

Today, both parking and mobility in the Strip District are an issue. These slides are the consultant team's findings and preliminary ideas to improve mobility and parking for residents, businesses, and visitors.

These ideas were developed to obtain public feedback. It should be noted that this list is a draft and not exhaustive. A draft implementation table at the end of this document provides a summary of strategies and anticipated timeframes for implementation.

FOR DISCUSSION PURPOSES ONLY





Mobility Network & Parking Study

Findings & Preliminary Strategies



AGENDA

Presentation (30 mins)

- Study Recap
 - Timeline, Purpose, and Outreach
- Initial Findings and Draft Strategies
 - Parking
 - Circulation
- Summary
- Next Steps

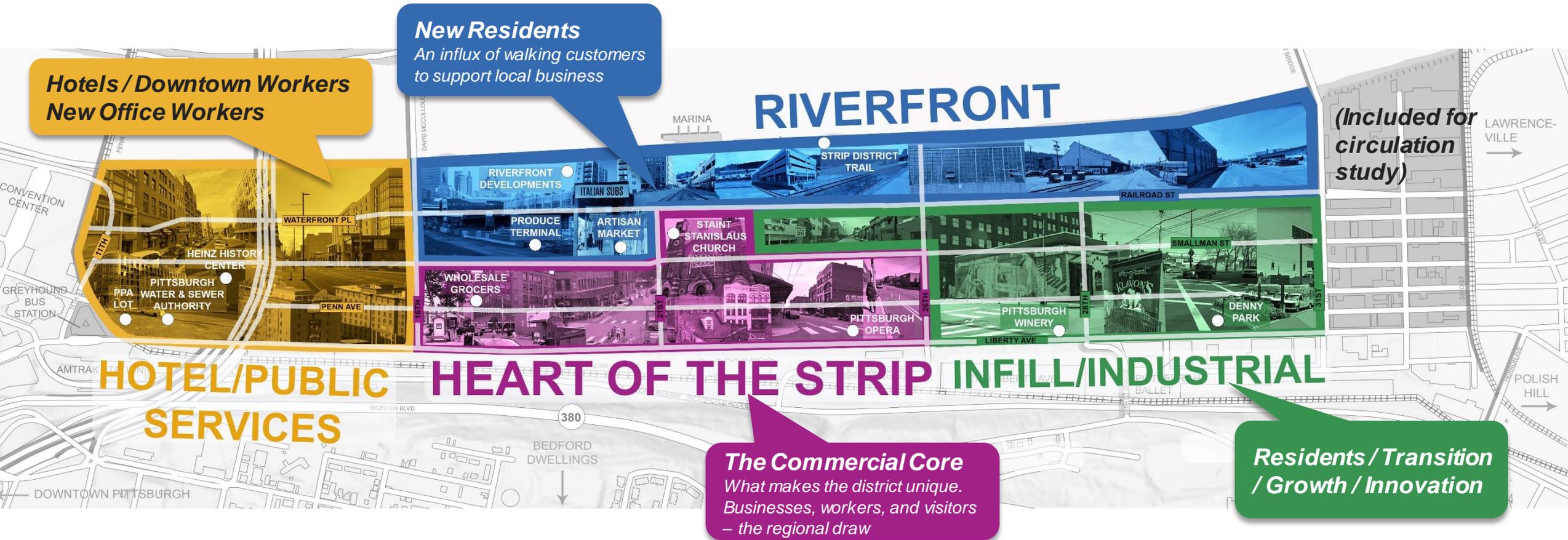
Discussion (30-45 mins)



Study Area: A Moment of Opportunity

Proactively respond to anticipated development

Support the continued growth and vibrancy of a one-of-a-kind neighborhood



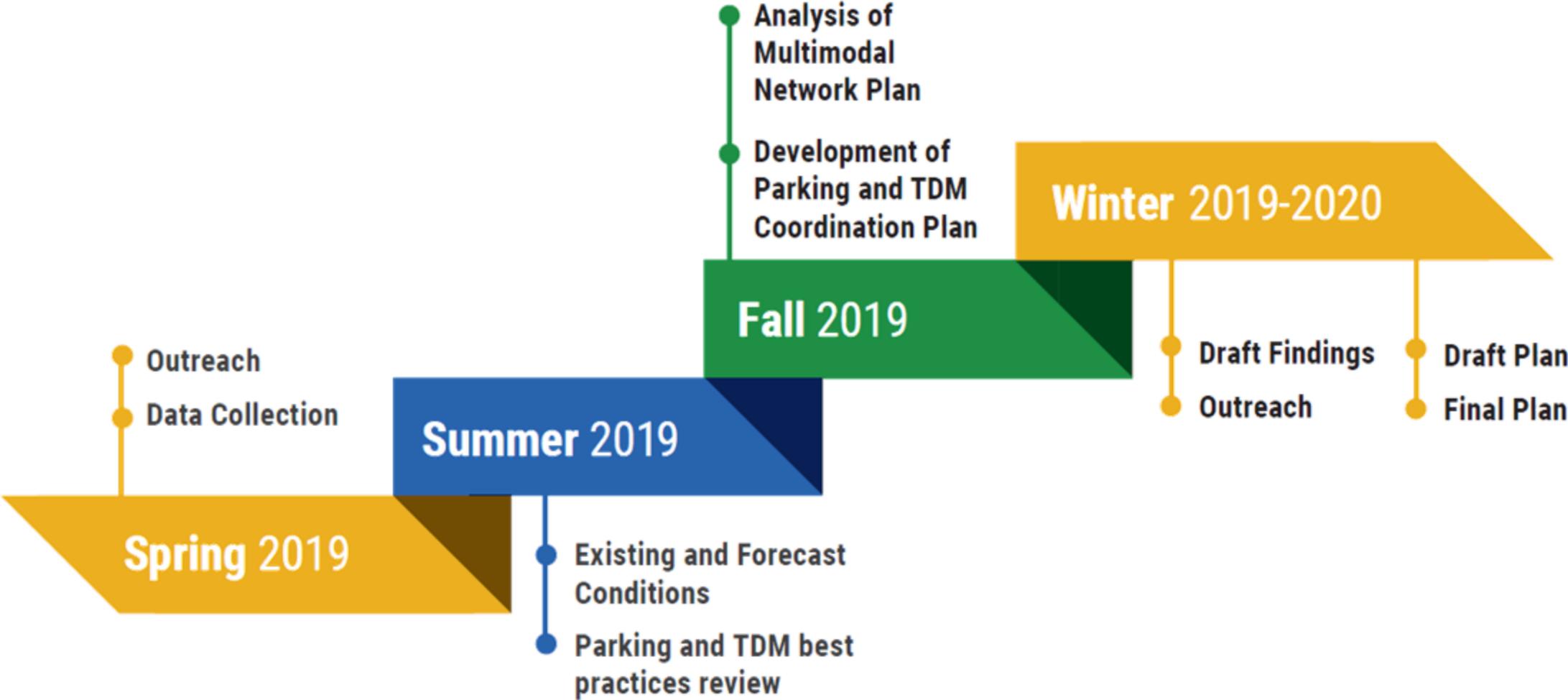
Study Recap

Study Purpose and Goals

1. Develop a district-wide transportation vision
2. Streamline and improve parking experience
3. Develop a curbside management program that supports the dynamic needs of a growing district
4. Create an efficient and inclusive transportation network that accommodates movement for all people and abilities
5. Identify district-wide mechanisms for implementation



Project Schedule



Outreach (January and June 2019)

In-Street, On-Line Survey, Workshops, Pop-Up, and Stakeholder Meetings

- +400 survey responses
- +200 workshop attendees
- Stakeholder meetings
- 180 WikiMap comments



Survey Responses

What Did We Hear?

- Half drove, **but +40%** took bus, walked, carpool, taxi, and / or biked
- **Majority occasional visitors:** 60% visit a few times a month or year
- Many in 25-34 and 55-65 age groups
- Almost 20% of workers take the bus
- A majority (60%) value convenience / easy access over price
- **Biggest concerns**
 - Walk safety and lack of safe crossings
 - Bicycle safety
 - Unsafe and speeding drivers
 - Potholes and construction



Survey Responses

Ideas

Walk

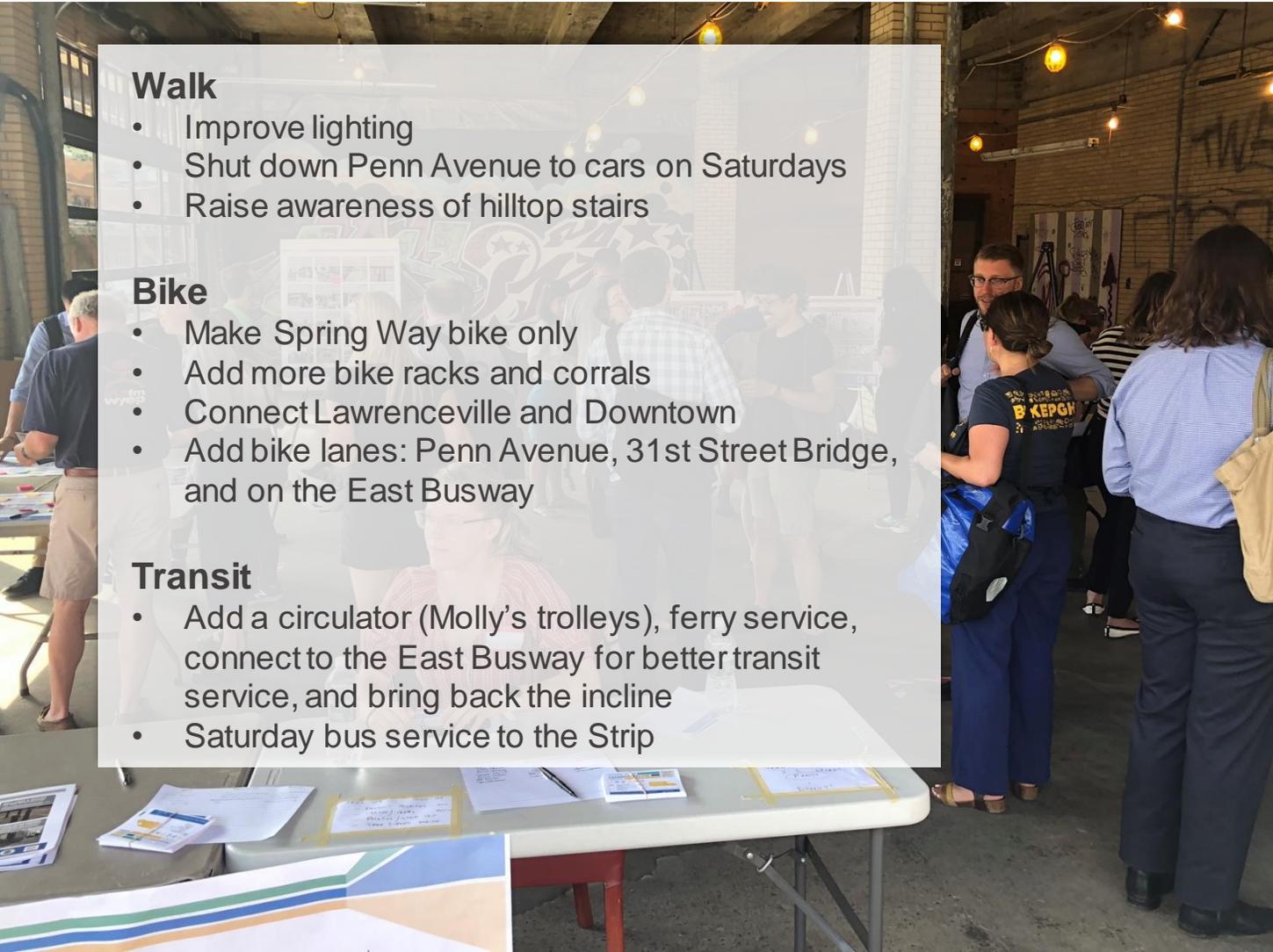
- Improve lighting
- Shut down Penn Avenue to cars on Saturdays
- Raise awareness of hilltop stairs

Bike

- Make Spring Way bike only
- Add more bike racks and corrals
- Connect Lawrenceville and Downtown
- Add bike lanes: Penn Avenue, 31st Street Bridge, and on the East Busway

Transit

- Add a circulator (Molly's trolleys), ferry service, connect to the East Busway for better transit service, and bring back the incline
- Saturday bus service to the Strip



Survey Responses

Ideas

Parking

- Parking should be free
- Garages too far away to carry bags
- Need public parking in the Core of the Strip
- Expand metered parking beyond 25th Street
- Cork Factory parking is good for visitors
- Better information on public parking
 - Signage
 - Digital maps
 - Paper maps for businesses to hand out



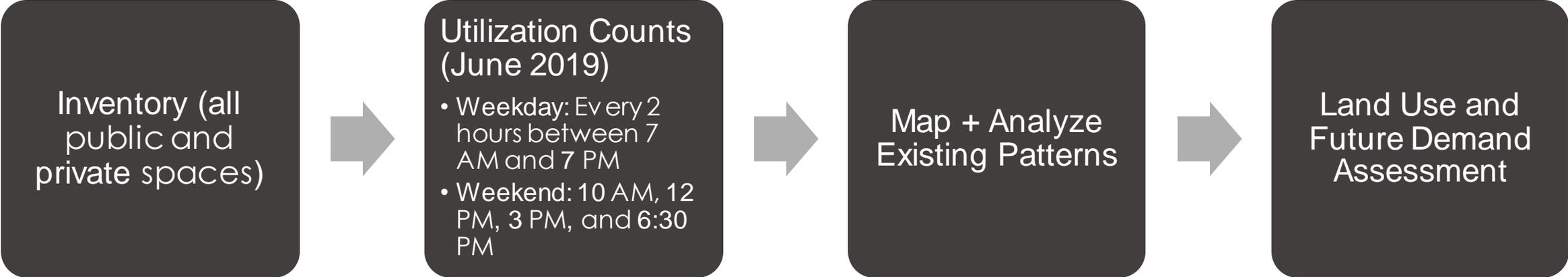
PARKING

Supply
Regulations
Utilization
Summary



Parking Utilization

Methodology

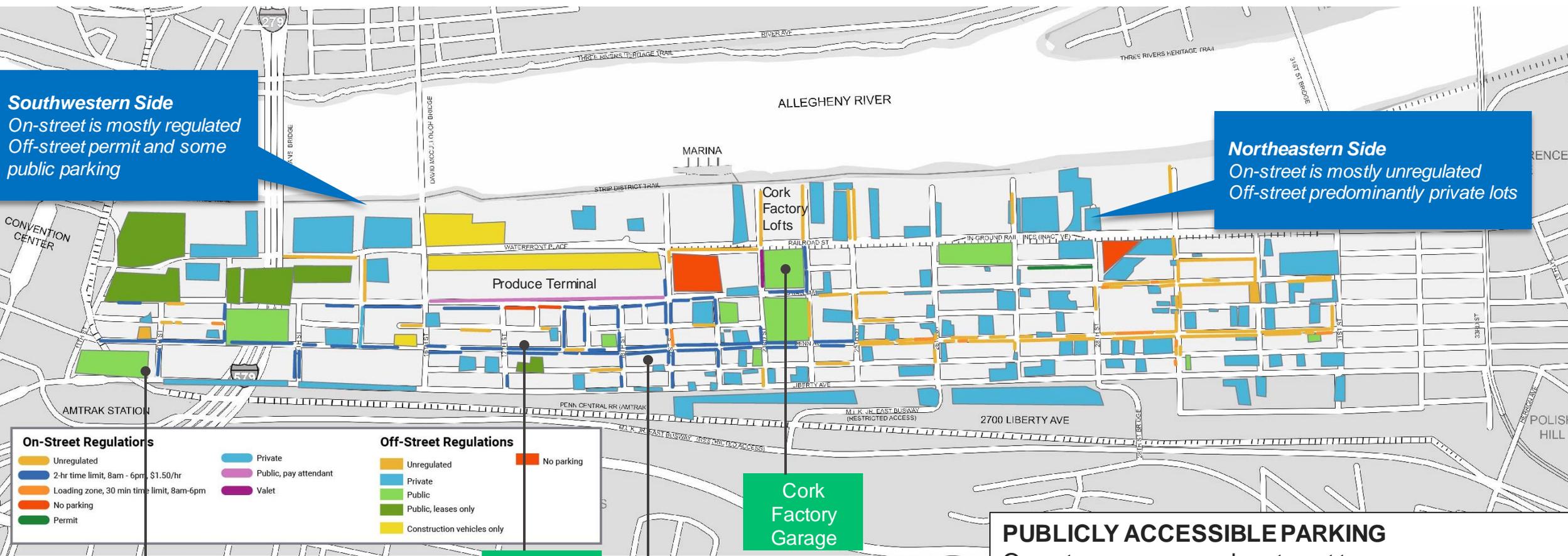


Parking Supply

10,300 spaces

Southwestern Side
On-street is mostly regulated
Off-street permit and some public parking

Northeastern Side
On-street is mostly unregulated
Off-street predominantly private lots



On-Street Regulations		Off-Street Regulations	
■ Unregulated	■ Private	■ Unregulated	■ No parking
■ 2-hr time limit, 8am - 6pm, \$1.50/hr	■ Public, pay attendant	■ Private	■ Public
■ Loading zone, 30 min time limit, 8am-6pm	■ Valet	■ Public, leases only	■ Construction vehicles only
■ No parking			
■ Permit			

PPA Garage

Wholey & Co

Stamoolis

Cork Factory Garage

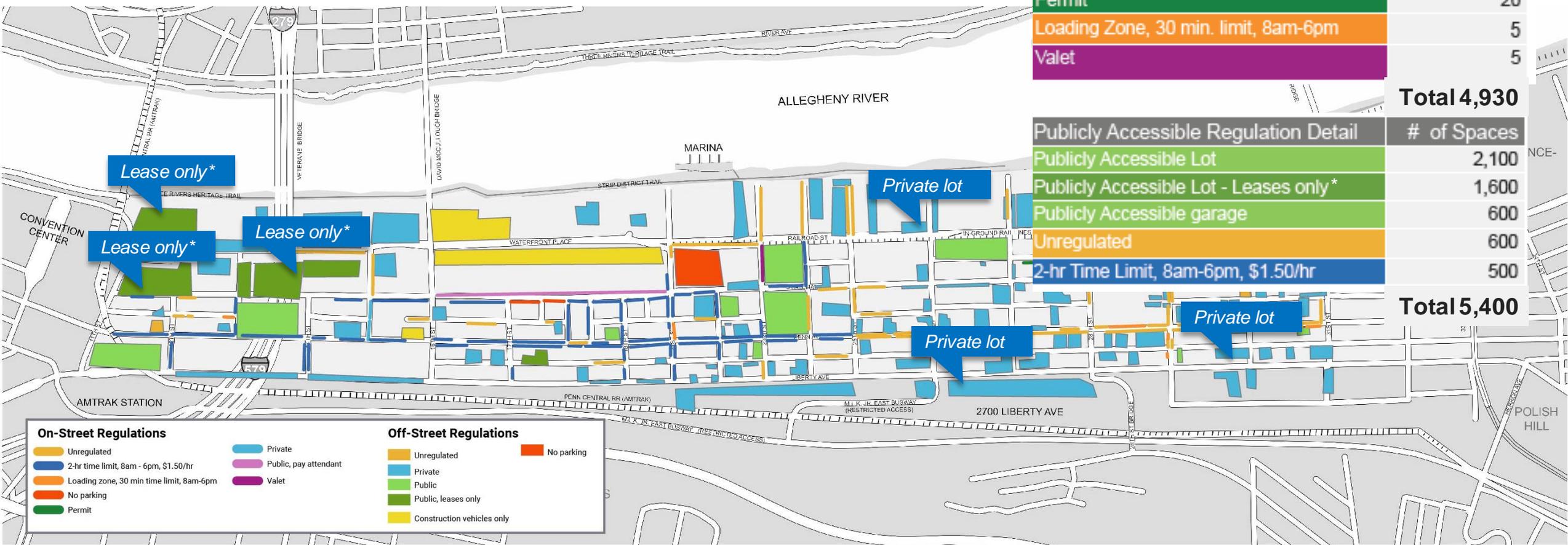
PUBLICLY ACCESSIBLE PARKING
Open to anyone, may be at cost to user.

