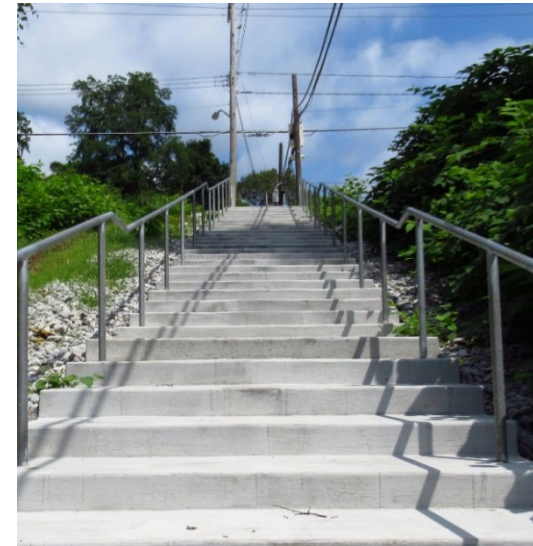
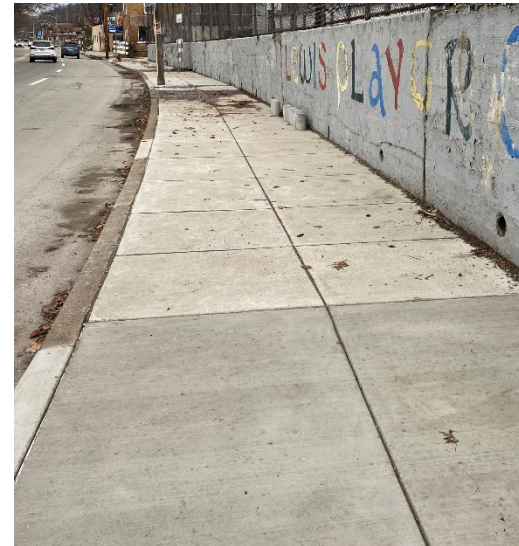




COMPLETE STREETS AND STATE OF MOBILITY REPORT

Prepared for City Council
Presented on March 4, 2024



Goals of this presentation

- Fulfill the reporting requirements of the Complete Street Policy within the context of regional and national trends
- Report findings of DOMI's crash trend analysis and high injury network (HIN)
- Present a menu of best practices of policies and strategies that could advance Complete Streets and safe system planning in Pittsburgh

Content Team

Project Manager - Planning



Panini Chowdhury, AICP, RSP

Panini leads the DOMI planning team and is an infrastructure and safety expert.

DOMI Planners



Geoff Leonard

Planner

Geoff is the organizer of the Complete Streets Advisory Group (CSAG) and an engagement and mapping specialist at DOMI.



Kevin Brown

Principal Planner

Kevin led the development of the State of Mobility Report.

DOMI Leadership



DOMI Executive Team

Kim Lucas, Director

Jeff Skalican, Deputy Director

Mike Maloch, Municipal Traffic Engineer

Eric Setzler, Chief Engineer



Angie Martinez

Assistant Director

Policy, Planning and Permitting

DOMI Intern



Linyue Luo

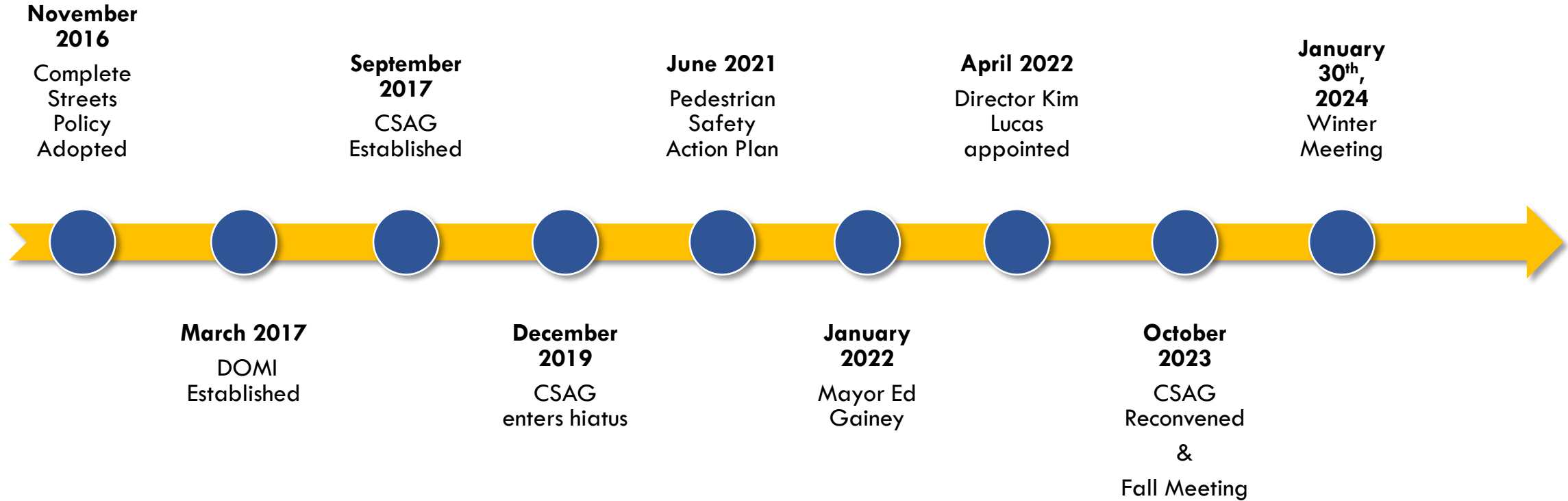
Master of Urban Design, Carnegie Mellon University

Linyue assisted in the development of the High Injury Network, various data analysis and mapping tasks.

What is 'Complete Streets'?



CSAG History



Complete Streets Advisory Group

EngagePGH Page



THE CITY OF

PITTSBURGH

Complete Streets Advisory Group

A group of interested and invested people who wish to promote the goals and concepts of complete streets in the City of Pittsburgh.


[Home](#)

Overview


The Complete Streets Advisory Group (CSAG) shall provide feedback to help align projects with the principals identified in the city's Complete Street Policy, and to recommend changes, as necessary, to achieve its purposes.


As an advisory body of the City of Pittsburgh's Department of Mobility and Infrastructure (DOMI), the committee will have oversight of the following City documents:

Quarterly Meeting

 Spring Meeting

 Summer Meeting

 **October 10th, 2023**
Fall Meeting
[CSAG Biennial Report presentation](#)

 **January 30th 2024**
Winter Meeting
State of Mobility Report
Mayor's Sidewalk Pilot Program

Document Library



Complete Streets Policy
PDF (436.03 KB)
Adopted City Council in 2016.



Bike+ Plan
PDF (8.86 MB)



Public Safety Action Plan
PDF (12.62 MB)

FUNCTIONS OF THE ADVISORY GROUP

MEMBER COMPOSITION

MEETING FORMAT

QUARTERLY MEETING TOPIC FOCUS

The CSAG shall have the responsibilities as provided in this section and such other duties as the Director of DOMI may determine:

1. Create and/or review a **biennial progress report** which includes:
 - Linear miles of new bicycle infrastructure
 - Linear feet of new pedestrian infrastructure
 - Number of pedestrian safety improvements
 - Number of intersections upgraded to be ADA compliant
 - Number and rate of pedestrian, bicycle and vehicle crashes & fatalities
 - Before and after data related to traffic calming
 - Transit ridership
 - Street Improvements
 - Changes in Travel behavior
 - Improvements to the quality of transit service
 - Changes in travel behavior
 - Number of green infrastructure improvements
 - Complete streets projects located in low to moderate income communities
2. **Consulted on an as needed** basis for larger projects such as:
 - Creation of street design standards for Pittsburgh.
 - Outreach and advocacy efforts
3. **Create educational material for the public regarding Complete Streets.**
4. Study and make recommendations regarding the implementation of the city's Bike+ Plan and report such information to the department staff.
5. Make recommendations on matters related to or advance the principles outlined in the Complete Streets Policy to the department staff.

