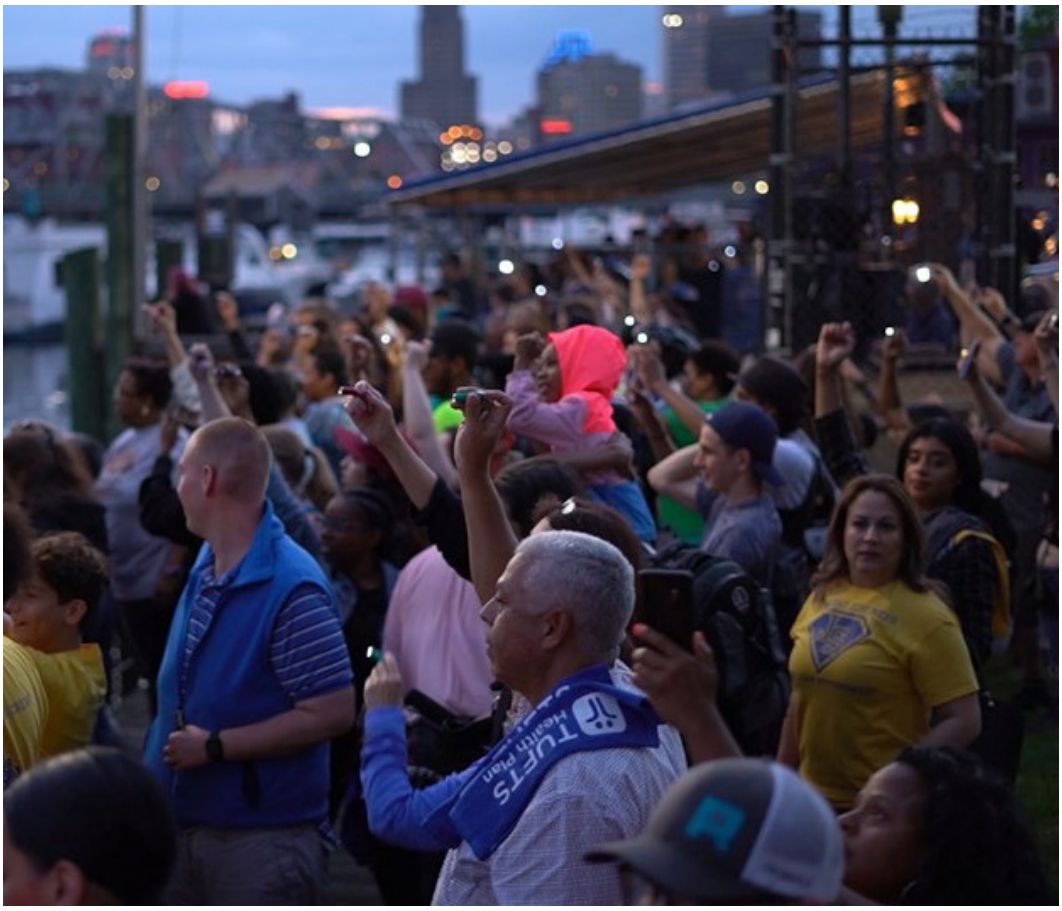
PVD GREAT STREETS



MAYOR JORGE O. ELORZA
CITY OF PROVIDENCE

January 2020

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Letter from the Mayor

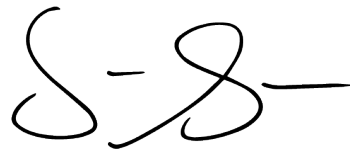
Dear Neighbors,

After engaging residents and stakeholders across our city, I am delighted to present Providence's Great Streets Initiative and Urban Trail Network Master Plan (Great Streets)—an actionable roadmap to better connect our residents and neighborhoods. The plan will guide the City's efforts to ensure that every street in Providence is safe, equitable and sustainable. As our city looks towards the future, Great Streets guides the day-to-day work of our City's Departments to ensure the investments we make in our public spaces add value to all residents and make Providence a better-connected city.

Thriving cities are cities that offer choices. This plan builds out our infrastructure goals in a way that provides safe transportation options to residents, visitors and commuters of all physical abilities, economic statuses and ages. During our public outreach, we consistently heard that residents crave the freedom to safely live, work, and travel throughout our city, no matter how they chose to get around. With industry best practices and community priorities leading the way, Providence now has a plan to transform feedback into a vision—policy into action.

I am grateful for the support of our community partners, our talented design consultants and the City staff who shared their passion and expertise throughout the development of this plan. Together, we've already begun to put our pedestrian and mobility goals into motion through City Walk, the Woonasquatucket River Greenway Extension, and the diverse array of upcoming projects that are now funded through the City's Capital Improvement Plan.

We've laid out a bold vision for the future of Providence. I am proud to share this vision with you and look forward to building safer and more equitable streets across our City.



Mayor Jorge O. Elorza


Photo: WRWC

Acknowlegments

Jorge O. Elorza, *Mayor*

Thank you to many City of Providence staff members who contributed their time, input, and expertise to the creation of the Great Streets Master Plan:

Nicole Pollock, *Chief of Staff*

Sabrina Solares-Hand, *Director of Operations*

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Leo Perrotta, *Parking Administrator*

Doug Still, *City Forester*

Ellen Cynar, *Director of Healthy Communities*

Leah Bamberger, *Director of Sustainability*

Gina Rodriguez-Drix, *Cultural Affairs Manager*

Thank you to the community partners and venues who generously hosted community meetings throughout this process:

Grace Church

Southside Cultural Center

William D'Abate Elementary School

Federal Hill House

The Church of the Redeemer

Alan Feinstein Elementary School

The DaVinci Center

Vartan Gregorian Elementary School

West End Community Center

Silver Lake Annex Community Center

Saint Pius V Church

Harry Kizirian Elementary School

Thank you to our consultants:

Toole Design

Nelson\Nygaard Consulting Associates

Valerie J Southern Transportation Consultant LLC

Cogent

Photo: Sam Goater

Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, and commentary contained herein are based on limited data and information, and on existing conditions that are subject to change.

