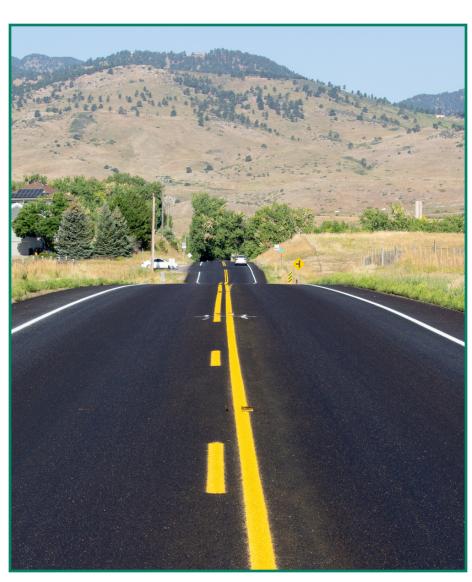




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Boulder County

GLOSSARY

Bicycle Crash – this crash type involves a motor vehicle and at least one person who is biking or using a scooter.

Bike/Pedestrian HIN (BP HIN) – a HIN (see right) focused specifically on concentrations of crashes involving bicyclists or pedestrians.

BOCC - Board of (Boulder) County Commissioners

Broadside Crash – also known as a T-bone crash, a broadside crash happens when the front end of one car crashes into the side of another car.

CDOT – Colorado Department of Transportation

Countermeasure – an engineering solution that can be implemented to correct a crash problem or reduce the likelihood of a crash occurring.

Crash Modification Factor – used to compute the expected number of crashes after implementing a countermeasure on a street or at an intersection.

Crash Severity – refers to the extent of injury and/or property damage resulting from a traffic crash. Crash severity is categorized as property damage only, possible injury, minor injury, serious injury, or fatality.

CSP - Colorado State Patrol

DRCOG - Denver Regional Council of Governments

Fatal Crash - a crash resulting in one or more deaths.

FHWA – Federal Highway Administration

Fixed-Object Crash – this crash type involves a motor vehicle and a stationary object such as a utility pole, guardrail, tree, or building.

Injury Crash – a traffic crash that results in one or more individuals sustaining injuries, ranging from minor to serious (a "severe" crash as defined later includes fatalities).

High-Injury Network (HIN) – a data-driven mapping tool which identifies segments and intersections with the highest concentration of crashes resulting in injury, and serves as a tool to prioritize investment in safety projects.

Left-Turn Crash – a crash that occurs when someone turns left in front of oncoming traffic without yielding the right-of-way.

Rear-End Crash – this crash type occurs when the front of one vehicle collides with the back of another vehicle.

Safe Streets and Road for All (SS4A) – a federal, discretionary grant program with \$5 billion to be spent nationwide between 2022 and 2026 to prevent roadway deaths and serious injuries.

Serious Injury Crash – a crash that results in an incapacitating (life altering) injury.

Severe Crash – a general term encompassing both fatal and serious injury crashes.

Systemwide Safety – an approach to safety involving widely implementing improvements based on high-risk roadway features correlated with specific severe crash types

Boulder County Transportation Sales Tax (TST) – a dedicated funding source for transportation projects and programs. Established in 2001 and extended indefinitely by voters in 2022, the TST supports roadway improvements, transit and mobility initiatives, and efforts to reduce congestion and pollution.

USDOT – United States Department of Transportation

Vision Zero – a transportation strategy to eliminate all traffic fatalities and serious injuries while increasing safe, healthy, equitable mobility for all. Vision Zero recognizes that humans make mistakes and therefore the transportation system should be designed to minimize the consequences of human error.

Vulnerable Road User – a pedestrian, bicyclist, or motorcyclist.







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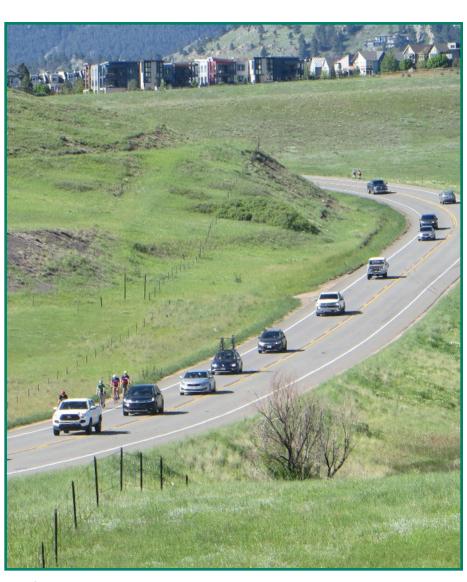
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OVERVIEW

Boulder County's Vision Zero goal identified in the 2020 Transportation Master Plan (TMP) is to eliminate all serious injury and fatal traffic crashes by 2035. This Vision Zero Action Plan identifies and prioritizes strategies and actions for the next ten years to work towards this goal.

The plan process included a comprehensive technical safety analysis to identify overall crash trends and high-crash locations of focus, called a High-Injury Network (HIN), as well as identifying top crash types and speed managementrelated strategies to address systemwide.

The county completed three rounds of community engagement to support and complement this effort:

- Summer 2024: community members' attitudes and concerns related to traffic safety in the study area.
- **Early 2025**: initial feedback on the safety treatments (countermeasures) being considered and input on factors to consider for HIN project scoring.
- **Spring 2025**: review of the draft plan.

The plan's study area covers unincorporated Boulder County, the participating mountain towns of Jamestown, Nederland, and Ward and includes both highways owned and maintained by the Colorado Department of Transportation (CDOT), as well as county-owned roads.

The plan includes a list of implementation strategies and actions. This is not a fiscally constrained plan; the county does not have all of the funding needed to implement this plan. Steps moving forward will include pursuing funding from a variety of sources and refining the prioritization of actions.

SAFETY ANALYSIS HIGHLIGHTS

Key findings based on ten years of crash data (2013-2022) include:

- 10,642 total crashes were reported, of which 496 were reported as serious injury and fatal ("severe") crashes.
- Severe crashes have fluctuated throughout the ten-year period with no sustained downward trend.
- 123 people were killed and 469 people were seriously injured.
- 174 crashes were reported involving bicyclists, 53 involving pedestrians, and 303 involving motorcyclists.
- 344 severe crashes were on CDOT highways; 152 severe crashes were on county roads.
- 149 severe crashes were at intersections; 347 severe crashes were on roadway segments.
- The highest concentrations of severe crashes were June through October. 32% of severe crashes occurred in dark conditions, 88% of severe crashes occurred in dry conditions.

The high-injury network (HIN) of high-crash locations includes 7% of the roadway miles in the study area and 66% of the total severe crashes. A Bike/Pedestrian HIN was also developed to ensure locations with high numbers of crashes with bike people biking and walking would be addressed.

The top five crash types systemwide account for over 75% of all severe crashes and include:

Single-Vehicle Crashes*



Crashes Involving Bicyclists



Head-On Crashes



Broadside Crashes



Left-Turn Crashes

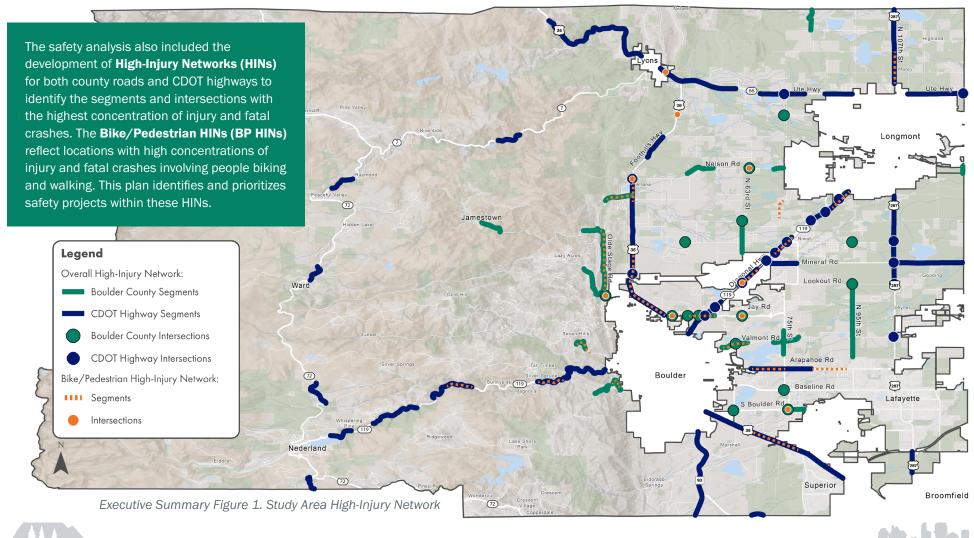
^{*}Examples of single-vehicle crashes include departing the road, colliding with fixed objects, and overturning vehicles.







HIGH-INJURY NETWORK





ACTION PLAN AT-A-GLANCE

To work towards improving safety in all aspects of transportation, a targeted set of strategies and actions were developed. The Strategies and Actions focus on addressing the HINs, the most common severe crash types across the county, and improving safety for people walking and biking. The full Action Plan is presented in **Chapter 5: Action Plan** with the Strategies and Actions organized by categories aligned with the Safe System Approach. The tables below highlight Actions most relevant to specific themes, such as enforcement or speed management, and can be used to navigate to areas of interest. **Some Strategies and Actions address broader topics and may be included in more than one table. Note that this is not a comprehensive list; for the full set of Strategies and Actions — along with next steps, lead and partner agencies, timeframe, and cost estimates — please refer to Chapter 5: Action Plan**.

Engineering (Guidance / Analysis) Actions

Safer Roads 1-b. Analyze and develop recommendations for remaining HIN segments and intersections.

Safer Roads 3-a. Complete safety analysis, identify recommendations, and implement improvements at county locations that are on the Bike/Pedestrian HIN.

Safer Roads 4-a. Develop signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections.

Safer Roads 4-b. Develop pedestrian crossing treatment installation guidelines to guide where to install marked crossings and pedestrian signals.

Engineering (Guidance / Analysis) Actions

Safer Roads 4-c. Develop bicycle facility signing and striping guidelines that can be incorporated into the county's Multimodal Transportation Standards (MMTS).

Safer Roads 4-d. Review, update, if warranted, and implement the county's speed limit setting and signing practices.

Safer Roads 4-e. Incorporate speed management road design strategies into the county's update to the Multimodal Transportation Standards (MMTS).

Safer Roads 5-c. Evaluate intersection controls, identify recommendations, and implement improvements (including potential conversion to roundabouts).

Safer Roads 5-e. Identify intersections and pedestrian/bicycle crossings with no roadway lighting and install intersection lighting.

Safer Roads 5-g. Partner with municipalities and neighboring counties on cross-jurisdictional planning and design for multimodal access to trails/trailheads.

Safer Roads 5-h. Analyze, develop recommendations, and implement improvements that address the top crash types, using **Appendix F: Countermeasure Toolkit.**

Safer Speeds 1-b. Analyze, develop recommendations, and implement speed safety cameras on county roads.

Safer Speeds 2-a. Identify county roadways where implementing speed management strategies has the greatest impact to eliminating serious injury and fatal crashes.

Engineering (Guidance / Analysis) Actions Continued on Next Page







ACTION PLAN AT-A-GLANCE

Engineering (Guidance / Analysis) Actions

Safer People 2-a. Evaluate and implement recommendations for county intersections, including but not limited to red-light cameras.

Safer People 2-b. Evaluate and implement recommendations for CDOT intersections, including but not limited to red-light cameras.

Safety Data & Reporting 1-b. Monitor and analyze ongoing crashes.

Safety Data & Reporting 2-d. Evaluate vehicle telematics data from other Boulder County departments related to safety (e.g., speeds, hard stops).

Other Actions 1-a. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's road sweeping practices.

Other Actions 1-b. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's snow removal practices.

Other Actions 2-a. Develop a Safe Routes to School Vision Zero Action Plan (SRTS VZAP).

Engineering (Implementation) Actions

Safer Roads 1-a. Implement improvements from HIN Fact Sheet Recommendations (see Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1).

Safer Roads 1-c. Implement recommendations for remaining HIN segments and intersections.

Engineering (Implementation) Actions

Safer Roads 1-d. Implement already planned, ongoing, or upcoming county safety projects.

Safer Roads 3-a. Complete safety analysis, identify recommendations, and implement improvements at county locations that are on the Bike/Pedestrian HIN.

Safer Roads 4-d. Review, update, if warranted, and implement the county's speed limit setting and signing practices.

Safer Roads 5-a. Add reflective traffic signal backplates at signalized intersections.

Safer Roads 5-b. Add tubular reflectors to sign posts and stop signs.

Safer Roads 5-c. Evaluate intersection controls, identify recommendations, and implement improvements (including potential conversion to roundabouts).

Safer Roads 5-d. Implement the signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections.

Safer Roads 5-e. Identify intersections and pedestrian/bicycle crossings with no roadway lighting and install intersection lighting.

Safer Roads 5-f. Implement safety improvements for culverts that don't meet clear zone requirements.

Safer Roads 5-h. Analyze, develop recommendations, and implement improvements that address the top crash types, using **Appendix F: Countermeasure Toolkit.**

Engineering (Implementation) Actions Continued on Next Page







ACTION PLAN AT-A-GLANCE

Engineering (Implementation) Actions

Safer Speeds 1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads.

Safer Speeds 1-b. Analyze, develop recommendations, and implement speed safety cameras on county roads.

Safer Speeds 2-b. Implement speed management strategies on county roadways identified in SS2-a.

Safer Speeds 2-d. Work with CDOT to implement speed management strategies on CDOT roadways identified in SS2-c.

Safer People 2-a. Evaluate and implement recommendations for county intersections, including but not limited to red-light cameras.

Safer People 2-b. Evaluate and implement recommendations for CDOT intersections, including but not limited to red-light cameras.