[Complete Streets Advisory Group | Engage Pittsburgh \(pittsburghpa.gov\)](#)

CSAG Reporting Requirements

Complete Streets Policy, Page 11 says "the City shall produce a report every two years measuring the progress made on the Complete Streets Policy & describing individual projects delivered."

The report shall include:

- Changes in Travel Behavior
- Projects complete in low to moderate income communities. **In this presentation we use J40 designation to report on low to moderate income communities:**
 - Sidewalks, steps, bike lanes and bike racks in linear miles or number of projects
 - Number of pedestrian safety improvements and intersections upgraded to ADA
- Number & rate of pedestrian, bicycle & vehicle crashes & fatalities
- Before & after speeds for traffic calming

Mode Trends

Takeaways:

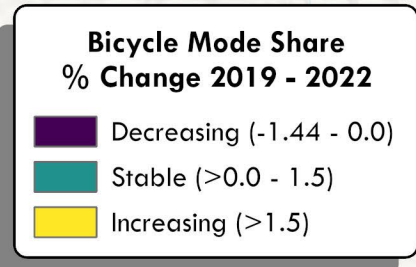
- **Motor Vehicle Trips**
 - Nationally: **0.6% annual growth** in **Vehicle Miles Travelled (VMT)** FHWA 50yr projections 2019 – 2049
 - Allegheny County: Observed an **8% decrease** in actual **VMT from 2019 to 2022**
- **Transit**
 - Pennsylvania: **3%** of Population takes **transit to work**
 - Pittsburgh: **9%** of Population takes **transit to work**
 - PRT reported a **46% increase** in **bus ridership** between 2021 and 2022.



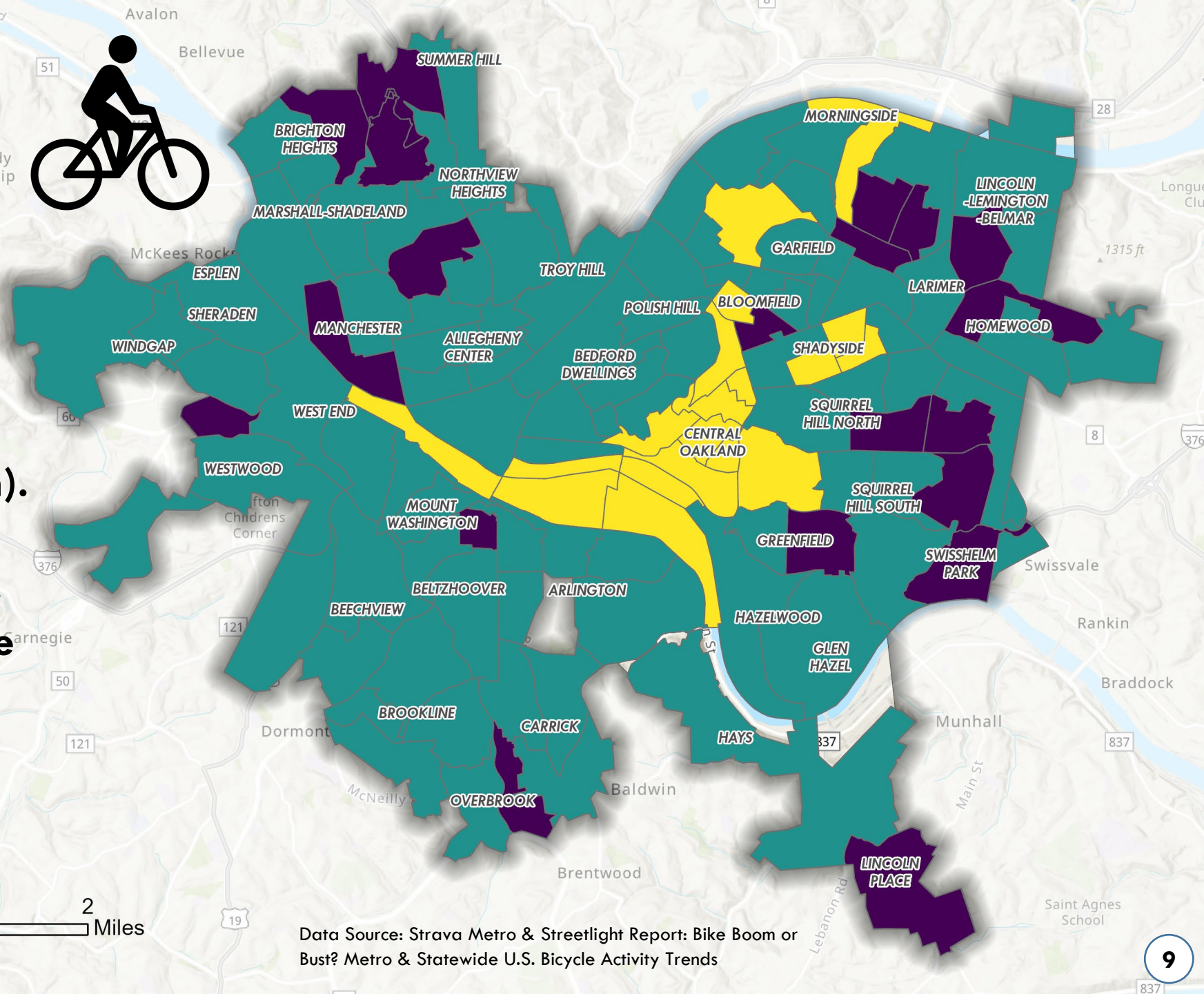
Mode Trends Takeaways:

Between 2019 – 2022
Bicycle Trips Increased
by 27% in Pittsburgh

Stable in most areas (green).
Increasing in Southside
Flats, Oakland, Bloomfield,
Shadyside and Morningside
(yellow)