RESTRICTED PARKING is restricted to customers, certain types of vehicles, or even specific users.
If not clearly signed as public, it falls into this category.



Parking Supply

Approximately 6,500 spaces are not available for daily public use



Restricted Regulation Detail	# of Spaces
Private Lot	3,400
Construction vehicles only	800
Private garage - Residential	500
Closed for construction	200
Permit	20
Loading Zone, 30 min. limit, 8am-6pm	5
Valet	5

Total 4,930

Publicly Accessible Regulation Detail	# of Spaces
Publicly Accessible Lot	2,100
Publicly Accessible Lot - Leases only *	1,600
Publicly Accessible garage	600
Unregulated	600
2-hr Time Limit, 8am-6pm, \$1.50/hr	500

Total 5,400

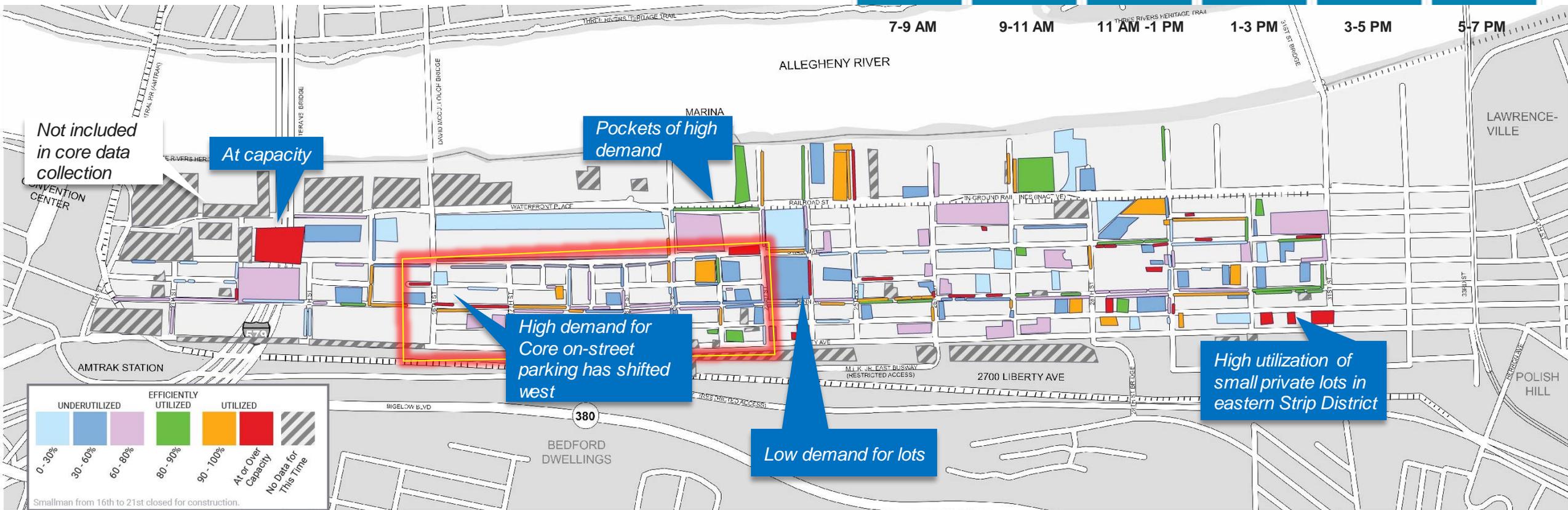
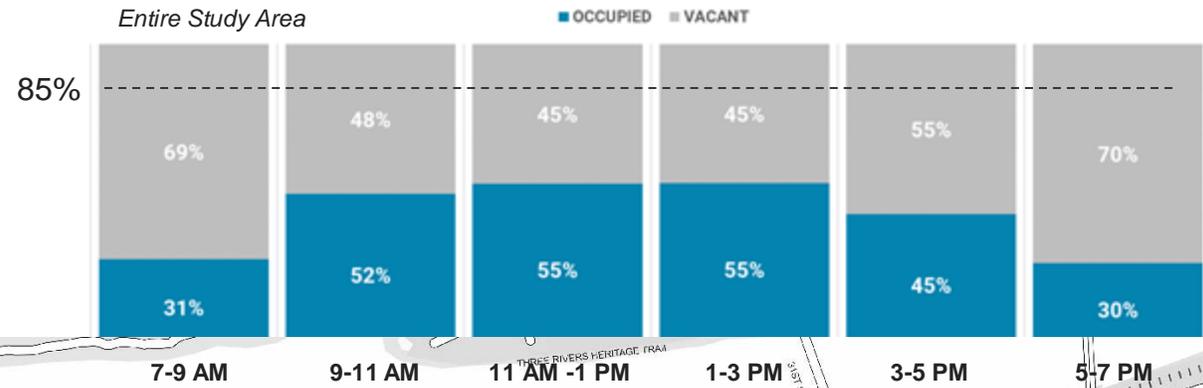
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2-hr time limit, 8am - 6pm, \$1.50/hr	Public, pay attendant	Private	Public
Loading zone, 30 min time limit, 8am-6pm	Valet	Public, leases only	Construction vehicles only
No parking			
Permit			

*included in 6,500 not available for daily use



Study Area Parking Demand

Weekday, 1-3 PM – highest availability is within a few blocks of the Core

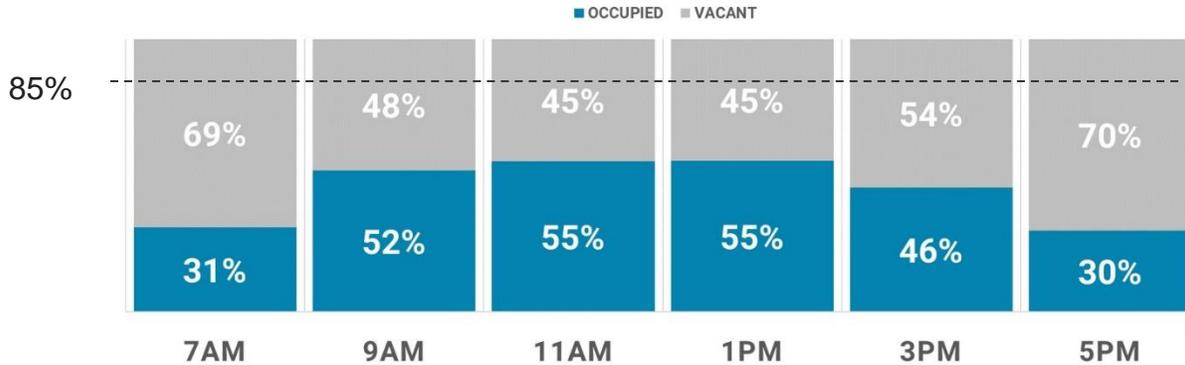


85% on all charts represents an industry standard for "ideal occupancy," where most spaces are used with a few available for new arrivals

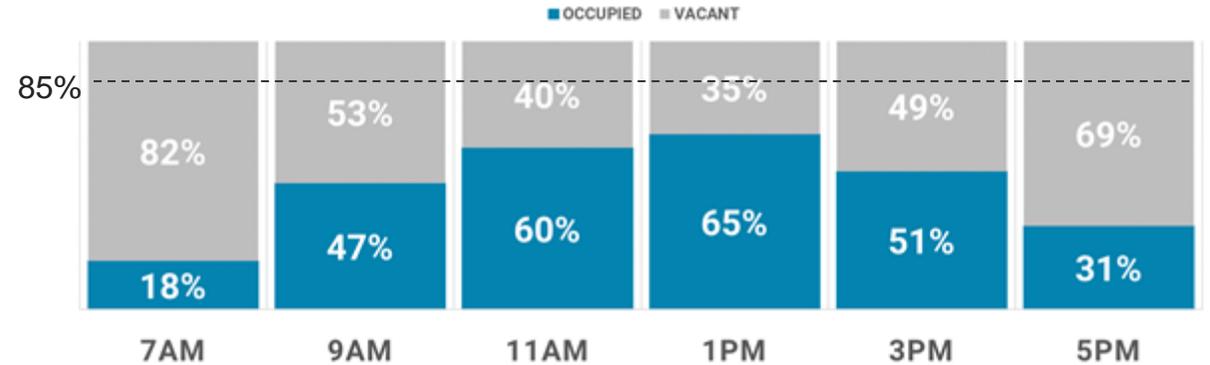
Parking Utilization - Weekday

The Core is approaching ideal occupancy (80-85%). Availability elsewhere in the Strip District.

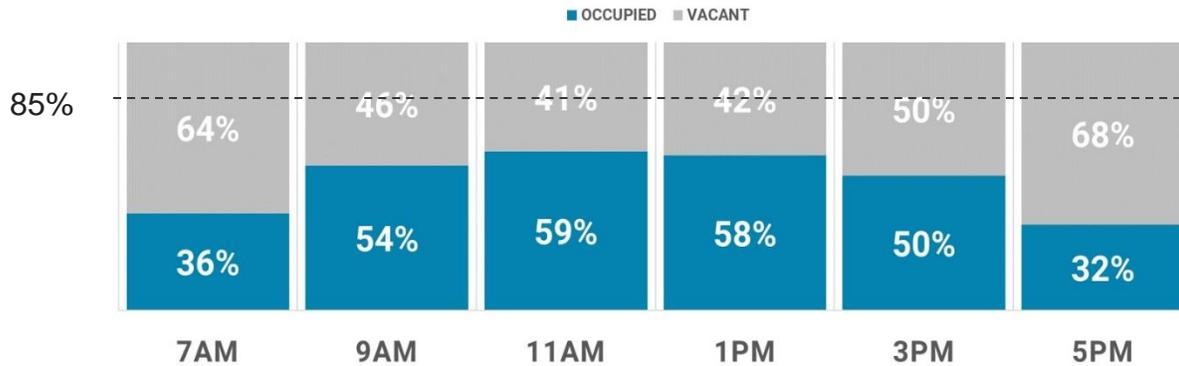
All Parking (Publicly Accessible and Restricted)



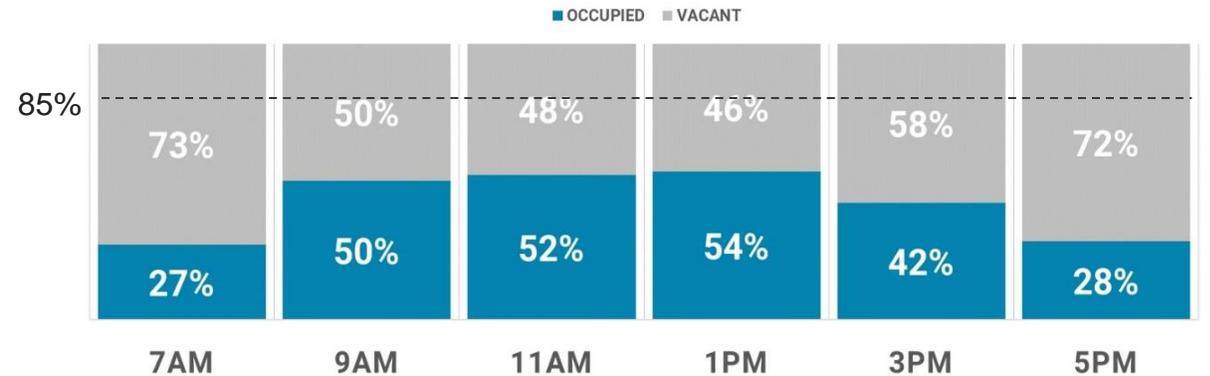
Core Parking – Publicly Accessible



All Publicly Accessible Parking



All Restricted Parking



85% on all charts represents an industry standard for "ideal occupancy," where most spaces are used with a few available for new arrivals

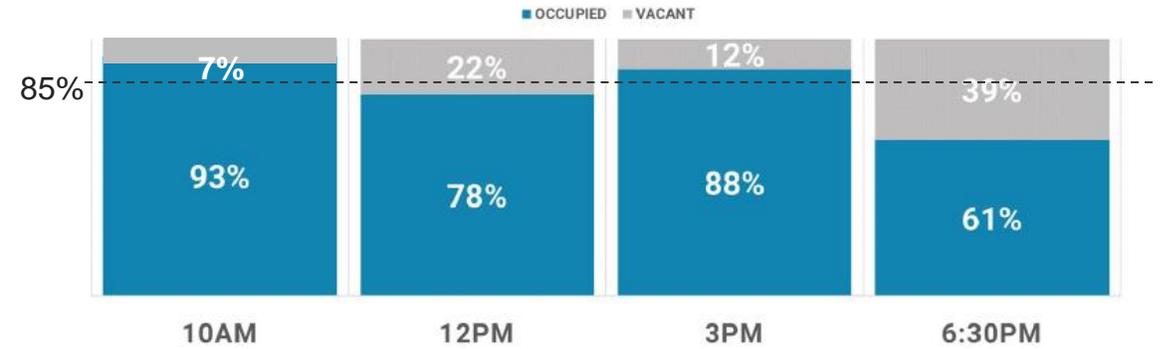
Parking Utilization - Weekend

The Core is functionally full. Availability elsewhere in the Strip District, especially restricted spaces.

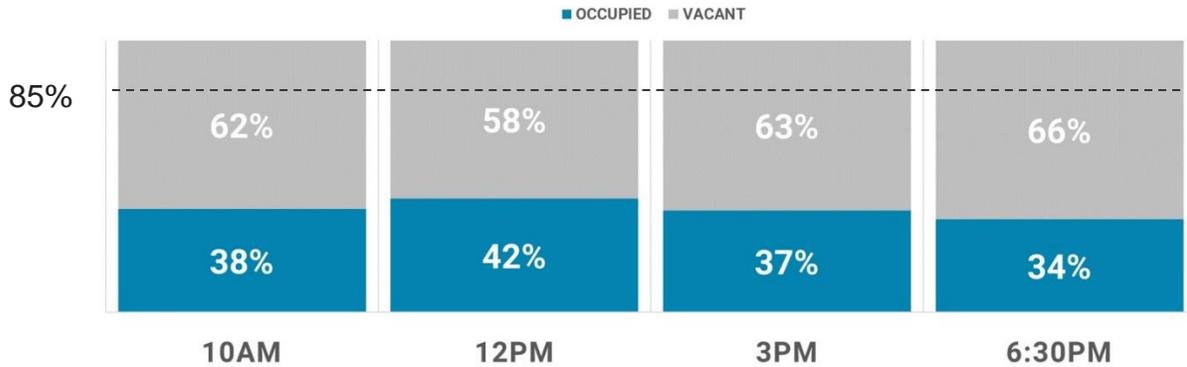
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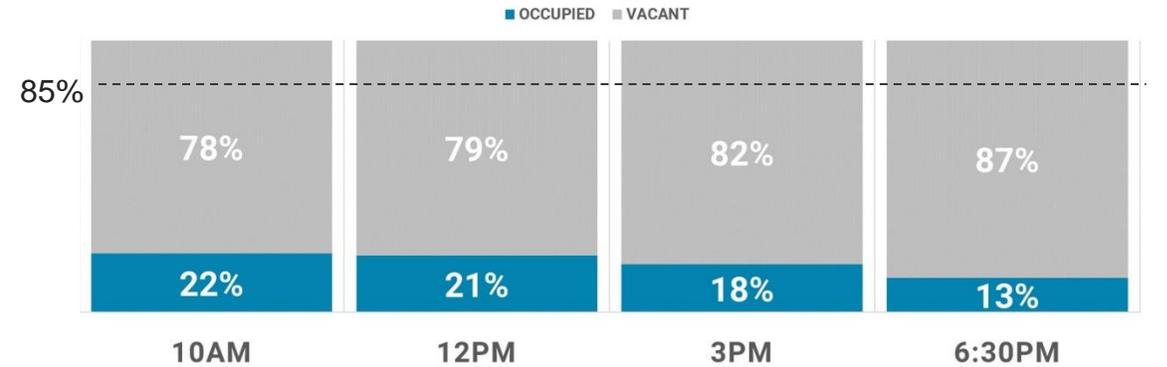
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All Publicly Accessible Parking



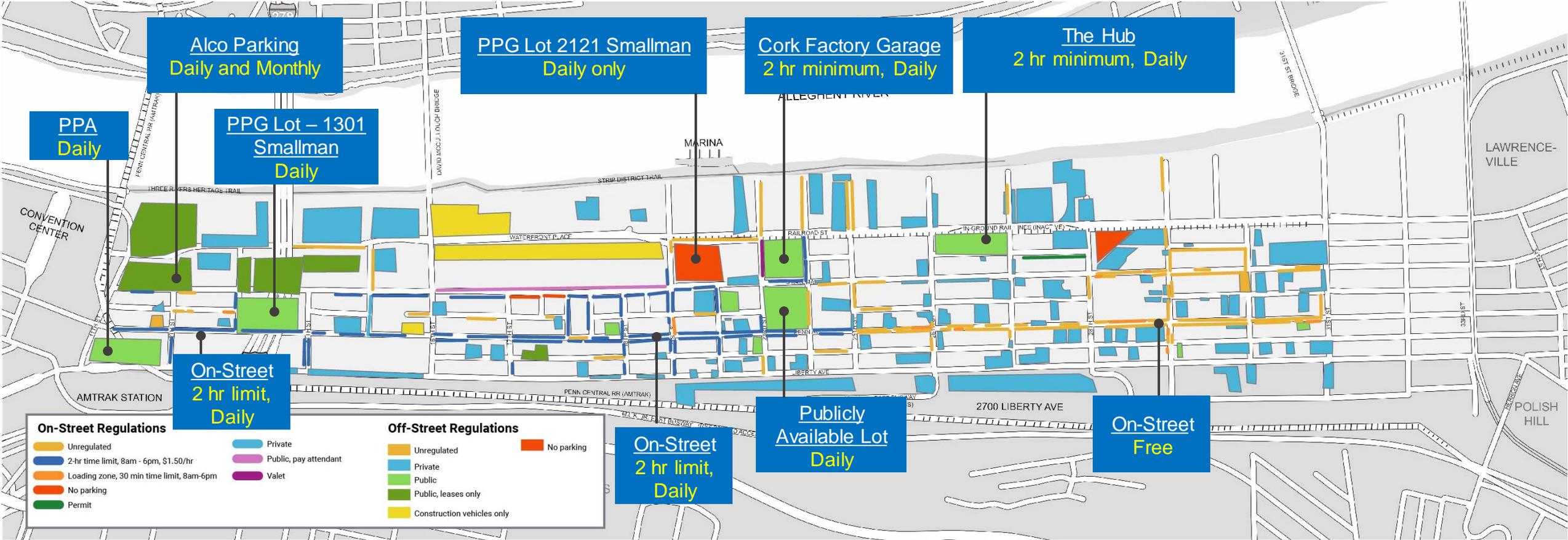
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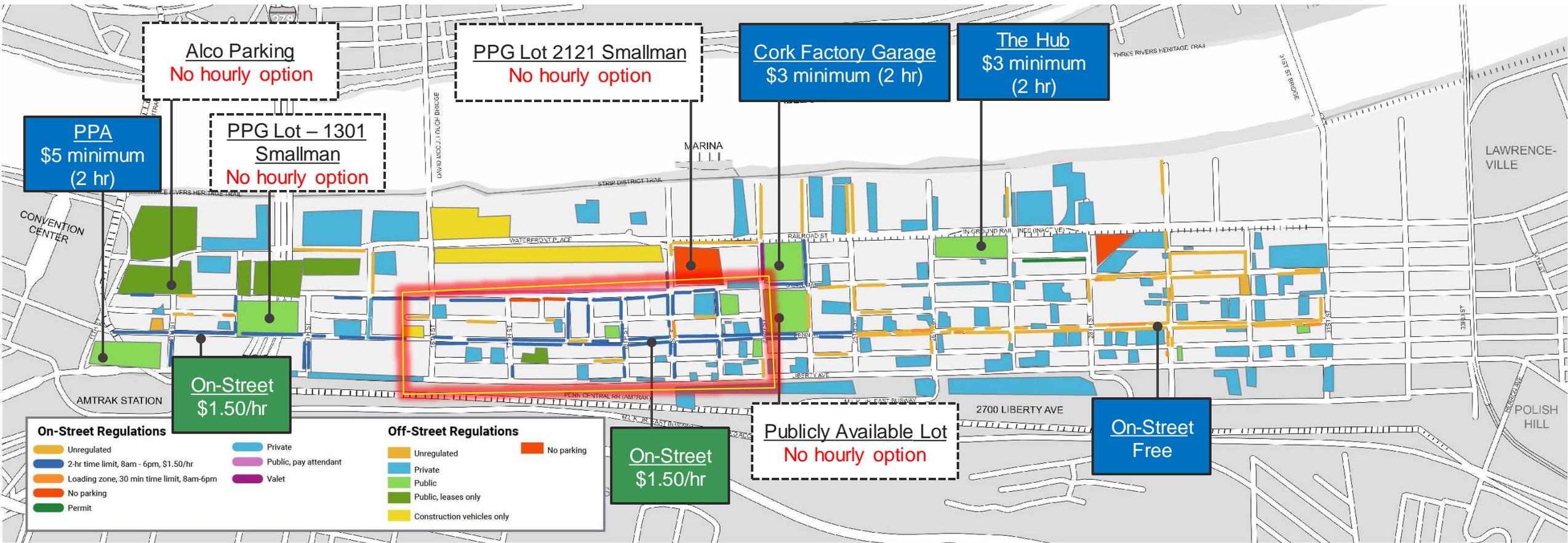
Regulations