Other Actions 1-a. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's road sweeping practices.

Other Actions 1-b. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's snow removal practices.

Other Actions 2-b. Implement recommendations from the SRTS VZAP shortand mid-term recommendations.

Enforcement Actions

Safer Speeds 1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads.

Safer Speeds 1-b. Analyze, develop recommendations, and implement speed safety cameras on county roads.

Safer People 2-a. Evaluate and implement recommendations for county intersections, including but not limited to red-light cameras.

Safer People 2-b. Evaluate and implement recommendations for CDOT intersections, including but not limited to red-light cameras.

Other Actions 4-b. Conduct additional collaboration with Colorado State Patrol (CSP) on enforcement, including driving under the influence and distracted driving.

Education / Communication Actions

Safer People 1-a. Expand and distribute roadway safety messaging and campaigns, building off messaging developed by partners such as CDOT, CSP, DRCOG, National Highway Traffic Safety Administration (NHTSA).

Safer People 1-b. Explore the creation of an ambassador program to promote roadway safety.

Safer People 1-d. Create consistent countywide Vision Zero branding and messaging.

Safer People 1-e. Implement additional training for Boulder County staff related to vehicle operations.

Education / Communications Actions Continued on Next Page







ACTION PLAN AT-A-GLANCE

Education / Communication Actions

Safer People 1-f. Offer roadway safety training to the community through Mobility for All.

Safety Data & Reporting 1-a. Report on Vision Zero progress annually.

Safety Data & Reporting 1-c. Develop a public-facing Vision Zero Dashboard.

Other Actions 3-a. Develop a memorial sign program for victims of traffic crashes (at the request of the victim's family).

Other Actions 3-b. Participate in World Day of Remembrance for Road Traffic Victims.

Other Actions 5-b. Share clear messaging with the community about relevant transportation safety legislation, particularly new laws (e.g., Hands-Free Law, Bicycle Safety Stop, Automated Traffic Enforcement, etc.).

Evaluation Actions

Safety Data & Reporting 1-a. Report on Vision Zero progress annually.

Safety Data & Reporting 1-b. Monitor and analyze ongoing crashes.

Safety Data & Reporting 1-c. Develop a public-facing Vision Zero Dashboard.

Safety Data & Reporting 2-a. Implement a safety data tool to improve data quality and facilitate analysis of crash data.

Speed Management Actions

Safer Roads 4-d. Review, update, if warranted, and implement the county's speed limit setting and signing practices.

Safer Roads 4-e. Incorporate speed management road design strategies into the county's update to the Multimodal Transportation Standards (MMTS).

Safer Speeds 1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads.

Safer Speeds 1-b. Analyze, develop recommendations, and implement speed safety cameras on county roads.

Safer Speeds 2-a. Identify county roadways where implementing speed management strategies has the greatest impact to eliminating serious injury and fatal crashes.

Safer Speeds 2-b. Implement speed management strategies on county roadways identified in SS2-a.

Safer Speeds 2-c. Identify CDOT highways with a high number of speed-related crashes, and work with CDOT to implement solutions.

Safer Speeds 2-d. Work with CDOT to implement speed management strategies on CDOT roadways identified in SS2-c.







ACTION PLAN AT-A-GLANCE

Actions Underway as of VZAP Adoption (August 2025)

Safer Roads 1-d. Implement already planned, ongoing, or upcoming county safety projects.

Safer Roads 1-e. Proactively identify additional funding sources for implementation.

Safer Roads 2-c. Coordinate and collaborate with CDOT and DRCOG on relevant grant applications for CDOT HIN roadways.

Safer Roads 2-d. Continue working with CDOT, DRCOG, and municipalities on key regional safety corridors to develop and implement recommendations from current and future studies.

Safer Roads 4-a. Develop signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections.

Safer Speeds 1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads.

Safer People 1-a. Expand and distribute roadway safety messaging and campaigns, building off messaging developed by partners such as CDOT, CSP, DRCOG, National Highway Traffic Safety Administration (NHTSA).

Safer People 1-c. Continue convening the Vision Zero Community Partnership (VZCP).

Safer People 1-d. Create consistent countywide Vision Zero branding and messaging.

Safety Data & Reporting 1-b. Monitor and analyze ongoing crashes.

Actions Underway as of VZAP Adoption (August 2025)

Safety Data & Reporting 2-a. Implement a safety data tool to improve data quality and facilitate analysis of crash data.

Other Actions 2-a. Develop a Safe Routes to School Vision Zero Action Plan (SRTS VZAP).

Other Actions 3-b. Participate in World Day of Remembrance for Road Traffic Victims.

Other Actions 4-a. Continue the interdisciplinary crash analysis team (CAT) with Boulder County, CDOT, and first responders that analyzes ongoing fatal and serious injury crashes.

Other Actions 5-a. Continue advocating/participating in the development of relevant transportation safety legislation.

Other Actions 5-b. Share clear messaging with the community about relevant transportation safety legislation, particularly new laws (e.g., Hands-Free Law, Bicycle Safety Stop, Automated Traffic Enforcement, etc.).







NEXT STEPS

Next steps to implement this plan include:

Refining and prioritizing actions and incorporating into workplans

Continuing ongoing programs and projects that are already underway, starting on other key items identified through the refinement above

Pursuing additional funding

Monitoring and evaluating effectiveness

Reporting on progress

Refinement of actions will consider the costs and predicted effectiveness of actions, as well as staff and funding availability and ease of implementation (e.g., coordinating with other projects or programs).

Programs that are ongoing or already underway laid out by the BOCC include:

- Automated Speed Enforcement (Speed Safety Cameras) on CDOT highways (in accordance with BOCC Resolution 2024-060)
- Regional Corridor Planning and Construction (e.g., CO 119 Bikeway, US 287 Safety Project, US 36-N. Foothills Bikeway, CO 7 Corridor, Boulder-Erie Regional Trail (BERT))
- ✓ Other Transportation Sales Tax-Funded County Projects (e.g., 61st/Valmont, LoBo Trail connection to Jay Road, 120th Street reconstruction)
- ✓ Safe Routes to School Vision Zero Action Plan

Pursuing **additional funding** will also be needed. Some of the treatments recommended in **Appendix D**: **High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1** — such as installing signs — are fairly low-cost and could likely be covered through existing funding through the Transportation Sales Tax line item for Vision Zero (which averages to approximately \$50,000 per year). The full set of treatments in the Fact Sheets, combined with others to be determined through the actions identified in the plan, could cost in the tens of millions and will require additional funding sources.

The county will also continue to pursue additional funding sources (see **Chapter 6: Next Steps** and **Appendix G: Funding Opportunities Summary**) to support implementation. Having this completed plan is an important first step in this process, particularly for grant requirements.

Monitoring and evaluating the effectiveness of the Boulder County VZAP is essential to ensuring progress toward a safer transportation system. The county will track the following metrics to evaluate progress towards eliminating traffic-related fatalities, serious injuries, and the top five crash types that result in serious injury and fatalities. These metrics focus on the people impacted, not just the number of crashes.

- Fatalities
- Serious injuries
- · Bicyclist and pedestrian fatalities
- Fatalities and serious injuries in intersection-related crashes
- · Fatalities and serious injuries in non-intersection-related crashes

In addition, the county will **track and report** on the total number of crashes, as well as progress on the implementation of the plan and the effectiveness of implemented Actions. This evaluation will support the county in continuing to make data-driven decisions and adjust strategies as needed to achieve Vision Zero goals.









OVERVIEW

Boulder County's Vision Zero goal is to eliminate serious injuries and fatal traffic crashes in unincorporated Boulder County by 2035, as identified in the 2020 Transportation Master Plan. The county is not currently on track to meet that goal. The Boulder County Vision Zero Action Plan (VZAP) lays out steps for Boulder County to take in collaboration with partners to achieve that goal for unincorporated areas and the mountain communities of Jamestown, Nederland, and Ward. This is not a fiscally constrained plan; the county does not have all of the funding needed to implement this plan. Steps moving forward will include pursuing funding from a variety of sources and refining the prioritization of actions.

Recognizing the importance of implementing a regional approach to roadway safety, Boulder County, in collaboration with the City of Lafayette and the Town of Superior, applied and received funding from a Safe Streets and Roads for All (SS4A) grant to develop a VZAP. This initiative includes the creation of three standalone VZAPs for Boulder County, Lafayette, and Superior to improve the transportation network and ensure a cohesive regional strategy to enhance roadway safety. By fostering inter-agency collaboration and aligning safety priorities across jurisdictions, each plan will maximize its effectiveness and implementation potential.

WHAT IS VISION ZERO?

Vision Zero is an international initiative based on the principle that no loss of life on our streets is acceptable. It aims to create a transportation system that prioritizes safety, equity, and mobility for all road users with zero traffic deaths or serious injuries.

WHAT IS A VISION ZERO ACTION PLAN?

A **Vision Zero Action Plan** is a strategic document that evaluates historic crash data and system challenges and identifies Strategies and Actions to reduce the potential for significant injuries and fatalities in the future and to ensure a safe, equitable, and effective transportation system for all users.

SAFE STREETS AND ROADS FOR ALL (SS4A) GRANT PROGRAM

In 2021, the Bipartisan Infrastructure Law established the **SS4A program** with \$5 billion to be spent nationwide between 2022 and 2026. The program provides financial support for the planning and infrastructure initiatives to prevent death and serious injuries on roads and streets involving all roadway users.

















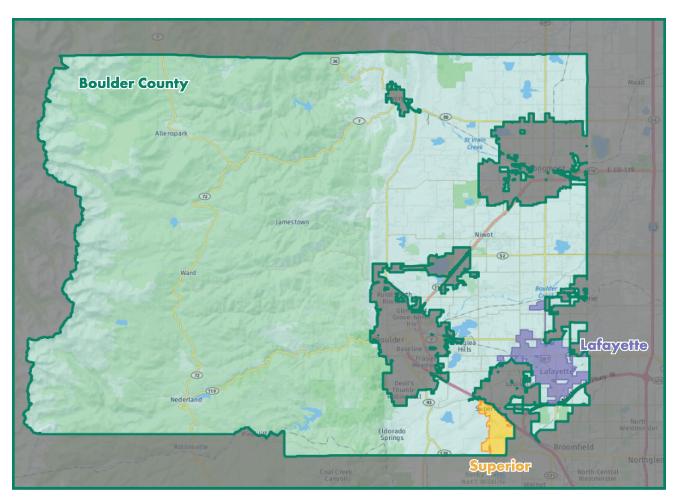


Figure 1. Vision Zero Action Plan (VZAP) Study Areas

VISION ZERO ACTION PLAN (VZAP) STUDY AREAS

The Boulder County VZAP provides a data-driven, community-informed strategy to address roadway safety concerns and implement targeted solutions. The Boulder County VZAP study area encompasses unincorporated Boulder County including the mountain towns of Jamestown, Nederland, and Ward. Unincorporated Boulder County's road network includes a mix of county-owned roads and highways owned by the Colorado Department of Transportation (CDOT), with a focus on improving safety for all road users, particularly vulnerable populations such as pedestrians, bicyclists, and motorcyclists. As part of the joint grant, the City of Lafayette and the Town of Superior have also developed separate Action Plans tailored to their local needs. The remaining jurisdictions in **Boulder County, including the cities of Boulder, Longmont, Louisville and the towns** of Erie and Lyons are also committed to Vision Zero and have local VZAPs either completed or planned.

















WHAT IS VISION ZERO AND THE SAFE SYSTEM APPROACH?

Vision Zero is an international movement focused on eliminating all trafficrelated deaths and serious injuries. It recognizes that human error is inevitable and that the transportation system should be designed to minimize the consequences of these mistakes. Vision Zero prioritizes safety above all else, using data-driven analysis to identify the root causes of traffic crashes and addressing them with comprehensive strategies rooted in a Safe System Approach.

The Safe System Approach focuses on five key elements:

- Safer Roads emphasizing the need for transportation infrastructure that safely accommodates multiple transportation modes.
- Safer Speeds identifying measures to reduce excessive speeds, a key contributor to the severity of traffic crashes.
- Safer People setting the framework for education and awareness, fostering a community of shared responsibility among all road users.
- **Safer Vehicles -** expanding the accessibility of vehicle features and support systems that help prevent crashes and minimize the impact on persons involved in crashes.
- Post-Crash Care enhancing the survivability of crashes and preventing secondary crashes through robust traffic incident management practices.

The Boulder County VZAP focuses primarily on Safer Roads, Safer Speeds, and Safer People.



Figure 2. The Safe System Approach to Eliminating Traffic Deaths

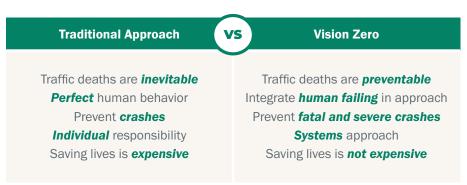


Figure 3. Traditional Approach vs Vision Zero

















GOALS OF THE VISION ZERO ACTION PLAN

The VZAP is built around key goals to ensure a safe, equitable, and effective transportation system. These goals include:

- ✓ Develop a comprehensive plan to support the Transportation Master Plan Vision Zero goal of eliminating traffic-related fatalities and serious injuries in unincorporated Boulder County by 2035.
- Address both county roads and highways (owned by CDOT).
- ✓ Ensure the plan is actionable, fundable, and phased and that it meets FHWA VZAP requirements.
- Develop specific recommendations for top priority crash locations and identify and prioritize additional locations of focus for further analysis and recommendations.
- Prioritize equity in transportation safety investments, ensuring that historically underserved communities receive necessary improvements.