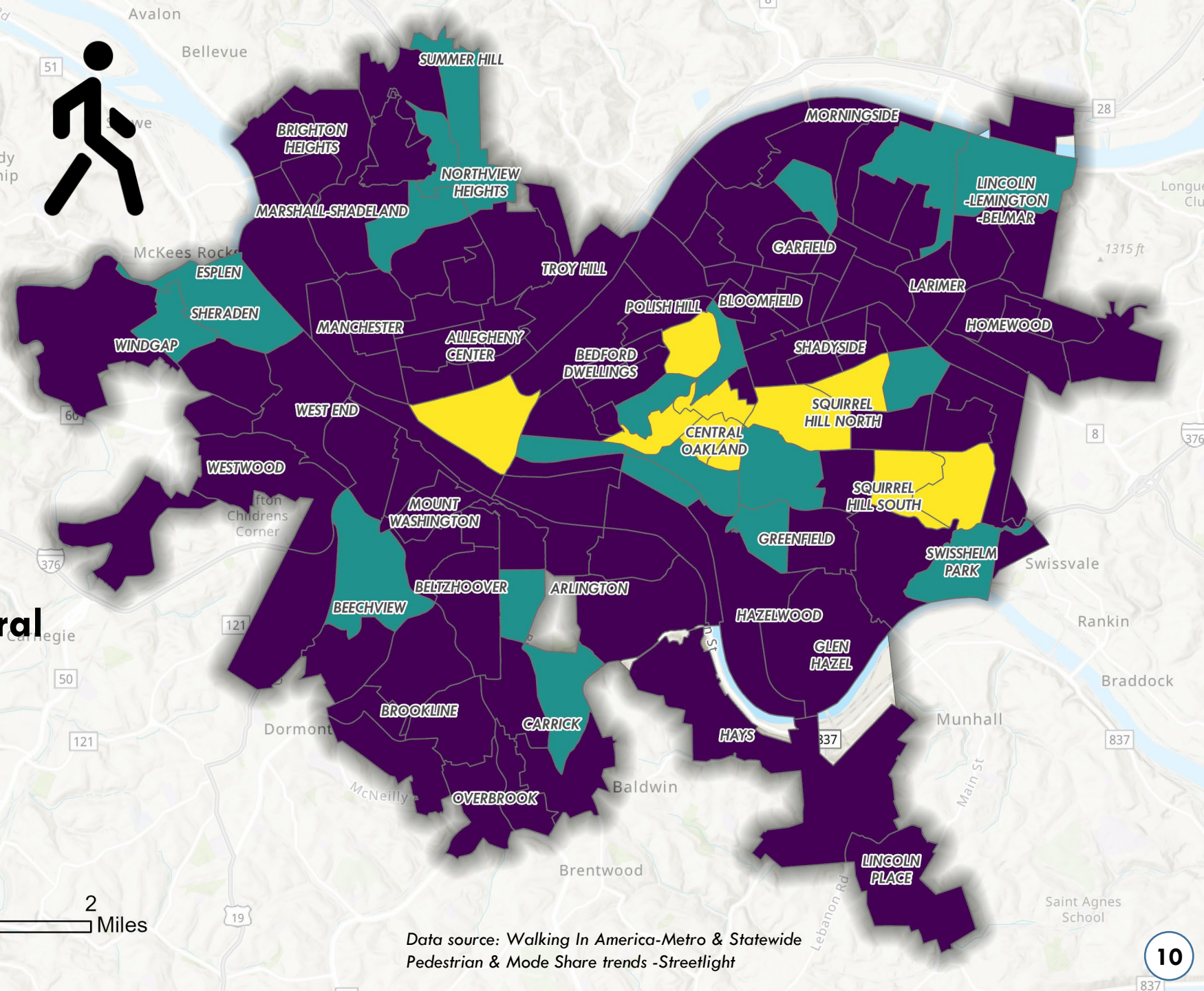
0 1 2
Miles



Data Source: Strava Metro & Streetlight Report: Bike Boom or Bust? Metro & Statewide U.S. Bicycle Activity Trends

**Decreasing in most areas
(purple)**

**Increases Downtown, Central
Oakland, Upper Hill and
Squirrel Hill (yellow)**



Decreasing (>-3.00)
Stable ($-2.99 - 0.00$)
Increasing (>0.0)

Data source: Walking In America-Metro & Statewide
Pedestrian & Mode Share trends -Streetlight

How Equitable Have Past Complete Streets Investments Been?

What is J40?

This initiative's goal is that 40% of the overall benefits of certain Federal investments flow to disadvantaged communities. These areas were identified multiple metrics including income, transportation barriers, and historic underinvestment.

What criteria is considered to determine a J40 neighborhood?

1. Transportation Insecurity
2. Environmental Burden
3. Social Vulnerability
4. Health Vulnerability
5. Climate and Disaster Risk Burden

J40 Communities

1 in 3

Pittsburghers

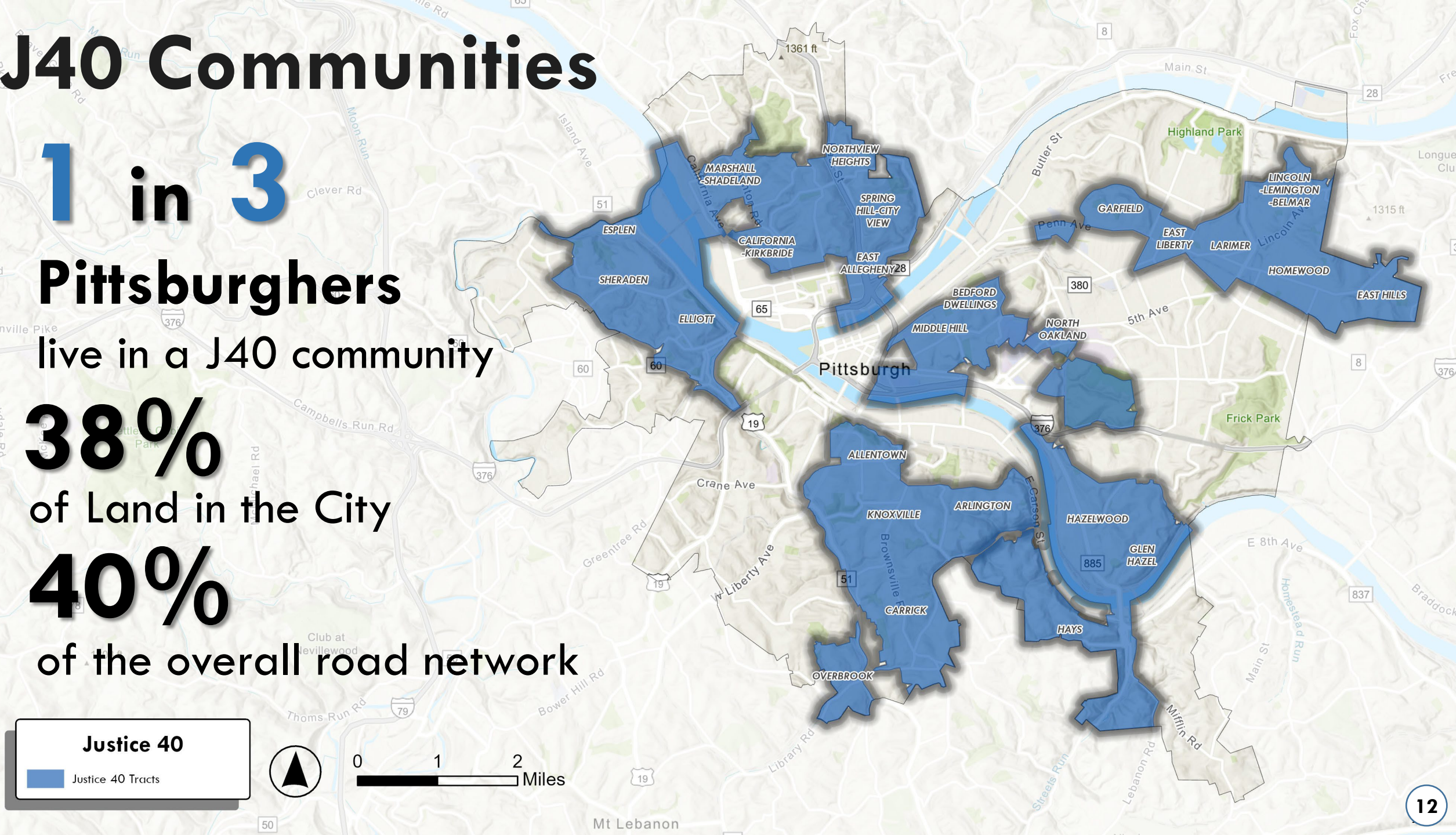
live in a J40 community

38%

of Land in the City

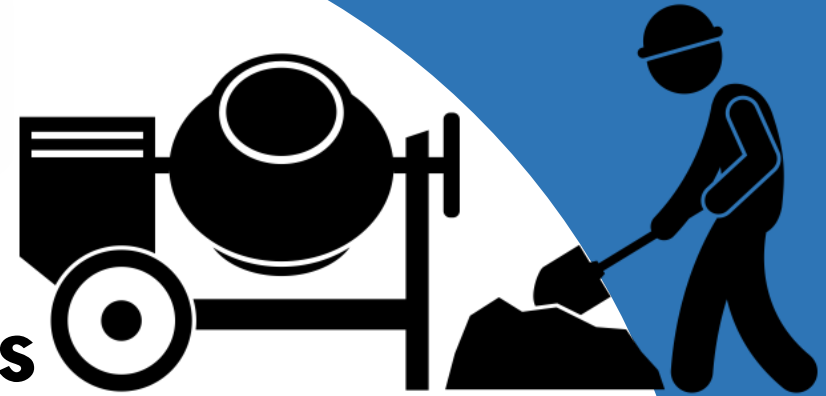
40%

of the overall road network



Sidewalks

26 2018 - 2023
Completed Projects



6.1 mi
sidewalk restored

86%
(5.3mi)