Mixture of daily and monthly, time limits, and minimum-stay-requirements is confusing



Pricing

Lack of hourly / visitor-friendly options near the Core, prime spaces (on-street) cost less than off-street



Summary

- There are **nearly 1,000 publicly available** spaces available on weekdays at peak, although they are not right in the Core
- **Restricted spaces are no more than 60% utilized** at peak on a weekday, leaving 1,600 unoccupied spaces
- In the Core on weekends, publicly accessible parking is **functionally full**
- The Cork Factory Garage, the Hub, and other publicly accessible facilities have availability even at peak times
- Utilization peaks at 1:00 PM on a weekday and 10:00 AM on a weekend
- While Penn Avenue in the Heart of the Strip is busy at peak times, **off-street facilities close by have availability**
- In the evenings, utilization drops significantly
- Private developers are building on private parking lots that were previously open to the public

FINDINGS & DRAFT STRATEGIES

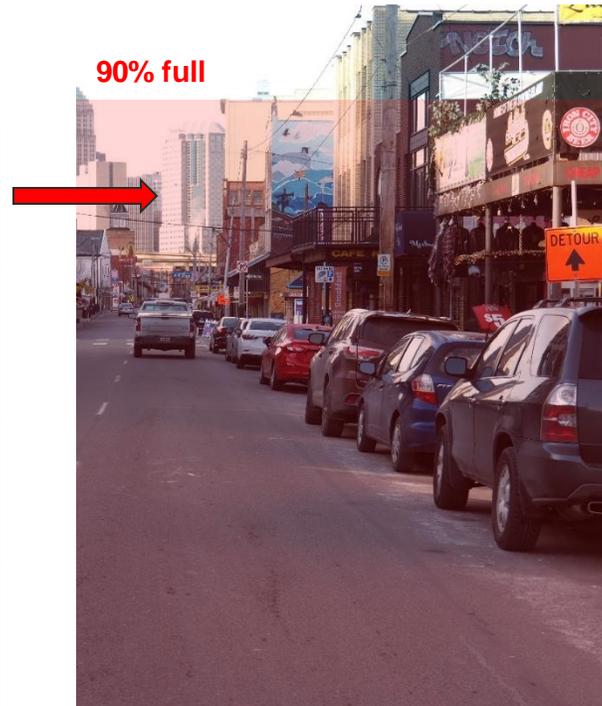
Parking
Reducing Demand for Parking
Multi-modal
Organizational Needs



Issue: Shortage of Core Parking

Pricing does not match demand

In Order of Preference	Price	How Busy?	Walk Time from Core (mins)
1. On-Street (Core)	\$1.50/hr	Full	0
2. Garages Cork Factory / The Hub	\$3.00/hr	Available	4
3. Others	\$10-\$12/day	Available	5-10
4. Public Garage Grant Street	\$5.00	Available / evenings	12



What We Heard:

- “Street parking occupied by employees”
- “Congested at peak hours”

Strategy: Create Parking Availability in the Core

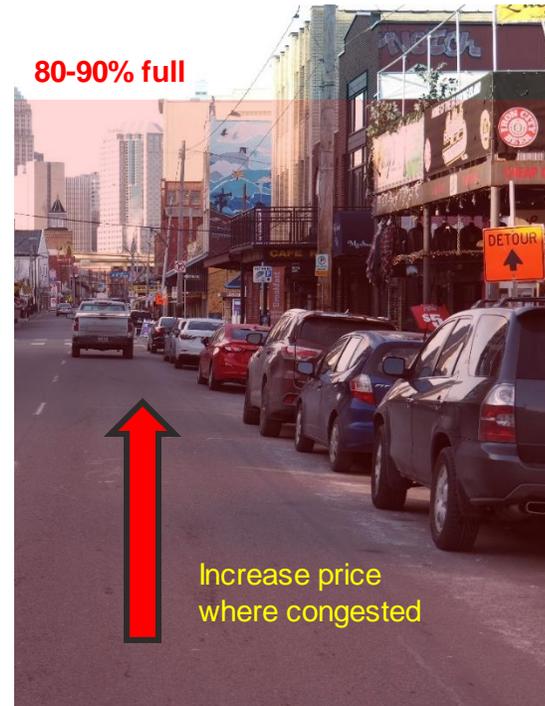
Pricing does not match demand



Re-balance pricing

Timeframe:
Mid-term (3-5 years)

In Order of Preference	Price	How Busy?	Walk Time from Core (mins)
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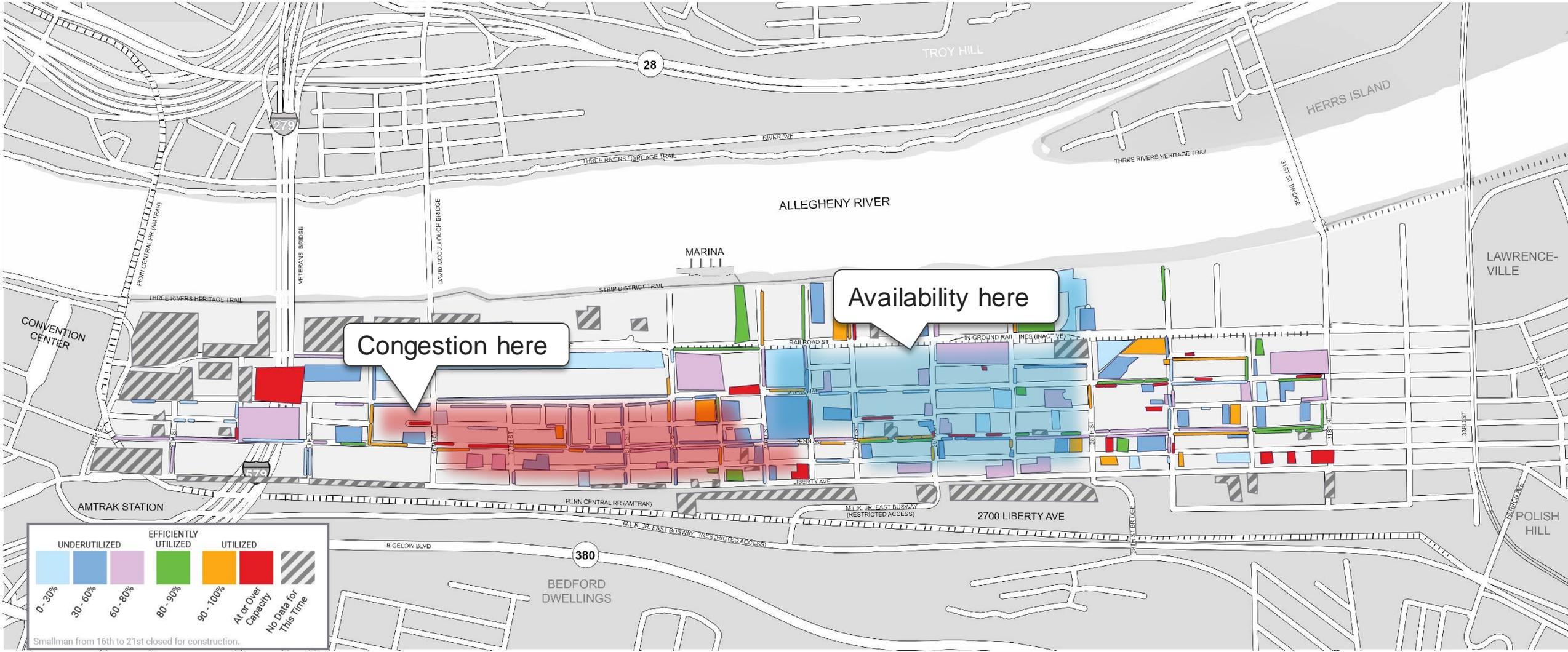


- Benefits**
- Higher prices in the Core incents shorter stays, lower prices a short distance away incent longer-term parking
 - Incents employees to park further away and not use prime spaces
 - Frees up prime spaces for customers

Issue: Parking is Available at Peak

Restricted spaces are no more than 60% utilized at peak on a weekday

...the City's commercial tax laws currently penalize opening up private parking supply for paid public use



Strategy: Develop Districtwide Parking Program

Restricted spaces are no more than 60% utilized



Incent Private Property Owners to Open Up Supply

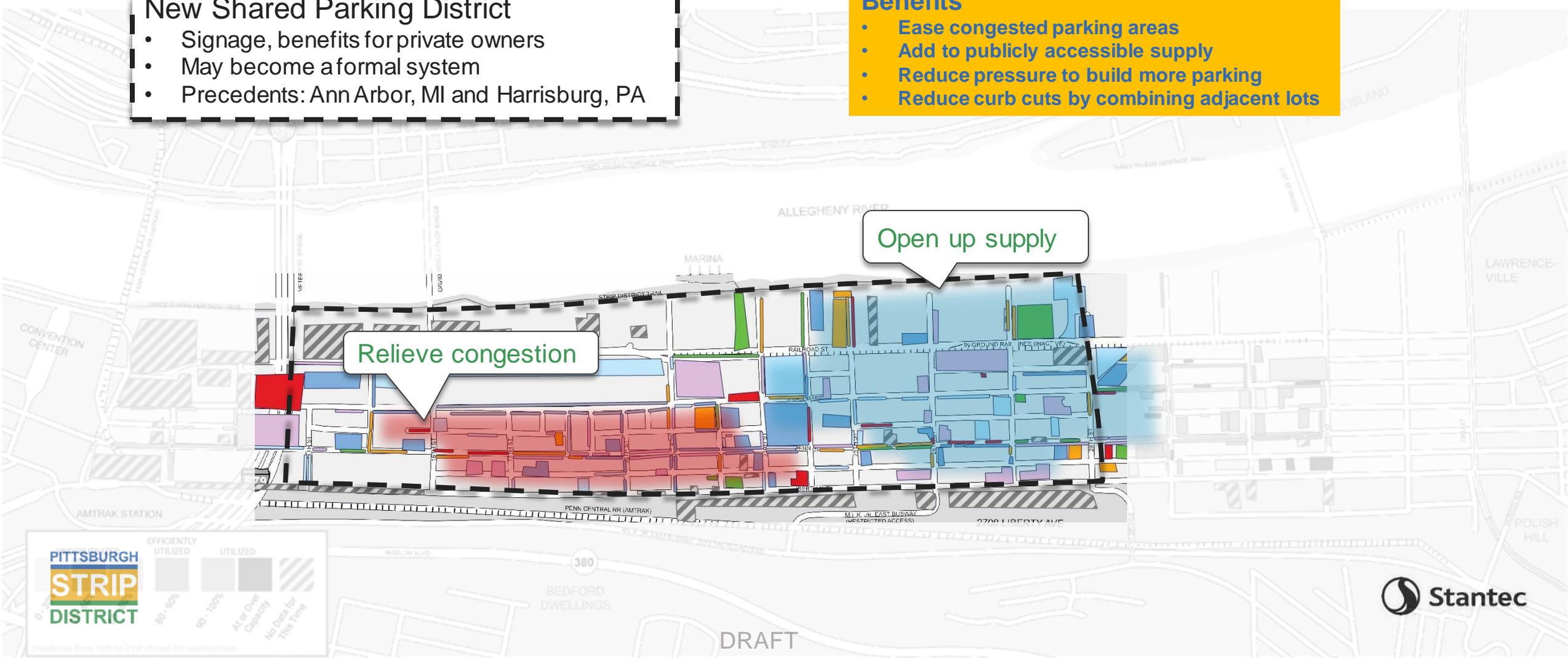
Timeframe:
Short-term
(1-3 years)

New Shared Parking District

- Signage, benefits for private owners
- May become a formal system
- Precedents: Ann Arbor, MI and Harrisburg, PA

Benefits

- Ease congested parking areas
- Add to publicly accessible supply
- Reduce pressure to build more parking
- Reduce curb cuts by combining adjacent lots



Strategy: Pilot a Shuttle to and around the Strip District

Link to remote parking for special events, summertime weekends, piloting of Penn Avenue summertime closures, and potentially during the week

Include Strip District employment centers and Herron Avenue East Busway stop as part of route feasibility

Timeframe:
Short-term
(1-3 years)

Saturday 12pm

Underutilized parking on weekends
Lease lots for commuters
May include Grant Street Garage
Will change as development occurs

Evaluate route feasibility to and around
the Strip District
Coordinate with business and property
owners as well as employers

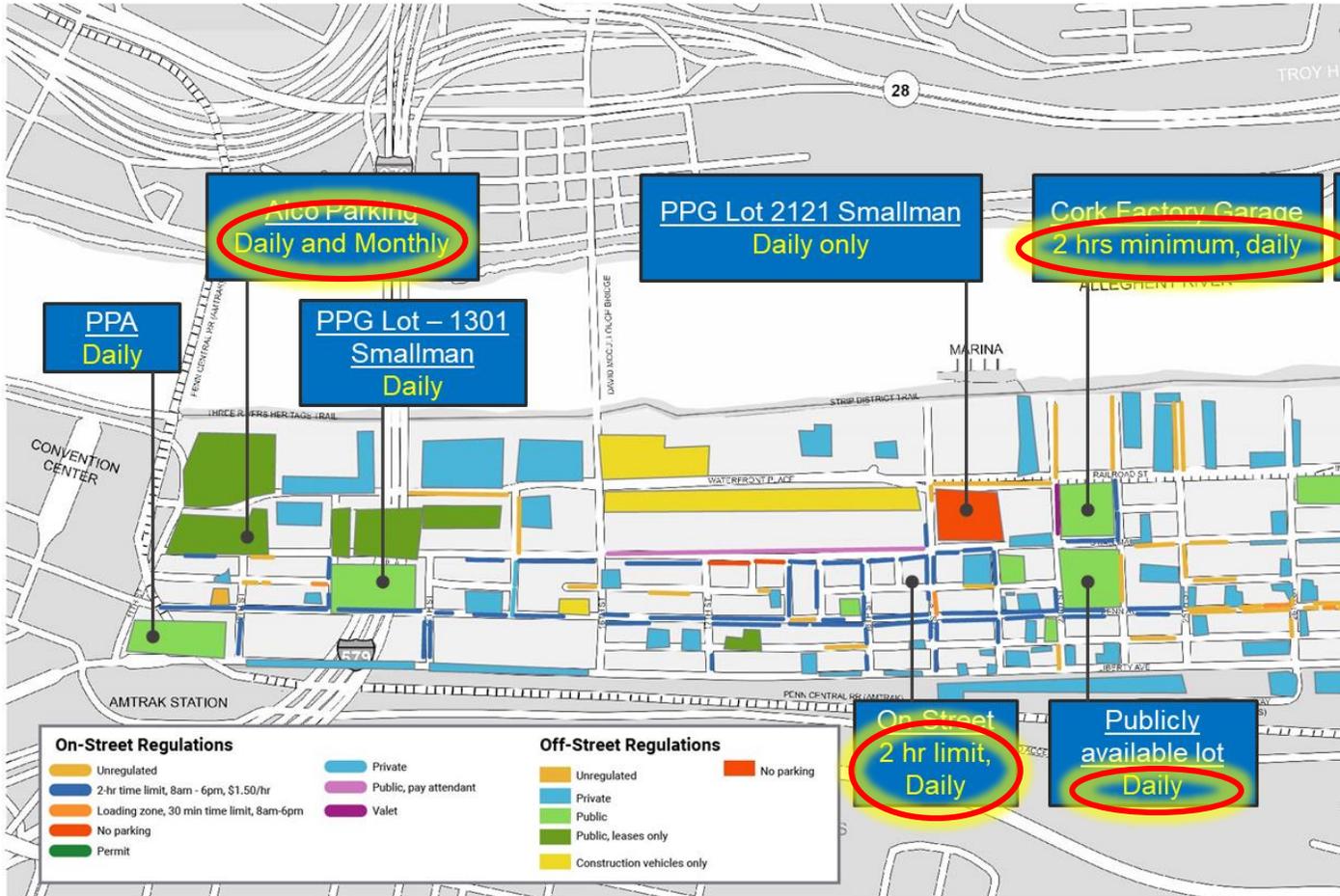
~10-minute walk

Requires:

- Route identification
- Funding beyond pilot period
- Information on remote parking facilities and coordination with owners

Issue: Inconsistent Regulations

Time limits and minimums are an inconvenience to visitors and others



What We Heard:

- “Street parking occupied by employees”
- “Congested at peak hours”

