



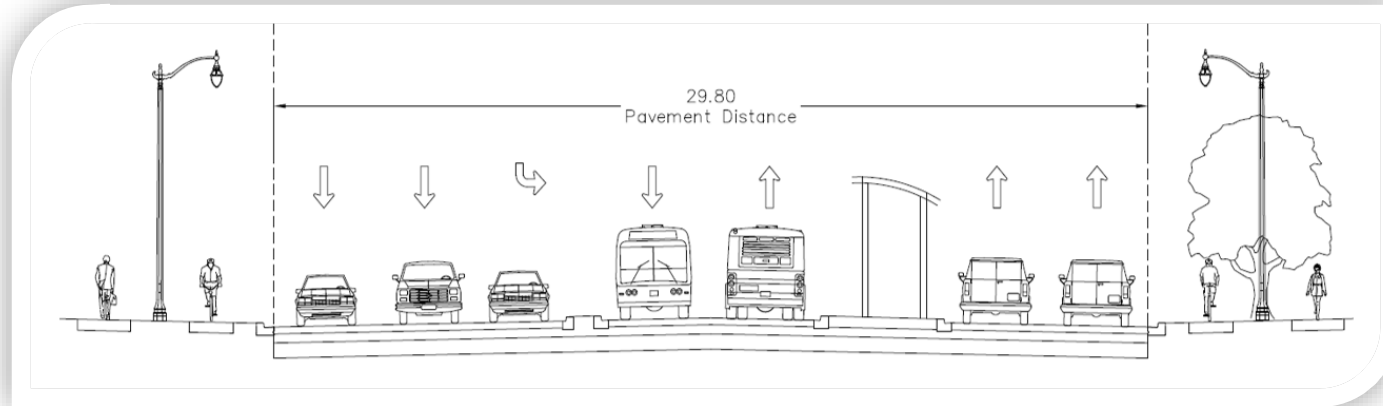
Durham Scarborough Bus Rapid Transit & Simcoe Street Rapid Transit Update

Durham-Scarborough Bus Rapid Transit (DSBRT)



- The Metrolinx led TPAP is complete for the 36km BRT corridor
- Preliminary Design Business Case (PDBC) is currently in progress

Durham-Scarborough Bus Rapid Transit (DSBRT)



