# Welcome

## Bikeway Design Study

## Victoria Avenue :University Avenue West to Shepherd Street West
## Shepherd Street: Janette Avenue to Kildare Road

The purpose of today's Public Open House:

To provide information about the study and gather feedback, which will help direct the next steps

### How to Participate:

- Review the information boards and maps.
- Ask questions and provide feedback to the Project Team by adding a sticky note to the map or by completing a comment form.

### Visit the website for more info:

WindsorEAs.ca/



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# Municipal Class Environmental Assessment Process

- The Victoria Avenue and Shepherd Street Bikeway Studies are classified as Schedule A+ project under the Municipal Class Environmental Assessment Process (MCEA, 2000, as amended).
- Schedule A+ projects are pre-approved under the Municipal Class EA process and exempt under the Ontario Environmental Assessment Act (per Bill 108, More Homes, More Choice Act, 2019).
- The purpose of Schedule A+ MCEA is to ensure that the public is in some way informed of municipal infrastructure project(s) being constructed or implemented in their area, giving them the opportunity to comment.
- As these projects are pre-approved, there is no process for appeal to the Ministry of the Environment, Conservation and Parks (MECP). However, City and Consultant staff will work to address comments and/or concerns raised throughout the project.



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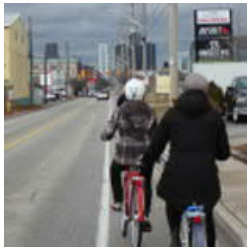
# Project Overview

## What is this project?

- The project will create a Local Street Bikeway on Victoria Avenue between University Avenue West to Shepherd Street West and on Shepherd Street between Janette Avenue and Kildare Road
- This project was identified as being high-priority under Walk Wheel Windsor, the City's Active Transportation Master Plan.

## What are Local Street Bikeways?

- Local Street Bikeways are shared bicycle routes located on streets with low traffic volumes and speeds
  - Can be enhanced with traffic calming measures such as speed humps and traffic diverters if traffic volumes and speeds are currently higher than desired
- Pavement markings and signs are added to indicate priority of cyclists over vehicles
- These are often referred to as Bicycle Boulevards or Bicycle Priority Streets



## What are the project goals?

- Connect the downtown core to key destinations and residential neighbourhoods to the south
- Provide a safe, connected cycling corridor
- Meet the objectives of the City's Active Transportation Master Plan



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# Project Overview

## Who is this project for?

- Everyone who walks, bikes, or lives along this street
- Residents who are interested in cycling, but are concerned about their safety on busy streets
- People who are concerned about cut-through traffic and speeding on Victoria Avenue

## What is the project schedule?

- Fall 2022: Review public and stakeholder comments, refine design
- Winter 2023: Report to Environment, Transportation & Public Safety Standing Committee
- Summer 2023: Construction (subject to Council approval)



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# Local Street Bikeway Features

## High-Visibility Crossings

- Use patterns and colours that are more visible to both drivers and cyclists compared to traditional transverse line crosswalks
- Make cyclists more visible to drivers

## Pavement Markings

- Shared lane markings that signal to drivers and cyclists that the road is a shared, slow road.
- Indicates to cyclists where they should position themselves on the street.
- Encourages cyclists to use the full width of the lane and reminds drivers to give cyclists plenty of space.
- Optional directional arrows may be used to indicate the direction of travel for contraflow bike lanes.


## Signs

- Signs are used to guide people towards or along cycle routes
- Alerts drivers that there may be people cycling nearby
- Provides wayfinding to connect people to key destinations in the community such as schools, parks, businesses and other low-street streets
- Communicates to cyclists that they are on a roadway with a shared operating space.



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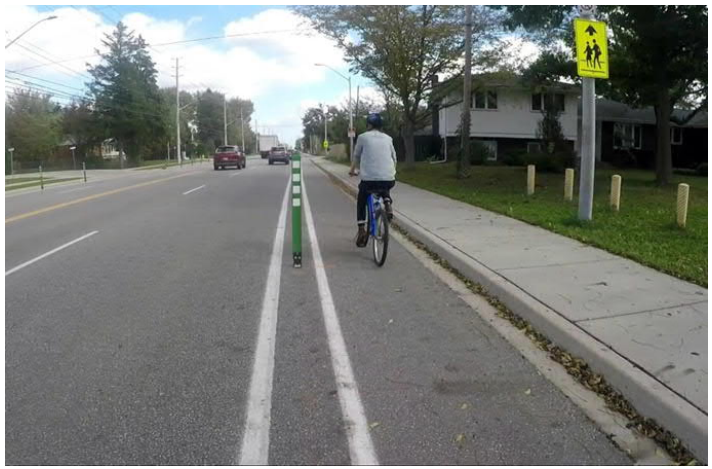
# Multi-Modal Outcomes

The pedestrian environment would be enhanced with cycling facilities, as the bike lanes and on-street parking will provide buffers between vehicles, cyclists and pedestrians.

The cycling experience will improve substantially as a result of the new and enhanced cycling facilities and slower vehicle speeds.

