

# Transportation 101 Council Orientation

**April 26, 2023**

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# Guelph. Future Ready.



Transportation services projects and programs fall under the Navigating our Future pillar of the Strategic Plan.

# How we got here



A series of previous council approvals have directed the path of transportation planning in Guelph.

# Transportation master plan (TMP)



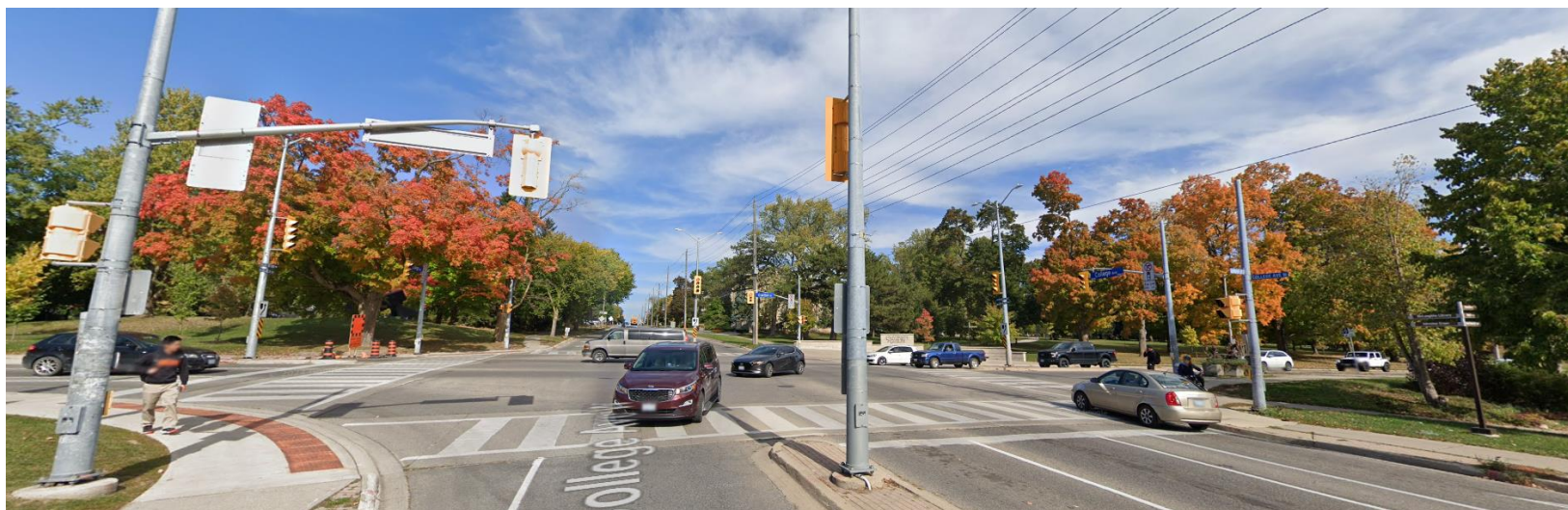
The TMP provides the direction to all transportation related work in the City to 2051.

# Transportation master plan (TMP) (2)

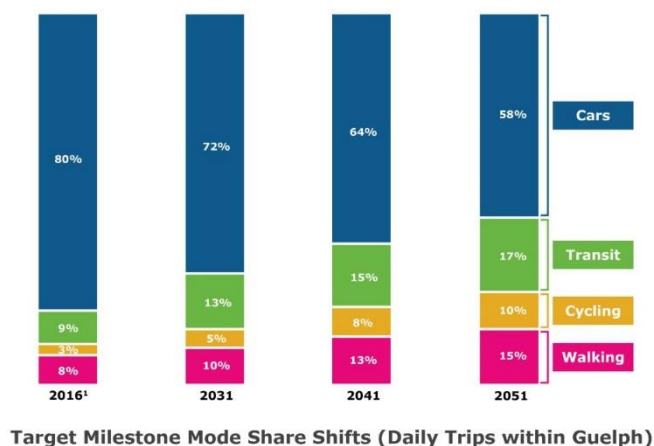




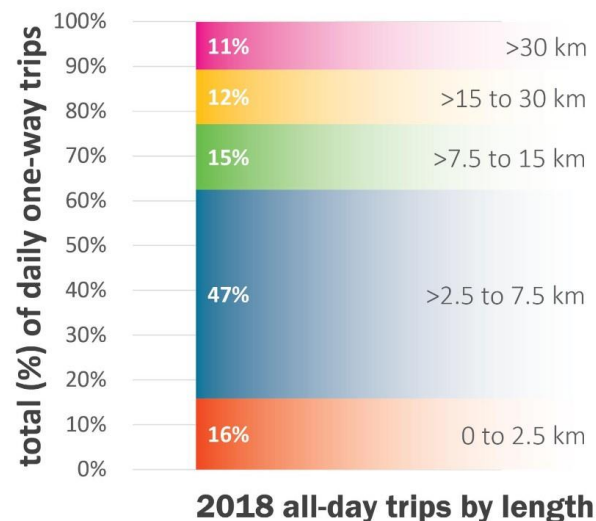
# Gordon Street at College Avenue



# Growing toward our future mode share target



<sup>1</sup> Source: 2016 Transportation Tomorrow Survey (TTS)



Guelph's growth to 2051 may happen faster than we originally planned for. The TMP anticipates notes that we cannot accommodate growth only by car unless we widen all our roads (expropriation). The TMP directs investment and expansion of transit and active modes, and traffic management systems improvements.

# The TMP guides many projects from 2024-2027

## Transportation systems

Goods movement strategy (2024)

Complete Street Design Guideline (2024)

Annual mode share data

Interregional transportation

## Road safety and parking

Vision Zero (2023)

