



# 5

**The Mobility Chapter** is focused on understanding transportation challenges and opportunities across Manchester-Chateau. Varying aspects of the network, such as transit, pedestrian and bicycle facilities, are addressed in addition to State Route 65.



**MOBILITY**

# OVERVIEW

A safe, efficient transportation system within Manchester-Chateau is critical to providing residents access to opportunities and services within the neighborhood and throughout the Pittsburgh region.

Within Manchester, there are opportunities to both improve connectivity within the neighborhood and strengthen access to transit, which is critical for residents who lack a personal automobile.

The most visible mobility challenge within the neighborhood is the safety and design concerns posed by State Route 65. A set of distinct challenges and recommendations are outlined in this Chapter. Furthermore, addressing some of the safety concerns around State Route 65 are critical to reconnecting Manchester residents with emerging opportunities in Chateau and the riverfront.



# IN THIS CHAPTER



## PUBLIC ENGAGEMENT

- » Residents were asked to plot where they travel throughout the region for key services. Many residents shared that they travel far outside of the neighborhood for work, medical care, and other essentials, further underscoring the importance of attracting desired land uses to the Manchester-Chateau neighborhood.
- » Areas with needed improvements were identified with results indicating challenges along State Route 65, Chateau St. and general maintenance and safety issues throughout the neighborhood.



## EXISTING CONDITIONS & TRENDS

- » Within Manchester, the dense network of residential streets help promote walkability. Sidewalks vary in physical condition. Some are difficult to navigate for those with physical limitations.
- » Several one-way streets result in confusing transportation patterns.
- » There are five distinct challenges identified around State Route 65:
  - » Safety on Beaver Ave. and Chateau St.
  - » The Juniata intersection improvements
  - » Traffic Flow
  - » Connecting Manchester-Chateau to the river
  - » Expanding the span under the bridge



## PRIORITY IMPLEMENTATION STRATEGIES

- » Evaluate local streets for opportunities to improve safety at key crossings for pedestrians and cyclists.
- » Explore traffic calming techniques to decrease vehicle speeds, appropriate for local neighborhood streets.
- » Implement near-term safety improvements on Chateau St. & Beaver St. to create pedestrian-safe transition zones.
- » Implement Juniata underpass improvements.