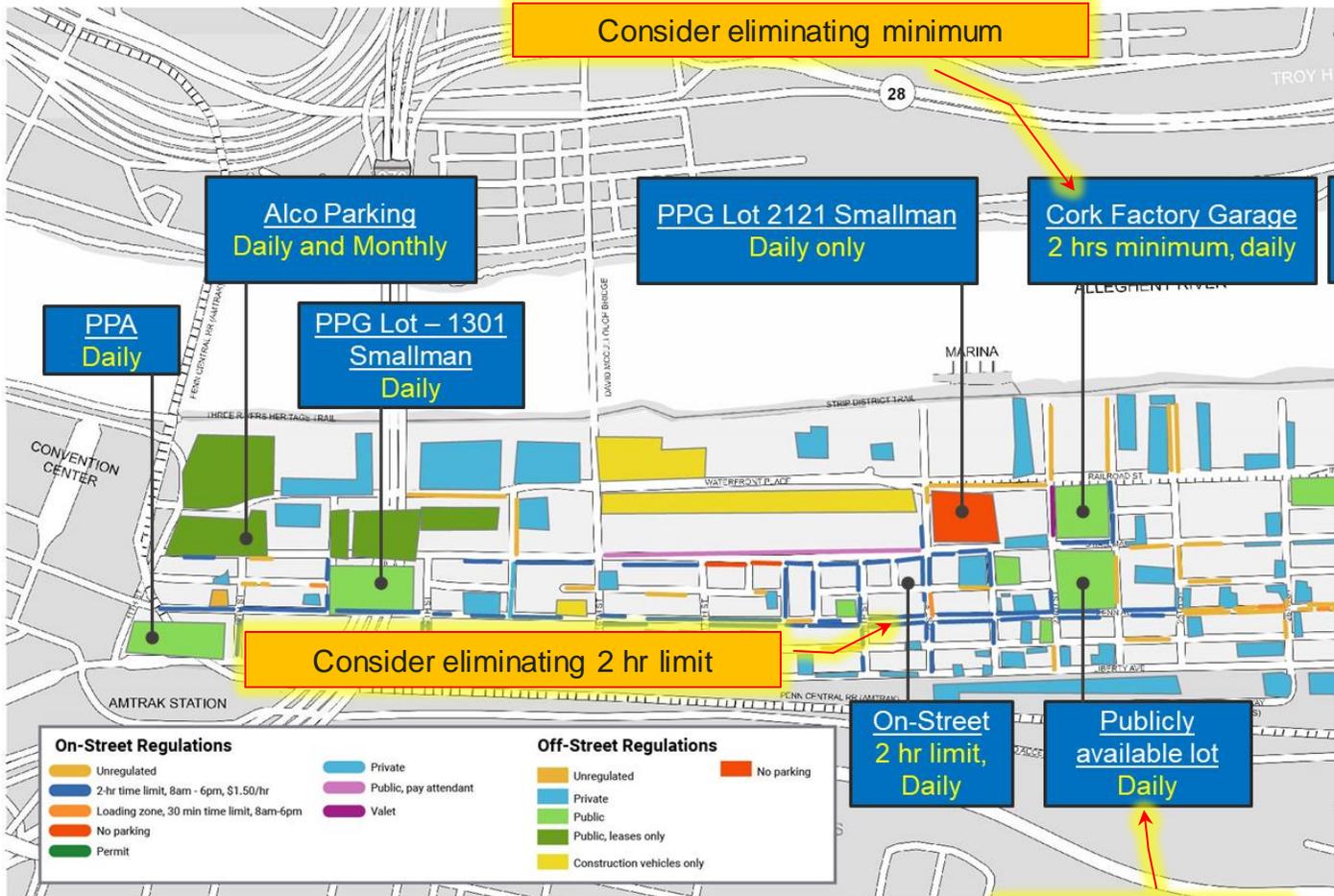
Strategy: Adjust Time Limits

Time limits and minimums are an inconvenience to visitors and others



Eliminate maximums (or raise to 48-72 hrs) and minimums

Timeframe:
Mid-term (3-5 years)



- Benefits**
- Greater flexibility
 - More consistency for visitors

Issue: Customers and Visitors Do Not Know Where to Park

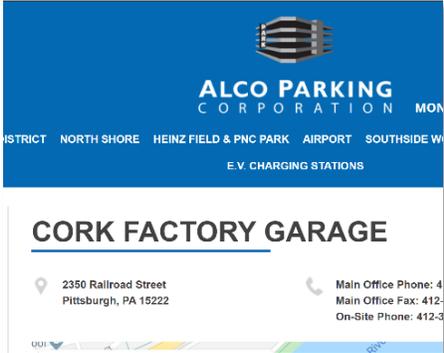
Lack of consistent public parking information



Pittsburgh PARKING Authority
The Value Parking Network

Home About Us Facilities Residential Permit Parking

Grant Street Transportation Center



ALCO PARKING CORPORATION

DISTRICT NORTH SHORE HEINZ FIELD & PNC PARK AIRPORT SOUTHSIDE W

E.V. CHARGING STATIONS

CORK FACTORY GARAGE

2350 Railroad Street
Pittsburgh, PA 15222

Main Office Phone: 412-391-1111
Main Office Fax: 412-391-1112
On-Site Phone: 412-391-1113



THE HUB
AT
8 CROSSINGS

PARKING RATES

TAKE TICKET & PAY BEFORE EXITING

PAY STATION - CASH AND CREDIT CARDS
EXIT GATE - CREDIT CARDS ONLY

0 - 2 HRS.	\$3.00
2 - 4 HRS.	\$6.00
4 - 10 HRS.	\$8.00



PPG PUBLIC PARKING

Home

1301 Smallman St
View larger map

The Andy Warhol Museum
PNC Park
David L. Lawrence Convention Center
Greyhound: Bus Station
CULTURAL DISTRICT
Penny of Tran

Hours of Operation
Monday Through Friday 8AM - 8PM
Sunday 8AM

What We Heard:

- 60% visit a few times a month or year

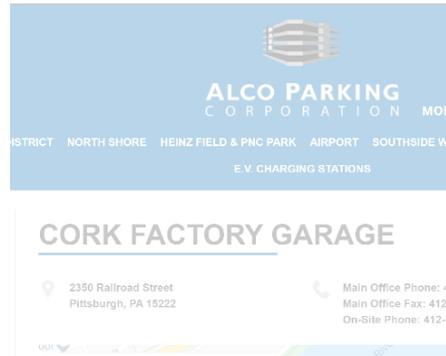
Strategy: Create Strip District Parking Map

Lack of consistent public parking information



Consolidate Public Parking Information

Timeframe:
Short-term
(1-3 years)



Benefits

- One-stop shop for all-things Strip District parking
- One, unified system / information point
- Can include other, non-driving options

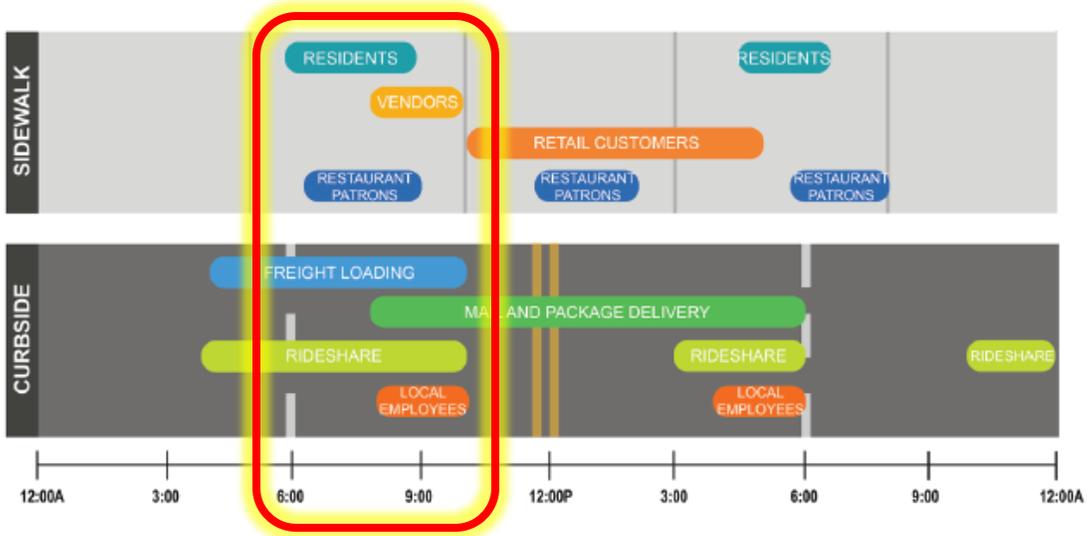


Issue: High Demand for Curb Space

Congestion and Safety Challenges

What We Heard:

- “Feels like a free-for-all”
- “Loading zones are not enforced”



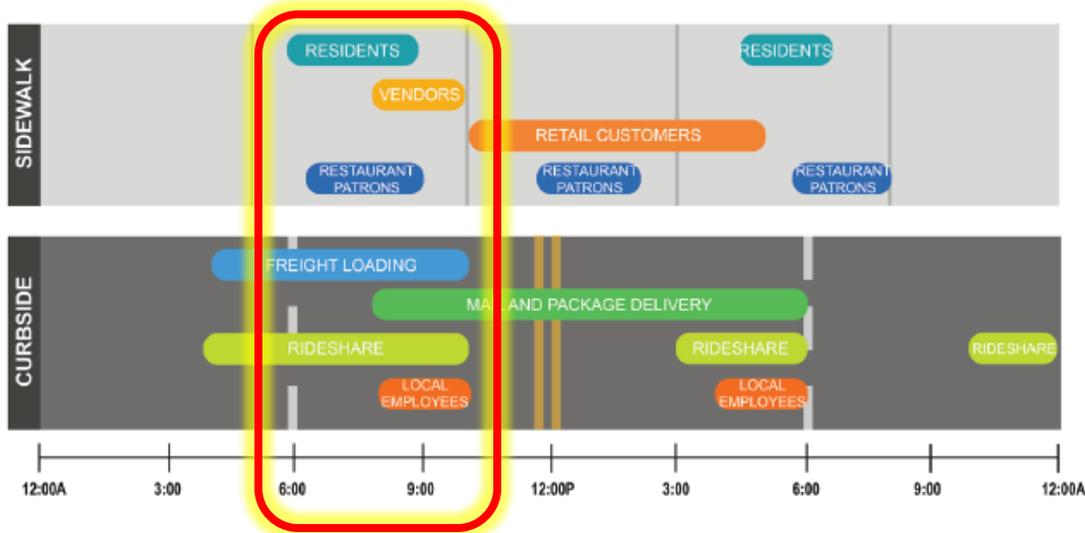
Strategy: Prioritize Curb by Time of Day & Need

Congestion and Safety Challenges



Designate loading areas, limit to off-hours, and enforce

Timeframe:
Mid-term (3-5 years)



Short-term: time restrictions

- Loading on Penn Avenue in the AM
- Move to side streets during peak

Longer-term: valet / pick-up and drop-off

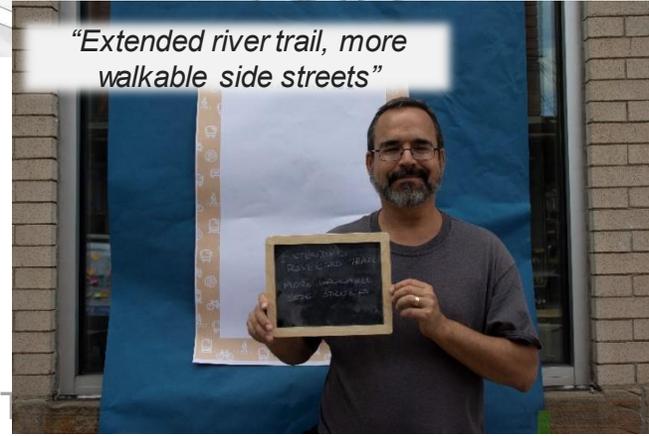
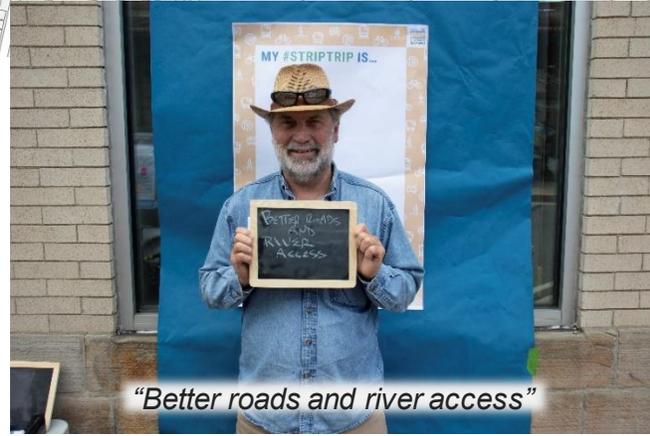
Benefits

- Improve safety
- Reduce curbside congestion
- Prioritize curb for short-term visits

Issue: Many Diverse Voices and Needs

Lack of an overarching organization

*What We Heard:
"Needs an organizing entity"*



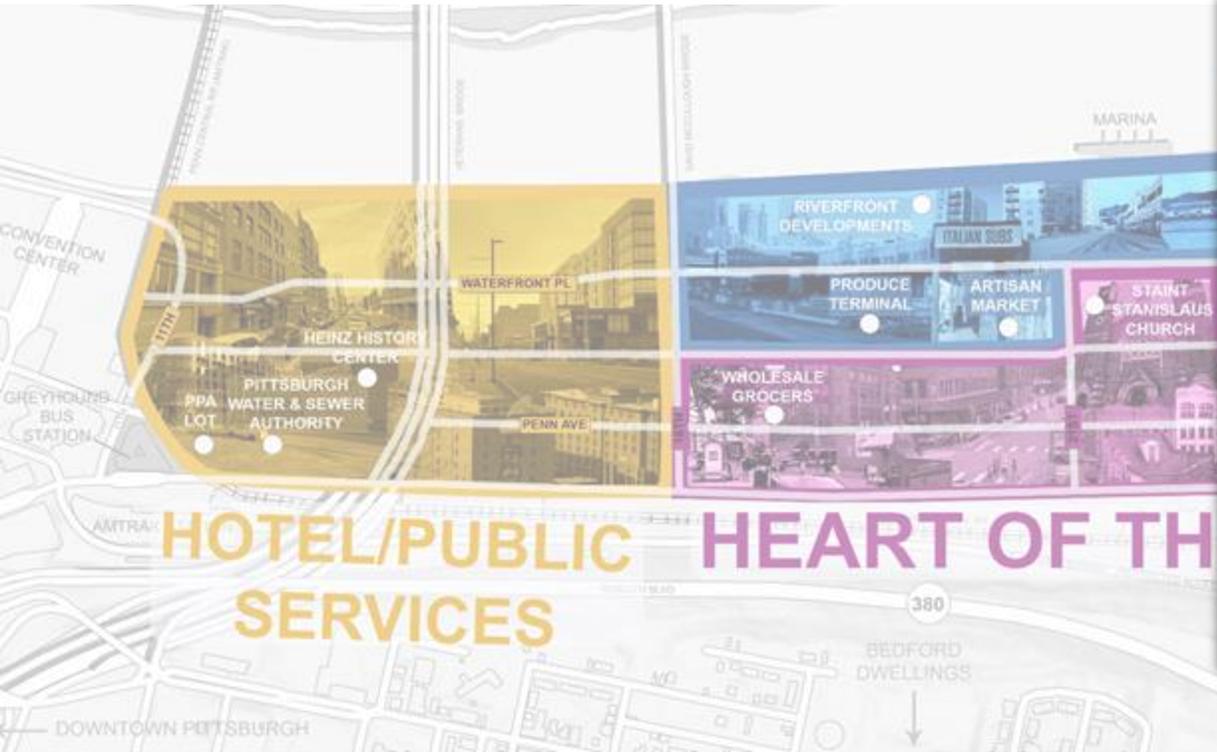
Strategy: Strip District Transportation Management Association

Timeframe:
Mid-term (3-5
years)

Lack of an overarching organization



Establish a new Transportation Management Association



A Better Strip District

- Shared mission
- Serves local transportation needs
- Save commuters time and money
- Reduce parking demand
- Mitigate traffic congestion
- Encourage biking and walking
- Advocacy for investment
- Provide information on construction

Parking

NAME/PHONE #
10th and Penn Lot (412) 325-6144
11 Stanwix Street Garage (412) 394-3617
15th & Smallman Lot (412) 325-6144
312 Ross St. Lot
350 Oliver Parking Garage (412) 281-1381
Allison Garage



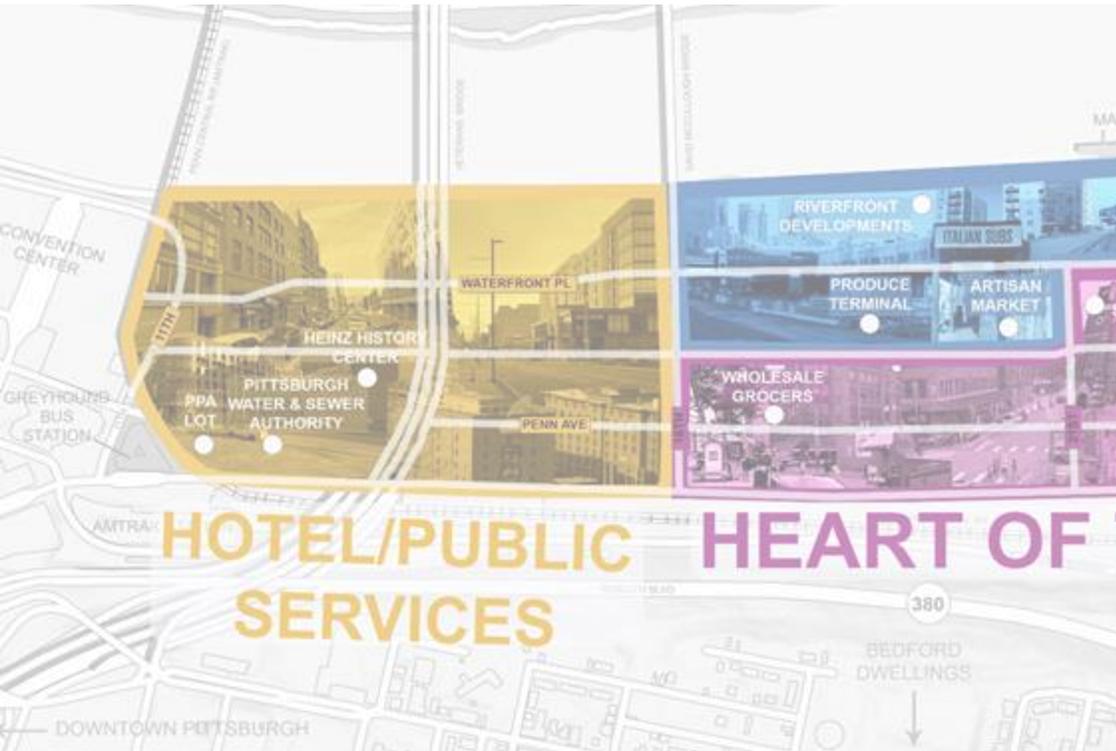
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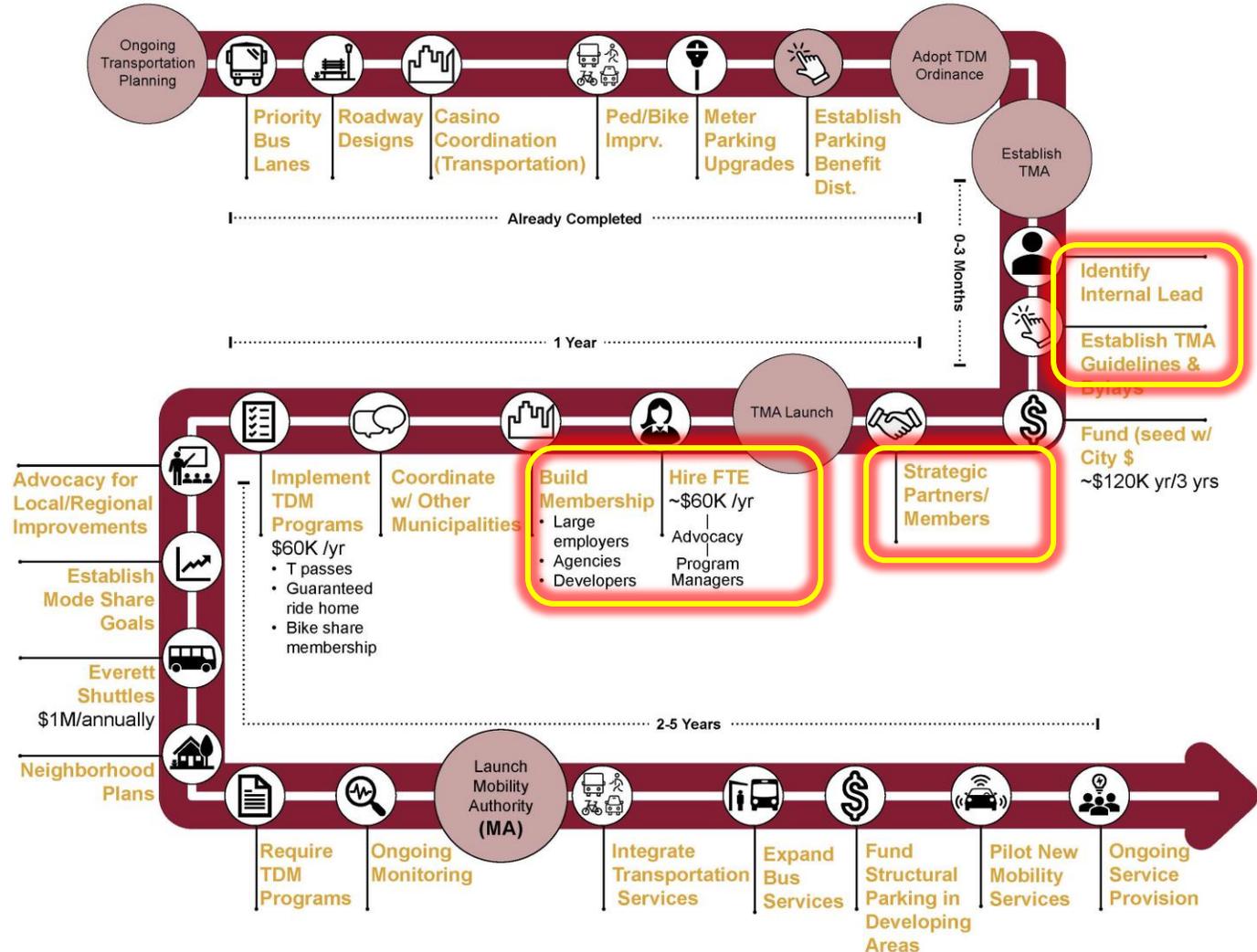
Lack of an overarching organization