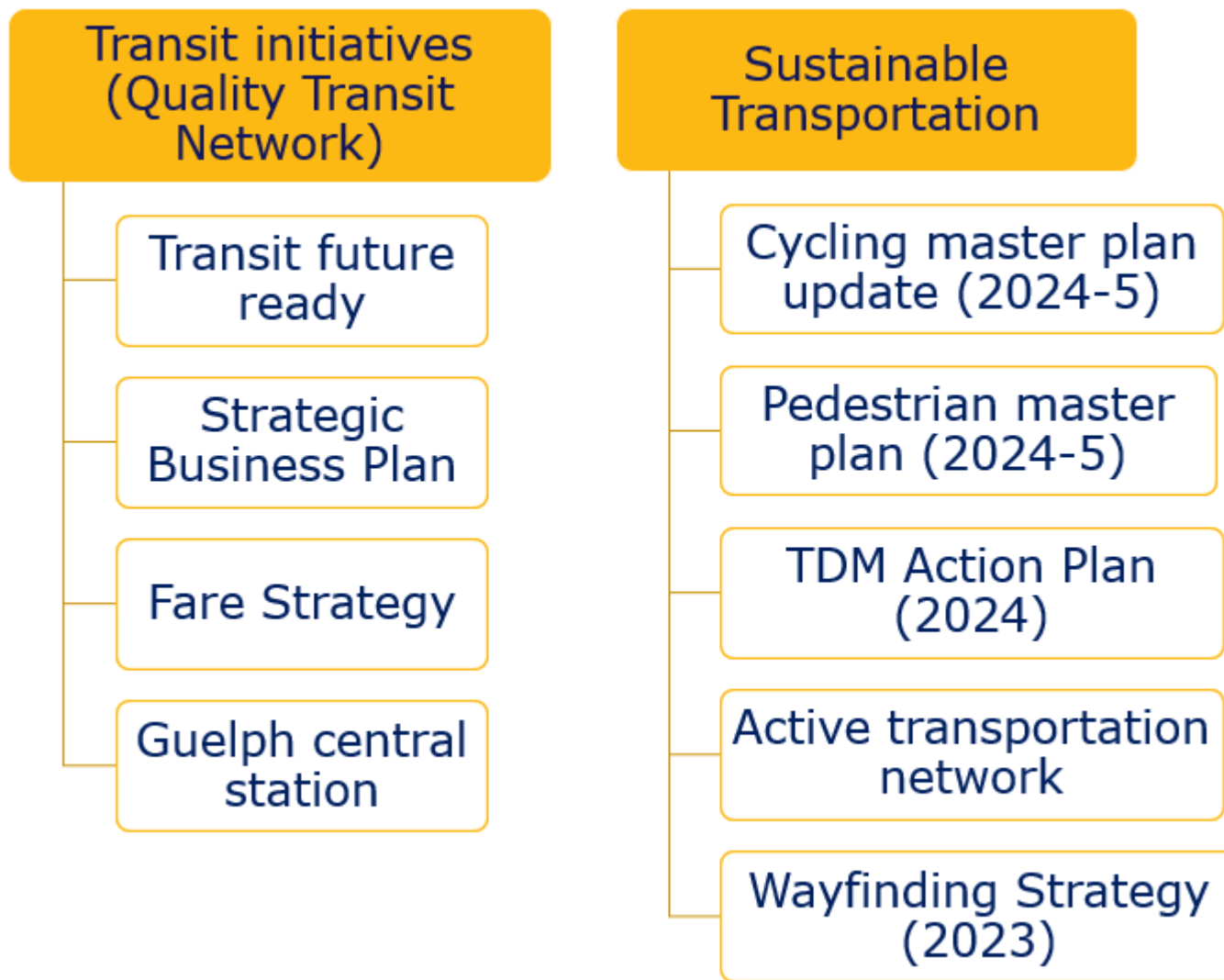
Transportation management systems (2027)

Traffic impact study guidelines (2023)

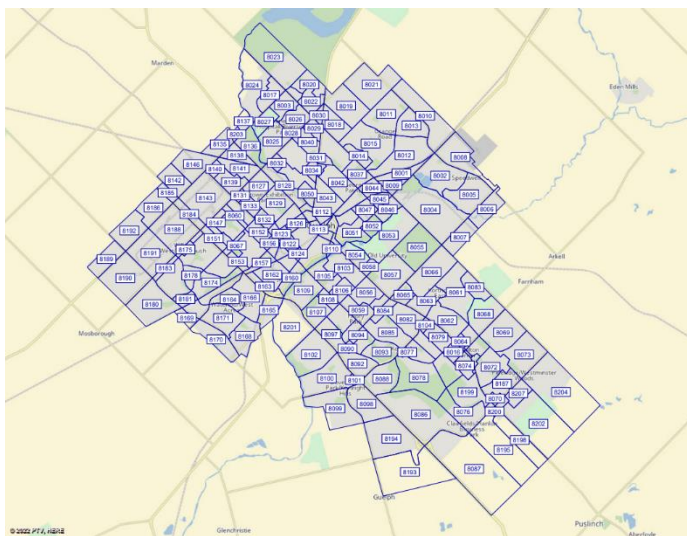
Parking master plan (2023)



# The TMP guides many projects from 2024-2027 (2)



# Planning for tomorrow's growth and development



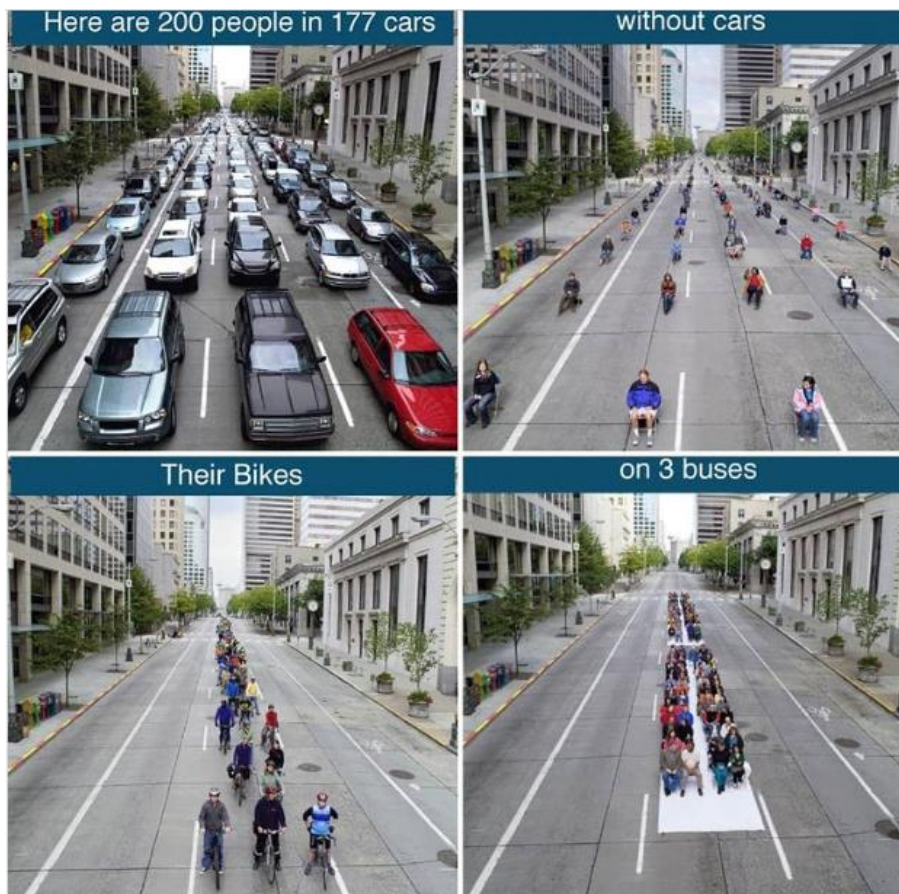
The transportation model is used to anticipate growth and plan for development.

