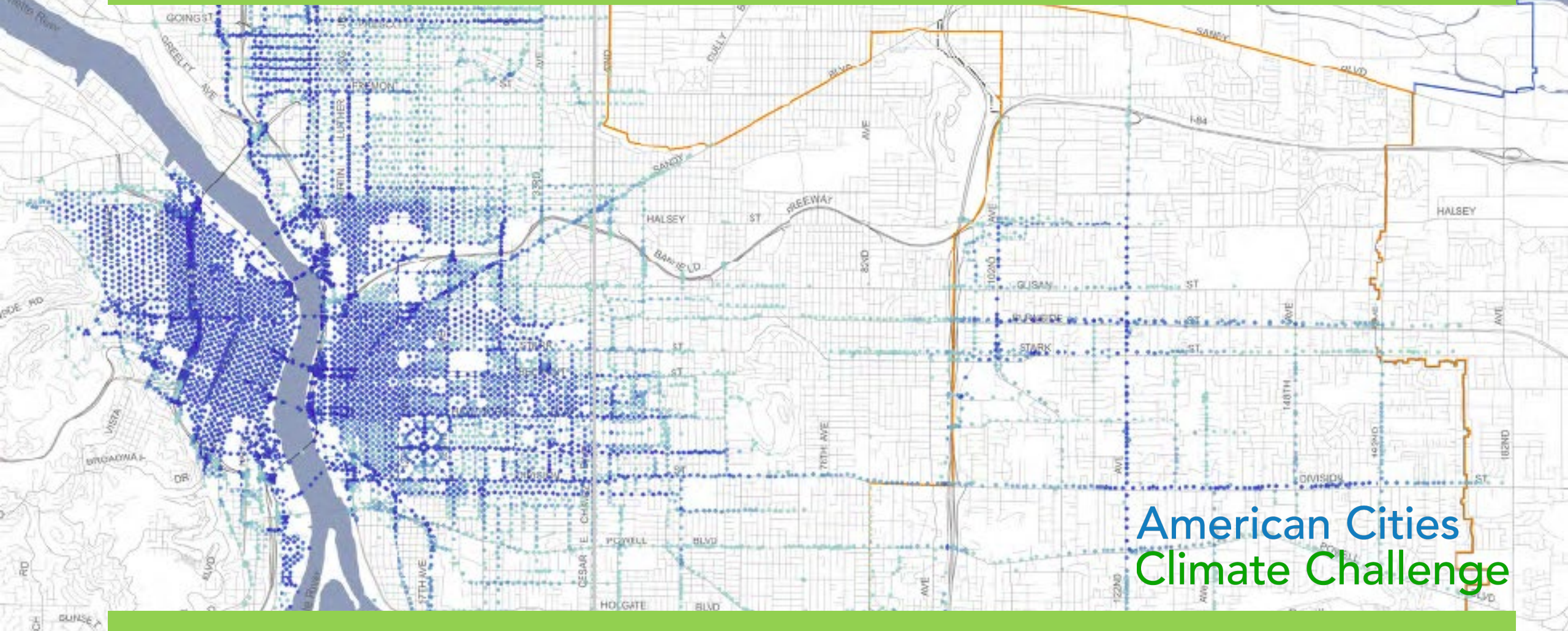
Data: The Metrics. The Methods. The Lessons.

Driving Decisions with Data

July 18, 2019

Mike Flynn, AICP | Director of City Strategies, Sam Schwartz



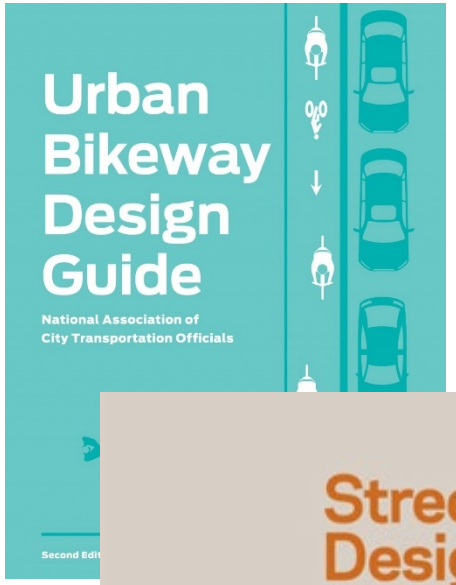
American Cities Climate Challenge

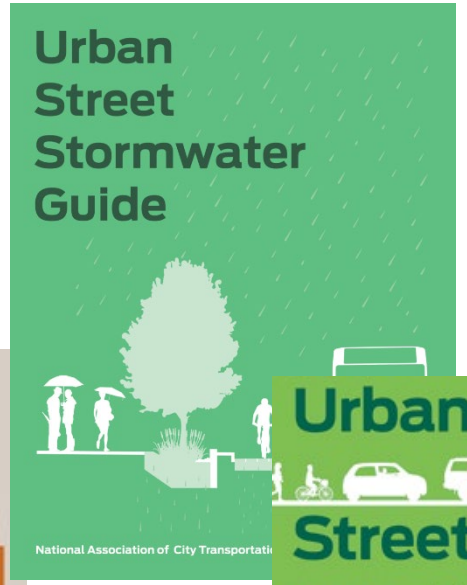
The Value of Data

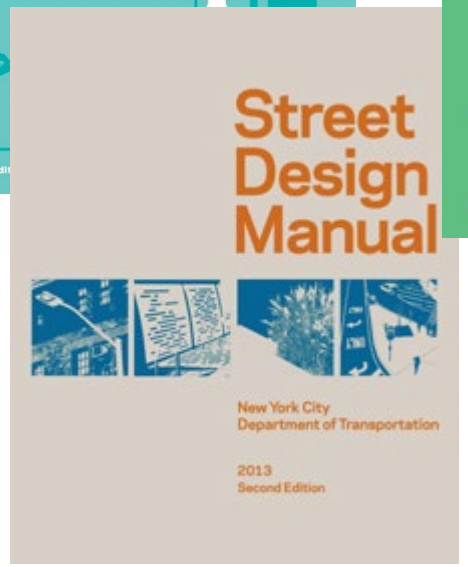
1. The Big Picture – Where We Are Today
2. What is It Good For?
3. Using Data Effectively

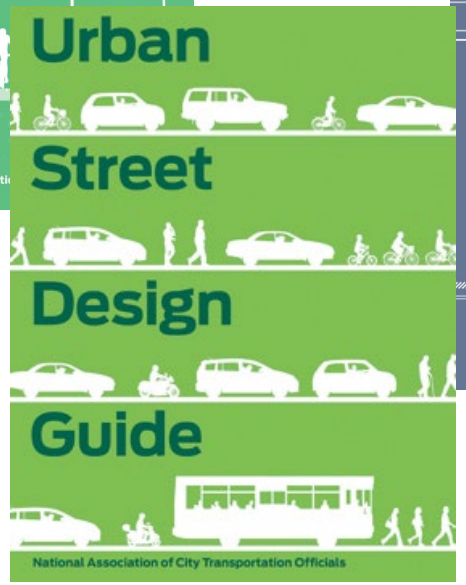
The Big Picture – Where We Are Today

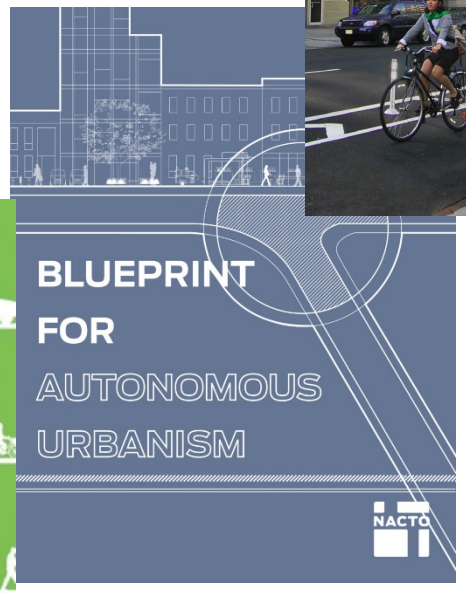
The “What” is much clearer today.

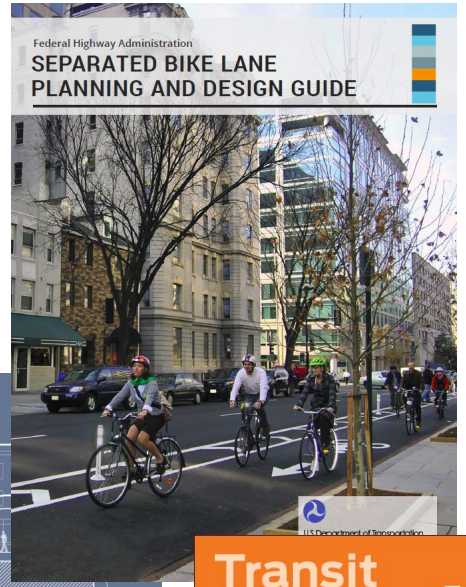












The Big Picture – Where We Are Today

The “What” is much clearer today.

	CONVENTIONAL PROJECT DEVELOPMENT	PHASED / INTERIM DESIGN STRATEGY
Year 1	Concept	Concept
	Plan/Outreach	Plan/Outreach
Year 2		Interim Installation
		Impacts Analysis
Year 3	Design	Design
Year 4		
Year 5	Construction	Construction

The Big Picture – Where We Are Today

The “How” is harder than ever.

- **Funding**
- **Support from Public & Businesses**
- **Support from Elected Officials**
- **Press Coverage**
- **Lawsuits**

Physical Change

Culture Change

The Big Picture – Where We Are Today

Our understanding of transportation's role is broader –

our data must reflect that.

THEN

- **Mobility** (Automobile)
- **Safety**

NOW

- **Access/ Mobility** (All Modes)
- **Economy**
- **Equity**
- **Environment & Sustainability**
- **Public Health & Resilience**
- **Livability & Quality-of-Life**

Vehicular Level of Service only looks at one aspect of a street's functions.

