Agenda

• Transportation Agencies and Partners
• City-wide Transportation Planning Initiatives
• Mobility Chapter – Neighborhood Plan
• Roadway Design
• Parking
• Transportation Demand Management
• Transit-Oriented Development
• First and Last Mile Connections
• Bike and Pedestrian Infrastructure
• Bike and Pedestrian Advocacy
• Q & A / Discussion
Transportation Agencies and Partners

Department of Mobility and Infrastructure (DOMI)
• Manages the operation of and access to the public right-of-way (sidewalks, curbs, steps, streets, and bridges that make up our network).

Port Authority of Allegheny County (PAAC)
• Operates, maintains, and supports bus, light rail, incline, and paratransit services.

Bike PGH
• Member based nonprofit organization focused on advocacy, community, and education to help transform our streets and communities into vibrant, healthy places by making them safe and accessible for everyone to bike and walk.
Pittsburgh Parking Authority (PPA)
• Provides, maintains, and enforces public parking throughout the City.

Southwestern Pennsylvania Commission (SPC)
• Provides regional planning to the 10-county SPC region and directs the use of state and federal transportation and economic development funds allocated to the region.

Oakland Transportation Management Association (OTMA)
• Serves the Oakland community through advocacy and provision of information to encourage good transportation choices by commuters, residents, and visitors with the goal of increasing the use of modes other than automobile.

Healthy Ride
• Pittsburgh’s bike share system, which allows for users to pick up a bicycle at one of the 100+ stations throughout the city and return the bike at any station in the system. Intended for quick trips around the City.
Overview

- Pittsburgh’s newest department. Formed in 2017.
- Combination of staff from other City departments plus some new additions.
- Manages the operation of and access to the public right-of-way (sidewalks, curbs, steps, streets, and bridges that make up our network).
- Focuses on five key areas:
  - **Safety.** Protecting and providing for all users.
  - **Access.** Connecting people and opportunities.
  - **Reliability.** Providing an efficient system and services.
  - **Adaptability.** Preserving now, preparing for the future.
  - **Human(e).** Engaging, empowering, and enabling residents.
City-wide Transportation Planning Initiatives

**Complete Streets**
  - Puts walking, biking, and taking transit on equal footing with driving in an effort to improve the quality of life for all Pittsburghers.
- Working on the City’s first Complete Streets Guidelines.
  - Will serve as the framework for reprogramming streets to be great public spaces that also facilitate the introduction of multi-modal corridors and safe, connected, and convenient transportation networks.
- To be completed in Winter 2019.

**Pedestrian Safety Action Plan**
- Identify a network of streets for future pedestrian investments.
- Analyzes high-pedestrian crash locations, high-risk pedestrian corridors, high-need pedestrian corridors, and key walking streets.
- To be completed in Fall 2019.

A complete sidewalk and bicycle network are a non-negotiable part of our future. We are actively working towards achieving this goal.
Bike Plan

- Objective is to build a safe, comfortable, and convenient bike network for all types of riders and all types of trips.
- Includes proposed bike lanes and trails as well as network gaps identified through public engagement.
- To be completed in Winter 2019.

Interactive map showing existing, proposed, and identified network gaps in the bike and trail network with and without comments from the public.
Objectives

• Develop a multimodal network plan that supports existing and future residents and businesses.
• A curbside management strategy to optimize parking and loading access and use.
• A parking management strategy that optimizes both publicly and privately held parking resources and which is considerate of emerging mobility trends.
• Design a clear implementation strategy with estimated budgetary, operational, and organizational needs for the next 3-5 years.

How are we going to get there?