Establish a new Transportation Management Association



Sample: Everett, MA TMA Launch Strategy



FINDINGS & DRAFT STRATEGIES

Circulation



Process

Data Collection



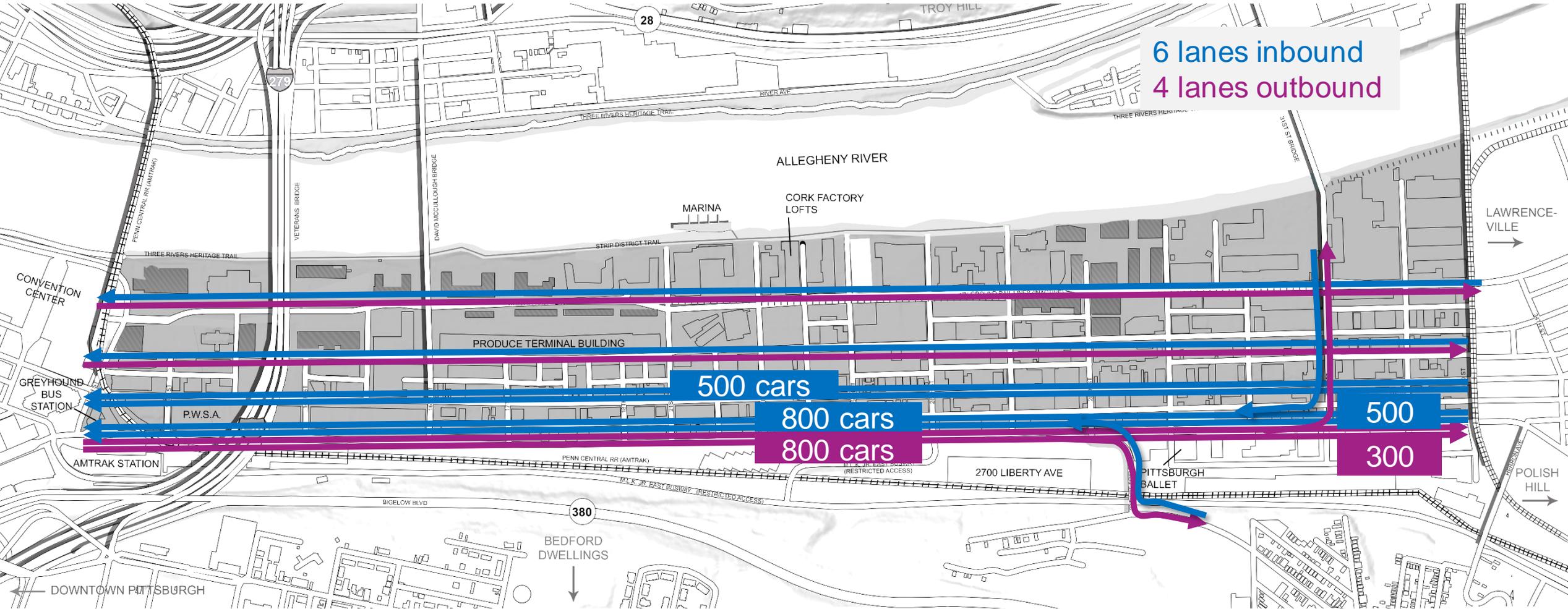
- Traffic counts: Summer 2019
 - Truck
 - Bus
 - Pedestrian
 - Bicycle
 - Car
- Traffic Modeling (Synchro)
- Drone photos
- Mapping / Analysis
- Census
- Make My Trip Count / Intercept Survey
- Permitting Information
- Crash Data
- Streetlight (cell phone data)



Source: Miovision

Circulation – AM Peak (8 AM – 9 AM)

Through traffic uses Penn and Liberty avenues, majority headed Downtown



DEVELOPMENTS PROPOSED / UNDER CONSTRUCTION

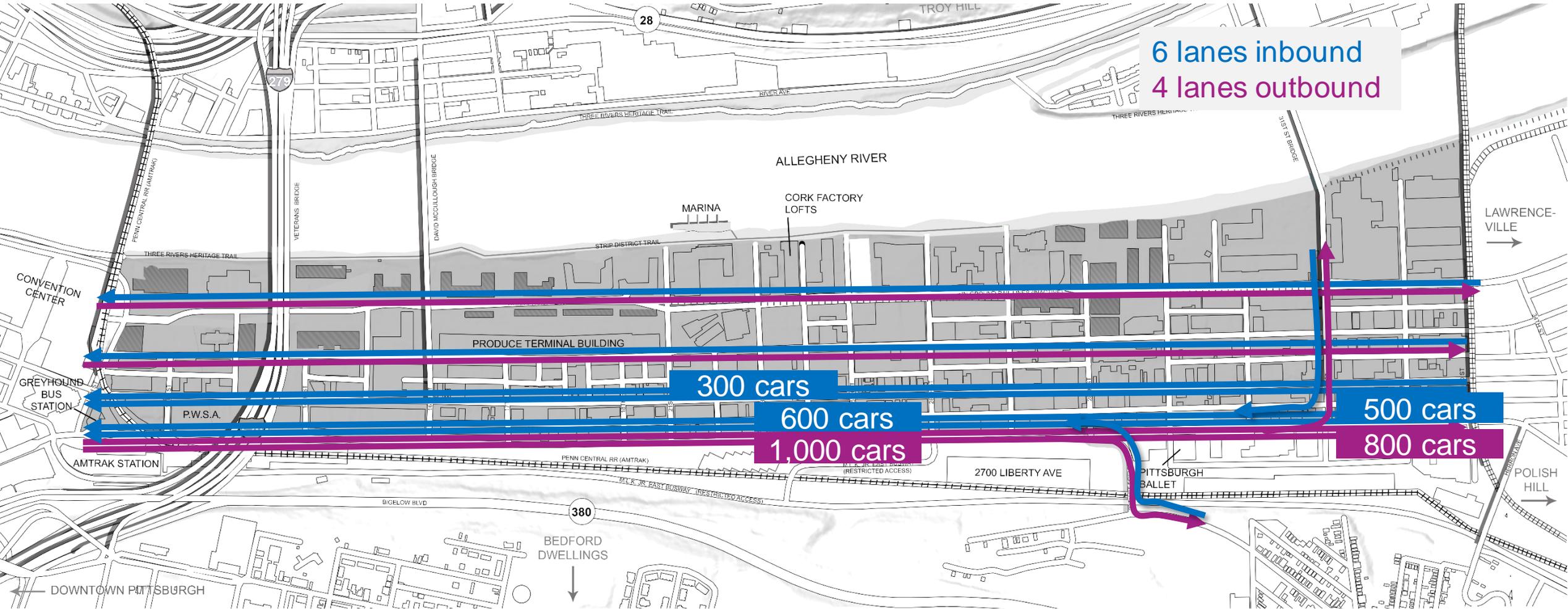


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Circulation – PM Peak (5 PM – 6 PM)

Through traffic uses Penn and Liberty avenues, balanced demand E-W bound



DEVELOPMENTS PROPOSED / UNDER CONSTRUCTION

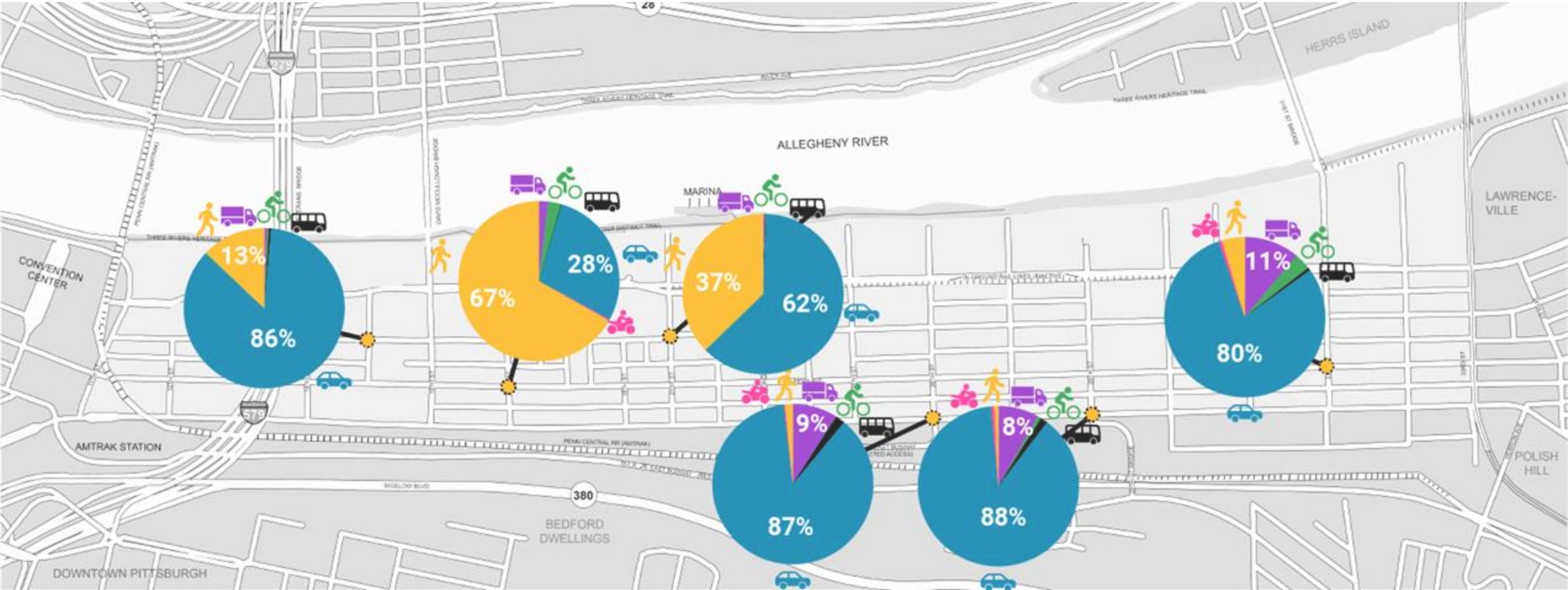


DRAFT



Circulation – by mode

Mode Share by Intersection (Weekend)



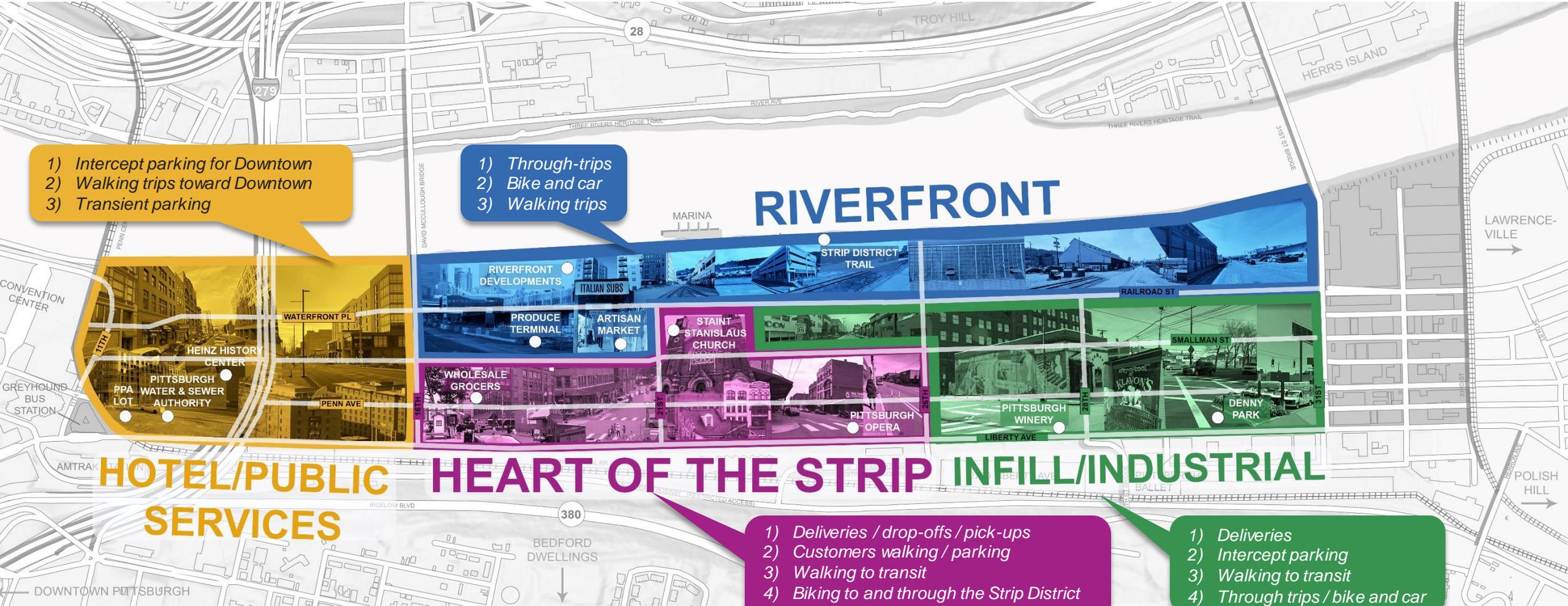
Severe Crashes (severe injury or death)

Many vehicular crashes occur at the 16th Street Bridge and in the eastern half of the Strip District (2013-2017)



Circulation

Character Areas and Modal Priorities



- 1) Intercept parking for Downtown
- 2) Walking trips toward Downtown
- 3) Transient parking

- 1) Through-trips
- 2) Bike and car
- 3) Walking trips

RIVERFRONT

HOTEL/PUBLIC SERVICES

HEART OF THE STRIP

INFILL/INDUSTRIAL

- 1) Deliveries / drop-offs / pick-ups
- 2) Customers walking / parking
- 3) Walking to transit
- 4) Biking to and through the Strip District
- 5) Through traffic

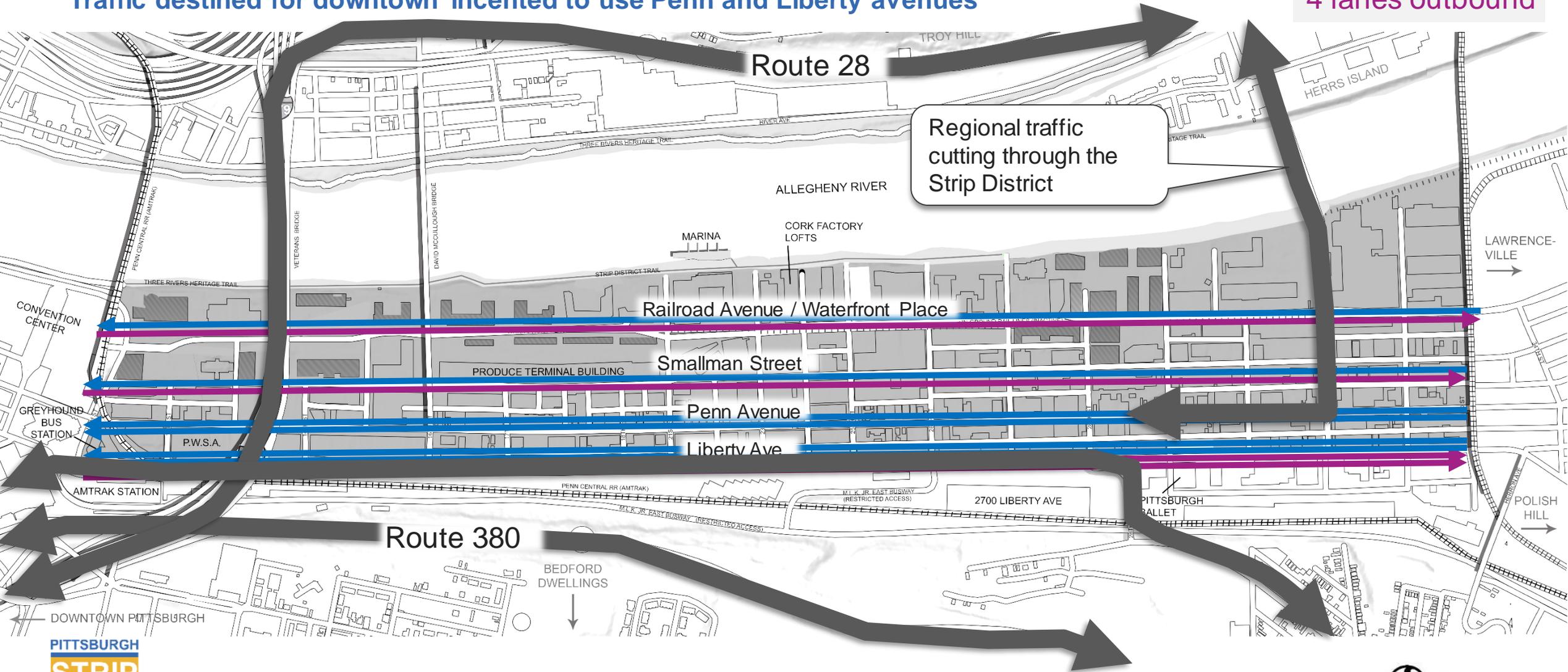
- 1) Deliveries
- 2) Intercept parking
- 3) Walking to transit
- 4) Through trips / bike and car



