

Agenda

#### Active Transportation Advisory Committee The Corporation of the City of Brampton

Date: Tuesday, December 12, 2023 Time: 5:00 p.m. Location: Hybrid Meeting - Virtual Option & In-Person in Council Chambers - 4th Floor -City Hall Steven Laidlaw (Co-Chair) Members: Lisa Stokes (Co-Chair) Enzo Bek Cindy Evans Alina Grzejszczak Dayle Laing **Barry Lavallee** Steven Lee Akinade Oduntan Regional Councillor Rowena Santos

For inquiries about this agenda, or to make arrangements for accessibility accommodations for persons attending (some advance notice may be required), please contact: Tammi Jackson, Legislative Coordinator, Telephone 905.874.3829, TTY 905.874.2130 cityclerksoffice@brampton.ca

Note: Meeting information is also available in alternate formats upon request.

#### 1. Call to Order

#### 2. Approval of Agenda

#### 3. Declarations of Interest under the Municipal Conflict of Interest Act

#### 4. **Previous Minutes**

4.1 Minutes - Active Transportation Advisory Committee - October 10, 2023

The minutes were considered by Committee of Council on October 25, 2023, and were approved by Council on November 1, 2023. The minutes are provided for Committee's information.

#### 5. Presentations / Delegations

5.1 Presentation by Fernanda Soares, Project Manager, Active Transportation, Planning Building and Growth Management and Rowaidah Chaudry, Transportation Planner, Planning Building and Growth Management, re: Complete Streets Guidelines

To be received.

5.2 Presentation by Barry Lavelle, Citizen Member, re: Parking In Bike Lanes

Note: A video was submitted by the delegation and is available for viewing here.

To be received.

5.3 Presentation by Stephane Laidlaw, Co-Chair, re: Winter Cycling In Brampton -Lessons Learned from Finland

> *Note:* A video was submitted by the delegation and is available for viewing <u>here</u>. To be received.

#### 6. Reports / Updates

#### 7. Other / New Business / Information Items

7.1 Active Transportation Advisory Committee - Sub-Committee Minutes - November, 2023

To be received.

7.2 Information provided by Tyron Nimalakumar, Transportation Planner, Planning Building and Growth Management. re: Community Rides Debrief 2023

To be received.

7.3 Information provided by Fernanda Soares, Project Manager, Active Transportation, Planning Building and Growth Management, re: Wards 3 & 4 Community Town Hall -Bike Lanes on Charolais Boulevard

To be received.

- 8. Correspondence
- 9. Question Period
- 10. Public Question Period

15 Minute Limit (regarding any decision made at this meeting)

11. Adjournment





### Complete Streets Guide Presentation

Fernanda Soares / Rowaidah Chaudhry

Active Transportation Advisory Committee December 12, 2023

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What's Inside: Chapter 1 ~ Introduction Chapter 2 ~ Street Context Chapter 3 ~ Planning & Design **Chapter 4** ~ Design Elements Chapter 5 ~ Implementation

# Chapter 1: Introduction

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### "Complete streets" are streets that are designed to be safe for all users: people who walk, bike, take transit or drive, and for people of varying ages and levels of ability.







Region of Peel Working for you



Streetscaping Toolbox Update September 2017





Policy Context

LIVIN



### Application of the Guide

- All street projects
- Development projects
- Environmental Assessments
- Redevelopment initiatives
- Planning studies
- Public realm plans
- Secondary plans
- Revitalization projects

# Chapter 2: Context Specific Design

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Figure 2.5. Brampton Complete Street Typologies

Figure 2.4. 11 Brampton Street Types, organized by their link and place objectives.



### Typology Guidance



# Redesigning a Street









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# Chapter 3: Steps to Street Planning

