

High Visibility Crosswalks

- All crosswalks are replaced as high-visibility, “piano key” thermoplastic crosswalks
 - Systemic replacement, resurfacing, signal upgrades
- Assessed condition of all crosswalks in 2022
- Prioritized on HIN, near schools, and parks
- 6-foot-wide crossing minor streets
- 9-foot-wide crossing major streets



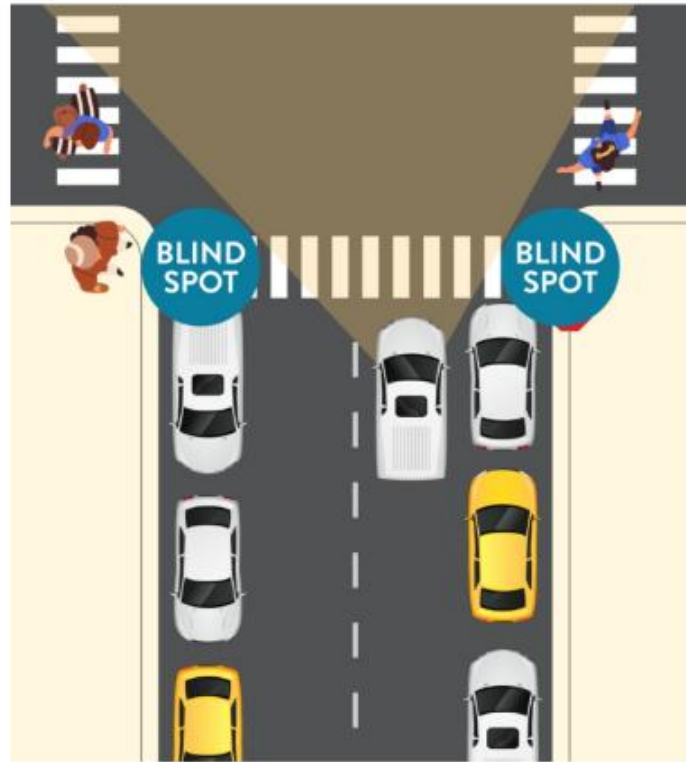
visionzerolancaster.com



Intersection Daylighting

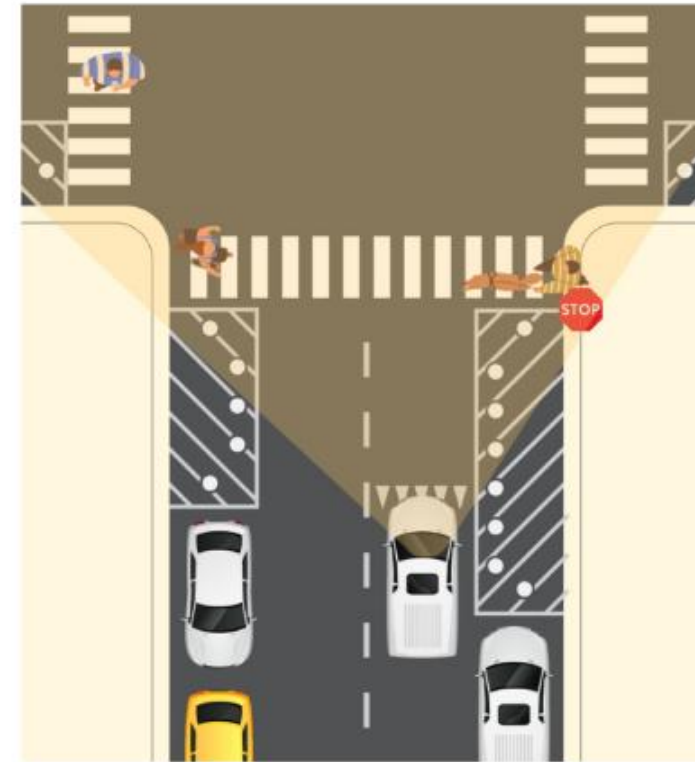
Before Intersection Daylighting

Without intersection daylighting, motorists have blind spots caused by parked cars, which limit the field of view from their vehicles; and pedestrians have similar blind spots when vehicles park too close to crosswalks and intersections.



After Intersection Daylighting

By enforcing parking laws with paint, white posts, and other traffic control devices we can reduce or eliminate blind spots, making streets safer for everyone who uses them regardless of their method of transportation.



