

Vision Zero Cleveland

Vision Zero Action Plan

2022



CITY OF CLEVELAND
Mayor Justin M. Bibb



MY PRIMARY STREET SAFETY CONCERN IS

Cars Driving thru
Red lights

My name is:

Fatuma



This page is left intentionally blank.



City of Cleveland
Justin M. Bibb, Mayor

Office of the Mayor
Cleveland City Hall
601 Lakeside Avenue, Room 202
Cleveland, Ohio 44114
216/664-3990 • Fax 216/420-8766
www.cleveland-oh.gov

Neighbors of Cleveland,

It gives me great pleasure to introduce the Vision Zero Action Plan, a multi-year effort that sets an ambitious but realistic goal of eliminating deaths and serious injuries from traffic crashes on Cleveland's streets within the next 10 years. This Plan establishes a data-driven path to safer streets, including updates to our policies and how we plan for, design, enforce, and maintain our roadways to prioritize people and their safe and convenient travel by foot, bike, transit, and car. The Plan also recommends improvements to how we care for and support people who are involved in crashes, so that the impacts are not life-altering. These strategies and the overall commitment to safer streets are a reflection of the goals and priorities we heard from you, the community, throughout the development of this Plan.

The Action Plan creates a system of practices to prevent severe crashes. It builds on the momentum of early successes of my administration, including the adoption of an updated Complete and Green Streets ordinance and the launch of speed tables on Cleveland streets as part of the ongoing neighborhood traffic calming pilot. We are dedicated to taking quick, low-cost immediate actions; incorporating safety and multimodal improvements into long-term capital projects; and working at the state and federal levels to advocate for policies that improve street and vehicle safety; along with advancing the many other strategies laid out in this document.

I am grateful to the many residents, organizational representatives, and City staff who contributed time and energy to create this Plan, and look forward to continuing to work with you to advance these recommendations. Roadway safety is a shared responsibility and it will take all of us, across City departments and the broader community, to achieve the changes we hope to see.

Streets make up the largest public space in the city. My administration is honored to take action to make them safer, healthier, more equitable places for all of us.

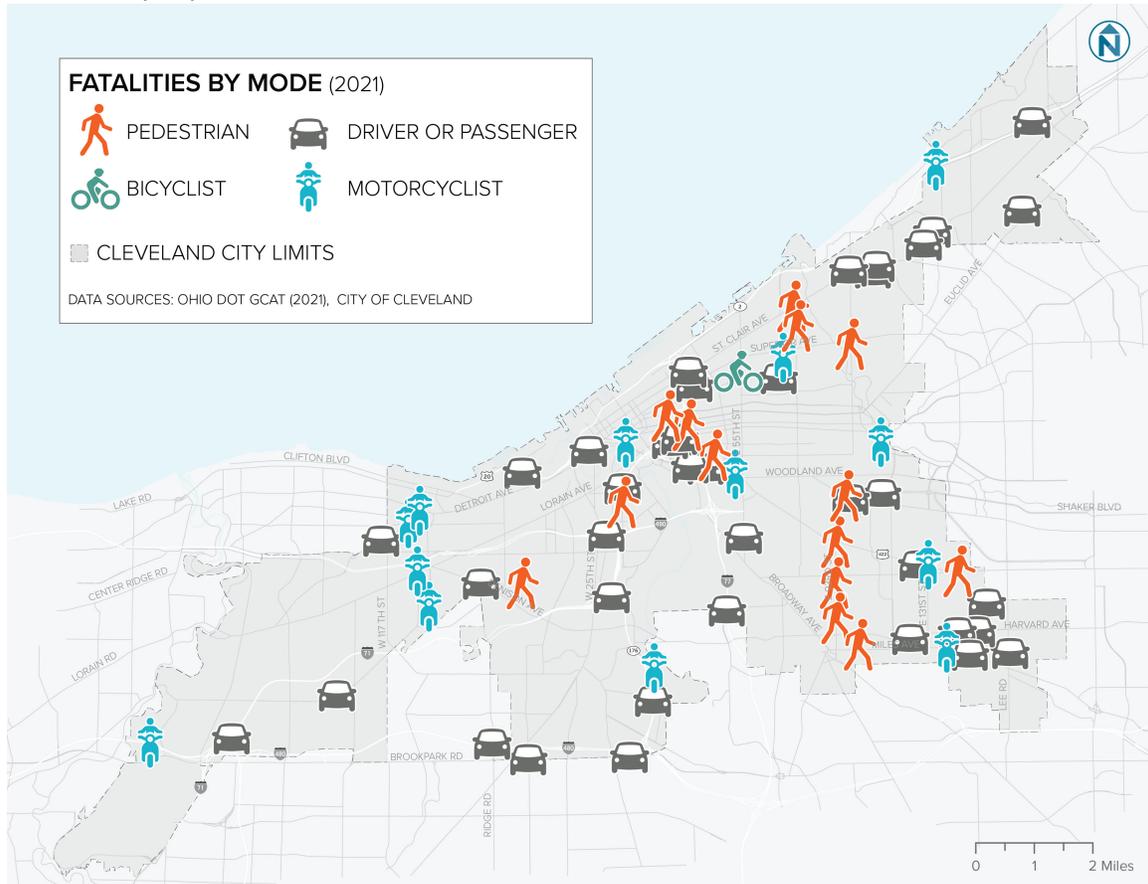
Sincerely,

A handwritten signature in blue ink, appearing to read "Justin M. Bibb".

Justin M. Bibb
Mayor | City of Cleveland

Dedication

We dedicate our work to the people who were killed while traveling on Cleveland's streets, and to the people who love them.



- | | | | | | | |
|----------|---------|----------|-----------|----------|-----------|----------|
| Deerica | Fred | Richard | Jessica | Argenis | Amy | Kevin |
| Russell | Harry | Joe | Edgardo | Dennis | Giancarlo | Derrick |
| John | John | Chengru | Gary | Carolyn | Willie | Samuel |
| Jonathan | Deandre | Kimberly | Denasia | Eric | Marshay | Devon |
| Thomas | Monique | Jokwonn | Quentin | Patrick | Rocco | Jonathan |
| Shawn | Denise | Paris | Cooper | Richard | Kenneth | Lea |
| Charmian | Taylor | Dennis | Dominic | Danielle | Chiru | Walter |
| Keisha | Reshad | Tajinae | Alexander | David | Billy | Mary |
| Donaze | Cordon | Tyrelle | Luis | Charles | Darryl | |
| Raymond | James | Taylor | Robert | Benny | Leeandrew | |

Acknowledgements

Thank you to the organizations and individuals that made this Action Plan possible, as well as the many residents whose input is reflected in this document.

City of Cleveland

City Planning Commission
 Cleveland Police,
 Bureau of Traffic
 Department of Aging
 Department of Public Health
 Division of Motor Vehicle
 Maintenance
 Division of Recreation
 Division of Streets
 Division of Traffic
 Engineering
 Mayor’s Office
 of Capital Projects
 Mayor’s Office
 of Communications
 Mayor’s Office
 of Sustainability

Stakeholders

Cleveland City Council
 Cleveland Metroparks
 Cleveland Metropolitan
 School District
 Cuyahoga County, Office of
 Sustainability
 Greater Cleveland Regional
 Transit Authority
 Northeast Ohio Areawide
 Coordinating Agency
 Ohio Department of
 Transportation, District 12
 Bike Cleveland
 Cleveland Foundation
 Cleveland Neighborhood
 Progress
 Cleveland State University
 Historic Warehouse District
 Development Corporation
 Knabe Law Firm Co.
 Ohio City Inc.
 Union Miles CDC
 University Circle Inc.
 Young & McCarthy LLP

Consultant Team

Nelson\Nygaard
 Bongorno Consulting
 Seventh Hill

Table of Contents

	Page
1 Setting the Stage.....	1-1
What is Vision Zero?.....	1-3
Vision Zero Action Plan Process	1-4
Safe System Principles.....	1-5
Vision.....	1-6
Guiding Statement.....	1-6
Crash Patterns.....	1-7
Building on Past Efforts.....	1-17
2 Vision Zero Strategies.....	2-1
Safe System Elements.....	2-2
A Safe System	2-4
Safe Speeds.....	2-5
Safe Streets	2-6
Safe People	2-8
Post-Crash Care.....	2-9
Safe Vehicles.....	2-10
3 Getting It Done.....	3-1
Prioritizing and Phasing	3-2
Where We Start: Actions.....	3-5
What Are Our Tools?.....	3-10
How Will We Be Accountable?	3-11
Stakeholder Framework.....	3-13

Appendices

- Appendix A: Strategies and Actions List
- Appendix B: Vision Zero Countermeasures Toolbox
- Appendix C: Existing Conditions Analysis
- Appendix D: Stakeholder Framework
- Appendix E: Community and Task Force Engagement
- Appendix F: Lee Road Priority Corridor Crash Analysis

