COMPREHENSIVE SAFETY ACTION PLAN

CITY OF Dodge City KANSAS

S|S
4|A

AUGUST 2025

TABLE OF CONTENTS

APPENDIX

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

Introduction

The City of Dodge City, Kansas was selected for the fiscal year 2022 (FY22) Safe Streets for All (SS4A) Planning grant. Through the grant, this Dodge City Comprehensive Safety Action Plan (CSAP) was prepared. The purpose of a CSAP is to develop comprehensive strategies to eliminate fatalities and serious injuries from vehicular crashes for all road users in the community.

The SS4A program supports the U.S. Department of Transportation's National Roadway Safety Strategy and Dodge City's goal of zero roadway deaths using a Safe System Approach.

Vision

Dodge City envisions the development of a comprehensive transportation infrastructure that meets the needs of all residents through transportation improvements, education, and community collaboration, with a goal of zero traffic deaths and serious injuries.

Dodge City is committed to reducing the risk of a fatal or serious injury to all road users, with an emphasis on intersections, distracted drivers, and speeding vehicles. This CSAP outlines countermeasures to reduce conflicts at intersections, reduce vehicle speeds, and address driver inattention through education and other means.

Safety Task Force

The Dodge City Safety Task Force (STF) was comprised of representatives from city departments, the police department, transit supervisor, Unified School District 443, Ford County Sheriff, and Ford County Fire Department. Over the course of three meetings, participants were provided context and resources for the planning process plus relevant data and informational materials to identify the safety challenges and needs in Dodge City.

Public Meetings

Public meetings and other outreach events provided opportunities for the public to identify transportation safety issues and provide input on proposed solutions. Public outreach included contacts with 1,000 visitors at the Dodge City Days Kidfest on August 4, 2024, 400 individuals at an English for Speakers of Other Languages (ESOL) Back-to-School event in mid-August 2024, and eleven new contacts at a Public Meeting held on August 20, 2024.

Public Survey

An online public survey was conducted between April 23, 2024, and August 12, 2024, to understand current safety attitudes and concerns. Questions were asked about the behaviors of different road users, vulnerable road user protection, enforcement, equity, and top investment priorities. The survey was shared through the Dodge City webpage, social media, and community-based organizations. The survey included 76 responses. The survey results are included in ***Appendix B***.

Crash Trends

Ten years of crash data (2014-2023) was reviewed for the Dodge City area. The data provided a large sample size to identify crash trends.

- During this period, there were five fatal crashes, 49 serious injury crashes, 411 injury crashes, and 4,607 property damage only (PDO) crashes.
- Most crashes were with other motor vehicles (68%).
- There were 62 crashes with either a pedestrian or bicyclist, of which 20% of these crashes were fatal or serious injury crashes.
- For crashes with other vehicles, 53% were angle–side impact crashes and 28% were rear-end crashes.

High Crash Locations

High crash locations were identified for concentrations of fatal or injury crashes at signalized intersections, unsignalized intersections, and locations where fatal or injury pedestrian or bicycle crashes occurred. These locations are shown in ***Figure ES-1***.

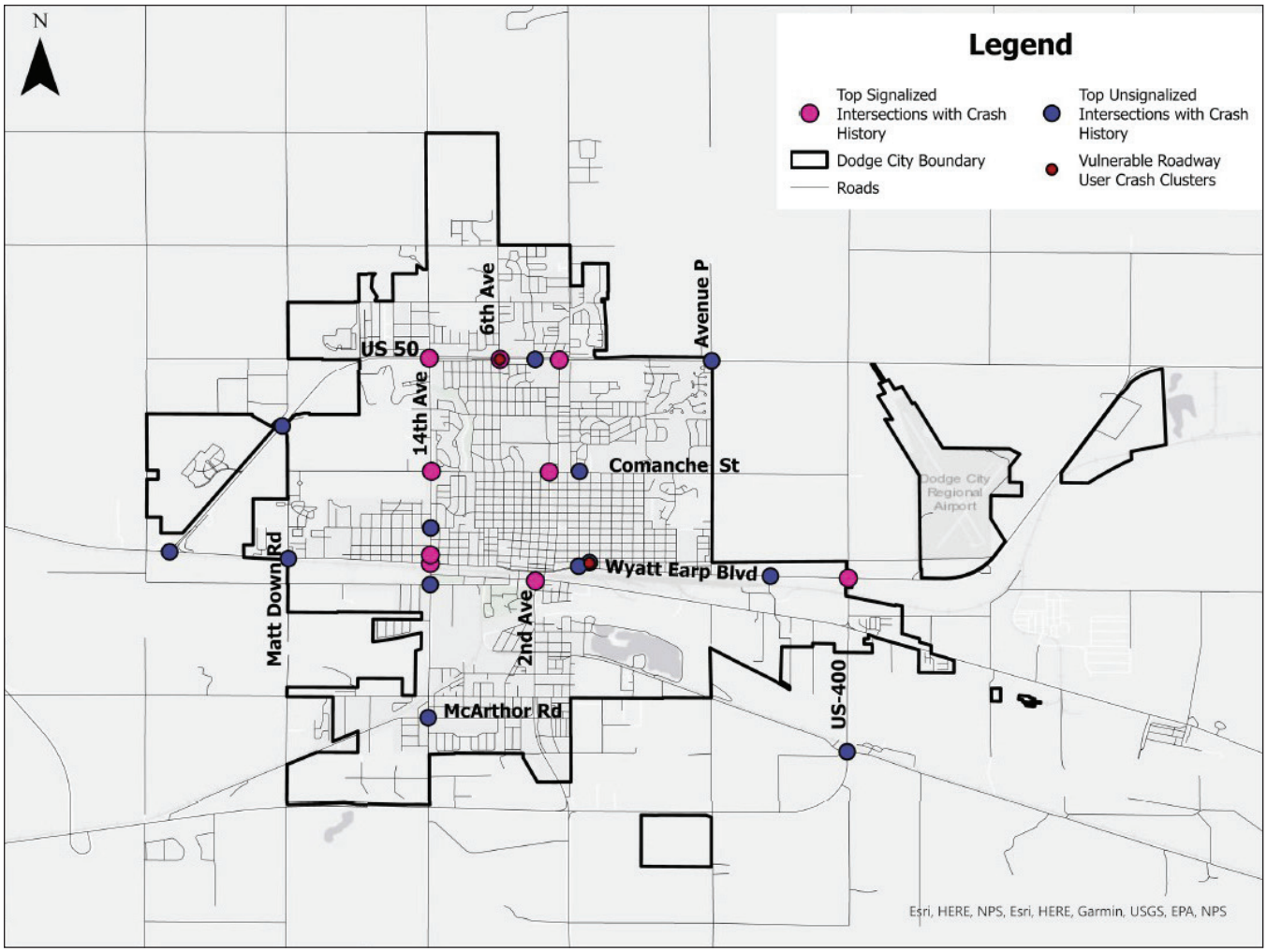


Figure ES-1: *Crash Concentrations*

Equity Analysis

The goal of equity analysis is to distinguish populations that are underserved and under-resourced and assess how they are impacted by outcomes of the transportation system (like safety risk). This plan uses criteria for areas of persistent poverty, historically disadvantaged communities as identified by the USDOT, and the Social Vulnerability Index as defined by the Centers for Disease Control and Prevention (CDC). The review of equity information shows the entire city of Dodge City can be defined as disadvantaged based on one or more of the sources used.

Safety Strategies

The Dodge City STF evaluated the results of the data analysis, the safety concerns, and public priorities. Each Safe System element (Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles, and Post-crash Care) was considered. Prioritized safety emphasis areas were identified based on crash data, public input, and overlaps between different emphasis areas. Countermeasures were developed to specifically address the following prioritized safety emphasis areas:

- Signalized intersections
- Unsignalized and midblock intersections
- Vulnerable Road Users (VRUs) – pedestrians and bicyclists
- Speeds
- Distracted driving

Below are major projects identified in this CSAP:

Signalized Intersections

- Install retroreflective backplates at the top 20 intersections with the highest traffic volume.
- Improve signal timing and phasing plans, including a Leading Pedestrian Interval (LPI) at higher pedestrian locations.
- 14th Avenue at Wyatt Earp Boulevard and at Spruce Street: re-stripe to provide left turn lanes, time signals and add pedestrian crossings.

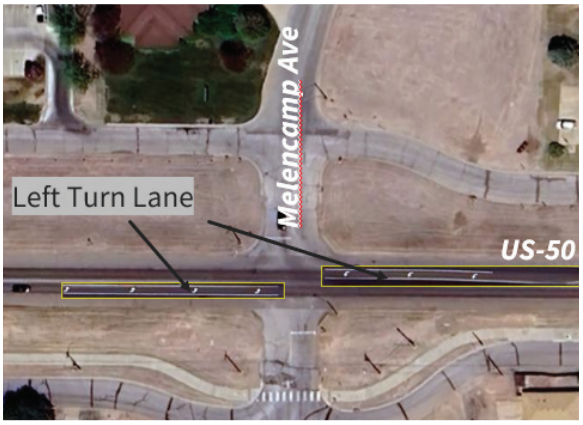
14th Avenue at Spruce Street looking south

US-50 and 6th Avenue looking north

Unsignalized Intersections

- Construct left turn lanes on US-50 at Ave P, Melencamp Avenue, and Matt Down Road, and at Wyatt Earp Blvd. and Matt Down Road.
- Complete additional study to address the intersections of Wyatt Earp & Underpass Road, McArtor Road and 14th Avenue, Park Street and 14th Avenue, and Division Street and 14th Avenue. These studies would examine signal warrants and other intersection control options, as well as bicycle and pedestrian movements.
- Other improvements such as adding stop signs or minor changes to intersections should be considered.

Wyatt Earp Boulevard and Underpass Road

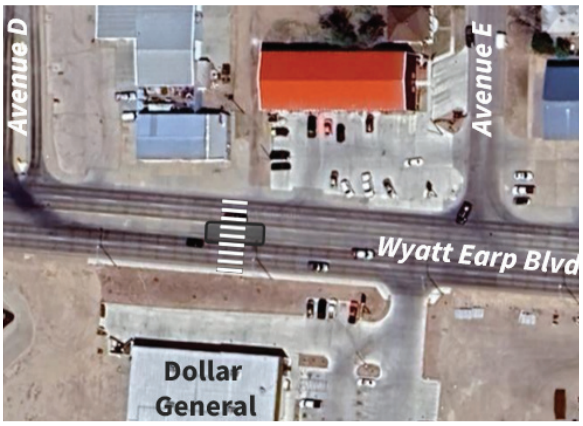


Proposed left turn lanes at Melencamp Ave

Vulnerable Road Users and Speeds

- A traffic calming project on Ross Boulevard to provide on-street bicycle lanes between Avenue A and 14th Avenue and a separate off-street path west of 14th Avenue.
- Provide an enhanced crossing of Wyatt Earp Boulevard in the vicinity of Avenue E.
- Provide pedestrian crossings and sidewalks on Comanche east of Central Avenue and coordinate signals on Comanche Street at 1st Avenue and Central Avenue.
- Provide traffic calming treatments and pedestrian crossing improvements on 6th Avenue between US-50 and Soule Street.

Wyatt Earp Boulevard and Underpass Road



Proposed left turn lanes at Melencamp Ave

Speeding and Distracted Driving

Implementing a variety of policies and programs to provide education and enforcement to address excessive speeds and distracted driving. The Kansas Department of Transportation (KDOT) offers safety programs and resources that could be used to reduce these activities. Examples include Special Traffic Enforcement Program (STEP), Drive Better Kansas presentation materials, Risk of Intoxication and Distractions Everywhere (RIDE), and Safety Break! Educational curriculum. KDOT Law Enforcement Liaison Troy Wells can help with these efforts.

Plans Supporting Safety

The City of Dodge City could consider completing plans to address additional pedestrian and bicycle safety near schools and to major employment centers. Examples include residential speed limits and sidewalk policies.

Progress and Transparency

The CSAP assesses current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize transportation safety. This has included adopting a Vision Zero Initiative and measuring progress toward achieving safety improvements over time. The CSAP will be posted publicly online.

1. INTRODUCTION

The City of Dodge City was selected for the fiscal year 2022 (FY22) Safe Streets for All (SS4A) Planning grant. Through the grant, this Dodge City Comprehensive Safety Action Plan (CSAP) was prepared. The purpose of a CSAP is to develop comprehensive strategies to eliminate fatalities and serious injuries from vehicular crashes for all road users in the community. Dodge City recognizes that one life lost is one too many and aims to develop a set of programs and projects to save lives and reduce transportation safety risks. Dodge City has experienced 5,072 crashes in the previous 10-years. There were five fatalities, 49 serious injury crashes and 411 other injury crashes. The growing community strives to eliminate all roadway fatalities and serious injury crashes and improve safety for all transportation users. The CSAP outlines strategies and actions to be taken over the next 10 years that will make progress toward that goal.

1.1. SAFE SYSTEM APPROACH

The SS4A program supports the U.S. Department of Transportation's (USDOT) National Roadway Safety Strategy and Dodge City's goal of zero roadway deaths using a Safe System Approach. The SS4A program provides funding for the development of a comprehensive safety action plan that identifies the most significant roadway safety concerns in a community and the implementation of projects and strategies to address roadway safety issues.

The USDOT Safe System Approach is a comprehensive and proactive framework to reduce the number of fatalities and serious injuries on roadways. The Safe System Approach is based on the fundamental concept that death and serious injuries are unacceptable, and humans are vulnerable and make mistakes. This approach recognizes a shared responsibility for road safety.

Figure 1: *Safe System Approach*

The Safe System Approach has five key elements as shown in ***Figure 1***. Layering these together creates redundancy so that if one component fails, the others are still in place to prevent severe outcomes. This plan focuses on Safe System Approaches:

- **Safer Roads:** The design and maintenance of roads play a crucial role in road safety. This CSAP includes proven safety countermeasures that reduce the risk of a fatal or serious injury crash for prioritized locations.
- **Safer Speeds:** Speed plays a significant role in the severity of crashes. Stakeholders and the public selected this as a plan emphasis area. This plan includes countermeasures that encourage appropriate speeds to improve proper driver behavior.
- **Safer People:** Education, awareness campaigns, and training promote a safety awareness culture among road users, reducing the likelihood of crashes caused by risky behaviors. This plan identifies specific countermeasures to reduce distracted driving and reduce risk for vulnerable roadway users.

- **Post Crash Care:** The Safety Task Force discussed enhancing the survivability of crashes through expedient access to emergency medical care, creating a safe working environment for first responders, and preventing secondary crashes through proper traffic incident management practices.
- **Safer Vehicles:** Vehicle systems and features that enhance occupant safety are increasing on newer models but other safety actions, such as seat belt use, proper child seats, and proper vehicle maintenance can be encouraged.

1.2. VISION, GOALS AND TARGETS

Because Dodge City's Vision and Goals are rooted in Vision Zero elements and the Safe System Approach, the resulting plan is not only comprehensive but also firmly centered on enhancing safety outcomes, with the eventual goal of zero deaths on Dodge City roadways.

Vision

As a vibrant, growing community, Dodge City envisions the development of a comprehensive transportation infrastructure that meets the needs of all residents through transportation improvements, education, and community collaboration, with a goal of zero traffic deaths and serious injuries.

Goals

Dodge City is committed to reducing the risk of a serious or fatal injury to all road users, with an emphasis on intersections, distracted drivers, and speeding vehicles. This CSAP outlines countermeasures to reduce conflicts at intersections, reduce vehicle speeds, and address driver inattention through education and other means.

Targets

The loss of human lives and serious injuries on the transportation system is unacceptable. The eventual target of this plan is to eliminate fatalities and serious injuries. This will be achieved through the gradual reduction of targets that will be adjusted each year, or as needed.

1.3. PLANNING STRUCTURE

The City of Dodge City was awarded $230,434 from the U.S. Department of Transportation through the Federal Highway Administration (FHWA) to develop a CSAP for the SS4A Program. The project was directed by the City of Dodge City and completed by TranSystems Corporation.

The Dodge City CSAP goals, visions, and recommendations were identified and approved through coordination with the Dodge City Safety Task Force (STF). The STF was charged with oversight of the CSAP development, implementation, and monitoring. The STF for this plan consisted of city staff, law enforcement, school district representatives, and emergency services personnel.

2. ENGAGEMENT AND COLLABORATION

The development of the CSAP included a robust engagement plan with the public and stakeholders that allowed for community representation and feedback. The CSAP incorporates information received from the engagement process. The CSAP also coordinates with other plans and processes.

2.1. PUBLIC INVOLVEMENT PLAN

A Public Involvement Plan (PIP) was prepared as a guide to obtain meaningful public involvement from study partners, citizens, and communities impacted by the current limitations of the project area. Communication with interested parties was on-going throughout the study period. The PIP is included in ***Appendix A***.

Three primary opportunities to obtain project public input were provided:

- **Information and communications:** distributed information regarding study background, procedures, methods, schedule, key messages, and activity updates.
- **Stakeholder input:** Briefed and consulted with community leaders, elected and appointed officials, government staff members and other stakeholder groups to help decision-making in the planning process.
- **Community outreach:** educated, informed, engaged, and received input from community members with the intent of precipitating an interactive dialogue for consideration as the project evolved.

Key Audiences

The following audiences were identified as important stakeholders and provided input for the CSAP:

- Safety Task Force
- Dodge City residents
- Dodge City businesses
- Dodge City civic organizations
- Governmental units including Dodge City and Ford County
- Unified School District 443
- Area first responders including law enforcement, fire departments, emergency medical services, emergency management and others.

Public Involvement Methods

- Three STF meetings were convened.
- A public open house was held to share the proposed plan. Other public input was obtained at Dodge City Days and back-to-school events.
- A public survey (in English and Spanish) was used to help select areas of concern and gather comments on safety opportunities.
- Presentations outlining the goals and progress of the study were prepared and presented to governing bodies.
- Public comments were compiled from meetings, online surveys, phone, and face-to-face conversations plus written comments received during the study period.

- Updates and announcements were made available for news media, city websites and social media outlets for distribution and outreach to the public.
- Project documents were provided in English and Spanish. A wide range of tools were used to rovide communication and opportunities for participation in public activities to people with disabilities and diverse needs and experiences.

2.2. SAFETY TASK FORCE MEETINGS

The STF was comprised of representatives of city departments, Dodge City Police Department, the transit supervisor, Unified School District 443, Ford County Sheriff, and Ford County Fire Department. Over the course of three meetings, the project team made presentations to provide context and resources for the planning process, and relevant data and informational materials were distributed to identify the safety challenges and needs within the area. Task force members played an integral role in verifying safety opportunities, challenges, and problems which directly lead to plan focus and formation. Meetings included creating strategies and implementation efforts that aligned with the vision and goals of the region. Meeting minutes are provided in ***Appendix A***.

STF Meeting #1 – May 14, 2024

The purpose of STF Meeting #1 was to introduce the Comprehensive Safety Action Plan concept, highlight transportation safety successes in the region to build on and identify challenges to overcome. Meeting participants discussed safety issues and concerns. This meeting also introduced the Safe System Approach and Vision Zero concepts. The stakeholder meeting is shown in ***Figure 2***.

Figure 2: *Safety Task Force Meeting (May 2024)*

An interactive survey through Mentimeter (an online app that creates real-time feedback) was used during the meeting to better understand community needs. Stakeholders indicated a strong desire to improve transportation safety for their families, community members, and the traveling public. After data trends were presented, stakeholders had an opportunity to select their top three areas of focus for generating safety solutions. The selected emphasis areas are **intersections, speed-related crashes,** and **distracted driving**. These stakeholder-selected areas became the focus of countermeasure and location selection.

Stakeholders noted the following safety concerns:

- Roadway conditions, particularly pavement conditions, are poor and maintenance activities can cause lengthy delays.
- There is poor driving behavior, including speeding, texting while driving, and other types of distracted driving.
- There is a lack of police presence. The stakeholders indicated a desire for increased police units and enforcement.
- Concerns at intersections included lack of appropriate signage, dedicated turn lanes, and traffic signals.
- A number of participants requested a review of several intersections outside the city limits of Dodge City, that may eventually become part of the city.

The following areas were noted as potential solutions for improving roadway safety:

- Traffic speed reduction was indicated by several stakeholders. One person discussed decreasing the citywide speed limit to 25 miles per hour in most locations. Another mentioned installing additional signage for speeds, particularly at roadway entrances.
- Increased police presence could allow for additional speed, seat belt use, intersection patrol, and driving under the influence (DUI) check lanes enforcement.
- There was interest in providing bicycle safety programs.
- Stakeholders would like improved signal timings.
- There was an in-depth discussion about education and providing additional driver education in the high schools.

This meeting also included a discussion on communication outreach efforts, benchmarking priority actions, an initial discussion of emphasis areas, a data review, and a discussion of problem locations and crash types.

Stakeholders identified the following locations for additional review:

- Safety concerns along US-50:
  - *near the Boot Hill Casino and Resort*
  - *near Dodge City High School*
- Speeding behavior along Iron Road and Comanche Street.

STF Meeting #2 – July 16, 2024

STF Meeting #2 included reviewing the selected emphasis areas from the stakeholders and initial public survey feedback. Based on feedback from the previous meeting, the crash boundary was expanded slightly to encompass a few intersections outside the city boundary. The meeting included a review of crash data related to three emphasis areas (intersections, speeding, and distracted driving). The project team presented crash data related to school areas, US-50, and vulnerable roadway users. Potential countermeasures were reviewed during the second half of the meeting. Interactive survey responses using Mentimeter are shown in the appendix.

Stakeholders reviewed the information presented and then identified or emphasized the following countermeasures:

- Installing turn lanes and implementing left-turn phasing.
- Adding "Stop Ahead" warning signs at unsignalized intersections.
- Improving bike/ped facilities should be encouraged since Dodge City has a young population with many families.
- A Safe Routes to School program would be helpful, however, the school district will have to submit an application with the cities' support.
- Multi-use pathways and how to connect them throughout the community. Dodge City is committed to providing safe connectivity to allow all people easy access to the pathways. This is an ongoing discussion/movement for city staff.
- Enforcement and public service announcements (PSAs) were mentioned as ways of addressing distracted driving. The County Sheriff noted that it is a difficult thing to enforce.

STF Meeting #3 – October 1, 2024

At STF Meeting #3 public survey results, stakeholder feedback, and draft project recommendations were presented for review and comment. Safety projects at specific locations were shown for signalized intersections, unsignalized intersections, locations impacting vulnerable road users, and speeding. Programs, policies, and actions were also described to address education related to speeding, pedestrian and bicycle travel, and distracted driving. Steps to implement Vision Zero were discussed. Input was received as each project and policy was presented. The recommendations included in this CSAP reflect this input. See ***Appendix E*** for specific project sheets.

2.3. PUBLIC SURVEY

An online public survey was conducted to understand current safety attitudes and concerns. Questions were asked about the behaviors of different road users, vulnerable road user protection, enforcement, equity, and top investment priorities. The survey was shared through the Dodge City webpage, social media, and community-based organizations. Between April 23, 2024, and August 12, 2024, 76 responses were collected. The pinned locations in the survey are shown in ***Figure 3***. Full survey results are in ***Appendix B***.

General Comments from the survey include:

- Four locations were identified two or more times as safety concerns:
  - *Wyatt Earp Boulevard and US-283/US-56 (4)*
  - *14th Avenue and McArtor Road (2)*
  - *Avenue K and Division Street (2)*
  - *US-50 and Melencamp Avenue (2)*
- Approximately 50% of respondents identified "Safer Roads" as their number one priority.
- The three highest emphasis areas to improve were: distracted driving, speeding vehicles, and intersections.
- The top three identified areas for safety investments were: infrastructure maintenance, intersection improvements, and traffic enforcement.
- Social media was rated as the most preferred outlet for transportation safety.
- There is a lack of connected sidewalks throughout town. In some locations, sidewalks end and cause people to walk in the street. There are limited bicycle and pedestrian facilities throughout town.
- Residents were concerned with street parking. Several locations, including Avenue P, were noted as areas where parking should be restricted. This aligns with a high amount of parked vehicle crashes noted in the crash analysis.
- Several intersections that might benefit from the addition of dedicated turn lanes and protected left turn signal timings were noted.

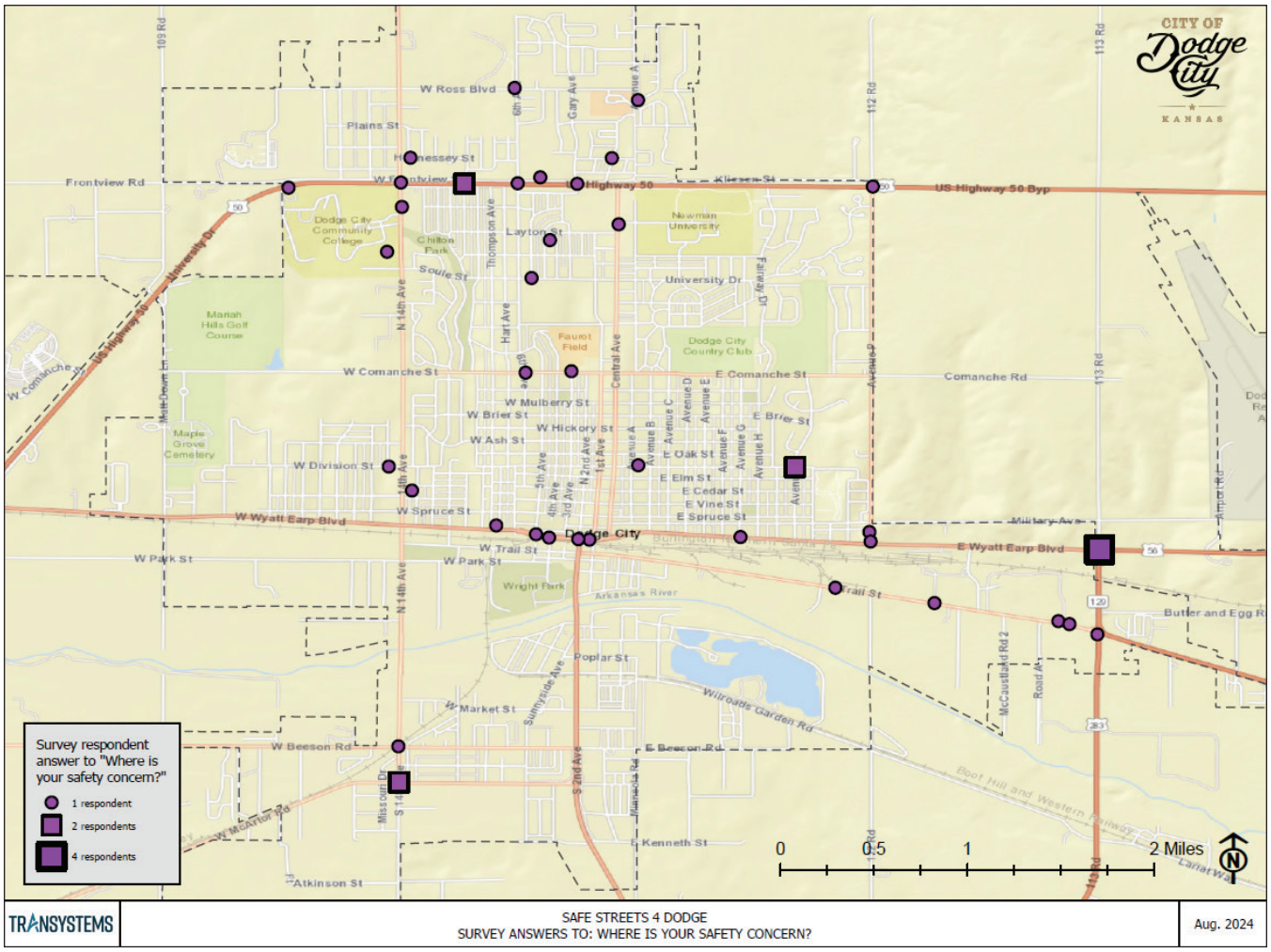


Figure 3: *Survey Answers: "Where is Your Safety Concern?"*

2.4. PUBLIC MEETINGS/OUTREACH

Dodge City Days Kidfest – August 4, 2024

Public outreach was conducted at a "pop-up event" held during Dodge City Days on August 10, 2024. Dodge City Days is an annual festival held to highlight Dodge City history. The week-long event includes a variety of events, including Kidfest. Over 1,500 people attended Kidfest. The team hosted a booth to solicit public opinion. This event was well-attended and over 600 people visited the project display area, learned about the project, and participated in interactive games. A QR code for the survey was provided in English and Spanish. Additionally, visitors were asked to provide feedback on a map by placing stickers in locations with crash history or speeding concerns.