visionzerolancaster.com



Intersection Daylighting

- PA Vehicle Code prohibits parking within...
 - 20 feet of a crosswalk
 - 30 feet of approach to traffic control device
 - 15 feet of a fire hydrant
- NYCDOT study found "hardened daylighting" reduces injuries by 0.14 per year, per intersection
- Piloted at 20 locations in 2021 using CDBG funding
- City staff install at ~10 new locations each year
- Daylighting incorporated into resurfacing projects
- Similar benefit as curb extension, higher maintenance
- About \$6,000 per intersection



visionzerolancaster.com



Intersection Daylighting



W Orange St & Marietta Ave



E King St & N Marshall St

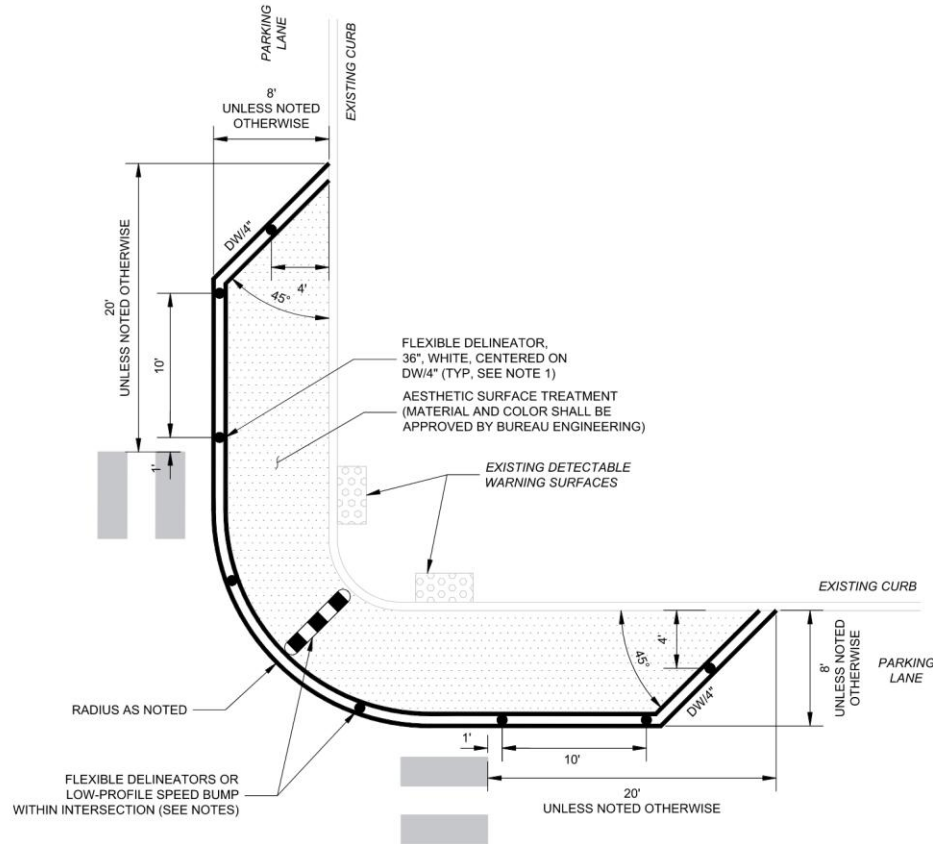


visionzerolancaster.com

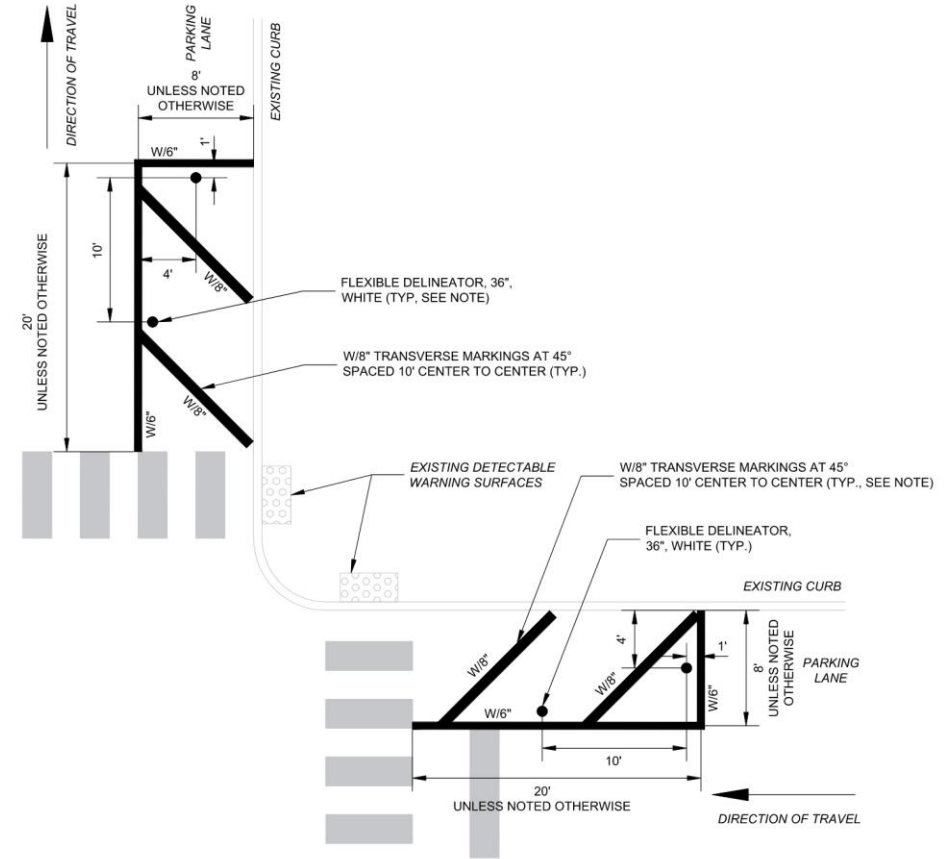


Intersection Daylighting

Incorporated into Street Details:



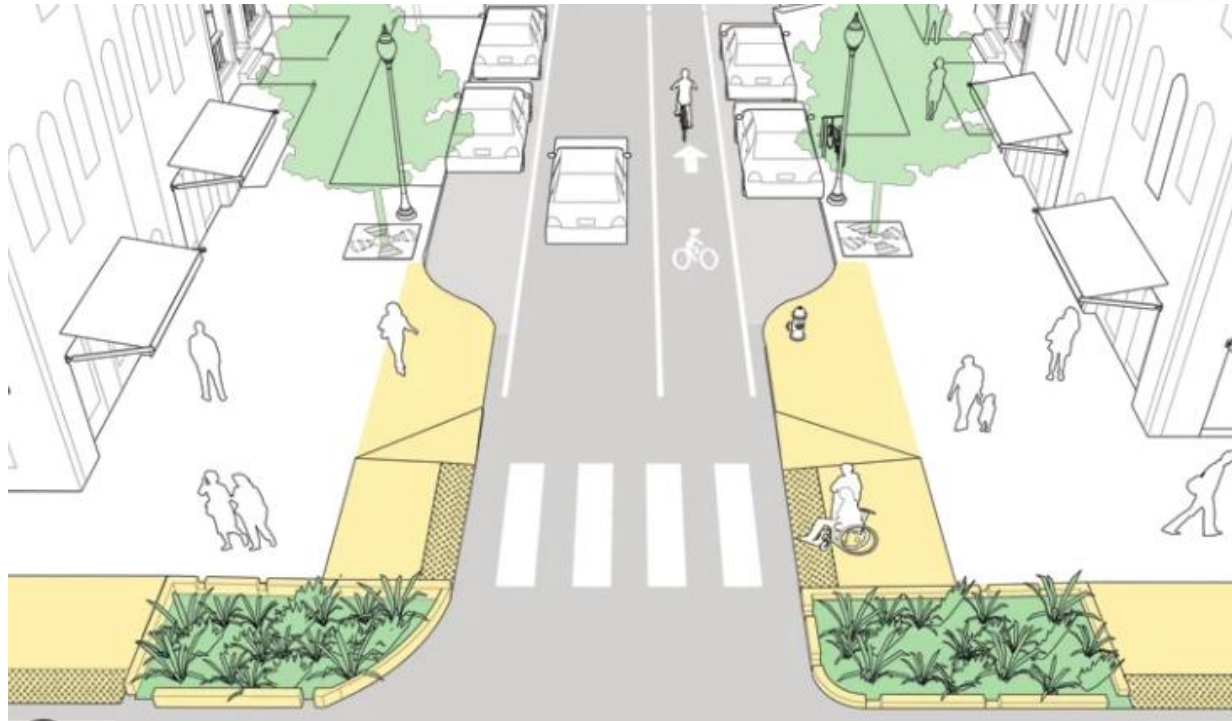
9 INTERSECTION DAYLIGHTING TYPE A
SCALE: NONE



10 INTERSECTION DAYLIGHTING TYPE B
SCALE: NONE



Curb Extensions (Bulb Outs)



W Lemon St & N Charlotte St



[visionzerolancaster.com](https://www.visionzerolancaster.com)

<https://nacto.org/publication/urban-street-design-guide/street-design-elements/curb-extensions/gateway/>



Slow Turn Wedge

Table 1: Summary of Variables

EFFECTIVE RADIUS*		AVG VEHICLE SPEED**		85TH% VEHICLE SPEED***		STOPPING SIGHT DISTANCE		RISK OF SEVERE INJURY****	RISK OF DEATH****
10 ft	3m	10 mph	16 kph	12 mph	19 kph	32 ft	9.8m	2-7%	1-4%
15 ft	4.5m	11 mph	18 kph	13 mph	21 kph	36 ft	11m	2-8%	1-4%
20 ft	6m	12 mph	19 kph	14 mph	23 kph	40 ft	12m	3-8%	1-4%
25 ft	7.6m	13 mph	21 kph	14.5mph	23 kph	45 ft	13.7m	4-9%	1-5%
30 ft	9m	14 mph	23 kph	15 mph	24 kph	50 ft	15.2m	5-11%	1-5%
40 ft	12m	15 mph	24 kph	16.5 mph	27 kph	55 ft	16.8m	6-13%	2-5%
50 ft	15.2m	16 mph	26 kph	17.5 mph	28 kph	60 ft	18.3m	7-15%	3-6%
60 ft	18.2m	17 mph	27 kph	18.5 mph	30 kph	65 ft	19.8m	8-18%	3-7%
70 ft	21.3m	18 mph	29 kph	19 mph	31 kph	71 ft	21.6m	10-20%	3-8%
80 ft	24.4m	19 mph	31 kph	20 mph	32 kph	77 ft	23.5m	13-21%	4-8%
95 ft	29m	20 mph	32 kph	21 mph	34 kph	82 ft	25m	14-22%	5-9%

