RESOLUTION NO. 25-1078

A RESOLUTION APPROVING A SAFETY ACTION PLAN FOR THE CITY OF OLATHE, KANSAS.

WHEREAS, on May 19, 2020, the City of Olathe (the "City") adopted the Complete Streets resolution; and

WHEREAS, on September 5, 2023, the City accepted a grant from the U.S Department of Transportation Federal Highway Administration through the Safe Streets for All Grant Program; and

WHEREAS, on March 20, 2024, the City authorized a professional services agreement with WSP USA, Inc and Burns and McDonnell to develop a Safety Action Plan; and

WHEREAS, the Safety Action plan has been developed to support the Olathe 2040 Future Ready Strategic Plan goal to eliminate all crashes.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF OLATHE, KANSAS:

SECTION ONE: The Olathe Safety Action Plan (attached hereto as Exhibit 1), prepared by the Infrastructure Focus Area and dated September 2025, is hereby approved and adopted for use by the City of Olathe.

SECTION TWO: The Olathe Safety Action Plan will be used to help achieve the City's goal of reducing or eliminating transportation related deaths and serious injuries by 2050.

SECTION THREE: This Resolution shall take effect immediately.

ADOPTED by the Governing Body this 2nd day of September, 2025.

Mayor

ATTEST:

City Clerk

(SEAL)

APPROVED AS TO FORM:

City Attorney

Exhibit 1

OLATHE SAFETY **ACTION PLAN**

OLATHE KANSAS

SAFE STREETS

SEPTEMBER 2025

CITY COUNCIL RESOLUTION

RESOLUTION NO. 25-XXXX

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_____

Mayor

ATTEST:

_____

City Clerk

APPROVED AS TO FORM:

_____

City Clerk

ACKNOWLEDGMENTS

The Olathe Safety Action Plan effort was a 9-month process of analysis, planning, and public engagement that involved community members, city officials, and transportation experts. This plan is the outcome of that process and outlines a wide range of strategies and actions that are intended to reduce traffic-related fatalities and injuries by addressing the underlying causes of crashes.

PROJECT TEAM

City of Olathe

Cheryl Lambrecht, *Senior Traffic Engineer*

Zach Baker, *Senior Traffic Engineer*

Nate Baldwin, *City Engineer*

Therese Vink, *Assistant City Engineer*

WSP

Tim Adams

Andy Fry

Lauren Brown

Josh Boehm

Le Zhang

Connor Forristal

Joe Milsap

Kevin Carder

Burns & McDonnell

Howard Lubliner

Maggie Green

Patrick Graham

Allison Karagiorgas

Brooke Givens

Jessica Hutton

Nick Saia

Daniel Rotert

TECHNICAL ADVISORY COMMITTEE & FOCUS AREA GROUP MEMBERS

Anthony Golec, *City of Olathe*

Damien Denmark, *City of Olathe*

Jason Keller, *City of Olathe*

Jewell Hamm, *City of Olathe*

John Brockus, *City of Olathe*

Kristine Martin, *City of Olathe*

Noel Forrestor, *City of Olathe*

Bruce Hartig, *Olathe Fire Department*

Jennifer Mindedahl, *Olathe Police Department*

Chris Gralapp, *Olathe Public Schools*

Olivia Malone, *Olathe Public Schools*

Tresa Carter, *BikeWalkKC*

Michael Kelley, *BikeWalkKC*

Phil Elliot, *Spring Hill School District*

Tim Meek, *Spring Hill School District*

Geoff Vohs, *Johnson County Public Works*

Lisa Womack, *Johnson County Transit*

David LaRoche, *Federal Highway Administration*

Stakeholders

Steve Schooley, *City of Lenexa*

Lorraine Basalo, *City of Overland Park*

OLATHE
KANSAS

GLOSSERY OF TERMS

BCR	Benefit-to-Cost Ratio
FHWA	Federal Highway Administration
HII	High Injury Intersections
HIN	High Injury Network
HMVM	Hundred Million Vehicle Miles
HRN	High Risk Network
KDOT	Kansas Department of Transportation
KSI	Killed and Seriously Injured
LPI	Leading Pedestrian Interval
MUTCD	Manual on Uniform Traffic Control Devices
NACTO	National Association of City Transportation Officials
NHTSA	National Highway Traffic Safety Administration
NTSP	Neighborhood Traffic Safety Program
OPD	Olathe Police Department
PHB	Pedestrian Hybrid Beacon
RRFB	Rectangular Rapid Flashing Beacon
RSA	Road Safety Audits
RTOR	Right Turn on Red
SAFE	Seatbelts Are for Everyone
SAP	Safety Action Plan
SRTS	Safe Routes to School
TAC	Technical Advisory Committee
TSP	Transit Signal Priority
TWTL	Two-Way Left Turn Lane

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CONTENTS

SAFETY ACTION PLAN CONTENTS

EXECUTIVE SUMMARY

Olathe, Kansas, was incorporated in 1857 and has long history of balancing road users. This Olathe Safety Action Plan aims to maximize the City's potential to reduce the number of fatalities and serious injuries for all users across all modes of transportation.

The Safety Action Plan covers all areas within the City, including KDOT maintained facilites. This plan includes several proven strategies for Olathe to achieve a safer community to travel within, including:

Safe Users

The plan includes several strategies to make Olathe's streets safer for drivers, pedestrians, cyclists, and other vulnerable road users. These strategies include supporting communication and outreach efforts, expanding multimodal transportation options, enhanced police enforcement, and traffic safety education.

Safe Speeds

Reducing speeds on Olathe's streets is one of the most important things we can do to prevent traffic fatalities and serious injuries. The plan includes several strategies to reduce speeds, such as traffic calming devices, reconfiguring lanes, and speed management strategies.

Safe Streets

These strategies are intended to make Olathe's streets themselves safer and more accessible to people of all ages and abilities. These strategies include improving road design with a more context-sensitive approach and addressing new and existing policies through the perspective of a Safe System Approach.

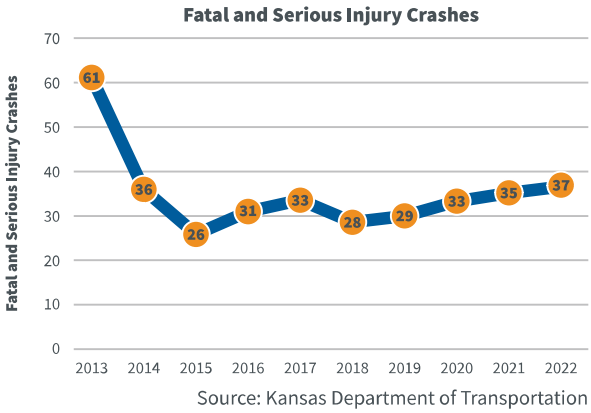
This Safety Action Plan outlines the City of Olathes's ongoing and unwavering commitment to a systems-based and equitable safety approach through a data-driven strategy to eliminate traffic fatalities and severe injuries among all road users.


TWO HOUR PARKING
NO PARKING ANY TIME

01

WHY THE SAFE SYSTEM APPROACH?

CHAPTER ONE



Source: Kansas Department of Transportation

The City of Olathe recognizes that no loss of life on its streets is acceptable.

The City of Olathe is committed to significantly reducing or eliminating fatal and serious injury crashes. This Safety Action Plan sets out strategies and recommendations to maximize the City's potential to achieve this goal. This plan will also allow Olathe to become more competitive when applying for federal and state grant dollars for actions that support safety for all road users.

In the ten years from 2013-2022, 52 people were killed in traffic crashes in the City of Olathe and another 310 people were left with serious lifelong injuries. Like many other communities across the country, Olathe has experienced an upward trend in fatal and serious injury crashes in recent years. With each of these crashes, there is a story of immense loss for the victims and their loved ones. Their loss stresses the urgency of taking action to minimize the likelihood of further deaths and serious injuries.

WHAT IS THE SAFE SYSTEM APPROACH

THE SAFE SYSTEM APPROACH

Over the previous five decades, traffic fatalities in Kansas decreased to 1.16 fatalities per 100 million vehicle miles (HMVM) in 2013 from 4.91 fatalities per HMVM in 1970. In those 43 years, we should be proud of the lives saved, but the same strategies have either been exhausted or failed to adapt to the changing problems. This incredible progress has stagnated over the last decade, increasing by 13% to 1.31 fatalities per HMVM in 2022. The Safe System Approach is a new, holistic way of addressing transportation safety.

Source: Kansas Department of Transportation, Bureau of Transportation Planning.

The Safe System Approach is a comprehensive strategy for managing road safety. Adopted by the Federal Highway Administration (FHWA), the goal of the Safe System Approach is to create a transportation system that is forgiving of human error and does not rely on individual road users to be perfect. Instead, the approach recognizes that people will make mistakes and that the transportation system must be designed to the extent possible to protect the road user from the consequences of those mistakes.

The Safe System Approach is based on six foundational principles*:

1. **Deaths and serious injuries are unacceptable** – A Safe System Approach prioritizes the elimination of crashes that result in deaths and serious injuries.
2. **Humans make mistakes** – People will inevitably make mistakes and decisions that can lead to or contribute to crashes; however, the transportation system can be designed and operated to accommodate certain types and levels of human mistakes and avoid death and serious injuries when a crash occurs.
3. **Humans are vulnerable** – Human bodies have physical limits for tolerating crash forces before death or serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates physical human vulnerabilities.
4. **Responsibility is shared** – All stakeholders—including government at all levels, industry, non-profit/advocacy, researchers, and the public—are vital to preventing fatalities and serious injuries on our roadways.
5. **Safety is proactive** – Proactive tools should be used to identify and address safety issues in the transportation system, rather than waiting for crashes to occur and reacting afterward.
6. **Redundancy is crucial** - Reducing risks requires that all parts of the transportation system be strengthened so that if one part fails, the other parts still protect people.

*Source: U.S. Department of Transportation

Olathe's rate of people killed in crashes over the past 10 years puts it in the middle of the pack when compared to other cities in the surrounding region, but there is still significant room for improvement. By applying the Safe System Approach and proven safety countermeasures that have been successful in other communities, Olathe can effectively work toward significantly reducing and eventually eliminating traffic fatalities on its streets.

Source: NHTSA, 2013-2022 Data

Crash Fatalities per 100,000 Population per Year ▶

	Persons Killed per 100,000
Leawood, KS	2.1
Bellevue, NE	2.3
Lawrence, KS	2.4
Atchison, KS	2.8
Overland Park, KS	3.1
Olathe, KS	**3.3**
Shawnee, KS	3.6
Manhattan, KS	4.1
Emporia, KS	4.2
Lee's Summit, MO	4.5
Leavenworth KS	4.8
Salina, KS	5.5
Lenexa, KS	8.2
St Joseph, MO	9.5
Topeka, KS	9.9
Wichita, KS	10.1
Kansas City, KS	12.9
Kansas City, MO	14.8

SAFETY ACTION PLAN GUIDING PRINCIPLES

All Modes of Transportation

Eliminate traffic deaths for people walking, biking, accessing transit, and driving

Education

Teach the importance of a Safe System and a shared responsibility of all roadway users

Balanced Approach

Prioritize areas of greatest need to provide safe access to everyone

Commitment and Accountability

Guide alignment of funding, policies, and processes with leadership

Data-Driven Solutions

Based on industry best practices, evidence-based solutions, and data analysis

Urgency

Focus actions to address urgent need to stop loss of life and severe injuries

Public Input

Community informed and guided by public feedback

COMMUNITY ENGAGEMENT

Community engagement is the cornerstone of the Safety Action Plan, its implementation, and long-term success. Pop-up events were hosted at a variety of events, such as farmer's markets, Fourth Fridays, Mahaffie Family Fun Nights, and Olathe Live! By listening to public opinions and incorporating this input into solutions, the plan can best address traffic safety issues for everyone who lives, works, and plays in the City of Olathe.

Appendix A contains a comprehensive summary of all stakeholder, community, and public engagement activities.

TECHNICAL ADVISORY COMMITTEE

The Safety Action Plan Technical Advisory Committee (TAC) was formed to review data analyses and public input, determine safety focus areas, and filter, prioritize, and implement recommendations from the public. The TAC—composed of City of Olathe Public Works and Engineering staff, Emergency Services, partnering agencies representatives, and members of transportation advocacy groups—was critical to Olathe's Safety Action Plan development.

Organizations of the TAC include:

- Infrastructure (Public Works)
- Planning Division
- Parks & Recreation
- Olathe Police Department
- Olathe Fire Department
- Unified School District 233 Olathe
- Unified School District 230 Spring Hills
- Johnson County Transit
- BikeWalkKC
- Federal Highway Administration

POP-UP EVENTS

06/28/24: Olathe Fourth Fridays

07/18/24: Mahaffie Family Fun Nights

07/26/24: Olathe Live!

08/10/24: Black Bob Farmer's Market

10/12/24: Downtown Farmer's Market

10/19/24: Black Bob Farmer's Market

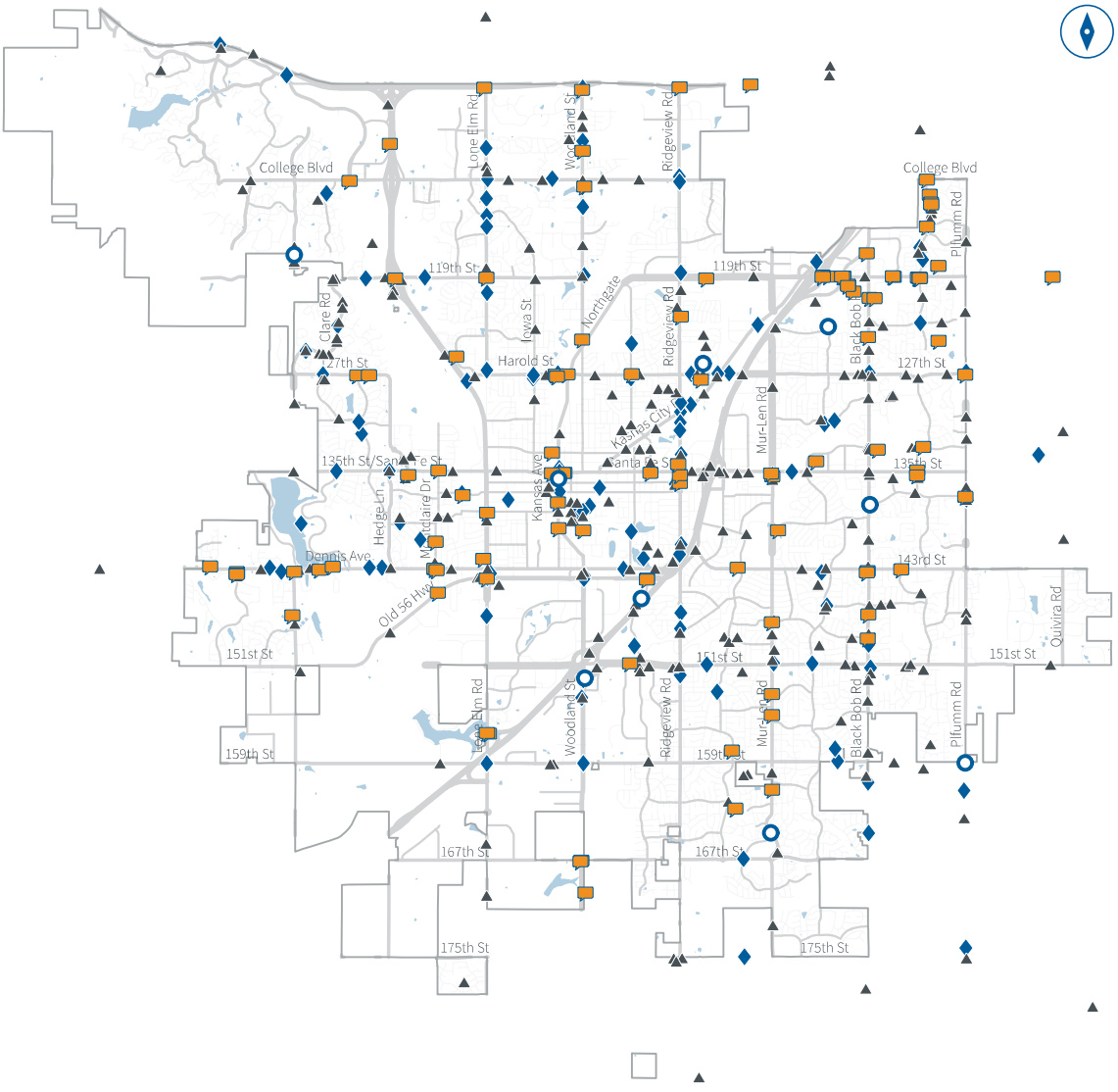
ONLINE ENGAGEMENT

For transparent and accessible engagement activities, the City of Olathe launched the Olathe Safety Action Plan website in May 2024 to reach as many residents as possible; this site provided project information, materials, and engagement opportunities. The site provided information on upcoming events and encouraged the public to share their input through surveys and an interactive engagement map, which allowed citizens to identify areas where they feel unsafe driving, walking, or biking on Olathe streets.

