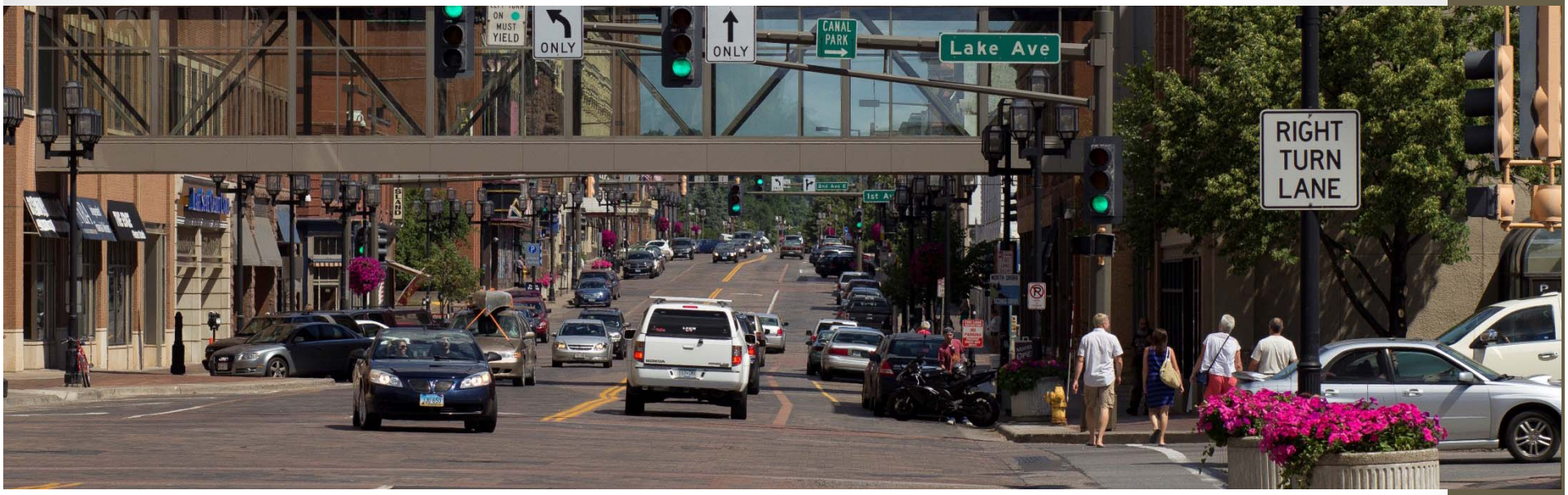


Downtown Bikeways

February 3, 2015

5:00 pm

City Hall Room 303

Introduction

Dave Montgomery

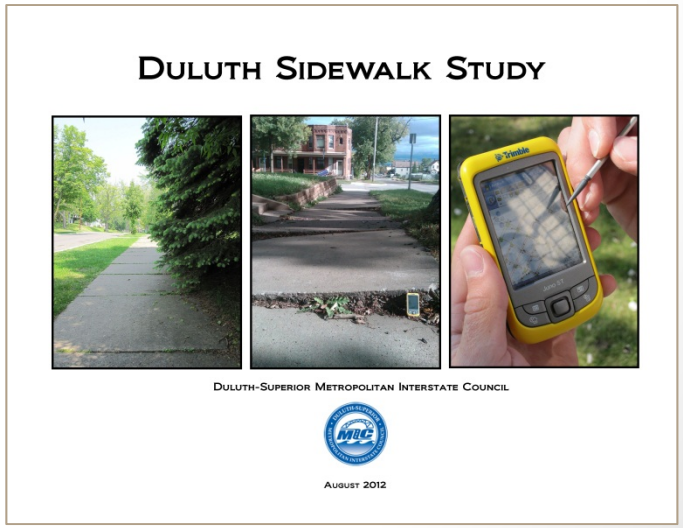
Chief Administrative Officer

Agenda

- Modes of Transportation in Downtown Duluth
- Bikeways in Downtown Duluth – Assessment of Current Conditions
- Types of Bike Facilities
- Alternatives

Downtown Mobility

- **Cars**
  - Downtown Parking Studies (most recent - 2000)
  - *Downtown Duluth Modal Connections Study* (2009)
- **Transit**
  - Transit Center study (2004)
  - Downtown Transit Route Analysis (2003)
- **Pedestrians**
  - Sidewalk Study (2012)
  - ADA Guidance
- **Bicycles**
  - 2013 Bikeways Plan



