FORT COLLINS VISION ZERO ACTION PLAN

January 31, 2023 | DRAFT

Table of Contents

Executive Summary

Any traffic deaths or life-changing injuries in Fort Collins are unacceptable. In 2021, there were 332 crashes in Fort Collins that resulted in a fatality or injury. In that year, 11 people lost their lives while traveling on Fort Collins' streets. These events bring immeasurable personal loss and negative community impacts.

The City of Fort Collins is taking the Vision Zero approach to transportation safety to renew its commitment to creating safer streets where no one is at risk of losing their life or being seriously injured. Fort Collins' priorities and commitment to Vision Zero are centered on the understanding that even a single traffic fatality or serious injury is unacceptable.

Many communities have made a formal commitment to Vision Zero but fewer have achieved it. Those that have achieved at least one year of Vision Zero, such as Boulder, Arvada, and Centennial in Colorado, and other cities with population similar to Fort Collins, such as Oxnard CA, Lansing MI, and Allentown PA, and hundreds of other town and cities around the word, are an inspiration and a model for Fort Collins.

Fort Collins' vision is that:

By 2032, no one dies or has a serious injury while traveling on Fort Collins' streets.

The Fort Collins Vision Zero Action Plan takes a data-driven approach to analyze crash trends and identify a High-Injury Network (HIN) where a disproportionate number of crashes led to fatalities and serious injuries. It outlines specific actions for the City to take in the next ten years to achieve Vision Zero. The actions in the Plan address safety issues in these crash trends and the HIN.

Developing the Action Plan

The Fort Collins Vision Zero Action Plan was developed collaboratively by City staff across multiple departments. A Technical Advisory Group that represents a diverse cross-section of the Fort Collins government and local and statewide organizations was formed to guide the development of the Plan and prioritization of action items.

Additionally, feedback from the larger Fort Collins community has guided the development of the Plan. This included presentations to and feedback from various City boards and committees, an online public review of this Action Plan, and outreach efforts for previous plans of the Fort Collins' transportation system. These previous plans include the Transportation Capital Projects Prioritization Study and the Fort Collins Active Modes Plan. The Fort Collins Vision Zero Action Plan is tied to the City's existing plans and policies and identifies ways to reprioritize existing efforts to achieve Vision Zero.

What is a Serious Injury?

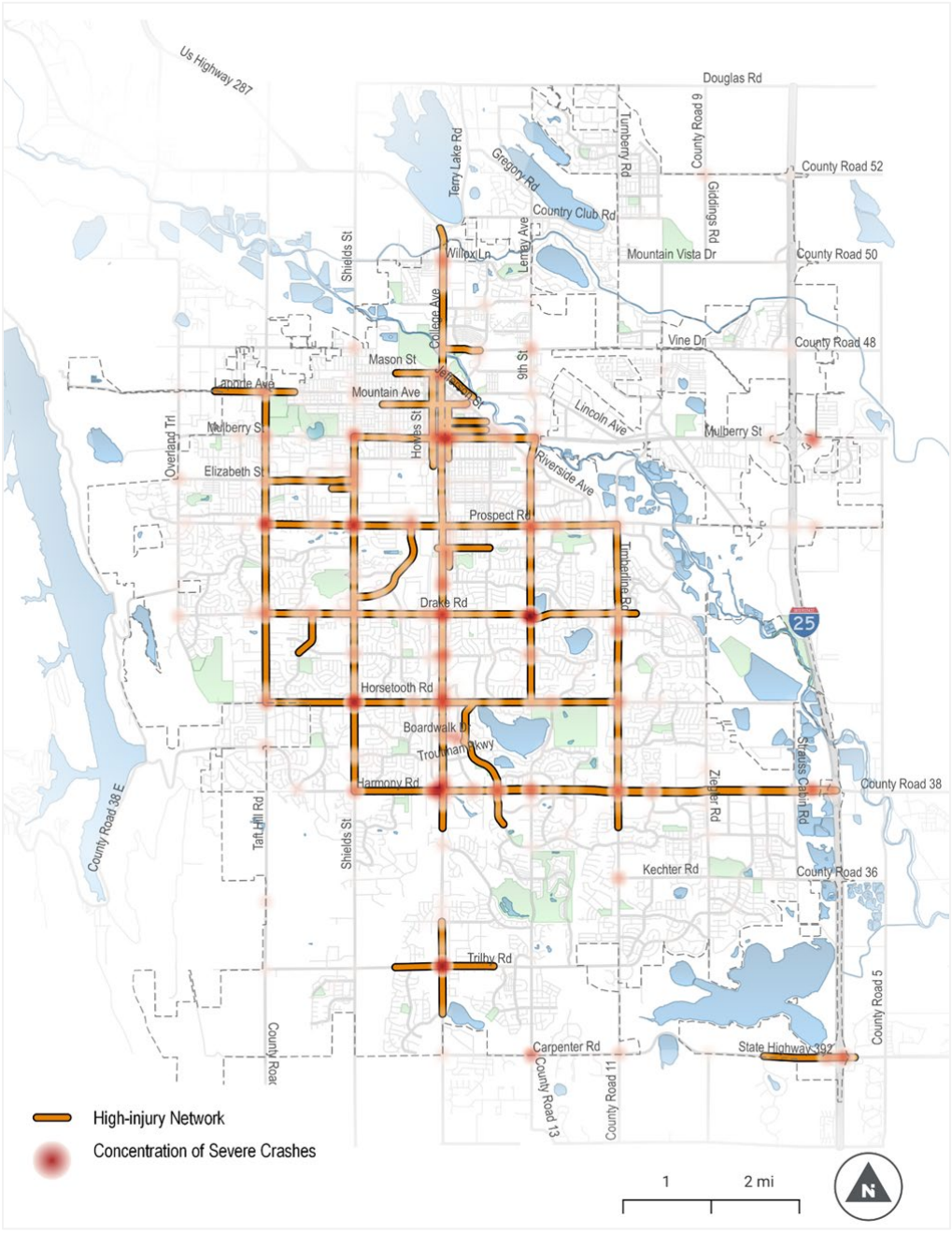
The United States Department of Transportation defines a serious injury or suspected serious injury as any injury other than fatal that results in one or more of the following:

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries
- Suspected skull, chest, or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

Crashes that lead to fatal or serious injures are referred in the Action Plan as "severe crashes"

As part of the data-driven approach to develop the Fort Collins Vision Zero Action Plan, the street segments with the greatest share of severe crashes – those resulting in death or injury - were identified via a geospatial analysis of crash data.

These street segments make up the High-Injury Network (HIN) and are mapped below.



The HIN represents just eight percent (8%) of the streets in Fort Collins, however, those street segments account for sixty-three percent (63%) of all severe crashes in the city. Targeting safety investments to the HIN will have the greatest impact on reducing severe crashes.

Goals and Actions to Achieve Vision Zero

The goals in the Fort Collins Vision Zero Action Plan will guide the implementation of actions to achieve Vision Zero. The Action Plan establishes five individual goals plus one overarching goal for the City. Under each of the five individual goals are several action items to achieve that goal. Actions are categorized as Transformative – most impactful to help move Fort Collins towards achieving Vision Zero, or Supporting – less impactful actions that are important in complementing the transformative action items.

Focus on Vulnerable Users

The Action Plan has the overarching goal to focus on vulnerable road users as a fundamental part of making roads safer for all road users. Vulnerable road users are people using the transportation system outside of a motor vehicle. They may be riding a motorcycling, using a wheelchair, walking, bicycling, or using other micromobility devices. Making roads safer for vulnerable road users makes the roads safer for everyone.

Support Mode Shift

Promoting sustainable transportation such as walking, biking, and using public transit will help the Fort Collins community reduce dependency on motor vehicles. Motor vehicles are involved with nearly all severe traffic crashes; therefore, the development of safe multimodal street networks, and programs and policies that increase the use of sustainable modes and decrease the use of motor vehicles can help the community achieve Vision Zero.

Prioritize Safer Speeds and Multimodal Places

High motor vehicle speeds increase the risk of serious injury or death. Engineering solutions such as road diets, crossing improvements, and traffic signal optimization have been shown to slow speeds, create people-centric spaces, and reduce severe crashes.

Promote a Culture of Traffic Safety

Achieving zero traffic deaths and serious injuries can only be successful if Fort Collins' street planners and designers, City leaders, and street users set priorities and make decisions that improve transportation safety and reduce severe crashes.

Increase Data Transparency and Partnerships

Improving the accuracy, timeliness, and quality of crash data helps planners, engineers, and policymakers make better decisions about resource allocation and facility design. Data on the locations of severe crashes will help in prioritizing, implementing, and evaluating projects that support Vision Zero.

Center Equity

A Vision Zero initiative is successful when everyone is safe using Fort Collins' streets. An equitable Vision Zero process helps ensure improvement projects and programs reduce harm without increasing the burden on historically underserved communities.

The proposed action items in the Plan are high-level and include a broad assessment of the high, medium, or low level of resources required. As the actions are developed, more specific cost estimates can be determined. Some actions can be accomplished with little to no additional expense or staff time while others require more funding. New federal funding streams that prioritize safety may help fund these actions, and the Vision Zero Action Plan and safety investments will be important for increasing Fort Collins' competitiveness to leverage this funding.

Introduction

The City of Fort Collins has taken safety seriously for decades. As the first public local entity to join the Colorado Department of Transportation (CDOT) Moving Towards Zero Deaths initiative to eliminate traffic-related deaths, the City of Fort Collins has developed a reputation for its dedication to traffic safety. Fort Collins has robust traffic enforcement, designs for traffic safety in road construction projects, and systemically encodes safety in traffic operations. City departments coordinate with each other and collaborate with outside agencies to promote traffic safety.

However, despite these efforts, traffic crashes continue to result in fatalities and serious injuries. An average of 285 crashes on Fort Collins' streets resulted in an injury or fatality every year from 2017 through 2021. Not only do these tragic events contribute to immeasurable personal loss, but they also put elevated pressure on the local emergency response, and the unsafe and uncomfortable environments that lead to severe crashes discourage the use of active modes, affecting communitywide health and mobility and our ability to meet climate goals.

Fort Collins needs a new approach to roadway safety, one that expands existing efforts to improve traffic safety. Therefore, the Fort Collins Vision Zero Action Plan builds on previous City plans and policies, and emphasizes:

- Making the existing road network **safer**
- Focusing on the safety of **all road users**
- Eliminating crashes that result in **fatalities and serious injuries**
- **Reducing conflicts** at intersections, along the high-injury network, and within historically underserved communities
- Planning for **ongoing evaluation** and monitoring of deployed strategies

Vision Zero is an opportunity to address traffic safety from a variety of angles and to guide City leadership in designing streets that emphasize safety, predictability, and comfort while recognizing the inevitability of human error.