Engagement Map

As a part of the online engagement, Olathe residents were encouraged to leave a point on a map identifying things they like that the City is already implementing, ideas and suggestions they think the City should look into, safety concerns (such as speeding or accessibility), or vulnerable road user concerns (specifically, pedestrian and bicyclist concerns).

Nearly 600 comments were left by residents on the map, allowing residents to play a role in identifying potential locations or countermeasures to help make streets safe in Olathe.



Legend

- Something I Like
- Ideas and Suggestions
- Safety Concerns
- VRU Concern

PUBLIC INPUT

Throughout the planning process, we received public input from six pop-up events, two surveys, and through an engagement map.

KEY THEMES FROM PUBLIC INPUT

The following were common themes in the input provided during pop-up events and through the project website:

From Pop-Up Events:

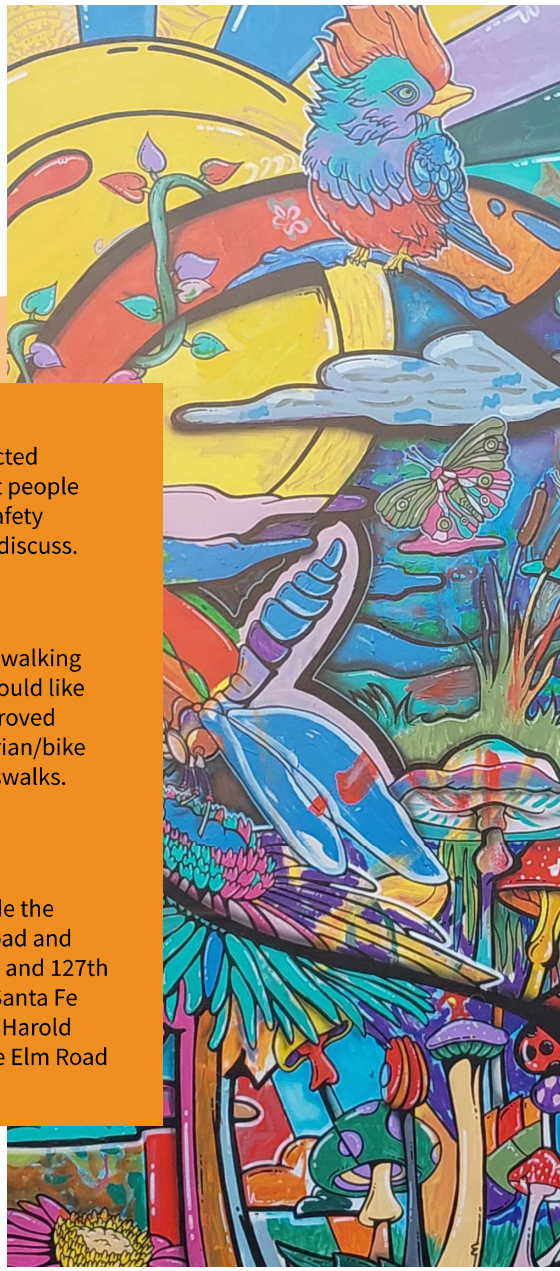
- Residents' responses at Pop-Up Events were positive; residents liked that this was a federal grant and that the project team was looking for public input on funding allocation.
- Pop-Up Events directly impacted online engagements, as most people immediately had a specific safety concern that they wanted to discuss.

From the surveys:

- Olathe residents' primary concerns regarding potential safety improvements revolved around improvements for pedestrians.
- Speeding, drivers not obeying laws, and driver distraction caused by phones and screens were the top three safety concerns reported.
- Regarding improvements for walking and biking, most residents would like to see lighting, widened/improved sidewalks, dedicated pedestrian/bike facilities, and improved crosswalks.

From the engagement map:

- Several spots were identified by residents on the engagement map, with the most notable being the intersection of Pflumm Road and 137th/138th Street; residents shared safety concerns about this intersection and how many crashes they have witnessed here regularly.
- Other significant areas include the intersections of Black Bob Road and 135th Street; Black Bob Road and 127th Street; Ridgeview Road and Santa Fe Street; Kansas City Road and Harold Street/127th Street; and Lone Elm Road and Old 56 Highway.



LOCAL, STATE, AND NATIONAL RESOURCES

Many safety action plans from across the country can provide Olathe with lessons learned and best practices. During development of this Safety Action Plan, the project team reviewed several of these plans and identified best practices related to public engagement, data analysis, safety countermeasures development, and implementation that helped to guide the development of this plan.

This Safety Action Plan also aligns with and builds upon several state, regional, and local plans, such as the Kansas Strategic Highway Safety Plan, Olathe 2040 Strategic Plan, Olathe Municipal Code, Olathe Access Management Plan, Olathe Transportation Master Plan, Olathe 2040 Greenways and Trails Master Plan, Olathe Comprehensive Plan, Olathe Unified Development Ordinance, Olathe Standard Plans and Technical Specifications and Standard Design Designs, and Olathe Downtown Active Transportation Plan.

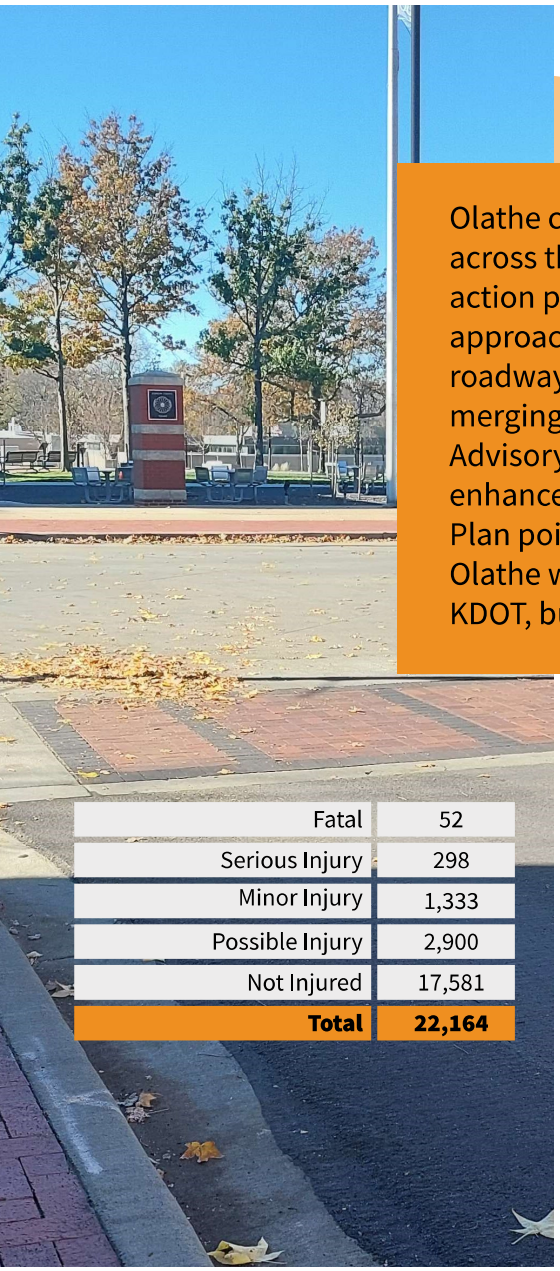
The projects and strategies in this plan will require funding to be implemented. The Olathe Safety Action Plan project team reviewed and compiled available programs for funding transportation safety – whether for infrastructure projects or educational/enforcement initiatives.

All these relevant plans and potential funding programs are described in Appendix B.

02

DATA AND FOCUS AREAS

CHAPTER TWO



Olathe completed a comprehensive analysis of ten years of crash data across the city. Applying data-driven solutions is a guiding principle of this action plan and is essential for successful implementation. This data-driven approach aids in pinpointing precise crash concerns linked to mode share, roadway characteristics, intersection types, and behavioral elements. By merging this data analysis with active involvement from the Technical Advisory Committee and public input, we established purposeful areas for enhancement, identified effective countermeasures, and created an Action Plan poised to propel Olathe's journey to safer streets for all. The City of Olathe will use the data within this plan to inform future partnerships with KDOT, but KDOT has its own processes for project selection.

CRASH MAPPING

All Fatal & Injury Crashes, 2013-2022

Olathe's goal is to significantly reduce or eliminate eliminate fatal and serious injury crashes crashes by 2050. A total of 350 crashes have resulted in people being killed or seriously injured, with another 4,233 crashes resulting in a minor injury or possible injuries. Although non-injury crashes (aka property damage only crashes) account for more than three-quarters of all crashes in Olathe, the data analysis for the Safety Action Plan focuses only on Killed and Seriously Injured (KSI) crashes. KSI crashes are by far the most impactful and life-altering type of crashes.

Fatal	52
Serious Injury	298
Minor Injury	1,333
Possible Injury	2,900
Not Injured	17,581
Total	**22,164**

Continued on next page

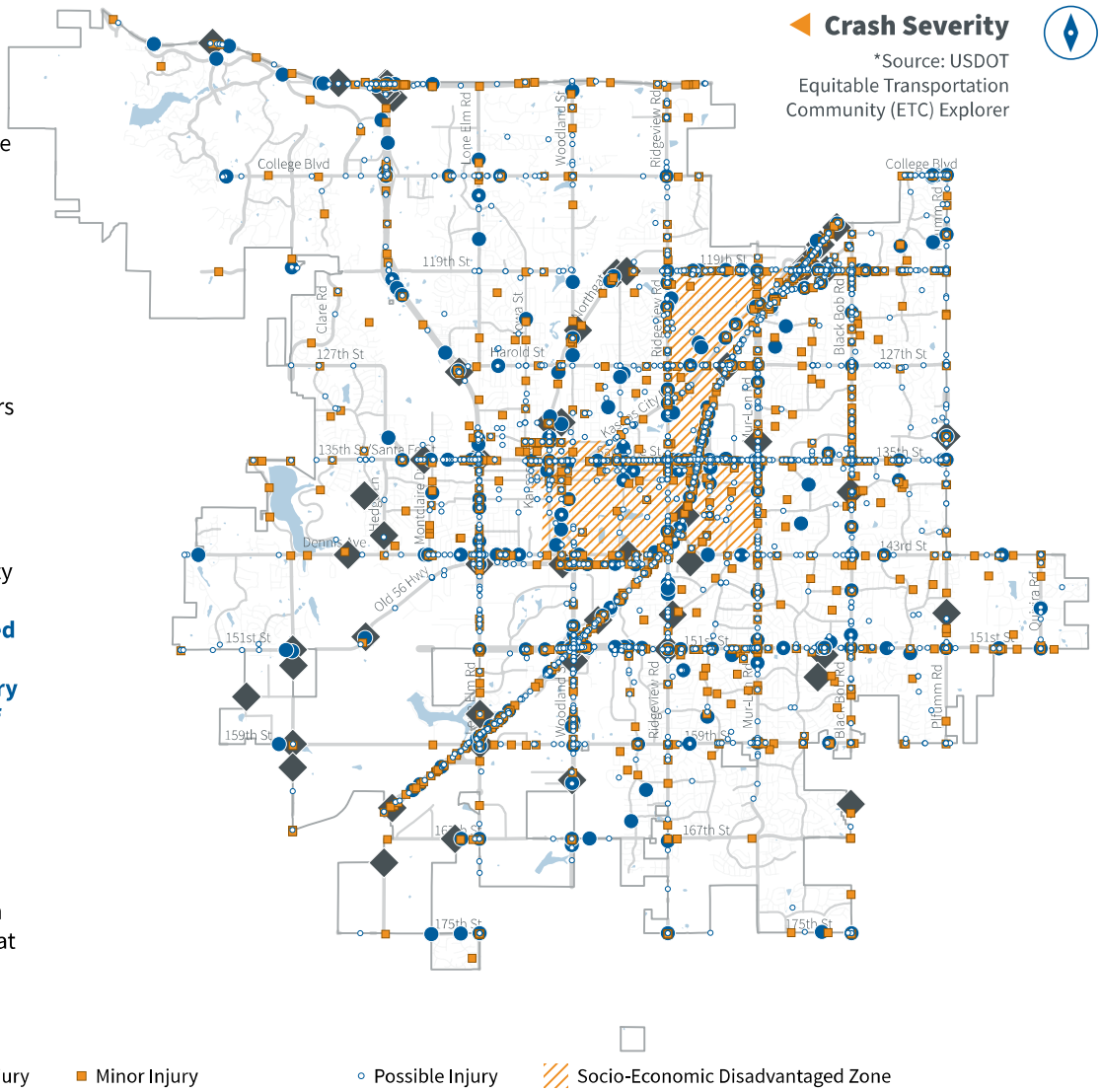
CRASH MAPPING

All Fatal & Injury Crashes, 2013-2022

By mapping crashes through multiple methods (described in more detail in the following sections), Olathe can identify how to make the most impactful change as timely as possible with limited resources. With this goal in mind, the data indicates that significant priority be considered for projects in disadvantaged communities as defined by socio-economic indicators identified by USDOT.

KDOT crash data was compared to the disadvantaged communities indicated through the USDOT Equitable Transportation Community explorer. **Based on data within the City of Olathe, these disadvantaged communities are more likely to be impacted by fatal and serious injury crashes: they account for 17.4% of KSI crashes but 9.3% of roadway miles.** By prioritizing the areas of greatest need, the disparities in KSI crash rates for over-represented populations will be reduced.

By simply following the data, we can start creating equitable solutions that reduce serious injuries and death.

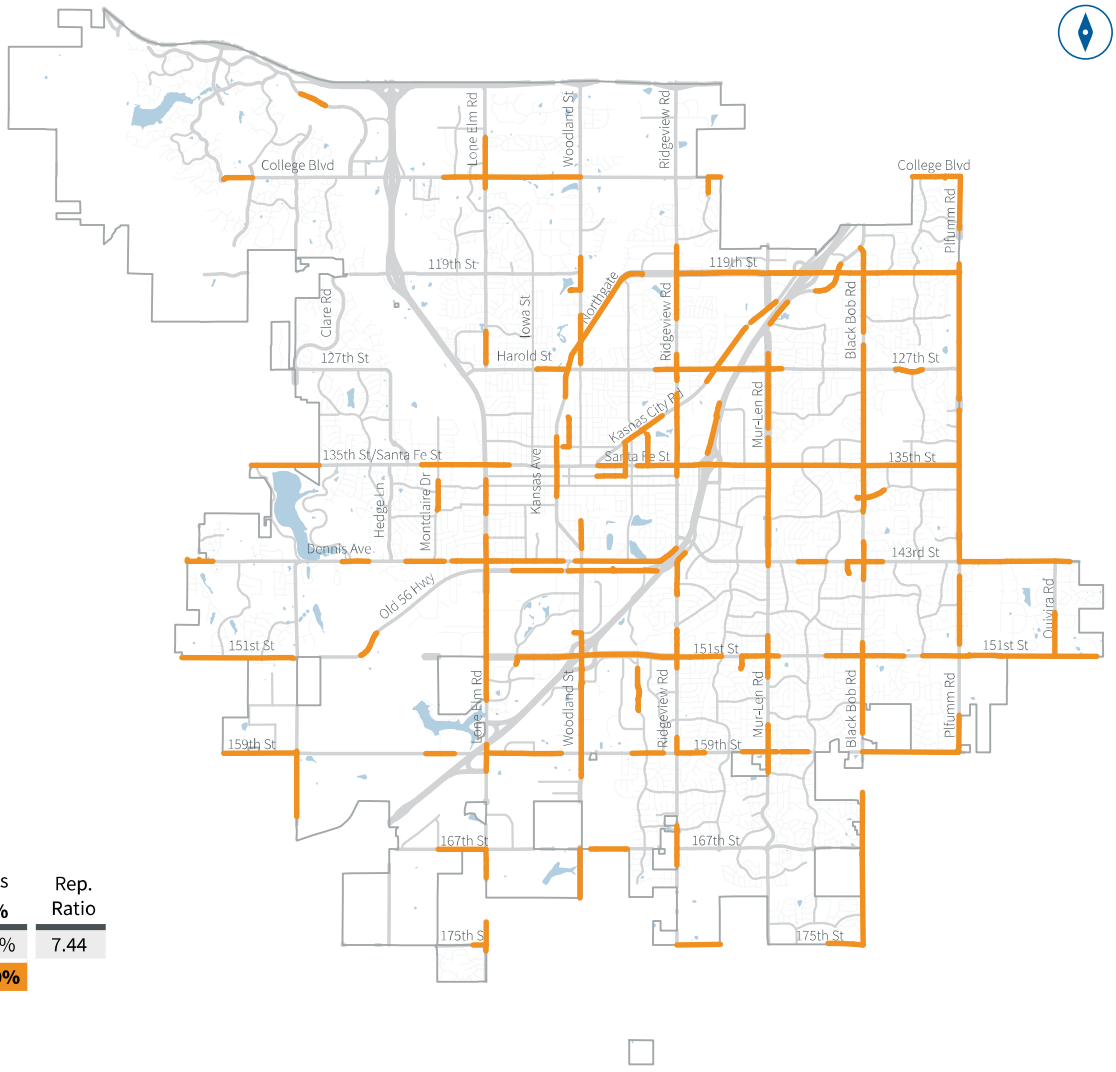


CRASH MAPPING

High Injury Network

The High Injury Network (HIN) is a mapping tool to help identify where the highest number of people are being killed and seriously injured (KSI) on Olathe's transportation system. This data-driven approach helps focus resources in areas of most urgent need. The most recently available ten years of crash data (2013–2022)[1] was used to create the HIN.