Downtown Mobility - *Questions*

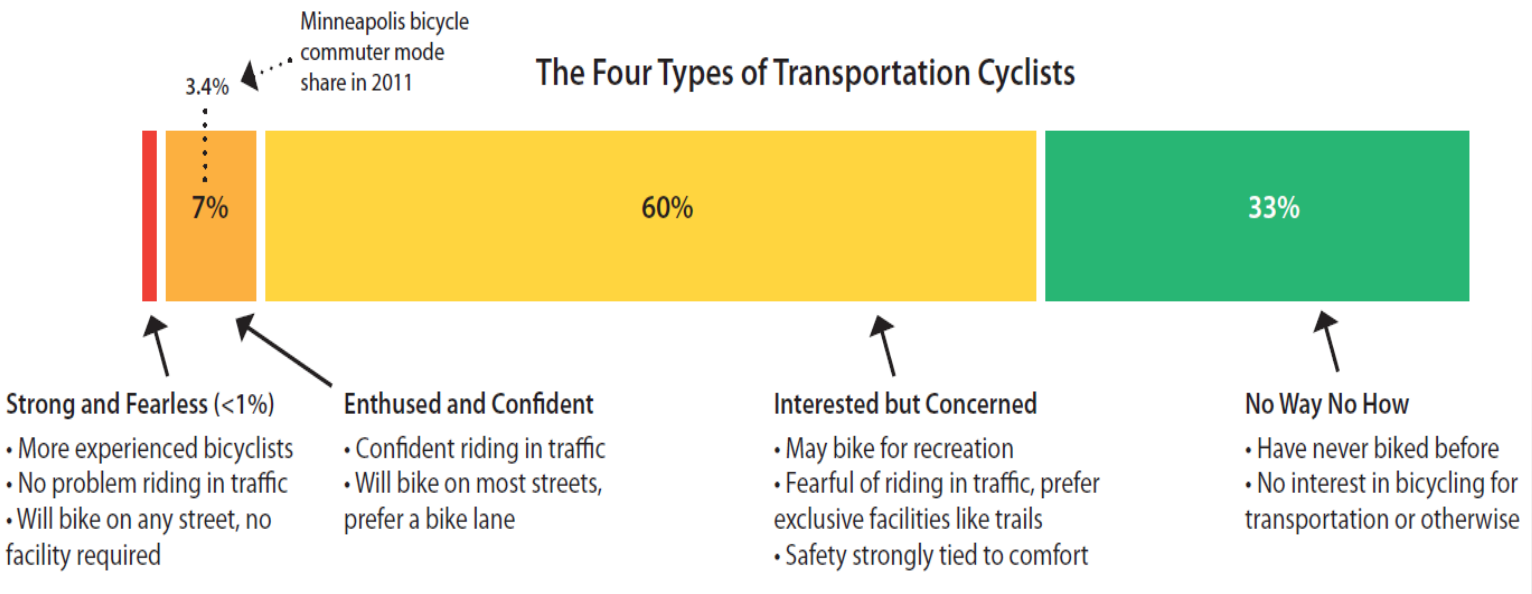
- **Cars**
  - Do one-way streets provide the ideal experience for users (pedestrians, cyclists, drivers, transit users)?
  - Are all of the existing stoplights needed?
  - Is on-street and off-street parking provided in the right locations?
- **Transit**
  - How will transit use and needs shift with the new multimodal center?
- **Pedestrians**
  - Are sidewalks and skywalks accessible and safe?
  - Do sidewalks and skywalks invite users and encourage walking?
- **Bicycles**
  - What is the best route to connect existing bike facilities?
  - What type of bike facility should be provided?

***Questions such as one-way vs two-way streets and locations of stoplights are closely tied to a decision about where bike facilities will be provided.**

Current Bike Infrastructure

Downtown Bikeways

- Downtown is an activity hub and destination for all modes of travel.
- Bike facilities promote active living.
- Designated bike facilities provide a comfortable space for people that are less confident.
- Bike facilities discourage bikers from riding on the sidewalk.
- Logical connections between west and east sides of the city.
- Bike parking is more compact and thus provides more space for vehicle parking, and also reduces the number of vehicles on the road, helping to eliminate traffic congestion.



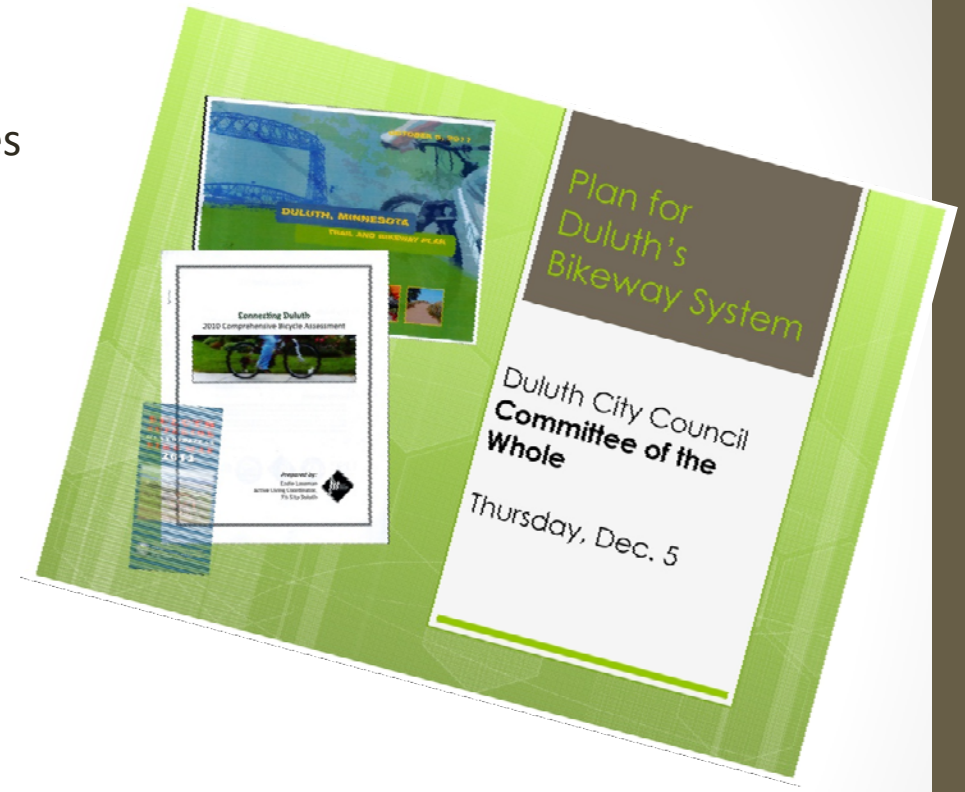
Source: Portland Bureau of Transportation

