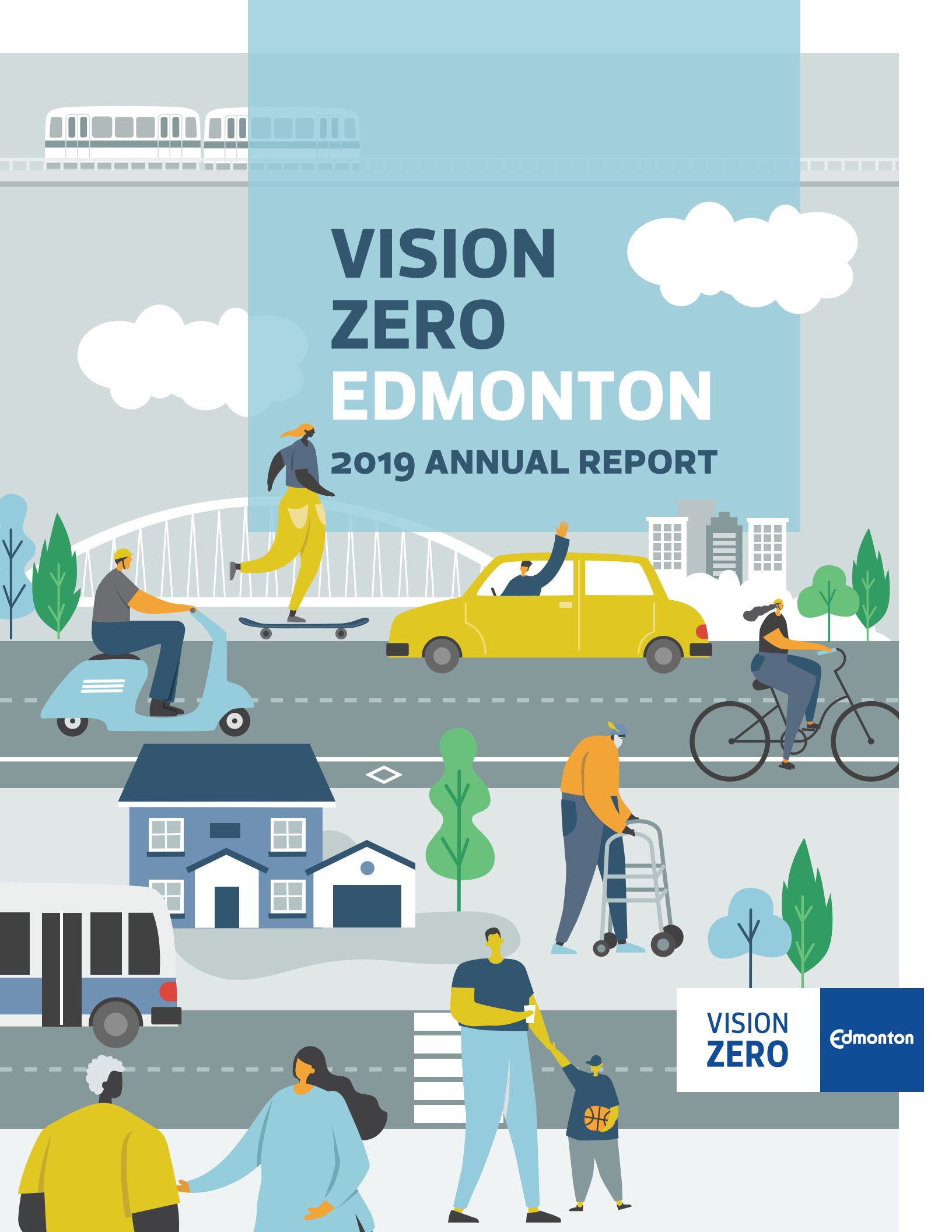


VISION ZERO EDMONTON

2019 ANNUAL REPORT



VISION
ZERO

Edmonton



CONTENTS

- 3 Vision Zero**
 - Vision Zero Principles
 - Benefits
 - How will we achieve Vision Zero?
- 4 Outcomes to Date**
- 5 Improving Safety and Livability**
 - How We Analyze Data to Increase Safety
 - Understanding Top Collision Causes
 - Crosswalk Improvements
 - School Safety Reviews
 - Bike Infrastructure Improvements
 - Community Traffic Calming
- 10 Safe Speeds**
 - Driver Feedback Signs
 - Enforcement
 - Reducing Speed Limits
- 12 Vision Zero in the Community**
- 14 2019 Traffic Safety Program Funding**
- 14 Vision Zero Partners**
- 15 What's Next?**
- 15 Show Your Support**



VISION ZERO



Vision Zero Principles

No loss of life is acceptable	Traffic fatalities and serious injuries are preventable
We are all physically vulnerable when involved in motor vehicle collisions	We all make mistakes

Eliminating fatalities and serious injuries requires Edmontonian and the City to prioritize safety.