URBAN FOREST

COMMERCE

VEHICLES

BICYCLISTS

PEDESTRIAN EXPERIENCE

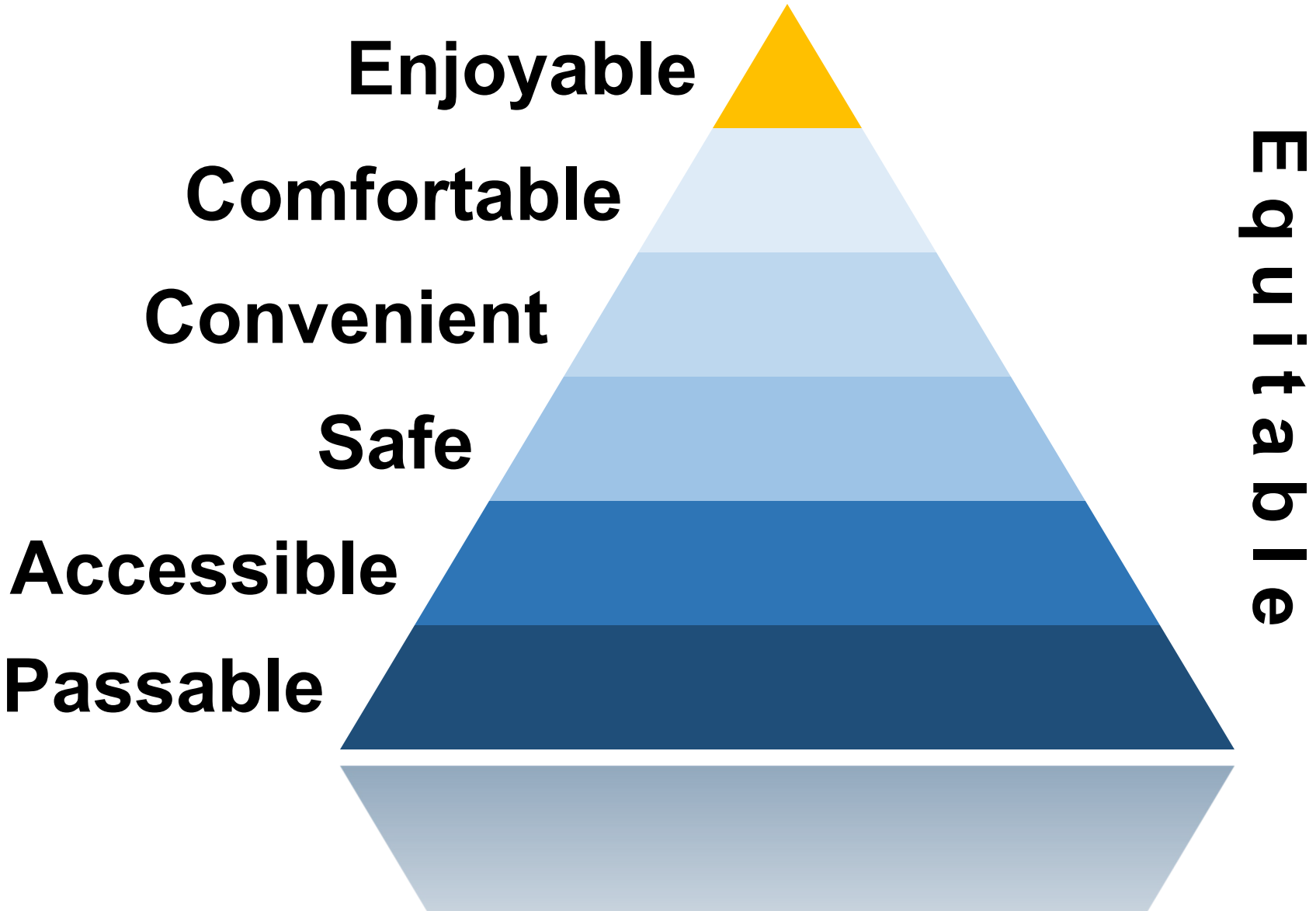
ACCESSIBILITY

BIKE SAFETY

PEDESTRIAN SAFETY

STORMWATER MANAGEMENT

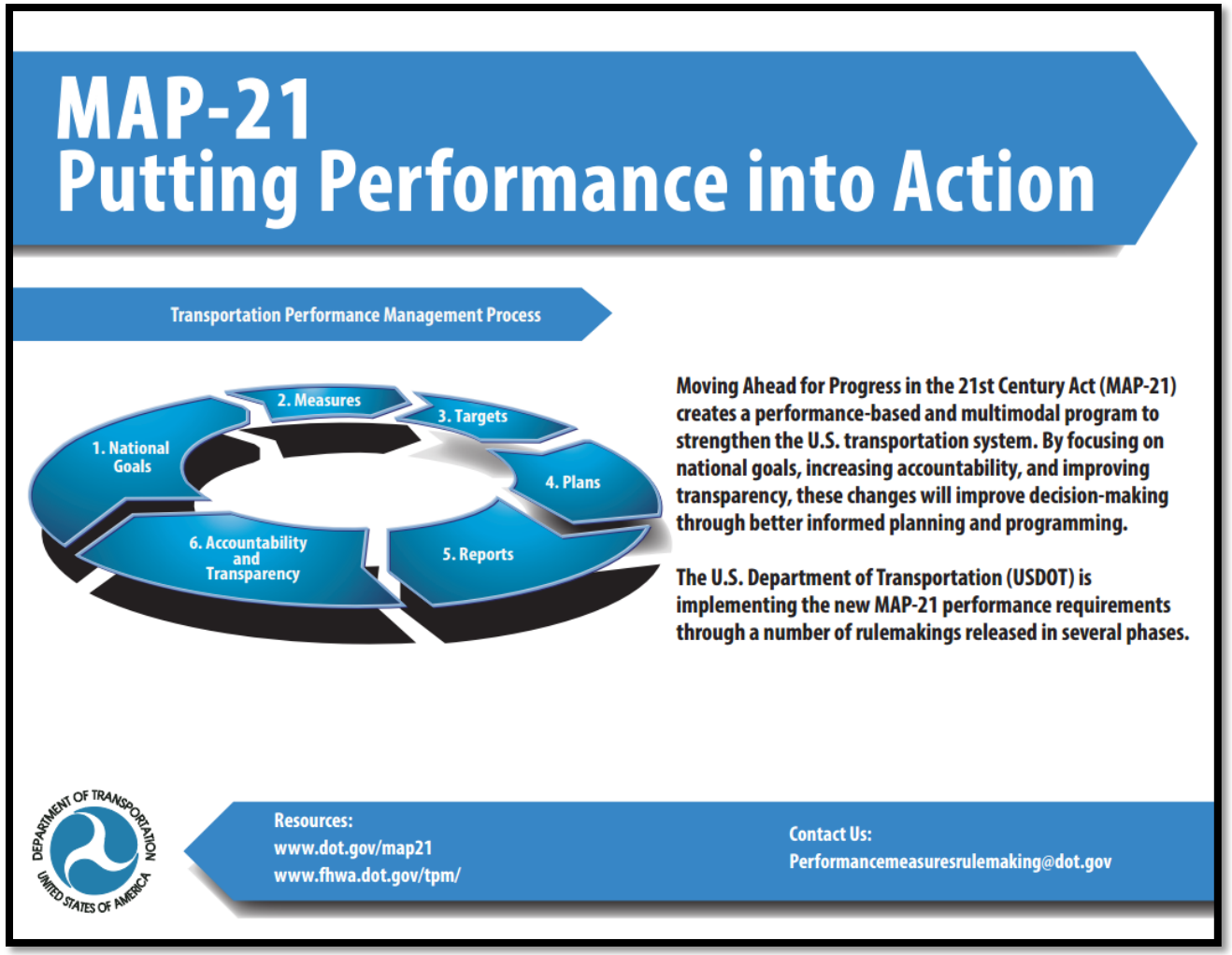
The Big Picture – Where We Are Today



What is It Good For?

Data is neutral –
a means to an end.

(…Kind of)

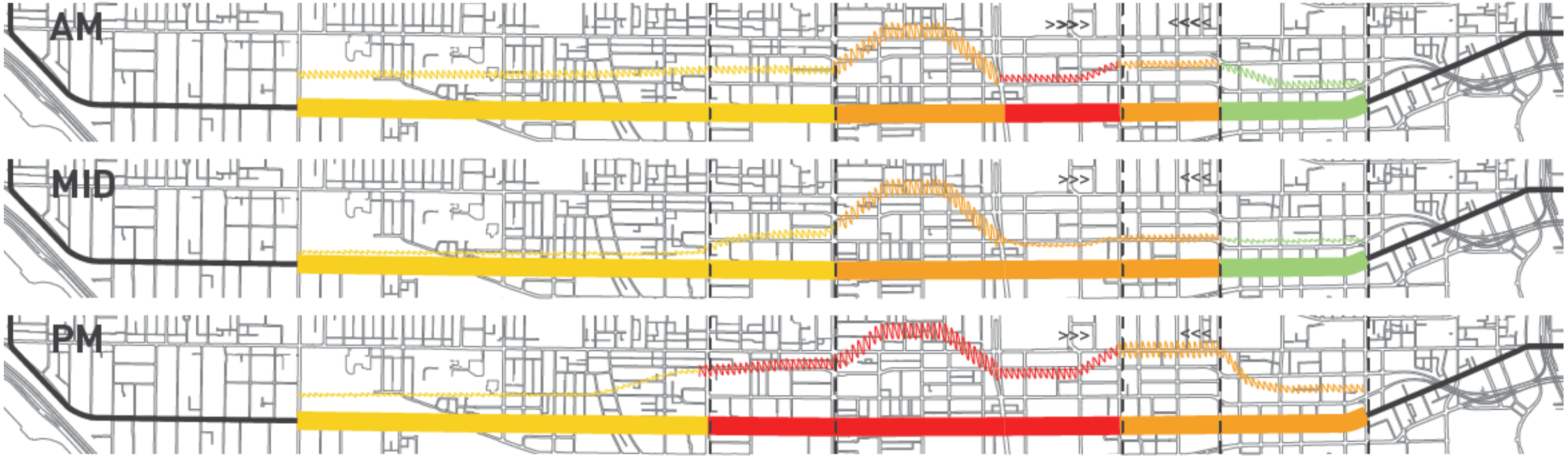


What is It Good For?

1. Making Better Decisions
2. Using Resources More Effectively
3. Communicating & Building Support
4. Addressing Criticism / Negative Press
5. Accountability & Tracking Progress

What is It Good For?

Making Better Decisions



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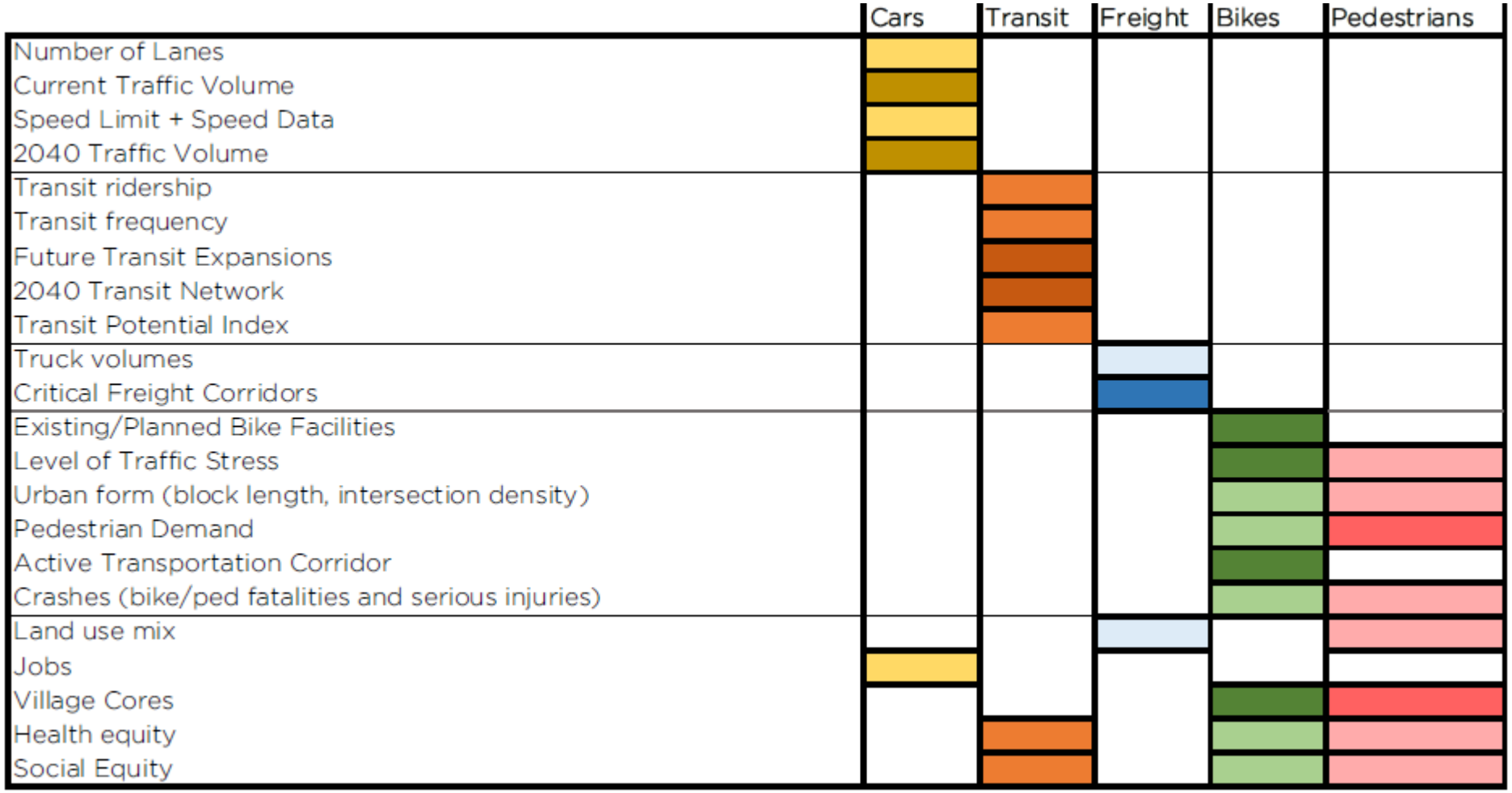
Making Better Decisions



