

WEST ROUGE AUTOMATED SHUTTLE

Online Public Information Session
September 14, 2021

toronto.ca/AVshuttle

Land Acknowledgment

We acknowledge the land we are meeting on today is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Huron-Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 signed with the Mississaugas of the Credit, and the Williams Treaties signed with multiple Mississaugas and Chippewa bands.



This meeting is being recorded for purposes of creating a meeting summary that will be shared with all meeting participants.

Project Team

Host:

Maogosha Pyjor, Senior Public Consultation Coordinator

Welcome: Councillor Jennifer McKelvie

Presenters: Transportation Services, City of Toronto

- Ryan Lanyon, Manager Strategic Policy & Innovation
- Jennifer Niece, Senior Project Manager

Metrolinx:

- Josh Tzventarny, Senior Advisor Transit Integration
- Ian McNeil, Transportation Planner

Toronto Transit Commission:

- Sierra Buehler, Senior Planner, Systems & Policy

Opening Remarks

Councillor Jennifer McKelvie
City of Toronto, Ward 25
Scarborough-Rouge Park



Agenda

- | | |
|------------------|---|
| 7:00 p.m. | Welcome and Introductions |
| 7:05 p.m. | Webex Instructions |
| 7:10 p.m. | Presentation – West Rouge Automated Shuttle |
| 7:40 p.m. | Question & Answer Period |

Code of Conduct

Be Patient:

Virtual meetings don't always run as smoothly as planned.

Be Brief:

Limit yourself to one question or comment when called on to speak.



Be Respectful:

The City of Toronto is an inclusive public organization. Discriminatory, prejudicial or hateful comments and questions will not be tolerated and you will be removed from the meeting.

We want to hear from you – all questions are good questions!

WebEx Audio Trouble?

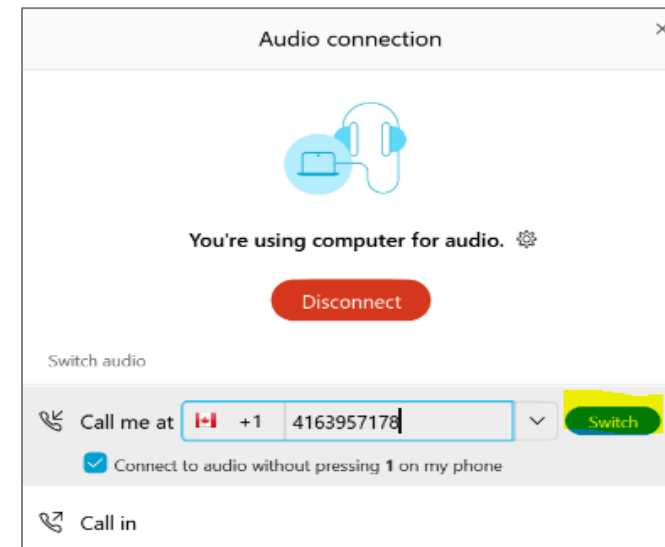
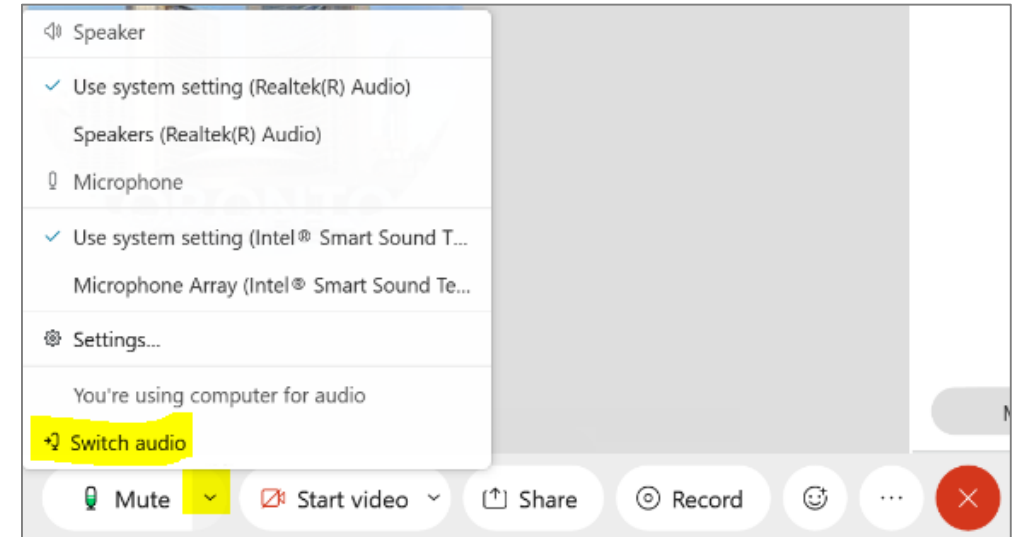
Webex can call you!

1. Click **the arrow** beside your mute button

2. Click **“Switch audio”**

3. Use **“Call me”** function

- Enter your phone #
- Webex will call your phone
- No long distance charges



Still not working? Try This!

