

Lower Northside Bicycle Connector Study

December
2016



The Buhl
Foundation
Northside
Bike/Ped
PASHEK ASSOCIATES
LANDSCAPE ARCHITECTURE | DESIGN | PLANNING



Acknowledgements



Acknowledgements

Thanks goes to the Northside Bike Ped Committee members who actively participated in the development of this plan. Also, the time commitment, wealth of knowledge, guidance, and dedication of the following individuals made this plan possible:

- Mr. Nick Ross, Chair, Northside Bike Ped Committee, Northside Leadership Conference
- Mr. Mark Fatla, Executive Director, Northside Leadership Conference
- Mr. Mark Masterson, Executive Director, The Northside Community Development Fund
- Ms. Kristin Saunders, Bicycle & Pedestrian Coordinator, Department of City Planning, City of Pittsburgh

Last, a special thank you to the:



www.buhlfoundation.org

Diana A. Bucco, President

Frederick W. Thieman, Esq., Henry Buhl, Jr. Chair for Civic Leadership

Amber J. Farr, Buhl Fellow

Linda J. Weaver, Office Manager

Bethany R. Hester, Administrative Assistant

for funding this project. Without their funding this project would not have been possible.





Table of Contents



Introduction	1
Our Partnership.....	1
Goals of the Northside Bicycle Connector Study	1
Moving Forward	2
Why These Plans are Important.....	2
Commuting.....	2
Demographics	3
Business.....	5
Health	5
Safety	5
Social Equity	6
Existing Means of Transportation	7
How Our Goals Can Be Achieved.....	9
North Avenue.....	9
East Ohio Street.....	10
East Street to Brighton Road.....	10
East Ohio Street to Federal Street/Roberto Clemente Bridge	10
Federal Street/Roberto Clemente Bridge to Existing West Ohio Street Bike Lanes	11
Manchester to North Shore Trail/Three Rivers Heritage Trail.....	11
Three Rivers Heritage Trail to Chestnut Street/ 16th Street Bridge.....	12
2016 Proposed Lower Northside Bike Infrastructure Map	13
Street Sections.....	15
Section 1: East North Avenue	16
Section 4: Cedar Avenue	17
Section 7: East Street (South of Gurst Way)	18
Section 8: Allegheny Commons Park Path.....	19
Section 9: East Ohio Street (West of Cedar Avenue)	20
Section 10: Allegheny Circle	21
Section 11a: North Federal Street.....	22
Section 11b: South Federal Street	23
Section 12: Ridge Avenue (West to Ohio Street)	24
Section 13a: Brighton Road (West Ohio Street to	



Table of Contents

Beech Street)25
Section 13b: Brighton Road (Beech Avenue to
North Avenue).....26
Section 13c: Brighton Road (North Avenue to
California Avenue)27
Section 13: Brighton Road (Plan View)28
Section 14: West North Avenue29
Section 16: Bidwell Street30
Section 18: Chateau Street31
Section 19: Beaver Avenue32
Section 23: Progress Avenue36
Section 24: Heinz Street.....37

Way Finding Signage38

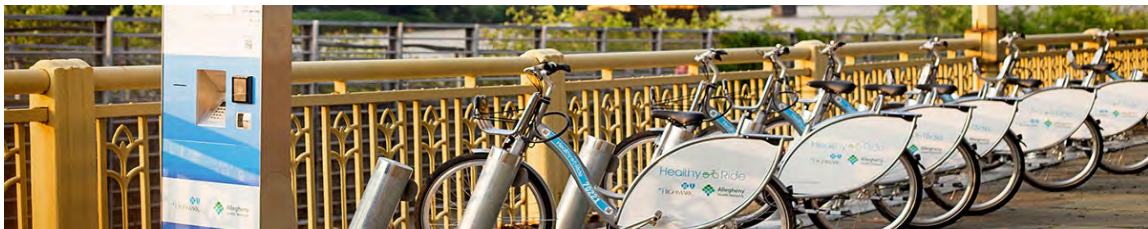
Potential Key Assets to Include.....39
Way Finding Sign Key Map41
 East Allegheny Bicycle Signage (#1-24).....43
 East Allegheny Bicycle Signage (#1-24).....43
 East Allegheny Bicycle Signage (#1-24).....45
 16th Street Bridge Bicycle Signage (#25-38)
 16th Street Bridge Bicycle Signage (#25-38).....46
 16th Street Bridge Bicycle Signage (#25-38).....47
 Allegheny Center Bicycle Signage (#39-60)
 Allegheny Center Bicycle Signage (#39-60)48
 Allegheny Center Bicycle Signage (#39-60)49
 North Shore Bicycle Signage (#61-79)
 North Shore Bicycle Signage (#61-79)50
 North Shore Bicycle Signage (#61-79)51
 Allegheny West Bicycle Signage (#80-94)
 Allegheny West Bicycle Signage (#80-94).....52
 Allegheny West Bicycle Signage (#80-94).....53
 Allegheny Commons/Mexican War Streets (#95-118)
 Allegheny Commons/Mexican War Streets (#95-118).....54
 Allegheny Commons/Mexican War Streets(#95-118).....55
 Allegheny Commons/Mexican War Streets (#95-118).....56
 Manchester/Chateau (#119-143)
 Manchester/Chateau (#119-143)57
 Manchester/Chateau (#119-143)58



Table of Contents



Opinion of Probable Construction Costs.....59





Introduction

Our Partnership

The Lower Northside Bicycle Connector Study is an initiative of the Northside Bike Ped Committee, which is a subcommittee of the Northside Leadership Conference (NSLC). The NSLC is a coalition of Northside community-based organizations, committed to addressing mutual concerns through a united approach in order to promote and enhance the vitality, quality of life and image of Pittsburgh's Northside. This study was funded by the Buhl Foundation for One Northside, a comprehensive approach to community revitalization. Through this community outreach, the neighborhood desire and need for a connected and safe bicycle route system became a key focus. The existing city bicycle routes throughout the Northside are fragmented, regularly unmarked, and lacking wayfinding signage.

Active Allegheny, a 2010 comprehensive commuter bicycle and pedestrian transportation plan for Allegheny County, also addresses the importance of integrating walking, biking, and other active, healthy travel modes into the existing transportation system. Active Allegheny encompasses all of Allegheny County but also identifies a number of opportunities for the Northside neighborhoods such as: improved connections between the Northside, North Shore, and Golden Triangle; a proposed, continuous connection along Federal Street across the Sixth Street Bridge to Market Street; and connections to riverfront trails. The Lower Northside Bicycle Connector Study aims to build upon Active Allegheny by offering a more in-depth and focused analysis of the potential for bicycle and pedestrian infrastructure within and throughout the Lower Northside.



Goals of the Lower Northside Bicycle Connector Study include:

- » Build upon the framework created by the 2010 Active Allegheny plan
- » Interconnect neighborhoods throughout the entire Northside
- » Determine easy and safe access routes to key neighborhood amenities, such as public parks, shared-use trails, bike share stations, and cultural assets
- » Implement wayfinding signage for long distance navigation between community assets
- » Allow easy access to bicycle infrastructure for all Northside communities
- » Improve existing bicycle infrastructure
- » Plan for additional bicycle infrastructure that will connect to and expand upon what is existing
- » Connect to Downtown Bicycle routes



Moving Forward

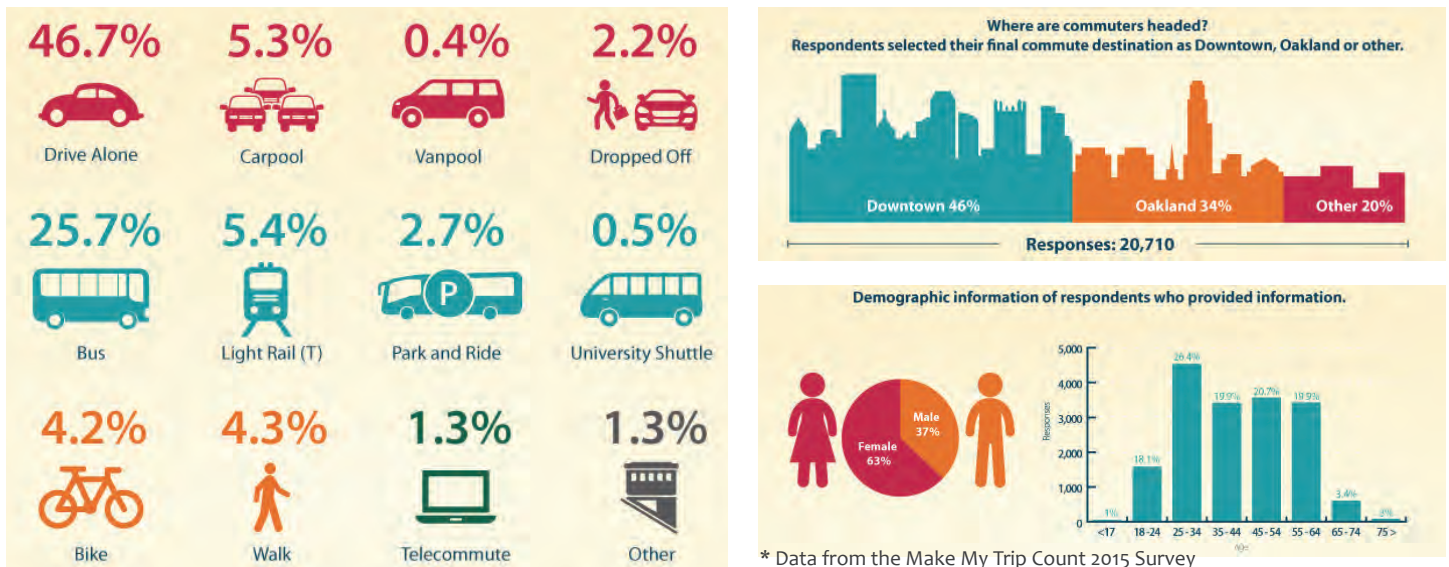
Through coordination with the City of Pittsburgh and the City of Pittsburgh Planning Department, the Lower Northside Bicycle Connector Study aims to grow these goals and objectives throughout the neighborhoods of the Lower Northside over a phased period. Phasing will aim to align with the City’s scheduled repaving and street construction plans to expedite bicycle infrastructure implementation and to reduce cost. The Northside Bicycle Connector Study will supplement the “Pittsburgh 2020 Bike Plan,” which already proposes numerous bicycle infrastructure improvements to be implemented by the year 2020.

Why these Plans are Important

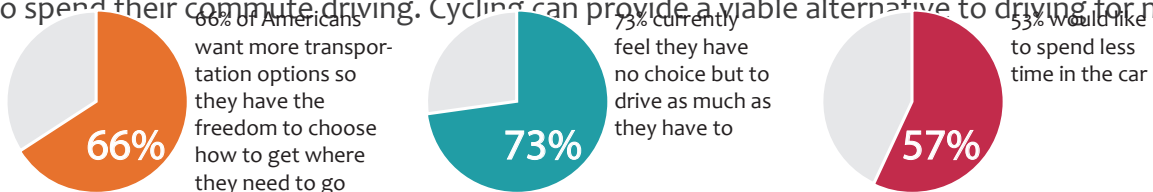
The City of Pittsburgh has undergone a significant transformation in the past few decades, shifting from heavy industry to a vastly more dynamic focus of education, health, technology and the arts. This transformation has not gone unnoticed, as the city has been listed as one of the top 50 places to live by both the U.S. News and Business Insider and has also been listed as one of the top 10 places for recent college graduates to move to. Part of this transformation has involved making Pittsburgh a landmark city in creating a clean, green, and livable urban environment. Giving pedestrians alternate and safe methods of transportation helps to achieve those goals by reducing carbon emissions from cars, reducing traffic, and encouraging connectivity between neighborhoods.

Commuting

A survey conducted by Pittsburgh City Mayor William Peduto in partnership with Green Building Alliance (GBA) and Envision Downtown found that the majority of commuters’ destinations each week is Downtown or Oakland. Approximately half of commuters drive, with only 4.2% commute via cycling.



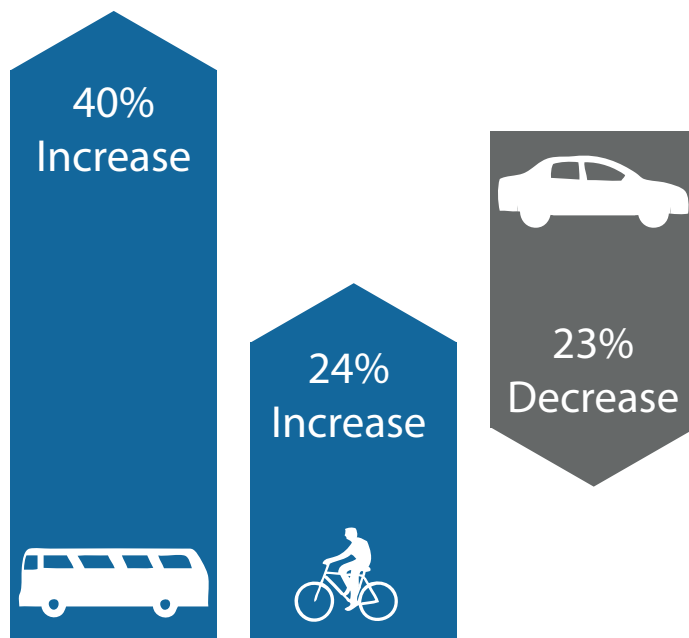
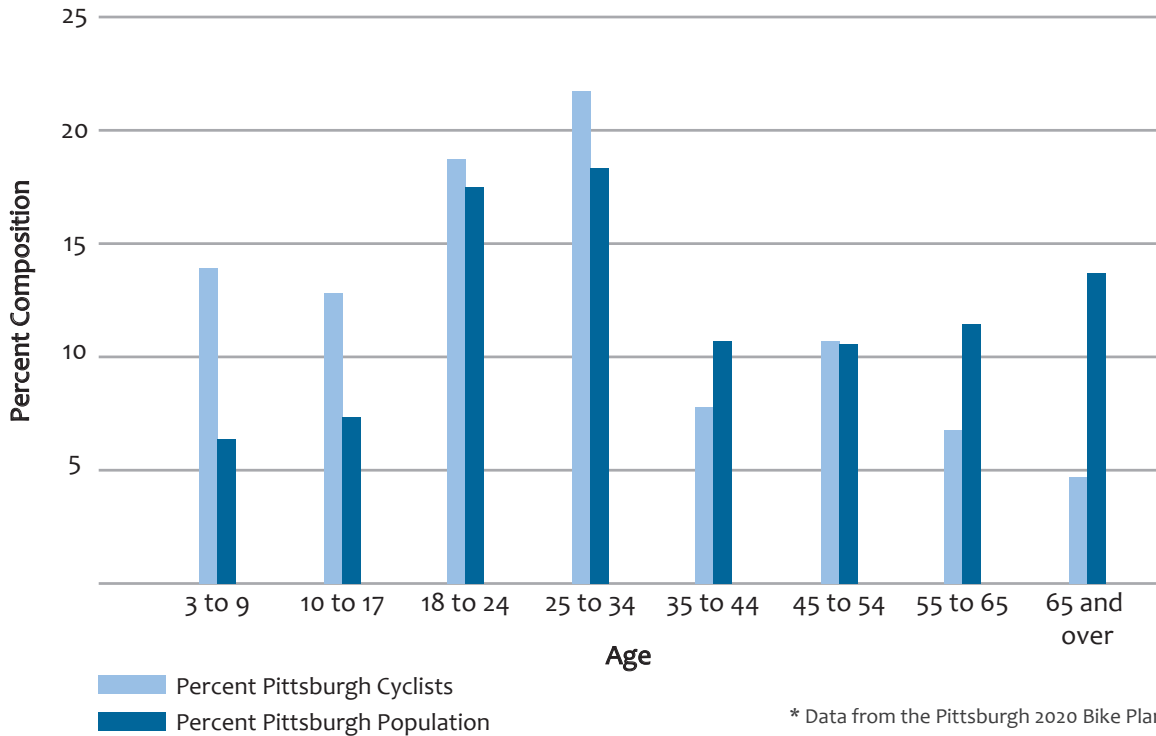
However, based upon data within the Pittsburgh 2020 Bike Plan, prepared in 2015 by Mayor William Peduto and Pittsburgh City Planning, the high percentage of drivers does not reflect the percentage of Americans who wish to spend their commute driving. Cycling can provide a viable alternative to driving for many.



* Data from the Pittsburgh 2020 Bike Plan

Demographics

Considering Pittsburgh has become one of the top 10 cities for recent graduates to move to, it is not surprising that over 35% of Pittsburgh population is between the ages 18-34. This demographic has set national trends for preferring cycling and public transit over driving in urban areas. Improving and expanding bicycle infrastructure will encourage existing cyclist to bike more often as well as create an additional draw for prospective residents looking for alternatives to travelling via car to and from key areas. Safety is also imperative, as the second largest cycling group in Pittsburgh is children between the ages 3-17.



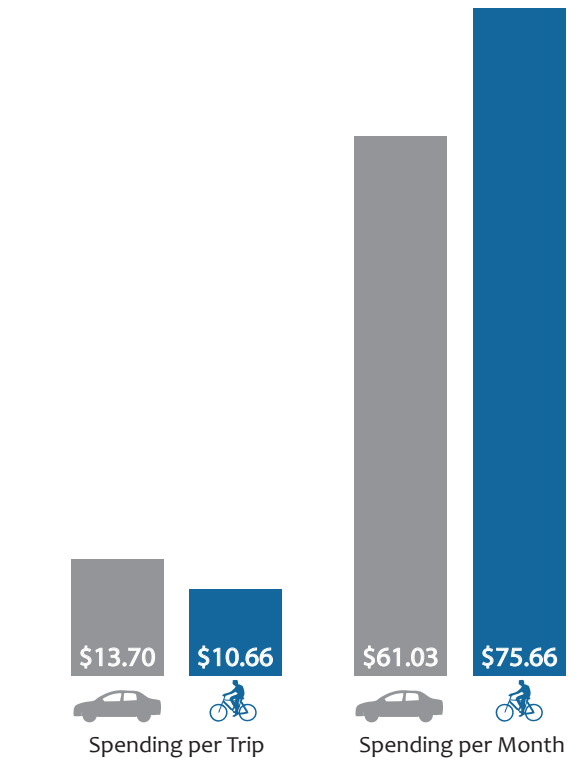
National Transportation Trends (among ages 16-34)

* Data from the Pittsburgh 2020 Bike Plan

Business

Businesses that are easily accessible by bike increase their exposure to potential customers. This can include being situated alongside a marked bicycle route, having a bike rack nearby, or advertising a being bike friendly. While studies have shown that customers who drive to their location on average spend more in a single trip than customers who bike, those who bike are shown to make more trips on average in a month, spending more overall each month than those who drive.

OpenStreetsPGH, part of a movement called Ciclovía that includes groups of businesses, neighbors, and non-profits, is an event that closes miles of streets to automobiles for half a day, three times a year during the summer. Business owners were originally skeptical of the impact this would have on their profits. But for many business owners along these routes, sales significantly exceeded non-event day profits. 21,000 people were recorded attending the May 29th, 2016 OpenStreets, many of whom were cyclists from all around the city.



* Data from the Pittsburgh 2020 Bike Plan

Health

Sedentary lifestyles are becoming a major concern for negatively impacting our physical and mental health. It is recommended to get at least 2 to 4 hours of aerobic activity a week to achieve a general improvement in health. Cycling is an ideal method to achieve this goal, as it is low impact, a good muscle workout, easy to learn and do, it is good for increasing both strength and stamina, its intensity can be easily changed, it can be done alone or with a group, and it's time efficient.

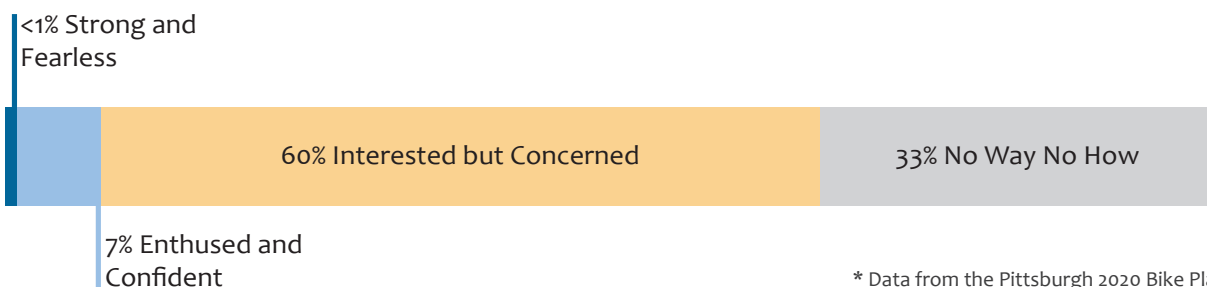
When done regularly, cycling has been proven to increase cardiovascular fitness, increase muscle strength and flexibility, improve joint mobility, decrease stress levels, improve posture and coordination, strengthen bones, decrease levels of body fat, and reduce anxiety and depression.



