Downtown bike routes

CentrePlan 2050
Virtual event
Tuesday, July 30, 2024

Winnipeg

Winnipeg is located in Treaty One Territory, the home and traditional lands of the Anishinaabe (Ojibwe), Ininew (Cree), and Dakota peoples, and in the National Homeland of the Red River Métis. Our drinking water comes from Shoal Lake 40 First Nation, in Treaty Three Territory.

Agenda

Welcome and introductions (10 minutes)

St. Mary Avenue and York Avenue
Presentation (20 minutes)
Questions (15 minutes)

Cumberland Avenue and Notre Dame Avenue
Presentation (20 minutes)
Questions (15 minutes)

Next steps and wrap up (10 minutes)

Downtown bike routes

The City is looking at design options for the following routes to improve connectivity to/from and within the Downtown:

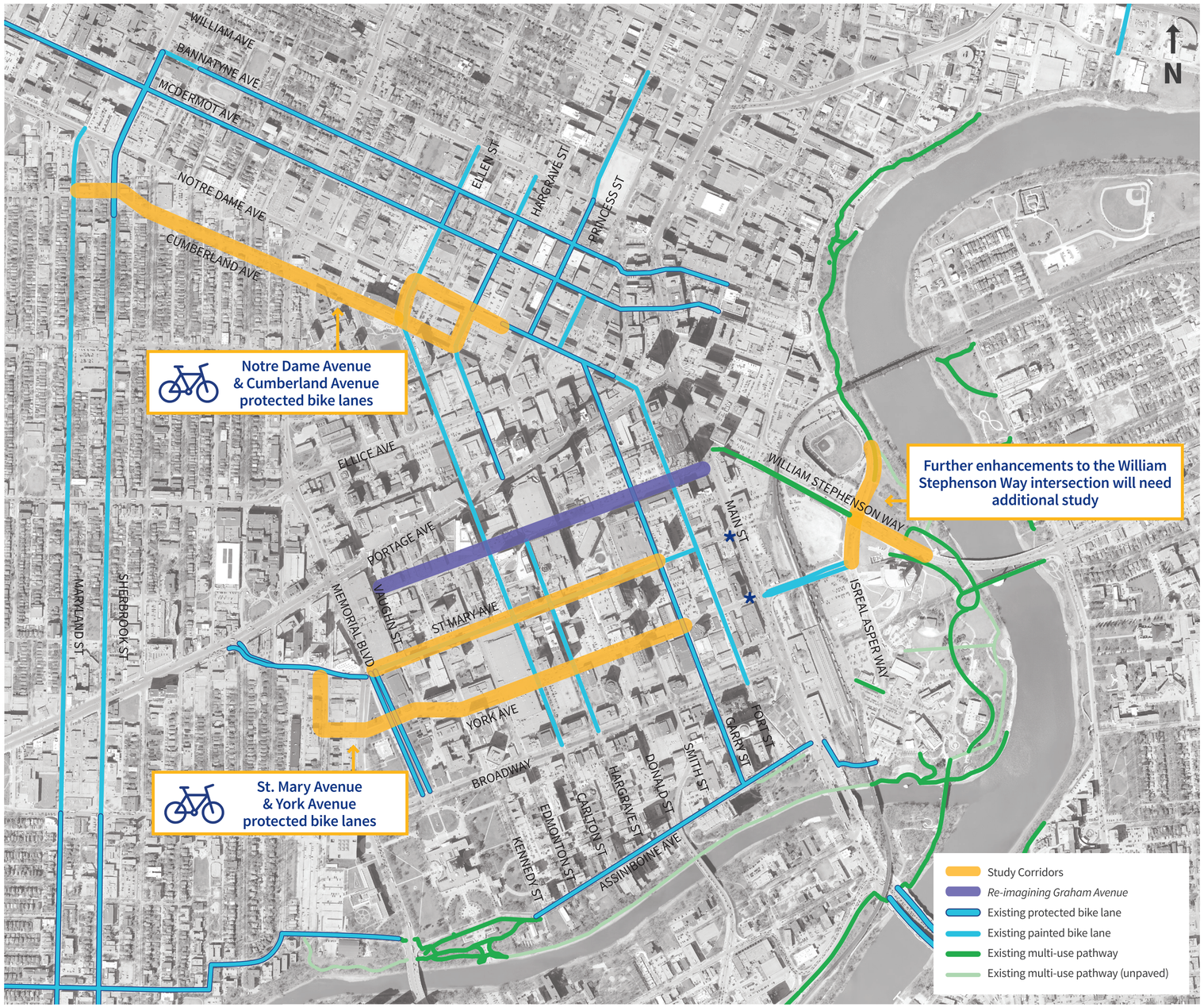
- St. Mary Avenue and York Avenue
- Notre Dame Avenue and Cumberland Avenue
- William Stephenson Way (further study needed)
- Graham Avenue (see Re-Imagining Graham Avenue)

Designs were developed that can be used for future street renewal projects and/or stand alone infrastructure projects on these streets.

The Pedestrian and Cycling Strategies (PCS) provide the long-term vision for accessible, convenient, and safe walking and cycling infrastructure for people of all ages and abilities. The PCS is currently undergoing an update as part of the Transportation Master Plan 2050 project.

The design of Downtown bike routes have to consider some factors that set Downtown apart from other areas, including limited road space, high traffic volumes, transit, one-way streets, and demand for on-street parking and loading.

Context - Bike routes study area



★ A future connection across Main Street will be studied as part of the Rapid Transit (Downtown Corridors) Preliminary Design study.

Context - Design features

One-way protected bike lane

- Physically separated, on-street lanes for bike travel in one direction.
- Cyclists are physically separated from vehicles by a raised curb.
- Cyclists can enter/exit at intersections.



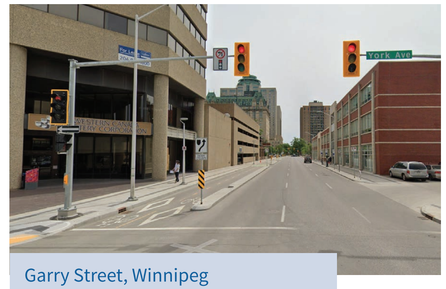
76 Avenue NW, Edmonton



Sherbrook Street, Winnipeg

Two-way protected bike lane

- Physically separated, on-street lanes for bike travel in both directions.
- Cyclists are physically separated from vehicles by a raised curb.
- Cyclists can enter/exit at intersections.



Garry Street, Winnipeg



7th Street SW, Calgary

Raised bike lane



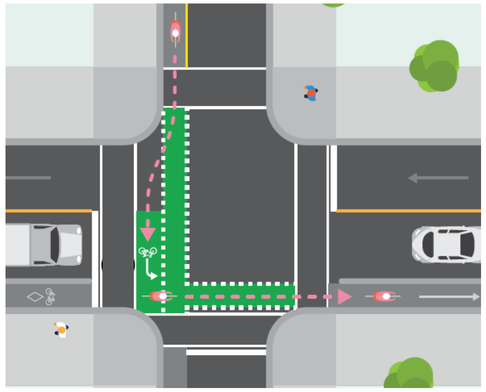


- Physically separated lanes for bike travel, typically adjacent to a sidewalk or median.
- Cyclists are physically separated from vehicles by a raised lane at the level of the adjacent sidewalk.
- Can sometimes be separated from vehicles by a parking lane.

Context - Intersection features

Two-stage turn box

- Provides a dedicated waiting area for cyclists making a turn from a protected bike lane.
- Cyclists move into the box to wait for a green signal (at a signaled intersection) or gap in traffic (at a stop sign) to complete the turn.
- Vehicles are not permitted to wait in the bike box area and must stop at the stop line behind it.
- Right turns on red are restricted at signalized locations where bike boxes are present.



Green painted bike box to facilitate left turns

Pavement markings

- Indicate the path for cyclists through intersections and driveways.
- Increase the visibility of the bike lane and reinforces that cyclists have priority in these areas.



Garry Street two-way bike lane with green paint indicating conflict area

Curb extensions

- A horizontal intrusion of the curb into the roadway
- Make the roadway more narrow to decrease the pedestrian crossing distance and reduce the speed of vehicles.



Red dashed lines indicate curb extensions that narrow roadway

Project timeline - Downtown bike routes

We are here

PROJECT BEGINS
Fall 2022

PHASE 1 PUBLIC AND STAKEHOLDER ENGAGEMENT
May 2023

PHASE 2 PUBLIC AND STAKEHOLDER ENGAGEMENT
February 2024

PHASE 3 PUBLIC AND STAKEHOLDER ENGAGEMENT
July 2024

2022 | 2023 | 2024

BACKGROUND ANALYSIS
Fall 2022 – Winter 2023

PREPARE AND ANALYZE CONCEPTUAL BIKE ROUTE OPTIONS
Summer – Fall 2023

PREPARE RECOMMENDED BIKE ROUTE DESIGNS
Winter - Spring 2024

FINALIZE BIKE ROUTE DESIGNS
Fall 2024

Public engagement - Phase 2



VIRTUAL EVENT

54

participants attended the virtual event on Zoom



STAKEHOLDER MEETINGS

10

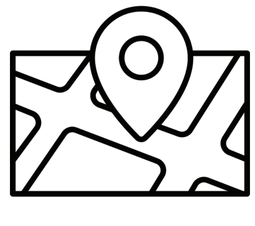
property owners provided input on specific operational concerns



ONLINE SURVEY

1,280

responses



MAPPING TOOL

75

map comments

Evaluation criteria

The project team evaluated options based on:

CYCLING COMFORT

Attractive to the broadest number of users (all ages and all abilities).

CONFLICTS

Safety risks posed by conflict points with intersections, accesses and driveways for all users.

CONNECTIVITY & PROXIMITY

Fits into the overall bike network and connects to existing bike routes. Proximity to other parallel bike routes.

MAINTENANCE

Relative cost and level of effort required for ongoing all-seasons maintenance.

COST

Relative capital cost.

TRAFFIC OPERATIONS

Impact to traffic operations.

PARKING & LOADING

Impact to on-street parking and loading.

Public engagement - Phase 2 - What we heard

EVALUATION CRITERIA	WHAT WE HEARD
CYCLING COMFORT	The proposed intersection designs would benefit from protected intersections. This would provide greater comfort for cyclists.
	The proposed bike boxes provide additional comfort for cyclists but may be confusing for first-time users.
	Support for wider medians and larger curb extensions to further separate pedestrians and cyclists from cars
CONFLICTS	The protected bike lanes provide a sense of safety from vehicles.
	Concerns with the amount of intersections that the bike lanes would cross.
CONNECTIVITY & PROXIMITY	There is a need for additional north and south bike lanes Downtown.
	These routes are key east-west connections through Downtown and are likely to be busier than other bike routes.
COST	Concerns with the cost to build and maintain bike lanes.