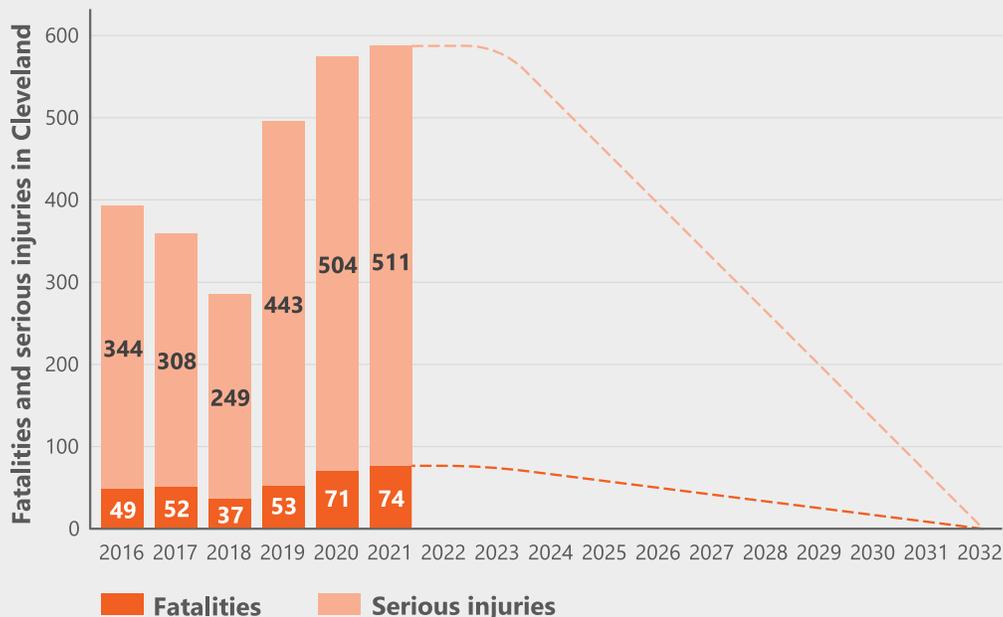
1 SETTING THE STAGE

The Vision Zero Action Plan is a blueprint for eliminating traffic-related deaths in Cleveland. This first chapter builds an understanding of traffic crashes in the city, and establishes a clear vision to get to zero fatalities.

Why is this important?

In the last five years alone, one person died or was seriously injured almost every day in Cleveland. Even one traffic-related death is a death too many.

Vision Zero Cleveland is an ambitious response to the unacceptable number of serious and fatal injury crashes that affect people living, working, and visiting the city. Targeted and swift action is needed over the next ten years to achieve our goal of zero fatal and serious injury crashes.



Many sections of this Action Plan further highlight why Vision Zero is important—from data, maps, and statistics, to stories from members of the community.

What is the structure of the Vision Zero Action Plan?

This Action Plan is organized into three chapters:

- **Chapter 1: Setting the Stage.** This chapter establishes a vision and guiding statement, explains current crash patterns, and describes how this effort aligns with other plans. It ultimately builds a foundation for the strategies in Chapter 2.
- **Chapter 2: Vision Zero Strategies.** This chapter outlines goals and strategies to get us to zero traffic deaths and serious injuries. These are organized according to six Safe System elements: (1) Safe System, (2) Safe Speeds, (3) Safe Streets, (4) Safe People, (5) Post-Crash Care, and (6) Safe Vehicles.
- **Chapter 3: Getting It Done.** This chapter provides a framework for implementing the Vision Zero strategies and staying on track. It covers prioritization, Vision Zero countermeasures (i.e., tools), how we plan to hold ourselves accountable, and stakeholder roles.

In addition to the three chapters, the appendices take deeper dives on specific components of the Action Plan:

- Appendix A: Strategies and Actions List
- Appendix B: Vision Zero Countermeasures Toolbox
- Appendix C: Existing Conditions Analysis
- Appendix D: Stakeholder Framework
- Appendix E: Community and Task Force Engagement
- Appendix F: Lee Road Priority Corridor Crash Analysis

What is the structure of this chapter?

The rest of this chapter includes the following sections that set the stage for Vision Zero in Cleveland:

1. What is Vision Zero?
2. Vision Zero Action Plan Process
3. Safe Systems Principles
4. Vision
5. Guiding Statement
6. Crash Patterns
7. Building on Past Efforts

WHAT IS VISION ZERO?

Sweden was the first Vision Zero country, passing a bill in 1997 that stated “no one should be killed or seriously injured within the Swedish road transportation system, and the structure and the function of the road transportation system must be brought into line with the demands this goal entails.”

From there, Vision Zero became a global initiative committed to developing programs, practices, and projects that prioritize public safety and bring us closer to a target of zero life-changing or fatal traffic crashes, through a wrap-around system of decisions focused on how to prevent crashes from having life-changing outcomes.

It is common for people, including news professionals, to blame people walking and bicycling for being involved in crashes. However, since most of the fatal and serious injury crashes happen on streets designed for vehicles to travel fast, the common attributes in fatal or serious crashes are mass and speed, meaning it is a car-centered transportation system that is at fault. Vision Zero moves away from blame and towards shared responsibility.



VISION ZERO ACTION PLAN PROCESS

Cleveland's Vision Zero Action Plan process was guided by data analysis, input from the Vision Zero Task Force, and two rounds of in-person and virtual community outreach. The diagram below provides a high-level overview of this process.

Summer-Fall 2021

Setting the Stage

- Existing Conditions and Crash Analysis
- Ethnographic research
- Safe systems approaches

Winter-Spring 2022

Vision Zero Strategies

- Vision and guiding statement
- Goal and strategy development

Summer 2022 and Beyond

Getting It Done

- Prioritizing and phasing
- Early actions, e.g., Neighborhood Traffic Calming Pilot, Complete and Green Streets Update

Ongoing stakeholder and community input



SAFE SYSTEM PRINCIPLES

Vision Zero cities consider these Safe System principles in citywide planning and operations:



Traffic deaths are unacceptable. Death and serious injury are unacceptable outcomes of using the roadway system. Vision Zero advocates a system-wide approach to reduce the frequency and severity of collisions.



People make mistakes. Humans make mistakes, so we need to design roads and modify how people operate so our mistakes don't lead to serious injury or death.



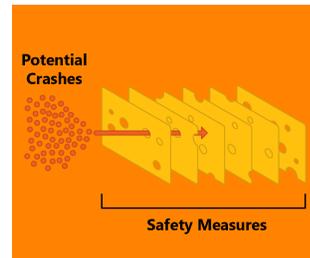
Bodies are vulnerable. Humans are vulnerable, so Vision Zero actions need to reduce the transfer of energy from cars onto people in crashes by using lighter vehicles and leading to slower speeds.



We're in this together. Safety is a societal responsibility, including people planning, designing, building, operating and maintaining roads, as well as vehicle manufacturers, law enforcement, emergency responders, post-crash personnel, and people using the roads.



Safety is about being proactive. Actions can be taken in places where a history of crashes is not yet documented by systematically applying countermeasures to vulnerable locations.



Redundancy is essential. Safety measures must be designed so that if one part of the system fails, people will still be safe.

VISION

Vision Zero Cleveland will eliminate serious injuries and deaths from crashes on Cleveland roads by 2032 through clear, measurable strategies that provide safe, healthy, and equitable mobility for all.

GUIDING STATEMENT

The City of Cleveland commits to preventing crashes from having fatal and serious outcomes by investing in the people, places, and projects that will make the biggest difference.

We will do this by:

- Prioritizing projects in communities that are most impacted by the consequences of traffic crashes.
- Considering how every decision we make will influence health and safety outcomes, from procurement to land use and project design.
- Using crash patterns and analysis of community members' reported safety concerns to prioritize our spending and to inform our street design and maintenance.
- Engaging with community members during project design and program development, with a special focus on neighborhoods that have been most impacted by past exclusionary transportation decisions.

The High Cost of Crashes

In 2021 alone, the cost of Cleveland's crashes exceeded 2 billion dollars. These costs add up from lost wages, emergency services, medical care, legal action, property damage, congestion, and workplace losses. These personal costs can disrupt a family's livelihood as uncovered and uninsured expenses add up. Even if you have never been involved in a crash, you experience higher insurance premiums and a diversion of medical resources from other medical needs. (Angelo Trivisonno, and

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013>)

CRASH PATTERNS

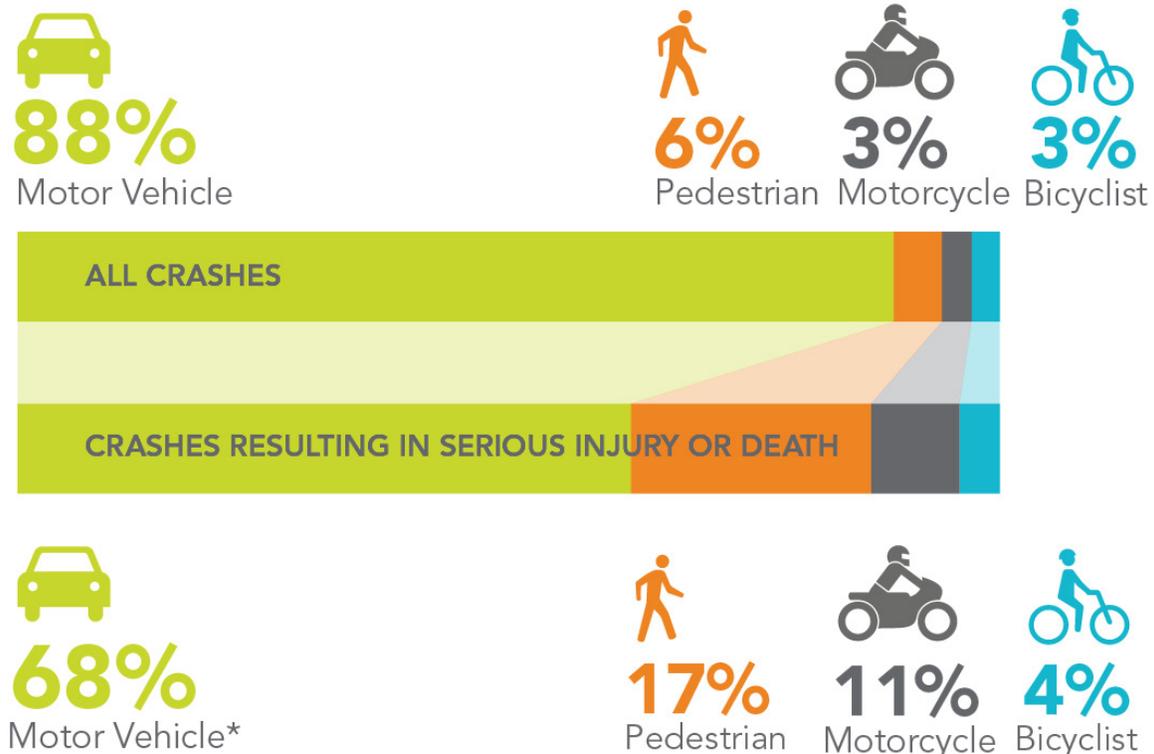
In the last five years, nearly a person per day was killed or seriously injured on Cleveland’s streets. **Fatal and serious injury (FSI)** crashes have been on the rise since 2018. In 2021 alone, 74 people were killed and 511 were injured from traffic crashes in Cleveland. Each death and life-altering injury also changes the lives of their loved ones and other people involved in the crash forever.

