

# YORK REGION READINESS FOR TRANSPORTATION TECHNOLOGY ADVANCEMENTS

Presentation to  
Transformative Transportation '20  
iCity-CATTS Symposium  
June 3, 2020

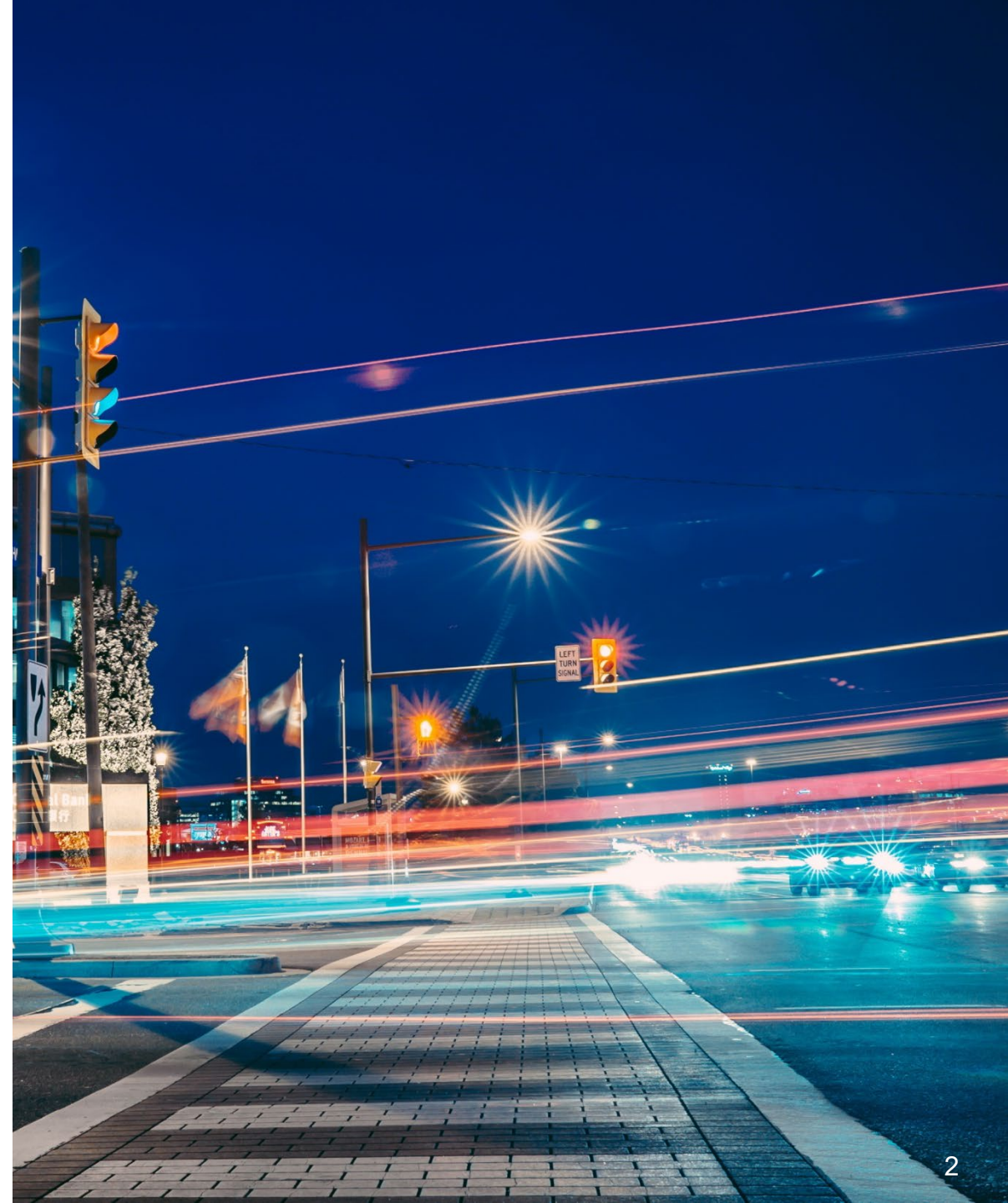
**LAUREN CRAWFORD**  
Manager of Transportation Long-Term Planning