SCHEDULE

The Boulder County VZAP process began in **Spring of 2024.** Throughout the process, community members and stakeholders were consulted to ensure that recommended strategies are coordinated, feasible, and aligned with regional safety goals. Key milestones include:

- Phase One Outreach (Summer 2024): Initial engagement through the Nederland Farmers Market, Ride for Magnus event, virtual public meeting, and an online survey.
- Phase Two Outreach (Winter 2025): Further engagement through gathering feedback on proposed safety solutions at the Boulder County Winter Bike to Work Day Event, the Nederland TownTalk, and with an online video and survey.
- Phase Three Outreach (Spring 2025): Community feedback on the draft plan.
- Final Action Plan (Summer 2025): Adoption by the Board of County Commissioners.

SUMMER 2024

Data Analysis:

Documenting major crash trends and developing the high-injury network (corridors where the most crashes are occurring).

FALL 2024

Countywide **Recommendations:**

Developing systemwide recommendations designed to eliminate the most prevalent crash types resulting in serious injuries or fatalities.

WINTER 2025

Project Identification:

Selecting specific project locations for detailed analysis and identifying proactive measures to address crash trends.

SPRING 2025

Action Plans:

Creating to-do lists of Strategies and Actions (both infrastructure, such as roadway improvements, and noninfrastructure, such as educational campaigns), noting responsibility and potential funding sources for implementation.















RELATED STUDIES AND PROGRAMS

The **Boulder County VZAP** builds upon the county's previous and ongoing efforts to enhance roadway safety and multimodal connectivity. It also complements Vision Zero Action Plans completed by the jurisdictions in Boulder County, including Boulder, Lafayette, Lyons, and Superior to ensure a regional approach to transportation safety.

- Boulder County Transportation Master Plan (TMP) The TMP serves as
 the county's long-term vision for transportation and mobility. It prioritizes
 multimodal safety improvements, integrates Vision Zero principles, and
 emphasizes investments in infrastructure to protect vulnerable road users.
- Boulder County Vision Zero Draft A precursor to the current VZAP, this
 document laid the groundwork for the county's safety strategies by assessing
 crash data from 2009-2018 and identifying trends by corridor, mode, and
 crash type.
- US 287 Safety & Mobility Study This study identified critical safety
 issues along the US 287 corridor, a high-crash corridor with a significant
 number of vehicle, pedestrian, and bicycle conflicts. Recommended safety
 enhancements include speed management strategies (speed safety
 cameras), a center median barrier along rural extents, and multimodal
 improvements.
- CO 119-Diagonal Hwy Safety and Mobility Improvements Aimed at improving safety along the Diagonal Highway, this initiative integrates road safety measures with expanded transit, pedestrian, and bicycle infrastructure. The study focuses on reducing high-speed crashes and improving connectivity for non-motorized users.

- US 36-N. Foothills Bikeway Study This study examined the feasibility of multimodal safety improvements along US 36-N. Foothills Hwy to enhance bike and pedestrian safety. It provides recommendations for separated bike facilities and improved crossings at major intersections.
- Taking Action on Regional Vision Zero This Denver Regional Council
 of Governments (DRCOG) plan was guided by local, regional, and state
 stakeholders, including Boulder County. The plan sets out action initiatives,
 an implementation timeline, and measures to help track progress toward a
 shared goal of zero traffic-related deaths and serious injuries.

Key Partners

Ongoing coordination with agency partners is central to Boulder County's traffic safety work. These partners contribute enforcement, data, and infrastructure support critical to implementing this Vision Zero Action Plan.

- Colorado Department of Transportation (CDOT): CDOT owns and maintains state highway corridors in the county. They share crash data, collaborate on grants, and lead projects such as the US 287 Safety Project, the CO 119 bikeway, and speed safety cameras in the CO 119 construction zone. CDOT is a key partner in implementing this plan.
- Colorado State Patrol (CSP): CSP responds to and investigates crashes
 on state highways. Their state-mandated enforcement program focuses
 on driving under the influence and other unsafe roadway behaviors. While
 there is limited budget for expanding enforcement, CSP continues to
 coordinate closely to support countywide safety efforts.
- Boulder County Sheriff's Office: The Sheriff's Office assists with crash response, traffic control, and general enforcement. With broad public safety responsibilities across the county, their traffic enforcement capacity is limited, but they continue to support Vision Zero efforts through coordination and information-sharing.

















CHAPTER 2 COMMUNITY ENGAGEMENT



COMMUNITY ENGAGEMENT

OVERVIEW

Community outreach was integrated throughout the planning process with both in-person and online opportunities for input. The VZAP reflects the input and collaboration of a diverse group of community members.

Four key groups were engaged throughout the planning process:

I. Community

Community members played a central role in shaping the VZAP. The project team facilitated public engagement through a mix of in-person pop-up events, virtual public meetings, in-person and virtual organizational/committee meetings, and online tools.

II. Steering Committee

The Steering Committee was composed of representatives from Boulder County, CDOT, DRCOG, staff and residents from the towns of Lafayette, Superior, and Nederland, emergency responders in the study area, as well as local and regional advocacy organizations. This group provided strategic guidance, technical expertise, and regional coordination throughout the planning process. The committee met throughout the planning process to review crash data findings, discuss community feedback, provide feedback on draft recommended actions, and shape the overall direction of the Action Plan.

III. Vision Zero Community Partnership

The Vision Zero Community Partnership (VZCP) is a group of local, regional, and statewide agency partners, Transportation Advisory Boards, bicycle advocacy groups, local school districts, and law enforcement officials to collaborate on our Vision Zero safety goals, policies, and projects. The project team provided regular updates at the quarterly VZCP meetings.

IV. Elected Officials

The planning process was also informed by engagement with the Board of County Commissioners. These leaders were briefed on the goals of the VZAP, shared insights from their constituents, and provided policy-level input to ensure that the plan aligns with local priorities and can be successfully adopted. Their participation helped secure broad support for the Action Plan's vision and built momentum toward implementation.

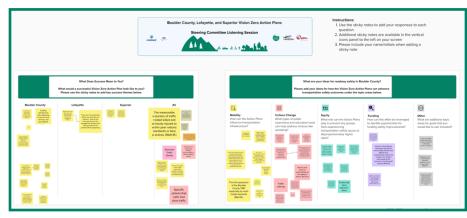


Figure 4. Screenshot from Steering Committee Listening Session

















COMMUNITY ENGAGEMENT

WHEN AND HOW WE ENGAGED

- Phase One (Summer 2024): The purpose of this phase was to identify how people travel in the study area and locations where they feel unsafe. Engagement took place at the Nederland Farmers Market and Ride for Magnus Event, through an online survey with an interactive map, and at a virtual public meeting.
- Phase Two (Winter 2025): In this phase, feedback was gathered on draft safety recommendations
 through an online survey with informational videos and in-person outreach at the Boulder County
 Winter Bike to Work Day and Nederland TownTalk.
- Phase Three (Spring 2025): Finally, the public reviewed the Action Plan and provided feedback through an online survey.

Appendix A: Community Outreach Summaries provides detail for each phase of engagement.



Figure 5. Nederland Farmer's Market



Figure 6. Boulder County Winter Bike to Work Day



Vision Zero Action Plan Engagement Events:

Phase One:

- 6/26/24 | Steering Committee Meeting
- 6/26/24 8/31/24 | Online Survey & Map
- 7/21/24 | Nederland Farmer's Market Community Pop-Up
- 8/8/24 | Virtual Public Meeting
- 8/11/24 Ride for Magnus Community Pop-Up

Phase Two:

- 2/11/25 3/2/25 | Informational Videos & Online Survey
- 2/14/25 | Winter Bike to Work Day Community Pop-Up
- 2/20/25 | Nederland TownTalk
- 4/23/25 | Steering Committee Meeting

Phase Three:

• **5/29/25 - 6/16/25** Public Review of Draft Plan

















COMMUNITY ENGAGEMENT

WHAT WE HEARD

PHASE ONE

During **Phase One,** community members shared input about roadway safety in the study area, particularly locations and roadway characteristics that feel unsafe. The key themes from community and stakeholder input were integrated into development of the HIN and Strategies and Actions, and included:

- **Speeding is a Major Concern.** High-speed corridors like US 287, CO 119, and South Boulder Road were frequently cited as feeling unsafe for all road users.
- Intersections Need Safety Improvements. Locations like US 287 & Oxford Road and CO 119-Diagonal Hwy & Niwot Road were highlighted for crash risks and poor pedestrian crossings.
- Bicycle and Pedestrian Infrastructure is Lacking.
 Many respondents called for protected bike lanes, safer crossings, and better walking conditions on key roads.
- Traffic Law Enforcement is Inadequate.
 Residents reported issues with red-light
 running, distracted driving, and failure to
 yield to pedestrians.
- More Speed Management and Traffic Calming are Needed. Requests for lower speed limits, roundabouts, and speed humps were common to improve road safety.

PHASE TWO

During **Phase Two**, community members reacted to proposed safety solutions and shared feedback about prioritizing implementation of countermeasures. The key themes from community and stakeholder input were integrated into HIN scoring and Strategies and Actions, and included:

- Red-Light Cameras Needed. Residents strongly support adding red-light cameras at intersections that feel unsafe to improve safety.
- Mixed Views on Rumble Strips. Some residents find them effective for crash prevention, while others worry they make cycling less comfortable.
- Protected Bike Lanes a Priority. Cyclists want separated bike paths for safety and stress the need for better intersection design to prevent conflicts with vehicles.
- Debris and Maintenance Concerns. Many avoid biking on roads due to debris, snow buildup, and cars encroaching on bike lanes, favoring off-street paths.

PHASE THREE

During **Phase Three**, community members reviewed and provided feedback on the Draft Plan. The key themes from community and stakeholder input will be integrated into the Final VZAP.

- Desire for Stronger Enforcement and Education Measures. Several community members emphasized the importance of enhancing enforcement and community education, particularly related to speeding, distracted driving, and unsafe cycling behaviors.
- Request for More Specific and Actionable
 Strategies. Some respondents expressed concern
 that some proposed actions were too vague and
 encouraged inclusion of more detailed, tangible
 steps to ensure implementation results in real
 change.



















CHAPTER 3 UNDERSTANDING THE SAFETY ISSUES



UNDERSTANDING THE SAFETY ISSUES

OVERVIEW

The Federal Highway Administration (FHWA) recommends that municipalities take a holistic view of Vision Zero to create a safe system that anticipates human mistakes and reduces the impact of crashes so they are less likely to cause serious injuries or fatalities. The safety analysis for the Boulder County VZAP is based on ten years of crash data (2013-2022) provided by CDOT. This analysis aims to identify key crash trends, high-injury locations, and factors that contribute to serious and fatal crashes in the study area. The VZAP relies on a thorough understanding of motor vehicle, bicycle, pedestrian, and motorcycle crash trends to inform strategic investments in safety improvements aimed at eliminating severe crashes on roads throughout the county. Appendix B: Safety Analysis Technical Memorandum provides more detailed information and analysis about the crash history.

The findings from this analysis serve as the foundation for developing the **High-Injury Network (HIN)** – a tool used to identify locations with the highest concentration of injury crashes to prioritize safety improvements. The safety analysis identifies trends common amongst all crashes, but focuses more specifically on crashes resulting in minor injury, serious injury, or fatality. Reviewing these more severe crash trends is critical and aligns with the Vision Zero model of aiming to reduce fatalities and serious injuries. Additionally, community feedback from public outreach was integrated to ensure alignment between the data analysis and lived experiences of Boulder County residents. Understanding this data will allow the county to direct resources where they are needed the most for improving safety and best address the root causes of crashes.

SAFETY ANALYSIS OVERVIEW

Key findings based on ten years of crash data (2013-2022) include:



10,642 total crashes were reported, of which **496** were reported as serious injury and fatal ("severe") crashes.



Severe crashes have fluctuated throughout the ten-year period with no sustained downward trend.



123 people were killed and **469** people were seriously injured.



174 crashes were reported involving bicyclists, **53** involving pedestrians, and **303** involving motorcyclists.



344 severe crashes were on CDOT highways; **152** severe crashes were on county roads.



149 severe crashes were at intersections; **347** severe crashes were on roadway segments.



The highest concentrations of severe crashes were June through October. 32% of severe crashes occurred in dark conditions. 88% of severe crashes occurred in dry conditions.

Study Area Severe Crashes by Year and Severity

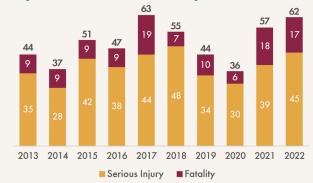


Figure 7. Study Area Crashes by Year and Severity







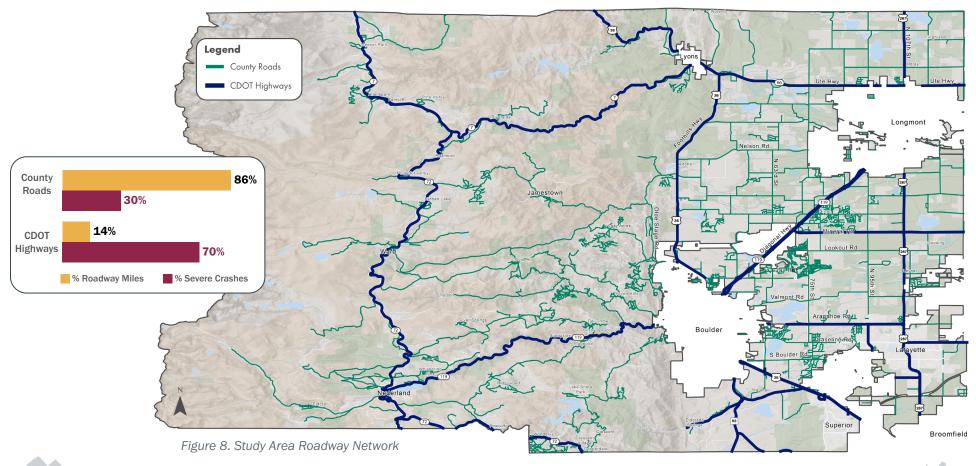






STUDY AREA ROADWAY NETWORK

Boulder County's roadway network includes both county-owned roads and highways that are owned, managed, and maintained by the Colorado Department of Transportation (CDOT). The CDOT highways are generally multi-lane, higher speed roadways (e.g., US 287, US 36-N. Foothills Hwy, CO 119-Diagonal Hwy). Seventy percent of the severe crashes analyzed in this plan occurred on CDOT highways.







