

PedPDX

Portland's Citywide Pedestrian Master Plan

Community Advisory Committee, August 30, 2017

WE KEEP PORTLAND MOVING.



PBOT
PORTLAND BUREAU OF TRANSPORTATION

Why do we care about walking and walkability?



Protecting our Habitat

- Nearly 40% of all local carbon emissions come from transportation sources
- Shifting our transportation patterns from driving to walking/biking/transit plays a major role in minimizing climate impacts
- Walking is the most sustainable, most accessible form of transportation

An aerial photograph of a large, multi-lane highway bridge spanning a body of water. The bridge is filled with cars and trucks, indicating heavy traffic. The bridge has multiple levels and curves, with a guardrail visible on the left side. The water is visible on the left and right sides of the bridge.

Managing Growth and Congestion

- Portland's population will continue to grow.
- An additional 235,000 new commuters are expected in Portland by 2035.
- Moving more people in the same amount of space critical for absorbing the city's growth

A man in a grey suit and a woman in a striped shirt are walking away from the camera on a paved sidewalk. They are walking a black dog on a leash. To their right is a street with parked cars, including a silver Toyota. In the background, there are trees with green and yellow leaves, a bus stop, and residential houses. The scene is brightly lit, suggesting a sunny day.

Improving Health outcomes

- Strong link between walking activity and public/individual health
- CDC recommends 20 minutes of moderate activity per day for most adults, and 60 minutes or more for most children
- State of public infrastructure play a major role



Creating a Livable City

- Walkable urbanism is the foundational element of great neighborhoods and great cities
- Portland has a 2030 vision of creating vibrant neighborhoods where 80% of residents can easily walk or bike to meet basic daily, non-work needs

What is the current state of walking / walkability in Portland?

(and how do we measure “walkability”?)

Measuring walking/walkability in Portland:

- 1. Walking activity**
- 2. Safety data**
- 3. Pedestrian network completion**

1. Walking activity:

Commute to work data

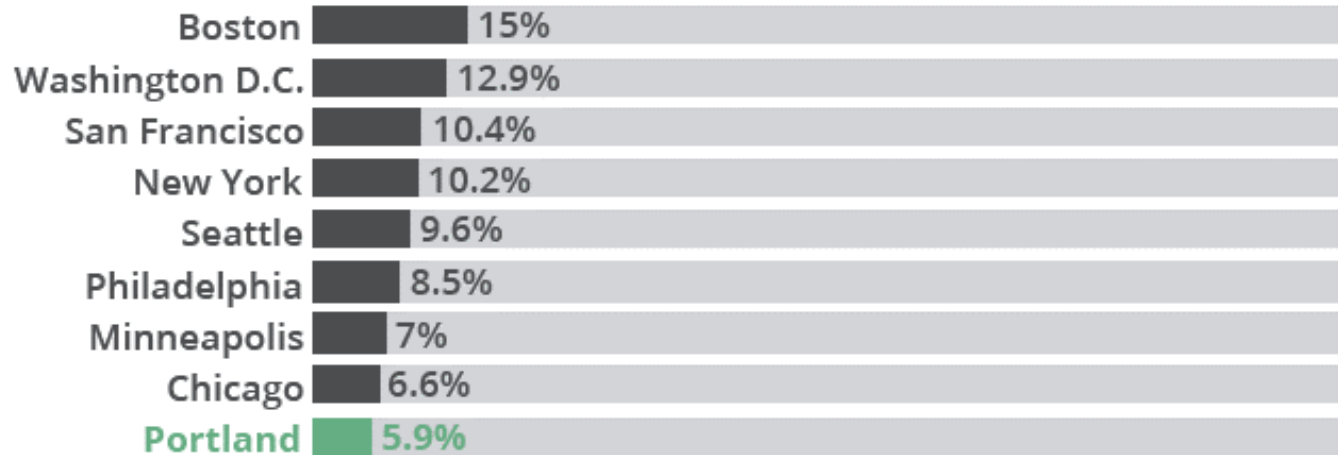


	Drive alone	Carpool	Walk	Bike	Transit	Work at home
City mode split target	30%	10%	7.5%	25%	25%	2.5%
2015 Census (American Community Survey)	57.2%	8.2%	6.0%	7.0%	13.4%	7.2%

1. Walking activity:

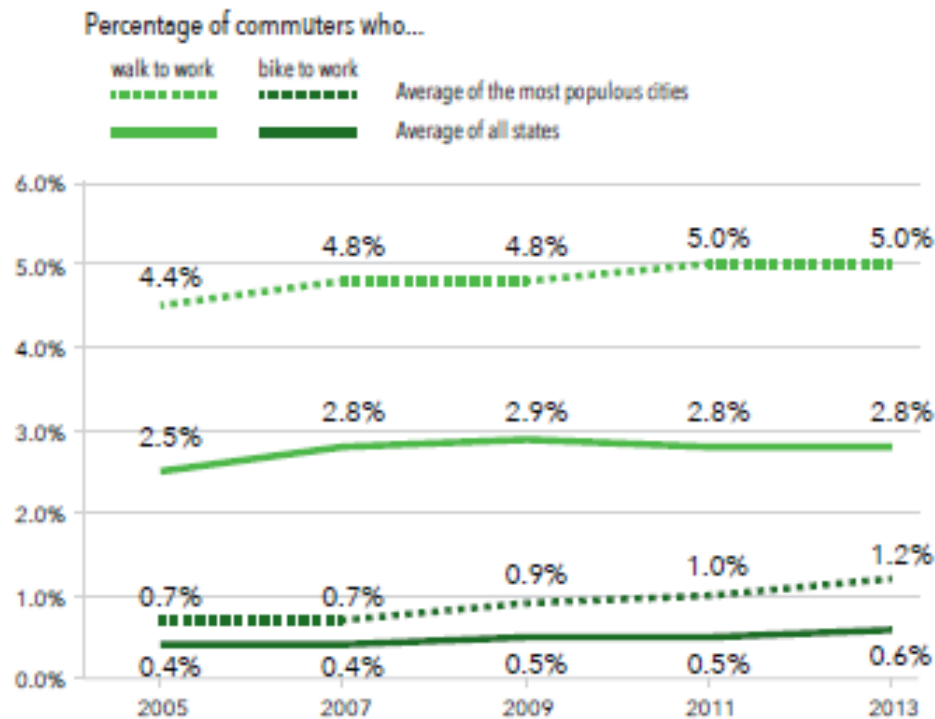
How does Portland compare?

Walking to work 2015

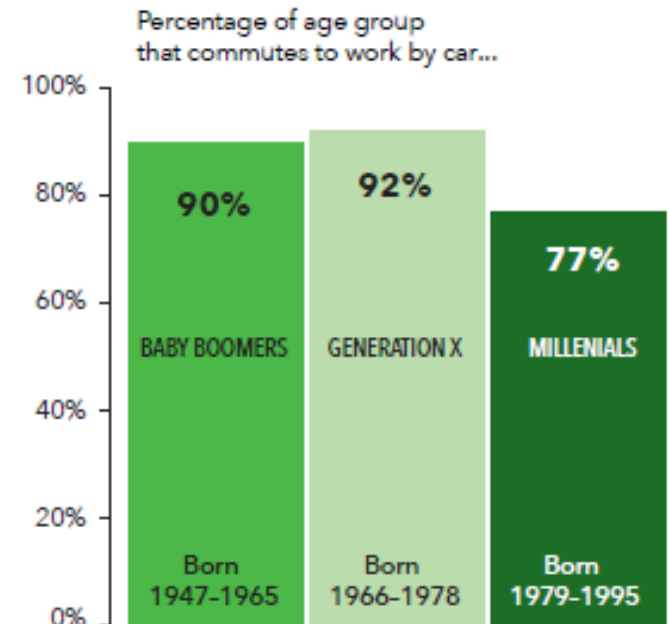


1. Walking activity: Nationwide trends

U.S. Commuter Trends (2005-2013)