Benefits

When our mobility system offers a high degree of safety, it also generates broader societal benefits related to public health concerns of accessibility, physical activity, local economy, air quality, climate and environmental sustainability.

Traffic safety and our goal of achieving Vision Zero are at the heart of supporting ConnectEdmonton. ConnectEdmonton is Edmonton's Strategic Plan that sets the direction for our future and outlines where we need to change today to realize our vision for Edmonton in 2050.

How will we achieve Vision Zero?

We save lives and eliminate serious injuries through the application of a holistic, evidence-based approach, and the 5 Es of traffic safety: engineering, education, enforcement, engagement, and evaluation. Vision Zero is a long-term strategy.

The Road Safety Strategy (2016 to 2020) provides the strategic approach to reach Vision Zero.



OUTCOMES TO DATE



Since 2015, **fatalities have decreased by 56 percent** and **serious injuries have declined by 30 percent.**

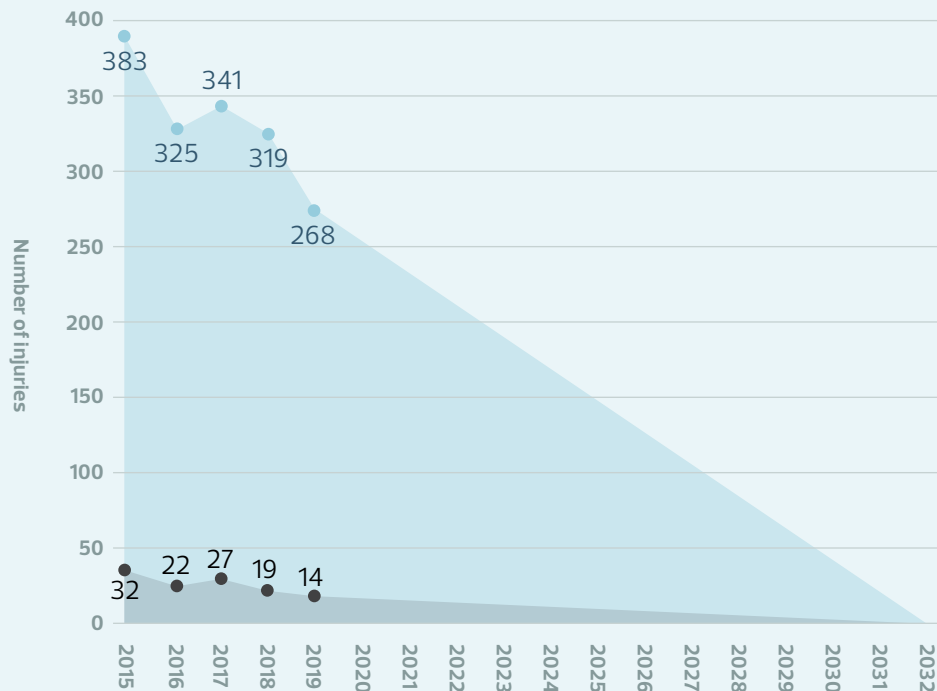
Our data driven approach to addressing high collision locations, unsafe speeds, and their contributing causes is working.

The positive trend in the reduction of serious injuries and fatalities demonstrates we are on track to reach Vision Zero by 2032.



