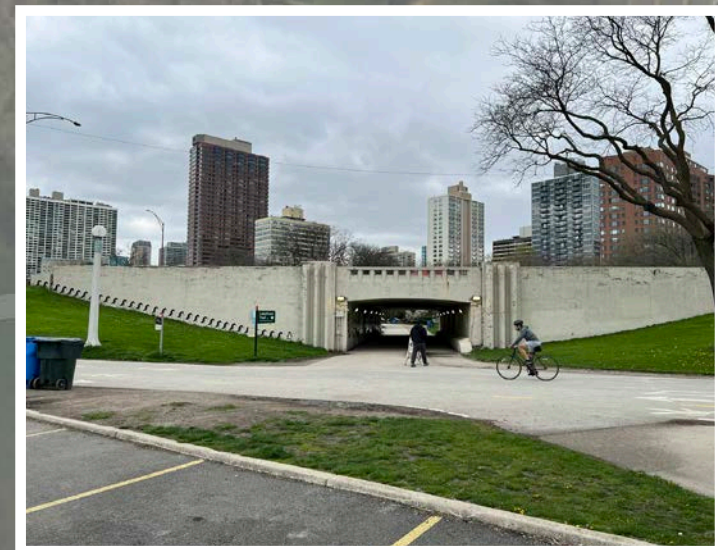
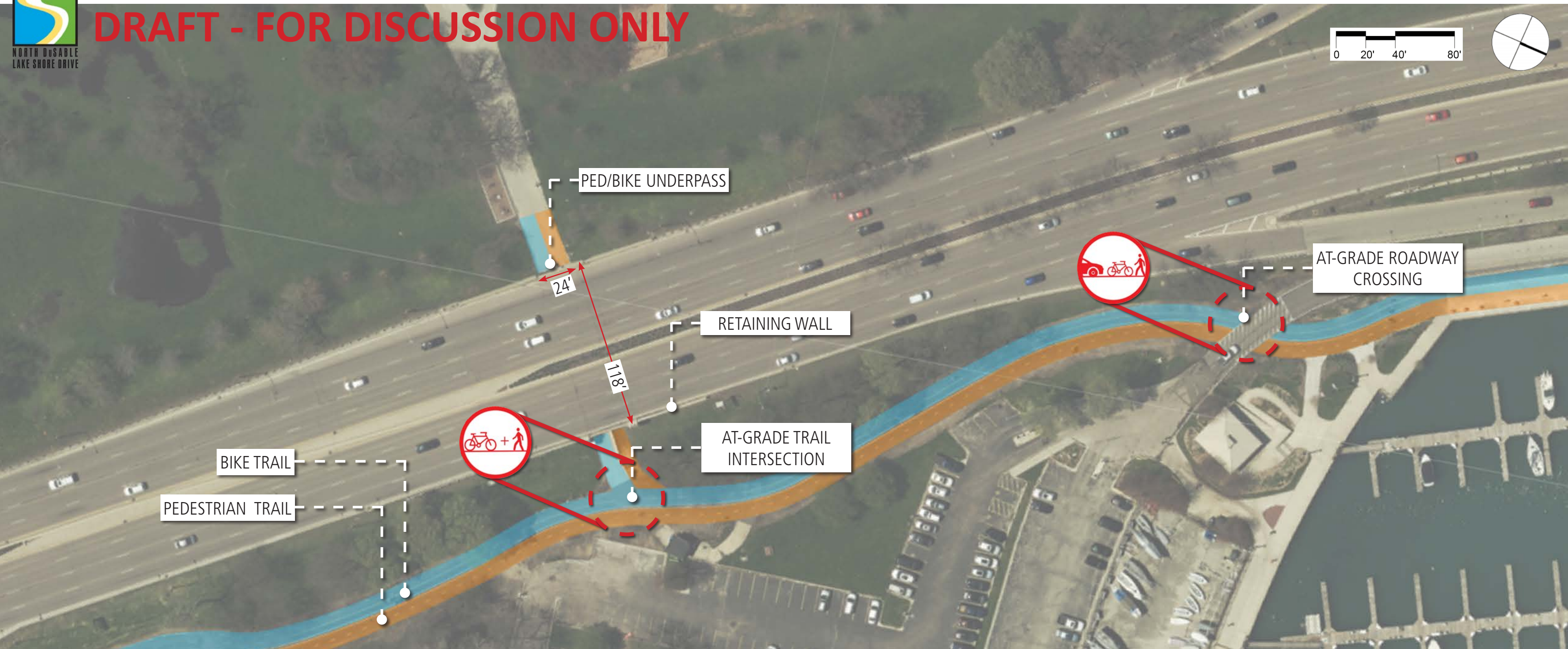
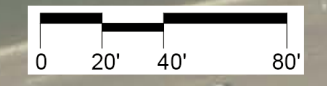




# WORKSHOP EXERCISE

## DRAFT - FOR DISCUSSION ONLY

### WORKSHOP TABLE EXERCISE

1. TABLE OF CONTENTS
2. BARRY AVE: EXISTING CONDITIONS
3. BARRY AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION
4. BARRY AVE: POTENTIAL GRADE-SEPARATED BIKE TRAIL DESIGN OPTION
5. BARRY AVE: SUMMARY
6. BERWYN AVE: EXISTING CONDITIONS
7. BERWYN AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION
8. BERWYN AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION
9. BERWYN AVE: SUMMARY
10. FOSTER AVE: EXISTING CONDITIONS - OVERALL LAKEFRONT ACCESS
11. FOSTER AVE: POTENTIAL DESIGN OPTION - OVERALL LAKEFRONT ACCESS
12. FOSTER AVE: EXISTING CONDITIONS
13. FOSTER AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION
14. FOSTER AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION
15. FOSTER AVE: POTENTIAL GRADE SEPARATED TRAILS DESIGN OPTION
16. FOSTER AVE: SUMMARY
17. CHICAGO AVE: EXISTING CONDITIONS
18. CHICAGO AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION
19. CHICAGO AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION
20. CHICAGO AVE: SUMMARY

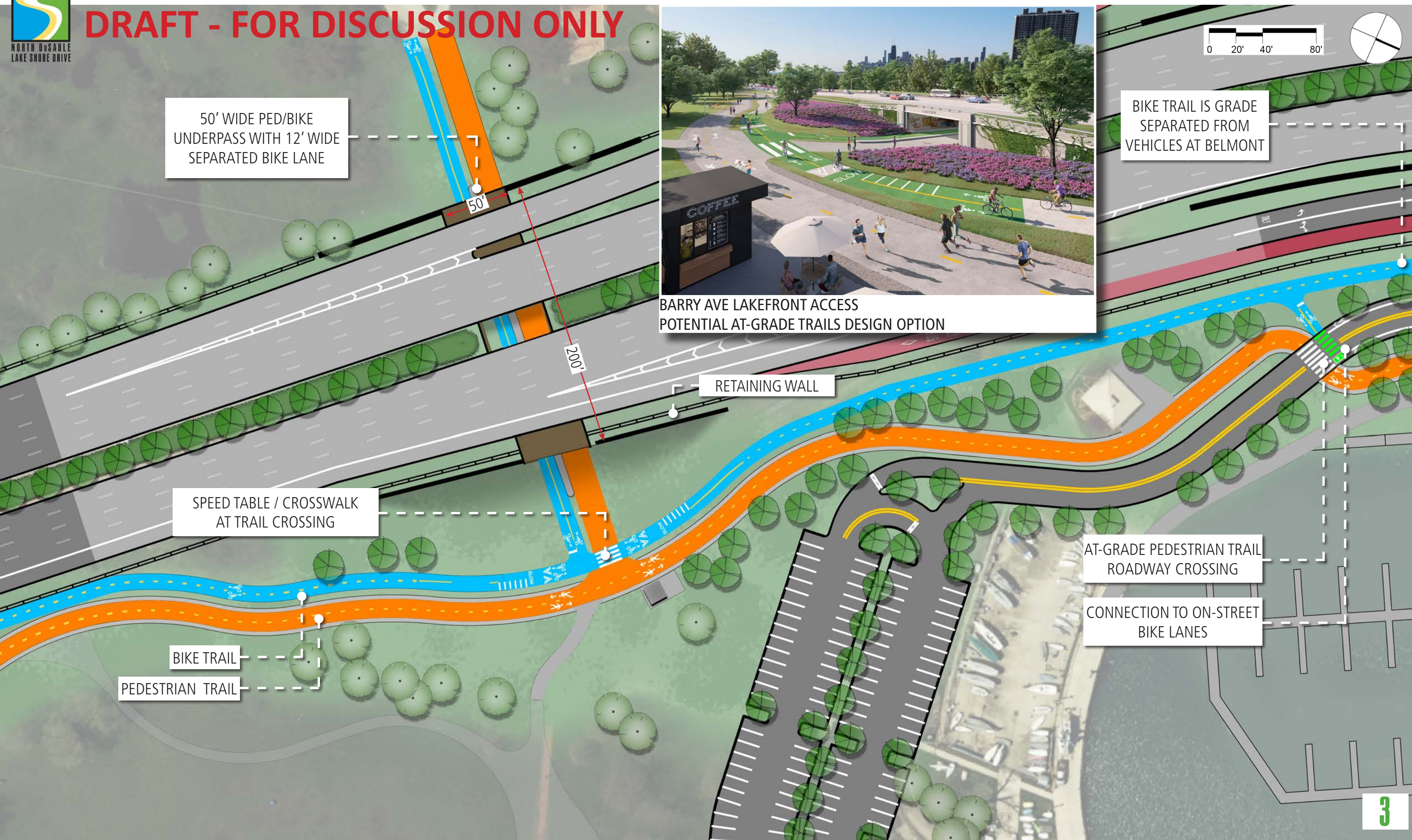


-  Trail Conflict Area - Cyclists and Pedestrians
-  Trail Conflict Area - Cyclists/ Pedestrians and Vehicles