MAYOR JORGE O. ELORZA
CITY OF PROVIDENCE

PVD GREAT STREETS

Contents

Introduction

The Providence Great Streets Initiative is based on the belief that every street in Providence should be safe, clean, healthy, inclusive, and vibrant. As our largest public asset, covering over 13 percent of Providence's total land area (over 1,500 acres), our streets play a central part in shaping our neighborhoods and impact the way we live, work, play, and move around our city.

Our Vision: Every street in Providence should be safe, clean, healthy, inclusive, and vibrant.

What makes a Great Street?

- Safety for all people
- Clean, green, and sustainable
- Inclusive and welcoming for all
- Vibrant and prosperous

What do Great Streets include?

- Improvements to make walking safer
- Improvements to make riding bicycles safer
- Improvements to make transit safer and more efficient
- Traffic calming improvements to reduce speeding and cut through traffic
- Streetscape and placemaking improvements like lighting, trash and recycling cans, landscaping, pocket parks, and benches
- Creation of a "spine" network of Urban Trails that connect every Providence neighborhood

What does this plan do?

The Great Streets Master Plan establishes a vision and framework for specific public realm improvements citywide that will ultimately connect every Providence neighborhood to a safe, comfortable, high-quality network of public improvements where residents and visitors can walk, run, bike, scoot, and skate to get to schools, jobs, parks, and other important destinations.

Goals

- Improve traffic safety and personal safety by bringing more order to the public realm.
- Ensure our public realm is clean and well-maintained.
- Connect every neighborhood in the city with low-stress, high-comfort facilities for people of all ages and abilities to walk, run, bike, scoot, and skate along.
- Increase opportunities for gathering, socializing, playing, and creating.
- Celebrate the diverse character of the City's neighborhoods, art, and cultures within the public realm.
- Provide equitable access that meets the needs and desires of all neighborhoods.
- Lower greenhouse gas emissions.
- Reduce stormwater runoff and flooding.

All streets can be Great Streets.

A lot goes into a street being great, and it's hard to summarize all of that in a few categories. That's why in a few places in this plan you'll see "walkability improvements," "other Great Streets project," or "intersection improvements." All of these include improvements to make it safer and more comfortable for people to cross or walk along streets, but may also include slowing down traffic where speeding is an issue, improving aesthetics with street trees, landscaping, lighting, or other streetscape improvements that will be further explored with community members. The inclusion of these projects is based on community feedback, crash history, and other data.

Providence Urban Trail Network

Providence's Urban Trail Network will connect every neighborhood with high-quality routes for people walking, riding bicycles, accessing transit, or using shared micromobility options, like scooters and e-bikes, with a goal that residents and visitors can safely and comfortably travel to schools, jobs, and other important destinations like parks, libraries, and museums. The Urban Trail Network will also seamlessly and comfortably connect Providence residents to regional trails and paths, including the East Bay Bike Path, Blackstone Bike Path, Woonasquatucket River Greenway Bike Path, and Washington Secondary Trail.

What are Urban Trails?

Urban Trails are on- or off-street paths that are safe, comfortable, and easily accessible for people of all ages and abilities. On busy streets, Urban Trails are fully separated from vehicle traffic. In other instances, off-road trails and paths like the Blackstone Bike Path and Woonasquatucket River Greenway serve as part of the Urban Trail Network. On smaller neighborhood streets, Urban Trails take the form of "neighborhood greenways" – where a combination of traffic calming and wayfinding provide a consistent, easy to understand, high-comfort experience for people using the trail.

The Urban Trail Network needs to be connected to work well, just like streets that we drive cars on need to be connected to work. Using the Urban Trail Network, people will be able to access destinations using active modes without having to traverse high-stress segments or intersections. The Network will be intuitive to use and easy to navigate through the use of consistent design elements and branded wayfinding signage.

Types of Urban Trails

- Fully separated from motor vehicles
- Neighborhood Greenways
- Off-road bike path or trail

Qualities of Urban Trails

- Easily identified and understood
- Connect to the rest of the Urban Trail Network

Some streets have existing bike lanes that do not meet the Urban Trail threshold. Streets with existing bike lanes that are proposed for Urban Trails have an "Upgrade Due" label in this plan.

How the Plan Was Developed

Intersection improvements

Recommendations for intersection improvements include intersections with a history of numerous crashes, intersections repeatedly mentioned by community members as needing improvements, unusually wide intersections, intersections with a complex or confusing layout, and key crossing locations for the Urban Trail Network.

Intersections included in the plan were refined based on data analysis, stakeholder input, and comments collected from the neighborhood workshops.

Improvement strategies include, but are not limited to:

- Crossing improvements
- Lane configuration modifications
- Urban Trail crossings (priority treatment based on context)
- Lighting improvements at crossings
- Placemaking and public art opportunities

Certain improvement types should be considered universal for intersection improvement projects, such as ADA/accessibility, signage, pavement marking, and signal upgrades as needed to meet design standards.

An intersection crash cluster is an intersection with at least six reported traffic crashes involving vulnerable users (people walking or riding bicycles) between 2009-17.

Traffic calming

This plan recommends a new approach to traffic calming in Providence: implement traffic calming in small areas, or zones, within neighborhoods instead of on individual streets. A zone-based traffic calming program allows groups of streets within neighborhoods to be comprehensively evaluated for traffic calming. The resulting implementation would strategically occur on several streets, to prevent higher-speed traffic being pushed to adjacent streets from traffic-calmed streets. The Recommendations section suggests that the City should establish a process to evaluate zones proposed by neighborhoods for traffic calming. Candidate traffic calming zones are included for each neighborhood group below, but this should not limit traffic calming implementation on other streets if warranted. Refer to the Assessment of Regulations, Programs, and Policies section of this document for more detailed recommendations.

Streetscape improvements

Streetscape improvements include physical changes to improve walkability, transportation amenities, aesthetics, or green infrastructure. The Implementation Guide serves as the primary reference for integrating such improvements into existing projects where possible or when necessary creating standalone projects.