* Data from the Pittsburgh 2020 Bike Plan

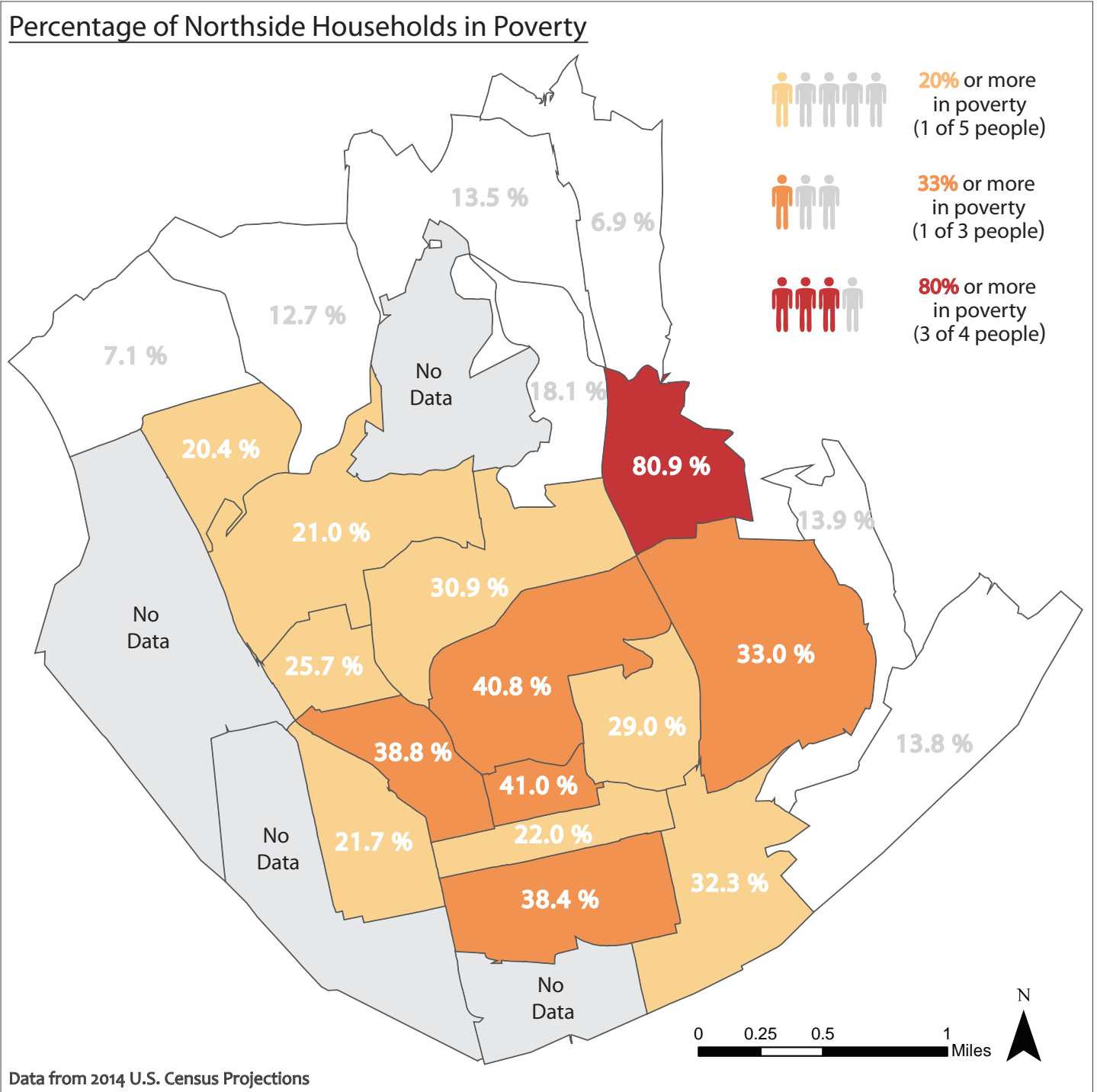
Safety

According to data shown in the Pittsburgh 2020 Bike Plan, the vast majority of cyclists who are enthused about cycling through the city are also concerned for their safety while cycling.



* Data from the Pittsburgh 2020 Bike Plan

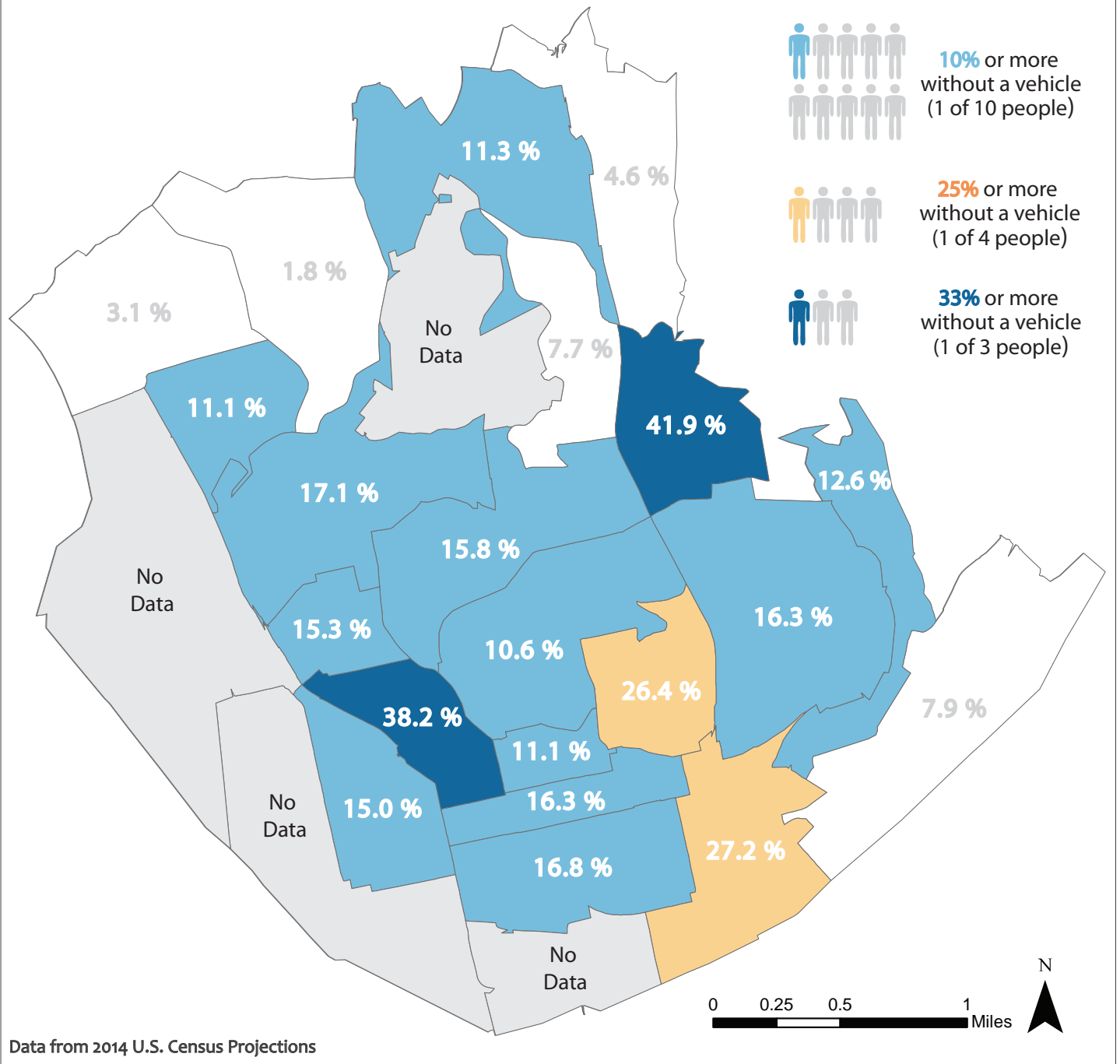
Social Equity



Social equity “implies fair access to livelihood, education, and resources.” Areas with higher levels of poverty often possess fewer opportunities for socioeconomic advancement to those living there. Lack of connections and methods of transportation to outlying areas of opportunity (i.e. education and employment) further isolates these areas and the people who live there. Interconnected bicycle infrastructure will provide affordable opportunities for those struggling with poverty to acquire access to the resources necessary to advance economically.

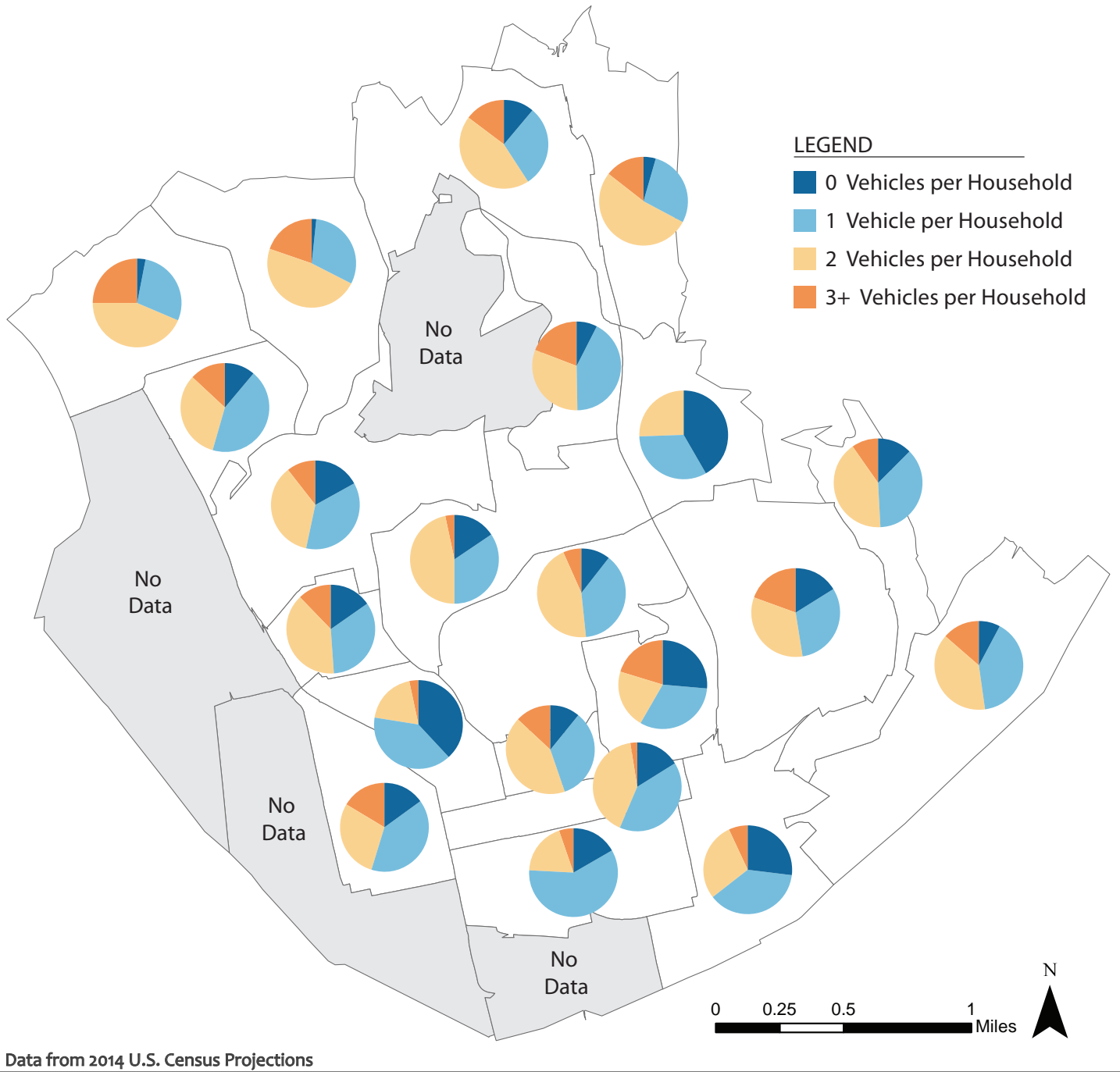
Existing Means of Transportation

Percentage of Northside Households without Vehicles



Households without access to a motorized vehicle can face numerous transportation challenges, especially those which are geographically separated from essential resources such as grocery stores, areas of employment, education, health care, etc. Routine use of public transportation can accrue significant costs over time as well. Well developed bicycle infrastructure can provide a more affordable alternative to these households.

Percentage of Vehicles Owned per Household



How Our Goals can be Achieved

The purpose of this study is to provide the City of Pittsburgh Department of City Planning with the Northside Bike/Ped Committee's recommendations for providing connectivity of bicycle routes throughout the lower Northside neighborhood. Towards that end, Pashek Associates, Landscape Architects and Community Planners, were retained to evaluate opportunities and provide recommendations for connecting existing bicycle facilities to provide convenient and comfortable bicycling routes in the Northside.

The goal is to connect residents of the Northside to and connect the following existing bicycle facilities with one another:

- A. Howard Street Shared Road Markings & East Street Protected Bike Lanes
- B. East Ohio Street Shared Road Markings
- C. East Ohio Street Protected Bike Lanes
- D. West Ohio Street Bike Lanes
- E. Brighton Road Bike Lanes
- F. North Federal Street Bike Lanes
- G. Merchant Street Shared Road Markings
- H. Roberto Clemente Bridge Protected Bike Lanes
- I. St. Nicholas Church Historic Site Walkway
- J. Three Rivers Heritage Trail

North Avenue

It is the position of the Northside Pedestrian/Bicycle Committee that the City of Pittsburgh should take a holistic approach to Complete Streets in the Northside Neighborhood. Ideally, where possible protected bike lanes would extend the length of North Avenue, from East Street to Brighton Road, connecting the proposed East Street protected bike lane with the existing bike lanes on Brighton Road.

A westbound Bike Lane along North Avenue connecting to Howard Street would serve as a one-way inbound corridor for bicycle travel from the upper Northside to the lower Northside, while proposed protected bike lanes around/through Allegheny Commons will serve as a north south corridor for bicycle travel, connecting to the existing protected bike lanes on the Roberto Clemente Bridge which lead to the Golden Triangle and the Penn Avenue protected bike lanes.



East Street to East Ohio Street (Inbound)

Recognizing the overall time and cost associated with such a facility, the Committee is recommending the following in the interim:

1. **East North Avenue from Howard Street to James Street**
 - » 6' wide Protected Bike Lane westbound (inbound only)
2. **James Street from East North Avenue to East Ohio Street**
 - » Bicycle Boulevard/Shared Road Markings southbound (inbound only)
3. **Tripoli Street from Middle Street to Cedar Avenue:**
 - » Shared Road Markings westbound (inbound only)
4. **Cedar Avenue from Tripoli Street to East Ohio Street:**
 - » 6' wide Bike Lane northbound
 - » 6' wide Bike Lane southbound

East Ohio Street to East Street (Outbound)

5. **Chestnut Street from East Ohio Street to Concord Street**
 - » Shared Roadway Markings northbound (outbound only)
6. **Concord Street from Chestnut Street to East Street**
 - » Shared Road Markings westbound (outbound only)
7. **East Street from Concord Street to Existing East Street Bike Lanes**
 - » 6' wide Bike Lane northbound (outbound only)

East Street to Brighton Road

8. **Allegheny Commons Park from Cedar Avenue to Brighton Road**
 - » Shared Path Markings eastbound
 - » Shared Path Markings westbound
 - » Separate Bike Lane Crossing Markings at street intersections

East Ohio Street to Federal Street/Roberto Clemente Bridge

9. **East Ohio Street from Cedar Avenue to East Commons**
 - » 6' wide Bike Lane eastbound
 - » 6' wide Bike Lane westbound
10. **Allegheny Circle**
 - » 6' Bike Lanes – Northside Ped/Bike Committee is represented on the CMU Studio for Spatial Practice's project focusing on Allegheny Center to take place fall 2015.
11. **Federal Street**
 - » 6' wide Bike Lane northbound
 - » 6' wide Bike Lane southbound
 - » PNC Connector to Three Rivers Heritage Trail
 - » Red Building Connector to Three Rivers Heritage Trail

.....

Federal Street/Roberto Clemente Bridge to Western Avenue

12. **Ridge Avenue from West Commons to Existing West Ohio Street Bike Lanes**
 - » 6' wide Bike Lane eastbound
 - » 6' wide Bike Lane westbound
13. **Brighton Road from West Ohio Street to Existing Brighton Road Bike Lanes**
 - » 6' wide Bike Lane northbound
 - » Shared Road Markings southbound

Manchester to North Shore Trail/Three Rivers Heritage Trail

14. **West North Avenue from Brighton Road to Sheffield Street**
 - » Shared Roadway Markings eastbound
 - » Shared Roadway Markings westbound
15. **Western Avenue from Brighton Road to Bidwell Street**
 - » Shared Roadway Markings eastbound
 - » Shared Roadway Markings westbound
16. **Bidwell Street from Western Avenue to Sheffield Street**
 - » Bike Boulevard/Shared Roadway Markings northbound
 - » Bike Boulevard/Shared Roadway Markings southbound
17. **Sheffield Street from Bidwell Street to Chateau Street**
 - » Shared Roadway Markings eastbound
 - » Shared Roadway Markings westbound
18. **Chateau Street from Sheffield Street to Juniata Street**
 - » 12' wide Protected Cycle Track
 - » Connection to Beaver Avenue via underpass
19. **Beaver Avenue from Franklin Street to Island Avenue**
 - » 12' wide Protected Cycle Track
 - » Connection to Chateau Street via underpass
 - » Connection to pedestrian bridge to Marshall Avenue
20. **Island Avenue from Beaver Avenue to North Shore Trail (Three Rivers Heritage Trail)**
 - » Shared Roadway Markings eastbound
 - » Shared Roadway Markings westbound
21. **Franklin Avenue from Beaver Avenue to North Shore Trail (Three Rivers Heritage Trail)**
 - » Shared Roadway Markings eastbound
 - » Shared Roadway Markings westbound





Three Rivers Heritage Trail to Chestnut Street/16th Street Bridge

22. Chestnut Street from East Ohio to Progress Street

- » Shared Roadway Markings northbound
- » Shared Roadway Markings southbound

23. Progress Street from Bolin Way to Heinz Street

- » 5' wide Bike Lane eastbound
- » 5' wide Bike Lane westbound

24. Heinz Street from Progress Street to North Shore Trail/Three Rivers Heritage Trail

- » 5' wide Bike Lane northbound
- » 5' wide Bike Lane southbound

25. Gazena Way from Progress Street to Saw Mill Way

- » Bike Boulevard/Shared Roadway Markings northbound
- » Bike Boulevard/Shared Roadway Markings southbound

26. Bolin Way from Saw Mill Way to Progress Street

- » Bike Boulevard/Shared Roadway Markings northbound
- » Bike Boulevard/Shared Roadway Markings southbound

27. Saw Mill Way from Heinz Street to Bolin Way

- » Bike Boulevard/Shared Roadway Markings eastbound
- » Bike Boulevard/Shared Roadway Markings westbound



2016 Proposed Northside Bike Infrastructure

Including Bike Shares, Bike Racks, and Cultural Destinations of the Northside

Legend

- | | | |
|------------------------|------------------------------------|----------------------------------|
| ◆ Bike Share | ▬ Protected Cycle Track (proposed) | ▬ Shared Lane Marking (existing) |
| ○ Bike Racks | ▬ Bike Boulevard (proposed) | ▬ Shared Lane Marking (proposed) |
| P Trail Parking | ▬ Bike Lane (existing) | ▬ Trails |
| ★ Cultural Destination | ▬ Bike Lane (proposed) | ▬ Existing City Bike Route |
| ▬ Higher Education | ▬ Protected Lane (existing) | ▬ Parks |
| ▬ Bus Shelter | ▬ Protected Lane (proposed) | |
| ▬ School | | |

Street Sections

In ideal situations, the implementation of bicycle infrastructure does not create significant alterations to the existing flow of traffic. However, even in low impact situations, there are generally minor changes in lane width and minor lane shifts. In some cases, road striping changes significantly. The following graphics were created to provide a visual aid in comprehending which streets are recommended to undergo significant changes or minor alterations, and the potential impacts those changes will have.

There are five types of bicycle infrastructure proposed in this plan: Shared Lane Markings, Bike Boulevards, Bike Lanes, Protected Bike Lanes, and Protected Cycle Tracks.



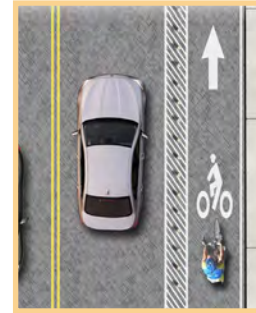
Shared Lane Marking



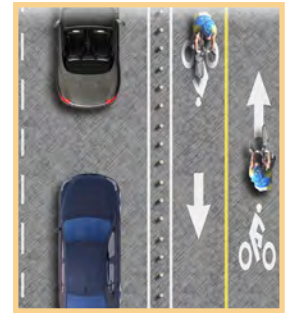
Bike Boulevard



Bike Lane



Protected Bike Lane

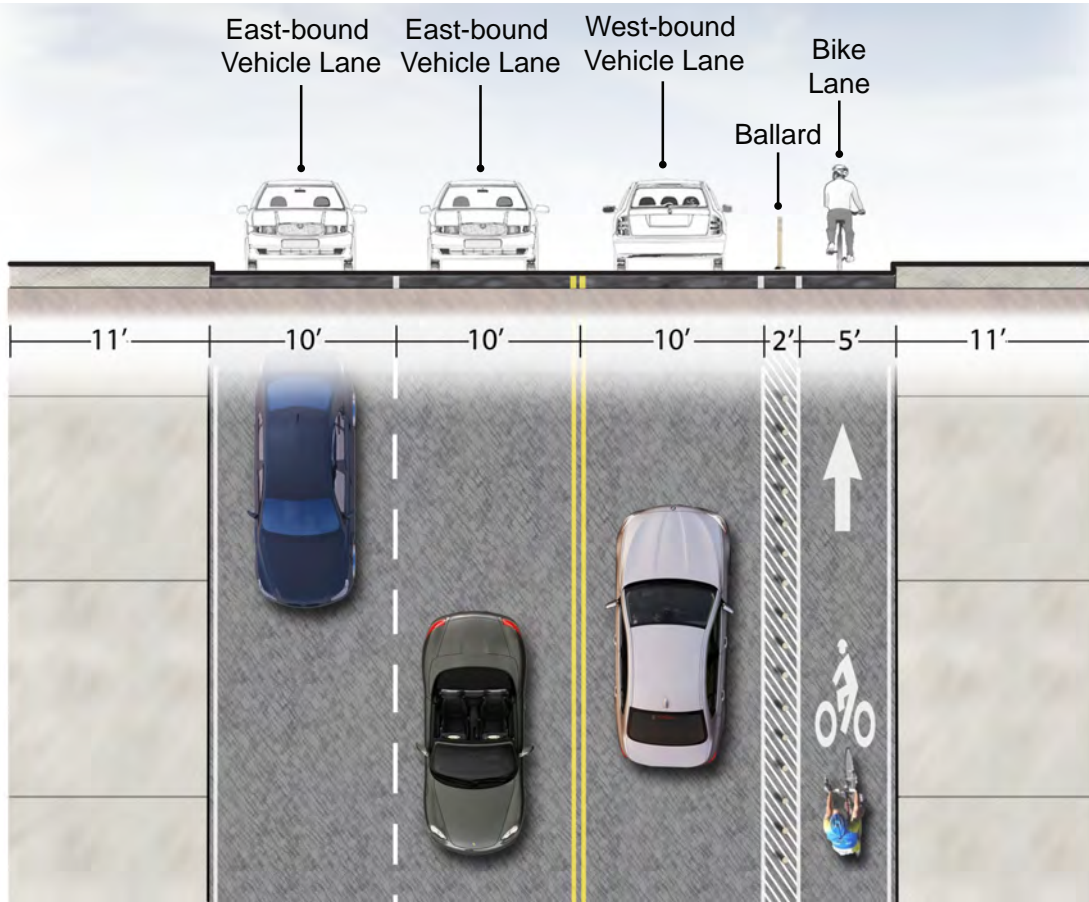


Protected Cycle Track

*Note: Streets recommended to receive Shared Lane Markings are not graphically represented since there is no change in road function.