- Median BRT lanes
- Median bus shelters
- Active transportation facilities



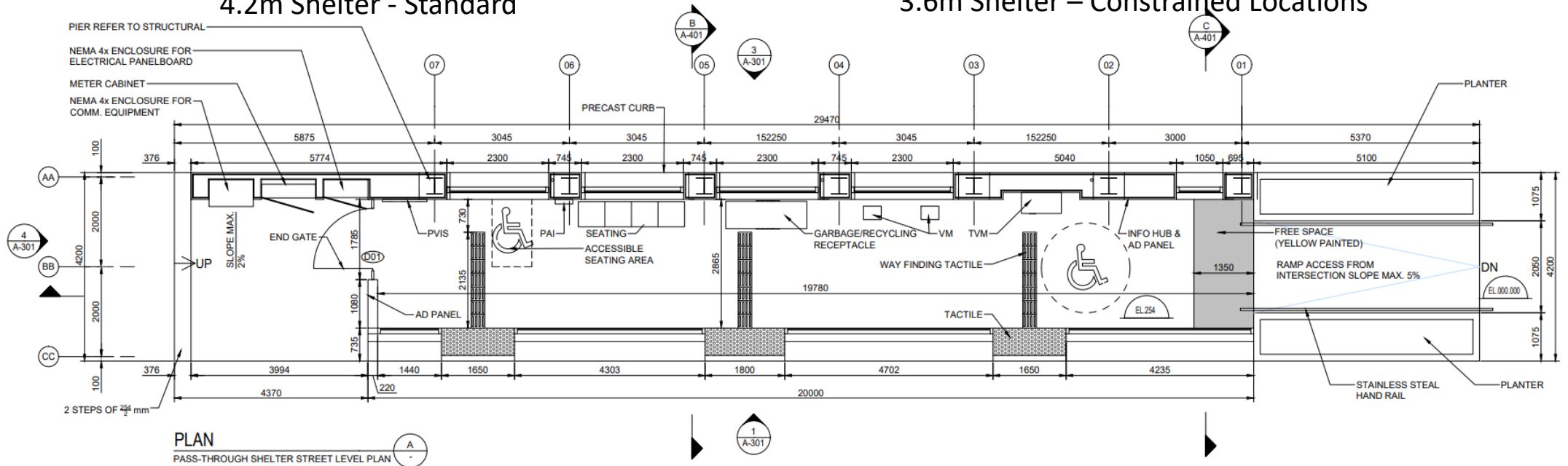
Median Shelter Design



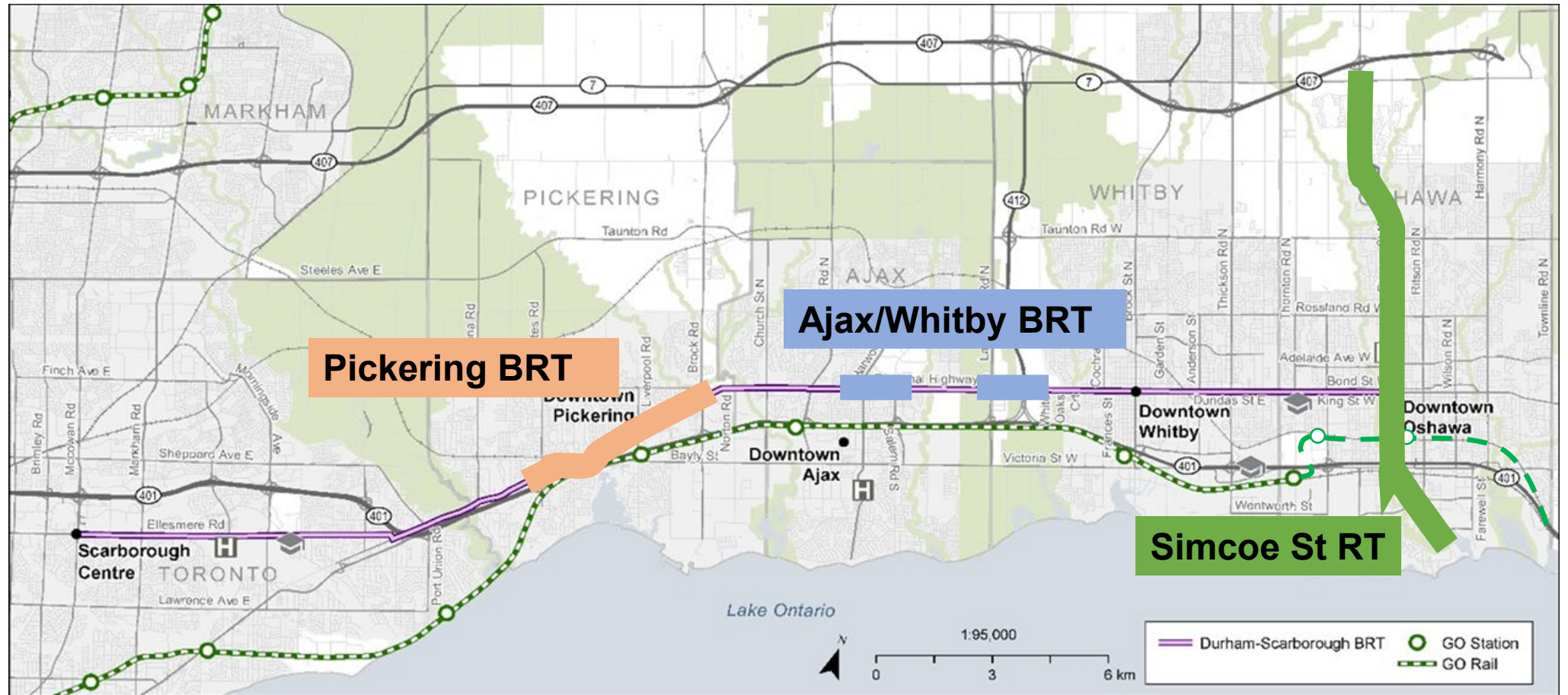
4.2m Shelter - Standard



3.6m Shelter – Constrained Locations

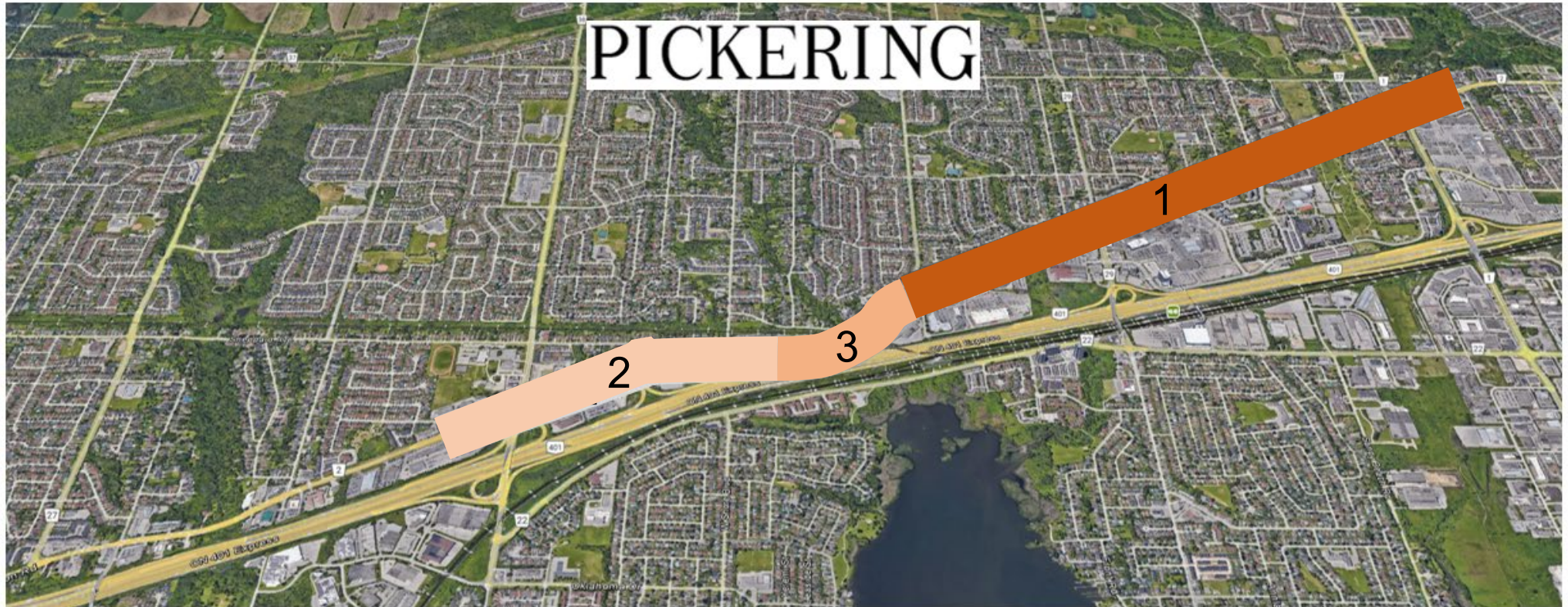


Investing in Canada Infrastructure Program



- Rapid Transit Projects

Pickering Project Status



1. Dixie to Bainbridge – Construction 2025*
2. Steeple Hill to Merritton – Construction 2025*
3. Merritton to Dixie – Construction 2027*

* Construction dates subject to First Nations consultations.



Ajax & Whitby Project Status