BUS ONLY

CRITERIA FOR
CREATING A DEDICATED TRANSIT LANE

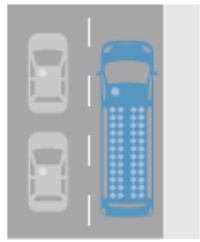
Criteria for conversion of a general traffic lane to a dedicated transit lane should be considered if **three or more of the following** are met

1

BUSES CARRY AT LEAST 65% OF PASSENGERS

AS CARRIED IN ADJACENT TRAVEL LANES

65%



2

AT LEAST 12 BUSES PER HOUR

ARE ACCOMMODATED ALONG THE CORRIDOR

12 BUSES/ HOUR

3

TRAVEL TIMES INCREASE 35% OR MORE

UNDER CONGESTED CONDITIONS WITHOUT BUS LANES

35%

4

<75% OF BUSES ARRIVE ON TIME

WITHOUT BUS LANES

<75%

3 OR MORE CRITERIA MET INSTALL TRANSIT LANE

HOV LANE

CRITERIA FOR
CREATING A HIGH OCCUPANCY VEHICLE LANE

Criteria for conversion of a general traffic lane to a High Occupancy Vehicle (HOV) Lane should be considered if **any of the following** are met

1

BUSES AND HOVS CARRY AT LEAST 40% OF PASSENGERS

AS CARRIED IN ADJACENT TRAVEL LANES

40%

2

AT LEAST 10 BUSES PER HOUR

ARE ACCOMMODATED ALONG THE CORRIDOR

10 BUSES/ HOUR

3

TRAVEL TIMES INCREASE SIGNIFICANTLY

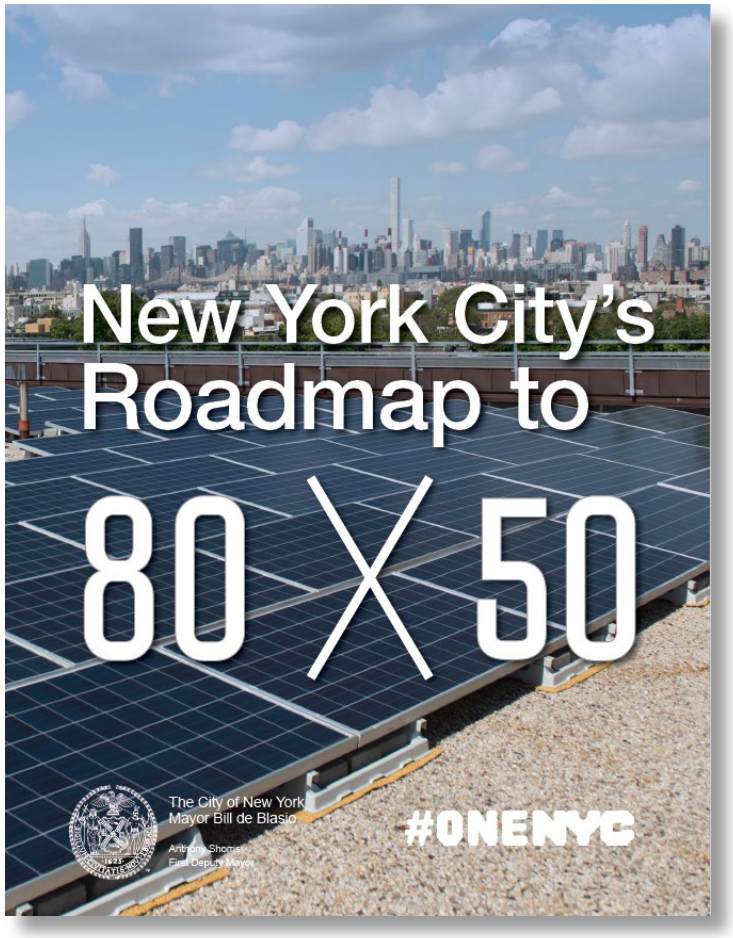
UNDER CONGESTED CONDITIONS WITHOUT HOV LANES

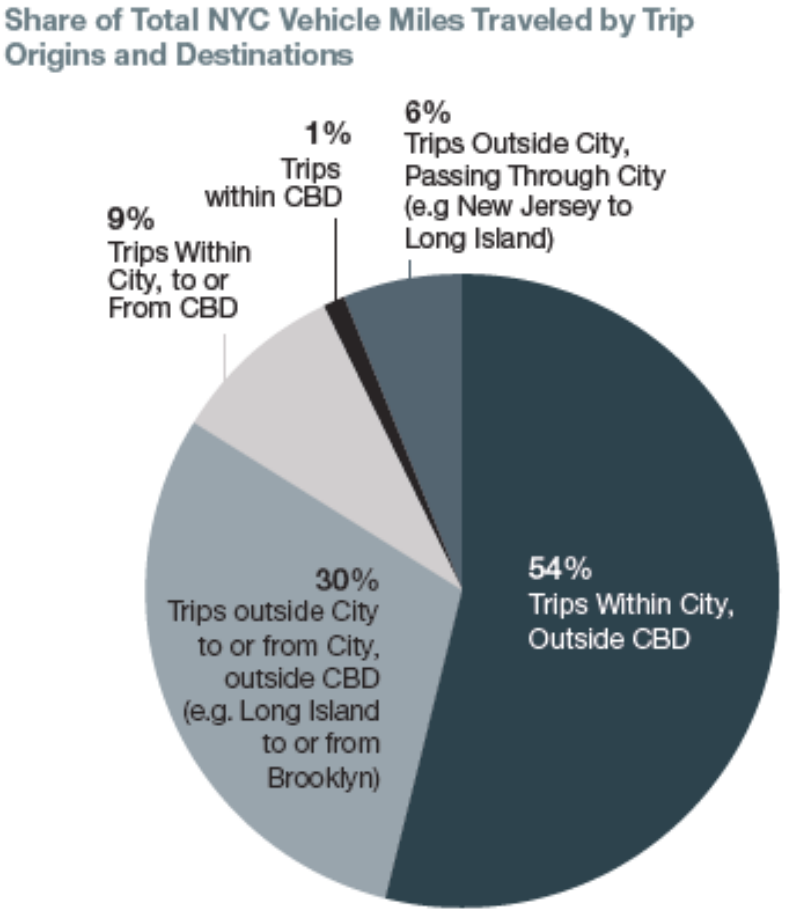
TRAVEL TIME

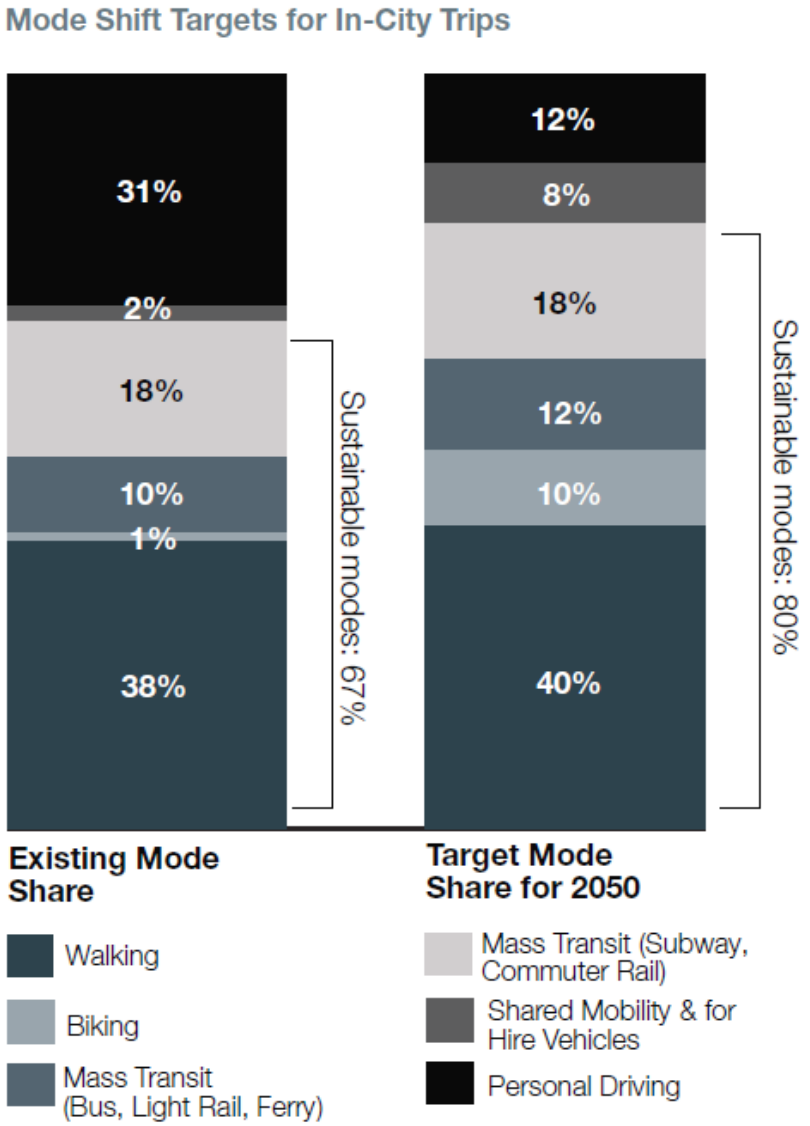
ANY CRITERIA MET INSTALL HOV LANE

What is It Good For?

