



CITY OF MISSISSAUGA MICROMOBILITY PROJECT PHASE 1

PRESENTATION TO GENERAL COMMITTEE



MISSISSAUGA

CITY OF MISSISSAUGA

JUNE 15, 2022

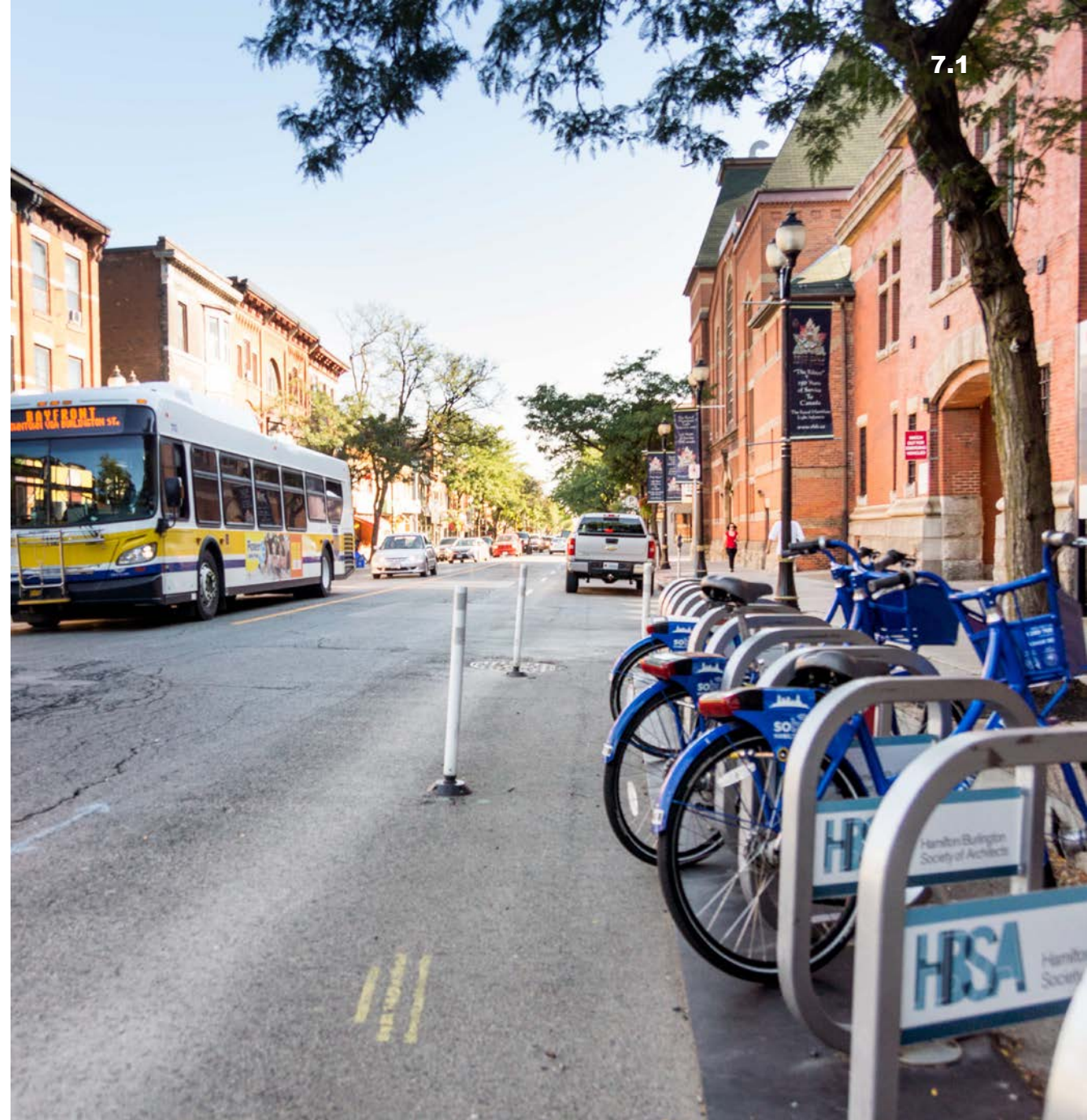
Summary of Study Recommendations

Seeking endorsement of the Phase 1 Micromobility Study Recommendations:

- Begin initial deployment of shared micromobility with a **pilot program**
- Adopt the following **system, governance, and vehicle models** for the pilot program:
 - A hybrid (docked and dockless) system model,
 - Private ownership and operation, and
 - Electric pedal-assist bicycles and electric kick-style scooters.