FIGURE 1
Overall Reductions
in Serious and Fatal
Collisions 2015–2019

- Fatal Injuries
- Serious Injuries



IMPROVING SAFETY AND LIVABILITY

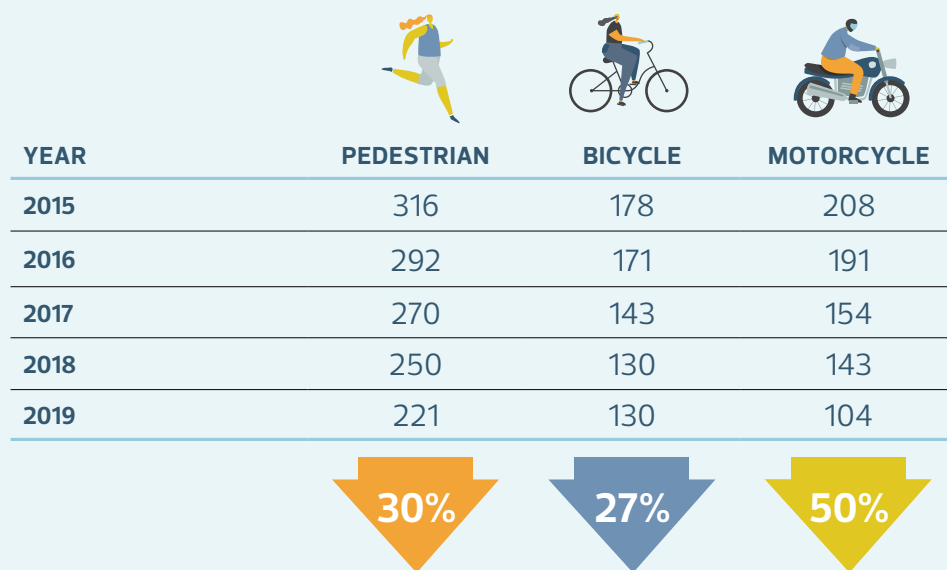
When a vehicle collides with someone walking, cycling or motorcycling, the consequences are much more likely to result in a serious injury or fatality. This is why these vulnerable road users are an important focus for traffic safety improvements.

Collisions involving pedestrians have been **reduced by 30 percent** from 2015 to 2019.

The City is continuing to make improvements to keep people safe.

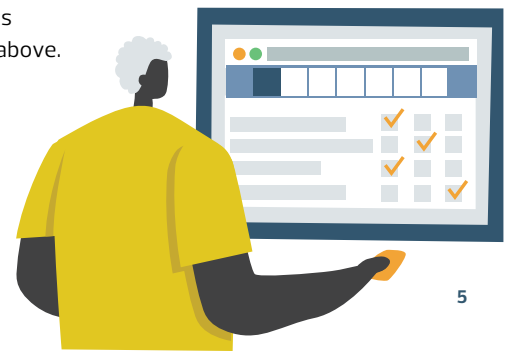
There is still more work to do. Based on 2019 collision statistics, 37 serious and fatal injuries involved drivers failing to yield to a pedestrian who had the right of way in a crosswalk.

FIGURE 5
Vulnerable Road User Collisions



HOW WE ANALYZE DATA TO INCREASE SAFETY

- 1 Crash causes are identified through analyzing Edmonton Police Service collision reports.
- 2 Historical trends, severity of crashes, types of road users involved, location, traffic controls, and primary causes of collisions are identified.
- 3 Resulting problem locations, environmental factors, and road user behaviours are used to explore traffic safety improvements through engineering, enforcement, education, or all of the above.



UNDERSTANDING TOP COLLISION CAUSES

The City prioritizes traffic safety initiatives based on the top causes of serious and fatal collisions in Edmonton. The City uses these top collision causes as primary considerations for planning traffic safety countermeasures.

