Minneapolis Park & Recreation Board

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Cedar Lake and Lake of the Isles Master Plan
Community Advisory Committee (CAC) Meeting #8

In order to develop mobility recommendations, Asakura Robinson developed the following goals based on the guiding principles. The recommendations that have been put forward reflect these goals.

Protect

- All mobility options should seek to improve water quality, which includes:
    - Pairing mobility solutions with green infrastructure solutions
    - Shifting visitation away from personal vehicles as much as feasible.
- Formalize paths through natural areas to protect habitat

Invite

- Improve access to new gateways that provide an inclusive welcome to the parks (gateways could include signage, wayfinding, pull-off/pause spaces, benches, bike racks, and gardens)
- Help people move through park spaces in an intuitive way

Connect

- Clear circulation patterns
- Connections between lakes and to adjacent communities
- Connections to the broader Twin Cities, especially through the new light rail station

Tell Stories

- Use wayfinding and programing to celebrate the history of the Park
- Protect important “moments” or unique experiences

Celebrate

- Honor the ways that people enjoy moving through spaces by improving their experience (bike, walk, paddle, skate, ski)

Respect

- Reduce conflicts between modes
- Prioritize accessibility

FAQs on Circulation and Access within the Initial Park Concepts

Question 1: What is the impact on water quality from the development of new trails?

While impervious surfaces generally have a negative impact on water quality due to stormwater runoff, trails without any motorized vehicles that have turf or green space on both sides can have their impacts neutralized. Widening or adding new trails in this context would not have a major impact on water quality, **as long as** the trail is not directly adjacent to the water body and any new trail is paired with best management practices (BMPs) like swales or rain gardens.

Case Studies/Resources:

https://headwaterseconomics.org/economic-development/trails-pathways/best-practices-for-watersheds-and-recreation/

https://www.transportation.ucla.edu/blog/5-environmental-benefits-sustainable-transportation

https://www.epa.gov/sites/default/files/2017-05/documents/gi_parksplaybook_2017-05-01_508.pdf

Question 2: One concept suggests that cyclists utilize the roadway around Lake of the Isles while the other suggests a bidirectional bicycle trail in the place of the existing trail around Lake of the Isles. What would these changes entail?

Concept A would require no change to the existing trail and a restriping of the parkway within the existing curbline. While this is technically feasible within the dimensions that exist today, on-street bike lanes without physical separation are no longer approved facility types within the City of Minneapolis' Street Design Guide, adopted last year. They are still allowed during street retrofits, but any reconstruction in the long term would require that the facility be moved, or the street widened to accommodate a physical barrier. On street bike lanes without physical separation are also not considered "All Ages and Abilities" facilities defined as "low stress" by the Design Guide.

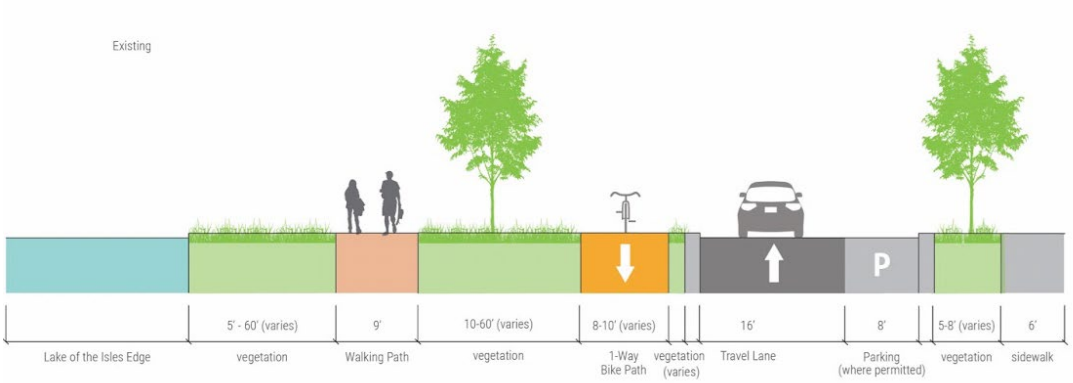
Link:

https://sdg.minneapolismn.gov

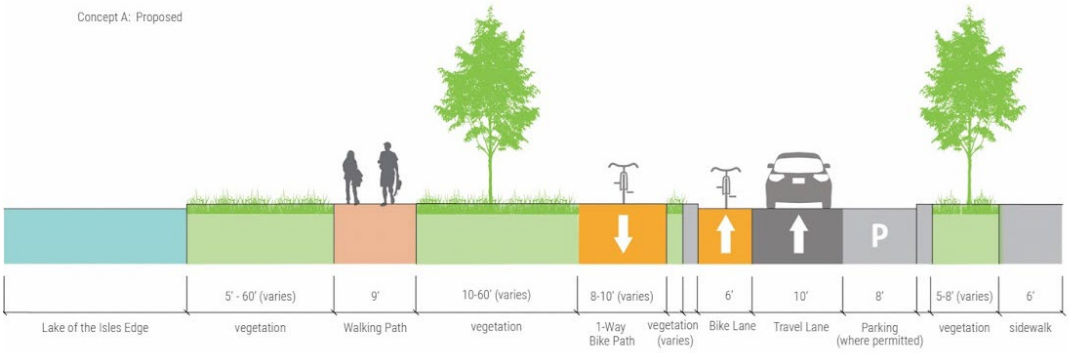
Concept B shows a two way, off street trail. The existing one-way bicycle trails on Lake of the Isles are typically 10 feet wide, although there are several “choke points” where they narrow, especially on bridges. Based on the Street Design Guide’s guidance, a two-way bikeway should be between 10 and 12 feet wide, with a minimum of 8 feet in constrained right of way and a maximum of 14.5 feet. The bicycle portions of the existing two-way trail on Cedar Lake are typically 10 to 12 feet wide and the existing two-way trail on Dean Parkway is typically 12 feet wide, with some 10 foot portions, as examples. As such, it would be technically feasible to switch the existing trail around Lake of the Isles to a two-way bikeway without any widening, though, given the volume of bicycle traffic, widening may be desirable in the long term. At the same time, observations have shown that having two-way traffic, rather than just one-way, often slows traffic on both roadways and trails, as it provides more visual and physical constraints to users, which traffic engineers call “friction”, and may be considered an added benefit.

Links:

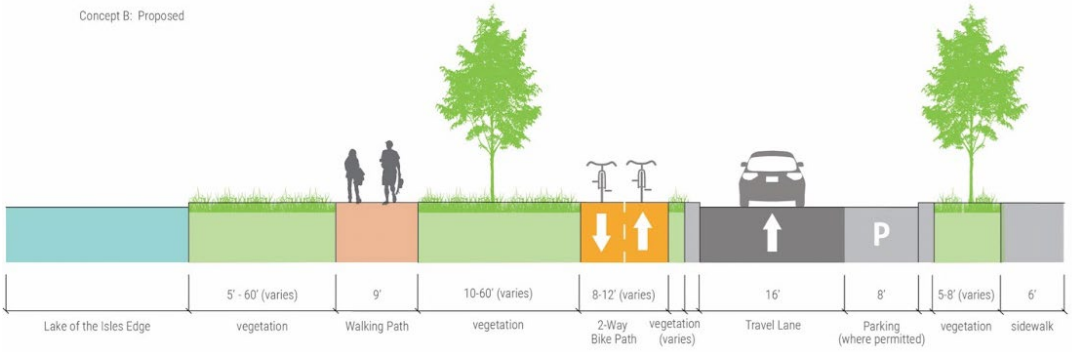
https://sdg.minneapolismn.gov/design-guidance/bikeways/shared-use-paths
https://safety.fhwa.dot.gov/saferjourney1/library/countermeasures/13.htm
https://nacto.org/publication/urban-bikeway-design-guide/



Existing Cross-Section of Lake of the Isles Parkway



Concept A Cross-Section



Concept B Cross-Section

Question 3: Why was a two way bikeway connection around Lake of the Isles proposed?

Strava data suggests that cyclists most frequently utilize the highest quality facilities that are provided for them (see map below). The City of Minneapolis Transportation Action Plan has proposed a number of new "Near-term Low Stress" or "Connector" or "Long-Term Low Stress Bikeways" that will connect to Lake of the Isles. These connections may drive demand for two-way bikeways. Potential areas of high demand may include:

- Along the east and north sides of Lake of the Isles, from the Midtown Greenway to the proposed bikeways on 26th, Franklin, and 21st.
- On the west side of Lake of the Isles between the proposed bikeway on Kenwood Parkway and Dean Parkway. This route is constrained by the limited right-of-way available on the Bridge over the Kenilworth Channel.

Notes:

- Current bicycle traffic travels clockwise
- The proposed facilities on 21st and Kenwood Parkway will be the shortest bicycle connections to the new Light Rail Station.

Link:
http://go.minneapolismn.gov/final-plan/bicycling/all-ages-and-abilities-network

Strava Map showing 2019 circulation data

City of Minneapolis Transportation Action Plan

Question 4: What are the impacts on water quality from the parkways?

Sheet flow:

The largest contributors to water quality issues within the parkways (not including upstream impacts within the larger watershed) are runoff from adjacent properties (especially treated lawns) and roadway runoff that flows directly into the lake. Generally speaking there are practices that can capture sheet flow stormwater run-off from parkways within boulevards (swales, rain gardens, etc). The Water Quality subcommittee will be developing water quality goals and recommendations to incorporate into the master planning process as well as high level watershed recommendations.