• Transportation-specific consultant.
• Ongoing coordination with agency and organizational partners, stakeholders, and the public.
• Steering Committee and Mobility Action Team.
• Outreach activities and other opportunities to provide input.
Topics
• Network analysis – existing and future
• Roadway features and traffic conditions
• Buses and other circulators
• Parking
• Connectivity
• Sidewalks, steps, bike lanes, and curbs
• Pedestrian environment and safety
• Implementation strategy for the next 3-5 years
• Estimated budgetary, operational, and organizational needs
Roadway Design

Streets for the last century have been designed to keep traffic moving but not to support the life alongside it. Many streets offer city dwellers poor options for getting around, discouraging walking and stifling vibrancy and the spontaneous social gathering and spending that energizes the world’s greatest cities (Streetfight, 2016).
Proposed streetscape improvements to Bigelow Boulevard.

Before and after streetscape improvements to a neighborhood main street.

NACTO, 2013.
Parking

- Impacted by employer, university, and development pressure.
- Recognize this is a concern for many residents.
- Drives congestion and delays in travel time.
- Reduction in the capacity of the street.
- Mobility chapter will evaluate:
  - The creation of a parking management district / shared parking district.
  - Performance-based parking and curbside management.
  - Transportation demand management (TDM) strategies to reduce single occupancy vehicle (SOV) trips.
Transportation Demand Management

- Goal is to reduce SOV trips by making it easier and more attractive for travelers to utilize transit, biking, walking, and other efficient travel options.
- Tools and strategies designed to provide transportation options that do not contribute to peak hour vehicle congestion.
- Customized for the environment.
  - Considers all users of the transportation network.
- Often times included as part of the transportation impact review process.

Managing demand is about providing travelers, regardless of whether they drive alone, with travel choices, such as work location, route, time of travel and mode. In the broadest sense, demand management is defined as providing travelers with effective choices to improve travel reliability (FHWA, 2004).
Example Strategies

- Coordinate efforts with OTMA, universities, and major employers.
- Unbundle parking so the cost of parking is separate from lease or deed (residential) or paid (office).
- Flexible work hours and/or telecommute programs for office development.
- Upgrades and enhancements for pedestrian safety at site access and intersections.
- Enhancements to pedestrian facilities that address the last mile problem from transit stops and non-vehicular paths.
- Bicycle storage facilities and shower rooms.
- Priority parking spaces for carpool, vanpool, and car shares.
- Increased employer-sponsored shuttle options for commuters.
TRANSIT-ORIENTED COMMUNITIES

NOT JUST COMMUNITIES WITH TRANSIT
TRANSIT-ORIENTED DEVELOPMENT
PAAC Roles in TOD

• TOD **sponsor** for joint development

• TOD **stakeholder** for any development that occurs within the “zone of influence” of current or future stations

• TOD **advocate** for sustainable land use decisions along all of the Pittsburgh region’s transit corridors
MULTIMODAL CONNECTIVITY
transit, bikes, cars, parking

WALKABILITY
connectivity, streetscape, public safety

DEVELOPMENT
density & uses, building design, public space, public art, infrastructure, policy tools
Activation and connection of the West Liberty Avenue corridor with lush vegetation, expanded sidewalks, and safer road crossings.
FIRST AND LAST MILE CONNECTIONS
First and Last Mile Defined

Every transit trip begins and ends somewhere beyond the transit stop. Alternative methods of transportation, such as walking, biking, or driving, accompany transit on one’s journey from origin to destination.

The other modes that complement transit usage along one’s journey are referred to as first and last mile connections.
Two of America's 'sorriest bus stops' are in Allegheny County

And now let's take a moment to shame Pittsburgh. This lovely hilly city is the only metro area to have four bus stops featured in this competition in the last two years alone. That's a badge of honor — or in this case, dishonor.
Program Goals

• Increase transit ridership

• Increase non-single occupancy vehicle access to transit service

• Increase access to high frequency, rapid transit for those most likely to depend on it
Program Goals

• Increase transit ridership **EFFICIENCY**

• Increase non-single occupancy vehicle access to transit service **EFFECTIVENESS**

• Increase access to high frequency, rapid transit for those most likely to depend on it **EQUITY**
Principles

- Accessibility
- Collaboration
- Mode hierarchy
- Public health
- Rider comfort and satisfaction
- Sustainability
2018 First and Last Mile Evaluation