The HIN accounts for 72% of KSI crashes but 9.6% of road miles. This shows that on these 64.8 miles of roadway, KSI crashes are over seven times more likely to occur.



	KSI Crashes		Road Miles		Rep. Ratio
	#	%	#	%	
HIN	96	72%	64.8	9.6%	7.44
Citywide	**134**	**100%**	**672.7**	**100%**	

Legend HIN Corridors

1 Crash data from KDOT

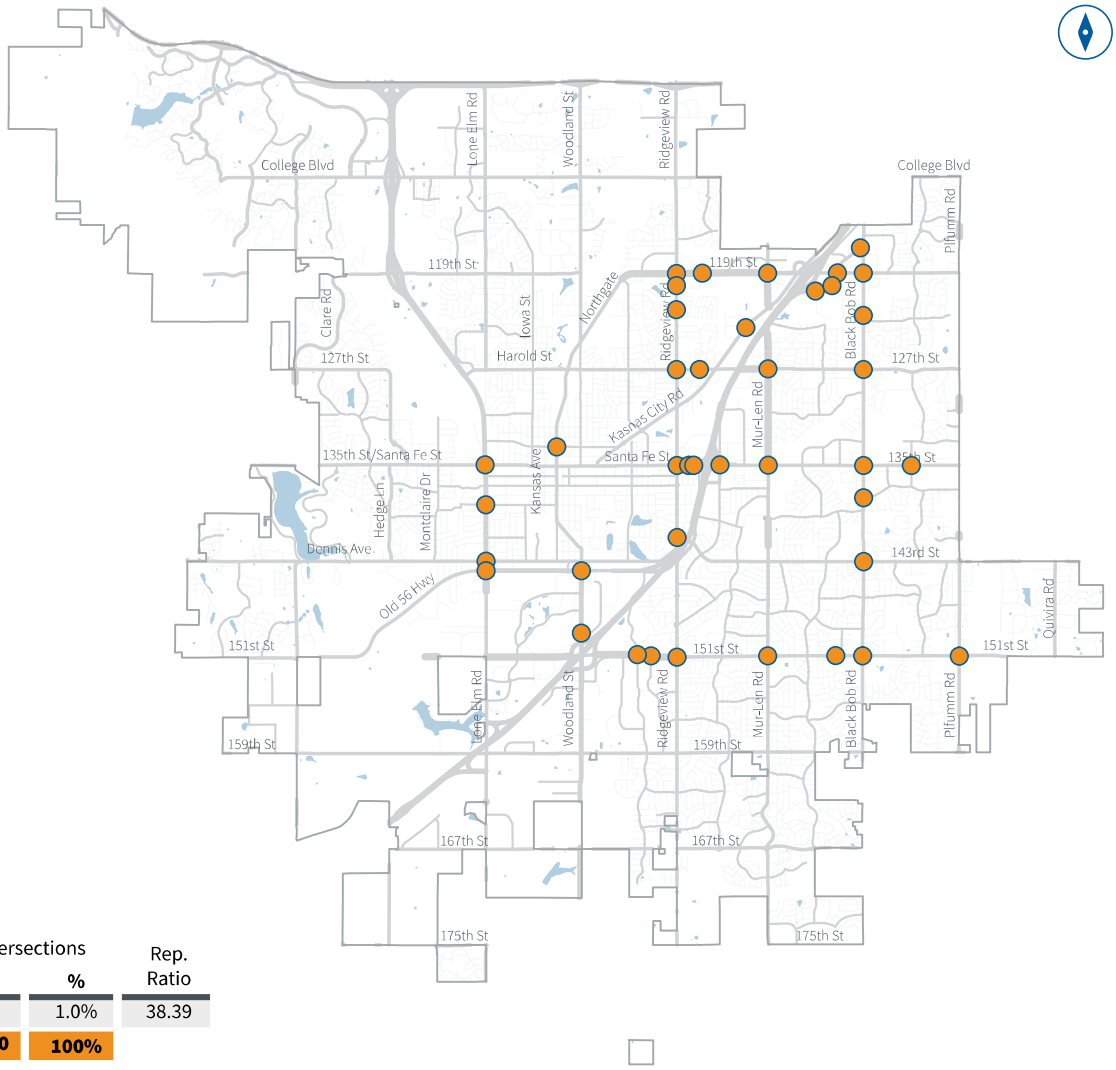
CRASH MAPPING

High Injury Intersections

The High Injury Intersections (HII) are another key mapping tool in the Safety Action Plan toolbox. Like the HIN, the HII uses ten years of injury crash data to identify the most critical intersections to most effectively allocate City resources and give context to transportation safety problems.

The HII locations have the highest concentration of intersection crashes. The HII locations have the highest concentration of intersection crashes. Olathe has 4,190 intersections but just 40 “High Injury Intersections,” which account for 59 KSI crashes and 712 total crashes (excluding property damage only crashes) during the 10-year analysis period.

In total, **the HII identifies 1% of intersections that account for 37% of KSI intersection crashes in Olathe.**



	KSI Crashes		Intersections		Rep. Ratio
	#	%	#	%	
HIN	59	37%	40	1.0%	38.39
Citywide	**161**	**100%**	**4,190**	**100%**	

Legend ● High Injury Intersection

High Injury Intersections are identified by the number and severity of crashes that occur at them. Crashes are weighted by severity; the higher the severity, the greater the weight assigned to those crashes (with fatal and serious injury crashes having the highest weight).

As a part of this plans development, several High Injury Intersections were selected for a deeper look (which can be found in Appendix H). The intersections selected are each considered a High Injury Intersection, within the top 15 of the 40 total HII. This review aided in the formulation of the toolbox and the project scopes for the prioritized list. Some of the intersections were recently reconstructed projects:

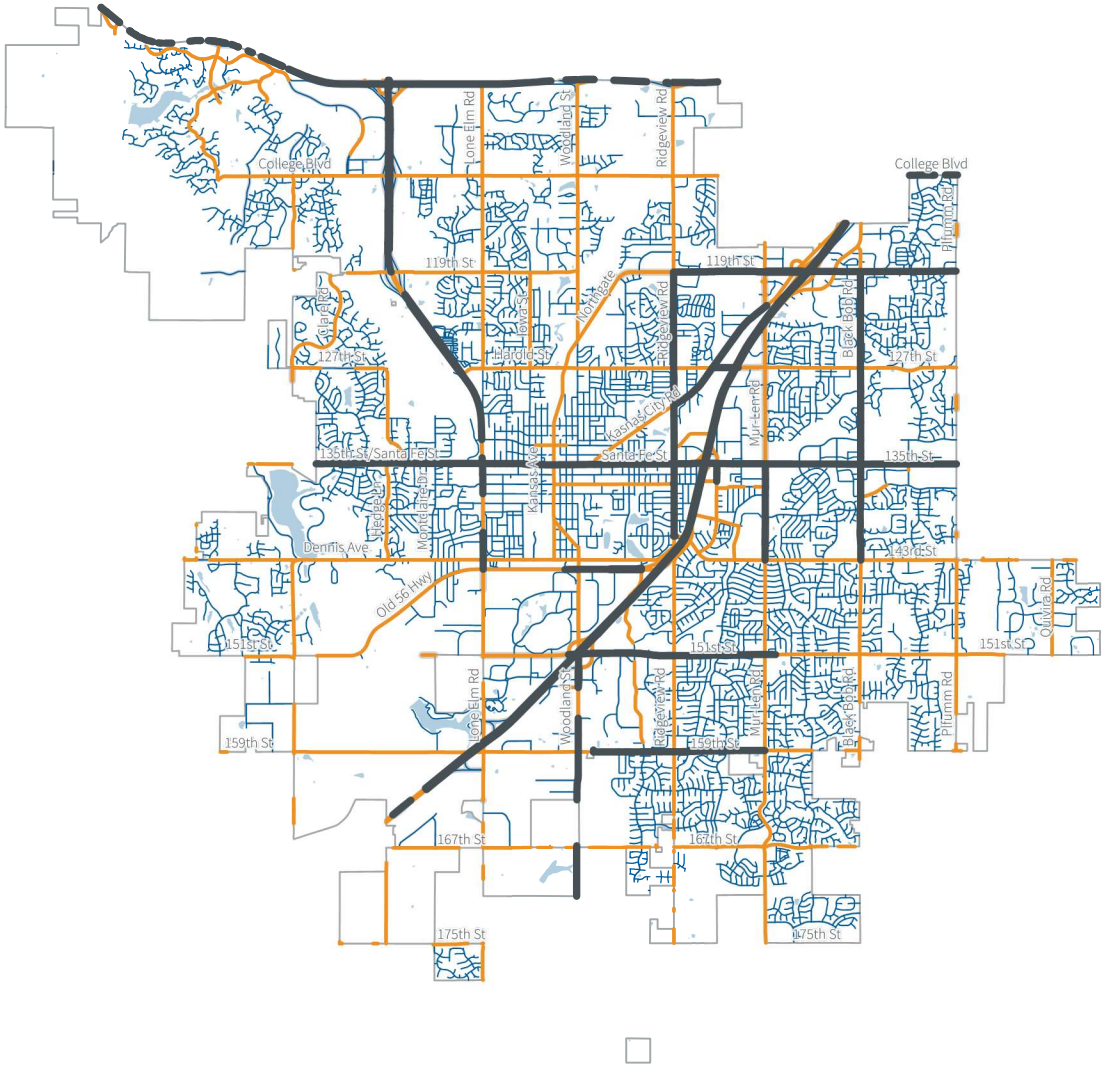
- 151 Street/Mur-Len Road was reconstructed in 2018.
- Parker/Dennis was reconstructed in 2019.
- Santa Fe/Ridgeview was reconstructed in 2019.
- Lone Elm/Parker/Old 56 was reconstructed in 2021.

The total 40 High Injury Intersections account for 59 KSI crashes and 712 total crashes; the top 15 HII make up 51% of these KSI crashes and 48% of the total crashes, emphasizing the connection to the safety outcomes of Olathe's transportation network. The 10-year study interval captures the pre-project condition and the post-project condition.

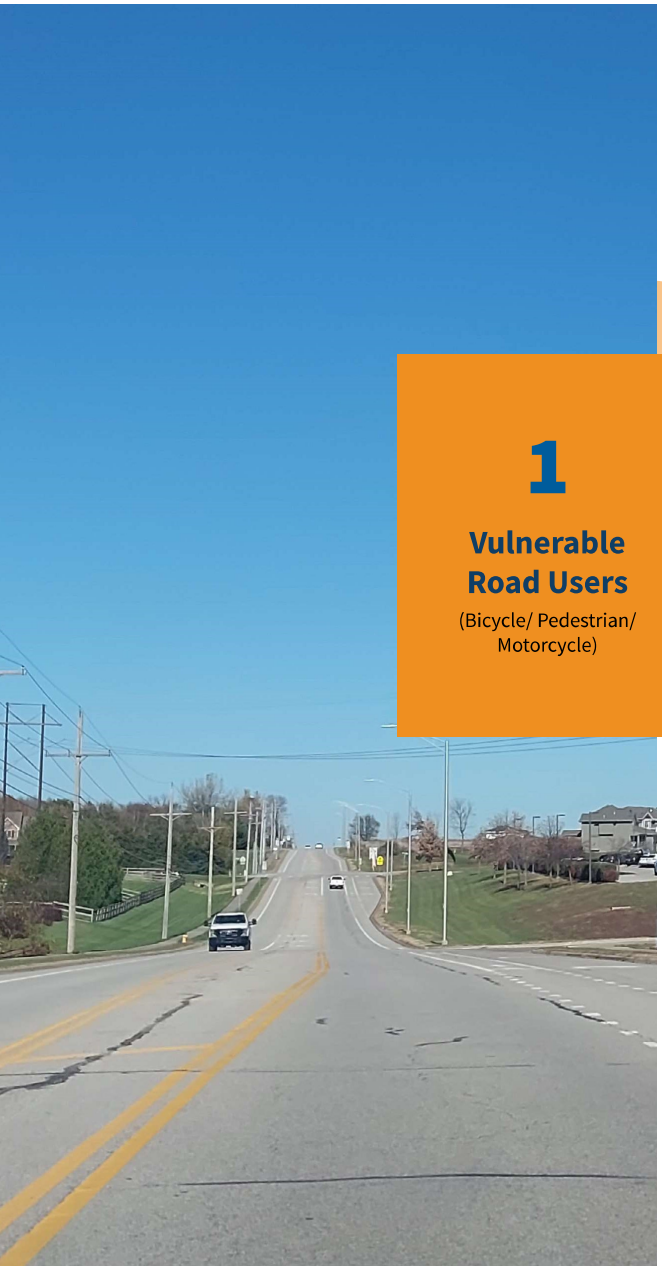
CRASH MAPPING

High Risk Network

Both the HIN and HII are based on historical crash data, which is very useful in addressing existing problems where we have data. Since we know that killed and seriously injured (KSI) crashes are a small share of total vehicle interactions and near misses never get reported, some roadways may not be represented in the HIN and HII data. Therefore, the High Risk Network (HRN) can be used to identify streets where KSI crashes are likely to occur based on existing attributes, such as roadway classification, traffic volumes, posted speed limit, prohibited truck routes, and location within disadvantaged communities.



Legend High Moderate Low



FOCUS AREAS

The Safety Action Plan project team determined five focus areas based on the findings of the data analysis and on safety trends and metrics. Focus areas provide specific issues for the action plan to address. These include:

1 **Vulnerable Road Users** (Bicycle/ Pedestrian/ Motorcycle)

2 **Impaired Driving**

3 **Arterials**

4 **Speed**

5 **High Risk Drivers**

The following sections highlight the relationship between each focus area, KSI crashes, and their respective over- or under-representation in the data. The term "representation ratio" in the upcoming sections refers to the proportion of KSI crashes to the given attribute (e.g. – intersection type, transportation mode).

A representation ratio of 1.0 means that KSI crashes are equally represented to the attribute, 3.0 would mean KSI crashes are 3x over-represented, and 0.5 means KSI crashes are only half of what would be expected.

Continued on next page

FOCUS AREAS

VULNERABLE ROAD USERS

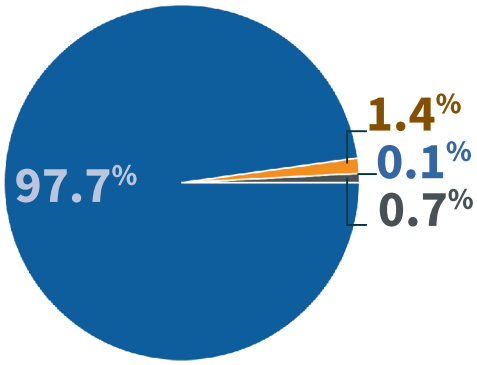
Vulnerable road users, made up of pedestrians, bicyclists, and motorcyclists, account for over 32% of all KSI crashes. When we examine transportation mode share in Olathe, vehicle traffic makes up 97.7% of commute trips but less than 68.0% of KSI crashes. This means that the other modes of travel in Olathe are far over-represented:

4x
Pedestrians are 4 times more likely to be involved in KSI crashes based on mode choice

6x
Bicyclists are 6 times more likely to be involved in KSI crashes based on mode choice

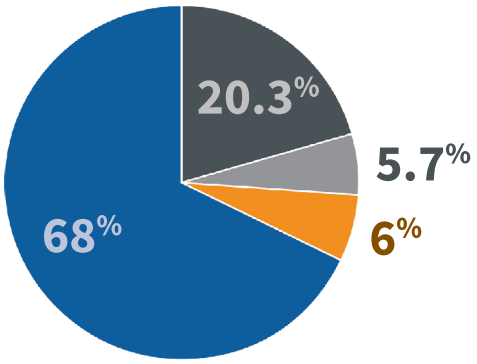
200x
Motorcyclists are 200 times more likely to be involved in KSI crashes based on mode choice

Olathe, KS, Commute Mode Share



Vehicle **97.7%** Bicycle **0.1%**
Pedestrian **1.4%** Motorcycle and other **0.7%**

All Olathe KSI Crashes by Mode

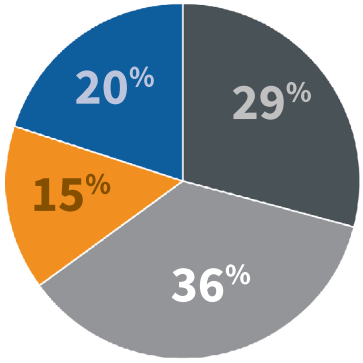


Vehicle **68%** Bicycle **5.7%**
Pedestrian **6%** Motorcycle **20.3%**

Motorcyclists are the most overrepresented group involved in KSI crashes based on how residents of Olathe choose to travel. One contributing factor to this overrepresentation could be low rates of helmet and safety gear usage by motorcyclists, as more than a quarter of Olathe motorcyclists injured in crashes were not wearing any form of safety gear and 44% were not wearing helmets. Currently, Kansas does not have a law requiring riders 18 and over to wear a helmet. Motorcycle helmet usage is estimated to reduce the risk of death by 42% and the risk of head injury by 69%.[2]

Although Kansas legally requires all riders (driver or passenger) to use some form of eye protection[3], more than 65% of riders killed or injured in a crash were not wearing eye protection.