# Sustainable transportation supports an equitable approach



The TMP highlights a critical role for active transportation, particularly cycling and micro-mobility, as a strategy for moving people of all ages and abilities, all the time.

# Public transit is critical to achieving our mode share targets



Investments in public transit service not only makes busses more efficient on their routes, but it shortens travel times for passengers and closes the disparity between trips made by personal vehicle, and trips made by bus.



# Regional transportation supports commuters and goods movement



We take care of ensuring the regional transportation serves our community's needs, too. This includes coordination with agencies such as Metrolinx and the Ontario Ministry of Transportation (MTO), as well as adjacent municipalities.

# Guelph Regional Rail Trips

Provider	Mon – Fri	Sat – Sun	Destination West	Destination East
GO	9	0	Kitchener	Toronto Union
GO	1	0	London	Toronto Union
VIA	1	1	Sarnia	Toronto Union

The latest Metrolinx Business Case indicates two-way all day GO Rail service is planned between Kitchener – Union starting in 2025.



# Guelph Regional Bus Trips

Provider	Mon – Fri	Sat – Sun	Destination
GOST	2	2	Owen Sound
GO	16 East/ 18 West	8 East/ 9 West	Toronto
GO	23	16	Kipling via Square One
GO	16	0	Waterloo/Hamilton

GO Bus Service between Waterloo, Guelph and Hamilton commenced on April 8, 2023

# Goods movement keeps our economy moving



The Goods Movement Strategy will review our existing permissive truck route network and regulatory framework, and recommend updates to bring it in alignment with the TMP and growth plans.

# Transitioning into a future-ready city



Technology and services will change significantly by 2051. The proposed Emerging Transportation Technology Office will prepare business cases, analysis, pilot projects, and recommendations to Council and senior staff to best prepare and serve our community.

# Road Safety – A societal problem



**Average societal cost of collisions** (including property damage, emergency response services, medical and insurance costs and traffic delays as well as indirect costs: disability, workdays lost, pain/suffering) amounted to **\$97,828,274** annually, an increase of \$1,630,878 from previous 5-year report.

# Road Safety – A societal problem (2)

## Guelph road safety 2017-2021



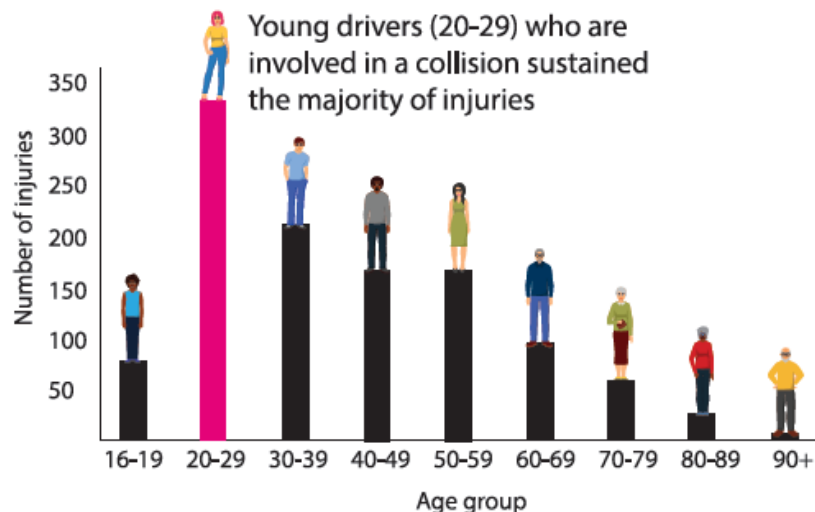
**3.7%** of collisions involve  
a cyclist or pedestrian

**0.9%** of collisions  
resulted in a **major or  
fatal outcome**



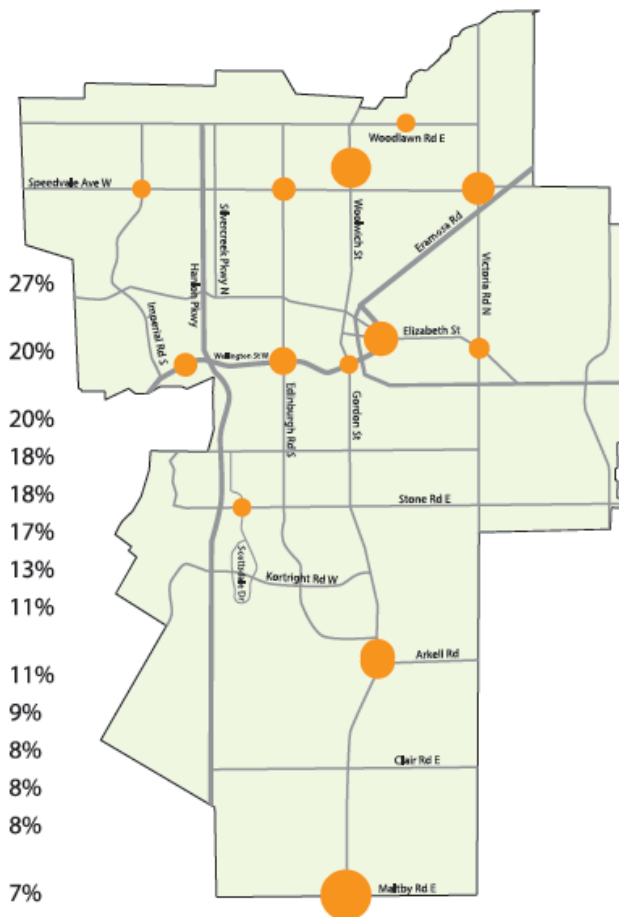
# Road Safety – A societal problem (3)

**Number of injuries by age group**



**Locations with the highest percentage of major/fatal injury collisions**

Gordon St at Maltby Rd E	27%
Woolwich St between CNR and Marilyn Dr	20%
Gordon St between Arkell Rd and Edinburgh Rd S	20%
Macdonell St at Wellington St E	18%
Arkell Rd at Gordon St	18%
Victoria Rd N at Woodlawn Rd E	17%
Edinburgh Rd S at Wellington St W	13%
Edinburgh Rd N at Speedvale Av W	11%
Wellington St W between Hanlon Pkwy and Imperial Rd S	11%
Elizabeth St at Victoria Rd S	9%
Imperial Rd N at Speedvale Av W	8%
Stone Rd W at Scottsdale Dr	8%
Gordon St at Wellington St W	8%
Woodlawn Rd E between Woolwich St and Country Club Dr	7%





# How many deaths are acceptable on our roads?



# Vision Zero and the Safe Systems Approach

## **What is Vision Zero?**

Vision Zero is based on the belief that serious injuries and deaths on our roads are unacceptable and that the system should be designed to account for human error.