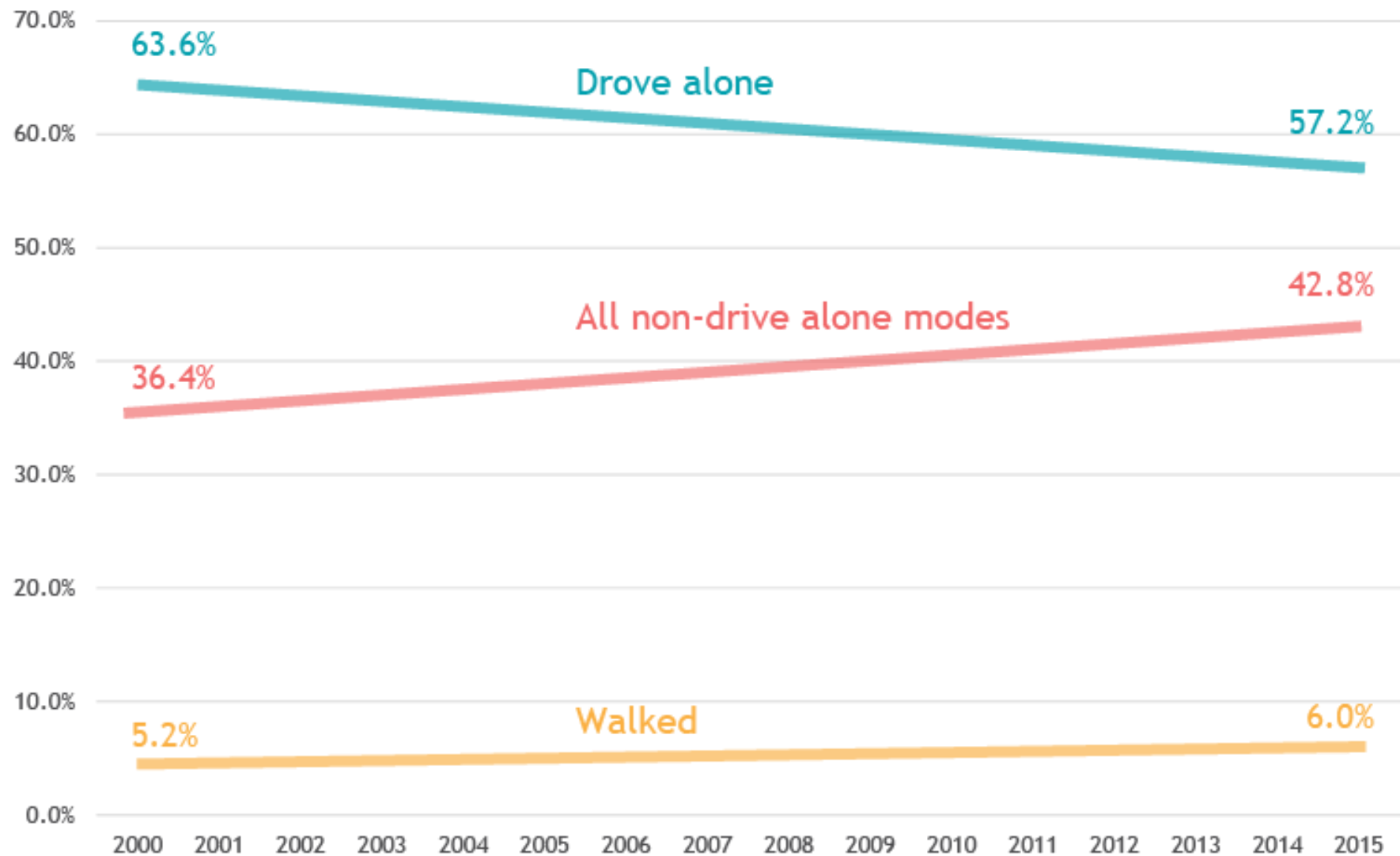
Sources: ACS 2005 (1-yr est), ACS 2007, 2009, 2011, 2013 (3-yr est)



Source: Urban Land Institute, 2013

1 The Millennial generation is typically defined as those born between 1983 and 2000; however, birthdates and definitions vary.

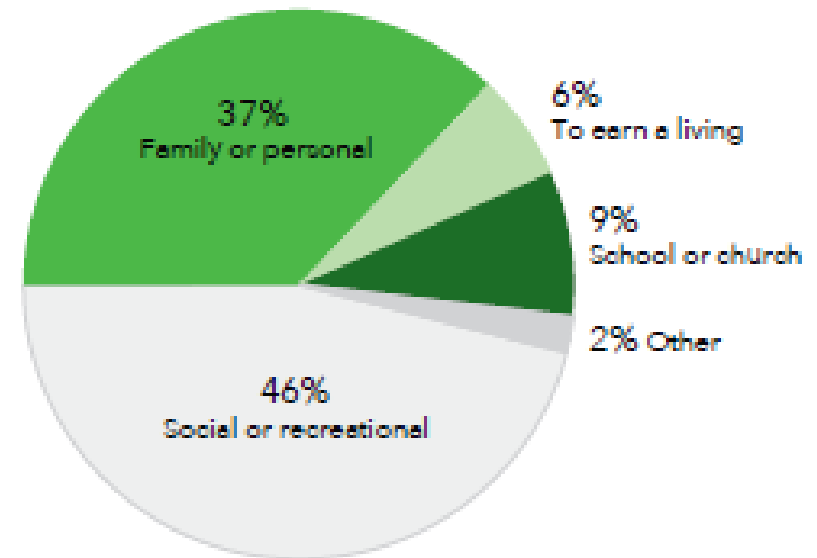
Portland Commute Mode Splits 2000-2015



1. Walking activity:

Limitations of census commute data

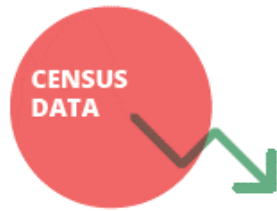
Walking Trips, by Purpose



Source: NHTS 2009. Notes: "Social or recreational" combines the following NHTS response categories: "vacation," "visit friends/relatives," and "other social/recreational." "Family or personal" combines the following NHTS response categories: "shopping," "medical/dental," and "other family/personal business." "To earn a living" combines the following NHTS response categories: "to/from work" and "work-related business." "School or church" represents the single NHTS response category "school/church."

1. Walking activity:

We need better pedestrian data



PROBLEM:
Underreporting pedestrians

Census commute data captures only a small portion of all trips, and significantly underreports pedestrian trips which tend not to be commute trips, or may be only a piece of the commute trip—such as walking to a transit stop.



PROBLEM:
Expensive and infrequent data collection

Many communities engage in travel surveys which ask residents to self-report on how they get around. Because these surveys can be expensive, they are not always conducted at regular intervals or at the desired frequency—Portland last conducted a survey in 2001. Furthermore, walking can be highly influenced by seasonal changes and point-in-time surveys do not capture these changes in travel behavior over time.