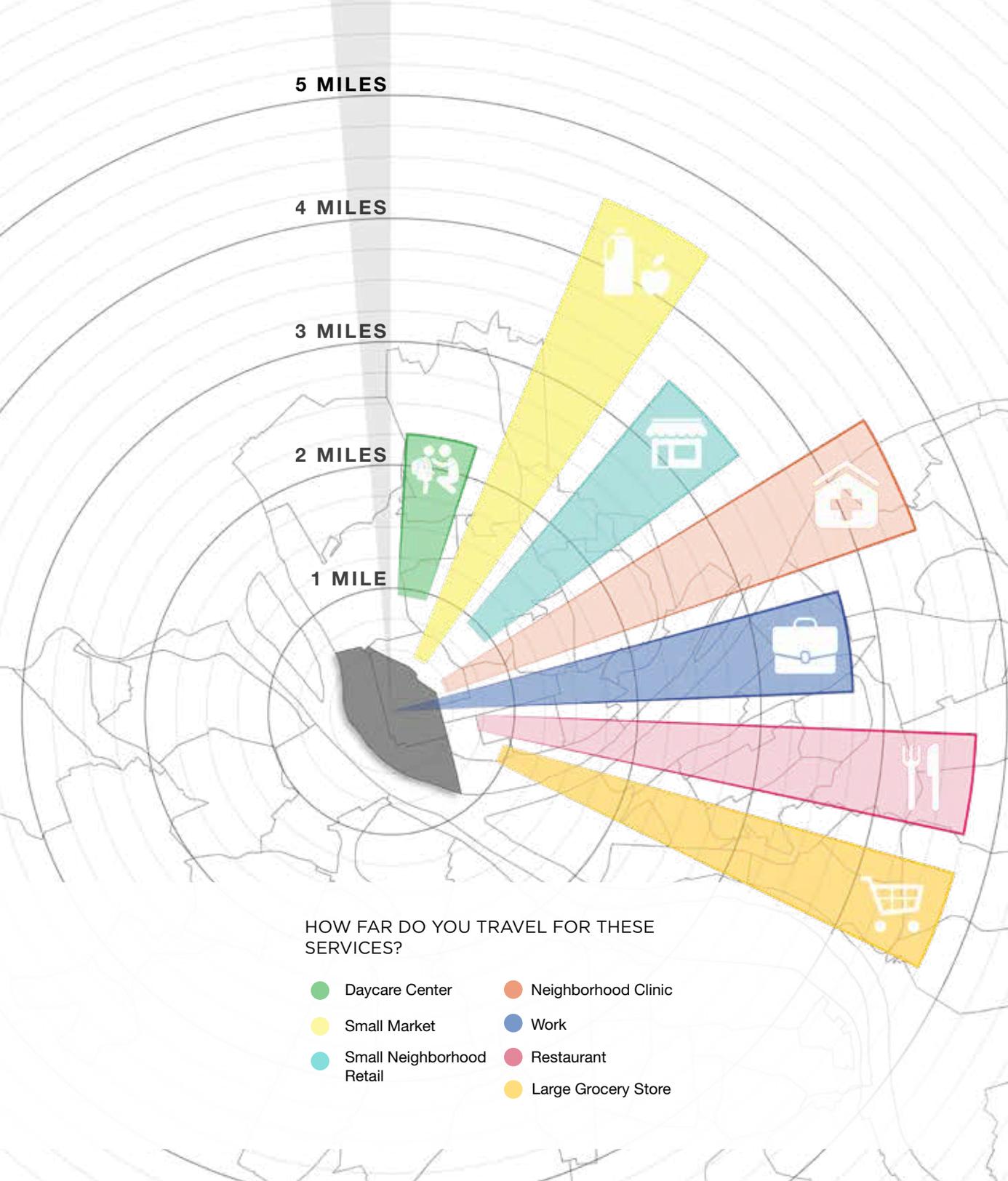
# PUBLIC ENGAGEMENT

## ACTIVITY #1: WHERE ARE SOME OF THE SAFETY CONCERNS IN YOUR NEIGHBORHOOD?

The second open house included an opportunity for attendees to map where in Manchester-Chateau they felt less safe. According to the map to the right, there were a few significant areas of concern:

- » **Chateau Street:** The street currently functions as a highway on-ramp, with little way to slow down traffic, making crossing Chateau Street from Manchester to Chateau unsafe. Pedestrians, bicyclists and drivers feel unsafe on this street.
- » **Allegheny Avenue:** Streetlights and multimodal improvements are needed and sidewalks are in need of repair.
- » **Waterfront and West North Avenue:** Streetlights are needed in numerous locations, in particular these two areas.
- » **McKnight Park:** The sidewalk around the park is in need of repair.

LEGEND	
	Areas that need street lights
	Streets that are not safe for walking
	Sidewalks are in poor condition or pedestrian access is limited
	Streets that are not safe for biking



## ACTIVITY #2: HOW FAR DO YOU TRAVEL FOR THE FOLLOWING SERVICES?

The map summarizes the distance residents travel (and the average time it takes) to get to essential services throughout the region.

- » **Daycare:** Daycare locations were mostly in East Allegheny and northern communities.
- » **Small Market:** The most diverse category was small retail for which respondents said they travel all across the area. To access small markets, residents primarily visit Allegheny West, East Allegheny near the Commons (seasonal Farmer's Market), and the Strip District.
- » **Small Neighborhood Retail:** The majority of participants travel across the area from the West End to East Liberty for small neighborhood retail.
- » **Neighborhood Clinic:** Typical locations were identified as East Allegheny and the South Side Flats for medical care.
- » **Work:** The majority of activity participants work Downtown, in East Allegheny, or Manchester.
- » **Restaurant:** Residents travel throughout and beyond the city to go to restaurants.
- » **Large Grocery:** Although some community members said they travel to the Giant Eagle in East Allegheny for a large grocery store, even more indicated areas outside of the map area to the north, demonstrating a longer trip to get groceries than for other amenities.

# EXISTING CONDITIONS



## ONE-WAY STREETS

Within the Manchester neighborhood, the urban network of narrow, residential streets helps the neighborhood feel like a safe space to walk and bike. However, the neighborhood's one-way streets (pictured to the right) present unnecessary safety challenges to the neighborhood's residents.

- » One-way streets can cause confusion in navigating the neighborhood, leading to an unnecessary increase in navigation on city streets.
- » One-way streets can encourage higher travel speeds, as cars aren't inherently slowed down by oncoming traffic.
- » Overall reduction in connectivity.



LEGEND	
<span style="color: green;">█</span>	18: Manchester
<span style="color: purple;">█</span>	17: Shadeland
<span style="color: orange;">█</span>	14: Ohio Valley

## TRANSIT ACCESS

Manchester-Chateau is served both by existing bus transit and the metro line. The transit systems throughout Manchester-Chateau neighborhood are essential to providing access to opportunities for residents.

While the Port Authority of Allegheny County is in charge of the bus and transit system, the neighborhood has opportunities to improve the usability and feasibility of the transit system. According to the U.S. Census, approximately 10% of households in Manchester don't own a vehicle, and those families likely rely heavily on public transit. In the near term, it will be important to maintain a high level of transit service until needed local amenities such as grocery stores, medical care, and daycare can be provided.

Improving the experience of taking transit (walking to the bus stop, waiting for the bus, frequency and reliability of service) and improving pedestrian connections to the Allegheny T Stop via Allegheny Avenue, Reedsdale Street and Ridge Avenue. The Community chapter provide recommendations on how to integrate public art and the neighborhood's history at transit stops.

## BIKING & WALKING

The design and location of Manchester-Chateau provides opportunities for biking and walking. The network of Manchester's residential streets helps promote walkability, and further sidewalk repairs will aid with this. In Chateau, the Three Rivers Trail connects Chateau to other neighborhoods along the river, and downtown.

The trail (pictured to the right) is in need of maintenance improvements. Residents expressed a need for additional lighting along the trail and wayfinding signage between the Juniata underpass and the trail to improve safety. Residents also expressed an interest in adding restaurants along the waterfront.

Linking the walkable Manchester sidewalk and roadway network to the riverfront is one of the biggest mobility barriers facing the neighborhood. Furthermore, these improvements should be incorporated with concurrent development projects outlined elsewhere in this plan, including strengthened sidewalk conditions, priorities outlined in the Mode Emphasis Map, and continued projects to strengthen cultural heritage and public art.