Downtown Bikeways

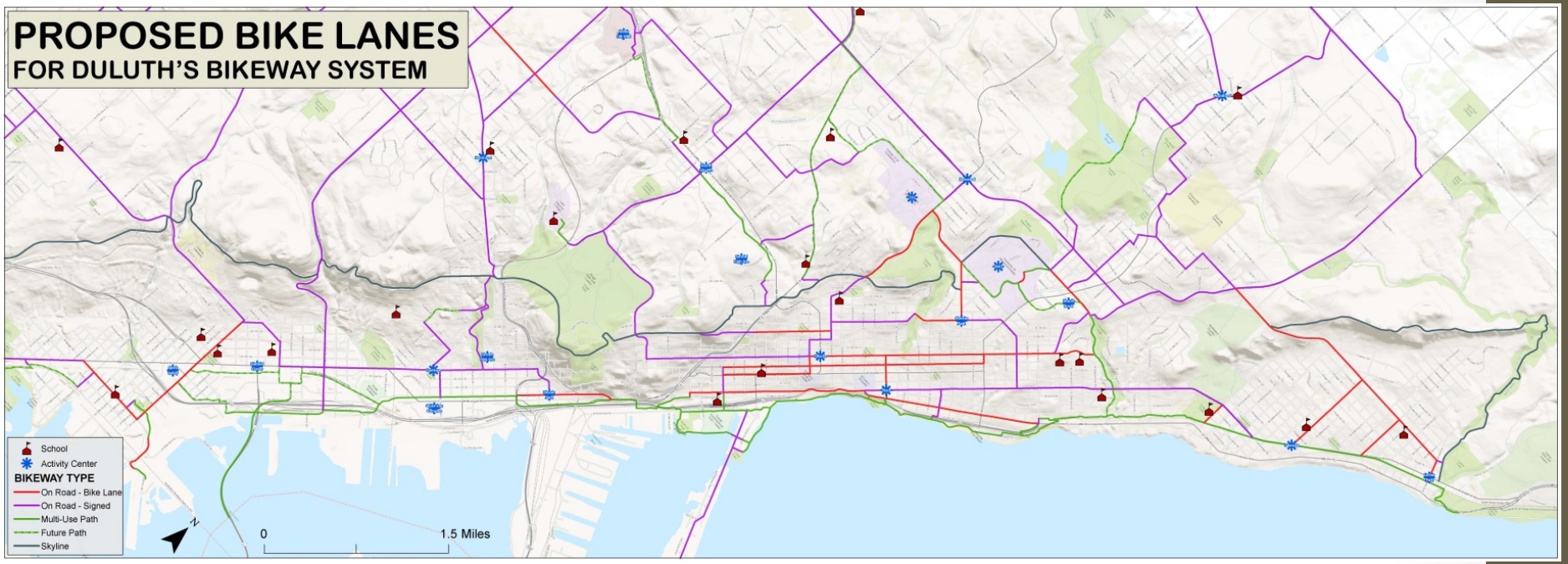
- Cyclists can already legally ride on the road without a separate designated facility.
- Providing a designated bike facility will result in trade-offs with existing uses—for example, reductions in parking, or not being able to provide landscaping.
- Need to consider snow clearing of bike facilities.

Previous Planning

- 2013 HDAC and GDC Survey: Majority of downtown businesses support bike lanes and bike parking
- April 2014 HDAC Survey of DTA riders shows that 80-90% of respondents also ride their bike into downtown once or more a week.
- 2013 Bikeways Plan

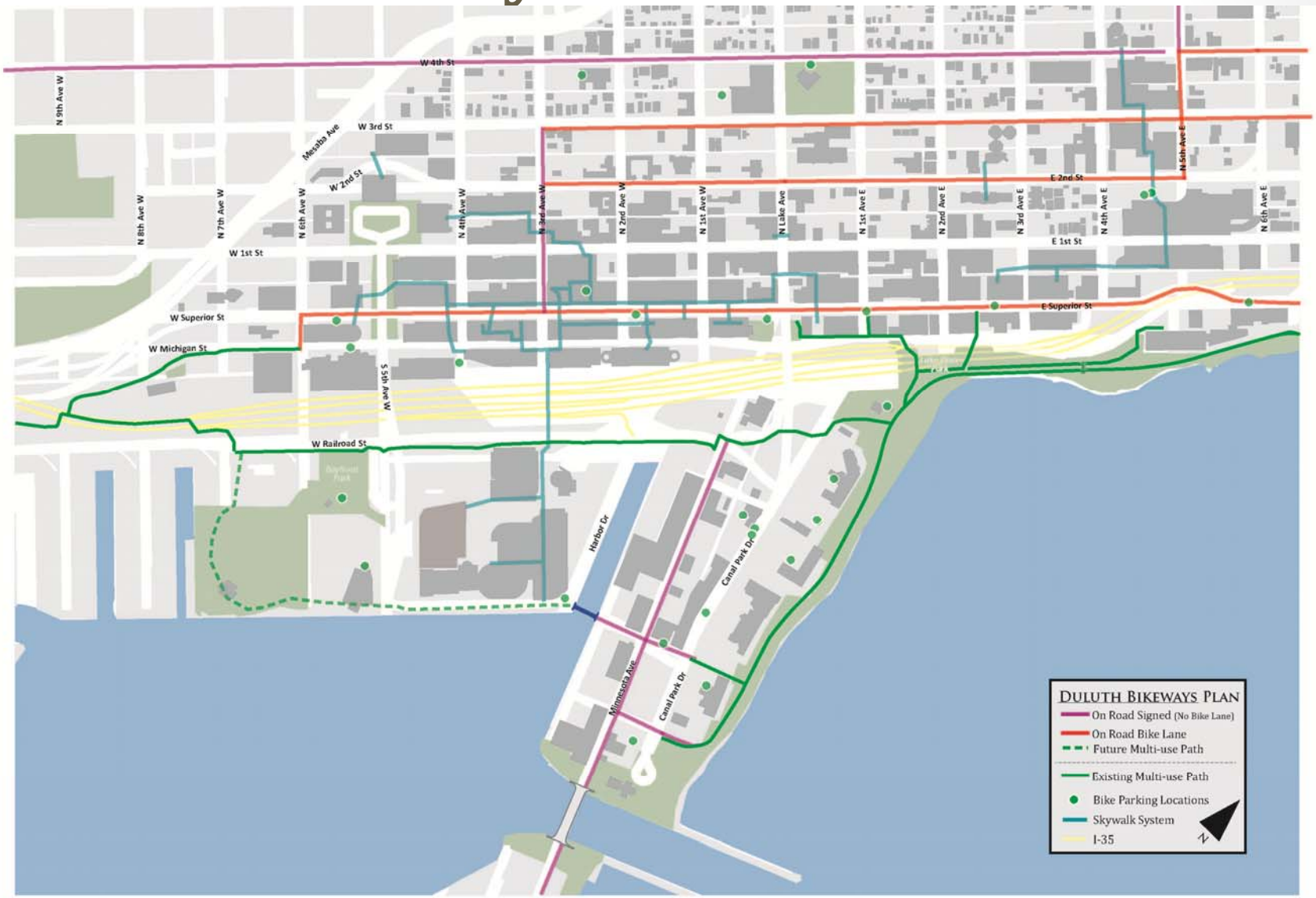


2013 Bikeways Plan



- If changes to the Bikeways Plan are proposed, a resolution will be brought to City Council.