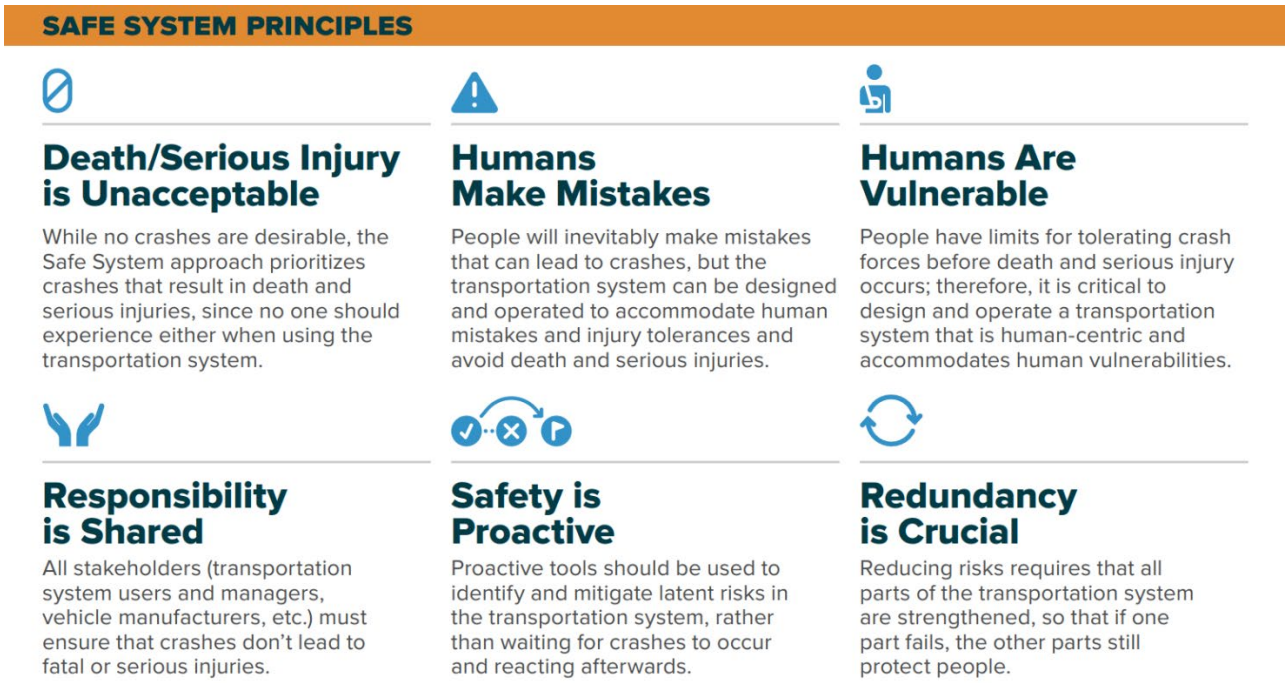
A "ghost bike" marks the location where someone riding a bicycle was killed in a collision in 2021.
Source: City of Fort Collins

What is Vision Zero?

Vision Zero is an approach to transportation safety that accepts no loss of life or serious injury on our transportation system. Vision Zero takes the *Safe System* approach to prioritize safety in decision-making processes. The *Safe System* approach is different from conventional ways of addressing traffic safety because it recognizes that while humans make mistakes when using our roads, death and serious injury are not acceptable outcomes. Responsibility for a safe road system should be shared, proactive, and redundant to prevent people from being killed or seriously injured on roadways. Under Vision Zero, City leadership, traffic engineers, transportation network designers, local enforcement, policymakers, and road users all have a shared responsibility to prevent fatal and serious injury crashes from occurring. The principle of redundancy recognizes that law enforcement cannot prevent all road user mistakes. Other layers of protection - in addition to law enforcement - are needed to prevent severe crashes.

The principles of the *Safe System* approach are outlined in Figure 1.

Figure 1: Principles of the *Safe System Approach*. *Source: FHWA.*



The Fort Collins Vision

Fort Collins' priorities and commitment to Vision Zero are centered on the understanding that even a single traffic fatality or serious injury is unacceptable. Fort Collins' vision for traffic safety is that: **By 2032, no one dies or has a serious injury while traveling on Fort Collins' streets.**

Guided by this vision statement, Fort Collins created this Action Plan containing strategies to achieve Vision Zero. This vision statement supports and aligns with the *Active Modes Plan* vision horizon and statement, that the City will achieve 50 percent active mode share and eliminate active modes traffic fatalities and serious injuries by 2032.

Goals of the Fort Collins Vision Zero Action Plan

After initial stakeholder engagement, analysis of existing conditions and citywide goals, and a review of best practices in Vision Zero Action Plans from peer cities, six goals emerged.

Overarching Goal: Focus on Vulnerable Users

The overarching goal to focus on vulnerable road users is a fundamental part of making roads safer for all in Fort Collins. Vulnerable road users are people using the transportation system outside of a motor vehicle. They may be riding a motorcycling, using a wheelchair, walking, bicycling, or using other micromobility devices. People riding motorcycles, walking, or bicycling are disproportionately represented in severe crashes.

People with disabilities, young people, and the elderly face a high risk of traffic fatalities and injuries. People with disabilities and the elderly may walk or move more slowly, people in wheelchairs and children have a lower profile and are harder to see, and people with vision, hearing, or cognitive impairments may have difficulty accessing critical information on the transportation network.

A focus on vulnerable road users is embedded across all goals because measures to reduce severe crashes for vulnerable road users also reduce crashes for people in motor vehicles. However, measures to reduce severe crashes for people in motor vehicles do not necessarily reduce severe crashes for vulnerable road users. For example, seatbelts protect people in motor vehicles but do not protect people outside, while roundabouts protect people inside and outside of motor vehicles by reducing the number of conflict points and reducing motor vehicle speed.

Support Mode Shift

Promoting sustainable transportation such as walking, biking, and using public transit will help the Fort Collins community reduce dependency on motor vehicles. Motor vehicles are involved with nearly all severe traffic crashes; therefore, the development of safe multimodal street networks, and programs and policies that increase the use of sustainable modes and decrease the use of motor vehicles can help the community achieve Vision Zero.

Description

Historically, Fort Collins' transportation system has been built to prioritize the investment in movement of motor vehicles over all other modes, leading to an unbalanced transportation system and one that is potentially deadly for all road users. A continuation of efforts that direct funding towards improving efficiency for active modes users, increasing the frequency of transit, and supporting alternatives to driving will help Fort Collins reduce car use. Vulnerable road users directly benefit from strategies to reduce dependency on motor vehicles, and having fewer threats on the road benefits all road users.

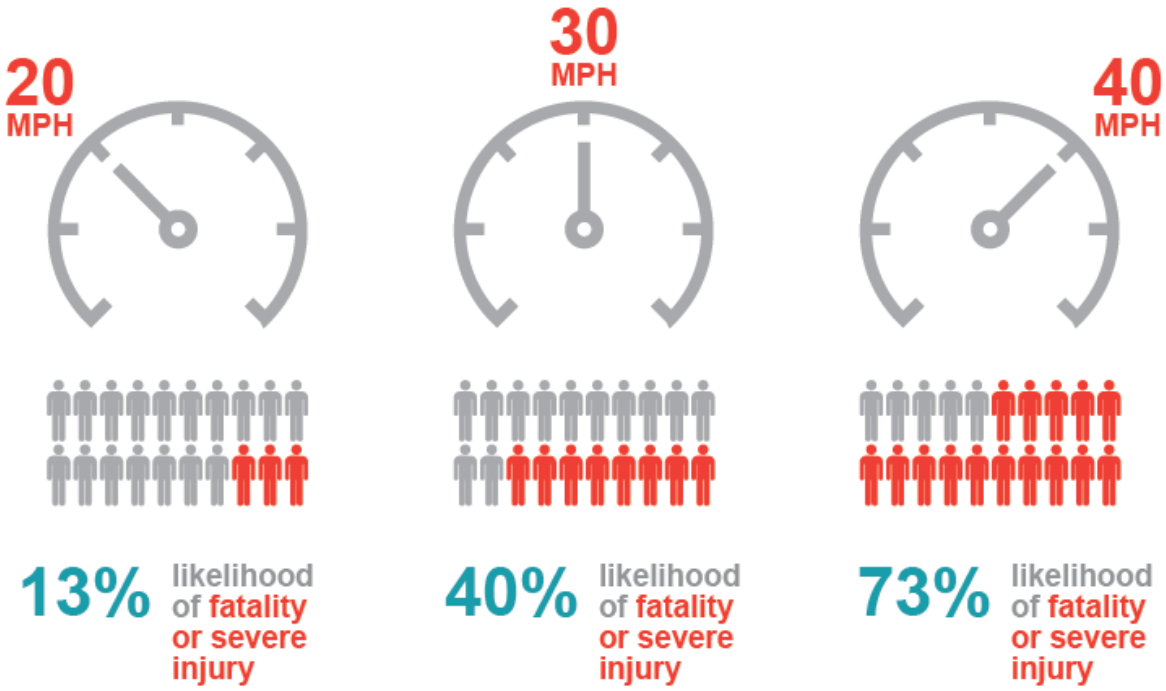
Prioritize Safer Speeds and Multimodal Places

High motor vehicle speeds increase the risk of serious injury or death. Engineering solutions such as road diets, crossing improvements, and traffic signal optimization have been shown to slow speeds, create people-centric spaces, and reduce severe crashes.

Description

Creating safe speeds involves designing streets to manage traffic speed. Slower speeds reduce the kinetic energy of crashes and result in a smaller chance of injury or death for people inside and outside of motor vehicles. National research indicates that the risk of death or severe injury (as defined in the report) increases for people walking when motorists' speed increases (Figure 2). Managing traffic speed through engineering improvements also makes streets safer and more inviting for people using active transportation.

Figure 2: Relation Between Motorist Speeds and Rate of Pedestrian Fatality or Severe Injury



Source: Tefft, B.C. (2011). Impact Speed and a Pedestrian's Risk of Severe Injury or Death (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety.

Promote a Culture of Traffic Safety

Achieving zero traffic deaths and serious injuries can only be successful if Fort Collins' street planners and designers, City leaders, and street users set priorities and make decisions that improve transportation safety and reduce severe crashes.

Description

This goal includes shifting internal agency priorities and standards to the latest best practices to create and maintain safe roads, and community engagement so that there is an understanding of the dangers of unsafe streets and the need for roadway redesigns. It is a community-driven goal that requires buy-in and support from diverse stakeholders, the community, elected officials, interdepartmental agency staff, and the media. Vulnerable road users directly benefit from strategies to promote a culture of traffic safety because it establishes that vulnerable road users have a right to use the public right-of-way safely. People in motor vehicles benefit from a culture of traffic safety that results in fewer severe crashes.

Increase Data Transparency and Partnerships

Improving the accuracy, timeliness, and quality of crash data helps planners, engineers, and policymakers make better decisions about resource allocation and facility design. Data on the locations of severe crashes will help in prioritizing, implementing, and evaluating projects that support Vision Zero.

Description

Vision Zero is a data-driven effort that relies on up-to-date information to quickly identify areas that are high-risk, determine priorities, and mitigate risks before traffic fatalities and serious injuries can occur. Given limited City resources and funds to make improvements, it is important for the City to formulate a system for collecting, maintaining, sharing, and reviewing data to drive decision-making. Having consistent, publicly available, useable data is also critical for tracking progress, celebrating successes, and adjusting investments in Vision Zero projects. Severe crashes involving vulnerable road users are frequently unreported; additional data sources beyond police reports can fill in gaps.

Center Equity

A Vision Zero initiative is successful when everyone is safe using Fort Collins' streets. An equitable Vision Zero process helps ensure improvement projects and programs reduce harm without increasing the burden on historically underserved communities.

Description

National research shows that low-income communities and communities of color are disproportionately affected by traffic violence in their neighborhoods. Aiming for equitable implementation by providing more resources to historically underserved communities should be a priority. Vulnerable road users, especially those most reliant on walking and bicycling, are often people without access to motor vehicles, people with low income, and people with disabilities. People with low income, inside and outside of motor vehicles, can least bear the costs associated with severe crashes or the deaths of family members.