MOBILITY

STATE

ROUTE 65

19 NORTH  
Marshall Ave



# CHALLENGES OF STATE ROUTE 65

The construction of State Route 65 in the mid-twentieth century significantly transformed the livability, use, look, and feel of the Manchester neighborhood. The elevated highway, and the new surrounding roadway network cut off Manchester residents from the riverfront. The highway also decimated what was once a vibrant, commercial core in the heart of the neighborhood, along Beaver Ave. Simultaneously, the construction of the highway completely shifted the uses in the Chateau portion of the neighborhood west of State Route 65. Almost all housing and small-scale retail was demolished and replaced by warehousing, light industrial, shipping, and institutional uses. From that time until today, State Route 65 has helped sustain and support the existing businesses in Chateau, who rely on easy access to the highway in order to get their goods to customers throughout the Pittsburgh region.

Today, the presence of State Route 65 poses both a physical barrier between Manchester and Chateau while creating significant safety and urban design challenges. Five of these challenges, along with proposed recommendations, are outlined in this section. Each of the challenges have been further identified based on their ability to be completed in the short-term, medium-term, and long-term.

## SHORT - TERM

- 1 Safety on Beaver and Chateau
- 2 Juniata Intersection Improvements

## MID - TERM

- 3 Additional Connections
- 4 Connecting to the River

## LONG - TERM

- 5 At-Grade Boulevard
- 6 Expanding the Bridge

### Additional Studies that may be needed to realize SR 65 vision:

- » **Capacity Analysis** (*for existing and proposed configurations*)
- » **Updated Traffic Counts** (*for all major intersections along Beaver Ave and Chateau St, along with Route 65 interchanges*)
- » **Road Safety Audit** (*identifies short-term and long-term safety improvements*)
- » **Crash Analysis** (*identifies problem areas, offers recommendations*)
- » **Signal Warrants** (*determine if needed under existing conditions or future scenario*)



# 1 SHORT - TERM

## SAFETY ON BEAVER AND CHATEAU

One of the key challenges in the State Route 65 area isn't actually the highway at all, but Beaver Avenue and Chateau Street. As cars enter and exit off of the elevated State Route 65 system, the design of the roads encourages cars to travel at high speeds. Chateau Street (letter A in the diagram to the right) has a number of residences, churches, and businesses along the street, presenting significant conflicts with high-speed traffic. A land diet is recommended for Chateau Street to improve safety.



A Chateau St. between off-ramp and Pennsylvania

B Beaver Ave. between off-ramp and Juniata St.



**Street trees** are an effective method to slow down traffic, in addition to providing environmental benefits.

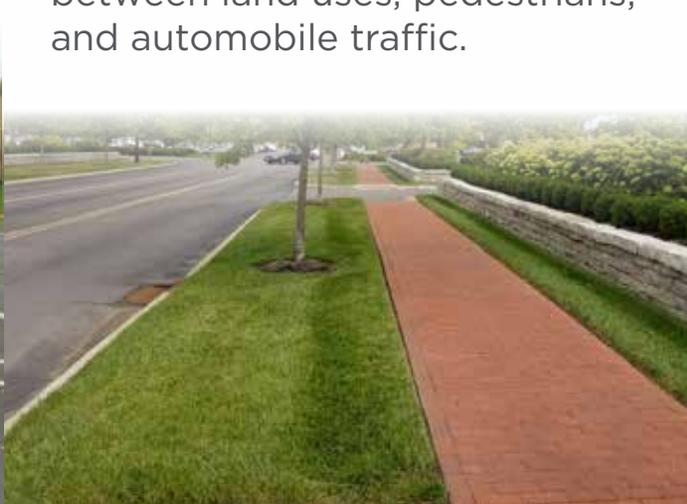


**Bump-outs** are an effective traffic calming technique in strategic locations along a roadway.

Protected Bike Lanes



A well-landscaped buffer between land uses, pedestrians, and automobile traffic.



## PROPOSED CHARACTER

Several simple, but effective roadway design improvements, can help mitigate some of the speeding and unsafe conditions along Beaver Ave. and Chateau St.

The City of Pittsburgh Department of Mobility and Infrastructure (DOMI) has developed a Mode Emphasis Map (MEM) for the Manchester-Chateau neighborhood (which can be found in the goals and action step section of this Chapter). This map identifies the priority user for many of the streets in the neighborhood. Chateau Street and Beaver Avenue are prioritized for automobiles. Design techniques to slow down traffic on this street can include narrower lanes, widened sidewalks where appropriate, bump-outs, and strengthened and increased tree canopy.