Network planning principles

1. To achieve a robust network that reaches all Providence neighborhoods, the target minimum spacing between Urban Trail Network links is ½ mile.
2. The Network will connect all Providence neighborhoods and provide access to major destinations throughout the city including job centers, schools, parks, libraries, museums, and other civic amenities.
3. The Network will connect to the regional trail system, including the Woonasquatucket River Greenway, Washington Secondary Trail, Blackstone River Bikeway, and East Bay Bike Path.
4. The Network should be direct and minimize detours.
    a. Note: Direct routes in Providence are generally Commercial Streets, Neighborhood Collector Streets, and other corridors that serve travel between neighborhoods or extend outside of the city. Moderate detours may be used to address barriers when the most direct routes are not feasible. Research on route choice and ridership indicates that a detour should not exceed a 30 percent increase in distance over the most direct route.
5. Where two or more parallel routes may feasibly accommodate an Urban Trail, preference will be given to corridors with more amentities (e.g. businesses, parks) for trail users.

Table 1. Network building blocks and references

Public Input	Public comments at community meetings
	Public comments via online mapper
Existing conditions research	Data analysis
	Feasibility
	Equity, safety, and connectivity
Bicycle and Pedestrian Advisory Commission (BPAC)	Route suggestions for the Great Streets Plan
	Previous staff reports and committee recommendations
Planning documents and processes	State Bicycle Mobility Plan candidate routes
	Previous plans
	Traffic calming requests
Current Urban Trail Network	In-progress
	Existing

Segment/link design principles

1. The basic design principles for every type of street in the City are laid out in the Implementation Guide. Whenever road work happens in Providence, rather than replacing as-is, improvements should be made to bring the street closer to the principles in the Guide.
2. The Urban Trail Network shall provide a consistent experience and level of comfort not to exceed Bicycle Level of Traffic Stress 1 (lowest stress) and the maximum allowable level is Bicycle LTS 2.
3. The Urban Trail Network shall consist of a range of facility types—including physically separated lanes on busy streets, shared use paths in their own rights-of-way, curb-separated paths on the side of the road, and lower-volume, traffic-calmed streets (neighborhood greenways)—depending upon context.
4. Connections and transitions between network links shall be seamless and intuitive with identifying elements that link together different segments of the network.

Bicycle Level of Traffic Stress (LTS) is a rating of streets and roads from 1 to 4 that estimates the comfort level people feel while riding bicycles down the street. The rating takes into account characteristics such as posted speed limit, the type of bike facility, travel lane width, and the presence of on-street parking. LTS 1 represents the lowest stress rating and LTS 4 represents the highest.

Route feasibility

1. Routes should be feasible, at least over the long term. A separate prioritization process will recommend shorter-term priorities. Many factors inform the feasibility of a route, but basic considerations of feasibility include topography, environmental constraints, regulatory constraints, design standards, and available right-of-way.
2. Preference shall be given to designs that can be implemented with minimal modifications to the roadway.
3. Where traffic conditions indicate the need for separated facilities, the following shall be the ranked order of preferred actions to provide necessary space for an Urban Trail:
   a. Narrow existing lane widths
   b. Remove travel lane (on multi-lane streets)
   c. Remove parking lane
   d. Modify curb line/construction project
   e. Alternative route
4. While no one factor determines the suitability of a neighborhood greenway treatment, considerations for neighborhood greenway treatments include:
   a. Street generally has a functional classification of collector or local
   b. Street is low-volume (3,000 ADT or less), or a target low volume can be reasonably achieved with the neighborhood greenway treatment
   c. Target post-project motor vehicle operating speed is a maximum of 20 mph
   d. Street has seen a formal traffic calming request from community members
   e. Due to the width of the street, separation is not feasible or practical after evaluating the above preferred actions
   f. Based on context, need, and neighborhood priorities, neighborhood greenway recommendations may incorporate other components in addition to traffic calming, including basic sidewalk improvements, landscaping, stormwater management, lighting, and art.

Public Input

In Spring 2019, the City of Providence hosted 12 neighborhood meetings to gather input on Great Streets improvements during which we collected over 275 mapped comments from more than 180 attendees about topics ranging from traffic calming to street lighting to bike lanes. Attendees provided input by adding green and red “like/dislike” stickers to neighborhood and citywide maps.

Comments and ideas gathered at the neighborhood meetings were then translated into draft recommendations for projects. From early May to mid-June, those projects were presented to the public in an online interactive map, where community members could vote on project ideas and provide additional mapped comments.

The neighborhood meeting materials, presentation, and online map were presented in a bilingual (English and Spanish) format.

The result is a plan closely shaped by the community.

Neighborhood meeting summary

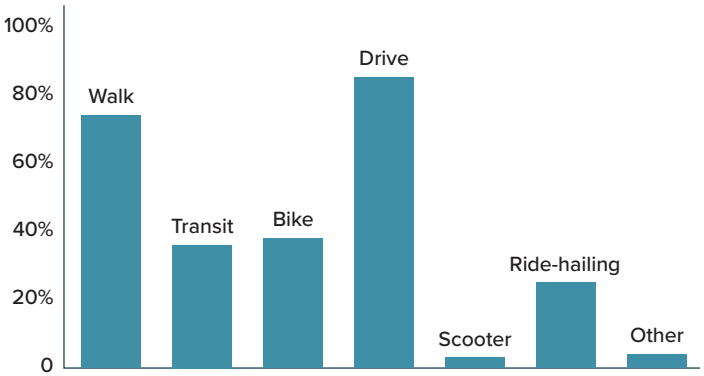
181 Attendees

275 Mapped Comments

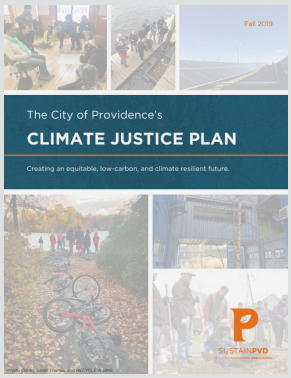
>500 Like/Dislike Stickers on the Citywide Map

How do you travel around Providence? (check all that apply)

Figure 1. Modes Used by Community Meeting Attendees



Coordination spotlight: Climate Justice Plan



A parallel plan produced in 2019 by the Providence Racial and Environmental Justice Commission and the Office of Sustainability, the Climate Justice Plan featured a nationally-recognized public engagement process and its transportation section complements the Great Streets Plan.