# WORKSHOP EXERCISE

## DRAFT - FOR DISCUSSION ONLY

# BARRY AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION



50' WIDE PED/BIKE UNDERPASS WITH 12' WIDE SEPARATED BIKE LANE



BARRY AVE LAKEFRONT ACCESS  
POTENTIAL AT-GRADE TRAILS DESIGN OPTION

BIKE TRAIL IS GRADE SEPARATED FROM VEHICLES AT BELMONT

SPEED TABLE / CROSSWALK AT TRAIL CROSSING

RETAINING WALL

AT-GRADE PEDESTRIAN TRAIL ROADWAY CROSSING

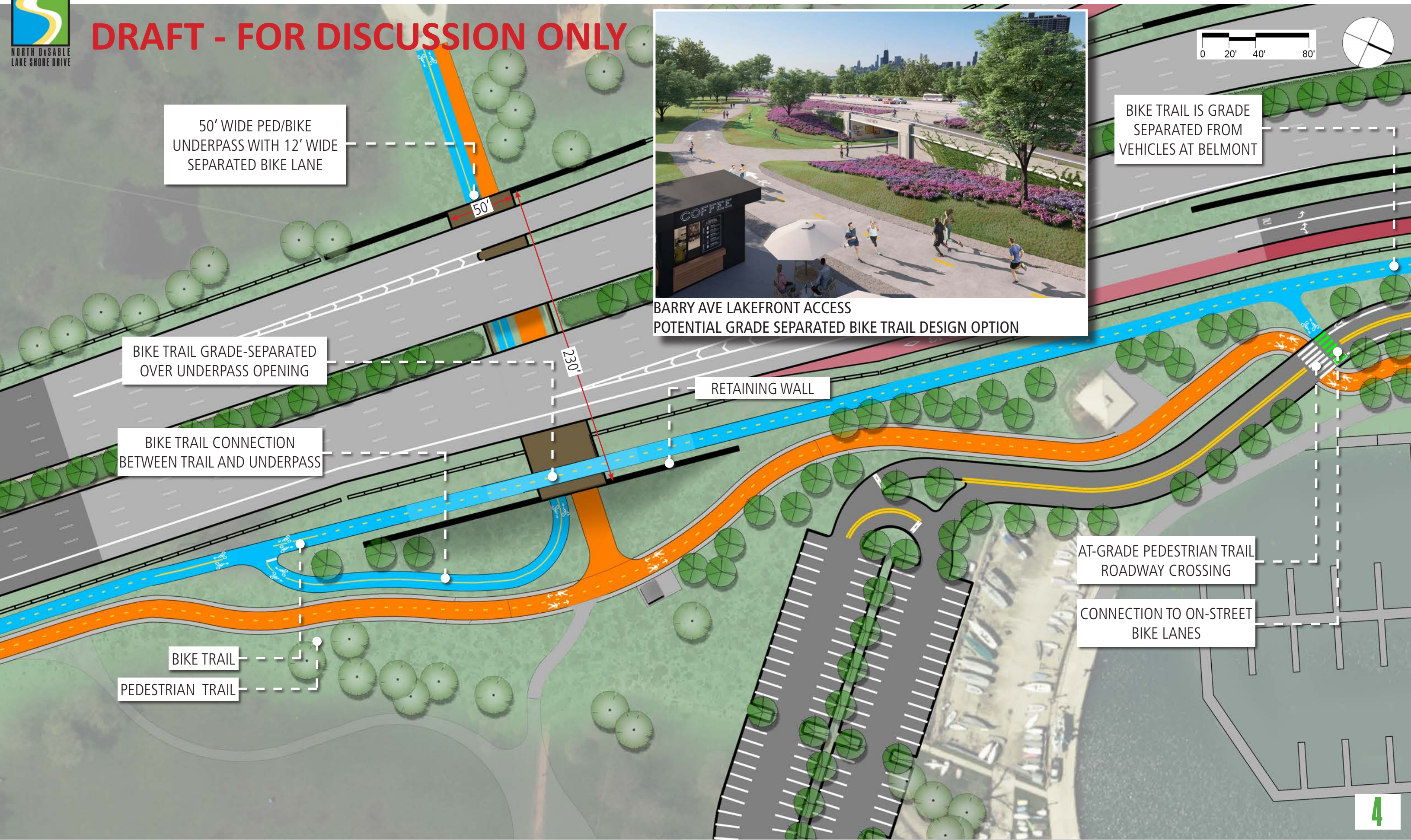
BIKE TRAIL  
PEDESTRIAN TRAIL

CONNECTION TO ON-STREET BIKE LANES

# WORKSHOP EXERCISE

# BARRY AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION

## DRAFT - FOR DISCUSSION ONLY





### EXISTING CONDITIONS

- Heavy trail and lakefront access usage results in conflicts between users at access points
- Narrow underpass limits visibility and sight-lines for users entering and exiting
- Variety of user speeds and crossing movements result in conflicts
- Documented safety concerns from Task Force and Public Meeting attendees at this and similar trail junctions



### POTENTIAL AT-GRADE TRAILS

- At-grade design will allow for simplified trail access and eliminates grade changes for cyclists
- Wider underpasses will allow better visibility and improved sight lines for users entering and exiting
- Additional pavement markings, material changes and raised design can be utilized to slow down and alert users that this is a crossing area.
- Keeping the bike trail at-grade will reduce the length of the underpass by around 30ft.



### POTENTIAL GRADE SEPARATED BIKE TRAIL

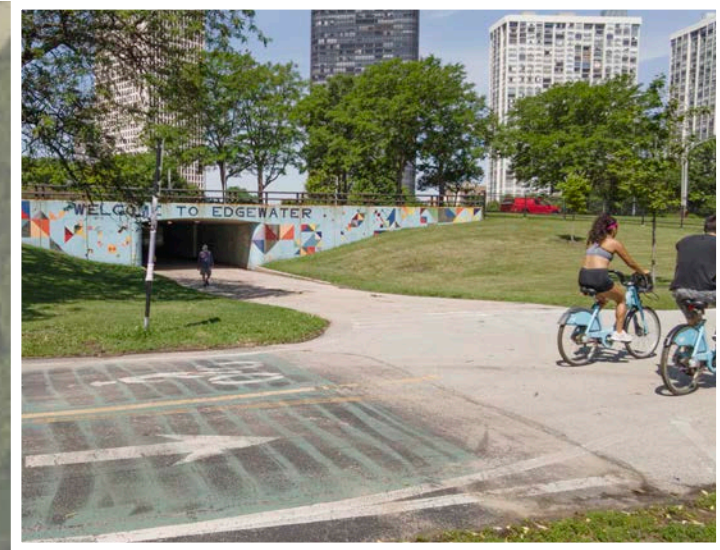
- Grade separation of bike trail will eliminate most conflicts as users enter the lakefront park
- Wider underpasses will allow better visibility and improved sight lines for users entering and exiting
- Grade separated design will introduce additional elevation that cyclists will need to navigate
- Elevating bike trail over underpass opening will lengthen underpass by around 30ft.