Safety Gear Usage by Motorcyclists Killed or Seriously Injured in Crashes



Helmet and eye protection **20%** Helmet Only **36%**
Eye protection only **15%** None **29%**

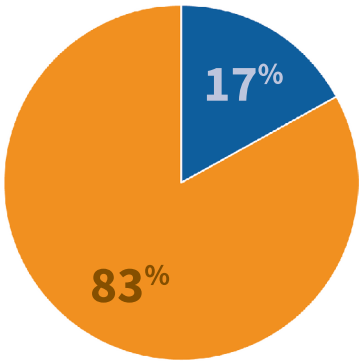
2 https://pubmed.ncbi.nlm.nih.gov/18254047/
3 Kansas Statutes Annotated (K.S.A.) 8-1598

FOCUS AREAS

IMPAIRED DRIVING

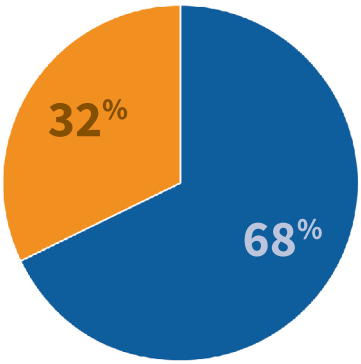
People aren't perfect. Sometimes, they make mistakes and poor decisions—however, they should not have to pay with their lives or live their lives permanently altered because of a single moment or choice. Some behaviors may be considered reckless and have an outsized impact on KSI crashes. Impairment, the use of alcohol or drugs while traveling, is one of those.

KSI Crashes by Impairment



Impairment **17%** No Impairment **83%**

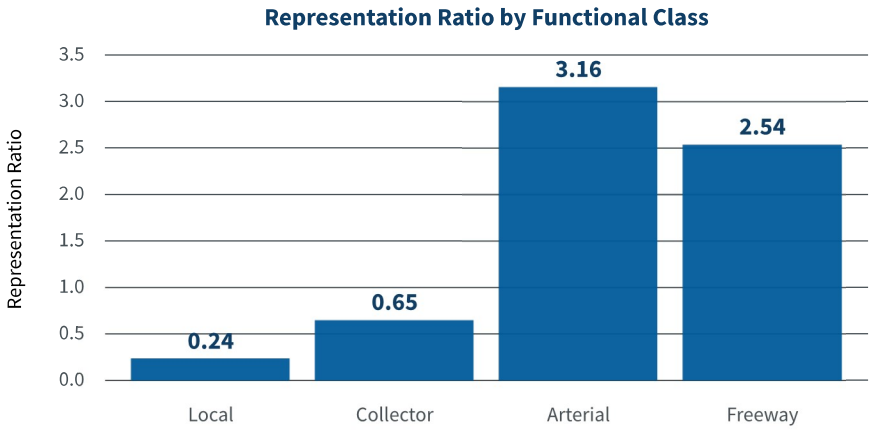
Impairment-Related KSI Crashes between 7 PM and 3 AM

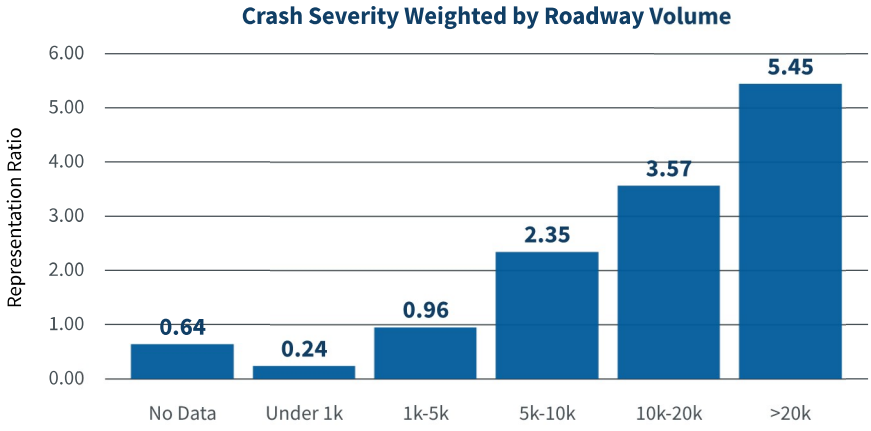


7 PM - 3 AM **68%** 3 AM - 7 PM **32%**

ARTERIALS

The majority of KSI crashes occur on a minority of streets in Olathe; fatal or serious injury crashes are more than 3 times as likely to happen on arterial roadways. Additionally, more lanes of travel translates to a higher risk in KSI crashes.





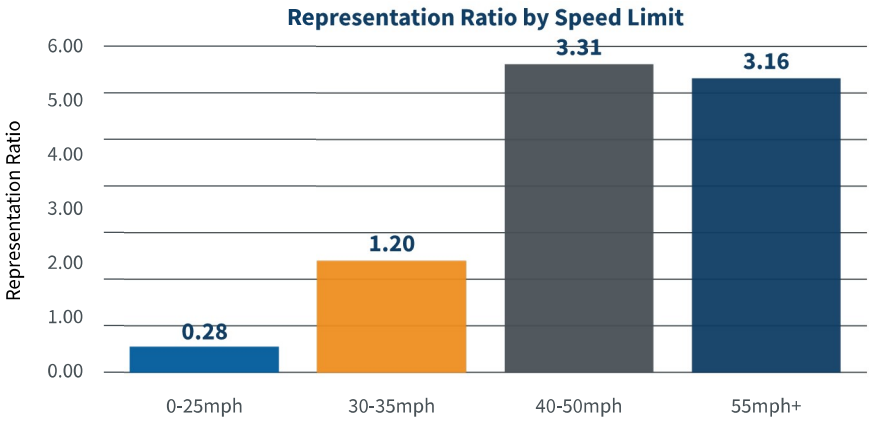
FOCUS AREAS

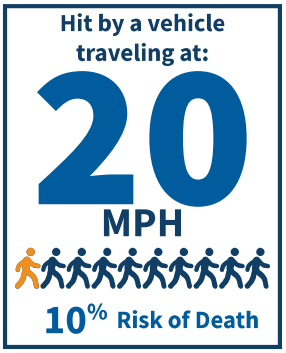
SPEED

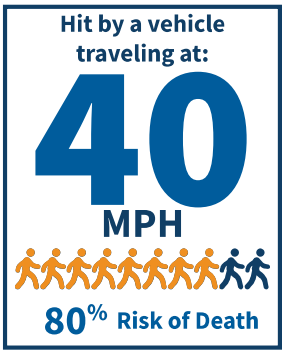
Speed is one of, if not the most, important factor that dictates if a crash results in a serious injury or fatality rather than a minor injury or merely property damage. 36.9% of KSI crashes happened where the posted speed limits were 35 mph or lower, while they represent 80.7% of the roads; this means 63.1% of crashes occurred on roads with speed limits above 35 mph.

The likelihood of fatality increases exponentially with vehicle speed; for every 10 mph increase, the likelihood of a fatality doubles.[4] Speed is such an impactful factor within crashes for several reasons, including:

- The higher the speed, the more forceful the crash
- The higher the speed, the narrower field of vision drivers have
- As speeds increase, the amount of time drivers have to react decreases
- As speeds increase, so do their braking distances (meaning, drivers may be unable to stop in time)



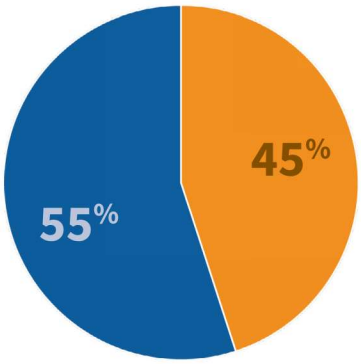




Source: https://visionzeronetwork.org/pioneering-study-affirms-vision=zero-focus-on=speed-management/

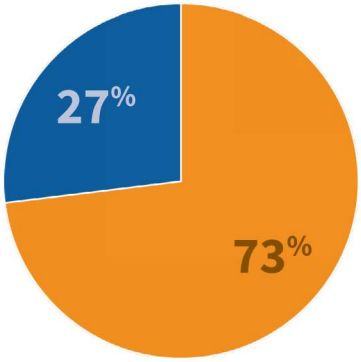
4 https://nacto.org/publication/city-limits/the-need/speed-kills/

Drivers Killed or Injured in Crashes by Gender



Female **55%** ♀ ♂ Male **45%**

Pedestrian and Bicyclist Killed or Injured in Crashes by Gender



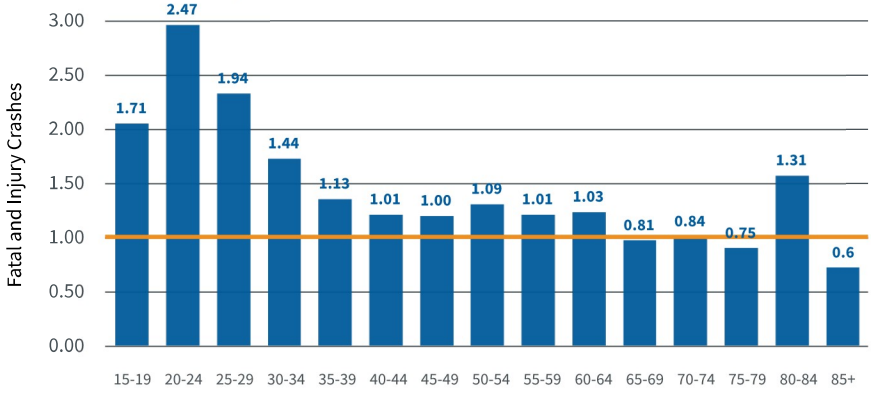
Female **27%** ♀ ♂ Male **73%**

HIGH RISK DRIVERS

In Olathe, female drivers are involved in more fatal and serious injury crashes than male drivers; this is atypical compared to national data.

Typically, male users, whether they are operating a motorized vehicle (car, truck, van, motorcycle, etc.) or are taking active modes of transportation (walking or biking), are involved in more fatal and injury crashes than female users. Data show that males on average drive more vehicle miles than females and are more likely to participate in risky driving behaviors, including driving under the influence of alcohol, lack of seat belt use, and driving aggressively.

Drivers Killed or Injured in Crashes by Age Group Normalized by Population



Based on the age analysis of the road users involved in crashes, young drivers—drivers aged 25 and under—are involved in 31% of all KSI crashes. When normalizing these KSI crashes to the population of Olathe, users aged 20-24 are 2.47 more likely to be involved in a KSI crash than the average.

03

TOOLBOX OF SAFETY COUNTERMEASURES

CHAPTER THREE

The City of Olathe created a toolbox of infrastructure countermeasures to address common causes of crashes based on recent crash history in Olathe. With this toolbox, the City of Olathe can tailor its approach to specific road user groups, locations, and conditions, using a holistic and effective strategy toward safer roadway conditions for all.

The following listing of potential safety countermeasures are options for implementation given certain crash or symptomatic conditions. These countermeasures are based on national best practices and require a site-specific analysis before being deployed. While there are common correlations between project locations and countermeasures, any countermeasure will need to be approved by technical staff based on technical experience and understanding.

An expanded version of this toolbox—which provides descriptions, application guidance, targeted facilities, and more—can be found in Appendix C.

CORRIDOR COUNTERMEASURES

General Countermeasure	Device	Description	Cost	Potential Crash Reduction
Access Control	Reduce Driveway Density	Reducing driveway density can restrict the points at which vehicles exit onto a road, limiting and making the crash points more predictable.	**$$-$$$$**	**30%**
Access Control	Raised Medians	Raised medians help limit the movements of a vehicle exiting a driveway onto a roadway, eliminating potential turning movements and potential crash types.	**$$$-$$$$**	**30%**
Bikeways	Protected Bike Lanes	These are bike lanes where bicyclists are separated from traffic by a physical barrier.	**$$-$$$**	**55%**
Bikeways	Striped Bike Lanes	These are bike lanes where bicyclists are adjacent to vehicle traffic.	**$**	**20%**
Curve Delineation	Chevrons	Chevrons are intended to help drivers identify the presence and geometry of a curve and can be used in coordination with post delineators.	**$**	**25%**
Curve Delineation	Post Delineators	Curve delineators are intended to help drivers identify the presence and geometry of a curve and target road departure crashes; they can include vertical posts or chevron signs.	**$**	**45%**
Lane Configuration	4-to-3 Lane Conversions	A lane configuration converts an existing four-lane undivided roadway to a three-lane roadway with two through lanes and a center two-way left turn lane (TWTL) and targets left turn, rear-end, and sideswipe crashes. The reclaimed space can be used for countermeasures related to other modes of transportation.	**$$-$$$**	**45%**

▲ Raised Median

▲ Bikeways

▲ Chevron Curve Delineators

Lane Configuration

Pedestrian Crossing Refuge Island

Shared Path

CORRIDOR COUNTERMEASURES

General Countermeasure	Device	Description	Cost	Potential Crash Reduction
Lane Configuration	Lane Width Narrowing	Lane width can also be reduced, with or without changing the number of lanes, and can also provide space for other modes (with bikeways or pedestrian crossings) and improve operations.	**$-$$$**	**45%**
Pedestrian Crossings	Refuge islands	Pedestrian crossings can provide traffic calming, decrease illegal crossings, and increase driver awareness of pedestrians. They target vehicle-pedestrian crashes.	**$-$$$**	**55%**
Pedestrian Crossings	RRFBs	RRFBs use flashing lights to improve vehicle stopping and yielding behavior for crossing pedestrians at lower speed unsignalized locations.	**$$**	**45%**
Pedestrian Crossings	PHBs	PHBs, larger than RRFBs, use flashing and solid-colored lights to improve vehicle stopping and yielding behavior for crossing pedestrians at higher speed unsignalized locations.	**$$$**	**45%**
Speed Feedback Signs	Speed Feedback Signs	Speed feedback signs aim to decrease vehicle speeds by displaying dynamic feedback of vehicle speed to drivers; signs can be permanent or trailer mounted. They target speed related crashes.	**$**	**5%**
Walkways	Shared Path	Shared paths, trails, or multi-use paths are intended to separate bicyclists and pedestrians from vehicle travel.	**$$$-$$$$**	**25%**
Walkways	Sidewalk	Similar to shared paths, but more limited in width and ability for users to pass one another.	**$$-$$$**	**40%**

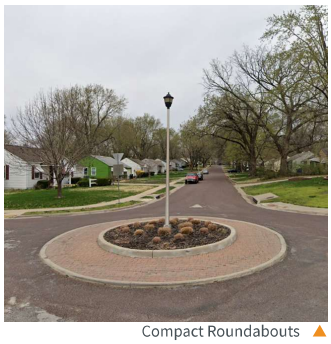
INTERSECTION COUNTERMEASURES

General Countermeasure	Device	Description	Cost	Potential Crash Reduction
Crosswalk Visibility Enhancements	High Visibility Crosswalks	High Visibility Crosswalks are intended to increase driver awareness of pedestrians by bringing attention to the space designated for pedestrians to cross.	$	40%
Crosswalk Visibility Enhancements	Intersection Lighting	Intersection lighting helps illuminate pedestrians approaching and crossing crosswalks.	$$	40%
Curb Extensions	Curb Extensions	Curb extensions are intended to decrease pedestrian crossing distance and reduce vehicle speeds by narrowing the roadway. Curbs can be extended at midblock crossings or at intersections.	$-$$$	25%
High Friction Surface Treatment	High Friction Surface Treatment	High Friction Surface Treatment is a roadway surface treatment that increases friction on vehicle tires and increases time and opportunities to slow down to avoid crashes or departing the roadway.	$$-$$$	20%
Intersection Configuration	Dedicated Left Turns	Left turn lanes and phases are intended to separate and protect left turning vehicles from travel lanes.	$$-$$$$	50%
Intersection Configuration	Offset Left Turn Lanes	Offset Left Turn Lanes push the turn lane towards the lane carrying the opposing direction of traffic. This increases visibility of potential crash opporutnities.	$-$$$	35%
Intersection Configuration	Dedicated Right Turns	Dedicated Right Turn Lanes reduce potential crashes between those proceeding straight and large volumes of vehicle drivers turning right.	$$-$$$$	15%
Intersection Visibility Enhancements	Systemic Sign Improvements at Stop-Controlled Intersections	This approach improves visibility and consistency of safety messaging across a system by adding advanced warning signs prior to a traffic control device.	$-$$	10%
Intersection Visibility Enhancements	Flatten Curves	Flattening curves enhances the ability to recovery from a potential crash.	$$$$	20%