Call Into the Meeting

Dial: 416-915-6530

When prompted for a meeting number enter:

177 091 4128

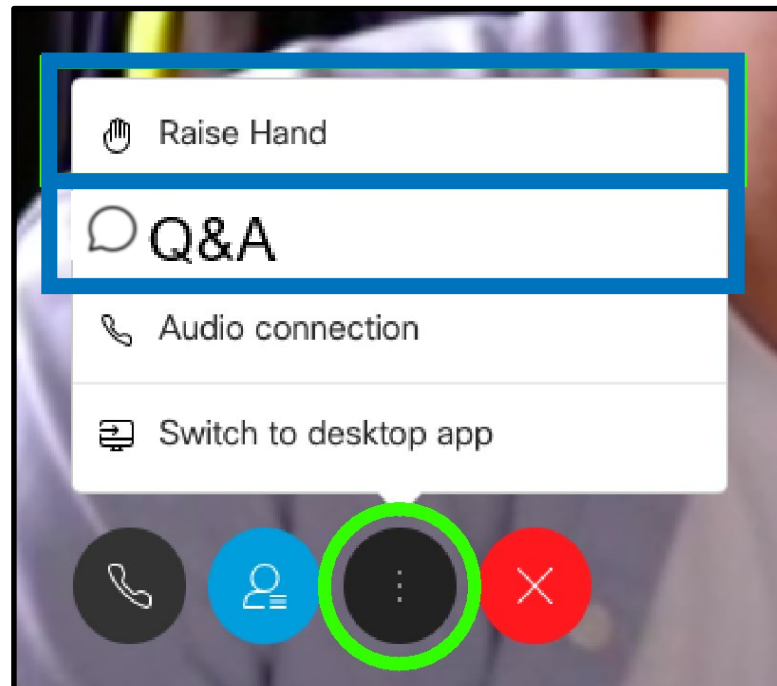
Participating by Computer

**Raise your
hand or
type your
question**



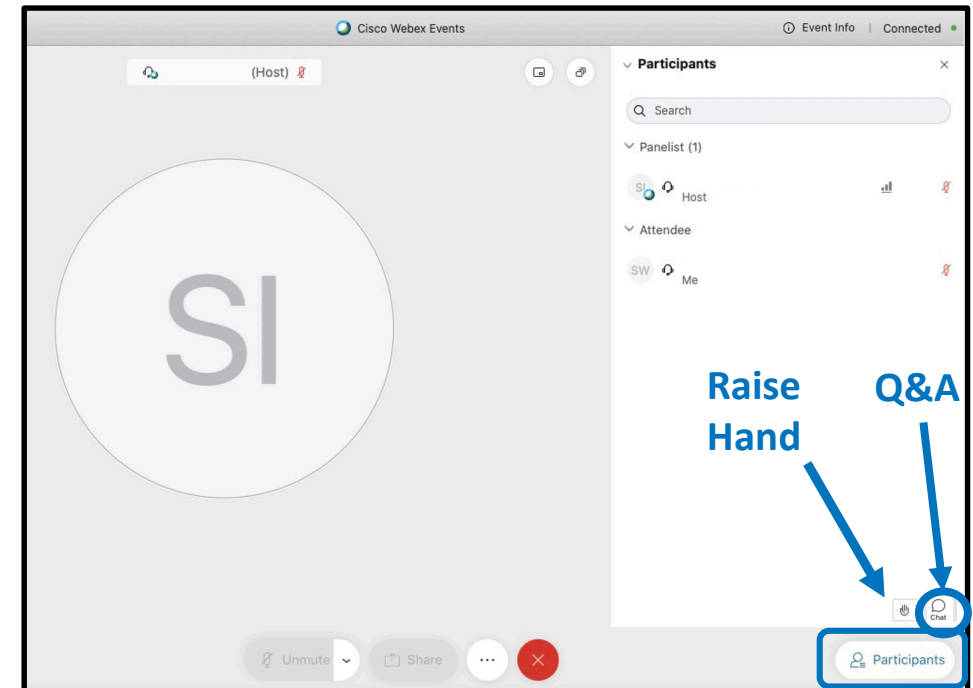
Via the internet browser

Click the “...” button at the bottom of the video window and select “Raise Hand” or “Q&A”.



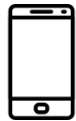
Via the Webex App

Click the Participants button at the bottom of the video (the Participants panel will open to the right). Then click the “Raise Hand” or “Q&A” button at the bottom right.



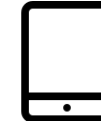
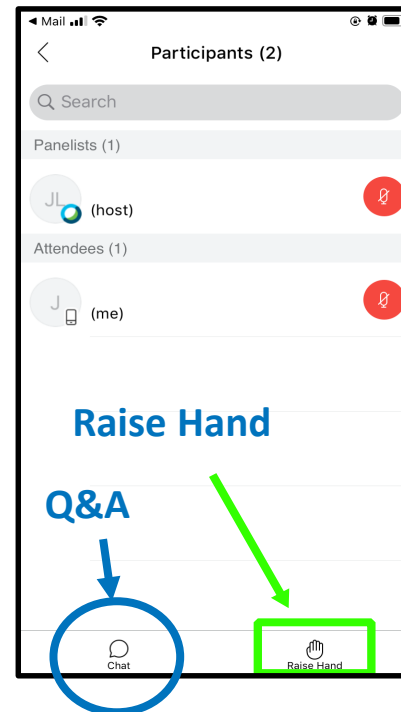
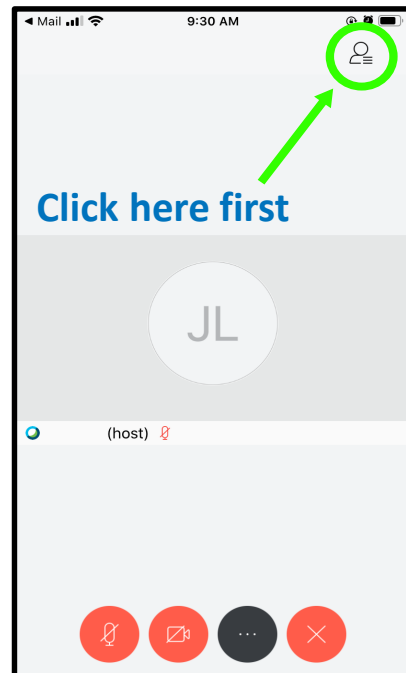
Participating by SmartPhone or Tablet