What is Shared Micromobility?

- Small, lightweight human powered or electric bicycles and kick-style scooters operating at speeds below 25 km/h and ideal for trips up to 10 km
- In a shared system, users typically sign up for a membership and can rent a vehicle for short period of time



Background

Past reports taken to Council:

- **Micromobility Systems in Mississauga (GC-0577-2019)**

Initiated the development of a regulatory framework to enable a phased introduction of micromobility systems

- **Micromobility Program Update: Visioning and Interim E-scooter Strategy (GC-0358-2020)**

Enabled the enactment of all necessary by-laws to permit and regulate the use of personal e-scooters in Mississauga

e-Scoting in Mississauga 7.1

The Do's and Don'ts of operating an e-scooter in Mississauga

What is an e-Scooter?

- Battery-Powered
- Equipped with:
 - Hand brake
 - Lights
 - Bell
 - Kick-stand
 - Two-wheels

Rules for Riders

- 16+** Rider must be 16 years or older
- Operated in standing position
- Always wear a helmet
- Limit speed to 24 km/h

Rules and Etiquette

- Be safe**: Travel with traffic and obey all traffic signals and signs
- Be alert**: Always be aware of surrounding traffic
- Be considerate**: Yield to pedestrians. Give a friendly warning before passing a pedestrian, cyclist or other trail-user
- P** Park your e-scooter out of the way of others, like by a bike rack
- Do not carry passengers or tow, push or pull another object

Where to Ride

- ✓ **Where to Ride**
 - Public roads with speed limit of 50 km/h or less
 - Bike paths and bike lanes
 - Multi-use trails beside a roadway
- ✗ **Where Not to Ride**
 - On sidewalks
 - On park trails or City-owned land

For more information, visit yoursay.mississauga.ca/escooter

MISSISSAUGA

Study Scope and Process

We Are Here

Subsequent Work

Phase 1

Phase 2

Phase 3

Background
Research

Evaluate
Micromobility
Vehicles & Models

Recommend
Preferred
Vehicle(s) & Model

Develop
Implementation
Strategy

Launch
(Tentatively
Spring 2023)

Public and Stakeholder Consultation

Phase 1 evaluated:

- What micromobility vehicles should be offered in the shared system?
- How should vehicles be picked up and dropped off?
- Who should own and operate the system?
- Operational, integration and financial considerations.

Subsequent Work - Phase 2 Scope of Work

Phase 2 tasks will include developing:

- **Corporate policies and procedures**
Data management, license agreements, permit system and fee structure, and enforcement policies.
- **Implementation plan**
Internal governance structure, business process mapping, IT requirements, staffing requirements, projected service area(s), accessibility and equity plan, standard operating procedures, public education and feedback mechanisms, performance measures, public realm/curbside management plan, and critical path.
- **Additional municipal by-laws to support**

Vehicle Types

CONVENTIONAL BICYCLE

- Resembles a traditional bike but more heavy duty
- Designed for stability and comfort, suitable for riders of any skill level
- Can be equipped with location tracking equipment



Photo: Toronto Bike Share

Vehicle Types



Photo: BIKETOWN

ELECTRIC PEDAL-ASSIST BICYCLE (E-BIKE)

- Same features as a conventional bicycle but with an added battery and motor to assist with pedaling
- Charging requires dock-based infrastructure, operator to change batteries, or solar

Vehicle Types



ELECTRIC KICK-STYLE SCOOTER (E-SCOOTER)

- Much smaller and lighter than bicycles
- Designed for stability but smaller diameter wheels can be less stable on uneven terrain

System Models - Where can people pick up and drop off vehicles?