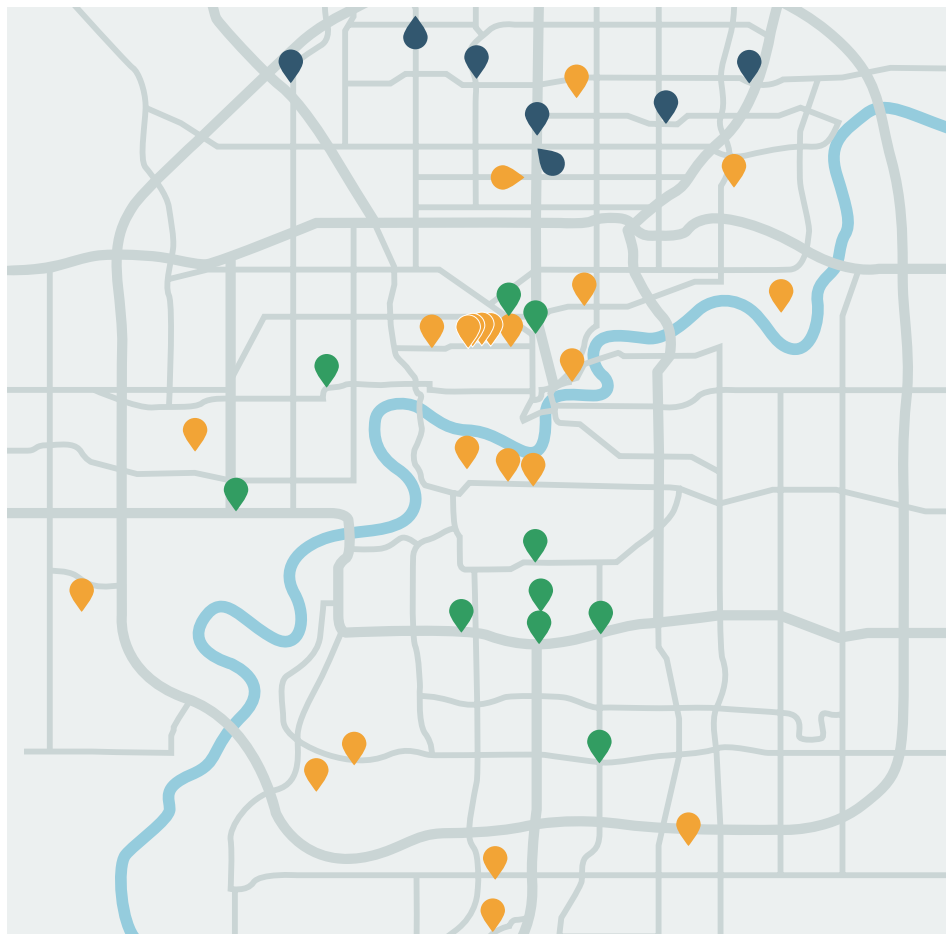
In 2019 the top causes of serious and fatal collisions in Edmonton were:



Since 2009, **the total number of left turn collisions have decreased by 90 percent** at locations where left turning vehicles are restricted to turning left during the protected phase only.

FIGURE 7
2019 Traffic Safety Improvements

-  Left Turn Upgrades
-  Crosswalk Upgrades
-  Signal Visibility Improvements



What is the City doing?

CROSSWALK IMPROVEMENTS

Pedestrian-activated crossing control devices, pedestrian countdown timers, and improving the visibility of crosswalks help protect people when they cross the street.

In 2019, **23 crosswalks were upgraded**, and **82 have been upgraded since Vision Zero began** in Edmonton.




When looking at crosswalks to upgrade, priority is given to locations based on Vision Zero principles using the following criteria:

- Pedestrian collision history
- Number of pedestrians
- Number of vehicles
- Number of traffic lanes pedestrians have to cross
- Existing median or other pedestrian refuge
- Speed limit

In 2019, **\$3.9 million was spent on improving crosswalks** and **\$1.1 million was spent on traffic signal improvements** to improve safety for pedestrians.

The money comes from funds generated entirely by automated enforcement.



UPGRADE	2019 INSTALLATIONS	2016-2019 INSTALLATIONS	CROSSWALK TYPE
FLASHING BEACONS 	10	20	Two rapidly and alternately flashing rectangular amber beacons mounted above side-mounted pedestrian signs. They are used in areas that have low to moderate traffic volumes and is typically found at locations around schools.
PEDESTRIAN ACTIVATED AMBER FLASHERS 	5	25	While active, amber traffic lights flash to warn drivers they must slow to the indicated speed and stop for pedestrians. They are used in areas with moderate to high traffic volumes.
PEDESTRIAN SIGNALS 	8	37	Pedestrian activated signals are traditional traffic lights with a pedestrian activated button on the pedestal. It is used on arterial roadways where the posted speed is 60 km/hr or higher.
TOTAL	23	82	

IMPROVING SAFETY AT SCHOOLS

One of the main focuses for Vision Zero Edmonton is to reduce incidents and curb unsafe traffic-related behaviors at schools. To address school traffic safety issues through greater integration and collaboration of school traffic safety stakeholders, the City established a School Traffic Safety Committee in 2016.

The School Traffic Safety Committee is comprised of members from the City of Edmonton, school boards, Edmonton Police Service, Alberta Motor Association, and many other external and internal stakeholders.

In 2019, **\$1.3 million** was spent improving school safety.

Traffic safety is reviewed at schools each year, and when potential problems are identified, engineers identify specific countermeasures that are tailored to the concerns at each school. Forty-nine schools were reviewed in 2019 for upgrades in 2020.