in J40
Neighborhoods



Irvine St Sidewalk



Ofillia St Sidewalk



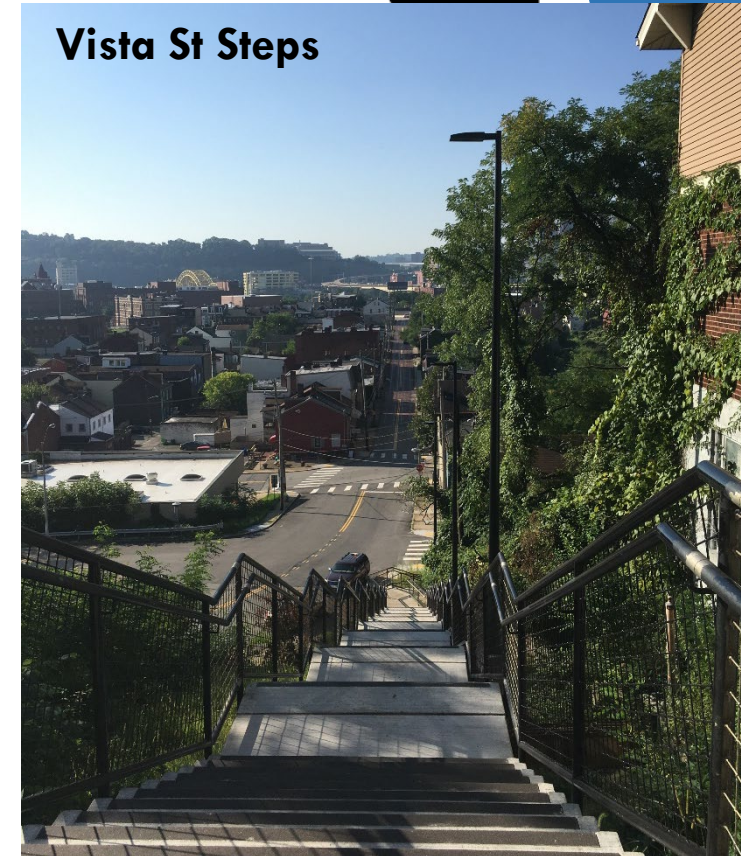
City Steps

15 2019 - 2021
Completed Projects

66% of step projects were in or near J40 neighborhoods



Junilla St Steps



Vista St Steps



Bike Lanes

28 2019 – 2023
Projects
completed

29 Mi of New
Facilities
Serving

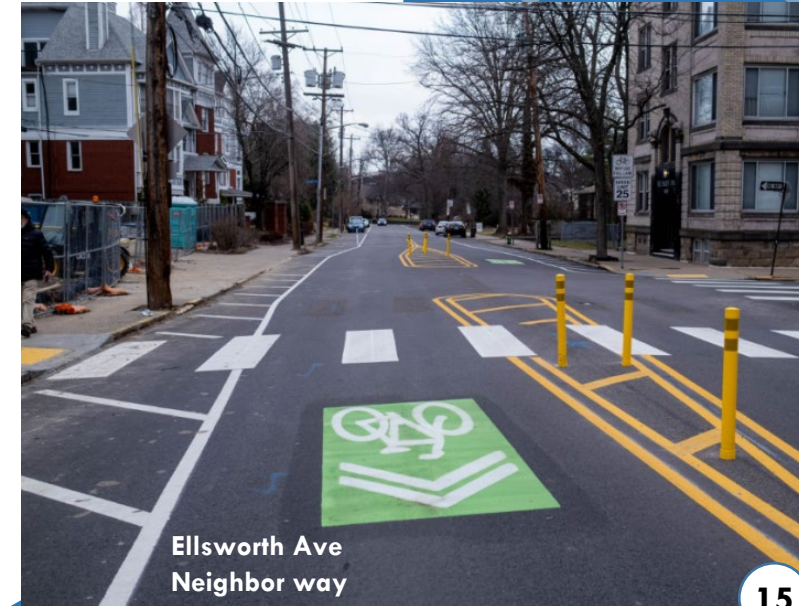
45%
Total City
Pop



Brighton Rd
Protected Bike Lane



Aiken Ave Protected
Bike Lanes



Ellsworth Ave
Neighbor way

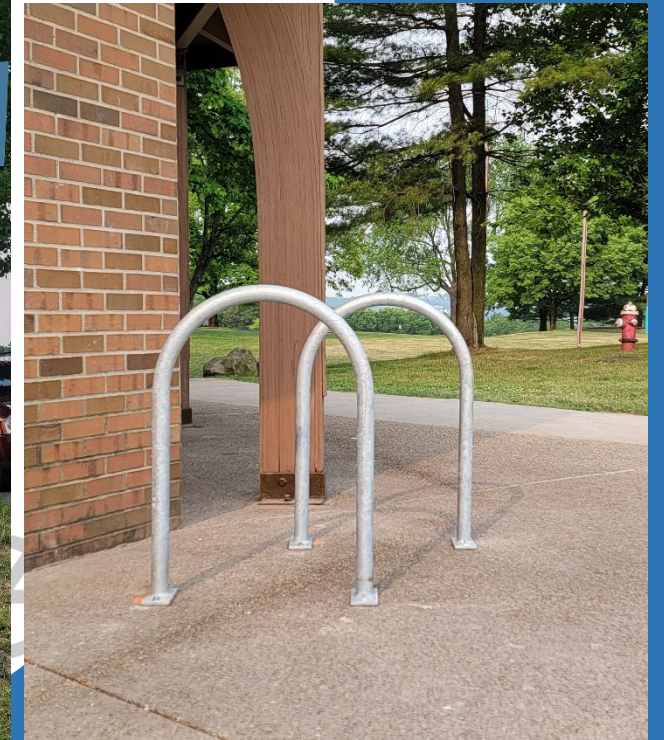
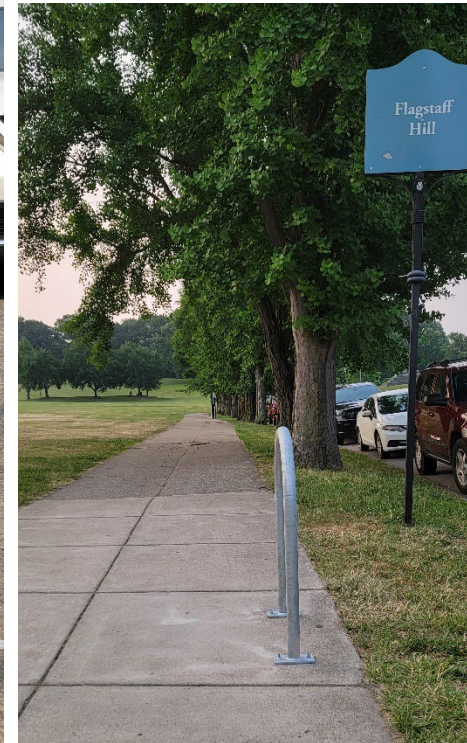
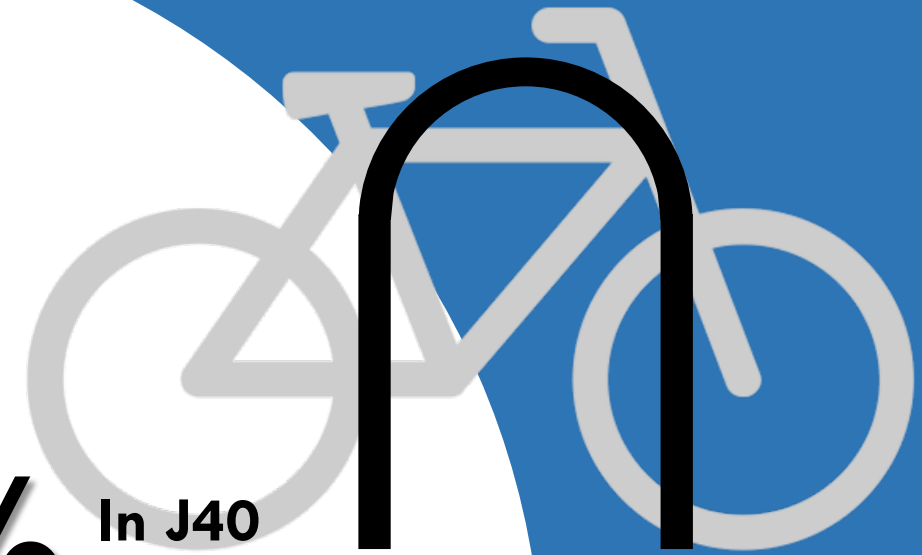
Bike Racks