Public engagement - Phase 2 - What we heard

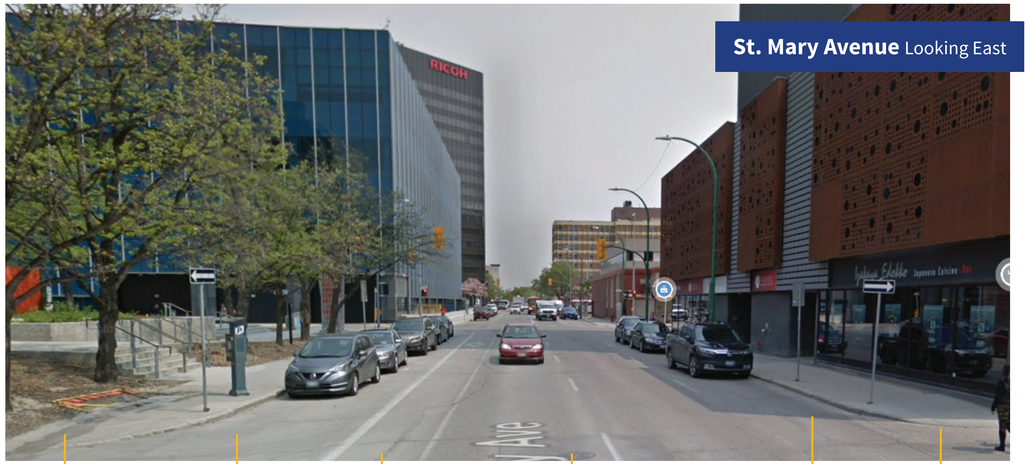
EVALUATION CRITERIA	WHAT WE HEARD
MAINTENANCE	Bike boxes would require additional maintenance to ensure the green paint does not wear off or fade.
	Ensure that the bike lanes can be easily cleared of snow and debris and that maintenance is completed in a timely manner.
TRAFFIC OPERATIONS	Concerns that there will be an increase in vehicle traffic congestion.
	Ensure that the design of bike boxes accommodates larger style bikes such as cargo, tandem, and trailers.
	Concern that truck turn movements may be impacted by bike lanes.
PARKING & LOADING	More bike racks are needed along these routes and throughout Downtown.
	Some concerns about the loss of parking and loading spaces for businesses within the area.

St. Mary Avenue and York Avenue - Options

We considered two options for protected bike lanes on St. Mary Avenue and York Avenue:

- Preferred option: One-way protected bike lanes on both St. Mary Avenue and York Avenue
- Alternate option: Two-way protected bike lane on York Avenue only

St. Mary Avenue - Existing conditions



Sidewalk | On-street parking and loading lane | Painted bike lane | Two full-time travel lanes | Restricted on-street parking and loading during rush hours | Sidewalk

York Avenue - Existing conditions



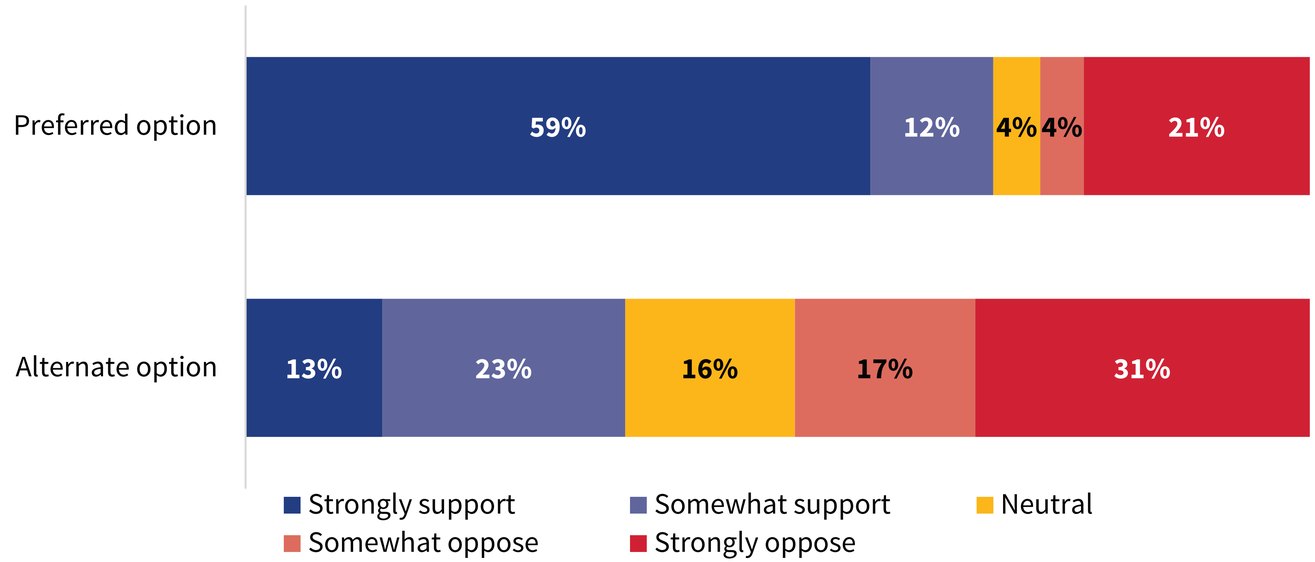
Sidewalk | Restricted on-street parking and loading during rush hours | Two full-time travel lanes | Restricted on-street parking and loading during rush hours | Sidewalk

Preferred option - What we heard

One-way protected bike lanes on both St. Mary Avenue and York Avenue

Overall, there was more support for the preferred option.

- 71% of survey respondents indicated that they support the preferred option.
- 36% of survey respondents indicated that they support the alternate option.
- Respondents indicated that one-way protected bike lanes would provide more comfort and connectivity.
- Some respondents indicated that they do not support any bike lanes Downtown.



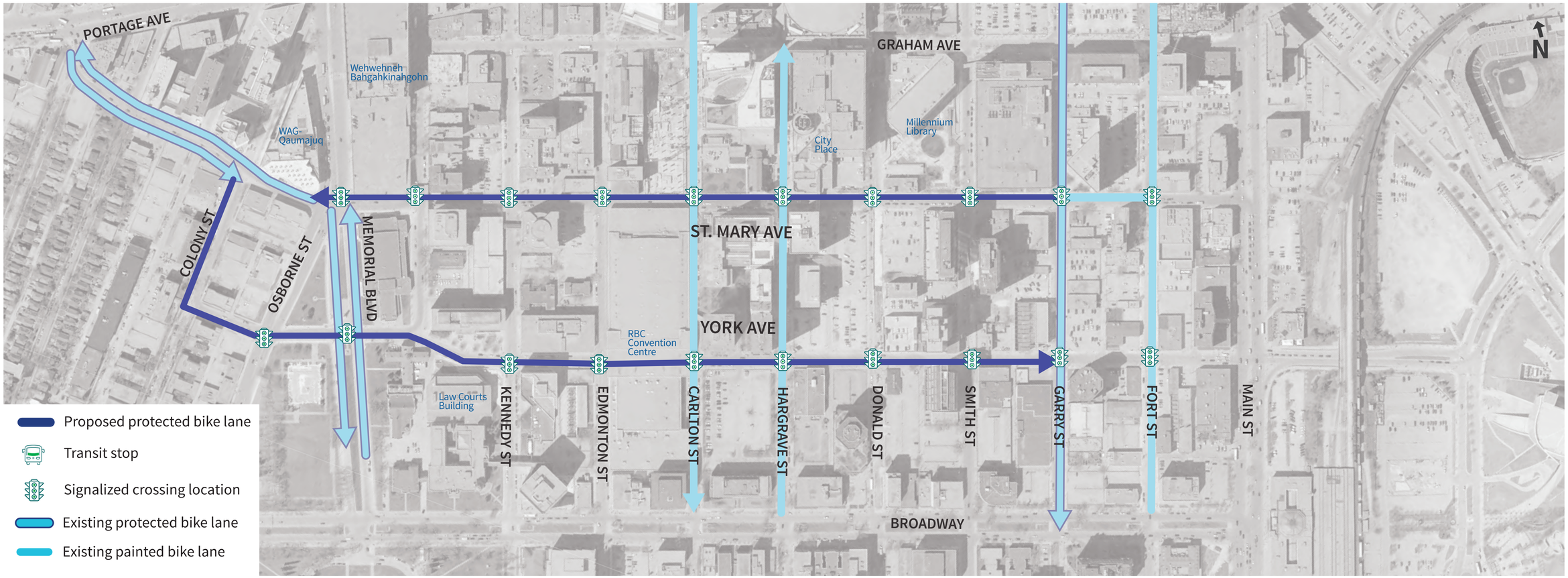
We are recommending:
One-way protected bike lanes on both St. Mary Avenue and York Avenue

We are recommending one-way protected bike lanes on both St. Mary Avenue and York Avenue based on the evaluation criteria and what we heard from stakeholders and the public.

CYCLING COMFORT	• One-way bike lanes follow the direction of traffic, which is more comfortable for cyclists and drivers. • Stakeholders and the public told us they are more comfortable biking in the same direction as traffic.
CONFLICTS	• Crossing one-way bike lanes is typically easier for all users than crossing two-way bike lanes. Drivers, pedestrians, and other cyclists only have to scan one direction of bike traffic before determining whether it is safe to cross the bike lane.
CONNECTIVITY & PROXIMITY	• Bike access is provided to destinations on and around both St. Mary Avenue and York Avenue.
TRAFFIC OPERATIONS	• One-way protected bike lanes have fewer impacts on the way traffic flows. For example, traffic signal timing is simpler than with two-way bike lanes.