This section summarizes findings from the crash analysis (included in full as Appendix C). It focuses on modes of transportation, speed, crash types, locations, age, impairment, and racial justice.

Modes of Transportation

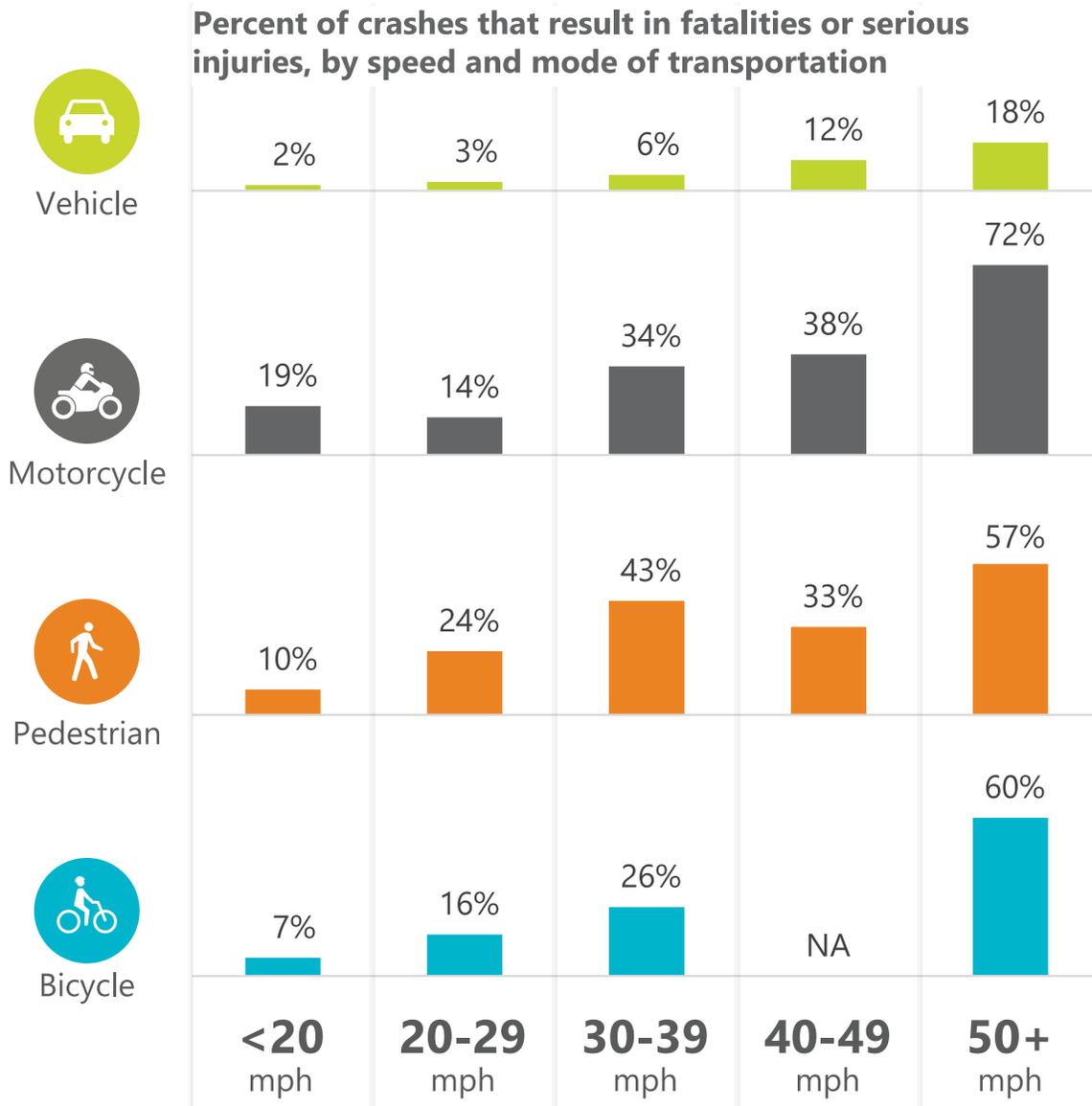
Most crashes involve vehicles, but people walking, biking, or on motorcycles are much more likely to be injured or killed in crashes. This is largely because cars have protection systems for those *inside* them, but not for those who are *outside*.

Pedestrians, bicyclists, and motorcyclists, sometimes called **vulnerable road users**, are involved in 12% of all crashes, but 32% of the crashes that result in serious injury or death.



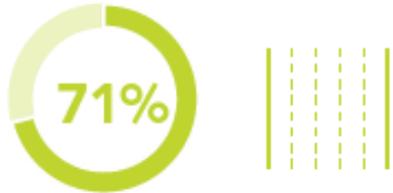
Speed

In the five years from 2016 to 2020, 47% of fatalities in Cleveland were related to speed. The chance of a fatal or serious injury more than doubles if excessive speed is involved in a crash, regardless of whether people are walking, biking, on a motorcycle, or driving a vehicle (see chart below, data for the City of Cleveland, 2016-2020).



Crash Facts

Four key points about FSI crashes in Cleveland:



71% of all FSI crashes in Cleveland happened on multilane arterial streets. These make up just 14% of the total street network.



In 44% of FSI crashes involving people walking, the people were walking along or across the street in the proper location.



In 68% of FSI crashes involving bicycles, the person riding the bicycle was doing nothing improperly to contribute to the crash.



38% of FSI crashes with people riding motorcycles involved a vehicle making a turn before the crash.

Crash Types

There are two ways to think about preventing future fatal and serious injury crashes:

- Which types of crashes are happening the most?
- Which types of crashes are more likely to result in *fatal or serious injury outcomes*?

For example, in Cleveland, rear-end crashes are very common (30% of all crashes) but they rarely result in a fatal or serious injury outcome (2%). Addressing the frequent crashes that have a high risk of severity first will be important to achieving our goals.

The following sections identify crash types and contributing factors that are involved in many severe and fatal crashes.

What do different crash types mean?

This box describes the types of crashes described in this section. Additional information, including descriptions of other crash types, is available in Appendix C.

- **Fixed object:** A vehicle hits a fixed object. Examples of fixed objects: poles, buildings, trees.
- **Angle crashes:** The front of one vehicle hits the side of another.
- **Head on crashes:** People traveling in opposite directions on parallel paths collide.
- **Right angle crash:** The front of one vehicle hits the side of another at a 90-degree angle.
- **Right turning crash:** Someone turning right at an intersection or driveway collides with a person going straight.
- **Failure to yield:** One party failed to let another party who had the legal right to go first, go first.
- **Improper crossing:** A person crossing the street in a place where it is prohibited.
- **Parallel crash:** People traveling in the same or opposite directions hit each other from the side.
- **Unsafe speed:** Traveling too fast for the conditions, regardless of speed limit.
- **Drive off road:** Driver leaves street
- **Wrong way:** Riding or driving the wrong direction on a ramp, one way street, or side of the street.
- **Turning bicycle:** A crash is preceded by a person on a bike making a turn.

974 Vehicle-Only FSI Crashes

Crashes where a vehicle driver hit a **fixed object** account for 32% of the total FSI crashes, and 15% of all fixed-object crashes had fatal or serious injury outcomes. **Angle crashes** account for 26% of the total FSI crashes in Cleveland, but only 6% of angle crashes had fatal or serious injury outcomes. **Head on crashes** account for 9% of vehicle-only crashes, but 11% of head-on crashes resulted in fatal or serious injury outcomes. Although the following contributing factors account for less than 10% of all FSI crashes, when they do happen they are more likely to result in serious injury or death: **unsafe speed** (25%), **drive off road** (18%), and **wrong way** (22%).

157 Motorcycle FSI Crashes

Angle, fixed object, left turn, and sideswipe passing represent 72% of the FSI motorcycle crashes. Of these four, the most serious are **fixed object** crashes with a fatal or serious injury rate of approximately 56% and **right angle** crashes with a rate of 34%.

237 Pedestrian FSI Crashes

Where the crash types are known, pedestrian in roadway, pedestrian crossing in crosswalk and left turning vehicles account for 71% of the FSI crashes. 15% of crashes where a **vehicle failed to yield** had fatal or serious injury outcomes and 28% of crashes where a pedestrian is attributed with an **improper crossing** had fatal or serious injury outcomes. 14% of the crashes where no contributing circumstances were assigned to a pedestrian had fatal or serious injury outcomes.