The overall impact to motor traffic is expected to be relatively minor



CBC, 2021



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# Strategic Rationale

- Connect the city through a regional spine network in the City Centre, South Central and Walkerville neighbourhoods
- Provide a new connection to the mature neighbourhoods from Downtown along Victoria Avenue
- Enhance the existing cycling route along Victoria Avenue with addition of a new cycle link along Shepherd Street
- Support the Official Plan's commitment to sustainability and support active transportation to enhance community health, safety and quality of life.
- Support the Active Transportation Master Plan's overarching themes: Connecting Communities, Places for People, Innovation and Integration, Culture Shift, and Quality of Life.



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# Outcomes of Traffic and Speed Study

Table 1: 2022 Weekday AM Peak Hour Travel Times and Speeds

| Scenario | Existing Geometry | | Proposed Geometry | |
|---|---|---|---|---|
| Description | Volumes: Existing<br>Lane Configurations: Existing | | Volumes: Existing<br>Lane Configurations: One Lane on | |
| Cross Street | Travel Time (s) | Arterial Speed (km/h) | Travel Time (s) | Arterial Speed (km/h) |
| Park St | 17 | 28.7 | 17 | 28.5 |
| Wyandotte St | 57 | 19.6 | 59 | 18.9 |
| Elliott St | 28 | 36.5 | 29 | 36.5 |
| Erie St | 32 | 37.5 | 31 | 38.6 |
| Total | 134 | 28.5 | 135 | 28.2 |

Table 2: 2022 Weekday PM Peak Hour Travel Times and Speeds

| Scenario | Existing Geometry | | Proposed Geometry | |
|---|---|---|---|---|
| Description | Volumes: Existing<br>Lane Configurations: Existing | | Volumes: Existing<br>Lane Configurations: One Lane on | |
| Cross Street | Travel Time (s) | Arterial Speed (km/h) | Travel Time (s) | Arterial Speed (km/h) |
| Park St | 17 | 27.7 | 18 | 27.3 |
| Wyandotte St | 59 | 18.7 | 66 | 16.9 |
| Elliott St | 30 | 34.9 | 30 | 34.9 |
| Erie St | 33 | 36.0 | 33 | 36.3 |
| Total | 139 | 27.5 | 146 | 26.1 |

- A traffic study was completed to understand the impacts of narrowing Victoria Avenue to one lane southbound between University Avenue and Pine Street in order to fit a northbound cycle lane.
- The tables to the right indicate the anticipated impact to travel times and speeds along the corridor
- As indicated, travel times are only expected to increase marginally
- Travel speeds are expected to decrease slightly in some sections as a result of the lane reduction



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# Outcomes of Traffic and Speed Study

| Victoria Avenue | 85th Percentile Speed |
|---|---|
| Park St to Wyandotte St | 48 km/hr |
| Wyandotte St to Elliott St | 46 km/hr |
| Elliott St to Erie St | 53 km/hr |
| Erie St to Pine St | 47 km/hr |
| Pine St to Giles Blvd | 41 km/hr |
| Giles Blvd to Montrose St | 39 km/hr |
| Montrose St to Ellis St | 39 km/hr |
| Ellis St to Shepherd St | 38 km/hr |

- We also considered the speeds at which cars are currently driving along the corridor, with the goal of reducing speeds to 30 km/h. The table to the left identifies measured mid-block operating speeds on Victoria Avenue
- To further reduce current speeds, speed humps are recommended between all intersections south of Wyandotte Street



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# Outcomes of Traffic and Speed Study – Shepherd Street

| Shepherd Street | 85th Percentile Speed |
|---|---|
| Highland Ave to Howard Ave | 54.3 km/h |
| Lillian Ave to Merenette Ave | 51.0 km/h |
| Langlois Ave to Benjamin Ave | 53.5 km/h |
| Benjamin Ave to Pierre | 48.6 km/h |
| Hall Ave to Moy Ave | 36.5 km/h |
| Moy Ave to Lincoln Rd | 43.2 km/h |
| Gladstone Ave to Lincoln Ave | 44.3 km/h |

- We also considered the speeds at which cars are currently driving along Shepherd Street, with the goal of reducing speeds to 30 km/h. The table to the left identifies measured mid-block operating speeds.
- To further reduce current speeds, speed humps are recommended at strategic locations along the entire length of the corridor.



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# Traffic Calming Treatments

The following traffic calming treatments are being proposed along portions of Victoria Avenue to help keep traffic speeds low and improve cyclist safety:

## Speed Hump

- Traffic calming device that is placed across the width of the street to slow down traffic speeds
- Designed for motor vehicles to cross them comfortably when travelling at or below 40 km/h
- Typically placed mid-block

## Curb Extensions

- Extension of the boulevard at key locations, most often at intersections
- Also referred to as “bump outs” or “bulb outs”
- Increases safety by shortening crossing distances, making pedestrians easier for driver to see, and calming traffic by reducing the roadway width
- Could provide space for amenities such as bicycle parking, benches, street trees, or other treatments

## Narrowed Vehicular Lanes

- Reduce motor vehicle speed along the street
- Discourages motor vehicles from passing people riding bikes



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# Recommended Design: University Avenue West to Park Street West