Recommendation overview

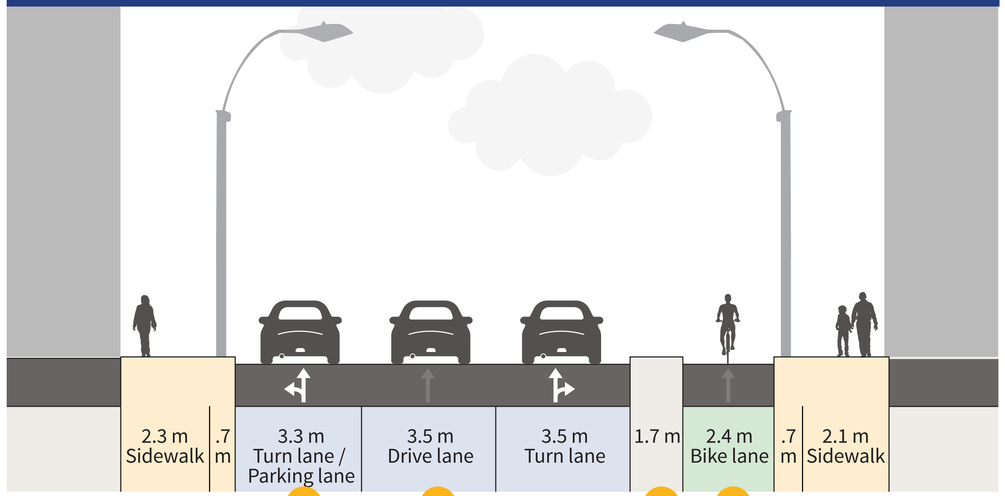
One-way protected bike lanes on both St. Mary Avenue and York Avenue



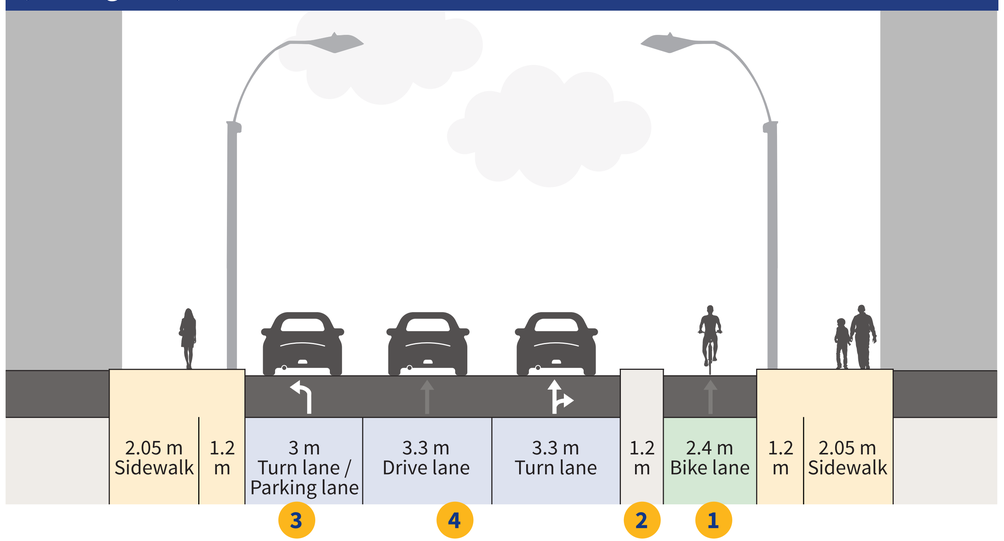
Design features

One-way protected bike lanes on both St. Mary Avenue and York Avenue

St. Mary Avenue between Garry Street and Smith Street
(looking west)



York Avenue between Garry Street and Smith Street
(looking east)

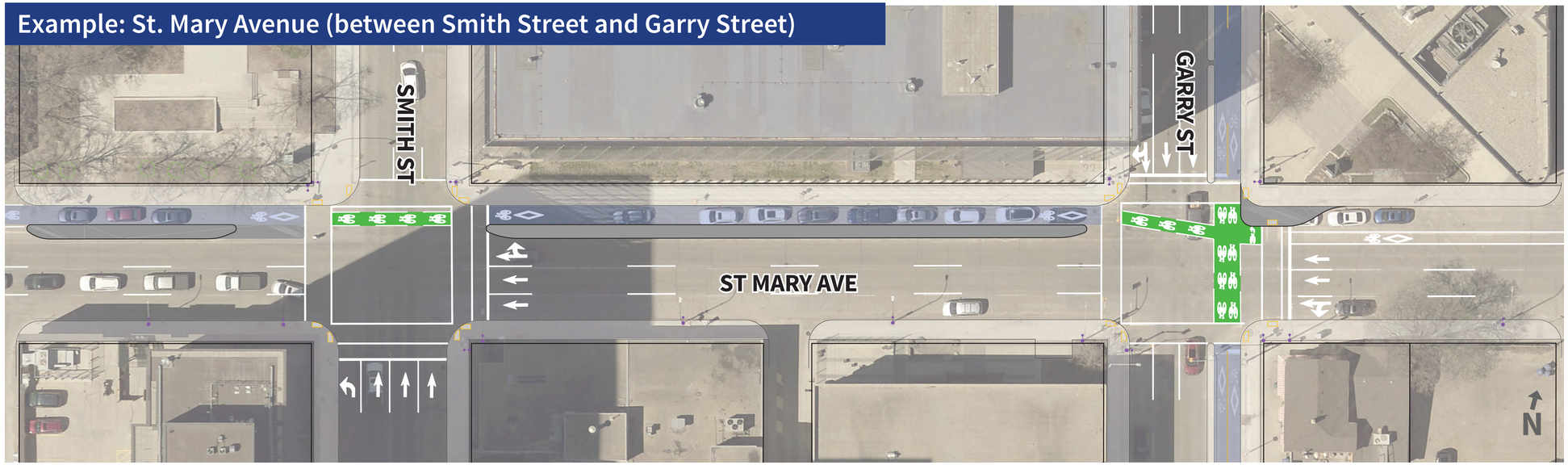


1. **Wide one-way bike lane that follows direction of traffic**
2. **Wide buffers between bike lanes and traffic**
3. **Off-peak parking and loading maintained on one side of each street**
4. **Maintains three vehicle lanes on each street**

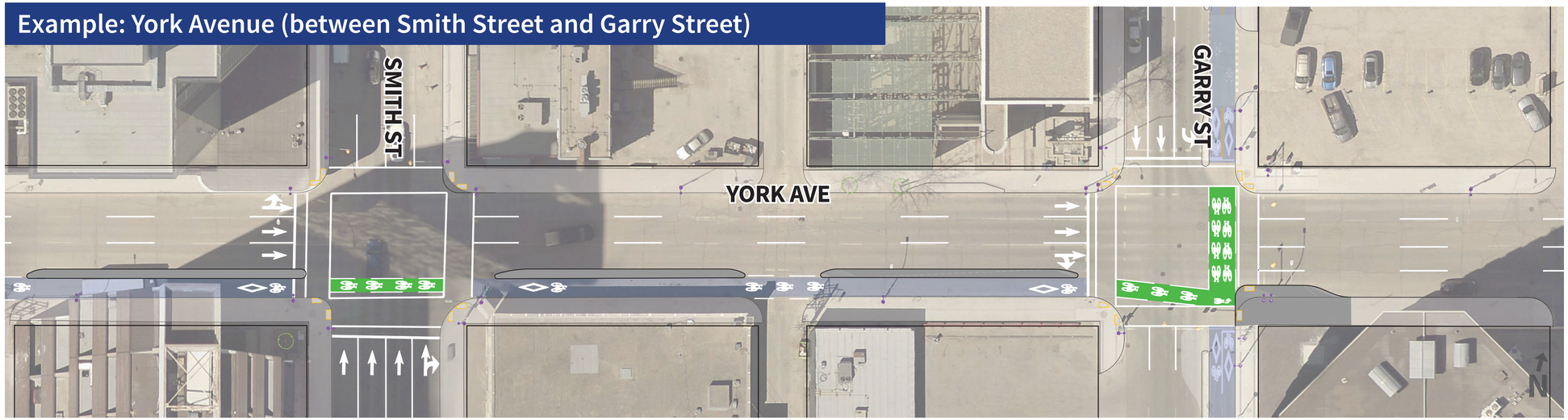
Examples

One-way protected bike lanes on both St. Mary Avenue and York Avenue

Example: St. Mary Avenue (between Smith Street and Garry Street)



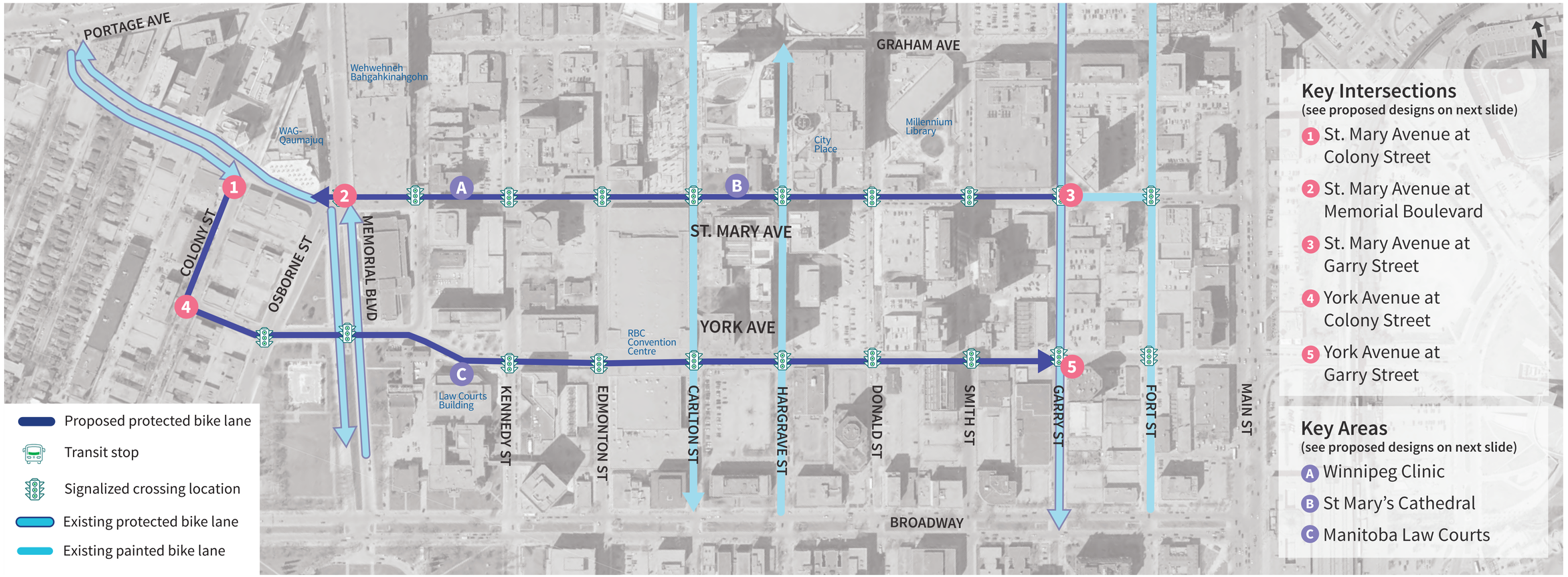
Example: York Avenue (between Smith Street and Garry Street)



One-way protected bike lane Painted pavement marking New sidewalk / median / boulevard New grass boulevard

Key intersections and areas

One-way protected bike lanes on both St. Mary Avenue and York Avenue

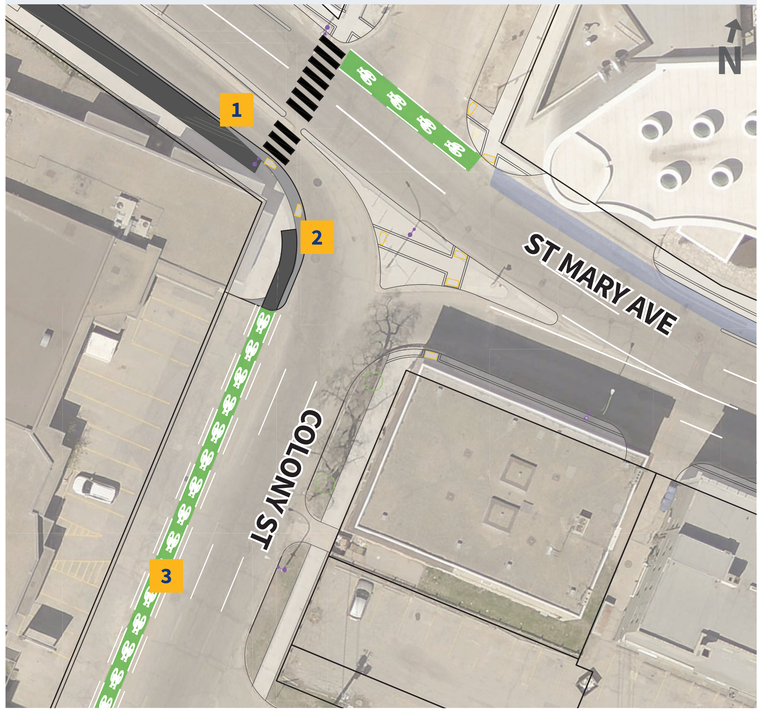


York Avenue and St. Mary Avenue are part of the City's truck route network. The designs must ensure that it is possible for large trucks to make turns at all of the intersections.