63 Bicycle FSI Crashes

In bicycle intersection crashes, **right angle** crash and **right-turning vehicle** occur most often. Of these two, angle crashes are the most severe (13% fatal or serious injury). The most severe crash types at intersections are **turning bicycle** and **parallel crash**, with a severity rate of 20% and 18%, respectively.

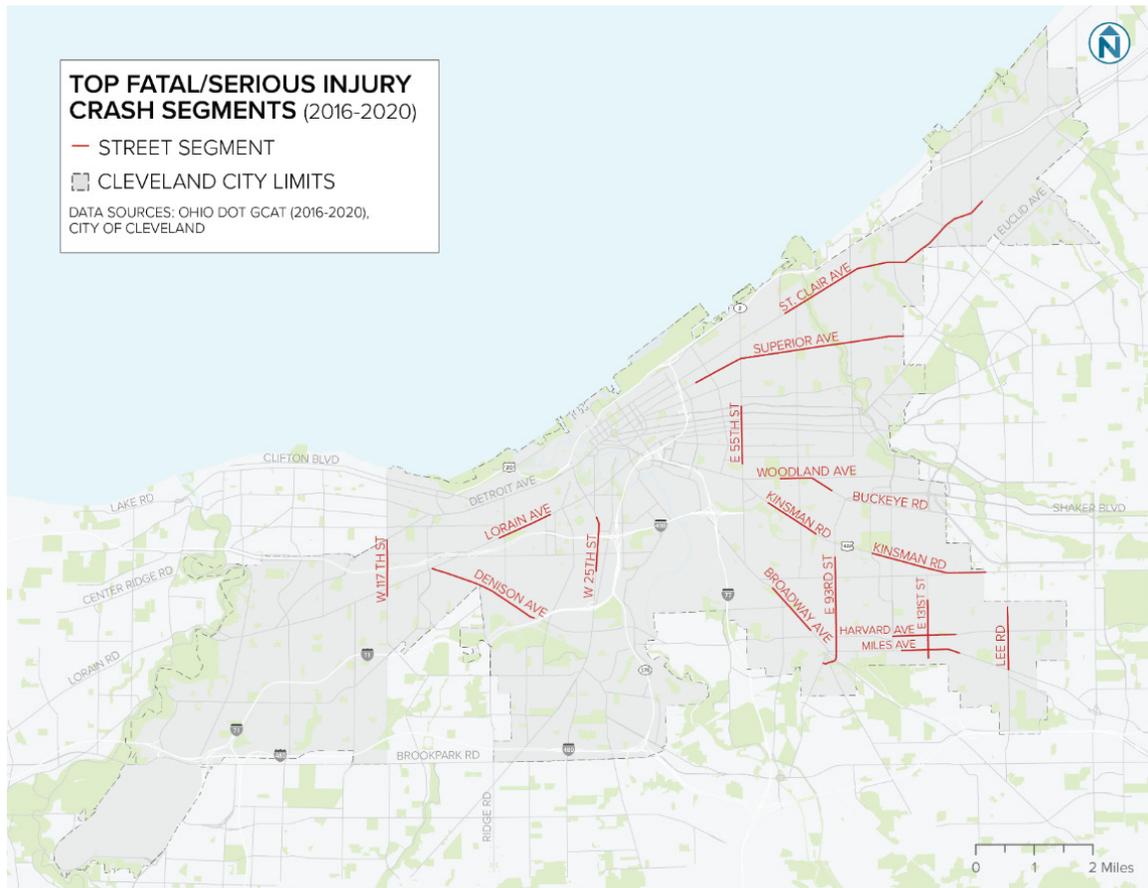
In mid-block crashes, the most common crash types are also angle crash and right-turning vehicle. However, at mid-block locations **right-turning vehicle** crashes are significantly more severe than at intersections (23% at mid-block locations, versus 2% at intersections).

Locations

Places with characteristics that are associated with a high number of crashes and more severe crashes include arterials, streets with multiple driveways, wards with a higher percent of non-white residents, and commercial areas.

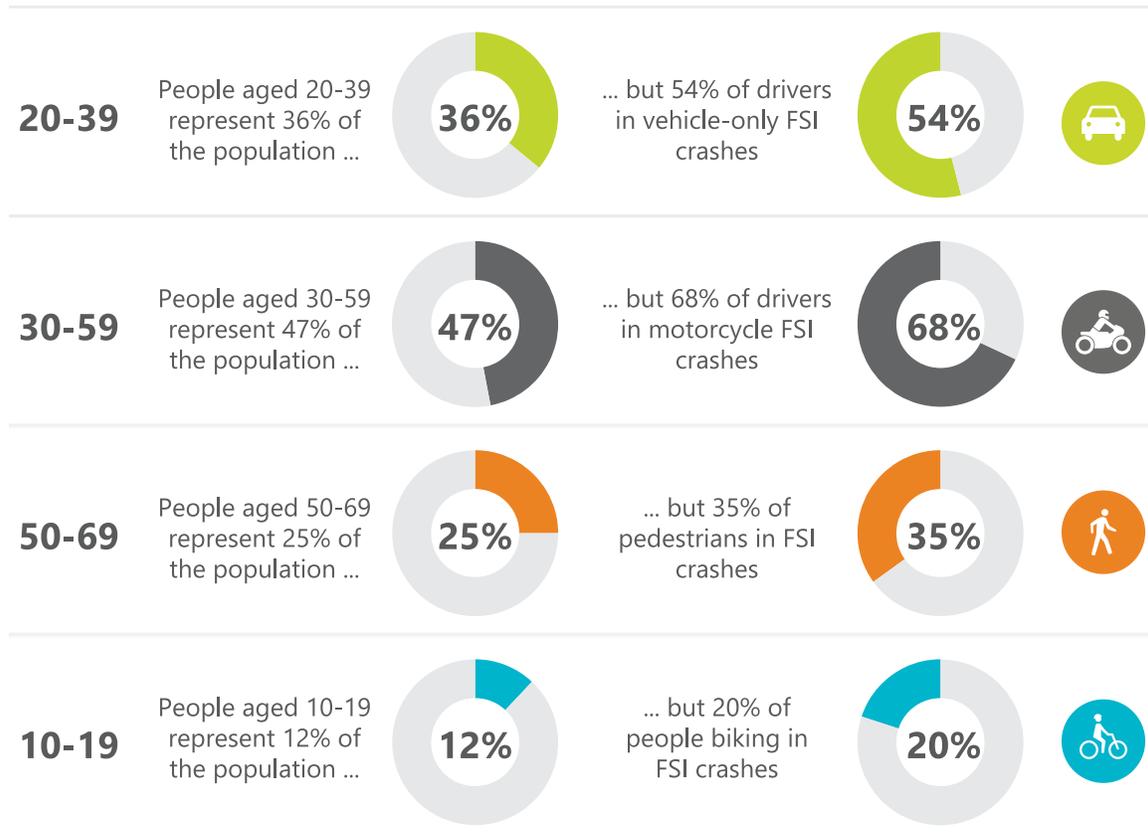
Top FSI Segments

Twenty-five one-mile segments in the city have had ten or more crashes resulting in fatal or serious injury over the last five years. Safety initiatives will prioritize these top FSI segments. Cleveland has also developed a data analysis tool, known as the Traffic Safety Priority Model, to identify crash hotspots at specific intersections, for specific crash types, and for certain community contexts. More information about the top FSI segments, the TSP model, and the methodologies is available in Appendix C: Existing Conditions Analysis.



Age

Certain age groups are disproportionately affected by crashes resulting in deaths and serious injuries. In comparison to the general population:

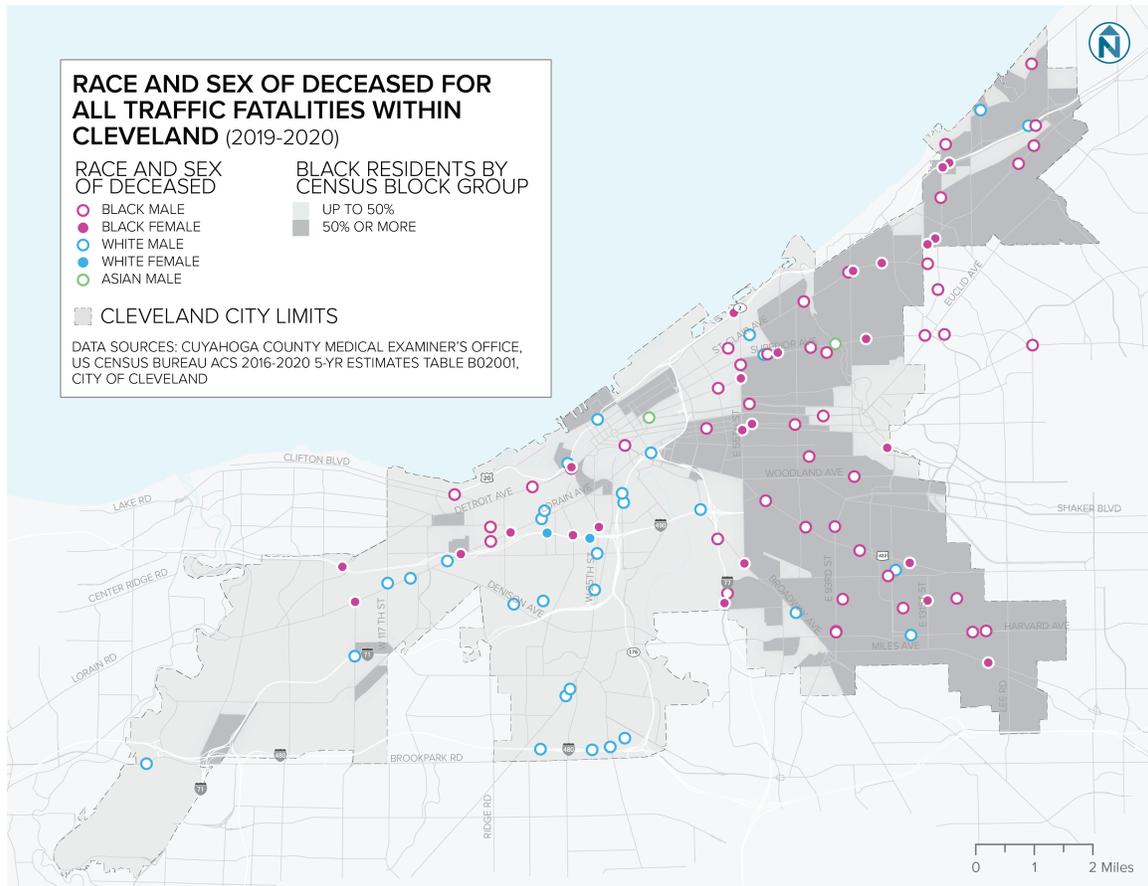


Impairment

For all people on our streets, impairment by alcohol, drugs, or marijuana results in more serious injury outcomes. Three-quarters (75%) of motorcycle crashes where impairment is a factor have fatal or serious injury outcomes, compared to 27% when impairment is not a factor. Half of bicycle crashes where impairment is a factor result in death or serious injury compared to 11% where it is not. **Alcohol is a contributing factor in one-third of Cleveland’s traffic fatalities.**

Racial Justice

People living in parts of Cleveland that have higher proportions of Black residents are exposed to more fatal traffic crashes and their resulting lifelong trauma, even when crash data are normalized for miles of roadway and population differences. Not only that, Black men are overrepresented in traffic fatalities.



Spotlight on Engagement: Identifying Concerns and Preliminary Ideas



Early in this effort, we gathered input from the community, both virtually and in nine public meetings throughout Cleveland. The purpose was to better understand concerns and ideas about safety and Vision Zero.

The input largely took the form of three comment cards with the following prompts:

- My primary street safety concern is ...
- My big idea for safe streets is ...
- I want safe streets for ...



A summary of results of this first set of community engagement activities is available on the next page. This helped to provide a foundation for strategy development (Chapter 2).

My primary safety concern is ...

Primary street safety concerns included speeding vehicles (23%), personal safety (14%), distracted drivers (9%), pedestrian safety (8%), and gun safety (5%).

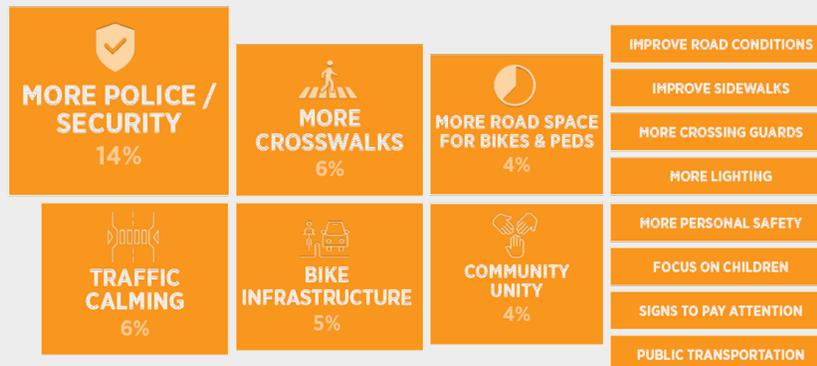
MY PRIMARY STREET SAFETY CONCERN IS:
182 Responses



My big idea for safe streets is ...

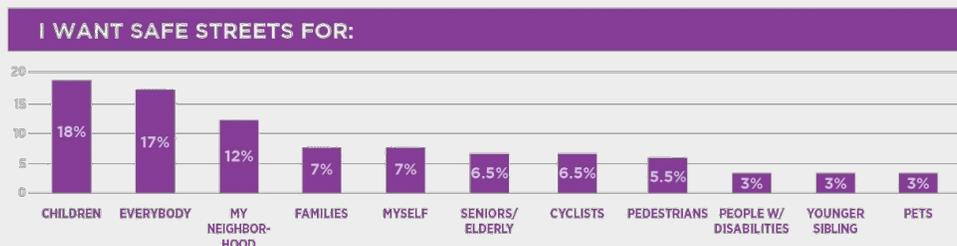
Ideas included more police (14%), traffic calming (6%), more crosswalks (6%), bike infrastructure (5%), road space for bikes and pedestrians (4%), and community unity (4%).

MY BIG IDEA FOR SAFE STREETS IS:
124 Responses



I want safe streets for ...

Community members predominantly wanted safe streets for children (18%), everybody (17%), and their neighborhood (12%).



BUILDING ON PAST EFFORTS

There are already many City, regional, and Ohio policies and plans that prioritize safety, and this Vision Zero Action Plan builds on them. As of this writing, there are planned actions to update some of these plans, noted below.



Cleveland Climate Action Plan Update (2018) specifically recommended the City “Launch and implement a City Vision Zero Initiative” and links traffic safety to climate goals. The City will be pursuing its next plan update in 2022-2023, showing additional opportunities to integrate Vision Zero strategies into climate action.



Connecting Cleveland 2020 Citywide Plan (2007) chapters on *Safety* and *Transportation and Transit* indirectly support Vision Zero by outlining how planning and design can play an important role in preventing serious injuries and fatalities on Cleveland’s roads. The City will be updating this comprehensive plan in 2022-2023.



City of Cleveland Form Based Code Pilot (2019-2022) is a first step towards linking land use code to traffic safety efforts and should offer opportunities to incorporate review protocols that recommend or mandate traffic safety objectives or measures. The Vision Zero Task Force—or a relevant subcommittee—could serve in the review process to ensure conformity with Action Plan goals and strategies.



City of Cleveland Three-Year Capital Improvement Program (CIP) (annual) is one of the primary means of implementation of the Citywide Plan, and the Vision Zero Task Force and its subcommittees should be an active partner in the formulation of upcoming CIPs. The CIP committee can use the safety analyses and strategies included in this plan to give additional priority to projects that address safety hot spots and segments of the high injury network.



City of Cleveland Complete and Green Streets ordinance (2011) supports a walking, biking, and public transportation-friendly city with safe and desirable travel options, and requires progress reports to evaluate outcomes toward this and other objectives.

Recent Action: The ordinance, passed by City Council on June 6, 2022, is a legislative lever for implementing Vision Zero Action Plan strategies and tracking progress. The new ordinance mandates regular updates to the City's Active Transportation Plan, strengthens internal project review protocols among departments, and establishes a Transportation Infrastructure Advisory Committee (TIAC) to help inform desired complete and green streets elements for roadway projects.



Cleveland’s Safe Routes to School Districtwide Travel Plan (2016) includes programmatic and infrastructure recommendations for improved walking and biking safety for students in approximately 70 K-8 grade schools across the city. Since its adoption, over \$800,000 has been invested in pedestrian safety enhancements guided by the plan.



Ohio Strategic Highway Safety Plan (SHSP) commits to increasing funding toward arterial roadways, which have higher speeds and amount to a significant proportion (43%) of reported fatalities and serious injuries. It also defines crash type emphasis areas. Finally, it describes how the state is tracking five key performance measures related to traffic safety to meet federal FAST Act requirements, which Cleveland can support by way of Vision Zero: Number of fatalities and serious injuries, fatality and serious injury rates, and the number of non-motorized fatalities and serious injuries.



SAVE: NOACA’s Plan for Transportation Safety (2019) is the Northeast Ohio Area Coordinating Agency’s Plan for Transportation Safety which identifies actions to reduce the most severe crashes that result in fatalities and serious injuries. It incorporates a 6 E’s approach to planning, acknowledging education, engineering, enforcement, emergency response, evaluation, and equity as critical elements to save lives.



NOACA Complete and Green Streets Policy (2020) recognizes the road network as the largest public space in the region and offers design guidance for roadways to prioritize safety, multimodal connectivity, healthy communities, and natural systems, similar to the City’s ordinance. This policy reinforces the importance of local objectives and compliance in Cleveland, and supports a higher standard of safety and travel conditions along corridors that traverse municipal boundaries.



ODOT Multimodal Design Guide (2022) complements guidelines in the ODOT Traffic Engineering Manual, OMUTCD, and Location & Design Manual and will become the primary resource for bicycle and pedestrian design guidance from ODOT for projects with a higher concentration of vulnerable roadway users.

2 VISION ZERO STRATEGIES

This chapter focuses on goals and strategies to create safe systems. The goals and strategies are organized into six safe system elements that will together help us eliminate death and serious injury due to traffic crashes.

This chapter first explains what the six safe system elements are, and then presents goals and strategies for each element.



SAFE SYSTEM ELEMENTS

There is no single way to improve traffic safety—changes must occur at a system level. We categorize safe systems into six elements: A Safe System, Safe Speeds, Safe Streets, Safe People, Post-Crash Care, and Safe Vehicles.