## 2 SHORT - TERM

### JUNIATA INTERSECTION

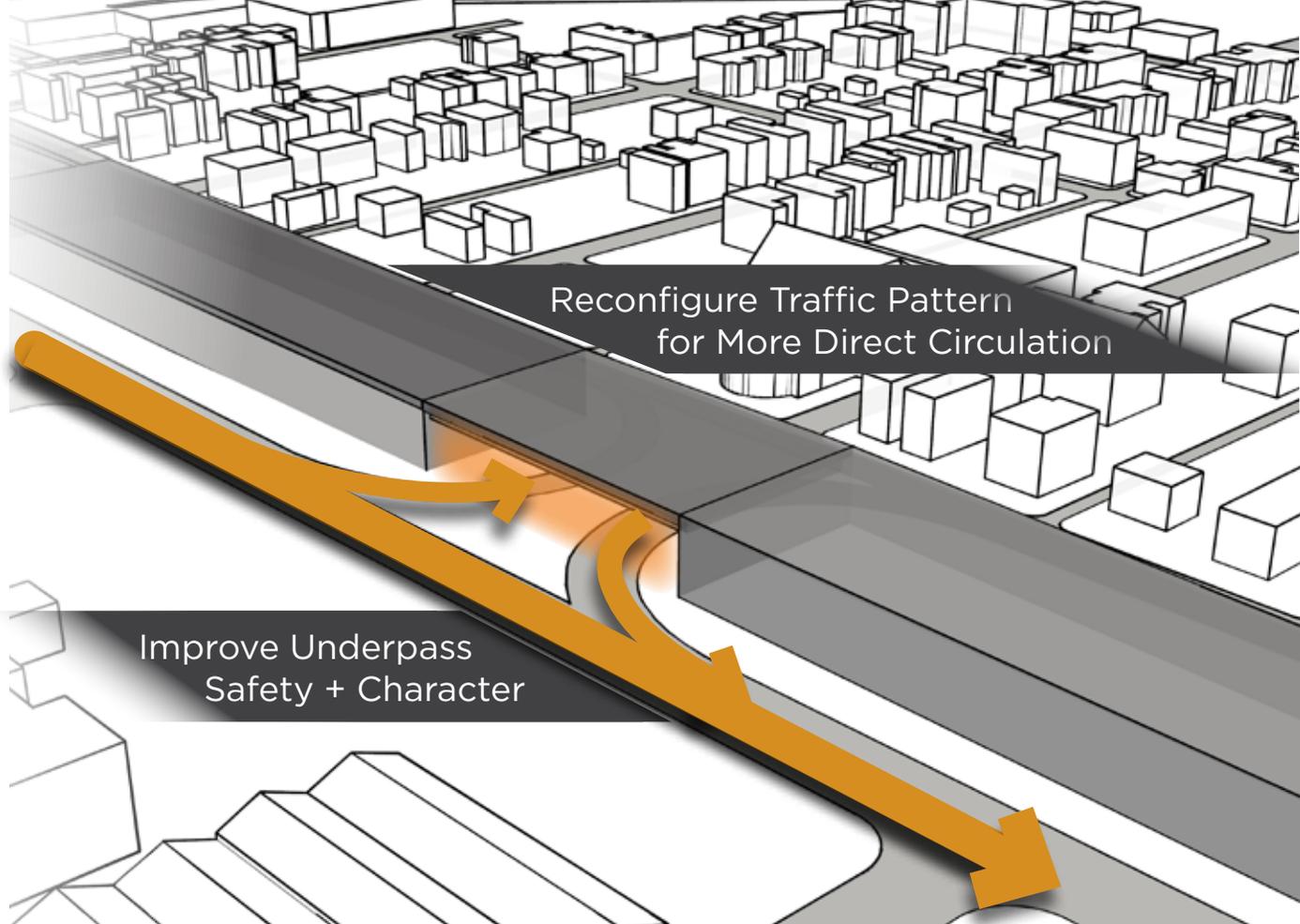
One of the most significant challenges posed by State Route 65 is that it significantly restricts access between Manchester and Chateau. There are only two places to cross under State Route 65 north of Western Avenue, and only the underpass at Juniata connects directly between Manchester and Chateau. There are two significant safety challenges that need to be addressed at the Juniata intersection.

#### TRAFFIC PATTERN

Currently, there are no traffic lights and the pedestrian crossing is neither attractive nor safe. Furthermore, if automobile traffic wants to move from Beaver Ave. to Chateau St. (or vice versa) it doesn't have to stop, but can move in a continuous motion, making pedestrian and bicycle access a constant danger.

#### UNDERPASS SAFETY

Because pedestrians aren't a priority at this intersection, the overall appearance and function of the underpass contributes to a perceived lack of safety. It is dark, uninviting, and generally an undesirable area to travel as a pedestrian or cyclist, particularly at night.



Balancing automobile and pedestrian traffic will be important at the only existing crossing point along State Route 65.

Public art can activate the underpass and provide a unique opportunity to tell the neighborhood's story through art. (See the Community Chapter for recommended public art strategies).



Design solutions should consider the safety of the underpass at night.



### **CASE STUDY: CAMPBELL, CA**

A highway underpass in California separates pedestrian and bicycle traffic from automobiles, and provides pedestrians and cyclists a safe, well-lit connection to different neighborhoods under an underpass.

## **PROPOSED CHARACTER**

Small-scale improvements are recommended to immediately improve the look and feel of the underpass at this intersection.

### **TRAFFIC PATTERN**

Ultimately, a traffic study will need to be completed in order to fully study and address traffic improvements at this intersection. However, any traffic study should prioritize the need for pedestrian safety and improvements, including the addition of well-marked crosswalks and sidewalks underneath the bridge.