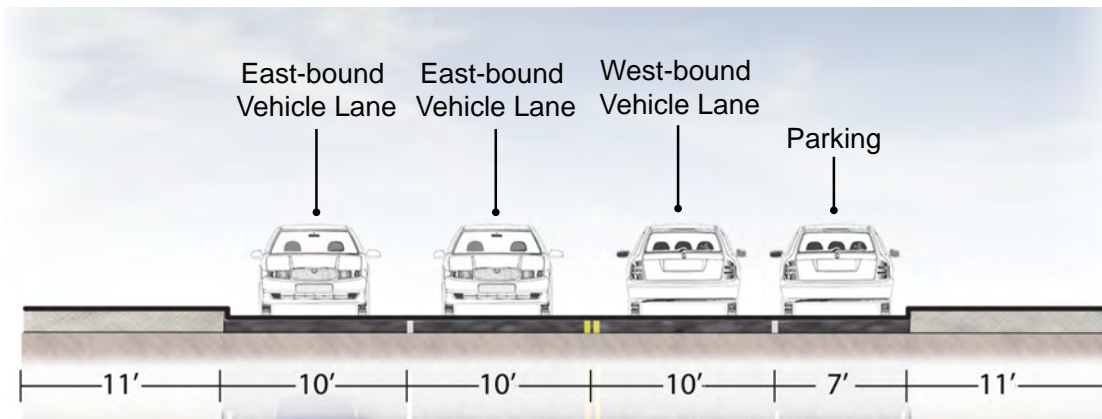


Proposed - Section



Proposed - Plan

Existing - Section



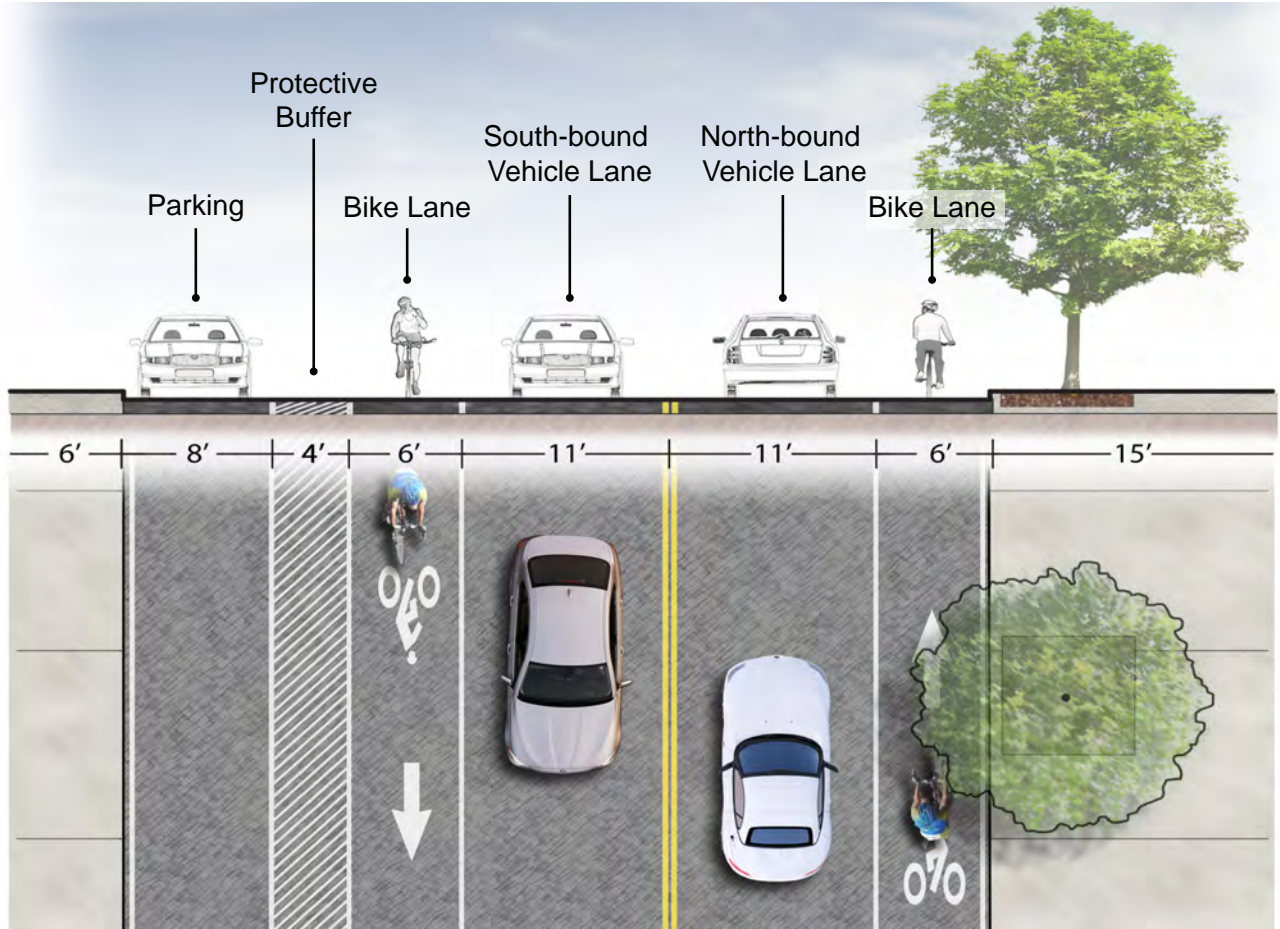
1 EAST NORTH AVENUE
Northside Bicycle Connection Study

Scale for all plans/sections: 0 5 10 20

PASHEK ASSOCIATES
LANDSCAPE ARCHITECTURE | DESIGN | PLANNING

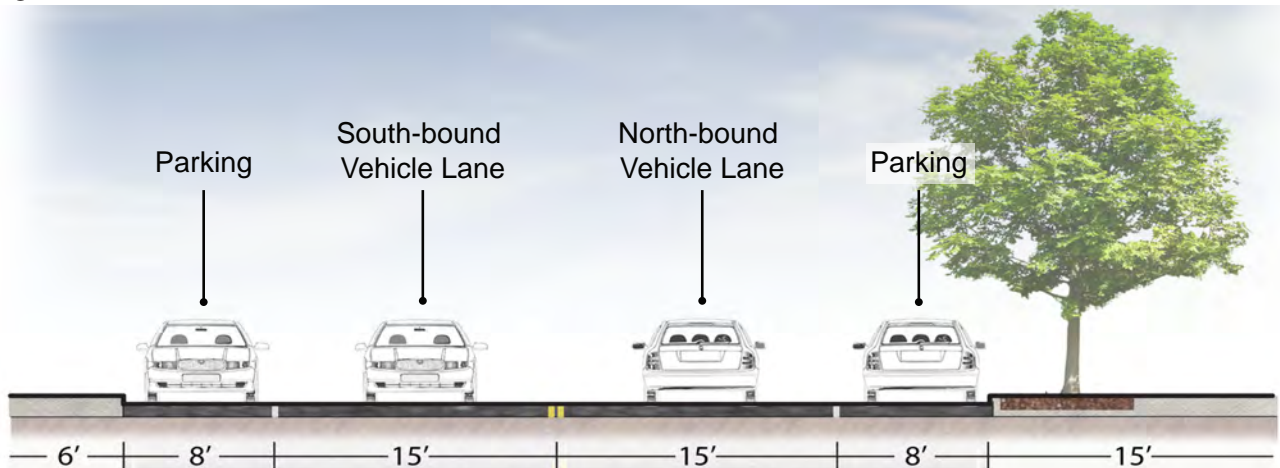


Proposed - Section

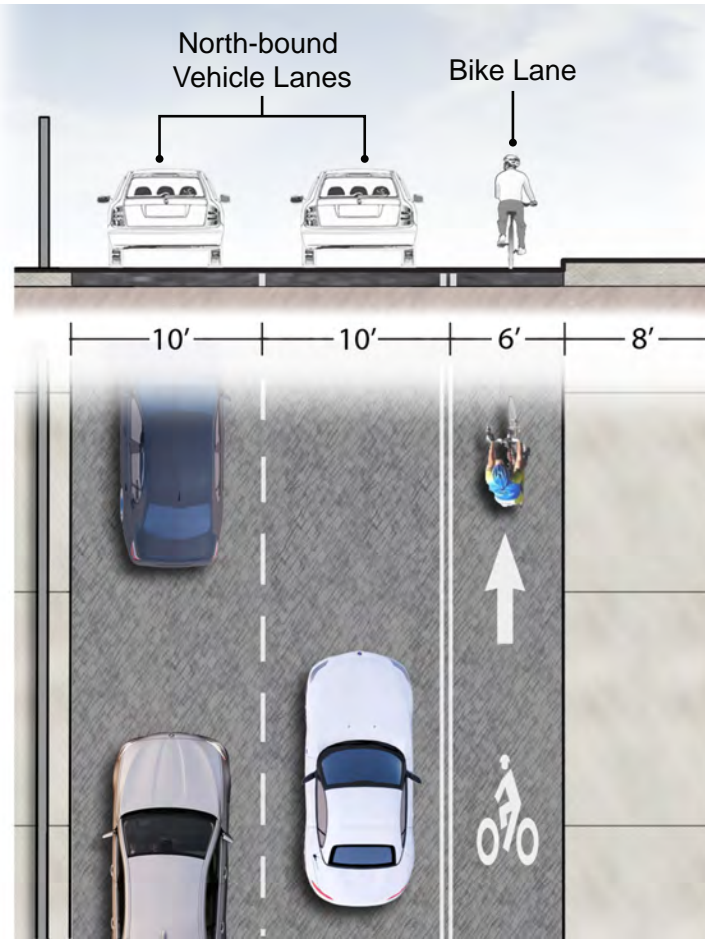


Proposed - Plan

Existing - Section

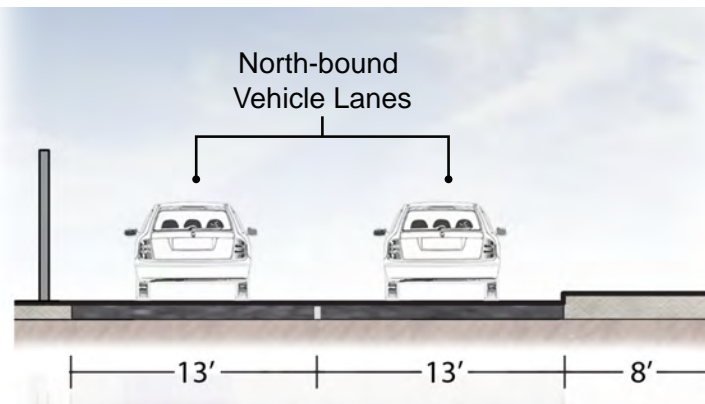


Proposed - Section

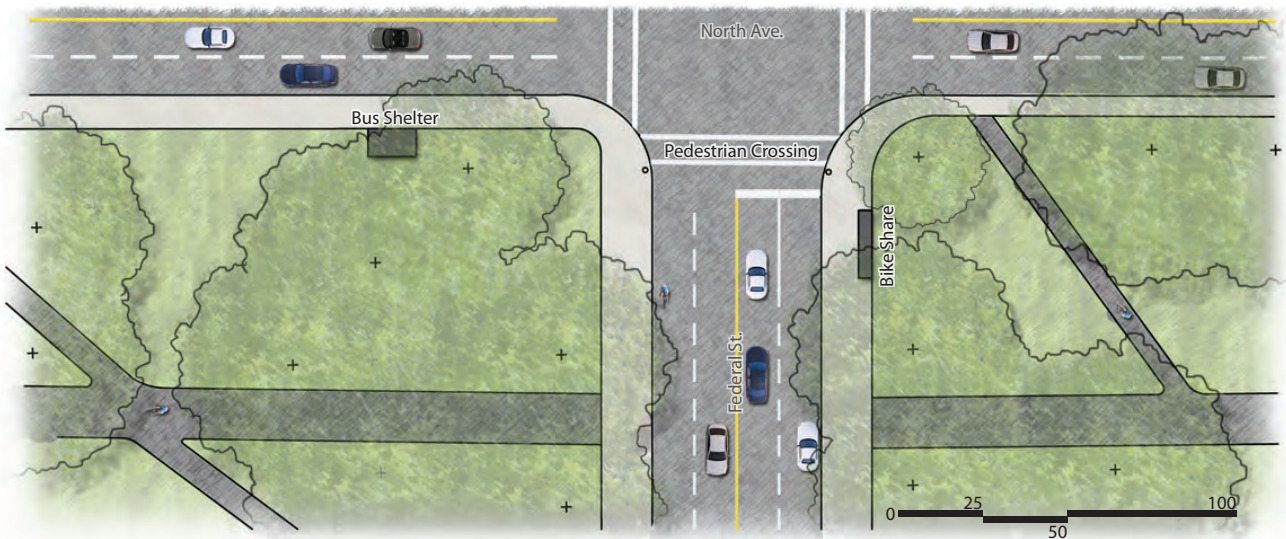
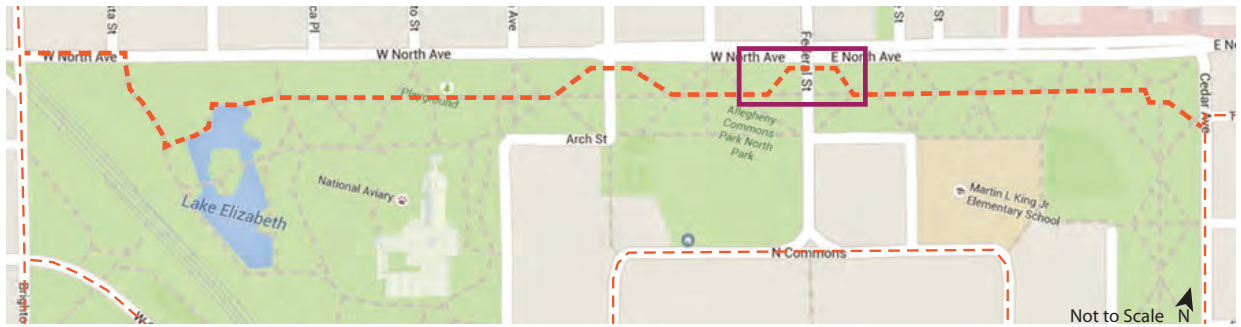


Proposed - Plan

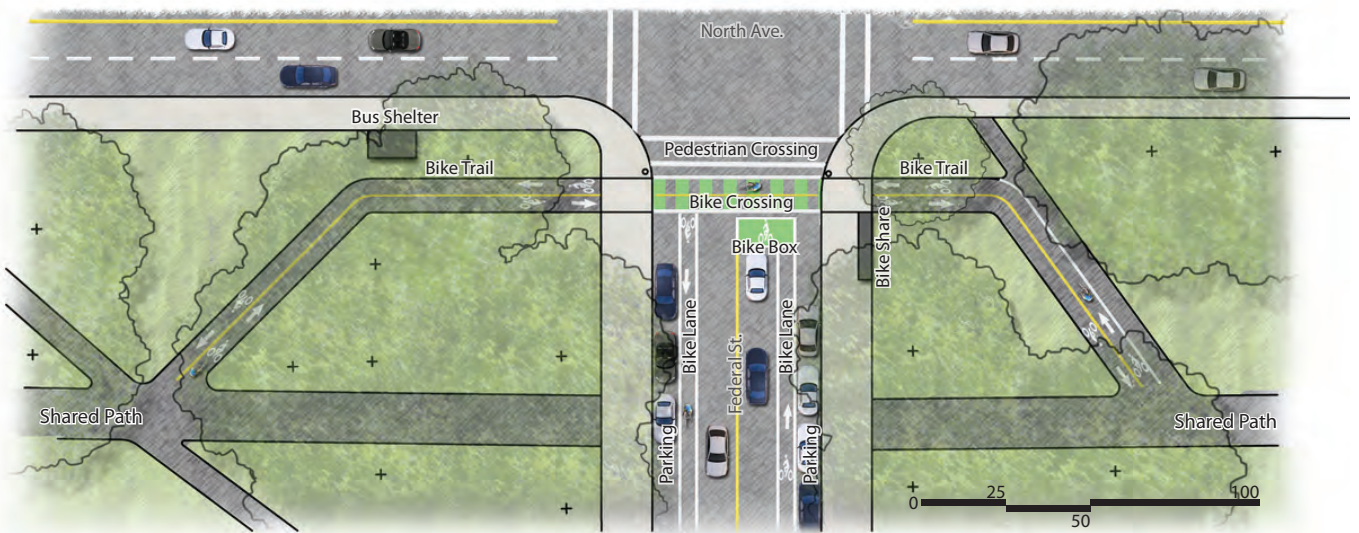
Existing - Section



Proposed Bike Route Connection Through Allegheny Commons Park

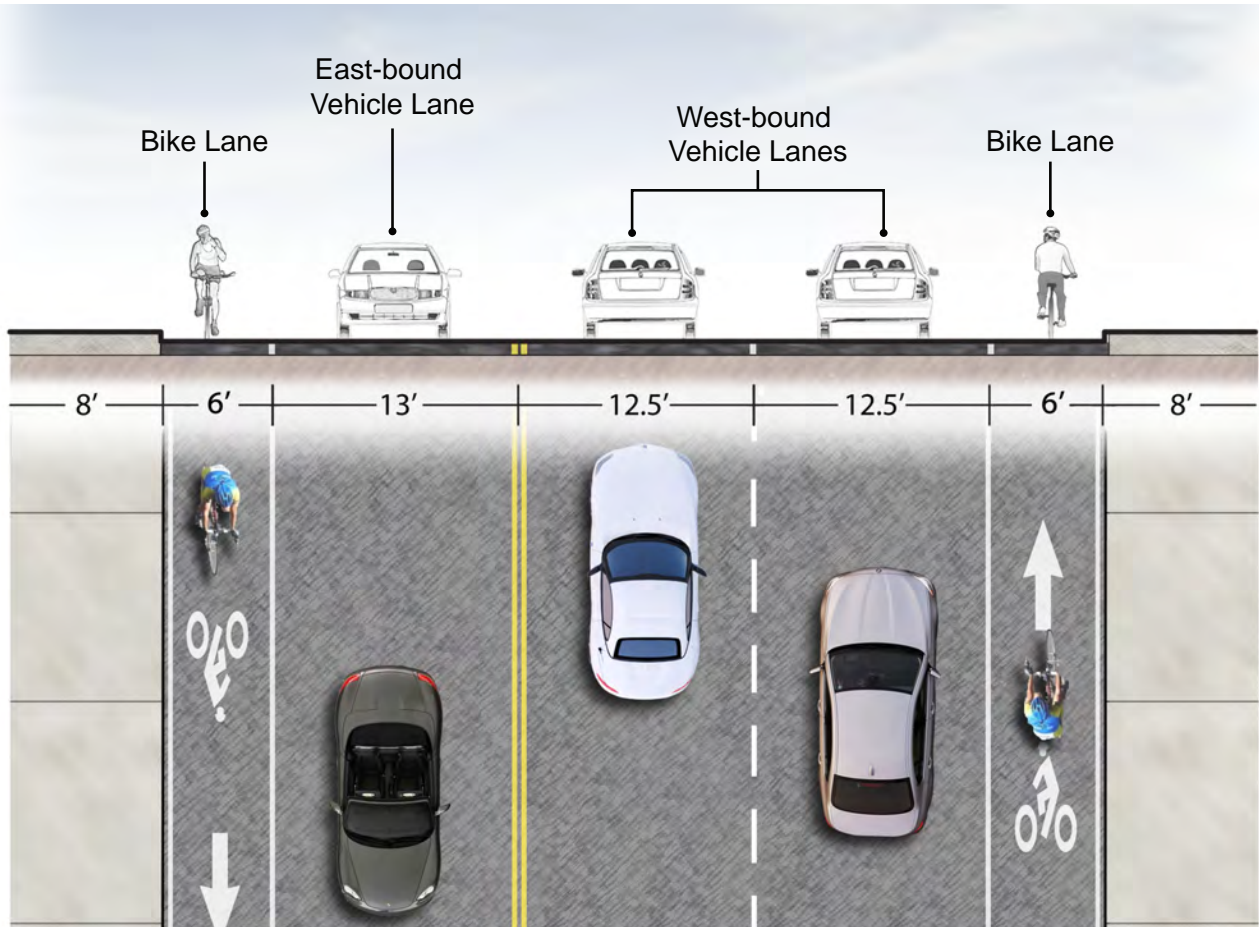


Existing Crossover (Federal Street)