Figure 4: *Kidfest Event at Dodge City Days*

Approximately 150 comments were received. As shown in ***Figure 5***, pink stickers indicate a crash or near crash location, green stickers indicate speeding concerns, and yellow stickers indicate school area concerns.

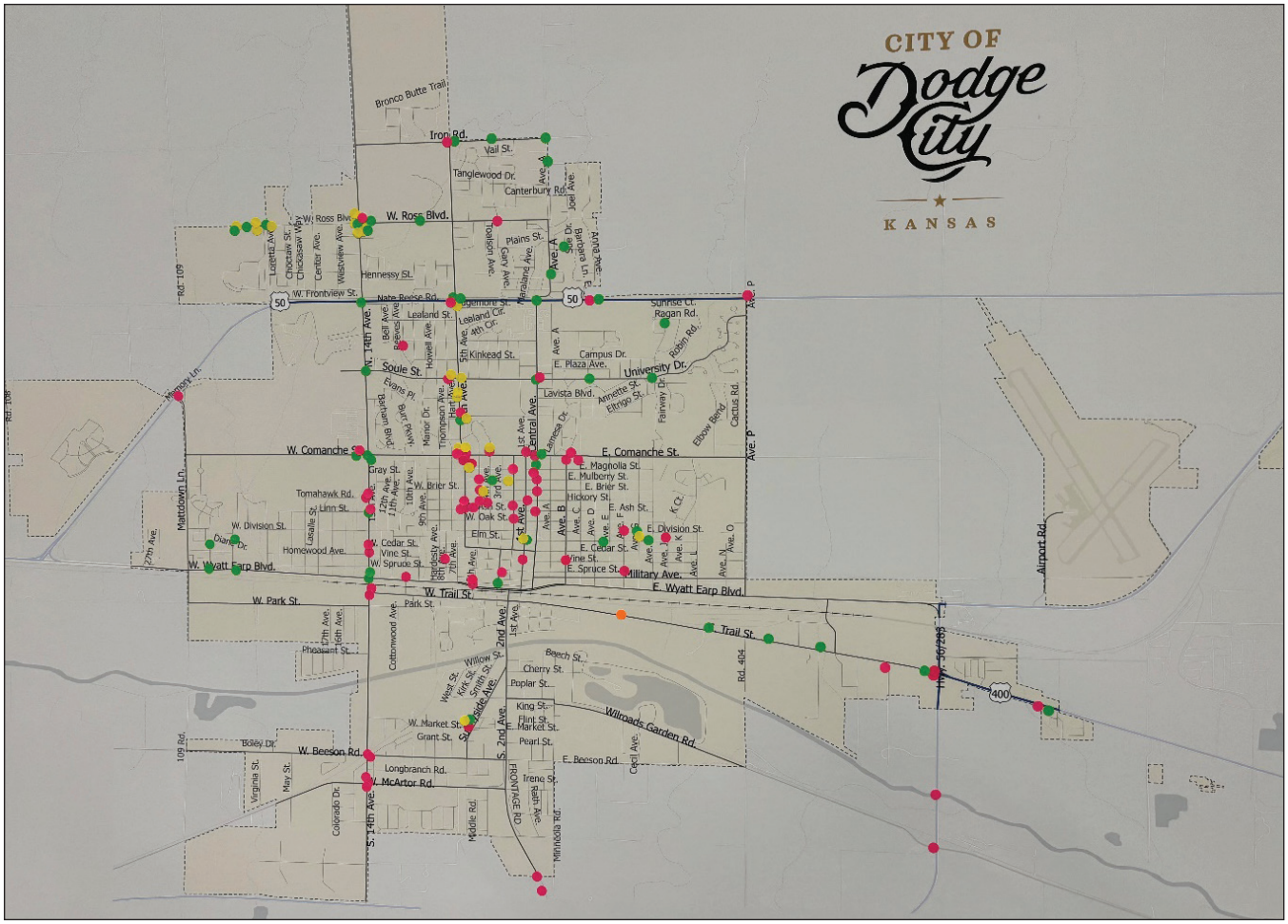


Figure 5: *Public Comment Board - Concern Locations*

Public Open House - August 20, 2024

The City of Dodge City hosted an open house to explain the Safe Streets 4 Dodge process, answer questions, and receive feedback from members of the community who attended. Eleven citizens signed the attendance sheets. Nine Dodge City staff members and six other members of the Safe Streets 4 Dodge (SS4D) Safety Task Force plus five members of the SS4D project were in attendance. The project team engaged the visitors in conversation, explained the display boards, and noted their safety concerns and suggestions. Two Spanish-speaking city staff members were available to assist visitors. Participants reviewed and expressed support for the countermeasures being considered, but also emphasized the need to address traffic speeds and safe movement of students and other pedestrians near schools.

Figure 6: *Public Meeting Interaction*

2.5. COLLABORATION WITH OTHER PLANS

This CSAP is coordinated and aligned with other governmental plans, planning processes, and previously completed or ongoing studies and projects. These are listed in ***Table 1***.

Table 1: *Related Plans*

Title	Year	Goals	Strategies	Application
Kansas Dept. of Transportation (KDOT) Long Range Transportation Plan	2021	Safety and Security, plus Transportation System Management.	• Use education, enforcement, and engineering to reduce the severity of crashes and reduce the number of travel-related deaths towards zero. • Adopt a systemic approach to safety.	Provides information about KDOT's Strategic Safety Initiative and an overview of KDOT's priorities and processes related to safety.
Kansas Strategic Highway Safety Plan (SHSP)	2020	To achieve a fatal and injury crash rate of less than 35 crashes per 100-million vehicle miles travel by 2024.	Address: • Roadway Departure • Impaired Driving • Older Drivers • Intersections • Local Roads • Teen Drivers • Pedestrians & Cyclists • Data Support	Provides statewide safety framework to apply to local plans
US-56 Corridor Study	2024	Improve safety along US-56/US-283 from east of Airport Road to the Wyatt Earp Boulevard intersection and south to US-400.	• Developing highway and street improvement alternatives. • Improve truck and local traffic safety.	Developing recommendations for future highway improvements.
Dodge City 2030 Comprehensive Plan	2020	States community desires directing land use decisions.	Includes project and policy recommendations to support City growth.	Describes the transportation system, identifies future roadway projects, transit services and pedestrian and bike paths.
Downtown Streetscape	2022	Revitalize Dodge City's historic downtown.	Includes streetscape and engineering plans to improve intersections, streets and walkways.	Project impacts pedestrian and traffic safety downtown.
Dodge City High School Area Transportation Study, US-50 Highway and Loretta Avenue	2021	Evaluate the impacts of an additional access point to the Dodge City High School from the intersection of US-50 and Loretta Avenue and recommend roadway improvements.	The additional access point is needed to alleviate existing congestion at the school's only access point.	The Traffic Engineering Assistance Program (TEAP) study identified how the new access will have a significant impact on traffic patterns in the area.

Title	Year	Goals	Strategies	Application
Railroad Crossing Elimination (RCE) Grant Program and Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program	2023	Improve safety and operations along the BNSF La Junta subdivision corridor.	If awarded, includes study to evaluate and prioritize grade crossing investments. Also identify strategies that enhance north-south connectivity and support rail operations through Dodge City.	Project impacts a 2.4-mile study area that features six highway-rail crossings.

3. EXISTING CONDITIONS ANALYSIS

3.1. BACKGROUND

The previous ten years of crash data (2014-2023) was reviewed for the Dodge City area. The data provided a large sample size to identify crash trends. At the time of data collection, 2023 data was generally updated in the KDOT system. However, the 2023 data may be missing a few data points. The data reflects one change in the definition of crash severity. In 2019, FHWA required KDOT to change its serious injury definition, which resulted in more crashes being classified as serious injury crashes. The data also reflects changes in travel patterns during COVID-19 in 2020-2022. A total of 5,072 crashes were left for analysis after incomplete or erroneous data, and crashes that occurred outside the city limits were removed. There were five fatal crashes, 49 serious injury crashes, 411 injury crashes, and 4,607 property damage only (PDO) crashes.

3.2. CRASH TRENDS ANALYSIS

The total of all crashes per year is shown in ***Figure 7***. The number of total crashes per year has been steady, with a slight increase in post-COVID crashes. A basic breakdown of crashes/year for the study area by crash severity is shown in subsequent figures below. The results show a slight increase in the number of PDO crashes, a slight decrease in injury crashes, an increase in serious injury crashes, and a steady number of fatal crashes.

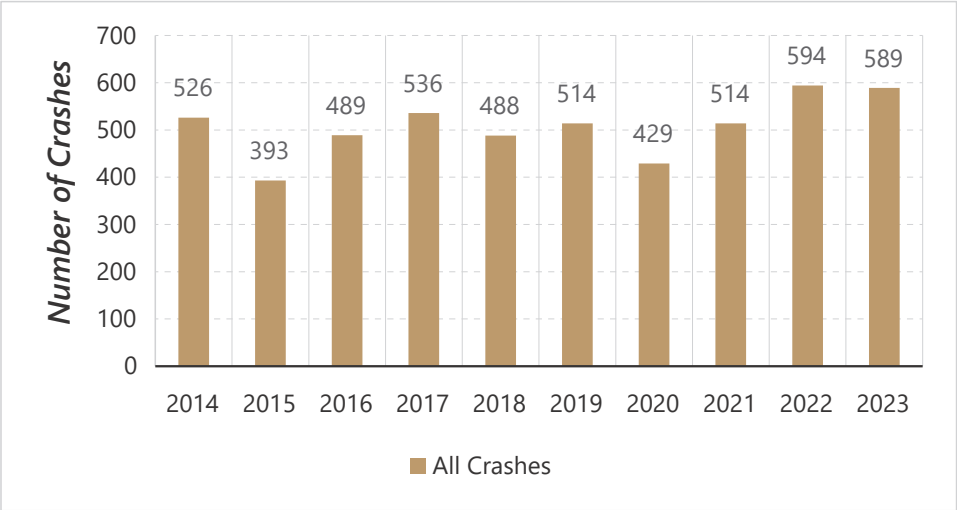


Figure 7: *Crash Totals (All Crashes) [2014-2023]*

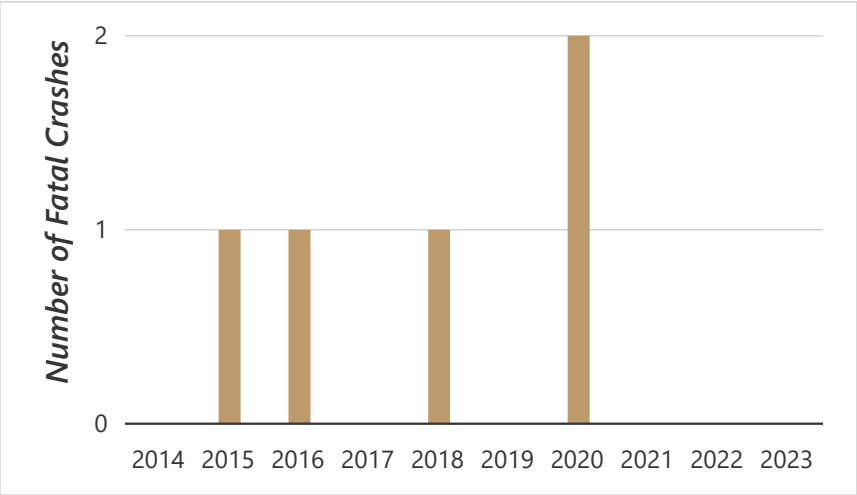


Figure 8: *Crash Totals (Fatal Crashes Only) [2014-2023]*

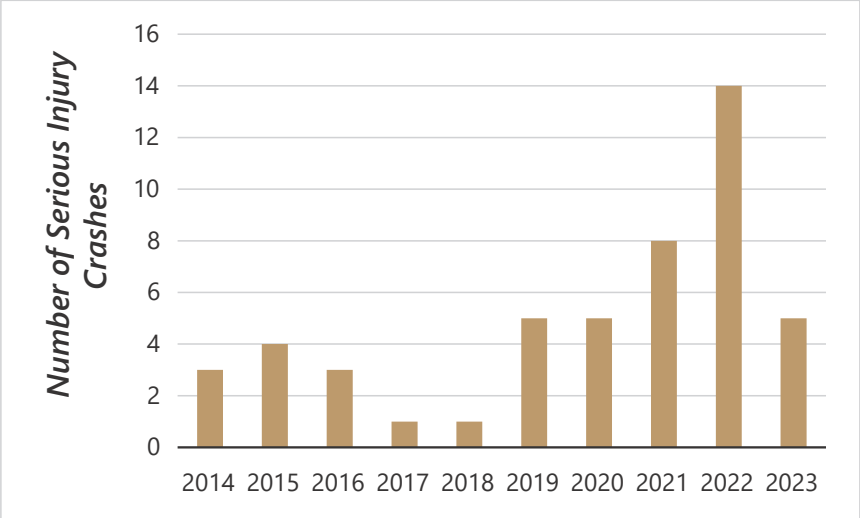


Figure 9: *Crash Totals (Serious Injury Only) [2014-2023]*

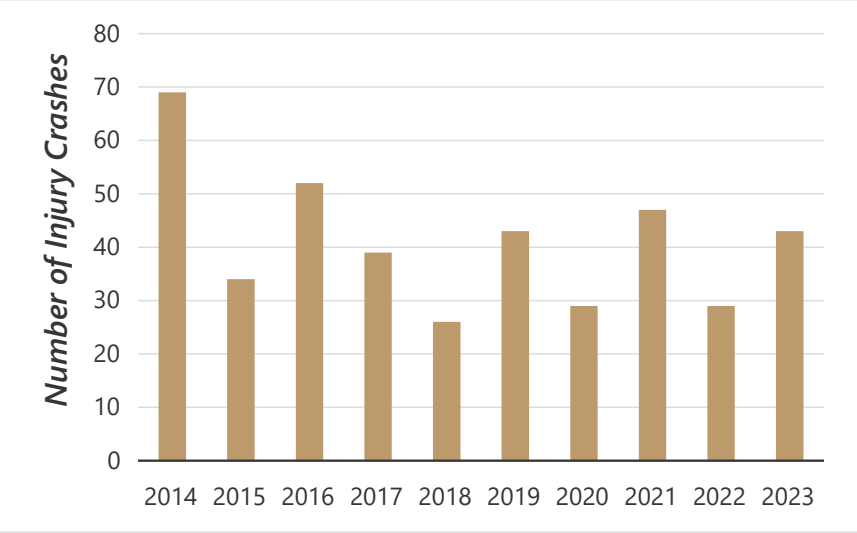


Figure 10: *Crash Totals (Injury Only) [2014-2023]*

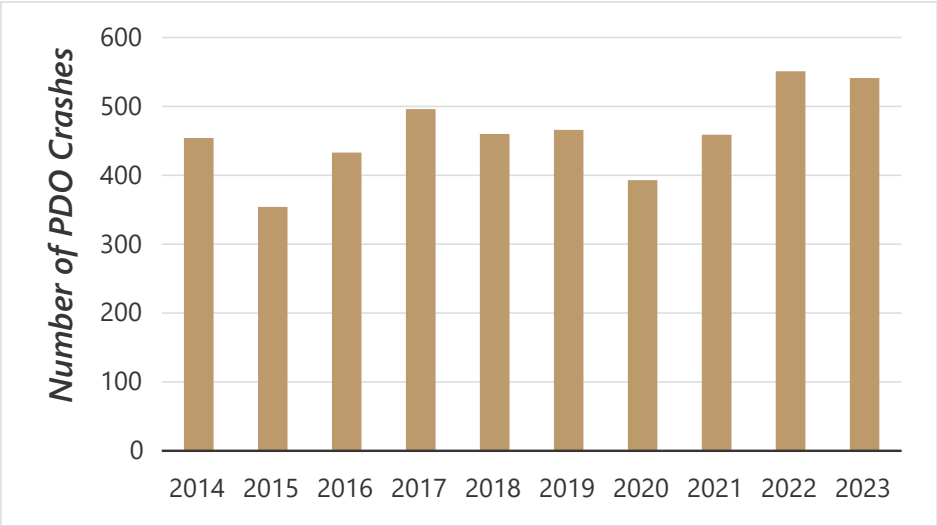


Figure 11: *Crash Totals (Property Damage Only) [2014-2023]*

A. CRASH LOCATION [INTERSECTION VERSUS NON-INTERSECTION]

For the study area, 91% of collisions were PDO crashes, 9% were injury crashes, and less than 1% were fatal crashes. The data also shows that 48% of crashes occurred at intersections and 52% of crashes at non-intersections. At intersections, the primary crash type is with other vehicles (91%). A breakdown of crash type at intersections is shown in ***Table 2***.

Table 2: *Intersection Crash Type Breakdown (Charts A-C)*

Chart A Intersection (Fatal)		
Crash Type	**Crash Number**	**Percent**
Other motor vehicle	1	100

Chart B Intersection (Injury)		
Crash Type	**Crash Number**	**Percent**
Other motor vehicle	223	81
Fixed object	17	6
Pedalcycle	13	5
Pedestrian	11	4
Other non-collision	4	1
Other object	3	1
Overturned	3	1
Parked motor vehicle	2	1
Total	**276**	**100**

Chart C Intersection (PDO)		
Crash Type	**Crash Number**	**Percent**
Other motor vehicle	2,010	92.8
Fixed object	89	4.1
Parked motor vehicle	43	2.0
Other non-collision	7	0.3
Other object	5	0.2
Overturned	5	0.2
Pedestrian	4	0.2
Pedalcycle	1	0.0
Unknown	1	0.0
Total	**2,165**	**100**

At non-intersections, the most frequent crash types were with other vehicles (47%), parked motor vehicles (35%), and crashes with fixed objects (13%). A breakdown of crash types for non-intersections is shown in ***Table 3***.

Table 3: *Non-Intersection Crash Type Breakdown (Charts D-F)*

Chart D Non-Intersection (Fatal)		
Crash Type	**Crash Number**	**Percent**
Pedestrian	2	50
Fixed Object	1	25
Other Motor Vehicle	1	25
Total	**4**	**100**

Chart E Non-Intersection (Injury)		
Crash Type	**Crash Number**	**Percent**
Other motor vehicle	81	44
Fixed object	39	21
Pedestrian	25	14
Parked motor vehicle	17	9
Overturned	9	5
Pedalcycle	4	2
Other non-collision	4	2
Other object	3	2
Animal	2	1
Total	**184**	**100**

Chart F Non-Intersection (PDO)		
Crash Type	**Crash Number**	**Percent**
Other motor vehicle	1,150	47
Parked motor vehicle	912	37
Fixed object	297	12
Other object	28	1
Other non-collision	18	1
Overturned	16	1
Animal	15	1
Unknown	4	0.16
Pedalcycle	1	0.04
Pedestrian	1	0.04
Total	**2,442**	**100**

B. CRASH BY MAINTAINING AUTHORITY

Table 4 shows the breakdown of crashes by severity and owner. City crashes comprise all fatal and 92% of serious injury crashes. Overall, 96% of all crashes occurred on city-owned roadways. Approximately 4% of all crashes occurred on KDOT-maintained roadways.

Table 4: *Crash Severity by Maintaining Authority*

Maintaining Authority	Fatal	Serious Injury	Injury	Non-Injury (PDO)	Total
State System Crashes	0	4	32	157	193
City Crashes	5	45	379	4,450	4,879
Total	**5**	**49**	**411**	**4,607**	**5,072**

C. CRASH TYPE

Crash type (e.g., collision with other vehicles, fixed object, pedestrian) analysis is a common method to understand key concerns and develop effective countermeasure solutions. The following sections outline the results of the analysis of specific crash types in the study area.

The three most prevalent crash types are collisions with another motor vehicle, parked motor vehicles, and fixed objects. There were 5,067 total crashes (excluding "none listed" and "unknown" columns). There were 3,466 other motor vehicle crashes, 974 parked motor vehicle crashes, and 443 fixed object crashes. Higher percentages of pedalcycle, pedestrian, and overturned crashes resulted in fatalities and serious injuries (FSI) compared to other types of crashes. Both crash frequency and percentage of fatal and serious crashes can be used to identify applicable improvement strategies for Vision Zero. ***Table 5*** shows the crash type and associated Fatal and Serious Injury percent (FSI%).

Table 5: *Crash Type and Fatal / Severe Injury %*

Crash Type	All Crashes	Fatal Crashes	Serious Injury Crashes	Fatal / Serious Injury %
Pedalcycle	19	-	4	21.1%
Pedestrian	43	2	6	18.6%
Overturned	33	-	4	12.1%
Other Object	39	-	4	10.3%
Other-Non-Collision	33	-	1	3.0%
Fixed Object	443	1	8	2.0%
Other Motor Vehicle	3,466	2	17	0.6%
Parked Motor Vehicle	974	-	5	0.5%
Animal	17	-	-	0.0%
Unknown	5	-	-	0.0%

KDOT crash reporting separates collisions with other vehicles, into further breakdowns of type (e.g., angle-side impact and head-on). This data indicates that sideswipe: same direction, rear-end, and angle-side impact have the highest number of crashes. Sideswipe: opposite direction accounts for the highest percentage of fatalities and serious injuries, as shown in ***Table 6***.

Table 6: *Crash Types Breakdown - Collision with Other Motor Vehicle*

Collision with Other Motor Vehicle - Crash Type	All Crashes	Fatal Crashes	Serious Injury Crashes	Fatal / Serious Injury %
Angle - Side Impact	1858	2	9	0.6%
Sideswipe: Opposite Direction	72	0	3	4.2%
Head On	154	0	3	2.0%
Sideswipe: Same Direction	266	0	1	0.4%
Rear End	984	0	1	0.1%
Backed Into	125	0	0	0.0%
Other	5	0	0	0.0%
Unknown	2	0	0	0.0%

3.3. IDENTIFICATION OF HIGH-RISK LOCATIONS

This section presents ways to visualize crash data and identifies locations of crashes using a "heat map" where color shading indicates concentrations of crashes. ***Figure 12*** shows a heat map for all crashes, ***Figure 13*** shows a heat map for fatal and severe injury crashes, and ***Figure 14*** shows a heat map for VRUs.