From University Avenue West to Park Street West, the design includes:

- Number of lanes reduced to one lane southbound with a left turn lane at Park Street
- Protected bike lanes added on both sides to accommodate both northbound and southbound cyclists
- Angle parking is relocated from the west side to the east side
- Parallel parking is relocated from the east side to the west side
- Southbound dedicated cycle lane is transitioned to a southbound shared lane through Park Street intersection
- Potential to provide a southbound bike box on Park Street to allow cyclists to move ahead of vehicles at the intersection



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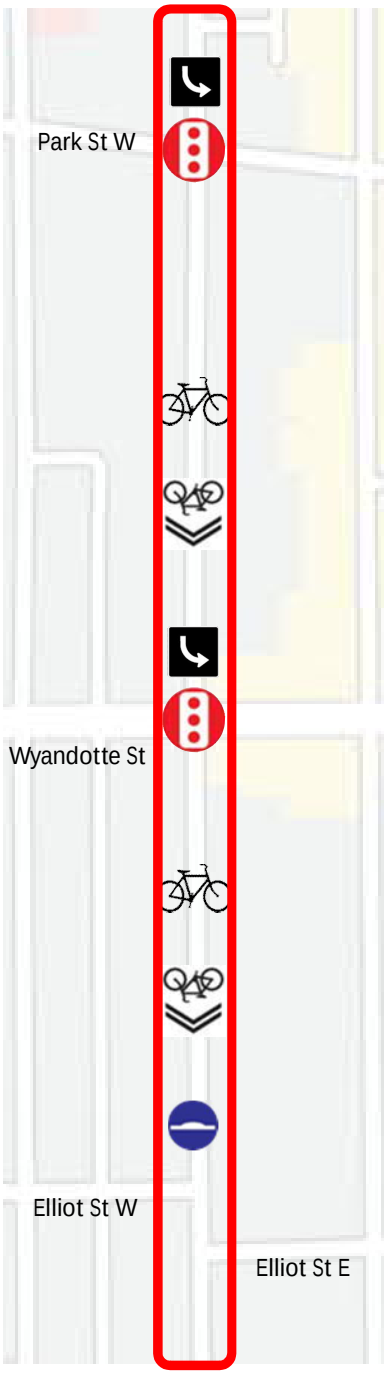
# Park Street West to Elliott Street

Between Park Street and Elliott Street, the design includes:

- Lane reductions, with only one southbound through lane being provided
- A buffered northbound (contraflow) cycle lane on the east side of the roadway
- A shared southbound cycle and vehicular lane on the west side of the roadway
- Use of signs and pavement markings on both sides of the roadway
- Mid-block speed humps south of Wyandotte Street
- Dedicated left turn lane at Wyandotte Street so that northbound cyclists can be protected from left turning vehicles
- No anticipated changes to on-street parking




## Legend

Signs will be installed on each block, but are not shown on this map

Protected Bike Lane will be installed for northbound cyclists

Sharrow pavement markings will be installed along the block

Speed Humps are shown on recommended blocks, but not at their actual location

Existing Traffic Signals will be maintained and are shown on the map

Dedicated Left Turn Lane will be provided at intersection



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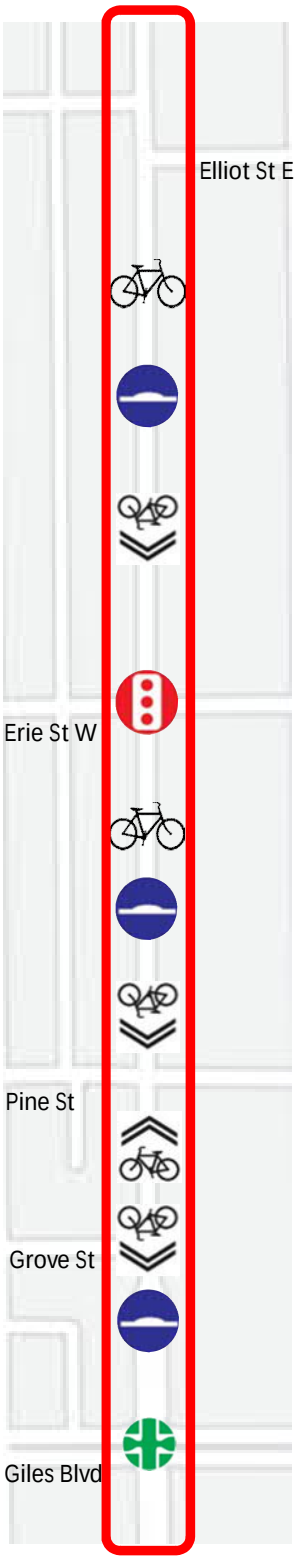
# Elliott Street to North of Giles Boulevard

Between Elliott Street to north of Giles Boulevard, the design includes:

- A lane reduction, with only one southbound through lane being provided north of Pine Street
- A buffered contraflow (northbound) cycle lane on the east side of the roadway between Elliott Street and Pine Street
- A shared southbound cycle and vehicular lane on the west side of the roadway between Elliott Street and Pine Street
- South of Pine Street, shared cycling and vehicular lanes in both directions
- Use of signs and pavement markings on both sides of the roadway
- Mid-block speed humps
- No anticipated changes to on-street parking