Making Better Decisions

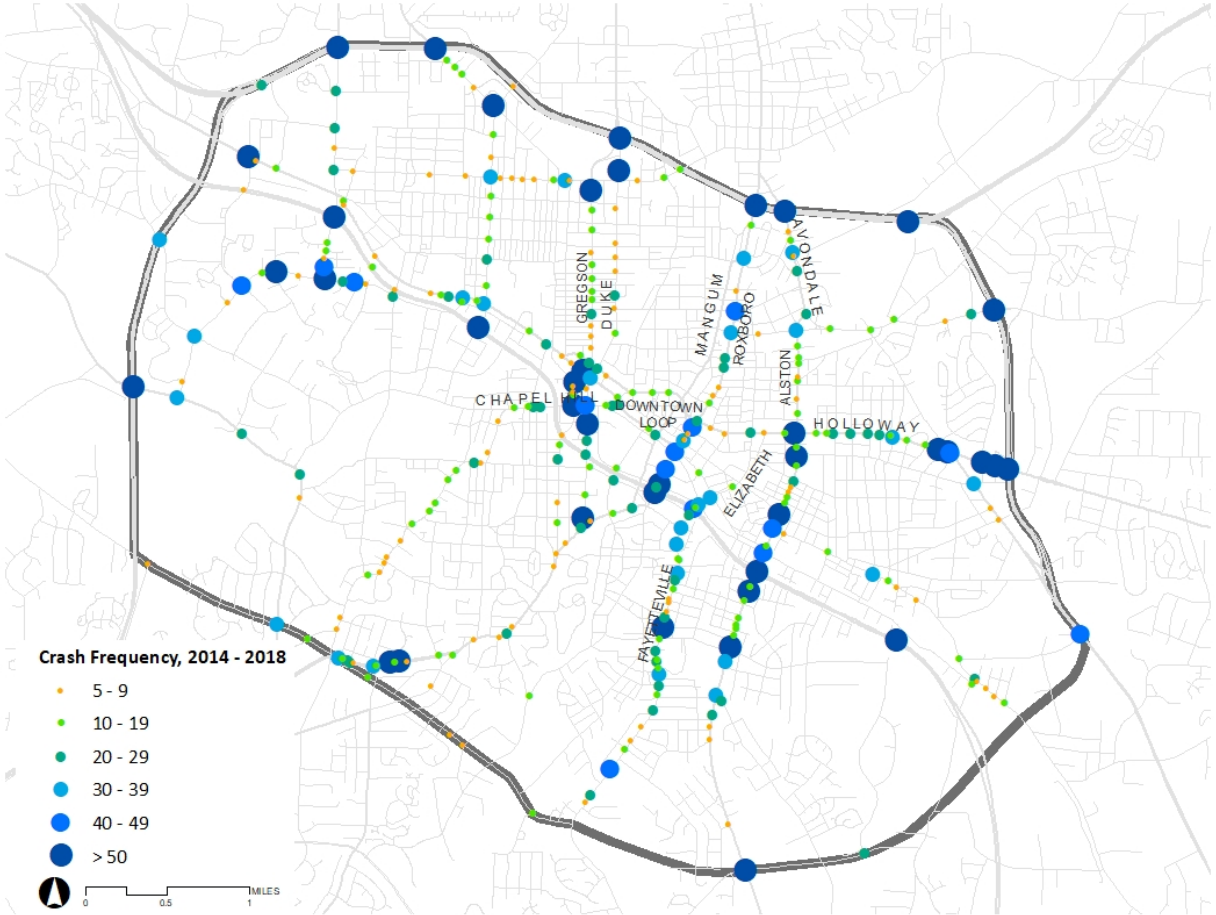


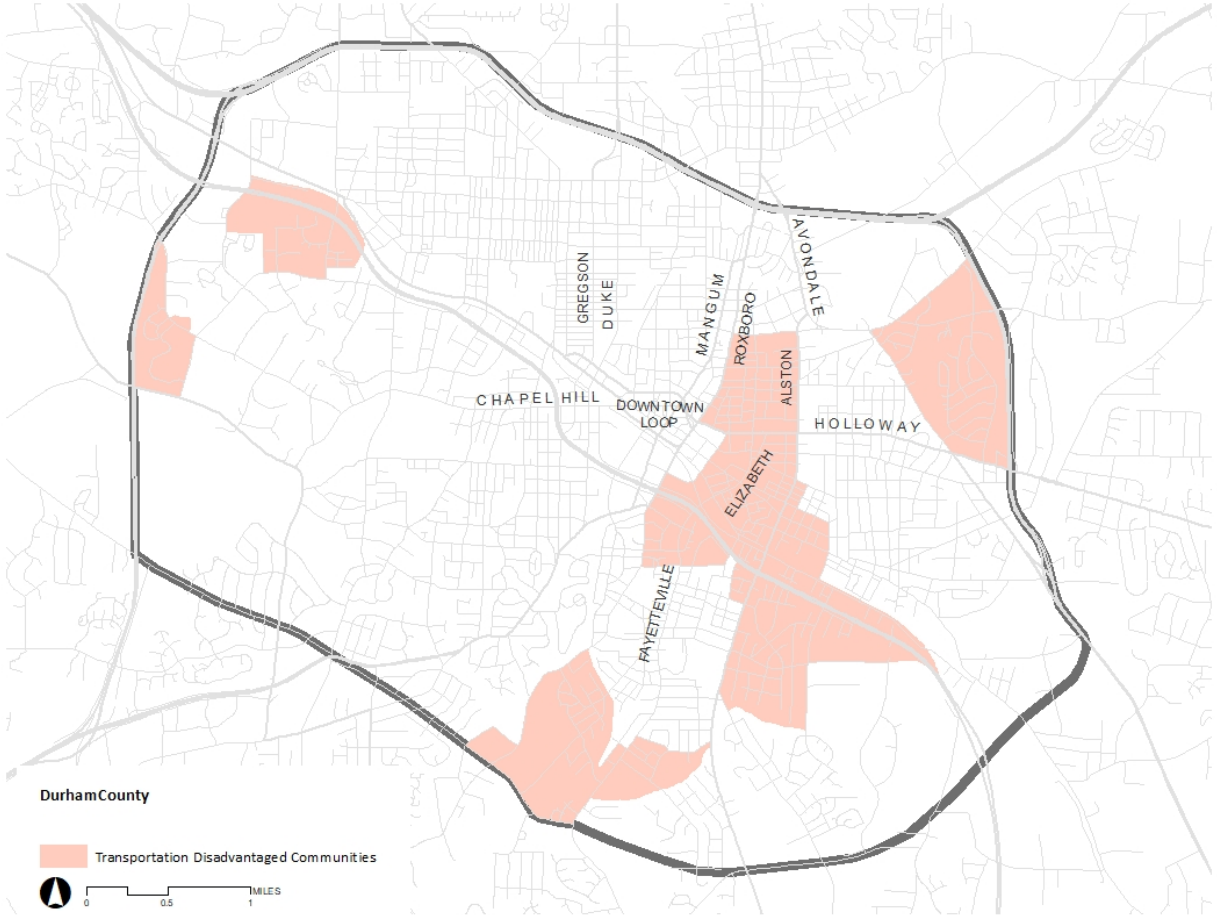




What is It Good For?

Using Resources More Effectively





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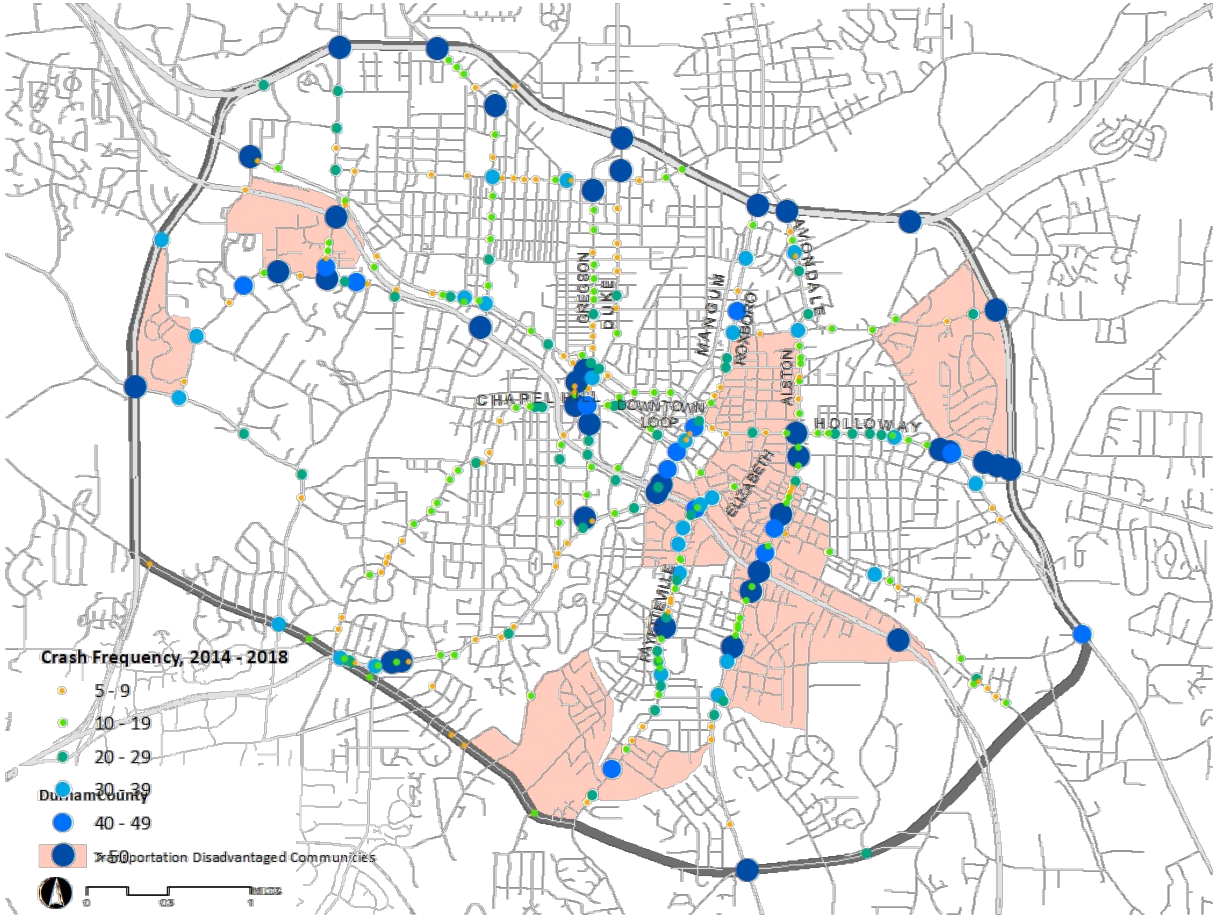
Using Resources More Effectively



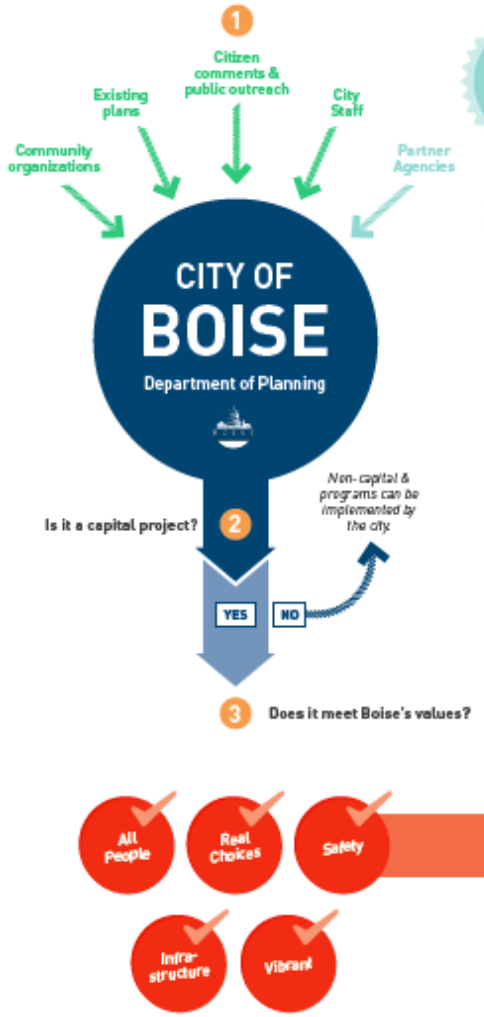
How Boise Prioritizes Transportation Projects

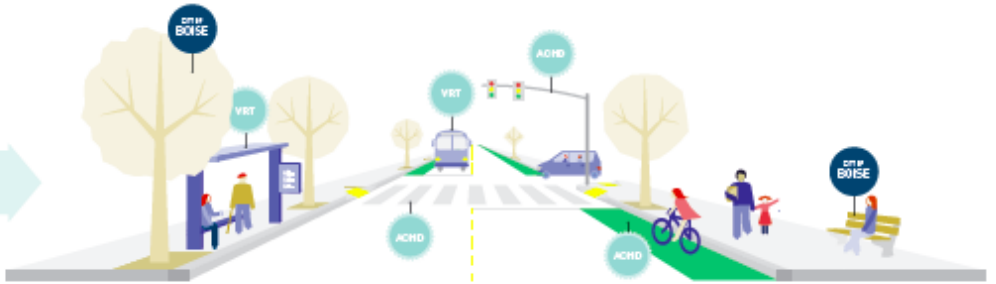
Funding is limited. This is how we prioritize projects.