▲ Curb Extensions

▲ Crosswalk Visbility Enhancements

INTERSECTION COUNTERMEASURES



Compact Roundabouts

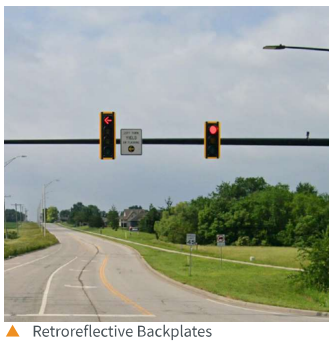
Raised Crosswalks

General Countermeasure	Device	Description	Cost	Potential Crash Reduction
Intersection Visibility Enhancements	Clear Sight Triangle	Clear sight triangle refers to removing visual barriers from the vantage point of a road user at an intersection; this removes crash opportunities because of an unexpected vehicle or road condition.	$-$$$$	15%
Roundabouts	Standard	Roundabouts improve vehicle safety and operations by reducing the number of conflict points in an intersection.	$$$$	80%
Roundabouts	Compact	"Compact roundabouts" or "neighborhood traffic circles" can be used as traffic calming devices in place of stop- or yield-controlled intersections.	$$-$$$	20%
Roundabouts	Turbo	Turbo roundabouts (a variation of a multi-lane roundabouts) have lane dividers to encourage motorists to select the proper lane before entering the roundabout and not try to change lanes within the roundabout.	$$$$	80%
Traffic Control	All-Way Stop Control	All-way stop control requires all directions to stop, enhancing coordination among vehicles and reduce opportunities for crashes.	$	60%
Vertical Deflection	Speed tables	Speed tables aim to decrease vehicle speeds by vertically deflecting vehicles; they can also discourage through traffic and improve comfort for bicyclists and pedestrians.	$-$$	50%
Vertical Deflection	Raised Crosswalks	Raised crosswalks help slow speeds at intersections and provide natural deceleration for vehicles approaching a potential crash point with pedestrians.	$$-$$$	45%

SIGNAL COUNTERMEASURES

General Countermeasure	Device	Description	Cost	Potential Crash Reduction
Detection	Bike Detection	Bike detection is intended to improve operations for cyclists and decrease instances of cyclists traveling through a red light.	$$	10%
Detection	Passive Pedestrian Detection	Passive Pedestrian Detection limits opportunities for a pedestrian to cross without traffic signal phase changes that reduce potential crashes involving a pedestrian.	$$	10%
No ROTR/LPI	Leading Pedestrian Interval (LPI)	No Right Turn on Red. Combining LPIs and Right Turn on Red (RTOR) restrictions aims to establish the presence of crossing pedestrians before vehicles are permitted to turn.	$	15%
Retroreflective Backplates	Retroreflective Backplates	Retroreflective backplates increase the visibility of traffic signals; they also alert drivers to intersections during power outages.	$	15%
Timing	Signal Coordination	Signal coordination aims to improve traffic operations and the flow of vehicles and people.	$	20%
Timing	Clearance Timing	Increased clearance time allows for all vehicles to clear an intersection after a red light; this limits potential crashes with vehicles whose signal has turned green after a red.	$	20%
Timing	Left-Turn Phasing	Left-turn phasing separates left-turning road users from other traffic and can help eliminate crashes with other intersection movements.	$	5%

▲ Induction Loop Detectors



▲ Retroreflective Backplates

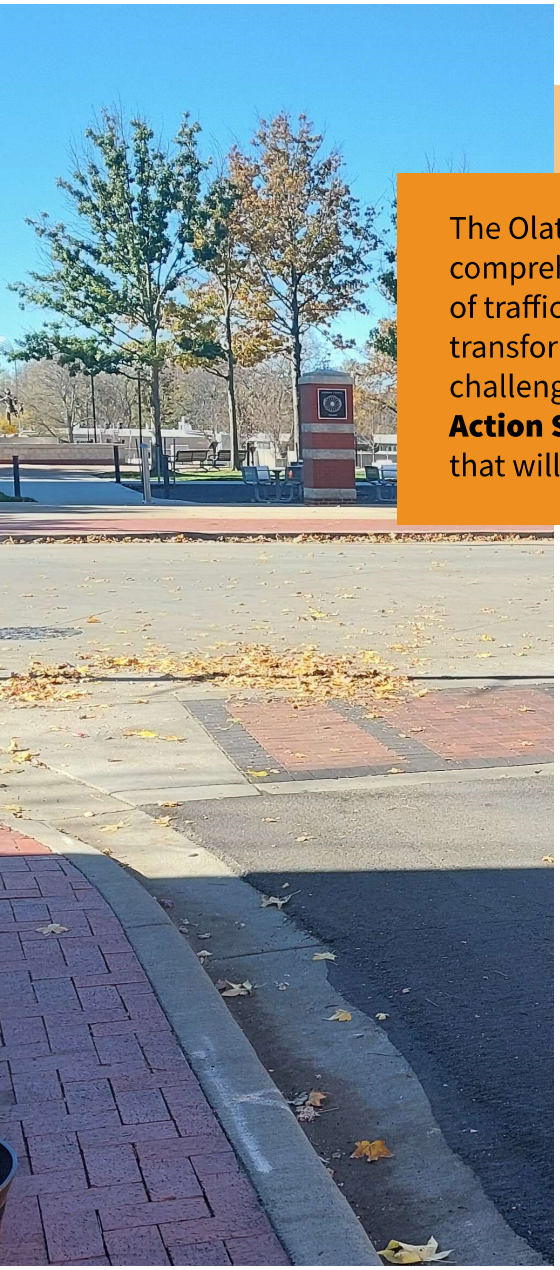
▲ Signal Coordination


Spruce ST
35

04

IMPLEMENTATION PLAN

CHAPTER FOUR



The Olathe Safety Action Plan is an ambitious, data-driven, and comprehensive roadmap toward safer streets and the ultimate elimination of traffic related fatalities and severe injuries. In the final section of this transformative document, we adjust our focus from understanding the challenges and setting the stage for change to setting out tangible **Action Steps**, **Prioritized Projects**, and a **Phased Implementation Plan** that will guide us toward our Safe System Approach goals.

Having captured and reviewed significant data, it's now time to move to the action step of this plan. Chapter 4 will focus on steps forward and practices that will allow the City of Olathe to proactively and intentionally counteract future crashes and the road designs and behaviors that lead to the them.

ACTION STEPS

The following recommendations are based on discussions with the Technical Advisory Committee, public input, as well as a review of the City's current policies, programs, and processes related to transportation safety.

This set of targeted action steps spans three crucial categories based on the Safe System Approach:

Safe Users
will tackle education and awareness, fostering a culture of shared responsibility among all road participants.

Safe Speeds
will explore measures to curtail excessive speeds, a key contributor to the severity of traffic collisions.

Safe Streets
will underscore the need for well-designed infrastructure that accommodates diverse modes of travel.

YEAR ONE

Enhanced Impairment Enforcement

Enforcement is highly effective in removing impaired drivers from the roads when paired with effective criminal justice and rehabilitation programs. Several times yearly, the Olathe Police Department (OPD) conducts saturation patrols and focused enforcement as part of the Impaired Driving Deterrence Program and Special Traffic Enforcement Program; they check seat belt usage at the same time. OPD publicizes the saturation patrols and enforcement campaigns.

The Kansas Department of Transportation (KDOT) provides a grant program through its Impaired Driving Deterrence Program. The grant reimburses overtime for enforcement activities, such as setting checkpoints and deploying extra patrols.

System
Safe Users

Responsible Party
Police Department

SAFE Program in Schools

SAFE (Seatbelts Are for Everyone) is a free, student-led program for high school students focusing on peer-to-peer promotion of traffic safety. Through education, rewards, and enforcement, SAFE highlights the importance of wearing a seatbelt, driving alert, and following traffic laws to decrease the number of teen injuries and deaths from vehicle crashes.

The Public School Districts within Olathe could coordinate with the Kansas Traffic Safety Resource Office to bring the SAFE program to their high schools.

System
Safe Users

Responsible Party
Public Schools Districts

Communications and Outreach Supporting Enforcement

To effectively promote traffic safety priorities and engage the public, the Olathe Police Department communication campaigns focus on curtailing speeding, red-light running, impaired driving, not wearing seat belts, distracted driving, and other safety information.

OPD could partner with the National Highway Traffic Safety Administration (NHTSA), the Kansas Department of Transportation (KDOT), or other agencies to promote safety campaigns.

OPD uses outreach channels such as social media and websites. They may explore public space signage and coordination with religious institutions and schools (such as publishing safety campaign messaging in their newsletters) for widespread distribution of the messaging.

System
Safe Users

Responsible Party
Olathe Police Deparment

YEAR ONE

Fatal Crash Review

The Olathe Police Department reviews every fatal crash report and the circumstances. Depending on the crash details, OPD will contact other City departments to discuss issues and develop countermeasures.

System
Safe Users

Responsible Party
Olathe Police Department

Speed Management Plan

The City will conduct a speed management plan. This plan will review citywide posted statutory speed limits and actual prevailing driver speeds throughout the city; the plan will include a review of policies used in setting speed limits and will make recommendations for reducing speed limits in specific locations, identifying speed management areas, and designating areas for traffic calming implementation.

System
Safe Speeds

Responsible Party
Infrastructure

Promote the Neighborhood Traffic Safety Program

The Olathe Police Department hosts a Neighborhood Traffic Safety Program (NTSP) for citizens to report speeding, stop sign violations, or other neighborhood traffic-related concerns.

Citizens report concerns by submitting a request online, calling the NTSP hotline, or calling Public Works.

OPD will observe traffic. For speeding concerns, the OPD will use portable speed feedback signs and collect speed data. Based on the data and observations, OPD will conduct enforcement activities.

System
Safe Speeds

Responsible Party
Olathe Police Department

YEAR ONE

Quick-Build Curb Extensions in Northeast Kansas City
Source: BikeWalkKC

Quick-Build and Demonstration Projects

The City could identify and prioritize locations for low-cost, quick-build, and demonstration safety improvements. Quick-build projects are easily adjustable safety improvements that typically utilize paint, posts, signage, and other widely available, low-cost materials.

Examples of quick-build projects include the installation of intersection turn modifications (e.g., tightening turn radii), traffic calming/lane reconfigurations through paint and posts, and installation of midblock crossing improvements, high-visibility crosswalk markings, and adding rectangular rapid flashing beacon (RRFB) pedestrian crossing signs.

The City could employ a rigorous planning and before-after evaluation process for quick-build improvements to provide longer-term funding and maintenance resources to permanently construct and maintain the quick-build improvements, which are proven effective by the evaluation and review process.

System
Safe Streets

Responsible Party
Infrastructure

K-7/US 169 Bypass Corridor Study

The City is partnering with KDOT to conduct a detailed corridor study of K-7/US-169. In light of increasing development and urbanization along this corridor and the crash history along the corridor, a more in-depth evaluation is needed. The study could evaluate alternatives for interchange and intersection configurations as well as strategies for reducing speeds and crashes while improving travel time reliability.

System
Safe Streets

Responsible Party
Infrastructure

YEAR TWO

Drivers Education Financial Assistance

Effective driver's education is critical to safer roads. The Kansas Department of Transportation (KDOT) created a Driver Education Reimbursement Program to provide financial assistance to drivers' education providers to help individuals who may not be able to participate.

The City of Olathe may consider providing financial assistance, too.

System
Safe Users

Responsible Party
Public School Districts

Safe Speed Limits

The City Engineer could adopt a policy outlining the process for setting posted speed limits on specific streets. The policy will follow updated federal guidance that de-emphasizes using the 85th percentile speed and instead incorporates a range of factors, including crash history, intersection spacing, driveway density, roadway geometry, roadside conditions, roadway functional classification, traffic volume, pedestrian and bicycle activity, land use context, and observed speeds. The City may use an expert tool such as the MUTCD 11th Edition, the upcoming USLIMITS3 developed by FHWA, or the Corridor Speed Limits framework in the NACTO "City Limits" guide for setting speed limits.

System
Safe Speeds

Responsible Party
Infrastructure

Dynamic Speed Display / Feedback Signs

Speed feedback signs dynamically show the driver's speeds alongside the posted speed limits and have been shown to slow overall speeds where deployed; they also educate drivers on the importance of safe speeds. The City of Olathe Police Department has several portable feedback signs and plans to purchase more.

Infrastructure (Public Works) may provide funds to purchase feedback signs.

System
Safe Speeds

Responsible Party
Infrastructure/
Olathe Police Department

YEAR TWO

Safety Action Plan Annual Report

The City of Olathe should develop a comprehensive Safety Action Plan Annual Report to evaluate progress on the targets outlined in the performance measurement plan. This report will serve as a crucial tool to effectively assess progress, guide decision-making, and identify areas where modifications are needed to achieve the desired outcomes of the SAP. In addition to evaluating progress, the report should highlight recent successes, best practices, and lessons learned, providing valuable insights to enhance future efforts. By emphasizing transparency and accountability, the Safety Action Plan Annual Report will support the ongoing commitment to creating a safer and more sustainable transportation system in Olathe.

System
All

Responsible Party
Infrastructure

Support Transit Use Expansion

Increasing transit use is one of the best ways to achieve Vision Zero. Public transit is the safest form of transportation. To fully support the goals of the SAP in Olathe, it is essential to make strategic investments in first-mile/last-mile pedestrian infrastructure connections to transit stops and to improve bus service, quality, and operations. By creating these integrated transportation networks, the City and Johnson County Transit can encourage more individuals to choose public transportation as a safe and convenient mode of travel. This approach aligns with the SAP principles by promoting a safer, more sustainable, and inclusive transportation system throughout Olathe. Transit use expansion within Olathe will rely on the continued coordination between the City of Olathe and Johnson County.

Capital improvement and street resurfacing projects that are located along or intersect within an existing bus route should consider incorporating transit stop improvements as well as first-mile/last-mile connection improvements (integration with sidewalk, bike lanes, and pedestrian crossing) consistent with the recommendations in NACTO Transit Street Design Guide. Projects should also consider ways to enhance transit operations through strategies such as transit signal priority (TSP) or dedicated bus lanes.

System
Safe Streets

Responsible Party
Infrastructure/Johnson County Transit

Develop Standard Details for Safety Countermeasures

The City should create Standard Details within its Standard Details for Public Street, Stormwater, and Utility Improvement Projects document for additional safety countermeasures (e.g., compact roundabouts, curb extensions/bulb-outs, rectangular rapid flashing beacons, raised crossings, protected bicycle intersections, and protected bike lanes) including both their permanent and quick-build paint/post application. Having standard details to refer to can increase efficiency, lower design costs, and provide consistent quality of implementation across both public and private development projects.

System
Safe Streets

Responsible Party
Infrastructure

Safe Routes to School Plan

Safe Routes to School (SRTS) is a program that promotes walking and bicycling to school through technical assistance and through providing resources and project funding. Eligible projects include trails/paths, ADA/sidewalk upgrades, streetscape improvements, educational initiatives, and more. Federal funding exists for developing SRTS plans. Implementation of SRTS programs has shown a 10% - 20% reduction in severe pedestrian and cyclist crashes around schools and has the added benefit of increasing walking and biking to school, thus reducing school vehicle traffic and providing active transportation opportunities for children.

The City of Olathe could work with KDOT to develop a Safe Routes to School Plan that covers all schools in the city. KDOT can do SRTS plans in-house, which requires a memorandum of understanding.

System
Safe Streets

Responsible Party
Infrastructure/Public School Districts

Road Safety Audits

Road Safety Audits (RSA) follow a formal process utilizing a multidisciplinary group that reviews street safety aspects and makes recommendations. The use of RSAs has shown up to a 60% decrease in crashes where recommendations were implemented. Olathe should consider RSA with every capital improvement project. Additionally, the City should choose at least one location in Olathe, either on the High Injury Network or High Risk Network, to perform an RSA each year.

System
Safe Streets

Responsible Party
Infrastructure

YEAR THREE

Traffic Calming Program

Traffic calming features such as median islands, curb extensions, or compact roundabouts are essential tools for reducing speeding on both local residential streets and collector streets. The City may consider instituting a formal traffic calming program. This program could build upon the Neighborhood Traffic Safety Program and establish a project prioritization framework that takes into account crash and speed data analysis, in addition to reported concerns.