**Raise your
hand or
type your
question**



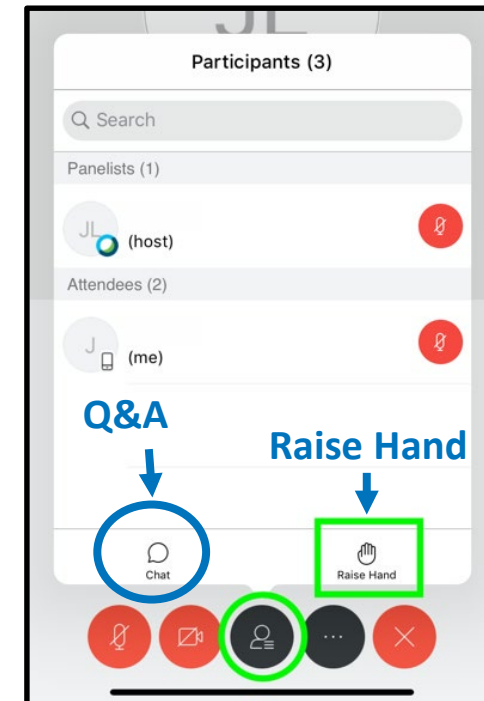
For smartphones

Click the Participants panel button at the top right corner of the screen. Then click “Raise Hand” or “Q&A” at the bottom right of the screen.



For tablets

Click the Participants panel button at the bottom of the screen. Then click the “Raise Hand” or “Q&A” button at the bottom right.



Raising your hand by phone

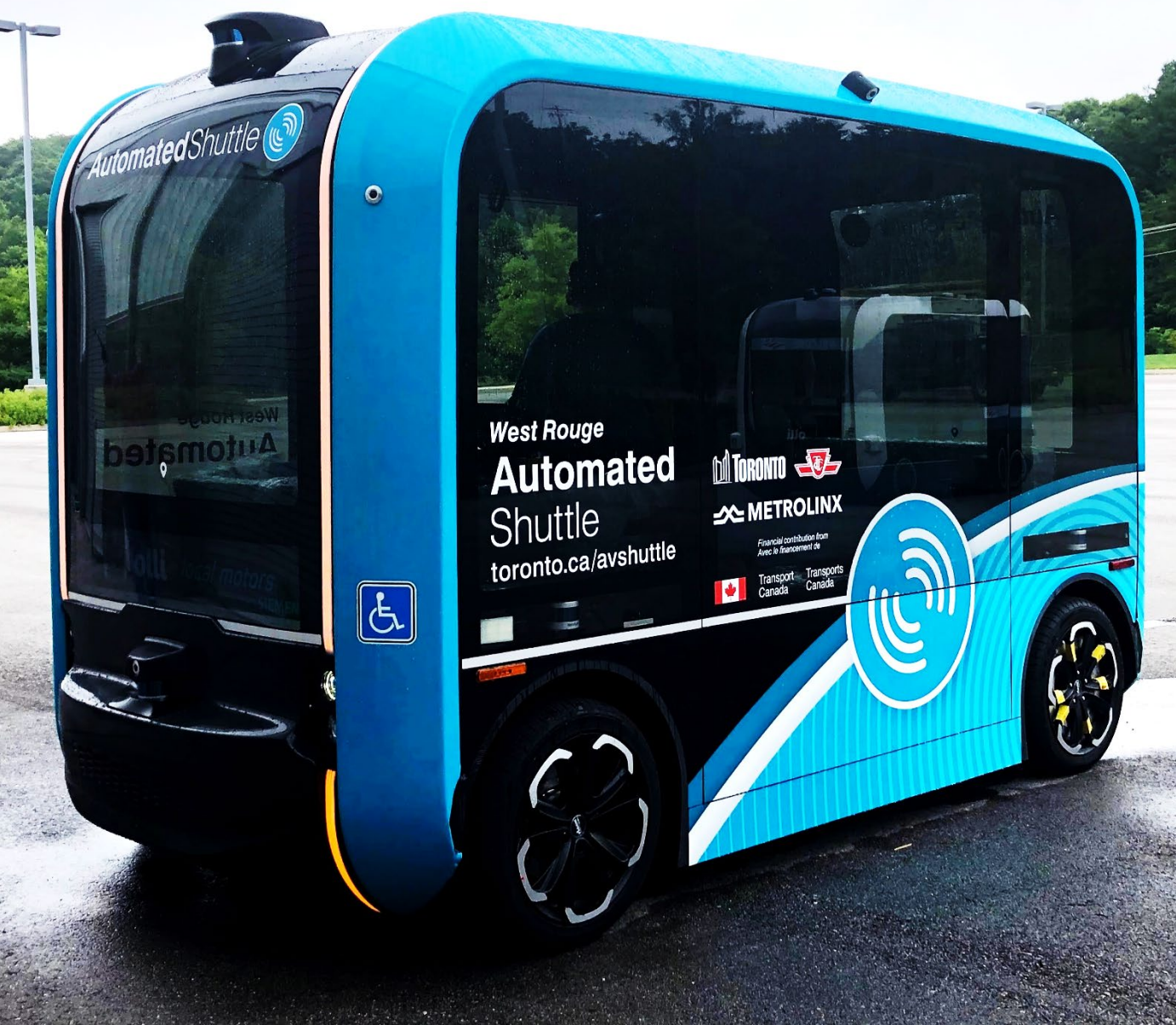


- To raise your hand virtually, **key in *3.**
- The Host will see a hand up beside the last four digits of your phone number
- During the Q&A period, the Host will unmute you and let you know that you can speak