1 Transportation projects come from many sources.
Project ideas can come from citizen input, recommendations by the Planning Department, or as part of realizing Boise's other planning frameworks. The Planning and Development Services Department collects all potential projects, briefly describes their scope, and holds them to be evaluated twice per year.

2 Is it a capital project?
A pool of potential capital projects is kept by the city.
Because Boise's street network is built and maintained by Ada County Highway District, only capital (construction) projects are prioritized for referral to ACHD for implementation. Other programs can be administered directly by the City.

3 Does the project meet Boise's values?
The first stage of prioritization scores potential projects based on how well they meet Boise's mobility values as expressed in the TAP.

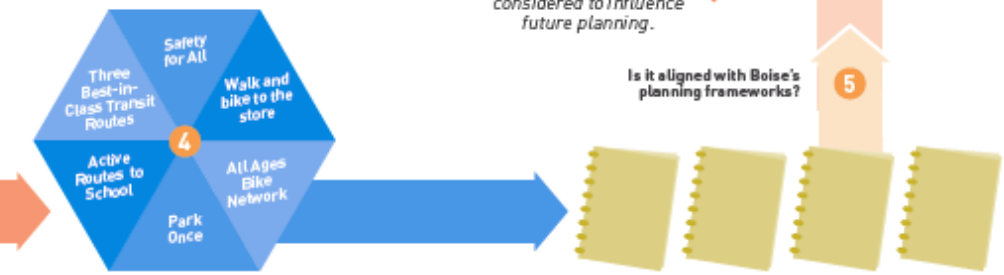




8 City recommends its ranking to partner agencies for implementation.
The City provides its project rankings, scopes, and objectives to the implementing agency, usually Ada County Highway District, or Valley Regional Transit.

7 Rankings are adjusted by cost.
Projects are then re-ranked based on available budgets in the current funding cycle. Projects may be broken into phases, or combined to make them feasible, or delayed until funding is available.

6 Projects are ranked by merit.
An initial list ranks the "best" projects irrespective of cost. This allows the City to consider long range priorities, phasing, and fundraising possibilities.



4 Does it support the moves?
Projects that have scored well on Boise's mobility values are tested to see if they also support one or more of the six Moves. Projects score higher if they fulfill multiple Moves.

5 Is it aligned with Boise's planning frameworks?
All projects that support Boise's mobility values, and fulfill one or more Moves, must also comply with the planning frameworks governing development in Boise. Only qualifying projects move to the final stage.

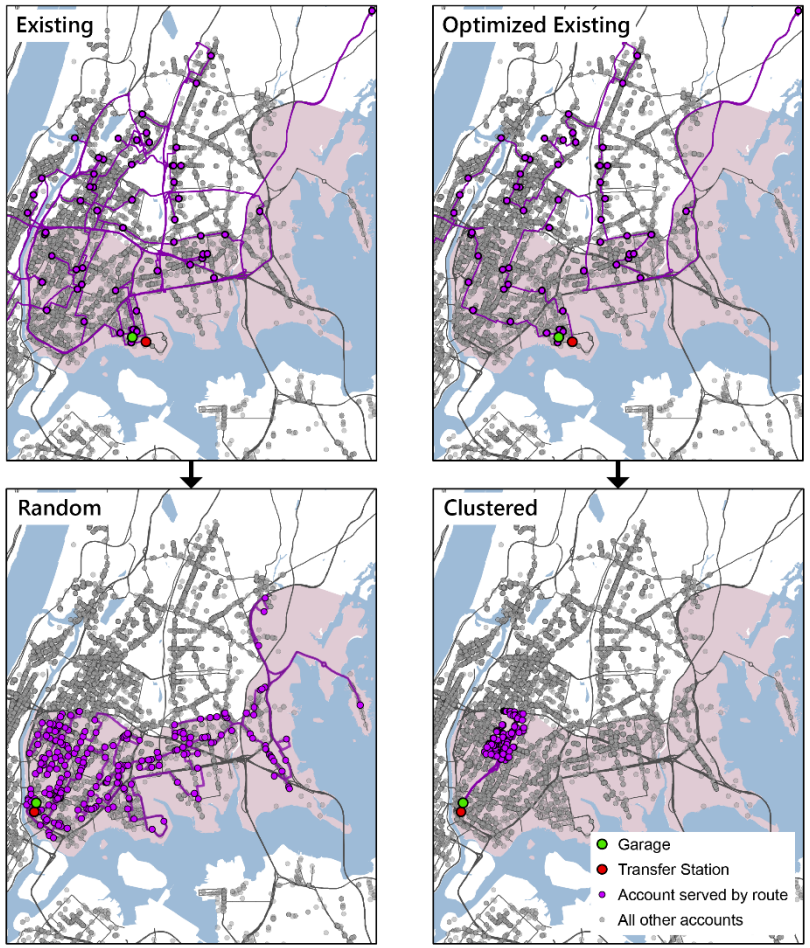
What is It Good For?

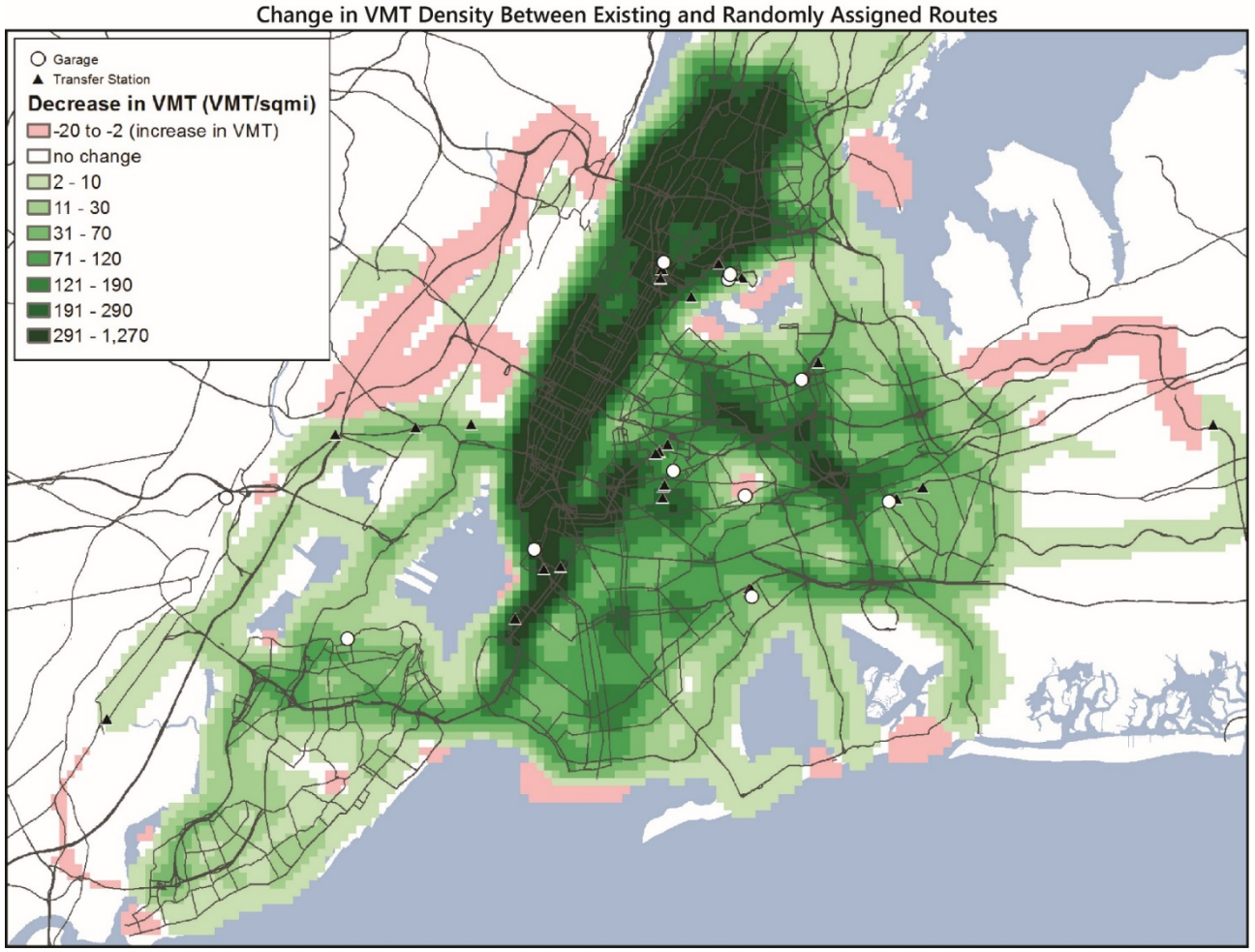
Communicating & Building Support

→ Supporting a Strong Message/Narrative

What is It Good For?

Communicating & Building Support





Seattle Department of Transportation
Spring 2015

MOVE SEATTLE

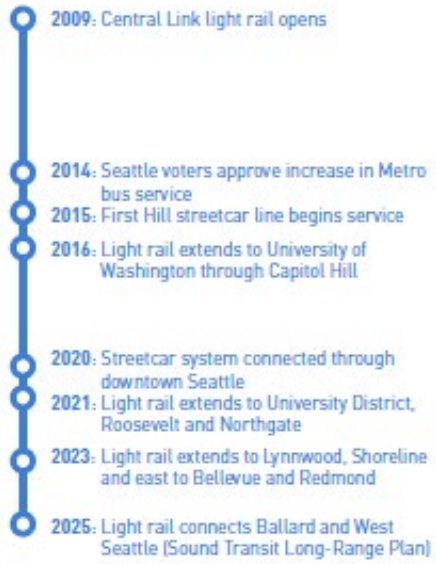
Mayor Edward B. Murray's
10-Year Strategic Vision for Transportation

1. Seattle is growing.

Over the last 20 years, Seattle gained 100,000 new residents and approximately 50,000 jobs. The next 10 years are projected to bring 60,000 residents and another 50,000 jobs. This is great news for our economy and a test for our transportation and land use planning. As Seattle's Comprehensive Plan directs, these jobs and residents will continue to be located in compact, walkable neighborhoods that are easy to serve with transit.

2. We are investing in transportation solutions to support growth, but the need continues to increase.

With the completion of major regional transit initiatives currently underway, Seattle's urban villages and centers will be connected by reliable, frequent buses and trains. Progress is being made, but that future is still 10 years away.



3. We face a funding gap.

The Bridging the Gap transportation levy, which was approved by Seattle voters in 2006 and funds nearly 25% of SDOT's work, is expiring in 2015. The city needs to renew the levy to continue basic programs and to expand the transportation system to meet tomorrow's needs.