Understanding Safety Issues in Fort Collins

Vision Zero takes multiple approaches to understanding systemic factors behind traffic deaths and injuries. First, current efforts in the City of Fort Collins to promote traffic safety were reviewed. Second, in order to better understand community values and priorities around traffic safety and Vision Zero strategies, the City of Fort Collins conducted an extensive review of stakeholder and community feedback received from recent transportation-related planning efforts. Third, best practices from other cities with Vision Zero Action Plans were reviewed. Finally, successful Vision Zero programs are largely data-driven. Therefore, the City of Fort Collins also analyzed crash data to understand how and where people are killed or seriously injured while traveling on Fort Collins' streets. The locations, contributing factors, and demographic information will help Fort Collins target efforts to achieve Vision Zero.

Current Efforts

The City of Fort Collins' current efforts to promote traffic safety include robust traffic enforcement, designing safety in road construction projects, and systemically encoding safety in traffic operations. City departments coordinate and the City collaborates with other agencies to promote traffic safety.

The Fort Collins Police Department Traffic Enforcement Unit addresses the top road safety focus areas of speeding, red light and stop sign violations, following too closely, and distracted driving, issuing 7,550 traffic citations in 2021. Fort Collins has used automated enforcement since the first red light cameras in 1997. Today, there are four red light cameras and two camera radar vehicles. Revenue from automated enforcement is used for traffic calming and traffic enforcement equipment. Police Services has officers with specialized training and certification to conduct a commercial vehicle inspection. If a commercial vehicle is stopped and there are indications an inspection should be conducted, a trained certified inspector will conduct that inspection and may place the vehicle out of service until violations have been corrected. The Traffic Unit has not escaped the national shortage of police officers, however, and must be fully staffed for robust traffic enforcement.

Traffic safety is designed into road construction projects. Every ten years, the Transportation Capital Projects Prioritization Study ranks arterial intersection and corridor projects with safety as one of the highest criteria. Safety-specific funding opportunities are opportunities to implement projects with a safety focus sooner than others. One recent example of a safety-focused project is the addition of separated bicycle and pedestrian facilities at the Vine Drive and Lemay Avenue overpass, which has been a hot spot of severe crashes and had no sidewalks or bike lanes. Four capital projects with safety as the primary goal are currently underway at intersections around the city.

Traffic Operations Department systematically evaluates and adjusts operations to reduce crashes. For example, at College Avenue and Trilby Road, the city's top hot spot of severe crashes, the protected permissive left turn phase was changed to protected only left turns, with the result of a reduction in the number of crashes. Any intersection that has experienced at least three approach turn crashes is evaluated for changes to the left turn phasing, and signal timing through corridors is coordinated to reduce decision points that result in rear-end collisions.

Police and Traffic Operations departments coordinate to assess conditions leading to severe crashes. Police Services collects crash data and Traffic Operations has produced an annual analysis of crash data since 2015, "Safety in the City".

Other agencies in Northern Colorado are following Fort Collins' lead in Vision Zero. In 2019, after its first traffic death in twenty years, Colorado State University (CSU) made a commitment to Vision Zero, established the President's Vision Zero Task Force, and is developing a Vision Zero Action Plan parallel to the City's process.

Stakeholder and Community Engagement

To develop the Vision Zero Action Plan, Fort Collins engaged with a Vision Zero Technical Advisory Committee (TAC), met with select boards and commissions (the Youth Advisory Board, Senior Advisory Board, Disability Advisory Board, the Bicycle Advisory Committee, and the Transportation Board), held an online comment period for the community to review the draft Action Plan, and reviewed feedback from previous outreach efforts. Community input from a variety of past efforts and surveys that helped guide the goals and strategies of the Action Plan is summarized below.

Vision Zero Technical Advisory Committee (TAC)

The TAC was comprised of a group of stakeholders that represent a diverse cross-section of the Fort Collins government. The TAC included Fort Collins City staff from:

> Community Development & Neighborhood Services, Economic Health Office, Engineering Department, FC Moves, Parking Services, Parks Department, Parks Planning & Development, Planning Department, Police Services, Streets Department, Traffic Operations, Transfort, and Utilities Department

Local and statewide agencies and organizations that also were a part of the TAC included:

> Bike Fort Collins, Colorado State University (CSU), Colorado Department of Transportation (CDOT), Larimer County, North Front Range Metropolitan Planning Organization (MPO), Poudre School District (PSD), Safe Kids Larimer County, and UC Health

During three TAC meetings, participants had in-depth discussions centered on:

> Meeting #1: Existing conditions and vision, mission, and goals
>
> Meeting #2: Draft Vision Zero strategies
>
> Meeting #3: Prioritization of strategies

Transportation Capital Projects Prioritization Study (TCPPS)

The 2022 TCPPS, which analyzed safety and congestion data for intersections and arterial roadways in Fort Collins, consulted community members on their top traffic safety priorities and needs. Outreach activities revealed that crash reduction is the top priority for Fort Collins residents. The number of requests for traffic calming was far higher than the number of concerns regarding vehicle delays. The Fort Collins community expressed a desire for traffic calming measures along minor arterial roads to decrease crossing distances, reallocate lanes as bikeways and bus-only lanes, and better separation of motor vehicles and active modes users.

CDOT Region 4 Bicycle and Pedestrian Study

In 2021, CDOT released an online survey to understand what statewide pedestrian and bicycle improvements are needed on CDOT-owned roadways. In Fort Collins, CDOT found unsafe traffic conditions and crossings were a top concern, with many comments calling for more grade-separated crossings and better education for motorists.

Fort Collins Active Modes Plan (AMP)

To improve the environment for active modes users and encourage mode shift in Fort Collins, the 2022 AMP engaged the community on identifying current transportation patterns and needs. Results of outreach activities concluded that the community believes that to achieve Vision Zero, Fort Collins must manage traffic speed, focus on areas with many severe crashes, educate drivers and active modes users on safe practices, and make alternative modes easy and realistic options for everyday travel.

Fort Collins General Service Requests

More than three years of service requests submitted by Fort Collins residents were analyzed. Between January 2018 and March 2022, 1,118 service requests were received on neighborhood safety concerns/issues, new signals or pedestrian crossings, roadway safety concerns, or school safety concerns through Access Fort Collins. Over 900 of these requests were categorized by topic:

- 47% on vehicle speed concerns
- 15% on pedestrian traffic issues or crosswalks
- 14% signs and signals requests
- 8% traffic congestion concerns
- Other topics (<5% each) on parking in bike lanes, dangerous intersections, traffic violations, speed bump removal, restriping, line of sight, truck traffic, and noise

Asphalt Art projects are an opportunity to further engage the Fort Collins community in the design elements of the public right-of-way and can be implemented in the excess space created by safety treatments like bulb-outs and curb extensions. Source: City of Fort Collins.

Best Practices

The Vision Zero Network[1] guidelines for an effective Vision Zero Action Plan lays out two key components of a strong Action Plan: **foundational elements** and **actionable strategies**. These key components are underpinned by a process of continued community engagement and attention to equity.

Foundational elements are:

- Robust data framework
- Measurable goals with a clear timeline for implementation
- Accountability
- Transparency

Actionable strategies should:

- Prioritize roadway design
- Focus on speed management
- Utilize impactful education strategies
- Ensure enforcement is equitable.

Reviewing foundational elements and actionable strategies from other Colorado communities and national peer cities, including Boulder and Denver, as well as Ann Arbor MI, Austin TX, and Eugene OR, provided a strong starting point for understanding the strategies needed to address the safety issues in Fort Collins.

City and County of Denver has installed inexpensive treatments like bulb-outs and curb extensions using low-cost materials as part of its solutions to address roadway safety and help meet its Vision Zero goals.

[1] Vision Zero Network Guidelines for an Effective Vision Zero Action Plan https://visionzeronetwork.org/wp-content/uploads/2017/12/VZN_ActionPlan_FINAL.pdf

Crash Trends

Over the past five years (2017 through 2021), the total number of severe crashes that occur in Fort Collins has fluctuated. However, the number of fatal crashes has been on the rise since 2019 (see Figure 3). In *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, crashes are categorized by severity. Severe crashes are those resulting in fatalities, minor or non-incapacitating injuries, and major or incapacitating injuries. The Fort Collins Vision Zero Action Plan focuses on severe crashes. Crash trends from the latest report are summarized below.

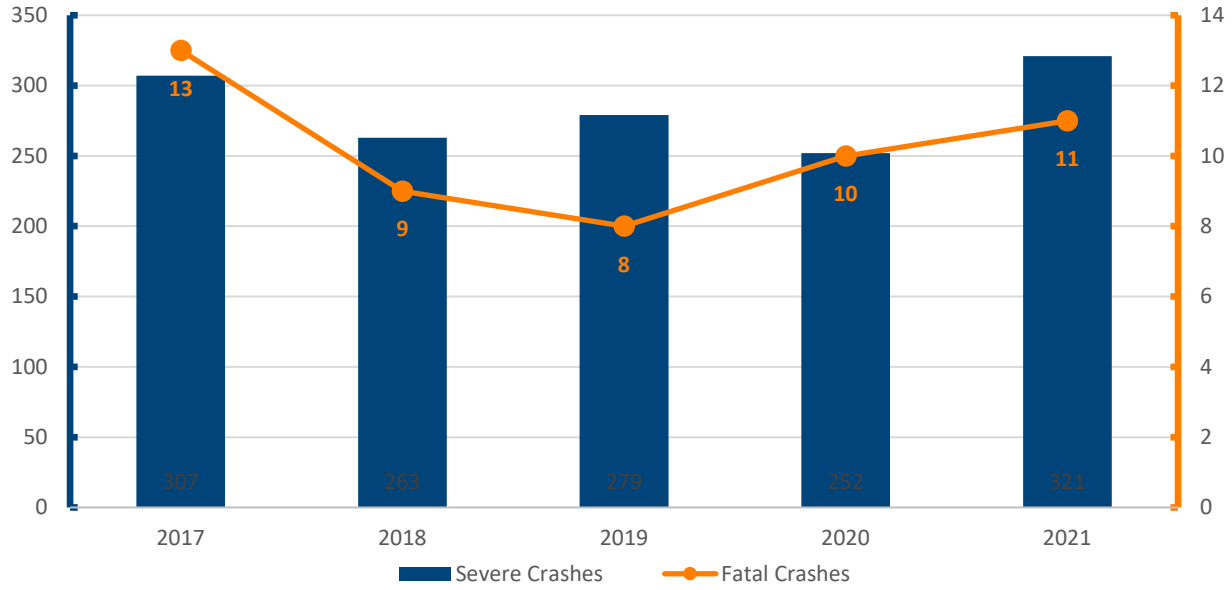


Figure 3: Severe Crashes and Fatal Crashes, 2017-2021.
Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

Crashes in Fort Collins Occur Most Frequently at Intersections

More than three in every four crashes, or 78 percent, occur at an intersection, driveway, or alley access in Fort Collins (see Figure 4).