*Not physical radius, this is the inside turning path of the vehicle

**Average speed expected through AASHTO Eq 3-8

***85th Percentile speed expected through data interpolation from TTI Study

****Estimated risk of injury or death from average turning speed



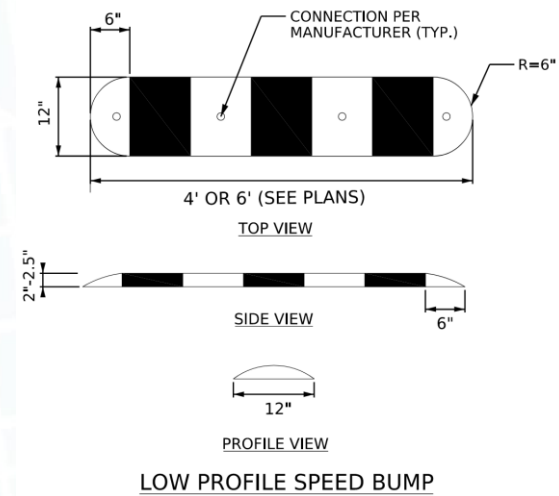
visionzerolancaster.com



CITY OF
LANCASTER

Slow Turn Wedge

- 4- to 6-foot rubber speed bump
- Slows managed vehicle (passenger car) turning speeds while still accommodating design vehicle (SU-30, City Bus, etc)
- Most often used at intersections with parking-protected bike lanes
 - Prevents "right/left-hook" collisions

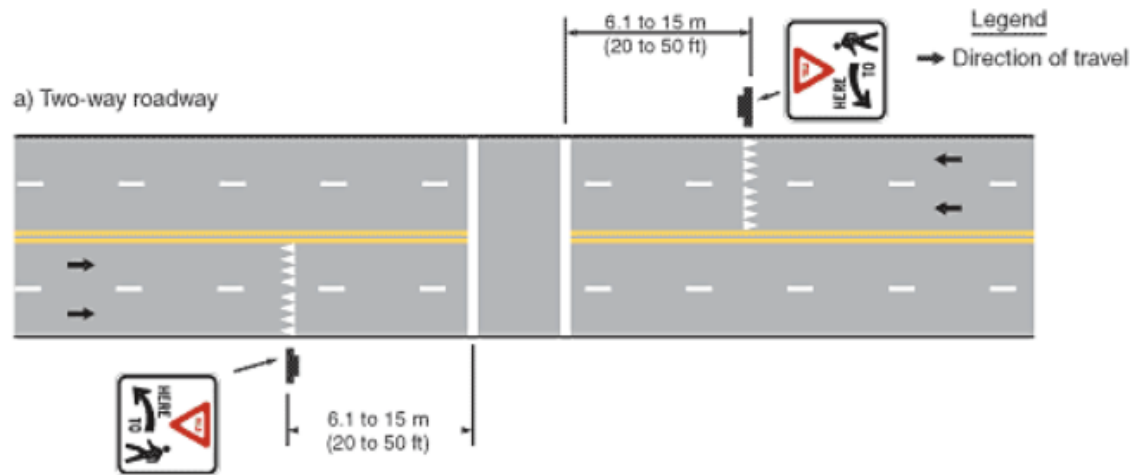


visionzerolancaster.com



Advance Yield / Stop Markings

Figure 3B-15. Examples of Yield Lines at Unsignalized Midblock Crosswalks



W Walnut St & Lancaster Ave



visionzerolancaster.com

Advance yield or stop markings can reduce pedestrian crashes up to

25%

<https://highways.dot.gov/safety/proven-safety-countermeasures/crosswalk-visibility-enhancements#psc-footnote>