4. Our long-range planning for different travel modes needs to be integrated.

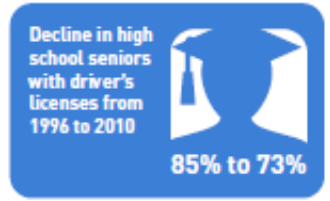
In 2015, with the completion of the Freight Master Plan, Seattle will have produced all of its long-range modal master plans. These 20-year plans (for freight, pedestrians, transit and bicycles) are now brought together into an integrated, nearer-term strategy: Move Seattle. By doing this, we can define neighborhood transportation projects that address several needs and thereby multiply the benefits of every dollar invested.

5. We're in the middle of a technology boom that is reshaping transportation.

After a half century of little technological change, innovation is providing an explosion in new transportation options. The list of new technologies impacting transportation expands every day. More than any other innovation, the smart phone is changing transportation. People can use it to find the most convenient bus route, understand when the next bus is coming, and read the news or a book on the way to their destination.

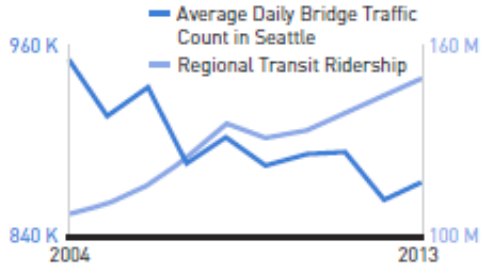
6. Everyone wants new transportation options.

Whether you are a millennial or a baby boomer, people want to live where they can easily walk and use transit. For young people in particular, the trend towards new travel behavior is strong. Recent studies show that people under 34 are not buying cars or getting driver's licenses at the rates of previous generations.



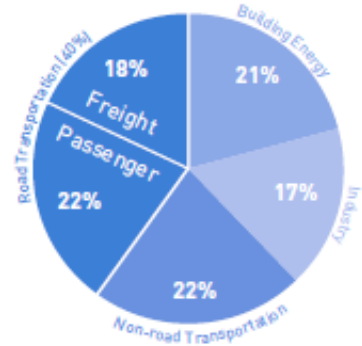
7. Across the board, everyone is driving less.

Even after adjusting for changes in the economy, the trend is clear: Americans are driving fewer miles every year. That trend is true in Washington State, where the long-term forecast is for total miles traveled by vehicles to decline 18% by 2025 from its peak in 2000. At the same time, transit ridership is at record highs and growing. Fewer cars on the road mean that when you do have to drive, you'll be up against less traffic.

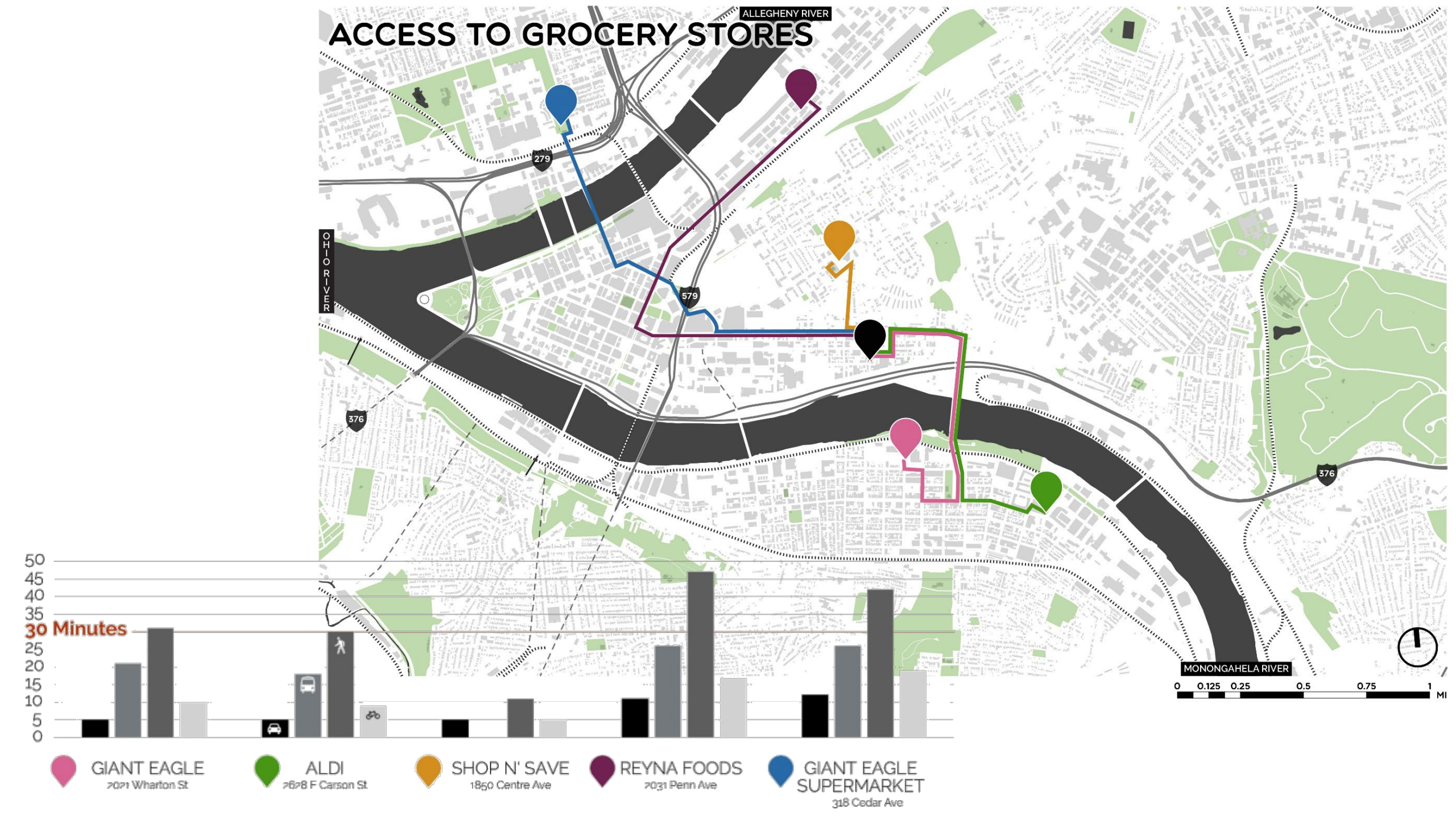


8. Transportation is a driver of climate change.

Seattle has been a world leader in climate action for many years — and we aren't about to stop. Road transportation is Seattle's largest source of greenhouse gas emissions, comprising approximately 40% of 2008 community emissions. Decisive action to meet our goal of 75% of commuters getting to work without their personal cars by 2035 is needed to keep us on track to reach net zero greenhouse gas emissions by 2050.



ACCESS TO GROCERY STORES



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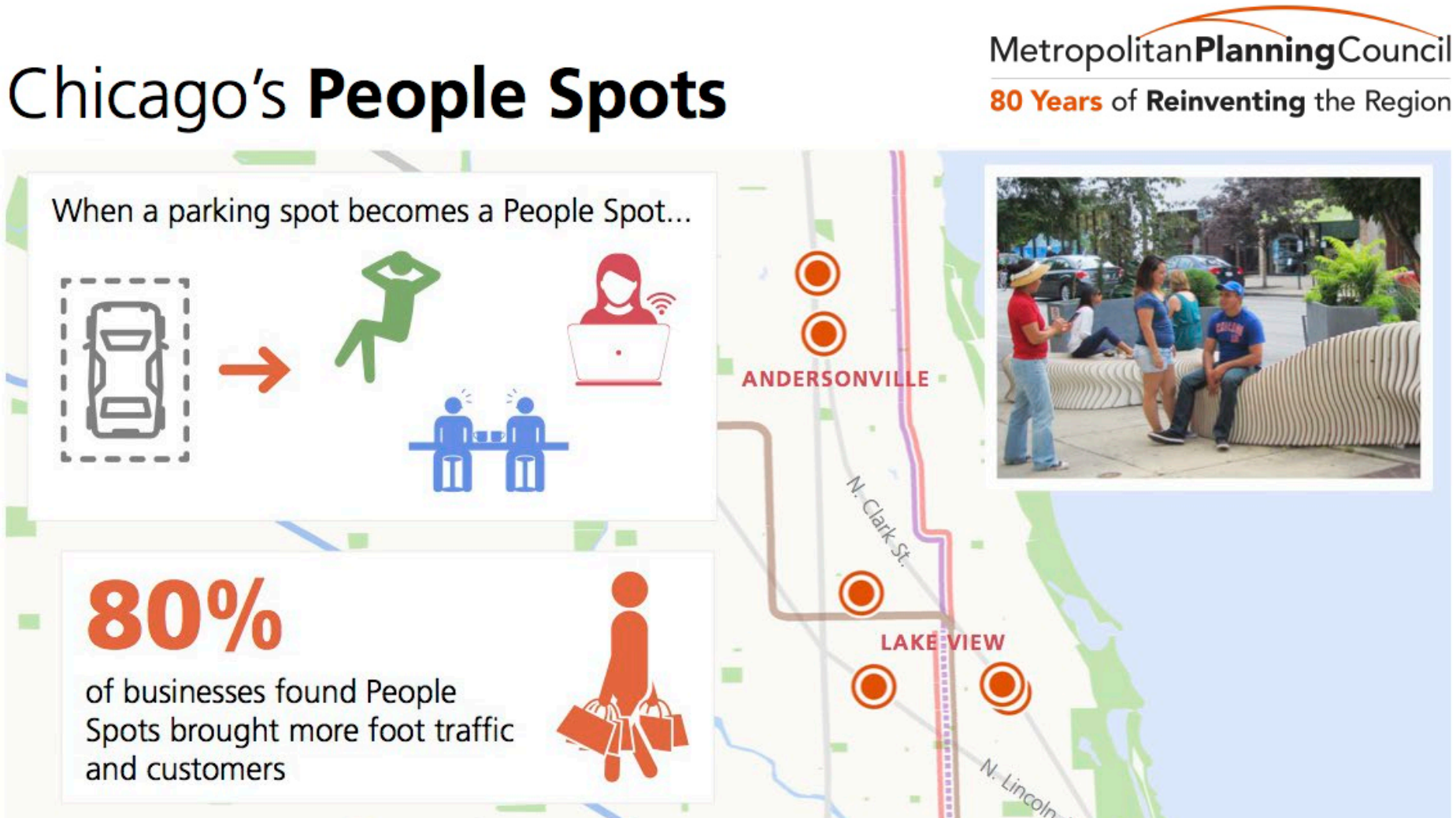
Communicating & Building Support