Key intersections

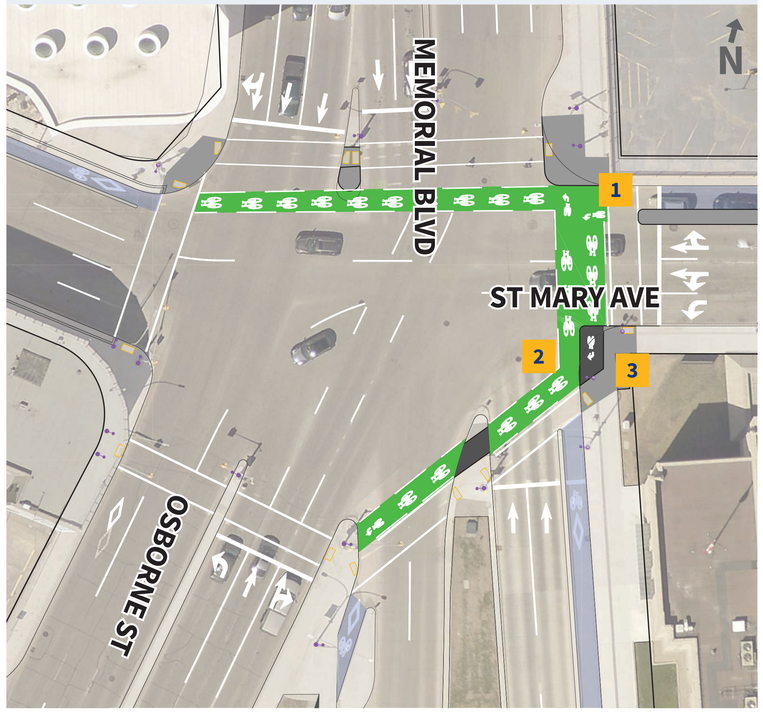
One-way protected bike lanes on both St. Mary Avenue and York Avenue

1 St. Mary Avenue at Colony Street



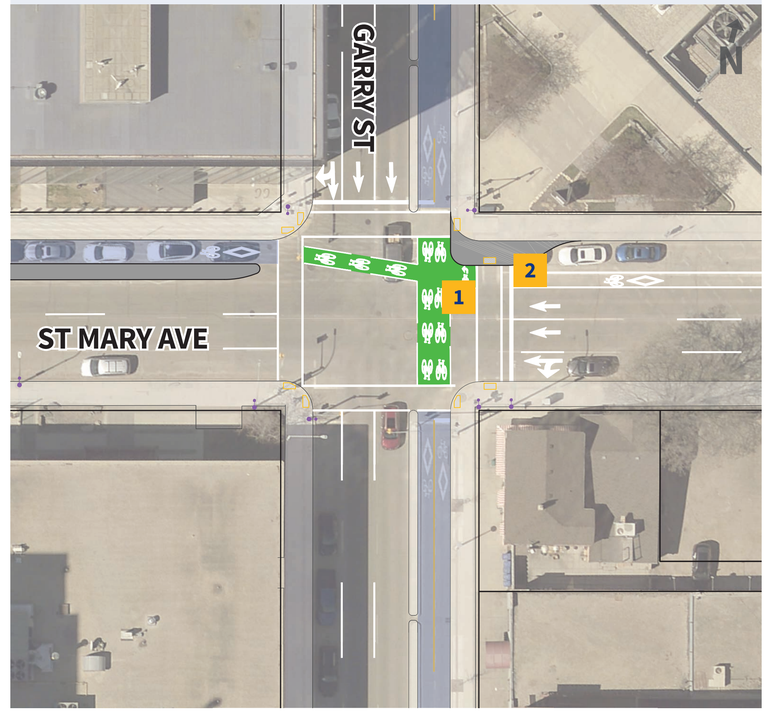
1. Raised bike lane
2. Tightened curb radius to provide more space for pedestrians
3. Enhanced pavement markings through wide parking approach

2 St. Mary Avenue at Memorial Boulevard



1. Bike box to enable left turn
2. Bike signal waiting area
3. Widened sidewalk around bike waiting area

3 St. Mary Avenue at Garry Street

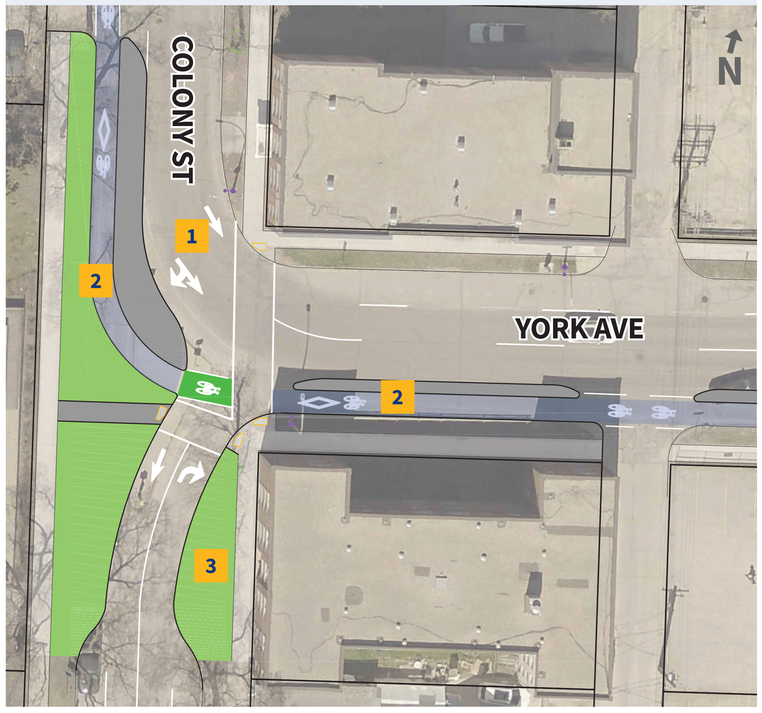


1. Bike box to enable left turn
2. Curb extension to shorten pedestrian crossing. This will remove potential conflict from cars in the parking lane driving through intersection into protected bike lane.