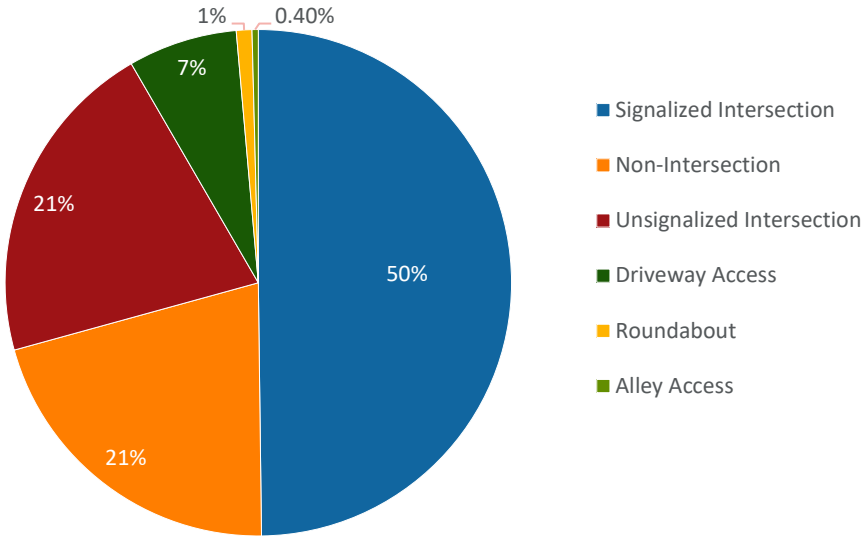


Figure 4: Crash Location Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

Vulnerable Road Users are Disproportionately Impacted by Severe Crashes

While most trips in Fort Collins are made in motor vehicles, travelers using other modes are at disproportionate risk of severe crashes. Crashes involving vulnerable road users account for only 6% of total crashes but make up 35% of all severe crashes and 47% of all fatal crashes (see Figure 5). When vulnerable road users are involved, crashes are more likely to be severe.

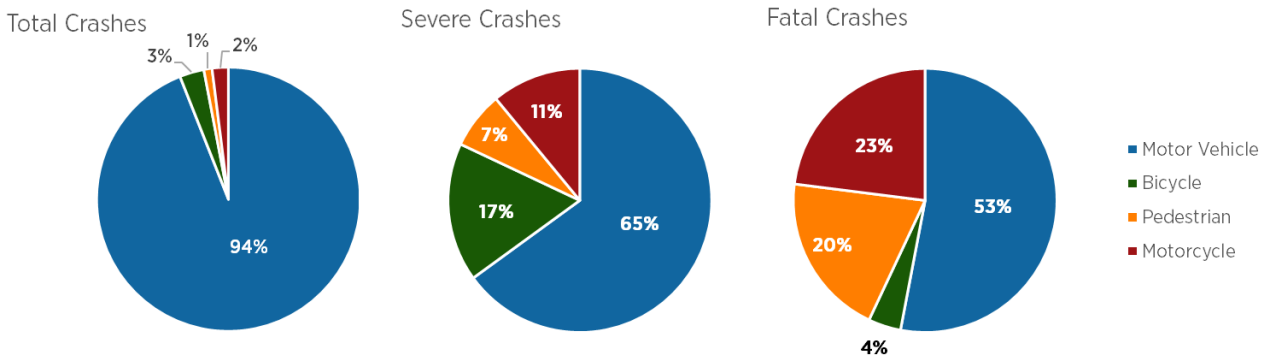


Figure 5: Severity Impact on Vulnerable Road Users.
Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

Fatal Crashes in Fort Collins Increasing Recently

On average in the past five years, ten people have died in roadway crashes in Fort Collins annually. Overall, fatal crashes have increased steadily since 2019, with 10 total crashes occurring in Fort Collins in 2020 and 11 in 2021. Fatal crashes decreased from 2017 to 2019 but increased in 2020 and 2021, even while vehicle miles traveled (VMT), a measure of the amount of driving in a region, decreased in 2020 (see Figure 6).

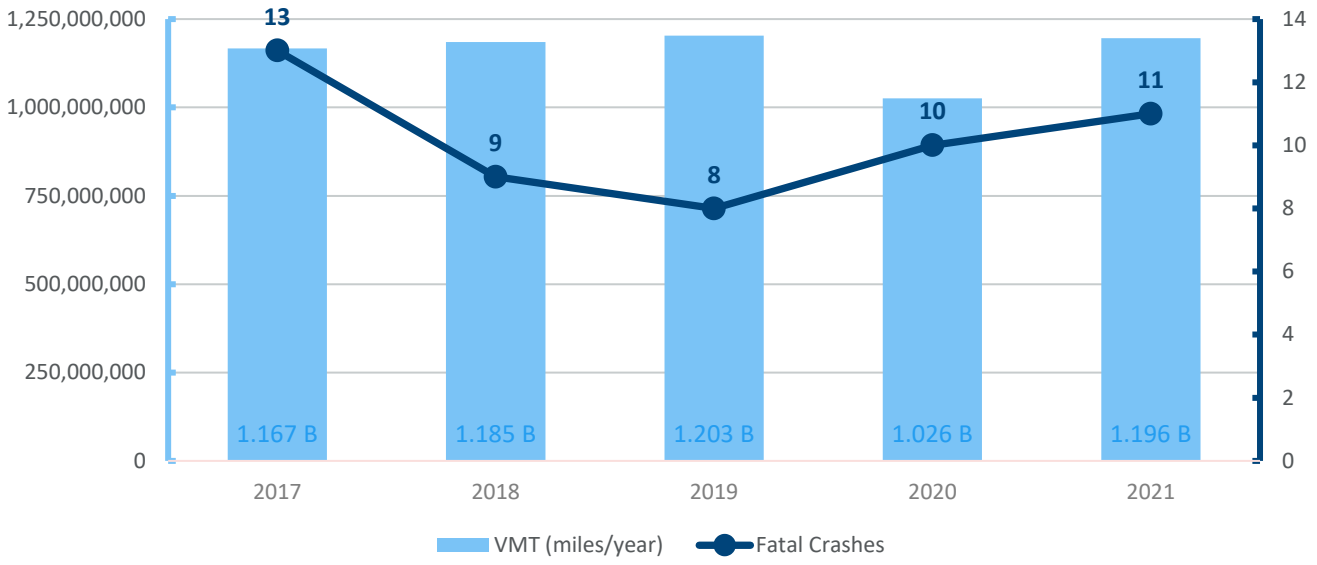


Figure 6: Fatal Crashes and Vehicle Miles Traveled Per Year (2017-2021) Crash Data Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022. VMT Data Source: Northern Front Range Metropolitan Planning Organization (NFRMPO).

The Rate of Fatal Crashes in Fort Collins is Similar to Other Places

Fort Collins' fatal crash rate is just below average for cities of similar size in Colorado (see Figure 7). When compared to peer cities across the United States, Fort Collins' fatal crash rate sits just above the average (see Figure 8). When it comes to traffic deaths and serious injuries, Fort Collins is doing about average. Fort Collins must do much better than average to achieve Vision Zero.

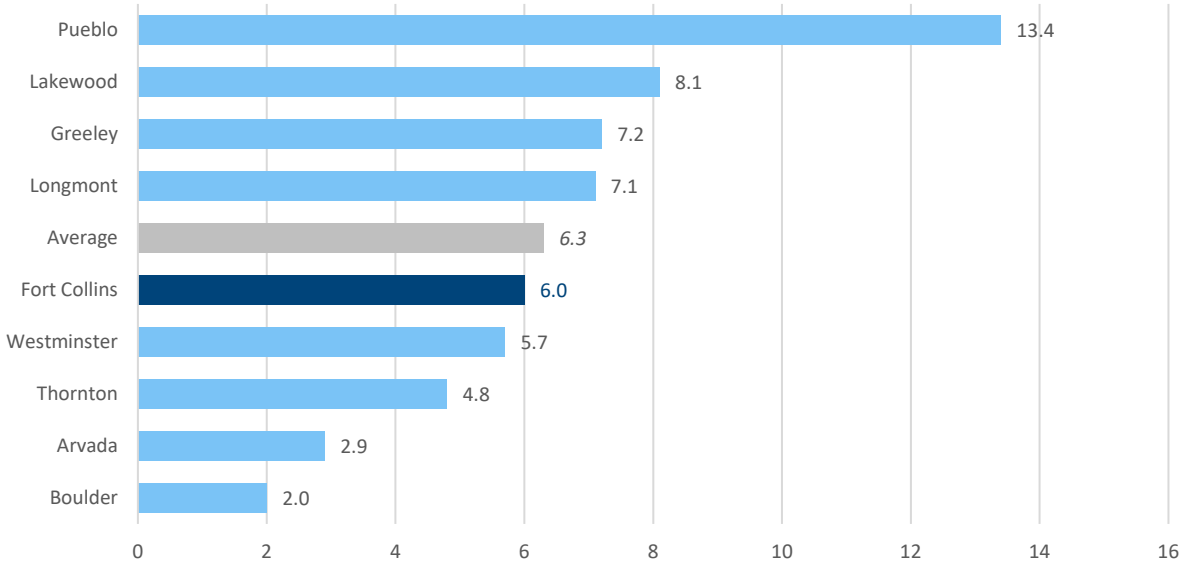


Figure 7: Fatal Crash Rate Comparison to Other Colorado Cities, based on 2017-2021 Data. Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