Climate Justice Plan Transportation Targets:

- *By 2035, reduce Vehicle Miles Traveled (VMTs) by 11% and by 2050, reduce VMTs by 20%.*
- *By 2035, 43% of VMTs are electric and by 2050, 80% of VMTs are electric.*
- *By 2035, increase the number of employers in Providence offering RIPTA's EcoPass to their employees from 50 to 200.*
- *Increase trips taken using JUMP Boost plan subscriptions to 10%.*
- *Increase public transit ridership in Providence.*
- *Reduce diesel truck traffic in frontline communities.*
- *Increase low-carbon transit options in frontline communities.*
- *Increase sidewalk maintenance and investment in frontline communities.*

Online map public input summary

This map was generated based on the draft June 2019 urban trail network map, on top of which community members proposed additional routes and intersections by drawing on the map.

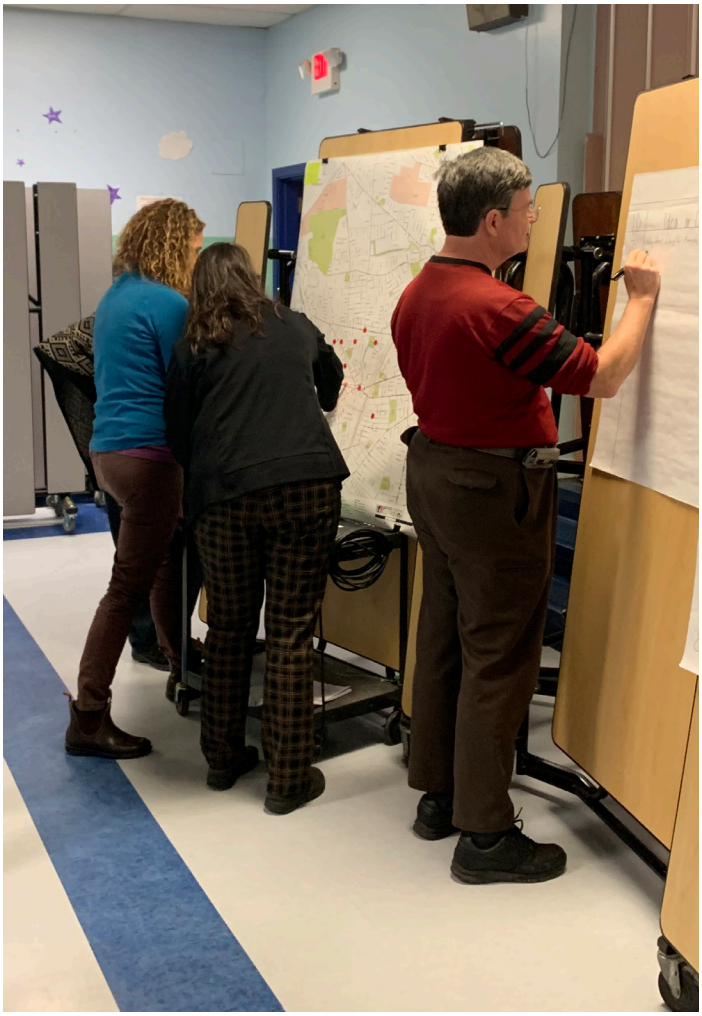
What we heard

"Lots of pedestrians crossing to church. Better crosswalk needed."
(Charles Street at Hawkins Street, Charles)

"Speeding, cut through traffic, parking on sidewalk, [happens a lot on this street], stop sign ignored."
(Windmill Street, Charles)

"Crosswalk is long. Cars accelerate uphill – dangerous for crossing pedestrians. There are blind spots as well."
(Benefit Street at Benevolent Street, College Hill)

"Unsafe pedestrian crossing; all double lanes. Pedestrians must run across."
(I-95 ramps at Point Street, Downtown)



"Like protected lane, but should be longer and more protected with planters, and [highlighted with] green bike lane paint."
(Fountain Street, Downtown)

"Traffic interferes with usability of the park [Columbus Square]."
(Elmwood Avenue at Reservoir Avenue, Elmwood/Reservoir)

"Difficult vehicle turns, and large intersections makes it difficult for pedestrians to cross."
(Atwells Avenue at Dean Street, Federal Hill)

"Vehicles speed along Knight, and with two way traffic and cars parked on one side, it's dangerous for pedestrians. Consider making it one-way southbound with dedicated parking on one side and a posted lower speed limit."
(Knight Street at Grant Street, Federal Hill)

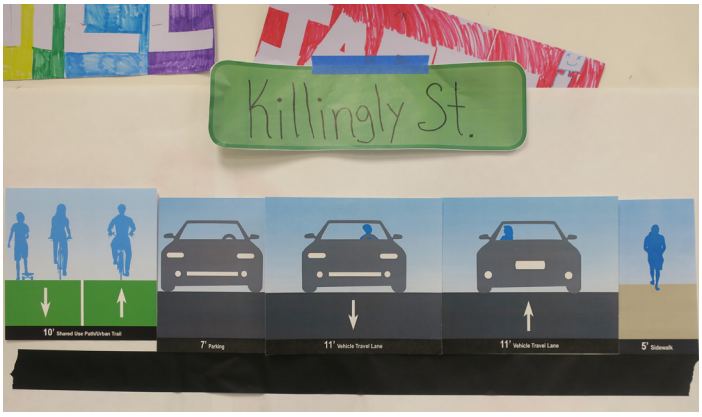
"Hard to cross; fast traffic."
(Gano Street, Fox Point)

"Need a new bridge across the river to Hartford Ave."
(Hartford)

"Complicated/indirect [pedestrian] crossing."
(Hope Street at Blackstone Boulevard, Hope)

"Congestion, people driving run red lights"
(Eddy Street at Thurbers Avenue, Lower South Providence)

"Eliminate the slip lane at Olney + N. Main. It is dangerous to pedestrians."
(Mount Hope)