Key intersections

One-way protected bike lanes on both St. Mary Avenue and York Avenue

4 York Avenue at Colony Street

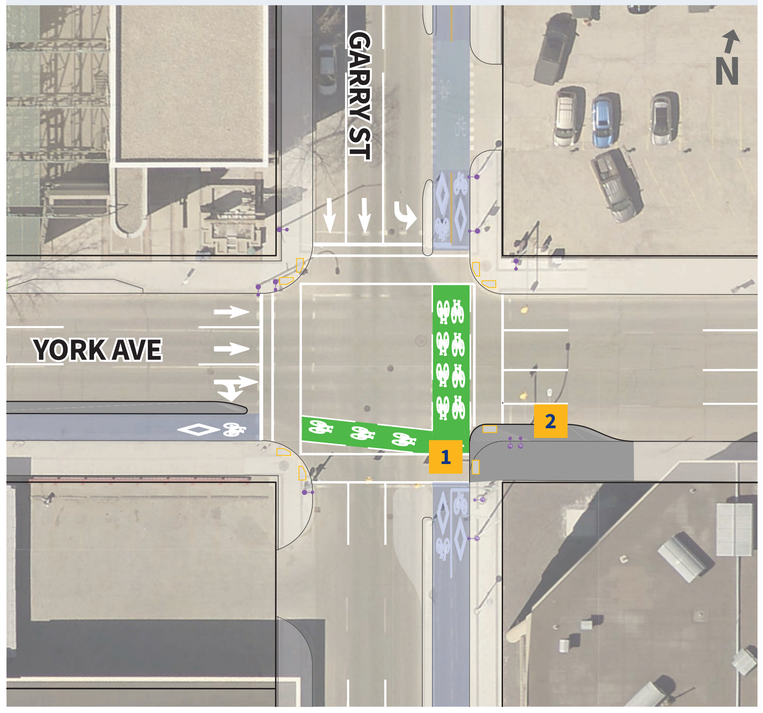


1 Colony Street realigned to improve pedestrian and cycling crossing

2 Protected bike lane

3 Curb extensions provide added boulevard space

5 York Avenue at Garry Street



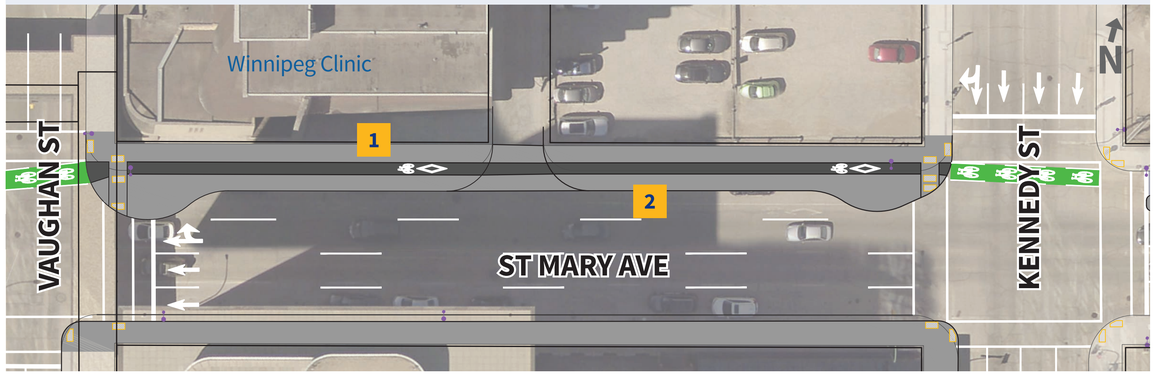
1 Bike box to enable left turn

2 Curb extension to shorten pedestrian crossing

Key areas

One-way protected bike lanes on both St. Mary Avenue and York Avenue

A Winnipeg Clinic



1 Raised bike lane

2 Parking and loading bay

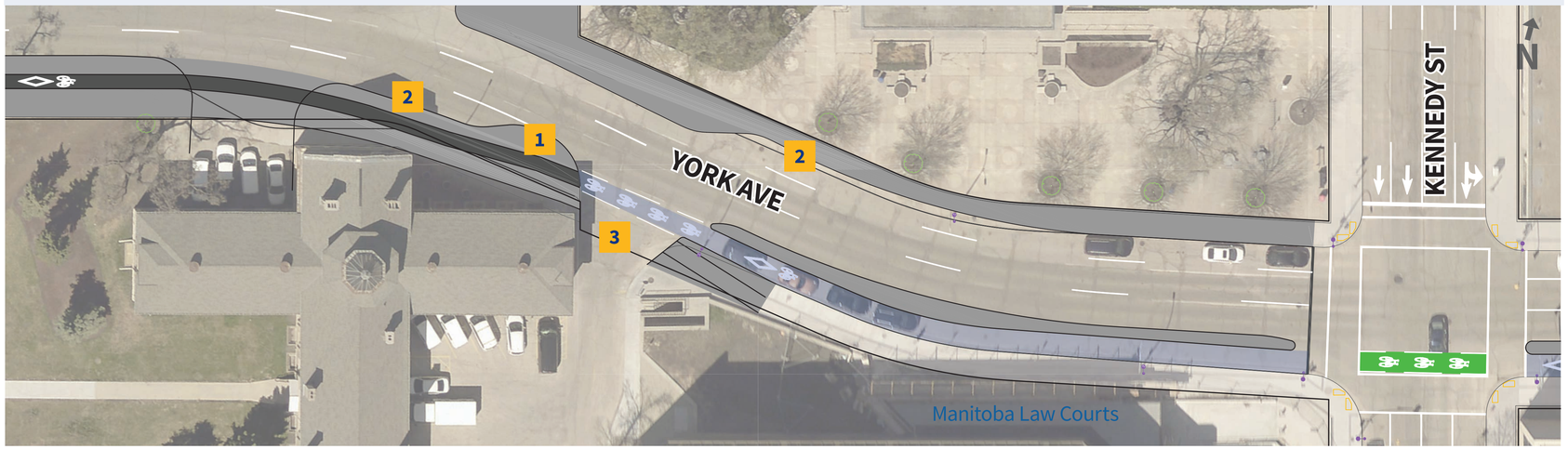
B St. Mary's Cathedral



1 Raised bike lane

2 Parking and loading bay

C Manitoba Law Courts



1 Raised bike lane

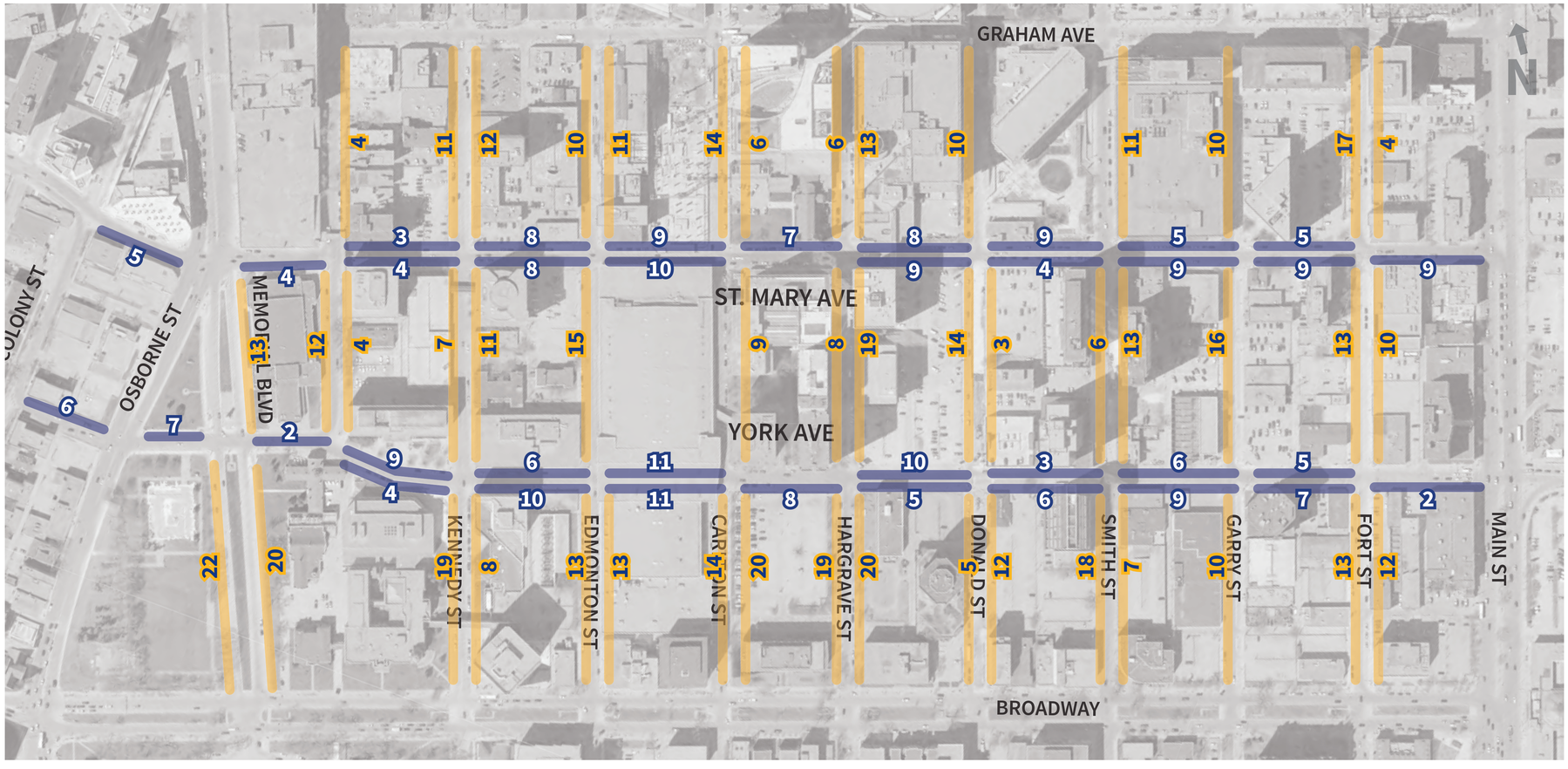
2 Parking and loading bay

3 Additional sightline area

On-street parking

One-way protected bike lanes on both St. Mary Avenue and York Avenue

Current study area parking



Approximate On-street Parking Stalls	St. Mary Avenue	York Avenue	North-south streets between Graham Avenue and Broadway	Total
CURRENT	**120**	**127**	**548** (no change)	**795**
RECOMMENDED OPTION	**76** (↓44)	**74** (↓53)		**698** (↓97)

Recommendation

One-way protected bike lanes on both St. Mary Avenue and York Avenue

Questions / Comments

Notre Dame Avenue and Cumberland Avenue - Options

We considered two options for protected bike lanes on Notre Dame Avenue and Cumberland Avenue:

- Option 1: Two-way protected bike lane (south side) on Cumberland Avenue
- Option 2: Two-way protected bike lane (north side) on Cumberland Avenue

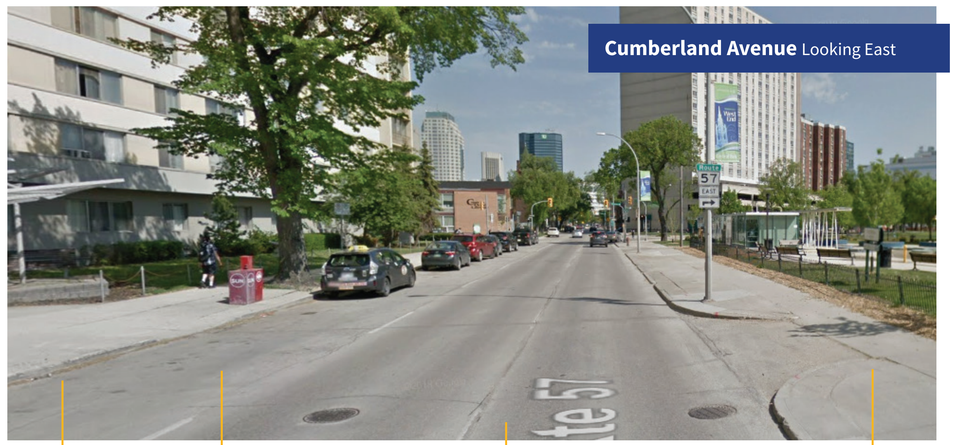
Both options include a two-way protected bike lane on the north side of Notre Dame Avenue.

We did not indicate a preferred option in Phase 2.

Notre Dame Avenue - Existing conditions



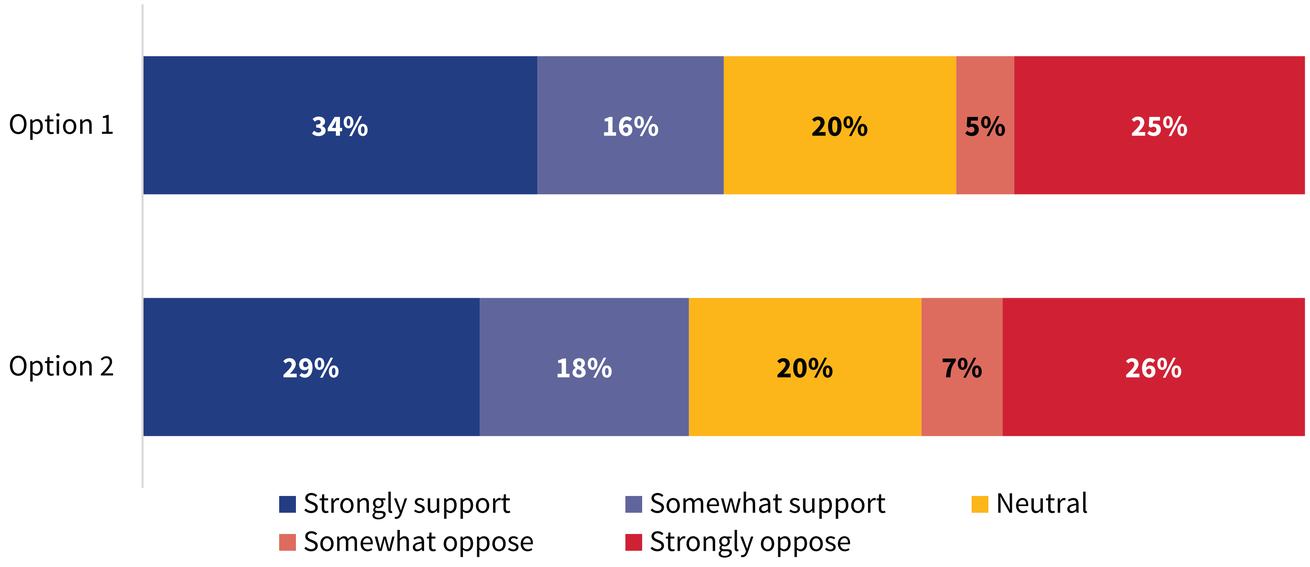
Cumberland Avenue - Existing conditions



Notre Dame Avenue and Cumberland Avenue - Options

Overall, there was similar support for both options.