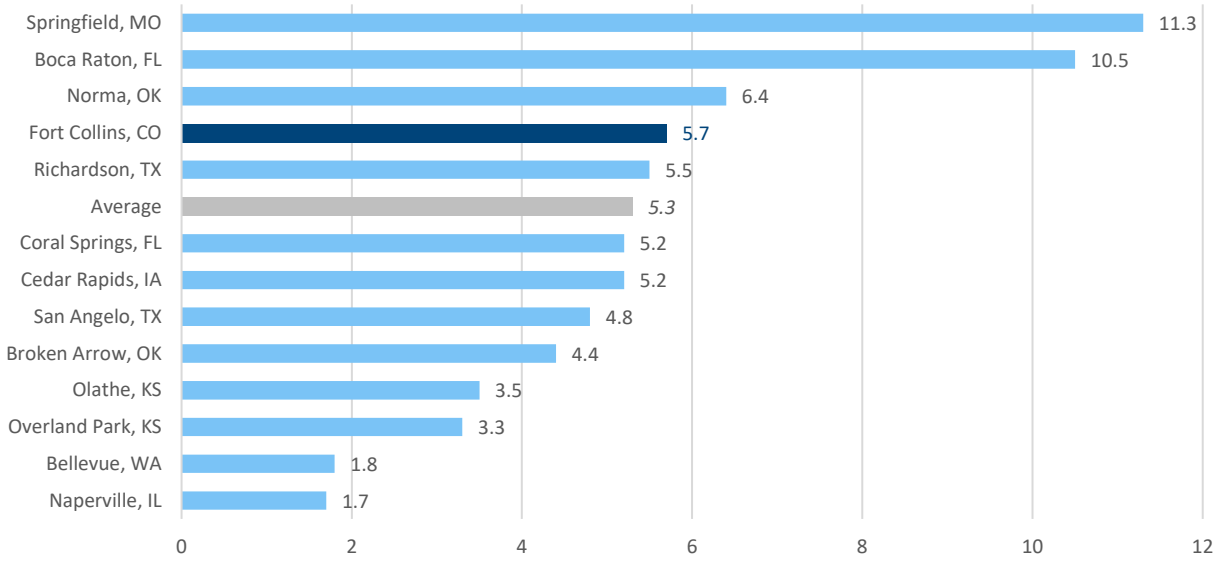


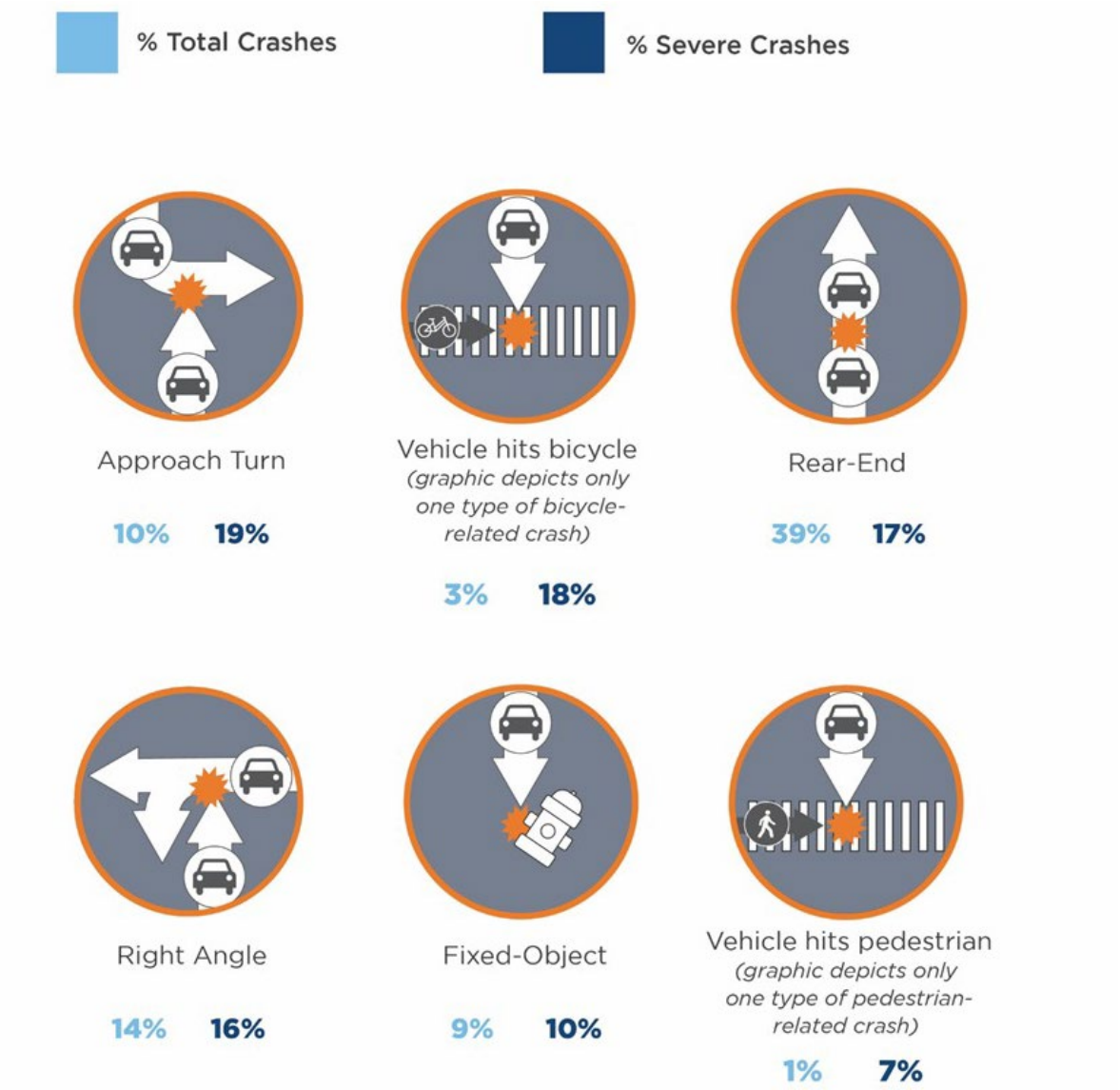
Figure 8: Fatal Crash Rate Comparison to Peer Cities, based on 2017-2020 Data (2021 data was not available for all peer cities). Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

Six Crash Types Make Up the Majority of Severe Crashes that Occur on Fort Collins' Roads

Six crash types comprise 87 percent of severe crashes. Figure 9 illustrates these crash types and the frequency of each crash type amongst all crashes and severe crashes. Countermeasures designed to address these crash types have the greatest potential for reduction in traffic deaths and serious injuries. The six prevalent crash types in severe crashes are:

- Approach Turn
- Bicycle-related
- Rear-end
- Right Angle
- Fixed-object
- Pedestrian-related

Figure 9: Top 6 Crash Types for Severe Crashes, 2019-2021



Source: *Safety in the City: Fort Collins 2021 Annual Roadway Safety Report*, August 2022.

High-Injury Network (HIN)

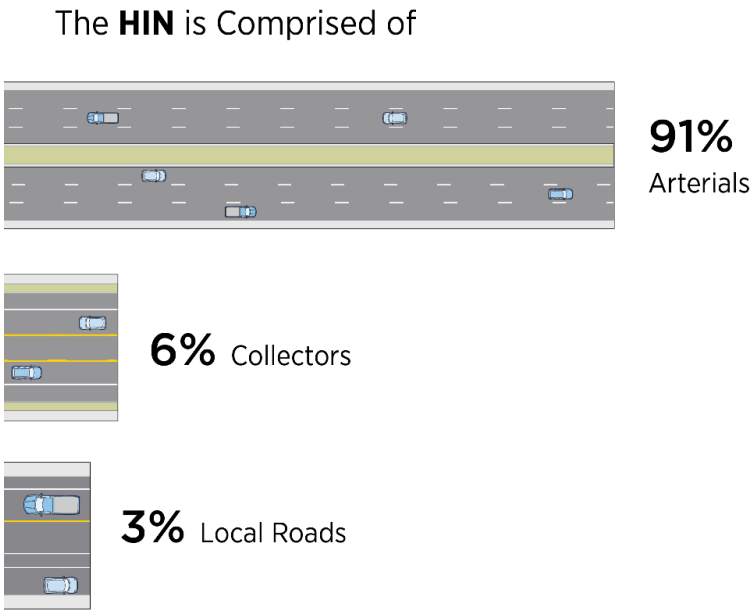
Looking for hot spots of severe crashes is limiting because severe crashes have a random element. For example, two intersections may share many of the same characteristics but only one of them has experienced severe crashes. If it is just chance that the severe crashes so far have happened at that intersection, severe crashes are likely to occur in the future at the intersection that has not yet experienced severe crashes. Countermeasures should be implemented at both intersections to prevent future severe crashes. The High-Injury Network (HIN) consists of the roads most likely to experience severe crashes based on, but not limited by, historical crash data.

A geospatial crash analysis of the crash data from 2017 through 2021 was used to identify the HIN in Fort Collins—the street segments that had the greatest share of severe crashes.

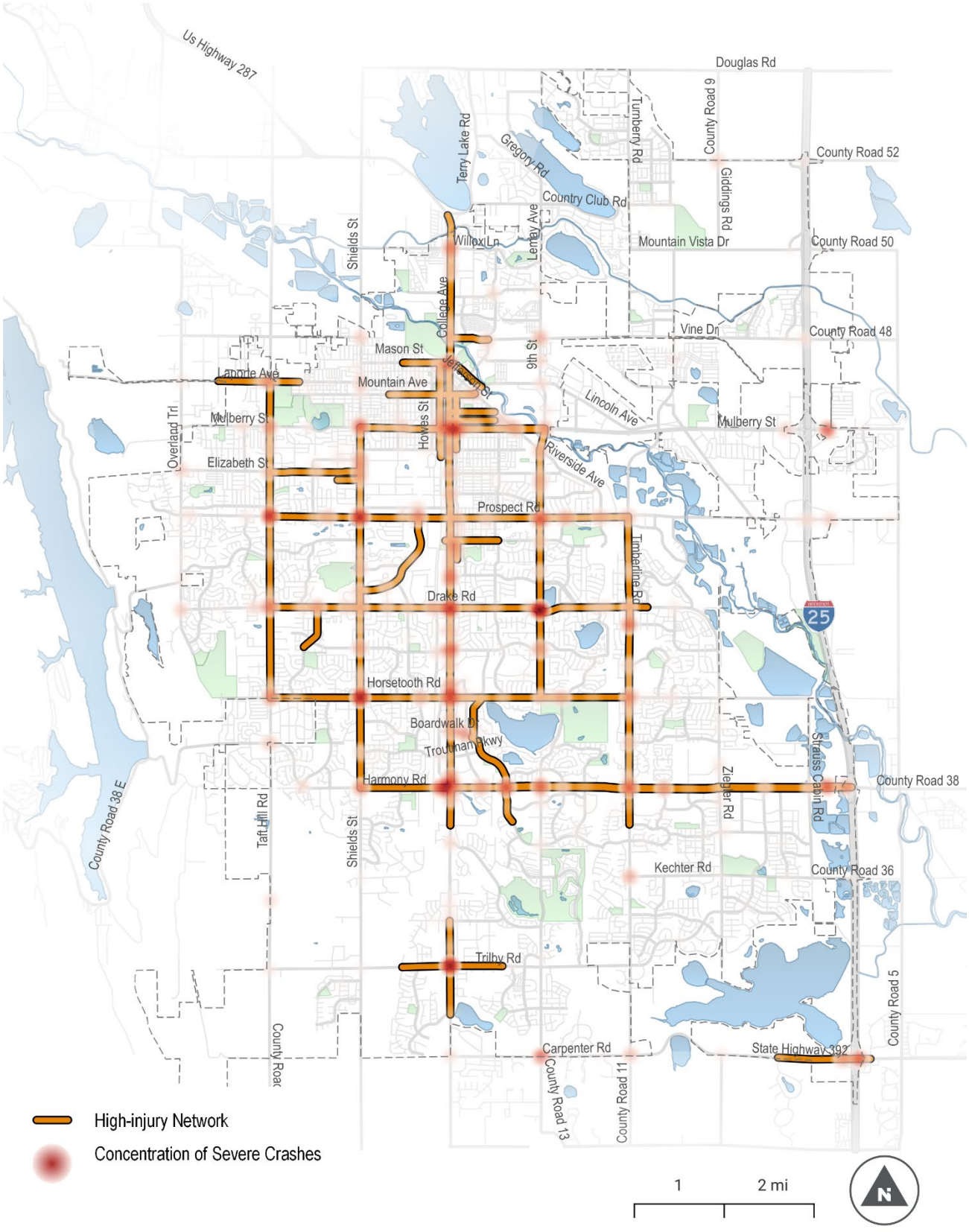
Arterial roads represent 91 percent of the HIN, collector roads represent 6 percent, and local streets represent only 3 percent. The HIN includes just 8 percent of the roads in Fort Collins, however, those roads account for 63 percent of all severe crashes.

Map 1 on the next page shows the Fort Collins HIN. This is where the City should target Vision Zero strategies and countermeasures to reduce severe crashes.

Note, while the analysis does not indicate specific high-injury intersections, the analysis accounts for intersections with a high quantity of severe crashes because crashes at intersections are assigned to the roadway segments. More in-depth analysis of the HIN should be performed to identify countermeasures for specific locations.