## Legend

Signs will be installed on each block, but are not shown on this map

Protected Bike Lane will be installed for northbound cyclists

Sharrow pavement markings will be installed along the block

Speed Humps are shown on recommended blocks, but not at their actual location

Existing Traffic Signals will be maintained and are shown on the map

Curb Extensions are shown at recommended locations



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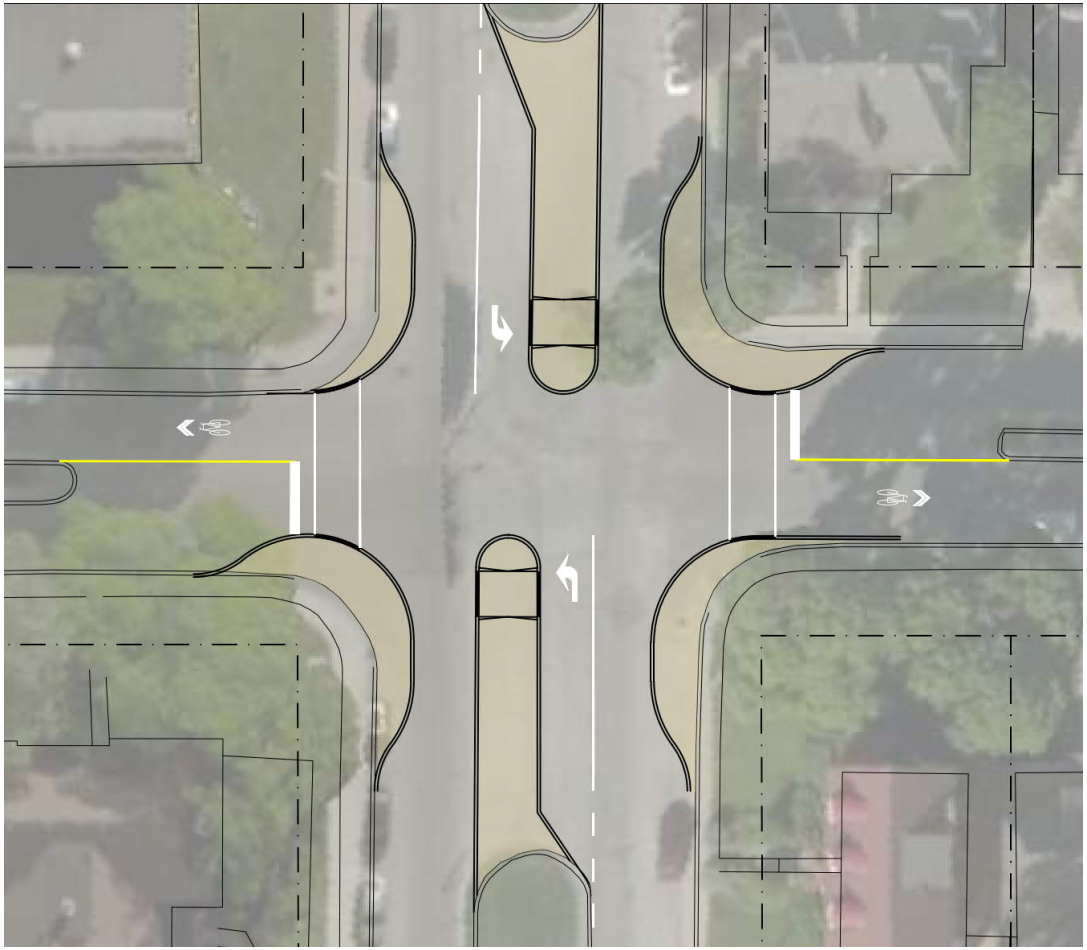
# Recommended Design: Giles Boulevard Intersection



At the Giles Boulevard intersection, the design includes:

- Curb extensions in all four corners of the intersection to reduce crossing distances and slow vehicle speeds on Giles Boulevard.
- Extension of the existing medians on Giles Boulevard to provide a space for pedestrians and cyclists to wait when trying to cross the roadway
- Signs and pavement markings on Victoria Avenue to indicated that cyclists and vehicles should be sharing a lane