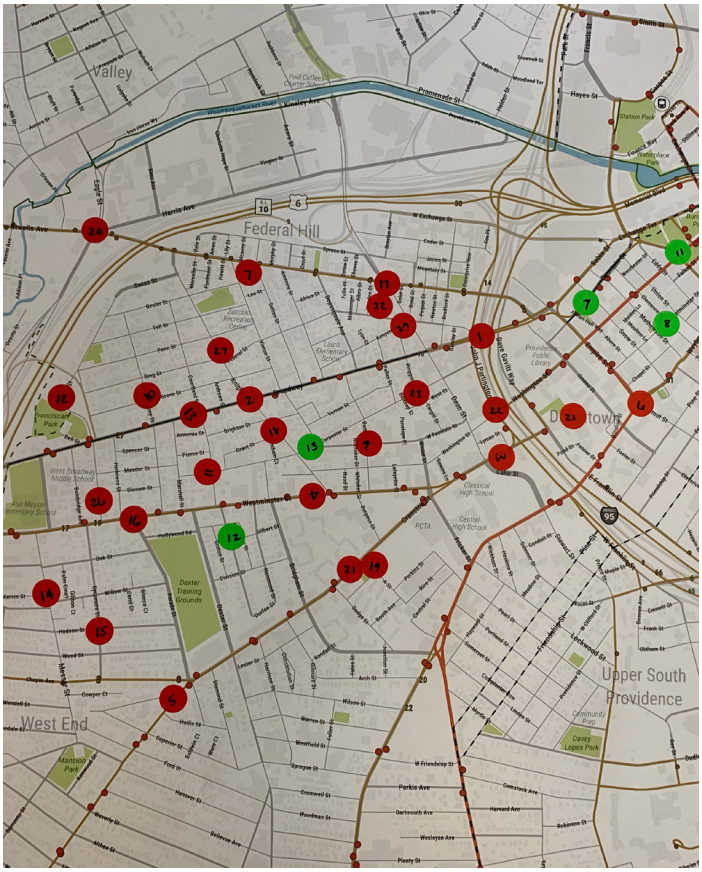
"Speeding issues on Mt Pleasant [Avenue]."
(Mount Pleasant Avenue at Old Road, Mount Pleasant)

"Need crosswalk from parking lot to post office building."
(Hartford Avenue at Atwood Street, Olneyville)

"Add raised crosswalk to park or speed bumps to reduce travel speeds."
(Woonasquatucket River Greenway at Aleppo Street, Olneyville)

"Fear of being hit by a car, bad visibility, use of Ruggles as cut-through, speeding"
(Smith Street at Ruggles Street, Smith Hill)

"Speed limit does not equal design speed. Streets too wide."
(Roger Williams Park, South Elmwood)



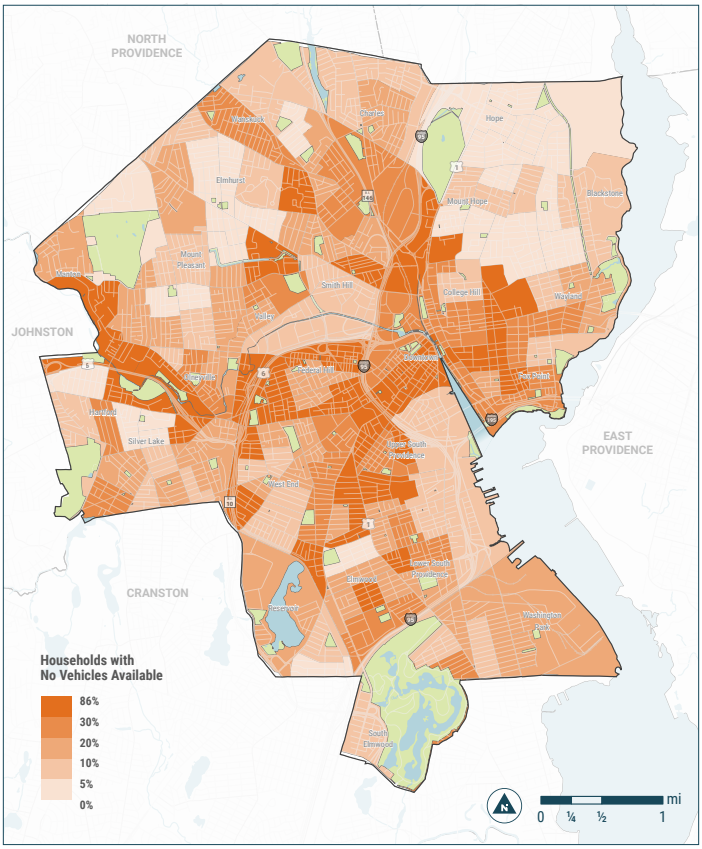
"So congested! Very narrow bridge @ Wanskuck building. People pass through here to detour. Makes it hard to pass through on a bike because it's so congested."
(Branch Avenue at Woodward Road, Wanskuck)

"Burns St is one way, but stop bar @ stop signs only goes half way across street – makes it appear 2 way and encourages wrong way driving."
(Burns Street, Wanskuck)

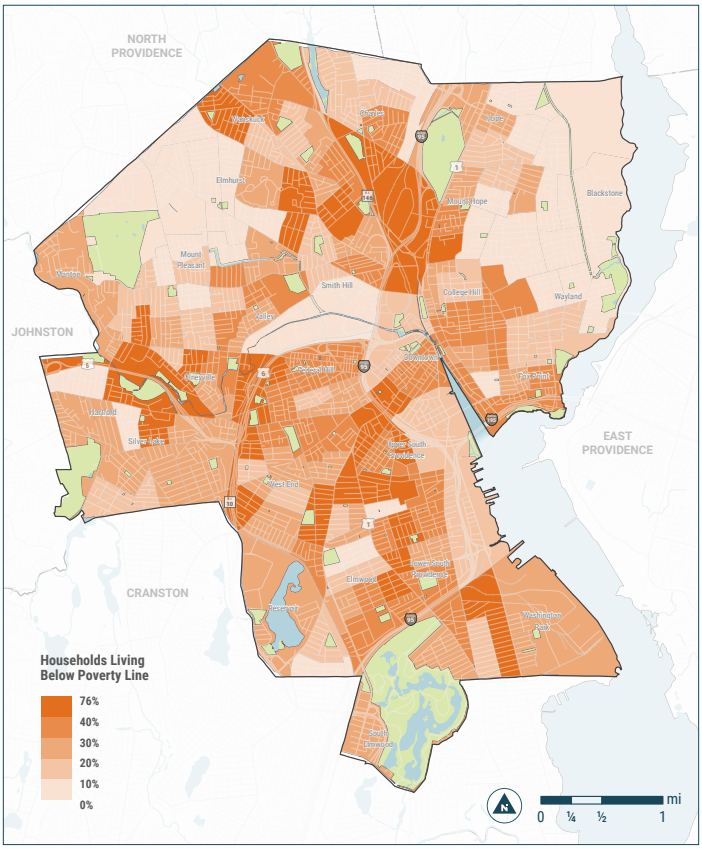
"Too fast – too wide. People don't obey 35 mph speed limit, which is also too high. High traffic volumes. Lots of trucks. Poor lighting. Not safe at night. Dirty."
(Allens Avenue at Chapman Street, Washington Park)