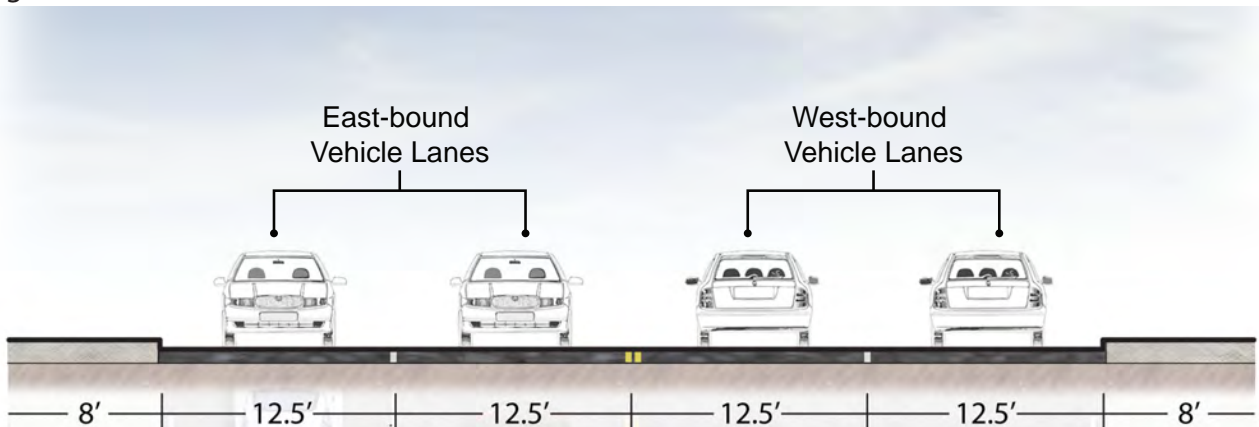
Proposed Bike/Pedestrian Crossover (Federal Street)