A Safe System



Safe Speeds



Safe Streets



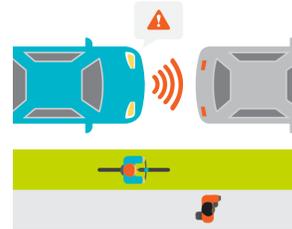
Safe People



Post-Crash Care

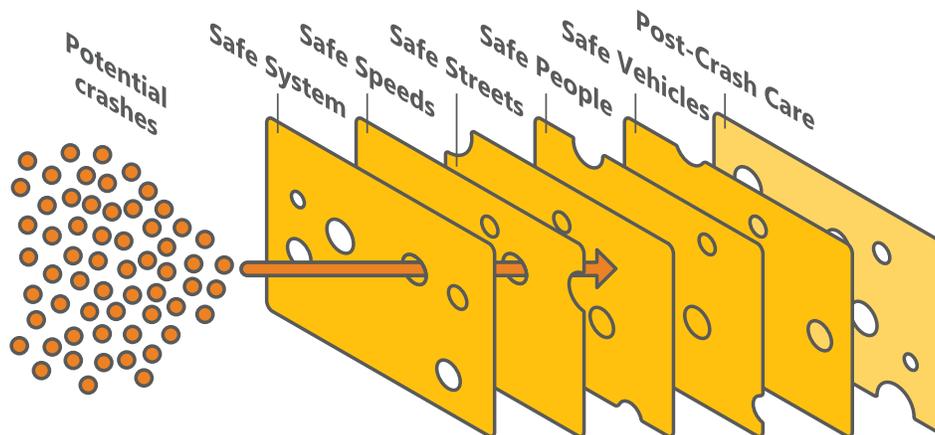


Safe Vehicles



Redundancy Is Key

One key benefit of the safe systems approach to Vision Zero is redundancy. If any one part of the system fails, other parts of the system are still available to keep people safe.



Safe System Elements and Goals

This action plan is focused on Cleveland’s approach to build a safe system. This section describes Cleveland’s goals and strategies for this. **Goals** are defined as general statements of desired outcomes as they relate to Vision Zero. **Strategies** help document steps needed to realize goals, or what Cleveland will need to do to meet its goals. **Policies** are guidelines to support elected and appointed officials as they make decisions related to the goals. **Performance measures** are specific outcomes that can be monitored and measured to track how well Cleveland is meeting the goals over time.

Cleveland’s goals for each element are:

Safe System Element	Goals
A Safe System	<ul style="list-style-type: none"> ▪ Create a transportation system that prioritizes safety and reduces serious injuries and fatalities as a result of traffic crashes, with a goal of elimination by 2032.
Safe Speeds	<ul style="list-style-type: none"> ▪ Prevent crashes from having life altering impacts by slowing speeds on Cleveland streets.
Safe Streets	<ul style="list-style-type: none"> ▪ Prioritize safe, healthy, and equitable mobility in decision-making and capital investments. ▪ Integrate safety into roadway projects. ▪ Integrate safety in ongoing maintenance and operations. ▪ Increase community understanding of and participation in transportation project decisions.
Safe People	<ul style="list-style-type: none"> ▪ Increase knowledge, community support, and adoption of safe practices across all road users.
Post-Crash Care	<ul style="list-style-type: none"> ▪ Support people affected by crashes. ▪ Learn from crashes to improve safety.
Safe Vehicles	<ul style="list-style-type: none"> ▪ Ensure that public and private vehicles protect all road users.

Ultimately, the safe system approach recognizes that all elements are necessary to achieve a transportation system where no one is killed or experiences life-altering injuries while trying to move through the city.

A SAFE SYSTEM

A Safe System builds a culture that prevents safety from becoming siloed. It informs priorities and decisions across departments, agencies, and focus areas. This helps strategies related to roadway design, vehicle regulations, human behavior, and reinforcement strategies be complementary and additive in terms of their safety benefits.

In practice, this element will include maintaining the Vision Zero organizational structure described in Appendix D (Stakeholder Framework to Support the Work); conducting routine crash analyses; and working toward policy and program alignment across City departments and partner agencies.

A Safe System Is a Multimodal System

Research shows that communities with more transit use, walking, and bicycling and less car use are safer for all road users. This is not surprising since fatal and serious injury outcomes are directly linked to crash speeds and the relative mass of road users involved.

As such, actions that make it possible for more people to choose to take transit, ride a bike, or walk rather than driving are important steps toward a safer transportation system.

Goal

Create a transportation system that prioritizes safety and reduces serious injuries and fatalities as a result of traffic crashes, with a goal of elimination by 2032.

- Strategy:** Invest in and sustain systems change to achieve safer streets.
- Strategy:** Analyze safety data regularly to identify priority locations, contributing factors, and focus areas to inform safe system strategies.
- Strategy:** Facilitate cross-sector partnerships and collaboration.
- Strategy:** Align programs and policies with Vision Zero goals.
- Strategy:** Shift transportation choices from single occupancy vehicles to safer modes of transportation.

SAFE SPEEDS

There is a direct connection between safe speeds and our ability to survive a crash. Slower speeds reduce crash impact forces, provide additional time for drivers to stop, and improve the ability to see what's around us.

Equitably enforcing safe speeds has been challenging in Cleveland because the roadway network was built for a larger population than currently lives in the city, automated enforcement such as speed cameras and red-light cameras are not legal, and officers are required to respond to many public safety priorities in addition to traffic enforcement.

We must be creative and equitable in slowing our streets down through strategies including speed limit designations, roadway design practices, education, advocacy at the state level, and by aligning enforcement strategies and the justice system to focus on behaviors most likely to result in serious injury or death

Goal

Prevent crashes from having life altering impacts by slowing speeds on Cleveland streets.

- Strategy:** Lower speed limits.
- Strategy:** Amplify the benefits of lower speeds.
- Strategy:** Reinforce safe speeds equitably by aligning the criminal justice system with Vision Zero goals.
- Strategy:** Design streets that compel motorists to drive at safe speeds.

SAFE STREETS

Safe streets are designed and operated to prevent crashes and to keep impacts on the human body at tolerable levels when crashes do occur. Crashes can be avoided by separating people traveling at different speeds and in opposing directions with space or time. Examples of spatial separation include sidewalks, bike lanes, or turn pockets. Time separation may be used when people need to operate in the same space. Examples include separate phasing for protected turns and pedestrian head start phases (also called leading pedestrian intervals) at traffic signals.

Other safe street treatments such as improving visibility at corners, street lighting, and rectangular rapid flashing beacons can reduce the potential for conflict. In the future, analysis of historic crash patterns along with proactive contextual assessments of crash risks will inform our street maintenance plans and capital project investments.

<p>Goal</p> <p>Prioritize safe, healthy, and equitable mobility in decision-making and capital investments.</p> <p>Strategy: Establish a data-driven process to identify proactive and reactive safety needs.</p> <p>Strategy: Prioritize safety and multimodal choice in budgeting decisions.</p> <p>Strategy: Evaluate local projects to understand safety impacts and outcomes.</p> <p>Strategy: Leverage resources via interagency collaboration.</p>
<p>Goal</p> <p>Integrate safety into roadway projects.</p> <p>Strategy: Enhance the integration of safety in the project development process.</p> <p>Strategy: Use new tools and practices during design.</p>
<p>Goal</p> <p>Integrate safety in ongoing maintenance and operations.</p> <p>Strategy: Develop and resource maintenance plans that preserve multimodal safety.</p>

Goal

Increase community understanding of and participation in transportation project decisions.

Strategy: Create community engagement and communications standards for transportation projects.

Strategy: Create digestible resources about street design elements and project development processes for the public.

SAFE PEOPLE

Safe systems consider the safety of all people using our streets, including people who walk, bike, take transit, drive, or use other modes. Instead of prioritizing the flow of vehicles, the safety of all users is the primary consideration. Vision Zero requires all people to take responsibility for the fact that their decisions can influence the safety of the people with whom they are sharing the street.

Residents engaged through this planning process have shared that they have been personally affected by traffic crashes or stops,¹ and that they are ready for a change towards a safer Cleveland. Vision Zero will continue to engage and learn from residents, workers, and visitors as this plan is implemented. Public trust is essential to reach zero serious injuries and fatalities, and our actions will be planned with community input and equity impacts in mind.

Goal

Increase knowledge, community support, and adoption of safe practices across all road users.

- Strategy:** Earn trust and buy-in from the community; prioritize bringing new and diverse voices into the effort.
- Strategy:** Reform driver's education, focused on safety and multimodal knowledge.
- Strategy:** Create public messaging campaigns that address key safety needs.
- Strategy:** Develop policies and programs to encourage and incentivize mode shift.

¹ More than half of the 1,602 respondents to the Fall 2021 community survey for this Vision Zero Action Plan answered yes to the following question: "Have you or someone you love been affected by a traffic crash or traffic stop while walking, bicycling, driving, or taking transit in Cleveland?"

POST-CRASH CARE

When a person is injured in a crash, they rely on first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Other actions at the scene are needed to secure safety for others and to prevent additional crashes. A quick response and investigation by police and road managers is essential to document the factors in the crash, which creates a better understanding of the holistic safety landscape at the scene and can inform the response by justice, design, program, and policy experts.

Our goals are to better support people affected by crashes, provide the highest quality medical care to those involved, and to learn rapidly from crashes that do happen to prevent future incidents.

<p>Goal</p> <p>Support people affected by crashes.</p> <p>Strategy: Support crash victims and their loved ones.</p> <p>Strategy: Shorten time from collision to hospital care.</p>
<p>Goal</p> <p>Learn from crashes to improve safety.</p> <p>Strategy: Advance Vision Zero data linkages.</p> <p>Strategy: Improve post-crash site investigations.</p>

SAFE VEHICLES

Safety measures built into vehicles can protect people both inside and outside of a vehicle. They can prevent crashes from happening and reduce the impact of a crash on occupants. Active safety measures to prevent crashes include autonomous emergency braking and lane change alerts. Seatbelts and airbags are more passive measures that support occupants when crashes do happen. While vehicle manufacturers are a key stakeholder in vehicle safety, individuals and organizations can also prioritize purchase and use of vehicles that offer safety features.