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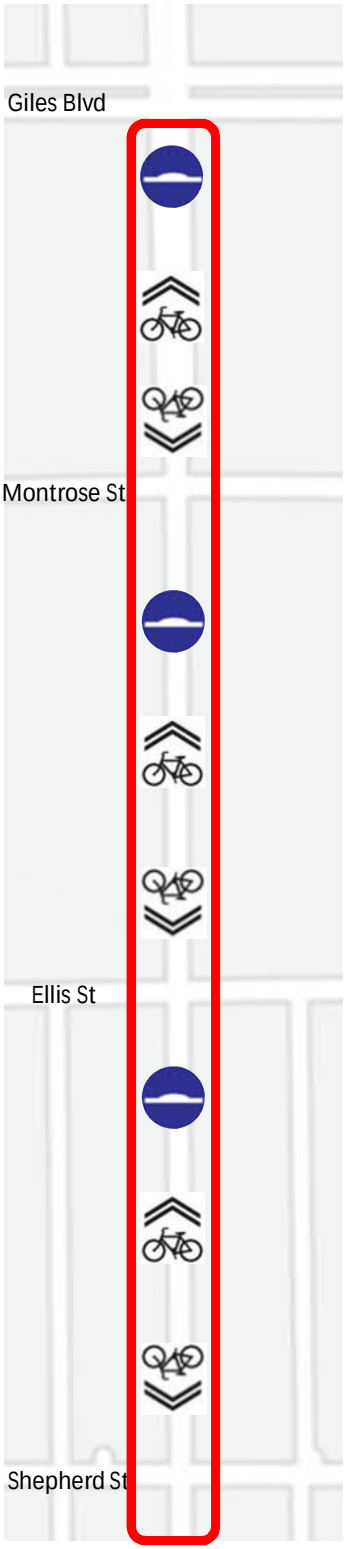
# South of Giles Boulevard to Shepherd Street

From south of Giles Boulevard to Shepherd Street, the design includes:

- Shared cycling and vehicular lanes in both directions
- Use of signs and sharrow pavement markings on both sides of the roadway
- Mid-block speed humps
- No anticipated changes to on-street parking
- Intersection of Victoria Avenue at Shepherd Street is changed to two-way stop control, with stops removed on Victoria Avenue.




## Legend

Signs will be installed on each block, but are not shown on this map

Sharrow pavement markings will be installed along the block

Speed Humps are shown on recommended blocks, but not at their actual location

Existing Traffic Signals will be maintained and are shown on the map



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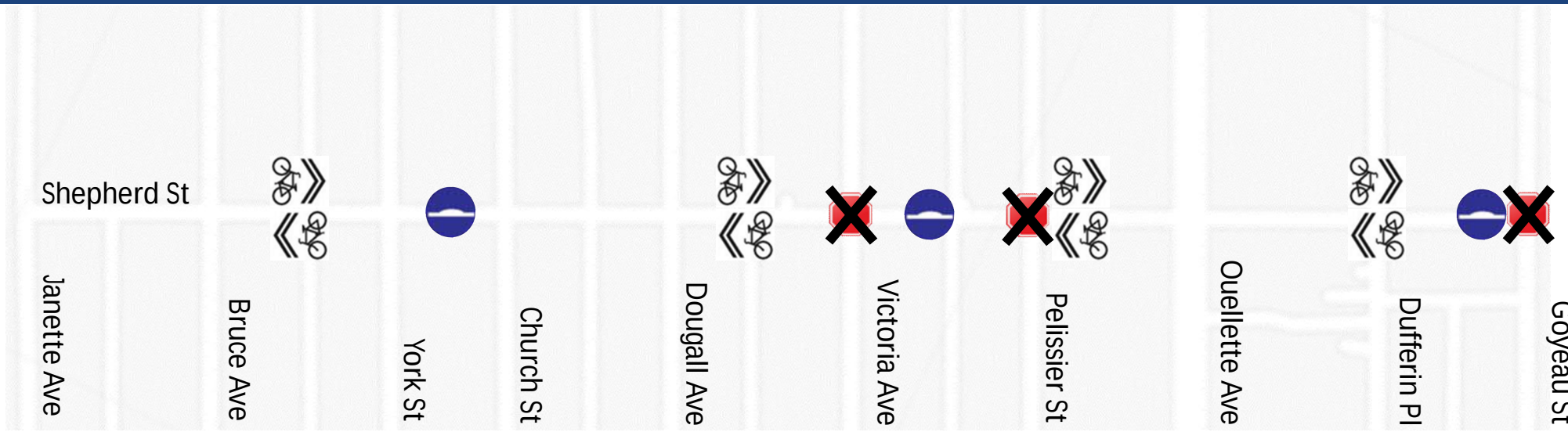
# Recommended Design: Janette Avenue to Goyeau Street




Between Janette Avenue and Goyeau Street, the design includes:

- Shared east and westbound cycle and vehicular lanes from Janette Avenue to Goyeau Street
- Mid-block speed humps east of York Street and Victoria Avenue and west of Goyeau Street
- Enhanced pavement markings across the intersection at Ouellette Avenue

Legend:

- Sharrow pavement markings will be installed along the entire length of the corridor in both directions
- Speed Humps are shown on recommended blocks, but not at their actual location
- Stop signs to be removed along Shepherd St.