# OUTLINE

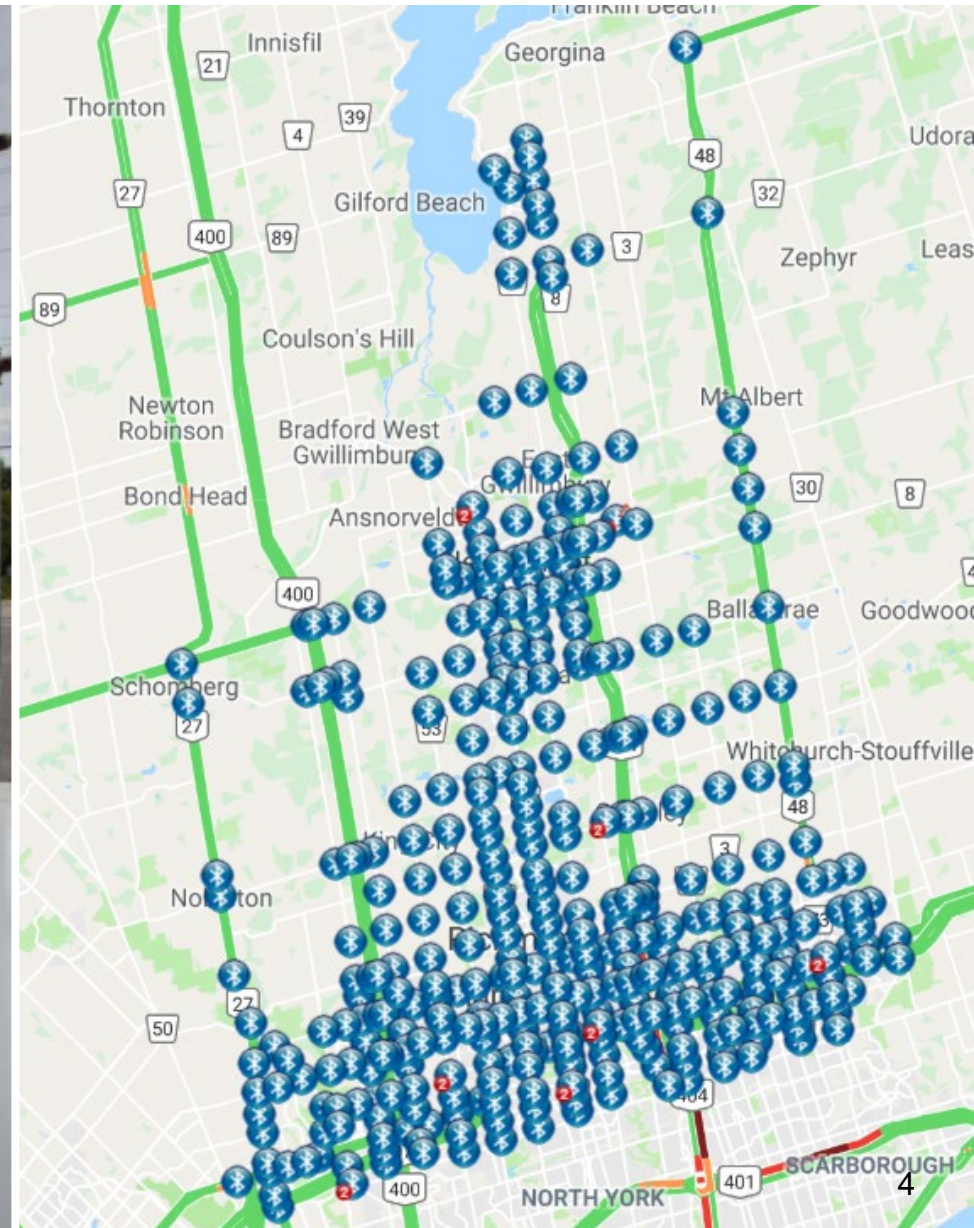
- Update on York Region Initiatives
- Implementing new technologies
- Monitoring impacts of challenges
- Exploring opportunities in TMP Update
- Summary