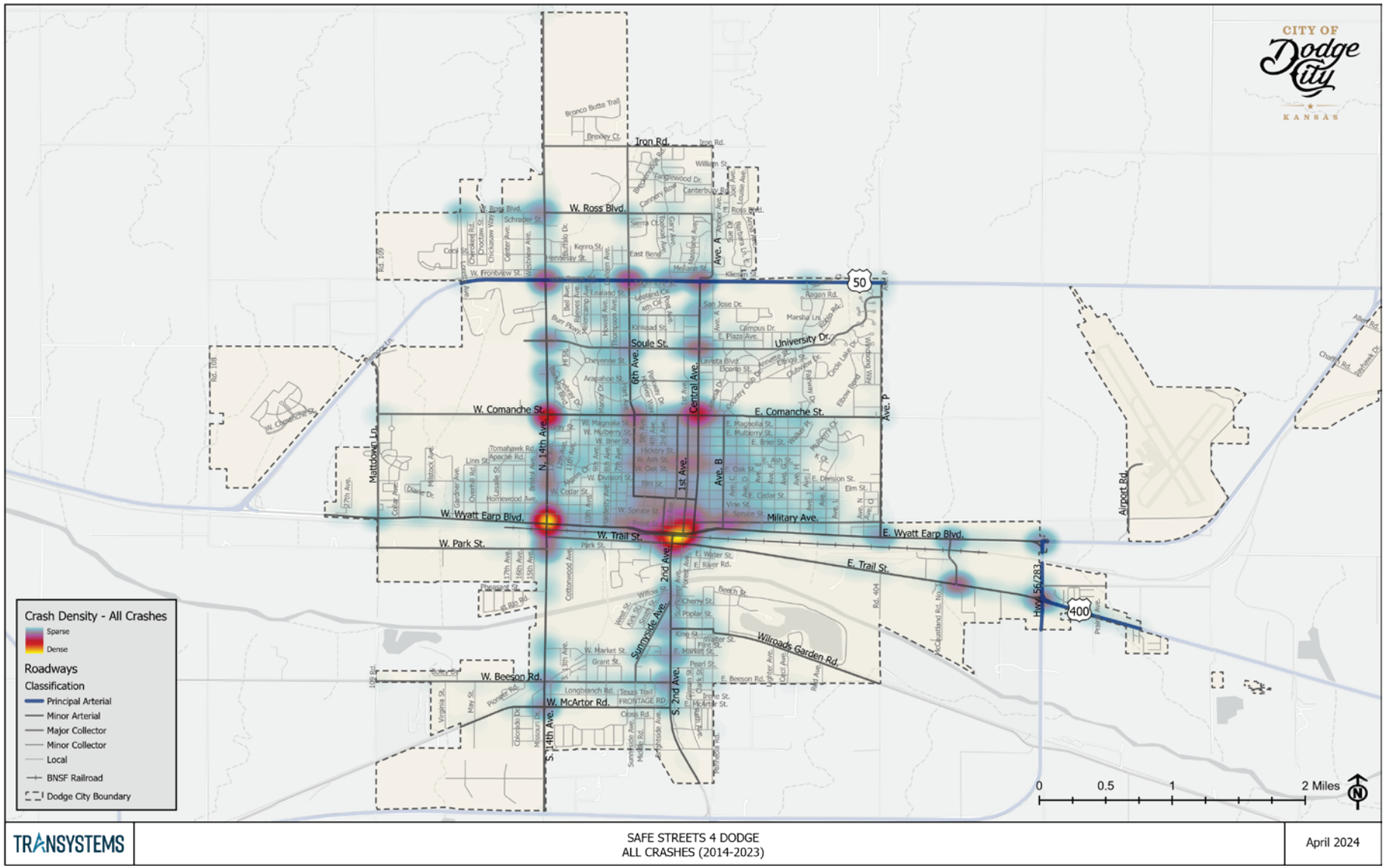


Figure 12: *Heat Map for All Crashes [2014-2023]*

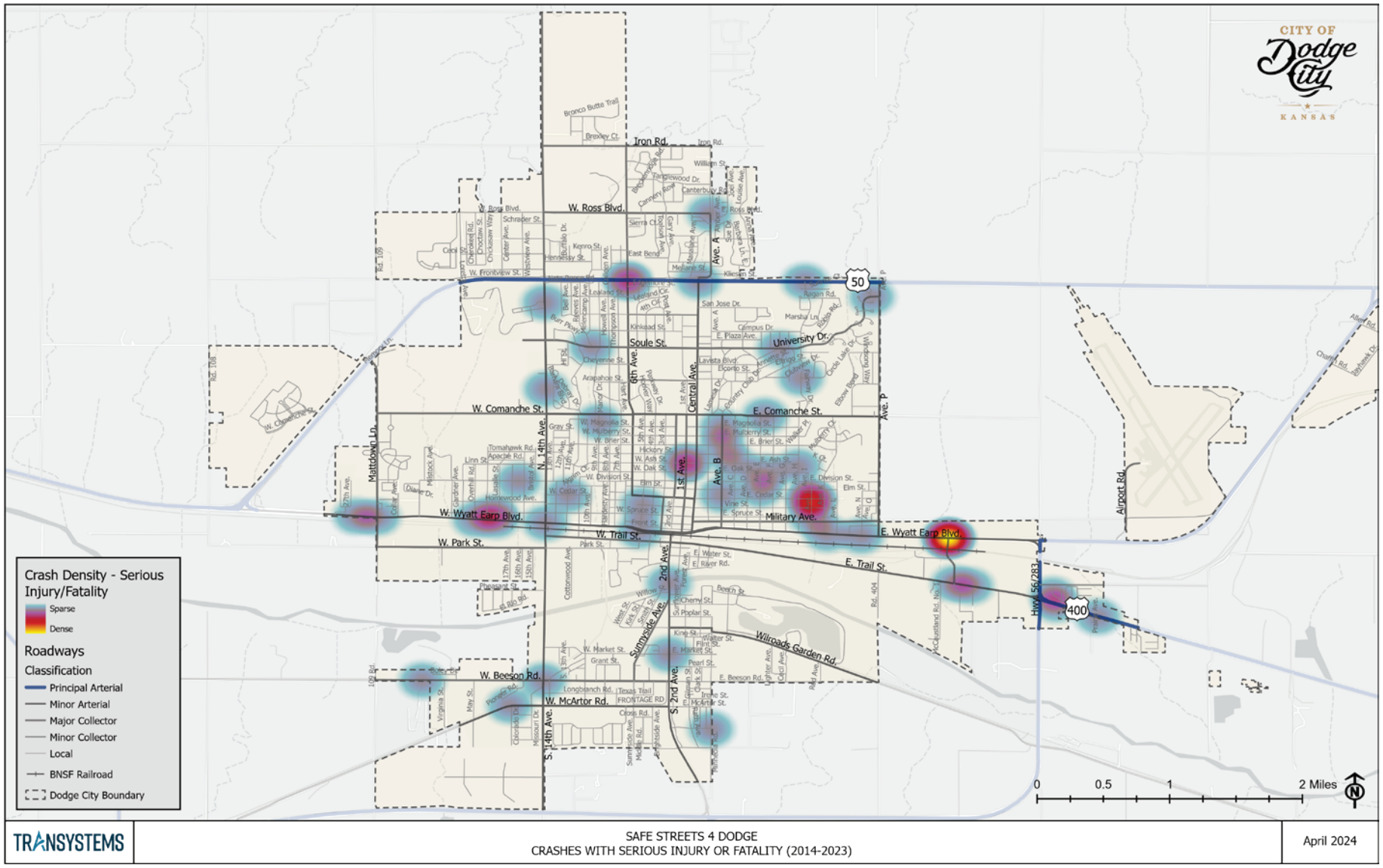


Figure 13: *Heat Map for Fatal and Serious Crashes [2014-2023]*

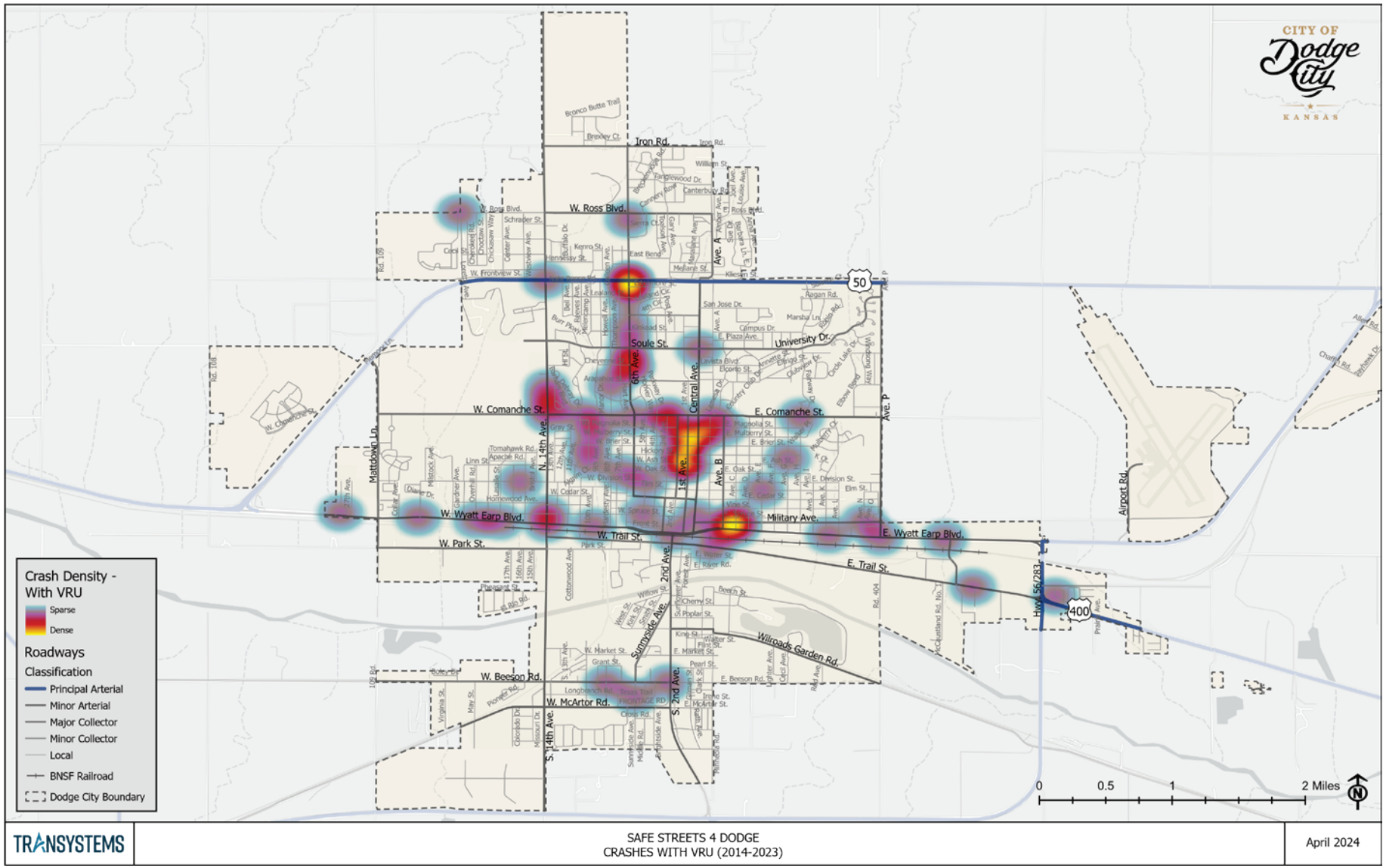


Figure 14: *Heat Map for VRU Crashes [2014-2023]*

3.4. RAILROAD

The BNSF Railway (BNSF) tracks run adjacent to the Wyatt Earp Boulevard corridor through Dodge City. In the previous five years (2019-2023), 840 crashes occurred within 500 feet of the primary rail corridor [14th Avenue and Underpass Road]. One crash occurred in 2023 at the 2nd Avenue highway-rail crossing (DOT #009105U). Of these crashes, the vast majority were identified as property damage only, with 66 identified as minor injuries in the crash report. There are crash hot spots within the environs of the at-grade highway-rail crossings at 2nd Avenue, 4th Avenue, and 14th Avenue, as well as at the grade separation at Underpass Road. The lack of adequate north-south connectivity in Dodge City funnels traffic to 2nd Avenue and 14th Avenue. The presence of the at-grade crossing increases the likelihood of conflicts on these heavily trafficked corridors. The speed differential caused by both crossing closures and vehicles that are required to stop at all crossings may be a contributing circumstance in crashes adjacent to highway-rail crossings. Rear end crash types are a common crash trend along the corridor due to the backup of traffic from the trains and the close spacing for turning vehicles. The proximity of the highway-rail crossing to the 2nd Avenue/Wyatt Earp intersection, the city's highest volume intersection, increases the risk of crashes.

Two fiscal year 2023 (FY23) Federal Grant applications were submitted to determine improvements along the BNSF La Junta subdivision corridor: *Railroad Crossing Elimination (RCE) Grant Program and Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program*. If awarded, the City will conduct a study, with BNSF coordination, to evaluate and prioritize grade crossing investments along the La Junta subdivision, which is also served by Amtrak Southwest Chief's passenger service. The project aims to address several challenges related to highway-rail crossings in Dodge City including safety, connectivity, and barriers to economic development. The 2.4-mile study area features six highway-rail crossings that will be evaluated to identify strategies that enhance north-south connectivity and support rail operations through Dodge City.

Photo Credit: Josh Roesener

4. EQUITY ANALYSIS

The goal of equity analysis is to distinguish populations that are underserved and under-resourced and to assess how they are impacted by outcomes of the transportation system (like safety risk). Equity analysis can provide an understanding of the implications of safety risk disparities in various communities. Equity is a concept that centers on the idea of fairness and justice. Reaching zero deaths requires eliminating disparities by prioritizing equity.

This plan uses criteria for areas of persistent poverty, historically disadvantaged communities as identified by the USDOT, and the Social Vulnerability Index as defined by the Centers for Disease Control and Prevention (CDC).

The Safe Streets and Roads for All (SS4A) defines an Underserved Community consistent with the USDOT definition of a disadvantaged community using two sources. These sources are also used when completing SS4A grant applications:

- U.S. Census tracts identified in the **Equitable Transportation Community (ETC) Explorer** tool. This tool provides a percentile rank based on five disadvantaged components including disadvantaged components related to climate, environmental burden, health vulnerability, social vulnerability, and transportation factors.
- U.S. Census tracts identified in the **Climate and Economic Justice Screening (CEJST)** tool (Justice40 Tracts). The tool has an interactive map and uses datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

Other tools available at the federal level to assist in identifying disadvantaged communities include:

- **HEPGIS Maps:** Socioeconomics and Equity Analysis developed by the Federal Highway Administration.
- **The Centers for Disease Control and Prevention (CDC) Social Vulnerability Index** measures social vulnerability based on measurements of socioeconomic status such as poverty and unemployment, household characteristics such as age, racial and ethnic minority status, and housing type.
- **EJScreen:** Environmental Justice Screening and Mapping Tool (Environmental Protection Agency).

These approaches vary on specific criteria used to identify disadvantaged areas. Error! Reference source not found. summarizes the designation of each census tract as a disadvantaged community by each tool. Details on the equity information sources and data can be found in ***Appendix C***. The review of equity information shows that the entire city of Dodge City can be defined as disadvantaged based on one or more of the sources used.

5. EMPHASIS AREAS

5.1. BACKGROUND

Emphasis areas help prioritize efforts and resources toward specific areas with the highest risk and greatest potential for improvement. By focusing on these areas, decision makers can address the most pressing issues, such as intersections with high crash rates or sections of roads with frequent speeding violations, leading to a more effective and targeted safety strategy. Additionally, emphasis areas provide a clear framework for measuring the success of road safety initiatives, allowing for data-driven decision-making and continuous improvement in crash prevention.

Grouping crashes together based on behavior and location is a good basis for looking at emphasis areas deserving extra consideration. Emphasis areas should be the focal points that planned activities are built upon thus providing the biggest impacts to preventing crashes. Some emphasis areas are more focused on engineering design-related solutions (location or systemic-based crashes), while others rely on changing the behaviors associated with the crashes often using enforcement, education, or emergency response (or combinations of all). These may include countermeasures from the National Highway Traffic Safety Administration (NHTSA) which are primarily behavior-based programs and FHWA's Crash Modification Factors clearinghouse (mostly project-based solutions).

5.2. TOP CRASH EMPHASIS AREAS

Emphasis areas were charted in three ways.

1. Intersection-related, roadway departure, and distracted driving are the top crash emphasis areas by frequency.
2. Intersection-related, unrestrained occupant, and alcohol or drug-related crashes are highest for injury and fatality crashes.
3. Vulnerable road users, motorcycle, and unrestrained occupant are highest when using an Equivalent Property Damage Only (EPDO) score. The EPDO score weighs factors related to the societal costs of fatal, injury, and property damage-only crashes and are assigned to crashes by severity to develop an EPDO score that considers frequency and severity of crashes. The equation used for EPDO is based on 2023 KDOT crash costs:

   EPDO Rate=*#fatal crashes**1188.7+*#serious injury crashes**63.99+*#injury crashes**19.62

Figures 15 through ***18*** show more details of these emphasis area charts.

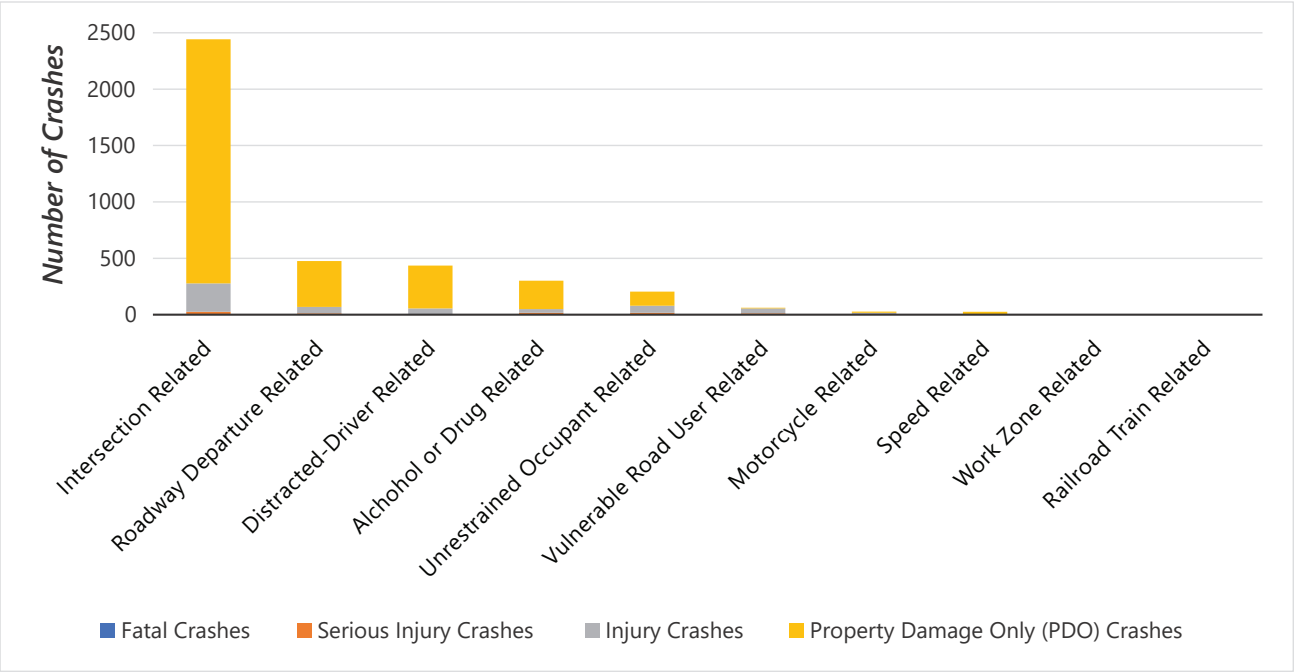


Figure 15: *Emphasis Areas - All Crashes*

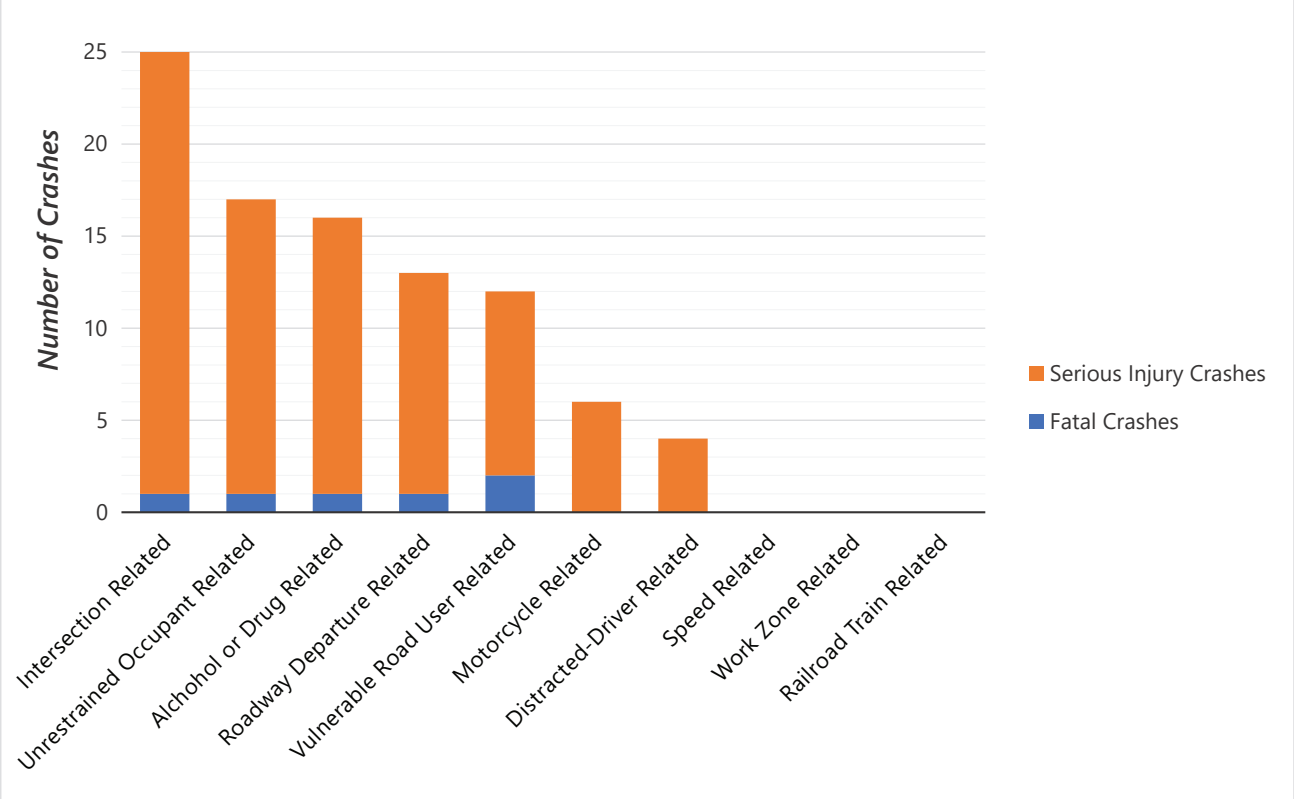


Figure 16: *Emphasis Areas - Fatal and Serious Injury Crashes*

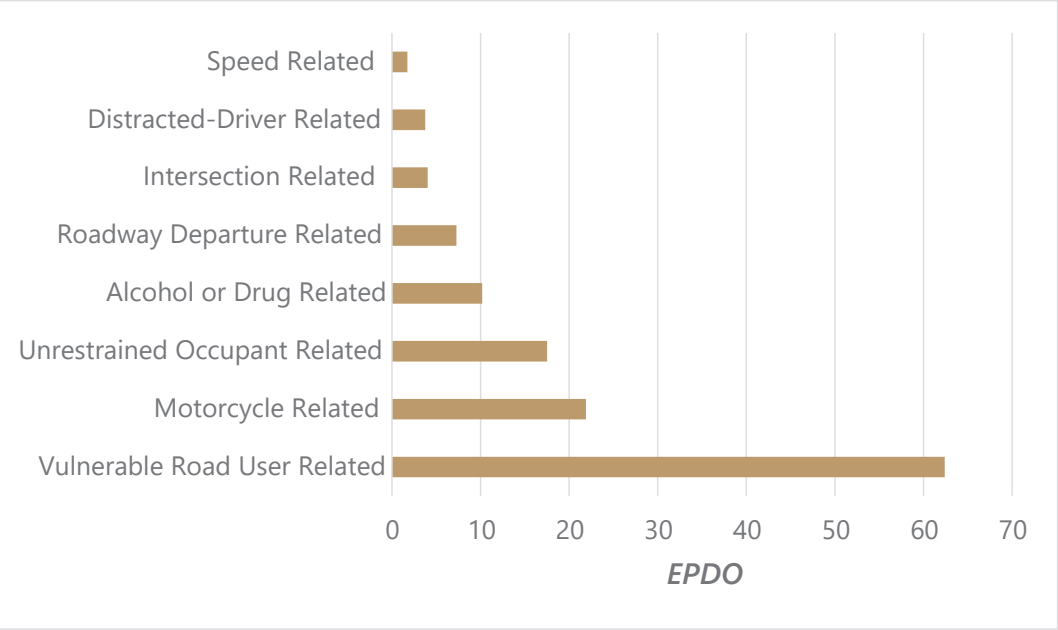


Figure 17: *EPDO Emphasis Areas*

In many crashes, multiple emphasis areas are identified as contributing factors. Intersection crashes overlap the most with other influence areas. Other overlap observations:

- 28% of speed-related crashes are also distracted driving crashes.
- 21.2% of roadway departure crashes and 20.1% of unrestrained occupant-related are alcohol or drug related crashes.
- 46.1% of unrestrained occupants are intersection related and 24.5% are roadway departure related.
- 46.8% of VRU crashes are intersection related.
- Over 40% of VRU, speed, distracted driving, unrestrained occupant, and motorcycle related are all intersection related.

Step 1: ***Select Emphasis Area***

Step 2: Evaluate Overlapping Emphasis Area	Roadway Departure Related	Vulnerable Road User Related	Intersection Related	Speed Related	Distracted-Driver Related	Unrestrained Occupant Related	Alchohol or Drug Related	Work Zone Related	Motorcycle Related	Railroad Train Related
Roadway Departure Related	100.0%	0.0%	4.7%	4.0%	9.6%	24.5%	33.6%	0.0%	0.0%	0.0%
Vulnerable Road User Related	0.0%	100.0%	1.2%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Intersection Related	23.9%	46.8%	100.0%	44.0%	47.7%	46.1%	26.9%	0.0%	40.7%	0.0%
Speed Related	0.2%	0.0%	0.5%	100.0%	1.6%	0.5%	0.3%	0.0%	0.0%	0.0%
Distracted-Driver Related	8.8%	8.1%	8.5%	28.0%	100.0%	13.2%	10.6%	0.0%	7.4%	0.0%
Unrestrained Occupant Related	10.5%	0.0%	3.8%	4.0%	6.2%	100.0%	13.6%	0.0%	37.0%	0.0%
Alchohol or Drug Related	21.2%	0.0%	3.3%	4.0%	7.3%	20.1%	100.0%	0.0%	14.8%	0.0%
Work Zone Related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Motorcycle Related	1.9%	0.0%	0.5%	0.0%	0.5%	4.9%	1.3%	0.0%	100.0%	0.0%
Railroad Train Related	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Figure 18: *Emphasis Area Overlaps*

Intersection-related, distracted driving, and speed-related crashes were selected by the Safety Task Force as main emphasis areas. Due to the alignment of overlap with intersections and vulnerable roadway users (VRUs), those crashes were analyzed further as well. It should be noted that for some things such as distracted driving there were limited reports with that as a contributing circumstance, that may be in part due to the nature of proving it, or the prevalence of police in some instances to not fill out non-mandatory parts of the crash reports.

5.3. INTERSECTIONS

Using crash report data, an algorithm was used to create clusters of intersections with high densities of fatal or injury crashes. Crash emphasis areas are limited to the data available within the crash report. Therefore, there are some limitations within the data. The difference between signalized intersection and unsignalized intersection was based on the "traffic control type" within the crash report. This data did align with existing conditions.

For the emphasis area clustering, intersections were selected if four or more fatal or injury crashes occurred in the 10-year period within 300 feet of each other. The location rankings are based on the EPDO. Some rankings are tied, as shown in ***Table 7, Table 8*** and ***Table 9***. Again, the equation used for EPDO is based on 2023 KDOT crash costs:

EPDO Rate=*#fatal crashes**1188.7+*#serious injury crashes**63.99+*#injury crashes**19.62

Top Signalized Intersections

The most common crash fatal or serious injury crash for six of the eight clustered signalized intersections is angle-side impact. There were no fatal crashes at a clustered signalized intersection. The highest-ranked signalized intersection is US-50 and 6th Avenue, with 12 injury crashes occurring in the previous ten years.