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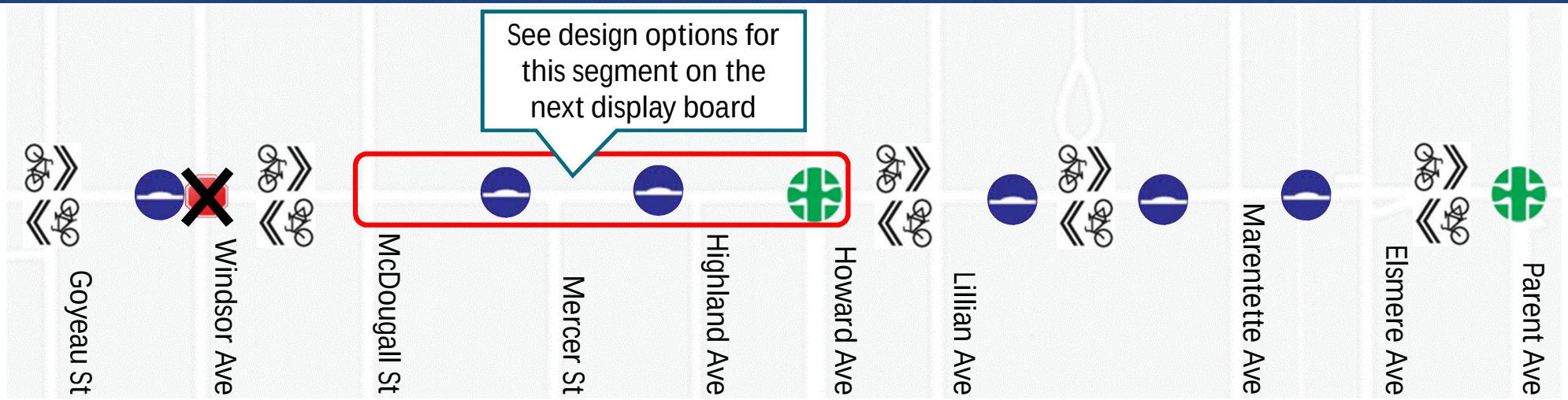
# Recommended Design: Goyeau Street to Parent Avenue




Between Goyeau Street and Parent Avenue, the design includes:

- Shared east and westbound cycle and vehicular lanes from Goyeau Street to Parent Avenue, with potential exception of the segment between McDougall Street and Howard Avenue (see next board for more details)
- Mid-block speed humps at multiple mid-block locations, as illustrated in the figure above.
- Curb extensions at the southwest corner of Howard Avenue, and all corners of Parent Avenue

Legend

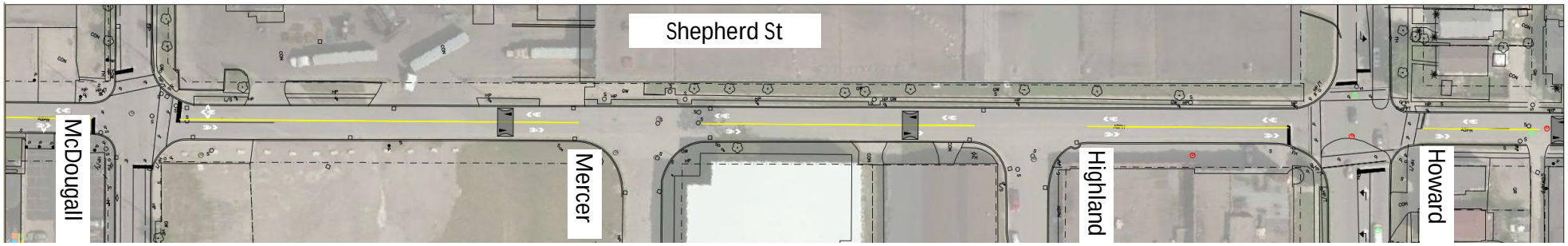
Sharrow pavement markings will be installed along the entire length of the corridor in both directions

Speed Humps are shown on recommended blocks, but not at their actual location

Curb Extensions are shown at recommended locations

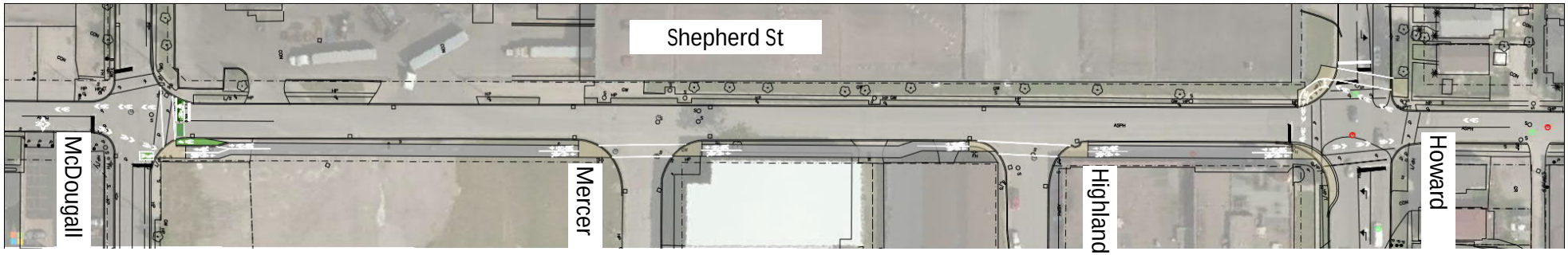
Stop signs to be removed along Shepherd St.