# WORKSHOP EXERCISE

## DRAFT - FOR DISCUSSION ONLY

# BERWYN AVE: EXISTING CONDITIONS

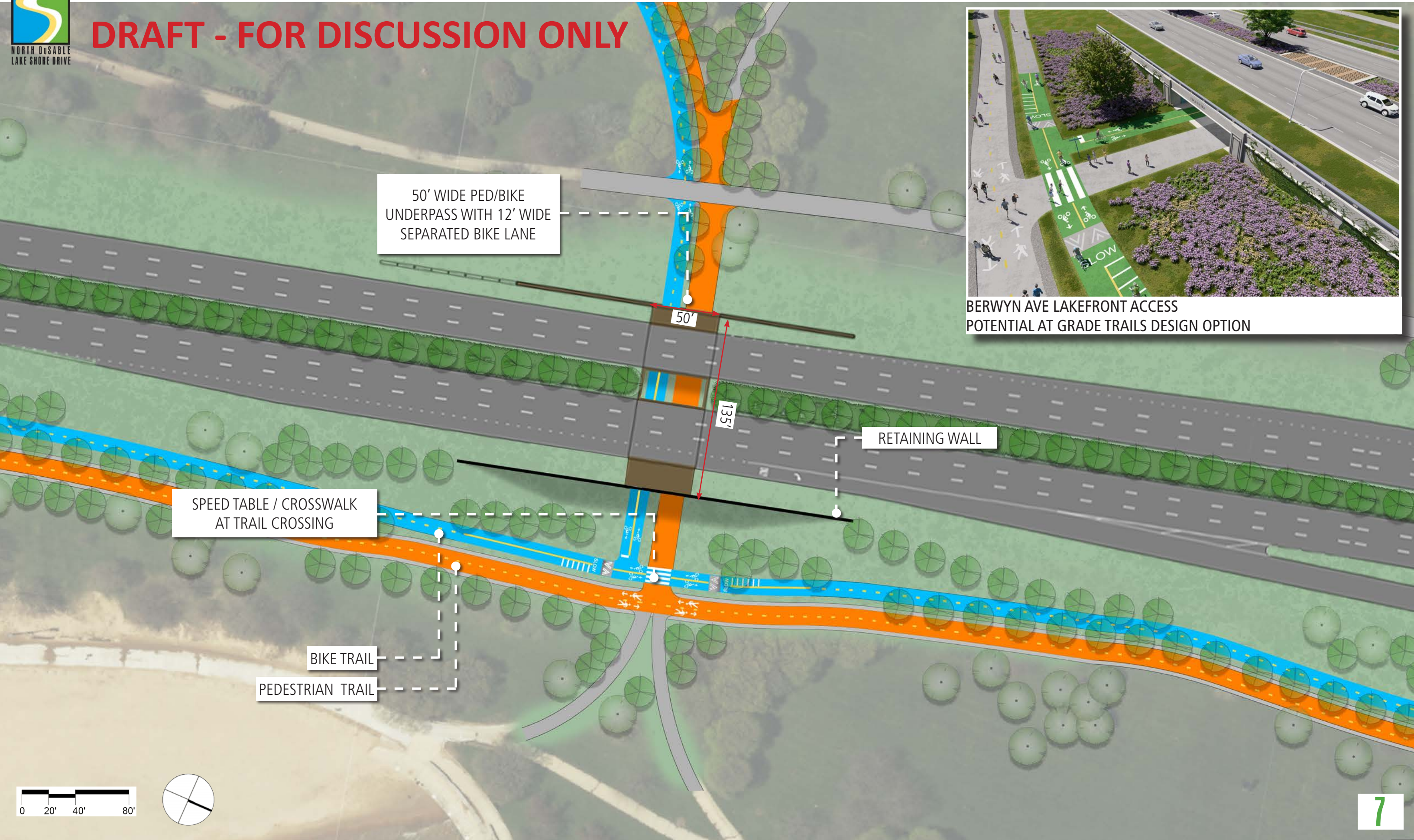
 Trail Conflict Area - Cyclists and Pedestrians



# WORKSHOP EXERCISE

# BERWYN AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION

## DRAFT - FOR DISCUSSION ONLY



50' WIDE PED/BIKE UNDERPASS WITH 12' WIDE SEPARATED BIKE LANE

50'

135'

RETAINING WALL

SPEED TABLE / CROSSWALK AT TRAIL CROSSING

BIKE TRAIL

PEDESTRIAN TRAIL



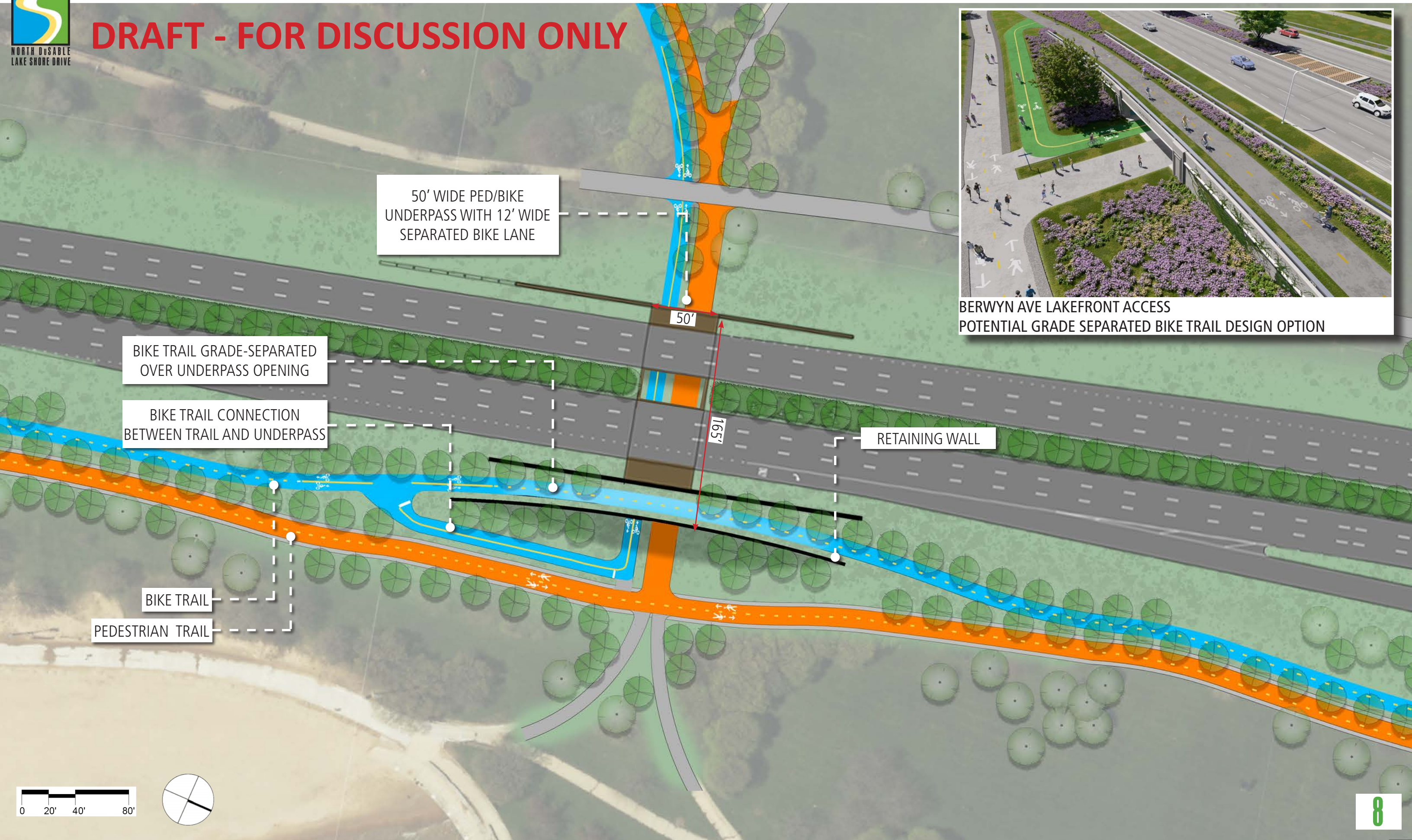
BERWYN AVE LAKEFRONT ACCESS  
POTENTIAL AT GRADE TRAILS DESIGN OPTION



# WORKSHOP EXERCISE

# BERWYN AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION

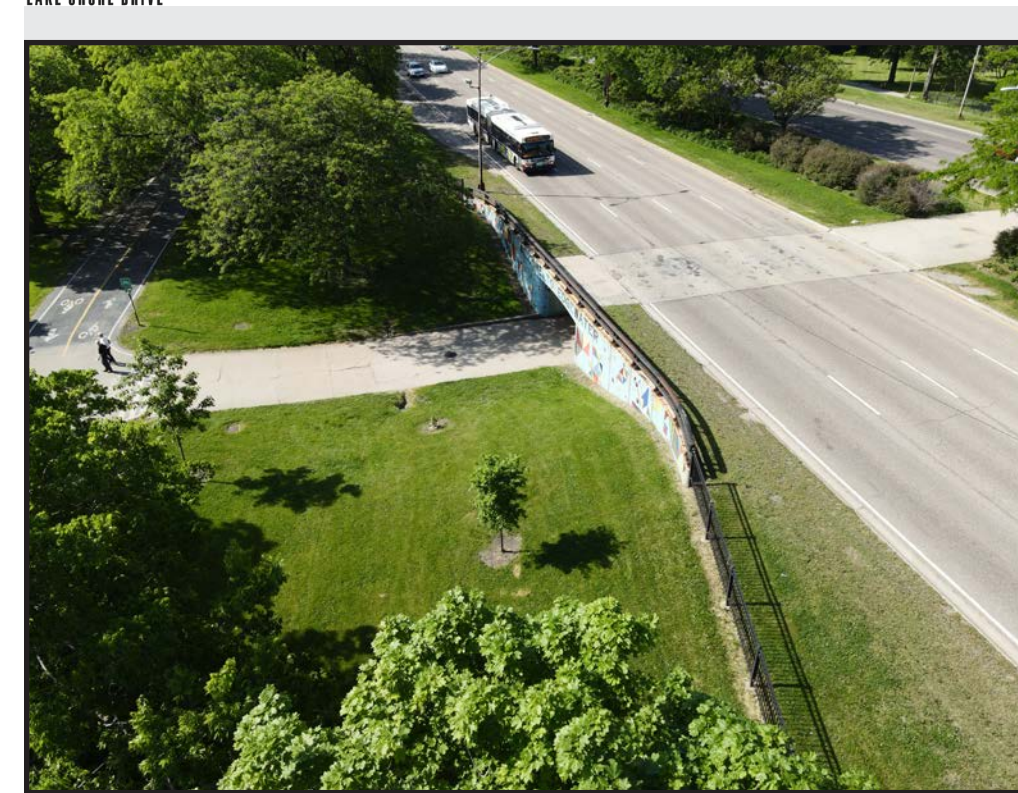
## DRAFT - FOR DISCUSSION ONLY



BERWYN AVE LAKEFRONT ACCESS  
POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION







EXISTING CONDITIONS

- Trail volumes at Berwyn are lower than areas further south, but conflicts at this access point still exist
- Narrow underpass limits visibility and sight-lines for users entering and exiting
- Variety of user speeds and crossing movements result in conflicts
- Documented safety concerns from Task Force and Public Meeting attendees at this and similar trail junctions



POTENTIAL AT-GRADE BIKE TRAIL


- At-grade design will allow for simplified trail access and eliminates grade changes for cyclists
- Wider underpasses will allow better visibility and improved sight lines for users entering and exiting
- Additional pavement markings, material changes and raised design can be utilized to slow down and alert users that this is a crossing area.
- Keeping the bike trail at-grade will reduce the length of the underpass by around 30ft.

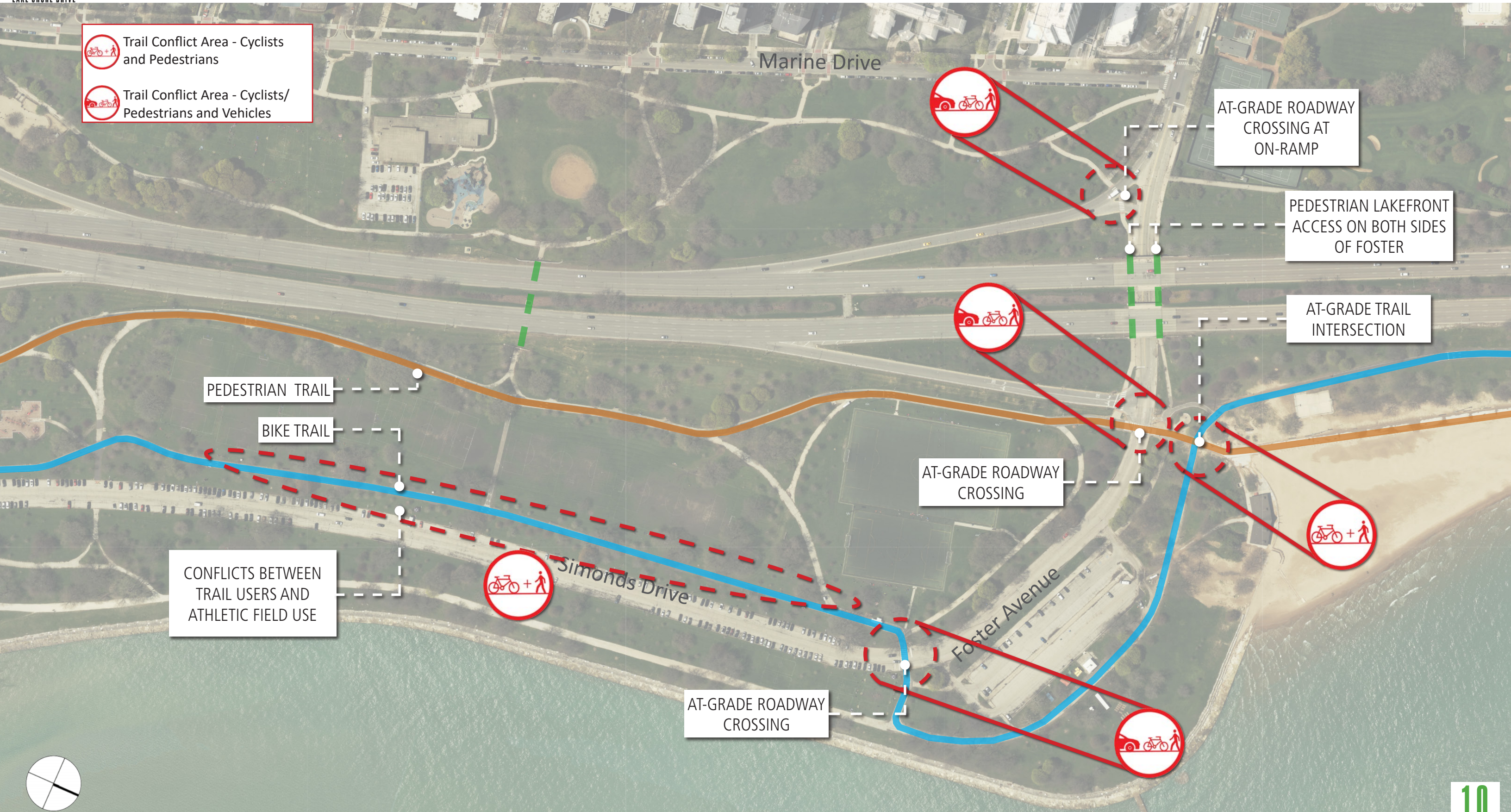


POTENTIAL GRADE SEPARATED BIKE TRAIL

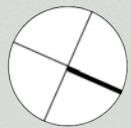
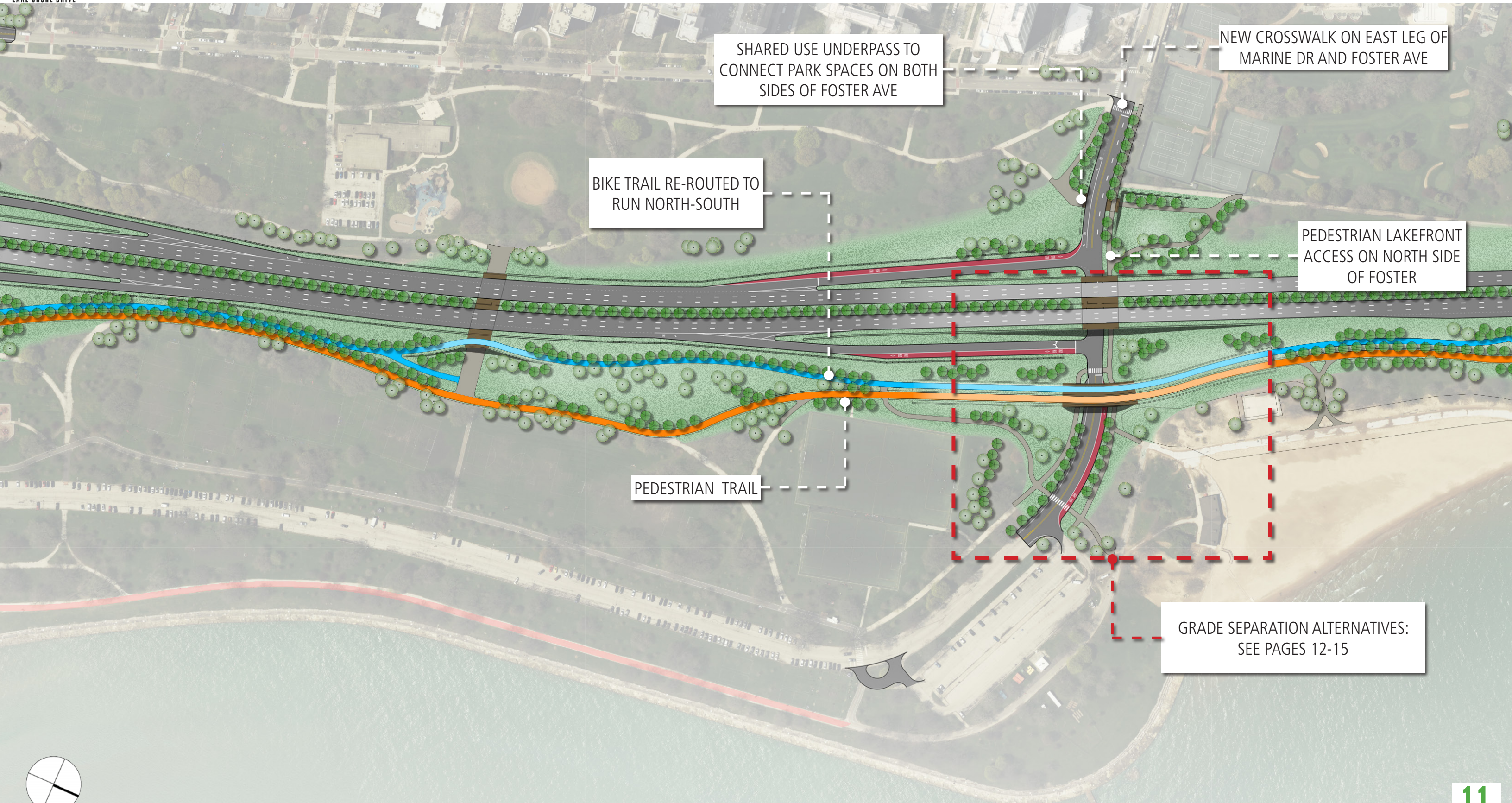
- Grade separation of bike trail will eliminate most conflicts as users enter the lakefront park
- Wider underpasses will allow better visibility and improved sight lines for users entering and exiting
- Grade separated design will introduce additional elevation that cyclists will need to navigate
- Elevating bike trail over underpass opening will lengthen underpass by around 30ft.