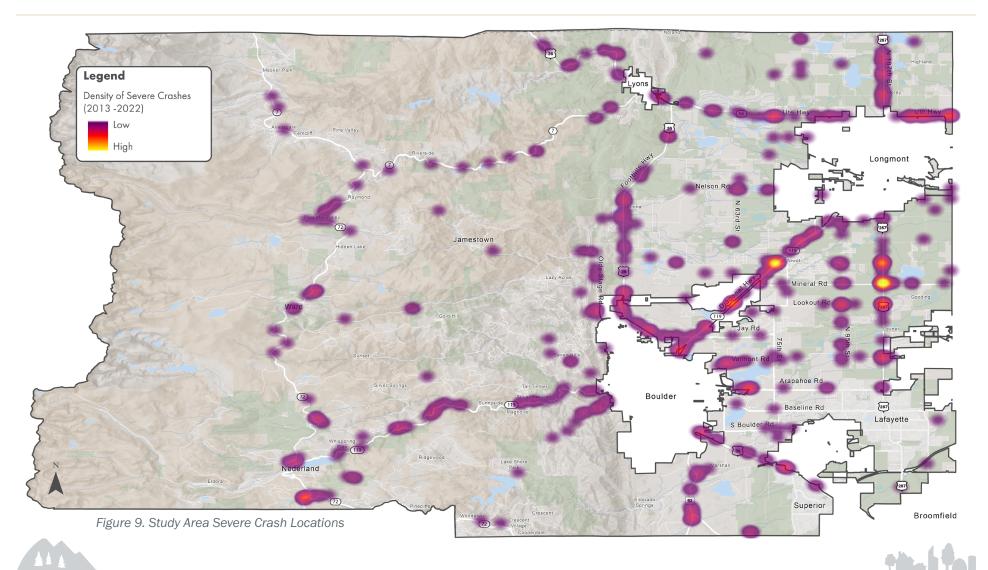






UNDERSTANDING THE SAFETY ISSUES

WHERE ARE SEVERE CRASHES OCCURRING IN THE STUDY AREA?









WHERE ARE VULNERABLE ROAD USER CRASHES OCCURRING IN THE STUDY AREA?

A vulnerable road user crash is a crash that involves a pedestrian, bicyclist, or motorcyclist. When people walking, bicyclists, or motorcyclists are involved in a traffic crash, they are more likely to be seriously injured or killed. Crashes involving bicyclists were one of the most common severe crash types on county roads in the study area.

Legend Injury & Fatal Vulnerable Road User Crashes (2013 -2022) Bicyclist Injury or Fatal Crash Pedestrian Injury or Fatal Crash

Of all crashes involving bicyclists in the study area 29% resulted in a serious injury or fatality. The roads with the majority of the bicycle crashes include US 36-N. Foothills Hwy and CO 119-Diagonal Hwy.

Of all pedestrian crashes in the study area, 38% resulted in a serious injury or fatality. The locations with pedestrian crashes were dispersed throughout the county.

Of all motorcyclist crashes in the study area, 29% resulted in a serious injury or fatality. The roads with the most motorcycle crashes include CO 72, CO 119-Boulder Canyon, and US 36-N. Foothills Hwy.

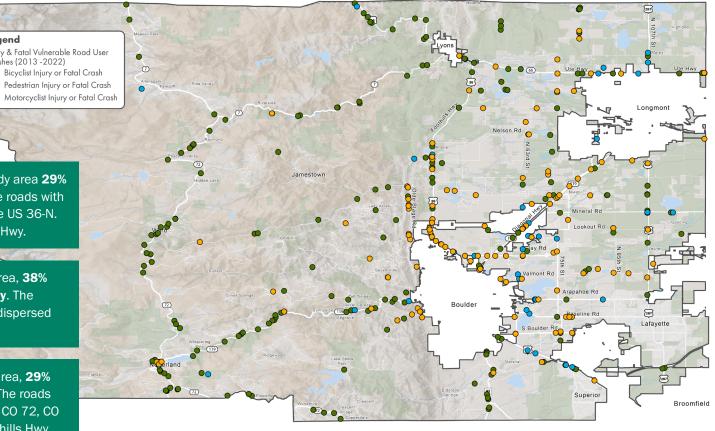


Figure 10. Vulnerable User Crash Locations











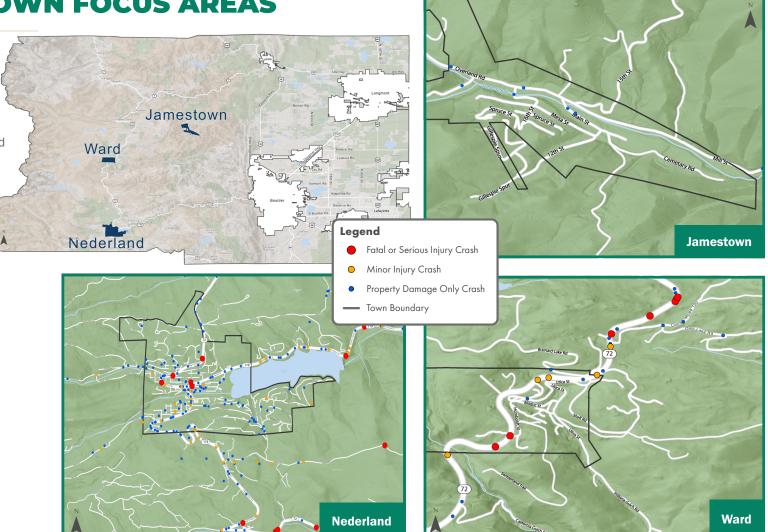




UNDERSTANDING THE SAFETY ISSUES

MOUNTAIN TOWN FOCUS AREAS

Across the participating mountain towns, 209 crashes occurred during the study period (2013 –2022). Of these, two serious injury crashes occurred in Ward, four serious injury crashes occurred in Nederland, and one fatal crash involving a motorcycle occurred in Nederland. Additionally, two fatal overturning crashes and three serious injury crashes occurred just north of Ward on CO 72.

















UNDERSTANDING THE SAFETY ISSUES

HIGH-INJURY NETWORK (HIN)

The **High-Injury Network (HIN)** is a mapping tool that identifies where the highest number of people are being killed or injured on the transportation system within the study area. This data-driven approach provides a foundation for county staff to focus resources in areas where safety improvements are most critical. The most recently

available ten years of crash data (2013-2022) were used to create the HIN. Minor injury crashes The HIN includes were included in the only 7% of the roadway miles and analysis to improve statistical reliability 32 intersections, but accounts for 66% of and provide a more complete picture of the severe crashes. where people are getting injured. Given that bicycle and pedestrian crashes made up 15% of severe Legend crashes in the Overall High-Injury Network: study area, a HIN Boulder County Segments focused specifically **CDOT Highway Segments** on these modes was **Boulder County Intersections** developed as well. CDOT Highway Intersections Bike/Pedestrian High-Injury Network: Segments Intersections Nederland Figure 12. Study Area High-Injury Network







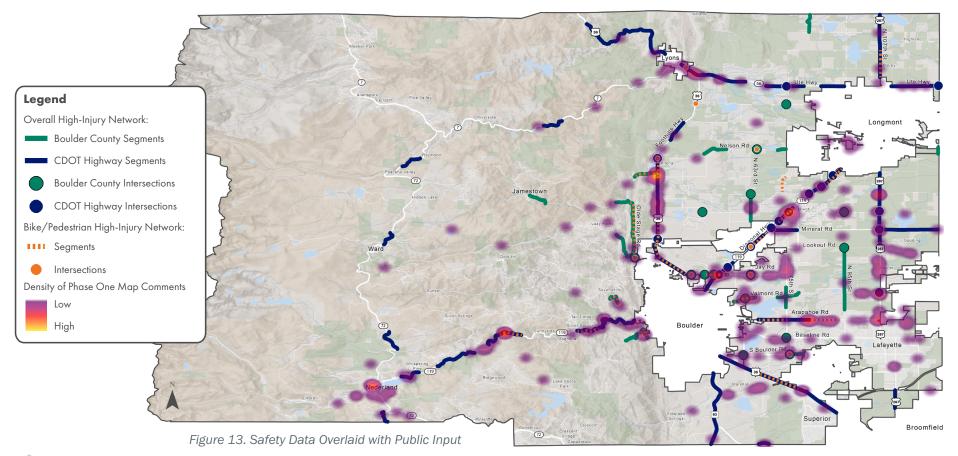




UNDERSTANDING THE SAFETY ISSUES

OVERLAYING SAFETY DATA WITH COMMUNITY INPUT

To ensure alignment between quantitative crash data and community concerns, the HIN was compared to community input from the Phase One outreach survey and interactive map. The feedback from the community about locations feeling unsafe shares significant overlap with locations identified as having historic crash trend, and can identify locations that may be at high risk for future severe crashes, even if there have not historically been concentrations.

















UNDERSTANDING THE SAFETY ISSUES

HIGH-INJURY NETWORK SCORING

Methodology

As part of the High-Injury Network development, the project team applied a datadriven scoring methodology to all segments and intersections within the Boulder County and CDOT HINs. Each location was scored based on a set of weighted criteria that reflect community values and safety needs.

The criteria used to score the HINs included:

- Crash History Locations with the highest concentrations of severe crashes.
- Equity Locations identified as providing the highest benefit to historically
 disadvantaged populations based on the segment-level equity index. This
 index was developed county-wide based on available federal and state
 census block-level tools, as well as high concentrations of low-wage jobs and
 locations in close proximity to schools and transit.
- Vulnerable Road Users Locations identified as part of the Bicycle and Pedestrian HIN with a lack of bicycle facilities.
- **Community-Identified Need** Locations with concentrations of people reporting feeling unsafe during Phase One of engagement.

The weighting for each criterion was informed by feedback gathered during Phase Two of community engagement, where participants were asked to identify the most important factors for prioritizing roadway safety investments. These results were combined with staff expertise to ensure the scoring framework aligned with both public input and practical implementation considerations. Further information on the equity index development and scoring process can be found in Appendix C: High Injury Network (HIN) Scoring Memorandum.

Locations on the HIN were categorized based on their scores as either High, Medium, or Low. The following pages display segments and intersections by score. The project team selected six high-scoring locations (three segments and three intersections) for further analysis and recommendation development. These are detailed in Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1; each location includes:

- · Existing Conditions
- Key Safety Concerns
- · Recommendations for Improvements

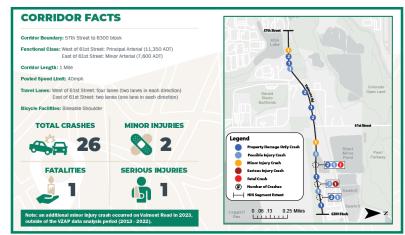


Figure 14. Screenshot from Appendix D: HIN Fact Sheets and Project Recommendations - Group 1

The score categories are a tool that will be used to inform the development of future projects in conjunction with funding availability, coordination with other planned capital and maintenance projects, and further community and agency input.









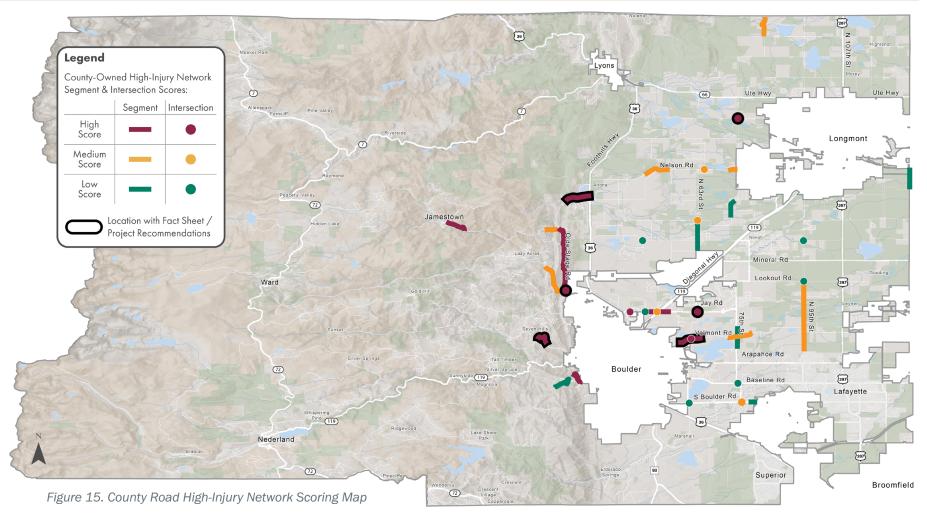






UNDERSTANDING THE SAFETY ISSUES

COUNTY ROAD HIGH-INJURY NETWORK (HIN) SCORING MAP

















UNDERSTANDING THE SAFETY ISSUES

COUNTY ROAD HIN SEGMENT SCORES

Segment Name	From	То	
	High Score Segments		
Flagstaff Road 🔥	Gregory Lane	Mile Marker 1	
James Canyon Drive	Main Street	Mile Marker 2	
Jay Road きゃ	47th Street	55th Street	
Lefthand Canyon Drive * 🕉	US 36-N. Foothills Hwy	W of Geer Canyon Drive	
Olde Stage Road 🗞	Lefthand Canyon Drive	Lee Hill Drive	
Sunshine Canyon Drive * ॐ	Timber Trail	Eagles Drive	
Valmont Road *	57th Street	6300 Block	
Medium Score Segments			
83rd Street	County Line Road	Yellowstone Road	
95th Street	Lookout Road	Boulder County Boundary	
Lee Hill Drive	Olde Stage Rd	E of Reed Ranch Road	
Lefthand Canyon Drive	Olde Stage Road	Crossing over Left Hand Creek	