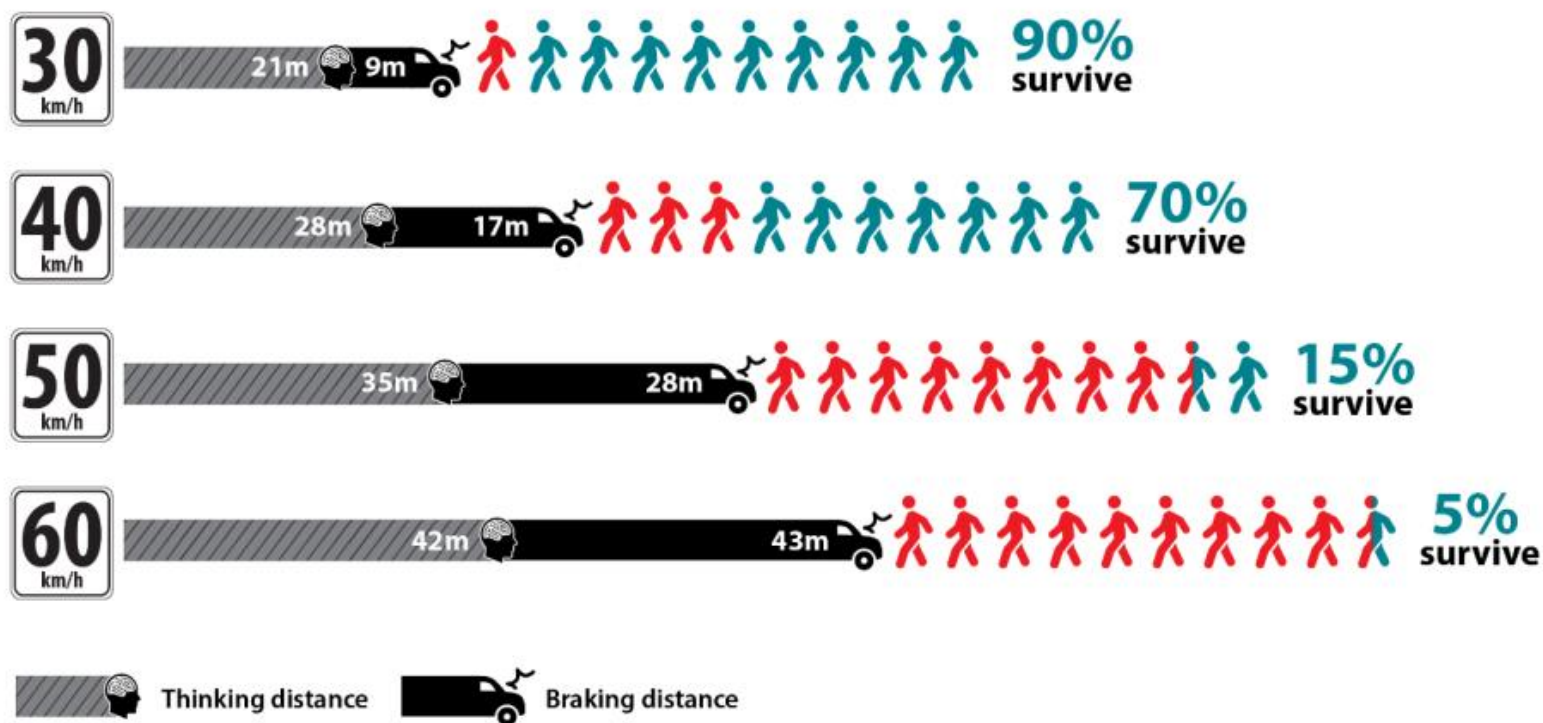
# Vision Zero and the Safe Systems Approach (2)

## What is the Safe Systems Approach?

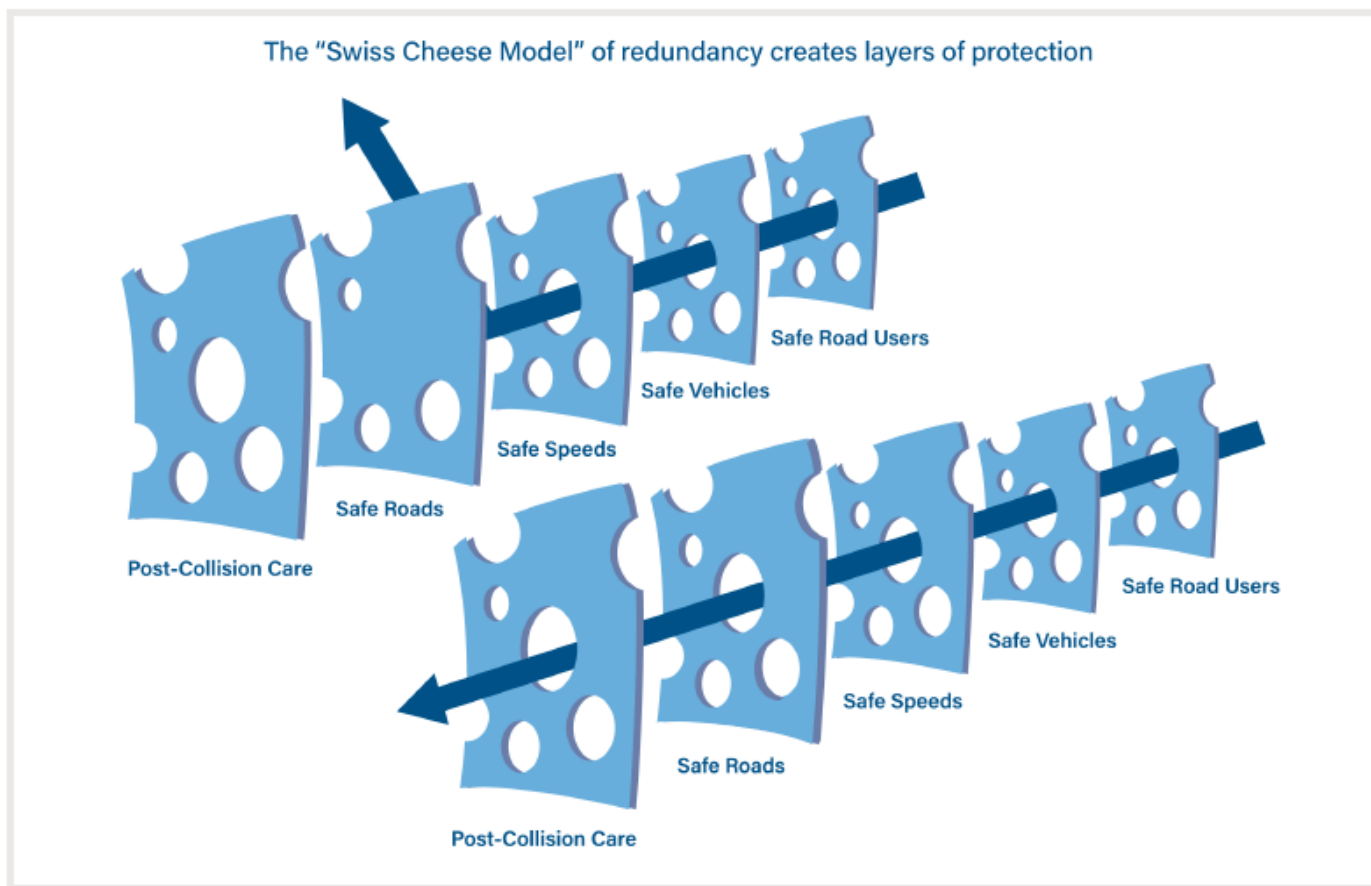
Vision Zero is the goal and the safe systems approach outlines the steps we can take to achieve that goal.