Map 1: Fort Collins High-injury Network (2017-2021)



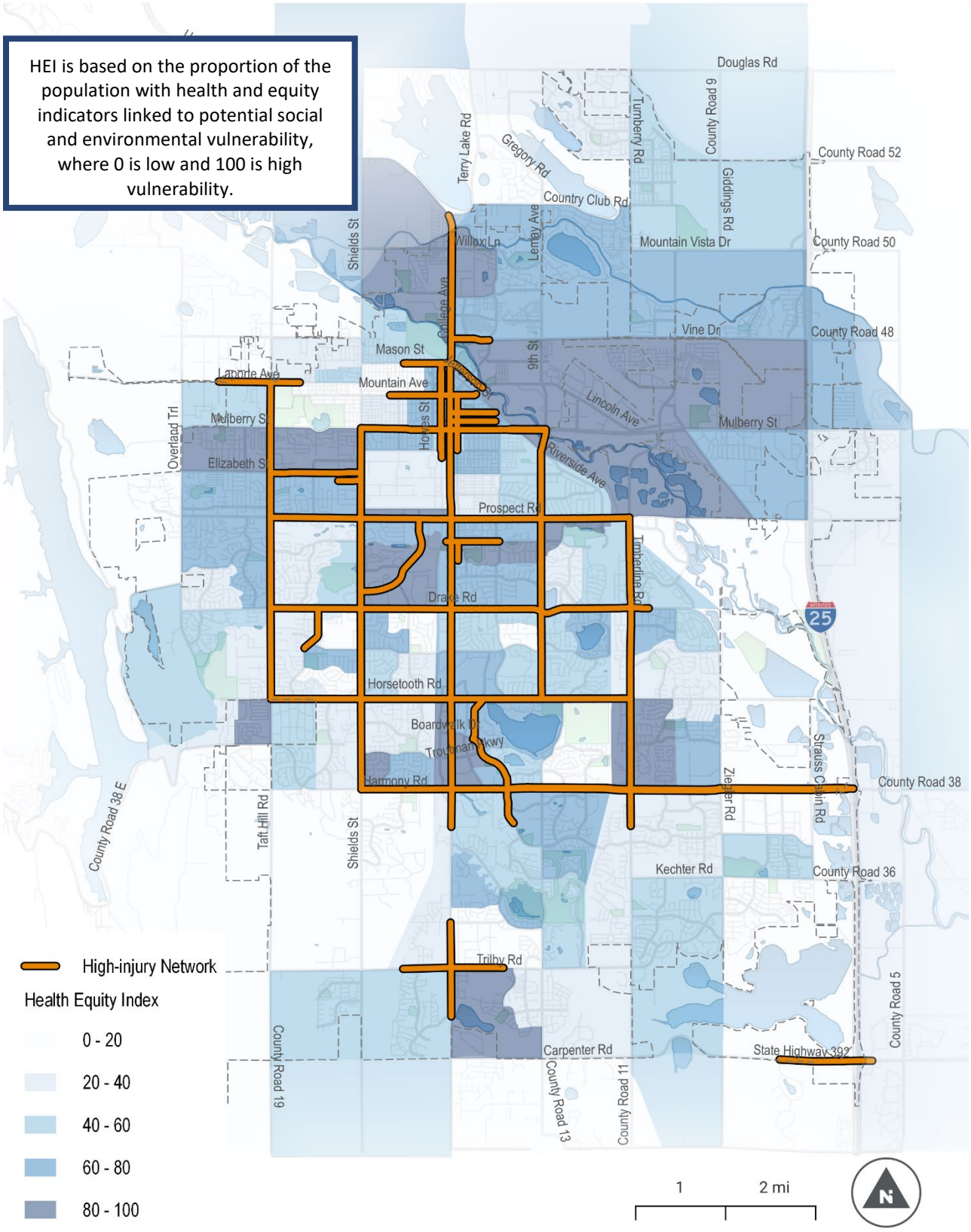
How Fort Collins Will Achieve Vision Zero

An Equitable Approach

An equitable approach is woven throughout Fort Collins' goals and strategies to achieve Vision Zero. While there is a goal to Center Equity, the approach to achieving every goal will be equitable. This approach includes focusing roadway safety improvements in historically underrepresented communities and using equitable engagement and outreach efforts to include people from historically underrepresented communities in decision-making.

The Larimer County Department of Health and Environment's Health Equity Index (HEI) was used to assess the relationship between traffic safety and social and environmental vulnerability. The HEI uses eight indicators linked to the determinants of health and demographics to spatially understand factors that contribute to an individual or household's potential vulnerability: Youth, Older adults, Racial and ethnic minorities, People with disabilities, Households without a vehicle, Poverty, Poor mental health, Low physical activity and High rates of obesity. The HEI is on a scale of 0 to 100, with 100 having the greatest proportion of population with these indicators. The map on the next page illustrates the HEI in relation to the HIN to assist in further defining where Vision Zero strategies and countermeasures should be focused (Map 2).

Map 2: 2020 Health Equity Index (HEI) Overlaid with HIN



Transformative Actions and Supporting Actions

The following actions were developed to guide Fort Collins' efforts towards achieving the goal of zero traffic deaths and serious injuries by 2032. These actions have been identified based on crash data analysis, stakeholder engagement, past community outreach, and guidance from City staff.

The Vision Zero actions are listed by the five goals and are broken into two categories:

- Transformative Actions and,
- Supporting Actions.

Transformative Actions

Transformative actions are identified to be the most impactful to move Fort Collins towards achieving Vision Zero. Work is already underway on some actions while others will require reorienting existing programs or allocating additional resources. Some actions can be accomplished with little to no additional expense or staff time while others require more funding. Several transformative actions may take some time to initiate, but all should be considered immediate actions and should be fully implemented by the timeline indicated.

Support Mode Shift

Support Mode Shift: Promoting sustainable transportation such as walking, biking, and using public transit will help the Fort Collins community reduce dependency on motor vehicles. Motor vehicles are involved with nearly all severe traffic crashes; therefore, the development of safe multimodal street networks, and programs and policies that increase the use of sustainable modes and decrease the use of motor vehicles can help the community achieve Vision Zero.

TRANSFORMATIVE ACTION 1 Increase transit frequency and make service improvements consistent with the actions for the Short-Term Transit Network in the Transit Master Plan	
Key Implementer(s):	**Transfort**
Resources:	*This will not require funding beyond what is necessary to carry out the Transit Master Plan.*
Timeline:	Near-term: 2023-2025
Implementation Notes:	Relation to Vision Zero: Robust, frequent transit that is convenient and reliable enables people to travel without using motor vehicles.
Progress Metrics:	1. Transit mode share. 2. The number of bus routes operating at a 15-minute frequency or better. 3. The number of transit service improvements implemented.

TRANSFORMATIVE ACTION 2 Install or upgrade full pedestrian and bicycle networks and treatments consistent with the Active Modes Plan and Pedestrian Needs Assessment	
Key Implementer(s):	**FC Moves** Support: Traffic Operations, Streets Department, Engineering Department, Park Planning & Development Department
Resources:	*This will not require funding beyond what is necessary to carry out the Active Modes Plan.*
Timeline:	Long-term: 2030-2032
Implementation Notes	Relation to Vision Zero: Connected, low-stress active mode networks with reliable, safe crossings enable people to travel short distances without motor vehicles and access transit routes.
Progress Metrics:	1. Number of miles added to the low-stress bicycle network 2. Number of pedestrian and bicycle spot improvements completed along roadway and at intersections 3. Percent of miles of low-stress bicycle network or sidewalk on HIN 4. Pedestrian, bicycle, and micromobility mode share
TRANSFORMATIVE ACTION 3 Promote alternatives to driving through the Shift Your Ride Program	
Key Implementer(s):	**FC Moves** Support: Environmental Services, Transfort, Community Development & Neighborhood Services
Resources:	*This will not require funding beyond what is necessary to carry out the Shift Your Ride program.*
Timeline:	Long-term: 2030-2032
Implementation Notes:	Relation to Vision Zero: The transportation demand management plan is in development. Encouraging and incentivizing alternatives to driving alone while discouraging and disincentivizing driving alone reduces the number of motor vehicles on the road.
Progress Metrics:	1. Completion of the plan 2. Single-occupant vehicle mode share 3. Vehicle miles traveled

Prioritize Safer Speeds and Multimodal Places

Prioritize Safer Speeds and Multimodal Places: High motor vehicle speeds increase the risk of serious injury or death. Engineering solutions such as road diets, crossing improvements, and traffic signal optimization have been shown to slow speeds, create people-centric spaces, and reduce severe crashes.

TRANSFORMATIVE ACTION 4 Implement engineering countermeasures and design streets to manage traffic speeds	
Key Implementer(s):	**FC Moves** Support: Traffic Operations, Streets Department, Engineering Department, Emergency Responders
Resources:	$-$$$ *Will require additional or reallocation of staff resources.*
Timeline:	Ongoing
Implementation Notes:	• Implement countermeasures on the HIN, especially intersections with excess crash costs (Safety in the City: 2021 Annual Safety Report, page 36). • Beyond large capital investments and projects identified in the Transportation Capital Projects Prioritization Study, improvements can be as simple as installing markings for bike lanes, edge lines, or flush medians to narrow lane widths. • Seek opportunities to include countermeasures into routine repaving, capital projects, development, and other opportunities. • Seek new federal funding grants and programs that prioritize traffic safety. • Plan for maintenance so that new treatments function as intended.
Progress Metrics:	1. Number of projects implemented on the HIN 2. Reduction of speed at project locations
TRANSFORMATIVE ACTION 5 Test solutions without a big time and cost commitment with temporary and quick-build treatments	
Key Implementer(s):	**Traffic Operations** Support: Engineering Department, FC Moves, Streets Department
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Ongoing
Implementation Notes:	• Establish a framework for pilot projects with novel approaches. • Plan for maintenance of quick-build treatments so that they function as intended. • Temporary and quick-build treatments typically use lower cost materials like paint, rubber curbs, wheel stops, and planters to provide immediate safety benefits. • Temporary treatments can provide proof-of-concept, test new designs, and build support for more permanent changes. They can also be used to implement systemic safety improvements across many locations in a cost-effective manner. • They can be easily adjusted based on analysis and community feedback. • They can be used to engage the community, for example through Asphalt Art.
Progress Metrics:	1. Number of locations on the HIN receiving temporary and quick-build treatments 2. Collection of before/after data and public feedback to inform future decisions

Promote a Culture of Traffic Safety

Promote a Culture of Traffic Safety: Achieving zero traffic deaths and serious injuries can only be successful if Fort Collins' street planners and designers, City leaders, and street users set priorities and make decisions that improve transportation safety and reduce severe crashes.

TRANSFORMATIVE ACTION 6 Review and revise standards and policies that are roadblocks to Vision Zero goals	
Key Implementer(s):	**FC Moves** Support: Planning Department, Engineering Department, Traffic Operations
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Near-term: 2023-2025
Implementation Notes:	• Identify and revise standards and policies that prioritize automobile capacity and speed, and ensure standards and policies prioritize safety for all users. • Develop and adopt standards to replace guidance from the Manual on Uniform Traffic Control Devices that do not align with Vision Zero.
Progress Metrics:	1. Number of standards and policies reviewed 2. Number of standards and policies revised
TRANSFORMATIVE ACTION 7 **Include Vision Zero analysis as part of planning process for all infrastructure projects**	
Key Implementer(s):	**Engineering Department** Support: FC Moves, Traffic Operations, Utilities, Park Planning and Development, Operations Services
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Ongoing
Implementation Notes:	• Create a Vision Zero checklist to institutionalize prioritizing safety first in all stages of capital project planning and development, and project review. • Hold quarterly workshops for design plans and retrospective review.
Progress Metrics:	1. Creation of a Vision Zero checklist 2. Number of projects that include analysis of Vision Zero goals

Increase Data Transparency and Partnerships

Increase Data Transparency and Partnerships: Improving the accuracy, timeliness, and quality of crash data helps planners, engineers, and policymakers make better decisions about resource allocation and facility design. Data on the locations of severe crashes will help in prioritizing, implementing, and evaluating projects that support Vision Zero.