System
Safe Speeds

Responsible Party
Infrastructure

Sidewalk Inventory & Updated Sidewalk Requirements

One key step to improving pedestrian safety—and increasing the utility of the transportation system for pedestrians—is to inventory and prioritize existing gaps in the sidewalk network and where the existing sidewalk network needs to be improved. The City could complete an assessment of sidewalk conditions and develop a prioritization framework and implementation strategy for sidewalk improvements. The prioritization framework could score network gaps based on proximity to schools and parks, roadway speed, project readiness, and constructability. Prioritization for updating and improving existing facilities could be based on condition, estimated pedestrian activity, and ADA compliance.

Additionally, the City could update its Unified Development Ordinance to require sidewalks on both sides of the street within all zoning districts. Currently, development within some zoning districts, including most single-family residential neighborhoods and industrial areas in the city, are only required to provide sidewalks on one side of local streets.

System
Safe Streets

Responsible Party
Infrastructure and Planning

Pedestrian Safety Zones

Pedestrian Safety Zones are geographic areas containing a high concentration of severe crashes involving pedestrians or in areas with high pedestrian usage where severe pedestrian crashes could occur. These locations could be identified, followed by creating a plan to systematically improve pedestrian safety and slow vehicle speeds in the area. Cities that have implemented pedestrian safety zones have seen severe pedestrian crashes reduced by up to 40% within them. Strategies for improving pedestrian safety could follow the Safe System approach, aiming to create safer roads, safer users, and safer/slower vehicle speeds through roadway countermeasures, public education, and active traffic enforcement.

System
Safe Streets

Responsible Party
Infrastructure

PRIORITIZED PROJECTS

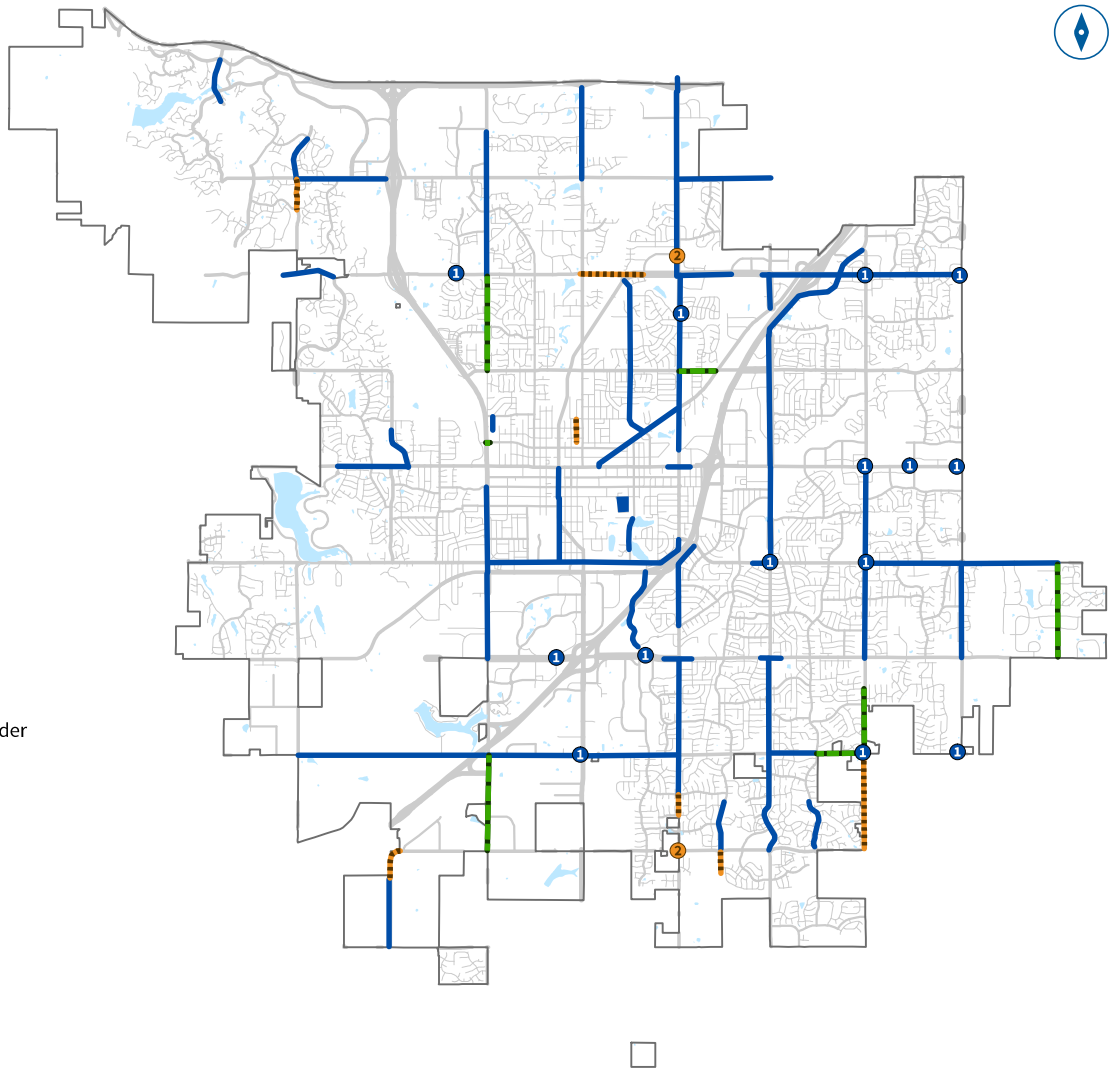
A set of prioritized candidate projects was developed to help guide the City's future street improvement efforts and to maximize its progress toward eliminating deaths and serious injuries on its streets. A data-driven project identification and prioritization process was employed to systematically identify proposed safety improvements along the entire High Injury Network, drawing on the tools summarized in the Safety Countermeasures Toolbox. Improvements at 77 intersections and along 102 roadway segments have been identified. These segments and intersections are grouped into 58 different candidate projects.

The following pages outline the prioritization process and results, including maps of the prioritized projects. A full list of proposed projects with more details can be found in Appendix E.

COMPLETED AND UPCOMING PROJECTS

To build upon completed projects and to identify unique project candidates for future improvement efforts, the Olathe Safety Action Plan reviewed past, current, and planned projects. The completed projects identified are for the same period as the data analysis, and under construction and planned projects extend to 2030 (the final year included in Olathe's 2025-29 Capital Improvement Plan).

These recent and ongoing projects underscore the City's commitment to improving mobility and safety throughout Olathe. The Prioritized Projects on the pages that follow are new recommended proposed safety improvements that would build upon the City's current efforts.



Completed and Upcoming Projects

Project Intersections and Corridors

- Completed (2013-2023)
- Recently Completed / Under Construction (2024-2025)
- Planned (2026-2030)

PROJECT IDENTIFICATION AND PRIORITIZATION PROCESS

1. Initial project locations were identified by integrating the High Injury Network and High Injury Intersections and then segmenting them into coherent projects based on their contextual locations.
2. The projects underwent further refinement with data from the High Risk Network and the public input data.
3. Each 2013-2022 injury crash location was "joined" to the proposed projects. An iterative process was then employed to avoid potentially double-counting crashes. Understanding the specific types of crashes that typically occur along each project segment and intersection is critical for identifying the safety countermeasures that will be most effective at mitigating those crash patterns; historical crash data was also used for projecting the future potential crash reduction and estimating the overall safety benefits of each project.
4. Proposed countermeasures were linked to each project through a high-level planning analysis; each proposed segment and intersection improvement location was categorized as one of the generalized countermeasures shown on the right.
5. A safety benefit-to-cost ratio (BCR) was calculated for each project based on the planning level-cost estimates of the countermeasures that make up the project and on their 20-year projected crash reduction benefit, using the latest FHWA guidance.
6. Projects were classified into five "tiers" based on their benefit-to-cost ratio.

Segment Countermeasures

Countermeasure	Potential Crash Reduction	Cost Estimate*
RSA and Improvements	25%	$2,000,000
Median and Access Management	45%	$2,000,000
Lane Reconfiguration	40%	$1,000,000
Traffic Calming / VRU Improvements	30%	$500,000

Intersection Countermeasures

Countermeasure	Potential Crash Reduction	Cost Estimate*
Compact Roundabout	80%	$1,000,000
Single-Lane Roundabout	80%	$1,500,000
RSA and Improvements	40%	$1,500,000
Reduced Left-Turn Conflict Intersections	55%	$1,000,000
Traffic Calming/VRU Improvements	30%	$250,000
Systemic Traffic Signal Modifications	40%	$200,000

*Planning-level costs are in 2025 dollars and are based on recently completed similar projects in the region.

PROJECT PRIORITIZATION RESULTS

This data-driven approach reveals a widespread distribution of projects across Olathe.

Priority 1 projects exhibit an average BCR above 6.3, solely from the perspective of safety enhancements. A few of the lowest priority projects possess a BCR below 1.0, but this doesn't inherently categorize them as ineffective safety endeavors. Such projects demand more extensive resources to induce safety changes and might align well with economic development, rehabilitation, or operational objectives.

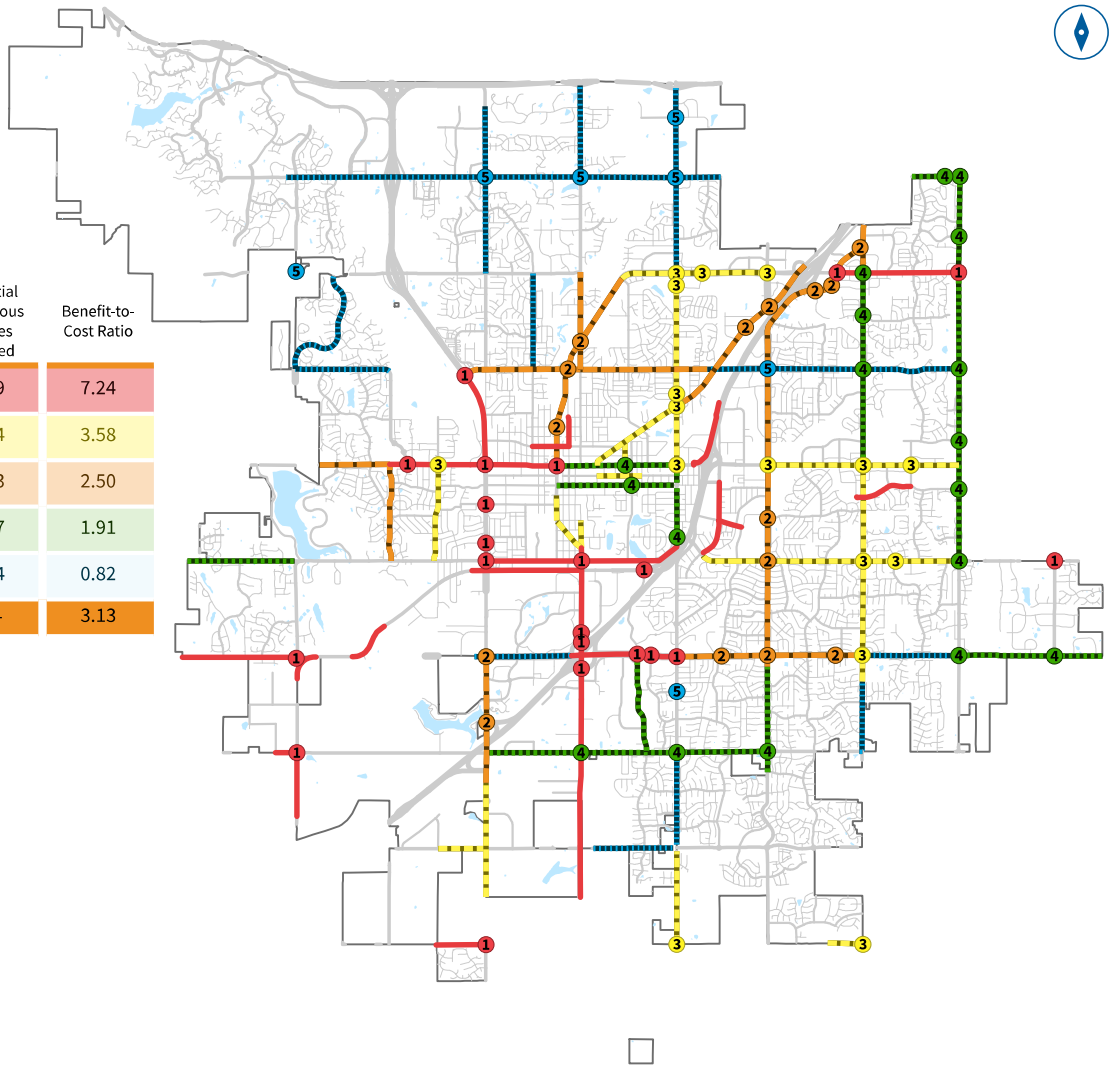
A benefit-to-cost ratio (BCR) is the measure of economic value of outcomes (i.e., the benefits) from implementing a project divided by the costs required for said project. A BCR of > 1.0 implies an economical project and one where the community will see more financial benefit that the overal cost. A BCR allows a community to weigh different project options to prioritize resources currently available and allow for communities to invest in project that will have the greatest benefits. Additionally, several U.S. Department of Transportation competitive grant programs require a BCA for projects seeking federal funding - a strong BCR can strengthen an application for a given project.

The tables presented offer an overview of the proposed projects and strategies to mitigate traffic-related fatalities on Olathe streets. The following pages provide maps of the candidate projects within each priority level.

Proposed countermeasures were linked to each project through a high-level planning analysis; each proposed segment and intersection improvement location was categorized as one of the generalized countermeasures shown on page 45.

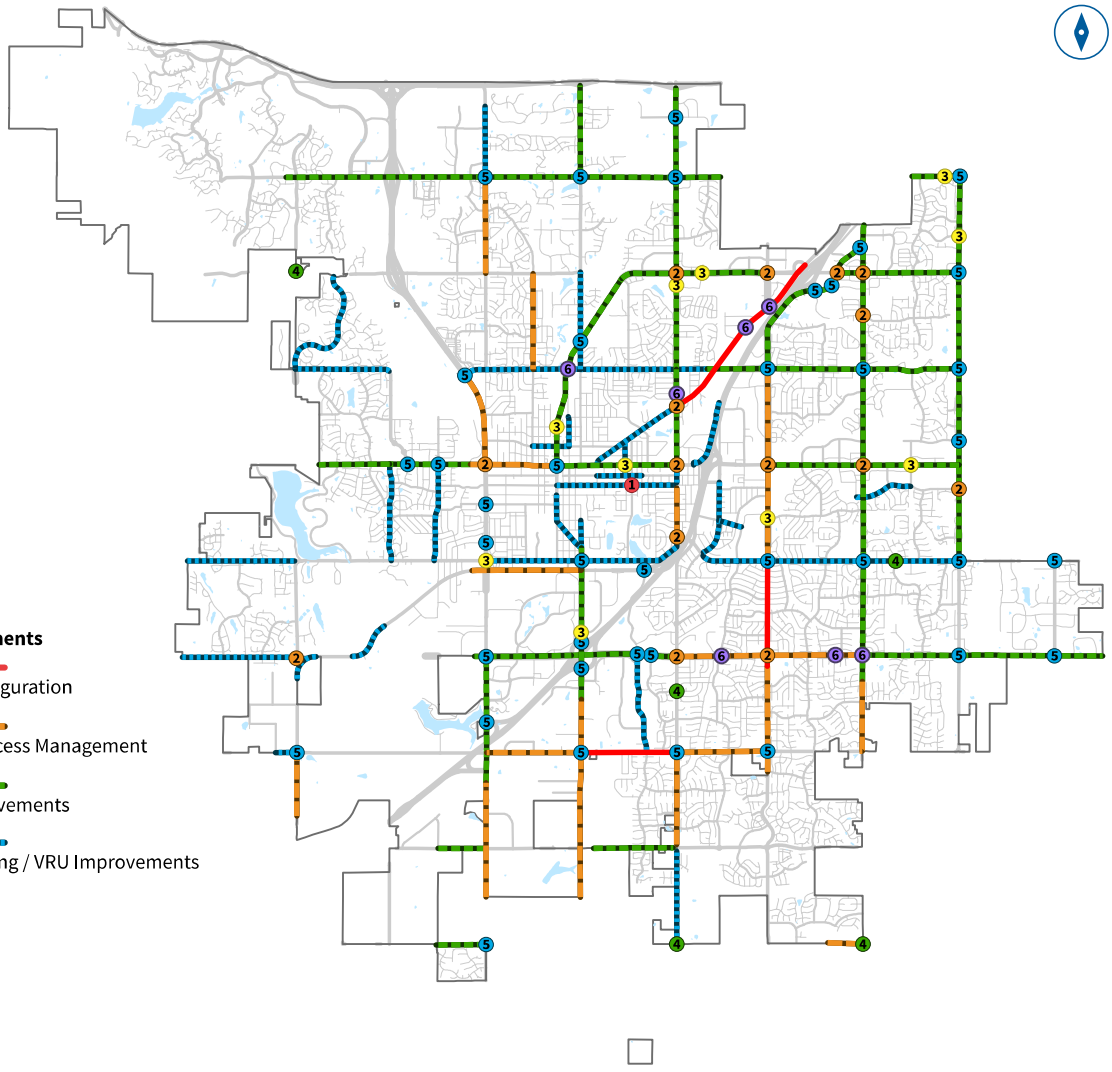
Identified Prioritized Projects

Priority	Project Count	Potential for Lives Saved	Potential for Serious Injuries Avoided	Benefit-to-Cost Ratio
1	15	14.3	49.9	7.24
2	9	3.3	32.4	3.58
3	11	1.7	35.3	2.50
4	11	0.9	23.7	1.91
5	12	0.0	12.4	0.82
Total	58	20	154	3.13