# UPDATE ON YORK REGION INITIATIVES



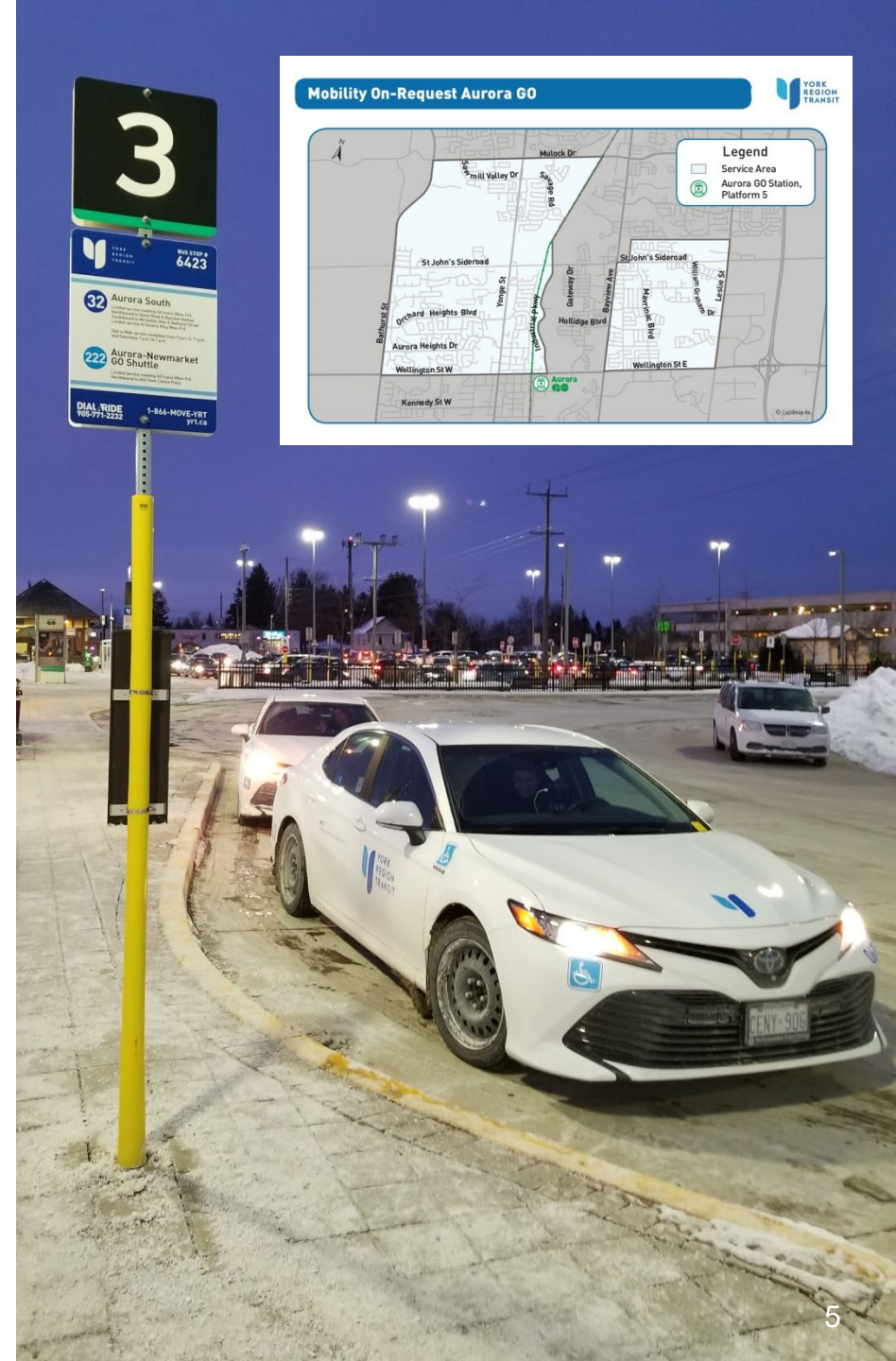
# BLUETOOTH AND WI-FI TRAFFIC SENSORS



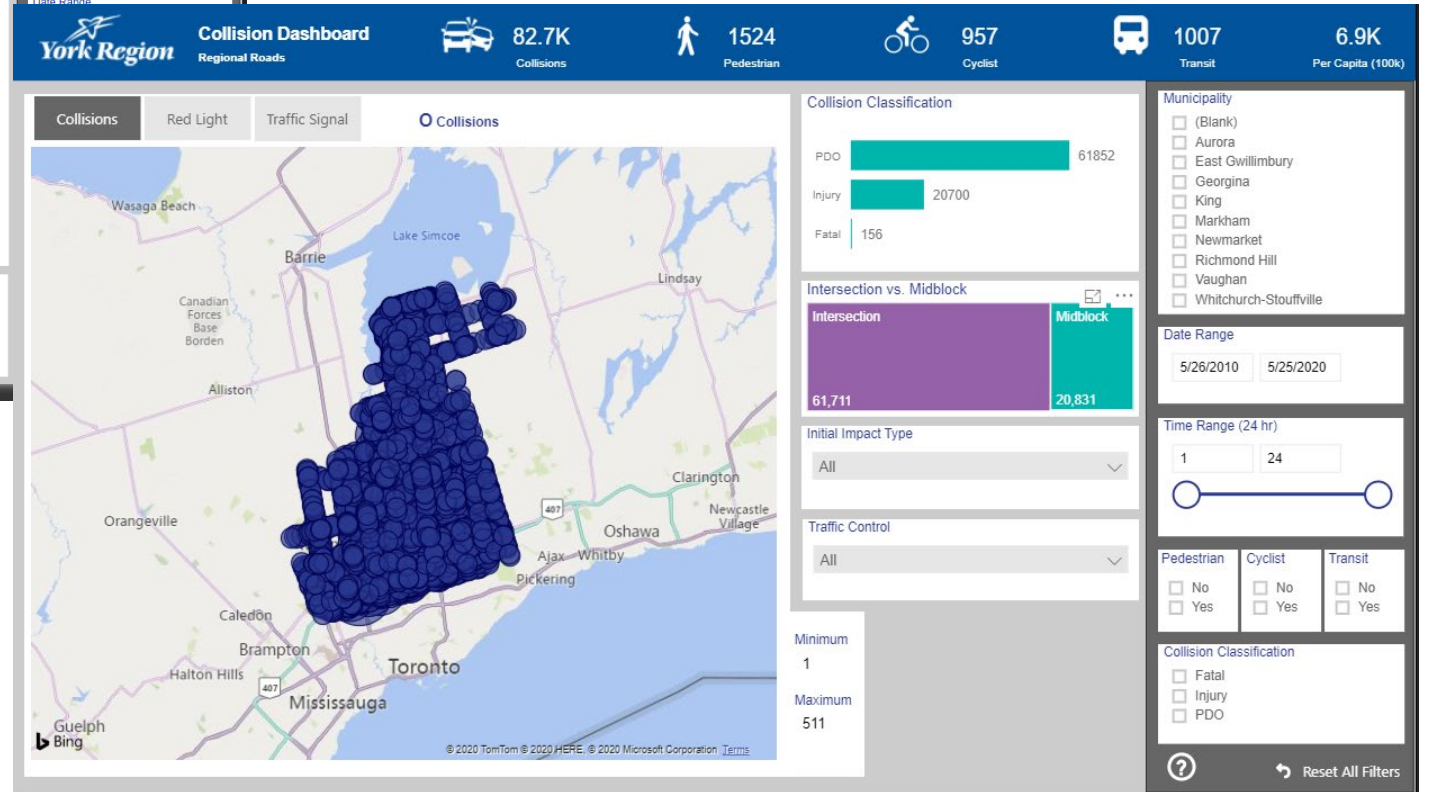


# MOBILITY ON-REQUEST - AURORA GO

- YRT launched MOR during peak hours in February 2019 with 2 vehicles and had an average ridership of 11 passengers per day
- By January 2020 ridership increased to an average of 85 passengers per day
- Trip length is averaging about 3.15 km per trip
- Passengers are using the New MOR Transit App and book directly from their mobile device