Bicycle Lanes



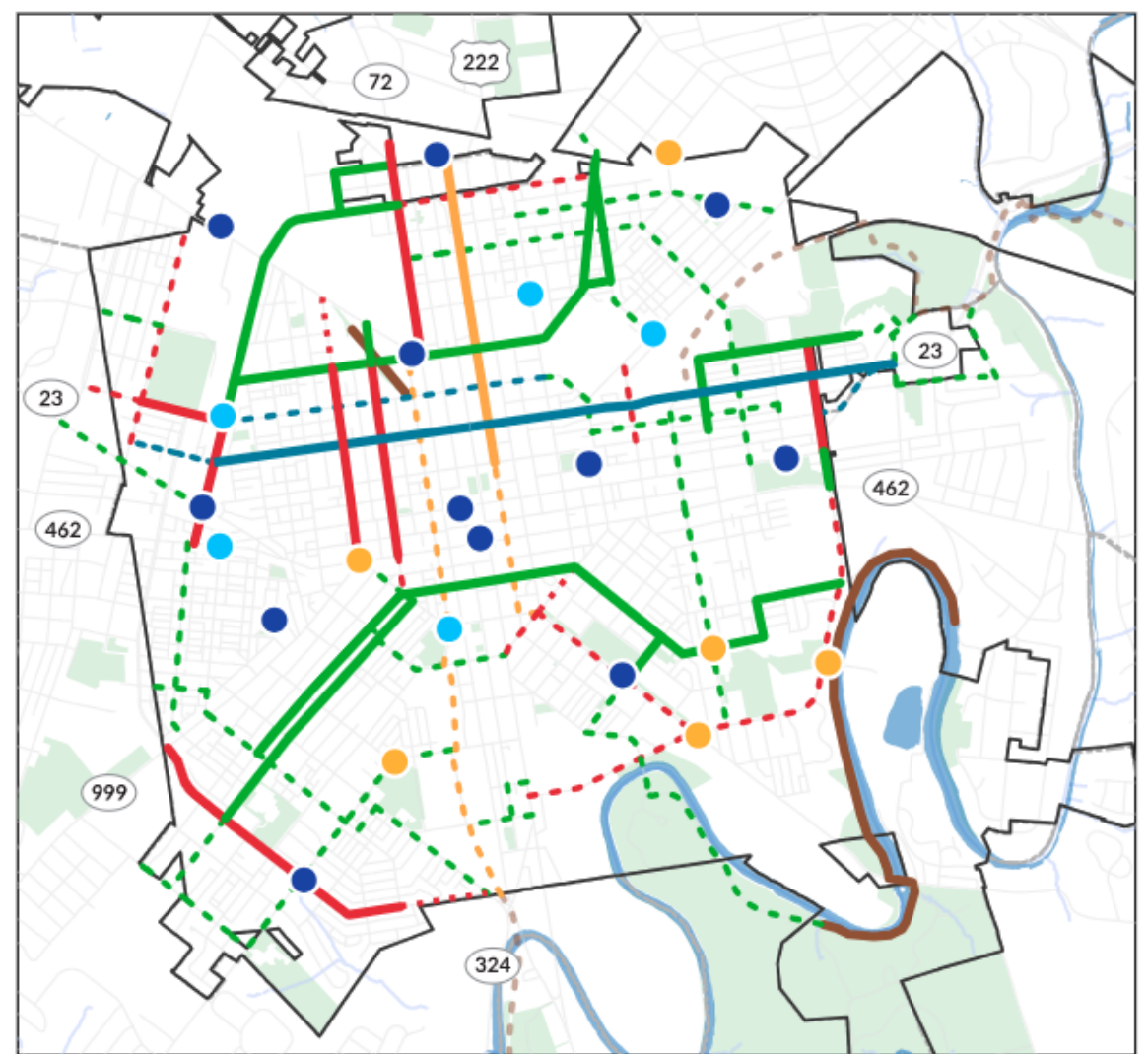
Bike lanes are shown to reduce bicyclist deaths by

44%

Marshall, W. E., & Ferenchak, N. N. (2019). Why cities with high bicycling rates are safer for all road users. Journal of Transport & Health, 13, 100539.



visionzerolancaster.com



Existing

- Bike Boulevard
- Protected Bike Lane
- Bike Lane
- Shared Street
- Trails
- Bike Share Station
- Virtual Station

Proposed

- Bike Boulevard
- Protected Bike Lane
- Bike Lane
- Shared Street
- Trails
- Station Location

- City Limits
- Waterbodies
- Parks

Figure 3-7: Cycling Network. The City of Lancaster had 15.4 miles of on-road bicycling facilities in April 2023 and is actively implementing an Active Transportation Plan to expand this network.

Bicycle Lanes

- Most bike lanes are installed without moving curb
- "Right-sizes" travel lanes to 10-11 feet for relatively low cost