Scope: Fixed-guideway stations

3 Categories of Metrics

Station Context
- What is happening around the station
- Factors that influence a user's personal motivation to use a station
- Cannot be directly improved by first/last mile enhancements

User Experience
- Factors that measure the conditions at a PAAC station or in the surrounding walkshed
- Can be improved by first/last mile advancements
- Lack of user experience indicates the need for improvement

Equity
- Port Authority Equity Index!
<table>
<thead>
<tr>
<th>Station Context Characteristic</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCESS Paratransit Drop-off/Pick-ups</strong></td>
<td># of Drop-off and Pick-up ACCESS locations in the walkshed</td>
</tr>
<tr>
<td><strong>Destinations</strong></td>
<td>Combination of grocery stores, libraries, general attractions, hospitals, universities, parks, schools, public buildings, fare locations in the walkshed</td>
</tr>
<tr>
<td><strong>Destinations within .5 Miles</strong></td>
<td>Destinations that are within a .5 mile buffer outside of the walkshed</td>
</tr>
<tr>
<td><strong>Intersection Density</strong></td>
<td>Amount of intersections in a walkshed. A high score indicates that an area is very walkable. Intersection density is considered to be one of the most important factors for increasing transit use.</td>
</tr>
<tr>
<td><strong>Jobs</strong></td>
<td># of Jobs within the walkshed</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td># of residents living in the walkshed</td>
</tr>
<tr>
<td><strong>Ridership</strong></td>
<td>How many riders are there at the station each day?</td>
</tr>
<tr>
<td><strong>Unique Area</strong></td>
<td>% of the walkshed that does not overlap with any other walkshed</td>
</tr>
<tr>
<td>User Experience Factor</td>
<td>Definition</td>
</tr>
<tr>
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</tr>
<tr>
<td>Bike Access</td>
<td>Is the station bike accessible? (no steps are required)</td>
</tr>
<tr>
<td>Bike Infrastructure Score</td>
<td>&quot;Bike Friendliness&quot;: (Protected Bike Routes x 10) + (Bike Lanes x 5) + (On-street Bike Routes x 2) + Cautionary Bike Routes</td>
</tr>
<tr>
<td>Bike Racks</td>
<td>Does the station have bike racks?</td>
</tr>
<tr>
<td>Crashes per Rider</td>
<td># of car, bike, and pedestrian crashes per rider</td>
</tr>
<tr>
<td>Crime</td>
<td>Average of crime/year and crime/person at station</td>
</tr>
<tr>
<td>Drop-off/Pick-up Zones</td>
<td>Are there drop-off/pick-up zones located at the station?</td>
</tr>
<tr>
<td>Healthy Ride Score</td>
<td>Is there a Healthy Ride Station at the stop / are there many Healthy Ride docks within the walkshed?</td>
</tr>
<tr>
<td>Inaccessible Road</td>
<td>Total % of Bypass, Ext, Highway, Interstate, Ramp, Tunnel</td>
</tr>
<tr>
<td>Park &amp; Ride</td>
<td>Is there a Park &amp; Ride located at the station?</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>Quality of sidewalks surrounding the station</td>
</tr>
<tr>
<td>Slope</td>
<td>(% of slope from 5-9.99% x .5) + (% of slope in walkshed above 10%)</td>
</tr>
<tr>
<td>Speed</td>
<td>Average speed of all of the roads in the walkshed</td>
</tr>
<tr>
<td>Station Visibility</td>
<td>How easily can the station be seen without obstacles blocking the line of vision? (Final numbers are area in square miles)</td>
</tr>
<tr>
<td>Street Level Presence</td>
<td># of ways to enter the station directly at street level (no ramp or stairs required)</td>
</tr>
<tr>
<td>Trails</td>
<td># of Trails within the walkshed</td>
</tr>
<tr>
<td>Transit Connections</td>
<td># of bus/rail lines accessible within a 1/8 mile buffer of the station</td>
</tr>
<tr>
<td>Tree Cover</td>
<td>% of tree cover within 20 ft. of sidewalks in the walkshed</td>
</tr>
<tr>
<td>Unique Approaches to Station</td>
<td># of entrances from different directions into the station</td>
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FLM Program Plan