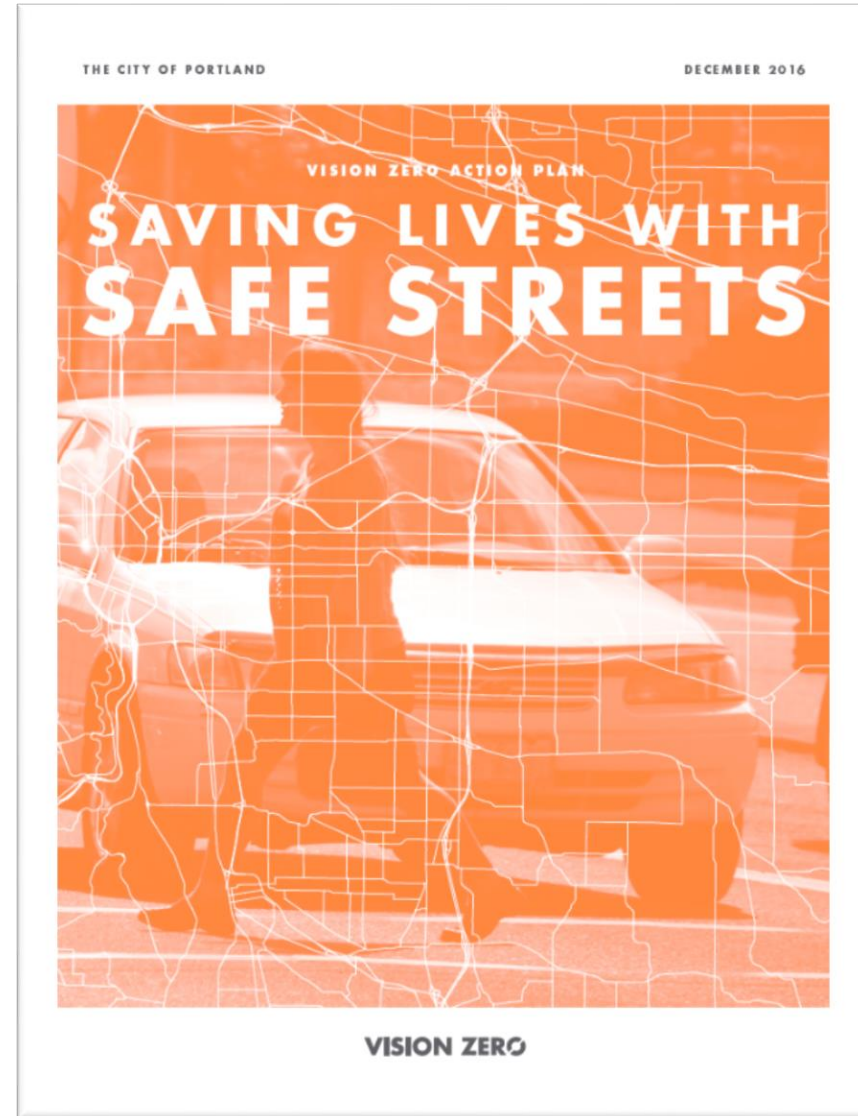
RECOMMENDATION:
Explore new methods for gathering regular pedestrian data

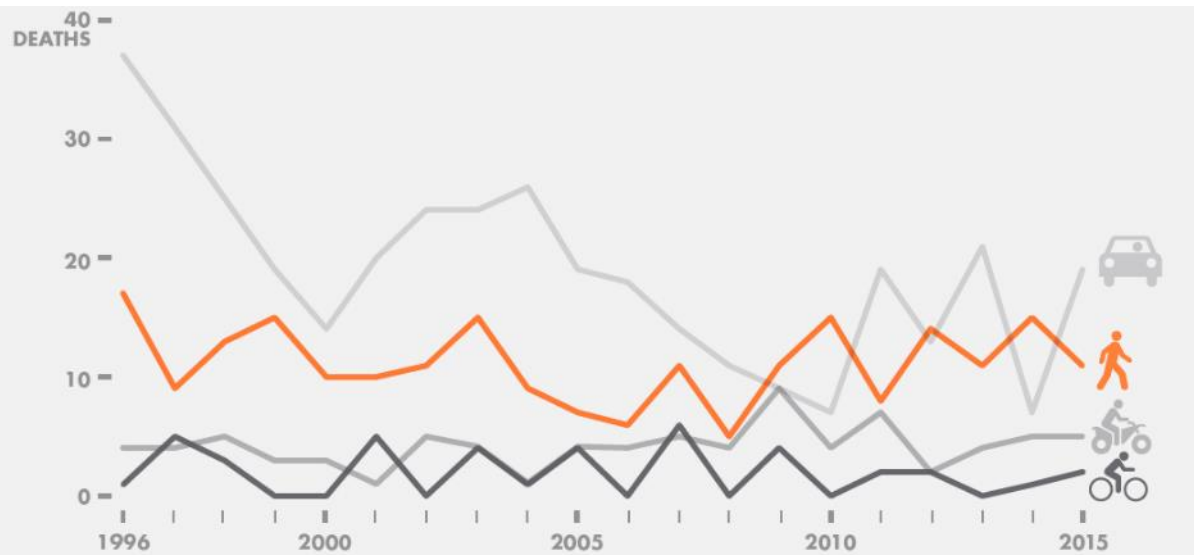
PBOT is evaluating new data collection methods to better understand how many people use our sidewalks and crossings, how pedestrian volumes compare to other modes, how those trends are changing over time, and the demand for improved pedestrian facilities. This includes exploring automated data collection technologies to help fill the gap and provide a broader understanding of travel behaviors across the city.

Questions?

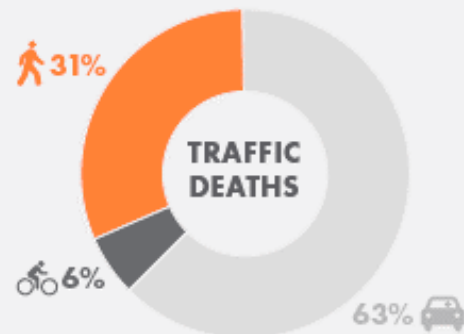
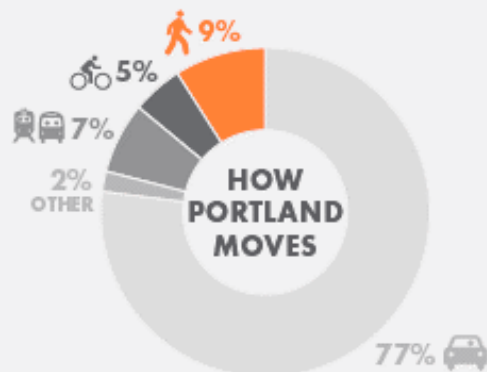
2. Pedestrian safety

Portland's Vision Zero goal:
Eliminate all traffic-related deaths
and serious injuries on Portland
streets by 2025





**PORTLAND TRAFFIC DEATHS
1996-2015**



PORTLAND TRAFFIC DEATHS VS. TRAVEL MODE
Source: 2004-2013 ODOT crash data; 2015 City of Portland Community Survey

2. Pedestrian safety



PEDESTRIAN HIGH CRASH NETWORK

TOP ROADS ON WHICH PEOPLE WALKING ARE KILLED OR INJURED



2. Pedestrian safety

PedPDX scope: Summarize pedestrian crash data citywide and identify risk factors associated with all pedestrian crashes, including but not limited to:

- Roadway type
- Number of lanes
- Vehicle speed
- User behavior
- Traffic control
- Signal phasing
- Crossing locations
- Time of day/year

Questions?