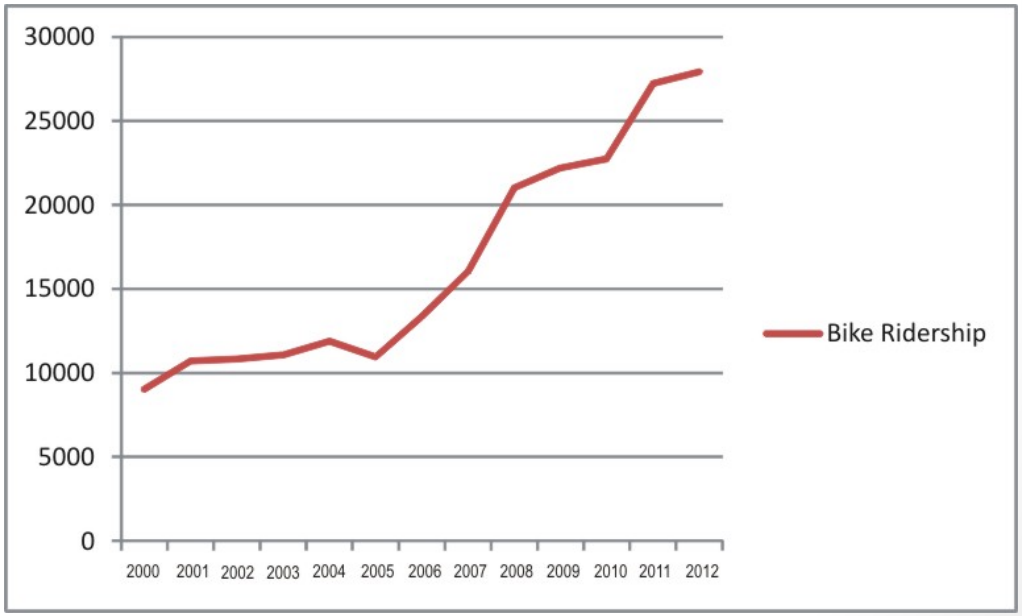
2013 Bikeways Plan - Downtown



Current Conditions

- Spatial mismatch in people entering downtown from west versus east
- Bike counts and bike parking counts
- Bike ridership of DTA riders on the rise