## DRAFT - FOR DISCUSSION ONLY

-  Trail Conflict Area - Cyclists and Pedestrians
-  Trail Conflict Area - Cyclists/ Pedestrians and Vehicles




## DRAFT - FOR DISCUSSION ONLY

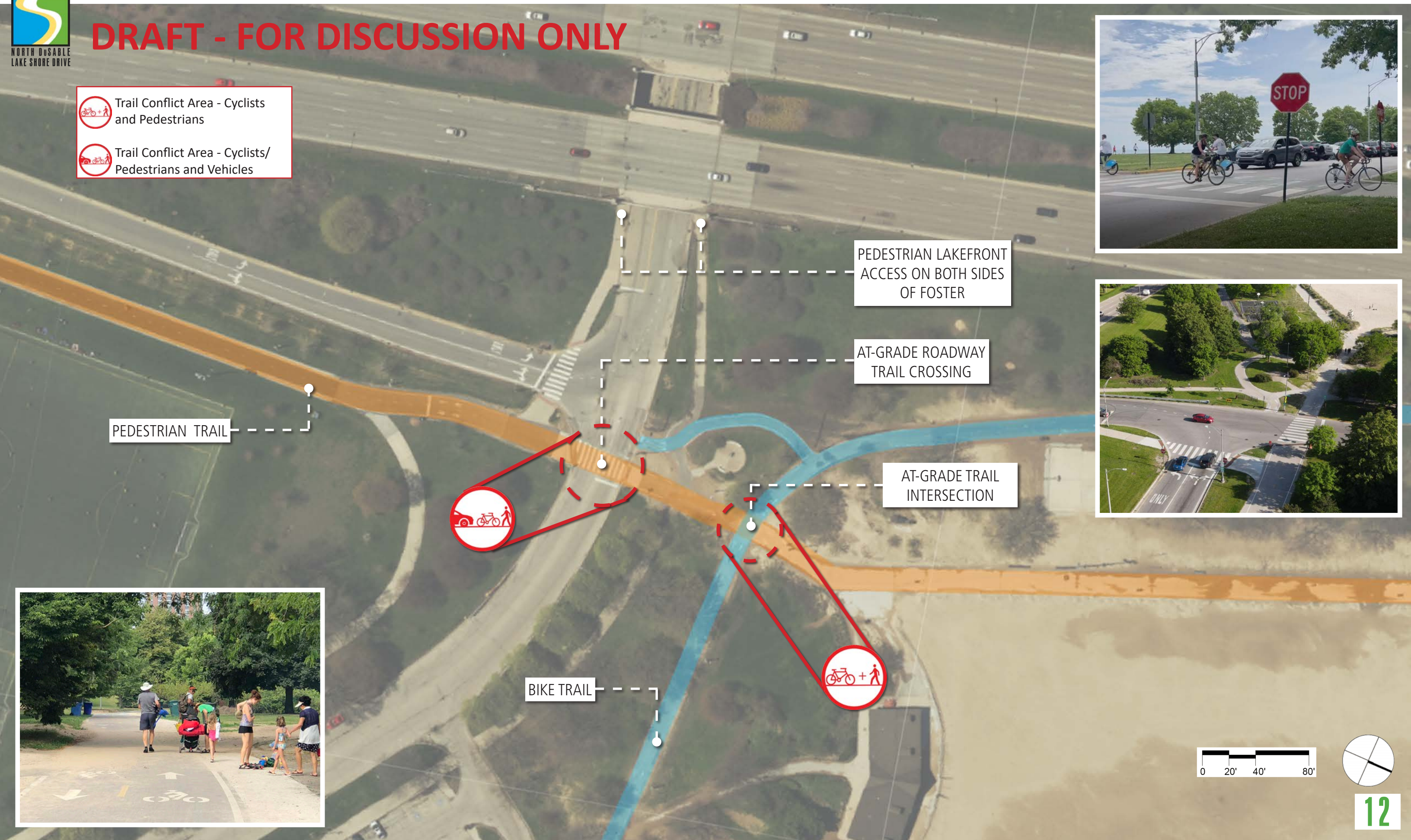
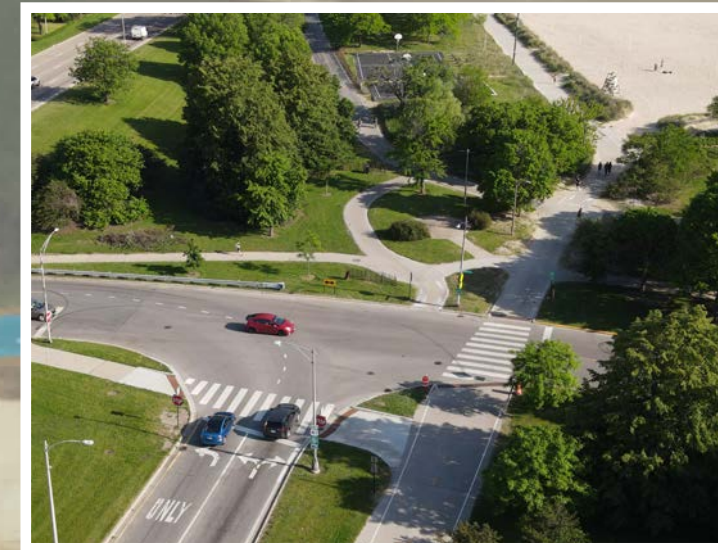


# WORKSHOP EXERCISE

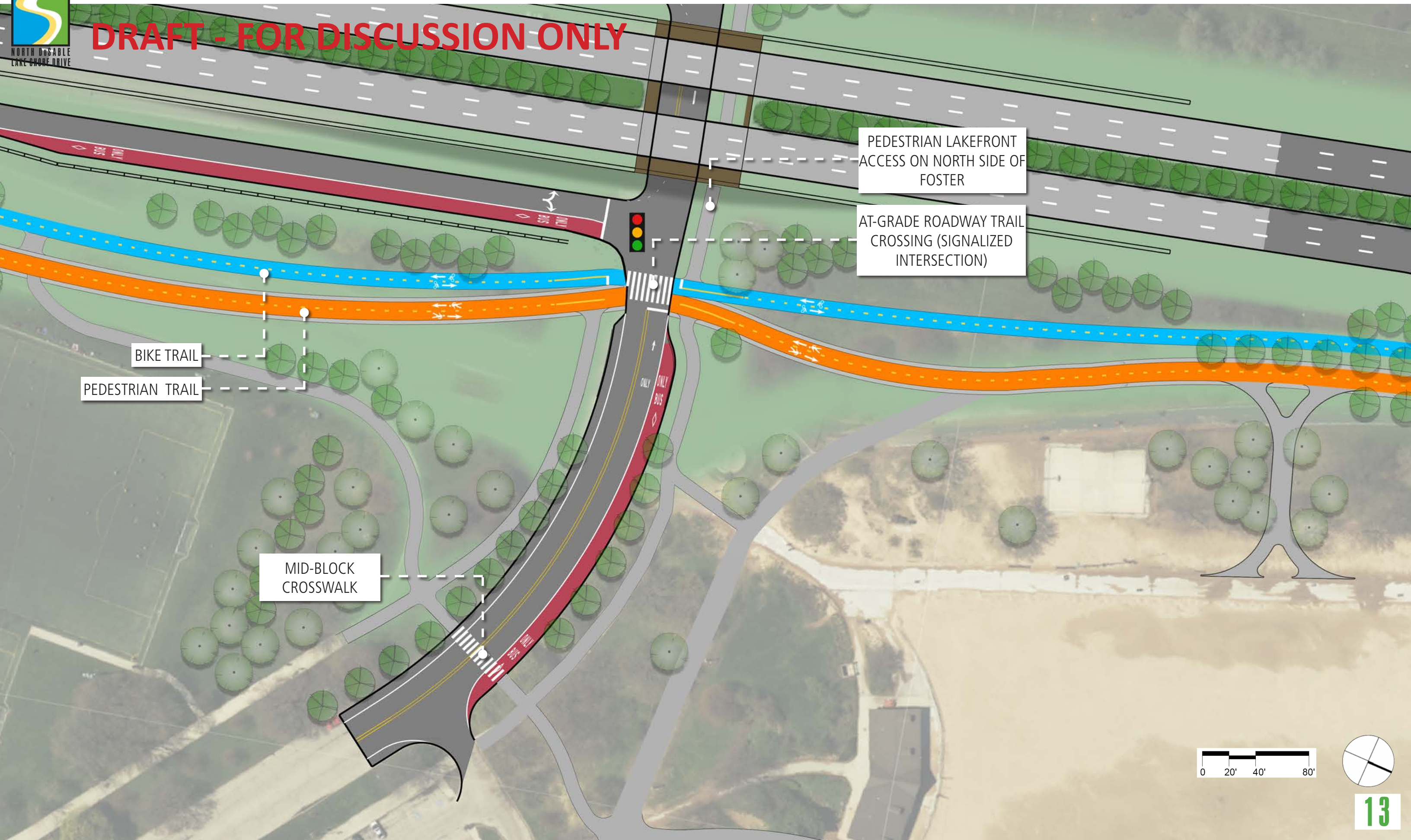
# FOSTER AVE: EXISTING CONDITIONS

## DRAFT - FOR DISCUSSION ONLY

-  Trail Conflict Area - Cyclists and Pedestrians
-  Trail Conflict Area - Cyclists/ Pedestrians and Vehicles