457

New Racks
Installed

↑ 46% over the
last 3 years

26% In J40
Neighborhoods



Completed Bike Projects 2019 – 2023

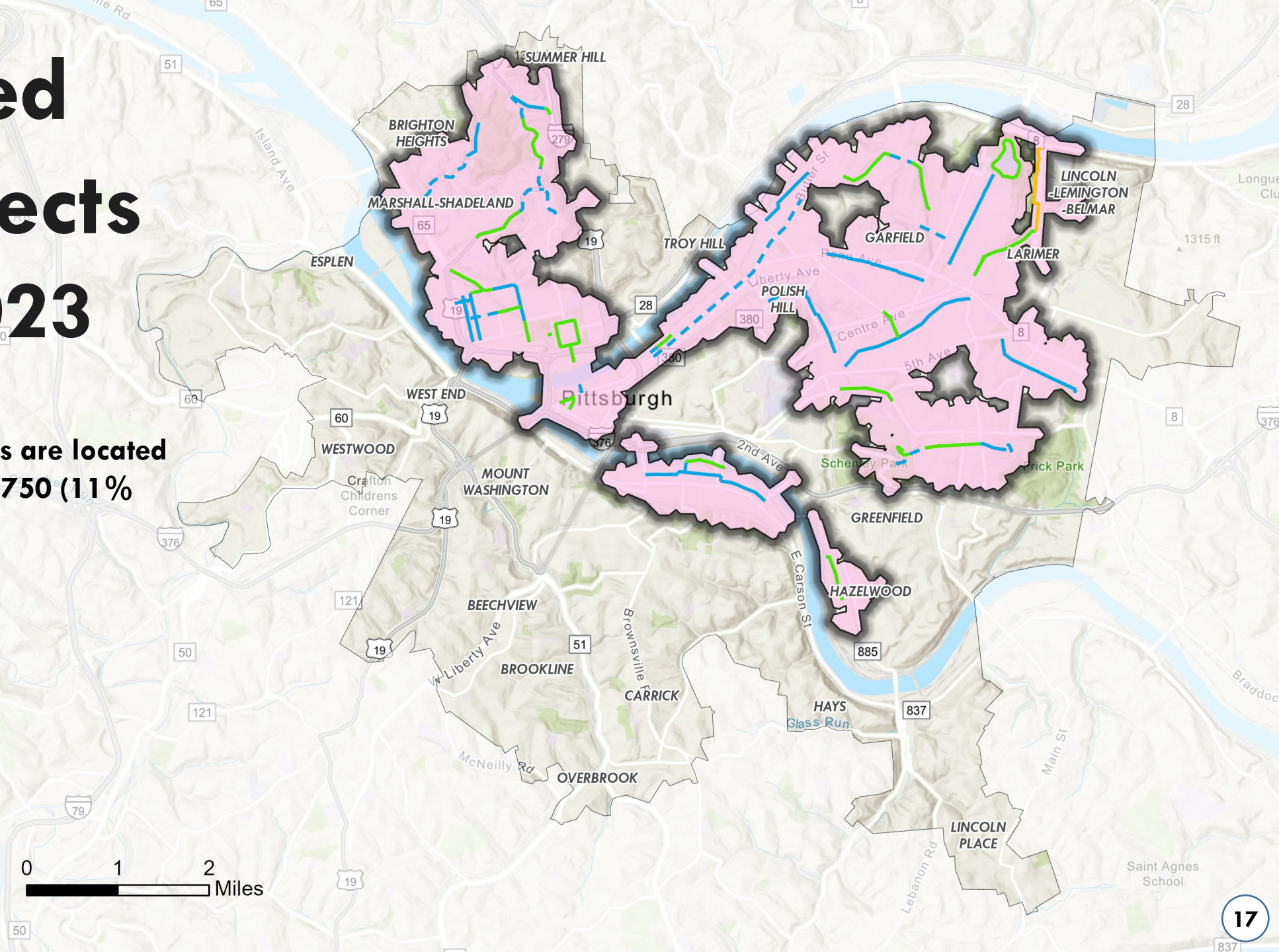
14% of these new facilities are located
in J40 areas and serve 33,750 (11%
total pop.) residents.

Bike Facilities 19 - 23

-  Bike Lane
-  Bike Lane / Sharrow
-  Buffered Bike Lane
-  Neighborway
-  Protected Bike Lane
-  Shared Use Path
-  Sharrow
-  Service Area