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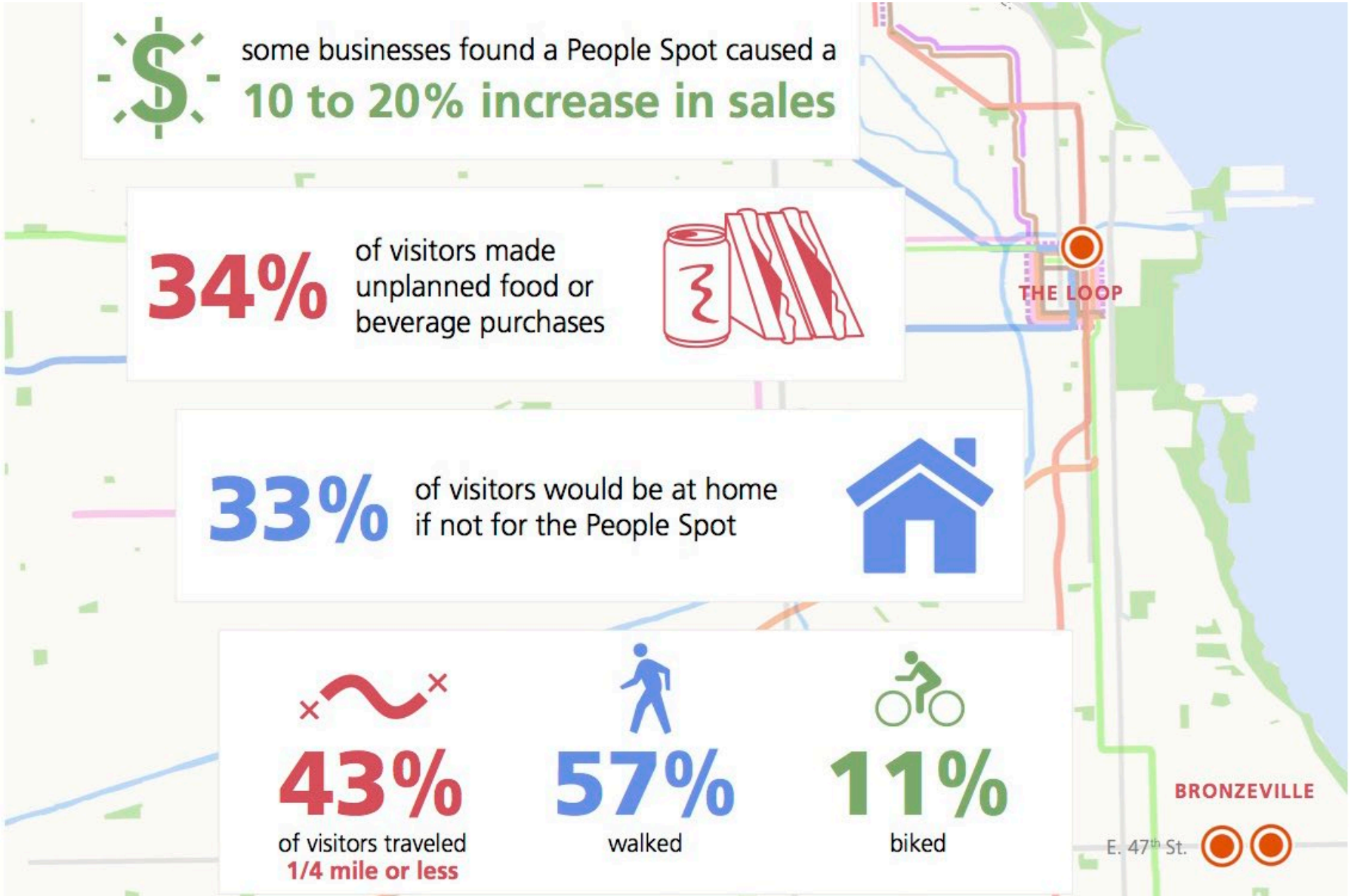

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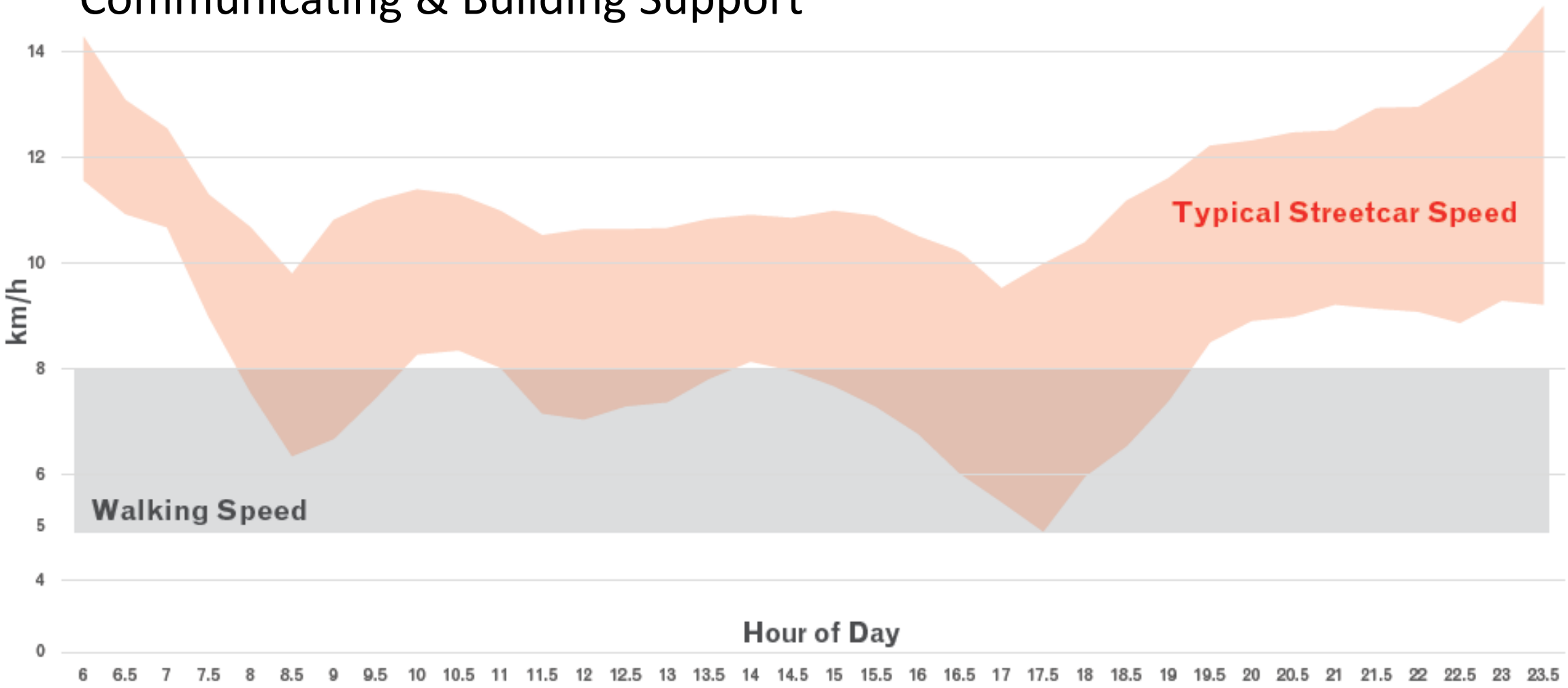

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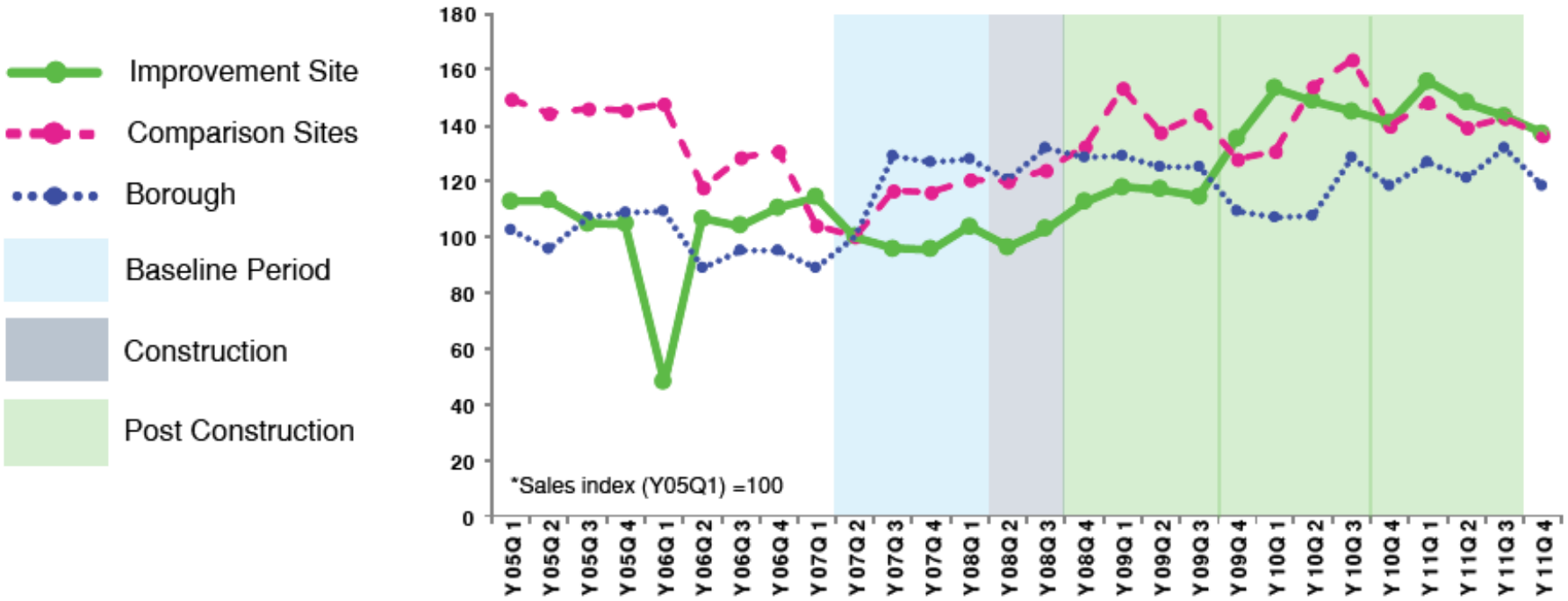
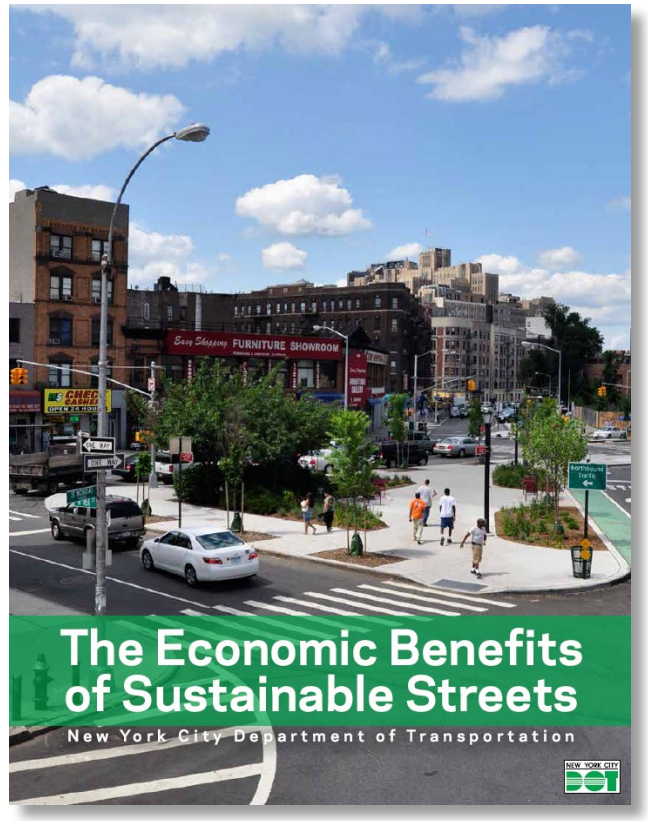
Addressing Criticism / Negative Press