# Why is speed so important?



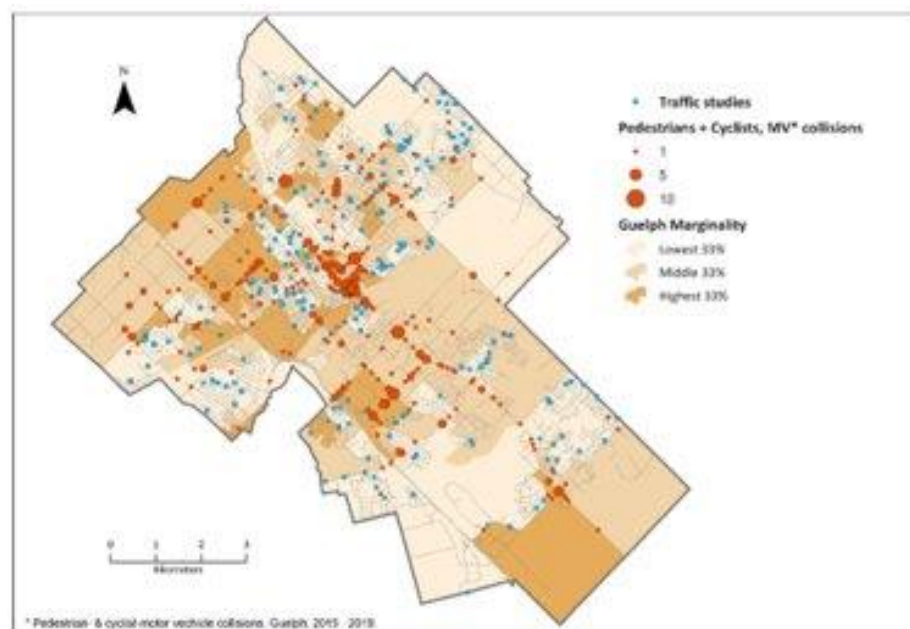
# Redundancy is crucial



# Equity and Road Safety

The likelihood of being involved in a severe motor vehicle collision with a pedestrian or a cyclist was significantly higher in areas with higher marginality (i.e., areas with more equity-deserving groups).

Although not statistically significant, we also observed less traffic studies in areas with more equity-deserving groups.





# Vision Zero Initiatives



## Engineering

- Traffic Calming
- Leading pedestrian intervals
- In road flex posts
- Neighbourhood 40 speed limits

## Education

- Please slow down lawn signs
- National campaigns
- Don't rush the red
- Radar speed boards

## Enforcement

- Red light cameras
- Automated speed enforcement



# Vision Zero Initiatives (2)

## Evaluation

- Collision report
- Distracted driving study
- LPI study
- Road safety dashboard