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# Assembling a Street



Figure 3.33. Steps to Assembling the Street as part of the Project Delivery Process

| Fast | er transit vs. more stops  |
|------|--|
| Veh  | icle delay vs. longer crossing time  |
| Veh  | icle delay vs active transportation needs  |
| Higł | n speed roadways vs context sensitive urban streets                                  |
| Cer  | tre median vs. driveway access   |
| Cur  | b extension and full-time parking lane vs. pedestrian refuge median at intersections |
| Righ | It turn on red and impacts on bike queues  |
| Left | -turn lane vs. bike lane through intersection  |
| All- | purpose motor vehicle capacity vs. bus lanes or diamond lanes vs. pedestrian realm   |
| Stre | et trees vs. cycling infrastructure  |
| Stre | et trees vs below grade utilities  |
| Bicy | cle lanes vs. wider sidewalks  |
| Ruro | al clear zones vs urban lateral offsets  |
| Nea  | r-side vs. far-side bus stop and attendant bike facilities                           |
| Lea  | d vs. lag turns, and impacts on pedestrian/bike movements                            |
| Cur  | o-side bus queue iump lane vs. shorter crossing distance for pedestrians             |

# Key Directives



#### Table 3.1 Key Directives for Decision Making

| Safety   | Link   | Place                        | Greening                        | Life-Cycle and<br>Maintenance             |
|--|--|------------------------------|---------------------------------|---|
| Prioritize<br>Vulnerable Users                           | Understand and<br>Accommodate<br>Desire Lines                  | Respect Context              | Street Trees                    | Understand the<br>Total Cost              |
| Reduce and<br>Manage Vehicle<br>Speed                    | Design for Person<br>Throughput and<br>Mobility                | Ensure Pedestrian<br>Comfort | Stormwater<br>Management        | Support Four-<br>Season Use of<br>Streets |
| Accommodate the<br>Smallest Possible<br>Design Vehicle   | Design Complete<br>Streets to Support<br>a Complete<br>Network |                              | Preserve Existing<br>Vegetation | Select Robust<br>Materials                |
| Minimize Exposure<br>Risk                                | Enhance Network<br>Connectivity                                |                              |                                 |   |
| Maximize<br>Predictable and<br>Self-Regulating<br>Design |  |                              |                                 |   |

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# Safety

- Street design will need to prioritize vulnerable users
- Reduce and manage vehicle speed through design
- Accommodate the smallest possible design vehicle
- Minimize exposure risk
- Maximize predictable design





# Safety

- Accommodate the smallest possible design vehicle
- Minimize exposure risk
- Maximize predictable design



Figure 3.9. Design vehicles are the most common large vehicles that use city streets, similar to a Canada Post or other courier trucks.



Figure 3.10. Control vehicles, like fire trucks, are the largest vehicles that use city streets. They are permitted to use more of the street to maneuver.

#### » Design vehicle



» Control vehicle

# Link

- Design for person throughput
- Complete networks and fill gaps
- Accommodating desire lines
- Enhance network connectivity

1 person per car (typical single occupant vehicle)



50-75 people per Brampton Transit Bus

Light Rail Transit vehicle

250 to 300+ passengers per

Person Capacity. For longer trips, transit can move far more people and with greater efficiency than single occupant vehicles.

Figure 3.24. Mode Priority and

source: Metrolinx; Brampton Transit; DTAH





Figure 3.27. Block Pattern and Network Connectivity. Six examples from different parts of Brampton. Note the higher amount of possible routes in some parts of the city than others. The greater the number of intersections in a given area, the more connected and complete the network.

source: DTAH

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### Place



FOCUS OF TRADITIONAL APPROACH Auto-Mobility Automobile Safety



Highway 7



#### COMPLETE STREETS APPROACH

Multi-modal Mobility + Access Public Health/Safety Economic Development Environmental Quality Livability/Quality of Life Equity



Danforth Road

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# Greening

- Help Brampton mitigate and adapt to climate change
- Expand the urban forest by installing street trees
- Manage stormwater
  through street elements





# Life Cycle and Maintenance

- Understand the total cost of the project and the cost of incomplete streets
- Support four-season use of streets
- Select robust materials to increase lifespan



Figure 3.30. Designing streets that consider four season use means ensuring clear and accessible facilities for all users, and providing enough space for snow storage while maintaining suitable pedestrian clearway.