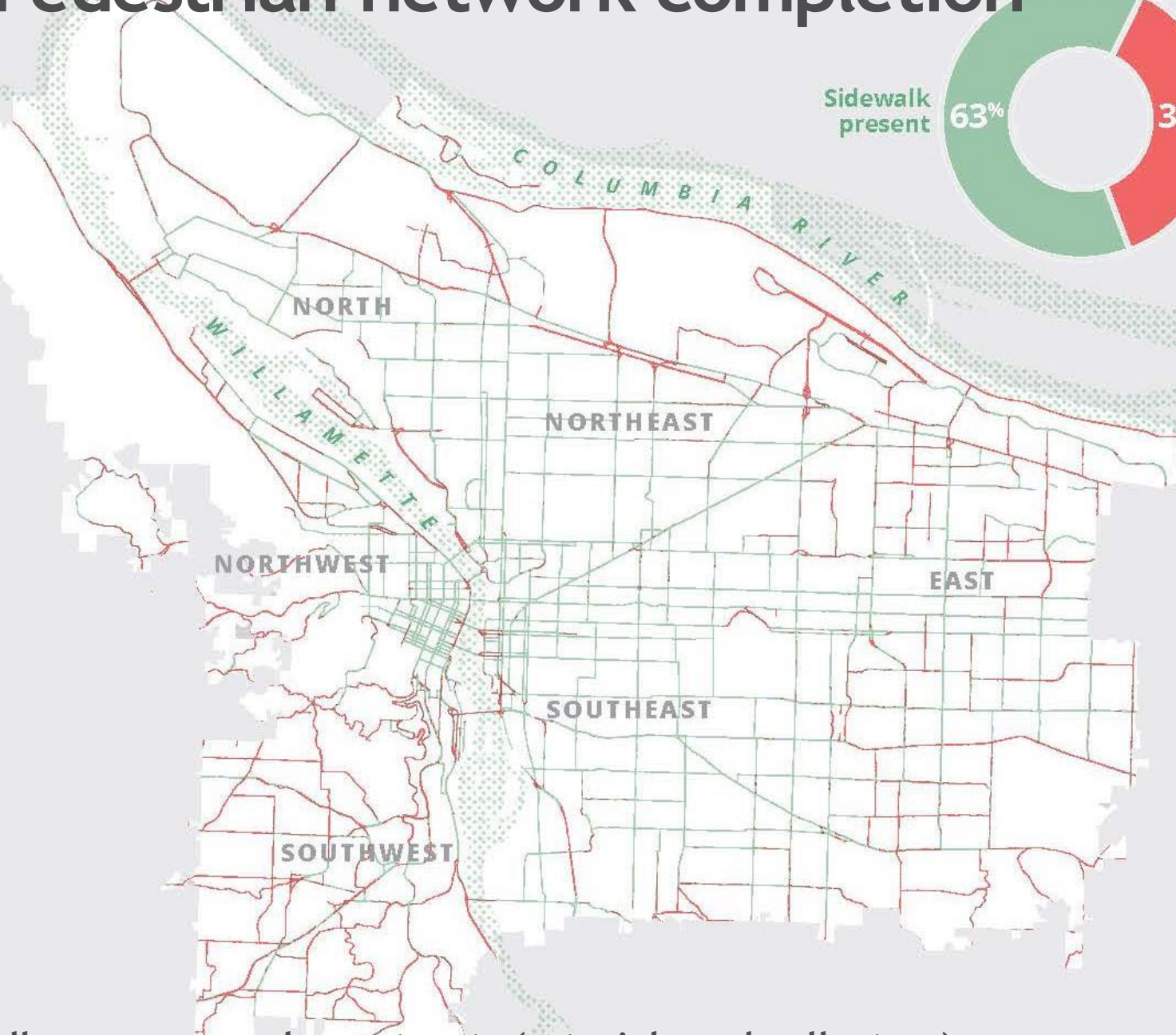
3. Pedestrian network completion

Sidewalk
present

63%

No sidewalk
present

37%



Sidewalk presence on busy streets (arterials and collectors)

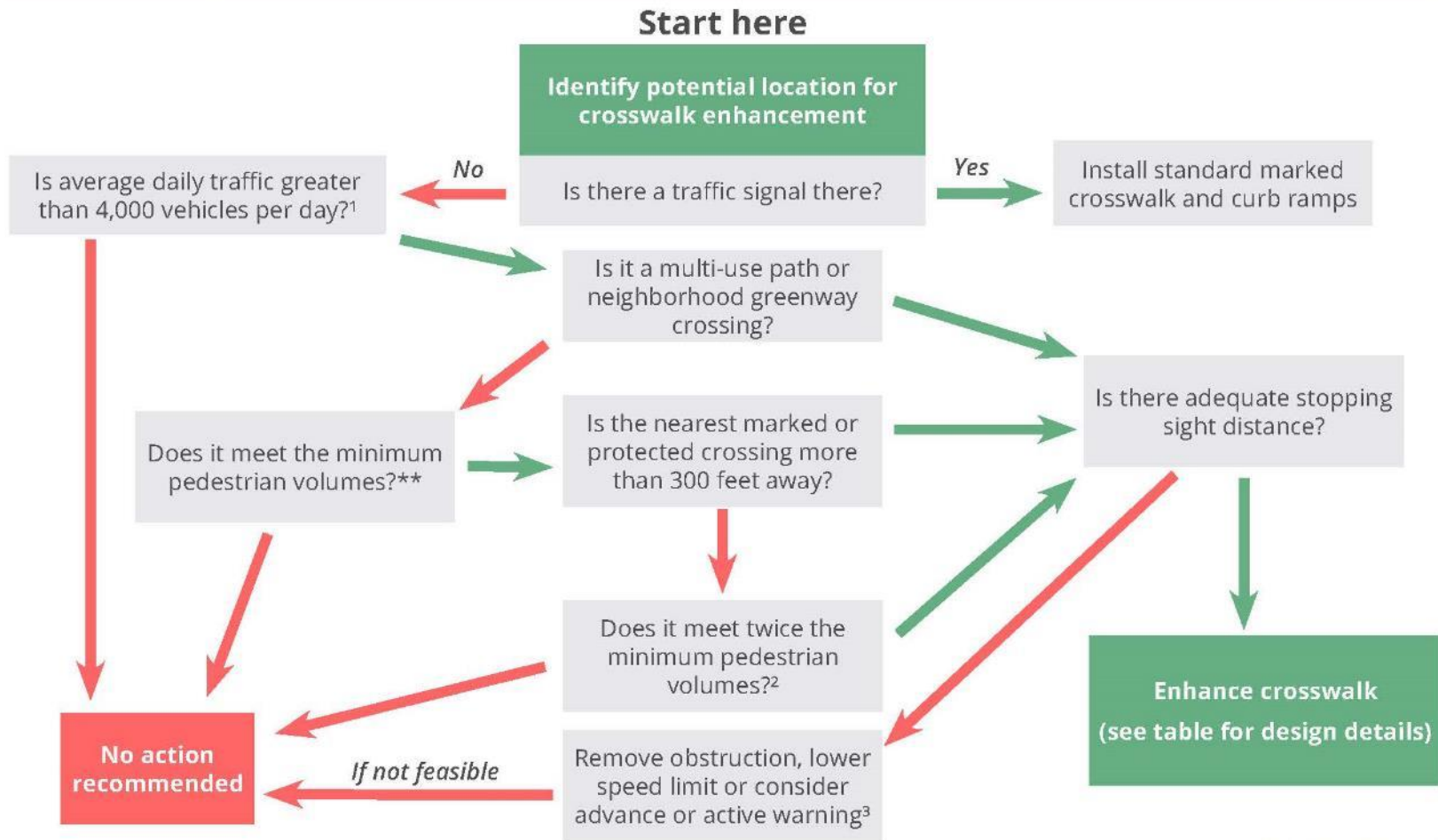
3. Pedestrian network completion

Additional network analysis IN PROGRESS:

- Sidewalk coverage on local/residential streets
- Marked crossing frequency (identifying gaps)

CROSSWALK SITE EVALUATION GUIDELINES

How PBOT identifies locations that would benefit from crosswalk enhancements



¹ Exceptions to the 4,000 VPD threshold may be made for school crossings that are patrolled

² Minimum 20 people walking or biking per hour in any one hour

³ Advance or active warning can refer to a variety of tools, including signs or lights.