The City has already undertaken a successful pilot project using pedestrian safety panels, also called sideguards, on garbage trucks, and will transition to a safer fleet by changing its procurement policies. Because vehicle design is regulated at the federal level and can be driven by market demands, national advocacy and consumer education are important strategies here.

Goal

Ensure that public and private vehicles protect all road users.

- Strategy:** Collaborate with other agencies to effect change at a large scale.
- Strategy:** Establish minimum safety requirements for fleet procurement and use.
- Strategy:** Prepare for autonomous and connected vehicles and infrastructure.
- Strategy:** Educate residents about the safety impacts of different vehicle technologies.

3 GETTING IT DONE

Vision Zero isn't just about developing strategies, it's about making them happen. This chapter helps us bridge the gap between strategies and implementation—it puts the “Action” in Vision Zero Action Plan.

Getting It Done covers five aspects of implementation, each of which are critical to success. These form the overall structure of the chapter:

- **Prioritizing and Phasing.** This section explains how we prioritize actions to deliver maximum impacts.
- **Where We Start: Actions.** This section lists the highest priority actions. In other words, what are the most important first steps?
- **What Are Our Tools?** This section explains which tools are available to improve traffic safety (also called countermeasures or treatments). These include things like speed limits, sidewalks, and rumble strips. More detail is available in Appendix B.
- **How Will We Be Accountable?** This section explains how we will hold ourselves to this Action Plan and measure success.
- **Stakeholder Framework.** This section describes the groups responsible for making progress on the priority actions associated with each strategy. More information on this framework is available in Appendix D.

PRIORITIZING AND PHASING

While it will take time to assemble funding for new projects and programs, there are also opportunities to start now. The actions in this plan are prioritized and phased by our current understanding of their cumulative potential to influence the outcome of future crashes, using the following criteria:

Prioritizing

- Support **mode shift** into walking, bicycling, and transit
- Focus on FSI crash segments or other **data-driven safety priority** areas, such as contributing factors to crashes
- Improve data-driven **decision making**
- Improve health and safety outcomes in **low income and/or non-white majority neighborhoods**
- **Reduce the severity of injuries** resulting from crashes
- Increase **awareness and support** of Vision Zero in the community
- **Change policies and build systems** to enable safe outcomes

Phasing

- **Feasibility** for City to complete with existing resources
- Estimated **costs**
- **Challenge** to complete under the current legal/regulatory context
- City has the **authority** to lead

People participating in Round 2 engagement assessed the relative level of importance of the prioritization criteria. This information built on the weighting proposed by the Task Force and was used to decide what actions should be a priority for the city.

Spotlight on Engagement: Community Priorities

Midway through the process, we gathered input from the community on (A) action areas to focus on, and (B) actions to prioritize.

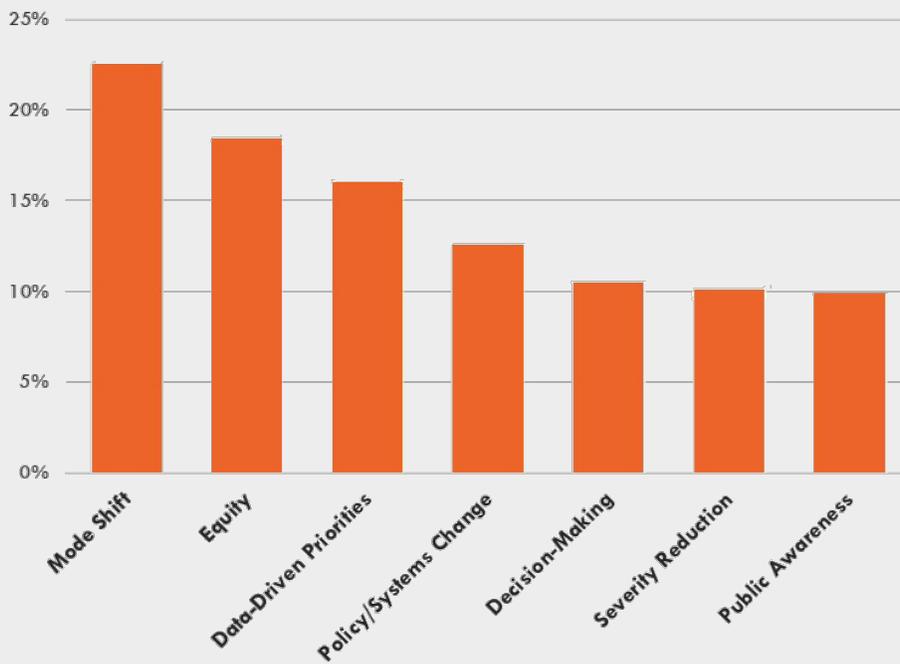


High-Level Action Areas

The action areas helped us determine where—at a high level—to focus our effort first. They included mode shift, equity, data-driven priorities, policy and systems change, decision-making, severity reduction, and public awareness. The three most important areas among community members were mode shift, equity, and data-driven priorities.

Help the City decide where to focus first. Which three action areas are most important to you?

(% of 494 responses)



Priority Strategies

Community members also weighed in on the strategies drafted during the planning process. When asked which five strategies we should focus on first, the top five with the most votes were:

- Design streets that compel motorists to drive at safe speeds.
- Invest in and sustain systems change to achieve safer streets.
- Integrate safety in the project development process.
- Support crash victims and their loved ones.
- Develop and resource maintenance plans that preserve multimodal safety.

WHERE WE START: ACTIONS

While the goals and strategies provide an overall framework for systematically eliminating fatal and serious injury crashes from the Cleveland landscape, there are also specific actions that have been identified and prioritized for immediate consideration to address known needs within each safe system element. The Actions below are recommended to be launched or accelerated during the first year of work.

Safe System

Top Actions

Staff a Vision Zero coordinator position to oversee this initiative as their primary job responsibility.

Conduct peer city research to inform and create a City organizational structure for Vision Zero implementation.

Sustain support of elected officials and decision-makers.

Ensure diverse representation on Vision Zero work groups, including members from City of Cleveland, City Council, ODOT, NOACA, RTA, CMSD, Cleveland Metroparks, Cuyahoga County, healthcare organizations, hospitals, community development corporations, advocacy organizations, and residents.

Establish a comprehensive program to support mode shift through transportation demand management initiative, curb management, and transit priority programs.

Safe Speeds

Top Actions

Advocate for a charter amendment to allow data-driven use of automated technologies such as speed cameras to achieve lower speeds without use of traffic stops, starting in school zones and on the FSI network. Use camera revenue to support geographically proximate safety enhancements.

Focus enforcement on the most dangerous behaviors based on reliable data.

Install speed feedback signs to increase compliance with speed limits.

Develop and activate traffic calming programs and policies.

Safe Streets

Top Actions

Implement low-cost, quick-build safety improvements at high-injury locations.

Continue to leverage local dollars to secure additional county, state, and federal funds to implement standalone safety projects.

Include safety improvements identified through Vision Zero analysis in programmed roadway projects.

Formalize a project scoping checklist for roadway projects to include items that consider mode shift, safety, and equity.

Develop criteria for the implementation of leading pedestrian intervals.

Dedicate resources to equitably assure sidewalk repair.

Safe People

Top Actions

Work with University Hospitals' Injury Prevention Center and Safe Kids/Safe Communities Coalition to advance street safety programs.

Host policy rides and walks to raise elected official and decision-makers' awareness of safety conditions.

Address high-risk drivers and behaviors such as young and older drivers, impaired driving, unbelted drivers and passengers, distracted driving and excessive speed through safety campaigns.

Post-Crash Care

Top Actions

Deploy multi-disciplinary crash response teams to gather exhaustive information about the conditions surrounding FSI crashes and recommend short term or pilot safety interventions.

Develop standardized means of reporting exacerbating or contributing factors through first responder debriefings and qualified crash response teams.

Safe Vehicles

Top Actions

Invest in non-motor vehicle City fleets such as e-bikes and cargo bikes, and provide staff training.

Evaluate the garbage truck pilot program and pass legislation requiring side guards on all large fleet and commercial vehicles.

Require all new and replacement fleet vehicles to have the latest crash avoidance and safety technology.

Appendix A includes the complete action table, including the ranking method, and the responsible and supporting parties. This table will be a dynamic workplan that is reviewed annually and updated as needed. Progress will also be updated using categories of: Maintain, Accelerate, Launch, Defer, and Complete as a way to track progress, similar to ODOT’s Walk.Bike.Ohio Policy Plan.

				
Maintain	Accelerate	Launch	Defer	Completed
project or program	project or program	new project or program	opportunities for advancing	action item

Many actions will be ongoing, but there will also be finite tasks, taken on by working groups. The actions will be completed in a partnership that includes the City of Cleveland, partner agencies, advocacy organizations, and community members.

Ongoing Actions

The City will sustain launched actions as long as they support the vision of the program. The Vision Zero Task Force and its subcommittees have been advancing projects to support a safer Cleveland since 2018. These include:

- Annual crash data analysis to identify the Top FSI Segments and other priority areas for safety interventions
- Launch of a crowd-sourced 'close call' online form to inform proactive safety enhancements
- Planning and funding for segments of the Midway Separated Bikeway Network (MidwayCLE.org)
- W. Franklin Boulevard Traffic Calming planning, design, and capital project
- \$1.5 million investment in low-cost improvements through ODOT's Pedestrian Safety Improvement Program guided by Vision Zero analysis
- Sideguard pilot on 10 City of Cleveland Division of Waste trucks
- Safety study of St. Clair Avenue from East 100th Street to East 155th Street based on Vision Zero analysis

Comprehensive update of the 2011 Complete and Green Streets ordinance, including establishment of a Transportation Infrastructure Advisory Committee (TIAC) to assist with project review and evaluation with a focus on safety, equity, and sustainability outcomes.