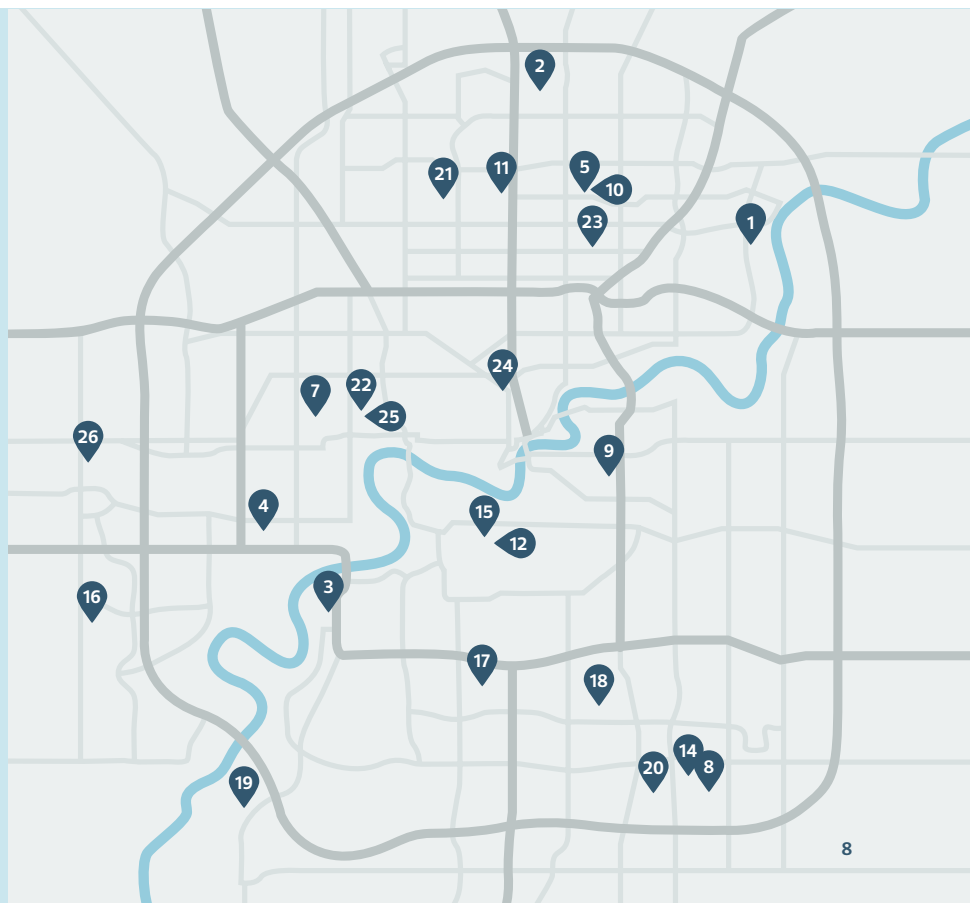
In 2019, 26 schools were upgraded with the following improvements:

All marked crosswalks converted to zebra crosswalks	Yield signs replaced with stop signs	Yellow centre line pavement marking added if the roadway was wide enough
Retro-reflective sleeves added for stop sign and crosswalk poles	Flashing beacon added at the crosswalk for each school if there was not one already	



FIGURE 6
Schools that received upgrades in 2019

- | | |
|--------------------------------|------------------------------|
| 1 Anne Fitzgerald | 14 Pollard Meadows |
| 2 Bishop Greschuk | 15 Queen Alexandra |
| 3 Brander Gardens/
Tempo | 16 Sister Annata
Brockman |
| 4 Elmwood | 17 St. Augustine/
Duggan |
| 5 Father Leo Green | 18 St. Elizabeth |
| 6 Grace Martin | 19 St. John Xxiii |
| 7 Holy Cross | 20 St. Richard |
| 8 Holy Family | 21 St. Timothy |
| 9 Holyrood | 22 St. Vincent |
| 10 Kildare | 23 St. Vladimir |
| 11 Major General
Griesbach | 24 Victoria |
| 12 Our Lady Of
Mount Carmel | 25 Westminster |
| 13 Overlanders | 26 Winterburn |





BIKE INFRASTRUCTURE IMPROVEMENTS

In the last ten years, **bike trips in Edmonton have nearly doubled.**

Bike infrastructure improvements have been shown to increase bike ridership and encourage people living nearby to be more active.