1. Harwood to Wicks – Construction 2024*
2. Wicks to Galea – Construction 2025*
3. Lake Ridge to Des Newman – Construction 2026*

* Construction dates subject to First Nations consultations.



Simcoe Street RT

Visioning and Initial Business Case Study

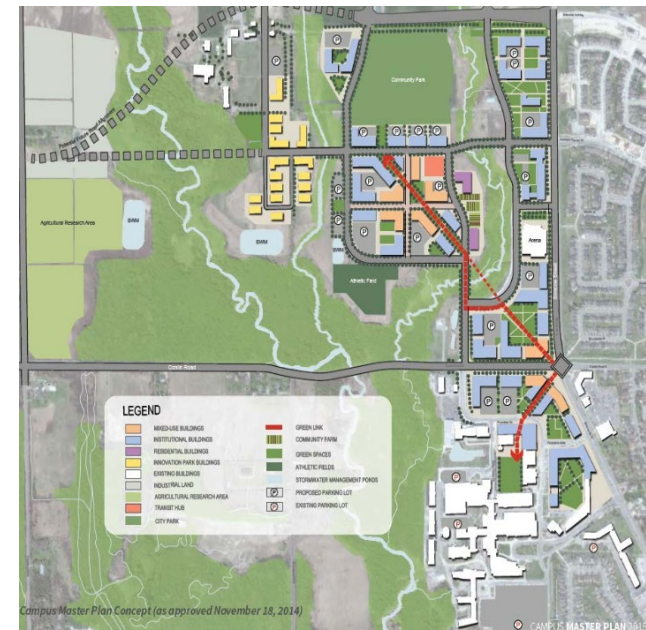
- The Region is undertaking a study to evaluate rapid transit technologies along the Simcoe Street corridor
- Visioning Study was launched in September 2022 to solicit public input for rapid transit on Simcoe Street
- Study planning is using a 2051-time horizon
- Based on feedback from Round #1 of consultation, study limits were extended south to Lakeview Park