### **UNDERPASS SAFETY**

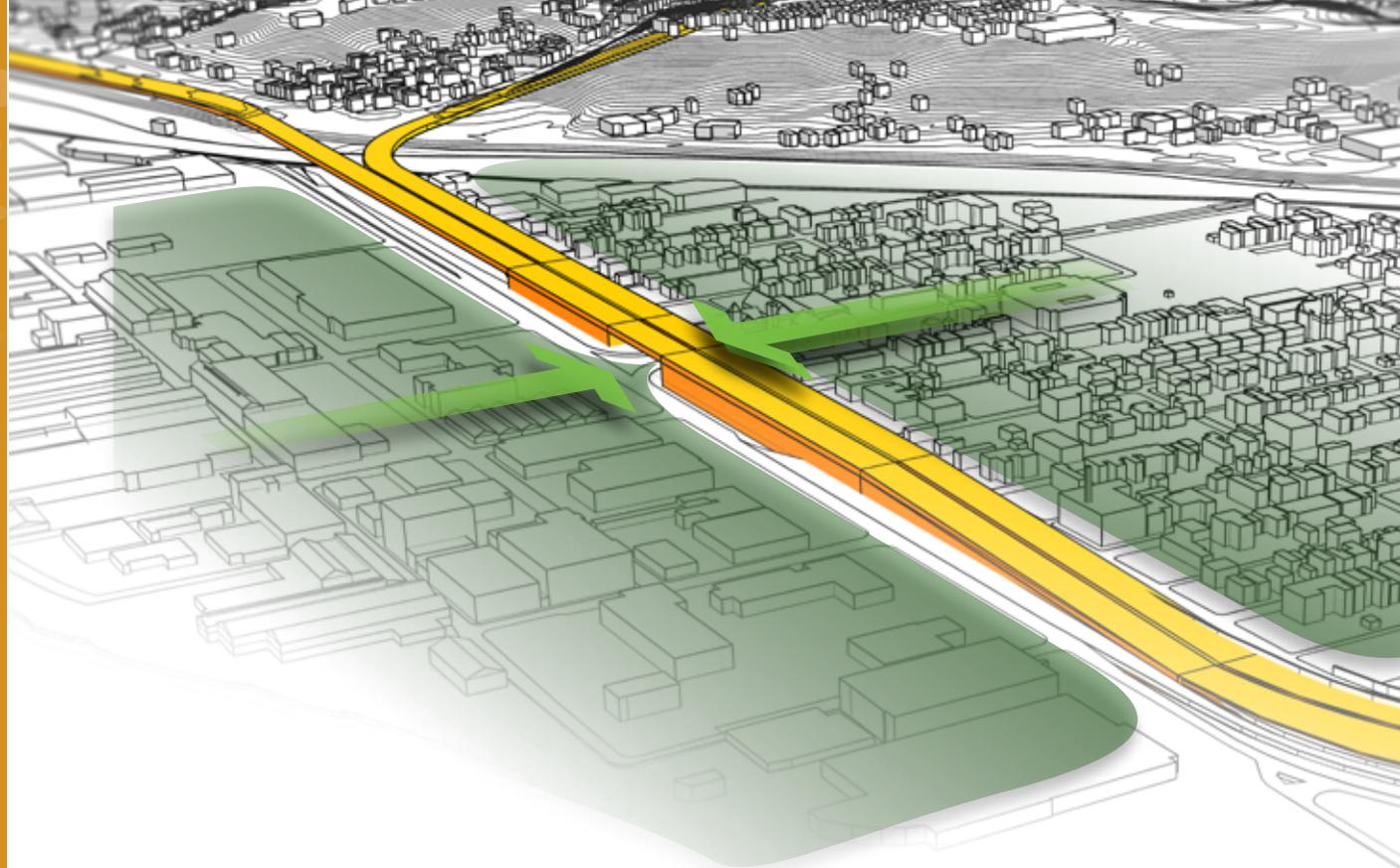
Communities across the country have had to address safety challenges posed by elevated highways cutting through neighborhoods. Public art installations (see above) and lighting (see below) are practical, and cost-effective, solutions to help the underpass feel more safe and comfortable. Furthermore, there is an opportunity to use public art to help tell a creative story about the neighborhood's history. (See Cultural Heritage and Public Art Chapter for case studies).

### 3 MID - TERM

## ADDITIONAL CONNECTIONS

The Manchester neighborhood is effectively cut off from Chateau by the State Route 65 corridor. This has severed the connection between Manchester and the riverfront, practically eliminating direct access to the regional trail system and future riverfront improvements. This separation has also diminished most daily interaction between the two areas, now very distinct in their land uses.

As Chateau begins to experience a shift in these land uses, the connection to Manchester will become increasingly vital. Improving this connection will allow residents to experience and access employment, or recreational opportunities.



**A singular access point** between Manchester and Chateau is causing unnecessary connectivity challenges.



CREATE

ADDITIONAL

CONNECTIONS

There are several options to alleviate congestion and strengthen connections between Manchester and Chateau by making investments that promote connectivity and safety, and are multi-modal in nature.

### JUNIATA INTERSECTION

The Juniata Intersection, as outlined on the previous spread, is not a safe and pedestrian-friendly connection for the neighborhood.

### NEW CONNECTION, PORT AUTHORITY PARKING LOT

The bridge is already elevated in this part of the section, and can alleviate additional congestion in the northern part of the study area. The current parking lot is largely underutilized.