W Walnut St & N Water St



E Lemon St & N Christian St

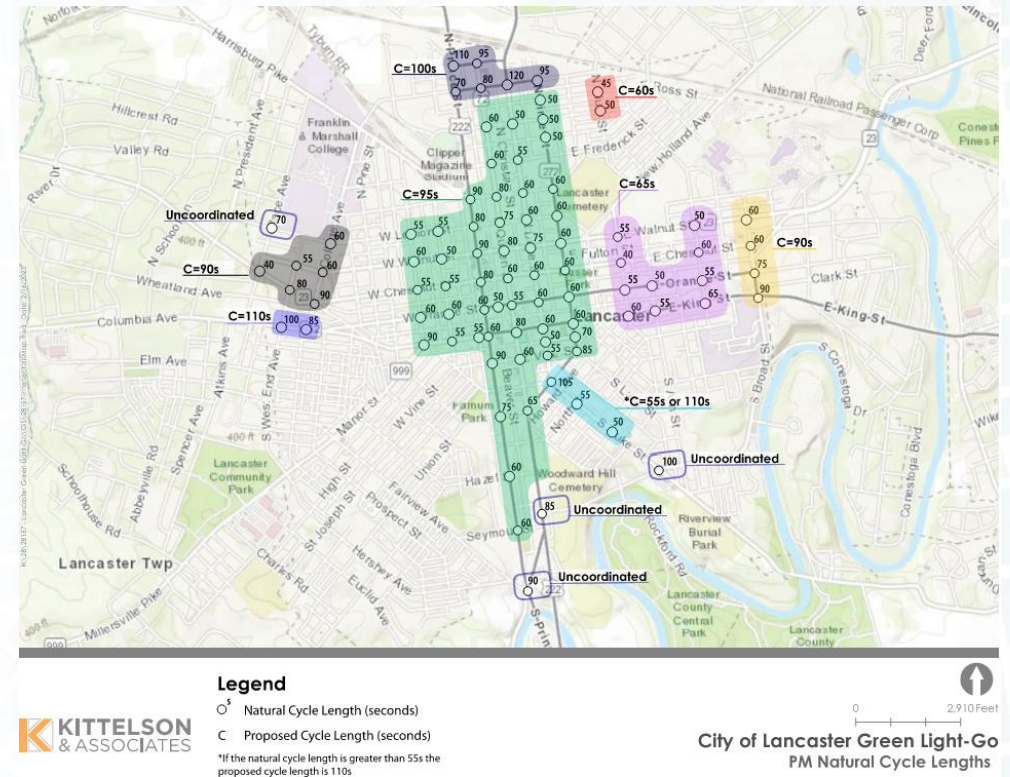


visionzerolancaster.com



Traffic Signal Timing

- Comprehensive retiming in 2023
- Split city into multiple zones, lowered cycle lengths
- Reduced coordinated speed from 28mph to **20mph**
- Added LPI/NTOR at 50%+ of signals



visionzerolancaster.com



Leading Pedestrian Intervals (LPIs)



N Queen St & Chestnut St

Leading Pedestrian Intervals reduce pedestrian-vehicle crashes at intersections by

13%

Goughnour, E., D. Carter, C. Lyon, B. Persaud, B. Lan, P. Chun, I. Hamilton, and K. Signor. "Safety Evaluation of Protected Left-Turn Phasing and Leading Pedestrian Intervals on Pedestrian Safety." Report No. FHWA-HRT-18-044. Federal Highway Administration, (October 2018)



visionzerolancaster.com



Automated Red Light Enforcement



Red Light Cameras can reduce fatal crashes by

21%

Hu, W., & Cicchino, J. B. (2017). Effects of turning on and off red light cameras on fatal crashes in large U.S. cities. Journal of Safety Research, 61, 141-148.

Red Light Cameras can reduce angle crashes by

29%

Cohn et al. (2020). Red Light Camera Interventions for reducing traffic violations and traffic crashes: A systematic review. Campbell Systematic Reviews, 16(2).



visionzerolancaster.com



Implementation Progress



Intersection Daylighting



Leading Pedestrian Intervals



Bike Infrastructure



Rapid Flashing Beacons

Strategy Implementation Progress

84

Intersections with Daylighting

56%

Traffic Signals with Leading Pedestrian Intervals

17

Miles of Installed Bike Infrastructure

6

Intersections with Rapid Flashing Beacons



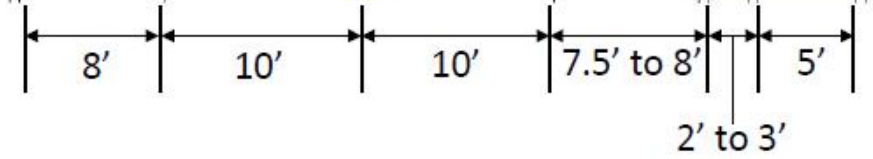
PROJECT HIGHLIGHTS

visionzerolancaster.com



Lemon Street Bike Lanes

Eastbound Connector Phase 1



Plum Street Mini-Roundabout (Before)