Annual DTA
Bikes on Buses
Ridership
2000 - 2012



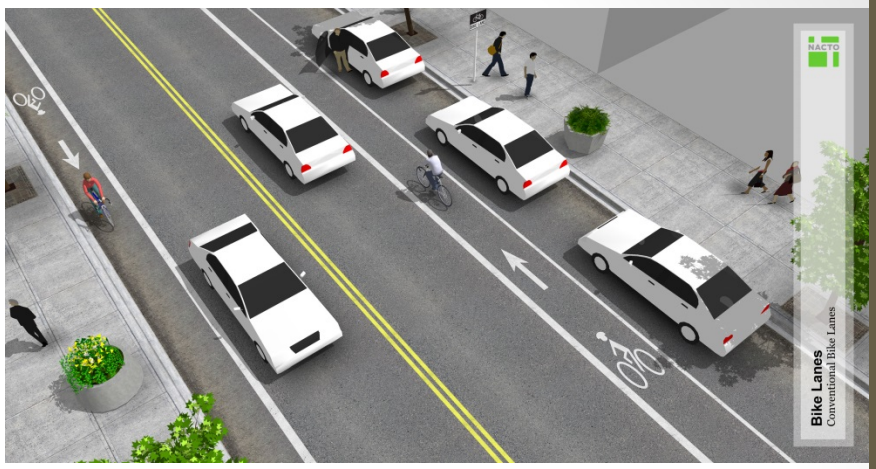
Bike Lanes

Buffered bike lane

Photo: Mark Dreger, San Franciscoize

Contra-flow bike lane

Source: NACTO



Conventional bike lane

Source: NACTO

Left-side bike lane

Source: NACTO

Cycle Tracks/Protected Bikeway

Two-way cycle track

Source: NACTO

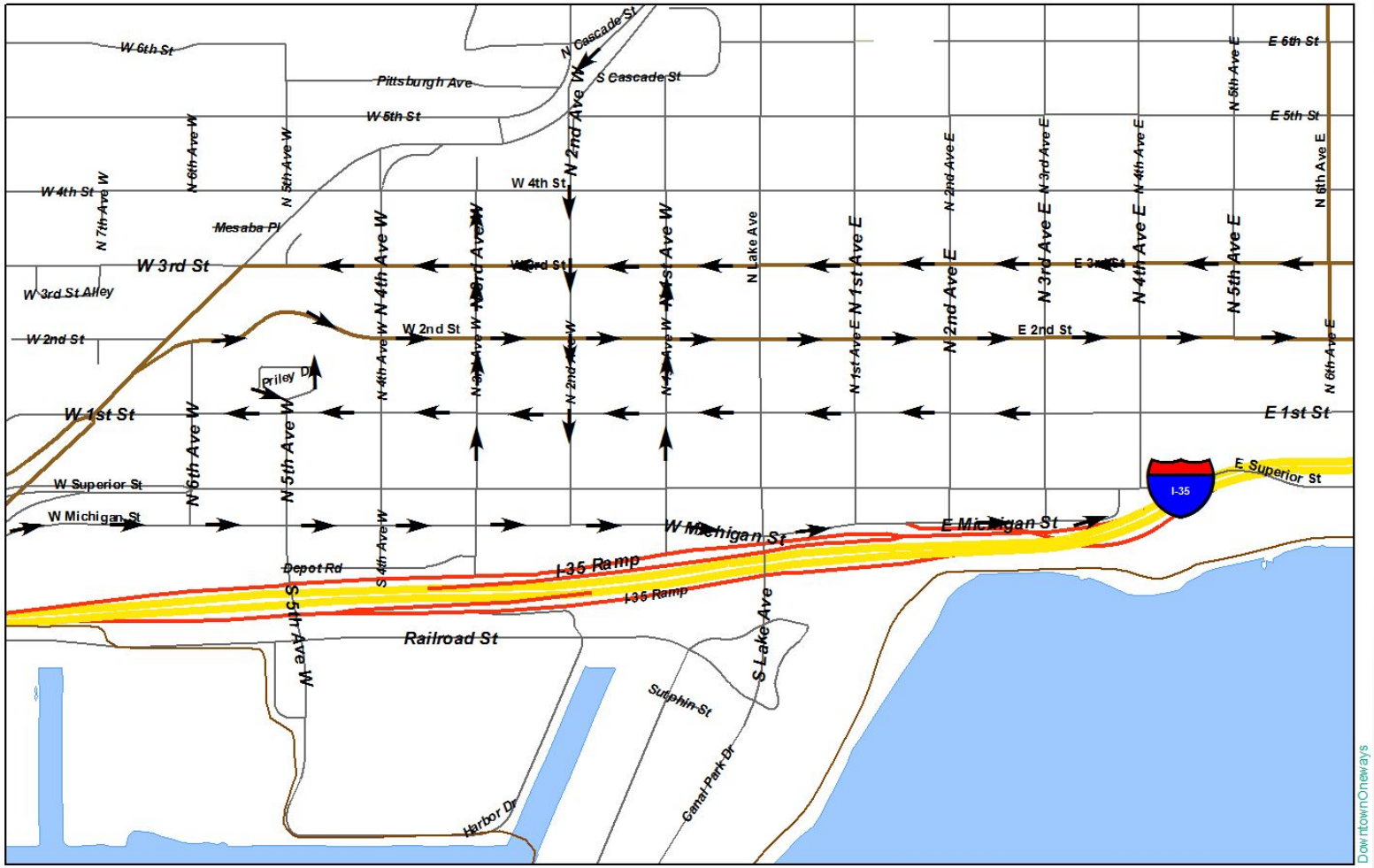
Elevated cycle track

Source: NACTO

One-way cycle track