# Chapter 4: Design Elements

NCE FOR BETTER BIRING

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# Components



### Boulevard Design



### Cycle Infrastructure Design



Roadway Design



Green Infrastructure Design



Intersection Design

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#### Table 4.1 Pedestrian Clearway Width by Street Type

The firs man There

| Street Type                  | Recommended Minimum Target Width |  |  |
|------------------------------|----------------------------------|--|--|
| Urban Main Street            | 3.0m                             |  |  |
| Neighbourhood<br>Connector   | 2.lm                             |  |  |
| Commercial Connector         | 2.lm                             |  |  |
| Mixed Use Residential        | 3.0m                             |  |  |
| Neighbourhood<br>Residential | 2.1m                             |  |  |
| Employment Collector         | 2.lm                             |  |  |
| Downtown Streets             | 3.0m                             |  |  |
| Local Residential            | 2.lm                             |  |  |
| Local Employment             | 2.lm                             |  |  |
| Shared                       | Entire Street                    |  |  |
| Lane                         | Entire Street                    |  |  |

#### idge tone

LW/

ting Zone

### Furnishing & Planting Zone

- Typically between the edge zone and pedestrian clearway
- Preferred location for street furniture
- Can contribute significantly to placemaking







Frontage and Marketing Zone

Pedestrian Clearway Zon Page 30 of 74

Furnishing and Planting Zone

### Edge/Curb Zone



Figure 4.8. The Edge/Curb Zone may have some vertical elements, such as street lights, utility poles, parking meters and parking signs. It's also used for snow storage in the winter months.

- Should be distinct from the Furnishing/Planting Zone
- Promotes placemaking in urban areas
- Can be used for street maintenance (snow storage)
- May include sign posts, parking meters, car door swing paths
- Should not overlap with cycling facilities

Frontage and Marketing Zone Pedestrian Clearway Zon Page 31 of 74



### **Clear Zones/Lateral Offsets**





Figure 4.27. Lateral Offsets for Brampton Streets, based on TAC 2017 Guidance. All measurements from face of curb. Mid-block: minimum 0.5m; Intersections: minimum 0.9m; Enhanced offset for Urban Streets where space permits: 1.2m to 1.8m.

#### **Clear Zones**

- Traditionally clear zones are provided on highways and higher speed rural roads
- Clear zones are not applicable in urban contexts and not desirable for Brampton streets Lateral Offsets
- Vertical elements can help create a sense of traffic calming and physically separate vulnerable users

Frontage and Marketing Zone

Pedestrian Clearway Zon Page 32 of 74

Mid-Block

Min. 0.5m

Furnishing and Planting Zone

### Marketing & Frontage Zone



Figure 4.7. Frontage and marketing display elements should be provided to maximize a clear and straight Pedestrian Clearway Zone

- Accommodates outdoor seating and marketing elements for local businesses
- Outdoor patios/marketing displays should not infringe on the pedestrian clearway

Frontage and Marketing Zone

Pedestrian Clearway Zon Page 33 of 74

Furnishing and Planting Zone



### Cycle Infrastructure

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# Cycle Infrastructure

- Multi-Use Path
- Cycle Tracks
- Bike Lanes
- Bicycle Wayfinding

| Shared Space | Bicycle Boulevards<br>Sharrows<br>Super Sharrows<br>Signed Routes | Volumes of < 3,000 AADT<br>Operating speeds <40km/hr<br>Local Roads |
|--------------|---|---|
| Shared Space | Sharrows<br>Super Sharrows<br>Signed Routes                       | Volumes of < 3,000 AADT<br>Operating speeds <40km/hr<br>Local Roads |

Designated Space Buffered Bike Lanes Paved Shoulders Buffered Paved Shoulders

Volumes of 3,000 to 15,000 AADT Operating speeds of 40 to 50km/hr Collector Roads/Minor Arterial Roads

Separated Space

Boulevard Multi-use PathsVolumes of >10,000 to >15,000 AADTSeparated Bike Lanes or<br/>Cycle TracksOperating speeds of equal to or > 50km/h<br/>Minor Arterial Roads/Major Arterial Roads

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### Roadway

### **Design Elements**

- Design Speed
- Lane widths
- Lateral Offsets for Vertical Elements
- Access for Emergency Vehicles
- Curbside Space
- Mid-block Pedestrian Crossings
- Traffic Calming
- Driveways

The Guide recommends that the City conduct a speed reduction study and undertake a review to update existing City Standards