Dock-Based



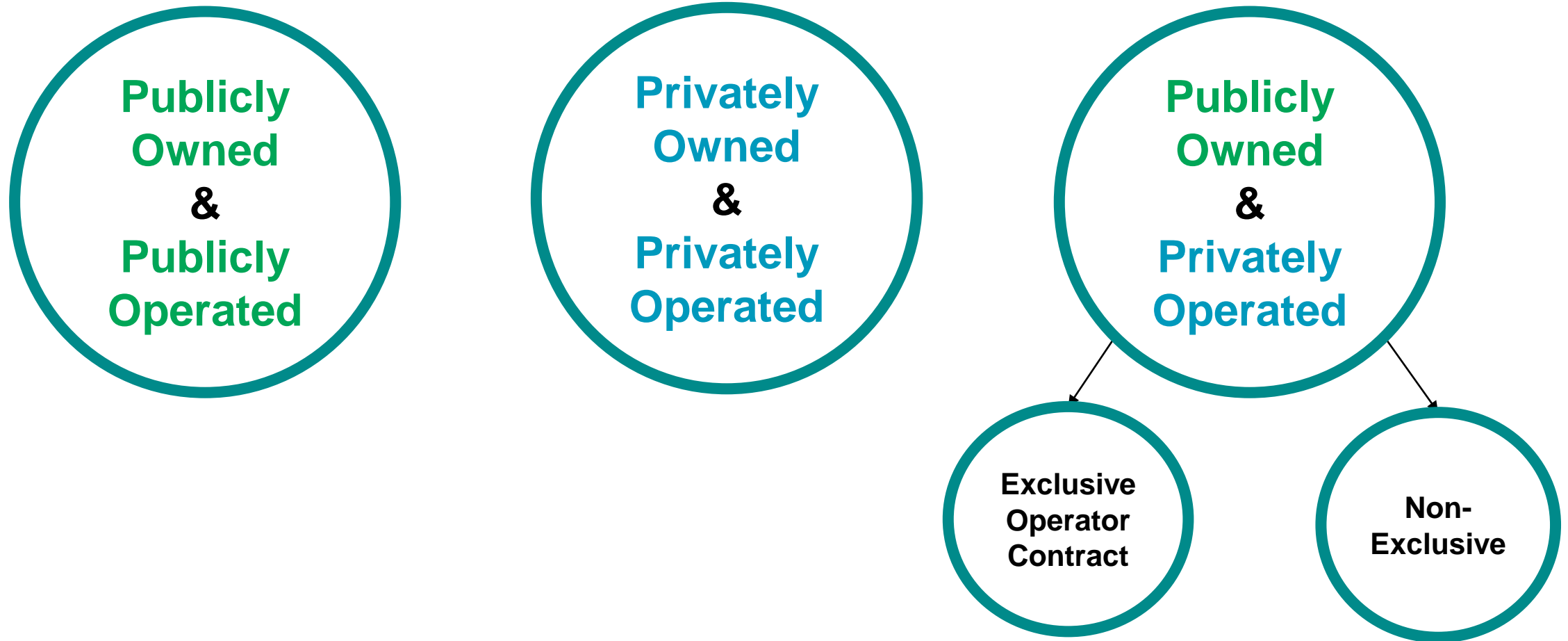
Dockless



Hybrid (Docked + Dockless)



Governance Models - Who owns and operates the system?



Canadian Peer City System Characteristics

Vehicle Types

- **Bicycles:** 5 of 18 cities
- **E-Bicycles:** 7 of 18 cities
- **E-Scooters:** 13 of 18 cities

System Models

- **Docked:** 4 of 18 cities
- **Dockless:** 12 of 18 cities
- **Hybrid:** 2 of 18 cities

Governance Models

- **Public/Public:** 0 of 18 cities
- **Public/Private:** 5 of 18 cities
- **Private/Private:** 13 of 18 cities

Peer Cities:

- **Ontario:** Hamilton, Ottawa, Toronto, Waterloo, Windsor
- **Alberta:** Calgary, Edmonton, Leduc, Lethbridge, Okotoks, Red Deer, St. Albert
- **British Columbia:** Kelowna, Vancouver, Vernon
- **Nova Scotia:** Halifax
- **Quebec:** Montreal, Quebec City