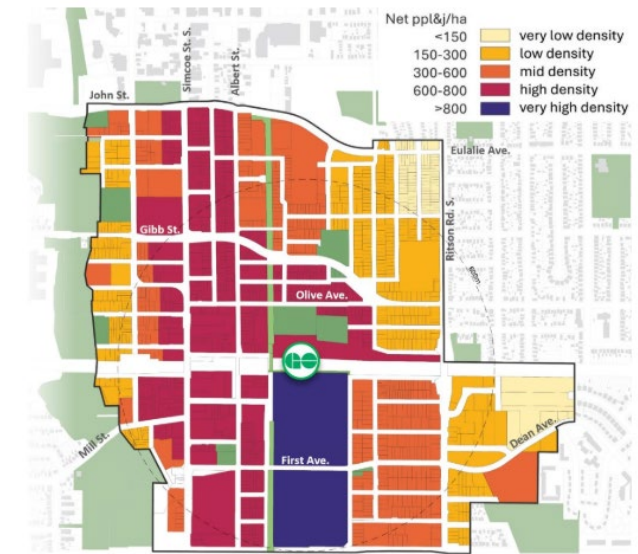
Simcoe Street RT

Why Simcoe Street?

- Rapid transit is necessary to meet the future corridor growth demands
- Connects Lakeview community, Central GO/MTSA, Downtown, hospital, university/college, 4 Regional priority neighbourhoods, future 407 transitway along with existing and planned high density developments
- Central Oshawa GO station is planning a minimum of 50% of commuters using GO service to arrive by transit
- Oshawa MTSA study - mode share of 60% cars / 40% sustainable transportation. Higher order transit is required to achieve these mode splits
- Without rapid transit, more trips will be allocated to cars and further gridlock will encompass a greater area