### PEDESTRIAN CONNECTION

The possibility of a pedestrian connection throughout the southern half of the project study area can help improve the connections from the southern edge of Chateau to the southern edge of Manchester, and can assist in branding the neighborhood as well. Prior to investment, a long-term plan for State Route 65's transformation will need to be completed as any investment, including a bridge, could be seen as an investment in maintaining the current design of State Route 65.

A newly constructed underpass in Cleveland.



A pedestrian overpass in Denver.



# 4

## MID - TERM

### CONNECTING TO THE RIVER

Neighborhoods throughout Pittsburgh are beginning to embrace the riverfront, with new recreational trails, open space and redevelopment projects. The existing Three Rivers Heritage Trail currently runs the length of Chateau, providing Manchester-Chateau with an important connection to the larger Pittsburgh region.

As riverfront improvements continue, including potential new uses (such as restaurants) along the river, and overall trail improvements for safety and appearance (such as lighting), the need to connect Manchester to the river will become increasingly important.

While new development occurs throughout Chateau, it will be important to plan how to connect the riverfront developments with the rest of Chateau and through to the residents of Manchester, helping to open up safe opportunities to connect the two areas. Reconnection of the street network between the neighborhoods will likely follow the grid pattern illustrated in the 1957 aerial to the right and is encouraged.



#### DID YOU KNOW?

Prior to the construction of SR-65, the Manchester-Chateau neighborhood was designed with a grid street pattern, promoting connectivity and uniformity within the neighborhoods and providing ample access to the river.



## 5 LONG - TERM

### THE VISION FOR STATE ROUTE 65

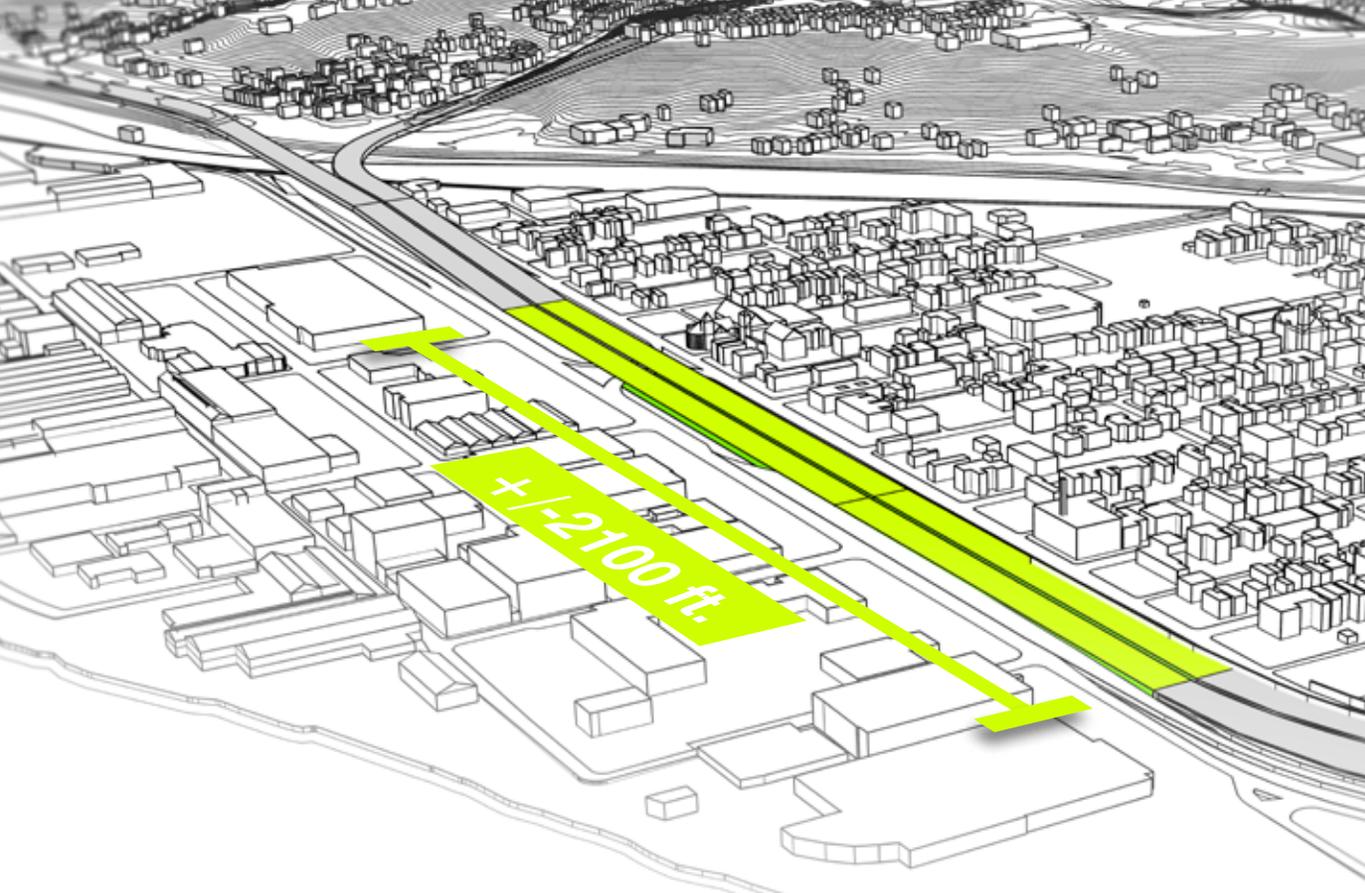
Previous pages have identified short to mid-term opportunities and recommendations for site-specific issues along the State Route 65 network.