Priority Tier

- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5



Countermeasure Type

Project Intersections

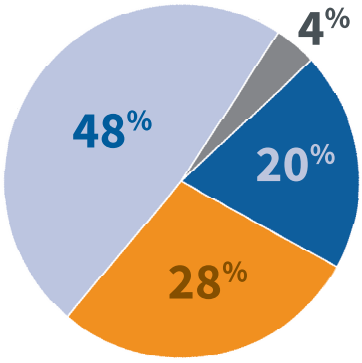
1. Compact Roundabout
2. RSA and Improvements
3. Reduced Left-Turn Conflict Intersections
4. Roundabout
5. Systemic Traffic Signal Modifications
6. Traffic Calming / VRU Improvements

Project Segments

- Lane Reconfiguration
- Median & Access Management
- RSA & Improvements
- Traffic Calming / VRU Improvements

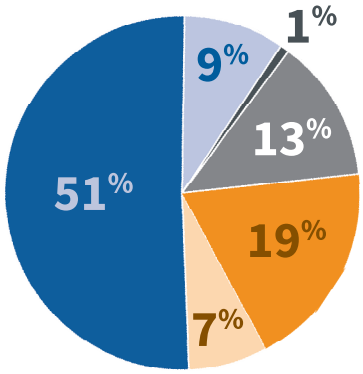
Proposed Roadway Segment Improvements (# of Miles) by Safety Countermeasures Type

- Lane Reconfiguration 4%
- Median & Access Management 20%
- RSA & Improvements 28%
- Traffic Calming / VRU Improvements 48%



Proposed Roadway Intersection Improvements (# of Intersections) by Safety Countermeasures Type

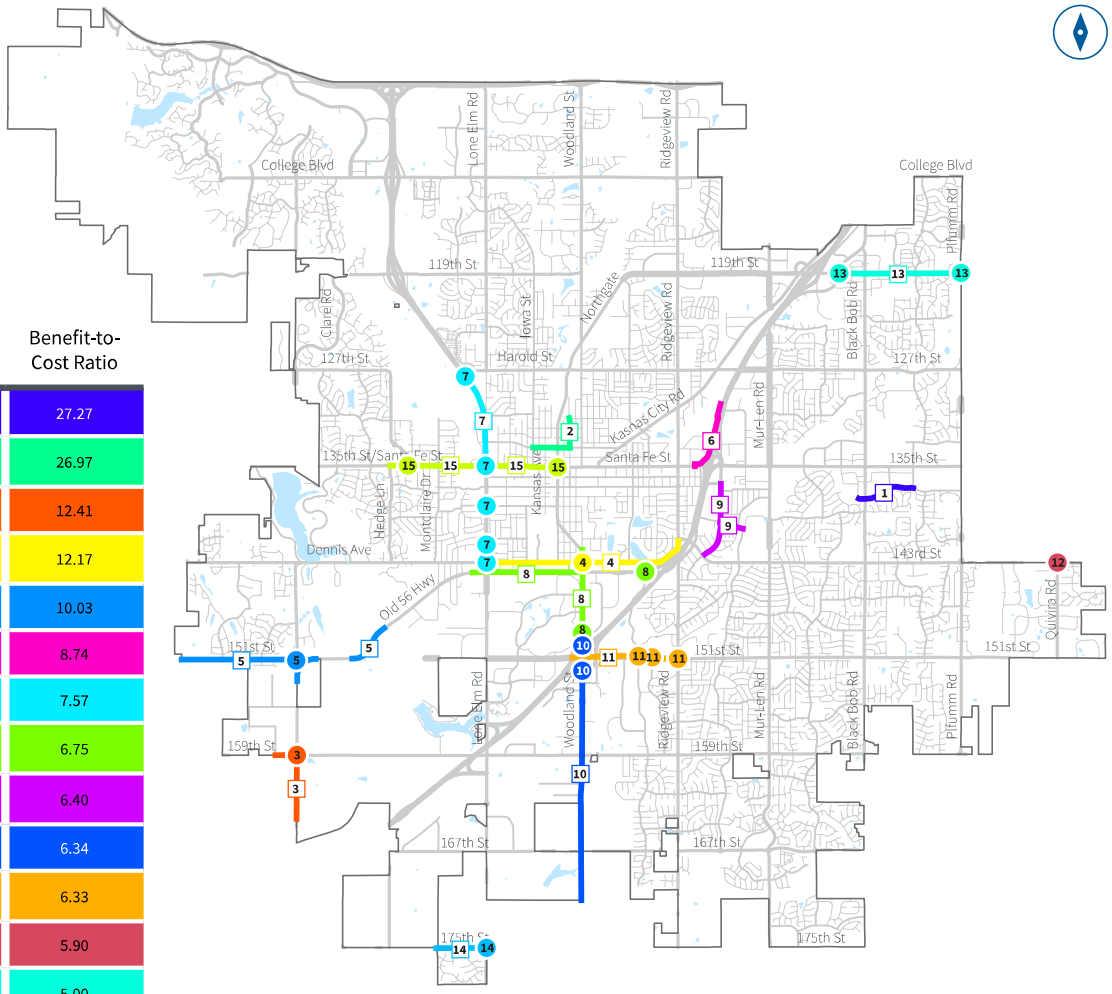
- Compact Roundabout 1%
- Reduced Left-Turn Conflict Intersections 13%
- RSA and Improvements 19%
- Single-Lane Roundabout 7%
- Systemic Traffic Signal Modifications 51%
- Traffic Calming / VRU Improvements 9%



1

Vision Zero Projects:
Priority Tier 1

	Project	Benefit-to-Cost Ratio
1	138th St Traffic Calming	27.27
2	Spruce St & Chestnut St Traffic Calming	26.97
3	159th St & Clare Rd	12.41
4	Dennis Ave from Parker St to Ridgeview Rd	12.17
5	151st St & Old Hwy 56	10.03
6	Rawhide Drive Traffic Calming	8.74
7	K-7 from Harold St to Dennis Ave	7.57
8	Harrison St & Old Hwy 56 Reconfigurations	6.75
9	Claireborne Rd and College Way Improvements	6.40
10	US-169/K-7 from I-35 to SCL	6.34
11	151st St from Southbound I-35 to Ridgeview Rd	6.33
12	143rd St and Quivira Rd	5.90
13	119th St from Pflumm Rd to Strang Line Rd	5.00
14	175th & Lone Elm Rd	4.55
15	135th/Santa Fe from Hedge Ln to Kansas Ave	4.23

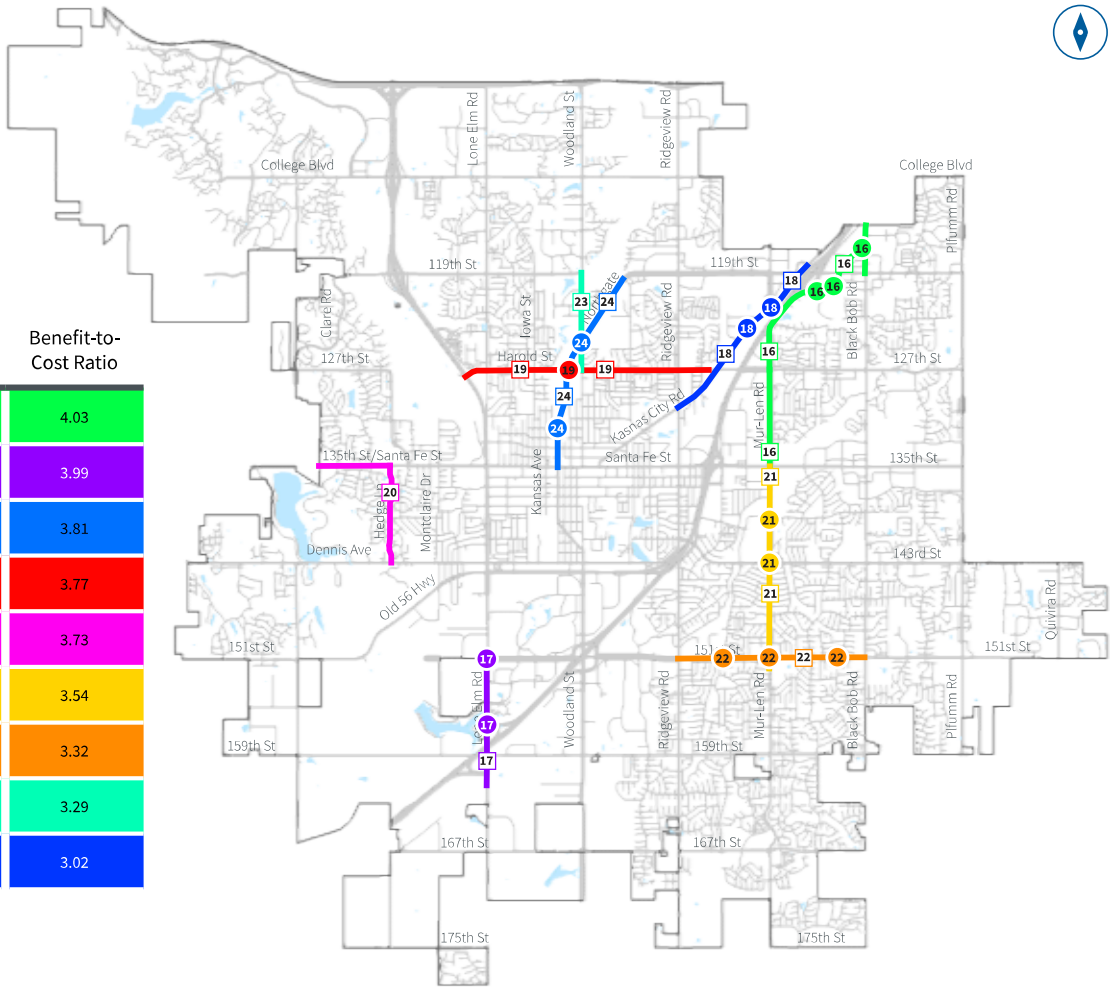


Legend ☐ Priority Segment ● Priority Intersection

2

Vision Zero Projects: Priority Tier 2

	Project	Benefit-to-Cost Ratio
16	Strang Line/Mur-Len Rd from City Limit to Santa Fe St	4.03
17	Lone Elm Rd from 151st St to North I-35	3.99
18	Kansas City Rd from Ridgeview Rd to 119th St West	3.81
19	Harold St from K-7 to Mart-way Dr	3.77
20	135th St & Hedge Ln	3.73
21	Mur-Len Rd from Santa Fe St to 151st Ter	3.54
22	151st St from Ridgeview Rd to Black Bob Rd	3.32
23	Woodland St from 119th St to Harold St	3.29
24	Northgate St from Nelson Rd to Santa Fe St	3.02

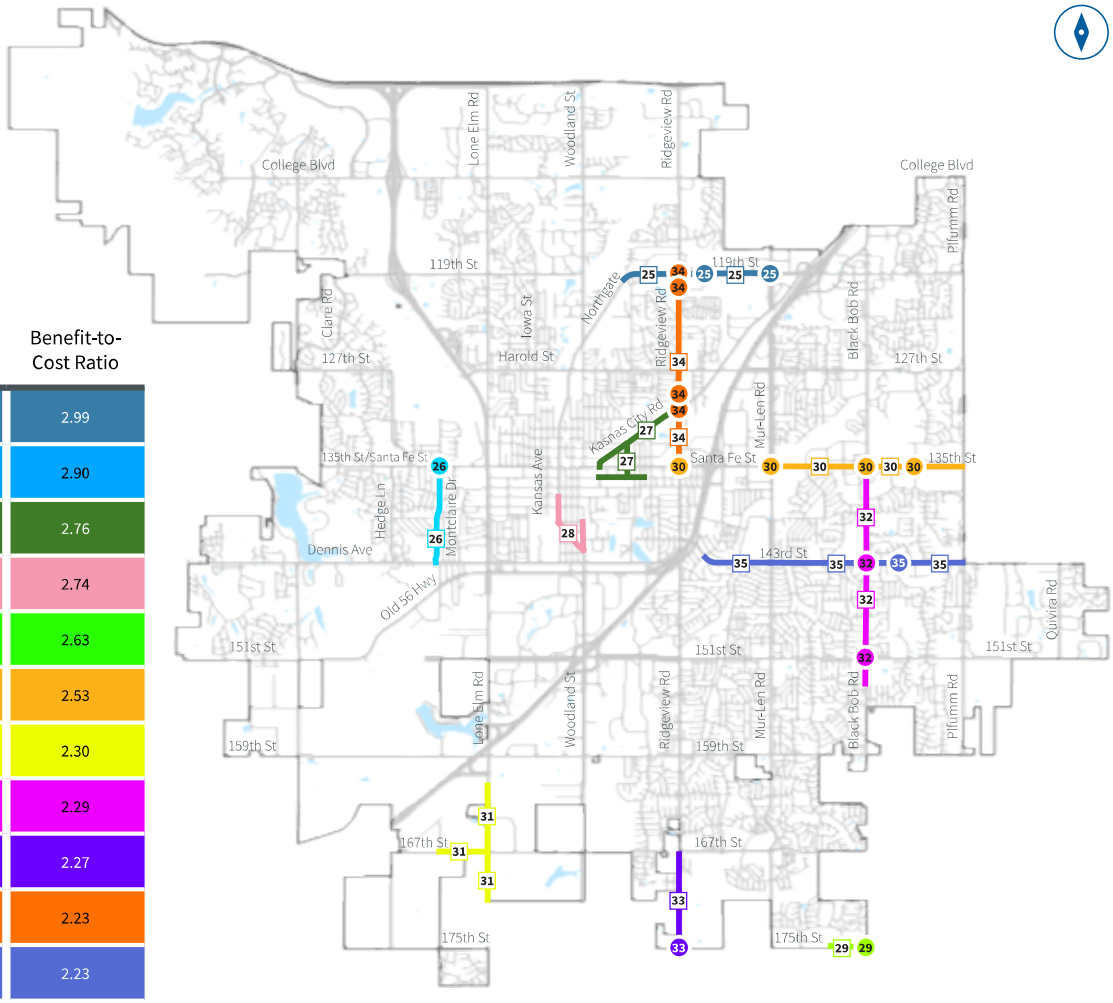


Legend ☐ Priority Segment ● Priority Intersection

3

Vision Zero Projects: Priority Tier 3

	Project	Benefit-to-Cost Ratio
25	119th St - Nelson Rd to Renner Rd	2.99
26	Montclaire Dr Traffic Calming	2.90
27	East of Downtown Traffic Calming	2.76
28	Kansas Ave, South Gate, & Harrison St Traffic Calming	2.74
29	Black Bob & 175th St Improvements	2.63
30	135th/Santa Fe - Mur-Len Rd to Pflumm Rd	2.53
31	167th & Lone Elm Rd	2.30
32	Black Bob from 135th St to 153rd Ter	2.29
33	Ridgeview Rd from 167th to 175th St	2.27
34	Ridgeview Rd from 119th St to Santa Fe St	2.23
35	143rd St from Clairborne Rd to Plflumm Rd	2.23