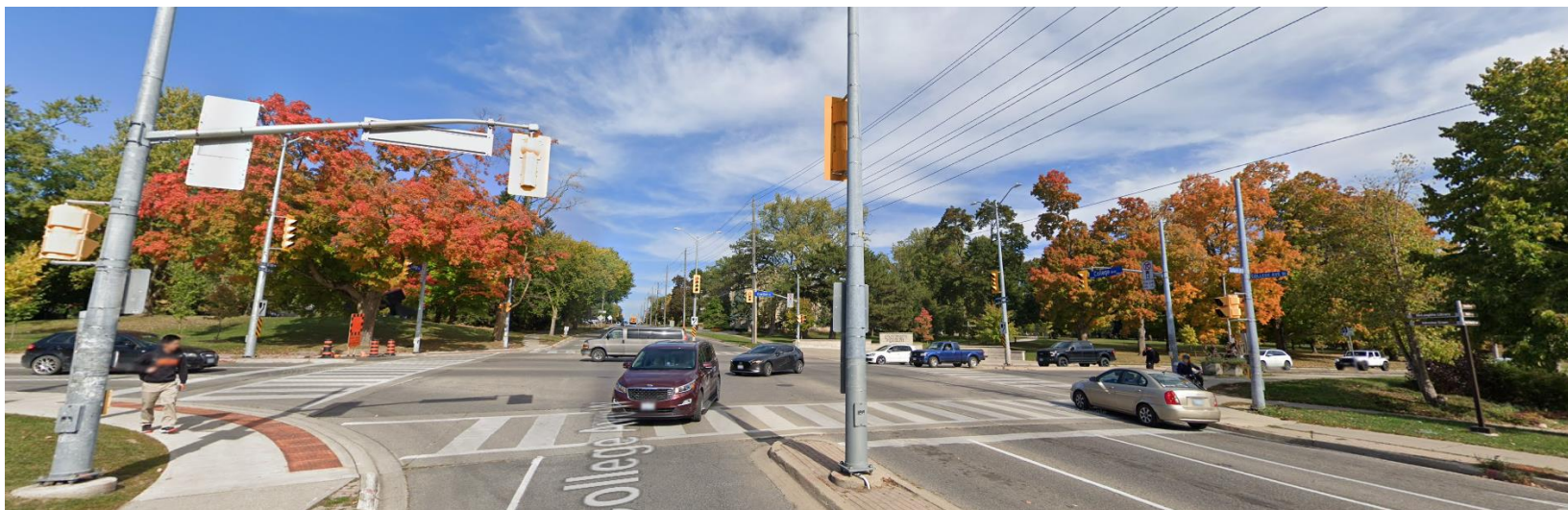
## Equity

- Equity mapping work
- Equity working group
- Capacity grant

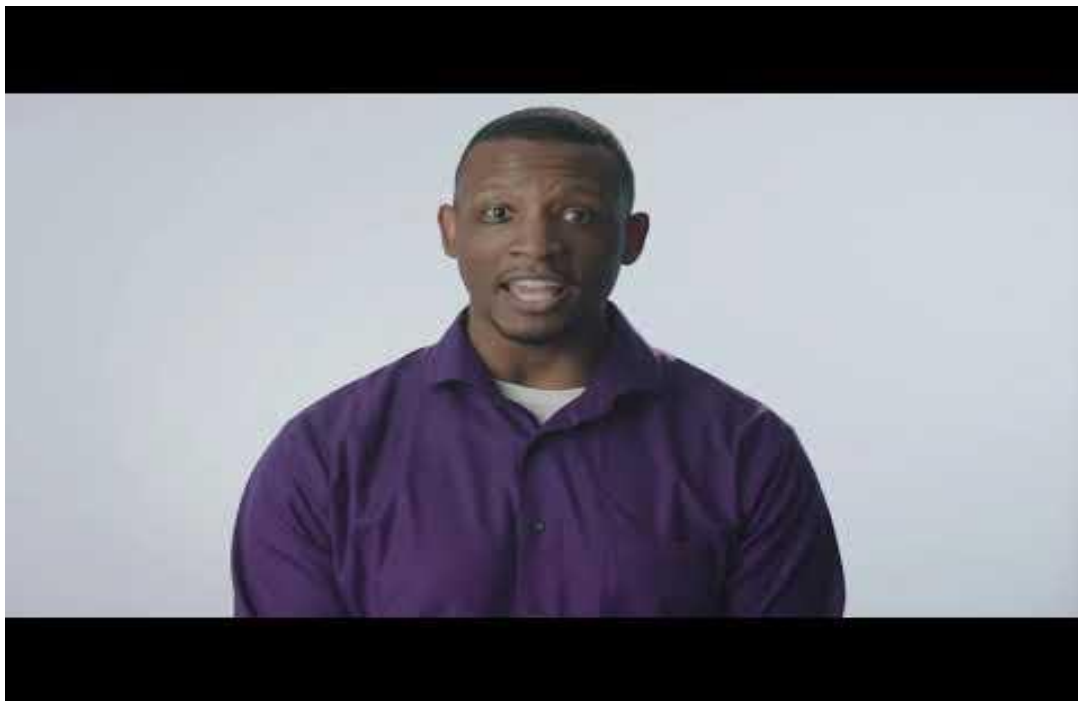
## Engagement

- Development of CRSS
- Traffic Calming Open house

# Gordon Street at College Avenue (2)



# Nothing happens



If we continue to invest in Vision Zero and prioritize road safety "nothing happens" and that means everything



**VisionZero**  
GUELPH

Below the text are four black icons: a person in a wheelchair, a pedestrian, a person on a bicycle, and a car.

**Safe streets,  
save lives.**

[guelph.ca/drive](https://guelph.ca/drive)



CITY OF  
**Guelph**  
Making a Difference

# Slower speeds have positive impacts on all these focus areas



# School Safety

The City oversees the Adult School Crossing Guard Program.

Recruitment is an ongoing challenge

Program has 33 locations with nearly 50 regular staff and spare guards to cover vacancies.

Our longest serving guard has been with us 14 years!





# Traffic Engineering

- 308 service requests submitted in 2022.
- 377 service requests submitted in 2021.
- Team of 7 review requests related to speeding, volume, signal timing and operation, trucks, on-street parking (and more!)

## Parking Services

- Responsible for permitting in off-street facilities
- Event parking
- Modernization of customer service