The Edmonton Bike Plan will guide how biking fits into our city in the future and will support the City's vision of a connected, accessible city.

Visit edmonton.ca/cycling to learn more about the Edmonton Bike Plan and for a map of the bike network.

COMMUNITY TRAFFIC CALMING



Community Traffic Management helps neighbourhoods find solutions for shortcutting, speeding, pedestrian safety, and other traffic issues. The City works together with the Community to address their traffic concerns.

The City has developed a Community Traffic Management Policy. This process is integrated into neighbourhoods being renewed as part of the Building Great Neighbourhoods program.

In 2019, six neighbourhoods were renewed as part of Building Great Neighbourhoods: Alberta Avenue, Central McDougall, Highlands, Inglewood, Royal Gardens, and Strathcona. In total, they received 63 curb extensions, 16 raised crosswalks, five intersection realignments, one road closure, 4.9 km of new sidewalks, 3.5 km of new shared-use paths.

SAFE SPEEDS

Slowing down gives people more time to react to the unexpected and **helps people avoid collisions**.

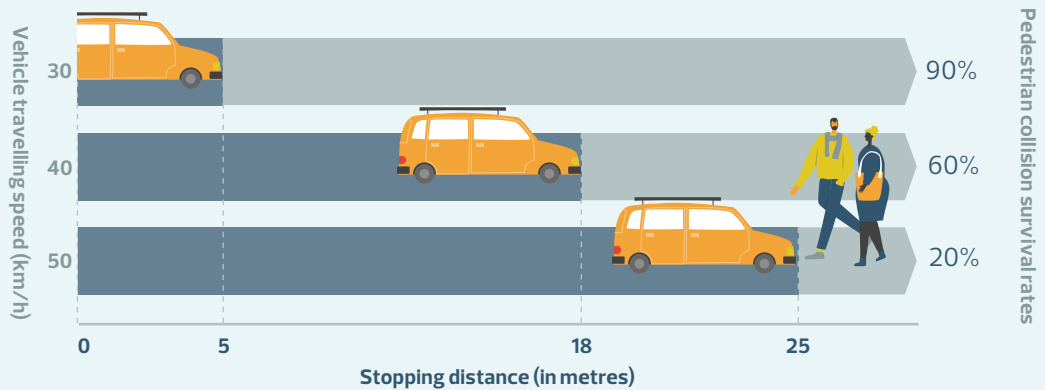
Programs that target speeding contribute to Edmonton's goal of zero traffic related fatalities and serious injuries.

While speed is not always the sole contributing factor in collisions, it always contributes to the severity of a crash.

The human body is fragile, and even a small difference in speed can mean the difference between surviving a collision and a fatality. This is especially true for more vulnerable road users such as pedestrians, cyclists, and motorcyclists.

FIGURE 3
The relationship between speed and stopping distance, and the approximate survival rate* if human hit by a vehicle at the various speeds.

* Based on World Health Organization (WHO) speed management manual.



Speeding is not the norm.

Most residents – more than eight in ten – say it is unacceptable to drive over the speed limit in residential areas.¹

Most Edmonton drivers do not speed: On average, less than 2% of vehicles travelling through mobile speed enforcement areas are receiving a ticket.²

People are concerned about others speeding in their communities: Since 2012, the number of complaints received by 311 about speeding vehicles in residential neighborhoods has increased by over 180 percent, with 1,100 complaints in 2018 alone.

1 Finding from 2018 Traffic Safety Culture Survey

2 2019 Mobile Speed Enforcement Data

How are we responding?

DRIVER FEEDBACK SIGNS

The City now has 219 Driver Feedback Signs (DFS) which are placed on priority roads around Edmonton to improve traffic safety in four ways:

- 1 Reduce speeding**
DFS have proven effective at reducing speeding by up to 12 km/h at these locations.
- 2 Reduce collisions**
The University of Alberta conducted a research project which found a statistically significant reduction in crashes where Driver Feedback Signs are deployed.
- 3 Collect data to inform other speed reduction programs**
These signs record how fast traffic is going and provide a steady stream of data to the City which is used to prioritize automated and/or police enforcement.
- 4 An instant reminder for drivers**
These digital signs flash vehicle speed and remind drivers to watch their speedometers.