# Recommended Design: McDougall Street to Howard Street




Option 1: Lane Markings and Signage

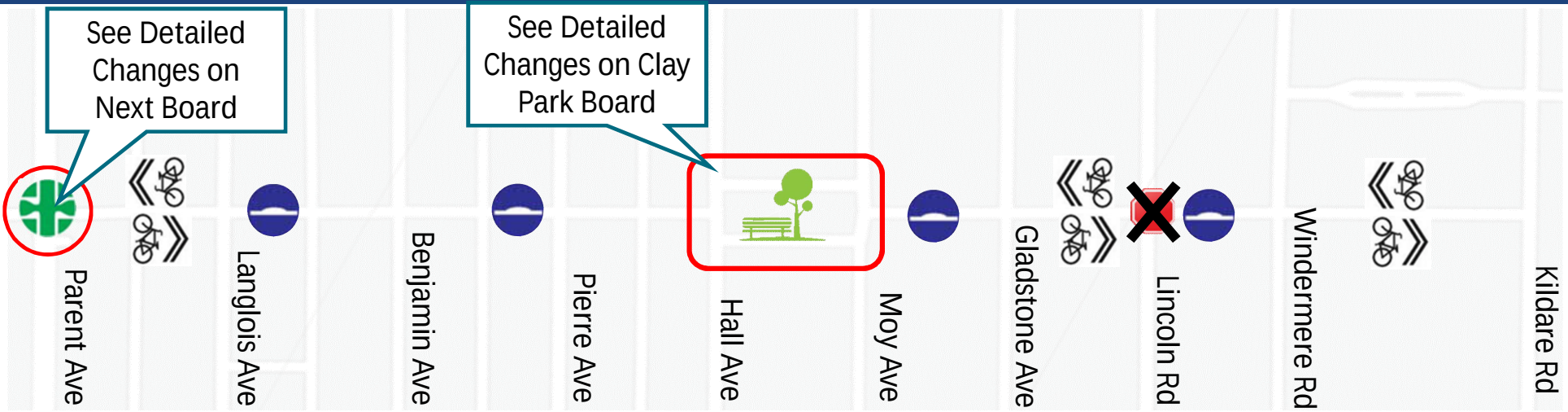
- Simple design that is consistent with the remainder of the Shepherd Street corridor.
- Provides direction for cyclists and raises driver awareness that lanes are to be shared.
- Speed humps are used to reduce auto travel speeds to improve cyclist safety




Option 2: Multi-Use Pathway on South Side of Shepherd Street

- Design includes a 3.0m multi-use pathway (for cyclists and pedestrians) on the south side for this segment only
- Cyclists are physically separated from traffic, which includes a large number of heavy trucks in this segment
- Requires removal of parking on the south side of Shepherd Street between Highland Avenue and Howard Street
- Increased complexity at intersections

# Recommended Design: Parent Avenue to Kildare Road




Between Parent Avenue and Kildare Road, the design includes:

- A shared east and westbound cycle and vehicular lane from Parent Avenue to Kildare Road
- Mid-block speed humps east of Langlois Avenue, Benjamin Avenue, Moy Avenue, and Lincoln Road
- One-way cycle circulation around Clay Park

Legend

- Sharrow pavement markings will be installed along the entire length of the corridor in both directions
- Speed Humps are shown on recommended blocks, but not at their actual location
- Curb Extensions are shown at recommended locations
- Stop signs to be removed along Shepherd St.



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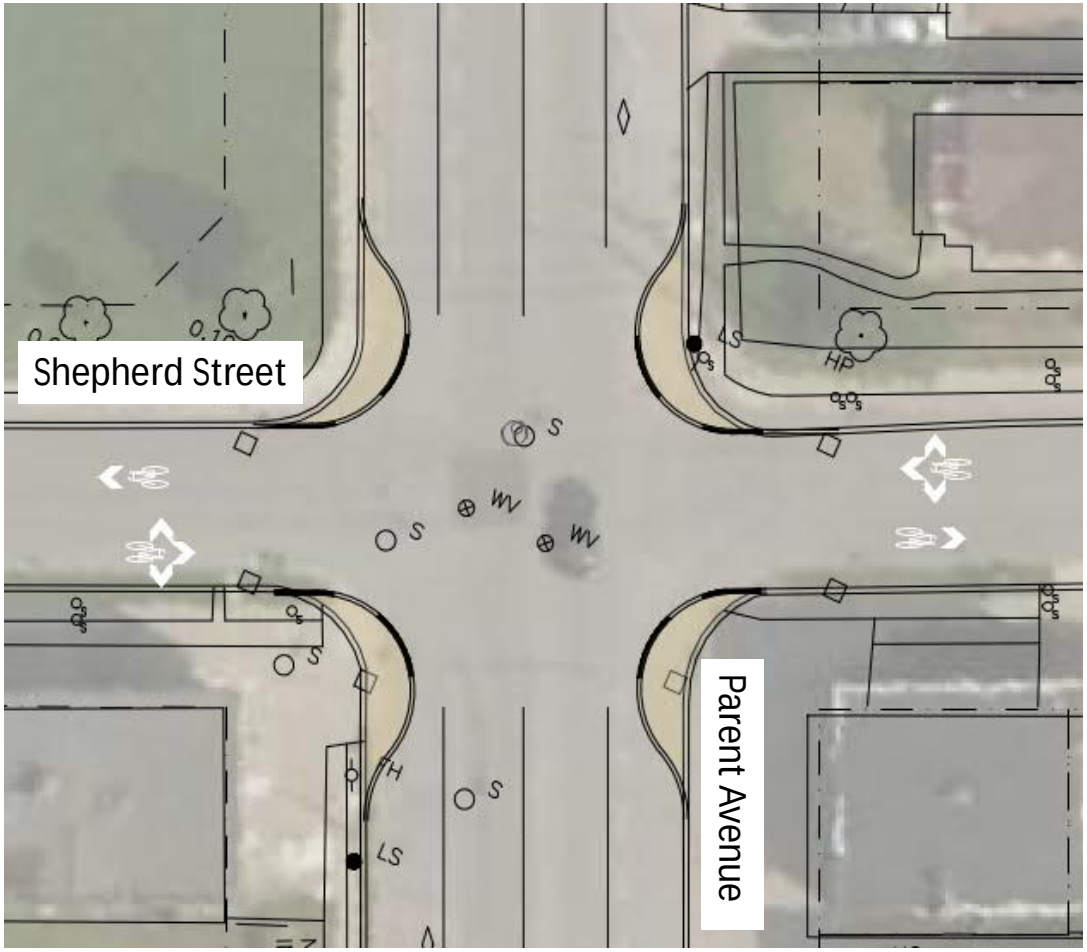
# Recommended Design: Parent Avenue Intersection