Proposed - Section

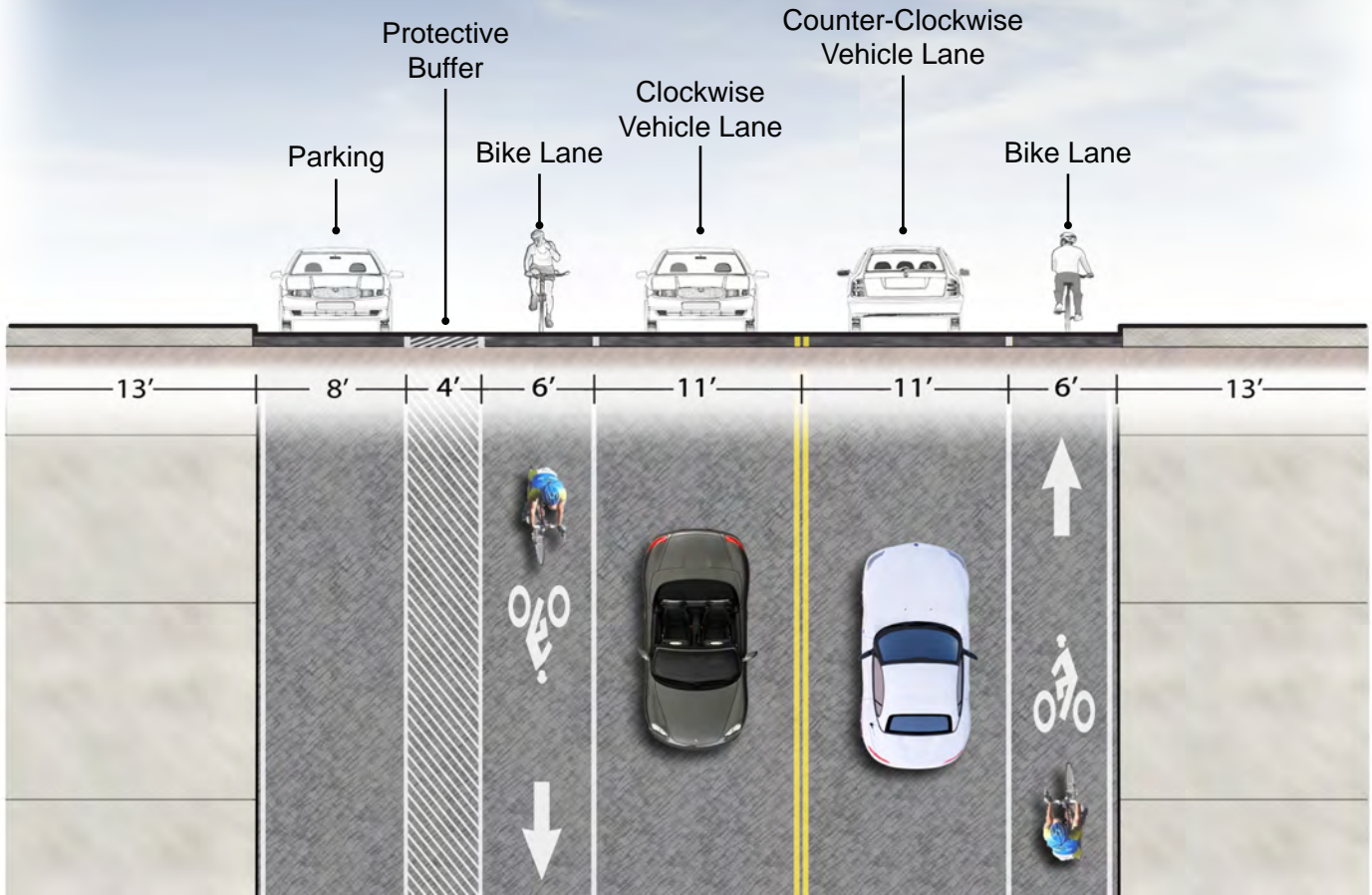


Proposed - Plan

Existing - Section

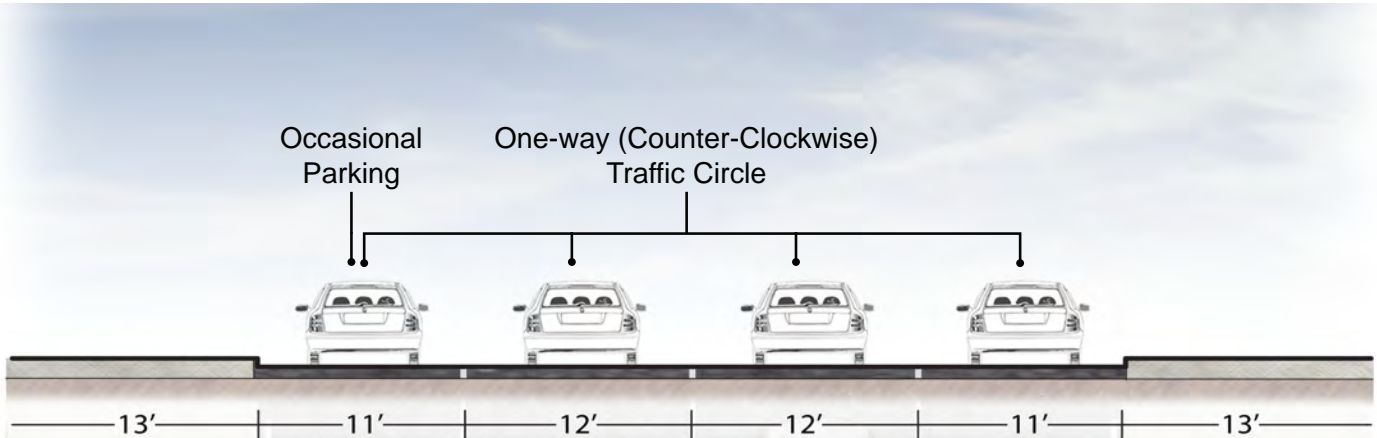


Proposed - Section

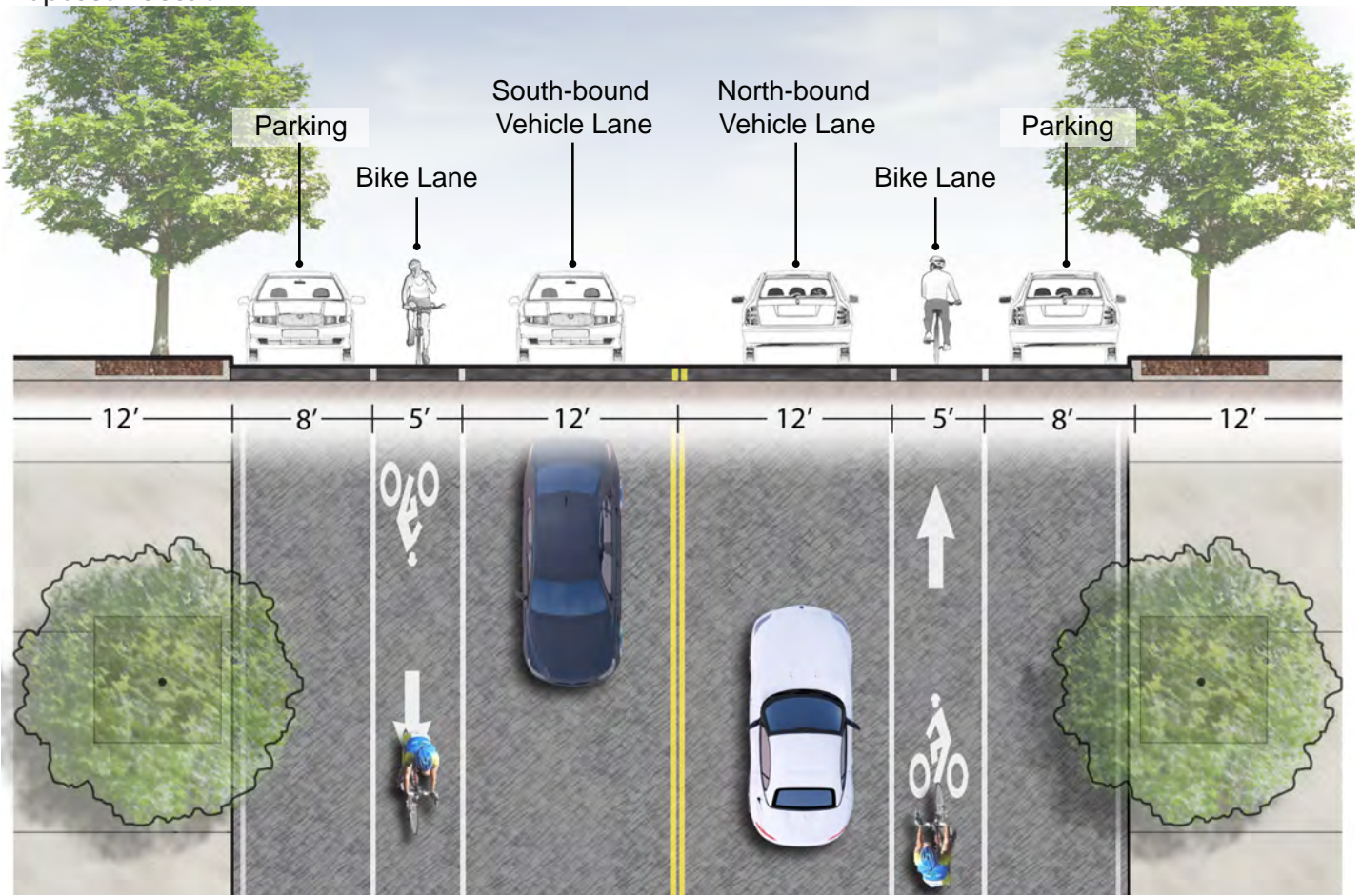


Proposed - Plan

Existing - Section

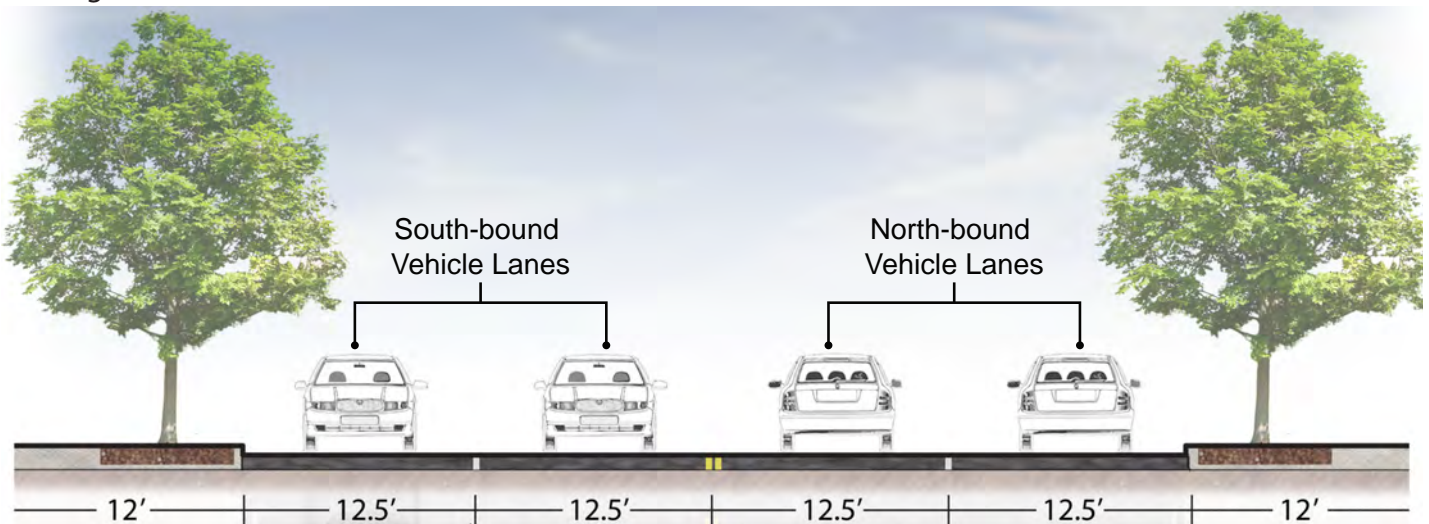


Proposed - Section

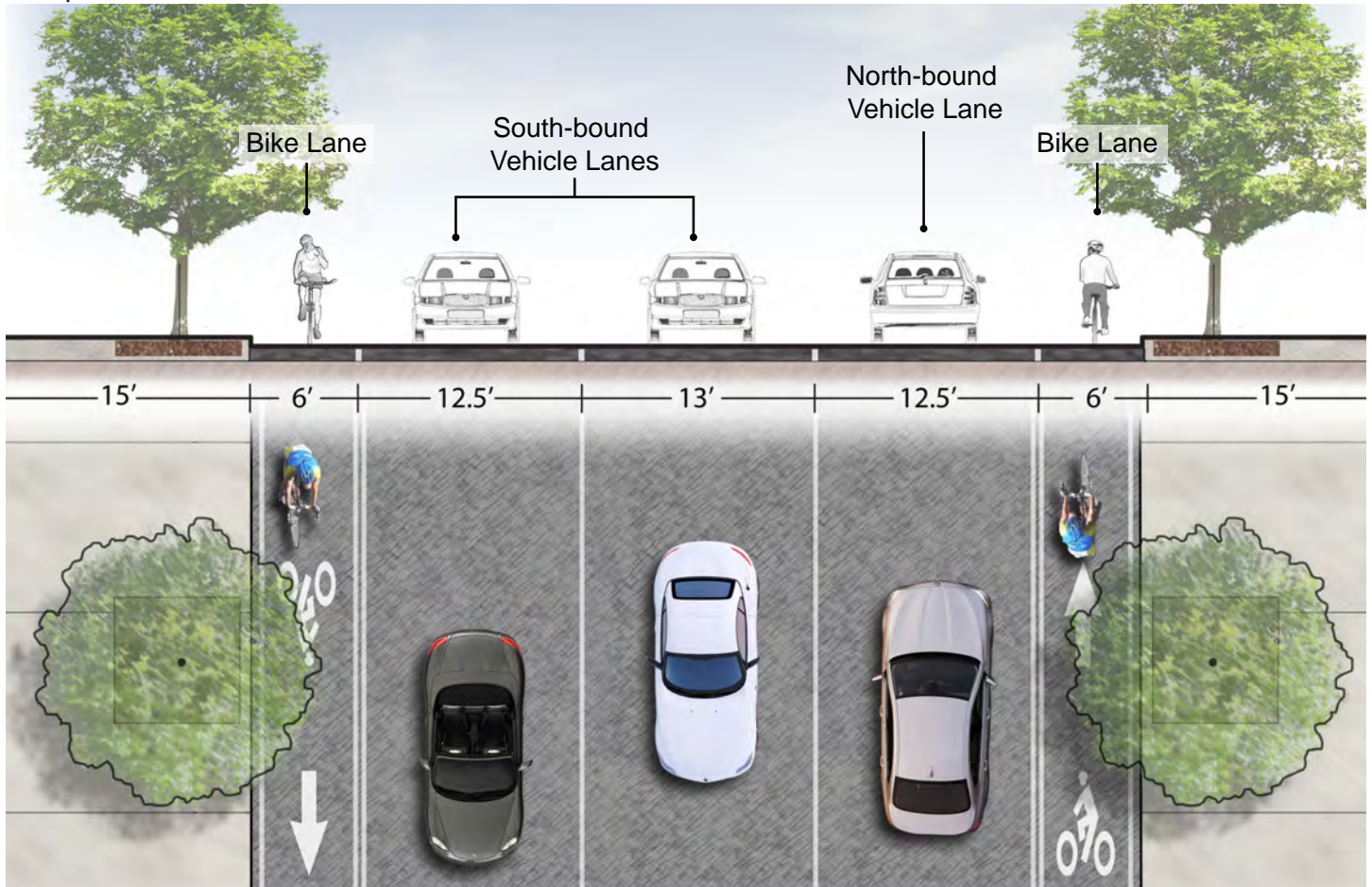


Proposed - Plan

Existing - Section

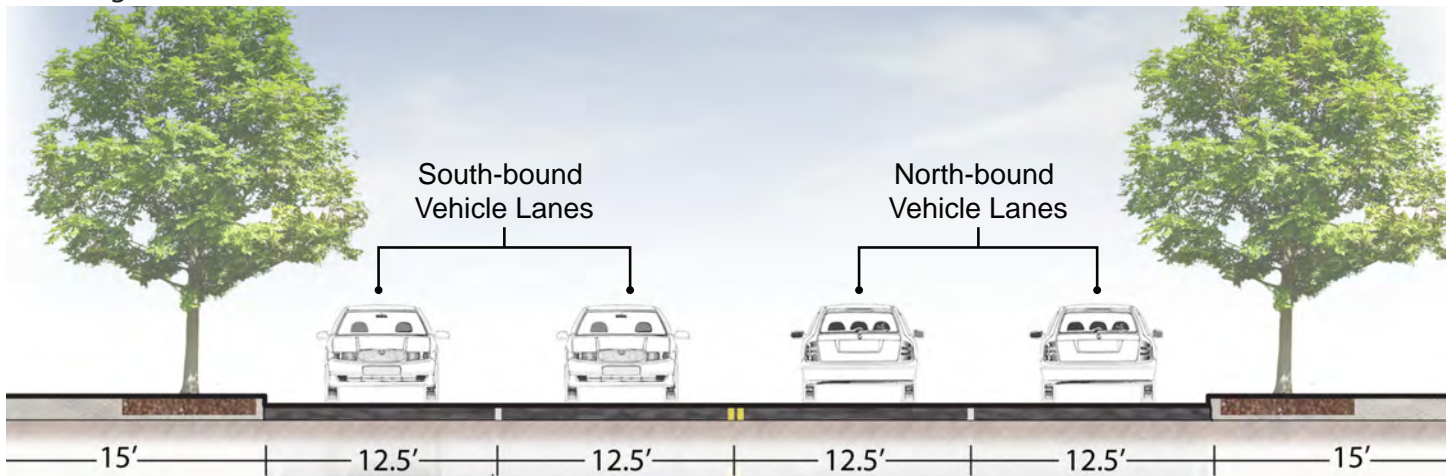


Proposed - Section

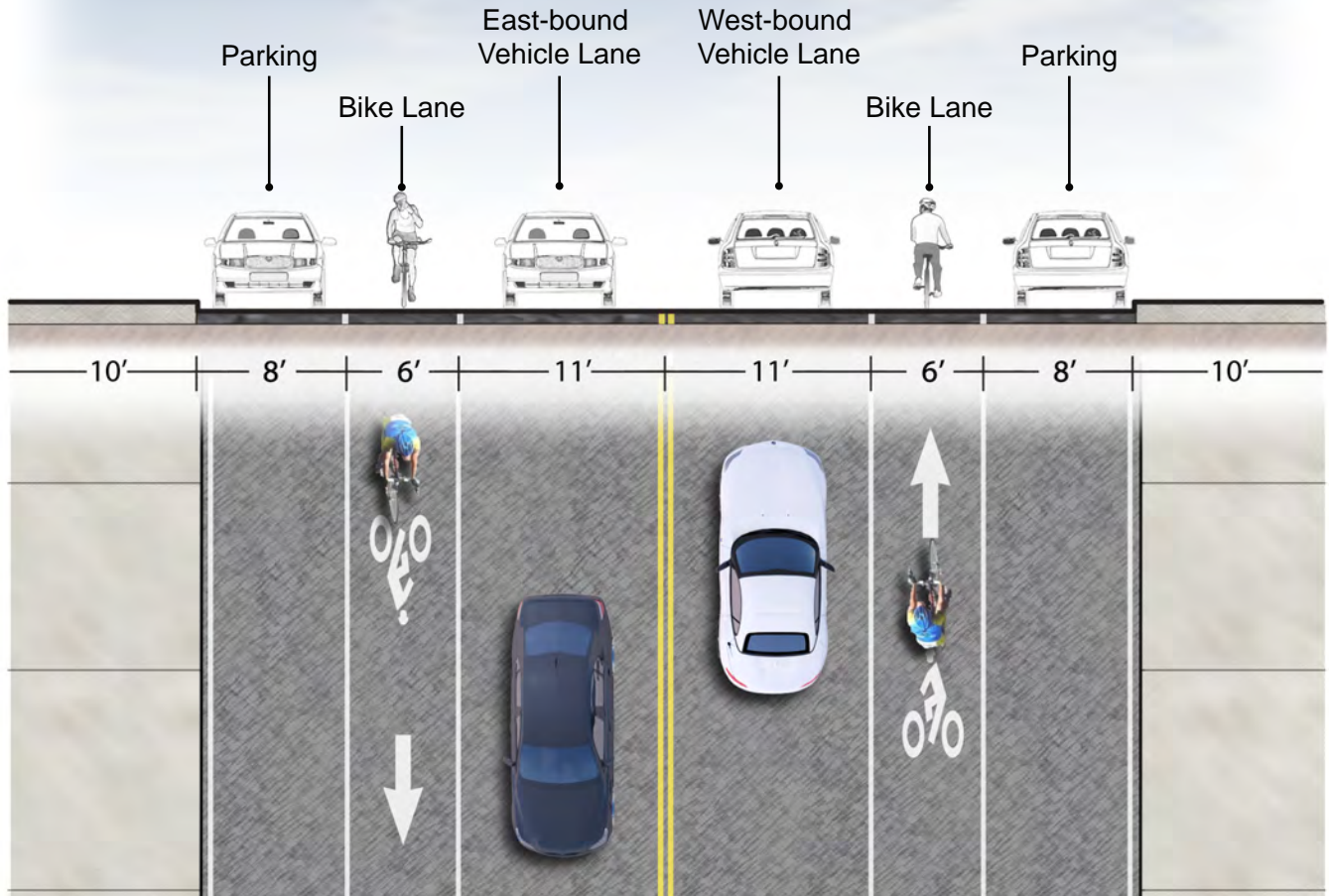


Proposed - Plan

Existing - Section

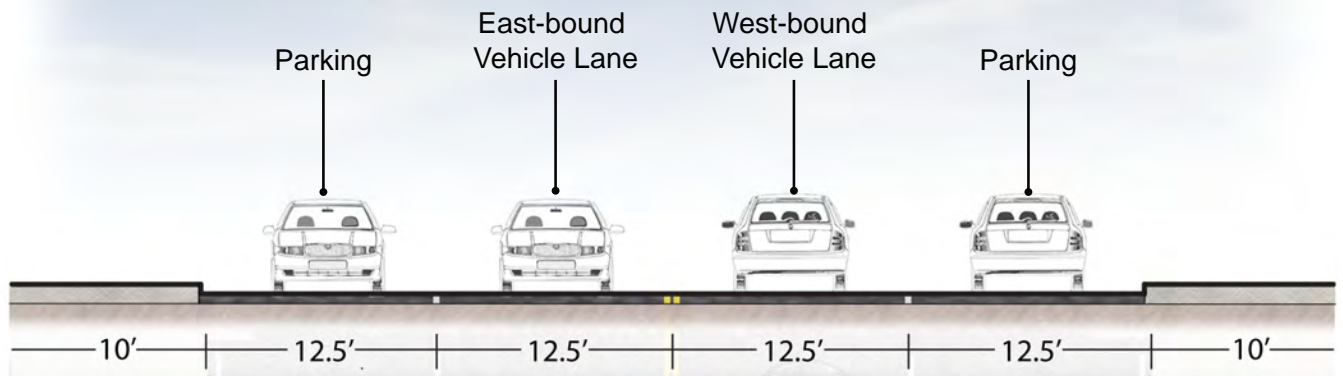


Proposed - Section

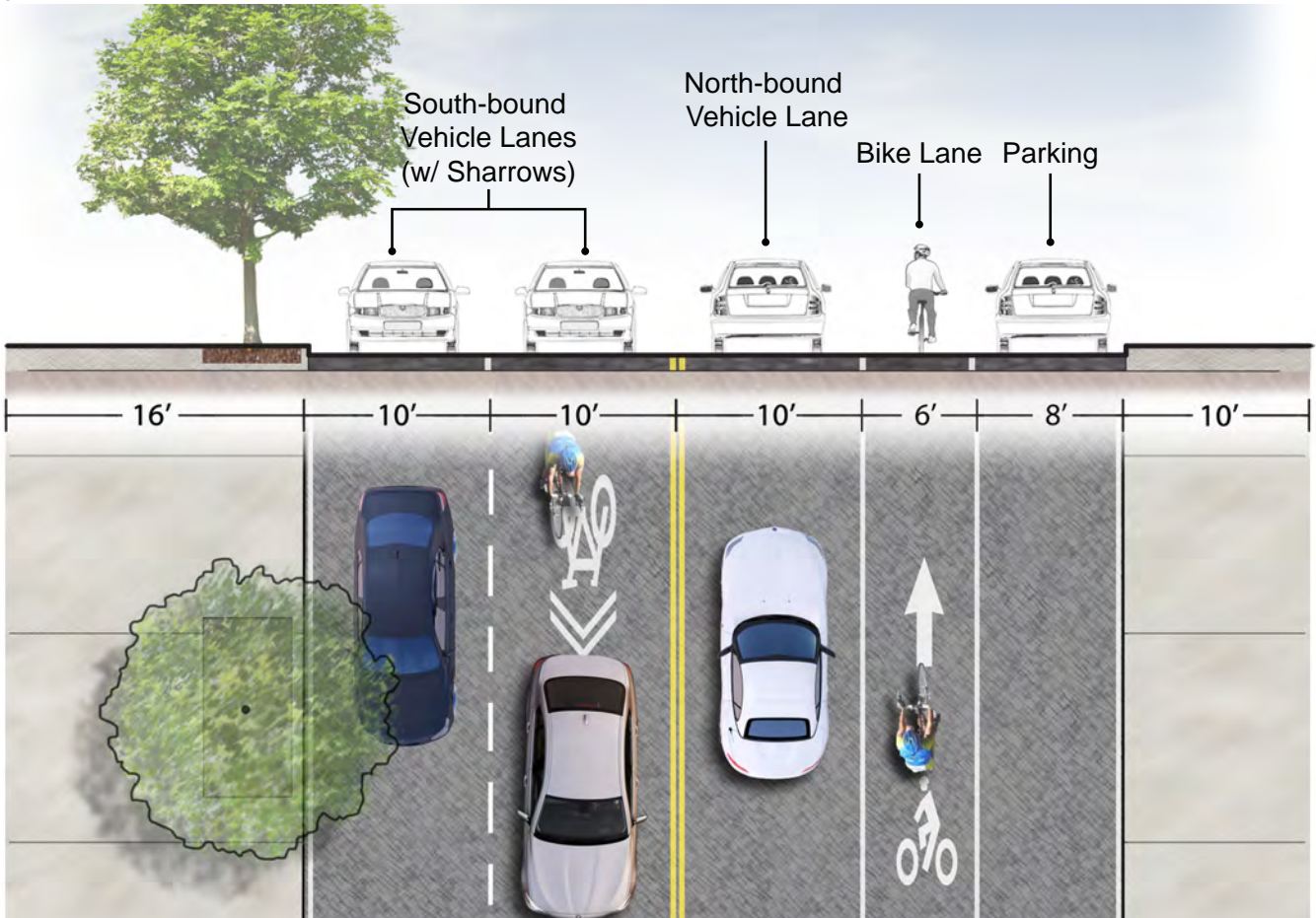


Proposed - Plan

Existing - Section

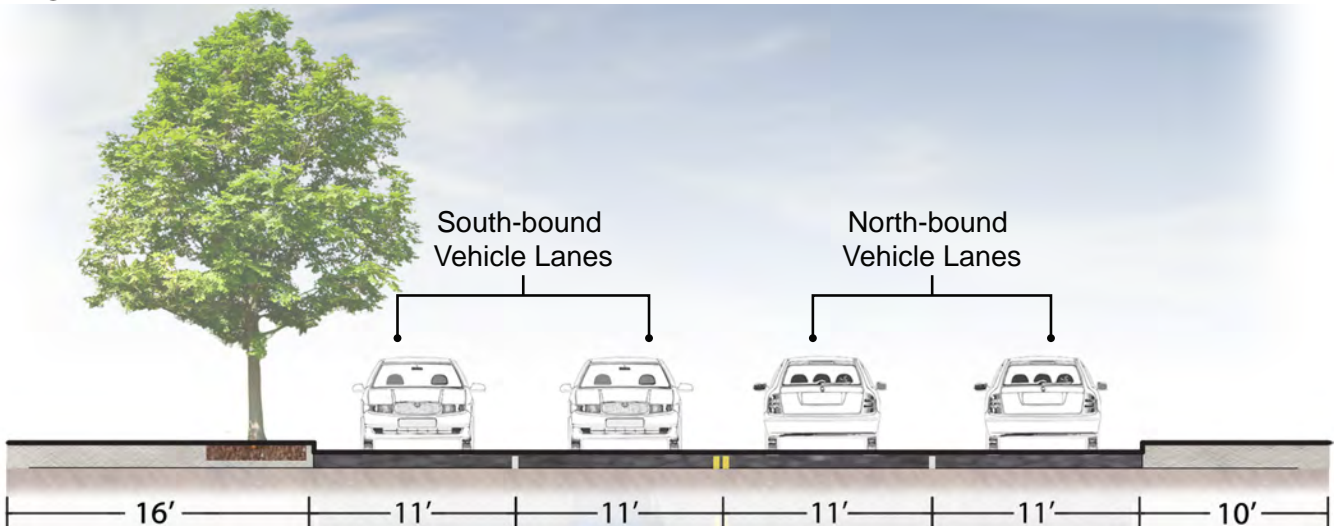


Proposed - Section



Proposed - Plan

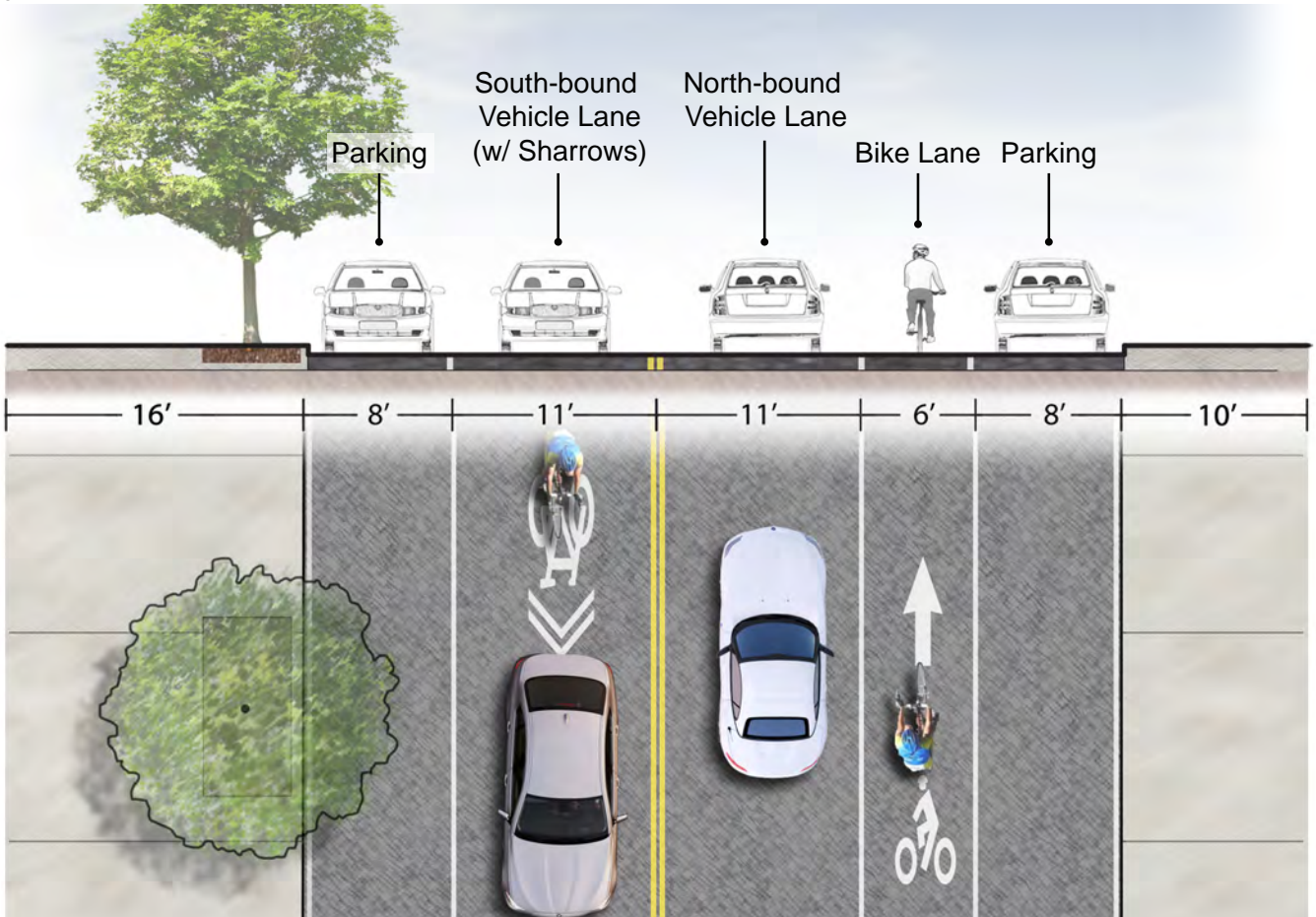
Existing - Section



13a BRIGHTON ROAD (WEST OHIO ST. TO BEECH AVE.)
Northside Bicycle Connection Study