## DRAFT - FOR DISCUSSION ONLY



PEDESTRIAN LAKEFRONT  
ACCESS ON NORTH SIDE OF  
FOSTER

AT-GRADE ROADWAY TRAIL  
CROSSING (SIGNALIZED  
INTERSECTION)

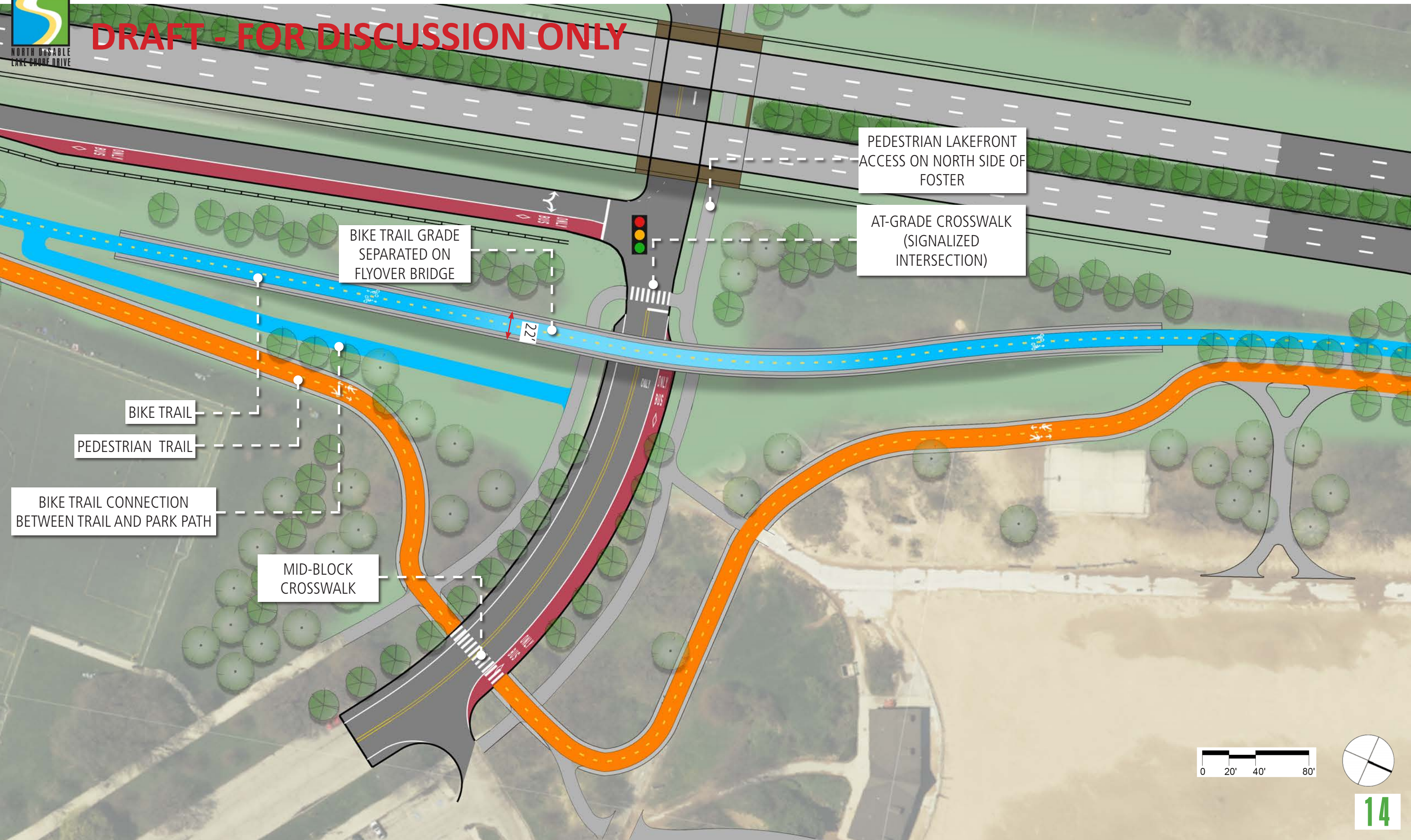
BIKE TRAIL

PEDESTRIAN TRAIL

MID-BLOCK  
CROSSWALK



## DRAFT - FOR DISCUSSION ONLY



BIKE TRAIL GRADE SEPARATED ON FLYOVER BRIDGE

PEDESTRIAN LAKEFRONT ACCESS ON NORTH SIDE OF FOSTER

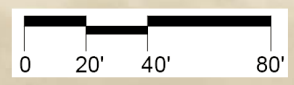
AT-GRADE CROSSWALK (SIGNALIZED INTERSECTION)