Source: NACTO

Streets


W 6th St
Pittsburgh Ave
N Cascade St
S Cascade St
W 5th St
E 6th St
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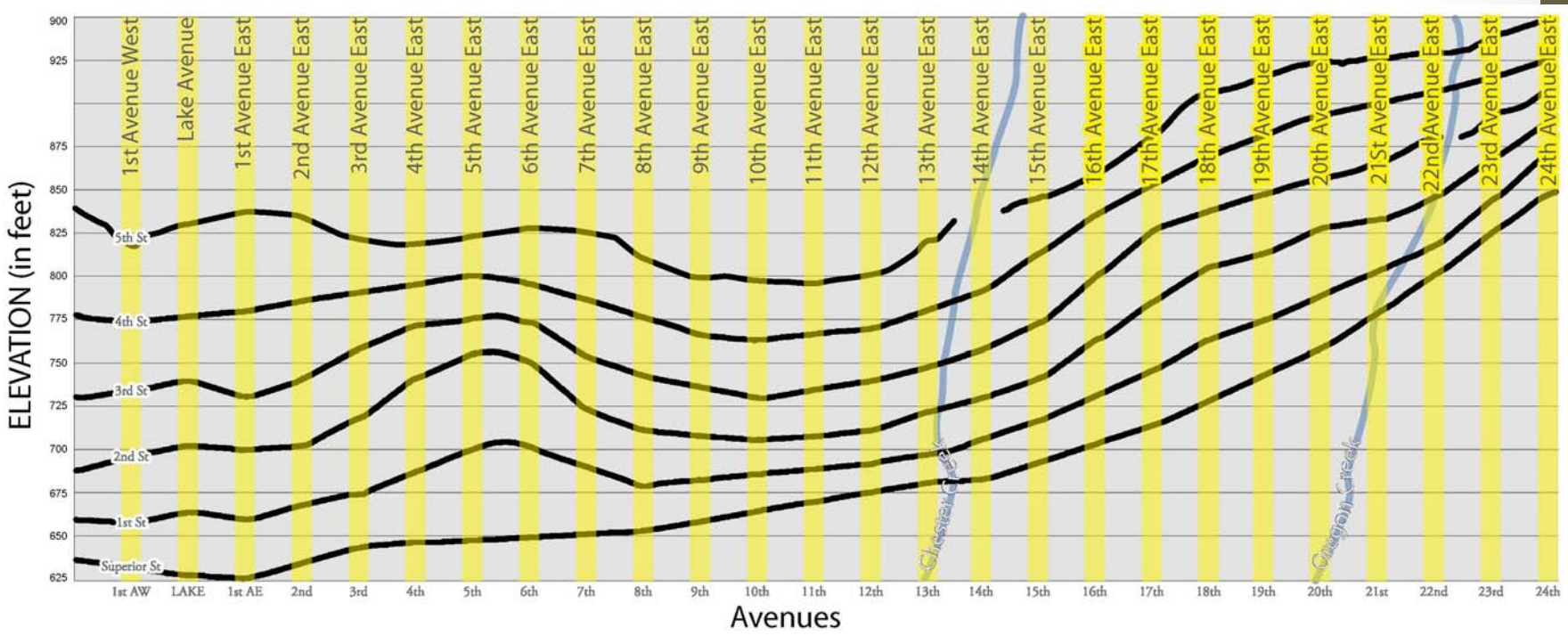
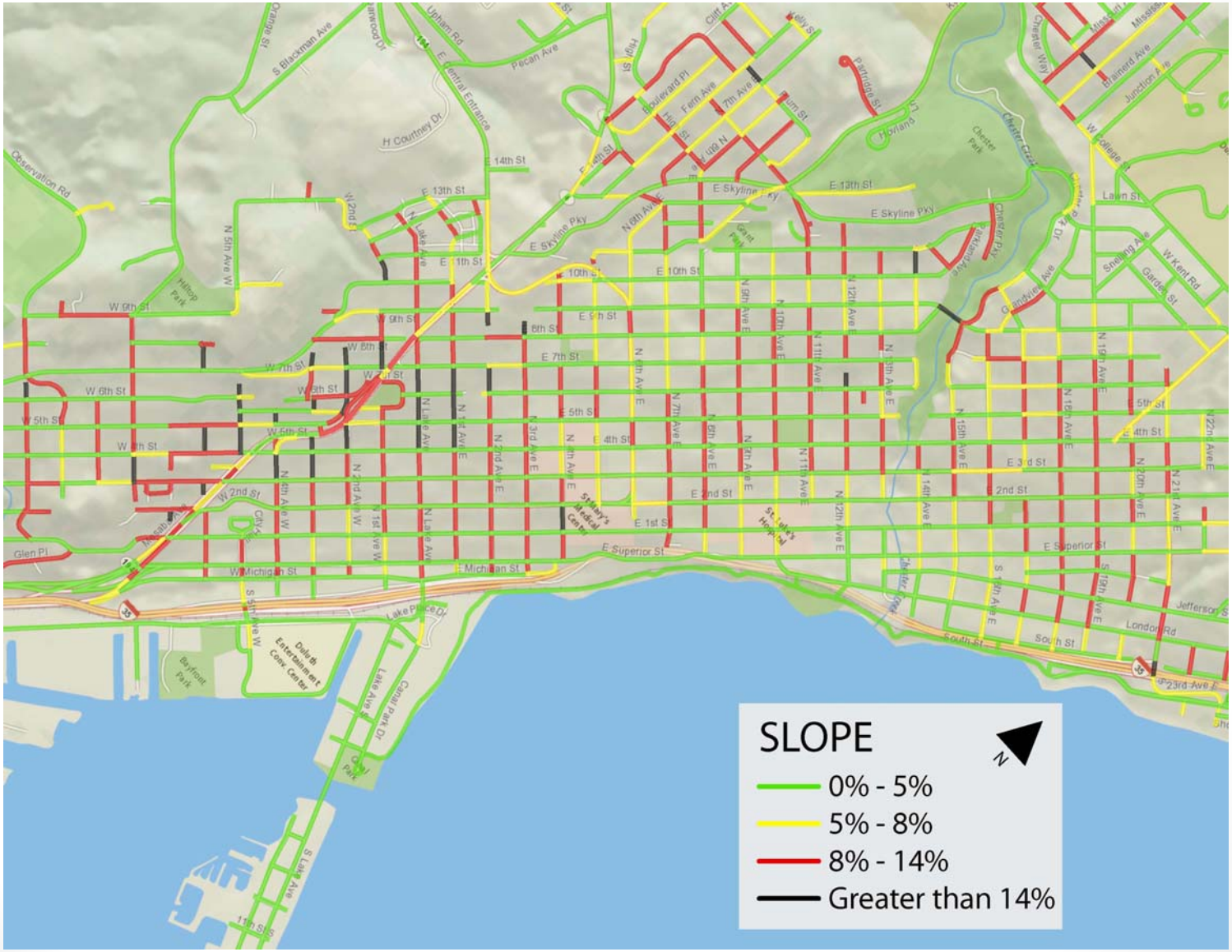
Priley Dr
W 1st St
E 1st St
W Superior St
E Superior St
I-35
W Michigan St
E Michigan St
Depot Rd
I-35 Ramp
S 5th Ave W
S 4th Ave W
Railroad St
S Lake Ave
Sulphin St
Canal Park Dr
Harbor Dr
DowntownOneways