Questions & Answer Period

How to Participate

- **By Phone** - To raise or lower your hand virtually, **key in *3**.
- **By Computer** - Click the Participants button at the bottom of the video (the Participants panel will open to the right). Then click the “Raise Hand” or “Q&A” button at the bottom right.
- **For smartphones** - Click the Participants panel button at the top right corner of the screen. Then click “Raise Hand” or “Q&A” at the bottom right of the screen.



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West Rouge Automated Shuttle Trial: Project Overview

- Advance work to be proactive in planning for Automated Vehicle (AV) technology
- Short term, limited-service trial to understand:
 - Use of AVs to address gaps in the transit system
 - How AVs operate in mixed traffic
 - Public perception of AVs (as road users, riders)
- Connecting West Rouge community to Rouge Hill GO Station
- Consultation began in 2019 and has been on-going



Funding provided by:



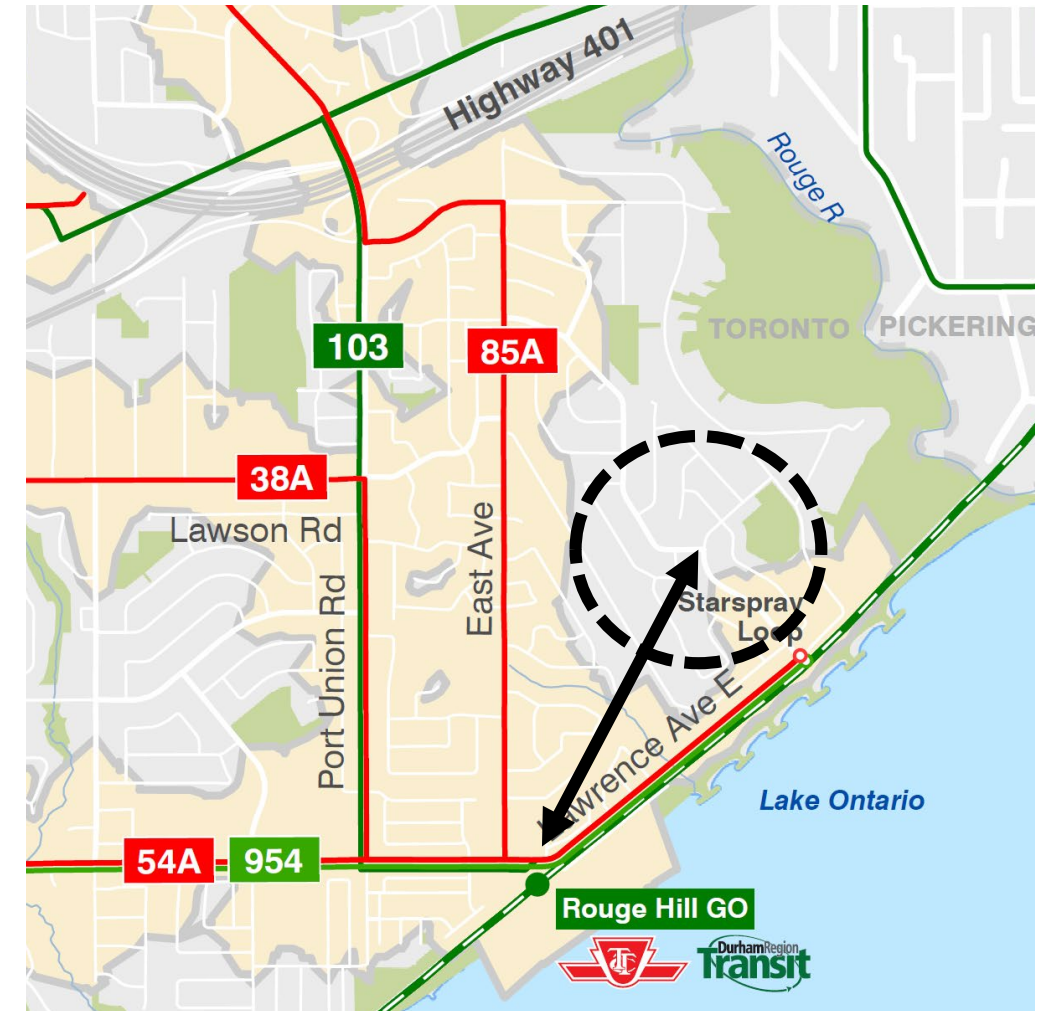
Transports
Canada

Transport
Canada

Why We Chose West Rouge

Fills a current unmet need:

- Potential transit riders outside of the existing TTC 400m service area
- Close proximity to a major transit hub (GO / TTC / Durham Region Transit)
- Many Rouge Hill GO Station users currently drive to the station
- Addresses route technical requirements



- Inside TTC 400m catchment area
- Outside TTC 400m catchment area
- TTC local route
- TTC express route
- Durham Transit route
- GO rail