## **Design Speed**

- Default speed in Brampton is 50 km/h
- Arterials are designed to facilitate the greatest vehicle operating speed
- The best practice in urban areas is to design streets so the operating speeds are the same as the posted speeds

| <b>Road Classification</b> | Street Type               | Design Speed | Posted Speed |
|----------------------------|---------------------------|--------------|--------------|
| Arterials                  | Urban Main Street         | 40-60        | 40-50        |
|                            | Neighbourhood Connector   | 60-70        | 50-60        |
|                            | Commercial Connector      | 60-70        | 50-60        |
| Collectors                 | Mixed Use Residential     | 40-50        | 40-50        |
|                            | Neighbourhood Residential | 40-50        | 40-50        |
|                            | Employment Collector      | 40           | 40           |
|                            | Downtown Streets          | 40           | 40           |
| Locals                     | Local Residential         | 30-40        | 30-40        |
|                            | Local Employment          | 30-40        | 30-40        |
|                            | Shared                    | 20           | 20           |
|                            | Lane                      | 20           | 20           |

Note: \* subject to recommended speed reduction study

#### Table 4.5 Recommended Maximum Target Speed Ranges by Brampton Street Type (km/hr)\*

#### Table 4.10 Design Vehicle, Control Vehicle, and Curb Radii by Receiving Street

| <b>Receiving Street</b> | BCSG Design Vehicle     | BCSG Control Vehicle   | Curb Radii* (m) |
|-------------------------|-------------------------|------------------------|-----------------|
| Minor Local             | P: Passenger            | LSU: Light Single Unit | 4.0             |
| Local                   | P: Passenger            | LSU: Light Single Unit | 4.0             |
| Collector               | LSU: Light Single Unit  | B-12: Brampton Bus     | 6.0             |
| Collector (Industrial)  | MSU: Medium Single Unit | WB-20: Tractor         |                 |
| Arterial                | B-12: Brampton Bus      | WB-20: Tractor         |                 |
| Arterial (Industrial)   | HSU: Heavy Single Unit  | WB-20: Tractor         |                 |

| Lane Type                                     | Minimum           | Maximum | Target |  |
|---|-------------------|---------|--------|--|
| Streets with De                               | sign Speed 50km/h | or less |        |  |
| Curb  | 3.0               | 3.5     | 3.3    |  |
| Through                                       | 3.0               | 3.5     | 3.0    |  |
| Transit or Trucki                             | ng Route          |         |        |  |
| Curb  | 3.5               | 3.7     | 3.5    |  |
| Through                                       | 3.3               | 3.5     | 3.3    |  |
| Streets with Design Speed greater than 50km/h |                   |         |        |  |
| Curb  | 3.5               | 3.9     | 3.5    |  |
| Through                                       | 3.3               | 3.7     | 3.3    |  |
| All Streets                                   |                   |         |        |  |
| Turning                                       | 3.0               | 3.5     | 3.0    |  |
| Dedicated<br>Parking                          | 2.4               | 3.0     | 2.5    |  |

Table 4.9 Brampton Roadway Lane Width Guidelines (metres)

#### **Potential Complete Street Cross Section**

23.0m ROW, 11.2m Pavement



#### Table 4.6 Recommended Brampton Design and Posted Speeds, Related to Road Classification

| <b>Road Classification</b>                       | Arterial  | Collector                                     | Local   |
|--|---|---|---|
| Posted speed more<br>than or equal to<br>50km/hr | Design speed =<br>posted speed + 10km/hr  | Design speed =<br>posted speed                | Design speed =<br>posted speed                |
|  | Design speed = posted<br>speed for the following<br>elements: lane widths,<br>tapers, and horizontal<br>offsets             |   |   |
| Posted Speed less<br>than 50km/hr                | Design speed = posted<br>speed + 10km/hr for<br>the following elements:<br>horizontal alignment,<br>vertical alignment, and | Design speed=posted<br>speed for all elements | Design speed=posted<br>speed for all elements |
| Page 38 of 74                                    | intersection sightlines.  |   |   |

### Intersection

### **Design Elements**

- Context Sensitive
   Intersection Design
- Corner Design/Curb Radii
- Bicycle Infrastructure
- Transit Infrastructure
- Crosswalks
- Urban Smart Channels
- Intersection Control



### Green Infrastructure

### **Design Elements**

- Street trees and landscaping
- Low impact developments

### Recommendations

- Landscape Development Guidelines Update
- Stormwater Master Plan Update
- Low Impact Development (LID) Terms of Reference
- Stormwater Management Criteria