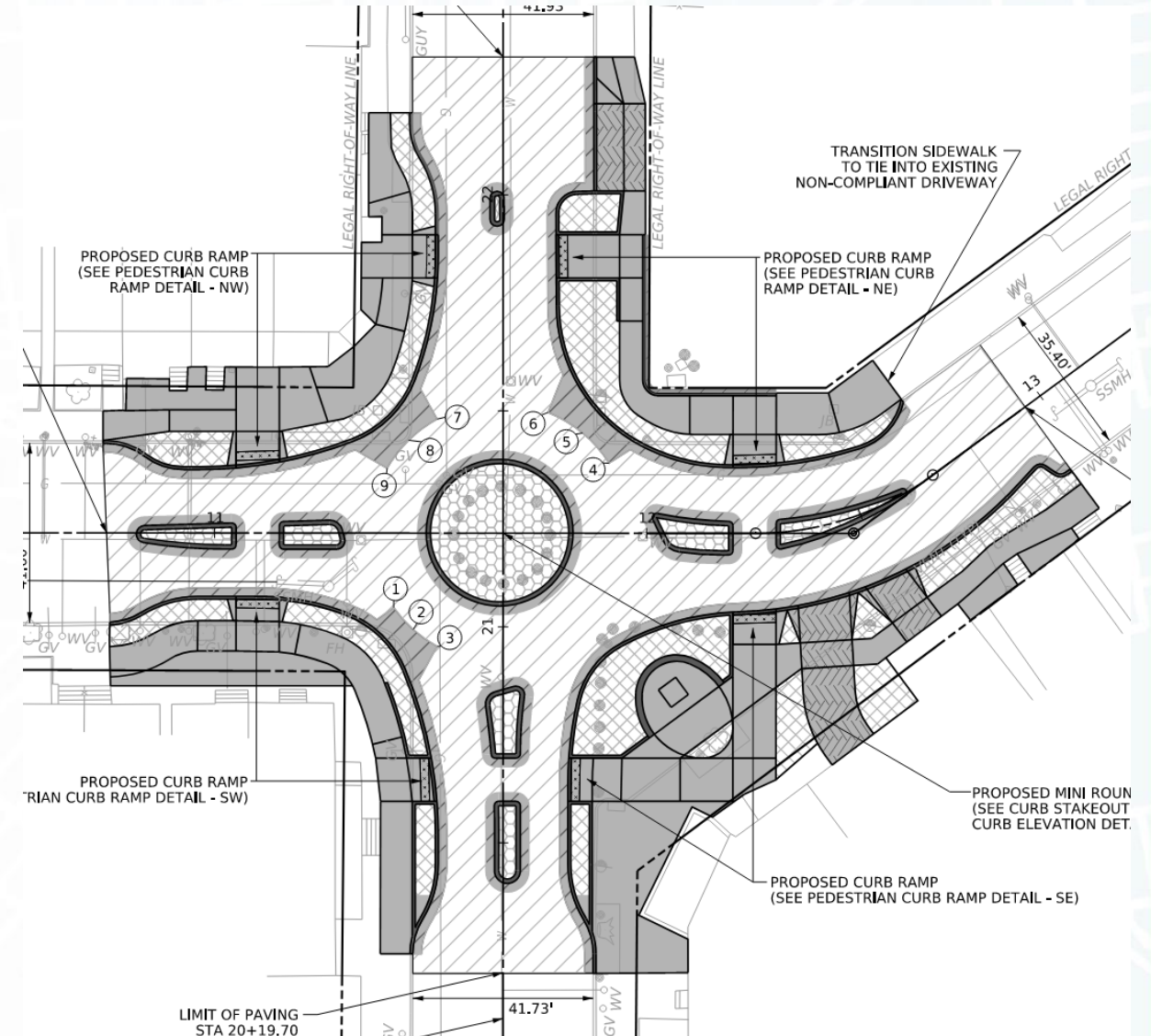
Before Conditions



Temporary Installation



Plum Street Mini-Roundabout (After)



Neighborhood Slow Zone Program

NEIGHBORHOOD SLOW ZONE PROGRAM

Designated area within a city where traffic speeds are reduced to improve safety and livability for residents

WHAT IS A NEIGHBORHOOD SLOW ZONE?

Area with low volume, mostly residential streets

Uses traffic calming measures to reduce speeding and crashes

Uses cost-effective measures that are quick to construct and proven to improve safety

Other cities, like Boston, Philadelphia have successfully implemented slow zones as part of their Vision Zero programs



Lancaster Streets where Slow Zones could work:



NEIGHBORHOOD SLOW ZONE PROGRAM

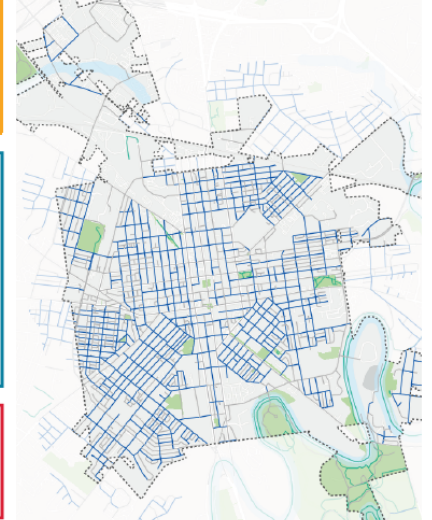
Implement quick-build traffic calming and intersection safety improvements to slow speeds on neighborhood streets

PROPOSED CITY-LED PROGRAM

STEP 1
Define Eligible Streets

- City-owned streets
- Neighborhood residential streets
- Community streets that connect neighborhoods to larger roads and local destinations
- Low speed streets (25 MPH or less)

DRAFT Map of Eligible Streets



STEP 2
Use Data to Score Eligible Street Segments

- Crash History**
- Area Demographics** (age, income, race, ethnicity)
- Nearby Community Places** (schools, parks, community centers)

STEP 3
Identify Top Slow Zones

Use street segment scores to identify priority slow zones - one in each of the four quadrants of the City

STEP 4
Design & Installation

- Install quick-build safety tools in priority slow zones
- Traffic Calming**
 - Intersection Safety**

Example Slow Zone Toolbox Treatments



visionzerolancaster.com



CITY OF
LANCASTER

Safe Routes to School (SRTS)