Recap of 2019 Consultation

Public Consultation at West Rouge Community Centre + Community Survey

- Introduction of project
- Feedback on routes
- Survey perceptions of automated vehicles and of the project concept

Survey Results

- 467 respondents; 134 from West Rouge
- 78% supported the project idea
- 44% had concerns about automated vehicle safety
- 66% of survey respondents said they would “very likely” try the shuttle if there was a stop near their house

Common Theme among West Rouge Respondents:

- *Overall positive interest in the potential for a convenient option to **avoid driving**, and **not have to compete for parking** at the overcapacity GO station parking lot*



Automated Shuttle Trial: Service Concept



Free weekday peak hour service to GO Station



Free weekend service GO Station to Rouge National Park and West Rouge Community Centre



Schedule aligned to GO Train connections



Fixed route and fixed stops



Operator (AutoGuardian by SmartCone)



Ride booking service



Automated Shuttle Trial: Vehicle Olli 2.0



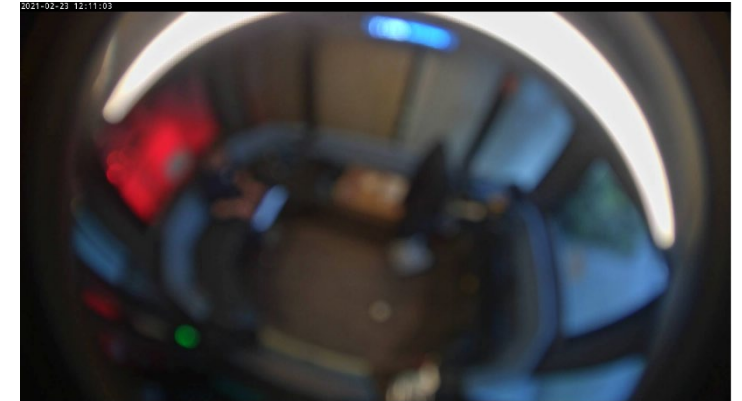
Olli 2.0 by Local Motors

- Sensing using lidar, radar
- On-board attendant all the time who can drive manually when needed
- Electric, zero-emissions
- Low speed (20km/h)
- 8 seats
- ~4m x 2m
- Mobility ramp with side guards, wheelchair securements (1)
- Announcements inside & outside vehicle

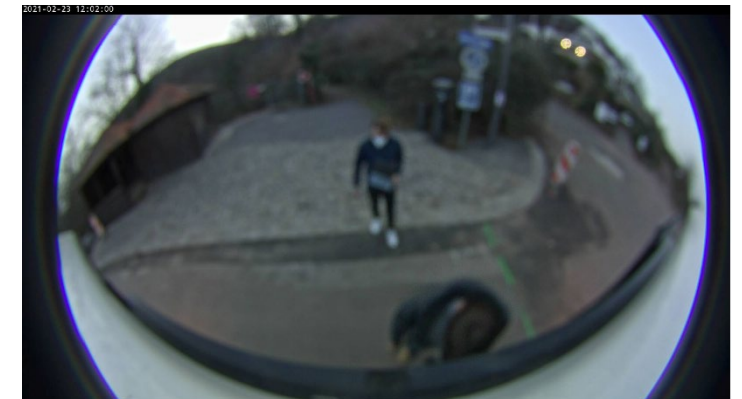
Sample video showing Olli 2.0 interacting in mixed traffic and demo environment. <https://www.youtube.com/watch?v=UYKCLkvB6mE&t=1s>

Shuttle Vehicle Olli 2.0 – Cameras and Privacy

- Olli 2.0 uses cameras both inside & out to collect footage of operations
- Purpose is for liability and learning
- **For Privacy of Community and Riders:**
 - Cameras are blurred during manufacture
 - Shape and colour can be determined but no facial features, house numbers, license plates etc.