Oshawa Tech Campus Master Plan

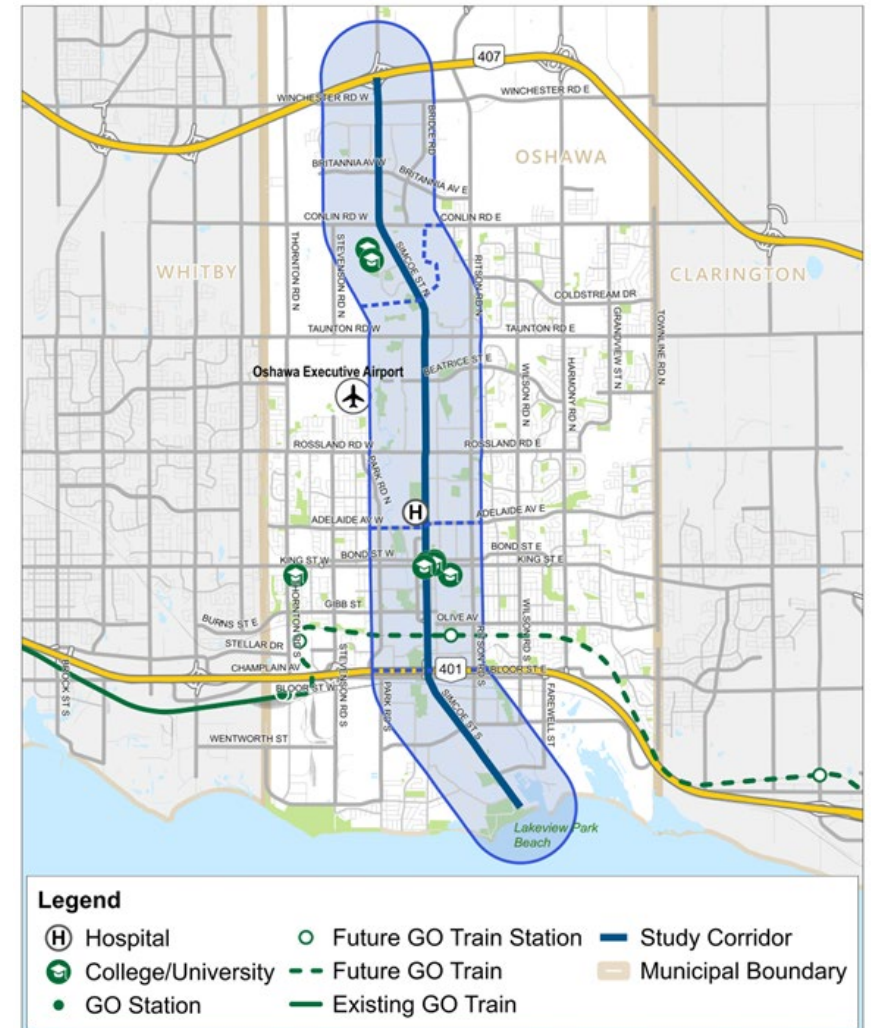


Oshawa MTSA Preferred Land Use Alternative

Simcoe Street RT

Why Simcoe Street?

- 42% of Oshawa's population and 51% of Oshawa's jobs are in the Simcoe corridor – 1 km on either side of Simcoe Street
- 2021 unemployment rate in the Simcoe corridor was 16.8% - Oshawa 15.2% and Durham Region 12.8%
- Average income in the Simcoe corridor is \$39,308 - Oshawa \$41,840 and Durham Region \$46,760
- 47% of households rent their home in the Simcoe corridor whereas 21% in the Region of Durham
- As home and car ownership costs continue to increase, so will use of rapid transit, particularly when service is frequent and reliable



Rapid Transit Benefits

Ridership

- Faster, reliable transit service encourages new ridership by providing a viable alternative to taking the car
- First 5-years of launching the BRT service on Kingston Road - 50% increase in transit ridership
- Simcoe corridor ridership in 2022 - approximately 8,200 weekdays and 7,700 on weekends, 2.5 million passengers per year
- 2051 ridership under the BAU scenario will increase to 7.3-9.5 million passengers per year
- The introduction of rapid transit further increases transit ridership to 14.2 to 17.5 million passengers

	Business as Usual (BAU)	Option 1: BRT	Option 2: LRT	Option 3: Monorail	Option 4: Gondola
Service Attributes					
Number of Stations	35	19	19	17	16
Average Station Spacing (m)	260	740	740	825	875
Average Operating Speed	17 km/h	25 km/h	30 km/h	40 km/h	21 km/h
Vehicle Type	Low-Floor Standard Bus	Low-Floor Articulated Bus	Low-Floor, Dual Ended	Suspended Rail (200 pass)	Suspended cabin (25 pass.)
Ridership Forecasts					
2051 Daily Boardings	20,000 to 26,000	39,000 to 47,000	39,000 to 48,000	28,000 to 34,000	39,000 to 48,000
2051 Peak Point Peak Direction Peak Hour	900 to 1,100	1,200 to 1,400	1,200 to 1,500	1,100 to 1,300	1,200 to 1,600

Comparison of Rapid Transit Options on Simcoe Street



Introduction of Rapid Transit on Simcoe Street

Rapid Transit Benefits

Economic

- Accepted that every \$1 invested in rapid transit, generates \$4-\$5 in economic returns and close to 50,000 jobs per \$1 billion invested
- Attracts new development to the corridor - developments along the Kingston Rd corridor advertising the DSBRT as a key feature
- Real estate values along rapid transit corridors generally see increases in North America between 2% and 40%
- Developments along rapid transit corridors have reduced parking requirements due to the modal shift. At over \$100,000 construction cost per space, rapid transit offers developers significant savings



Rapid Transit Benefits

Cleveland Healthline

- 10 years after construction of the \$200 million BRT “Healthline”
- Corridor has seen \$9.5 billion in development along the corridor
- A return of \$190 per dollar invested
- Credited with revitalizing an entire derelict corridor

Waterloo ION LRT Phase One

- Gained 22,000 new residents between 2011 and 2019
- Double the population growth rate of the rest of the Region
- TOD Accounted for 43% of the Region’s construction value in 2020 and 45% of the Region’s residential permits
- Total cumulative building permit value since 2011 = \$3.8 Billion
- A return of \$4.2 per dollar invested

Cleveland's Healthline among rapid transit systems that improve property values, OSU study says

Multi-family residences saw a 41.5 percent increase in their property values.