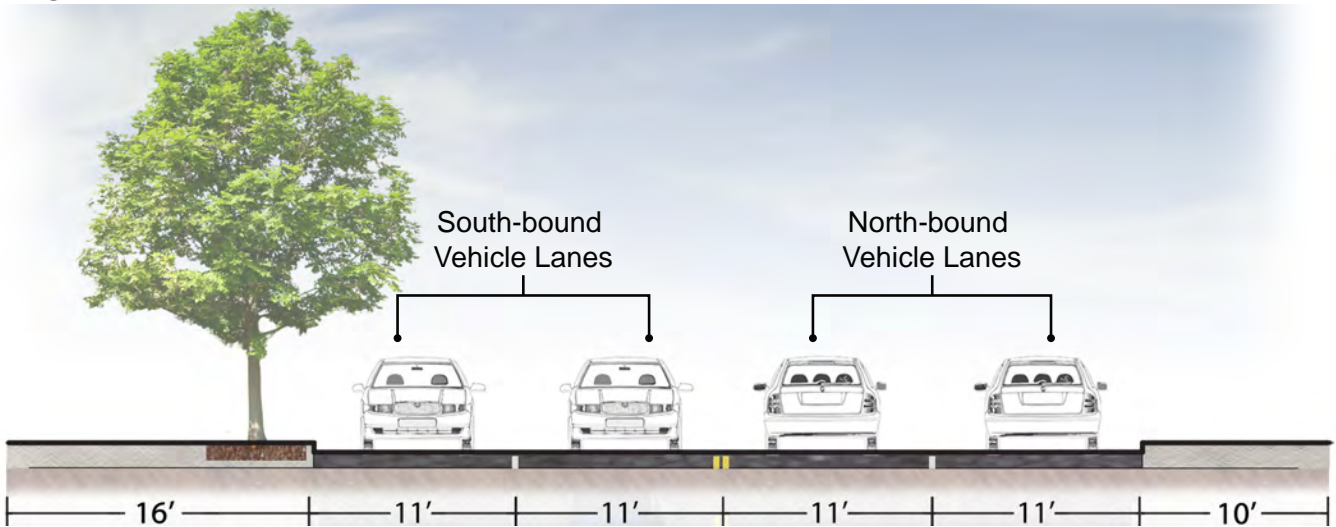
Scale for all plans/sections: 0 5 10 20

Proposed - Section



Proposed - Plan

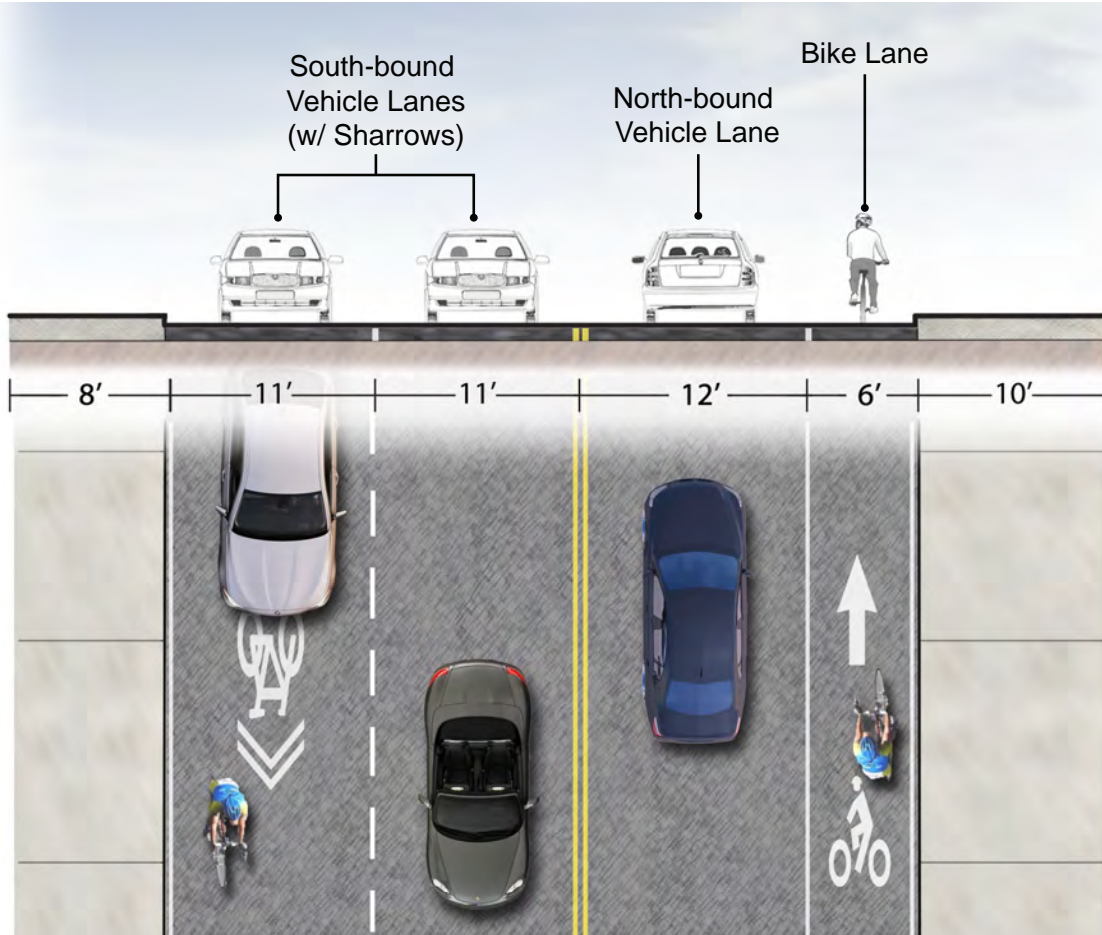
Existing - Section



13b BRIGHTON ROAD (BEECH AVE. TO NORTH AVE.)
Northside Bicycle Connection Study

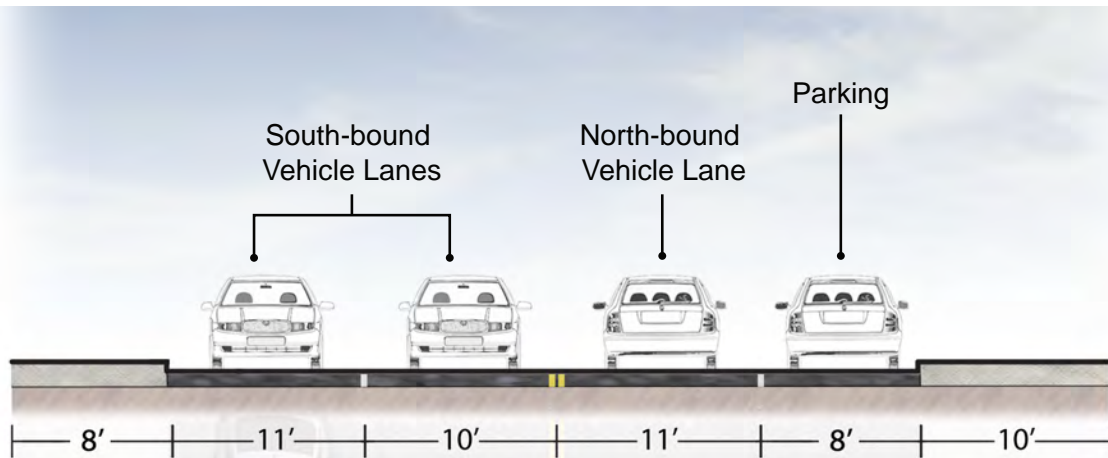
Scale for all plans/sections: 0 5 10 20

Proposed - Section



Proposed - Plan

Existing - Section



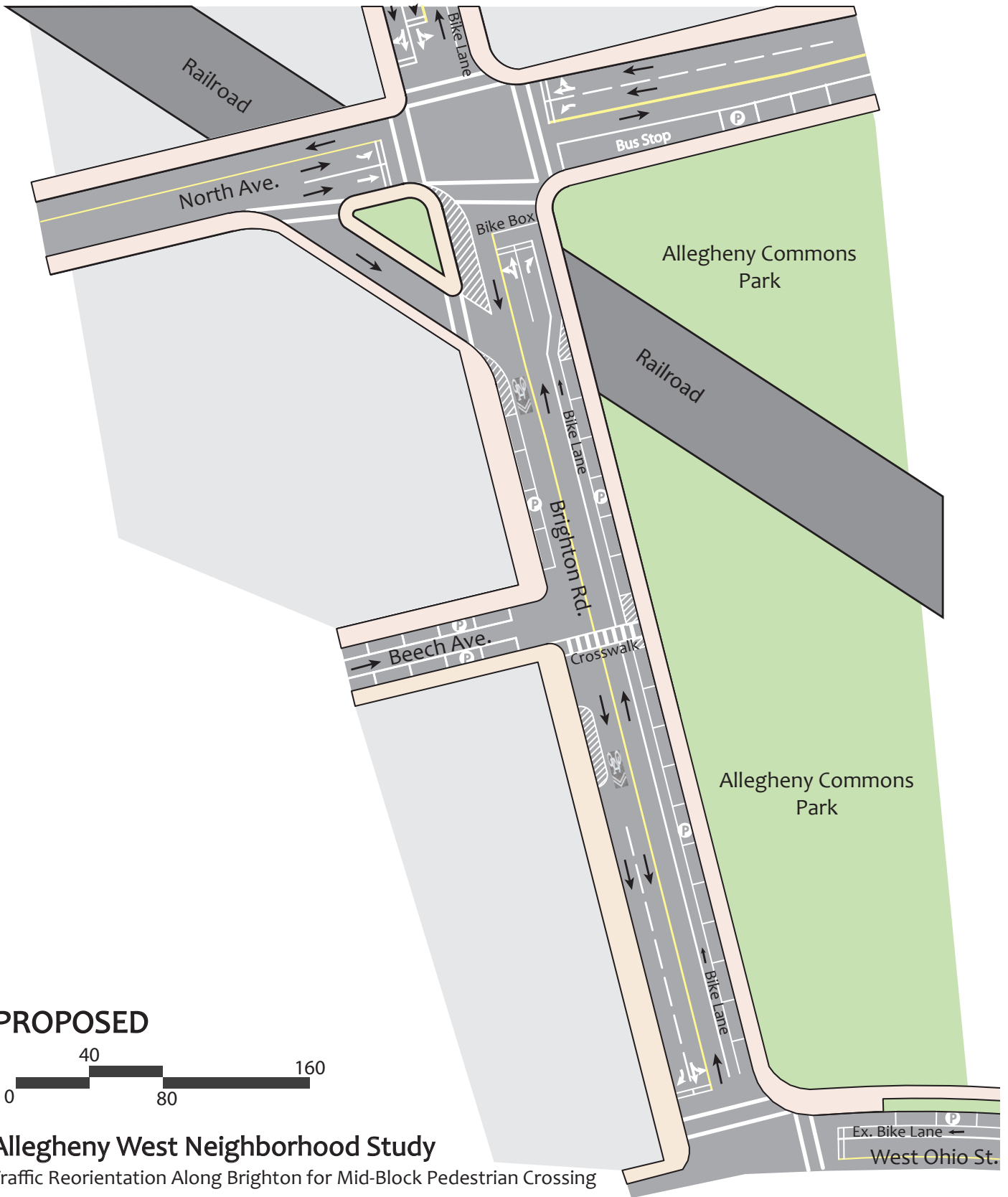
13c

BRIGHTON ROAD (NORTH AVE. TO CALIFORNIA AVE.)

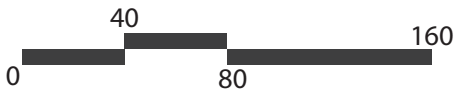
Scale for all plans/sections:



Northside Bicycle Connection Study



PROPOSED

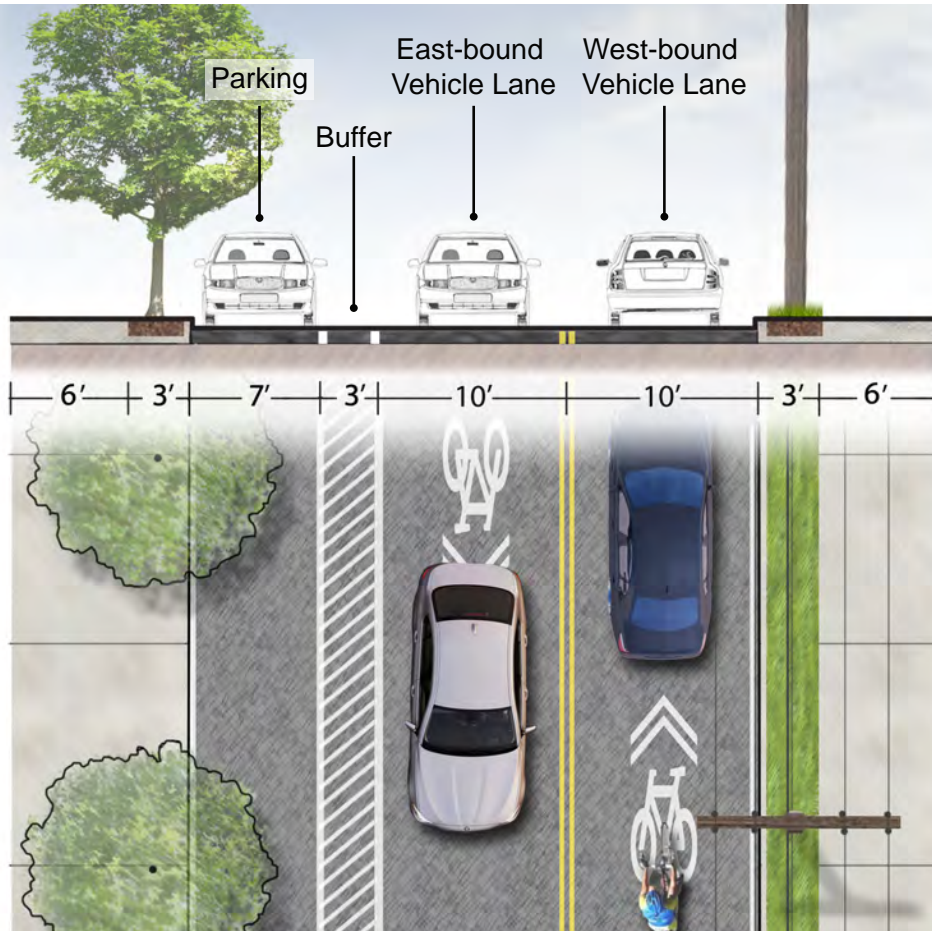


Allegheny West Neighborhood Study

Traffic Reorientation Along Brighton for Mid-Block Pedestrian Crossing

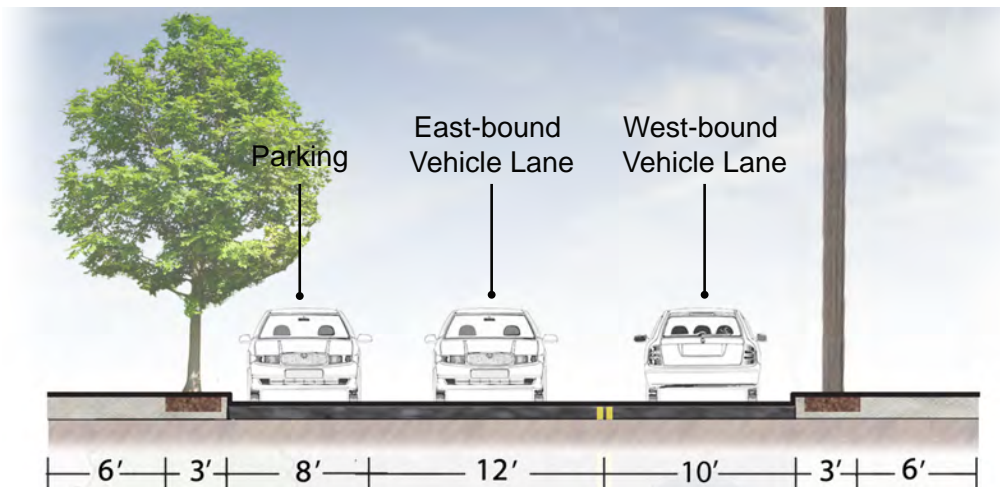
- 13 BRIGHTON ROAD (PLAN VIEW)
Northside Bicycle Connection Study