Inside Olli



Outside Olli

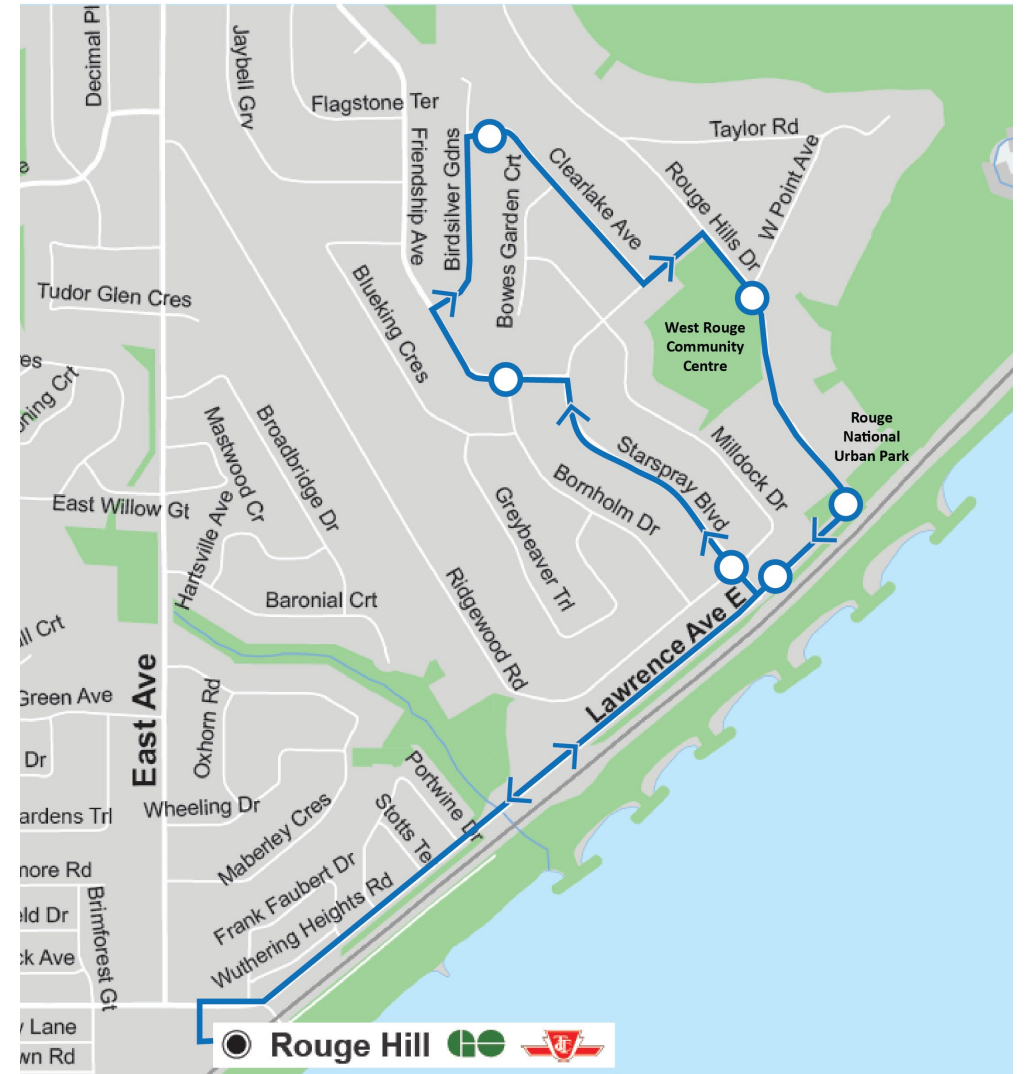
Where has Olli been deployed before?

- Berlin, Germany
- Buffalo, New York
- Joint Base Myer-Henderson Hall, Arlington, VA
- City of National Harbour, MD
- GoMentum Station, Concord, CA
- Peachtree Corners, GA
- Goodyear Tire, Akron, OH
- City of Rancho Cordova, CA
- Swiss Federal Railways, Zug, Switzerland
- City of Holdfast Bay, Adelaide, Australia
- City of Turin, Italy
- And other deployments....



Trial Routing – Weekday Peak Periods

- Connects West Rouge to Rouge Hill GO Station, outside of 400m walk to transit
- Route designed and scheduled to connect with peak-period/peak direction GO trains
- Shuttle arrives in Rouge Hill GO bus loop
- Stops pads have asphalt connecting the curb to the existing sidewalks