TRANSFORMATIVE ACTION 8 Create a Vision Zero program with dedicated staff who can apply a safety lens to all planning, design, and resource allocation decisions	
Key Implementer(s):	**Traffic Operations** Support: FC Moves, Engineering Department
Resources:	$$ *Will require additional or reallocation of staff resources.*
Timeline:	Near-term: 2023-2025
Implementation Notes:	• One full-time employee in Traffic Operations dedicated to Vision Zero and the equivalent of a full-time employee across multiple departments to coordinate the implementation, monitoring, and evaluation of the Vision Zero Action Plan. • Grant funding could be sought for initial funding to establish program and staff. • Dedicated staff should further develop the details of the Transformative and Supporting Actions and pursue implementation funding.
Progress Metrics:	1. Programs, projects, and policies reviewed to incorporate Vision Zero safety approach 2. Number of equivalent full-time employees dedicated to Vision Zero
TRANSFORMATIVE ACTION 9 **Perform annual analysis, before & after studies, and documentation on Vision Zero progress to celebrate successes and identify areas for improvement**	
Key Implementer(s):	**Traffic Operations** Support: FC Moves, Engineering Department
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Ongoing
Implementation Notes:	• Collect data on conditions before countermeasures are implemented or deployed to compare to after conditions. • Track projects and the implementation of countermeasures by developing a spatial database. • Use this information to engage the community, local influencers, and media.
Progress Metrics:	1. Number of before and after studies completed 2. Number of projects and types of countermeasures implemented 3. Number of community engagements and media stories

Center Equity

Center Equity: A Vision Zero initiative is successful when everyone is safe using Fort Collins' streets. An equitable Vision Zero process helps ensure improvement projects and programs reduce harm without increasing the burden on historically underserved communities.

TRANSFORMATIVE ACTION 10 Prioritize HIN projects and routine maintenance in historically underserved communities identified using Larimer County's Health Equity Index to create self-enforcing roadways and reduce reliance on in-person traffic enforcement	
Key Implementer(s):	**Traffic Operations** Support: FC Moves, Equity & Inclusion, Streets Department, Parks Department
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Near-term: 2023-2025
Implementation Notes:	• Use data to equitably direct funding and resources to eliminate crash disparities. • Increase maintenance staff dedicated to supporting the installation and maintenance of crosswalks, protected bike lanes, quick-build projects, and other safety improvements.
Progress Metrics:	1. Percent of a two-year budget cycle of safety projects completed that benefit communities with a high Health Equity Index 2. Number of maintenance staff supporting safety improvements
TRANSFORMATIVE ACTION 11 Neighborhood/Community grants to fund infrastructure projects with community involvement and engage historically underserved communities	
Key Implementer(s):	**FC Moves** Support: Finance Department, Traffic Operations, Engineering Department
Resources:	$ *Will require additional or reallocation of staff resources.*
Timeline:	Near-term: 2023-2025
Implementation Notes:	• Seek partnerships with community organizations to reach different groups
Progress Metrics:	1. Number of people engaged 2. Number of people from historically underserved communities engaged

Supporting Actions

Complementing transformative actions are the supporting actions. While less impactful than the transformative actions, supporting actions will help reinforce the *Safe System* Approach and are vital to incrementally achieving Vision Zero over time. While some supporting actions may require additional funds, some do not require funding beyond what would be required for existing plans and programs, staff time, or a small amount of additional funding.

Supporting Action Description		Key Implementer(s) (lead in bold)
1	Support Mode Shift	
1.1	**Continue fare-less transit services through Transfort and implement the Transit Master Plan**	**Transfort**
1.2	**Prioritize trail investments to promote trails for transportation**	**Park Planning & Development**, Parks Department, Light & Power, Natural Areas, Traffic Operations
1.3	**Evaluate night-time transit hours and transit stop amenities**	**Transfort**, FC Moves
2	Prioritize Safer Speeds and Multimodal Places	
2.1	**Implement geometric intersection treatments with proven safety benefits**	**Engineering Department**, Traffic Operations
2.2	**Implement signal and/or operational modifications that are proven to reduce severe crashes**	**Traffic Operations**
2.3	**Evaluate all bus stop locations for the installation of pedestrian crossings**	**Transfort**, Traffic Operations, Engineering Department, FC Moves
3	Promote a Culture of Traffic Safety	
3.1	**Work with a broad range of agencies and organizations to promote traffic safety, such as CSU, school resource officers, mental health organizations**	**FC Moves**, Police Services
3.2	**Work with the media to more accurately report traffic crashes and avoid victim-blaming**	**Communications & Public Involvement Office,** FC Moves, Police Services
3.3	**Pair roadway design changes with communication on why changes are needed, and include branded Vision Zero signage during project construction**	**FC Moves,** Communications & Public Involvement Office, Engineering Department, Traffic Operations
3.4	**Engage City staff in trainings and facilitated conversations to better understand Vision Zero goals, and roadblocks and opportunities for successful implementation**	**FC Moves**, Traffic Operations, Police Services, Engineering Department, Streets Department, Transfort, Community Development & Neighborhood Services, Communication & Public Involvement Office, Poudre Fire Authority

3.5	**Support the establishment of a victims' advocacy organization such as a local chapter of Families for Safe Streets**	**FC Moves**, Bike Fort Collins
3.6	**Incorporate safety features in City fleet vehicles and expand safe driver training and awareness among people who drive City fleet vehicles**	**FC Moves,** Human Resources Department
3.7	**Fully staff the Traffic Enforcement Unit**	**Police Services**
4	Increase Data Transparency and Partnerships	
4.1	**Expand current group of safety stakeholders into an interdisciplinary Vision Zero Task Force and continue regular meetings to review data and ongoing traffic safety performance and determine strategies for improvement**	**Traffic Operations,** Police Services, FC Moves
4.2	**Work with Colorado Department of Transportation (CDOT) and Larimer County to provide more timely statewide or region-wide crash data**	**Traffic Operations**, Police Services, FC Moves, North Front Range Metropolitan Planning Organization, CDOT, Larimer County
4.3	**Convene rapid response meetings after all severe crashes, investigate how roadway design contributed to the crashes, and implement near-term safety improvements as appropriate to subject location and locations with similar characteristics**	**Traffic Operations**, Police Services, Engineering Department, FC Moves
4.4	**Partner with medical and substance abuse organizations to share data and strategies**	**Social Sustainability**, Police Services, Traffic Operations
4.5	**Provide a dashboard with accessible data about traffic fatalities and serious injury crashes on the City's website and incorporate data and trends into the annual safety report**	**Police Services,** Traffic Operations, Information Technology
4.6	**Advocate for policies regulating automated vehicles that advance Vision Zero safety goals**	**City Manager's Office**
5	Center Equity	
5.1	**Pilot a diversion program with education to encourage safe behaviors over more punitive measures such as fines**	**Police Services**, FC Moves
5.2	**Engage youth to raise awareness of Vision Zero and solicit their input on programs and street design projects**	**FC Moves**
5.3	**Expand use of automated traffic enforcement (speed, red-light cameras) in place of in-person traffic enforcement and deploy throughout the HIN; any revenues received from fines should be used to improve traffic safety.**	**Police Services**, Traffic Operations, FC Moves

Countermeasures

Safety Countermeasures include street design treatments that address the top six severe crash types in Fort Collins. The majority of these countermeasures are included in the Federal Highway Administration Proven Safety Countermeasures Initiative and the Crash Modification Factor Clearing House (www.cmfclearinghouse.org). The crash modification factor (CMF) is used to compute the number of crashes expected after implementing a given countermeasure at a specific site. The CMF can help the City prioritize which countermeasures to prioritize for implementation. The table below alphabetically summarizes safety countermeasures that could help reduce the number of crashes in the top six severe crash types that occur in Fort Collins.

Safety Countermeasure	Description	Crash Type					
		Bicycle	Pedestrian	Approach Turn	Rear End	Right Angle	Fixed Object
Backplates with Retroreflective Borders	Backplates added to a traffic signal head improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background and by framing it with a 1- to 3-inch yellow retroreflective border. Signal heads that have backplates equipped with retroreflective borders are more visible in both daytime and nighttime conditions.				X	X	
Bicycle Lanes	Providing bicycle facilities can mitigate or prevent interactions, conflicts, and crashes between bicyclists and motor vehicles, and create a network of safer roadways for bicycling. Dedicated facilities for the use of bicyclists along the roadway can take several forms, including separated bicycle lanes via curb, flex posts, or bollards.	X					
Bikeways at Intersections	The approaches to intersections should maintain continuity of bicycle facilities to the maximum extent possible and should allow visibility of all users, and separation of vulnerable roadway users. Continue the bike lane up to the intersection and provide bicycle signal detection. Where space is available, protected intersection elements should be installed to minimize conflicts. Where there are high volumes of turning movements by bicyclists, two-stage turn boxes can be installed.	X		X		X	
Chicanes and Pinch Points	Chicanes slow traffic by creating a serpentine travel path by alternating street features from one side of the street to the other. Curb extensions, on-street parking, or temporary materials such as planters and rubber speed bumps may be used to produce a chicane.	X	X		X	X	X
Corner Islands and Turn Wedges	A corner island is a raised area inside an intersection that decreases the corner radius and slows left or right turning movements for motor vehicles. These designs are typically constructed using concrete curbing. Turn wedges, on the other hand, can be constructed with low-cost materials such as paint, flex posts, and rubber speed cushions.	X	X	X		X	
Corridor Access Management	Access management refers to the design, application, and control of entry and exit points along a roadway. This includes intersections with other roads and driveways that serve adjacent properties. Thoughtful access management can simultaneously enhance safety for all modes, facilitate walking and biking, and reduce trip delay and congestion.	X	X	X	X	X	

Safety Countermeasure	Description	Crash Type					
		Bicycle	Pedestrian	Approach Turn	Rear End	Right Angle	Fixed Object
Crosswalk Lighting and Daylighting	Crosswalk lighting should illuminate with positive contrast to make it easier for a driver to visually identify pedestrians. This involves carefully placing the luminaires in forward locations to avoid a silhouette effect of the pedestrian. "Daylighting" restricts street parking in advance of intersections and crosswalk approaches to clear sight lines.	X	X	X		X	
Curb Extensions	Extending the curb beyond the sidewalk or buffer edge shortens crosswalk length and increases visibility of people walking and rolling, particularly where there is on-street parking. Curb extensions are also effective tools for narrowing streets or tightening intersections to reduce motor vehicle turning speeds.		X	X		X	
Hardened Centerlines	Hardened centerlines include vertical elements such as mountable curb or flex posts that force turning drivers to slow down when turning left. They can reduce motorist-pedestrian conflicts and reduce the speed of left-turning vehicles.	X	X	X			
Leading Pedestrian Interval	A leading pedestrian interval gives pedestrians the opportunity to enter the crosswalk at an intersection 3-7 seconds before vehicles are given a green indication. Pedestrians can better establish their presence in the crosswalk before vehicles begin turning right or left. Bicyclists may also use leading pedestrian intervals instead of waiting to move with vehicle traffic, which improves cyclist safety and mobility.	X	X				
Medians	Median barriers are longitudinal barriers that separate opposing traffic and can be designed to redirect vehicles striking either side of the barrier. Median barriers significantly reduce the number of cross-median crashes, and provide a refuge for pedestrians crossing. Accessible median refuges require a cut-through and tactile warning surfaces to accommodate people with disabilities.		X	X			X
No Turn on Red Restrictions	“No Turn on Red” signs are used to restrict motor vehicles from turning at signalized intersections during the red phase. Prohibiting turns on red helps prevent crashes where vehicles turning right on red collide with through vehicles on the cross street or with people walking. These should be considered at school crossings, intersections with high pedestrian volumes, skewed intersections, or intersections with inadequate sight distances.	X	X	X		X	
Pedestrian Hybrid Beacon	The pedestrian hybrid beacon is a traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections. The beacon head consists of two red lenses above a single yellow lens. The lenses remain ”dark“ until a pedestrian desiring to cross the street activates the beacon.	X	X				
Pedestrian Recall Signal Timing	Signals can be put in “recall” all the time or for key time periods of the day such as peak business hours or school drop-off /pick-up times. The “walk” signal would be displayed every signal cycle without prompting by a pedestrian push button.		X				