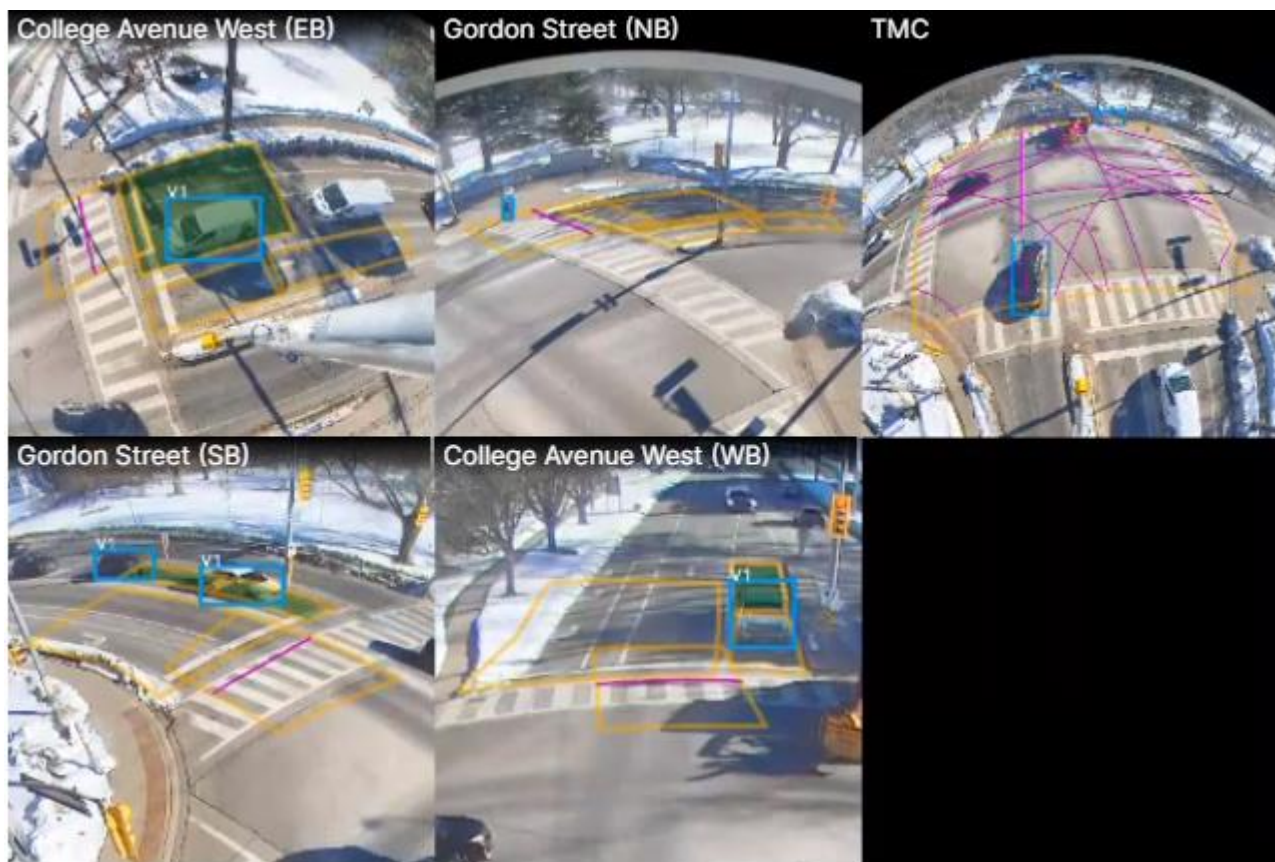
# Resources

- Canadian Parking Association
- Transportation Association of Canada
- Ontario Traffic Council
- Canadian Institute of Transportation Engineers
- Canadian Association of Road Safety Professionals
- Ontario Traffic Manuals
- Ontario Good Roads Association
- International Municipal Signals Association

# Signal Modernizations

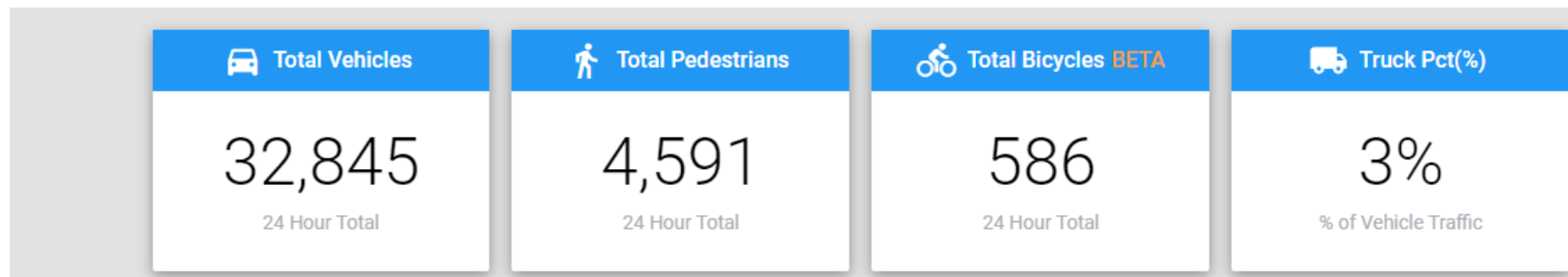


# Data and emerging technologies



# Real-time data

Gordon Street and College Avenue West  
43.532153, -80.23252862

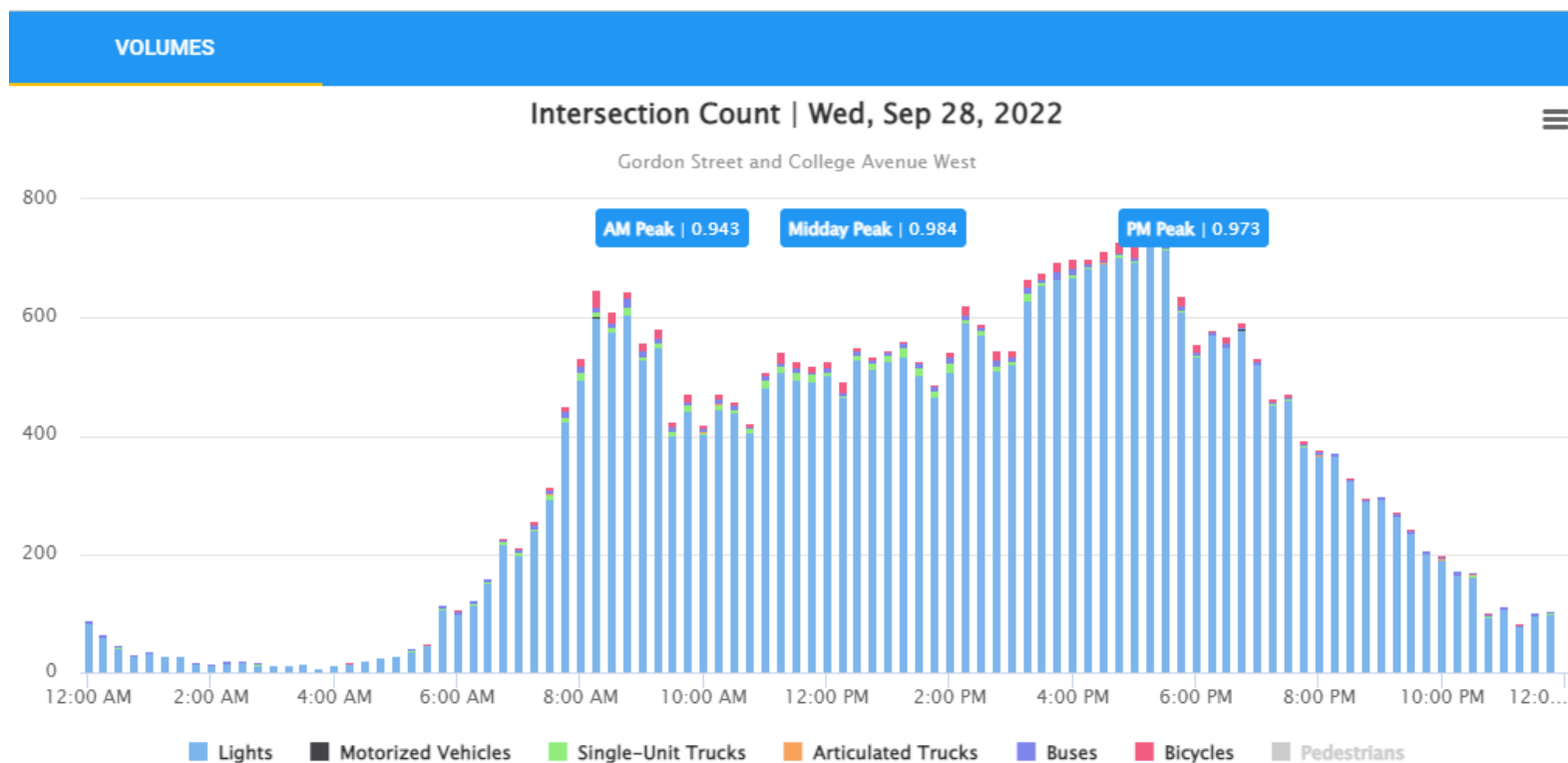


Beginning in 2020, the City has partnered with MioVision to install devices at signalized intersections which record real time volume of traffic, cyclists and pedestrians.