ENFORCEMENT


The City of Edmonton and Edmonton Police Service work together to enforce speed limits and make our streets safer for everyone.

Edmonton Police Service

Working with the Edmonton Police Service (EPS) is key to the success of Vision Zero in making our streets safe, enjoyable places. The EPS works very closely with the City of Edmonton to encourage drivers to maintain safe speeds and follow the rules of the road. This partnership is one of the factors that will allow us to reach our Vision Zero goal by 2032.



Automated traffic enforcement in Edmonton includes intersection safety devices and mobile speed enforcement. An analysis of 2019 data shows that people are slowing down at mobile speed enforcement sites, which has in turn, resulted in a reduction of collisions:

 **25%** Excessive speeding violations of 21 km/h or more over posted speed limits dropped 25% from 2018 to 2019 at all mobile speed enforcement locations.

 **16%** Total collisions at mobile speed enforcement sites and associated areas declined 16% from 2018 to 2019.

Intersection Safety Devices discourage running red lights and speeding through intersections. In 2019, we installed intersection safety devices at 37 new locations. These locations were selected based on collision numbers. **Collisions at intersection safety devices locations were reduced by 10% in 2019.**

REDUCING SPEED LIMITS

Throughout 2019, the City looked at how lowering speed limits in residential areas could create safe, livable streets for everyone.

UPDATE: In March 2020, after reviewing Administration's analysis, City Council voted in favour of changing the default speed limit for residential roads throughout Edmonton, as well as the speed limit for Main streets and other high pedestrian areas to 40 km/hr. Pending bylaw approval by City Council, these changes will come into effect in late 2021. More information at edmonton.ca/safespeeds.



Starting in 2019, the City focused on making mobile speed enforcement vehicles more visible to drivers, the vehicles were wrapped and are parked so they can be seen in any direction without obstruction. This helps to remind everyone to drive safe.

VISION ZERO IN THE COMMUNITY

8TH ANNUAL RUN WALK RIDE FOR VISION ZERO

2019 was the eighth annual event with almost 150 participants. This event raises awareness in the community about traffic safety for all road users, whether they're walking, cycling, motorcycling or driving. Net proceeds from this race benefit the Memorial and Traffic Safety Fund, which helps which helps to support traffic safety research.



22ND INTERNATIONAL COUNCIL ON ALCOHOL, DRUGS, AND TRAFFIC SAFETY CONFERENCE

The City of Edmonton was selected to host the 22nd event which welcomed 258 attendees from 29 countries. There were more than 100 scientific presentations on the latest research, prevention initiatives and best practices for addressing issues related to alcohol, drugs and traffic safety.

The conference brought together delegates from around the world to showcase their work being done globally from disciplines such as: public health & safety, law, medicine, pharmacology, forensic science, alcohol intervention and rehabilitation.



11TH INTERNATIONAL CONFERENCE ON URBAN TRAFFIC SAFETY

The City of Edmonton also hosted this conference that provided 127 attendees with the opportunity to network with traffic safety researchers, practitioners and industry professionals from around the world. Countries included: Canada, the United States, Australia, Singapore, the UK, Netherlands, and Mauritania.

The sessions showcased innovative road design, public education and enforcement efforts, while sharing research and best practice on applying Global Safe System principles to local applications as we move towards Vision Zero.



Education Events

WINTER CYCLING

This campaign ran from November 2018 to March 2019. The outreach team spoke with 1789 people while conducting outreach on 64 occasions.

Based on a recent survey of cyclists, the majority of respondents agree that the City should continue to encourage people to cycle year round and people say they have noticed more people cycling in the winter this year than last.

BEWARE THE GLARE

This campaign was conducted through the month of March 2019. The outreach team spoke with 385 drivers and handed out 80 pairs of sunglasses to help drivers see better during the times of day when the sun rising and setting creates a lot of glare. Visibility tags were also handed out at most events.

SHARED PATHWAYS

This campaign ran from June to September 2019. The Outreach Team and/or Park Officers spoke with 1,718 shared pathway users during 53 pop-up outreach events. 1,000 bells were provided to people, 415 of which were placed directly on bikes during pop-up events.



RAIL SAFETY WEEK

Outreach team members supported colleagues at Edmonton Transit during Rail Safety Week (September 2019) by handing out refreshments and reminding people to watch out for trains crossing and not jumping the tracks.