Table 7: *Signalized Intersection Rankings*

Location	Ranking	# of Fatal Crashes	# of Serious Injury Crashes	# of Injury Crashes	Equivalent Property Damage Only Rate (EPDO)
US-50 and 6th Avenue	1	0	2	10	324
Wyatt Earp Boulevard and 14th Avenue	2	0	1	5	162
Spruce Street and 14th Avenue	3	0	0	8	157
US-50 and Central Avenue	4	0	1	4	142
Comanche Street and 14th Avenue	5	0	0	7	137
Wyatt Earp Boulevard and US-283/113th Road	6 (tie)	0	0	5	98
US-50 and 14th Avenue	6 (tie)	0	0	5	98
Comanche Street and 1st Avenue	8 (tie)	0	0	4	78
Trail Street and 2nd Avenue	8 (tie)	0	0	4	78

Table 7 and ***Figure 19*** indicate the clustered intersection rankings.

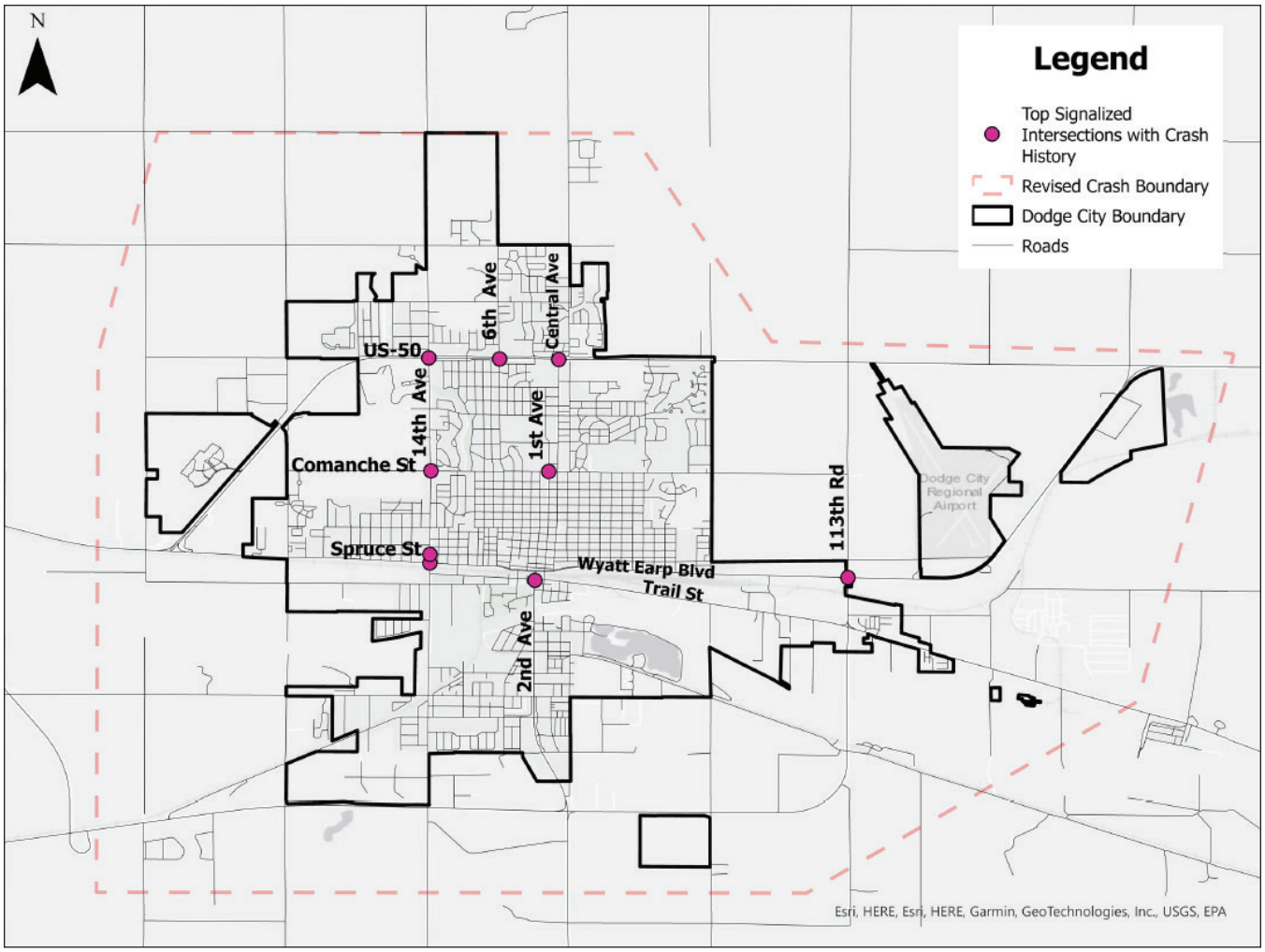


Figure 19: *Top Signalized Intersection Crash Locations*

Top Unsignalized Intersections

The highest-ranked unsignalized intersections are US-56 & Lariat Way and Wyatt Earp Boulevard & Matt Down Road. Both intersections had one fatality and four injury crashes in the previous ten years.

Table 8 and ***Figure 20*** indicate the clustered intersection rankings.

Table 8: *Unsignalized Intersection Rankings*

Location	Ranking	# of Fatal Crashes	# of Serious Injury Crashes	# of Injury Crashes	Equivalent Property Damage Only Rate (EPDO)
US-56 and Lariat Way	1 (tie)	1	0	4	1267
Wyatt Earp Boulevard and Matt Down Road	1 (tie)	1	0	4	1267
Wyatt Earp Boulevard and Underpass Road	3	0	4	8	413
McArtor Road and 14th Avenue	4	0	0	9	117
Park Street and 14th Avenue	5	0	0	7	137
Division Street and 14th Avenue	6 (tie)	0	0	6	118
US-50 and Matt Down Road	6 (tie)	0	0	6	118
Spruce Street and Avenue C	8 (tie)	0	0	5	98
US-50 and Gary Avenue	8 (tie)	0	0	5	98
Wyatt Earp Boulevard and Avenue B	10 (tie)	0	0	4	78
Wyatt Earp Boulevard and US-50	10 (tie)	0	0	4	78
Comanche Street and Country Club Drive	10 (tie)	0	0	4	78

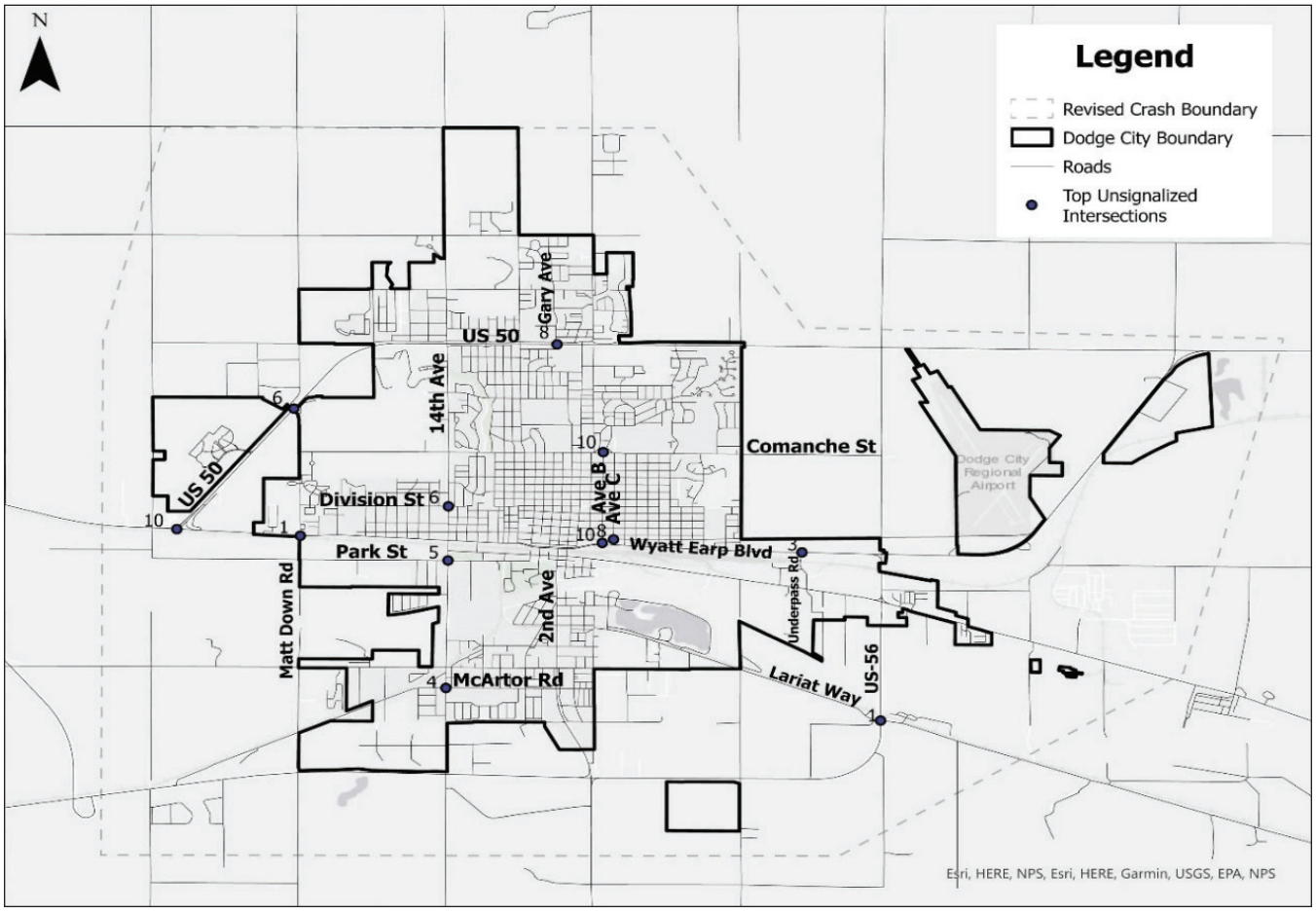


Figure 20: *Top Unsignalized Intersection Crash Locations*

5.4. DISTRACTED DRIVING

A unique crash trend identified was that many crashes were listed as vehicle crashes with parked cars. Approximately 10% of parked car crashes were attributed to the use of alcohol. Approximately 43% of vehicle crashes with parked cars occurred when there were dark conditions but that in all cases, streetlights were reported turned on.

5.5. SPEED-RELATED CRASHES

Speed was denoted as an emphasis area by stakeholders. The clustering mechanism did not indicate any locations related to speeding. Stakeholder feedback and probe speed data were included within the emphasis area selection. Streets were highlighted where 20 percent or more of the vehicles on that road segment traveled 10 mph or more over the speed limit. The speeding corridors are shown in ***Figure 21***.

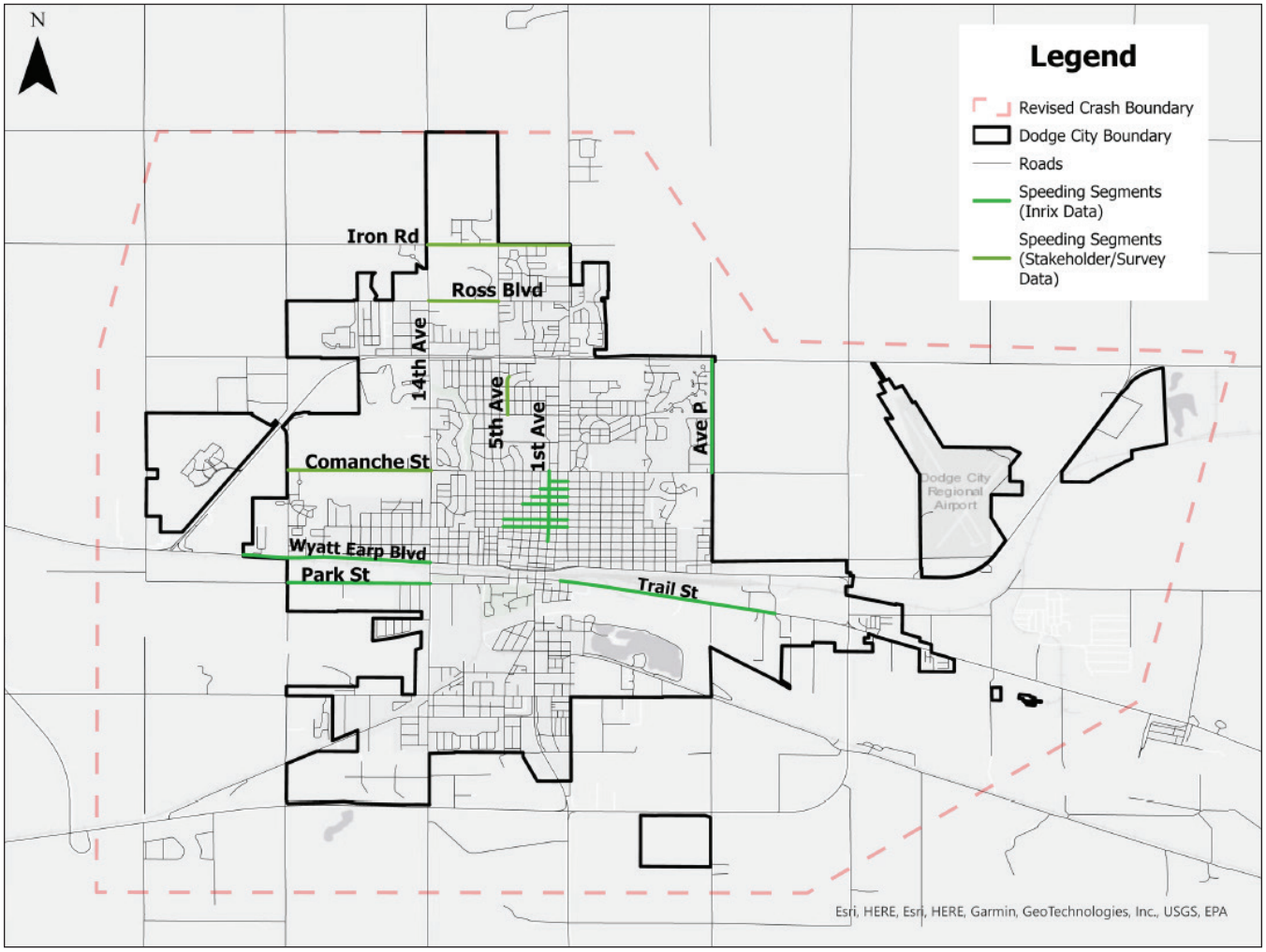


Figure 21: *Locations of Speeding (Locations where speed exceeded 10 mph over posted speed limit, collected 1st Quarter, 2022)*

5.6. VULNERABLE ROADWAY USERS

Pedestrians are particularly vulnerable to crashes, as shown in the EPDO section. Like the Intersection emphasis area, an algorithm was used to identify cluster locations with VRU crashes. Two locations were identified as VRU crash clusters, as shown in ***Figure 22***:

- US 50 and 6th Ave
- Wyatt Earp Blvd and Avenue C

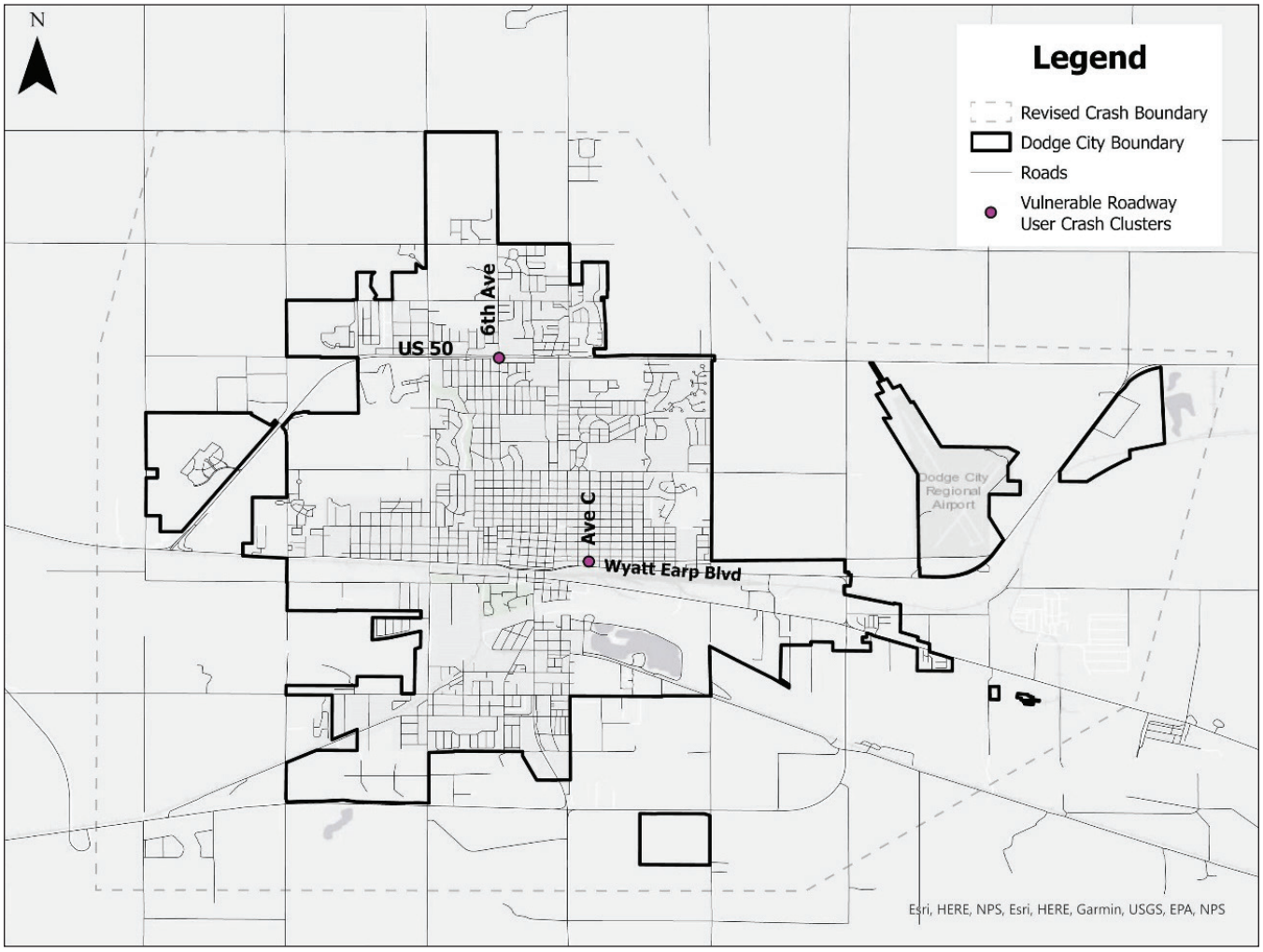


Figure 22: *Vulnerable Road Users Crash Clusters*

5.7. SCHOOL-INFLUENCED AREAS

The school influence area was determined by looking at all crashes within a 0.25-mile radius of all Dodge City schools. The schools are concentrated in the middle of town. This area also had the highest concentration of crashes within the school areas, in comparison to the rest of the city. A segment of US-50 was also included because of the high volumes of people crossing US-50 to access the schools to the north. There are ongoing intersection safety improvements, including the intersection of US-50 near Dodge City High School. These areas see a high amount of VRUs and should be prioritized. A map of the school influence areas is shown in ***Figure 23***. School emphasis boundaries are:

- Soule Street to Military Avenue; 8th Avenue to Avenue A
- US-50 from the High School entrance to 6th Avenue

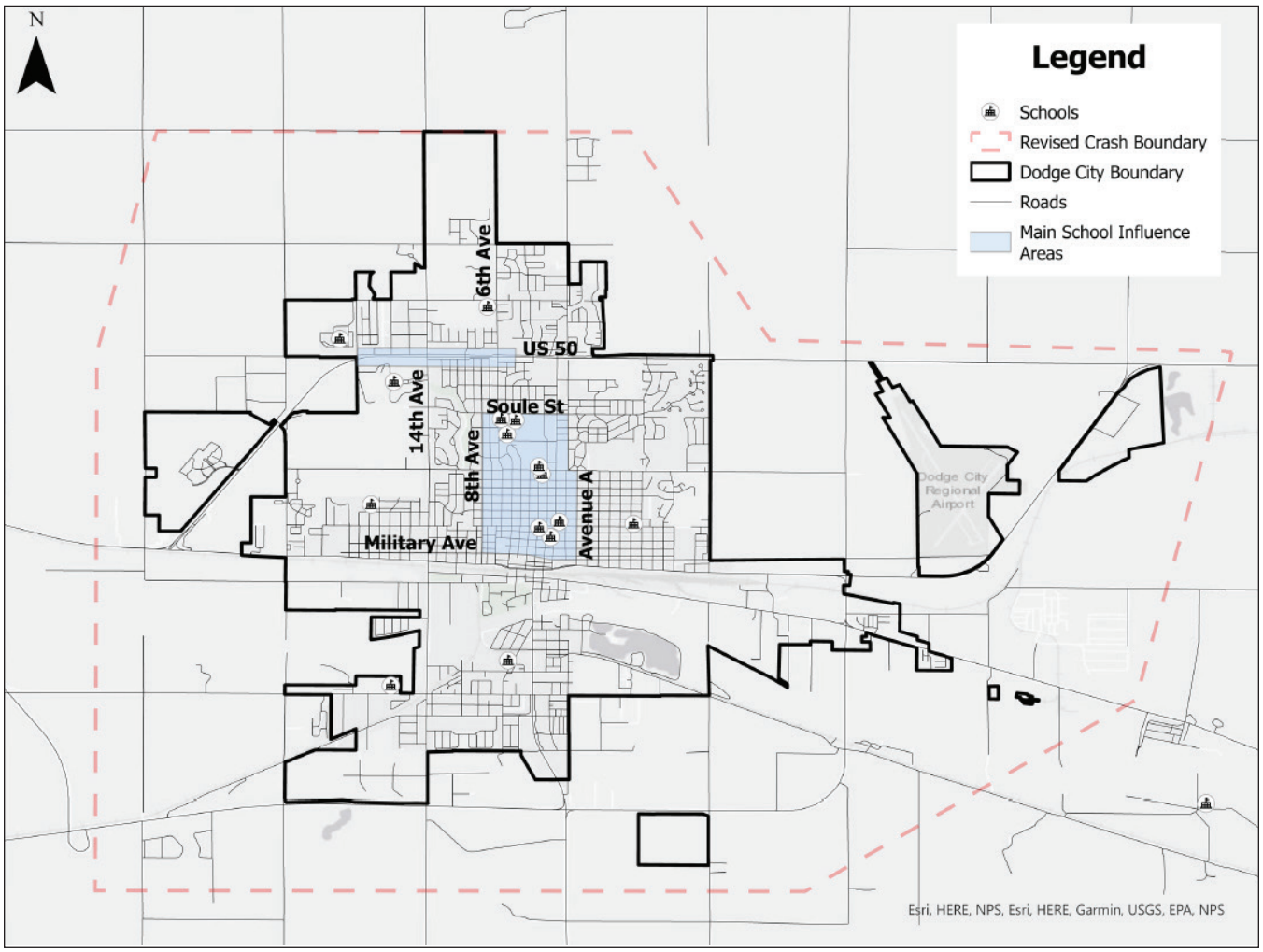


Figure 23: *School Influence Emphasis Area*

5.8. OVERLAPPING EMPHASIS AREAS

Figure 24 provides a composite graphic showing the major locations of concern for the emphasis areas described above.

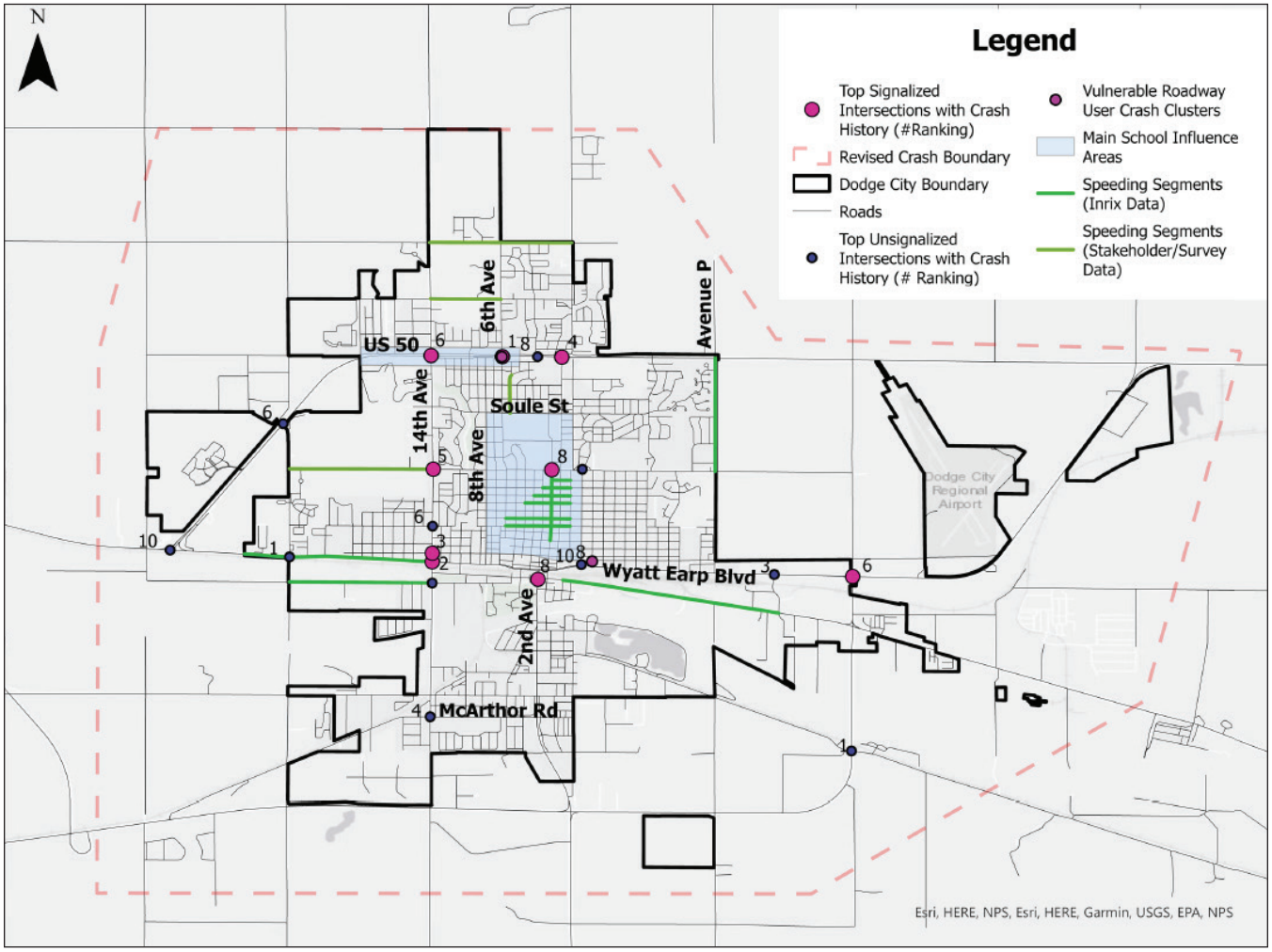


Figure 24: *Composite Emphasis Areas*

6. SAFETY STRATEGIES

The Safety Task Force evaluated the results of the data analysis and the safety concerns and public priorities. Using the Safe System Approach as the framework, they identified safety countermeasures to be evaluated. Each Safe System element (Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles, and Post-crash Care) was considered. The countermeasures specifically address the prioritized safety emphasis areas:

- Signalized Intersections
- Unsignalized Intersections
- Vulnerable Road Users – pedestrians and bicyclists
- Distracted Driving
- Excessive Speeds

Multiple resources were used in developing appropriate safety strategies, including:

- FHWA's Proven Safety Countermeasures
- National Highway Traffic Safety Administration's (NHTSA) "Countermeasures that Work"
- FHWA's Crash Modification Factors (CMF) Clearinghouse

When identifying potential systemic safety improvements, it is important to look at CMFs for the proposed improvements. The CMF Method is found in Part D of the Highway Safety Manual (HSM). CMFs are defined as the ratio of effectiveness of one condition in comparison to another condition and represent the relative change in crash frequency due to a change in one specific condition. A CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. Countermeasures with CMFs less than one are expected to reduce crashes if applied, while those countermeasures with CMFs greater than one are expected to increase crashes.