# Chapter 5: Implementation

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- Policy
- Standards & Guidelines
- Process
- Plans and Studies
- Projects
- Evaluation & Monitoring
- Communication & Engagement

## **Current Projects**

- Ongoing environmental assessments and capital works projects
- Brampton Mobility Plan
- Speed Reduction Study

   Policy and best practices review
- Standards Update
  - $_{\odot}$  Update existing Brampton Standards
  - ${\rm \circ}$  Add any new standards as required
- Complete Streets Website







# Thank You



# Winter Cycling In Brampton **Lessons learned from Finland**

**Stephen Laidlaw** Active Transportation Advisory Committee 2023

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# Walking and riding in winter climates. **Considerations**

- An example of how to encourage transportation during winter months can be found in this presentation video, highlighting strategies in Oulu and Helsinki, Finland.
- https://www.youtube.com/watch?v=ppRQWxj6VDU
- https://1drv.ms/v/s!Aqk5GlKxZcKWjWlsKZpebHDbYQiU
- Please pay attention to a differing strategies compared to road clearing versus multi-use trail clearing.



On January 16 and 17, 2022, there was a snow fall event in the greater Toronto area, where some areas received an accumulation of 55 centimetres in 15 hours.

In Brampton, I along with others, documented the lack of snow clearing in a particular neighbourhood up to six days after the end of the snowfall. This area was east of the Bramalea City Centre and west of Bramalea Road, sometimes referred to as the "K" section.

This area includes Knightsbridge Road, King's Cross Road, Kensington Road, Central Park Drive, and Team Canada Drive. This is a densely populated area of Brampton, which includes twelve high rise apartment buildings, three residences for seniors, a large medical building, a strip mall with a food store and two day care facilities, as well as the Bramalea Bus Terminal. This is a walkable community, and yet, well after the snow event, sidewalks were not cleared, and pedestrians were forced to take to the

roads, to travel.

The challenges of clearing the sidewalks after this particular event were evident. As the temperatures remained cold that week, there was no snow melting, to assist in clearing the sidewalks. I also witnessed several sidewalk plows having trouble plowing this amount of snow. However, I think that we should be prepared for this type of snow fall.

What I am preposing is to identify certain higher density neighbourhoods in Brampton as priority snow clearing areas. Resources would be concentrated in these areas first, to serve the greatest number of citizens. Once these areas, with greater number of pedestrians, are cleared, then the other areas will be serviced.

Please provide any ideas or policies on this topic.

Stephen Laidlaw

Snow Clearing Strategies For Higher Density

Areas Of Brampton

ATAC November 2023 Subcommittee Meeting Minutes

- Attending: Dayle, Lisa, cindy, Steven Lee, Barry, Steve Laidlaw, Alina, Rowaidah, Tyron, Enzo, Nelson, Fernanda
- Fernanda presented StreetLight Data Overview
- Data analytics platform
- Machine learning algorithms
- Measure diverse travel patterns
- Data collected from cars, phones, smart watches
- Can determine mode
- Data also gathered from mobile apps
- Covers about 28% of adult data versus 5% from Transportation Tomorrow Survey (TTS)
- Charolais analysis is the first instance of using this data
- Presented at Councillor Town Hall
- Data should be updated annually
- <u>Streetlightdata.com/research-reports</u>
- Can we get this regularly in future? The city is on a trial. Working with StreetLight team during trial. Considering an RFP to acquire service in future. Pursuing funding for 2024 or 2025
- Is strava included in this? Not sure, can get back to Dayle. It's data from a certain type of cyclist.
- Will this replace TTS? General picture data source. Streetlight Data collected passively. Doesn't require someone to remember. More precise. Larger sample size.
- Would it be possible for StreetLight to identify collision sites? Don't think so
- Can it differentiate bike lane versus sidewalk riding? Tricky to differentiate that
- Can we see other municipalities' data? No
- Trial period is three months, ending March. Requesting budget. Would be an annual subscription
- Traffic Ops also has access to trial, also Transit
- Nelson Need to determine if it can it replace resource intensive counts that city currently does
- Could provide monthly data, but currently ends April 2023
- How can data be presented? Can you get a heatmap or do you study a specific street. Yes to heatmap, street data, spreadsheets
- Will data be used to proactively communicate to public? Yes, having this data to show people proof
- Next generation of traffic lights that can monitor. Was being piloted. Is that still useful? It is a piece of the monitoring puzzle.Location Williams and Graymar, Vodden and Centre. Nelson will ask for data and bring it back. The different data sources are complimentary
- Steve: Leading Pedestrian Interval (LPI)
- Can address left turn collisions with pedestrians according to Toronto's web page
- Hasn't found metrics showing before and after collision results
- Dayle observed one at Hinchley and Bovaird
- Mississauga seems to be taking Vision Zero seriously