Downtown Streets – Elevation Profile

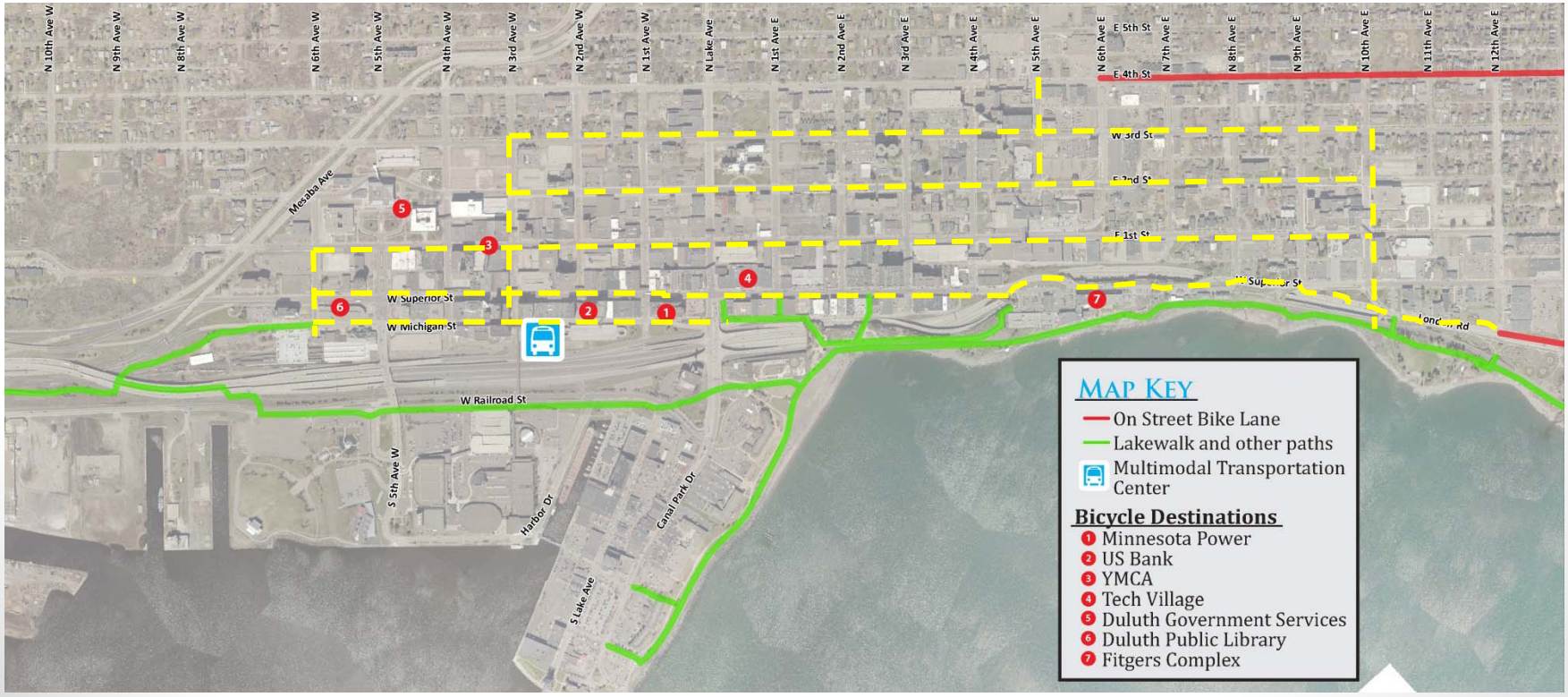


Downtown Streets – Slope Analysis



East-West Bike Alternatives

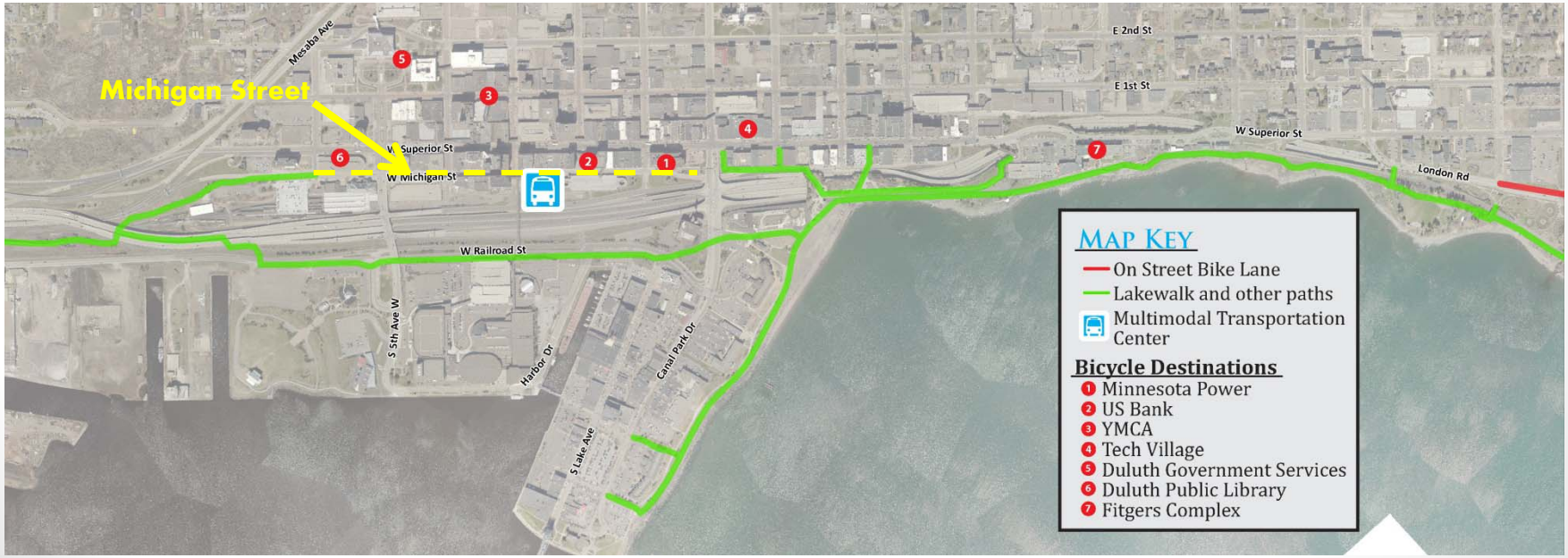
- Michigan Street
- Superior Street
- Superior Street Alley
- 1st Street
- 1st Street/2nd Street One-Way Pair
- 2nd Street/3rd Street One-Way Pair



Michigan Street

Pros:

- Low traffic volume, slow moving traffic
- Narrow street width “feels” right for bikers
- Future Multimodal Center connections



Michigan Street

Cons:

- Narrow right of way requires removal of one lane of parking (currently 15 spaces)
- One-way street is challenging for a two-way bikeway
- High number of loading zones creates conflicts with heavy trucks
- Street becomes a highway on-ramp east of Lake Avenue; difficult connection to Lakewalk

Superior Street

Pros:

- Connects to the most destinations
- Highest bike counts, highest bike parking
- Flattest vertical grade
- Lower overall vehicle speed than other routes
- Bus route provides integration between buses and bikes
- Two-way street allows for two-way bike lanes

Superior Street

Cons:

- Reduced pedestrian space
- Reduced on-street parking
- Parking converts to parallel parking instead of diagonal parking

Superior Street Alley

Shared space with bikes, cars, and pedestrians

Pros:

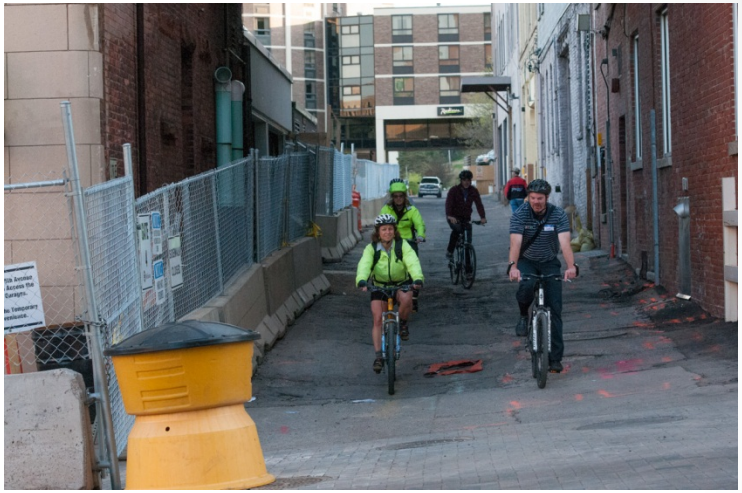
- Quiet, low-traffic, low-speed corridor
- Connects destinations; in the center of downtown
- Alley has a pedestrian-scaled design that is friendly for bicyclists
- No parking impacts