Existing Crosswalk Guidelines

CROSSWALK DESIGN BY ROADWAY TYPE*												
VEHICLE ADT > 4,000 - 9,000			VEHICLE ADT > 9,000 - 12,000			VEHICLE ADT > 12,000 - 15,000			VEHICLE ADT > 15,000			
<30 MPH	35 MPH	40+ MPH	<30 MPH	35 MPH	40+ MPH	<30 MPH	35 MPH	40+ MPH	<30 MPH	35 MPH	40+ MPH	
TWO LANES												
THREE LANES WITH RAISED MEDIAN												
THREE LANES WITHOUT RAISED MEDIAN												
MULTILANE WITH RAISED MEDIAN												
MULTILANE WITHOUT RAISED MEDIAN												

* All crossings must be scoped by an engineer to ensure recommended treatment is appropriate and ADA ramps and illumination are in place.

- Marked Crosswalk
- Marked Crosswalk, island or curb extensions, enhanced signing and striping
- Marked Crosswalk and enhanced/active warning (islands and RRFB's)
- Marked Crosswalk and pedestrian hybrid or full signal

Guidance still needed...

- No guidelines regarding desired frequency between marked pedestrian crossing opportunities
- Without such guidance, difficult to identify network gaps where crossing improvements are needed (and to understand level of investment needed to fill those gaps)
- Allows for a proactive, programmatic response to citywide crossing improvements



Existing research?



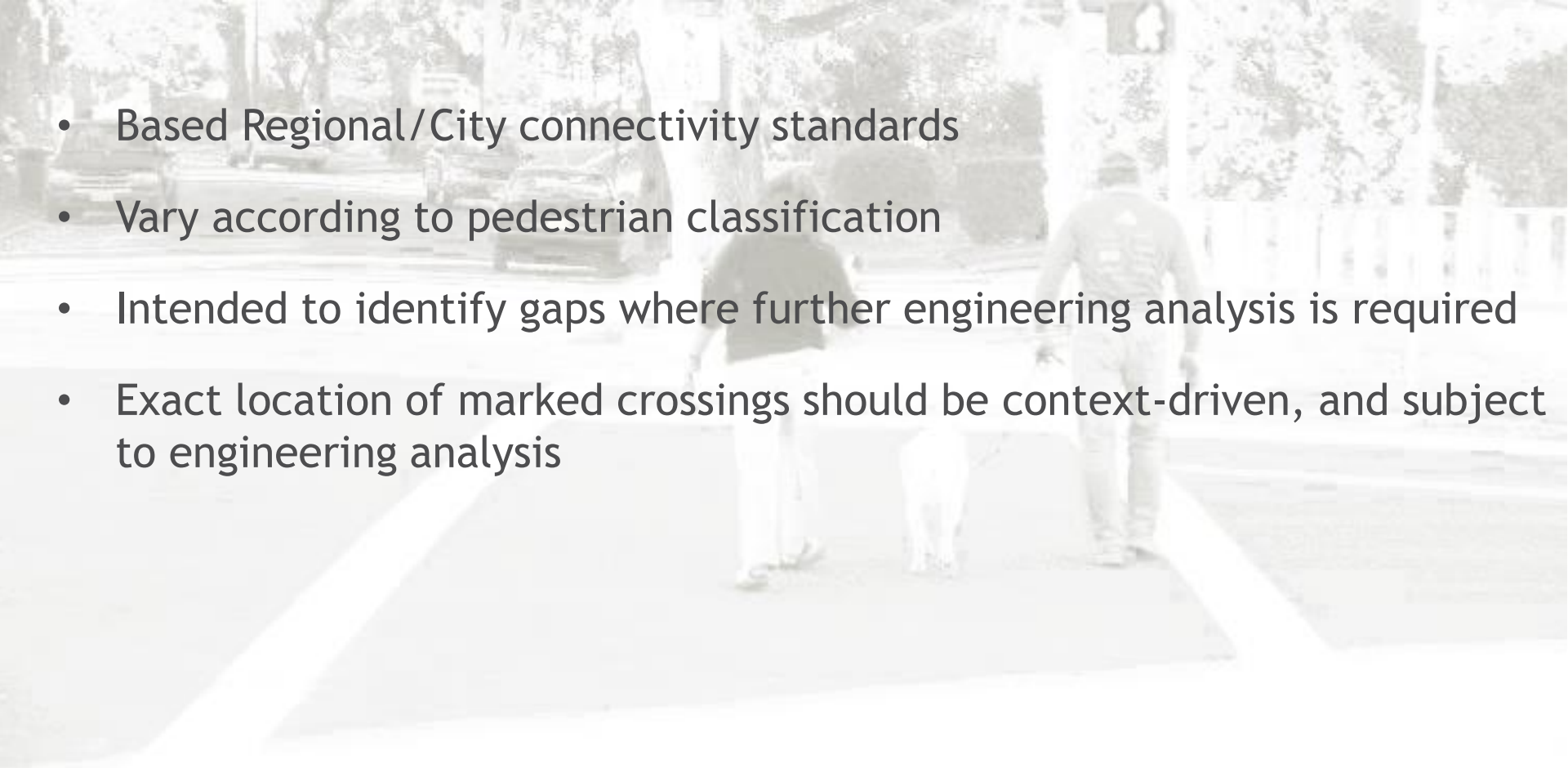
- Research on exactly how far a pedestrian will travel out of direction to access a “safe” crossing is scant
- General rule of thumb: people walking will typically take the shortest route from point A to Point B
- Increasing the number of marked/enhanced crossing opportunities increases the number of options for people to safely cross the street

Existing precedent?



- PBOT staff research also found no precedent in other US cities for adopted standards or guidelines for the frequency of marked pedestrian crossings along a corridor
- However, existing local policy foundation on which to base crossing spacing standards...

Proposed Spacing Guidance for Marked Pedestrian Crossings

- 
- Based Regional/City connectivity standards
 - Vary according to pedestrian classification
 - Intended to identify gaps where further engineering analysis is required
 - Exact location of marked crossings should be context-driven, and subject to engineering analysis

1. Transit stops



- Marked and/or enhanced crossings should be provided at all transit stops, regardless of street classification
- Marked crossing requirements at transit stops may be implemented by providing new marked pedestrian crossings at existing transit stops, and/or by strategically relocating or consolidating transit stops such that they are located at existing marked crossings

2. Pedestrian priority streets



- Maximum spacing between marked pedestrian crossings of 530 feet.
- On a street with standard 200-foot blocks, results is a marked pedestrian crossing a minimum of every other block.
- Marked crossings may be provided at greater frequency, particularly in Pedestrian Districts located in the Center City, where traffic signals are provided at every block

3. Other busy streets



- Maximum spacing between marked pedestrian crossings of 795 feet
- On a street with standard 200-foot blocks, this results in a marked and/or enhanced pedestrian crossing a minimum of every three blocks (compared with every two blocks on Pedestrian Priority Streets)

Testing in progress...

- No clear precedent for crossing frequency guidelines
- Proposed guidelines are aggressive
- Currently working with partners and testing on capital projects
- Results of testing forthcoming (may need to work with CAC on options at that point)



Questions?

What have we built?