# TRANSPORTATION DATA WAREHOUSE



# IMPLEMENTING NEW TECHNOLOGIES

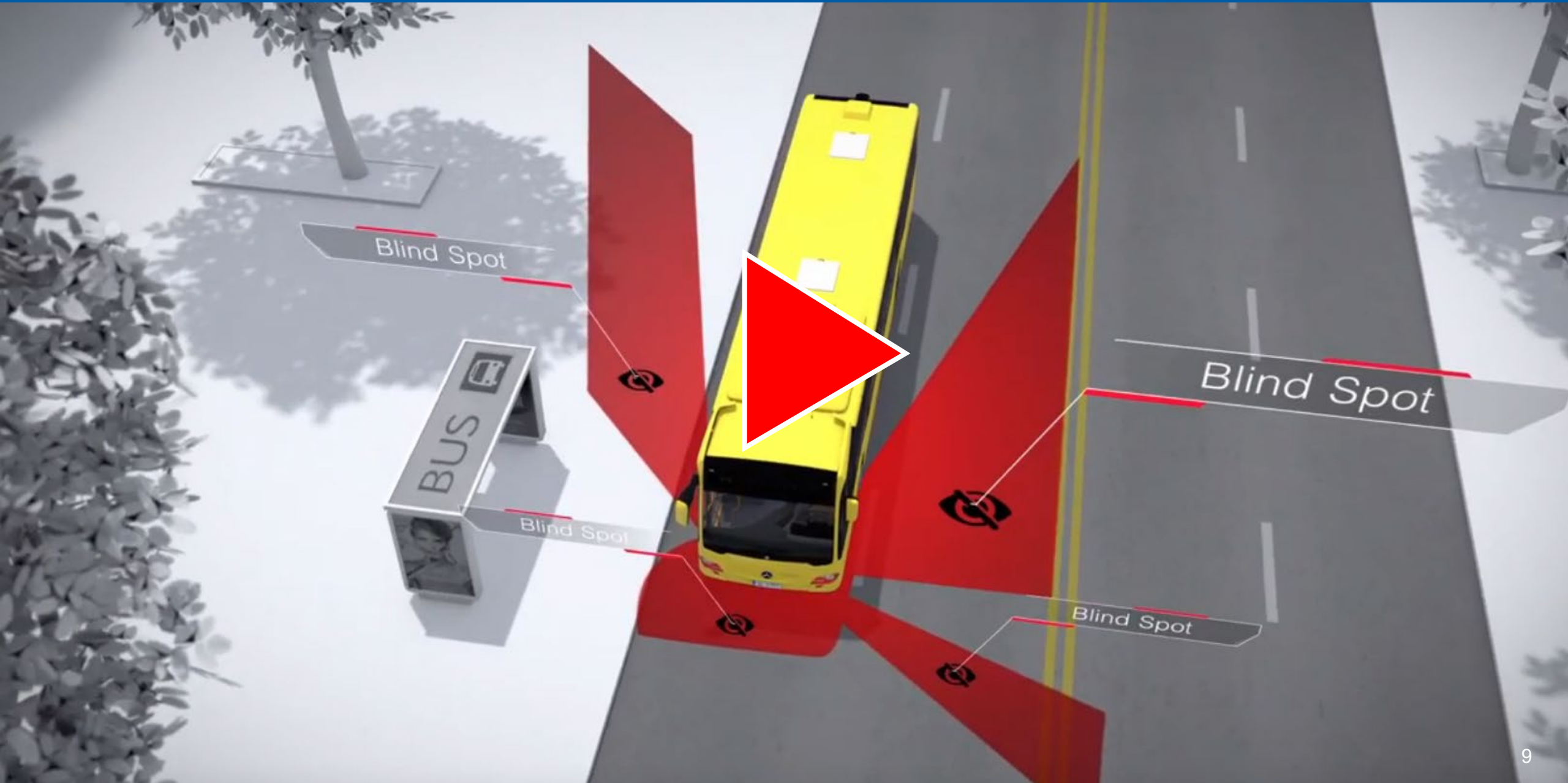


# DRIVER SUPPORT SYSTEM

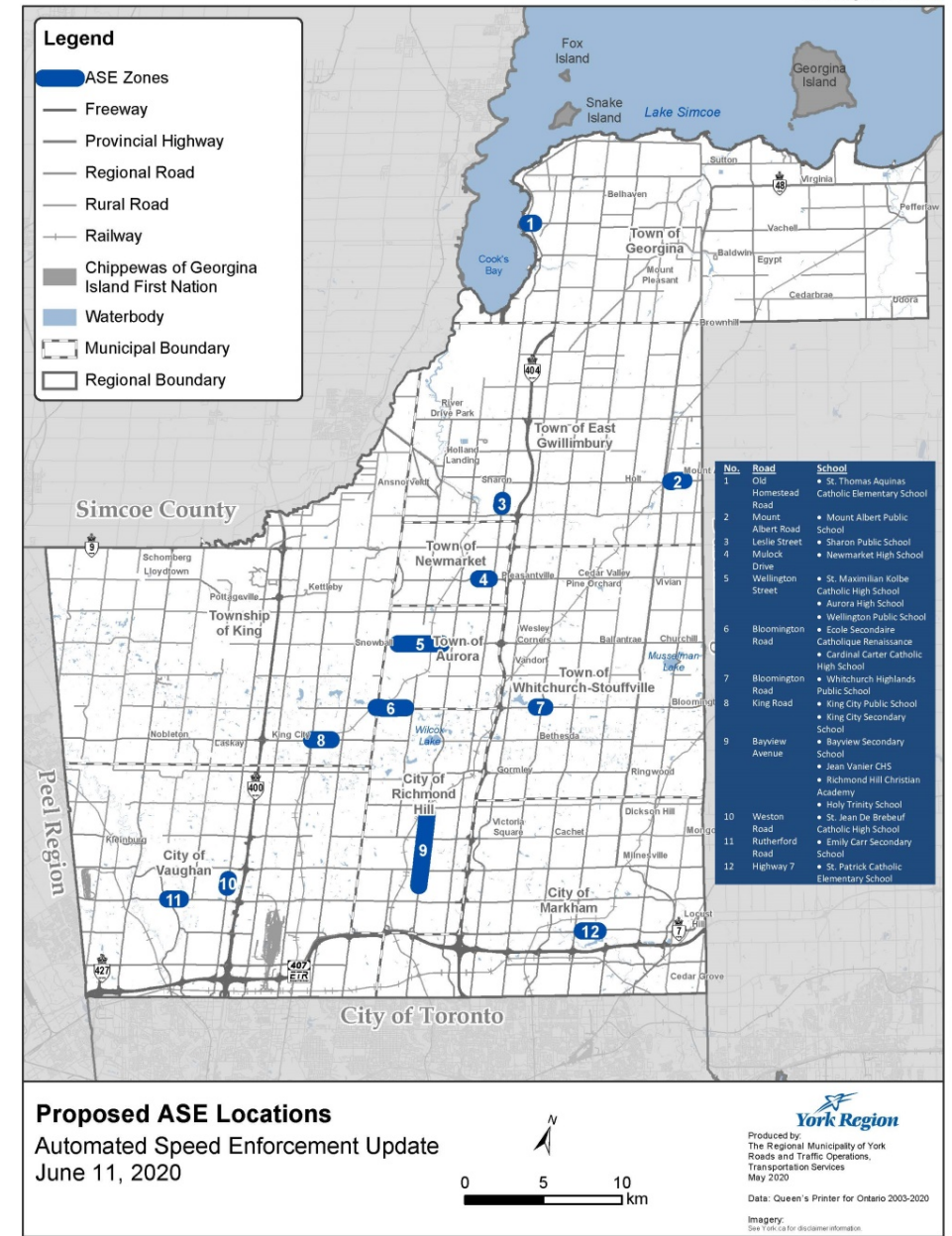




# PEDESTRIAN WARNING AND COLLISION AVOIDANCE