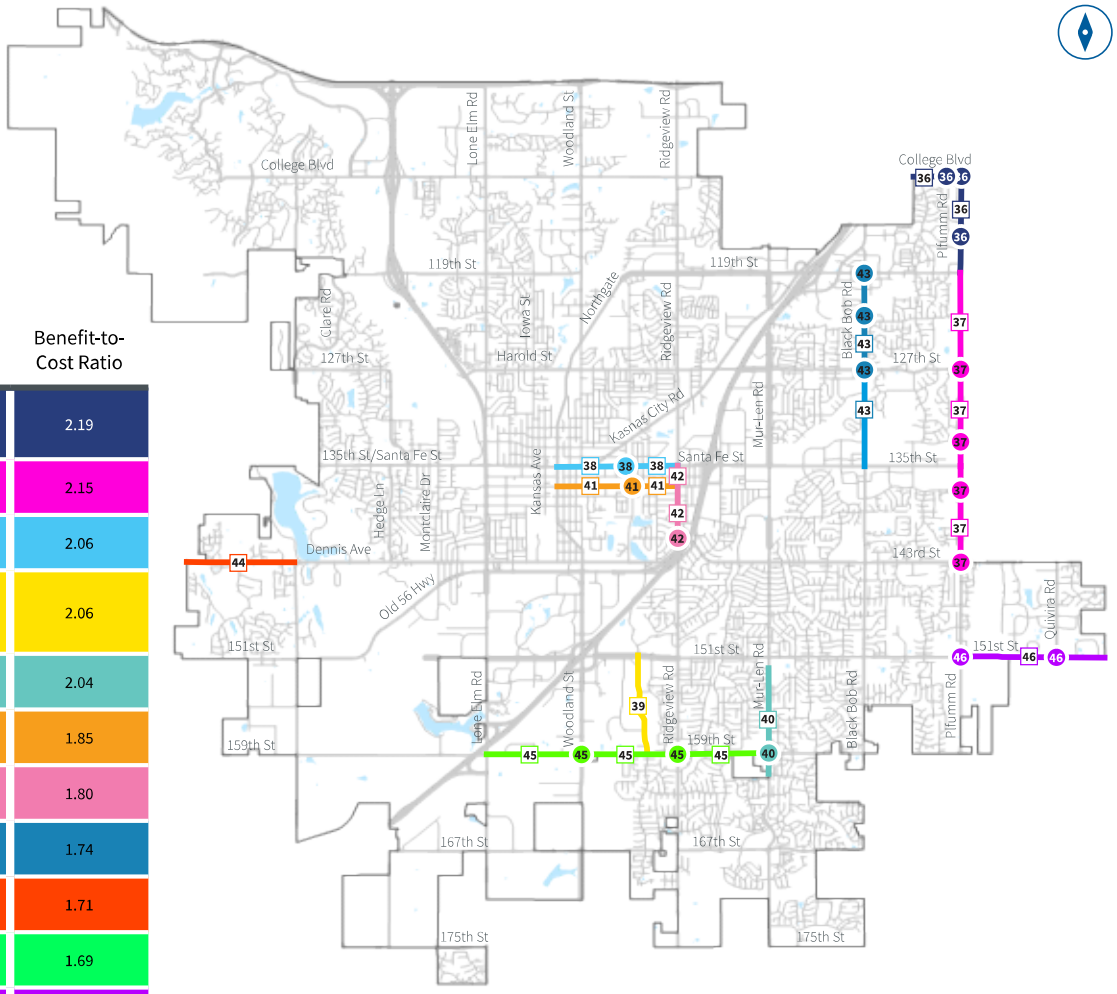


Legend ☐ Priority Segment ● Priority Intersection

4

Vision Zero Projects: Priority Tier 4

	Project	Benefit-to-Cost Ratio
36	Plfumm Rd from College Blvd to 119th St & College Blvd from Pflumm Rd to City Limit	2.19
37	Plfumm Rd from 119th to 143rd St	2.15
38	Santa Fe St from Ridgeview Rd to Kansas Ave	2.06
39	Mahaffie St Traffic Calming	2.06
40	Mur-Len Rd from 151st Ter to 161st St	2.04
41	Loula St Traffic Calming	1.85
42	Ridgeview Rd from Santa Fe St to Sheridan St	1.80
43	Black Bob Rd from 119th St to 135th St	1.74
44	143rd St from West City Limits to Lakeshore Dr	1.71
45	159th St from Lone Elm Rd to Mur-Len Rd	1.69
46	151st St from Pflumm Rd to East City Limits	1.54

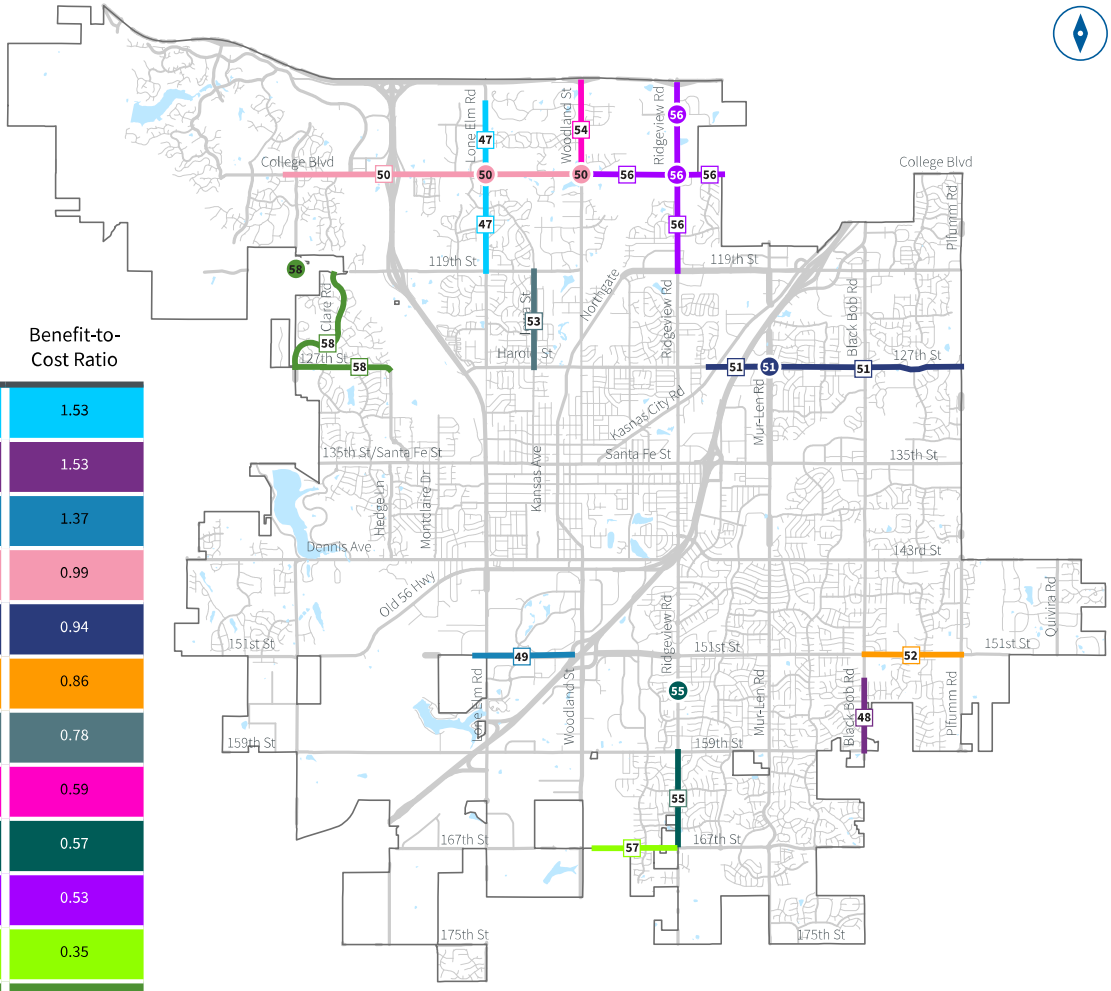


Legend ☐ Priority Segment ● Priority Intersection

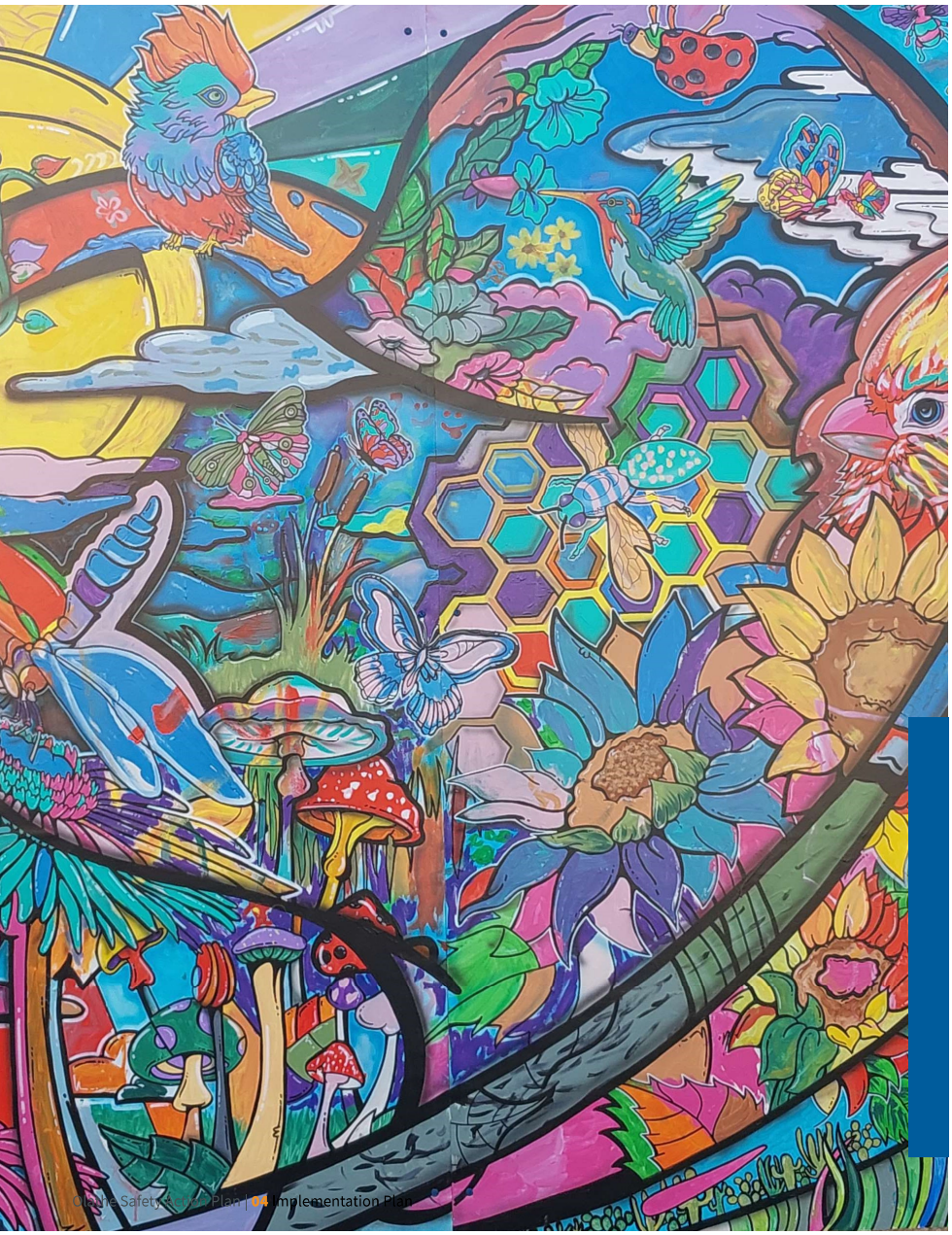
5

Vision Zero Projects: Priority Tier 5

	Project	Benefit-to-Cost Ratio
47	Lone Elm Rd from 105th St to 119th St	1.53
48	Black Bob from 153rd to 159th St	1.53
49	151st St from Lone Elm Rd to I-35 West	1.37
50	College Blvd from Green Rd to Woodland Rd	0.99
51	127th St from Kansas City Rd to Plfumm Rd	0.94
52	151st St from Black Bob Rd to Plfumm Rd	0.86
53	Iowa St from 119th St to Harold St	0.78
54	Woodland St from K-10 to College Blvd	0.59
55	Ridgeview Rd from 159th St to 167th St	0.57
56	Ridgeview & College Blvd Reconfigurations	0.53
57	167th from Hwy 169 to Ridgeview Rd	0.35
58	Clare Rd and 127th St Traffic Calming	0.32



Legend ☐ Priority Segment ● Priority Intersection

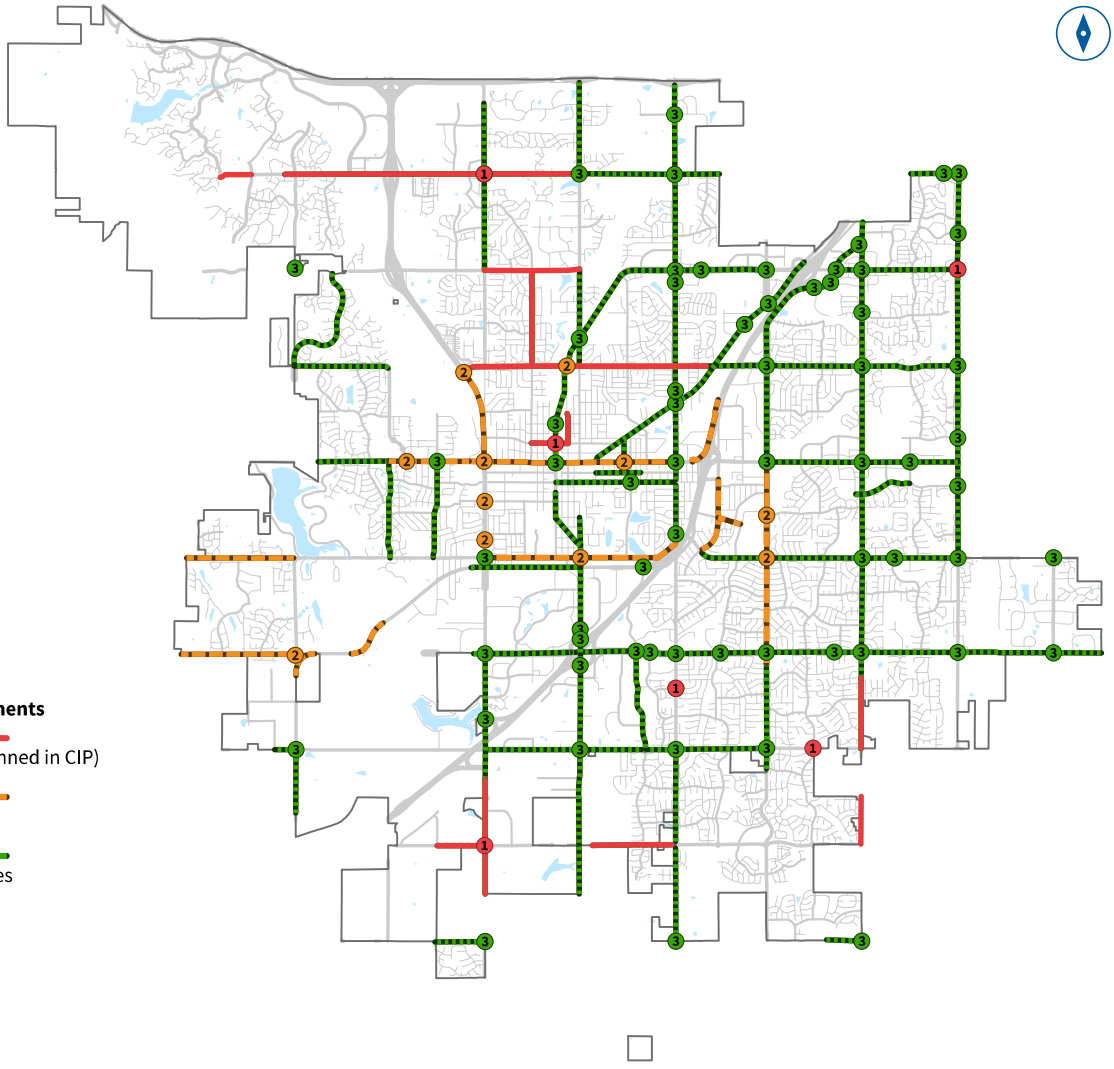


PHASED IMPLEMENTATION PLAN

The ranking and categorization of projects into five priority tiers presented previously was solely based upon the estimated safety benefit-to-cost ratios for each project. However, the actual order in which projects get implemented is likely to depend upon future funding opportunities and how projects align with other planning priorities. To help guide implementation efforts, a phased implementation plan was developed that takes into account some of these key planning goals.

The "Phase 1" projects on the map include projects along the High Injury and High Risk Networks that are already programmed in the CIP and include systemic safety improvements. "Phase 2" projects are projects which scored well according to the following criteria:

- Whether the project is already proposed in a previous plan
- Whether the project is in an socio-economic disadvantaged area
- The number of comments about safety concerns along the project corridor that the public submitted as part of the online map survey for this Safety Action Plan
- The project's safety benefit-to-cost ratio



Project Intersections

- 1 Phase 1 (Planned in CIP)
- 2 Phase 2
- 3 Future Phases

Project Segments

- Phase 1 (Planned in CIP)
- Phase 2
- Future Phases

CONCLUSION

The City of Olathe developed the Safety Action Plan to help reduce the number of fatal and serious injury crashes and continue Olathe's efforts to improve safety across its transportation network. This plan combines a comprehensive data analysis, community feedback, and the Safe System Approach to lay out actionable, innovative, and measurable strategies. The City of Olathe is committed to investigating crash trends and safety concerns through the Olathe Safety Action Plan; deep statistical and geospatial analysis will provide an excellent view into ongoing crash attributes. As a part of this planning effort, a data dashboard was developed to show key findings and recommendations; City staff and Olathe residents will use this dashboard to understand safety in Olathe and make informed decisions.

The adoption of this plan is not the end of Olathe's efforts, but rather the next step in promoting and creating safer streets for all; Olathe will continue to foster the connections and progress made through this effort.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