BIKE TRAIL

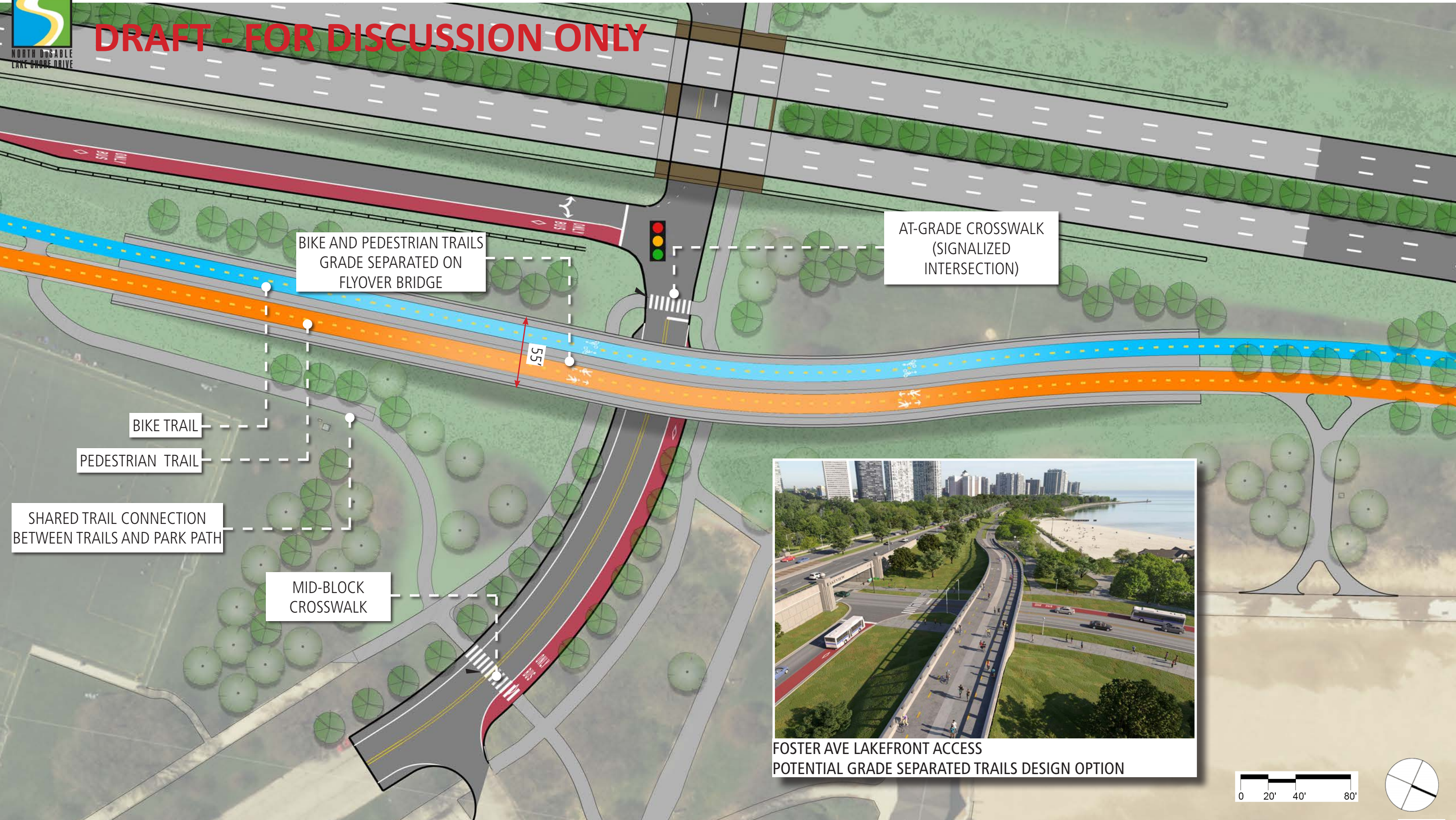
PEDESTRIAN TRAIL

BIKE TRAIL CONNECTION BETWEEN TRAIL AND PARK PATH

MID-BLOCK CROSSWALK



## DRAFT - FOR DISCUSSION ONLY



FOSTER AVE LAKEFRONT ACCESS  
POTENTIAL GRADE SEPARATED TRAILS DESIGN OPTION



# WORKSHOP EXERCISE

## DRAFT - FOR DISCUSSION ONLY

# FOSTER AVE: SUMMARY

### EXISTING CONDITIONS

- Trail volumes at Foster are lower than areas further south
- Intersecting trails with blind curves create a major conflict point
- Sand frequently blows onto the trails in this location, making it challenging for rolling users
- High number of cyclists on pedestrian trail, and pedestrians on bike trail in this area
- At grade trail roadway crossings with curved approaches make it difficult for motorists to see oncoming trail traffic
- Unsignalized roadway crossings create confusion for drivers when some trail users stop and others don't
- Documented safety concerns from Task Force and Public Meeting attendees at this and similar trail junctions

### POTENTIAL DESIGN: AT-GRADE TRAILS

- Design will consolidate trails crossing Foster at one signalized crosswalk
- Bike trail alignment will be revised to run more directly North/South, between the roadway and pedestrian trail - providing better routing and eliminating conflicts with athletic field use
- Ped/Bike trail intersection will be eliminated, reducing conflicts between bikes and peds
- Trail layout will be more intuitive for users to determine which trail they should be on
- New mid-block crossing will allow more direct beach access from park

### POTENTIAL DESIGN: GRADE SEPARATED BIKE TRAIL

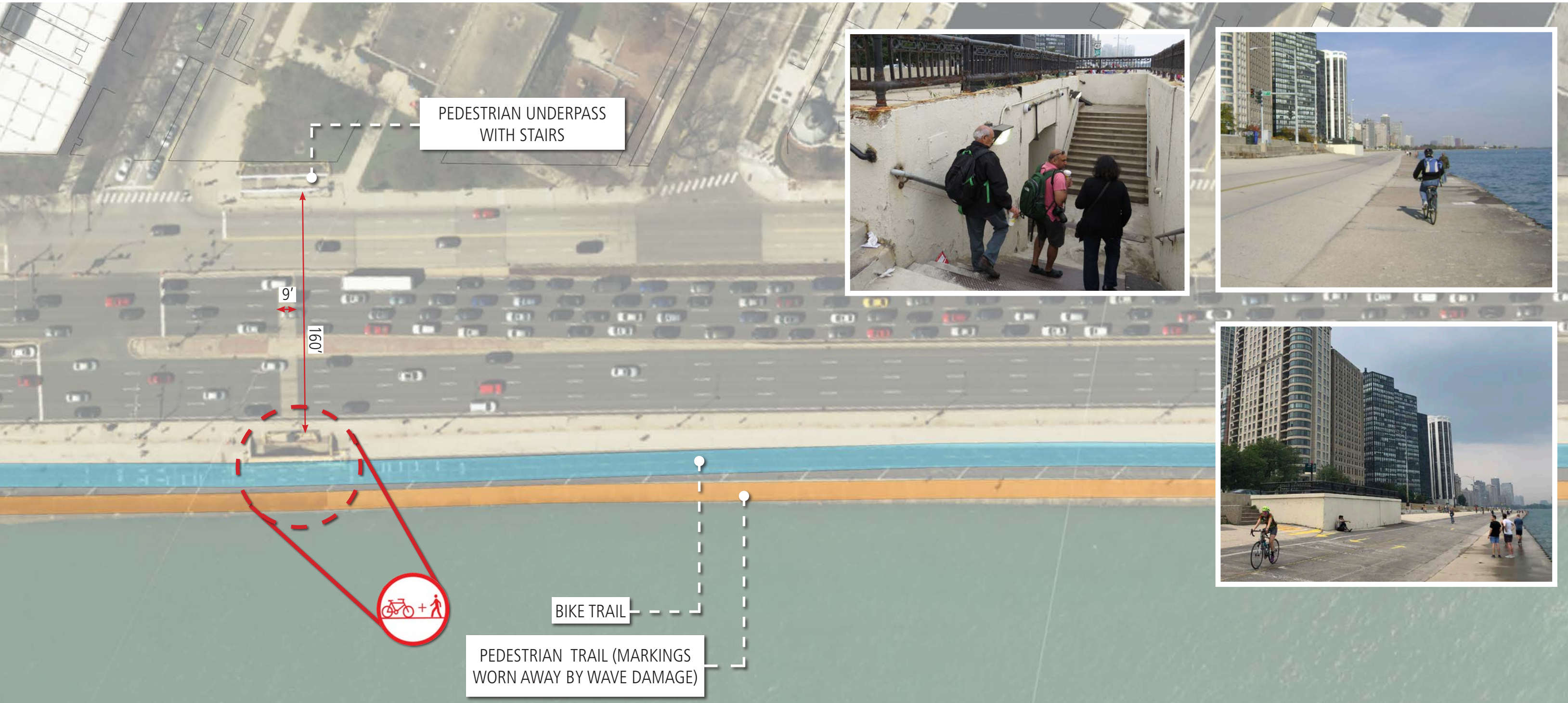
- Higher speed users on bike trail will be grade-separated from the vehicle crossing at Foster to eliminate conflicts with vehicles
- Flyover bridge design would be 22ft wide and introduce an incline that cyclists would need to navigate
- A separate connecting path will be needed to allow cyclists to access the bike trail
- In order to encourage cyclists to use the flyover bridge, the pedestrian trail is routed further west in this option - crossing Foster at the mid-block crossing
- Pedestrian trail routing will add extra steps to continue North and South beyond Foster Ave.

### POTENTIAL DESIGN: GRADE SEPARATED BIKE AND PED TRAILS

- All trail users would have a fully grade separated connection that eliminates conflicts with vehicles
- Flyover bridge would be 55ft wide, carrying both trails, and introduce an incline that walking, rolling and biking would need to navigate
- Pedestrian and Bike trail users would share an access path to the trails through the park
- The Foster intersection will be signalized with a standard at-grade crosswalk for non-trail users
- The North/South routing of both trails provides a direct route through the space, but access to both trails would require users to enter the park first