SYSTEM (PWCA)



# AUTOMATED SPEED ENFORCEMENT



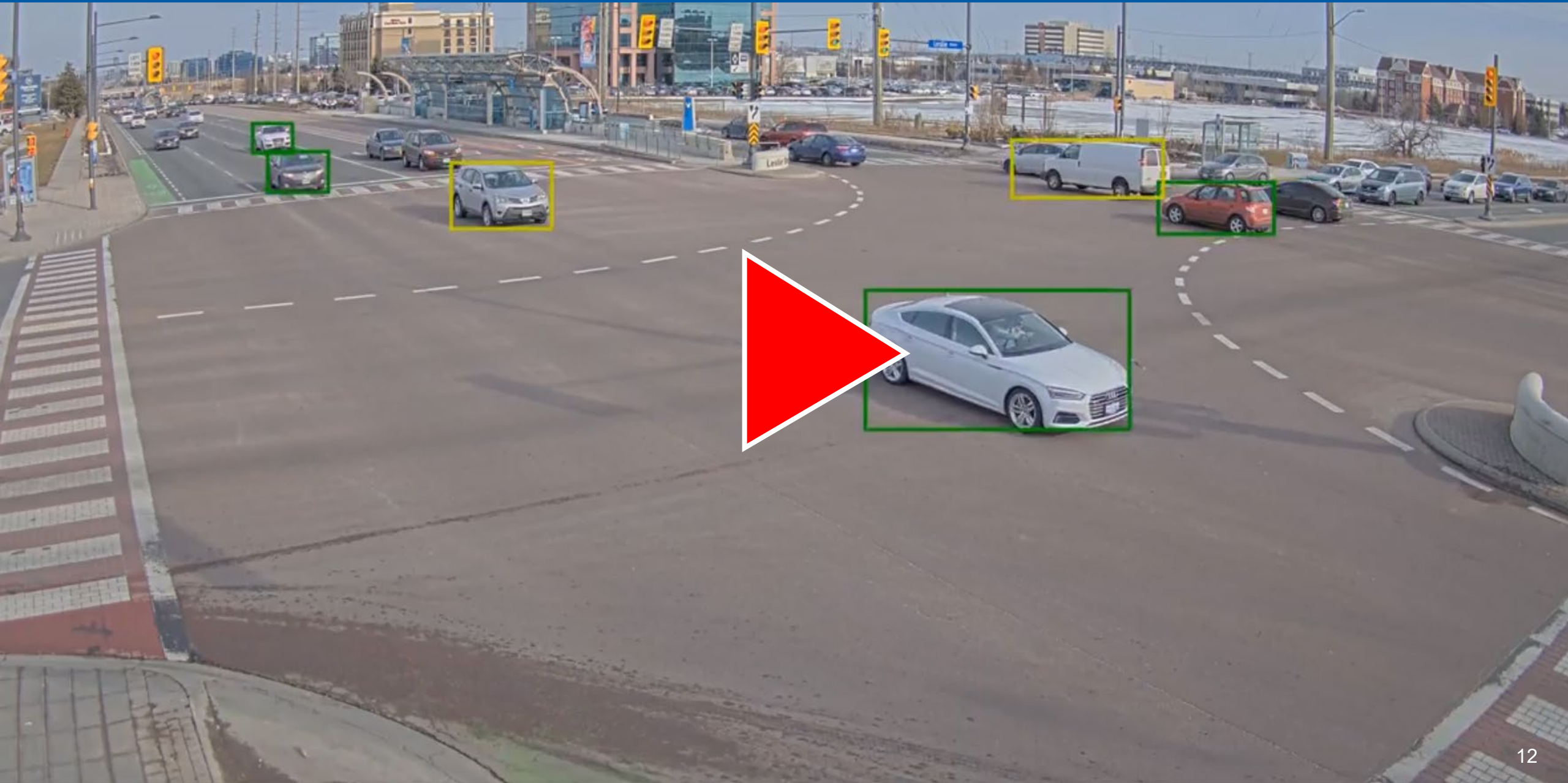


# SIGNAL PRE-EMPTION FOR EMERGENCY VEHICLES USING GPS RADIO





# HIGHWAY 7 – LESLIE VIDEO MONITORING

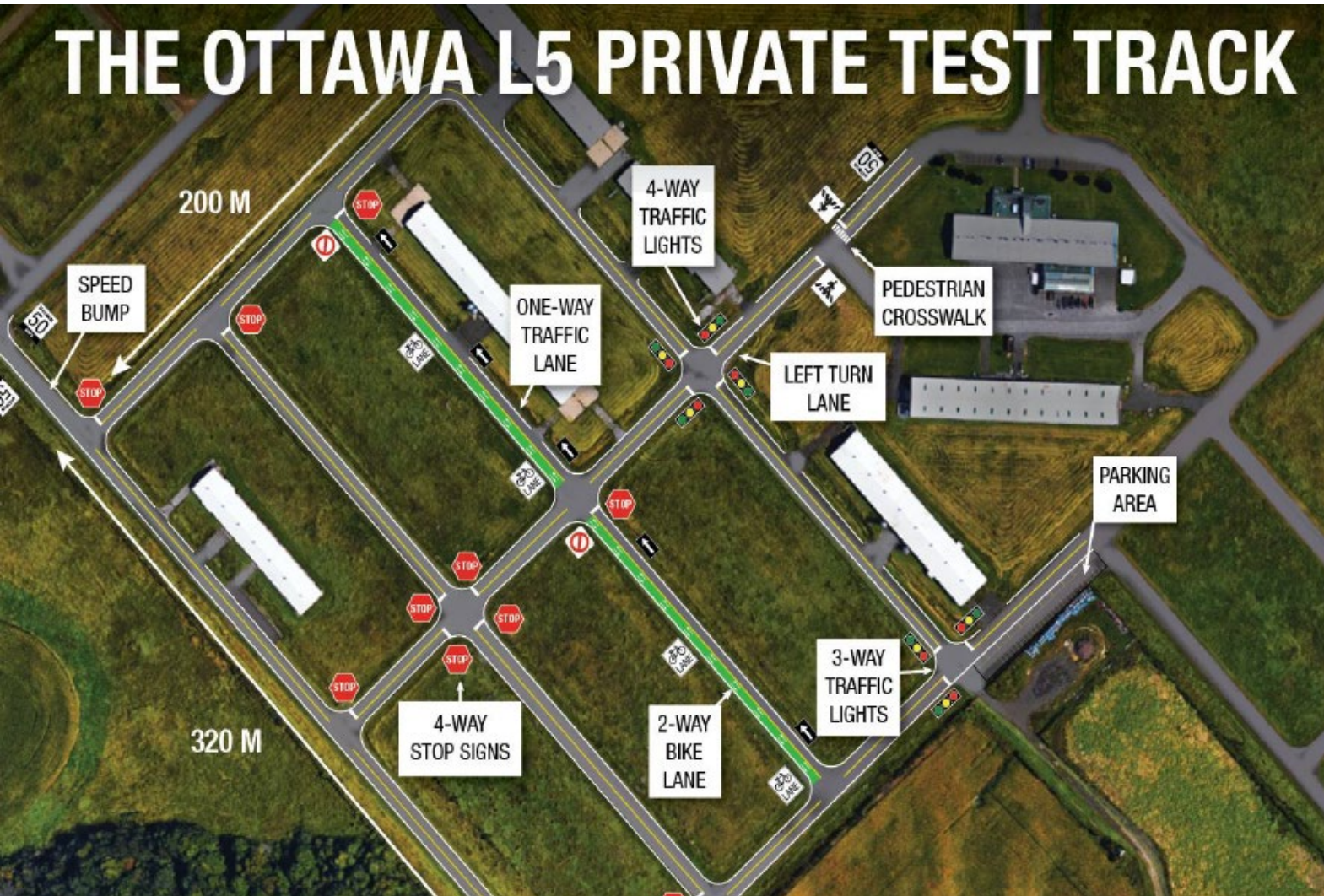