At the Parent Avenue intersection, the design includes:

- Curb extensions in all four corners of the intersection to reduce crossing distances and slow vehicle speeds on Parent Avenue.
- Signs and pavement markings on Shepherd Street to indicate that cyclists and vehicles should be sharing a lane



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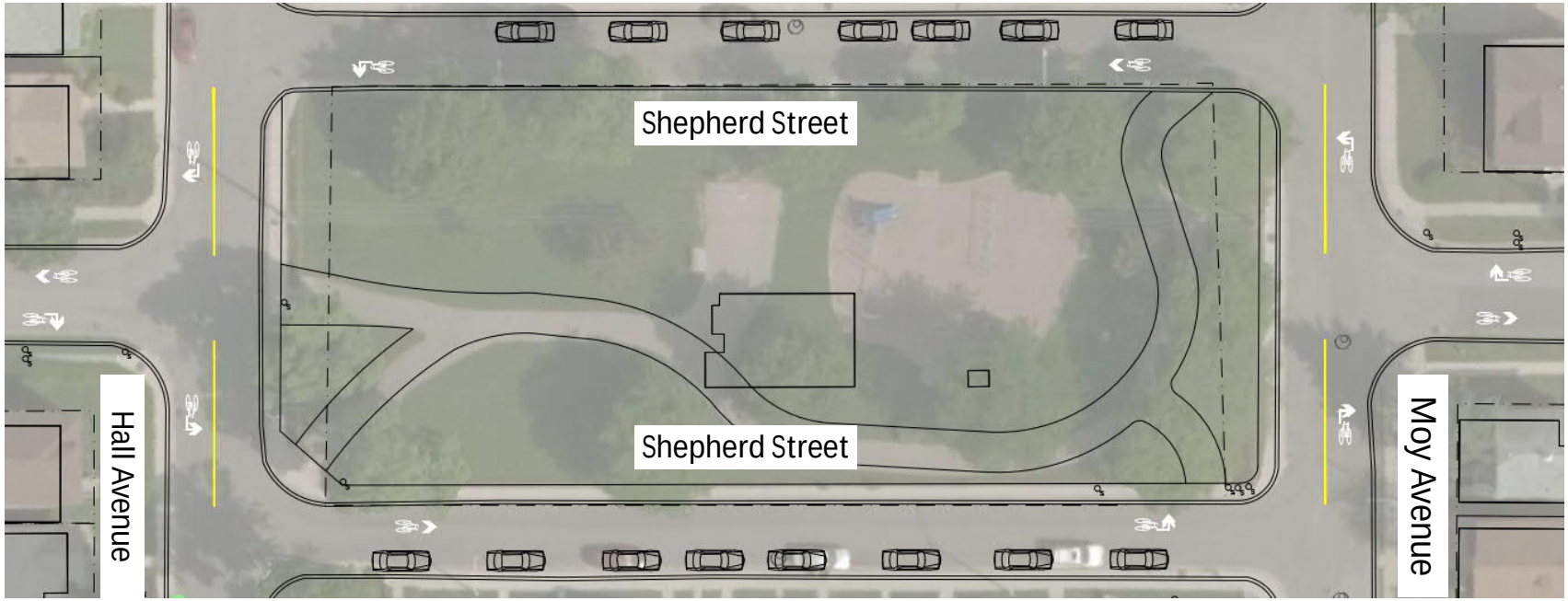
# Recommended Design: Hall Street to Moy Street (Clay Park)




Proposed Local Street Bikeway Routing Around Clay Park

- Cyclists will be directed in a one way “counter-clockwise” loop around Clay Park with directional pavement markings used to guide cyclists
- Additional wayfinding signs will also be added around the park
- Yellow centerlines will be added on Hall Street and Moy Street to highlight that those roadways include traffic in both the north and southbound directions.



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