Segment Name	From	То		
Medium Score Segments (cont.)				
Nelson Road	Centennial Ranch	55th Street		
Nelson Road	Clover Basin Reservoir	75th Street		
Valmont Road ở∕o	Approx. 0.4mi W of 75th Street	Approx. 0.6mi E of 7th Street (end of curves)		
	Low Score Segments			
63rd Street	Oxford Road	Monarch Road		
73rd Street ♂o**	W of Plateau Road	N of Nimbus Road		
75th Street	UP Railroad	Red Deer Drive		
E County Line Road	N of Quicksilver Road	Pike Road		
Flagstaff Road	Mile Marker 2	Flagstaff Drive		
S Boulder Road	McCaslin Blvd	Ponderosa Drive		

* Fact Sheet Location

♦ On the Bike & Pedestrian High-Injury Network (BP HIN) as well as the overall HIN

ずo** Only on the BP HIN, not the overall HIN

















UNDERSTANDING THE SAFETY ISSUES

COUNTY ROAD HIN INTERSECTION SCORES

Intersection Name
High Score Intersections
30th Street & Jay Road ♂₀
61st Street & Valmont Road (Intersection Improvement Project construction anticipated Spring 2026)
63rd Street & Jay Road * ♂⊘
75th Street & Hygiene Road *
Lee Hill Drive & Wagonwheel Gap Road * ♂
Medium Score Intersections
51st Street & Jay Road
63rd Street & Oxford Road
65th Street & Nelson Road 🗞
76th Street & S Boulder Road み

Intersection Name
Low Score Intersections
47th Street & Jay Road
75th Street & Baseline Road
95th Street & Lookout Road
95th Street & Niwot Road
Cherryvale Road & S Boulder Road
Golf Club Drive & Niwot Road

* Fact Sheet Location

♦ On the Bike & Pedestrian High-Injury Network (BP HIN) as well as the overall

ॐ ** Only on the BP HIN, not the overall HIN







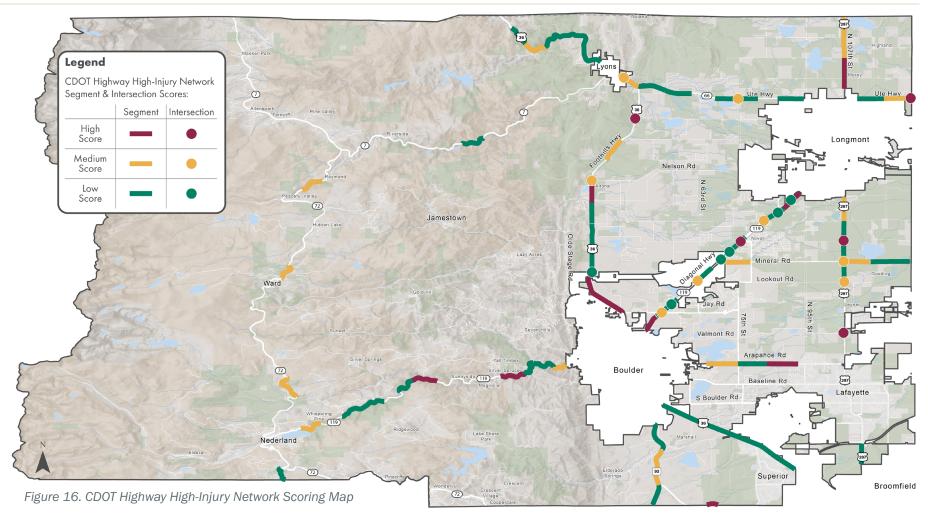








CDOT HIGHWAY HIGH-INJURY NETWORK (HIN) SCORING MAP

















CDOT HIGHWAY HIN SEGMENT SCORES

Segment Name	From	То		
High Score Segments				
CO 7-Arapahoe Road 🕉 **	West of Mile Marker 58	Boulder County Boundary		
CO 119-Boulder Canyon 🗞	Mile Marker 33	Mile Marker 34		
CO 119-Boulder Canyon 🗞	Mile Marker 37	Mile Marker 38		
CO 119-Diagonal Hwy	Mile Marker 45	South of Mile Marker 46		
CO 119-Diagonal Hwy 🗞	Mile Marker 53	Mile Marker 54		
CO 128	Boulder County Boundary (East of MP 2)	Boulder County Boundary (W of MP3)		
US 36-N. Foothills Hwy 🗞	Longhorn Road	Hwy 7/Broadway		
US 36-N. Foothills Hwy ♂	Hwy 7/Broadway	Jay Road		
US 36-N. Foothills Hwyみ	Nelson Road	Middle Fork Road		
US 287 ₺	County Road 4	South of Mile Marker 319		
M	edium Score Segments			
CO 7-Arapahoe Road 🗞	Arapahoe Ridge High School	75th Street		
CO 7-Peak to Peak Hwy	Mile Marker 37	Sugarloaf Road		
CO 7-Peak to Peak Hwy	Mile Marker 44	Mile Marker 45		
CO 7-Peak to Peak Hwy	Mile Marker 51	Mile Marker 52		
CO 52-Mineral Road	North 115th Street	County Line Road		
CO 52-Mineral Road	US 287	115th Street		
CO 66-Ute Hwy	Boulder County Boundary	US 36		
CO 66-Ute Hwy	Pace Street	County Line Road		

Segment Name	From	То			
Medium Score Segments (cont.)					
CO 119-Boulder Canyon	Mile Marker 27	Mile Marker 28			
CO 119-Boulder Canyon	Mile Marker 40	Boulder County Boundary			
Saint Vrain Road	Mile Marker 15	Mile Marker 16			
US 36-Boulder Turnpike	South Vrain Road	North of Mile Marker 26			
US 36-N. Foothills Hwy	Hwy 128	Eldorado Springs Drive			
US 287	Boulder County Boundary	Yellowstone Road			
US 287	Yellowstone Road	County Road 4			
US 287	Plateau Road	Oxford Road			
	Low Score Segments				
112th Street	Boulder County Boundary/144th Avenue	Boulder County Boundary			
CO 7-Arapahoe Road	75th Street	East of Mile Marker 58			
CO 7-Peak to Peak Hwy	Boulder County Boundary	Coal Creek Canyon Road			
CO 52-Mineral Road	North 115th Street	County Line Road			
CO 66-Ute Hwy	US 36	53rd Street			
CO 66-Ute Hwy	53rd Street	61st Street			
CO 66-Ute Hwy	C & S Railroad	Pace Street			
CO 66-Ute Hwy	McCall Drive	75th Street			
CO 66-Ute Hwy	75th Street	Table Mountain Road			
CO 66-Ute Hwy	North 87th Street	North 95th Street			
CO 119-Boulder Canyon	Mile Marker 29	Mile Marker 30			

♦ On the CDOT Highway Bike & Pedestrian High-Injury Network (BP HIN) as well as the overall CDOT HIN

ず ** Only on the CDOT BP HIN, not the overall CDOT HIN















UNDERSTANDING THE SAFETY ISSUES

CDOT HIGHWAY HIN SEGMENT SCORES

Segment Name	From	То		
Low Score Segments (cont.)				
CO 119-Boulder Canyon	Mile Marker 30	Mile Marker 31		
CO 119-Boulder Canyon	Mile Marker 32	Mile Marker 33		
CO 119-Boulder Canyon	Mile Marker 38	Mile Marker 39		
CO 119-Boulder Canyon	Mile Marker 39	Mile Marker 40		
CO 119-Diagonal Hwy	South of Mile Marker 46	Mile Marker 47		
CO 119-Diagonal Hwy 🗞	Mile Marker 48	Mile Marker 49		
CO 119-Diagonal Hwy 🗞	Mile Marker 50	Mile Marker 51		
CO 119-Diagonal Hwy	Mile Marker 52	Mile Marker 53		
Saint Vrain Road	Mile Marker 14	Mile Marker 15		
Saint Vrain Road	Mile Marker 16	Mile Marker 17		
Saint Vrain Road	Mile Marker 17	Mile Marker 18		
Saint Vrain Road	Mile Marker 18	Mile Marker 19		
Saint Vrain Road	Mile Marker 19	Boulder County Boundary		
Saint Vrain Road	Mile Marker 25	Mile Marker 26		
US 36-Boulder Turnpike	Boulder County Boundary	Mile Marker 40		
US 36-Boulder Turnpike	Mile Marker 40	Mile Marker 41		
US 36-Boulder Turnpike 🗞	Mile Marker 41	Mile Marker 42		
US 36-Boulder Turnpike 🗞	Mile Marker 42	Mile Marker 43		
US 36-Boulder Turnpike	Mile Marker 43	Mile Marker 44		

Segment Name	From	То		
Low Score Segments (cont.)				
US 36-Boulder Turnpike	Mile Marker 44	County Boundary		
US 36-N. Foothills Hwy	County Boundary	Hwy 128		
US 36-N. Foothills Hwy	Mile Marker 15	Eldorado Springs Drive		
US 36-N. Foothills Hwy	Mile Marker 28	Mile Marker 29		
US 36-N. Foothills Hwy	Mile Marker 29	South of Mile Marker 30		
US 36-N. Foothills Hwy 🗞	South of Mile Marker 30	Longhorn Road		
US 287	Oxford Road	Niwot Road		
US 287	Niwot Road	CO 52-Mineral Road		
US 287	CO 52-Mineral Road	Lookout Road		

ঠাত On the CDOT Bike & Pedestrian High-Injury Network (BP HIN) as well as the overall CDOT HIN

** Only on the BP HIN, not the overall HIN















CHAPTER 3

UNDERSTANDING THE SAFETY ISSUES

CDOT HIGHWAY HIN INTERSECTION SCORES

Intersection Name		
High Score Intersections		
CO 66-Ute Hwy, 66th Street, & East County Line Road		
CO 119-Diagonal Hwy & Niwot Road		
US 36-N. Foothills Hwy & Hygiene Road ♂ **		
US 287 & Isabelle Road		
US 287 & Niwot Road		
Medium Score Intersections		
CO 66-Ute Hwy & 75th Street		
CO 66-Ute Hwy, McConnell Drive, & Stone Canyon Drive	**	
CO 119-Diagonal Hwy & 63rd Street 🗞		
CO 119-Diagonal Hwy & 83rd Street		
CO 119-Diagonal Hwy & Jay Road		
US 36-N. Foothills Hwy & Nelson Road ず		

Intersection Name
Medium Score Intersections
US 287 & CO 52-Mineral Road
US 287 & Lookout Road
Low Score Intersections
CO 119-Diagonal Hwy & 55th Street
CO 119-Diagonal Hwy, Airport Road, & Ogallala Road
CO 119-Diagonal Hwy & Fordham Street
CO 119-Diagonal Hwy, IBM Drive, & CO 52-Mineral Road
US 36-N. Foothills Hwy & Longhorn Road
CO 119-Diagonal Hwy & Monarch Road
→ On the CDOT Bike & Pedestrian High-Injury Network (BP HIN) as well as the







→
** Only on the CDOT BP HIN, not the overall CDOT HIN

overall CDOT HIN









UNDERSTANDING THE SAFETY ISSUES

TOP SEVERE CRASH TYPES

The Boulder County VZAP focuses its systemwide recommendations on the five crash types that consistently appeared as top contributors to injury crashes across both CDOT highways and county-owned roads within the study area. By targeting these five crash types, the Plan aims to maximize safety benefits through a strategic and efficient application of countermeasures and infrastructure improvements along corridors of injury crashes.



The top five serious injury and fatal crash types account for 77% of the serious injury and fatal crashes.

SINGLE-VEHICLE **CRASHES***



CRASHES INVOLVING BICYCLISTS



HEAD-ON CRASHES



BROADSIDE CRASHES



LEFT-TURN CRASHES











^{*}Examples of single-vehicle crashes include departing the road, colliding with fixed objects, and overturning vehicles.



CHAPTER 4

HOW WE WILL ACHIEVE VISION ZERO



CHAPTER 4

HOW WE WILL ACHIEVE VISION ZERO

OVERVIEW

Vision Zero seeks to eliminate traffic-related fatalities and serious injuries through the **Safe System Approach**, which addresses the multiple elements of the environment and conditions that are part of a transportation system. The intent is to prioritize safety in a variety of ways at a variety of levels (e.g., roads, vehicles, and road users) which creates layers of protection so that if a human does make a mistake while traveling, the consequences are less severe.

To achieve Vision Zero, strategies are focused on a combination of engineering, enforcement, education, and evaluation countermeasures that complement each other to improve safety outcomes:

- Engineering tools focus on designing and improving infrastructure to reduce risks and protect road users, particularly those most vulnerable, such as pedestrians, bicyclists, and motorcyclists. This includes designing roads that separate different modes of travel and using safer materials and technologies to prevent crashes or minimize their severity.
- **Enforcement** tools ensure that traffic laws are obeyed through effective law enforcement practices, targeting risky behaviors like speeding, impaired driving, and failure to yield. This helps promote responsible driving and deters behaviors that contribute to crashes.
- **Education** tools involve raising awareness about road safety, teaching safe driving behaviors, and engaging the community in building a culture of safety through outreach, campaigns, and public engagement programs.
- **Evaluation** is essential to monitor progress, assess the effectiveness of safety interventions, and continually refine strategies to meet Vision Zero goals.