New pedestrian infrastructure

1998-2017

According to PBOT's asset management database:

- Portland currently has approximately **2,492** miles of sidewalk, and approximately **4,914** marked crossings

Of this total,

- Approximately **232 miles** of new sidewalk have been built since 1998
 - Includes newly constructed, repaired, and replaced sidewalks
 - Number is an estimation (some data limitations)
- Approximately **2,150** new marked crosswalks have been constructed since 1998

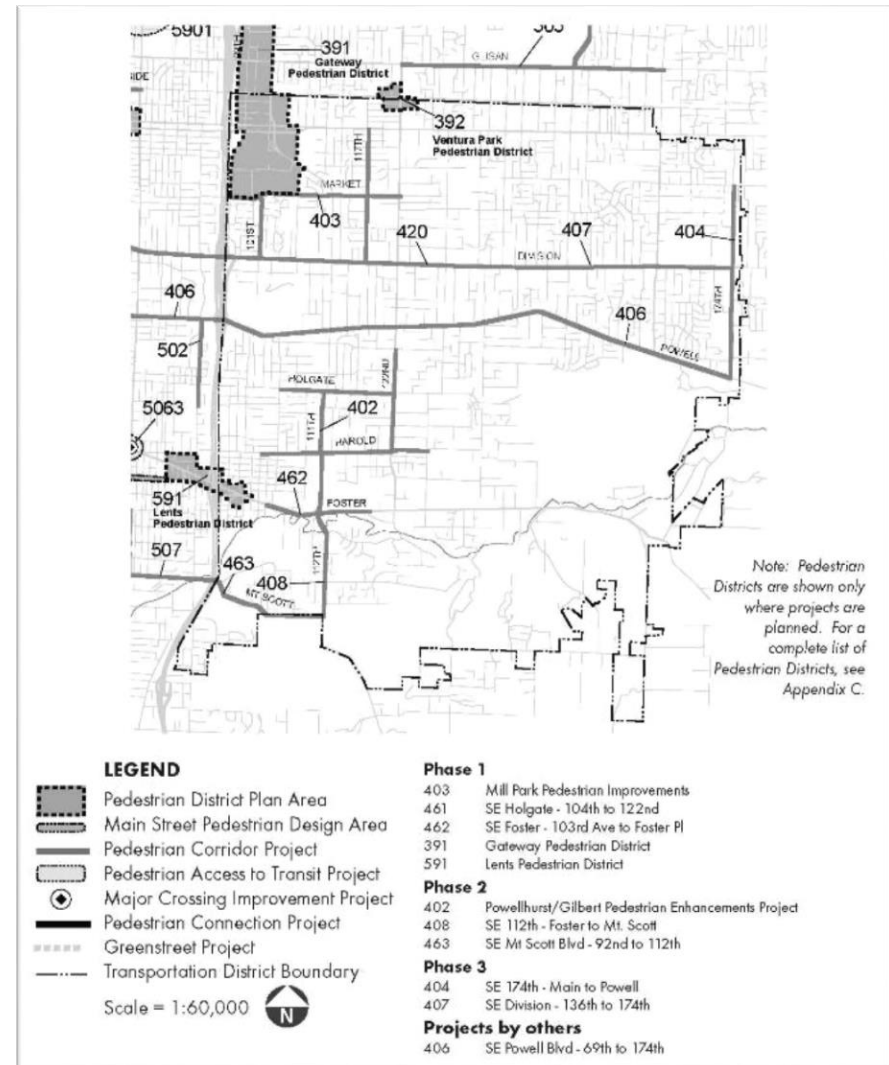
Pedestrian network completion:

Status of 1998 PMP projects

Project Descriptions and Priority Matrix – Phase 1

Appendix E

District: Southeast				● = high	○ = medium	○ = low	
Type	Key No.	Proj Title	Cost Estimate	Pedestrian Potential	Deficiency	Community Support	Safety Concerns
Corridor	506	SE 82nd - Duha to Clatsop Construct sidewalks to provide access to transit and schools.	\$1,000,000	●	○	○	●
Corridor	520	SE Division - Grand to 150th Plan, design and construct transportation and streetscape improvements, crossing improvements, and improvements to transit operations and facilities.	\$4,400,000 *	●	○	○	●
Pedestrian District	591	Lents Pedestrian District Plan and develop improvements to the pedestrian environment within the Pedestrian District, which is also a Regional 2040 Town Center, to emphasize district identity and make walking accessible to transit for trips within the district. Seek regional funding and partnerships within the district for implementation.	\$750,000 *	●	○	○	●
Main Street	592	SE Woodstock - 39th to 49th Construct streetscape and crossing improvements as shown in the Woodstock Boulevard Transportation Plan.	\$250,000	●	○	●	●
Main Street	598	SE Hawthorne Blvd - 12th to 35th Construct crossing improvements and streetscape improvements as shown in the Hawthorne Boulevard Transportation Plan.	\$750,000 *	●	○	○	●
Crossing	5012	E Exchange at Sancy / 12th Relocate north-south crosswalk on east side of NE/SE 12th to eliminate the safety hazard of crossing pedestrians with on-ramps between signal phases.	\$150,000	●	○	○	●
Crossing	5021	SE Powell at Foster Rd Safety improvements to signalized intersection.	\$250,000	●	○	●	●
Crossing	5063	SE Foster Rd at 82nd Ave	\$300,000	●	●	○	●
District: Far Southeast							
Type	Key No.	Proj Title	Cost Estimate	Pedestrian Potential	Deficiency	Community Support	Safety Concerns
Corridor	403	Mill Park Pedestrian Improvements Construct sidewalks and crossing improvements to improve pedestrian travel and access to transit and schools on Market St from 96th - 112nd, 101st Ave from Market - Division and 117th Ave from Stark - Division.	\$2,400,000	●	○	○	○
Corridor	406	SE Powell Blvd - 69th to 174th Construct sidewalks and crossing improvements for pedestrian travel and access to transit.	\$1,000,000	○	○	○	○
Corridor	461	SE 104th - 104th to 122nd Construct sidewalks, where existing and crossing improvements to facilitate pedestrian travel and access to transit.	\$1,200,000	○	○	●	○
Corridor	462	SE Foster - 103rd Ave to Foster Pl Construct sidewalk and crossing improvements to facilitate pedestrian travel and access to transit.	\$670,000	○	○	●	○



Pedestrian network completion:

Status of 1998 PMP projects

- “Partial construction”
- TSP priorities
- Projects not on TSP?
- Next steps

146
Projects analyzed

51

Projects completed
or in progress

48

Projects partially
constructed



PedPDX public involvement plan (draft)

Guiding demographic data

Population distribution


	Approximate population	Percent of total PDX population
Downtown/South Waterfront	22,323	4%
Inner NE	109,169	17%
Inner SE	126,187	20%
North	82,004	13%
NW	33,328	5%
Outer East (east of 82 nd)	176,878	28%
SW	76,075	12%
TOTAL	633,373	100%

Guiding demographic data

Citywide racial composition

	Approximate population	Percent of total PDX population
White alone	448,758	72%
Hispanic/Latino	61,396	10%
Black	36,311	6%
Asian/Pacific Islander	46,672	7%
Other	25,525	4%
Mixed race	31,169	5%
TOTAL	633,373	100%

Citywide racial equity goals and strategies



Office of Equity and Human Rights

Realizing Equity. Enhancing the City of Portland.

PHONE: 503-823-4433
FAX: 503-823-4420

421 SW 6th Avenue, Suite 500, Portland, OR 97204
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Citywide Racial Equity Goals & Strategies