The CMF Method is used to calculate the expected number of crashes by taking the observed number of crashes and multiplying those crashes by the applicable CMF for the proposed countermeasure. It is recommended that CMFs be applied to a minimum of three (3) years of crash data for urban and suburban sites and five (5) years of crash data for rural sites.

Crash Reduction Factors (CRFs) are related to CMFs but stated in different terms. A CRF is defined as a percentage of crash reduction that might be expected after the implementation of a given countermeasure at a specific site.

Caution should be used in the selection of appropriate CMFs. The following guidance should be considered when selecting CMFs for predictive crash analysis:

- CMFs should be selected from the HSM Part D or from the Federal Highway Administration's (FHWA) CMF Clearinghouse website (http://www.cmfclearinghouse.org).
- Read the countermeasure abstract to determine if the CMF is applicable to the proposed improvement.
- Only CMFs with a four- (4) star rating or higher should be considered for use in analysis.
- Be sure the selected CMF is applicable to the set of crash data being used for analysis. Some CMFs may only be applicable to a subset of the crash data.
- The application of multiple CMFs can overestimate the expected crash reduction. Unless each CMF addresses independent crash types, multiple CMFs should not be used. It is suggested that no more than three (3) independent CMFs be applied to a particular site.

The countermeasures proposed in this document were chosen because of their effectiveness in reducing crashes. Some safety countermeasures that are recommended do not yet have CMF ratings that meet the above guidance, due to the amount of data and peer review that is required; however, preliminary studies show safety benefits as a result of these countermeasures. The FHWA has also published a list of Proven Safety Countermeasures which, per their website is "a collection of countermeasures and strategies effective in reducing roadway fatalities and serious injuries… Transportation agencies are strongly encouraged to consider widespread implementation of [Proven Safety Countermeasures] to accelerate the achievement of local, State, and National Safety goals." https://safety.fhwa.dot.gov/provencountermeasures/.

Nationally, there are relatively low percentages of fatal and serious injury crashes that occur on unpaved roadways when compared to paved roadways. As such, safety research has focused on paved roadways. The lack of research on the unpaved system results in very few CMFs defined for safety countermeasures on unpaved roadways.

The countermeasures presented in ***Table 9*** were identified and reviewed by stakeholders as those providing a significant opportunity to reduce traffic related fatalities and serious injuries in Dodge City.

Table 9: *Selected Safety Countermeasures*

Countermeasure	Description	CMF
Signalized Intersections		
Improved Signal Phasing/Timing Plans	Traffic signal coordination can decrease the number of crashes and create speed harmonization as drivers learn the length of signal intervals.	0.79
Consistent Yellow and All-Red Timings	Consistent yellow and all-red display intervals allow motorists and pedestrians to anticipate when it will be safe to enter the intersection.	0.86
Backplates with Retroreflective Borders	Backplates improve the visibility of a traffic signal with a controlled-contrast background. A yellow retroreflective border makes it even more conspicuous.	0.85
Add Left Turn Lanes	Left turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.	.6 (for LT) .75 (all)
Unsignalized Intersections		
Access Management (restrict left turns)	Restrict the left turns from side streets onto a main street.	.30 (for LT)
Flashing Beacon Warning Sign	Flashing beacons on warning signs increase driver awareness and recognition of upcoming problems and potential conflicts.	0.9
Add Left Turn Lanes	Left turn lanes provide separation from through traffic, space for deceleration, and space to wait to complete a turn.	0.4
Enhanced Stop Signs	Larger stop signs, use of flasher on sign or use of retroreflective markings to increase visibility of stop signs.	0.9
Vulnerable Road Users		
Rectangular Rapid Flashing Beacon	Pedestrian-actuated RRFBs flash with an alternating high frequency to enhance driver awareness of pedestrians at the crossing.	.53 (Ped)
Pedestrian Hybrid Beacons	A traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.	.45 (Ped)
Countdown Pedestrian Signal Heads	These signals provide pedestrians with more information on the remaining crossing time.	.92 (Ped)
Leading Pedestrian Interval (LPI)	LPIs allow pedestrians to enter the crosswalk 3-7 seconds before parallel vehicles are given a green indication.	0.87

Countermeasure	Description	CMF
Construct Sidewalks	Construct sidewalks to fill in gaps to allow separation of pedestrians and vehicles along roadways.	.11-.35 (Ped)
High Visibility Crosswalks	High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks.	.60 (Ped)
Advance Yield or Stop markings	YIELD Here to Pedestrians" or "STOP Here for Pedestrians" signs 20 to 50 feet in advance of a marked crosswalk.	0.62 (Ped)
Distracted Driving		
Distracted Driving Education	Education campaigns (PSAs, social media ads, school/ workplace education) can be conducted regarding distracted driving.	Needs further evaluation
Impaired Driving Education	Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.	★★
Excessive Speeds		
Speed Feedback Sign	Speed measuring message sign which displays speeds back to driver.	0.95
Road Diet	Convert 4-lane street to 3-lane street providing one travel lane in each direction with center turn lane or medians, providing additional width for bicycle lanes.	.53-.81
Increased Enforcement	Increase enforcement presence in key speeding areas.	★★★★
Create Traffic Calming Policy	Develop neighborhood traffic calming guidance, including policy about installation of traffic speed bumps.	Needs further evaluation
Education related to speeding	Develop education campaigns (PSAs, social media ads, school/workplace education).	★★★

Countermeasure effectiveness is shown using a five-star rating system:

Effectiveness	
★★★★★	Demonstrated to be effective by several high-quality evaluations with consistent results.
★★★★	Demonstrated to be effective in certain situations.
★★★	Likely to be effective based on balance of evidence from high-quality evaluations.
★★	Limited evaluation evidence, but adheres to principles of human behavior and may be effective if implemented well.
★	No evaluation evidence, but adheres to principles of human behavior and may be effective if implemented well.

7. IMPLEMENTATION PLAN

7.1. PLANNED AND CURRENT PROJECTS

The City of Dodge City is pursuing the construction of roadway, intersection, and multi-use trail projects that would be completed within the next five years. Many of these potential projects will address systemic or hot spot crash locations. The City's project list is provided in ***Table 10***.

Table 10: *Current Transportation Projects*

Existing or Planned Projects			
Funding	**Location**	**Project Type**	**Scope**
City	East Trail Street (McCausland Rd. 1 – Love's Driveway)	Segment / Intersection	Expand Trail St. to a concrete 5-lane section and add a traffic signal at the intersection of Underpass Rd. & Trail St.
City	Loretta Avenue & US-50	Signal/Segments	Improve the intersection of Loretta and US-50, including a new traffic signal. Add second eastbound lane to US-50 from Loretta to 14th Ave. Construct Loretta from US-50 to Ross Blvd.
City / Developer	West Comanche St. (14th Ave. – US-50)		Improve Comanche St. to a 4-lane boulevard (center median) from 14th Ave. to the Casino intersection on US-50. The west leg of the 14th Ave. and Comanche St. intersection would be widened, and a new traffic signal would be installed.
RURAL Surface Transportation Block Grant	US-56/US-283 (E. Wyatt Earp Blvd. and 113 Rd. to E. Trail St.)	Segment / Intersection	Improve the E. Wyatt Earp intersection, construct a SPUI at the Trail St. intersection, construct a 4-lane bridge over the railroad and a new bridge over Trail St.
City	McArtor Rd. (Missouri Rd. – S. 2nd Ave.) 14th Ave. (McArtor Rd. – US56)	Segment / Intersection / Pedestrian	Improve 14th Ave. & McArtor Rd. intersection and expand both corridors to 3-lane sections. Includes multi-use trails.
City	Soule St. (Manor Dr. – 1st Ave.) 6th Ave. (Soule St. – Comanche St.)	Intersection / Pedestrian	Improve the 6th Ave. and Soule St. intersection and improve the intersection of 6th Ave. and Comanche St. with a potential roundabout. Includes multi-use trails.
City	Comanche St. (1st Ave. to Elbow Bend	Pedestrian	Multi-use trail.
City	S. 2nd Ave. and Sunnyside Ave (Wright Park to Beeson Arboretum)	Pedestrian	Multi-use trail and bridge over Arkansas River.

7.2. SAFETY PROJECTS

Safety projects are identified for each crash emphasis area using input from stakeholders, the public survey, crash data analysis, and input from City staff. This list was refined based on review and comments by both the City and the STF. Project fact sheets that provide additional project information are provided in ***Appendix D***.

Signalized Intersections

Projects addressing crash locations at signalized intersections are listed in ***Table 11***. Two projects are systemic countermeasures that address crash locations at 20 signalized intersections. The third project will improve the safety of left turn traffic movements on 14th Avenue at the intersections of Wyatt Earp Boulevard and Spruce Street. 14th Avenue is a four-lane street. This project will designate the center lanes as left turn lanes allowing for improvements in signal phasing and with railroad signal pre-emption.

Table 11: *Recommended Signalized Intersection Safety Projects*

Signalized Intersections				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
KDOT/City	Signalized intersections (20)	Signalized Intersections	Systemic	Install Retroreflective Backplates.
KDOT/City	Signalized intersections (20)	Signalized Intersections	Systemic	Signal Timing and Phasing Plan including LPI at higher pedestrian locations (not including hardware).
City	14th Ave. at Wyatt Earp Blvd. and Spruce St.	Signalized Intersections	Crash Locations	Lane striping to provide left turn lanes, complete sidewalk gaps on west side, signal timing and coordination, pedestrian signal heads, and crosswalks.
KDOT/City	Wyatt Earp Blvd. and US-283/113th Rd.	Signalized Intersections	Crash Locations	A more detailed study is currently underway at this location, along with a comprehensive scope that includes grant applications.

Unsignalized Intersections

Recommended safety projects at unsignalized intersections are in ***Table 12***. Listed are locations along US-50 and Wyatt Earp Blvd. where left turn bays are currently not provided and are recommended for construction. Additional intersections are identified where an intersection control evaluation study should be completed that examines signal, roundabout, and/or stop control warrants.

Table 12: *Recommended Unsignalized Intersection Safety Projects*

Unsignalized Intersections				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
KDOT	Wyatt Earp Blvd. & Matt Down Rd.	Non-Signalized Intersection	Crash Locations	Add eastbound left turn lane.
City	Wyatt Earp Blvd. & Underpass Rd.	Non-Signalized Intersection	Crash Locations	Intersection Control Evaluation
City	McArtor Rd. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation

Unsignalized Intersections				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
City	Park St. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation
City	Division St. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation
KDOT	US-50 & Matt Down Rd. and US-50 & Avenue P	Non- Signalized Intersections	Public comment	Add left turn lanes and advance intersection warning signs.
City	Comanche St. & Avenue A	Non- Signalized Intersection	Crash Locations	Close access to La Mesa.
City	Spruce St. & Avenue C	Non- Signalized Intersection	Crash Locations	Install Stop signs.
KDOT	US-50 & Melencamp Ave.	Non- Signalized Intersection	Public comment	Add eastbound and westbound left turn lanes.

Vulnerable Road Users

Projects that address pedestrian and bicycle safety are shown in ***Table 13***. The list includes projects along Ross Boulevard, 6th Avenue from Edgemore Street to Soule Street, and on Comanche Street from 6th Avenue to Avenue B. These projects connect neighborhoods to parks and schools and reducing vehicle speeds would improve bicycle/pedestrian safety. A fourth project would provide an enhanced pedestrian crossing and speed table on Wyatt Earp Boulevard at a location to the east of the downtown area, near Avenue E or Avenue F.

Table 13: *Recommended Pedestrian Safety Projects*

Pedestrian Projects				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
KDOT	Wyatt Earp Blvd. & Matt Down Rd.	Non-Signalized Intersection	Crash Locations	Add eastbound left turn lane.
City	Wyatt Earp Blvd. & Underpass Rd.	Non-Signalized Intersection	Crash Locations	Intersection Control Evaluation
City	McArtor Rd. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation
City	Park St. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation
City	Division St. & 14th Ave.	Non- Signalized Intersection	Crash Locations	Intersection Control Evaluation
KDOT	US-50 & Matt Down Rd. and US-50 & Avenue P	Non- Signalized Intersections	Public comment	Add left turn lanes and advance intersection warning signs.
City	Comanche St. & Avenue A	Non- Signalized Intersection	Crash Locations	Close access to La Mesa.
City	Spruce St. & Avenue C	Non- Signalized Intersection	Crash Locations	Install Stop signs.
KDOT	US-50 & Melencamp Ave.	Non- Signalized Intersection	Public comment	Add eastbound and westbound left turn lanes.

7.3. PROGRAMS AND PLANS

The following programs and plans will support achieving the goals of the CSAP.

Speeding and Distracted Driving

The City of Dodge City could consider implementing a variety of policies and programs to provide education and enforcement to address excessive speeds and distracted driving as listed in ***Table 14***.

Table 14: *Recommended Safety Programs*

Speeding and Distracted Driving				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
City	Citywide	Vulnerable Road Users	Public comment & Crash locations	Create VRU-specific education through Public Service Announcements (PSAs) and other targeted education outlets.
City	Citywide	Speeds	Public comment & Crash locations	Conduct high-visibility law enforcement campaigns to deter aggressive driving/speeding on high-crash corridors and near schools.
City	Citywide	Distracted Driving	Public comment & Crash locations	Perform targeted education and enforcement. This may include (PSAs), social media ads, school & workplace education related to distracted driving.

Plans Supporting Safety

The City of Dodge City could consider completing or supporting plans that will address traffic speeds, provide additional pedestrian, and bicycle safety near schools as listed in ***Table 15***.

Table 15: *Recommended Plans Supporting Safety*

Supporting Plans and Programs				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
City	Citywide	Speeds and Vulnerable Road Users	Public comment & Crash locations	Consider developing traffic calming guidance and policy related to defining speed thresholds and identifying traffic calming project types to address speeds and cut-through traffic in neighborhoods.
City	Citywide	Speeds and Vulnerable Road Users	Public comment & Crash locations	Coordinate with the school district to encourage Safe Routes to School or complete additional analysis in school areas to address safety concerns.

Supporting Plans and Programs				
Roadway Ownership	**Location**	**Project Type**	**Selection**	**Scope**
City	Citywide	Vulnerable Road Users	Public comment & Crash locations	The City could complete an analysis of existing bike/pedestrian infrastructure. Emphasis areas would be on multi-use paths and connecting paths to neighborhoods. An existing review of sidewalk and crosswalk gaps could be included.
City	Underpass Road & Trail Street	Vulnerable Road Users	Public comment & Crash locations	Study bicycle and pedestrian access along Underpass Road and design ways to accommodate VRU movement under the rail bridge. Examine access to National Beef plant along Trail Street.

7.4. FUNDING SOURCES

Funding is critical to implement the strategies and action items in this CSAP and may come from a variety of sources: Federal, State, local, and the private sector. These include standard funding program mechanisms and grants as well as new initiative grants. Some sources of funding:

- **Local Agency Funding**. Dodge City has various funding sources that can be used to maintain and improve streets and roads as well as enhance other safety measures. Consideration of the CSAP strategies during the allocation of funding, especially for maintenance activities or other street and road improvement projects can support implementation of the CSAP.
- **Safe Streets and Roads for All**. The Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program that will provide $5-6 billion in grants over the five- year program period. With the completion of this CSAP, Dodge City is eligible to apply for implementation funding.
- **Coordinate with KDOT** to administer annual safety grants funded by the state that are targeted at behavioral safety projects. Identify and apply for funding for education and enforcement programs annually.
- Support the school district in applying for **Safe Routes to School funding**.

7.5. PROCESS AND POLICY CHANGES

The CSAP assesses current policies, plans, guidelines, and standards to identify opportunities to improve and prioritize transportation safety. The following policies, guidelines, and/or standards support achieving CSAP goals.

Vision Zero

The **zero deaths** vision acknowledges that even one death on our transportation system is unacceptable and focuses on safe mobility for all road users. A "Vision Zero" initiative to target fatal and serious injury crashes was adopted by the Dodge City Commission. The Vision Zero Resolution is included in ***Appendix F***.

Incorporating Safety into Project Development Process
Include systemic safety improvements in projects developed by Dodge City and by KDOT.

Measuring Progress
After developing the CSAP, progress toward meeting the plan's goals should be measured over time. This progress needs to be transparent to residents and other stakeholders. This can include annual public and accessible reporting on progress toward reducing roadway fatalities and serious injuries, and public posting of the Comprehensive Safety Action Plan online.

Update Design Policies
The CSAP includes assessing current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize transportation safety. This CSAP includes a review of roadway design standards and examines the development of a complete streets policy. Policies to be examined should include sidewalk and speed limits plus other guidelines that are listed in programs such as Safe Routes to Schools.

Implementation
To implement policy and process changes, the City will develop an official Complete Streets policy, a sidewalk policy, and a Safe Routes to School program. These new policies will directly address the emphasis areas identified during the CSAP process. The Safety Task Force will track progress on policy development and adoption to ensure implementation is complete by the Vision Zero resolution target date of 2040.

7.6. NEXT STEPS: PROGRESS AND TRANSPARENCY
The Dodge City CSAP is a dynamic document intended to be used by the City and by stakeholders to continually advance transportation safety via the strategies and actions listed within the CSAP.

Plan Leadership
The City of Dodge City assumes leadership of this plan and will support implementation. As part of this role, Dodge City will continue to utilize the Safety Task Force, whose responsibility will be to carry out updates to the document and implementation of the plan.

Implementation Meetings
Dodge City will convene the Safety Task Force a minimum of one time a year to discuss progress and associated challenges with implementing the CSAP.

Stakeholders
The key stakeholders for the CSAP reviewed the data, discussed other known challenges, and collectively agreed to the identified strategies. The City and stakeholders are committed to implementing the policies, programs, and projects that pertain to their individual mission as well as to improving transportation safety within the city. They will do this by:

- Being champions for safety in job responsibilities and personal lives.
- Participating in events and campaigns relevant to this plan.
- Sharing information about transportation safety within agencies and with peers.
- Coming together annually to share progress on safety activities.

Annual Evaluation

When the previous year's crash data is available, Dodge City will evaluate progress toward this plan's goals by assessing city-wide fatalities, serious injuries, and crashes. Data will also be analyzed to see if the emphasis areas have been affected.

Other Planning Efforts

Dodge City will remain informed of current and new local and statewide safety programs, policies, plans, guidelines, and/or standards. Based on this information, Dodge City can continue to identify opportunities to build upon the current Implementation Plan.

APPENDICES

APPENDIX A: PUBLIC/STAKEHOLDER INPUT SUMMARY

DODGE CITY COMPREHENSIVE SAFETY ACTION PLAN

Public Involvement Plan – March 2024

Introduction

Developing a Comprehensive Safety Action Plan for the Dodge City area will identify an array of lifesaving measures for motorists, pedestrians, cyclists, transit passengers and other transportation users.

A Comprehensive Safety Action Plan (referred to as a CSAP or the Action Plan) is a basic building block researching then outlining steps to improve roadway safety. The Action Plan is aimed at reducing and eliminating serious injury and fatal crashes affecting roadway users. There are eight components to the Action Plan:

- Leadership commitment and goal setting
- Planning structure
- Safety Analysis
- Engagement and collaboration
- Equity
- Policy and process changes
- Strategy and project selections
- Progress and transparency

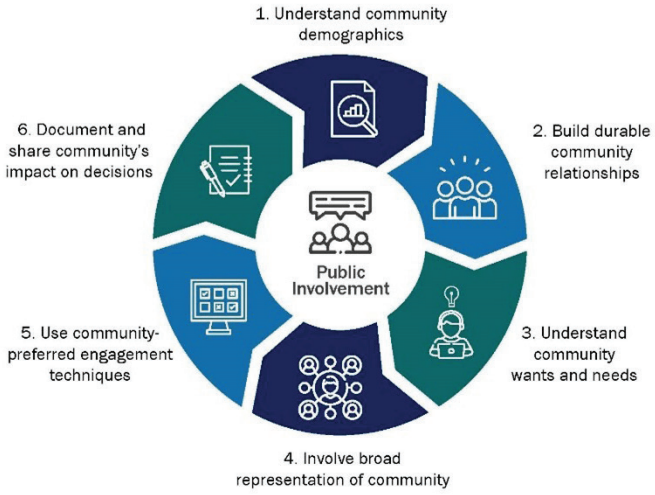
The Action Plan will be developed using the U.S. Department of Transportation's (USDOT's) Safe System Approach. It is based on the fundamental concept that fatal and serious injury traffic crash outcomes are preventable.

Instead of blaming road users for crashes, this approach recognizes that the responsibility for road safety lies with multiple stakeholders, including road designers, vehicle manufacturers, law enforcement, and policymakers. By designing a forgiving road system that accommodates human error, the Safe System Approach aims to prevent fatal crashes and minimize the severity of injuries.

To create the Action Plan, gathering information from many sources, including study partners and the public, will be key to finding solutions that address current and future issues that can be supported by most stakeholders. Varied methods of public involvement will help develop positive outcomes not only for this process but also instill a more inclusive transportation infrastructure decision-making process. TranSystems will use the U.S. Department of Transportation model for meaningful public involvement shown below.

Public Involvement

TranSystems will proactively seek meaningful public involvement from study partners, citizens and local communities to compile suggested improvements and present them in the CSAP. Communication with interested parties will be on-going throughout the study period with a final corridor management plan produced in late 2024.



Three main areas of project public involvement will be created:

1. **Information and communications:** study background, procedures, methods, schedule, key messages, and activity updates will be distributed.
2. **Stakeholder input:** community leaders, elected and appointed officials, government staff members and other stakeholder groups will be briefed and consulted to help decision-making in the planning process.
3. **Community outreach:** educating, informing, engaging, and receiving input from community members with the intent of precipitating an interactive dialogue for consideration as the project evolves.

Key Audiences

- Citizens of Dodge City.
- Businesses that use the transportation system in and around Dodge City.
- Civic organizations that might be interested in discussing safety measures for the community.
- Governmental units including Unified School District 443, other area school districts, the city of Dodge City, nearby cities, Ford County, and Kansas Department of Transportation.
- Area first responders including law enforcement, fire departments, emergency medical services, emergency management and others.

Public Involvement Methods

- Three Safety Task Force meetings will be convened.
- Public meeting presentations outlining the goals and progress of the study to governing bodies will be shared.
- Two public meetings will be organized – one to solicit and inform the public and one to share the proposed corridor management plan at a City Commission meeting. Other public input may be available at local events such as Dodge City Days and back-to-school events.
- Survey with ARC GIS, areas of concern pinpointed, comments opportunity.
- Public comments will be compiled from meetings, online surveys, phone, and face-to-face conversations as well as written comments received during the study period.

- Updates and announcements for news media, city websites and social media outlets will be provided to Dodge City for distribution.
- Translation of project documents into Spanish is planned. Other language translations may be necessary. To ensure that people with disabilities and diverse needs and experiences are aware of and can participate in public involvement activities, a wide range of tools will be used.

Proposed Schedule

- Project team meetings tentatively scheduled for March, April, and May.
- Presentations at public meetings, as requested, tentatively scheduled for June, July, October, and December.
- One open house public meetings tentatively scheduled for August.
- Public comments will be accepted and compiled throughout the study period.

Follow Up Activities

- Assist the City of Dodge City, as needed, with meeting invitations, meeting notes, news releases, public survey methods, website text, social media content and a final public involvement report.

Project Contacts

> ***Dodge City Project Manager:*** Tanner Rutschman
>
> ***Dodge City Public Involvement:*** Melissa McCoy & Collin Clark
>
> ***TranSystems Project Manager & Technical Lead:*** Slade Engstrom
>
> ***TranSystems Communications Lead:*** Tom Hein

Dodge City SS4A
SAFETY TASK FORCE MINUTES

LOCATION:	Municipal Services Building, 100 Chaffin Rd
DATE:	5/14/24
TIME:	1:30 PM
ATTENDEES:	JD Gilbert, Collin Clark, Shannon McGee, Bill Carr, Rob Boyd, Diana Loera, Kyle Davis, Brenda Martinez, Drew Francis, Nick Hernandez, Tanner Rutschman, Slade Engstrom, Tom Hein, Clyde Prem, Kurth Lancaster

I. Welcome and Introductions

Slade began the discussion with an overview of the SS4A process and the purpose of this study. The City has been awarded a planning grant that is funding this study. This SS4A planning grant is used to identify the projects to chase for implementation funds. This initial process is needed to identify those projects.

The project team introduced themselves. The participants than also made introductions.

II. Project Introduction

a. Safe System and Vision Zero Background

The TranSystems project approach was shown, and it includes data analysis, strategies and actions, recommendations and implementation.

The project schedule was reviewed. Slade indicated that the project will be completed by the end of the year. This will provide sufficient time to consider applying for an implementation grant in 2025.

Slade presented information describing the elements of a safety action plan. This is a new way to look at traffic safety. This approach includes describing the six principles and five elements included in the safe system approach. The main ideas are to create redundancy in the safety system to deflect possible fatal or severe injury crashes.

The task force was asked the following question and provided these responses:

b. Safety Task Force Role

The STF is being asked to help us in a number of ways. This includes helping us review information, to help form safety goals, and review safety emphasis areas.

c. Public Survey

A public survey is now available to complete. Slade and Tom discussed how to access the survey.