Existing Conditions

Household Vehicle Availability

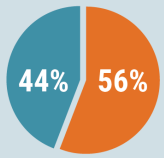


Household Poverty



- Nearly 20 percent of households do not have a personal car available. This percentage is even higher in Olneyville, Upper South Providence, and Hartford, where 42, 40, and 39 percent of households, respectively, do not have a car available.
- JUMP is contracted to provide electric pedal-assist bicycles for use across the city.
- The City's E-Scooter Share Program issues permits for companies to operate shared e-scooters ciywide.
- There are approximately 11.2 centerline miles of existing Urban Trails and 6.6 centerline miles of existing bike lanes in Providence. This includes facilities in Roger Williams Park as part of the existing Urban Trail network.
- While over 10 percent of Providence residents currently walk to work, and 1 percent ride a bicycle as their primary mode of travel to work, almost two-thirds drive alone. The percentage of people who do not drive to work is significantly higher in College Hill, Fox Point, and Wayland, where 69, 64, and 55 percent of commuters, respectively, do not drive to work.

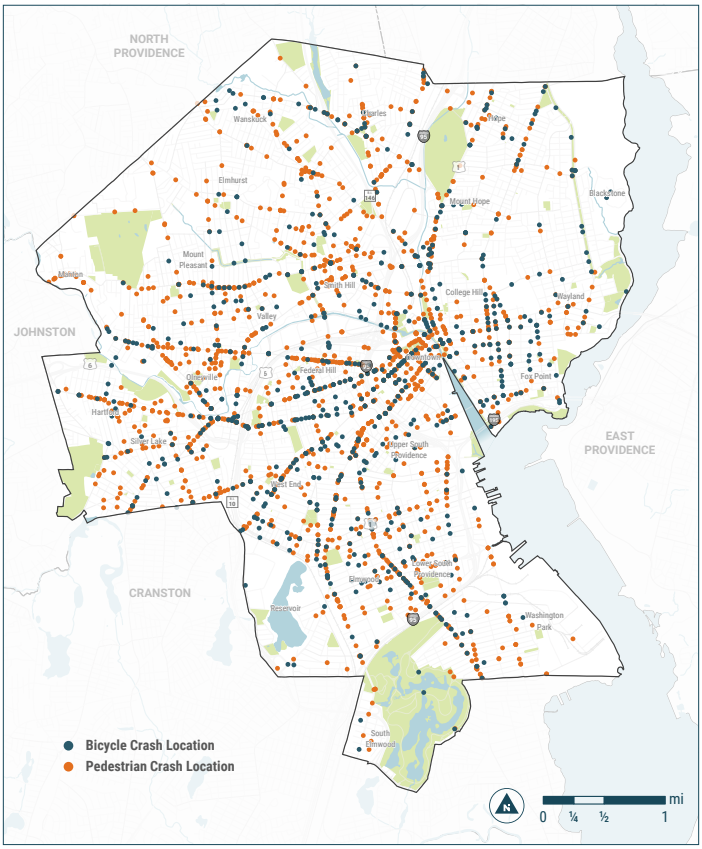
Providence households spend **56%** of their income on housing & transportation
(More than 45% is considered unaffordable)



30% of all citywide emissions **come from vehicles**

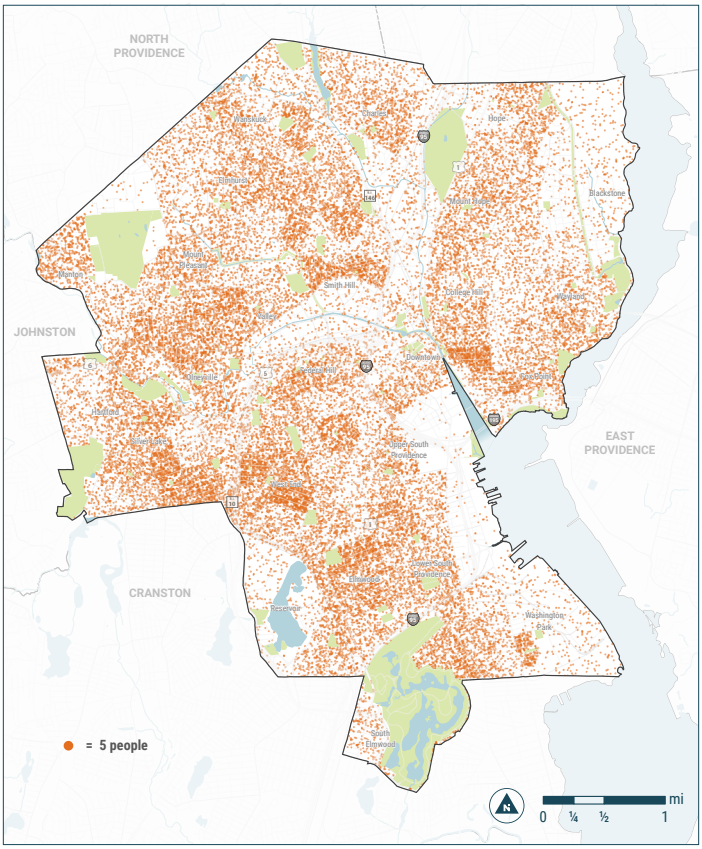
1st Providence County is the **most polluted** county in New England

Crashes Involving People Walking and Bicycling (2009-17)



- Every year, on average, from 2009 to 2017, over 150 people walking and over 60 people riding bicycles were hit by cars in Providence.