The last significant issue to address is the structure of State Route 65 itself. While re-imagining the highway is a complicated, ambitious, and expensive project, State Route 65, like all bridges and highways, will have to go through a significant renovation at some point in its future. That maintenance will present an opportunity to re-imagine how the highway relates to Manchester-Chateau.

As likely future changes in mobility occur related to high-capacity transit and autonomy, State Route 65 may function very differently. This could provide an opportunity to address the negative impacts of the corridor on Manchester-Chateau.



Existing structure provides **minimal access** points and **limited public space**.



The rendering below shows a vision for an at-grade boulevard.



## SCENARIO #1

# AT-GRADE BOULEVARD

One potential option to reducing the impact of State Route 65 is by transforming it into an at-grade boulevard with Beaver Ave. and Chateau St. This was suggested by numerous public meeting participants. This approach presents several challenges:

*An at-grade boulevard is still a challenging divide to cross:*

Lowering State Route 65 to an at-grade boulevard could still make the roadway challenging to cross. Traffic speeds and volumes could limit opportunities to make bicycle and pedestrian connections.

*Existing infrastructure means that the boulevard can only be at-grade for a short distance:*

As State Route 65 is currently constructed, the on-ramps at both the north and south ends of the study area are currently elevated, to get over the railroad tracks to the north and to accommodate the existing highway infrastructure on the south. In order to drop the highway infrastructure to an at-grade boulevard, there is only a limited stretch where this can occur.

## 6 LONG - TERM

### SCENARIO #2

## EXPANSION OF BRIDGE SPAN

A second long-term option could be to open access, physically and visually, under the highway through the creation of a full bridge. Instead of a high earthen barrier that divides the neighborhood, a bridge would improve the space for connections between the two neighborhoods while adding a unique public space.

While a long-term and expensive strategy, this project has the opportunity to transform the neighborhood. The added connectivity will be even more vital as Chateau continues to redevelop and transform.



### Underpass Park Toronto.

Located under an elevated highway in Toronto, Underpass Park serves both as a connection between neighborhoods as well as a unique public space. Its public art, playground equipment, and programmable space can serve as a model for a unique space in Manchester-Chateau should there be an opportunity to elevate the span of the bridge.

View of Manchester and Chateau reflecting long-term **infrastructure and public space improvements.**



*Blue boxes represent hypothetical buildings.*

*The public engagement process, existing conditions analysis and review of best practices in this Chapter helped lead to the creation of specific goals and recommended action steps. A full summary of the plan goals, action steps, and relevant details are available in the Implementation Chapter.*

## **GOAL 15: ENHANCE SAFETY THROUGH ROADWAY DESIGN IMPROVEMENTS.**

The Manchester-Chateau neighborhood has a variety of roadways in need of physical improvements. This includes both residential streets within Manchester and the roadway network that ties into State Route 65.

The Mode Emphasis Map (MEM) is a tool that the City of Pittsburgh uses to prioritize specific users on certain roadways throughout all neighborhoods. The map (highlighted at the end of this chapter) is the appropriate tool to direct development/improvements.

### **Recommended Action Steps Include:**

- » Evaluate local streets for opportunities to improve safety at key crossings for pedestrians and cyclists.
- » Explore traffic calming techniques to decrease vehicle speeds, appropriate for local neighborhood streets.
- » Evaluate appropriateness of existing one-way streets and explore options for conversion to two-way traffic. (Furthermore, use existing Beaver Ave. 2-way conversion study as a starting point for understanding opportunities and limitations for conversion along Beaver Ave. and Chateau St).



## GOAL 16: IMPROVE QUALITY AND ACCESS TO PUBLIC TRANSIT SERVICES.

Both demographic data and public engagement suggest that public transit plays an important role in the lives of Manchester-Chateau residents. While the routes and frequency of the transit system are largely governed by the Port Authority of Allegheny County, Manchester-Chateau can make key public investments to improve the usability of the overall system.

Smaller, cost-effective interventions may include promoting public art recommendations outlined throughout this Plan. These interventions can help tell the story of the Manchester-Chateau neighborhood while signaling the importance and prioritization of public transit in the neighborhood.

Larger-scale, but impactful interventions include strengthening the walkability, lighting, and comfort of Allegheny Ave. between the T station and Western Ave. As Manchester-Chateau evolves and Western Ave. adds residential and commercial capacity, this section of Allegheny Ave. will be a critical connection between the neighborhoods.

### Recommended Action Steps Include:

- » Enhance design of bus stops to showcase local artists and community heritage.
- » Conduct a Allegheny T-Stop Multimodal Access Plan to identify multimodal improvements to the connect to T station.



## GOAL 17: IMPROVE PEDESTRIAN AND BICYCLIST INFRASTRUCTURE.

There are two broad categories of improvements that should be made. Within the Manchester neighborhood, there is an opportunity to improve crosswalks and access near existing public parks (See Parks Section), and along heavily traveled corridors that will likely see an influx of future development, such as Western Ave. and Allegheny Ave. (See Land Use Section).