Superior Street Alley

Shared space with bikes, cars, and pedestrians

Cons:

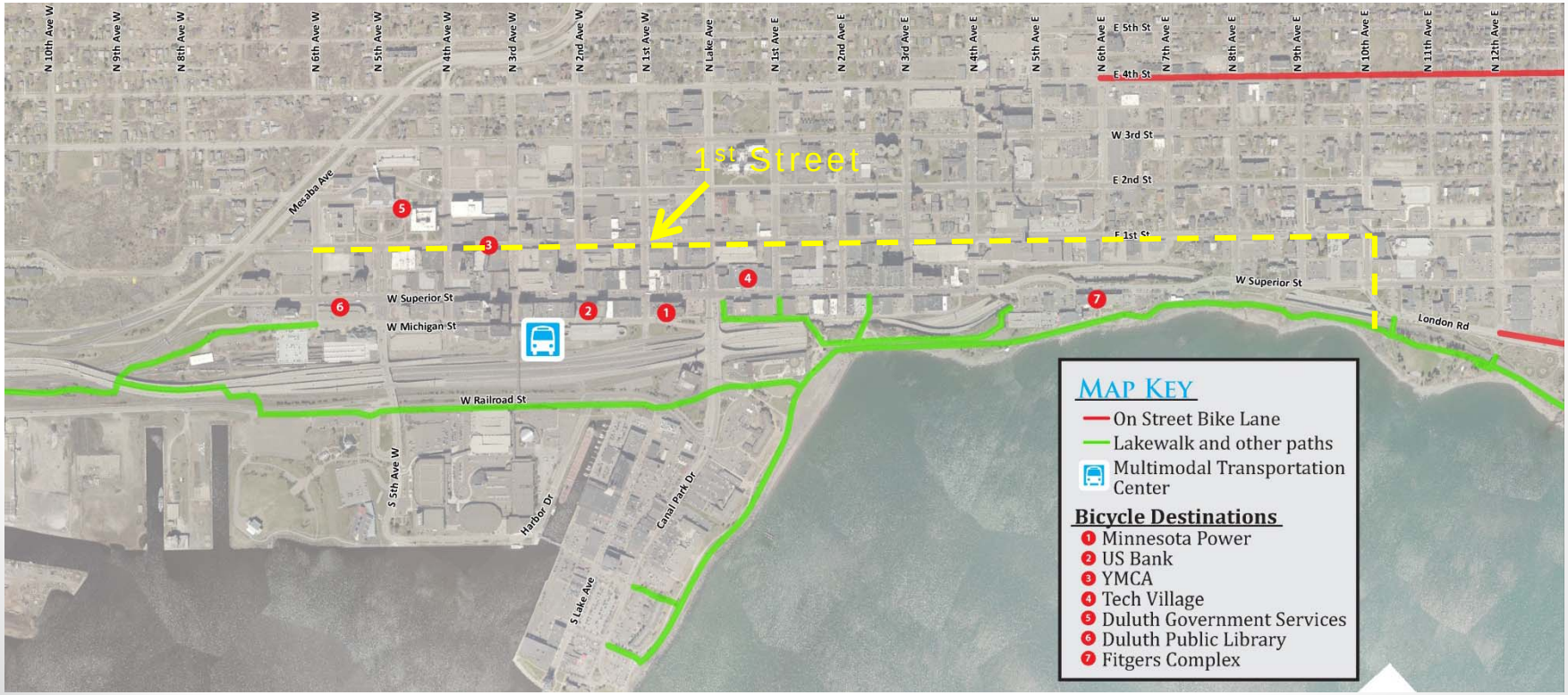
- Crossing the avenues at uncontrolled intersections results in safety hazards with pedestrians and cars
- Sloped avenues creates inconsistent road conditions that are a safety concern for cyclists
- Narrow right of way would not allow for protected bike facility
- Restricts vehicle traffic and access including deliveries



1st Street

Pros:

- Less traffic than Superior Street makes the route more comfortable
- No buses, so less chance for bus/bike conflicts



1st Street

Cons:

- Little integration with bus route
- Removes one lane of parking (currently has 175 spaces)
- Speed is higher than Superior Street

1st & 2nd Street Pair

Pros:

- Bike lane could be installed on 1st Street without removal of parking
- Situated between downtown businesses and 4th Street midhill bikeway.

1st & 2nd Pair

Cons:

- Changes to Medical District Parking Facility would result in a circuitous route (10 blocks) for medical patrons to pick up patients
- No connection between 1st Street and 4th Street
- Disconnected from Fitgers
- On 2nd Street, either a driving lane or the parking lane (currently 75 spaces) would have to be removed, or the road would be widened 6 feet

2nd & 3rd Street

Pros:

- Quickest east-west routes between downtown and eastern neighborhoods
- Easiest slope if trying to get to the top of the hill (until 6th Ave E)
- 3rd Street has a de facto left-side bike lane already

2nd & 3rd Street

Cons:

- Does not connect to western neighborhoods
- Does not connect to downtown destinations
- 2nd Street: loss of parking (currently 75 spaces) or a driving lane (or could widen the road 6 feet)

Next Steps

- Survey – Closes **February 10**
- Once location for downtown bikeways is determined, a resolution will be brought to City Council if necessary to amend the 2013 Bikeways Plan
- Implementation will require further design and study
- Study of downtown streets and avenues to determine whether they should be one-way or two-way; will accommodate all modes
- 2015: MIC initiates update to Regional Bikeways Plan

How Do We Connect the Routes?