- Brampton installing a lot of speed cushions
- 50 moveable speed cameras in Brampton
- Mississauga action plan identified 99 areas of improvement, timeless, progress report
- Nelson: partnered with Region to deliver strategy, Council committed to participate in Regional program
- LPIs need to decide which ones, education, council endorsement, etc
- Crossing six or eight lanes is always going to be dangerous just due to the nature of the width of the road. Need many interventions to reduce the hostile environment in huge intersections
- Transit users getting from south of Steeles to buses from LRT it will be very challenging
- Next steps Nelson suggests a pilot is best to start
- <u>Turn sign pilot</u> Dixie and Howden, Peter Robertson and Sunny Meadow, McKay and North Park - if it doesn't fix non-compliance next step will be physical
- Steven Lee suggests listening to <u>https://podcast.strongtowns.org/e/conor-semler-a-new-decision-making-framework-for-st</u> <u>reet-design/</u>
- Peel Vision Zero
- Guardian Article on pedestrian collisions in Peel
- Peel Cyclist collision dashboard
- 2019 Peel Region Vision Zero Plan Update Year One
- Year Two

## 2023 Community Ride Debrief

City of Brampton – Tyron Nimalakumar October 12<sup>th</sup> 2023

### **Basic Stats**

- Ridership averaging 30-40 people
- 67 riders on the Tour the Trees Ride!
- 286 unique registrations
- 409 total registrants
- 14 total rides
- Less focus on geographic distribution, more on themes



### Sign-Ups



#### • Top reasons are:

- Exercise
- Something to do with friends / family
- Meeting new people
- Getting outdoors
- Brand as an activity for people to get outdoors
- People aren't totally swayed by treat

### Successful Ads



### Successful Ads



### Rider Risk Acceptance



- Good distribution of riders from all skill levels
- 1/3 of riders are selfprofessed "occasional riders"
- Do we want to change the make-up of rides in the future?

# Wards 3 & 4 Community Town Hall

### **Bike Lanes on Charolais Boulevard**

Tuesday October 17, 2023

Nelson Cadete – Manager of Transportation Planning Fernanda Soares – Project Manager for Active Transportation Kevin Minaker – Manager of Traffic Operations and Parking



























# STREETS For people



### **IMPROVING OUR ROADS**





🚥 🖬 🛩 💿 💿 www.brampton.ca/ATP

**BRAMPTON IS A SAFE AND ACTIVE CITY** 



### 2023 Work Plan

- ් 29.2 km of linear Infrastructure (3 km in Wards 3&4)
- ් 25 pedestrian crossovers
- ් 23 curb depressions at park paths/trails (1 in Wards 3&4)
- of₀ 13 bicycle traffic lights (3 in Wards 3&4)
- が 7 traffic control signals (2 in Wards 3&4)
- ් East-West Cycling Corridor Protected Bike Lane
- or₀ Electric Kick-Style Scooter Pilot
- ං් Cycling Design Consultant
- or Priority Cycling Network Design Project

- No Bike Parking Zoning
- of₀ Protected Intersection Pilot (Williams Parkway)
- ් Bike the Creek Event
- ් Trail Bike/Pedestrian Counters
- or₀ Bicycle Repair Stands
- ් Pedal Poll
- ් Brampton Bike Hub
- ා් Bike Month / Bike to Work Day
- of₀ Bicycle Friendly Business Program



# **Bike counter**





















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# Charolais Blvd. (Before & After)