Secondly, connections need to be strengthened between Manchester and the North Shore Trail. The trail connects Manchester-Chateau to many of the neighborhoods along the North Shore, as well as Downtown, but is currently difficult to reach from Manchester. Re-imagining Columbus Ave. and North Franklin St. in Chateau as “green corridors” and vibrant public spaces will help build a strong non-motorized connection between Manchester-Chateau and neighborhoods along the north shore of Pittsburgh. (See Sustainability Section for further detail).

### Recommended Action Steps Include:

- » Address gaps in the sidewalk network and bring sidewalks and ADA ramps to an acceptable condition.
- » Create partnership to encourage the use of bicycling as an affordable, convenient mode of transportation. Include bike programming in community events.
- » Implement bicycle and pedestrian infrastructure per Mode Emphasis Map.

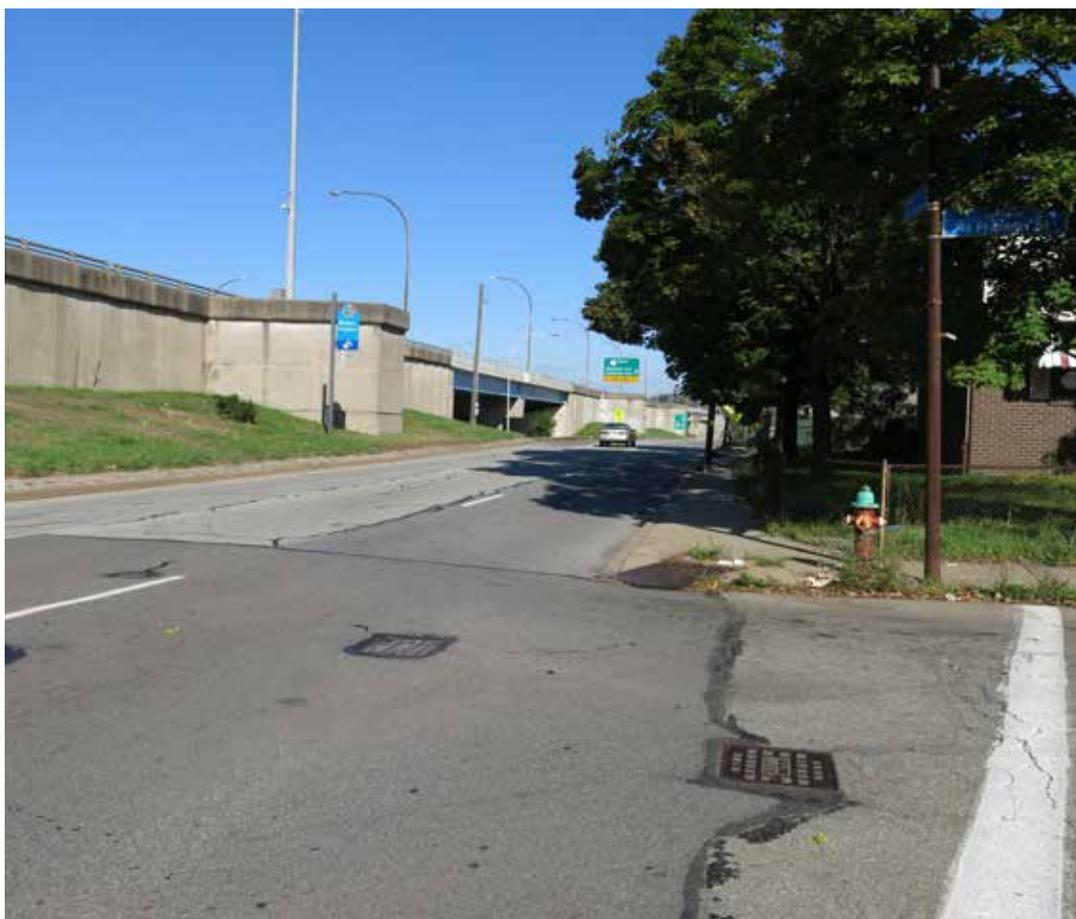


## GOAL 18: RECONNECT MANCHESTER AND CHATEAU THROUGH A NEW VISION FOR THE STATE ROUTE 65 NETWORK.

One of Manchester-Chateau's most pressing transportation challenges is the barrier posed by the elevated State Route 65 highway. The network poses immediate and pressing safety concerns to residents and inhibits longer-term redevelopment efforts in the area. Focusing on the short-term projects and goals can help build the interest and momentum in pursuing some of the longer-term projects in the area.

### Recommended Action Steps Include:

- » Implement near-term safety improvements on Chateau St. & Beaver Ave. to create pedestrian-safe transition zones.
- » Implement Juniata underpass improvements.
- » Strengthen connections between Manchester and Chateau by making investments that promote connectivity and safety and are multi-modal in nature.
- » Conduct long-term transportation analysis exploring the feasibility and cost/benefit of long-term changes to SR-65 and options to create additional access points through SR-65.
- » Construct green corridors and trail improvements to connect Manchester-Chateau to the river.
- » Open space under the bridge to create recreational space and safe connections between the riverfront and the neighborhood.



# MODE EMPHASIS

## MAP

### MODE EMPHASIS

#1 - PEDESTRIAN PRIORITY EVERYWHERE

-  TRANSIT 
-  BICYCLE 
-  VEHICLE 
- SR 65 

### SYMBOLS

-  HIGHWAY ENTRANCE/EXIT
-  TRAILHEAD
-  TRAIN STATION
-  IMPROVEMENT INTERSECTION