0 1 2
Miles



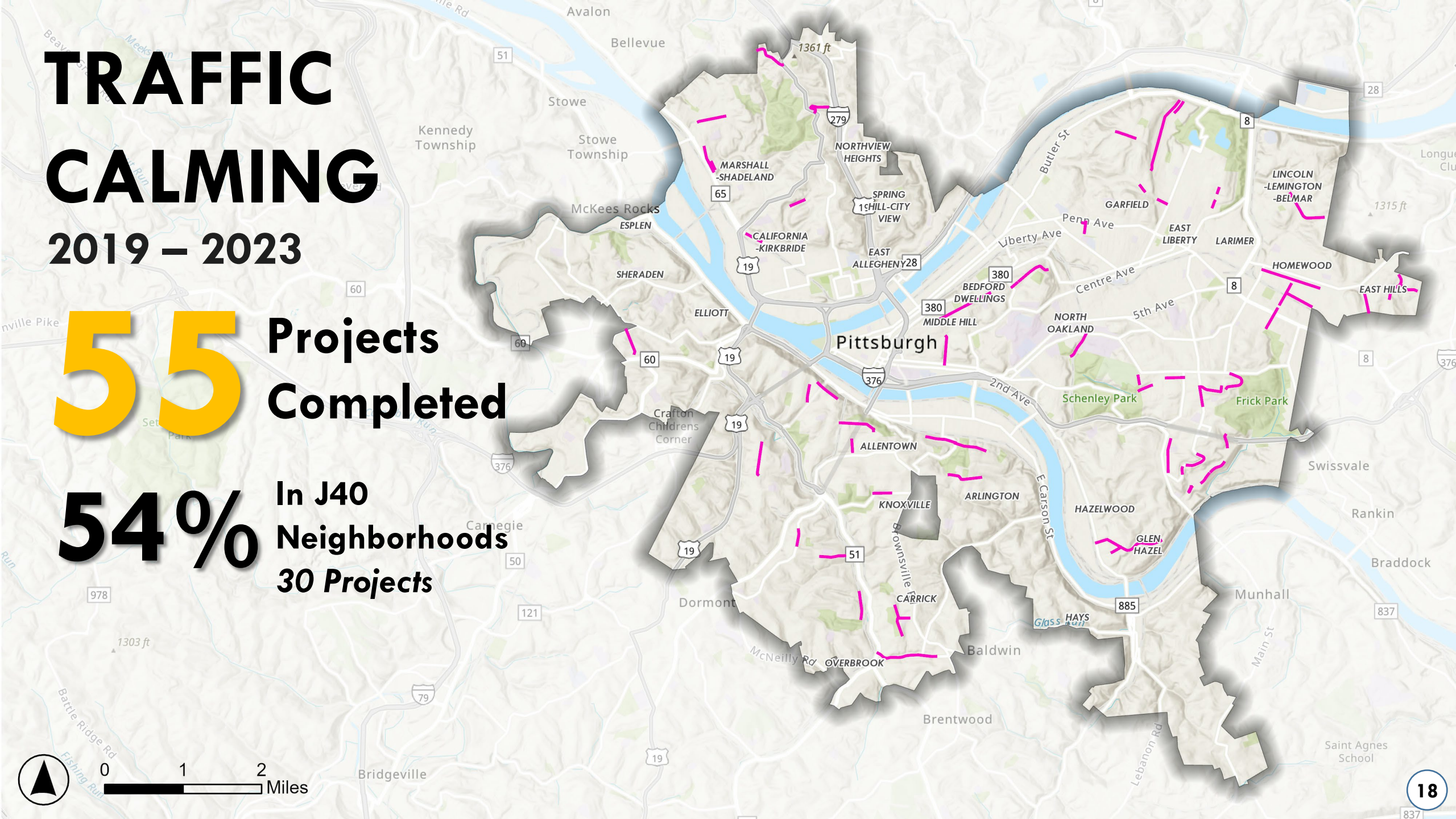
2019 – 2023



Projects Completed

54%

In J40 Neighborhoods 30 *Projects*



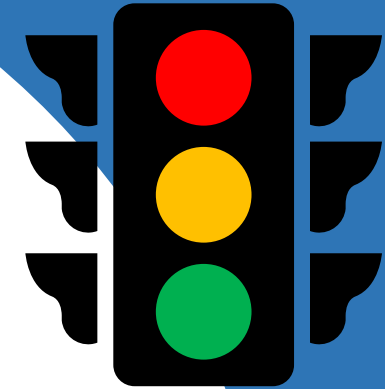
Intersection Upgrades

2019 – 2023

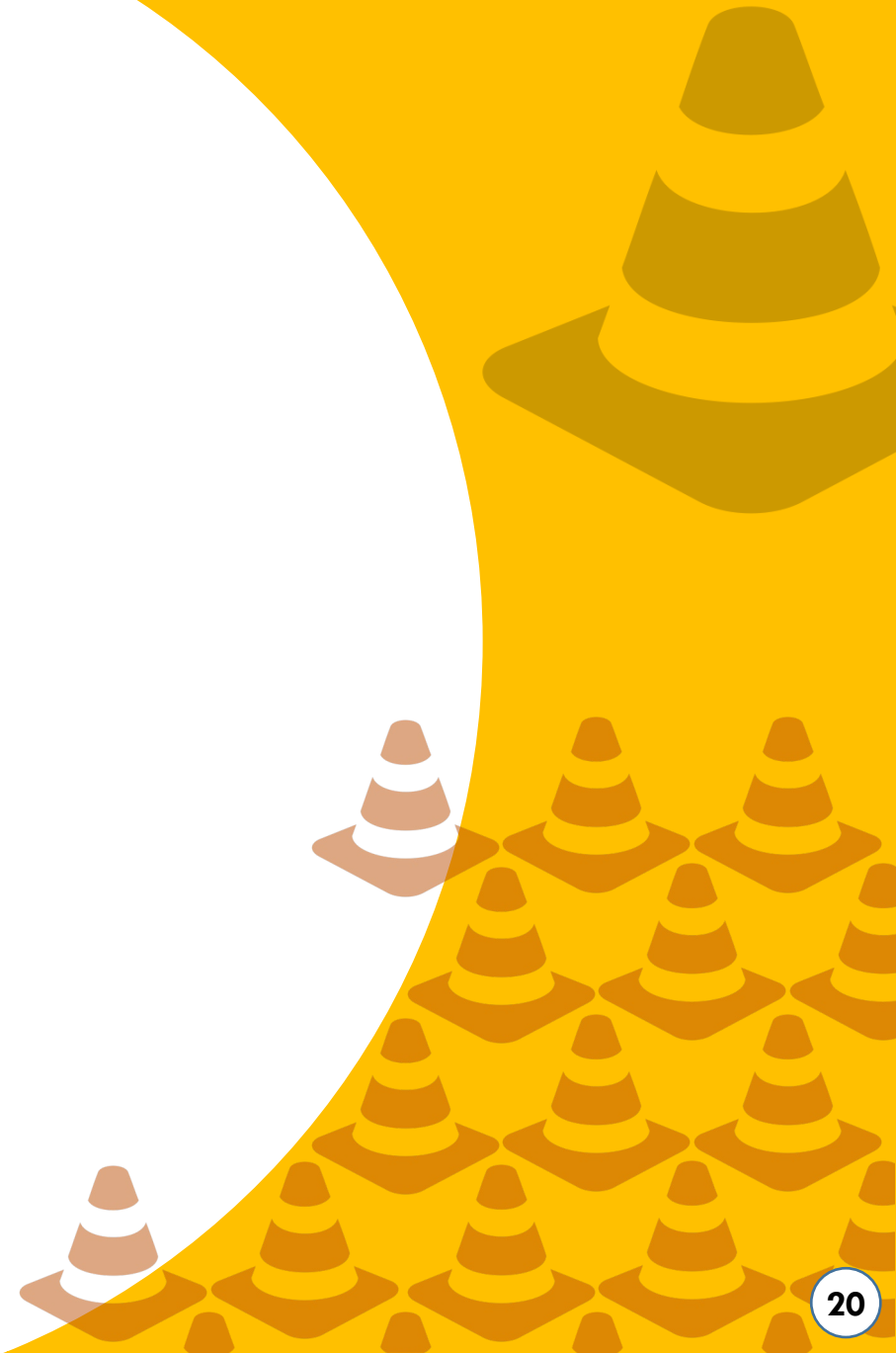
54 Signal
Upgrades

6k ADA Curb
Ramps Installed

43% Upgraded
Ramps
in J40 Areas



The State of Mobility: Crash Trend Analysis



Crisis In Context

"Behind the statistics are people - our families, friends, and neighbors. Each crash has a ripple effect that touches countless lives."

Homicide incidents are up by **20%** while Fatal crashes are up by **71%** in our city*.

Law enforcement officers responded **3.8 times** more in traffic crashes than Opioid overdose**

*Timeline:2018-2022,

Data source-[Pittsburgh Violent Crime Dashboard](#)

**Timeline: Jan 2021-May 31st 2022

Data source-[Opioid Overdoses Dashboard](#)



Photo Credit: Harriet Jackson
Safe Route to School

Fatal Crash Trends

Fatal Crashes are increasing at every level across the country, and Pittsburgh is no different.