GOAL

Safe and healthy opportunities for students to walk and bike to school

TOOLS

Traffic calming, intersection safety, and bicycle facilities

STATUS

Recommendations identified for two school zones



Neighborhood Slow Zones (NSZ)

GOAL

Slow speeds on neighborhood streets

TOOLS

Traffic calming and intersection safety improvements

STATUS

Developing program framework and eligibility



2-Way Restoration (2-Way)

GOAL

Slow speeds, reduce barriers, and improve crossing visibility on key corridors

TOOLS

Intersection safety improvements, curbside management, and traffic flow

STATUS

Studying corridor feasibility



High Injury Network (HIN)

GOAL

Address the highest safety concerns in areas not covered by other project types

TOOLS

Traffic calming, intersection safety improvements, bicycle facilities, and traffic flow

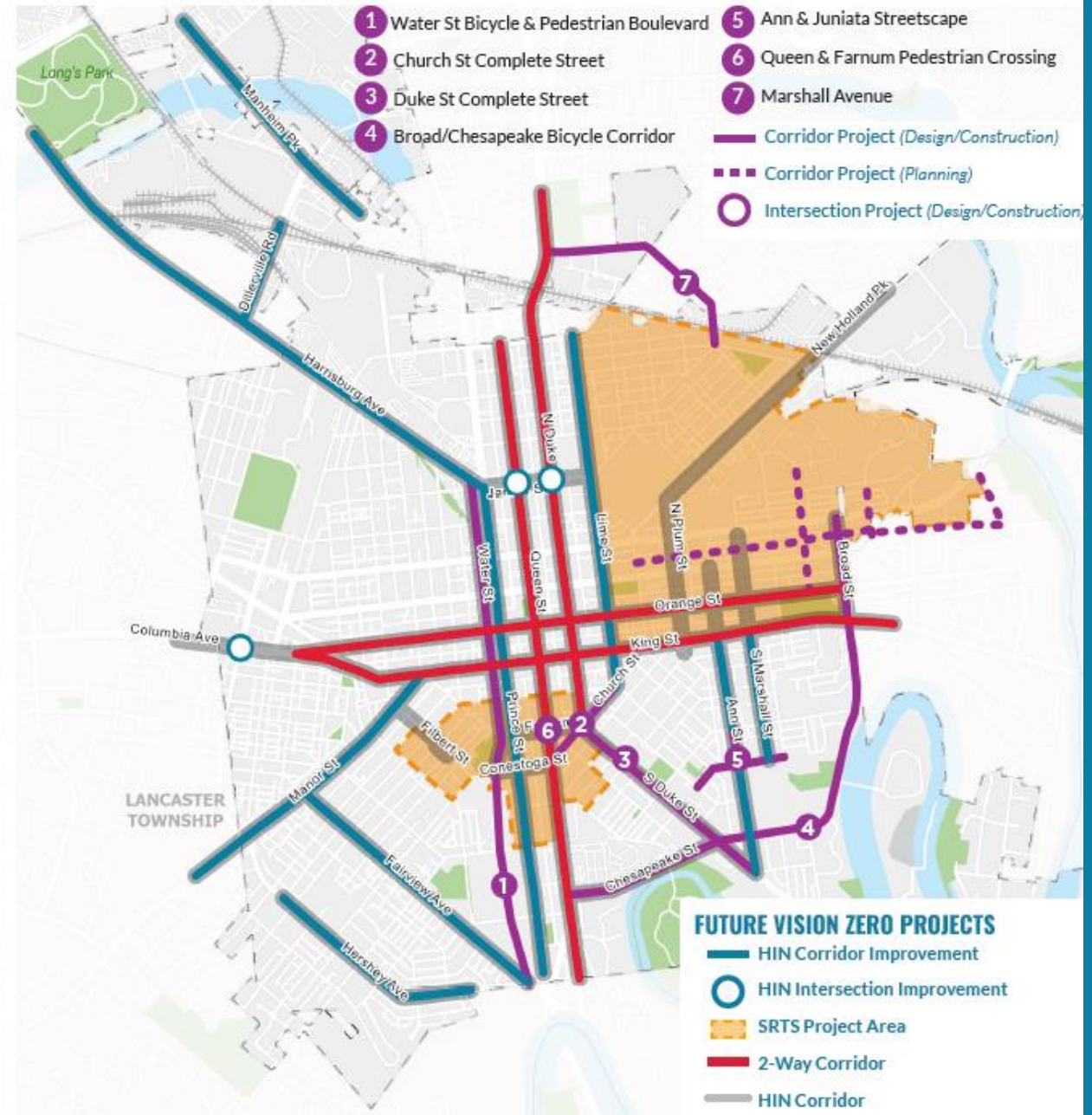
STATUS

Identifying projects from the updated HIN



CURRENT VISION ZERO PROJECTS

Multiple Vision Zero projects are being advanced through planning, design, and construction



Thank you!

- Ben Hogan, Public Works Engineer
bhogan@cityoflancasterpa.gov
- Emma Hamme, Transportation Planner
emhamme@cityoflancasterpa.gov



visionzerolancaster.com