Issue: Network encourages cut through traffic

Traffic destined for downtown incented to use Penn and Liberty avenues

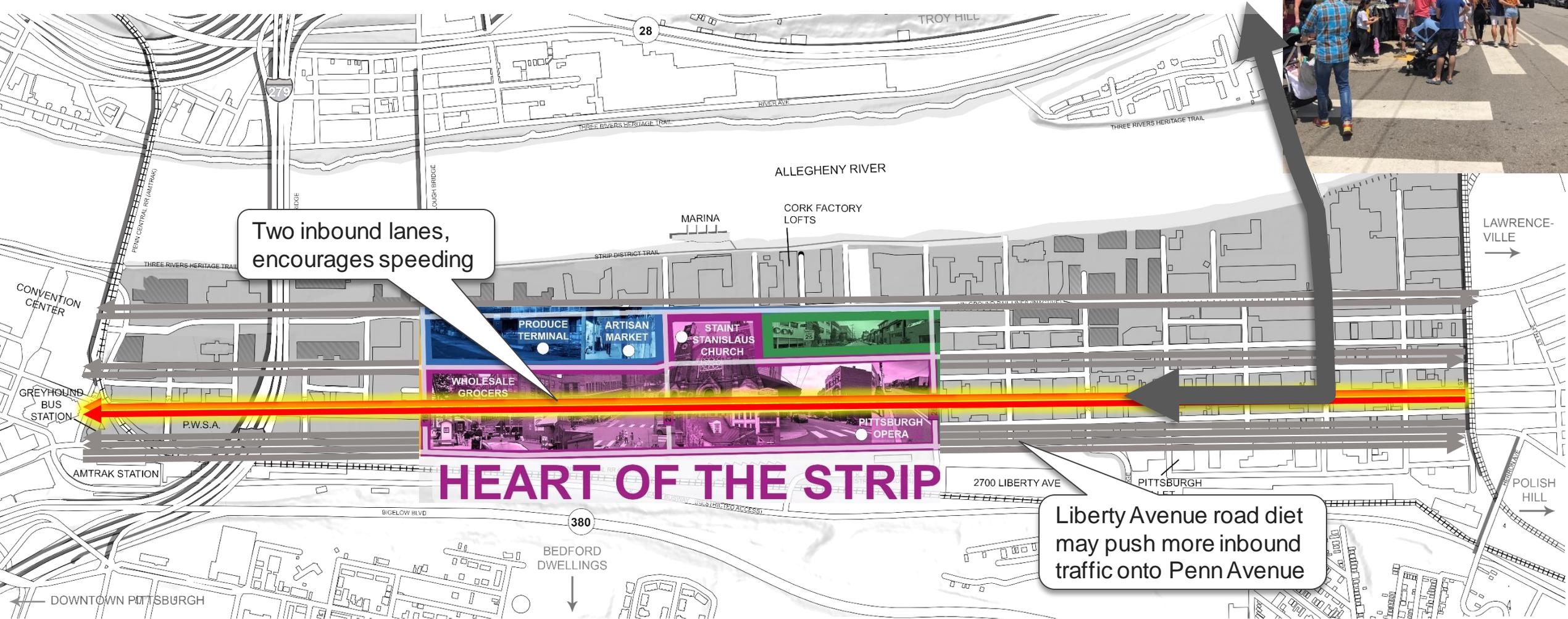
6 lanes inbound
4 lanes outbound



DRAFT

Issue: Network encourages cut through traffic

Network sends through traffic through areas of the Strip District with highest numbers of people walking



DRAFT



Strategy: Use Design for Customer-Friendly Environment

Improved Crossings, Consider Shared Street (very long-term)

Timeframe:
Long-term
(5+ years)

Sample Interventions:

- Make painted curb extensions permanent and raised
- Stripe parking lane to create narrower travel lanes
- Consider raised and / or alternatively paved pedestrian crossings in high-volume areas
- Use high-visibility crosswalks / painted crosswalks to reflect district character and increase visibility for people crossing the street
- Improved wayfinding for people on foot
- Install countdown timers at signals



Textured crossing (and pedestrian countdown timer) at Penn Avenue and 7th Street



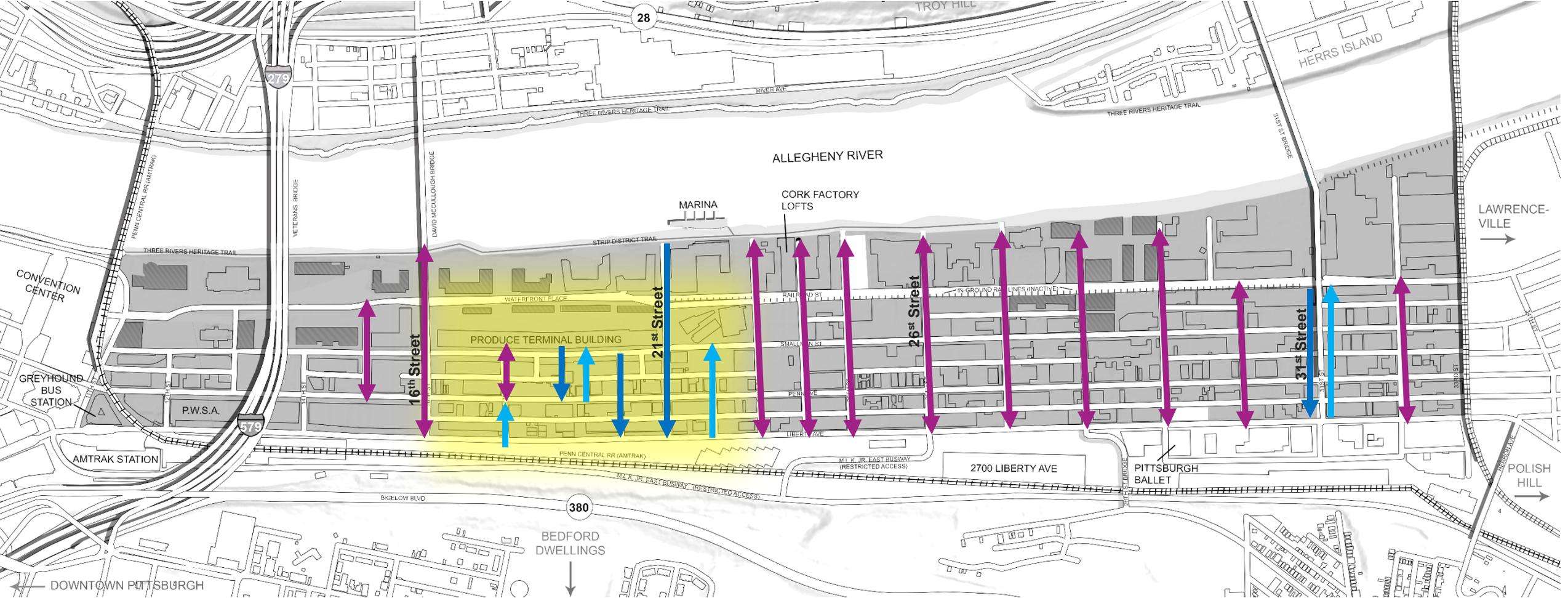
Curb extension at Third Avenue and Wood Street downtown



Example Shared Street

Issue: One-way system is inconsistent and confusing

The network is most confusing in the part of the Strip District where visitors want to go

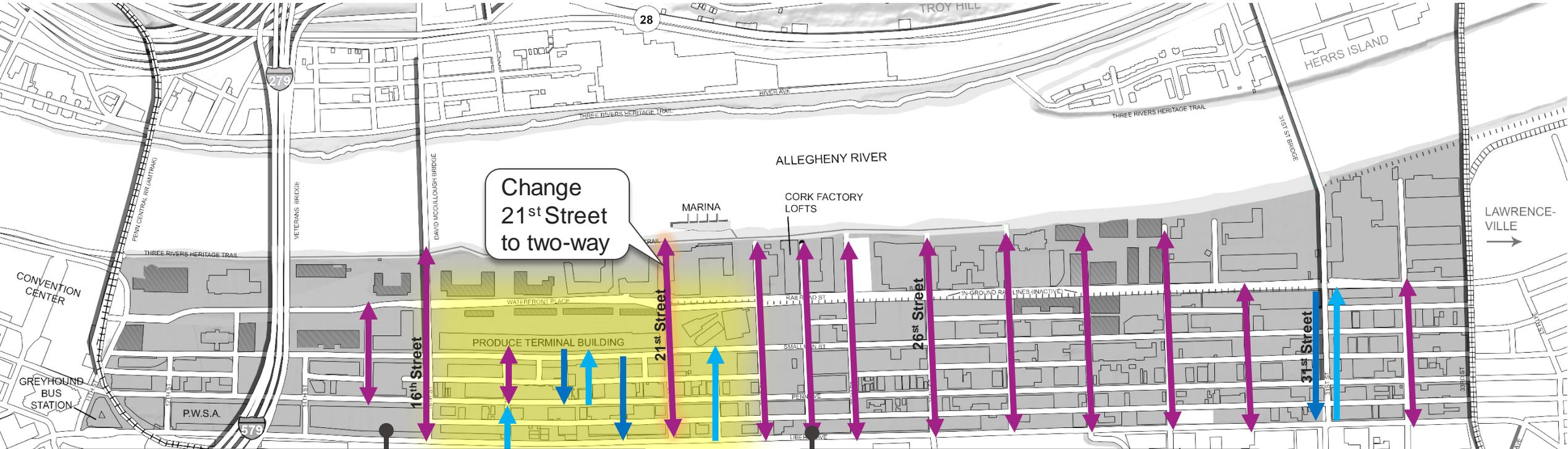


Strategy: Improve Wayfinding and Consider Rerouting

Clearly Mark Routes to Destinations. 21st Street → Main Route to Strip District

Change 21st Street to two-ways to rationalize system and include loading and parking

Timeframe:
Short-term
(1-3 years)

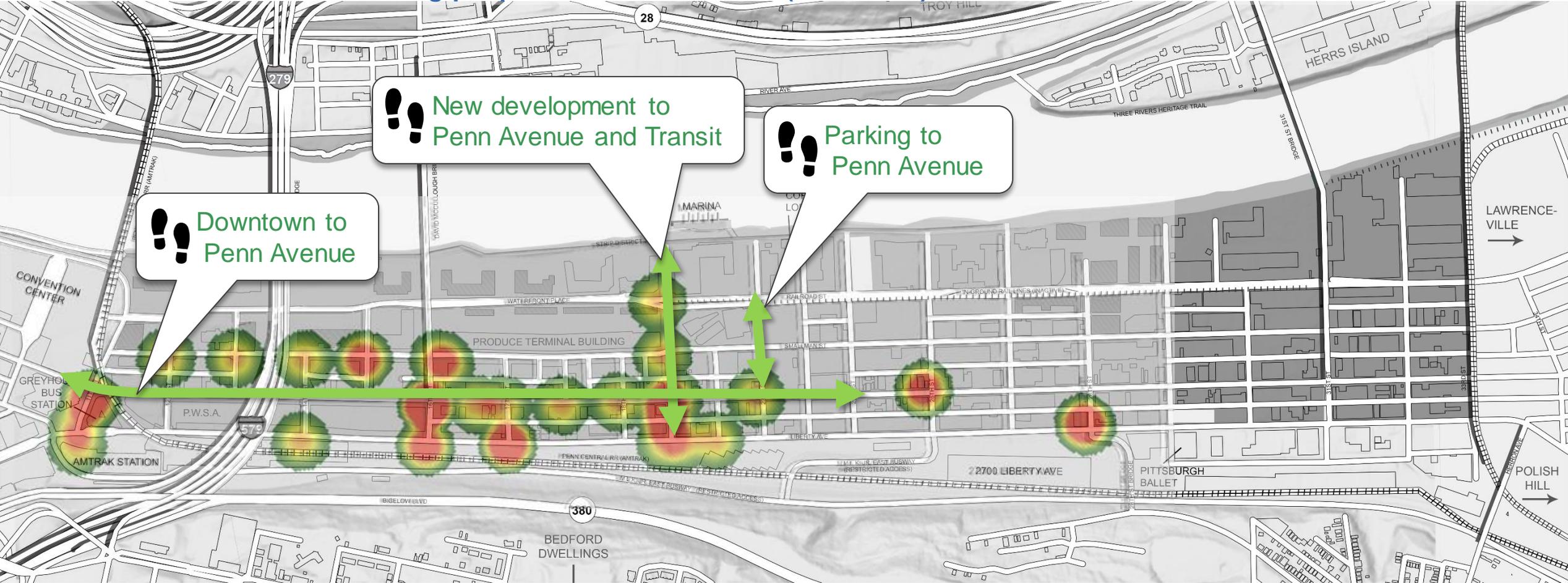


Change 21st Street to two-way



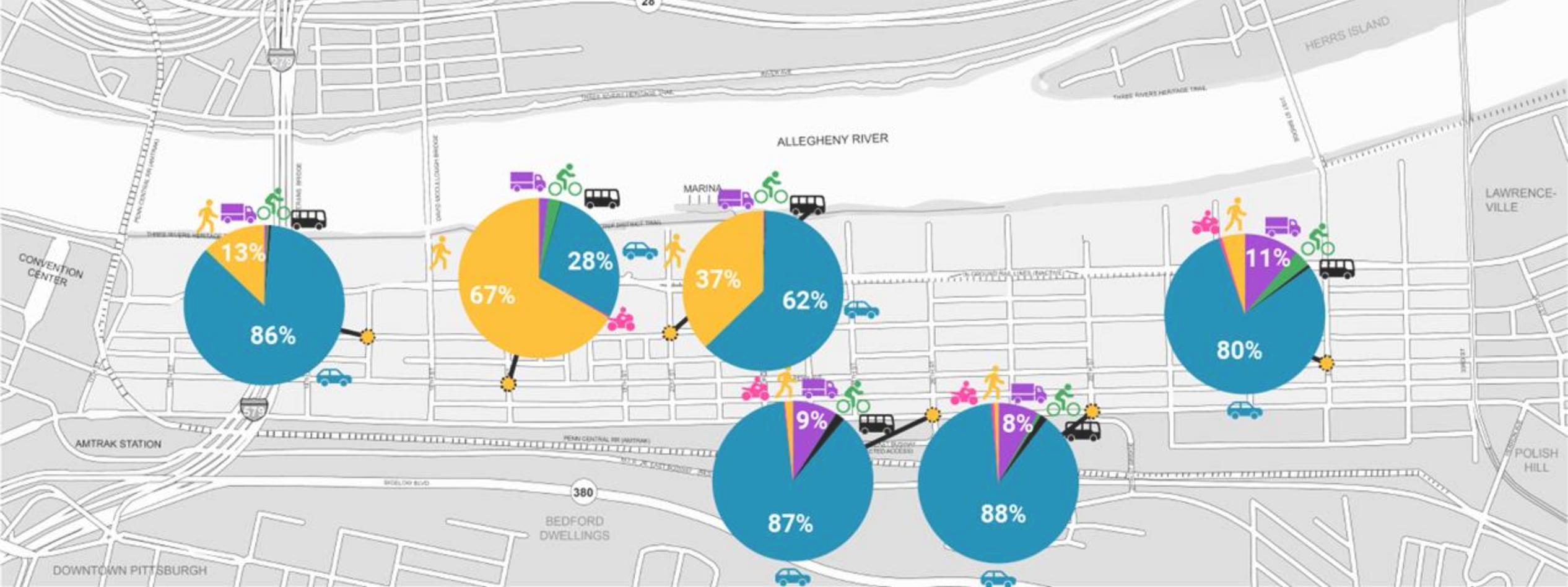
Issue: Street Design Does Not Reflect Pedestrian Routes

Key Corridors for Pedestrians Prioritize Vehicles
25 “severe” crashes involving people on foot in the Core (2013-2017)



Issue: Street Design Does Not Reflect Demand

Mode Share by Intersection (Weekend)

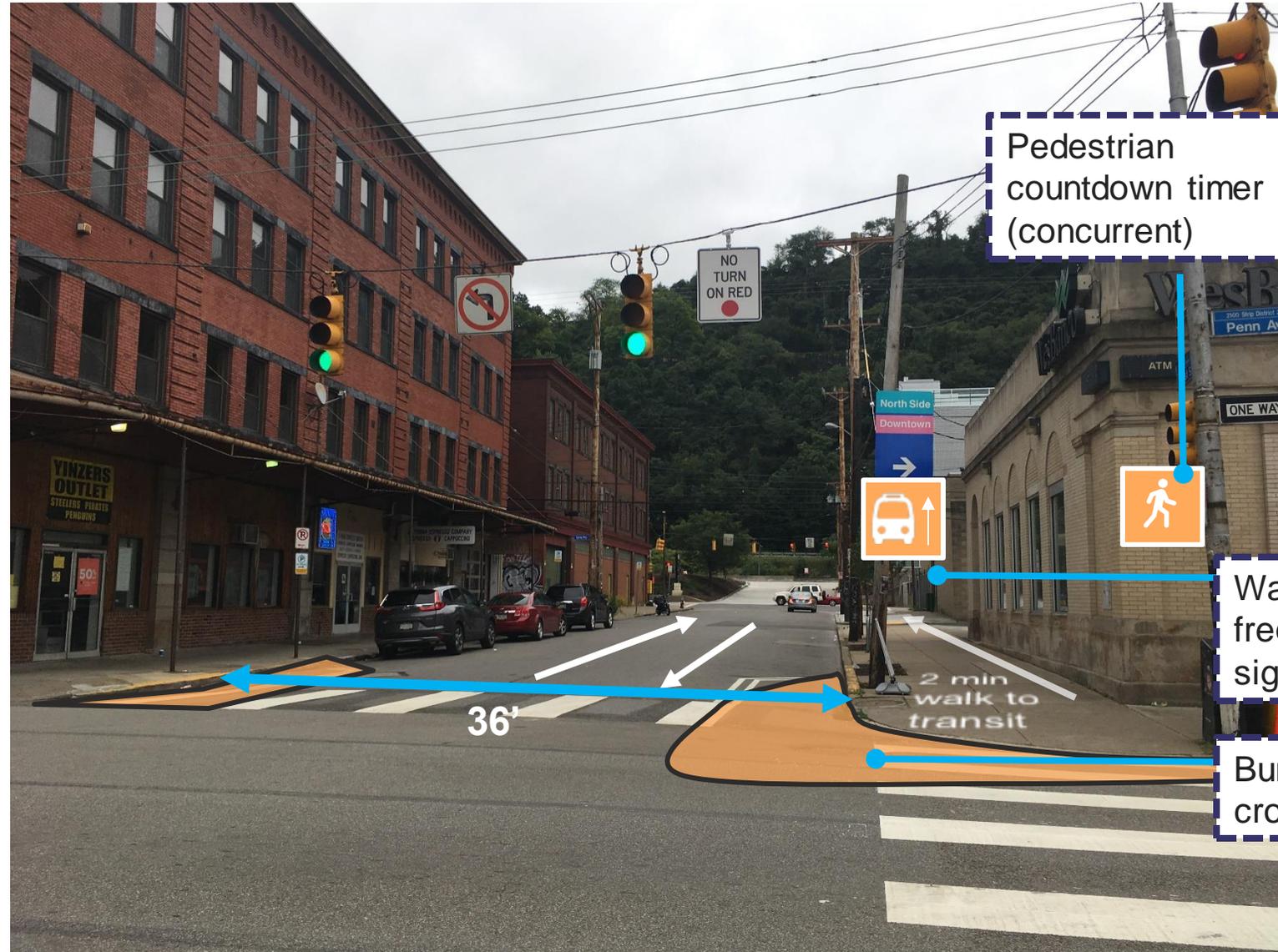


Strategy: Pedestrian Improvements

21st Street Example

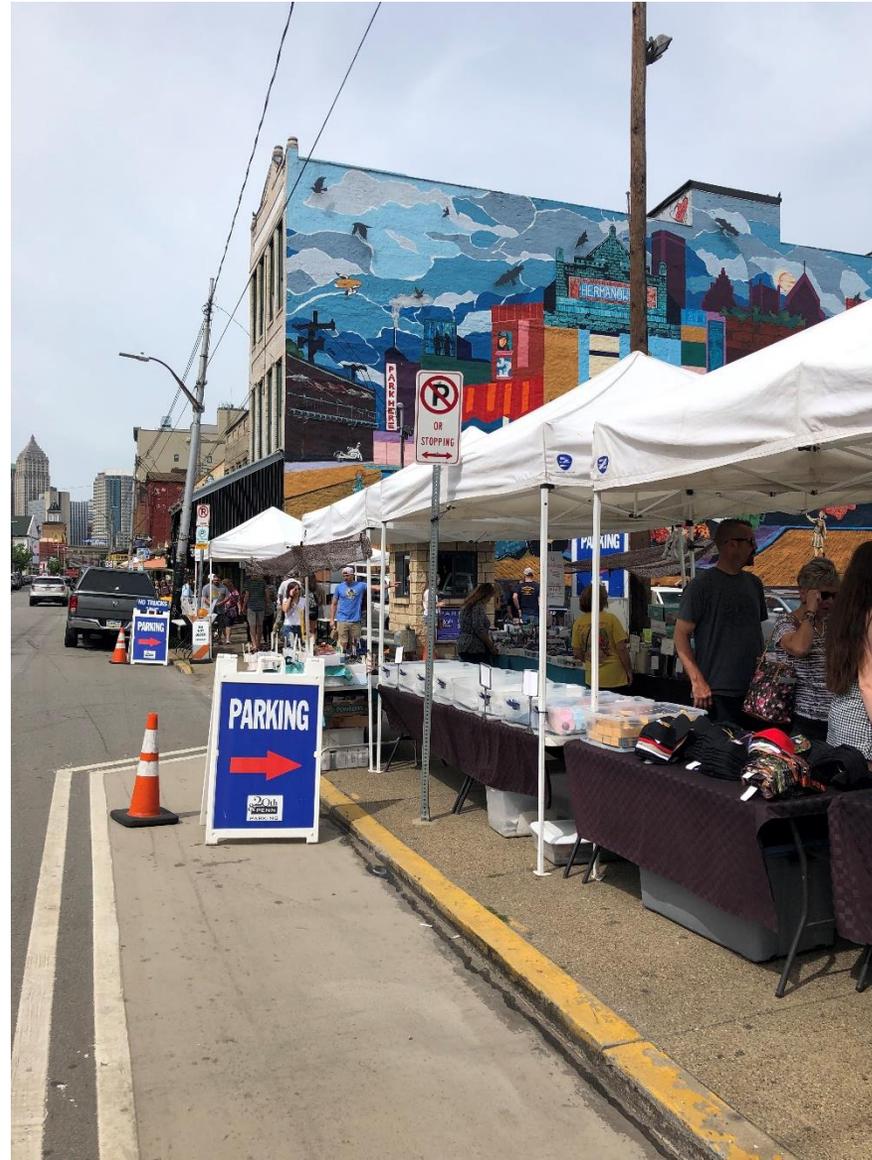
Timeframe:
Short-term
(1-3 years)