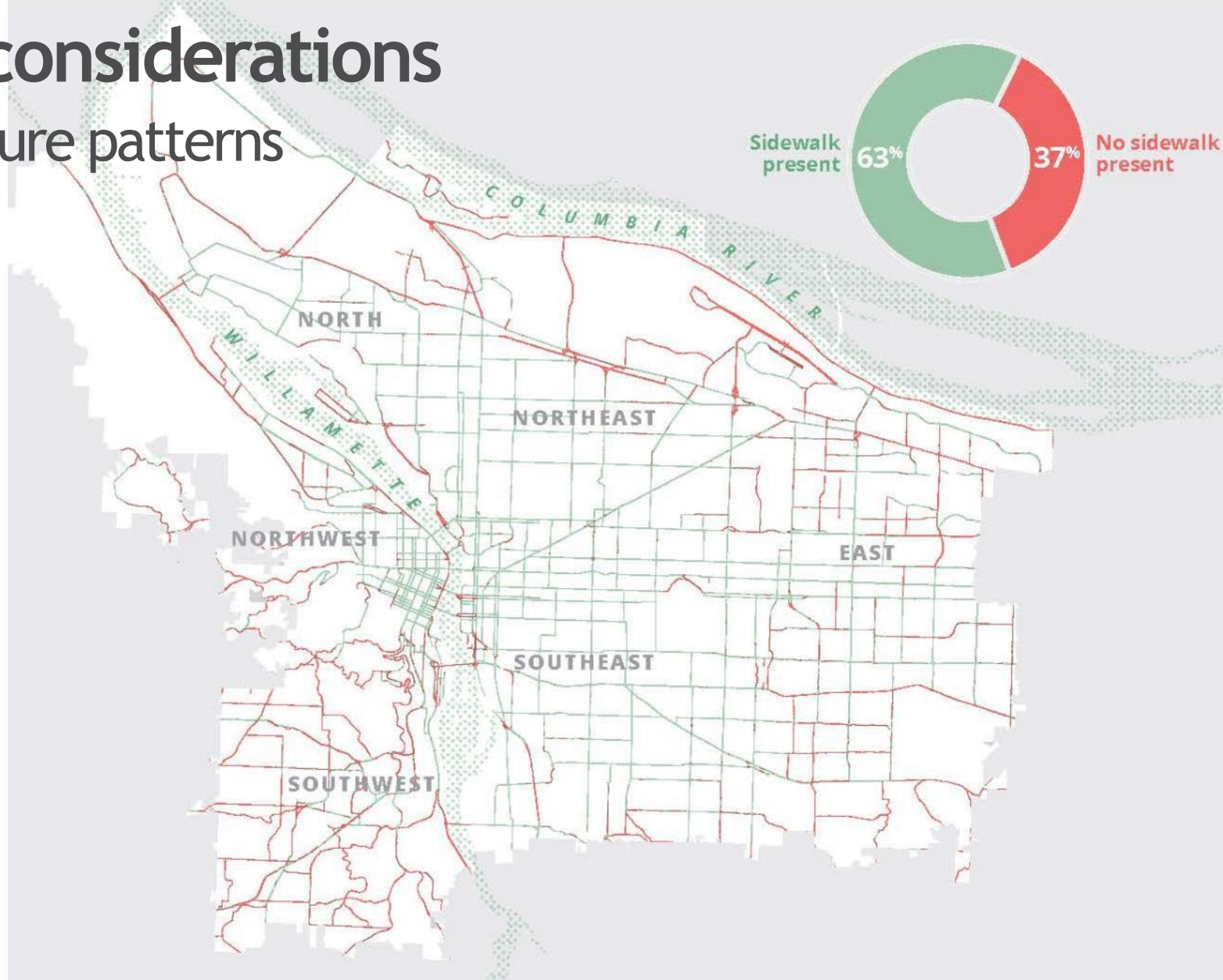
Download the goals and strategies below**

The Office of Equity and Human Rights (OEHR) presented Racial Equity Goals and Strategies to City Council on July 8, 2015. Council unanimously adopted the goals and strategies as binding City Policy, providing a guidepost for City employees and leadership to follow, to achieve the racial equity goals.

OEHR Director, Dante James, says, "We want to institutionalize the concept of equity, in the use of an equity lens, in the use of equity tools. Having City Council bless these goals, does just that. It allows them to exist no matter who's sitting in any particular seat."