Safety Countermeasure	Description	Crash Type					
		Bicycle	Pedestrian	Approach Turn	Rear End	Right Angle	Fixed Object
Pedestrian Refuge Island	A pedestrian refuge island (or crossing area) is a median with a refuge area that is intended to help protect pedestrians who are crossing a road.	X	X				
Protected Turn Phase	Protected turns provide an exclusive phase for left- or right-turning vehicles to enter an intersection separate from conflicting vehicle or pedestrian movements.	X	X	X			
Raised Crossings and Intersections	Raised crossings and intersections are used to slow traffic and reduce conflicts between motorists and people walking, rolling, and biking on or across the street. These crossings are elevated to reduce or eliminate the vertical transition between the sidewalk and the street.	X	X				
Road Diet Roadway Reconfiguration	A Road Diet typically involves converting an existing four-lane undivided roadway to a three-lane roadway consisting of two through lanes and a center two-way left-turn lane, reducing lane widths, and addition of bicycle lanes and/or sidewalks.	X	X	X	X	X	X
Lane Narrowing	On roadways with speeding/speeding issues, where vehicle lane widths are greater than the recommended minimums, narrowing lane widths can help control speeding, shorten crossing distances, and improve safety for all users. Narrowing lanes can also create space to accommodate bicycle and pedestrian facilities.	X	X		X	X	X
Roundabouts	Roundabouts feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points. While roundabouts can reduce motorist speeds, which increases comfort and safety for people walking or bicycling, they can also increase crossing distances. Multilane roundabouts and roundabouts with slip lanes should be avoided. For high-traffic volume roundabouts, bicyclists should be provided a separate cycle track.			X		X	X
Speed Safety Cameras	Speed safety cameras are an effective and reliable technology to supplement more traditional methods of enforcement, engineering measures, and education to reduce motorist speeding. Speed safety cameras use measurement devices to detect speeding and capture photographic or video evidence of vehicles that are violating a set speed threshold. State law restricts the use of speed cameras in Colorado.	X	X		X	X	X
Traffic Signal Timing	Signals timed to a target limit can encourage motorists to drive at slower speeds because the signals are timed to maintain traffic flow.	X	X	X	X	X	X

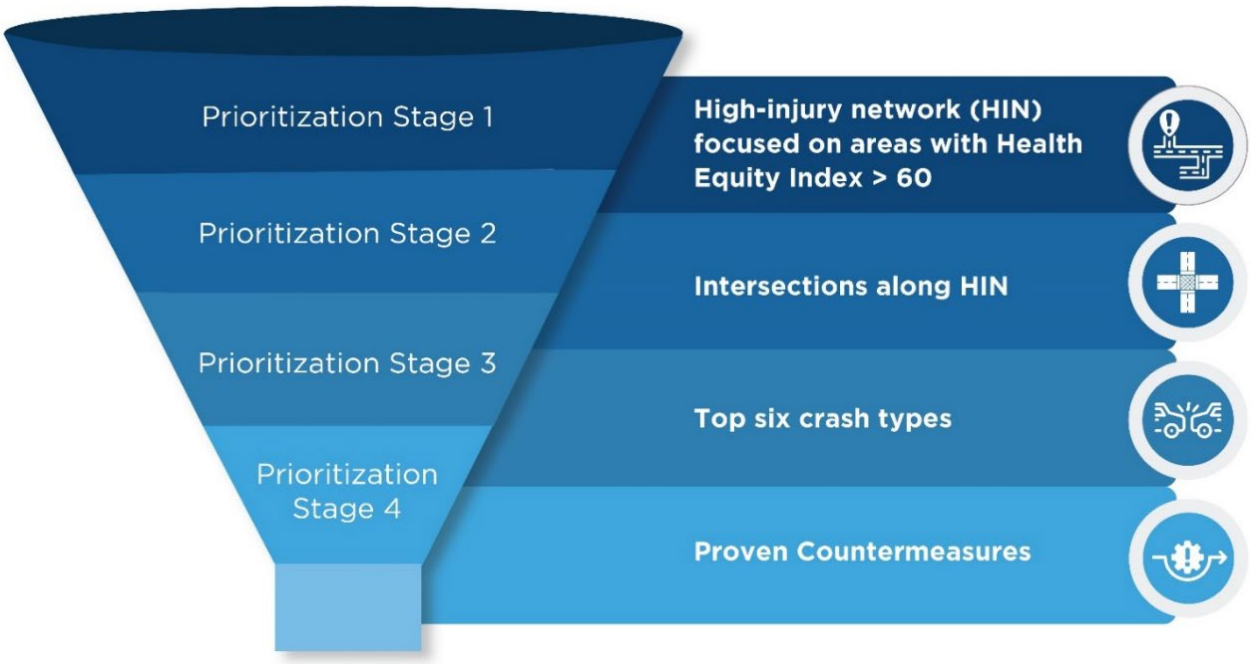
A bicycle roundabout created at CSU with rubber curbing and flexible bollards is an example of an innovative treatment using low-cost materials that are easily adjusted. Source: CSU.

Implementation

Implementing this Action Plan to achieve Vision Zero in Fort Collins will require a mechanism to prioritize roadway safety investments, funding to implement Vision Zero strategies, and regular evaluation and monitoring of progress.

Prioritization

A prioritization framework is needed as a decision-making guide to select where to first apply the limited resources available for implementing Vision Zero strategies and roadway safety countermeasures. The graphic summarizes the process that the City will take to prioritize roadway safety countermeasures. Through these prioritization stages, the City will identify the top locations along the HIN and crash types to address via proven countermeasures. Equity will be a focus by first prioritizing locations along the HIN in areas with Health Equity Index greater than 60.



Funding

Effective use of limited funding is a crucial requirement to implement the Fort Collins Vision Zero Action Plan. While some action items in the Plan may require additional funds, some do not require funding beyond what would be required for existing plans and programs, staff time, or a small amount of additional funding. For the action items that require additional funding, potential funding sources and strategies are outlined below, including leveraging new federal programs and grants to fund roadway safety projects. The Fort Collins Vision Zero Action Plan positions the City to prioritize its needs for roadway safety and seek funding from these sources.

One strategy to fund action items in this Action Plan is to create a dedicated and permanent program that funds new staff positions to coordinate the implementation of the Plan and fund large capital roadway investments. Dedicated Vision Zero staff should determine cost estimates (high level or detailed) and identify funding for actions in the Plan. In addition to the establishment of a dedicated funding program for Vision Zero, safety should be prioritized and embedded as the topmost need in already established local funding sources and programs. The reprioritization of funding in existing local sources and new federal funding streams that prioritize safety will support the success of the Plan. The Plan and local investments will be important for increasing Fort Collin's competitiveness to leverage this funding.

The table below summarizes funding sources from local, state, federal, and non-traditional resources.

Funding Source	
Local Funding Decision-making for use of local funding sources should put Vision Zero and roadway safety as top transportation factors.	Budgeting for Outcomes: The City's budgeting process, Budgeting for Outcomes (BFO), is designed to prioritize community goals, organized around seven Key Outcome Areas.
	Community Capital Improvement Program: A voter-approved quarter-cent sales tax renewal that includes dedicated funding for arterial intersection reconstruction, bicycle infrastructure expansion, and other multimodal improvements.
	Street Maintenance Program (SMP): The SMP has successfully implemented multimodal projects through regular maintenance and resurfacing projects, including striping bicycle lanes, repairing sidewalks and curbs, and reconstructing curb ramps for ADA compliance. Projects that can be implemented through regular operations and maintenance (e.g., lane diets and small concrete construction) may be good candidates to program via SMP.
State Funding Funding programs primarily administered by CDOT.	FASTER Transit Grants: These grants can be used to improve transit services, the rider experience, and for pedestrian and bicycle amenities or connections that support transit projects. These grants are administered by CDOT regional offices.
	FASTER Safety Program: To support construction, reconstruction, or maintenance of projects to enhance the safety of a state highway, county road, or city street. This program is administered by CDOT.
	Highway Safety Improvement Program (HSIP): The goal of this program is to achieve a significant reduction in severe crashes on all public roads. This is a federal program with a state allocation administered by CDOT.
	Revitalizing Main Streets: These grants can be used for safety and economic revitalization projects of state-owned roadways with dense commercial activities. This program is administered by CDOT.
	Multimodal Transportation and Mitigation Options Fund (MMOF): The goal of this program is a complete and integrated multimodal transportation system. This is a state program with allocation administered by the North Front Range Metropolitan Planning Organization.
Federal Funding Programs administered by different federal administrations.	Capital Investment Grant (CIG): This funding can be used for transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. These grant funds can be used to improve active modes access to transit stations. This grant is administered by the Federal Transit Administration.
	Surface Transportation Block Grant (STBG) Program: This program funds projects that preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. In Larimer County, these funds are provided to CDOT and distributed through NFRMPO.
	Transportation Alternatives Program (TAP): TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to transit and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; and projects for planning, designing, or constructing boulevards and other roadways. In Larimer County, these funds are provided to CDOT and distributed through NFRMPO.

Funding Source	
	Discretionary Grants: The US Department of Transportation administers several discretionary programs to fund local projects, such as the Safe Streets and Roads for All (SS4A), RAISE and INFRA grant programs.
Partnerships and Non-traditional Sources	Colorado State University Campus Projects: The university funds capital construction and maintenance of streets, sidewalks, and trails on campus, which includes many active modes routes.
	Development Review: Private developers provide both direct infrastructure investments and fees that support management of streets and right of way during the development review process.
	Larimer County Capital Improvement Plan: For projects falling outside City Limits but within the Growth Management Area, the City may partner with Larimer County to include projects in the County's five-year Capital Plan.
	Non-traditional Partnerships: There are other opportunities to seek funding for Vision Zero and roadway safety such as the Center for Disease Control (CDC) Active People, Healthy Nation program; and philanthropic organizations.

Evaluation

The Fort Collins Vision Zero Action Plan is focused on one key performance metric: reducing serious traffic injuries and deaths to zero by 2032. While this makes the success of Vision Zero fairly easy to measure, it is critically important for the City to continually evaluate the impact of various Vision Zero strategies over time, so that they can be refined, revised, and targeted for better outcomes.

The City will develop and publish a biannual report to summarize progress on Vision Zero activities. This report will draw on or amend the City's established Annual Roadway Safety Report to focus on trends in severe crashes, and report on the progress made towards each strategy based on the implementation progress metrics.

As part of the effort to implement this Action Plan, City staff will develop an evaluation framework to assess progress on Vision Zero and strive toward a balance of accountability and flexibility. The evaluation framework will be a guide to City staff to allow consistent and objective tracking of safety and safety-related actions within the City. The framework will include progress metrics such as:

- Metrics to track severe crashes
- Metrics to track street design projects to improve roadway safety
- Metrics to track the implementation of actions in the Plan

Vision Zero IS possible. Other nations and other cities have much lower rates of traffic injuries and fatalities overall, per capita, and per mile driven. Some have achieved zero and some are making progress. Any reduction in traffic deaths is a life saved; any reduction in traffic injuries is a person who walks away from a crash. With sufficient commitment, not just of resources, but commitment to a different way of approaching traffic safety, Fort Collins **can** achieve Vision Zero.