- Consider two-way conversion to calm traffic
- Retain parking on both sides
- Introduce time restricted loading zones
- Use as key driving link to the Strip from Liberty Avenue



Issue: Poor Walk Safety and Congested Sidewalks

Customers forced to walk in the street, curb space is limited



What We Heard:
“Vendors block sidewalks – hard to navigate with strollers or wheelchairs”

Strategy: Pilot Penn Avenue Weekend Vehicular Restrictions

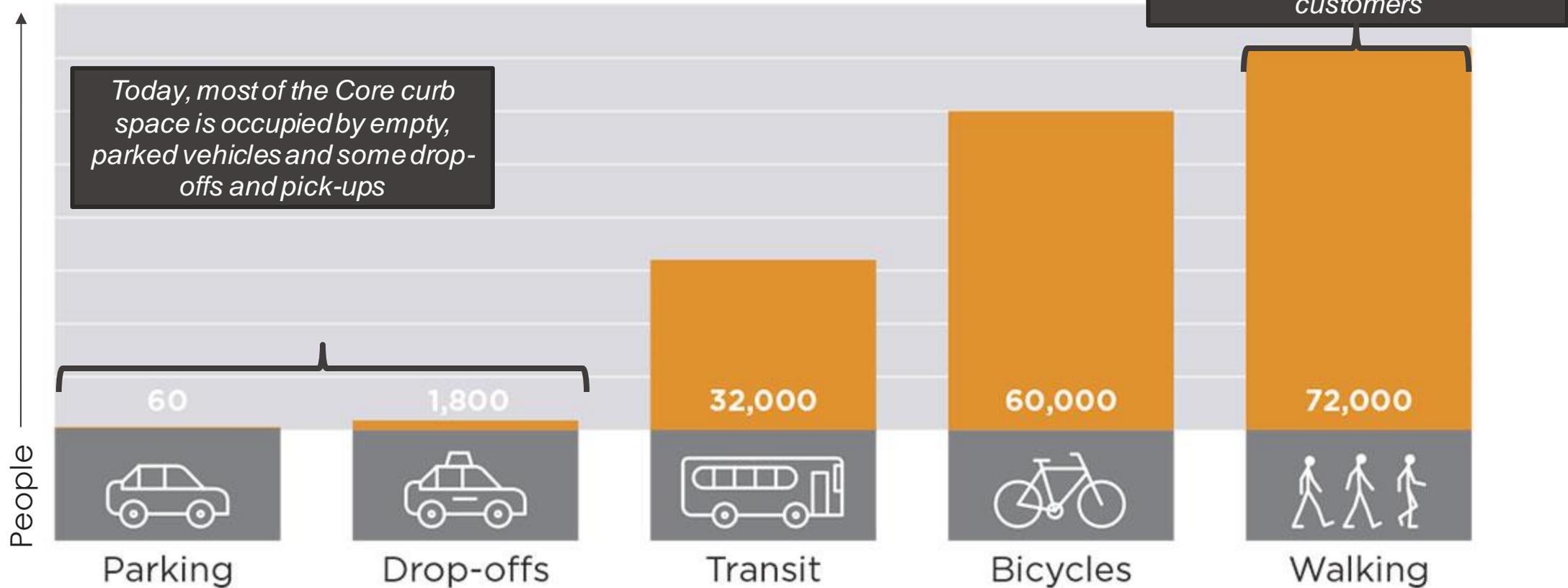
Timeframe:
Short-term
(1-3 years)

Customers forced to walk in the street



Experiment with closing on Saturdays
in Summer

Sample: 1,200 ft of curb can serve



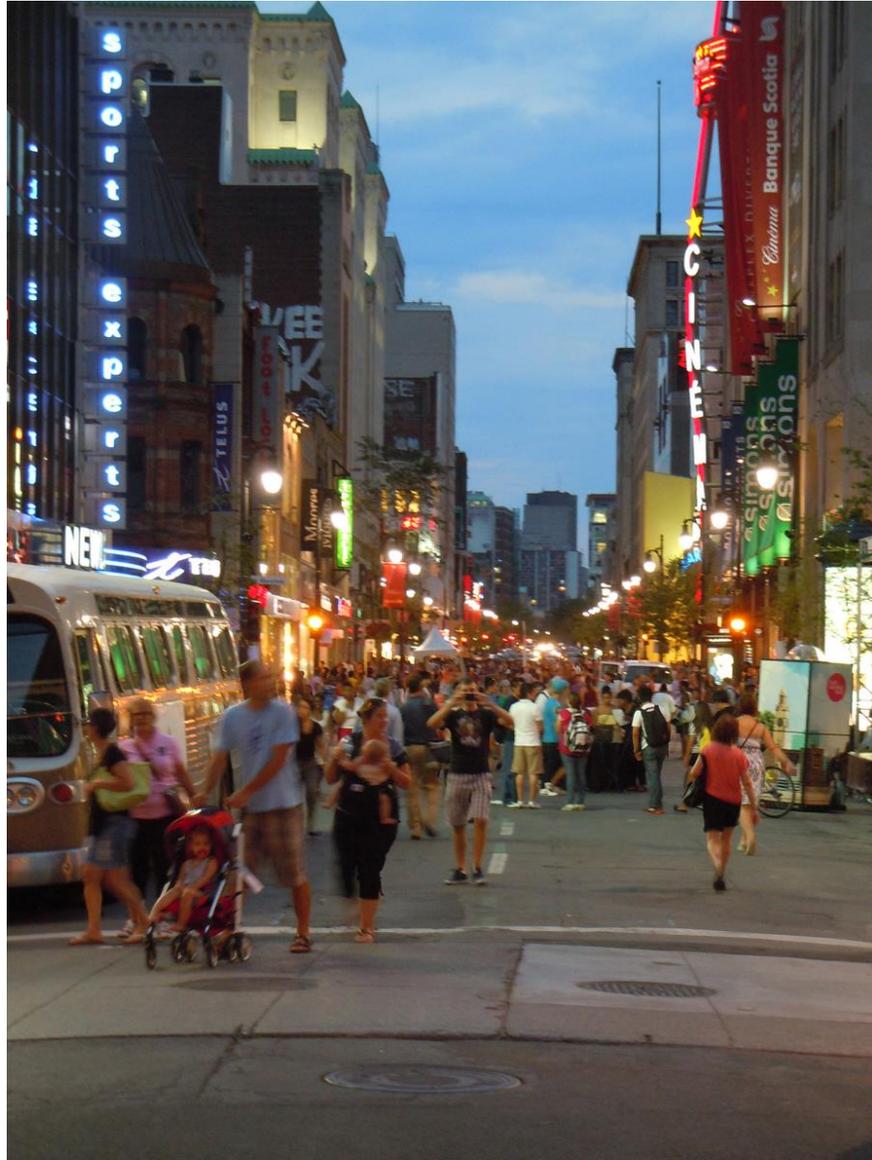
Strategy: Pilot Penn Avenue Weekend Vehicular Restrictions

Timeframe:
Short-term
(1-3 years)

Customers forced to walk in the street



Experiment with closing on Saturdays
in Summer



Strategy: Pilot Penn Avenue Weekend Vehicular Restrictions

Customers forced to walk in the street



Mid-term: Consider rollaway curb

Timeframe:
Mid-term (3-5
years)



Issue: Cyclists Are Here, Where Do They Go?

What is the best route through the neighborhood?



*What We Heard:
"Feels like a free-for-all"*

Strategy: Direct to Smallman Street at 15th Street, Complete Path

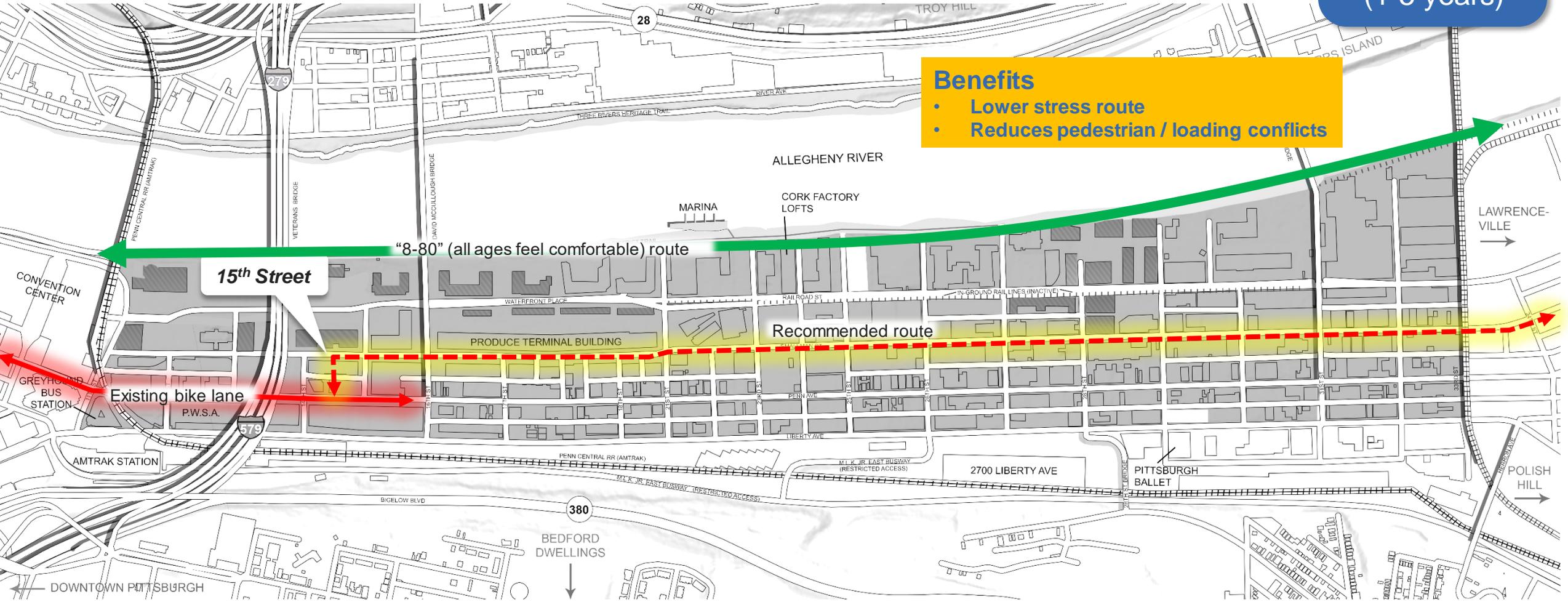
What is the best route through the neighborhood?



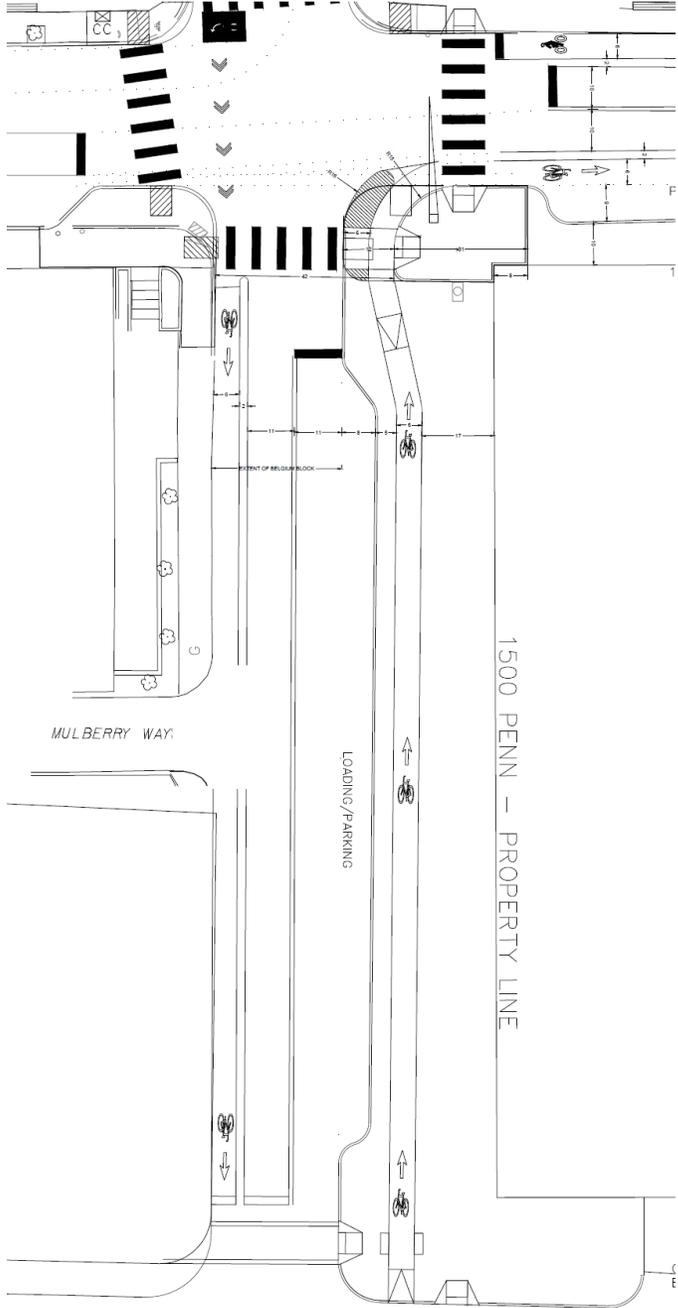
Smallman Street Bike Lane

Timeframe:
Short- and mid-term
(1-5 years)

- Benefits**
- Lower stress route
 - Reduces pedestrian / loading conflicts



15th Street Bicycle Transition Example



Smallman Street

Penn Avenue

DRAFT



schematic drawing / DRAFT for reference only

Issue: Transit Amenities Behind Service

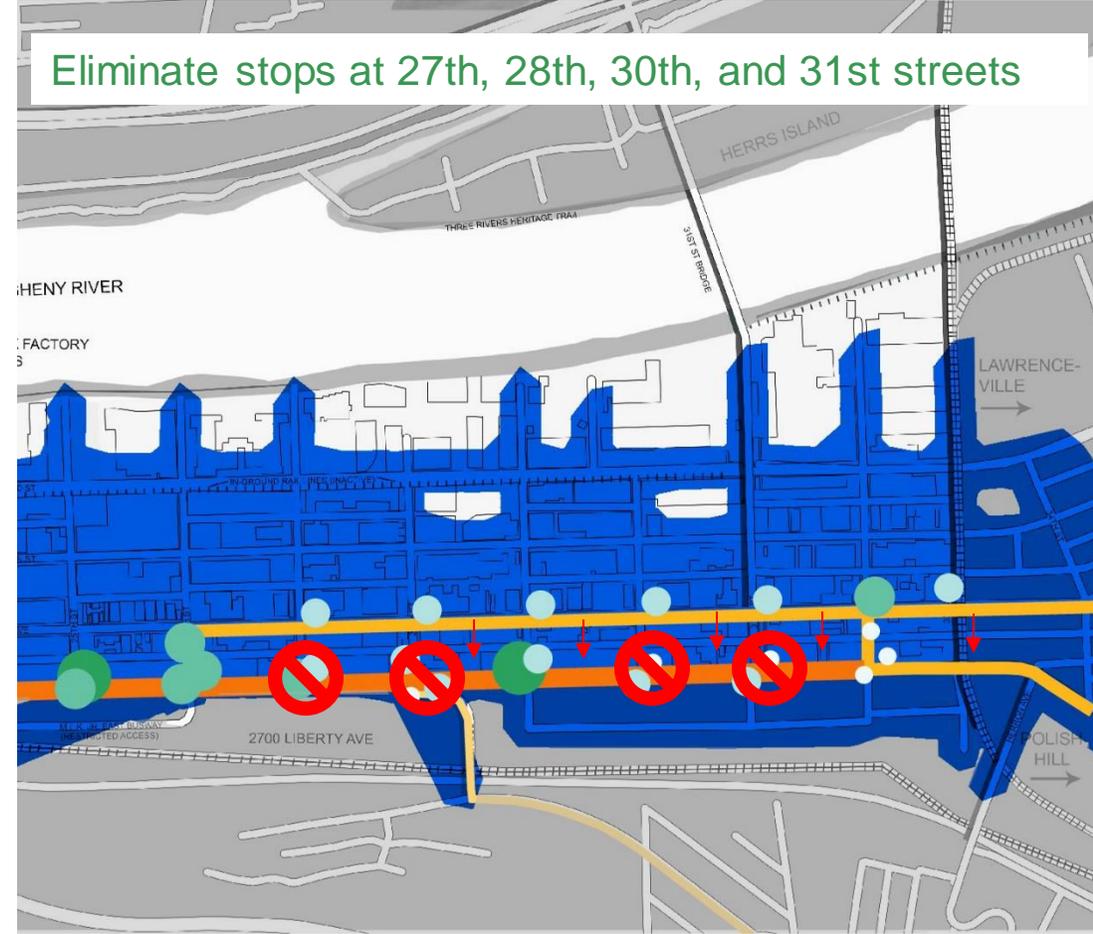
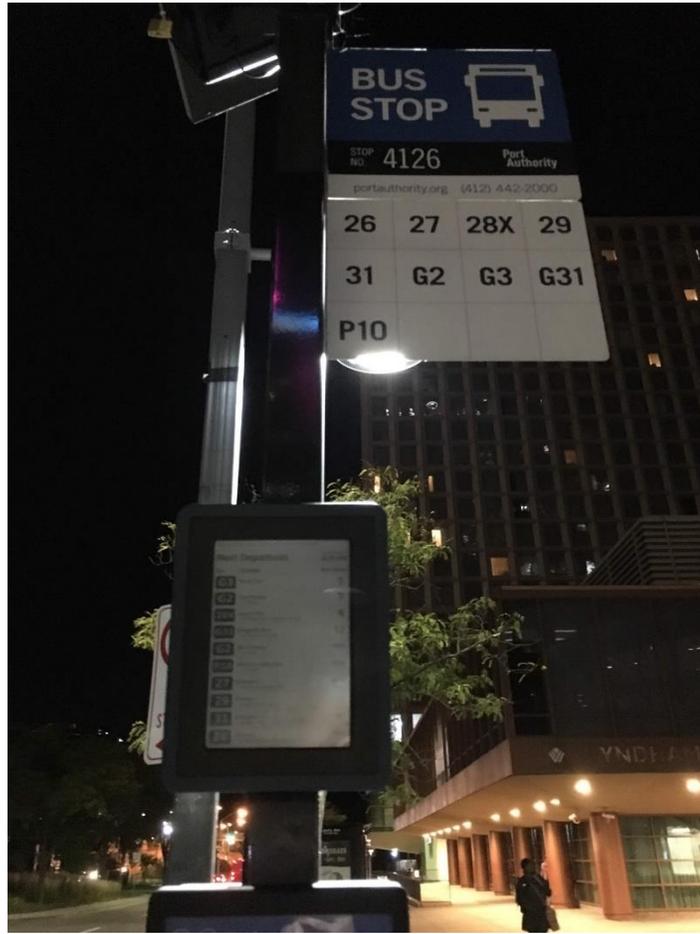
The Strip District is well served by transit but amenities such as shelters and lighting are lacking