Population Density

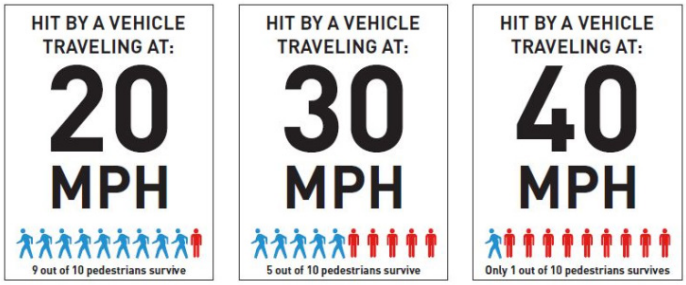


- Providence's compact size and population density (over 9,000 people per square mile) makes it easy to walk, ride a bicycle, and use other micromobility options to get around.
- The average Providence household creates over 18,000 vehicle miles traveled (VMT) per year, which contributes to traffic congestion, noise, physical inactivity, and more than 500,000 tons of carbon dioxide equivalent (CO_2e) emissions from transportation and mobile sources each year.

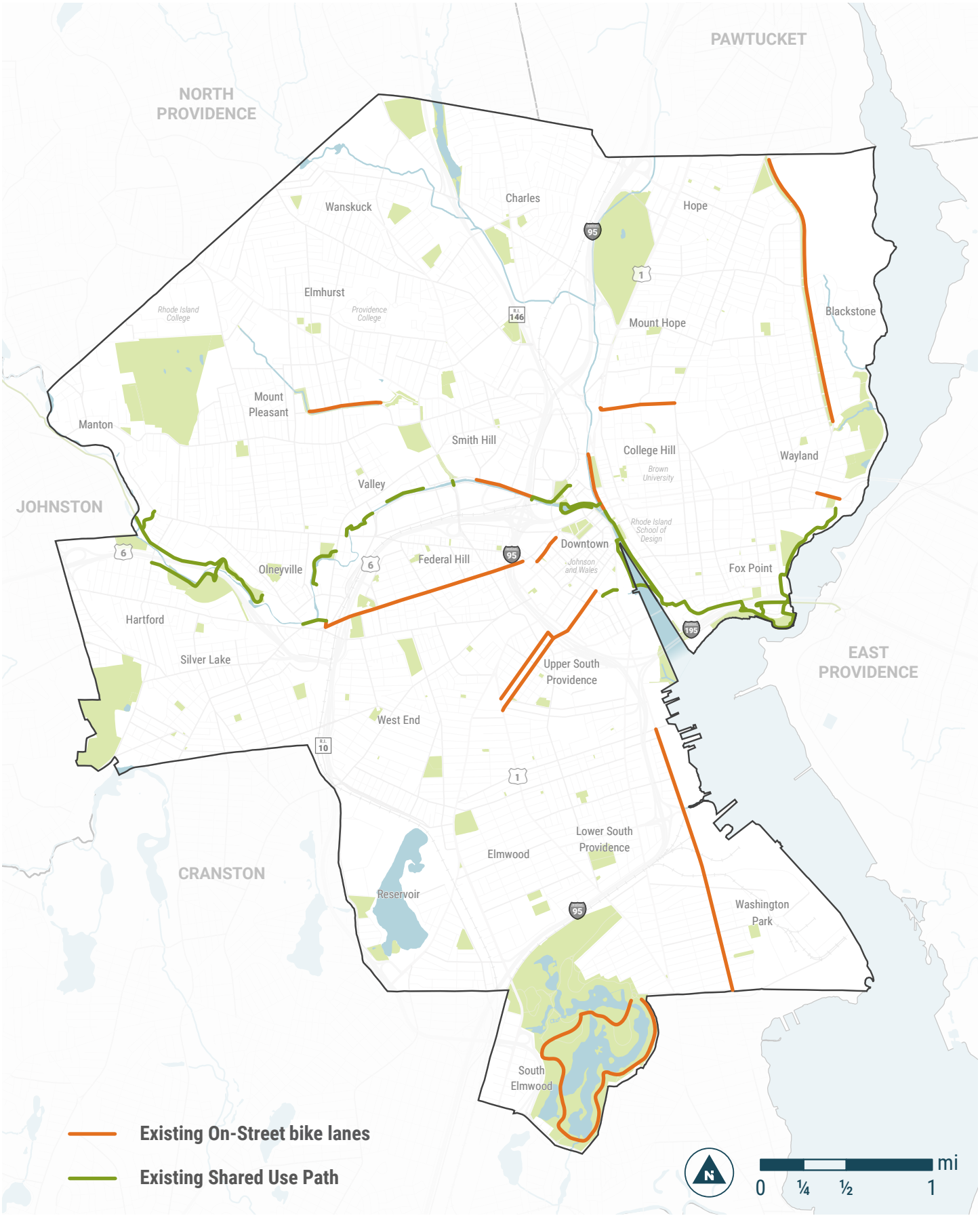
Lower speeds = fewer roadway fatalities

Slower driving speeds increase the chance that drivers will see people walking or biking in time to stop and avoid injuring them. A large body of national and international research shows that even small changes in driving speeds can significantly reduce fatalities and injuries. Lowering speed limits is a good idea, but most people pick a speed based on the street configuration and the speed of other cars around them regardless of the speed limit. That's why we need to design our streets for people not just cars to create a city that is safe for everyone.

Graphic: Seattle Vision Zero plan, Data: NACTO



Existing Network



People For Bikes Bike Network Analysis

National nonprofit People For Bikes created the Bicycle Network Analysis tool to help communities measure the quality of our low-stress bike networks. It assesses the degree to which people can comfortably bike to the places they want to go. The below is the result of the analysis for Providence.

Providence, RI | CITY SCORECARD

placesforbikes

2019 OVERALL SCORE

3.0 ★★★☆☆

The overall score is based on Ridership, Safety, Network, Reach and Acceleration. It includes publicly available data and data gathered from our Community Survey, City Snapshot, and Bike Network Analysis.

RIDERSHIP

Measures how many people are riding.

1.8 ★☆☆☆☆

Bicycle commuting	0.3
Recreational bike riding	2.8
Perceptions of bike use	2.7

SAFETY

Measures how safe it is and feels to ride a bike.

2.1 ★★☆☆☆

All mode fatalities and injuries	1.5
Bicycle fatalities and injuries	2.5
Perceptions of safety	2.3

NETWORK

Measures how well the bike network connects people to destinations.

2.1 ★★☆☆☆

Bicycle Network Analysis (BNA)	2.0
Perceptions of network quality	2.5

REACH

Measures how well the bike network serves everyone equally.