- Development of a neighborhood traffic calming pilot deploying speed tables and radar speed feedback signs to inform a citywide policy
- Approval and licensing for community-led decorative street painting projects to install painted curb extensions and high-visibility crosswalks
- Allocation of \$200,000 of initial Vision Zero implementation funding in the City's 2022 budget

While we secure additional funding, we will create a process for using safety as a key input for our repaving and capital projects. We will dive into the details of recorded crash locations, EMS reports, and community comments to integrate applicable safety countermeasures into upcoming projects. With a better understanding of priority areas for focus and crash patterns, we will expedite project readiness for further evaluation and selection of safety countermeasures.

Spotlight on Engagement: Lee Road



A key outcome of this plan is to change the process we use to prioritize and design our streets by focusing on equitable engagement and safety.

Lee Road is one of the Top FSI segments that is due for repaving in the coming years.

Rather than simply resurface the street and restripe it in its existing configuration, a detailed crash analysis was conducted to inform potential redesigns. A resident survey and pop-up and workshop engagements were conducted to let people know about the crash patterns and ask for their input on the potential countermeasures that would reduce the types of crashes that are common there. The safety analysis and community engagement activities used for Lee Road will serve as a model for future Vision Zero FSI segment work.

Outreach actions began with early conversations with Ward 1 Councilman Joe Jones to share Vision Zero’s safety principles and identify an effective community engagement strategy for the Lee Road corridor. In close partnership with Councilman Jones, the Vision Zero team attended monthly Ward 1 Community Meetings to build awareness of the Vision Zero Action Plan, distributed a safety survey focused on Lee Road, documented conditions along the corridor through photographs and video, and facilitated a workshop with community members.

The survey was available through printed copies distributed at Ward 1 meetings and shared online through a SurveyMonkey link. In total, the survey gathered transportation data and safety concerns from 88 respondents. Approximately 75% of respondents stated they felt “A Little Unsafe” or “Very Unsafe” traveling along Lee Road.



WHAT ARE OUR TOOLS?

There are many tools—also called countermeasures or treatments—to support our Vision Zero goals. They include traffic control and pavement marking applications, geometric design, and regulatory and enforcement strategies. More innovations will become available over time and some will require regulatory and legislative actions.

The Ohio Strategic Highway Safety Plan includes many emphasis areas that are a priority for the state to address. Projects that address these emphasis areas in Cleveland may be more ready for funding through ODOT.

The tools below have the potential to address the main collision types happening in Cleveland. They are organized into three categories of greatest need in alignment with SHSP Emphasis Areas: speed-related collisions, intersection-related collisions, and other collisions such as roadway departures. The tools are explained in detail in Appendix B.

Speed



- Reducing speed limits
- Speed safety cameras
- Road diet
- Protected bike lanes
- Curb management

Intersections



- Protected left turns
- Signal modification
- Bicycle signals
- Raised pedestrian crossings
- Leading pedestrian intervals
- Pedestrian hybrid beacons
- Daylighting
- Curb extensions
- Median crossing and pedestrian refuge islands
- Bus bulbs
- Continental crosswalks
- Rectangular rapid flashing beacons
- Low-cost countermeasures at two-way stop-controlled intersections
- Sidewalks and walkways

Other



- Wider and more reflective lane lines
- Road sign reflectivity
- Lighting
- Medians
- Access management
- Rumble strips
- Infrastructure communications with connected vehicles

Note: "Other" includes tools to address wrong way travel, fixed objects, road departures, and night-related issues.

HOW WILL WE BE ACCOUNTABLE?

This plan creates a framework of actions in accordance with the six safe system elements. The progress in launching and implementing each action will be assessed annually.

In addition, we will report back on key performance indicators. A ten-year downward slope to zero will require the initiative to measure both outputs and outcomes from actions taken across the safe system spectrum, without getting bogged down in resource-intensive data analysis.



Safe System

- Vision Zero website with Action Plan and annual report
- Regular newsletter to involve and inform the public
- Staffing resources dedicated to Vision Zero advancement
- Percent of City projects that complete the updated project checklist and go through an interdisciplinary review process



Safe Speeds

- Change in 85th percentile speeds and percent of drivers over 25 mph after street rehabilitation and capital improvement projects



Safe People

- Number of reported close calls and incidents and follow up actions
- Percent of FSI crashes involving the crashes most likely to be fatal—people on motorcycle or walking, fixed object, or occurring in Cleveland’s eastside



Safe Streets

- Investments and crash trends in Vision Zero priority areas



Safe Vehicles

- Percent of annual vehicle expenditures adhering to Vision Zero fleet specification recommendations
- Corporate and City Fleet adoption of non-motorized and small vehicles for operations



Post-Crash Care

- Progress on supportive resources available to crash victims
- Progress on data linkages to improve insights

Spotlight on Engagement: Close Call Form



To collect experiences from Clevelanders and build a dataset of incidents that are not reflected in the crash report data, City staff built an Incident & Safety Report Form. This allows residents and visitors to report an incident (aka “close call”) or a general safety concern while using our transportation system. The form is interactive and captures qualitative data about the user’s experience and allows them to pinpoint the location of the incident/concern on a map. The form saves the record to a data layer that the city can then use for analysis and action.

Incident & Safety Report Form

The Vision Zero Taskforce is collecting reported experience of close calls or observed safety concerns across the city. If you have experienced an unsafe traffic condition or something which almost resulted in a crash, please report it here! You can also tell us about general safety concerns you may have at a specific location for any road user (car, bike, pedestrian, etc.)

Please note that filling out this form is not a replacement for filing a police report. It is for data collection purposes only.

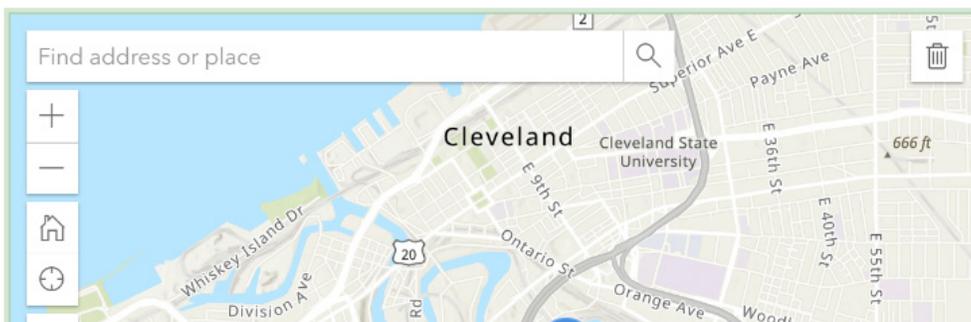
Tell us why you're here:*

I am reporting a specific incidence of a Close Call

I am reporting a more general safety concern

Tell us where it happened, or where you have a safety concern:*

Pick a location on the map where the close call occurred, or where you felt unsafe.



STAKEHOLDER FRAMEWORK

This plan recommends policy improvements and system changes to guide decision-making among and across City departments and external partners. Cross-agency collaboration will create a safer transportation system by:

- Assigning tasks and setting deadlines to hold everyone publicly accountable
- Focusing resources and funding on traffic safety
- Creating a spectrum of dignified engagement that makes it clear what the purpose of outreach is, and how public input will be used
- Acknowledging that social justice and health equity are foundational to Vision Zero

As local work to eliminate traffic fatalities and serious injuries enters the next phase, Vision Zero Cleveland adopts the following framework to make rapid progress on prioritized actions:

Group	Role
Vision Zero Cabinet	<ul style="list-style-type: none"> ▪ Facilitate systems change toward safer streets. ▪ Streamline the high-level decision-making required within the City to implement the Vision Zero Action Plan.
Vision Zero Task Force	<ul style="list-style-type: none"> ▪ Serve as the main advisory body to the City of Cleveland. ▪ Receive Working Group updates on priority action progress. ▪ Provide guidance on implementation direction. ▪ Highlight key questions or topics of concern to be advanced to the Vision Zero Cabinet. ▪ Provide regular, transparent progress updates to community stakeholders. ▪ Assist in recruiting diverse and skilled members for Vision Zero Working Groups.
Vision Zero Working Groups	<ul style="list-style-type: none"> ▪ Roles vary, aligned with priority actions.

Stakeholder Framework in Context: Vision Zero Cleveland

Cleveland's Vision Zero initiative was formally launched in 2018 with the adoption of Resolution 5-18, which stated the Council's support and commitment to work with the City administration and community stakeholders to create a Vision Zero plan. To implement the resolution, Councilmember Matt Zone and Chief of Operations Darnell Brown co-chaired a Vision Zero Task Force comprised of representatives from several City departments, agency partners, and community stakeholders, including residents.

From 2018 through 2022, the Taskforce was supported by five subcommittees focused on Data/Evaluation, Design/Engineering, Education/Engagement, Enforcement, and Fleet/Vehicle Maintenance. Each subcommittee was co-chaired by a City of Cleveland staff member and a community stakeholder. Project management and coordination has been provided by the City Planning Commission and City Council.



This page is left intentionally blank.

STAY ENGAGED

Vision Zero Cleveland will eliminate serious injuries and deaths from crashes on Cleveland roads by 2032.

Join us in getting to zero. Stay engaged at **[VisionZeroCLE.org](https://www.visionzeroCLE.org)**.