III. Crash Data Review

Slade introduced the data discussing it is 10 years of data. There was a question asking about how strong the data was with a reference to issues when another study was completed.
In particular, the city area has grown recently and the need for data in these areas that may not be in the 10-year data range.

The group discussed some areas of concern to include: the area on US-50 near the casino, near the High School, speeds on Iron Street, the need for turn lanes on portions of US-50.

Slade and Clyde discussed these points and indicated that this study will not only look at the data, but will also discuss systemic issues, and identify emphasis areas. This will include looking at turn lanes and appropriate speeds. We may also look at additional data, such as speed data from big data sources that measure vehicle information from phones and GPS systems in cars.

The crash analysis handout was discussed. Information was presented for total crashes, crashes by severity and the crash review summary. The group pointed out the limit of the data in the area of contributing circumstances due to limited response.

Break

During the break, task force members met with the team to show locations where speed issues and crashes may be occurring that are not shown on the graphics.

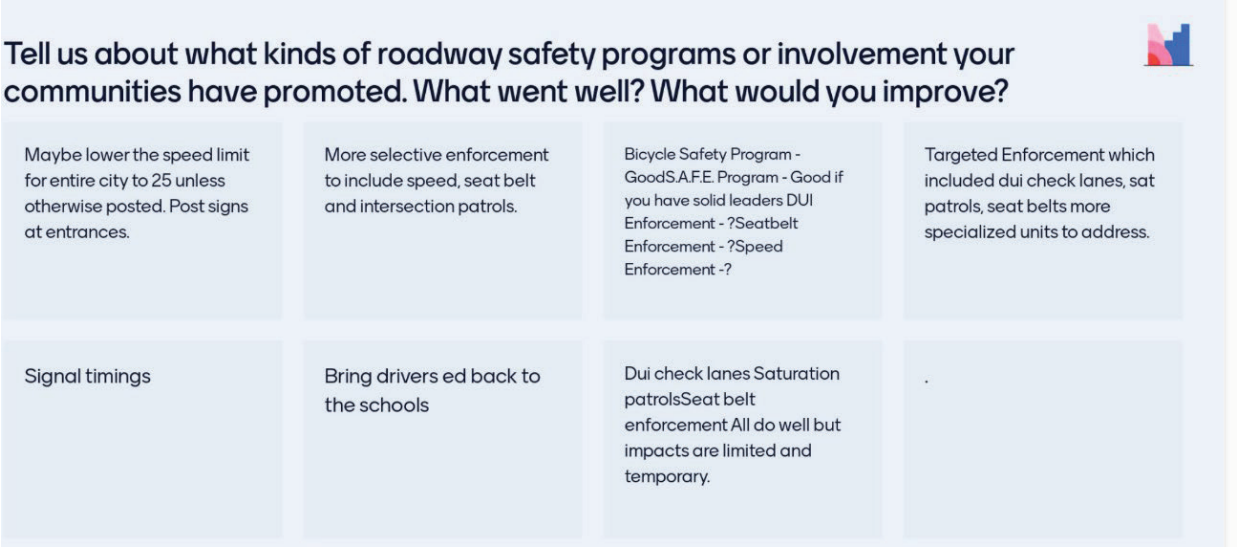
It was determined that for this project, the data boundary needs to be expanded to include areas in the county just outside the city limits. The area to look at is the area shown in the exhibits so that some of the county roads leading to the city are included.

IV. Emphasis Areas

Slade continued the presentation showing data by emphasis areas. The Task Force was asked to identify those emphasis areas that seemed most important to them to consider. The discussion centered around intersections plus other factors. Following discussion, the group as ask to complete the following poll question to indicate the emphasis areas the study should consider.

V. Discussion

The Task Force was asked two additional questions in order discuss safety initiatives and safety needs in Dodge City. We received the following responses.



VI. Next Steps

Next steps include putting the survey out to the public. The Task Force was asked to complete the survey also.

The next meeting is scheduled for July 16 at this same location.

The project team will continue to provide additional crash analysis, now looking at emphasis areas.

Tom asked the group to make sure they signed in and to provide email addresses if they are new to the Task Force.

The meeting was adjourned.

Safe Streets 4 Dodge
SAFETY TASK FORCE MEETING 2 MINUTES

LOCATION: Municipal Services Building, 100 Chaffin Rd
DATE: 7/16/24
TIME: 1:30 PM

ATTENDEES: Collin Clark, Shannon McGee, Bill Carr, Rob Boyd, Kyle Davis, Drew Francis, Ken Spencer, Nick Hernandez, Tanner Rutschman, Roxana Arjon, Melissa McCoy, Kurth Landcaster, Tom Hein, Clyde Prem, Emma Habosky, Patrice Hein

I. Welcome and Introductions

Clyde opened the meeting by welcoming everyone and thanking them for their time and interest in creating safer streets for Dodge.
Participants in the meeting introduced themselves. Emma Habosky and Patrice Hein were attending remotely.

II. Task Force Meeting#1 Overview

Clyde recapped the first Safety Task Force Meeting held May 2 which provided background on the Safe Streets 4 All program, its processes and purpose. The participants looked at data analysis and discussed priority issues within the community. The timeline was discussed.
Nick asked about the implementation deadline – Emma said Spring 2025.

III. Survey Results

Initial survey results were discussed. As of July 3, 49 responses were recorded.
The STF noted the following:
- The survey could be sent to "Jump Start" program, Back to School event, put on water bills, Chamber of Commerce, Adult Learning Center, public library. City staff will work on getting the survey out, however, people may have survey fatigue.
- Word Cloud answers would make more sense if two words could appear together (i.e., traffic signal, Wyatt Earp, etc.,)

IV. Emphasis Areas

Recommendation in Dodge City will be based around emphasis areas selected by the STF. These include intersections, vulnerable roadway users, speeding, distracted driving, and school areas. The following comments were provided:

- Ross Avenue connects to the high school and speeding is a regular occurrence.
- Avenue P and US-50 will be added to the intersection list. It was stated that this location had a crash with multiple victims. There is a crest curve to the west, causing limited sight distance. Heavy equipment often travels the roadway and people have difficulties stopping at the stop sign.
- TranSystems will conduct additional speed data analysis. Dodge staff noted that some construction may have impacted speed values. They will see if there is more recent data.
- There is some congestion around Sunnyside Elementary School. Overall, afternoon pickup at elementary schools can cause congestion due to the pick-up routine required by schools.
- The intersection at 14th and Spruce is on a steep downgrade. This can cause issues during inclement weather, such as snow.

- Drivers sometimes pass on Wyatt Earp Boulevard along the right side of the roadway near Foley Tractor.

V. Countermeasures

Clyde presented federally recommended countermeasures to address the emphasis areas and Safety Task Force members voted on those they felt were most important. See attachment for voting results.

a. Intersections

- Dodge City recently applied for a Strengthening Mobility and Revolutionizing Transportation (SMART) grant to upgrade eight signal controllers.
- There was interest in adding "Stop Ahead" warning signs at unsignalized intersections.
- Installing turn lanes and left-turn phasing were general trends from stakeholders.
- STF noted an interest in traffic calming efforts.
- There was a discussion about countermeasures varying in price. Road diets were of interest – they only require restriping and have minimal added maintenance.

b. Pedestrians and Bicyclists

- Speed humps were a higher-cost item because of potential drainage impacts and additional pavement.
- Dodge City has a young population with many families. Improving bike/ped facilities should be encouraged. Social services are particularly interested in improving mobility and overall public health.
- There are existing school zones with added fines.
- There was an overall interest in Safe Routes to School; however, the school will have to apply
- and the City can support the application.
- A lot of interest in multi-use pathways and how to connect them throughout the community. Dodge City is committed to providing safe connectivity to allow all people easy access to the pathways. This is an ongoing discussion/movement for city staff.
- Distracted driving
- A few years ago, Miss Kansas went around to school to present about distracted
- driving. This was successful.
- Enforcement and Public Service Announcements were mentioned as ways of addressing distracted driving. Sheriff's Office notes it is a difficult thing to enforce.

VI. Next Steps

- TranSystems will continue data analysis and will include emphasis areas brought forward by the Safety Task Force - Public Meeting Tuesday, August 20 at USD 443 Administration Building - Safety Task Force Meeting #3 Tuesday, October 1, 1:30 p.m.
- Upcoming meetings are:

• Public Meeting Tuesday, August 20 at USD 443 Administration Building
• Safety Task Force Meeting #3 Tuesday, October 1, 1:30 p.m.

Dodge City SS4A
SAFETY TASK FORCE MEETING #3 MINUTES

LOCATION:	Municipal Services Building, 100 Chaffin Rd. Dodge City, Kansas
DATE:	10/1/24
TIME:	1:30 PM
ATTENDEES:	Slade Engstrom, Bill Carr, Rob Boyd, Drew Francis, Shannon McGee, Brenda Martinez, Kyle Davis, Kurth Lancaster, Diana Loera, Melissa McCoy, Tanner Rutschman, Collin Clark, Tom Hein, Clyde Prem, Emma Habosky (online)

I. Welcome and Introductions

Slade opened the meeting by welcoming everyone and shared the agenda. A sign-in sheet was passed around the room.

II. Project Timeline & Meeting Overview

The project timeline was reviewed, and Slade noted that the draft of the final report for the Comprehensive Safety Action Plan will be available in November. Information provided in the report and plan can be used for a SS4A implementation grant application in 2025.

Slade recapped Vision Zero, the Safe System Approach, and the emphasis on eliminating fatal serious injury crashes.

III. Public Involvement

Interactions with community members during the project included an online survey with 76 responses which included input on safety concerns at 38 locations in Dodge City. Locations generating the most concerns were Wyatt Earp Blvd. and US-283/US-56, 14th Ave. and McArtor Road, Avenue K and Division Street, and US-50 and Melencamp Avenue.

Other public involvement events included a Back-to-School event with City staff members sharing the project with 400-500 people, a booth at Dodge City Days KidFest with City staff and PJDunnCo interacting with approximately 1,000 people, and a project open house that attracted 11 members of the public plus many of the safety task force members.

IV. Emphasis Areas Addressing Safety Problems

Slade shared a list of the currently programed or planned projects by the City.

Then he proposed projects at a minimum 20 of 31 signalized intersections with countermeasures that include retroreflective backplates, signal timing and phasing, and pedestrian considerations.

Next, he identified nine unsignalized intersections and extensive discussion occurred:

1. Wyatt Earp & Matt Down Rd. One fatality at this intersection and it was suggested that a dedicated left turn lane could help. Tanner stated that studies on this and the next Wyatt Earp intersection on this list have been delayed.
2. Wyatt Earp & Underpass Rd. There is a 30 to 40-minute delay at shift change plus there are pedestrians and bikes using Underpass Rd. (mostly related to workers coming and going to the nearby beef plants). Consider a roundabout or signalize the intersection? A warrant study would be necessary to determine need. No current projects here but there are two FRA grants (RCE & CRISI).
3. McArtor Rd. & 14th Ave. Crash history and public input comments have led to traffic data being collected. A bus was T-boned at this site. Some drivers are running the 14th St. stop sign (it is four lanes, and the stop sign may not be noticed by all drivers).
4. Park St. & 14th Ave. It is very close to the railroad and people try to avoid this intersection at certain times.
5. Division St. & 14th Ave. Tanner said these serve as residential collector streets. There is more traffic on Division than Lynn St., but the signal is at Lynn. It is a one-way street in one section and southbound traffic can be fast because of a hill. After lots of discussion, it was suggested by the task force that the signal be moved to Division. Slade suggested that it could be a four-way stop instead of a signal.
6. US-50 & Matt Down and US-50 & P. Suggestions included left turn lanes and reducing speed limit. There is concern about additional students on US-50. Rob stated it is a major crash site and when crashes occur, they often tend to be severe. Slade suggested adding these locations to future list for the grant.
7. Comanche & Avenue A. Suggest closing access to La Mesa Dr. with a hammerhead cul-de-sac. Tanner said Country Club Dr. will also be closed with a future trail project.
8. Spruce St. & Avenue C. Suggestion is to install a four-way stop. East – west traffic on Spruce has few stops and there is poor visibility at the intersection. This is an education opportunity too.
9. US-50 & Melencamp Ave. The Task force wants to add left turn lanes instead of using right-in, right-out only.

The next topic was suggested countermeasures for two corridors:

1. 14th St. from Comanche to Wyatt Earp. Possibility of adding left turn lanes, complete sidewalk gaps on the west side, and implement signal timing and coordination. Will need a traffic signal warrant analysis at Spruce St. for signalization. A left turn “trap” lane could be used at some intersections. The proximity to the railroad adds to the corridor’s problems. This corridor could become a big project.
2. Ross Blvd. A bike/shared use trail using some of the current roadway was suggested with some trails added adjacent to the west leg of this corridor. A long discussion occurred with mentions of new homes in the area, high school traffic, blocked views for drivers, and buses being blocked.

Countermeasures to increase pedestrian safety was next:

1. Wyatt Earp near Avenue E. Probably between Ave. E and Ave. F, a raised crosswalk, and Pedestrian Hybrid Beacon (PHB) is suggested to facilitate safer crossing to retail stores on the south side of Wyatt Earp.
2. 14th Ave. & Spruce and 14th & Wyatt Earp. No discussion but suggestion includes crosswalk and

pedestrian signal heads.

3. 6th St., Soule St. to Edgemore St. It's a very busy corridor with lots of buses plus parent drivers heading to schools for pick-up or drop-off of students. Raised speed tables for traffic calming, raised crosswalks, limited street parking in residential area, improved sidewalks and pedestrian signal heads were discussed as countermeasures. This should coordinate with an ongoing 6th St. project south of Soule.
4. Comanche from 6th St. to Avenue B. Suggestions include intersection treatments and crosswalks. 1st and Comanche are perceived as a bad intersection with school traffic. It could use Leading Pedestrian Intervals (LPI).

Countermeasures to reduce speeding include increased enforcement in key speeding and crash areas, traffic calming strategies, education campaigns about speeding, speed feedback signs, and road diet changes.

Distracted driver countermeasures include education campaigns (PSAs, social media ads, school, and workplace education). It has been mentioned by law enforcement members of the task force that the state law for distracted driving has little effect.

A Benefit—Cost evaluation chart was examined and will be used in the future to prioritize effective countermeasures.

V. Open Discussion

East Trail St. from Overpass Rd. to the Cargill plant (in the City and the County) was mentioned as a problem area. Some fatalities have occurred near Cargill and the three adjacent trailer parks. There are many tractor/trailers accessing the packing plants, shift changes at Cargill create lots of traffic, there are multiple access points to Cargill that are too close together, and there is poor driver visibility of US-400 traffic because of opaque fencing at the Cargill parking lot exits. Bill said people go 80 – 100 mph and cited a need for reduced speeds, signage for buses, additional lighting, flashing speed lights, and message boards.

VI. Next Steps

1. A Zero Vision resolution draft that proclaims the City's commitment and outlines future goals will be provided to City staff for the Dodge City Commission.
2. The CSAP Final Report is anticipated to be available for review in November 2024.
3. The Safety Task Force will continue to meet to help select projects, examine opportunities for improvement in post-crash care, enforcement, and continue culture influence advocating safer behaviors.

The meeting was adjourned at 3:30 pm.

APPENDIX B: PUBLIC SURVEY RESULTS SUMMARY

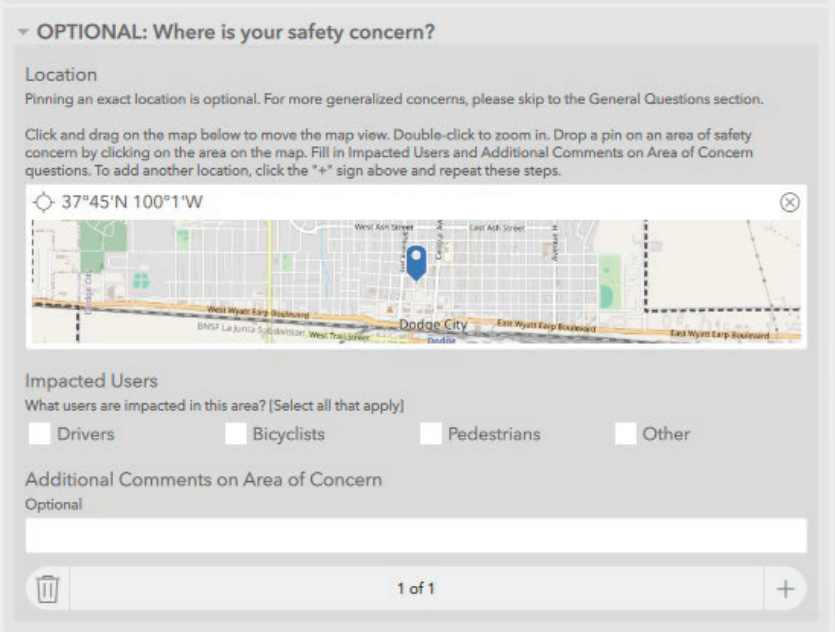
Safe Streets 4 Dodge

Public Survey Results

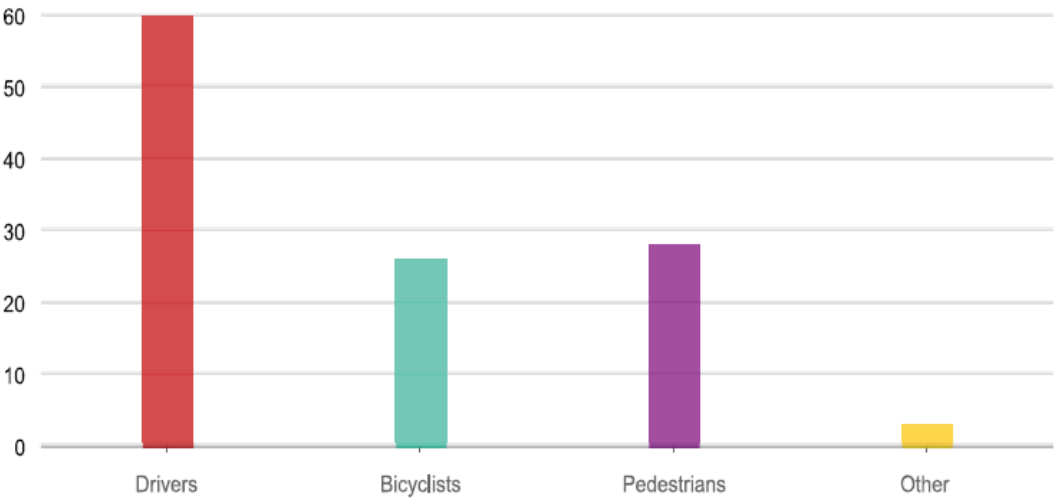
August 12, 2024

76 responses were collected.

Location Map: Where is your safety concern?



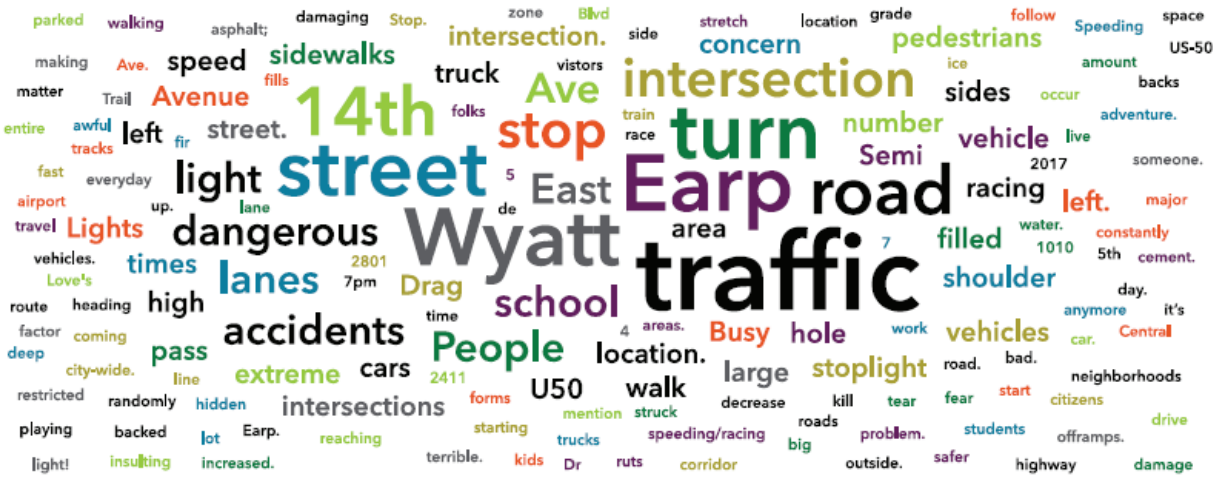
Impacted Users



Answers	Count	Percentage
Drivers	60	78,95%
Bicyclists	26	34.21%
Pedestrians	28	36,84%
Other	3	3,95%

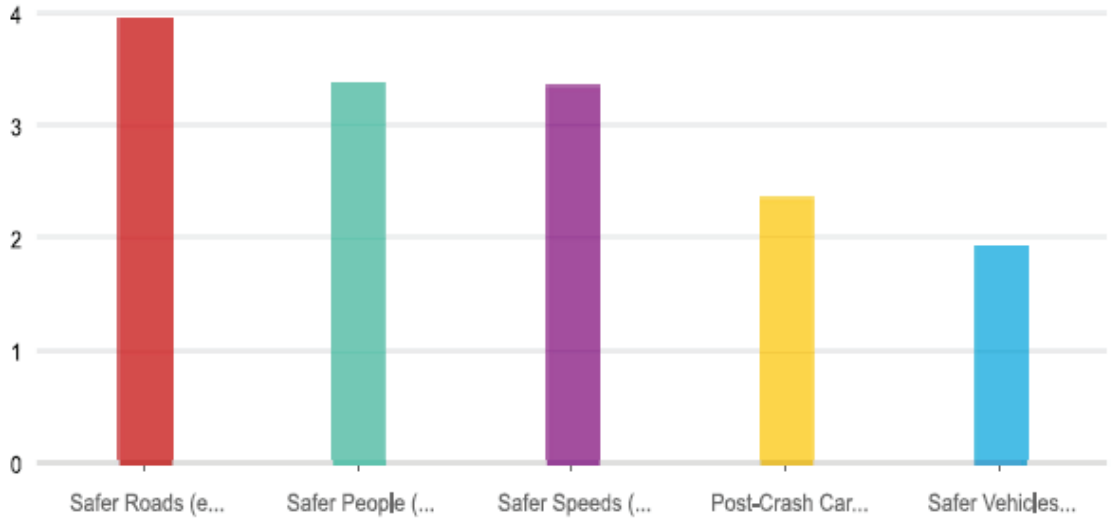
Answered: 63 Skipped: 13

Word Cloud of Additional Comments on Area of Concern



General Questions

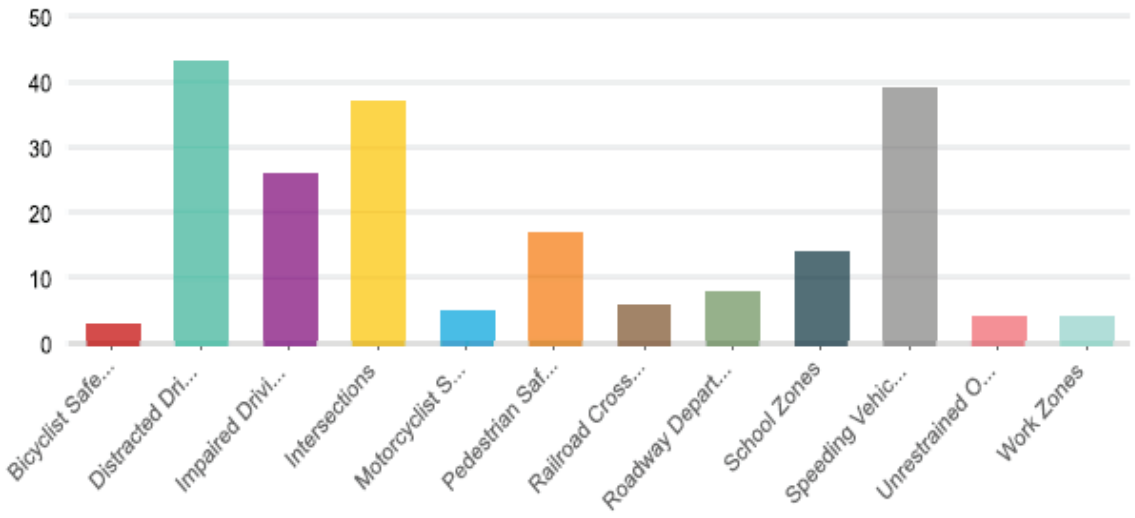
1. As part of the Safe System Approach, the following five categories are objectives for reducing crashes. Rank from highest to lowest your biggest safety concerns.



Rank	Answers	1	2	3	4	Average score
1	Safer Roads (e.g., infrastructure improvements)	48,61% 35	15,28% 11	22,22% 16	11,11% 8	3,96
2	Safer People (e.g., improved behavior)	25% 18	30,56% 22	16,67% 12	13,89% 10	3,39
3	Safer Speeds (e.g., traffic calming, improving behavior)	19,44% 14	26,39% 19	30,56% 22	18,06% 13	3,36
4	Post-Crash Care (e.g., quicker access to emergency response services, tier-one trauma center access)	5,56% 4	16,67% 12	18,06% 13	27,78% 20	2,36

Answered: 72 Skipped: 0

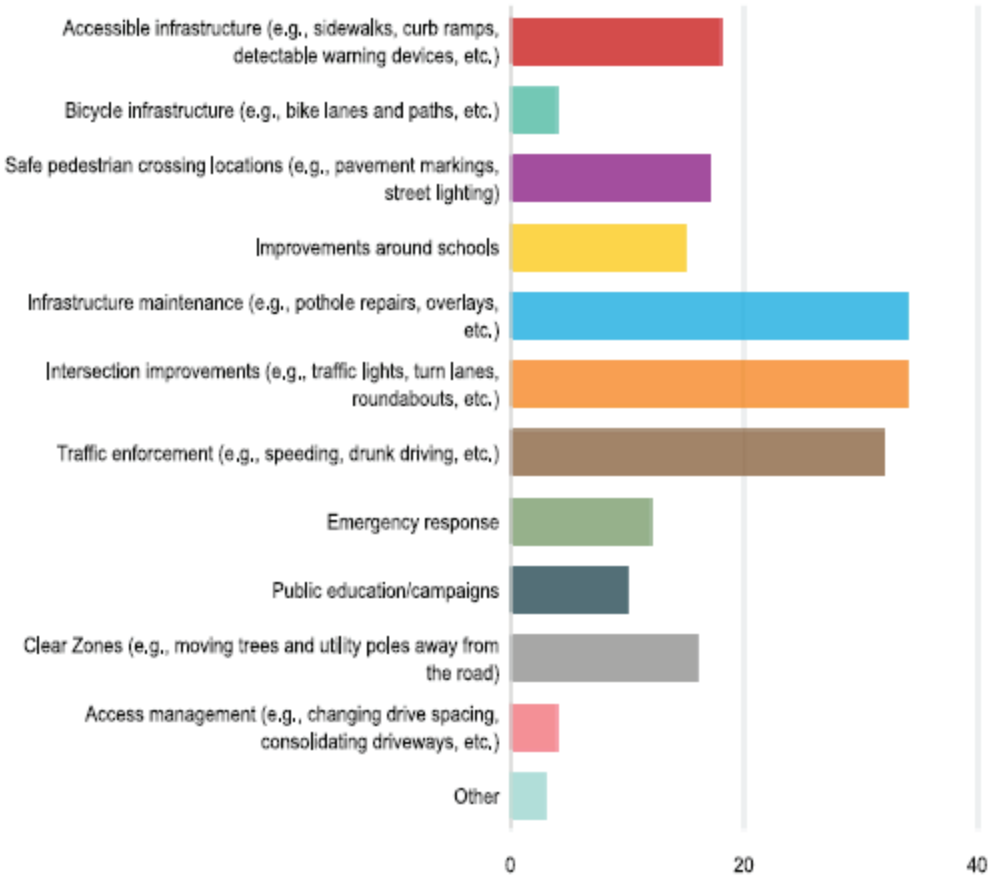
2. What safety areas are most important to you in addressing street safety? Select top three.