United States Peer City System Characteristics

Philadelphia: Bikes and e-bikes; docked system; public owner and private operator

Minneapolis: Bikes, e-bikes and e-scooters; docked system; public owner and private operator

Washington: Bikes, e-bikes and e-scooters; mix of docked, dockless, and hybrid systems; mix of public owner and private operator, and private owner and private operator

Portland: Bikes, e-bikes and e-scooters; mix of dockless and hybrid systems; mix of public owner and private operator, and private owner and private operator

Seattle: Bikes, e-bikes and e-scooters; mix of docked, dockless, and hybrid systems; private owner and private operator

Vehicle Type Recommendation

Note: Where multiple scores are provided, the system model impacts the vehicle score

Factor	Conventional Bicycle	Electric Pedal-Assist Bicycle	Electric Kick-Style Scooter	Top Performing Vehicle Type(s)
Ease of Use – Stability	Preferred	Preferred	Neutral	Conventional Bicycle & E-Bike
Ease of Use – Level of Effort	Neutral	Preferred	Preferred	E-Bike & E-Scooter
Accessibility – Potential impacts on vulnerable road users	Preferred	Preferred	Neutral	Conventional Bicycle & E-Bike
Maintenance Required	Preferred/ Neutral	Not Preferred	Not Preferred	Conventional Bicycle
Cost	Neutral	Not Preferred	Preferred	E-Scooter
Suitability for a potential pilot program	Not Preferred	Not Preferred/ Preferred	Preferred	E-Bikes & E-Scooters

Early-Stage Recommendation: Electric Pedal-Assist Bikes & Electric Kick-Style Scooters

System Model Recommendation

Theme	Dock-Based	Dockless	Hybrid (Docked & Dockless)	Top Performing Model
Operational Risks	Not Preferred	Neutral	Neutral	Hybrid
Ability to Meet Performance Objectives	Not Preferred	Preferred	Neutral	Dockless
Level of Administrative Overhead	Preferred	Not Preferred	Neutral	Docked
Accessibility and Quality of Service	Neutral	Neutral	Neutral	Hybrid
Suitability for a Potential Pilot Program	Not Preferred	Preferred	Neutral	Dockless

Early-Stage Recommendation: Hybrid System Model

Governance Model Recommendation

Theme	Publicly Owned & Publicly Operated	Privately Owned & Privately Operated	Publicly Owned & Privately Operated	Top Performing Model
Operational Risks	Preferred	Neutral	Neutral	Publicly Owned & Publicly Operated
Ability to Meet Performance Objectives	Neutral	Neutral	Preferred	Publicly Owned & Privately Operated
Level of Administrative Overhead	Not Preferred	Preferred	Neutral	Privately Owned & Privately Operated
Accessibility and Quality of Service	Preferred	Neutral	Neutral	Publicly Owned & Publicly Operated
Suitability for a Potential Pilot Project	Not Preferred	Preferred	Not Preferred	Privately Owned & Privately Operated

Early-Stage Recommendation: Privately Owned and Operated

Stakeholder Consultation Summary - Meetings

- Core Project Team (3 meetings)
- Technical Advisory Committee
- Advisory Committees of Council
 - Cycling Advisory Committee
 - Accessibility Advisory Committee & Accessibility Transportation Subcommittee
 - Road Safety Committee
 - Traffic Safety Council
 - Environmental Action Committee
- Steering Committee

Stakeholder Consultation Summary

Community Engagement Opportunities

- YourSay Mississauga Page – launched February 28
- Online Survey – March 1 to March 25, 2022
- Public Open House – March 8, 2022

Stakeholder Consultation Summary – Key Takeaways

75% of survey respondents would use a shared micromobility system

The biggest concerns relate to improper parking and sidewalk riding

Shared micromobility is desirable to further support active transportation and transit initiatives

E-bikes and e-scooters are the preferred vehicle types based on survey responses

Study Next Steps

- Receive input from Council
- Begin work on Phase 2 (implementation plan) promptly
- Continue engagement with accessibility community, UTM, and other interested stakeholders to refine implementation plan

Thank You!



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of tomorrow

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