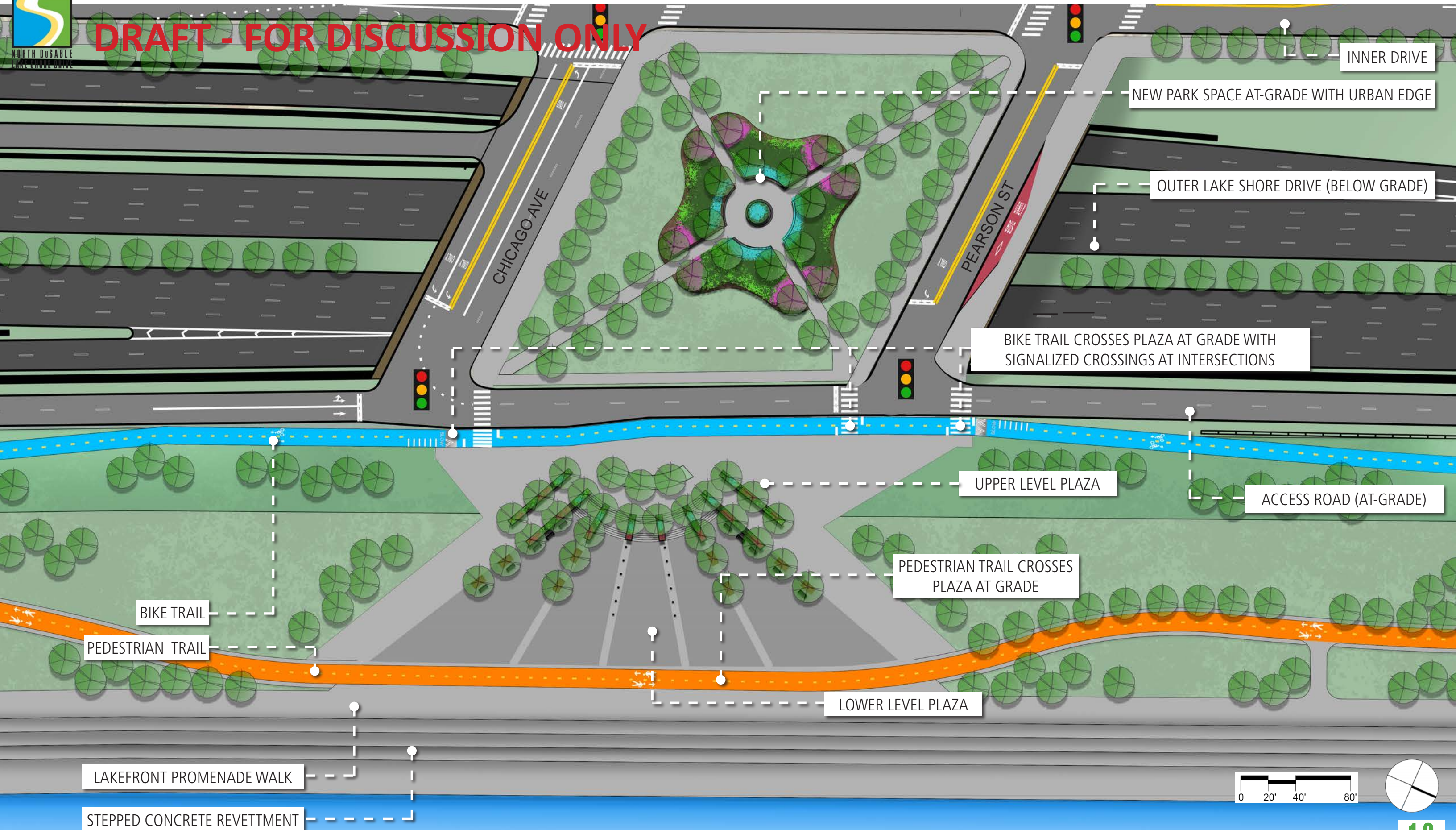
## DRAFT - FOR DISCUSSION ONLY



# WORKSHOP EXERCISE

# CHICAGO AVE: POTENTIAL AT-GRADE TRAILS DESIGN OPTION

**DRAFT - FOR DISCUSSION ONLY**



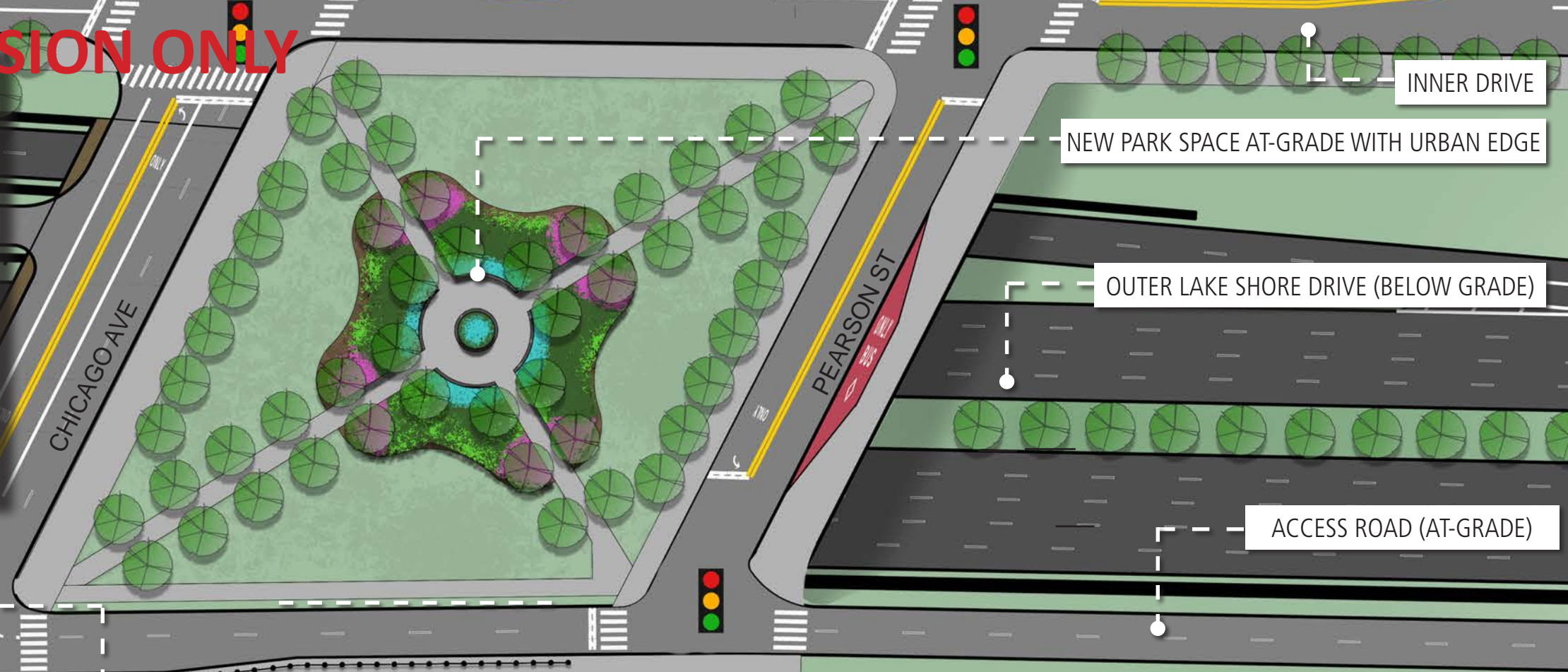
# WORKSHOP EXERCISE

# CHICAGO AVE: POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION

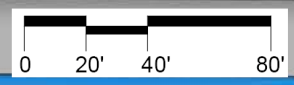
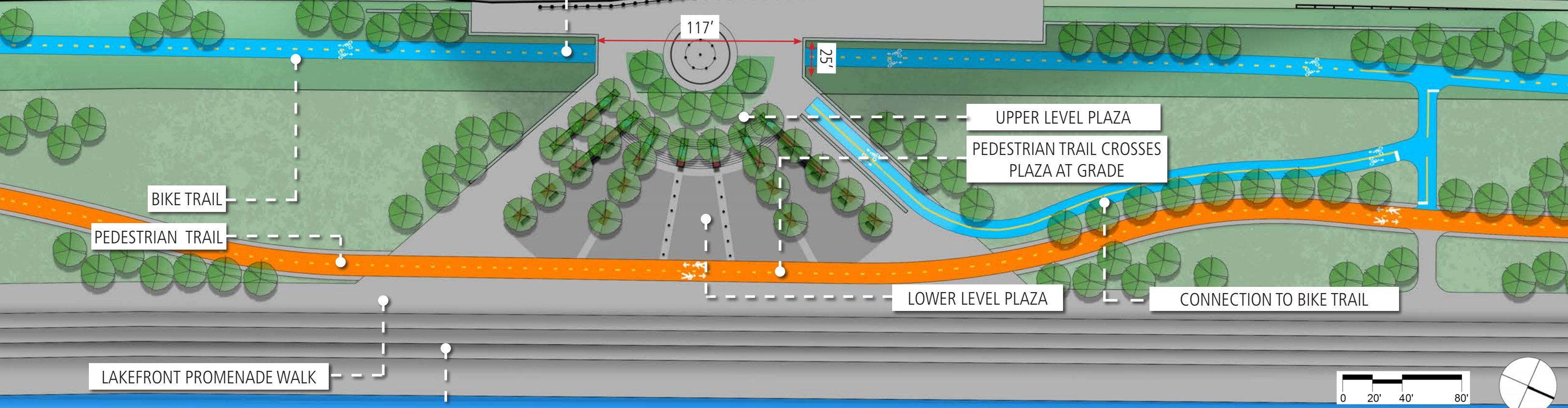
**DRAFT - FOR DISCUSSION ONLY**



CHICAGO AVE LAKEFRONT ACCESS  
POTENTIAL GRADE SEPARATED BIKE TRAIL DESIGN OPTION



BIKE TRAIL GRADE SEPARATED WITH UNDERPASS UNDER PLAZA



### EXISTING CONDITIONS

- Heavy trail and lakefront access volumes results in conflicts between users at access points
- Narrow underpass with stairs and circuitous exit is difficult to find and use, and is inaccessible for many users
- Worn trail markings make delineation of spaces for separated trails unclear and confusing for users
- Variety of user speeds and crossing movements result in conflicts
- Documented safety concerns from Task Force and Public Meeting attendees at this and similar trail junctions

### POTENTIAL AT-GRADE BIKE TRAIL

- At-grade design will allow for simplified and more intuitive trail access and eliminates grade changes for cyclists
- Updated roadway design allows for multiple signalized crossing points to the lakefront, without the need for an underpass
- Additional pavement markings, material changes and speed cushions can be utilized to slow down and alert cyclists that they are approaching a trail crossing
- The at-grade bike trail will reduce available space within the plaza for other uses

### POTENTIAL GRADE SEPARATED BIKE TRAIL

- Grade separation of bike trail will reduce higher speed conflicts as users enter the lakefront park
- Grade separated design will introduce additional elevation that cyclists will need to navigate
- Grade separation requires additional infrastructure including retaining walls on the perimeter of the plaza space
- Underpass design will require a separate connection trail to allow cyclists accessing the lakefront at Chicago Ave to connect to the trail, and requires Southbound cyclists to ride to the North first to get on the trail