Proposed - Section

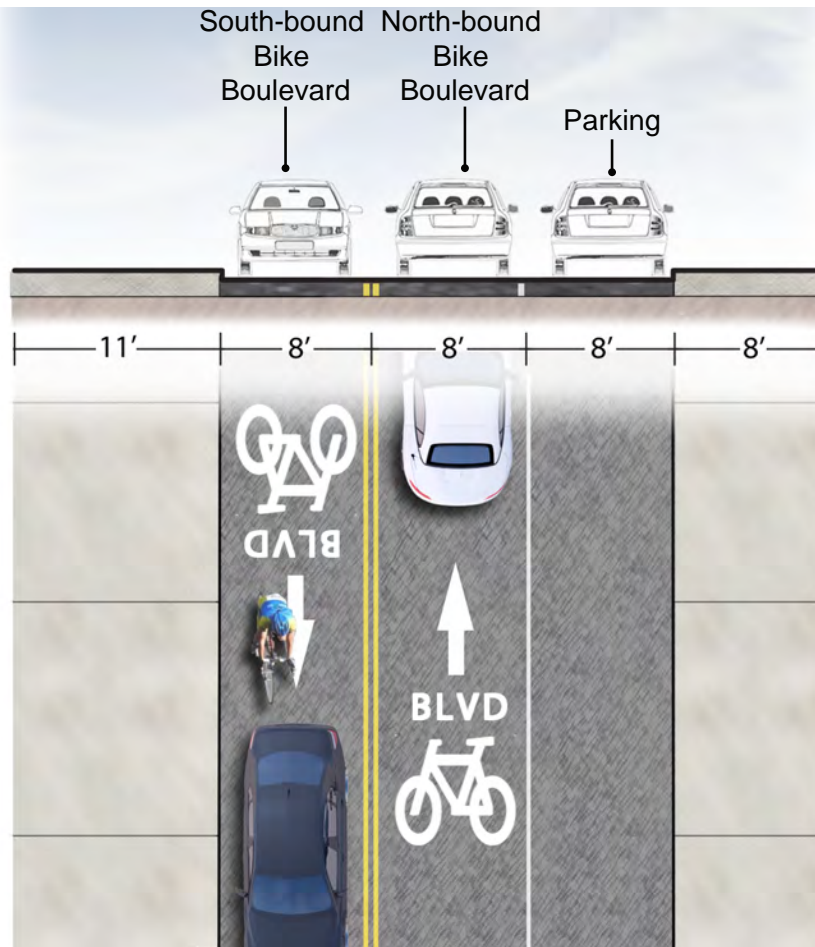


Proposed - Plan

Existing - Section

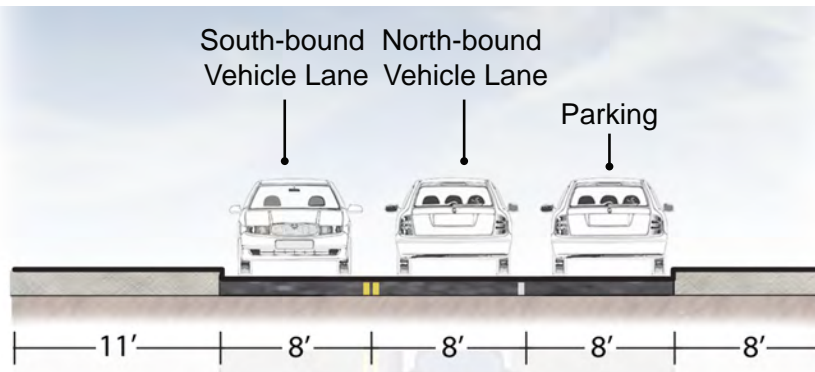


Proposed - Section

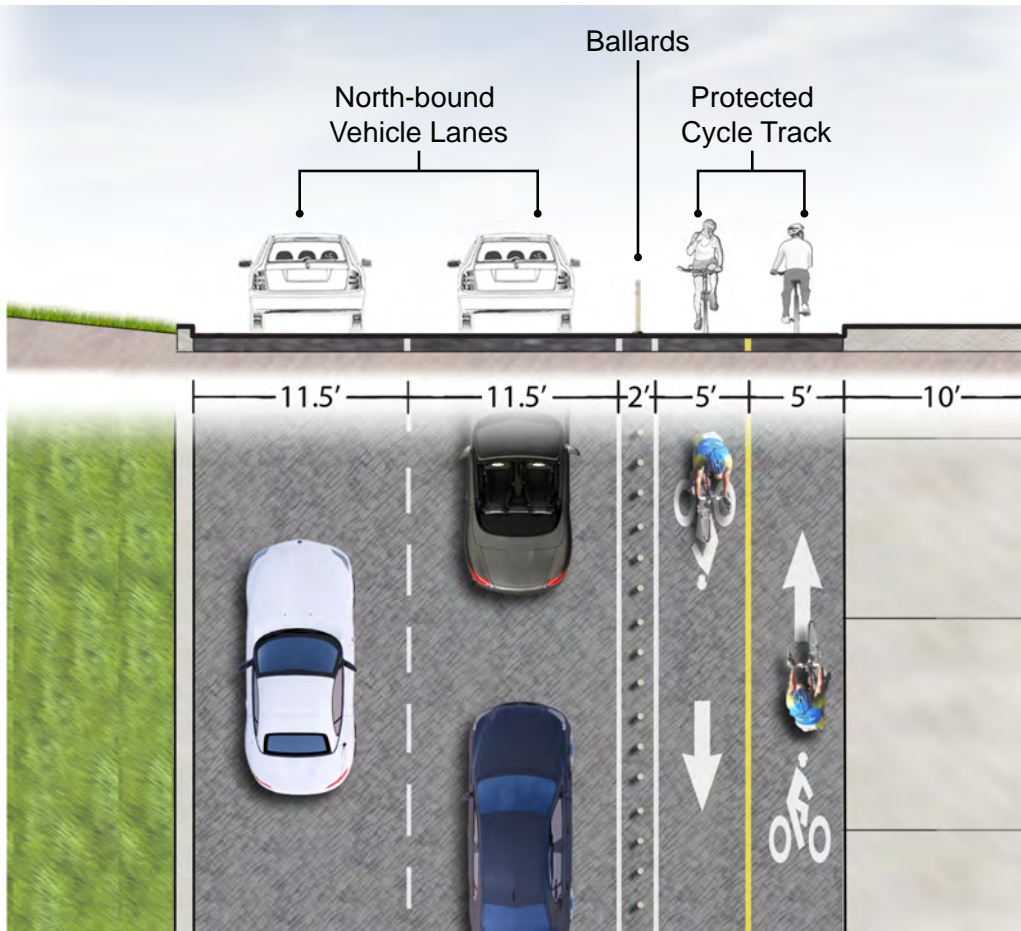


Proposed - Plan

Existing - Section

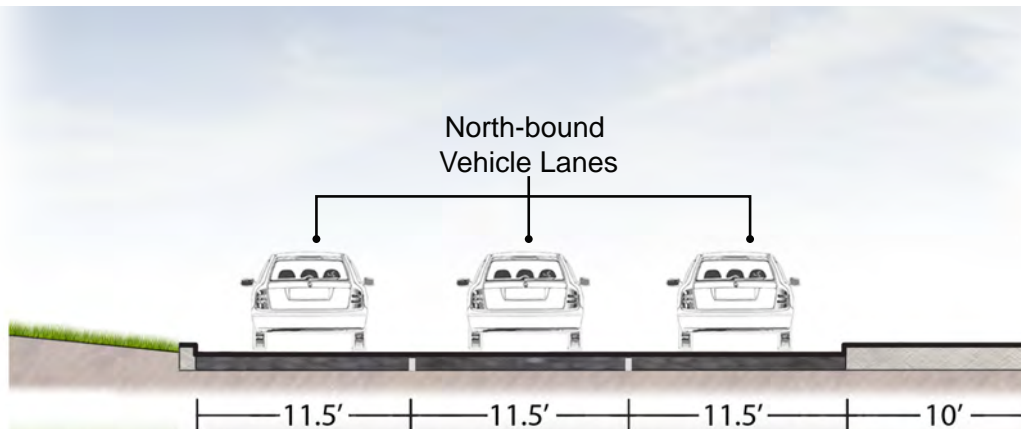


Proposed - Section

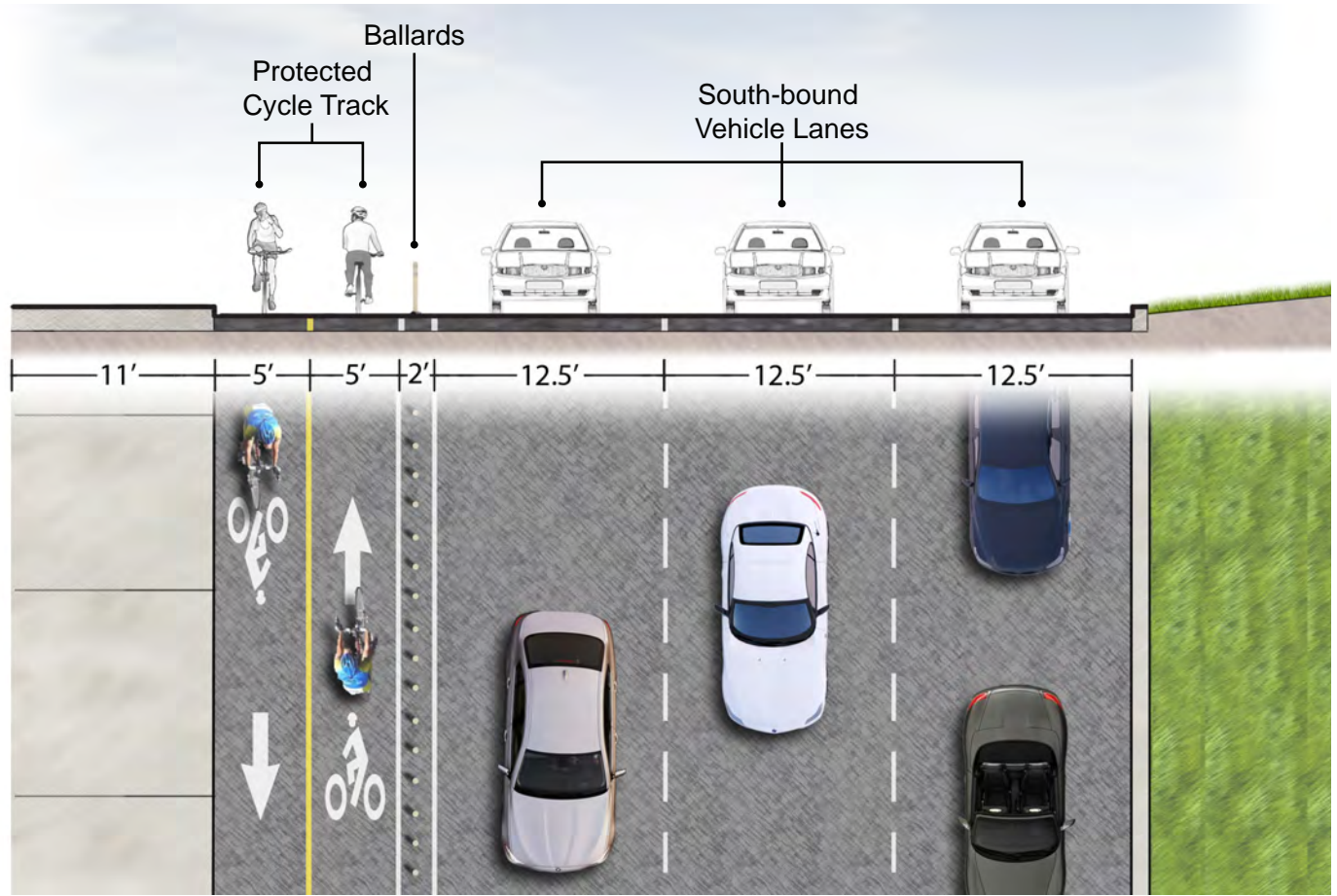


Proposed - Plan

Existing - Section

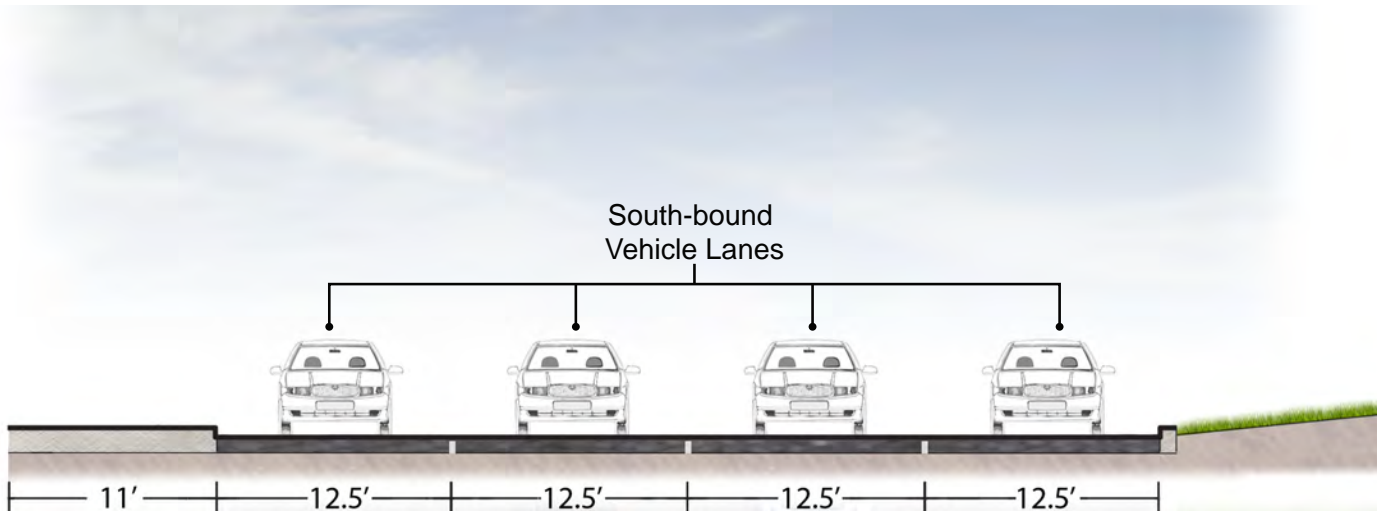


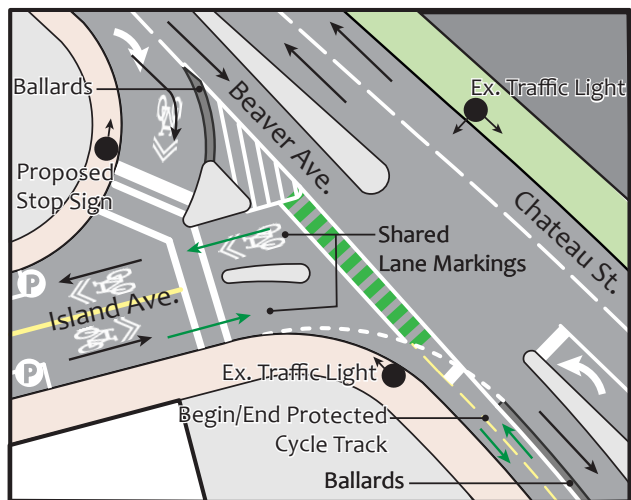
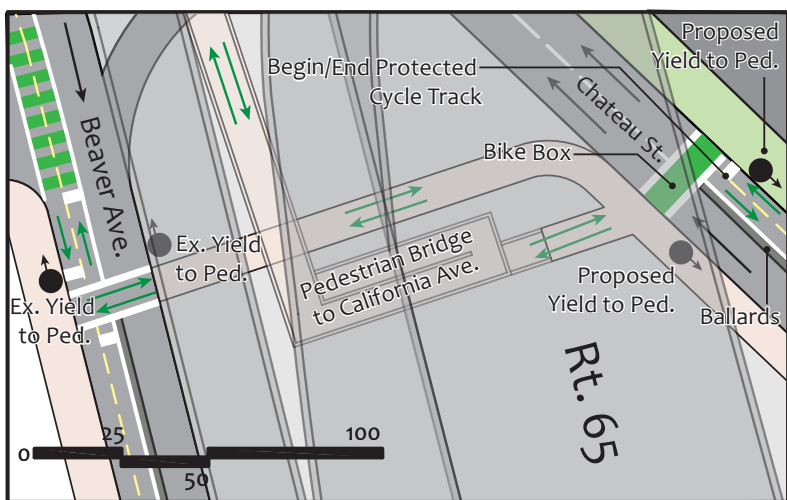
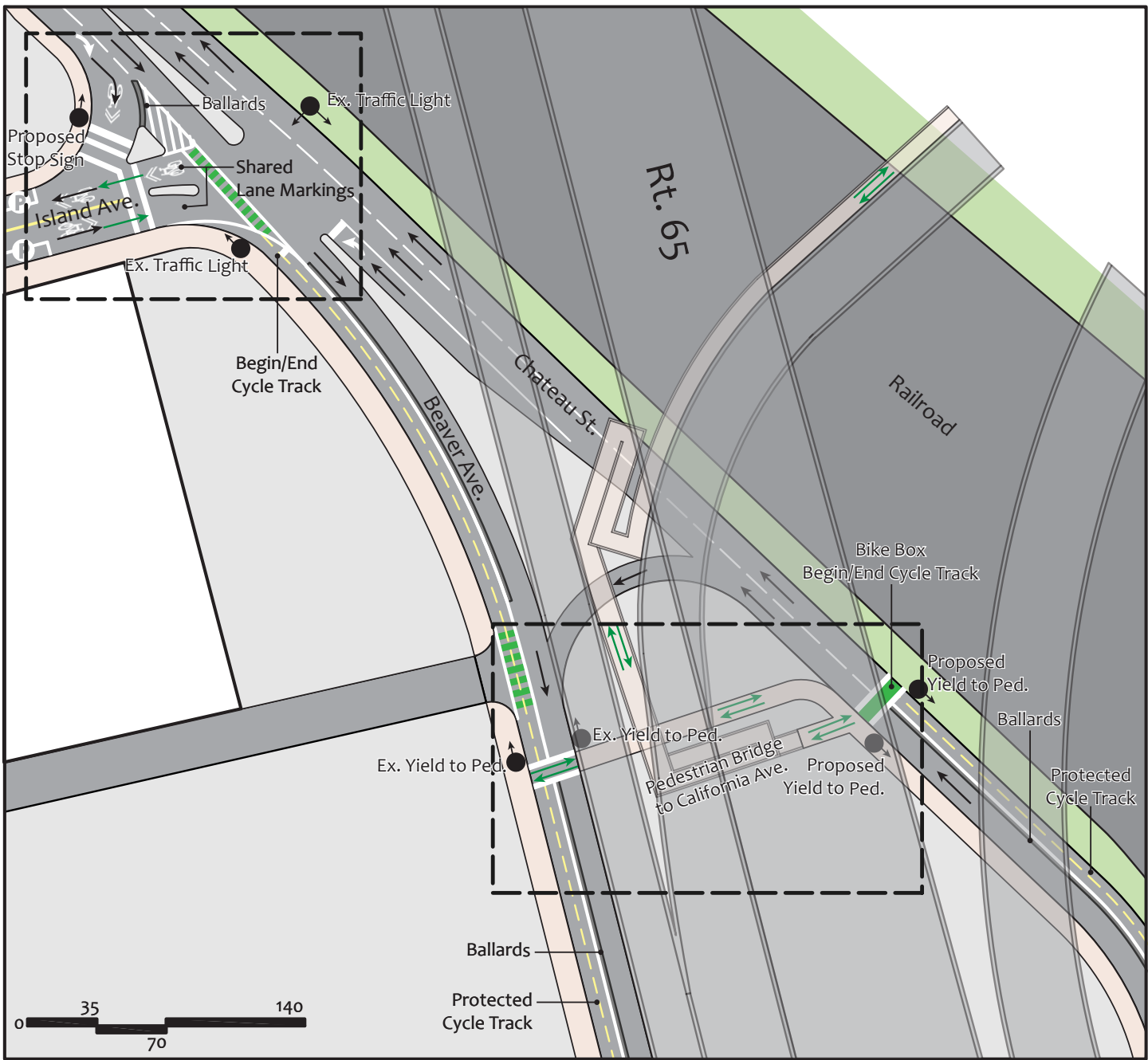
Proposed - Section