Rapid Transit Benefits

Portland Aerial Tram

- 10 years after construction of the Aerial Tram - over \$1 billion in development in South Waterfront
- Revitalized the previous underutilized industrial area
- Prior to construction - City offered to buy any property owners who felt that the project would negatively impact them – not one residents took the City up on their offer
- The tram ultimately increased property values
- Portland's aerial tram approaching maximum ridership capacity in ten years



Portland Aerial Tram 2007 Construction

Transit Infrastructure Options

PIC#3 Options



BRT (4 lane and 6 lane options)



LRT (4 lane and 6 lane options)









Aerial Cable Car



Monorail

Evaluation Criteria

Outcome	Benefit	Measure
Efficient and Connected Mobility	 Reduces transit times for riders and improve transportation network resiliency.	<ul style="list-style-type: none"> Net daily transit trips. Change in AM Peak ridership. Mode share shift.
	Strengthens the regional transit network.	<ul style="list-style-type: none"> Time savings to major destinations (e.g. Durham College, Ontario Tech U, Oshawa UGC). Transit trips to regional transit (e.g. Central Oshawa GO, DSBRT, 407 Transitway).
Equity and Inclusion	 Increases equitable access to transit and reduces the cost of transportation.	<ul style="list-style-type: none"> Change in transit attractiveness/mode share in Priority Neighborhoods² relative to others. Change in transit time savings in Priority Neighbourhoods relative to others. Shift to zero vehicle households in Priority Neighbourhoods relative to others. Transfer experience.
Economic Prosperity	 Expand access to economic and employment opportunities.	<ul style="list-style-type: none"> Number of employment opportunities within 1 km of corridor.
Environmental Sustainability	 Get travellers moving with less emissions and electricity.	<ul style="list-style-type: none"> Change in GHG emissions. Change in auto-km travelled. Shift to zero vehicle households.
Healthy & Complete Communities	 Increase the attractiveness of transit and get people moving.	<ul style="list-style-type: none"> Change in daily corridor ridership. Change in active travel within Oshawa (e.g. person-mins). Percentage of population living within 800 m of rapid transit stop and 400 m of BAU stop.
Safety & Security	 Support the roadway safety goals of Vision Zero.	<ul style="list-style-type: none"> Change in safety collision savings.

Transit Infrastructure Options

Current Preferred Options



BRT (4 lane)



LRT (4 lane)



Aerial Cable Car



Monorail

Transit Infrastructure Options

At-Grade BRT

Advantages

- Least expensive rapid transit solution to implement.
- Local buses that use Simcoe can utilize the BRT lanes
- Ease of access to at-grade BRT stations
- Transit improves corridor safety over car travel
- Near level boarding

Disadvantages

- Significant disruption during construction
- Removing a lane of traffic, can increase traffic congestion and infiltration
- Has the biggest footprint, requiring greater property acquisition
- Longer construction period



Transit Infrastructure Options

Aerial Cable Car

Advantages

- Short construction timeframe, with minimal disruption
- Maintain 2 full lanes of traffic in each direction
- Wait time for commuters at peak periods is approximately 20 seconds
- Easy to adjust system capacity based on demand by adding or removing cabins
- Extremely high reliability and safety rating compared to other modes of transit
- Level boarding

Disadvantages

- Typically need to access the system at 2nd/3rd storey, requiring the use of stairs or elevators
- Slowest of the transit options being explored
- Challenging for those who are afraid of heights
- Privacy concerns for those who live on the corridor



Transit Infrastructure Options

Existing Urban Cable Cars



La Paz, Boliva



New York City



Medellin, Columbia

Future Urban Cable Cars



Paris, France opening 2025



Los Angeles, California



Burnaby, British Columbia

Simcoe Street RT Study – Next Steps

- BRT/Cable Car Feasibility Study
- Presentation to Oshawa Council – Fall 2024
- Presentation to Regional Committee of the Whole – Fall 2024
- EA/TRPAP Simcoe Street Rapid Transit – Fall 2024-Spring 2026

Questions ?