# MONITORING IMPACTS OF DISRUPTIONS

# OTHER MUNICIPALITIES ARE TESTING CAV AND INFRASTRUCTURE

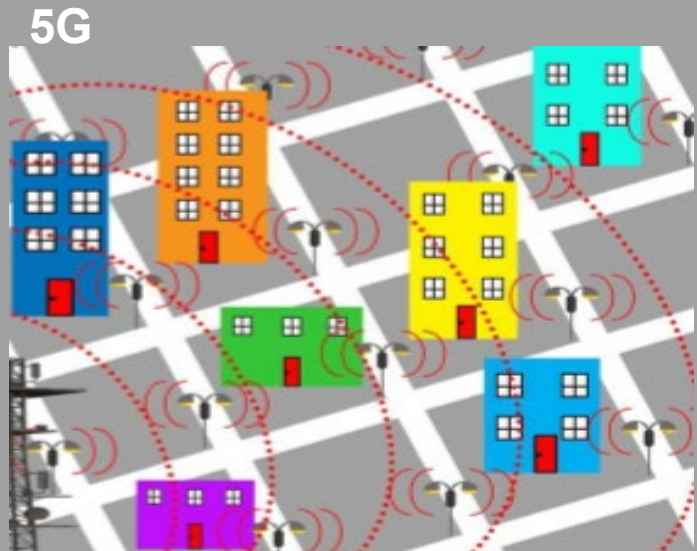
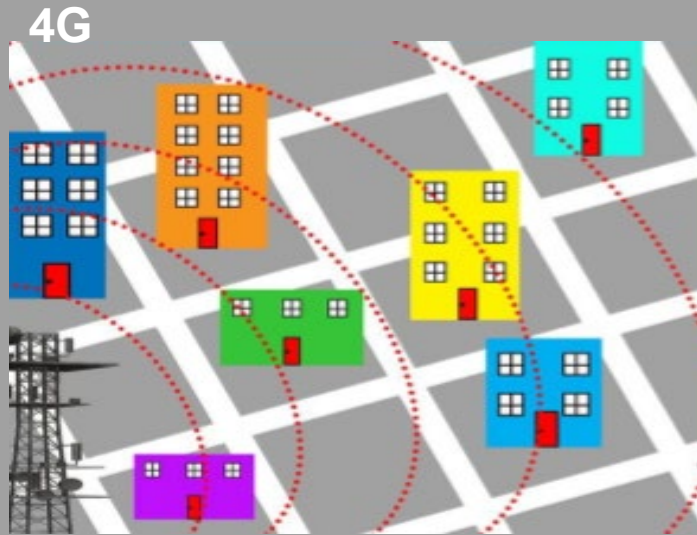
## THE OTTAWA L5 PRIVATE TEST TRACK