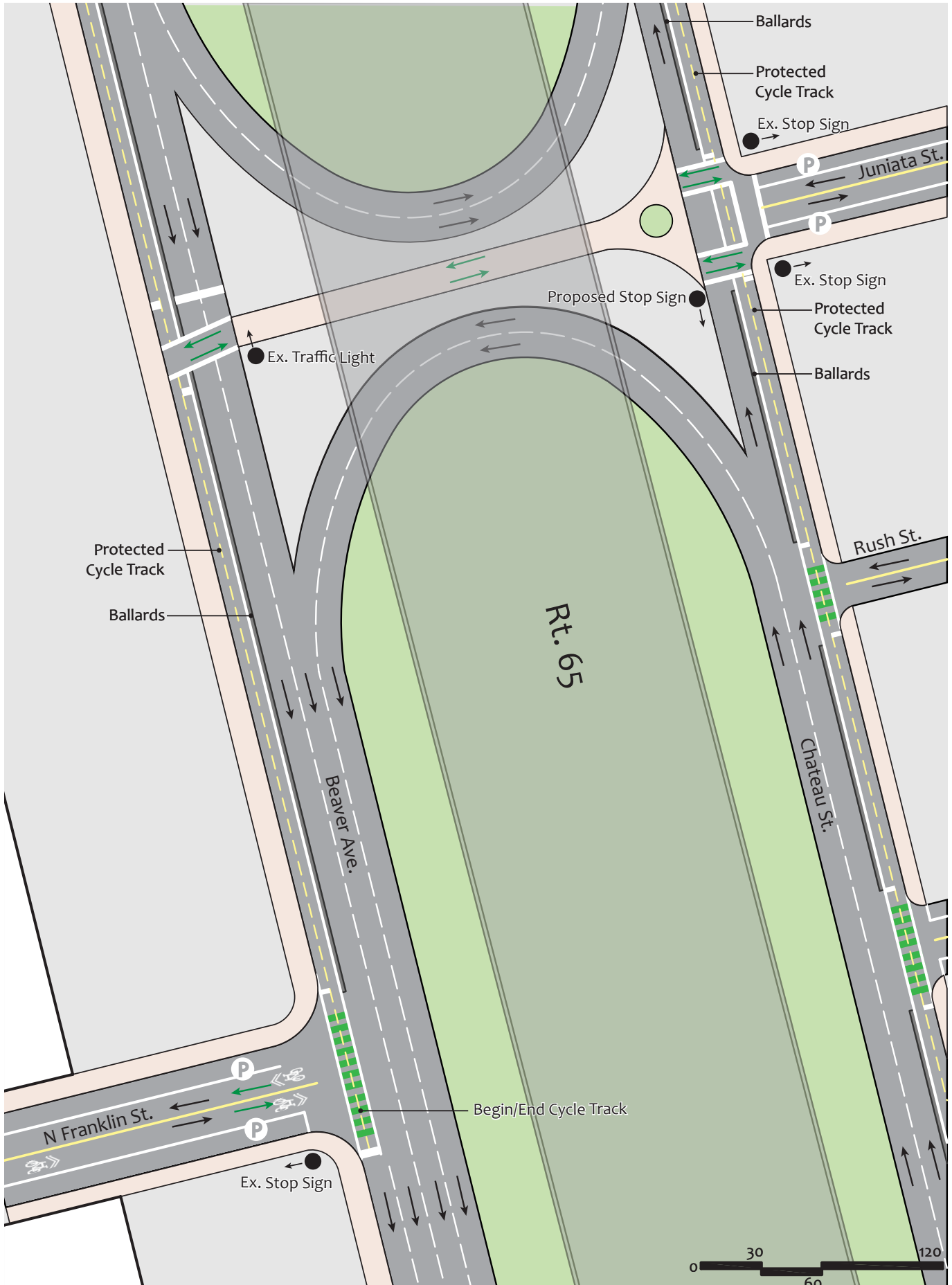


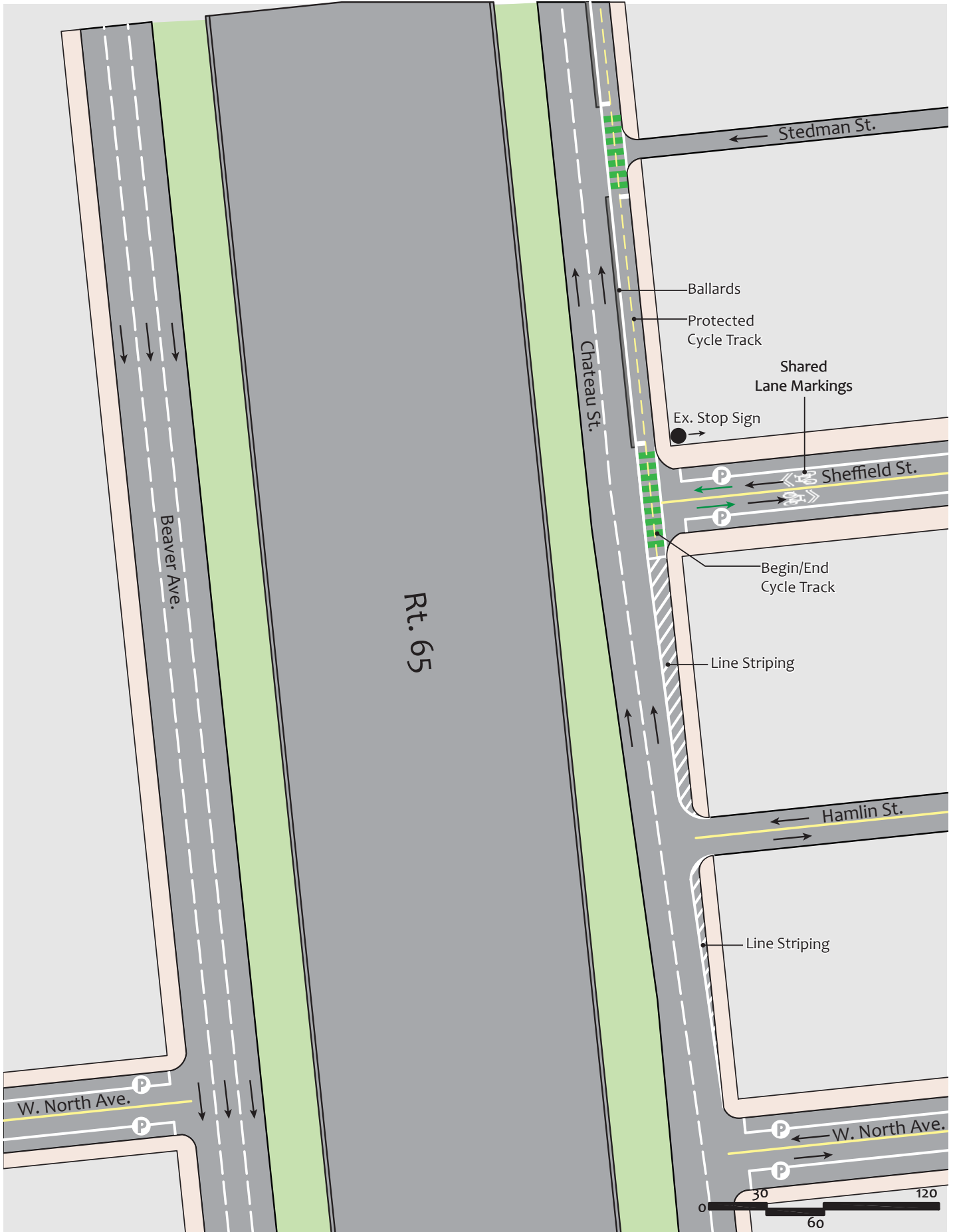
Proposed - Plan

Existing - Section

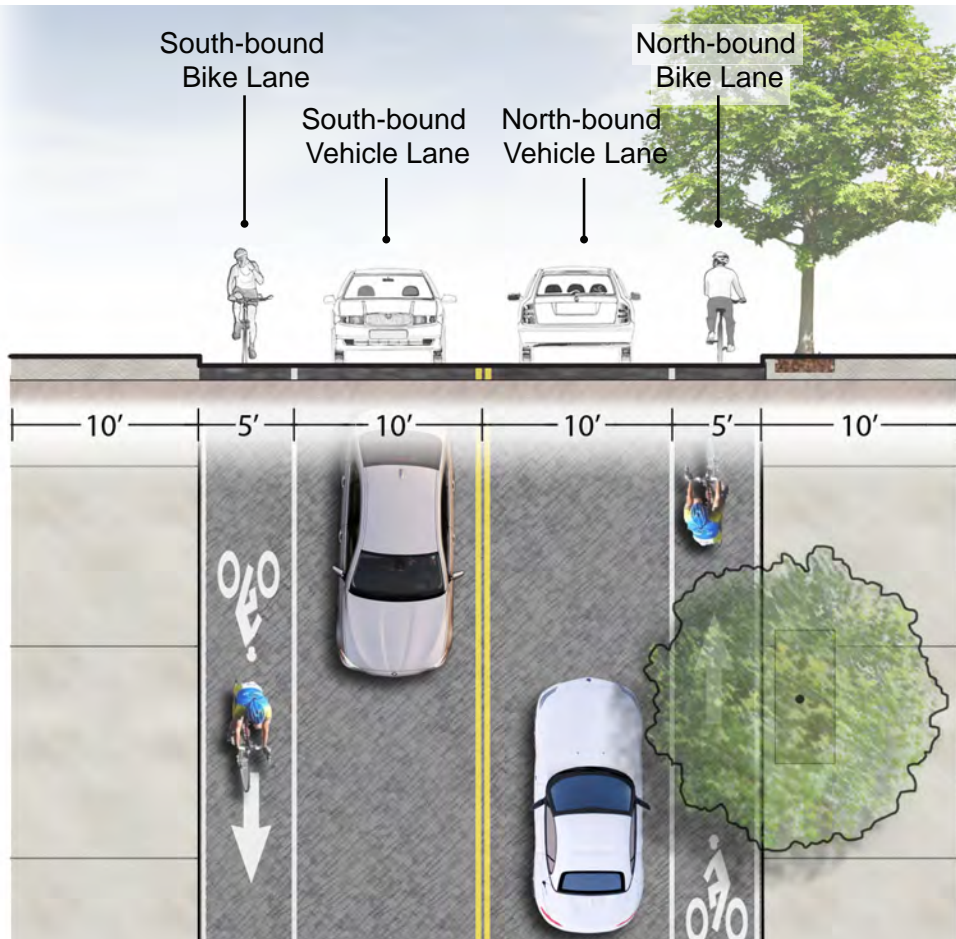






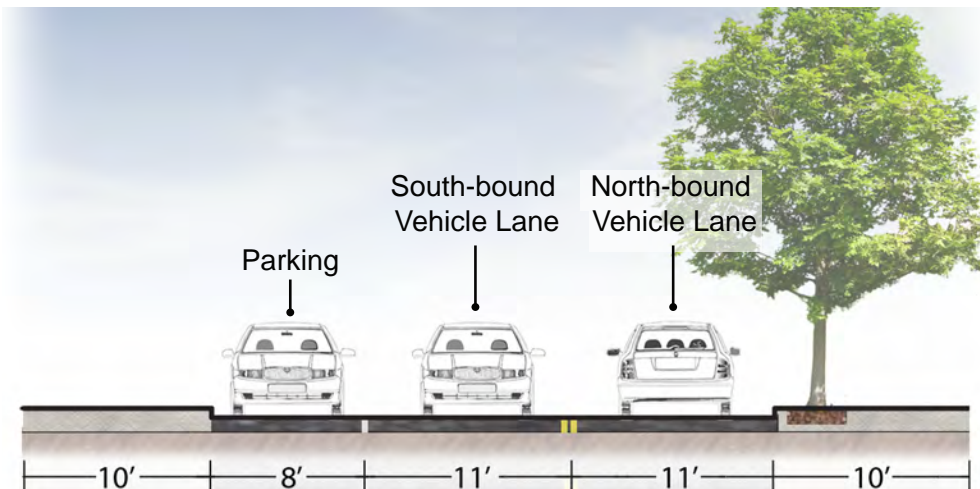


Proposed - Section

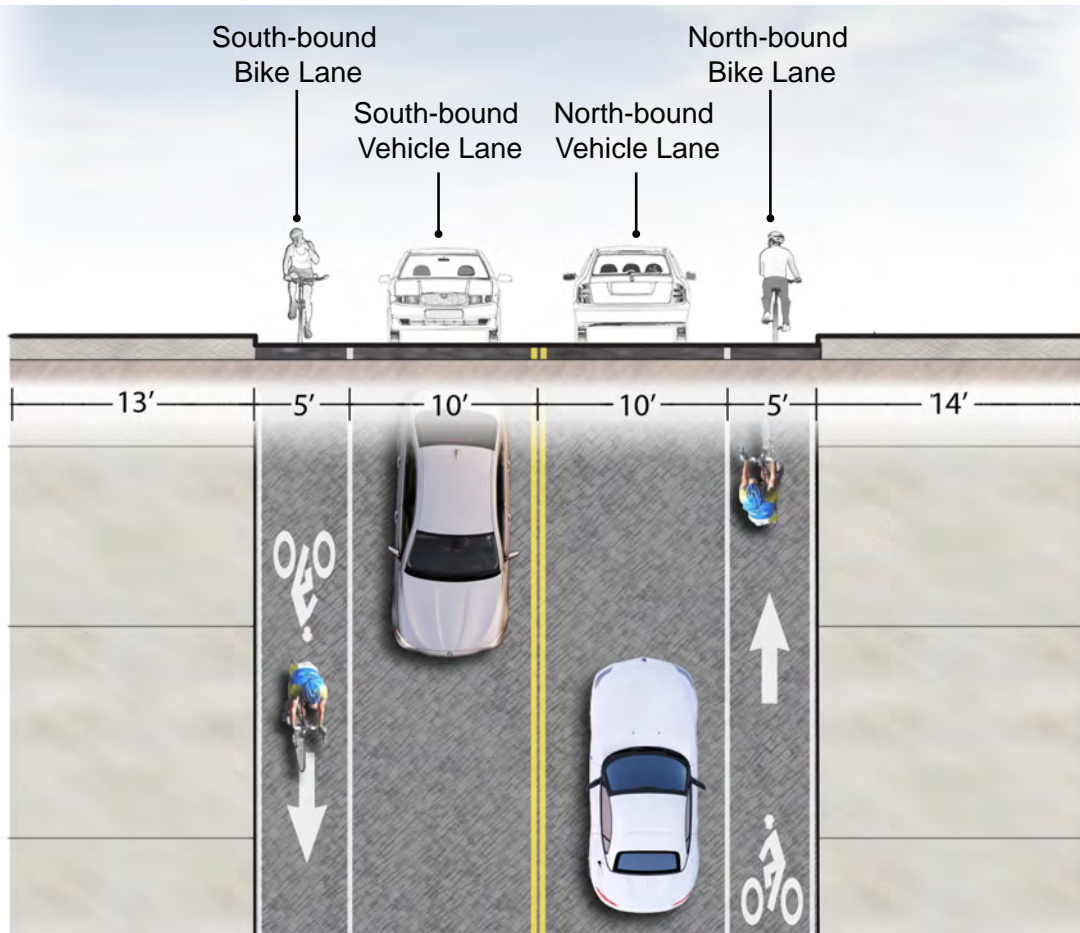


Proposed - Plan

Existing - Section

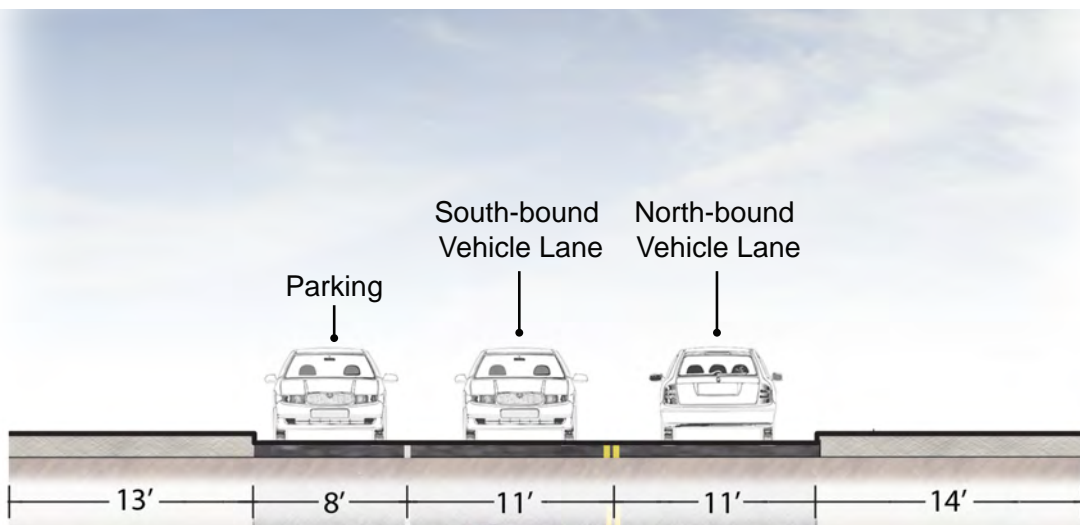


Proposed - Section



Proposed - Plan

Existing - Section



Way Finding Signage

Way finding signage is crucial for ensuring cyclists are able to safely stay on designated cycling routes and for aiding them in choosing the correct route to arrive at their desired destination. It can also alert vehicular drivers to the presence of a signed bike route, increasing their awareness of any potential cyclists. Local businesses and cultural assets are highlighted by such signage, not only aiding cyclists who are looking for them but also potentially creating a new awareness and increased patronage.

In 2011 the City of Pittsburgh created the Signed Bicycle Route Plan and Protocol guide, which sets a sign design protocol that describes the proposed pattern of signage and graphic design standards. The City's goal is to install a single way finding system that integrates trail and on-street bike routes. According to the guide, the main objectives for bicycle wayfinding signage are:

- » Provide higher level of comfort for people choosing to travel by bike for those who are:
 - new to bicycling for transport purposes
 - new in a community
 - unfamiliar with a neighborhood where they want to travel
- » Aid the following user groups (in this order of priority):
 - City residents making local trips
 - University students making local trips
 - Bicycle and pedestrian commuters (who may be from Pittsburgh, or surrounding cities, boroughs, or townships)
 - Visitors to Pittsburgh from within the region or tourists unfamiliar with the City,
 - Local recreational bicyclists and pedestrians
- » Provide guidance along routes which are not intuitive or are different from those followed by motorists
- » Provide navigational assistance, including distances, to destinations in which bicyclists, and trail users in particular, need wayfinding guidance
- » Support bicycle encouragement efforts by:
 - Providing a discreet element of bicycle infrastructure that can be promoted and marketed to new audiences
 - Creating a visual image of the bicycle in the roadway environment, and in turn, marking bicycle transportation
- » Supports bicycle safety by:
 - Helping cyclists find routes that are appropriate for their skill level
 - Increasing the overall numbers of people bicycling, which has been shown to increase safety
 - Providing a widespread indicator for motorists that bicyclists should be expected on the streets throughout the City of Pittsburgh



Potential Key Northside Assets to Include on Wayfinding Signage

A preliminary list of suggestions of frequented amenities and assets found throughout the Northside includes (but is not limited to):

- » Riverview Park
- » (To) East Allegheny
- » (To) Historic Deutschtown
- » (To) Allegheny Commons
- » (To) Allegheny Center
- » Nova Place
- » Childrens Museum
- » New Hazlett Theater
- » National Aviary
- » Nova Place
- » North Shore Trail
- » (To) North Shore
- » PNC Park
- » (To) Mexican War Streets
- » Carnegie Library
- » Mattress Factory
- » Randyland
- » (To) Allegheny West
- » Allegheny West Business District
- » CCAC
- » (To) Manchester
- » (To) Chateau
- » (To) Downtown
- » Carnegie Science Center
- » Highmark Sports Center
- » Rivers Casino
- » Heinz Stadium
- » Riverfront
- » River Quest
- » Venture Outdoors
- » Buhl Planetarium
- » ACHG
- » Museum of Photographic History
- » Garden Theater

Off-Route locations in close proximity to a bike route:

- » City of Asylum
- » Visual Arts Center Gallery
- » Stage A.E.
- » Andy Warhol Museum
- » Sarah Heinz House
- » Wiggle Whiskey
- » Little House Big Art
- » Manchester Block Party





2016 Proposed Northside Bike Infrastructure

Including Bike Shares, Bike Racks, and Cultural Destinations of the Northside

Legend

- | | | |
|------------------------|------------------------------------|----------------------------------|
| ◆ Bike Share | ▬ Protected Cycle Track (proposed) | ▬ Shared Lane Marking (existing) |
| ○ Bike Racks | ▬ Bike Boulevard (proposed) | ▬ Shared Lane Marking (proposed) |
| P Trail Parking | ▬ Bike Lane (existing) | ▬ Trails |
| ★ Cultural Destination | ▬ Bike Lane (proposed) | ▬ Existing City Bike Route |
| 🎓 Higher Education | ▬ Protected Lane (existing) | ▬ Parks |
| 🚏 Bus Shelter | ▬ Protected Lane (proposed) | |
| 🎓 School | | |

East Allegheny Bicycle (#1-24) Signage

1



NORTHSIDE




East Allegheny xx →



Allegheny Commons xx →



North Shore Trail xx →

2



NORTHSIDE




← East Allegheny xx



← Allegheny Commons xx



← North Shore Tr xx

3



Historic Deutschtown xx →



Allegheny Commons xx →



North Shore Trail xx →

4



BIKE LANE



BEGINS

5



NORTHSIDE




← Historic Deutschtown xx



← Allegheny Commons xx



← North Shore Trail xx

6



BIKE LANE



ENDS

7



Historic Deutschtown xx →



Allegheny Commons xx →



North Shore Trail xx →

8



↑ Mexican War Streets xx



← Historic Deutschtown xx




← Nova Place xx



← New Hazlett Theater xx

9



BIKE LANE



ENDS

East Allegheny (#1-24) Bicycle Signage

10

← New Hazlett Theater XX

← Children's Museum XX

← National Aviary XX

11

12

Via Commons XX →

← Via Chestnut St XX

13

← Historic Deutschtown

New Hazlett Theater →

Children's Museum →

National Aviary →

14

↑ New Hazlett Theater

↑ Children's Museum

↑ Nova Place

National Aviary →

15

16

17

North Shore Trail →

← Penn Brewery

← Riverview Park

18

Penn Brewery →

Riverview Park →

East Allegheny (#1-24) and 16th Street Bridge (#25-38) Bicycle Signage

19







20





21




22





23




24





25







26





27




16th Street Bridge (#25-38) Bicycle Signage

28

TO NORTH SHORE TR

←

x.x mi

29

TO NORTH SHORE TR

← Via Saw Mill Way

30

NORTHSIDE

↑ East Allegheny XX

↑ Allegheny Commons XX

↑ Riverview Park XX

31

← Strip District XX

East Allegheny XX →

Riverview Park XX →

32

← Route 28 Mural Trail

← Riverview Park

← Penn Brewery

North Shore Trail →

33

↑ Route 28 Mural Trail

↑ Riverview Park

↑ Penn Brewery

← East Allegheny

34

TO NORTH SHORE TR

North Shore XX →

← Herrs Island XX

35

Heinz Street

East Allegheny XX →

Allegheny Commons XX →

Riverview Park XX →

36

Heinz Street

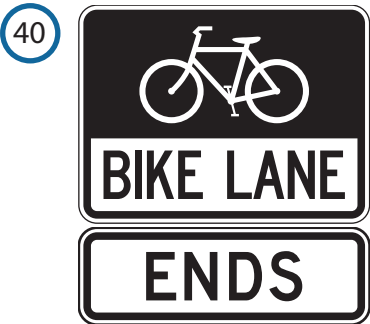
← East Allegheny XX

← Allegheny Commons XX

← Riverview Park XX

16th Street Bridge (#25-38) Bicycle Signage and Allegheny Center (#39-60) Bicycle Signage

- 37
- Route 28 Mural Trail ↗
 - Riverview Park ↗
 - Penn Brewery ↗



- 41
- ↑ Historic Deutschtown
 - ↑ North Shore Trail xx
 - ↑ Route 28 Mural Trail xx
 - ↑ Riverview Park xx

- 42
- ← PNC Park
 - ← North Shore Trail
 - ↑ New Hazlett Theater
 - ↑ Children's Museum
 - National Aviary



- 44
- ← Historic Deutschtown
 - ← Riverview Park
 - ↑ PNC Park
 - ↑ North Shore Trail
 - New Hazlett Theater
 - Childrens Museum
 - Nova Place

- 45
- ← New Hazlett Theater
 - ← Childrens Museum
 - ← Nova Place
 - ↑ Mexican War Streets
 - ↑ National Aviary
 - Historic Deutschtown
 - North Shore Trail

Allegheny Center (#39-60) Bicycle Signage

46



DOWNTOWN



x.x mi →

PNC Park xx →

North Shore Trail xx →

47



NORTHSIDE



← New Hazlett Theater xx

← Historic Deutschtown xx

← Riverview Park xx

48



DOWNTOWN



x.x mi

49

↑  Allegheny West

↑  CCAC

←  PNC Park

←  North Shore Trail

50



NORTHSIDE

New Hazlett Theater xx →

← Childrens Museum xx

← National Aviary xx

51

↑  Historic Deutschtown

 PNC Park →

 North Shore Trail →

52



DOWNTOWN

x.x mi →

53

↑  Mexican War Streets

←  CCAC

←  Allegheny West

 New Hazlett Theater →

54



ALLEGHENY COMMONS

Allegheny Center (#39-60) and North Shore (#61-79) Bicycle Signage

55

- ↑ New Hazlett Theater
- ↑ Historic Deutschtown
- ← Mexican War Streets
- North Shore Trail →

56

- ↑ North Shore Trail
- ← New Hazlett Theater
- ← Nova Place
- Allegheny West →

57

- ↑ Historic Deutschtown
- ↑ North Shore Trail
- ← Mexican War Streets

58

ALLEGHENY COMMONS

59

- ↑ CCAC
- ↑ Allegheny West
- Mexican War Streets →
- National Aviary →

60

- ← Historic Deutschtown
- ← New Hazlett Theater
- ← North Shore Trail
- Children's Museum →

61

DOWNTOWN

62

TO NORTH SHORE TR

63

NORTHSIDE

North Shore (#61-79) Bicycle Signage

64

TO NORTH SHORE TR

→

65

Federal Street

North Shore XX →

PNC Park XX →

Allegheny Commons XX →

66

Federal Street

← North Shore XX

← PNC Park XX

← Allegheny Commons XX

67

Tony Dorsett Dr

North Shore XX →

National Aviary XX →

Allegheny Commons XX →

68

Tony Dorsett Dr

← North Shore XX

← National Aviary XX

← Allegheny Commons XX

69

TO NORTH SHORE TR

↖ North Shore Trail

↖ Carnegie Science Center XX

↗ Heinz Stadium

70

TO NORTH SHORE TR

↖ North Shore Trail

↗ Riverfront

71

TO NORTH SHORE TR

↑ North Shore Trail

← Carnegie Science Center

← Highmark Sportworks

72

TO NORTH SHORE TR

↑ North Shore Trail

↖ Riverfront

↗ Rivers Casino

North Shore (#61-79) and Allegheny West (#80-94) Bicycle Signage

73

TO NORTH SHORE TR

74

NORTHSIDE

Allegheny Commons → xx

Allegheny West → xx

National Aviary → xx

75

TO NORTH SHORE TR

76

NORTHSIDE

Via Tony Dorsett Drive

77

NORTHSIDE

← Allegheny Commons xx

← National Aviary xx

← Allegheny West xx

78

NORTHSIDE

North Shore → xx

North Shore Trail → xx

79

Nova Place →

National Aviary ↑

CCAC ←

Allegheny West ←

80

National Aviary →

Allegheny West ↑

CCAC ↑

North Shore Trail ←

81

North Shore Trail →

Nova Place ↑

New Hazlett Theater ↑

National Aviary ←

Allegheny West (#80-94) Bicycle Signage

82

- Riverview Park →
- ↑ Allegheny West Business District
- ← CCAC

83

BIKE LANE
BEGINS

84

NORTHSIDE

- ← Riverview Park xx
- ↗ Allegheny Center xx
- ↗ Historic Deutschtown xx

85

NORTHSIDE

- ↑ Riverview Park xx
- ← Allegheny West Business District xx
- Allegheny Center xx

86

- CCAC
- ↑ Allegheny Center
- ↑ Historic Deutschtown
- ← Riverview Park

87

- Allegheny West Business District
- Manchester
- ↑ CCAC
- ← Allegheny Center

88

- Historic Deutschtown
- National Aviary
- ↑ Riverview Park
- ← Manchester

89

- CCAC
- Allegheny Center
- ↑ Mexican War Streets
- ← Riverview Park

90

NORTHSIDE

- North Shore Trail xx →
- Chateau xx →
- ← Allegheny West Business District xx

Allegheny West (#80-94) and Allegheny Commons/Mexican War Streets (#95-118) Bicycle Signage

91




Manchester → XX

North Shore Trail → XX

92




← CCAC XX

← Allegheny Commons XX

← Allegheny Center XX

93




← North Shore Trail

← Chateau

94



Allegheny Commons XX →

Mexican War Streets XX →

Allegheny West Business District XX →

95



96




Historic Deutschtown XX →

North Shore Tr XX →

Riverview Park XX →

97

↑  National Aviary

←  Childrens Museum

 Mexican War Streets →

98



99

←  National Aviary

↑  Mexican War Streets

↑  Mattress Factory

↑  Riverview Park

Allegheny Commons/Mexican War Streets (#95-118) Bicycle Signage



Allegheny Commons/Mexican War Streets (#95-118) Bicycle Signage

109

- ←  Randyland xx
- ←  Mattress Factory xx
- ↑  Riverview Park xx

110

- ←  Riverview Park xx
- ←  Randyland xx
-  Allegheny Commons xx →
-  New Hazlett Theater xx →

111

- ↑  Allegheny Commons xx
- ↑  Allegheny Center xx
- ←  Mattress Factory xx
- ←  Randyland xx

112



NORTHSIDE

- ↑ Riverview Park xx

113



NORTHSIDE

- ↑ Mattress Factory xx
- ↑ Allegheny Center xx
- ↑ North Shore Trail xx

114



NORTHSIDE



- ↑ Riverview Park xx

115

- ↑  Allegheny Commons xx
- ↑  National Aviary xx
- ←  Mattress Factory xx
- ←  Randyland xx

116

-  Riverview Park →
- ←  Allegheny West
- ←  CCAC
- ←  Allegheny Commons

117



TO NORTH SHORE TR

- ← Via North Avenue xx
- ↑ Via West Ohio Street xx

Allegheny Commons/Mexican War Streets (#95-118) and Manchester/Chateau (119-143) Bicycle Signage

118

- Manchester →
- CCAC
- Allegheny Center
- National Aviary

119

-
- TO NORTH SHORE TR
- Via Chateau Street → XX

120

- BIKE LANE
- BEGINS
- South facing
- BIKE LANE
- ENDS
- North facing

121

- NORTHSIDE
-
- Allegheny West XX
- Allegheny Commons XX
- Allegheny Center XX

122

- North Shore Trail XX
- Riverview Park XX

123

-
- AHEAD

124

-
- PEDESTRIAN CROSSWALK

125

- NORTHSIDE
-
- North Shore Trail XX
- Riverview Park XX

126

- NORTHSIDE
-
- Allegheny West → XX
- Allegheny Commons → XX
- CCAC → XX

Manchester/Chateau (119-143) Bicycle Signage

127

BIKE LANE
ENDS

South facing

BIKE LANE
BEGINS

North facing

128

NORTHSIDE

North Shore Trail xx

Riverview Park → xx

129

Riverview Park xx

CCAC xx →

Allegheny West xx →

Allegheny Commons xx →

130

NORTHSIDE

↑ North Shore Tr xx

← Manchester xx

← Allegheny Commons xx

131

NORTHSIDE

↑ Riverview Park xx

Manchester → xx

Allegheny Commons → xx

132

TO NORTH SHORE TR

→

x.x mi

133

BIKE LANE
BEGINS
ENDS

South facing

BIKE LANE
ENDS

North facing

134

NORTHSIDE

←

Riverview Park xx

← Manchester xx

← Allegheny Commons xx

135

TO NORTH SHORE TR

↑ 1 Block

Manchester/Chateau (119-143) Bicycle Signage

136 N Franklin Street

Chateau Cafe xx →

Manchester xx →

Allegheny Commons xx →

137 N Franklin Street

← Chateau Cafe xx

← Manchester xx

← Allegheny Commons xx

138 Highwood Cemetery xx →

Riverview Park xx →

139

NORTHSIDE

→ North Shore Tr xx

← Manchester xx

← Allegheny Commons xx

140

← Highwood Cemetery xx

← Riverview Park xx

141

TO NORTH SHORE TR

← Via Island Ave xx

142

BIKE LANE

ENDS

South facing

BIKE LANE

BEGINS

North facing

143

NORTHSIDE

→

Riverview Park xx →

Manchester xx →

Allegheny Commons xx →

Opinion of Probable Construction Costs For Way Finding Signs

An opinion of probable construction costs was developed for the way finding signs as recommended in this plan. These costs were based on the assumption that the construction would occur through a public bidding process, utilizing the Commonwealth of Pennsylvania’s 2016 Prevailing Wage Rates. To budget for inflation of costs for future improvements, we recommend a four and one-half percent (4.5%) annual increase be budgeted for all work occurring after 2016.

In Pennsylvania, all projects over \$25,000 are required to use the State’s Prevailing Wage Rates for Construction. However, should work be completed in-house by the City’s Department of Public Works a cost savings may be realized.

Projected costs for the way finding signs are based on meeting the requirements on the U.S. Department of Transportation’s Manual on Uniform Traffic Control Devices, which establishes the standards that vehicular signage must meet.

Northside Bicycle Connection Study Wayfinding Signage							
Type	MUTCD Code	Amount	Dim. (in.)	Sq. Ft. of Sign	Cost per Sq. Ft.	Cost per Sign	Total Cost
Big Bike/Trail Access Blaze	D11-1c	70	24x18	3	\$35	\$105	\$7,350
Bike Lane Blaze	R3-17	18	24x18	3	\$35	\$105	\$1,890
Directional Arrow	M5-1, 5-2, etc.	33	12x9	0.75	\$35	\$26	\$866
“Begins”	R3-17c	10	24x8	1.33	\$35	\$47	\$466
“Ends”	R3-17b	8	24x8	1.33	\$35	\$47	\$372
Standard Trail Exit Blaze	D3-1	8	24x6	1	\$35	\$35	\$280
Small Bike Guide Sign Blaze/ Subpanels	D1-1, -1a, -1b, etc.	331	24x6	1	\$35	\$35	\$11,585
Pedestrian/Cyclist Sign	W11-15	2	30x30	6.25	\$35	\$219	\$438
“Ahead”	W16-9P	1	24x12	2	\$35	\$70	\$70
Pedestrian Crosswalk	R9-8	1	36x18	4.5	\$35	\$158	\$158
Total		478					\$22,809

Projecting the costs other infrastructure improvements proposed herein are beyond this projects scope. Each bicycle infrastructure project should be vetted and refined with the City so that costs can be projected for their implementation.

Conclusion

Bicycle and pedestrian facility planning and design is under the purview of the City of Pittsburgh’s Department of City Planning and Department of Public Works. The recommendations contained herein are provided to guide the City in achieving the vision and goals for bicycle infrastructure as envisioned by the Northside Bike/Ped Committee and our partners, as communicated by the residents of the City’s Northside neighborhood during this planning process. We look forward to continued dialogue with the City of Pittsburgh to work together to achieve the vision set forth in this plan.

PASHEK ASSOCIATES

LANDSCAPE ARCHITECTURE | DESIGN | PLANNING