Answers	Count	Percentage
Bicyclist Safety	3	4.17%
Distracted Driving	43	59.72%
Impaired Driving (alcohol or drugs)	26	36.11%
Intersections	37	51.39%
Motorcyclist Safety	5	6.94%
Pedestrian Safety	17	23.61%
Railroad Crossings	6	8.33%
Roadway Departures	8	11.11%
School Zones	14	19.44%
Speeding Vehicles	39	54.17%
Unrestrained Occupant (e.g., lack of seatbelt use)	4	5.56%
Work Zones	4	5.56%

Answered: 72 Skipped: 0

3. How would you limited resources to save people's lives? Select the top three safety investments you would like to see to improve in your transportation system.

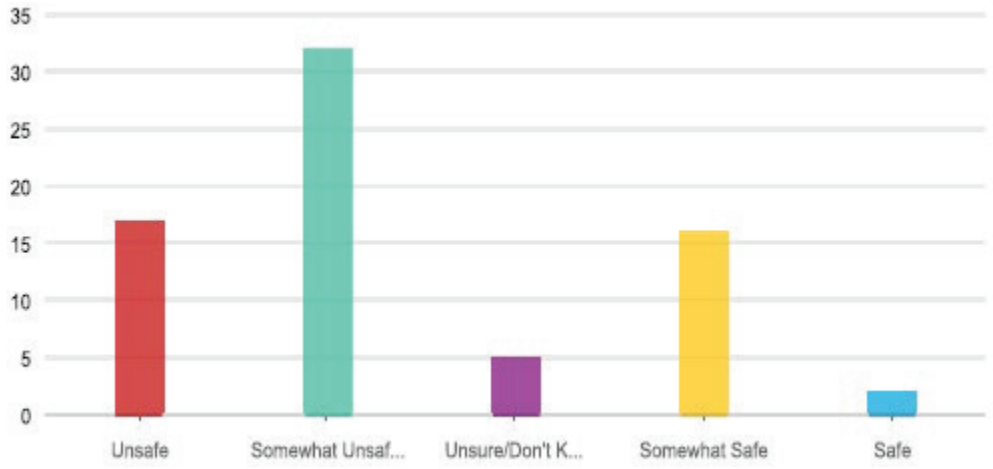


Answers	Count	Percentage
Accessible infrastructure (e.g., sidewalks, curb ramps, detectable warning devices, etc.)	18	25%
Bicycle infrastructure (e.g., bike lanes and paths, etc.)	4	5.56%
Safe pedestrian crossing locations (e.g., pavement markings, street lighting)	17	23.61%
Improvements around schools	15	20.83%
Infrastructure maintenance (e.g., pothole repairs, overlays, etc.)	34	47.22%

Intersection improvements (e.g., traffic lights, turn lanes, round abouts, etc.)	34	47.22%
Traffic enforcement (e.g., speeding, drunk driving, etc.)	32	44.44%
Emergency response	12	16.67%
Public education/campaigns	10	13.89%
Clear Zones (e.g., moving trees and utility poles away from th e road)	16	22.22%
Access management (e.g., changing drive spacing, consolidati ng driveways, etc.)	4	5.56%
Other	3	4.17%

Answered: 72 Skipped: 0

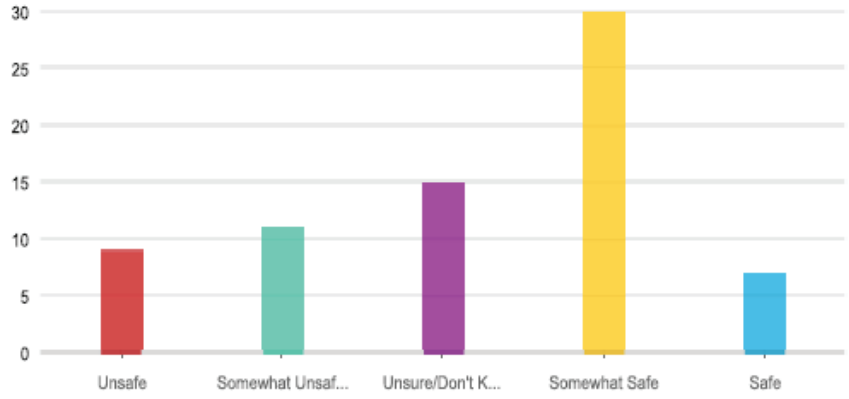
4. Provide input on the current behaviors of road users in the region, listed below.
    a. Driver Behavior



Answers	Count	Percentage
Unsafe	17	23.61%
Somewhat Unsafe	32	44.44%
Unsure/Don't Know	5	6.94%
Somewhat Safe	16	22.22%
Safe	2	2.78%

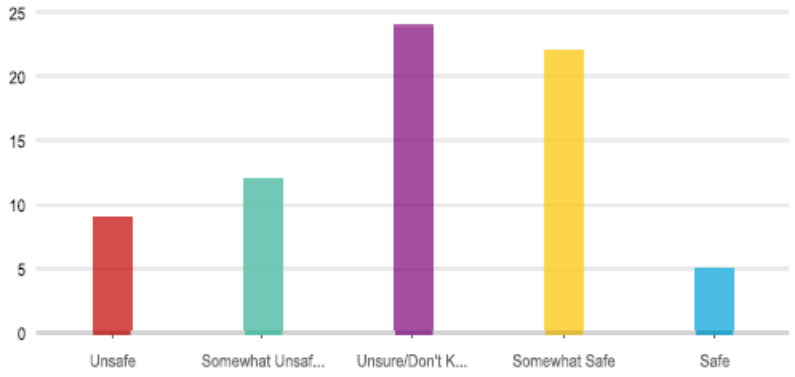
Answered: 72 Skipped: 0

b. Pedestrian Behavior



Answers	Count	Percentage
Unsafe	9	12.5%
Somewhat Unsafe	11	15.28%
Unsure/Don't Know	15	20.83%
Somewhat Safe	30	41.67%
Safe	7	9.72%

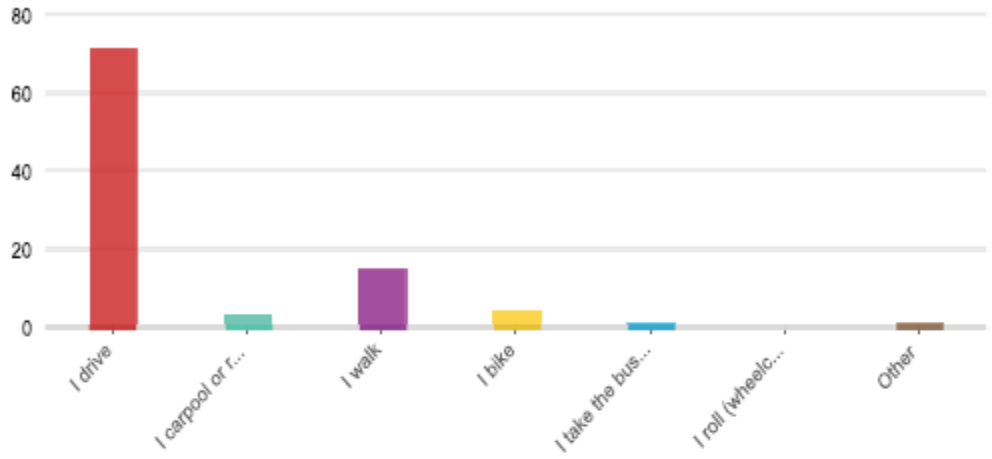
c. Bicycle Behavior



Answers	Count	Percentage
Unsafe	9	12.5%
Somewhat Unsafe	12	16.67%
Unsure/Don't Know	24	33.33%
Somewhat Safe	22	30.56%
Safe	5	6.94%

Answered: 72 Skipped: 0

5. In a typical week, how do you usually travel in Dodge City? Check all that apply.

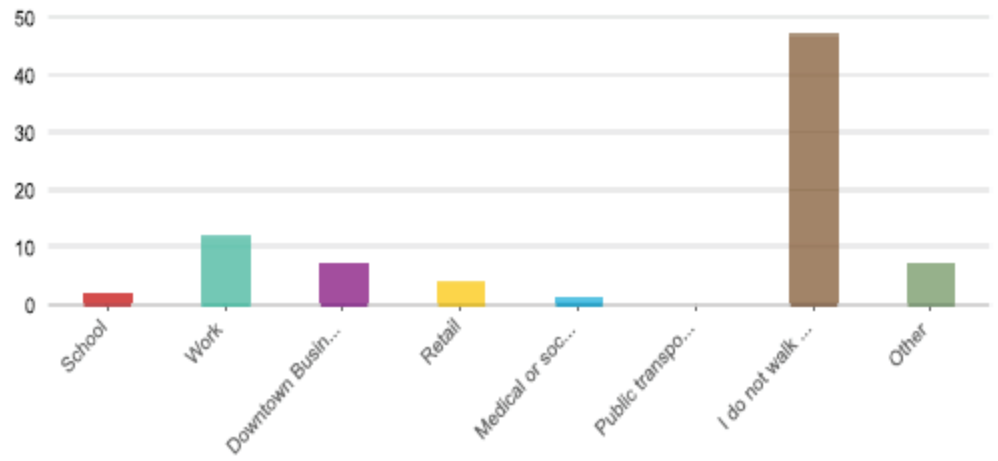


Answers	Count	Percentage
I drive	71	98.61%
I carpool or ride with others	3	4.17%
I walk	15	20.83%
I bike	4	5.56%
I take the bus or other public transit	1	1.39%
I roll (wheelchair or other mobility devices)	0	0%
Other	1	1.39%

Answered: 72 Skipped: 0

Other was listed as Motorcycle (1).

6. If you commute via walking and/or biking in Dodge City, what is your destination? Check all that apply.

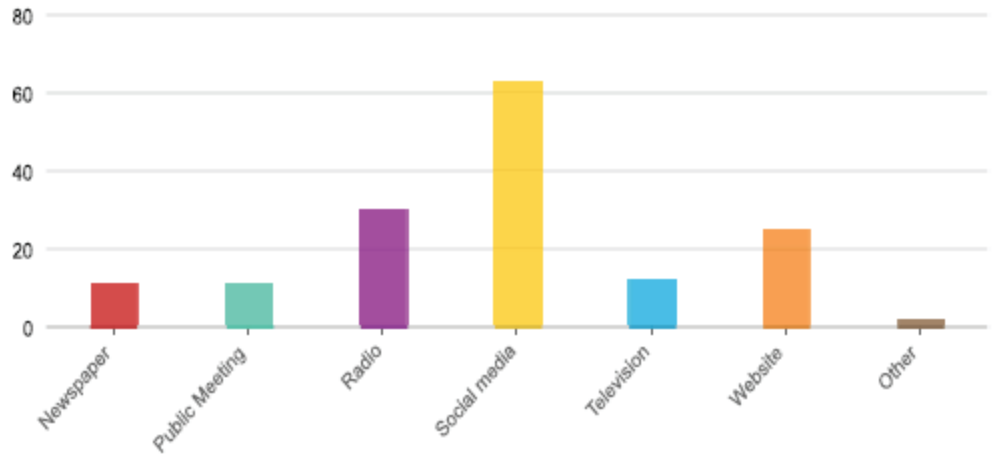


Answers	Count	Percentage
School	2	2.78%
Work	12	16.67%
Downtown Businesses	7	9.72%
Retail	4	5.56%
Medical or social services	1	1.39%
Public transportation stop	0	0%
I do not walk or bike to commute	47	65.28%
Other	7	9.72%

Answered: 72 Skipped: 0

Other included exercise, socializing, health, park, residential, streets, and gym.

7. What outlet(s) would you prefer to receive transportation safety information? Check all that apply.

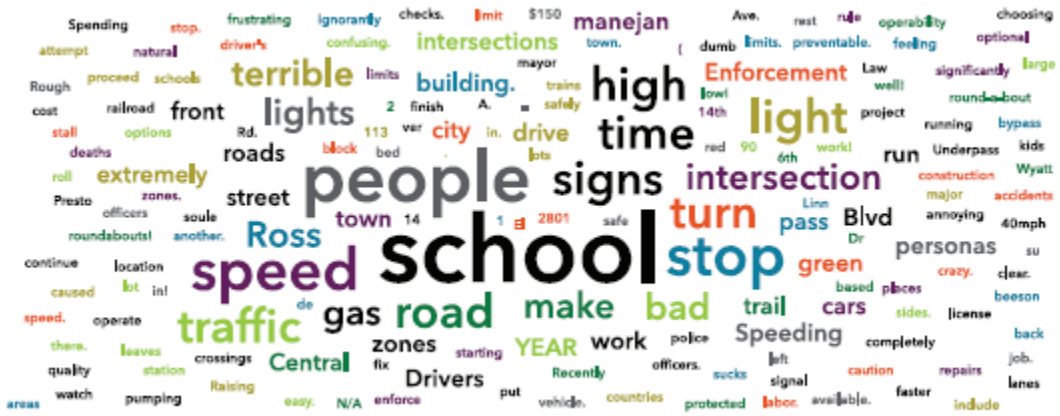


Answers	Count	Percentage
Newspaper	11	15.28%
Public Meeting	11	15.28%
Radio	30	41.67%
Social media	63	87.5%
Television	12	16.67%
Website	25	34.72%
Other	2	2.78%

Answered: 72 Skipped: 0

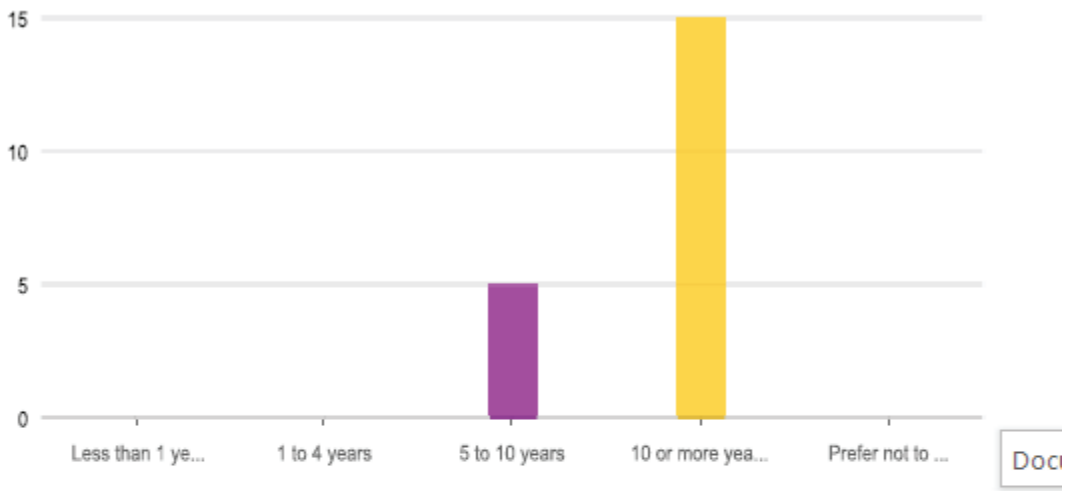
Other was listed as mail.

8. Is there anything else we should know about road safety in your community?



Demographic Data

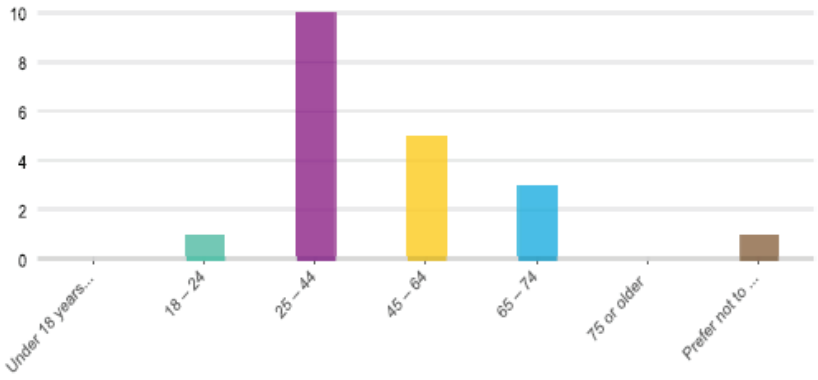
1. How long have you lived in Dodge City?



Answers	Count	Percentage
Less than 1 year	0	0%
1 to 4 years	0	0%
5 to 10 years	5	6.94%
10 or more years	15	20.83%
Prefer not to answer	0	0%

Answered: 20 Skipped: 52

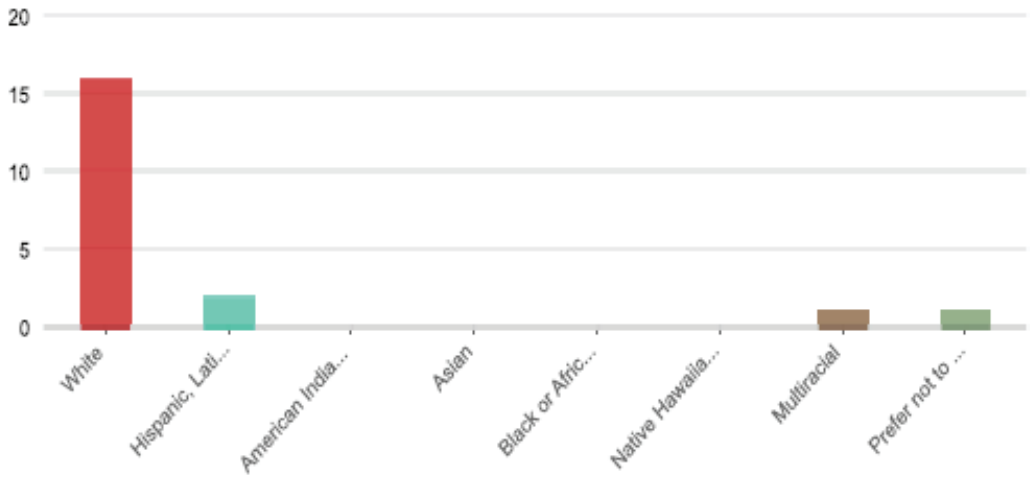
2. What is your age?



Answers	Count	Percentage
Under 18 years old	0	0%
18 – 24	1	1.39%
25 – 44	10	13.89%
45 – 64	5	6.94%
65 – 74	3	4.17%
75 or older	0	0%
Prefer not to answer	1	1.39%

Answered: 20 Skipped: 52

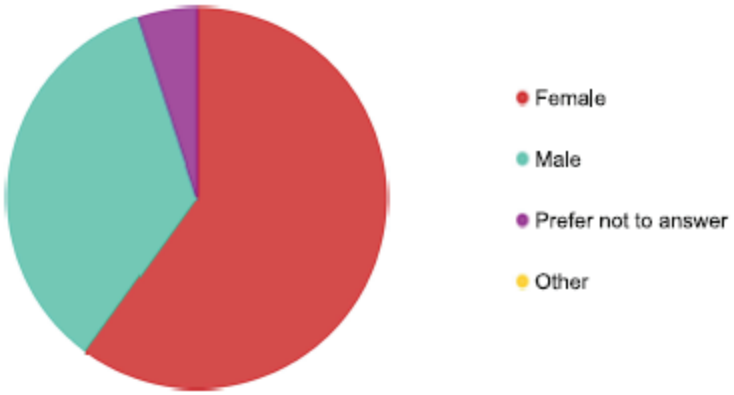
3. Select the racial or ethnic group with which you identify.



Answers	Count	Percentage
White	16	22.22%
Hispanic, Latino, Spanish	2	2.78%
American Indian or Alaska Native	0	0%
Asian	0	0%
Black or African American	0	0%
Native Hawaiian or Other Pacific Islander	0	0%
Multiracial	1	1.39%
Prefer not to answer	1	1.39%

Answered: 20 Skipped: 52

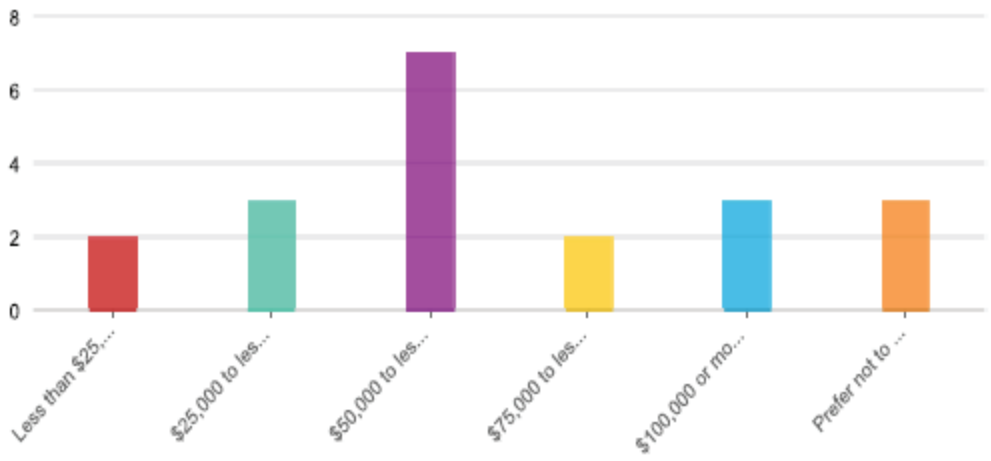
4. What is your gender identity?



Answers	Count	Percentage
Female	12	16.67%
Male	7	9.72%
Prefer not to answer	1	1.39%
Other	0	0%

Answered: 20 Skipped: 52

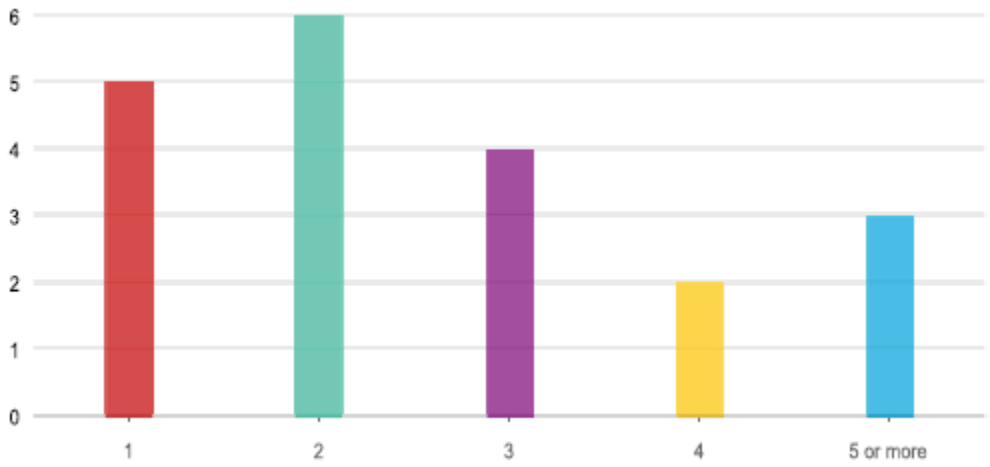
5. What is your household income?



Answers	Count	Percentage
Less than $25,000	2	2.78%
$25,000 to less than $50,000	3	4.17%
$50,000 to less than $75,000	7	9.72%
$75,000 to less than $100,000	2	2.78%
$100,000 or more	3	4.17%
Prefer not to answer	3	4.17%

Answered: 20 Skipped: 52

6. Including yourself, how many people live in your household?



Answers	Count	Percentage
1	5	6.94%
2	6	8.33%
3	4	5.56%
4	2	2.78%
5 or more	3	4.17%

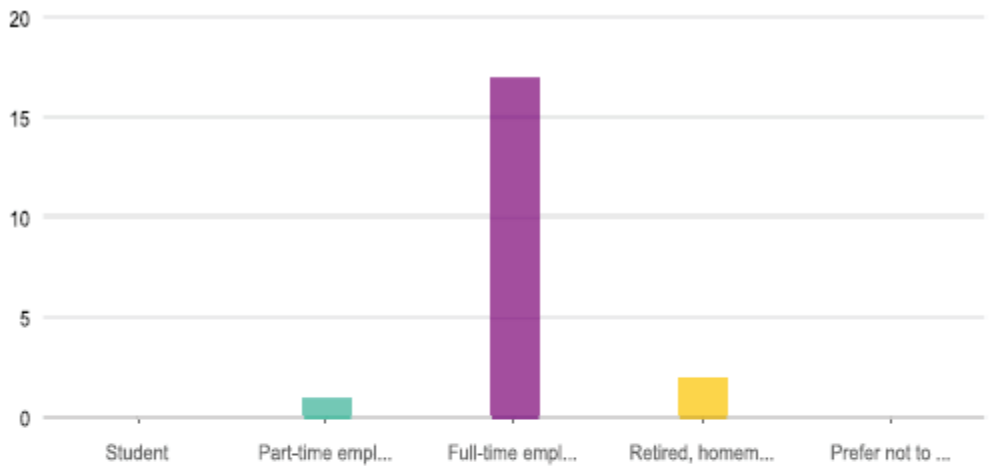
Answered: 20 Skipped: 52

7. What is the primary language spoken at your home?

English	20	27.78%
Spanish	0	0%
Other	0	0%

Answered: 20 Skipped: 52

8. Select the option that best fits your current occupation.



Answers	Count	Percentage
Student	0	0%
Part-time employment	1	1.39%
Full-time employment	17	23.61%
Retired, homemaker, unemployed, or unable to work	2	2.78%
Prefer not to answer	0	0%

Answered: 20 Skipped: 52

9. Do you have any physical limitations?

Hard of hearing/deaf	0	0%
Low vision/blind	0	0%
Use a wheelchair, walker, or other mobility device	0	0%
None	18	25%
Prefer not to answer	2	2.78%
Other	0	0%

Answered: 20 Skipped: 52

APPENDIX C: EQUITY ANALYSIS

The following summarizes various GIS layers available for equity-related analyses. Items 1-4 are specifically identified on USDOT's SS4A Resources page under "Equity / Data Sources for Identifying Problems".