- **PAAC roles:**
  - Advocate
  - Collaborator
  - Sponsor

- **PAAC Action:**
  - New projects
  - Implementing on agency property
  - Participating in other’s plans

- **Toolbox**
Bike Pittsburgh

• 4,000 Member based, nonprofit organization
• Focus on: Advocacy, Community & Education
• Mission:
  – Bike Pittsburgh is transforming our streets and communities into vibrant, healthy places by making them safe and accessible for everyone to bike and walk.
Outline:

● People On Bikes
● Bike Infrastructure
● Pedestrian Infrastructure
● City Plans & Policy Around Biking and Walking
● Advocacy
People on Bikes
What to Expect & What to Know:

- Overall Laws & Guidelines
  - PA Bicycle Driver’s Manual
  - #1 advice: Be predictable
- Follow the law; stop at red lights/stop signs
- Where bicyclists can/cannot bike
- Bicyclists must take the lane in the direction they are heading
Interactions With People on Bikes

- Leapfrog, passing on the left
- Bus Blind Spot
- 4-ft law pass minimum
- Increased speed = increased risk
If hit by a person driving at:

- **20 MPH**
  - 90% Person Survives the Collision
  - 10% Results in a Fatality

- **30 MPH**
  - 60% Person Survives the Collision
  - 40% Results in a Fatality

- **40 MPH**
  - 20% Person Survives the Collision
  - 80% Results in a Fatality
Four Types of Cyclists By Proportion of Population

- Interested But Concerned: 60%
- No Way No How: 33%
- Strong & Fearless: <1%
- Enthused & Confident: 7%

Source - Portland, OR DOT
The Bicyclist's Perspective:

- People on bikes often act in ways that they think will make them safer
- Taking the lane
  - Predictable - straight line
  - Visibility
  - Door-zone danger
  - Debris, Potholes, Snow
  - Indicating that it’s not safe to pass
# Hand Signals - predictability

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<thead>
<tr>
<th>Left</th>
<th>Right</th>
<th>Slowing</th>
<th>Right</th>
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Illustration by THE LEAGUE OF AMERICAN BICYCLISTS

bikePGH!
Cycling is getting safer as more people ride.

Aggregate data from Chicago, Minneapolis, New York City, Philadelphia, Portland, OR, San Francisco and Washington, D.C.

Source: NACTO (2016)
Bike Infrastructure
Types of Bike Infrastructure

Shared Lane

Bike Lane

Buffered Bike Lane

Protected Bike Lane
Usually, plans and designs are made for the interested but concerned population.
Pedestrian Infrastructure
City Plans & Policy Around Biking and Walking
Complete Streets Policy, 2016

• How it will inform future construction projects
• All projects must consider all road users

Pittsburgh Bike Plan

• Due: Winter 2019
• Helping to make a complete bike network

Pedestrian Safety Action Plan & Steps Plan

• Both plans have been published
What Is Complete Streets?

Complete streets is a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.
Travel Lane, Transit Lane, Bike Lane, Pedestrian Infrastructure, Green Infrastructure
Complete Street Example

Before

After

Hindley St
Adelaide, Australia
Complete Street Example of a Side Street
Advocacy
Your voice is important

Although we have members in every city neighborhood, it’s necessary for residents to contact their elected officials with problems, praises, and making sure that they are aware of your desire to live in a walkable, bikeable neighborhood. Our message is amplified when citizens take the time to contact decision makers.
Neighborhood Bike/Ped Committees

- Grassroot, resident based neighborhood specific groups that advocate for better biking and walking in their area
- About 20 active bike/ped committees
Thank you!

Stay In Touch

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