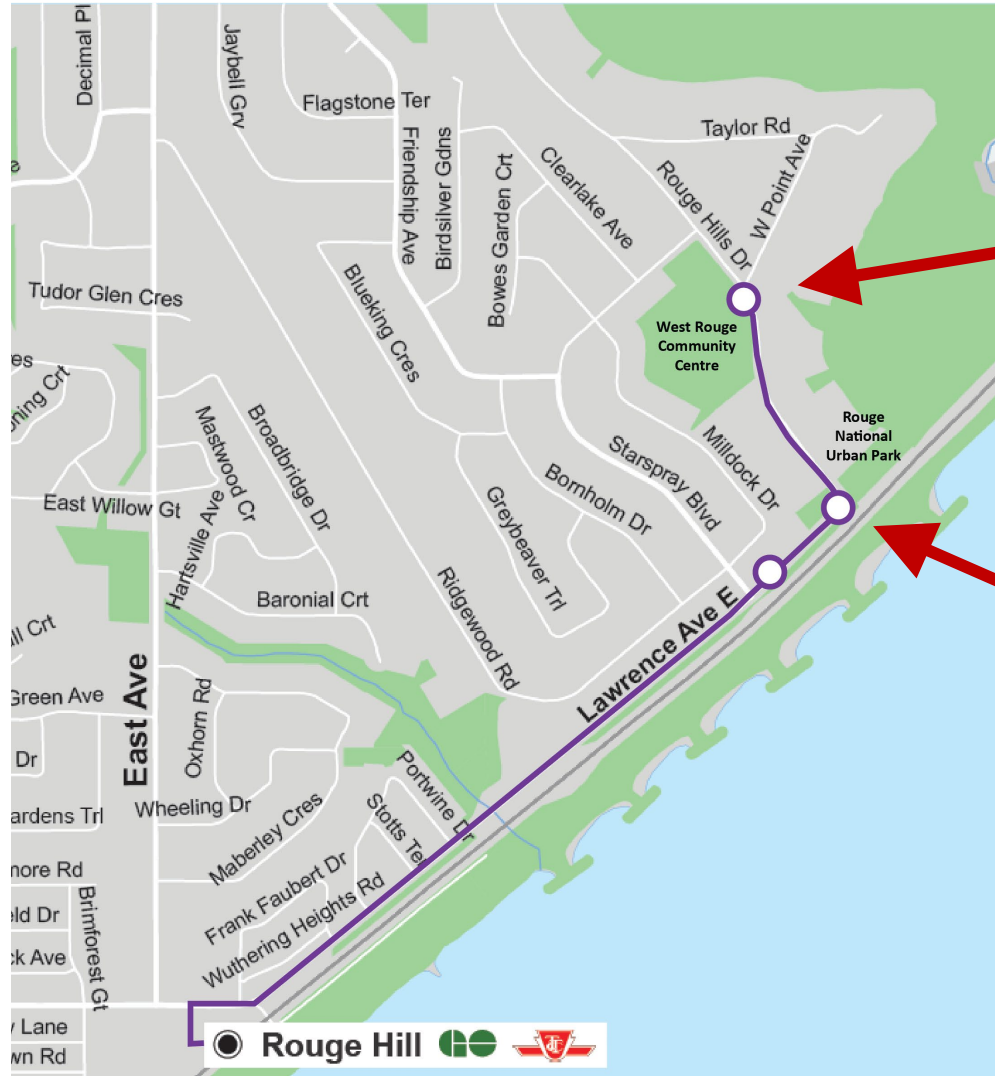


Stop Selection Principles

- Maximize number of customers who can access within a 5 minute walking radius, considering the length of route feasible for the vehicle
- Minimum 4 meter length for accessible platform, connecting to sidewalk for continuous safe travel from bus platform
- Avoid driveway conflict



Trial Routing – Selected Weekends

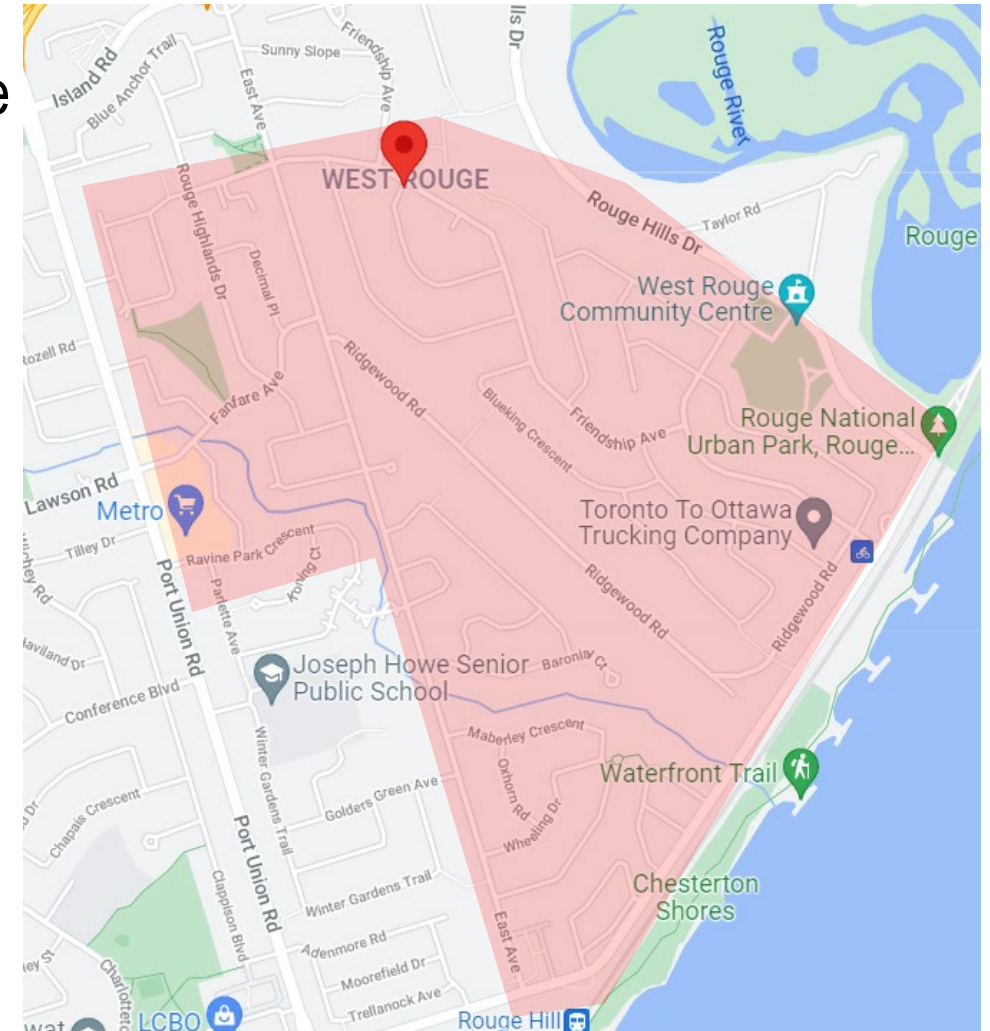


West Rouge
Community Centre

Rouge National
Urban Park

Travel to/from Storage Area - Manual Mode

- Shuttle will travel in manual mode from storage to route
- May be seen on the streets in this area including:
 - Fanfare Ave
 - East Ave
 - Ridgewood Road
 - Kirkdene Drive
 - Rouge Highlands Drive
 - Friendship Ave



Infrastructure Changes – Stop Platforms



- Asphalt stop platforms will be removed/re-sodded after trial
- TTC stop markers to be replaced with AV Shuttle (blue)
- No standing signage to prevent blocking shuttle