21

Fatal Crashes in 2023[†]

7

Fatal Pedestrian Crashes in 2023[†]

1 in 4

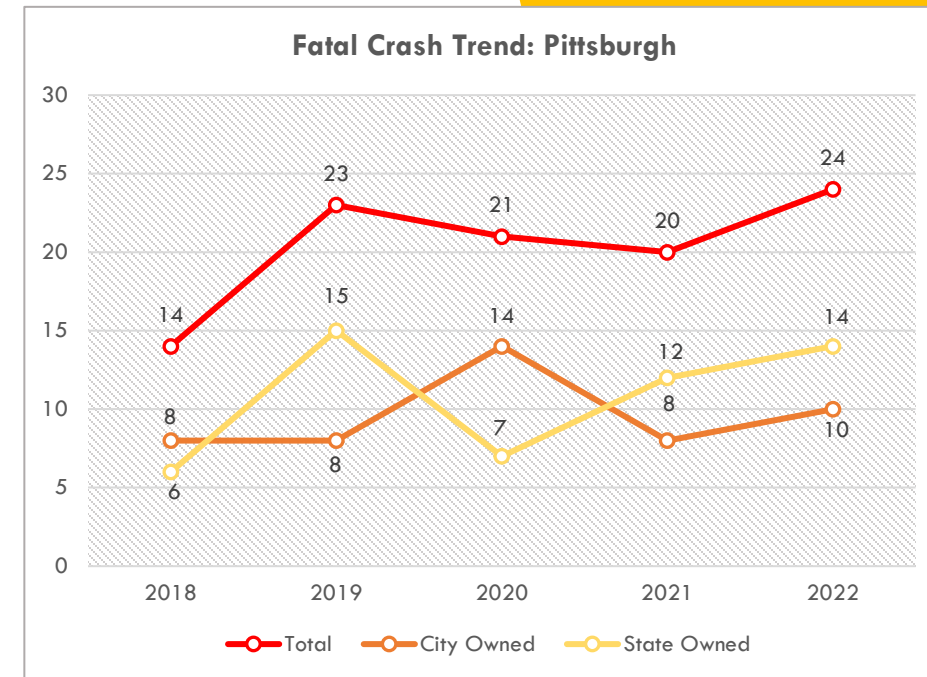
Fatal Crashes in the city
Involved a Pedestrian[‡]

31%

of fatal crashes occurred in J40
areas[§]

2X

Fatal crashes up in the J40
communities Post-COVID



[†] Fatal crashes investigated by the PBP in 2023
[‡] Since 2018

[§] Between 2018 – 2022

Vulnerable Road User Crash Trends

Post-COVID VRU Crashes are increasing across all categories

39%

VRU Crash

110%

Bicycle Crash

29%

Pedestrian
Crash

46%

Increase in J40 areas



Vulnerable Road User (VRU):

Indicates that the crash included both a motor vehicle AND a pedestrian, pedestrian conveyance (wheelchair, scooter, skateboard, etc.), bicyclist (not including e-bikes), or other pedal-cyclist.

Most of these crashes are occurring near Local Neighborhood Commercial (LNC) zones.

Crash Trends

Contributing Factors and Lighting Conditions

Several contributing factors and conditions are driving the rising **post-COVID** crash trends.

Factors:

24% Aggressive Driving
& Speeding Crashes

39% Red Light Running

30% VRU Crashes Occur at
Intersections

Lighting Conditions

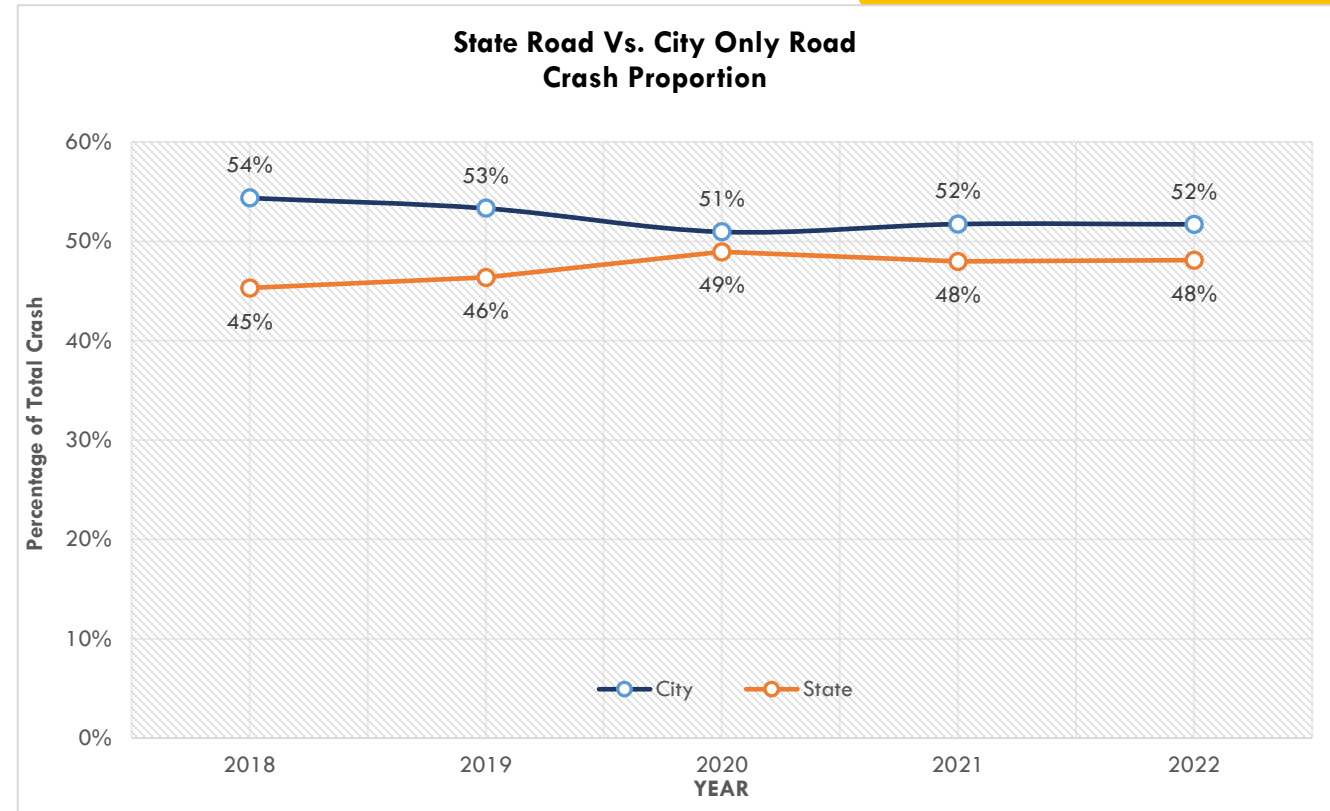
53% High Severity Crashes
Occur at **Nighttime**

Safety Beyond Jurisdiction

State roads only represent **12%** of the roads inside the city limit but account for nearly **HALF** of the crashes.

5 of the top 10 high injury crash corridors* inside the city limit are State Owned.

*Excluding the interstates, ramps, tunnels and bridges. Majority share of the road length considered for ownership



High Injury Network

HIN at a glance:

- Total Milage: 122 Miles
- Only 10% of total roadways in the city*
- Individual Corridors: 111
- City-owned Corridors: 72
- % of Milage in J40 Areas: 40%

**Excluding the interstates, ramps, tunnels.*

A High Injury Network (HIN) identifies stretches of roadways where the highest concentrations of collisions resulting in fatal or serious, minor or possible injuries occur on the transportation network.



1/10th of the total road networks are responsible for:

- 62% of total crashes
- 76% of total fatal crashes
- 83% of total serious injury crashes
- 79% of the pedestrian crashes
- 62% of bicycle crashes

High Injury Network

DOMI Projects on the HIN

95

Projects

43

HIN Segments

Project Types:

- Traffic Signal: 62 intersections in 24 corridors
- Complete Street: 20
- Neighborhood Traffic Calming: 8
- Critical Sidewalk Gap Program: 1