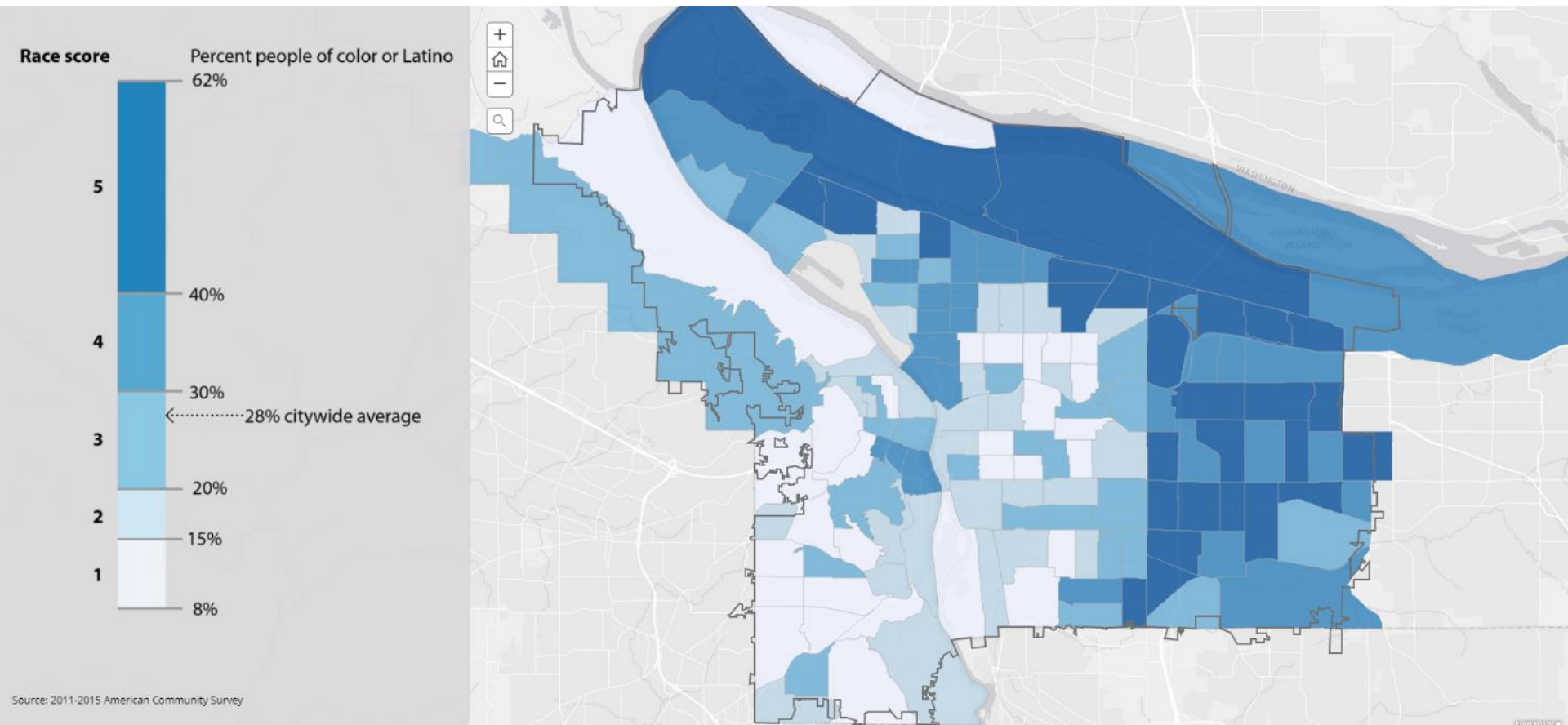
Equity considerations

Infrastructure patterns



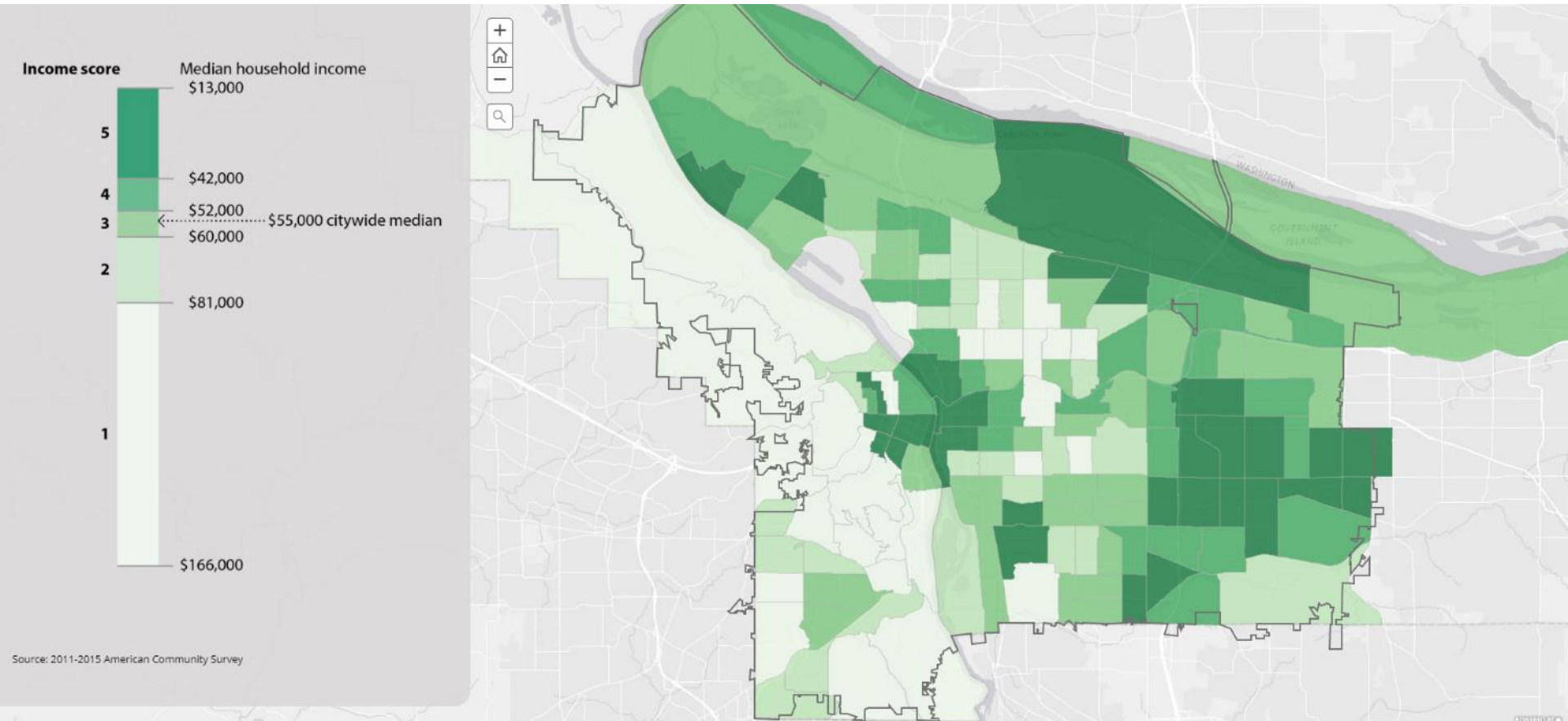
Equity considerations

Race



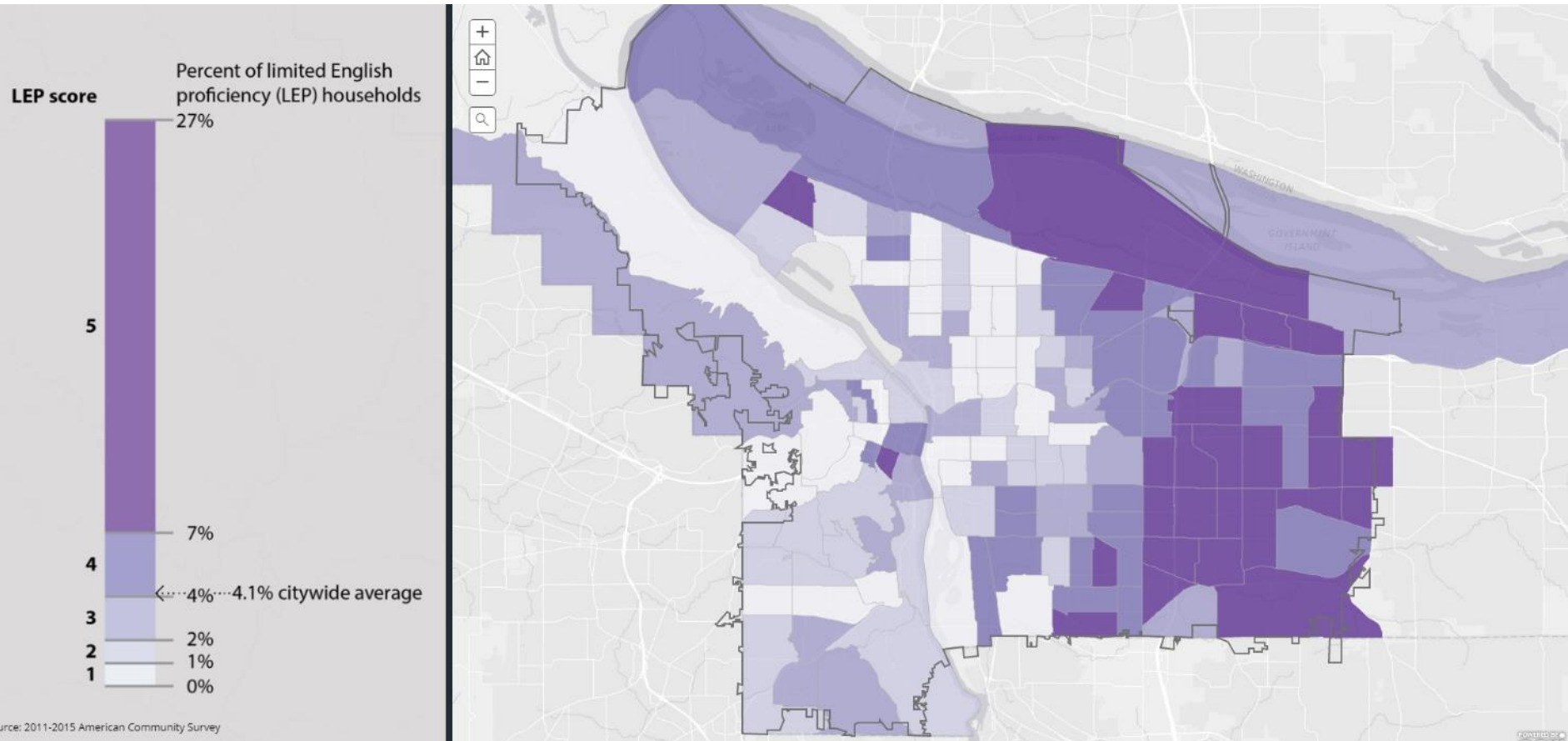
Equity considerations

Income



Equity considerations

LEP



Equity considerations

Strategies for equity in outreach

- Targeted outreach to solicit survey feedback so as to accurately reflect general population distribution by district
- Monitoring survey responses against city demographic data
- Reaching out to communities of color, in recognition of the disproportionate impact of inadequate pedestrian infrastructure
- Translating project materials and survey into 4 languages and working with CEL's to reach community members with LEP (also a disproportionate impact)

Outreach goals/project task

Project Task:	Summer 2017	Fall 2017	Winter 2017 / 2018	Spring 2018	Summer 2018	Fall/Winter 2018
Task 1: Project Mgmt. / Public Outreach	Gather community priorities (survey)					
Task 2: Plan / Policy Review and Plan Goals & Objectives		Report survey feedback on priorities (“what we heard”)				
Task 3: Network Needs Analysis			Verify needs			
Task 4: Prioritization Framework				Verify application of priorities to needs		
Task 5: Plan Implementation				Verify application of priorities to tools		
Task 6: Performance Measures					Share walking stories	
Task 7: Plan Document						Gather feedback on draft Plan

Brainstorm activity...

Next steps



- City Council approval of grant (September)
- Kick off with consultant (late Sept/early Oct)
- Next CAC meeting (likely Oct, confirmation forthcoming)

Thanks!



Michelle Marx

PBOT Pedestrian Coordinator

michelle.marx@portlandoregon.gov