Exploring potential AV shuttles to and from GO stations in York Region



# TELECOMMUNICATION TECHNOLOGY EVOLUTION AND PRESSURES

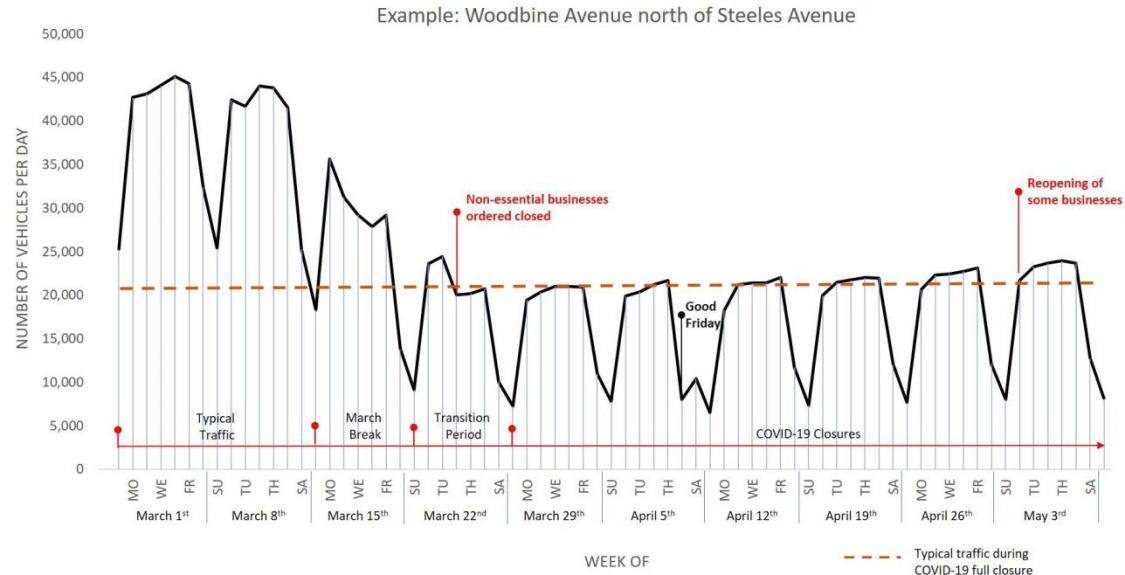


Weston and Colossus

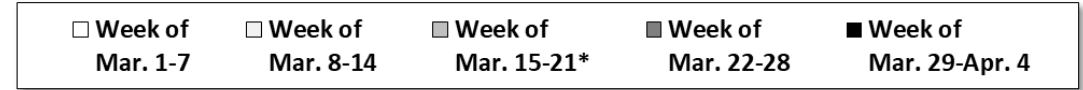


# COVID-19 IMPACTS

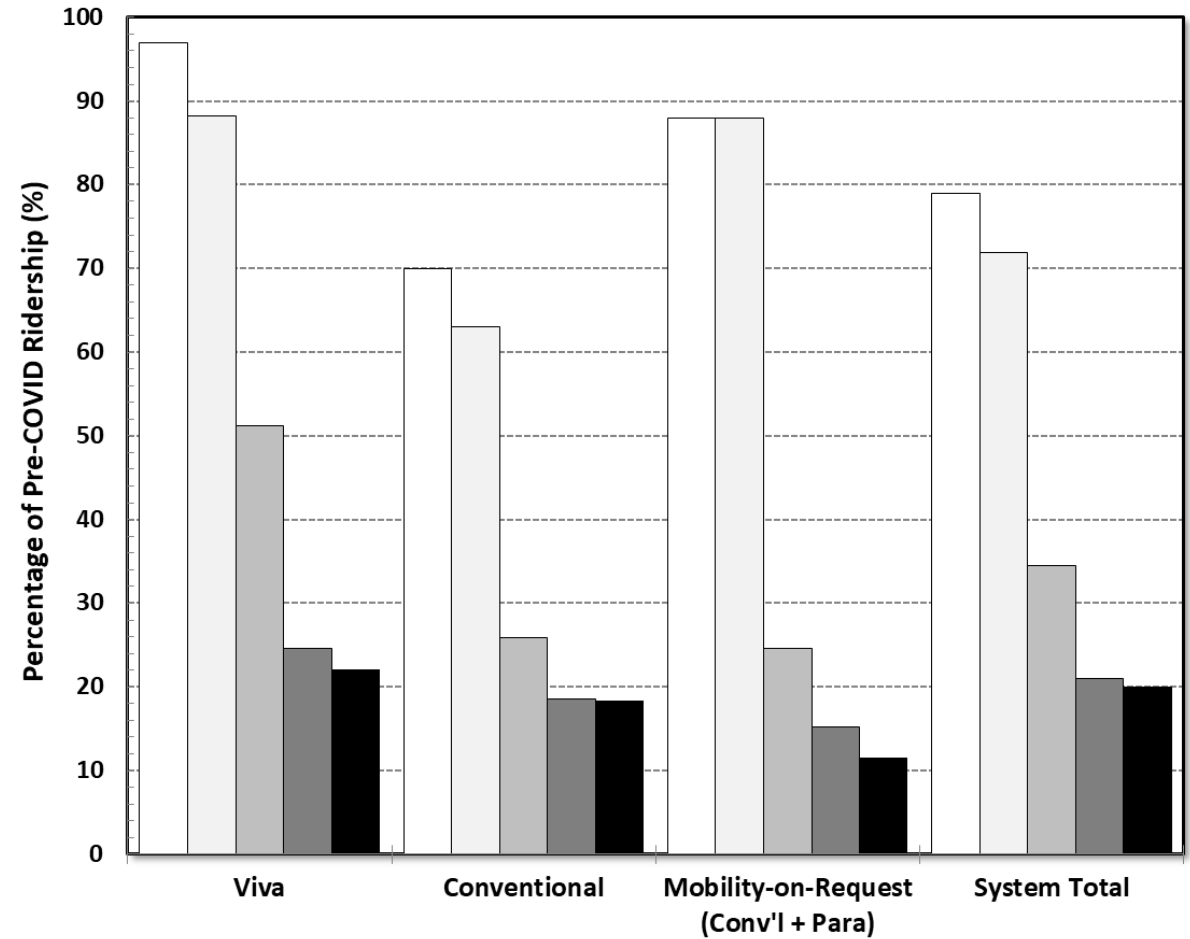
## YRT/Viva Weekday Service - Ridership Impact of COVID-19