#### Speed and Volume Comparison Before and After Road Diet

|                                       | east of McLaughlin Road |                   | west of McLaughlin Road |                   | east of Chinguacousy Road |                   |                   |                  |                   |
|---------------------------------------|-------------------------|-------------------|-------------------------|-------------------|---------------------------|-------------------|-------------------|------------------|-------------------|
|                                       | Before                  | After             | Difference              | Before            | After                     | Difference        | Before            | After            | Difference        |
| AADT                                  | 16,266<br>veh/day       | 10,642<br>veh/day | -5,642<br>veh/day       | 15,469<br>veh/day | 10,322<br>veh/day         | -5,147<br>veh/day | 13,235<br>veh/day | 8,248<br>veh/day | -4,987<br>veh/day |
| Average<br>Speed                      | 58 km/h                 | 49 km/h           | -9 km/h                 | 51 km/h           | 42 km/h                   | -9 km/h           | 56 km/h           | 46 km/h          | -10 km/h          |
| 85 <sup>th</sup> percentile<br>Speed* | 67 km/h                 | 58 km/h           | -9 km/h                 | 60 km/h           | 50 km/h                   | -10 km/h          | 66 km/h           | 55 km/h          | -11 km/h          |
| % Trucks/Bus                          | 22%                     | 21%               | -1%                     | 21%               | 21%                       | 0                 | 17%               | 16.4%            | -0.6%             |

\*85<sup>th</sup> percentile speed is defined as the speed at which 85 percent of vehicles are travelling at our below



# Charolais Blvd. (Before & After)

### Before and After Bicycle Trips – Charolais Blvd.

| Bike Trips                                      | Nov. 2019 - March<br>2020 | Nov. 2021 - March<br>2022 | Increase<br>Percentage ( 2021<br>vs. 2019) |
|---|---------------------------|---------------------------|--|
| Average Daily Trips within<br>Neighbourhood     | 779                       | 1197                      | 54%  |
| Average Daily Trips using<br>Charolais Blvd     | 392                       | 762                       | 94%  |
| Average Neighbourhood<br>Bike Trip Length (min) | 13.2                      | 16.5                      | 26%  |

### Before and After Traffic – Charolais Blvd.

| Vehicle Trips   | Nov. 2019 - March<br>2020 | Nov. 2021 - March<br>2022 | Increase Percentage<br>( 2021 vs. 2019) |
|---|---------------------------|---------------------------|---|
| Average Travel Time<br>driving through Charolais<br>Blvd (min)            | 7.9                       | 7.5                       | -4%                                     |
| Average Daily Cut-through<br>Trips (passing through the<br>Neighbourhood) | 4368                      | 3928                      | -10%                                    |
| Average Daily Trips to or<br>from the Neibhourhood                        | 4432                      | 4731                      | 7%                                      |
| Cut-through Trip<br>percentage  | 50%                       | 45%                       | -9%                                     |



- Increase in Bike trips overall
- Increase in Bike trips through the corridor
- "People willing to bike more"

### • Decrease in cut-through traffic

(traffic passing through a residential area without stopping or without an origin or destination within the area utilizing a "local residential street" rather than streets whose primary function is to accommodate through traffic)

StreetLight Data is a mobility analytics platform that collects big data from mobile dpyges to greature travel patterns of vehicles, bicycles and pedestrians (origin and destination, travel time, speed, etc.).



# Charolais Blvd. (E-scooter Pilot)





 193,337 trips since pilot program launch (for the whole City)

• 21,772 trips originated or ended in the area



# Charolais Blvd. (Road Diet)

Road diets involve changing a four-lane roadway into two through car lanes and repurposing the remainder of the road (parking, cycling lane). Below are some benefits and challenges

| Benefits   | Challenges                     |  |
|--|--------------------------------|--|
| Reduced speeds   | Congestion during peak periods |  |
| Reduced non-local traffic  | Education                      |  |
| Reduced crossing distance for pedestrians including the crossing guard who used to have to navigate 4 lanes of traffic   | None                           |  |
| Pulls live traffic 3-4 metres away from the sidewalk, parks, playgrounds, transit stops, school crossing guards          | None                           |  |
| Provides safe space for cyclists and encourage alternate modes   | None                           |  |
| Implementation of automated speed<br>enforcement in the school zone which was<br>not permitted when it was a 4 lane road | None                           |  |
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**Data Collections Results:** 

Decrease of 5,250 vehicles per day average Decrease of 9.5 km/h average speed reduction


## Questions?



## RDEAT DBEAT

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