2.1 ★★☆☆☆

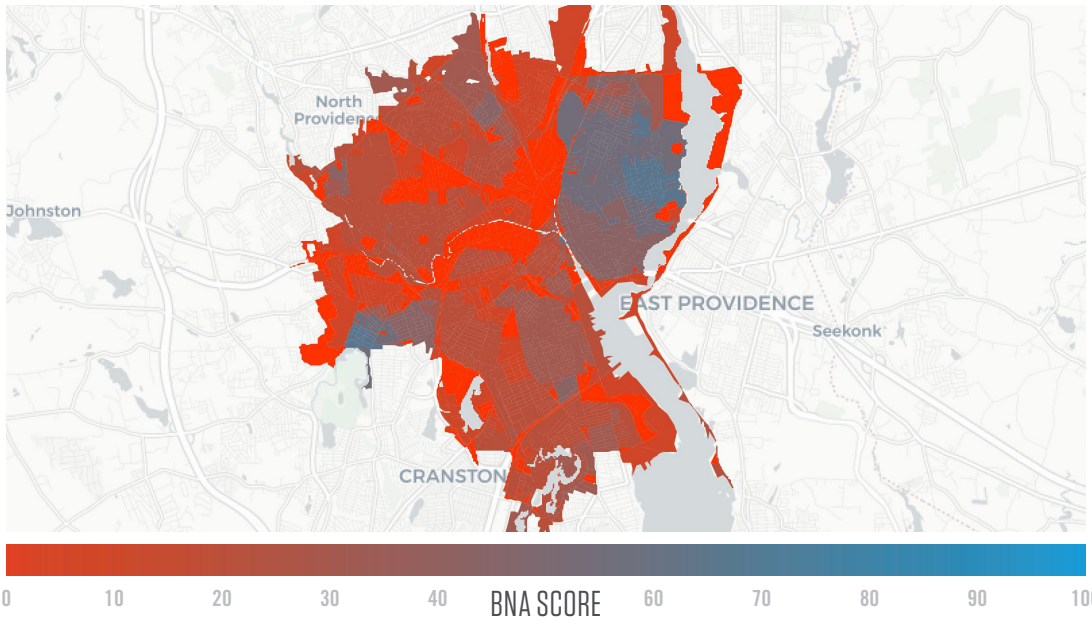
Demographic gap in BNA	1.7
Bicycle commuting rates by gender	3.1

ACCELERATION

Measures the city's commitment to growing bicycling quickly.

4.3 ★★★★☆

Growth in bike facilities and events	4.7
Perceptions of progress	2.7



More information at https://bna.peopleforbikes.org/

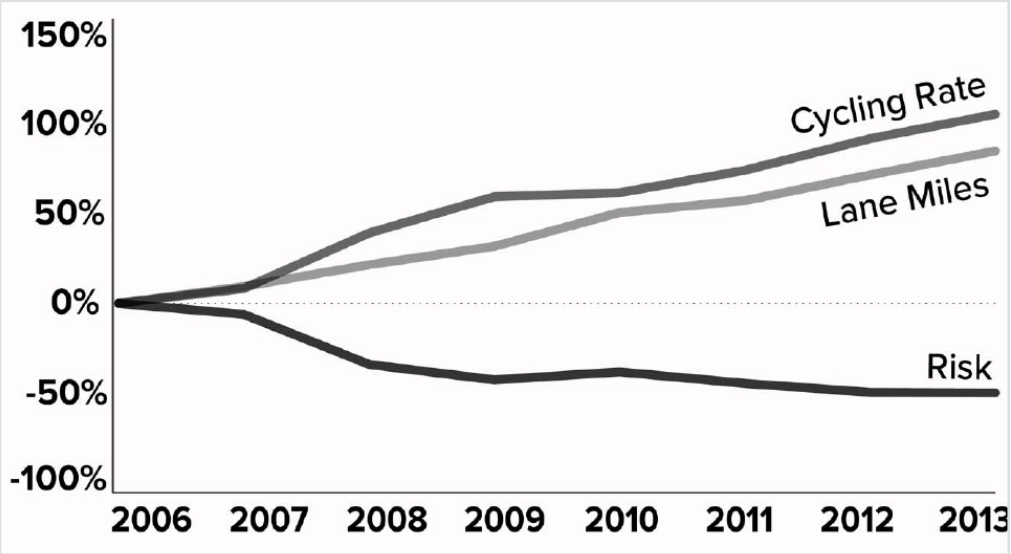
Citywide Urban Trail Network

A central principle of the Providence Great Streets Master Plan is to connect every neighborhood to a complete and intuitive Urban Trail Network. The Urban Trail Network proposed within this Master Plan comprises:

- Over 150 projects along corridors
- Over 300 intersections prioritized for improvements. Other neighborhood comments are embedded in Urban Trail projects to mark important intersections to be addressed in project development.
- 78 miles of new projects (43 miles of new separated on-street or off-street/shared use path Urban Trails, 22 miles of new neighborhood greenways, 6 miles of walkability projects, and 6 miles of upgrades to existing bike lanes and shared use paths to improve conditions for people walking, cycling, and using micromobility)

The proposed Urban Trail Network touches every part of Providence, bringing 93 percent of residents and 93 percent of jobs within easy walking distance. The Urban Trail Network:

- Connects 166,792 Providence residents living within ¼-mile of the proposed network (compared to 36,452 living within ¼-mile of the existing network), resulting in a 458 percent increase in the number living within easy walking distance of the Urban Trail Network
- Connects 99,324 people who work within ¼-mile of the proposed network (compared to 38,596 working within ¼-mile of the existing network), resulting in a 257 percent increase in the number of people working within easy walking distance of the Urban Trail Network



Aggregate data from Portland, New York City, Chicago, San Francisco, and Philadelphia

Source: NACTO

Urban Trails reduce risk of bicycling

Data compiled by the National Association of City Transportation Officials and visualized above shows a clear correlation between lane-miles of urban trails and safety. While helmets often dominate the discourse about bicycling safety, and crash data is often presented without context, this analysis shows that more urban trails get more people biking, and when more people are biking, everybody's safety improves. In order to improve the safety of our neighbors who already bike, and to give another option for safely getting around our city to more people, this plan calls for connecting every neighborhood to the Urban Trail Network.

Proposed Citywide Urban Trail Network