As vehicles and roadway runoff are major potential sources of diminished water quality, as well as air and noise pollution within the park, seeking to shift more visitation to walking, biking and transit will also have additional environmental benefits if it reduces automotive traffic.

Links:

https://csanr.wsu.edu/pathways-to-progress-in-tackling-stormwater-runoff-in-near-urban-agricultural-areas/

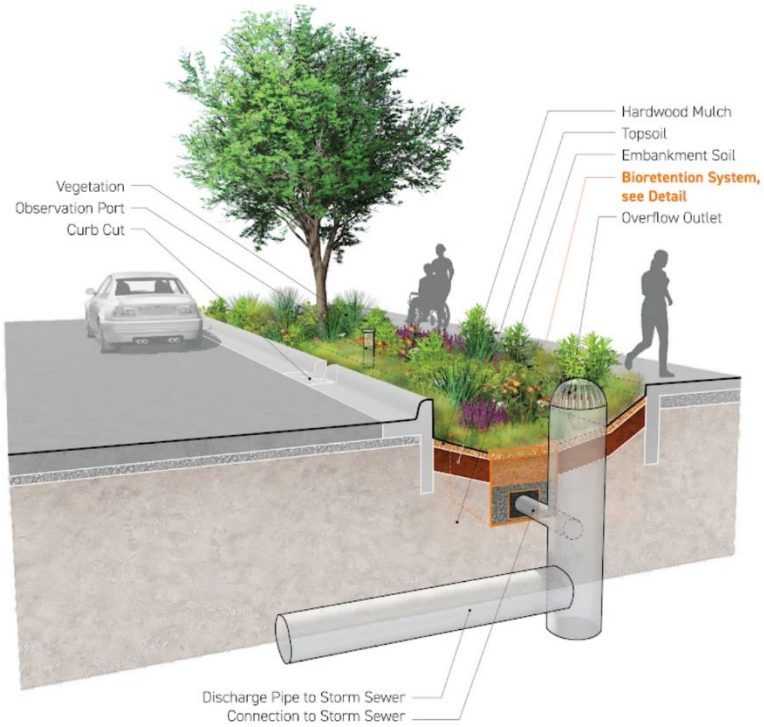
https://static1.squarespace.com/static/5b68b38bda02bc93873b1e86/t/603faba7e7463132d5c21190/1614785448718/Stormwater+Nutrient+sources+research+paper+2018.pdf

https://pubs.er.usgs.gov/publication/wri024130

Non-Point Source:

Regarding the street space itself, parked cars have proven to be more negatively impactful than moving vehicles, due to leaks of oil and other fluids that are more concentrated when cars are stored. Mitigating parking areas using green infrastructure may be warranted to improve water quality.

Link (General Green Infrastructure Guidance):
https://www.epa.gov/sites/default/files/2017-05/documents/gi_parksplaybook_2017-05-01_508.pdf



Example image of rain garden at back of curb to treat roadway runoff

Question 6: What is the potential traffic impact of the proposed closures?

At this stage of a typical Park Master plan process, the proposed parkway reconfigurations do not include detailed traffic studies, however available data was reviewed to infer possible outcomes for the purpose of making concept recommendations.

Cedar Lake Parkway:

The most recent (2019) traffic counts for Cedar Lake Parkway show a traffic volume of 10,300 vehicles per day north of 22nd. The data does not provide a breakdown by hour or by direction, but from observation, there is likely a significant surge in traffic during peak hours. Reflecting the roadway's network importance as one of the few roads which provides access to the north, this is a relatively high traffic volume, especially for a parkway. In South Minneapolis, an example that carries this amount of traffic is Nicollet Avenue between 40th and 46th. If reduced to a one way configuration, most traffic would likely shift to Ewing and France Avenues, which currently carry 4700 vehicles per day. South of 22nd, Cedar Lake Parkway carries only 7600 vehicles per day, which suggests some traffic already diverts to France at 22nd.

Lake of the Isles Parkway:

The most recent (2019) traffic counts for the east side of Lake of the Isles Parkway show a traffic volume of 5500 vehicles per day. The data does not provide a breakdown by hour. In Southwest Minneapolis, Sheridan Avenue between 39th and 43rd carries a similar amount of traffic, as a reference example. As LOTI Parkway does not provide a direct bypass to major roadways, best practices suggest that some portion of that traffic would choose other routes entirely if the street were closed for some portion. Best practices also suggest that, given the robust grid adjacent to the Parkway, diverted vehicles would likely choose multiple routes rather than concentrate on a single route. For comparison, Franklin between LOTI Pkwy and Irving carries 3600 vehicles per day, Irving adjacent to the Lake carries 2700 vehicles per day and 24th Street between Irving and Hennepin carries 2750 vehicles per day.

Link:

https://mndot.maps.arcgis.com/apps/webappviewer/index.html?id=7b3be07daed84e7fa170a91059ce63bb