- 50% of survey respondents indicated that they support Option 1.
- 47% of survey respondents indicated that they support Option 2.
- Survey respondents indicated that both options had similar comfort and connectivity.
- Some respondents indicated that they do not support any bike lanes Downtown.



Recommendation overview

Two-way protected bike lane (north side) on Notre Dame Avenue
Two-way protected bike lane (north side) on Cumberland Avenue

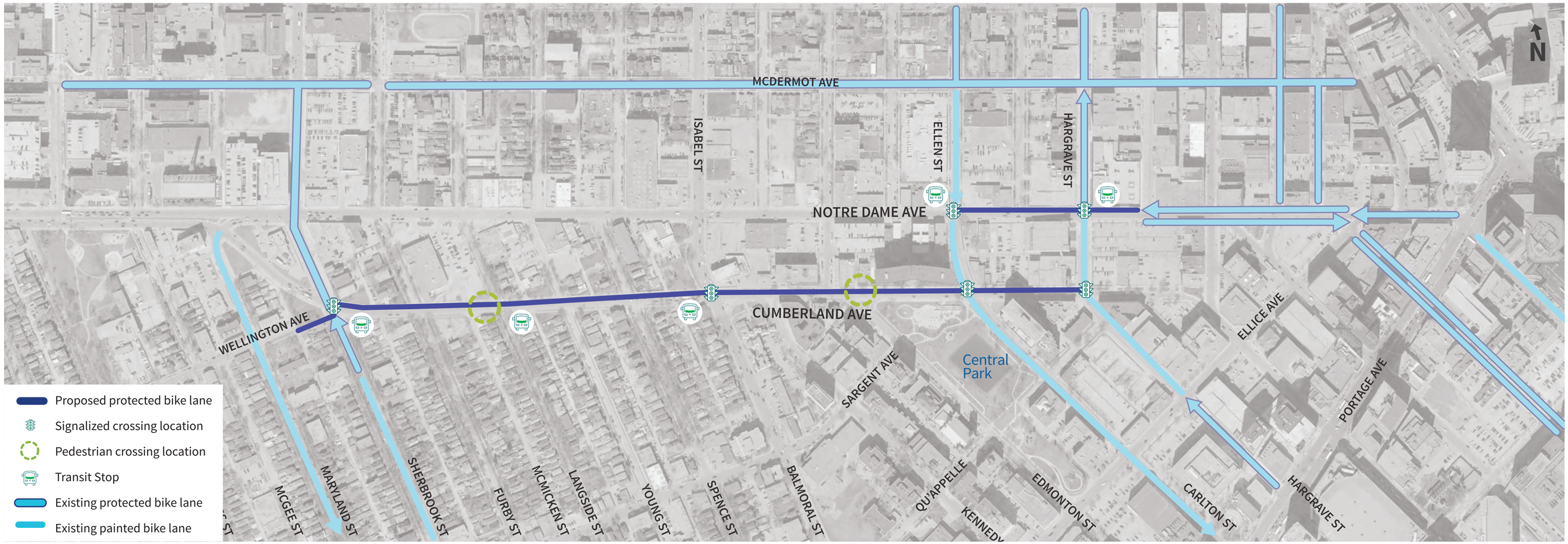
We are recommending Option 2: Two-way protected bike lane (north side) on Cumberland Avenue based on the evaluation criteria and what we heard from stakeholders and the public.

CYCLING COMFORT	• Two-way bike lane provides opportunity for passing. • Avoids bus stops and slip lanes.
CONFLICTS	• Less intersections, lanes, and driveways. • Bike lane located on opposite side of street as bus stops removes conflicts between bikes and bus passengers.
COST	• Relatively lower capital cost to construct due to less right turn. channels and Transit integration requirements.

Recommendation overview

Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue



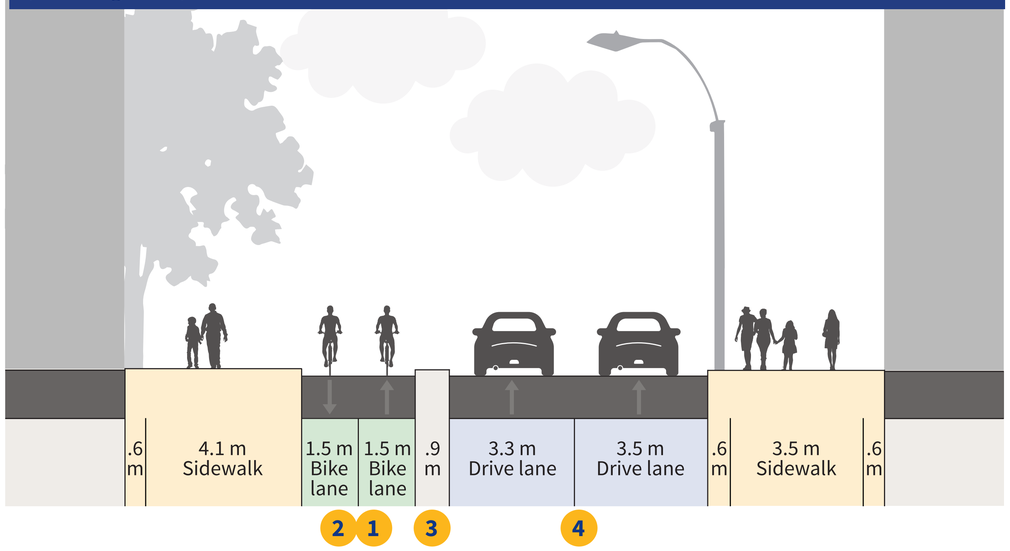
Notre Dame Avenue and Cumberland Avenue are part of the City's truck route network. The designs must ensure that it is possible for large trucks to make turns at all of the intersections.

Design features

Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue

North side Cumberland Avenue from Furby Street to Young Street
(looking east)



1. **Two-way bike lane with opportunities for passing**

2. **Two-way bike lane does not follow direction of one-way traffic, which can be less comfortable for cyclists and drivers**

3. **Narrow buffer between bike lanes and traffic**

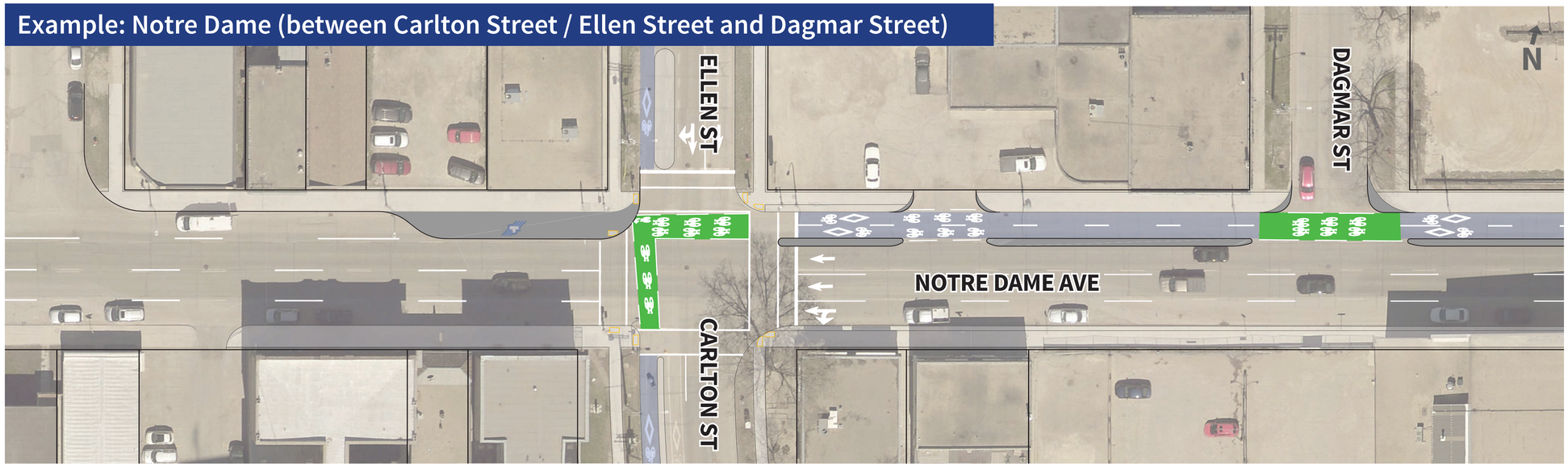
4. **Maintains two vehicle lanes on each street with impacts to parking and loading (loss of one vehicle lane)**

Examples

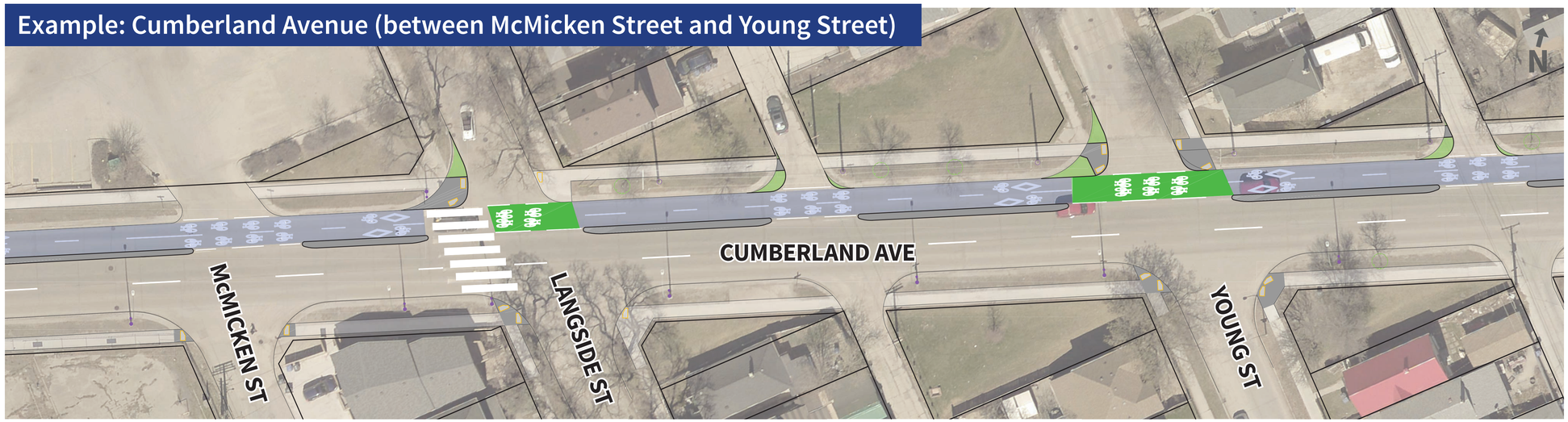
Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue

Example: Notre Dame (between Carlton Street / Ellen Street and Dagmar Street)



Example: Cumberland Avenue (between McMicken Street and Young Street)



Two-way protected bike lane Painted pavement marking New sidewalk / median / boulevard New grass boulevard

Key intersections and areas
Two-way protected bike lane (north side) on Notre Dame Avenue
Two-way protected bike lane (north side) on Cumberland Avenue



Key intersections (see proposed designs on next slide)

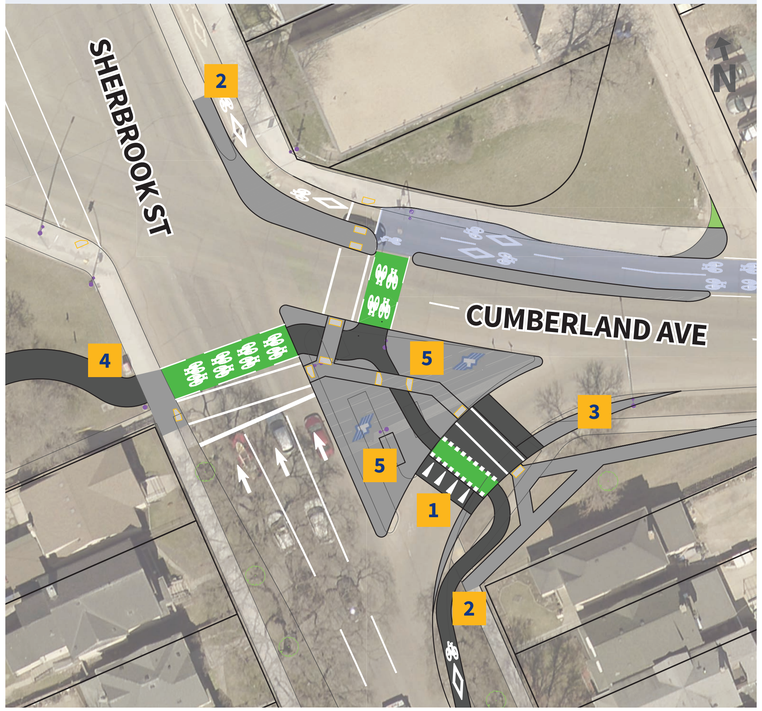
1. Cumberland Avenue at Sherbrook Street
2. Cumberland Avenue at Balmoral Street
3. Cumberland Avenue at Carlton Street
4. Cumberland Avenue at Hargrave Street
5. Notre Dame Avenue at Carlton Street
6. Notre Dame Avenue at Hargrave Street

Key Areas
(see proposed designs on next slide)

- A 411 Cumberland Avenue
- B Edmonton Street

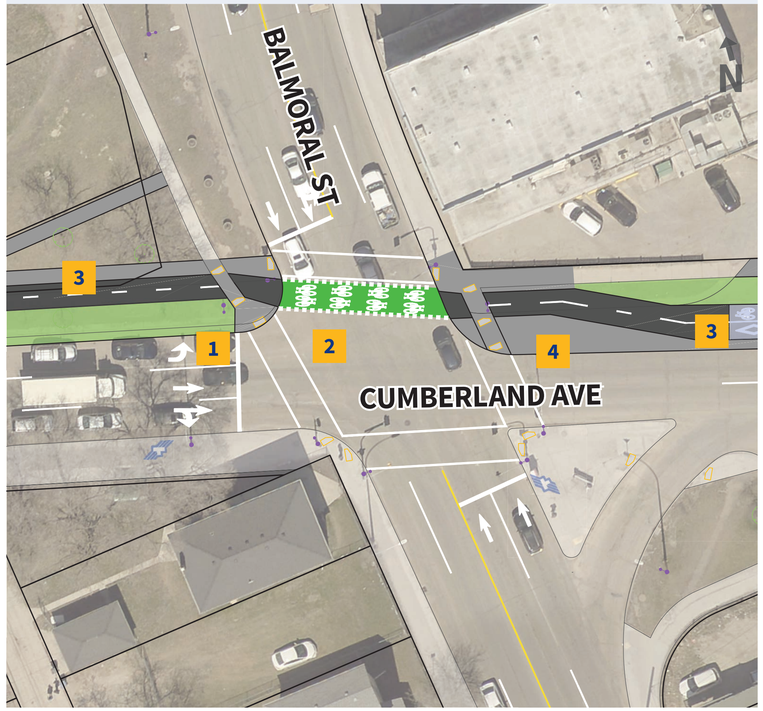
Key intersections
Two-way protected bike lane (north side) on Notre Dame Avenue
Two-way protected bike lane (north side) on Cumberland Avenue

1 Cumberland Avenue at Sherbrook Street



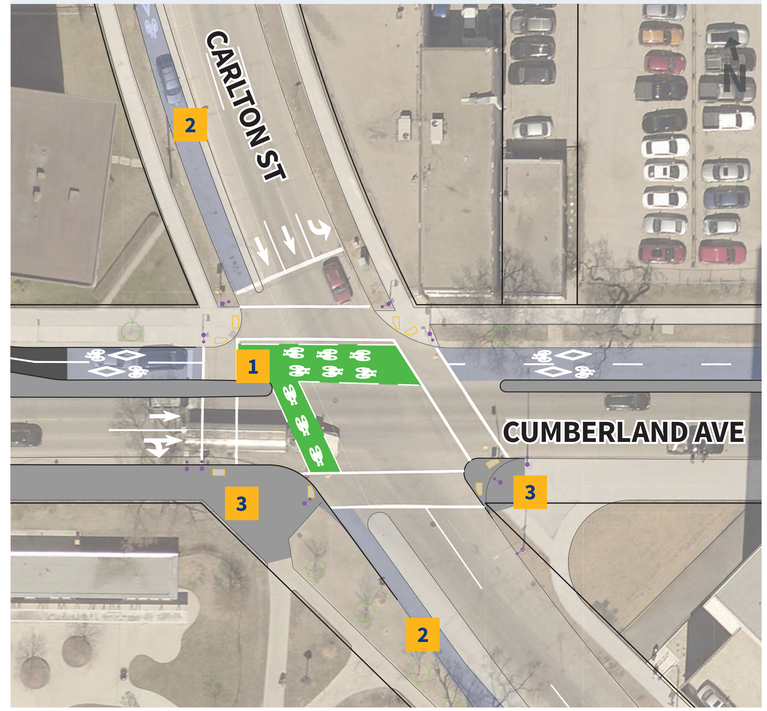
1. Raised crossing
2. Connection to Sherbrook Street bike lane
3. Mountable curb for truck turns
4. Connection to Wellington Avenue
5. Transit stops

2 Cumberland Avenue at Balmoral Street



1. High-volume vehicle left turn
2. Left turns may require a protected signal phase
3. Raised bike lane
4. Boulevard and curb extensions to shorten pedestrian crossing

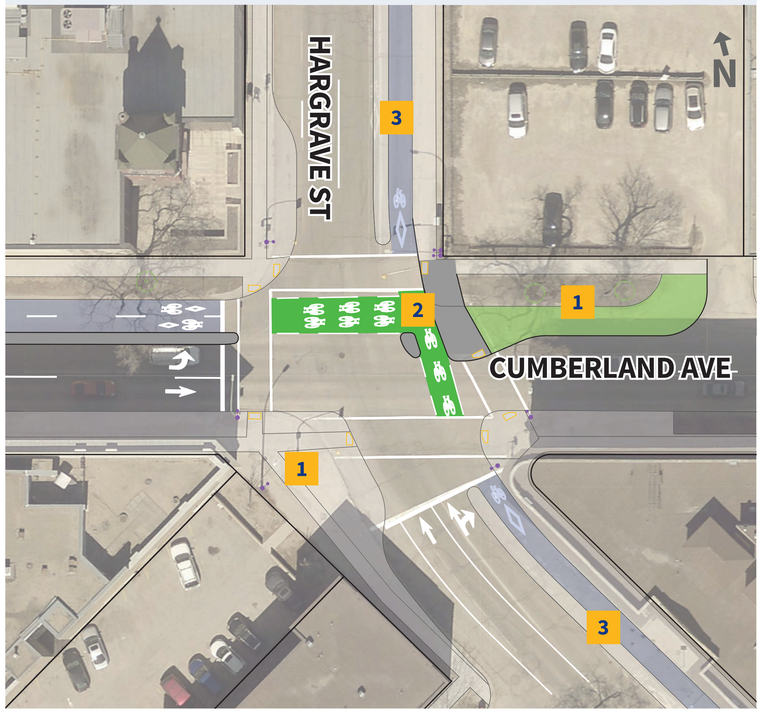
3 Cumberland Avenue at Carlton Street



1. Bike box to enable right turn onto Carlton Street
2. Future protected bike lane on Carlton Street
3. Curb extensions to shorten pedestrian crossing

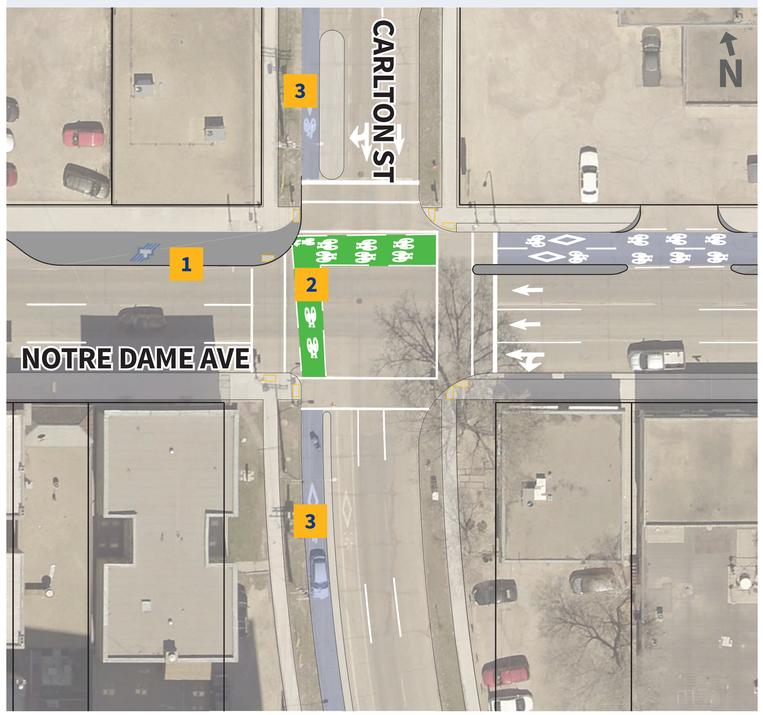
Key intersections
Two-way protected bike lane (north side) on Notre Dame Avenue
Two-way protected bike lane (north side) on Cumberland Avenue