Modes	Before COVID-19	During COVID-19	Change*
<b>Roads</b>			
Commuters/day	600,000	300,000	-50%
Traffic speed	45 km/h	55 km/h	22%
Collisions/month	956	360	-62%
Heavy trucks/day	29,000	29,000	0%
YRT/Viva/Mobility On-Request commuters/day	35,000	7,000	-80%
GO Rail commuters/day	14,000	1,400	-90%



\* Week coinciding with March





# UNCERTAINTIES

- Impact on how people travel
  - Short/mid-term travel behaviour changes
  - Long-term travel behaviour variations
  - Private Shared Mobility vs. Public On-Request Mobility
- Impact on where people live and work
- How to track and incorporate these changes into our modelling of future mobility

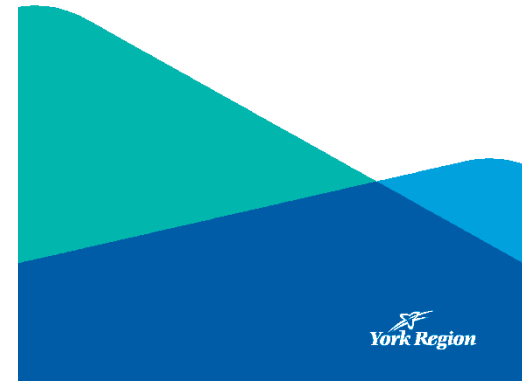
# EXPLORING OPPORTUNITIES IN TMP UPDATE



# TRACKING NEW TRENDS AND CHANGES

- Technology and other disruptions (such as COVID-19) are changing the way people and goods move
- Better understanding how these disruptions will impact York Region transportation system
  - Political shift of roles/responsibilities
  - Financial constraints
  - Economic implications
- Identifying of new needs and requirements (e.g. CAV, Autonomous Delivery, EV, Shared Mobility)

  
2020 TO 2022 BUDGET  
AS APPROVED ON DECEMBER 19, 2019



# ENSURE AGILE TMP MEETS CHANGING NEEDS OF OUR COMMUNITY



Flexible and agile



Advocate for  
major transportation  
initiatives



Deliver  
Transportation Projects  
Sustainably



Responsive to external  
projects and opportunities



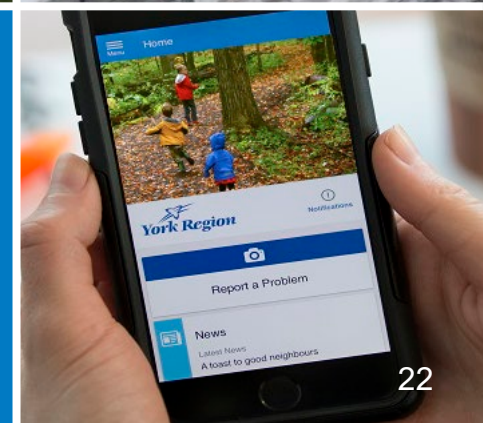
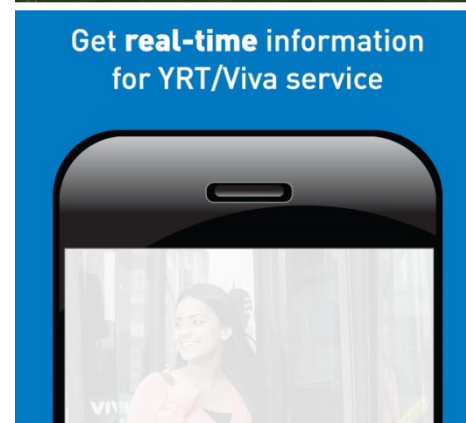
Use a variety of tools to  
engage our diverse  
communities



# SUMMARY

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- Continue to partner and pursue collaboration opportunities
- Monitor and measure the success of pilot project
- Deployment of field operations from pilot projects
- Review TMP to incorporate policies and guidelines on technology advancement





# THANK YOU

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