Infrastructure Changes – Safety With Other Road Users



Caution Signage

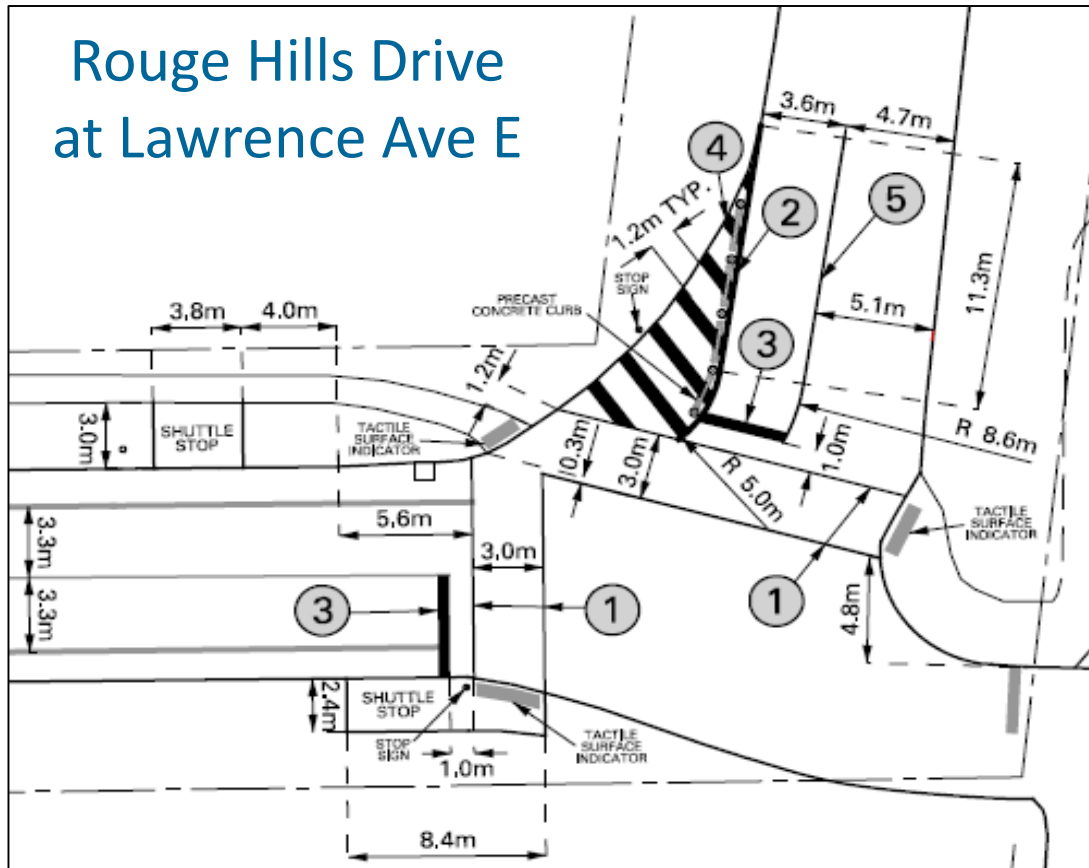


Passing to be allowed along
Lawrence

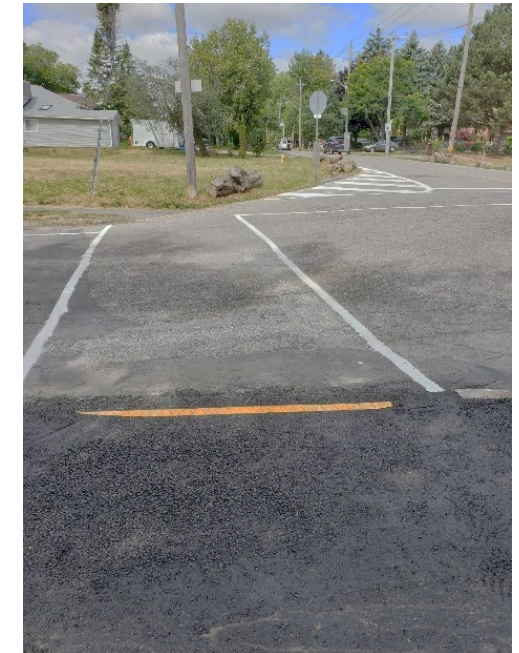
(Frank Faubert to Starspray)

Infrastructure Changes – Pedestrian Crossing Improvements

Rouge Hills Drive at Lawrence Ave E



Narrow intersection
for shorter crossing
distance



Pedestrian Crosswalks &
Ramp to south-side
shuttle stop

Next Steps

September – October 2021 Mapping and Testing Activity:

- Expect to see shuttle operating on road at various times of day throughout the week and weekends
- This activity helps the shuttle memorize its route and where to stop, and to calibrate things like speed, field of view and other items that can be customized for certain areas of the route

“Meet the Shuttle” event: September 25 at West Rouge Community Centre

- Come view the shuttle up close and ask staff questions about the technology and the West Rouge shuttle project
- Targeted to residents in the local neighbourhood; promotion/registration info through local channels only
- Pre-booking required for 20 min time slots

Launch of Passenger Service:

- Will begin following completion of on-road testing
- Trip bookings required to minimize COVID-19 exposure for passengers and staff, and enable informing passengers of any service disruptions. Booking option will be available on-line closer to the time of passenger service.

On-Going Evaluation

How Can You Be Involved?



Complete a Survey:

- Inviting survey panel members to complete 3-4 surveys over the course of the project (neighbourhood residents)
- Single survey submissions (all welcome including neighbourhood residents)
- Passengers will also be encouraged to complete surveys about their experience



“Meet the Shuttle” event

- Intended for local residents. Sept 25th at WRCC



Take a Ride! (launch event and passenger service)

- Advance booking will be required. Check www.Toronto.ca/avshuttle



Questions?

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Jennifer.Niece@toronto.ca

toronto.ca/AVshuttle