PEDESTRIAN SCRAMBLES

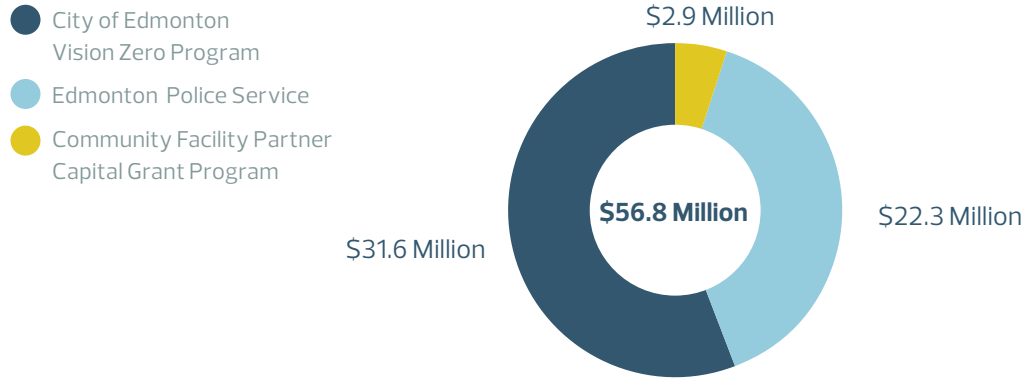
This campaign ran from July to October 2019. The outreach team spoke with 678 people about how to use the new pedestrian scramble style intersections and after speaking with the outreach team, 90 percent understood how to use the intersections and 85 percent agreed to follow the rules at these intersections.



2019 TRAFFIC SAFETY FUNDING

Vision Zero and traffic safety programs in Edmonton are funded by the Traffic Safety Automated Enforcement Reserve. Rather than being funded by tax levy, this work is supported by fines collected through automated enforcement. City Policy dedicates this Reserve to be used for traffic safety initiatives.

FIGURE 8
Traffic Safety Funding



THANK YOU TO OUR VISION ZERO PARTNERS

Traffic Safety Council Sponsors:
Councillor Esslinger and Councillor Banga

Edmonton City Council

Edmonton Police Service

University of Alberta

School Boards

Government of Alberta

Industry Partners

And many dedicated individuals, groups and organizations that support traffic safety in Edmonton



WHAT'S NEXT FOR VISION ZERO IN EDMONTON?

Our city is committed to Vision Zero. In 2019, we saw a 56 percent reduction in fatalities and a 30 percent reduction in serious injuries from 2015. Our focused, data-driven approach works.

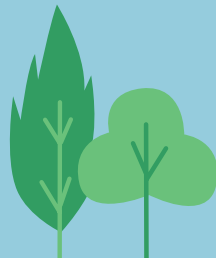
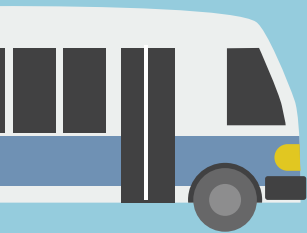
We still have work to do.

Throughout 2020, we are working collaboratively with citizens and partners to develop the Safe Mobility Strategy 2021–2025. The purpose of the Safe Mobility Strategy is to achieve Vision Zero through safe and livable streets in Edmonton. We will use this project as an opportunity to partner with Edmontonians to better understand their experience using our roads, sidewalks, crossings, bike routes and shared pathways.

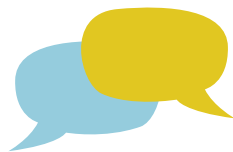
The strategy is guided by the following principles:

- **We all move**
- **We all deserve to move safely**
- **We are connected**
- **We are successful when we work together**
- **We are informed by analytics, lived experience and research**

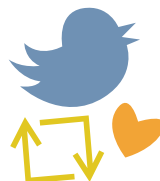
Edmonton is poised to grow into a healthy city of 2 million people – historically, we may have been a city designed for cars, but we continue to evolve into a city designed for people. A city that promotes community, equity and personal wellness for all Edmontonians. As our population increases, so does the need to create safer streets that support more livable communities.



SHOW YOUR SUPPORT FOR VISION ZERO



Talk to your friends, neighbours and loved ones about how you can make Edmonton's streets safer.



Follow @VisionZeroYEG on Twitter and share traffic safety messages on social media.



Get involved in the development of the Safe Mobility Strategy and learn more about traffic safety in Edmonton.

More information at edmonton.ca/VisionZero.