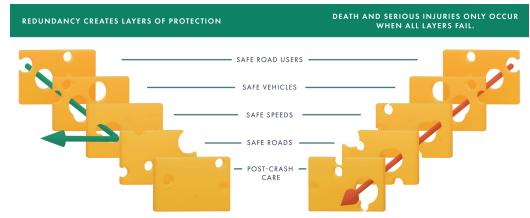


Figure 17. Safe System Redundancy

The majority of the actions identified in this plan are Engineering approaches related to Safe People, Safe Speeds, and Safe Roads, because these are elements that the County has the most direct control over.

The key elements involved in the overall approach include:

- Prioritizing improvements on the HIN and Bike/Pedestrian HIN for county roads.
- Working with CDOT to address improvements on the CDOT highways HIN and Bike/Pedestrian HIN.
- Systemwide improvements, particularly addressing the Top Severe Crash Types.
- Speed management-related measures, including speed safety cameras.















HIGH-INJURY NETWORK PROJECTS UNDERWAY

Many HIN segments and intersections have ongoing or upcoming funded projects addressing safety. See the table on the following page for details about ongoing projects on county roads (indicated by numbers) and CDOT highways (indicated by letters). Future projects, such as those identified in Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1, will be moved forward based on funding availability, coordination with other planned capital and maintenance projects, and further community and agency input. Legend Overall High-Injury Network: Boulder County Segments CDOT Highway Segments **Boulder County Intersections CDOT Highway Intersections** Bike/Pedestrian High-Injury Network: Segments Intersections Projects Underway on High-Injury Network at time of VZAP Adoption: County Road Projects Nederland **CDOT Highway Projects** Superio Broomfield Figure 18. Projects Underway on the High-Injury Network













COUNTY ROAD HIGH-INJURY NETWORK PROJECTS UNDERWAY AS OF VZAP ADOPTION (AUGUST 2025)

	Project	Design Status	Construction Status
1	Jay Road LOBO Trail: new multi-use path along Jay Road, redesigned crossing at Jay Road and Spine Road.	Complete	Funded - Transportation Sales Tax (TST) Timing TBD
2	95th Street & Lookout Road: safety improvements designed to reduce broadside and left-turn crashes: new traffic signal with advanced warning beacons, new flashing yellow arrows, and enhanced detection with red light running protection.	Complete	Complete
3	95th Street - Lookout Road to just north of Valmont Road: roadway reconstruction, widen shoulders for bicycles, and flood protection infrastructure.	Complete	Complete
4	61st Street & Valmont Road: new southbound channelized right turn lane with speed table, new northbound bicycle crossing, updated bicycle markings, new Boulder to Erie Trail crossing north of 61st Street.	In Progress	Funded - Transportation Sales Tax (TST) Timing TBD
5	Flagstaff Road - Mile Marker 0.75 to Gross Dam Road: resurfacing to Gross Dam Road with paved bike pull-off areas, improved guardrail, new concrete barriers, and new drainage and sediment control structures.	In Progress	Funded - Transportation Sales Tax (TST) Timing TBD
6	E County Line Road - Dillon Road to Overlook Drive: full reconstruction with new bike lanes added and a traffic circle at the intersection with Pike Road.	In Progress	Funded - Transportation Sales Tax (TST) Timing TBD
7	S Boulder Road - Manhattan Drive to Cherryvale Road: full reconstruction with safety improvements at the Cherryvale Road intersection, improvements for multimodal users, and recoverable shoulders.	In Progress	Funded - Transportation Sales Tax (TST) Timing TBD













CDOT HIGHWAY HIGH-INJURY NETWORK PROJECTS UNDERWAY AS OF VZAP ADOPTION (AUGUST 2025)

	Project	Design Status	Construction Status
A	US 36-N. Foothills Hwy Bikeway: new off-street bikeway and related intersection improvements.	In Progress	Not Funded Applied for FY25 SS4A grant
B	US 36-N. Foothills Hwy Speed Safety Cameras: unincorporated Boulder County between Boulder (city limits) and CO 66-Ute Hwy.	In Progress	Funded Anticipated installation 2025
(c)	CO 119-Diagonal Hwy Bikeway/Bus Rapid Transit (BRT) Intersection Construction: new off-street bikeway, BRT lanes and stations, and related intersection improvements; CDOT speed safety cameras deployed summer 2025 for during construction.	Complete	In Progress Under construction - anticipated completion 2026
D	CO 66-Ute Hwy & 75th Street: upgraded signal heads, medians, striping, and turn lane alignment.	Complete	Funded Recommended FY 27-30 in CDOT's Ten-Year Plan
E	US 287 Safety Project: new concrete median barrier and related intersection improvements in unincorporated Boulder County between Lafayette and Longmont (south city limits) and between Longmont (north city limits) and Larimer County line.	In Progress	Funded Anticipated to begin 2026
F	US 287 Speed Safety Cameras: unincorporated Boulder County between Lafayette and Longmont (south city limits) and between Longmont (north city limits) and Larimer County line.	In Progress	Funded Anticipated installation 2025
G	CO 7-Arapahoe Road Multimodal Corridor: multimodal/safety improvements between Boulder and Brighton (e.g., Bus Rapid Transit (BRT) stations, multi-use path improvements, intersection improvements).	In Progress	In Progress - Partially Funded Timing TBD (some segments under construction)











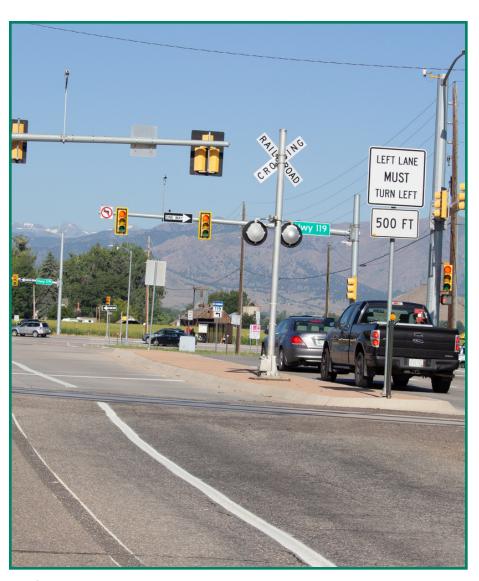






CHAPTER 4

HOW WE WILL ACHIEVE VISION ZERO



SYSTEMWIDE APPROACH TO CRASH REDUCTION

In addition to focusing on specific locations that already have high numbers of serious injury and fatal crashes (defined here in the HIN and Bike/Pedestrian HIN), the FHWA recommends applying measures systemwide that address crash types both reactively and proactively. The reactive approach focuses on addressing safety concerns after crashes have occurred. In contrast, a proactive approach aims to prevent safety issues before they lead to crashes.

The county's systemwide approach to crash reduction will focus on evaluating and applying countermeasures to address the top five crash types that result in serious injuries and fatalities (see Appendix E: Systemwide Safety Analysis Memorandum). The countermeasures to be considered in this evaluation are included in Appendix F: Countermeasure Toolkit.

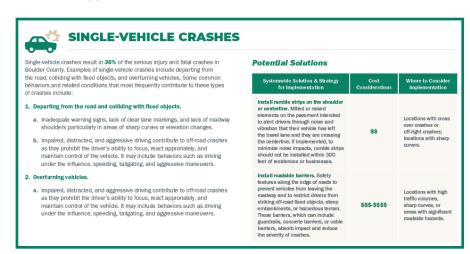


Figure 19. Screenshot from Appendix F: Countermeasure Toolkit

















CHAPTER 4

HOW WE WILL ACHIEVE VISION ZERO

SPEED MANAGEMENT

Vehicle speeds have a substantial influence on traffic crashes. For example, at higher speeds a driver is more likely to lose control of their vehicle and/or take longer to stop. In addition, a crash at a higher speed can make the impact more severe, posing a greater risk of injury to all road users. Speeding (i.e., traveling faster than the posted speed limit) is a common contributing factor in the occurrence of traffic crashes.

There are two main ways to address speeding:

- ✓ Enforcement
- Making engineering/design changes to the roadway that encourage slower speeds

This plan is focused on addressing the most severe crashes, which typically occur more often on higher speed, higher volume roadways (such as highways and arterials), so action items will concentrate on these roads.

The county is already starting to implement automated speed enforcement through speed safety cameras (supported by BOCC Resolution 2024-060). This is particularly important, because funding and staff hours are not available for additional enforcement by officers of the CSP or Sheriff's Office. Implementation will focus on CDOT highways first and then potentially expand to other county-owned roadways that have higher speeds/volumes.

The county will complement these enforcement efforts by continuing to coordinate with CSP and the Sheriff's Office on traditional enforcement to share information and lessons learned.

Another set of actions identified in this plan includes the development of guidelines for:

- Speed limit setting (and related signage) on county roads to ensure that speed limits reflect the desired speed from a policy perspective, considering safety and context
- Engineering treatments that encourage slower speeds

Building off the new guidelines, staff will then update speed limits (as needed) and identify and implement engineering treatments to encourage travel at or below the posted speed limit. It is important to combine any change in speed limit with related engineering treatments, since simply lowering speed limits has been shown to have little to no effect in reducing vehicle speeds.

Appendix F: Countermeasure Toolkit includes some example speed management-related approaches that will be explored (see the "Speed-related Countermeasures" section on page 17 of the toolkit).

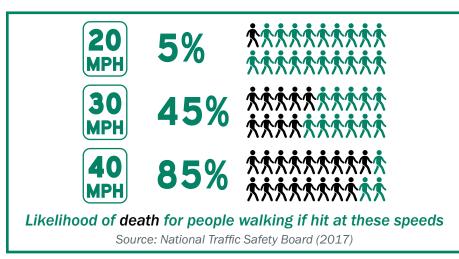


Figure 20. Impact of Vehicle Speed on Pedestrian Safety



















OVERVIEW

To work towards improving safety in all aspects of transportation, a targeted set of strategies and actions were developed. The Strategies and Actions focus on recommendations to address the HINs and the top crash types countywide and improve safety when walking and biking. Strategies and Actions build off categories of the Safe System Approach that the county has the most control over, as well safety data and reporting and other complementary actions:

- **Safer Roads** emphasizing the need for transportation infrastructure that safely accommodates multiple transportation modes.
- Safer Speeds identifying measures to reduce excessive speeds, a key contributor to the severity of traffic crashes.
- **Safer People** setting the framework for education and awareness, fostering a community of shared responsibility among all road users.
- Safety Data and Reporting tracking and reporting on Vision Zero progress and improving data quality.
- Other Actions addressing road safety concerns through partnership with other Boulder County programs.

Each overarching Strategy identifies tangible Actions which are accompanied by next steps, team or organization responsible for leading or partnering in implementation, timeframe for implementation, and planning level cost estimates. Actions are also summarized by broader topic areas, such as enforcement, engineering, and education in the "Action Plan At-A-Glance" on page 71.

Timeframe to Completion				
Ongoing	Continuous	Pending funding availability		
Short-Term	1-3 years			
Mid-Term	3-5 years	Funding available for Action as of VZAP		
Long-Term	5-10 years	Adoption		

Planning-Level Cost Estimates to Completion		
\$	Under \$50,000	
\$\$	\$50,001 - \$100,000	
\$\$\$	\$100,001 - \$500,000	
\$\$\$\$	\$500,001 - \$1,000,000	
\$\$\$\$\$	Over \$1,000,000	

Boulder County Departments and Offices that are noted as Partner or Lead responsible parties include:			
Community Planning & Permitting	Communications		
	Transportation Planning		
Public Works	Engineering		
	Fleet Services		
	Road Maintenance		
Parks & Open Space Recreation & Facilities			
County Attorney's Office			
Sheriff's Office			















SAFER ROADS

Strategy 1: Implement priority safety improvements on the County High-Injury Network.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SR1-a. Implement improvements from HIN Fact Sheet Recommendations (see Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1).	 Valmont Rd (57th St to 6300 Block) Lefthand Canyon Dr (US 36-N. Foothills Hwy to W of Geer Canyon Dr) Sunshine Canyon Dr (Timber Tr to Eagles Dr) 63rd & Jay Rd Intersection Lee Hill Dr & Wagonwheel Gap Rd Intersection 75th St & Hygiene Rd Intersection 	Public Works – Engineering CP&P – Transportation Planning	Varies	Varies – See Fact Sheets
SR1-b. Analyze and develop recommendations for remaining HIN segments and intersections.	 Analyze crash data for remaining HIN segments and intersections to identify trends. Develop recommendations to correct crash trends. 	Public Works – Engineering CP&P – Transportation Planning	Short- to Mid- Term	\$\$ (per location)
SR1-c. Implement recommendations for remaining HIN segments and intersections.	 Implement improvements (as standalone projects or through other county projects or maintenance tasks). 	Public Works – Engineering CP&P – Transportation Planning	Mid- to Long- Term	Varies (dependent upon recommendations)

















SAFER ROADS

Strategy 1 (cont.): Implement priority safety improvements on the County High-Injury Network.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SR1-d. Implement already planned, ongoing, or upcoming county safety projects. <i>Underway</i>	 61st Street & Valmont Road Intersection Improvement Project 95th Street & Lookout Road Intersection Improvements Project LoBo Trail - Jay Road Connections Project 	Public Works – Engineering CP&P – Transportation Planning	Varies	Varies (dependent upon project)
SR1-e. Proactively identify additional funding sources for implementation. <i>Underway</i>	 Develop request for next Transportation Sales Tax (TST) budget. Monitor grants (see Appendix G: Funding Opportunities Summary). 	CP&P - Transportation Planning Public Works - Engineering	Ongoing	\$