4 Cumberland Avenue at Hargrave Street



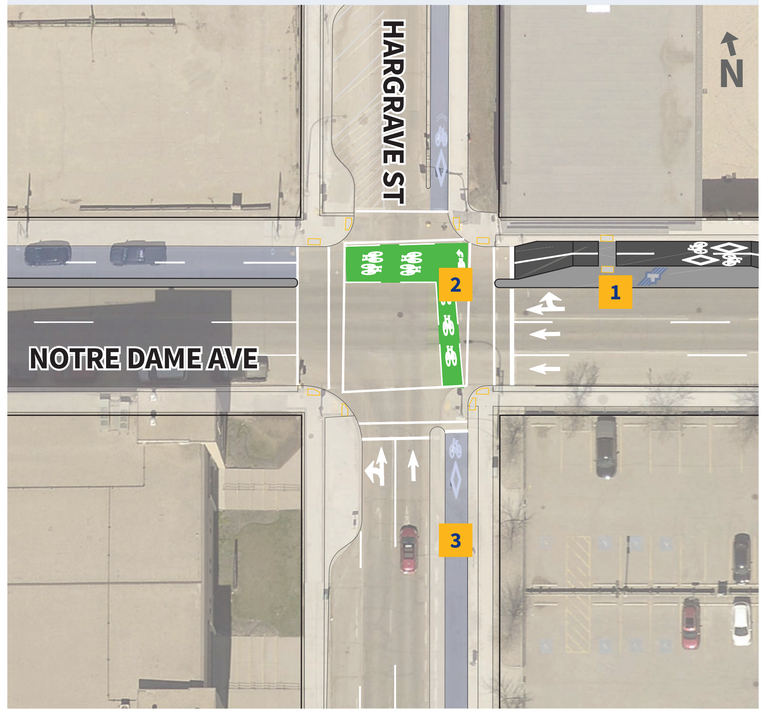
1 Curb extensions to shorten pedestrian crossing
2 Bike box to enable left turn
3 Future protected bike lane on Hargrave Street

5 Notre Dame Avenue at Carlton Street



1 Curb extension for Transit stop and to shorten pedestrian crossing
2 Bike box to enable left turn
3 Future protected bike lane on Carlton Street

6 Notre Dame Avenue at Hargrave Street



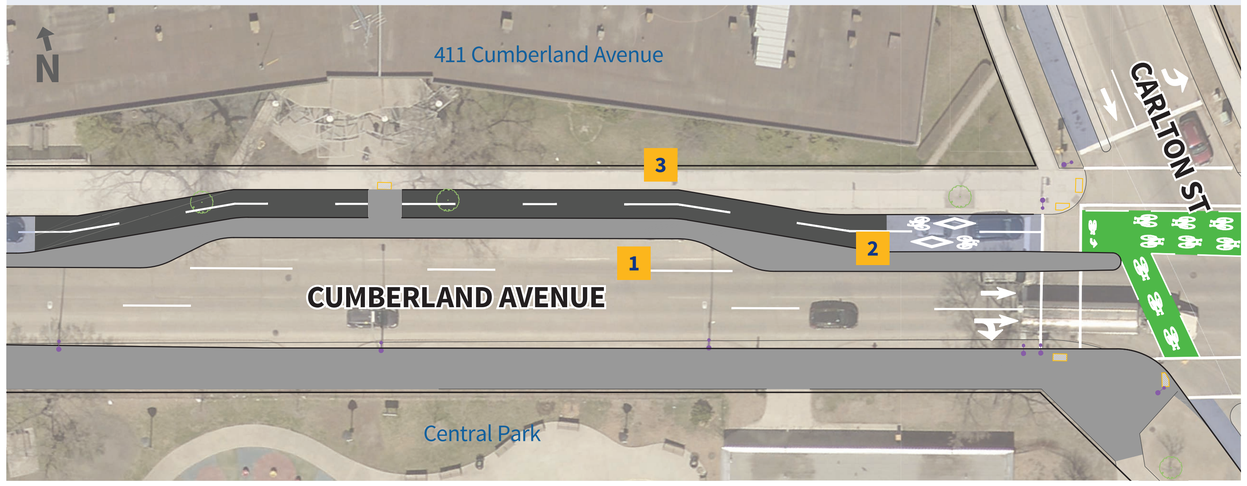
1 New island to accomodate two-way bike lane and Transit stop
2 Bike box to enable left turn
3 Future protected bike lane on Hargrave Street

Key intersections and areas

Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue

A 411 Cumberland Avenue

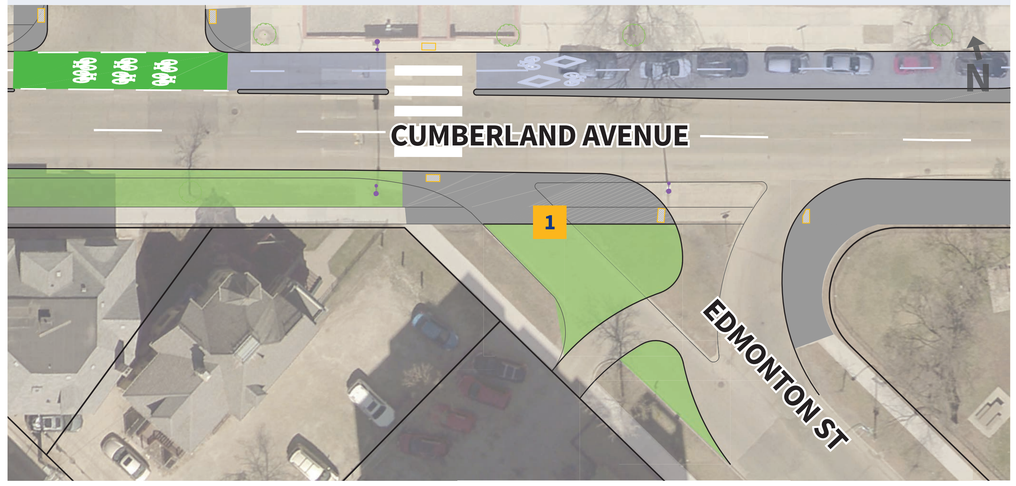


1 Parking and loading bay

2 Raised bike lane

3 Narrowed sidewalk

B Edmonton Street



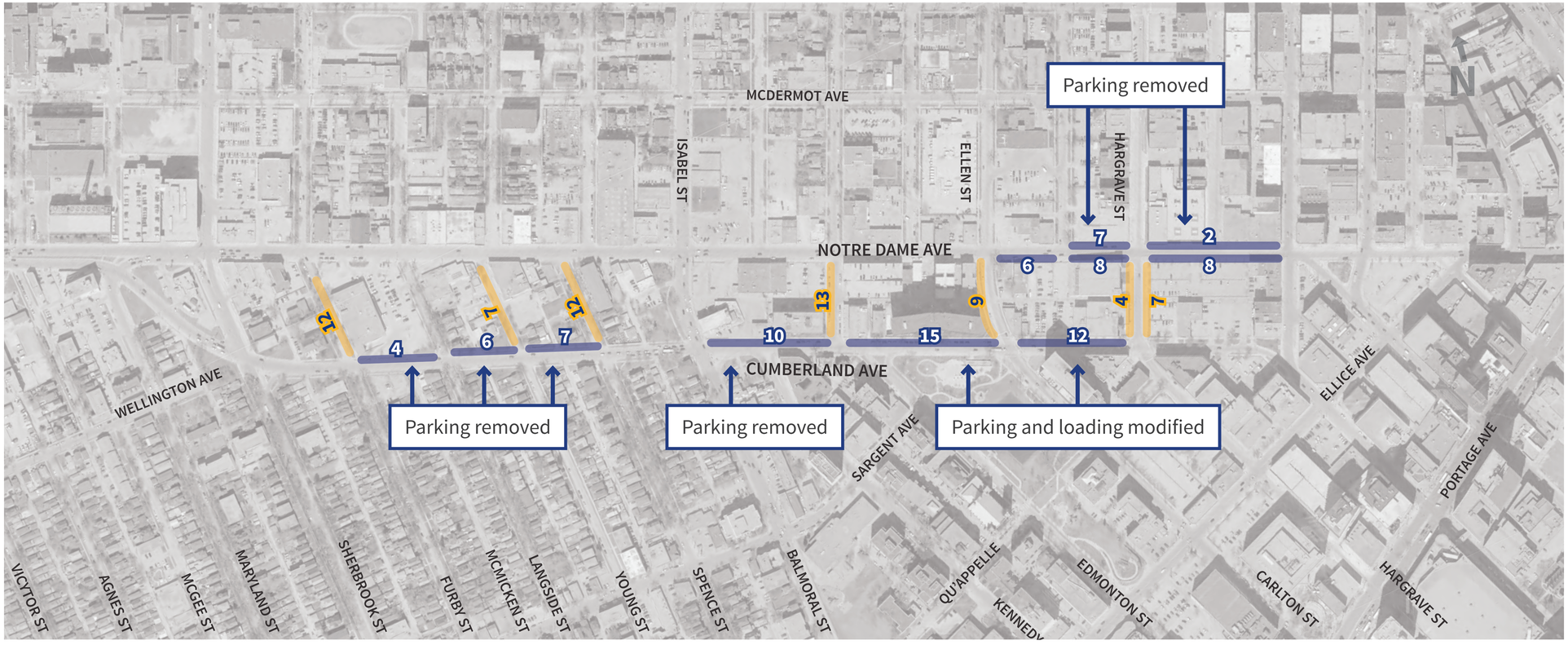
1 Boulevard and curb extensions to remove slip lane and shorten pedestrian crossing

On-street parking

Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue

Current study area parking



Approximate On-street Parking Stalls	Notre Dame Avenue	Cumberland Avenue	North-south streets between Notre Dame Avenue and Cumberland Avenue	Total
CURRENT	**31**	**54**	**64** (no change)	**149**
RECOMMENDED OPTION	**22** (↓9)	**12** (↓42)		**98** (↓51)

Recommendation

Two-way protected bike lane (north side) on Notre Dame Avenue

Two-way protected bike lane (north side) on Cumberland Avenue

Questions / Comments

Next steps

- Finalize bike route design.

St. Mary Avenue and York Avenue

- Both streets have planned road reconstruction as part of future Downtown street renewals between 2025-2027.
- Bike lanes on both streets will be detail designed and constructed as part of that project.

Notre Dame Avenue and Cumberland Avenue

- There is no timeline for the construction of bike lanes on Notre Dame Avenue and Cumberland Avenue.
- Before detailed design and construction can occur, Council would need to allocate funding.

William Stephenson Way

- Designs are complete to widen several sidewalks along William Stephenson Way and Waterfront Drive to become multi-use pathways.
- There is no timeline for the construction of the multi-use pathways as funding must first be allocated from the Pedestrian and Cycling Program.
- The intersection of William Stephenson Way and Waterfront Drive requires further study to address traffic concerns that were identified in this study.



Downtown bike routes

Thank you!

Questions / Comments

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