It also captures various analytics that we will use to implement road safety measures.

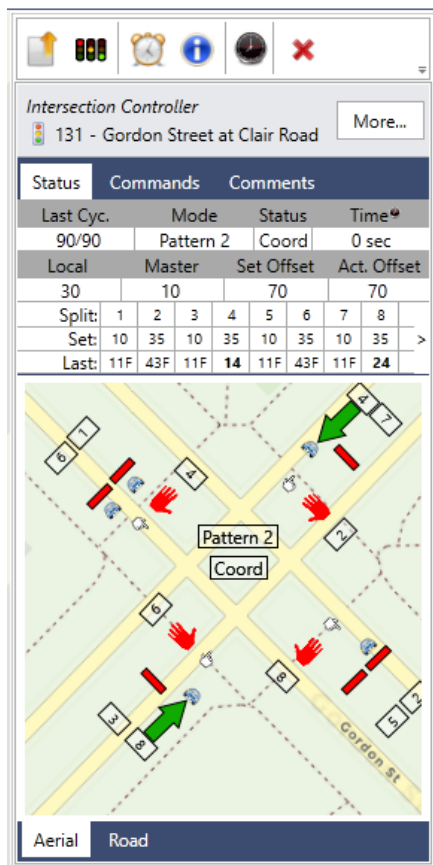
We currently have MioVision deployed at 20 intersections with plans to expand to 50 intersections by year end 2025.

# Real-time data (2)





# Traffic Signal System

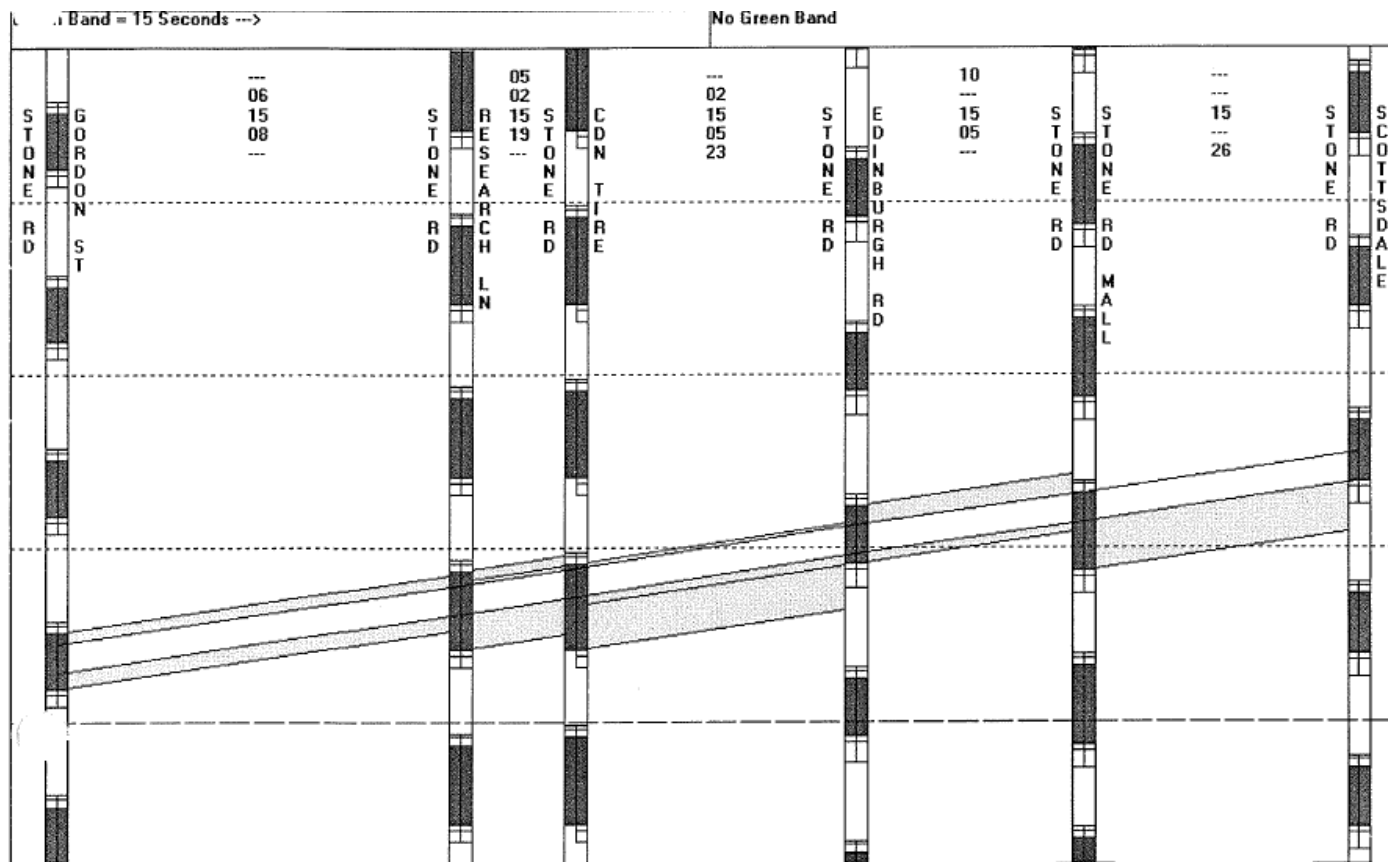


The City currently has 207 signals, of which 148 are intersection signals and 59 are pedestrian signals.

In 2018 the City procured a new computerized traffic signal system and we are in the process of connecting our signals to the City's ongoing fibre-optic installation project.

This will ensure the accuracy of time clocks, as every second counts to maximizing a signal corridor and allow for quick upload/download of data.

# Signal Coordination



# What do we have here?



# Signal System – next steps

The signal system's emergency pre-emption system is at the end of its life.

Undertaking work to replace the system, which will connect with city vehicles in transit, operations and emergency services

Transit signal optimization is coming!

Will start with Gordon Street corridor to allow transit vehicles to alter signal operation to keep transit vehicles on schedule.

# Summary

We utilize Provincial regulations and guidelines and city policies to make determinations related to traffic engineering.

We regularly engage police, transit, accessibility and other partners for feedback or information sharing.

We're positioned to use data and technology advancements to enhance our transportation system.

We have a shared, collective responsibility for safety on our roads.

Don't be sporty – embrace the 40! (km/h)