SAFER ROADS

Strategy 2: Work with regional partners and municipalities to implement priority safety improvements.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SR2-a. Provide CDOT HIN intersection data and priorities to CDOT for the next Intersection Prioritization Study.	 Assemble crash data and rankings/ priorities for CDOT HIN intersections. Send data to CDOT. 	CP&P – Transportation Planning CDOT	Short-Term	\$
SR2-b. Provide CDOT HIN segment data and priorities to CDOT for consideration for future projects.	 Assemble crash data and rankings/ priorities for CDOT HIN segments. Send data to CDOT. 	CP&P – Transportation Planning CDOT	Short-Term	\$
SR2-c. Coordinate and collaborate with CDOT and DRCOG on relevant grant applications for CDOT HIN roadways. <i>Underway</i>	 Monitor grants (see Appendix G: Funding Opportunities Summary). 	CP&P – Transportation Planning CDOT DRCOG Public Works – Engineering	Ongoing	Varies (dependent upon project application / local match)
SR2-d. Continue working with CDOT, DRCOG, and municipalities on key regional safety corridors to develop and implement recommendations from current and future studies. Underway	 US 287 CO 119 US 36-N. Foothills Hwy CO 7 South Boulder Road CO 42 Boulder-Erie Regional Trail (BERT) 	CP&P – Transportation Planning Public Works – Engineering CDOT DRCOG Municipalities within Boulder County	Ongoing	Varies (dependent upon project)

















SAFER ROADS

Strategy 3: Implement priority safety improvements on the Bicycle/Pedestrian High-Injury Network.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SR3-a. Complete safety analysis, identify recommendations, and implement improvements at county locations that are on the Bike/Pedestrian HIN.	 Complete at the following locations: Olde Stage Rd (Lefthand Canyon Rd to Lee Hill Dr) 65th Street & Nelson Road Sunshine Canyon Rd (Timber Trail to Eagles Dr) Valmont Rd (57th St to 6300 block) Flagstaff Rd (Gregory Ln to Mile Marker 1) Lefthand Canyon Rd (US 36-N. Foothills Hwy to W of Geer Canyon Dr) 73rd St (E of Plateau Rd to N of Nimbus Rd) S Boulder Rd & 76th St Jay Rd (30th St to 63rd St) 	Public Works – Engineering CP&P – Transportation Planning	Varies	\$\$\$ - \$\$\$\$\$
SR3-b. Provide Bike/Pedestrian HIN data and priorities to CDOT for the next Bike and Pedestrian Safety Study.	 Locations include: CO 119-Boulder Canyon (Mile Marker 33-34 and Mile Marker 37-38) US 36-N. Foothills Hwy (Broadway to 26th St) Arapahoe Rd (Arapahoe Ridge High School to Boulder County Boundary) US 36-N. Foothills Hwy (Longhorn Rd to Nelson Rd) US 36-N. Foothills Hwy and Hygiene Rd US 36-N. Foothills Hwy (Jay Rd to Longhorn Rd) US 287 (County Rd 4 to S of Mile Marker 319) US 66 & Stone Canyon Dr 	CP&P – Transportation Planning CDOT	Short-Term	\$

















SAFER ROADS

Strategy 4: Develop roadway guidelines based on safety best practices.

Action	Next Steps to Achieve Action	Lead <i>Partner</i> (s)	Timeframe	Cost Estimate
SR4-a. Develop signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections. Underway	 Identify if will be developed in-house or through a consultant. Develop scope. Obtain funding (if needed). 	Public Works – Engineering	Short-Term	\$ - \$\$
SR4-b. Develop pedestrian crossing treatment installation guidelines to guide where to install marked crossings and pedestrian signals.	 Identify if will be developed in-house or through a consultant. Develop scope. Obtain funding (if needed). 	Public Works – Engineering CP&P – Transportation Planning	Mid-Term	\$ - \$\$
SR4-c. Develop bicycle facility signing and striping guidelines that can be incorporated into the county's Multimodal Transportation Standards (MMTS).	Work with County Engineer to identify scope and integration into the MMTS.	Public Works – Engineering CP&P – Transportation Planning	Short-Term	\$ - \$\$
SR4-d. Review, update, if warranted, and implement the county's speed limit setting and signing practices.	 Coordinate a project team to outline areas in existing practices that require further review and research. Prioritize actions and roadways for implementing changes and secure funding. 	Public Works – Engineering	Mid- to Long-Term	\$\$ - \$\$\$
SR4-e. Incorporate speed management road design strategies into the county's update to the Multimodal Transportation Standards (MMTS).	Work with County Engineer to identify scope and integration into the MMTS.	Public Works – Engineering CP&P – Transportation Planning	Short-Term	\$\$

















SAFER ROADS

Strategy 5: Proactively implement systemwide priority safety improvements.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SR5-a. Add reflective traffic signal backplates at signalized intersections.	 Identify signalized intersections in the county that do not have reflective traffic signal backplates and identify funding for implementation. 	Public Works – Engineering	Short-Term	\$ (per location)
SR5-b. Add tubular reflectors to sign posts and stop signs.	 Identify number of sign posts/stop signs and identify funding for implementation. 	Public Works – Engineering CP&P – Transportation Planning	Short-Term	\$ (per location)
SR5-c. Evaluate intersection controls, identify recommendations, and implement improvements (including potential conversion to roundabouts).	Utilize the CDOT Intersection Control Assessment Tool (ICAT) tool.	Public Works – Engineering CP&P – Transportation Planning	Varies	Varies
SR5-d. Implement the signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections.	Complete SR4-a signal operation guidance and assess recommendations.	Public Works – Engineering	Mid-Term	\$ - \$\$\$\$ (per location)

















SAFER ROADS

Strategy 5 (cont.): Proactively implement systemwide priority safety improvements.

Action	Next Steps to Achieve Action	Lead <i>Partner</i> (s)	Timeframe	Cost Estimate
SR5-e. Identify intersections and pedestrian/bicycle crossings with no roadway lighting and install intersection lighting.	 Identify intersections that do not have intersection lighting and pedestrian/bicycle crossings that do not have lighting within 100 feet of the crossing. Identify funding opportunities for installation of new lighting and prioritize locations that are on the HIN. 	Public Works – Engineering	Mid-Term	\$\$ - \$\$\$ (per location)
SR5-f. Implement safety improvements for culverts that don't meet clear zone requirements.	 Identify if will be developed in-house or through a consultant. Develop scope. Obtain funding (if needed). 	Public Works – Engineering CP&P – Transportation Planning	Mid- to Long-Term	\$\$\$ – \$\$\$\$ (per location)
SR5-g. Partner with municipalities and neighboring counties on cross-jurisdictional planning and design for multimodal access to trails/trailheads.	Identify trailheads.Prioritize.Develop plans.	CP&P – Transportation Planning Parks & Open Space – Recreation & Facilities Municipalities	Short-Term	\$ - \$\$ (per location)
SR5-h. Analyze, develop recommendations, and implement improvements that address the top crash types, using Appendix F: Countermeasure Toolkit.	 Prioritize crash types. Identify if will be developed in-house or through a consultant. Develop scope. Obtain funding (if needed). 	Public Works – Engineering CP&P – Transportation Planning	Varies	Analysis/ Recommendations: \$ (per crash type) Implementation: Varies (dependent upon recommendations)

















SAFER SPEEDS

Strategy 1: Implement speed safety cameras to reduce speeding.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SS1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads. Underway	 Implementation Locations: US 36-N. Foothills Hwy (Boulder's northern city limits to CO 66-Ute Hwy) US 287 (Lafayette's northern city limits to the southern city limits of Longmont) US 287 (Longmont's northern city limits to Boulder County's northern limits) 	Public Works – Engineering CDOT	Short-Term	\$\$
SS1-b. Analyze, develop recommendations, and implement speed safety cameras on county roads.	Propose roads to the BOCC for consideration.	Public Works – Engineering	Mid- to Long-Term	\$\$\$















SAFER SPEEDS

Strategy 2: Implement engineering solutions to reduce speeding.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
\$\$2-a. Identify county roadways where implementing speed management strategies has the greatest impact to eliminating serious injury and fatal crashes.	Develop a process to automate the identification of high-speed crashes with the Sheriff's Office and CSP and prioritize roadways based on analysis results.	Public Works – Engineering Sheriff's Office Colorado State Patrol (CSP)	Mid- to Long- Term	\$ - \$\$
SS2-b. Implement speed management strategies on county roadways identified in SS2-b.	Conduct analysis in SS2-b.	Public Works – Engineering Sheriff's Office Colorado State Patrol (CSP)	Mid- to Long- Term	s - ssss
\$\$2-c. Identify CDOT highways with a high number of speed-related crashes, and work with CDOT to implement solutions.	Develop a process to automate the identification of high-speed crashes with Sheriff's Office, CSP, and CDOT and prioritize roadways based on analysis results.	Public Works – Engineering	Mid-Term	\$ - \$\$
SS2-d. Work with CDOT to implement speed management strategies on CDOT roadways identified in SS2-d.	Conduct analysis in SS2-d.	Public Works – Engineering Sheriff's Office Colorado State Patrol (CSP)	Mid- to Long- Term	s - ssss















SAFER PEOPLE

Strategy 1: Empower Boulder County community members to be Vision Zero stewards.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SP1-a. Expand and distribute roadway safety messaging and campaigns, building off messaging developed by partners such as CDOT, CSP, DRCOG, National Highway Traffic Safety Administration (NHTSA). Underway	 Review existing programs and identify opportunities to collaborate. Example themes to explore include impaired driving, distracted driving, fatigued driving, and speeding. 	CP&P - Transportation Planning CP&P - Communications CDOT CSP DRCOG NHTSA	Ongoing	\$
SP1-b. Explore the creation of an ambassador program to promote roadway safety.	Work with Commuting Solutions to create, implement, and evaluate a pilot program.	CP&P – Transportation Planning Commuting Solutions	Mid-Term	\$\$
SP1-c. Continue convening the Vision Zero Community Partnership (VZCP). <i>Underway</i>	Continue developing content for and facilitating quarterly meetings.	CP&P – Transportation Planning	Ongoing	\$















SAFER PEOPLE

Strategy 1 (cont.): Empower Boulder County community members to be Vision Zero stewards.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SP1-d. Create consistent countywide Vision Zero branding and messaging. <i>Underway</i>	Develop Vision Zero graphics that can be used by agencies countywide.	CP&P – Transportation Planning CP&P – Communications	Ongoing	\$
SP1-e. Implement additional training for Boulder County staff related to vehicle operations.	Research peer agency programs.	CP&P – Transportation Planning Public Works – Fleet Services County Attorney's Office	Mid-Term	\$\$
SP1-f. Offer roadway safety training to the community through Mobility for All.	Review existing training and develop scope.	CP&P – Transportation Planning	Short-Term	\$















SAFER PEOPLE

Strategy 2: Address red-light running crashes.

Action	Next Steps to Achieve Action	Lead <i>Partner</i> (s)	Timeframe	Cost Estimate
SP2-a. Evaluate and implement recommendations for county intersections, including but not limited to red-light cameras.	Initial priorities:South Boulder Road & Cherryvale Road75th Street & Valmont Road	Public Works – Engineering	Short-Term	\$ - \$\$\$ (per location)
SP2-b. Evaluate and implement recommendations for CDOT intersections, including but not limited to red-light cameras.	 Initial priorities: US 287: CO 52-Mineral Road, Isabelle Road Secondary priorities (a few years after construction is complete): CO 119-Diagonal Hwy: Niwot Road, 63rd Street, CO 52-Mineral Road, and 55th Street 	Public Works – Engineering CDOT	Short- to Mid-Term	\$ – \$\$\$ (per location)















SAFETY DATA AND REPORTING

Strategy 1: Track and report Vision Zero progress.

Action	Next Steps to Achieve Action	Lead <i>Partner</i> (s)	Timeframe	Cost Estimate
SD1-a. Report on Vision Zero progress annually.	Develop a report template for the VZAP action items and metrics and create report annually.	CP&P – Transportation Planning CP&P – Communications	Ongoing	\$
SD1-b. Monitor and analyze ongoing crashes. <i>Underway</i>	Update VZAP key charts and maps and analyze changes in trends.	CP&P – Transportation Planning	Ongoing	\$
SD1-c. Develop a public-facing Vision Zero Dashboard.	Determine scope and system requirements.	CP&P – Transportation Planning CP&P – Communications CSP	Mid-Term	\$\$















SAFETY DATA AND REPORTING

Strategy 2: Improve the quality and completeness of safety data.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
SD2-a. Implement a safety data tool to improve data quality and facilitate analysis of crash data. Underway	Research programs used by peer agencies (e.g., CDOT) and implement solution that best meets county needs and budget.	Public Works – Engineering CP&P – Transportation Planning	Short-Term	\$
SD2-b. Research ways to obtain supplemental data for bicycle and pedestrian crashes/close calls.	 Review peer agency programs such as FHWA's Pedestrian and Bicycle Crash Analysis Tool (PBCAT). Coordinate with hospitals and urgent care facilities to share data about vulnerable user injuries resulting from traffic crashes. 	CP&P – Transportation Planning Public Works – Engineering	Mid-Term	\$
SD2-c. Research ways to obtain more complete and accurate multimodal counts.	Review count programs and related budgets of peer agencies.	CP&P – Transportation Planning Public Works – Engineering	Short-Term	\$
SD2-d. Evaluate vehicle telematics data from other Boulder County departments related to safety (e.g., speeds, hard stops).	Coordinate with Parks & Open Space about ongoing implementation and Fleet Services' upcoming implementation (2025).	CP&P – Transportation Planning Parks and Open Space Fleet Services Public Works – Engineering	Short-Term	\$

















OTHER ACTIONS

Strategy 1: Evaluate Boulder County road maintenance practices to enhance safety.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
OA1-a. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's road sweeping practices.	Research peer agency best practices and determine if adjustments to current practices are warranted.	Public Works – Road Maintenance CP&P – Transportation Planning	Mid-Term	\$ - \$\$\$
OA1-b. Analyze, develop recommendations, and implement improvements (as warranted/feasible) to the county's snow removal practices.	Research peer agency best practices and determine if adjustments to current practices are warranted.	Public Works – Road Maintenance CP&P – Transportation Planning	Mid-Term	\$ - \$\$\$

