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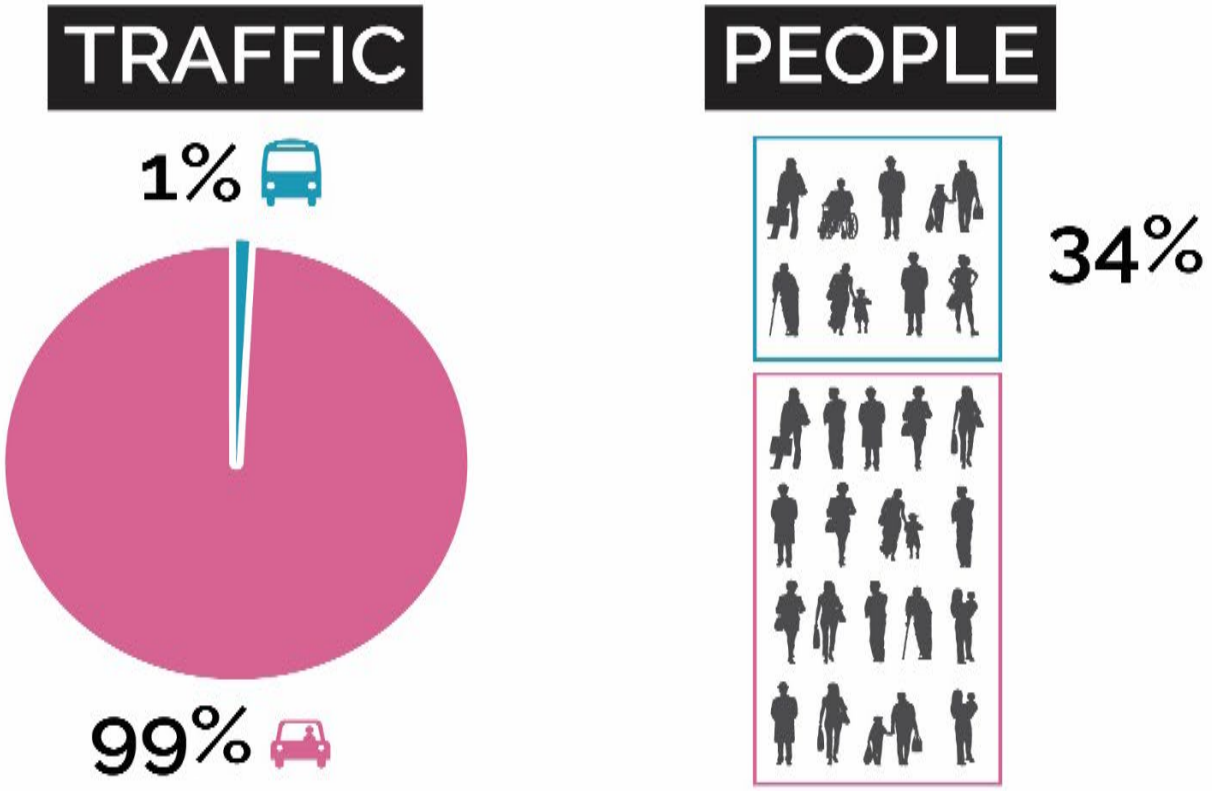
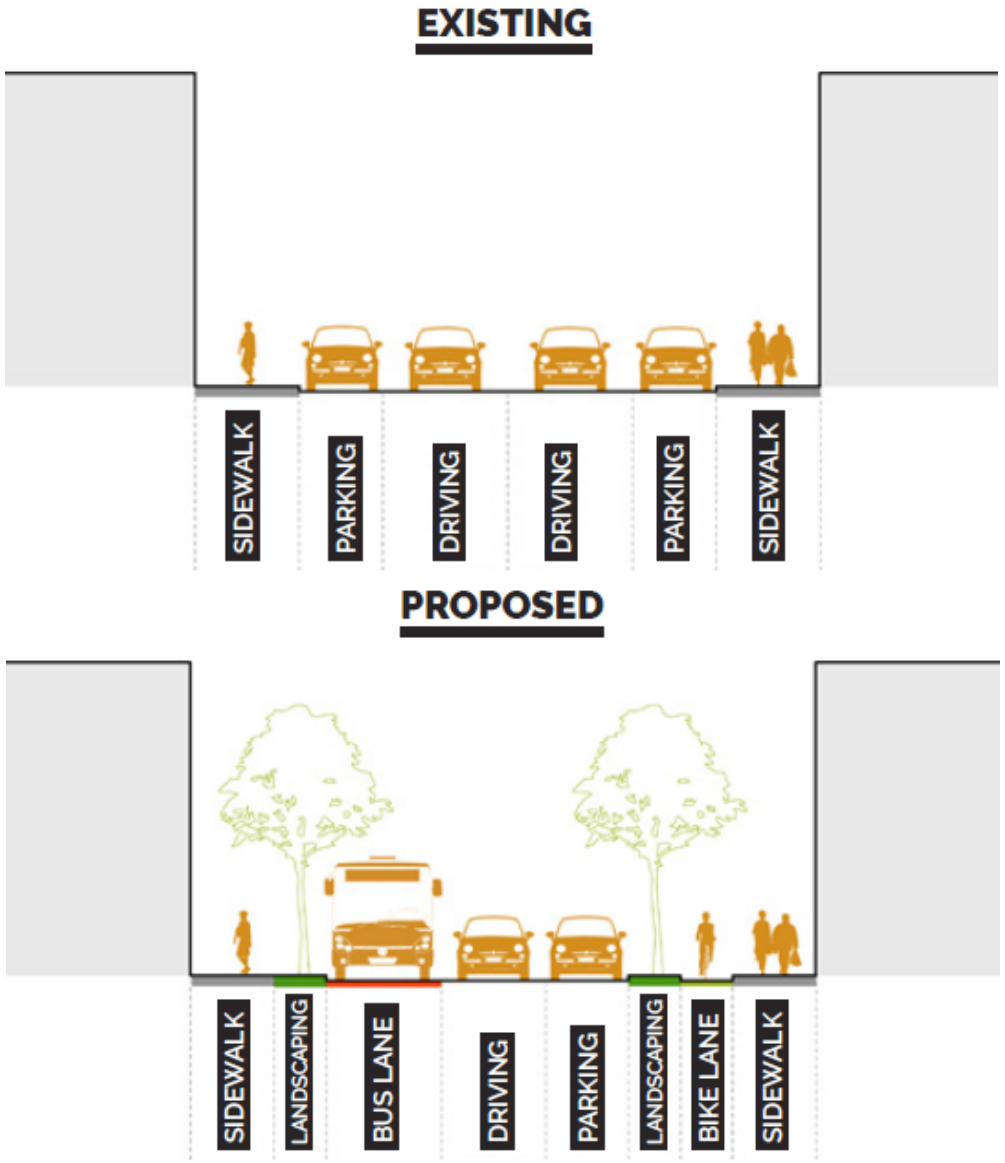




What is It Good For?

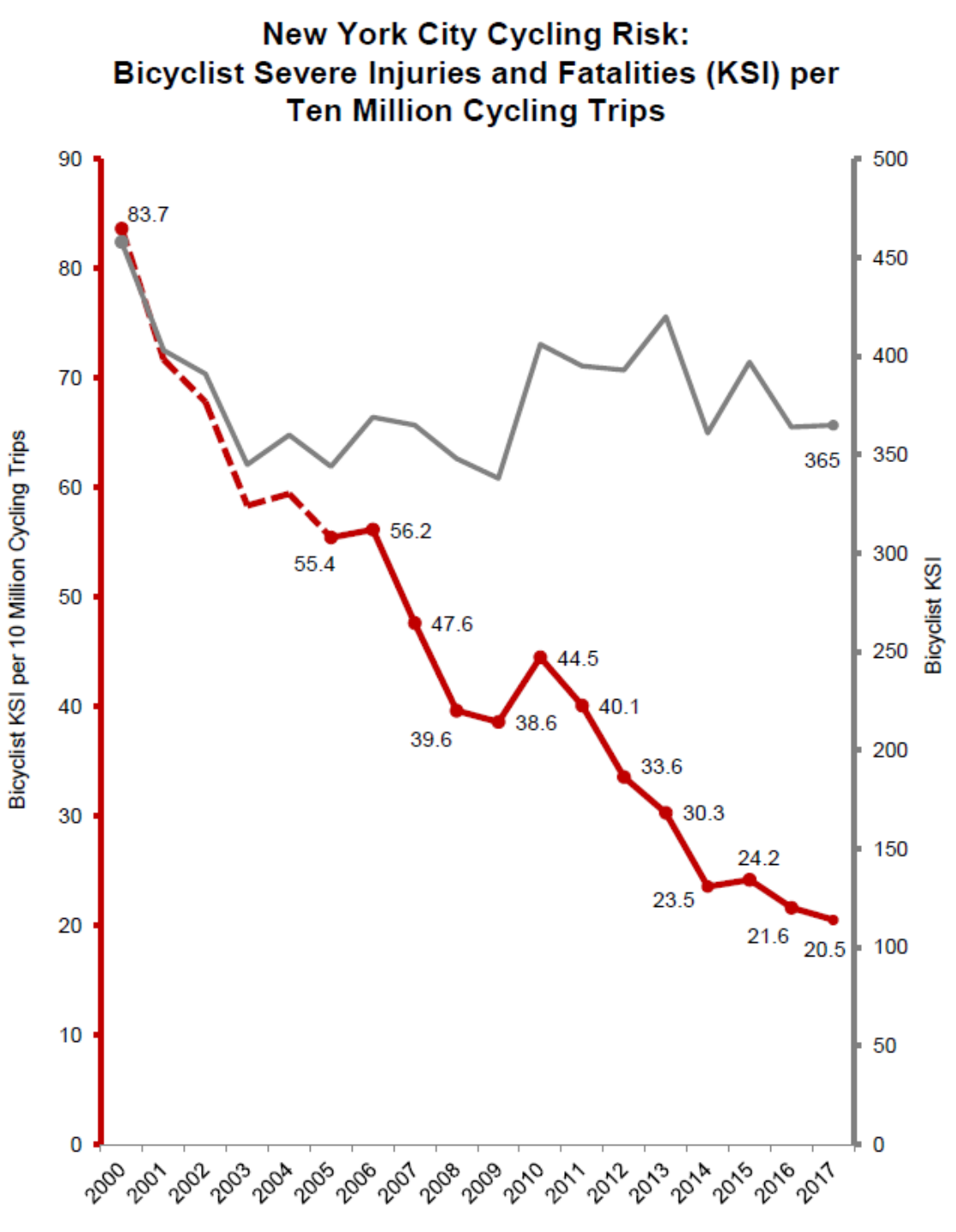
Accountability & Tracking Progress

TRACKING SUCCESS
OUR CORE VALUES

Measures	Baseline*	Desired Trend	2025 Goal	Safety	Interconnectivity	Vibrancy	Affordability	Innovation
Annual rate of pedestrian collisions (per 100,000 residents)	61	Decrease	Decrease	x				
Annual rate of bicycle collisions per 1,000 bicycle commuters (from American Community Survey data)	32	Decrease	Decrease	x				
Annual number of fatalities and serious injuries by all modes of travel	23 fatalities 174 serious injuries	Decrease	0	x				
Percentage Frequent Transit Network that is maintained and modernized by rehabilitating the pavement	22% (2014)	Increase	35%				x	
Percentage of potholes repaired within 3 days of notification	88%	Increase	90%			x		x
Percentage of sidewalk repair requests responded to within 5 days of notification	New measure in 2015	Increase	80%			x		x
Percentage of households within a 10-minute walk of a frequent transit route running every 10 minutes or better	26% (2015)	Increase	72%		x			
Percentage of "Seattle" bus route (routes with 80% of stops in Seattle) trips that are reliable (on-time in the afternoon peak period)	67.5%	Increase	80%		x			

What is It Good For?

Accountability & Tracking Progress



Data in the Lifecycle of Getting Things Done

Using Data Effectively

1. Quality over quantity
2. Something is better than nothing
3. What is the question you are trying to answer?
4. What is the story you are trying to tell?
5. Understand the audience & visualize accordingly

Thank You

Mike Flynn, AICP
Principal | Director of City Strategies
Sam Schwartz Consulting