Strategy: Create Strip District Stops and Consolidate Service

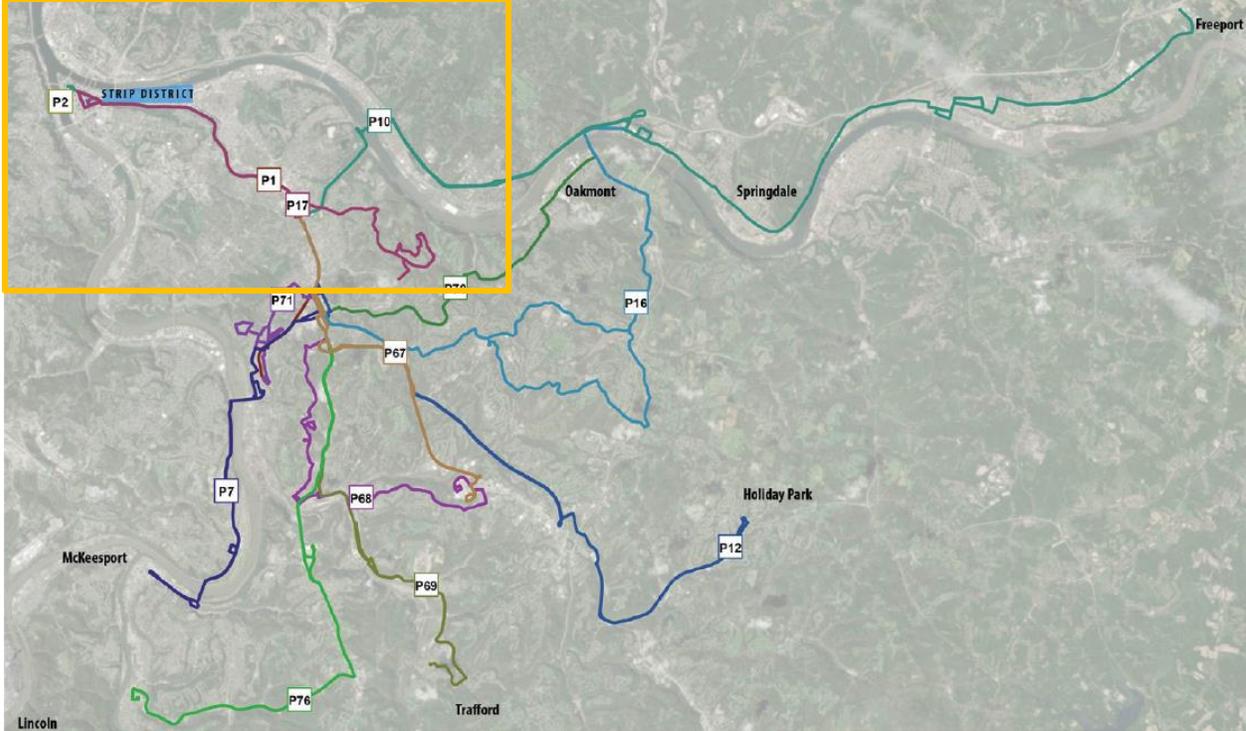
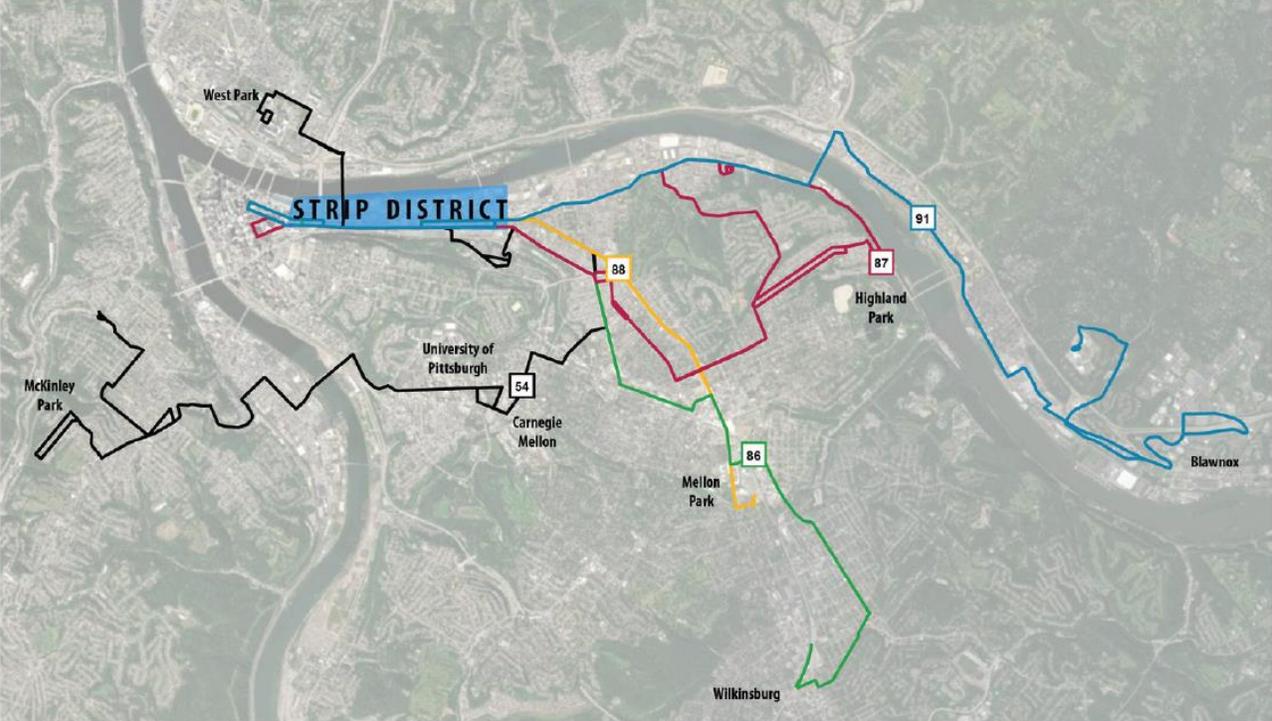
Real-time arrival information, fare information, level boarding, shelters, and benches

Timeframe:
Short-term
(1-3 years)



Issue: Regional Transit Service Is Limited

Routes that serve the Strip District have a limited reach and run in mixed traffic → therefore subject to congestion



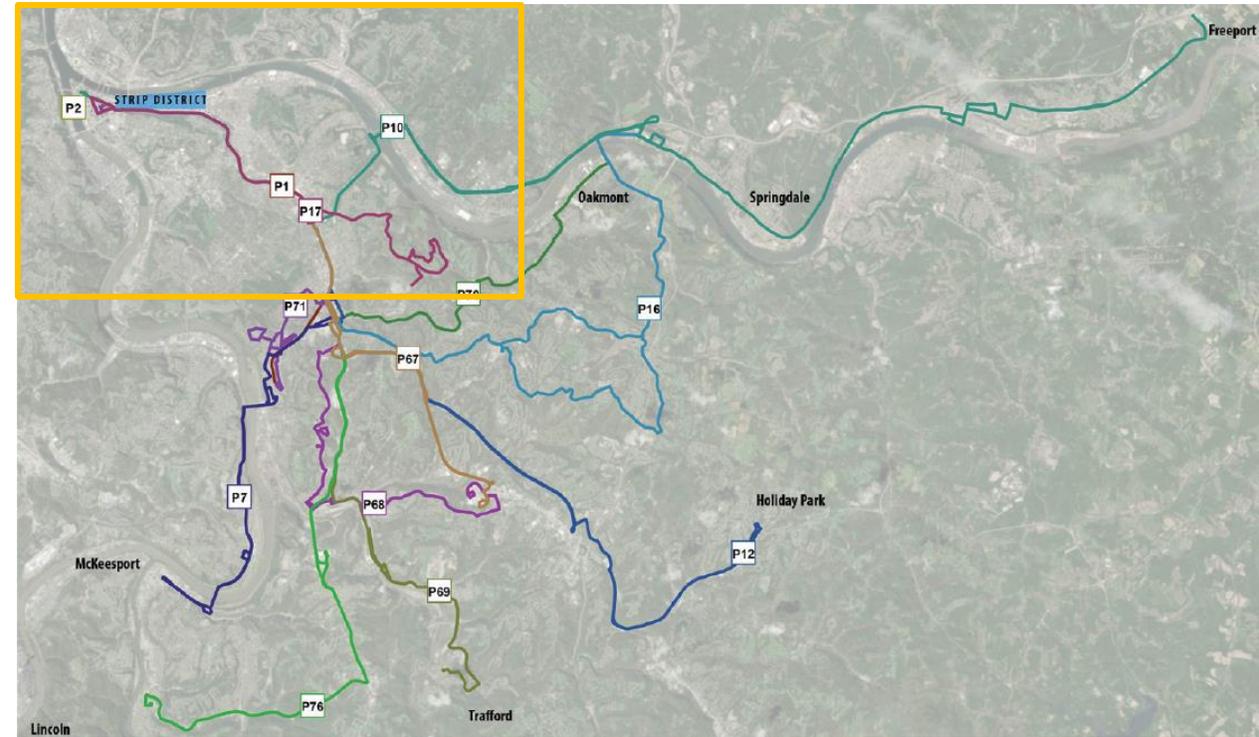
Strategy: Create Stop at 26th Street on the East Busway

Provide central access to “rail-like” service, expand regional access

Timeframe:
Long-term
(5+ years)



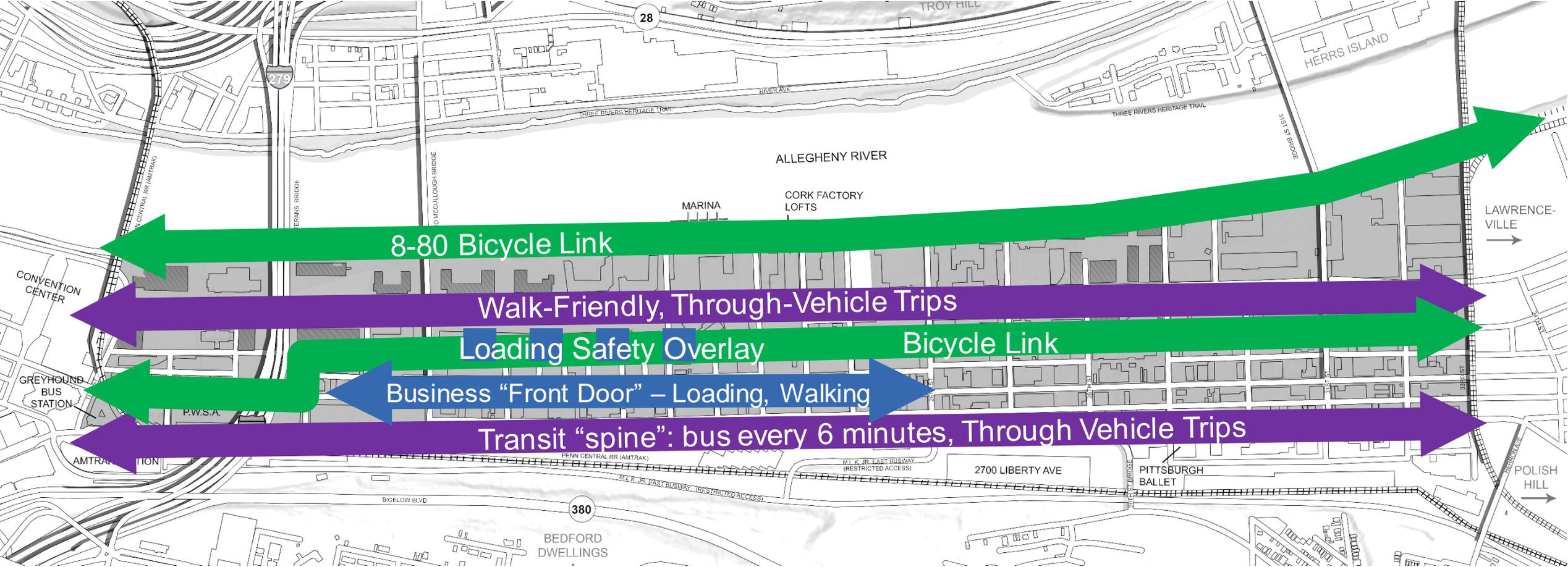
Potential new connections to the East Busway



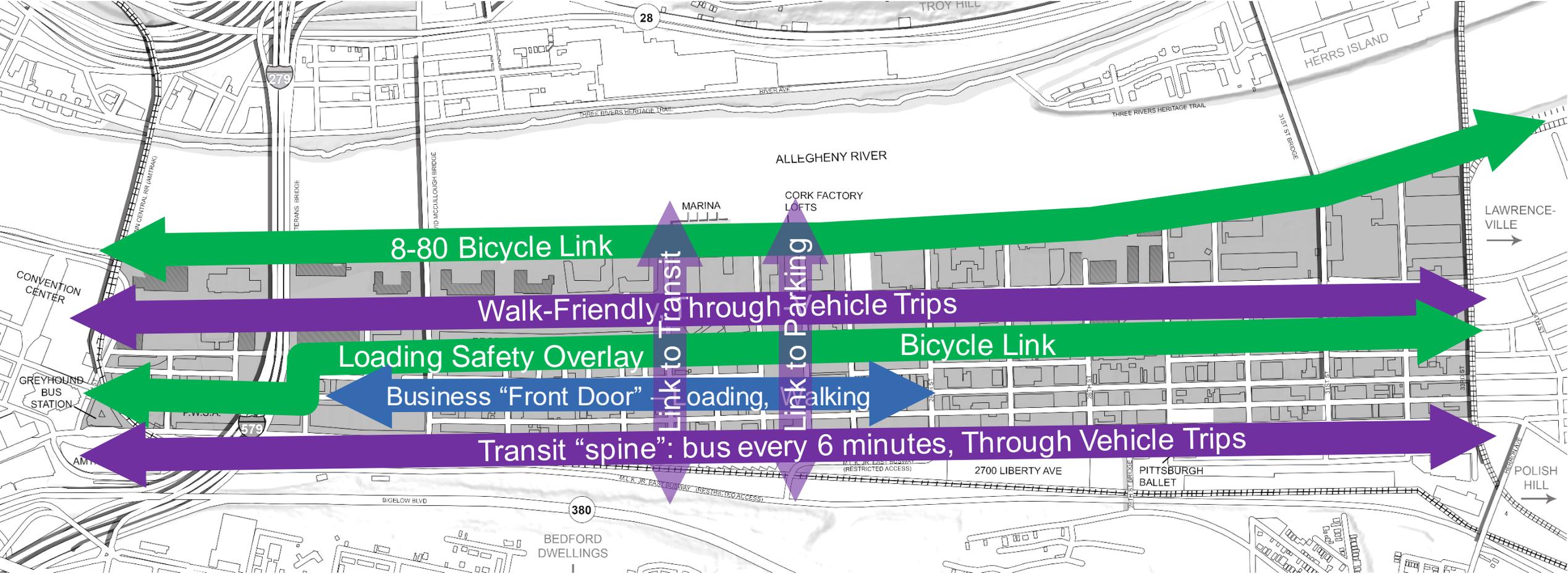
Routes that run on the East Busway: ~11,000 daily riders (2016)



Proposed Network Overview



Proposed Network Overview



SUMMARY



Draft Strategies Summary

Parking

Issue	Strategy	Benefits	Phasing
Shortage of Core Parking	<ul style="list-style-type: none"> Re-balance pricing 	<ul style="list-style-type: none"> Improve customer access Incent employees to park off-street 	<ul style="list-style-type: none"> Mid-term (3-5 years)
Areas of Congestion / Nearby Availability	<ul style="list-style-type: none"> Create New Shared Parking District Review City's commercial tax laws Pilot shuttle 	<ul style="list-style-type: none"> Relieve congestion Add to public supply 	<ul style="list-style-type: none"> Short-term (1-3 years)
Lack of Hourly Parking Options	<ul style="list-style-type: none"> Add hourly parking Eliminate minimums 	<ul style="list-style-type: none"> Greater flexibility More consistency for visitors 	<ul style="list-style-type: none"> Mid-term (3-5 years)
Customers Don't Know Where to Park	<ul style="list-style-type: none"> Create Strip District Parking Map 	<ul style="list-style-type: none"> One-stop shop for all things parking-related 	<ul style="list-style-type: none"> Short-term (1-3 years)
High Demand for Curb Space	<ul style="list-style-type: none"> Designate Loading Areas Restrict by Time of Day Prioritize Customer Drop-off / valet 	<ul style="list-style-type: none"> Free up the curb for customers Improve safety 	<ul style="list-style-type: none"> Mid-term (3-5 years)

Draft Strategies Summary

Organizational Needs

Issue	Strategy	Benefits	Phasing
<p>Many diverse voices and needs</p>	<ul style="list-style-type: none">• Establish a Strip District TMA<ul style="list-style-type: none">❖ <i>Identify founding members</i>❖ <i>Establish “formation committee”</i>❖ <i>Define primary service area</i>❖ <i>Identify services and funding structure</i>	<ul style="list-style-type: none">• Address local transportation and parking challenges• Coordinate construction needs / provide information	<ul style="list-style-type: none">• Mid-term (3-5 years, starts with point person)

Draft Strategies Summary

Circulation

Issue	Strategy	Benefits	Phasing
One-way system inconsistent and confusing	<ul style="list-style-type: none">• Improve wayfinding and consider rationalizing	<ul style="list-style-type: none">• Easier for visitors• Opportunity to direct to parking	<ul style="list-style-type: none">• Short-term (1-3 years)
Street design does not reflect key pedestrian routes	<ul style="list-style-type: none">• Pilot walk infrastructure improvements	<ul style="list-style-type: none">• Safety• Support walking between destinations	<ul style="list-style-type: none">• Short-term (1-3 years)
Weekend customers forced to walk in the street	<ul style="list-style-type: none">• Pilot Penn Avenue weekend vehicular restrictions	<ul style="list-style-type: none">• Improved walk safety• More room for stalls and people	<ul style="list-style-type: none">• Short-term (1-3 years)

Draft Strategies Summary

Circulation

Issue	Strategy	Benefits	Phasing
Where should bicyclists travel?	<ul style="list-style-type: none">• Add bike lane to Smallman Street• Complete Riverfront path	<ul style="list-style-type: none">• Avoids conflicts with Core of Strip• Proximity to Core destinations	<ul style="list-style-type: none">• Short-term / Mid-term (1-5 years)
Transit amenities behind service	<ul style="list-style-type: none">• Create Strip District stops, consolidate service	<ul style="list-style-type: none">• Improves bus access to the Strip• Raise visibility of transit as an alternative	<ul style="list-style-type: none">• Short-term (1-3 years)
Lack of access to premium transit service in busway	<ul style="list-style-type: none">• Add access to East Busway	<ul style="list-style-type: none">• Extend reach of Strip District service	<ul style="list-style-type: none">• Long-term (5+ years)

DISCUSSION