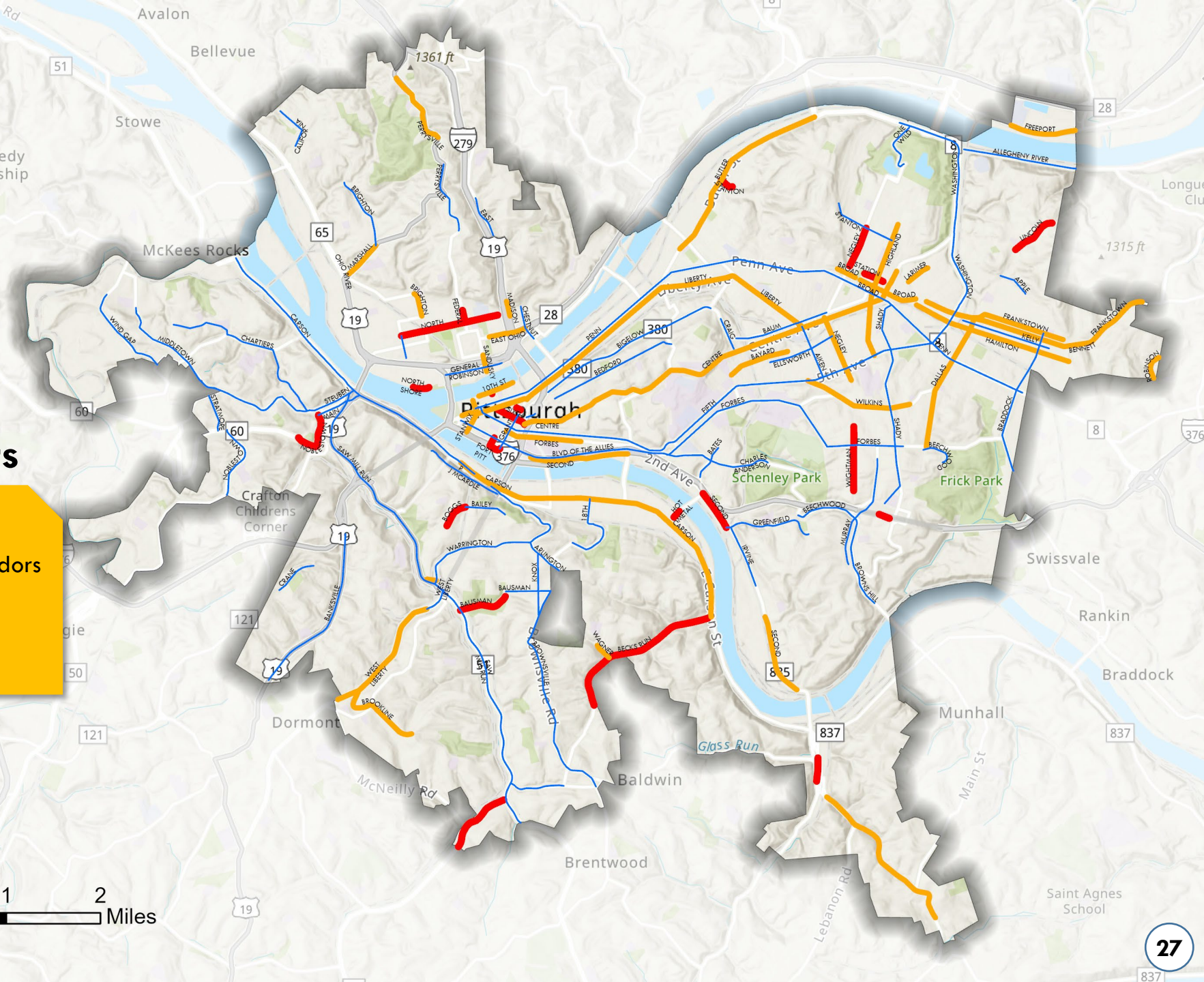
% of Crashes that
are Injury/Fatal
2018 - 2022

- < 45%
- 45% - 53%
- > 53%

Interactive
HIN Map

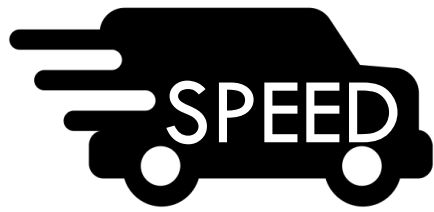


0 1 2
Miles



Our Countermeasures Work!

Traffic Calming Treatments†



Avg Change 85th
Percentile Speed
-7 mph

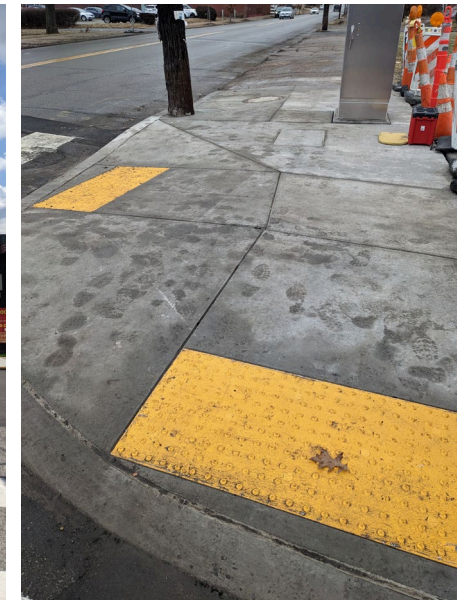


Avg Change
Drivers Speeding
-55%

Traffic Signal Replacements & Accessibility Enhancements‡



Average Crash
Reduction
-33%



† Analysis looked at select traffic calming treatments from 2019 – 2022

‡ Analysis looked at signal replacements from 2018 - 2020



SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes.



Advancing Complete Streets and Safe Systems: Policy Interventions



Project Selection

- **Prioritize corridors on the HIN** when making capital budget requests, applying for grants, or updating the regional transportation improvement plan (TIP).
- **Prioritize investments that close the gap in safety inequity.** Regardless of mode or zip code everyone should have the same freedom of movement and expectation of safety.
- **Scale up the benefits of the traffic calming program:**
 - **Establish a "Corridor Safety" program** that incorporates traffic calming methods, intersection safety practices, and assesses corridor improvements **on higher-order streets.**
 - Align work plans across DOMI bureaus to **create a planning to implementation pipeline** to address complex corridors.



Make safety the standard

- Leverage existing spending to **install low-cost or "quick build" safety enhancements** as a part of city paving or other maintenance programs.
- **Use proven engineering strategies** such as leading pedestrian intervals and pedestrian recall as part of general signal maintenance.
- **Adopt the NACTO Urban Design Guidelines** to be used in conjunction with MUTCD and AASHTO manuals to ensure we design streets that prioritize safety and are contextual to our city.
- Update the development review process for all new private developments over a certain size within the High Injury Network and in safety focus areas that will **require safety enhancement as part of the DOMI plan review process.**



Collaboration

- Provide opportunity for **public input** on policy priorities, possibly through CSAG.
- Offer **transparency** through regular reporting and online dashboard.
- Cultivate a culture of ownership and investment from all city departments that have a role in advancing safety by forming an **inter-departmental working group** which may include reps from: The Mayor's Office, Department of Public Safety (DPS), Department of Public Works, Neighborhood Services, Department of City Planning and more.
- Work with DPS and PennDOT to **improve the current crash data collection and storage system**.
- Collaborate with other roadway owners on project identification and development for non-city roads.
- Develop a **fatal crash response group** to address fatal crashes in a holistic and prompt fashion.



Policy

- **Seek state authorization to use proven design and enforcement strategies including curbside protected bike lanes and automated enforcement** for speeding in Pittsburgh.
- Reauthorize local legislation Automated Red Light Enforcement (ARLE) and stand up a program.
- Do **legislative and regulatory review** of the City's ability to enact citywide policy changes such as reducing the speed limit in special zones (ex: commercial districts, parks and schools) or prohibiting right turn on red.
- Consider a **dedicated stream of funding** for roadway safety planning and implementation – a predictable budget will give DOMI the ability to plan ahead.



When It Comes To Safety, The Responsibility Is Shared!



Photo Credit: BikePGH

APPENDIX A:

DATA SOURCES

City of Pittsburgh

GIS Data

Cartegraph

Sidewalk, steps, bicycle parking

Western Pennsylvania Regional Data Center (WPRDC)

Pittsburgh Regional Transit

PoGoH Bike Share

PennDOT Crash Information Tool

Crash Data

American Community Survey Data

Transportation mode trends

J40 Initiative

J40 Equity Tracts/Parcels

Streetlight

Big Data based mode analysis

Strava

Bicycle usage data

Federal Highway Administration (FHWA)

Mode Projections



Thank You!

WE APPRECIATE YOUR TIME