OTHER ACTIONS

Strategy 2: Collaborate with County school districts on Vision Zero.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
OA2-a. Develop a Safe Routes to School Vision Zero Action Plan (SRTS VZAP). Underway	Kick off project, including compiling project management team members, steering committee, and community outreach plan.	CP&P – Transportation Planning Public Works – Engineering Boulder Valley and Saint Vrain School Districts (BVSD & SVVSD) Other Boulder County Municipalities	Short-Term	\$\$\$
OA2-b. Implement recommendations from the SRTS VZAP short- and midterm recommendations.	Assign lead agencies/staff to short- term actions and secure funding.	CP&P – Transportation Planning Public Works – Engineering Boulder Valley and Saint Vrain School Districts (BVSD & SVVSD) Other Boulder County Municipalities	Varies	\$ - \$\$\$















OTHER ACTIONS

Strategy 3: Honor the victims and families of those involved in traffic crashes.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
OA3-a. Develop a memorial sign program for victims of traffic crashes (at the request of the victim's family).	Research peer city programs and review findings with families of past victims.	CP&P – Transportation Planning	Short-Term	\$
OA3-b. Participate in World Day of Remembrance for Road Traffic Victims. Underway	 Coordinate with VZCP and other partners to prepare for the upcoming commemoration on November 16, 2025. Continue participation annually. 	CP&P – Transportation Planning	Ongoing	\$















OTHER ACTIONS

Strategy 4: Collaborate with first responders.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
OA4-a. Continue the interdisciplinary crash analysis team (CAT) with Boulder County, CDOT, and first responders that analyzes ongoing fatal and serious injury crashes. Underway	Review current process and implement improvements if warranted.	CP&P – Transportation Planning Public Works – Engineering CDOT CSP Sheriff's Office	Ongoing	\$
OA4-b. Conduct additional collaboration with CSP on enforcement, including driving under the influence and distracted driving.	Reach out to CSP to set up meeting.	CP&P – Transportation Planning Public Works – Engineering	Ongoing	\$
OA4-c. Explore collaboration with hospitals to learn more about post-crash care and injuries from unreported crashes.	 Review ongoing efforts by regional partners (e.g., DRCOG). Coordinate with hospitals and urgent care facilities to share data about vulnerable user injuries resulting from traffic crashes. 	CP&P – Transportation Planning	Short-Term	\$

















OTHER ACTIONS

Strategy 5: Be active in Colorado transportation safety legislation.

Action	Next Steps to Achieve Action	Lead Partner(s)	Timeframe	Cost Estimate
OA5-a. Continue advocating/ participating in the development of relevant transportation safety legislation. Underway	Coordinate with the BOCC department on relevant state transportation safety legislation.	CP&P – Transportation Planning BOCC	Ongoing	\$
OA5-b. Share clear messaging with the community about relevant transportation safety legislation, particularly new laws (e.g., Hands-Free Law, Bicycle Safety Stop, Automated Traffic Enforcement, etc.). Underway	Identify and distribute information through county channels.	CP&P – Transportation Planning BOCC CP&P – Communications	Ongoing	\$















ACTION PLAN AT-A-GLANCE

The Action Plan is organized into categories of the Safe System Approach, but Strategies and Actions addressing broader topic areas may be found under more than one category. The tables below list the Actions most relevant to certain topics, and can be used to reference and navigate to specific areas of interest.

Engineering (Guidance / Analysis) Actions		
Safer Roads 1-b	Safer Roads 5-h	
Safer Roads 3-a	Safer Speeds 1-b	
Safer Roads 4-a	Safer Speeds 2-a	
Safer Roads 4-b	Safer People 2-a	
Safer Roads 4-c	Safer People 2-b	
Safer Roads 4-d	Safety Data & Reporting 1-b	
Safer Roads 4-e	Safety Data & Reporting 2-d	
Safer Roads 5-c	Other Actions 1-a	
Safer Roads 5-e	Other Actions 1-b	
Safer Roads 5-g	Other Actions 2-a	

Engineering (Implementation) Actions		
Safer Roads 1-a	Safer Roads 5-h	
Safer Roads 1-c	Safer Speeds 1-a	
Safer Roads 1-d	Safer Speeds 1-b	
Safer Roads 3-a	Safer Speeds 2-b	
Safer Roads 4-d	Safer Speeds 2-d	
Safer Roads 5-a	Safer People 2-a	
Safer Roads 5-b	Safer People 2-b	
Safer Roads 5-c	Other Actions 1-a	
Safer Roads 5-d	Other Actions 1-b	
Safer Roads 5-e	Other Actions 2-b	
Safer Roads 5-f		

Enforcement Actions		
Safer Speeds 1-a	Safer People 2-b	
Safer Speeds 1-b	Other Actions 4-b	
Safer People 2-a		

















ACTION PLAN AT-A-GLANCE

Education / Communication Actions		
Safer People 1-a	Safety Data & Reporting 1-a	
Safer People 1-b	Safety Data & Reporting 1-c	
Safer People 1-d	Other Actions 3-a	
Safer People 1-e	Other Actions 3-b	
Safer People 1-f	Other Actions 5-b	

Evaluation Actions		
Safety Data & Reporting 1-a	Safety Data & Reporting 1-c	
Safety Data & Reporting 1-b	Safety Data & Reporting 2-a	

Speed Management Actions		
Safer Roads 4-d	Safer Speeds 2-a	
Safer Roads 4-e	Safer Speeds 2-b	
Safer Speeds 1-a	Safer Speeds 2-c	
Safer Speeds 1-b	Safer Speeds 2-d	

Actions Underway as of VZAP Adoption (August 2025)	
Safer Roads 1-d	Safer People 1-d
Safer Roads 1-e	Safety Data & Reporting 1-b
Safer Roads 2-c	Safety Data & Reporting 2-a
Safer Roads 2-d	Other Actions 2-a
Safer Roads 4-a	Other Actions 3-b
Safer Speeds 1-a	Other Actions 4-a
Safer People 1-a	Other Actions 5-a
Safer People 1-c	Other Actions 5-b



















NEXT STEPS

Next steps to implement this plan include:

- Refining and prioritizing actions and incorporating into workplans
- Continuing ongoing programs and projects that are already underway, starting on other key items identified through the refinement above
- · Pursuing additional funding
- Monitoring and evaluating effectiveness
- Reporting on progress

Refining and prioritizing actions and incorporating into workplans

Refinement of actions will consider the costs and predicted effectiveness of actions, as well as staff and funding availability and ease of implementation (e.g., coordinating with other projects or programs).

Continuing ongoing programs and projects that are already underway, starting on other key items identified through the refinement above

Programs that are ongoing or already underway laid out by the BOCC include:

- ✓ Automated Speed Enforcement (Speed Safety Cameras) on CDOT highways (in accordance with BOCC Resolution 2024-060)
- ✓ Regional Corridor Planning and Construction (e.g., CO 119 Bikeway, US 287 Safety Project, US 36-N. Foothills Bikeway, CO 7 Corridor, Boulder-Erie Regional Trail (BERT))
- Other Transportation Sales Tax-Funded County Projects (e.g., 61st/Valmont, LoBo Trail connection to Jay Road, 120th Street reconstruction)
- ✓ Safe Routes to School Vision Zero Action Plan

















NEXT STEPS

Pursuing additional funding

Pursuing **additional funding** will also be needed. Some of the treatments recommended in **Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1** — such as installing signs — are fairly low-cost and could likely be covered through existing funding through the Transportation Sales Tax line item for Vision Zero (which averages to approximately \$50,000 per year). The full set of treatments in the Fact Sheets, combined with others to be determined through the actions identified in the plan, could cost in the tens of millions and will require additional funding sources.

The county will also continue to pursue additional funding sources (see **Chapter 6: Next Steps** and **Appendix G: Funding Opportunities Summary**) to support implementation. Having this completed plan is an important first step in this process, particularly for grant requirements. A few of the potential funding sources are highlighted in this section, and the county may also explore the use of fees, additional sales taxes, and/or public-private partnerships.

Federal

The Infrastructure Investment and Jobs Act (IIJA) established the <u>Safe Streets and Roads for All (SS4A)</u> discretionary program with \$5 billion to be spent nationwide between 2022 and 2026. The SS4A program funds initiatives through grants to prevent roadway deaths and serious injuries. Completion of this VZAP qualifies Boulder County to apply for SS4A Implementation Grants to implement Projects and Strategies identified in the VZAP. The IIJA also created the <u>Rural and Tribal Assistance Pilot Program</u>, which provides funding to help rural communities advance infrastructure projects that enhance the safety, efficiency, and quality of the transportation system.

Example Action(s) that may be funded through SS4A or the Rural and Tribal Assistance Pilot Program:

- SR1-a. Implement improvements from HIN Fact Sheet Recommendations (see Appendix D: High-Injury Network (HIN) Fact Sheets and Project Recommendations - Group 1).
- **SR1-b.** Analyze and develop recommendations for remaining HIN segments and intersections.
- SR1-f. Implement already planned, ongoing, or upcoming county safety projects – particularly those in rural areas.
- SR2-d. Continue working with CDOT, DRCOG, and municipalities on key regional safety corridors to develop and implement recommendations from current and future studies.
- **SR3-a.** Complete safety analysis, identify recommendations, and implement improvements at county locations that are on the Bike/Pedestrian HIN.
- **SR5-f.** Implement safety improvements for culverts that don't meet clear zone requirements.

State

The <u>Colorado Highway Safety Improvement Program (HSIP)</u> is a federal initiative administered by CDOT aimed at reducing traffic fatalities and serious injuries on public roads. It provides funding to states for safety improvement projects that are data-driven and focus on reducing crashes. The program emphasizes identifying high-risk locations and implementing cost-effective measures to enhance roadway safety for all users.

Example Action(s) that may be funded through the HSIP:

- **SR5-a.** Add reflective traffic signal backplates at signalized intersections.
- **SR5-e.** Identify intersections and pedestrian/bicycle crossings with no roadway lighting and install intersection lighting.















Regional

DRCOG, Denver region's Metropolitan Planning Organization (MPO), distributes federal transportation funding through a <u>Transportation Improvement Program (TIP)</u>, which identifies all current federally funded transportation projects to be completed in the Denver region over a four-year period. The local governments that comprise DRCOG decide on a process and criteria for including projects in the TIP and awarding DRCOG-controlled federal funds, which allows the region to set and agree upon its transportation priorities. The CO 119 Bikeway is partially funded through the TIP. DRCOG also has specific "Set-Aside" Programs for the TIP; the Regional Transportation Operations and Technology Program could be a good source of funding for Action Items from this plan

Example Action(s) that may be funded through the DRCOG TIP:

- SR4-a. Develop signal operation guidelines addressing left-turn operations, Leading Pedestrian/Bike Intervals, No Right Turn on Reds at signalized intersections.
- **SR4-b.** Develop pedestrian crossing treatment installation guidelines to guide where to install marked crossings and pedestrian signals.
- **SR5-h.** Analyze, develop recommendations, and implement improvements that address the top crash types, using **Appendix F: Countermeasure Toolkit**.

Example Action(s) that may be funded through the DRCOG TIP (cont.):

- SS1-a. Work with the BOCC and CDOT to implement speed safety cameras on CDOT roads.
- **SS1-b.** Analyze, develop recommendations, and implement speed safety cameras on county roads.

Local

The **Countywide Transportation Sales Tax,** passed by voters in 2001, extended by voters in 2007, and extended in perpetuity in 2022, is a countywide 0.1 percent tax (one cent on a \$10 purchase) on all sales in Boulder County. Revenues fund transportation projects including transit service and programs, roadway safety and resilience, regional corridors, regional trails and commuter bikeways, and community mobility programs.

Example Action(s) that may be funded through the Sales Tax:

• **SP2-a.** Evaluate and implement recommendations for county intersections, including but not limited to red-light cameras.

A comprehensive list of potential funding sources detailing an overview of eligible programs, application timelines, and funding scopes to guide future investment in roadway safety is included in **Appendix G: Funding Opportunities Summary**. By proactively seeking funding and aligning projects with available financial resources, the county can accelerate the implementation of high-impact safety improvements that move Boulder County toward its Vision Zero goals.

















Monitoring and evaluating effectiveness

Monitoring and evaluating the effectiveness of the Boulder County VZAP is essential to ensuring progress toward a safer transportation system. The county will track the following metrics to evaluate progress towards eliminating traffic-related fatalities, serious injuries, and the top five crash types that result in serious injury and fatalities. These metrics focus on the people impacted, not just the number of crashes.

- Fatalities
- · Serious injuries
- · Bicyclist and pedestrian fatalities
- Fatalities and serious injuries in intersection-related crashes
- Fatalities and serious injuries in non-intersection-related crashes

Reporting on progress

In addition, the county will **track and report** on the total number of crashes, as well as progress on the implementation of the plan and the effectiveness of Actions. This evaluation will support the county in continuing to make data-driven decisions and adjust strategies as needed to achieve Vision Zero goals.

Collaboration is key to achieving Vision Zero.

Boulder County will continue to work alongside regional partners, including CDOT, DRCOG, and the municipalities within Boulder County to coordinate safety efforts across jurisdictions.



















APPENDICES



APPENDIX A: COMMUNITY OUTREACH SUMMARIES

APPENDIX B: SAFETY ANALYSIS TECHNICAL MEMORANDUM

APPENDIX C: HIGH-INJURY NETWORK (HIN) SCORING MEMORANDUM

APPENDIX D: HIGH-INJURY NETWORK (HIN) FACT SHEETS AND PROJECT

RECOMMENDATIONS - GROUP 1

APPENDIX E: SYSTEMWIDE SAFETY ANALYSIS MEMORANDUM

APPENDIX F: COUNTERMEASURE TOOLKIT

APPENDIX G: FUNDING OPPORTUNITIES SUMMARY