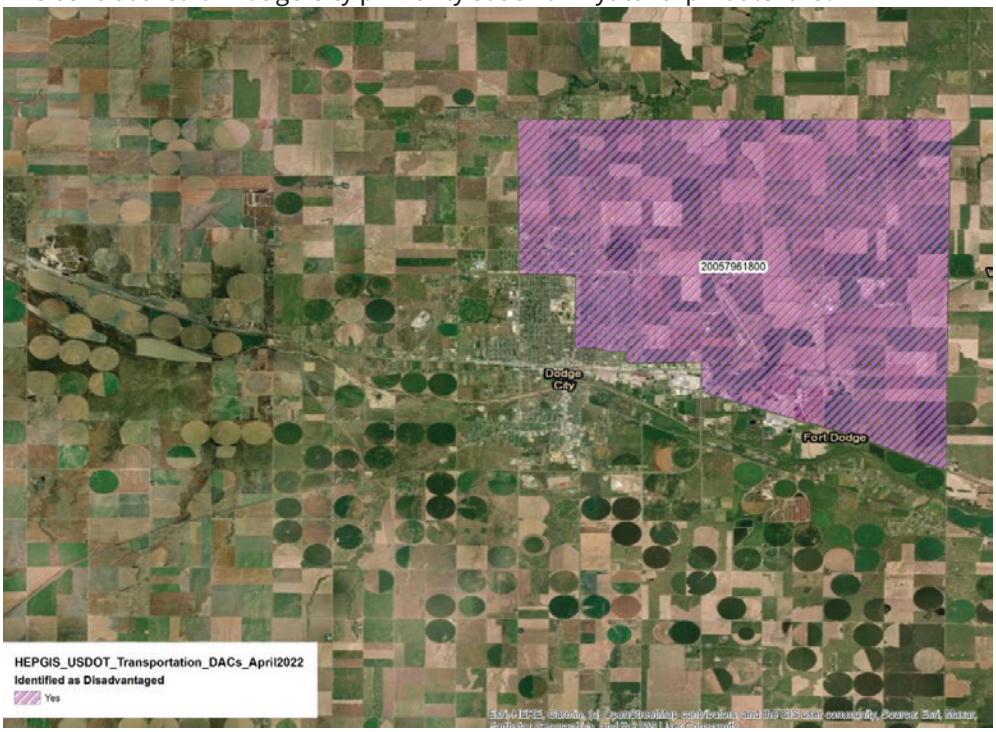
1. SS4A Underserved Communities Census Tracts (USDOT) – "Historically Disadvantaged Communities"

Historically Disadvantaged Communities refers to populations sharing a particular characteristic, as well as geographic communities, which have faced economic distress or systemic disinvestment. The US DOT Equitable Transportation Community (ETC) Explorer is an interactive web application that uses 2020 census tracts and data, to explore the cumulative burden communities experience, as a result of underinvestment in transportation, in the following five components: Transportation Insecurity, Climate and Disaster Risk Burden, Environmental Burden, Health Vulnerability, and Social Vulnerability.

- Data set refers specifically to USDOT "Disadvantage Index" layer; data can be downloaded here
- Historically Disadvantaged Communities = tract exceeds 50th percentile across at least 4 of 6 disadvantage indicators:
    - Transportation access - communities that spend more/longer to get places
    - Health - variables associated with disease risk or disability
    - Environmental - poor environmental quality or high levels of pollution
    - Economic - high poverty, low wealth, lack of jobs, low homeownership, low education
    - Resilience - vulnerable to hazards caused by climate change
    - Equity - high percentage of people who speak English poorly

7.6.1.1 Study Area Locations

The central area of Dodge City primarily south of Wyatt Earp Boulevard.



USDOT Historically Disadvantaged Communities

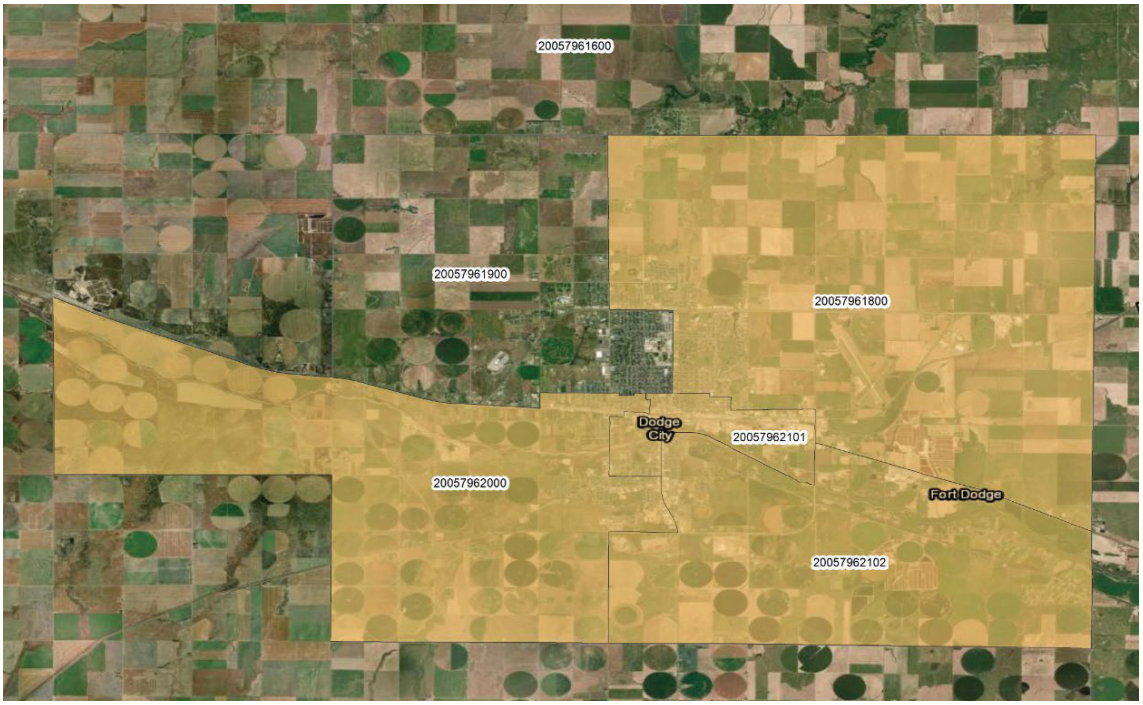
2. EJ Screen: Environmental Justice Screening and Mapping Tool (EPA)

This EJ Screen tool includes two major source categories: Pollution and Sources and Socioeconomic Indicators. It also includes supplemental information on Health Disparities, Climate Change Data, and Service Gaps. While this tool does not specify what constitutes a disadvantaged area, to be consistent with the CEJST, if two indicators were identified, then the area is considered disadvantaged using the EJScreen Tool.

- Combines environmental and demographic indicators into an EJ index
    - 13 environmental indicators - primarily EPA data; lead paint, superfund proximity, wastewater discharge, particulate matter, etc.
    - 7 socioeconomic indicators - people of color, low income, limited English speaking, over 64, under age 5, less than HS education, etc.
- From this, two indexes are created:
    - Demographic index - people of color, low income
    - Supplemental index - low-income, unemployment, less than HS education, low life expectancy
- 13 EJ indexes - these are the percentile of 13 environmental factors * demographic index.
- 13 supplemental indexes - these are the percentile of 13 environmental factors * supplemental index
- Fields for "EJ Indexes Over 80 Percentile" and "Supplemental Indexes Over 80 Percentile" can be used to show a color gradient for tracts scoring the highest, but no binary "disadvantaged"/"not disadvantaged field"

7.6.1.2 Study Area Locations

- Most of Dodge City except for the northwest portion.



Environmental Justice Screen, Environmental Protection Agency

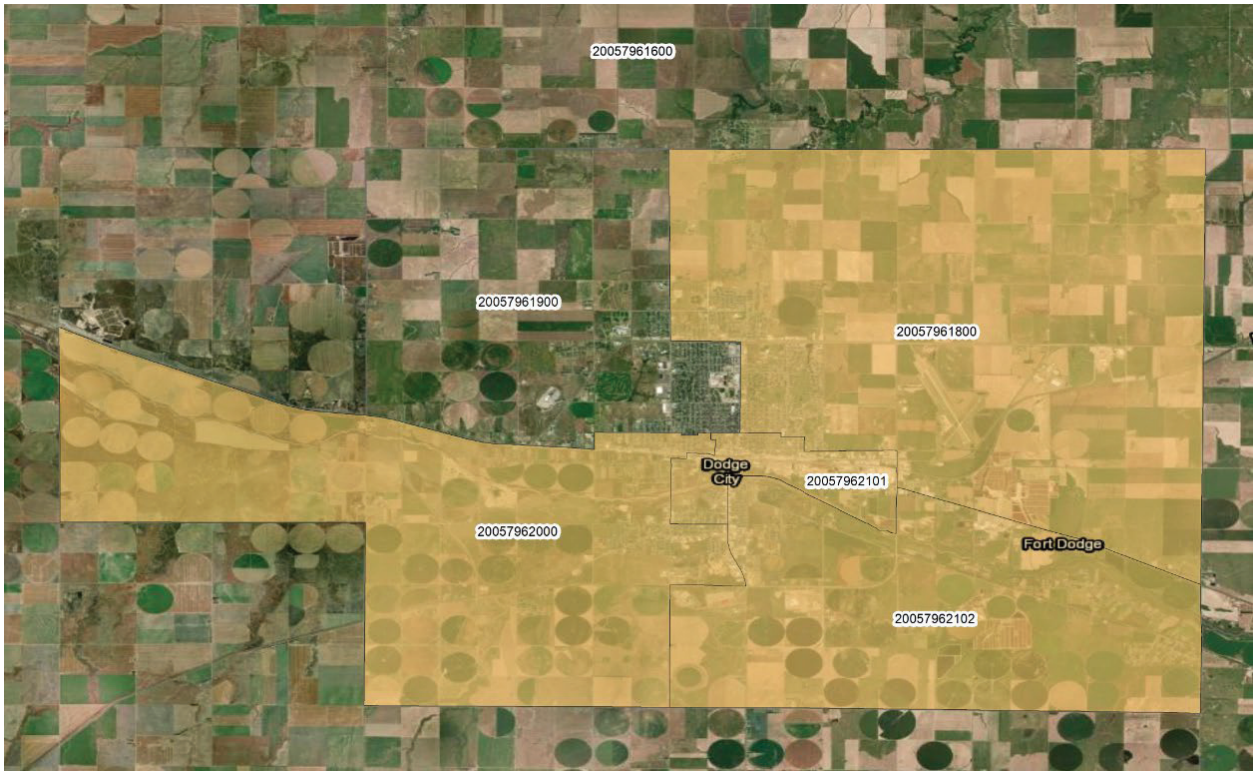
3. **FHWA – HEPGIS Maps: Socioeconomics and Equity Analysis (FHWA)**

- Has a sub-tab for "Equity in Transportation GIS Resources" and within that another sub-tab for "Planning and Equity Tool" with data downloads for the 3 sources below
- (a) CEJST (Climate and Economic Justice Tool) disadvantaged areas - similar to (2) above.
- (b) Department of Energy (DOE) disadvantaged communities - separate; also census tract level; 36 inputs

7.6.1.3 Study Area Locations

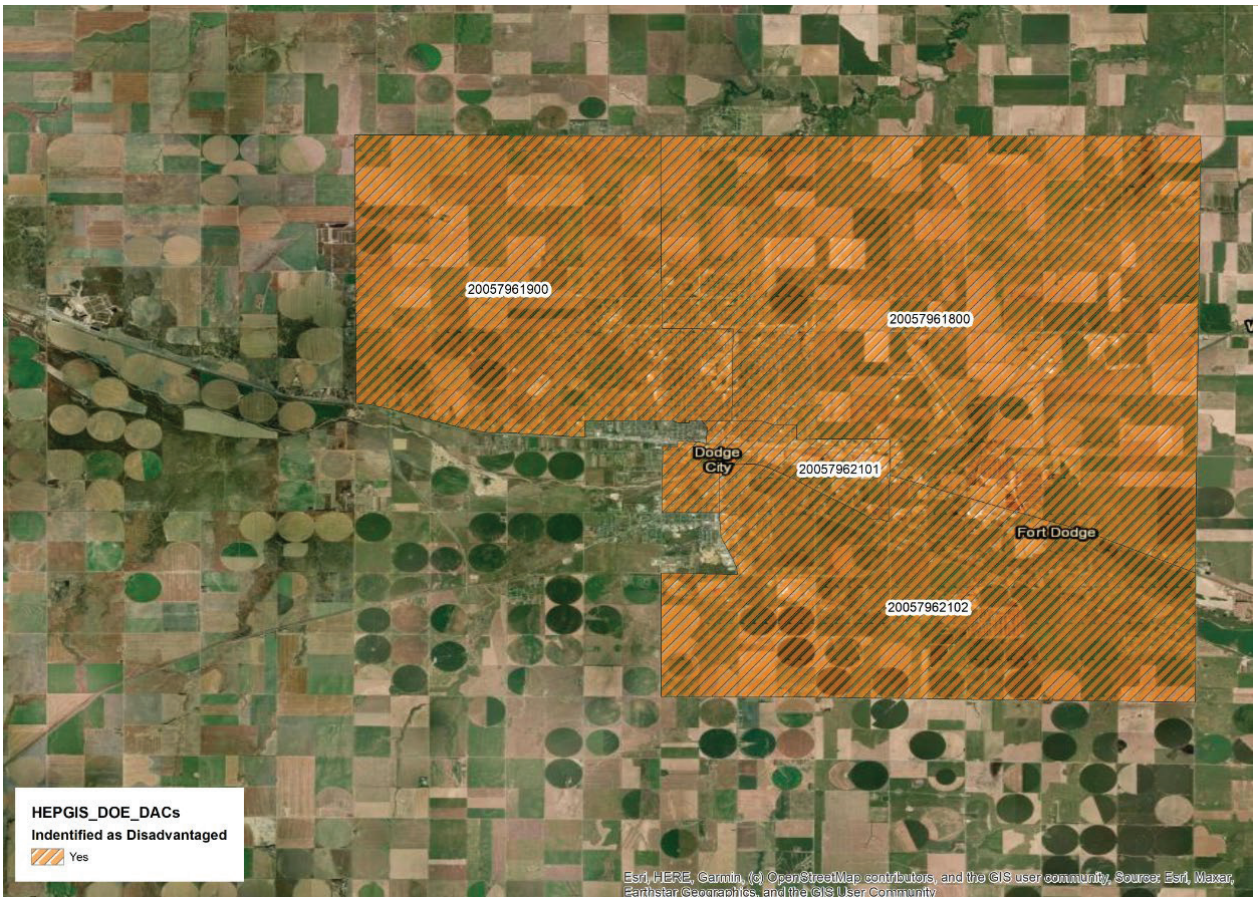
- Four tracts are shown to be disadvantaged covering most of the City with the exception of the northwest tract. These tracts were classified due to meeting the socio-economic threshold, income levels in each tract being lower than 65th percentile of all other census tracts, and meeting at least on burden threshold in these cases was in the areas of climate change or workforce development (typically 80th percentile).

  Explore the map - Climate & Economic Justice Screening Tool (geoplatform.gov)



Climate and Economic Justice Tool) disadvantaged areas

- Department of Energy (DOE) disadvantaged communities
  - Four tracts are shown to be disadvantaged covering most of the City with the exception of the southwest tract. This is the one method that includes the northwest area of Dodge City as disadvantaged.



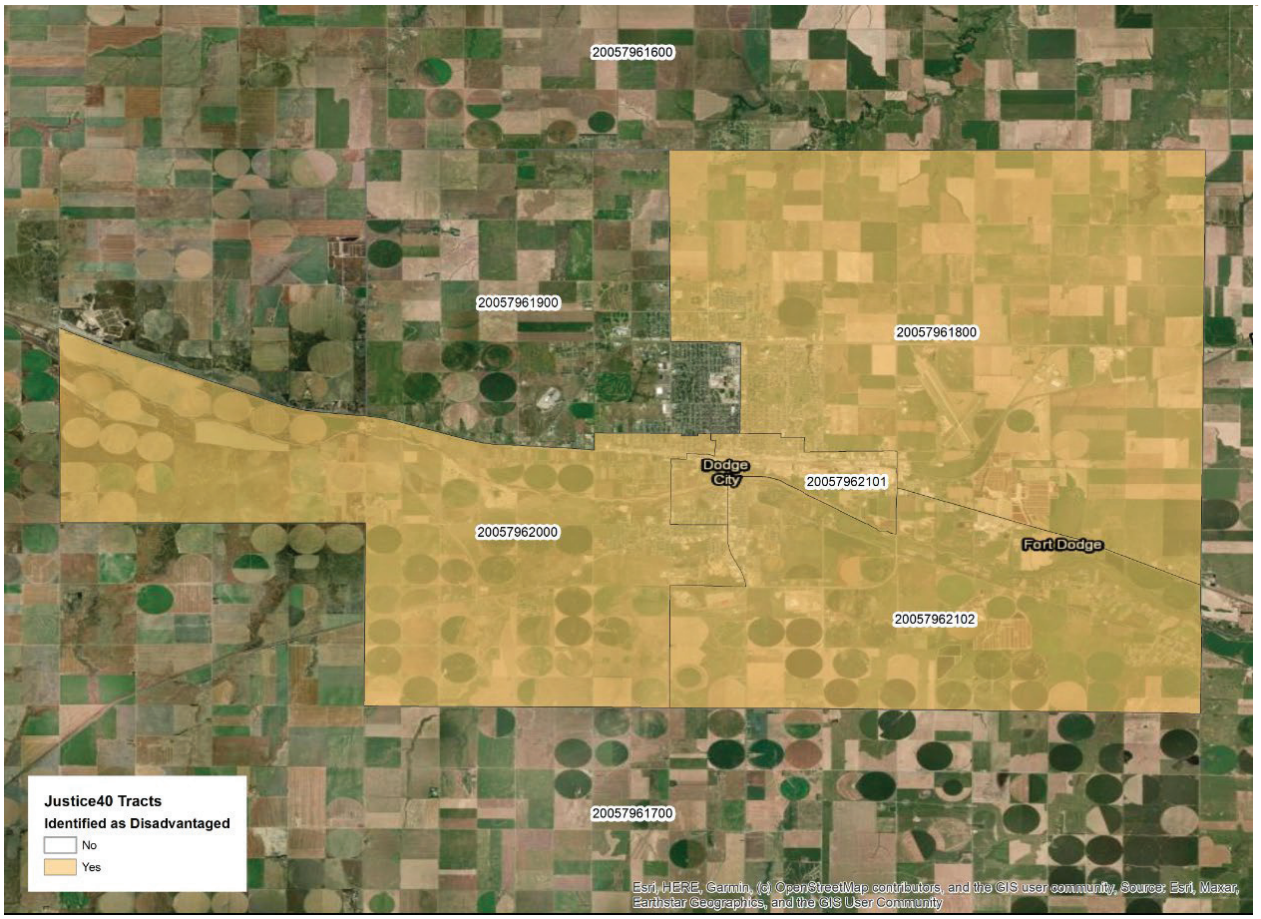
Department of Energy (DOE) Disadvantaged Communities

4. **Justice40 Tracts (November 2022, Version 1.0) (ESRI, via CEJST)**

- From Climate & Environmental Justice Screening Tool (CEJST) – *see 3b above*
- Assesses/identifies disadvantaged communities according to Justice40 criteria; online Web map color-codes based on # of disadvantaged categories in each tract

7.6.1.4 Study Area Locations

Four tracts are shown to be disadvantaged covering most of the City with the exception of the northwest tract.



Disadvantaged Areas as Defined by Justice 40

5. CDC Social Vulnerability Index (Center for Disease Control)

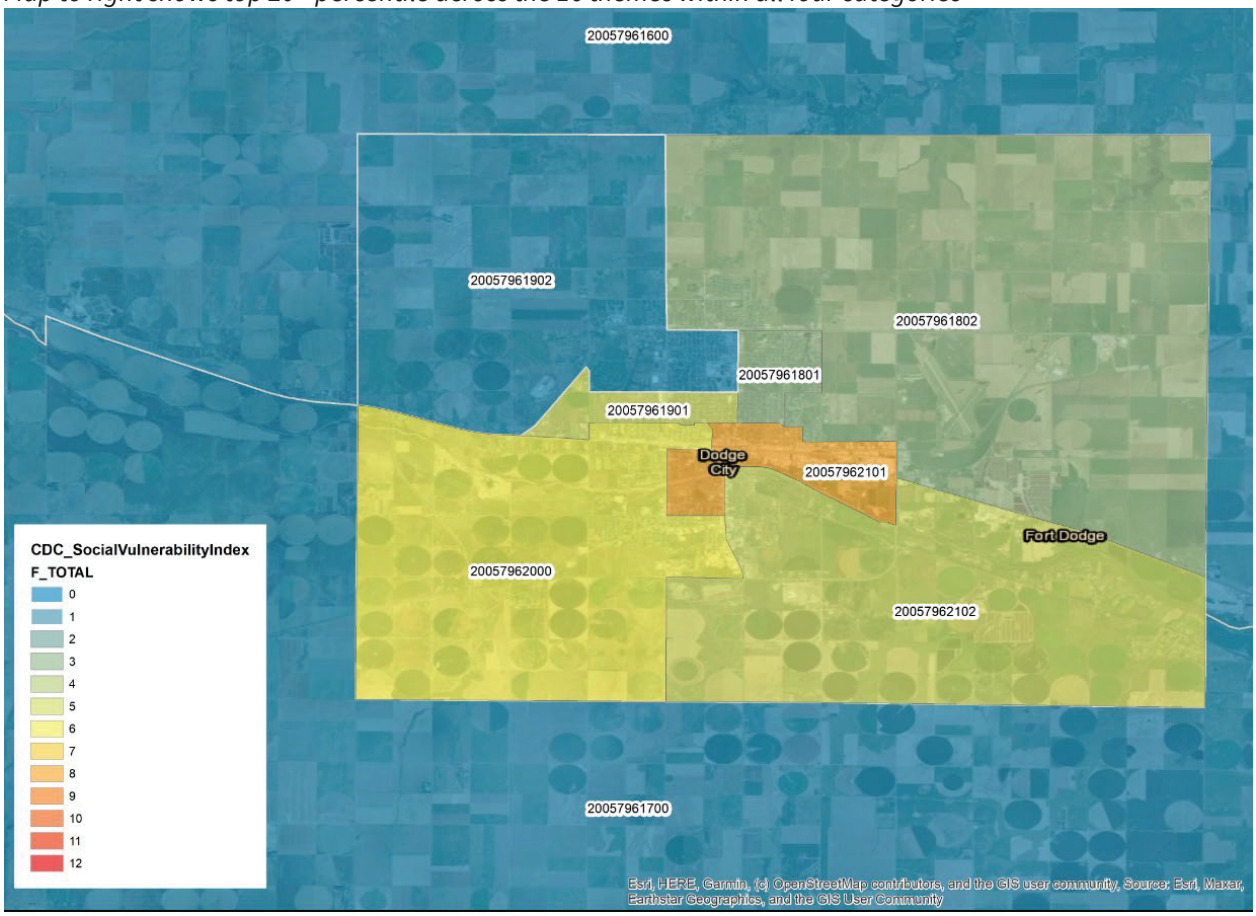
Social Vulnerability refers to the demographic and socioeconomic factors (such as poverty, lack of access to transportation, and crowded housing) that adversely affect communities that encounter hazards and other community-level stressors. These stressors can include natural or human-caused disasters (such as tornadoes or chemical spills) or disease outbreaks (such as COVID-19.

The current CDC/ATSDR Social Vulnerability Index uses 16 U.S. census variables from the 5-year American Community Survey (ACS) to identify communities that may need support before, during, or after disasters. These variables are grouped into four themes that cover four major areas of social vulnerability and then combined into a single measure of overall social vulnerability.

- Based on "RPL_THEMES" – average of themes, top 20% have a value greater than 0.75 (1 being the highest)4 "themes" with percentile rankings for each:
    - Socioeconomic Status Theme - RPL_THEME1
    - Household Characteristics Theme - RPL_THEME2
    - Racial and Ethnic Minority Theme - RPL_THEME3
    - Housing Type and Transportation Theme - RPL_THEME4
    - *"RPL_THEMES" metric is the average of themes 1-4*
    - *"F_TOTAL" is the count of themes 1-4 that are in the top 10%*

- Based on Census Data to determine social vulnerability of each tract
    - Social vulnerability - how a community will respond to hazardous events (tornado, disease outbreak, chemical spill etc.) based on poverty, transportation access, crowded housing, etc.
    - Each tract is ranked based on 16 social factors aggregated across 4 themes (mentioned above)

Map to right shows top 20th percentile across the 16 themes within all four categories



Center for Disease Control Vulnerability Areas

APPENDIX D: PROJECT BENEFIT-COST ANALYSIS

	Item	Fatal	Ser. Inj.	Injury	PDO	Total Crash Cost	CRF	Crash Benefit	Project Cost	B/C	Time Frame (Years)
1	Signal Borders	0	7	67	576	$ 28,089,815	0.15	$ 4,213,472	$ 130,000	32.4	0-5
2	Signal Coordination	0	7	67	576	$ 28,089,815	0.14	$ 3,932,574	$ 250,000	15.7	0-5
3	14th St at Wyatt Earp Blvd. and Spruce St.	0	0	23	153	$ 7,320,338	0.3	$ 2,196,101	$ 127,750	17.2	0-5
4	Ross Blvd Cycle Track/Trail	0	1	3	65	$ 2,230,282	0.3	$ 669,085	$ 594,000	1.1	5-15
5	Ross Blvd Speed Feedback	0	1	3	65	$ 2,230,282	0.05	$ 111,514	$ 10,000	11.2	0-5
6	US-50 & Matt Down and US-50 & P Left turn lanes	0	0	6	0	$ 1,443,030	0.25	$ 360,758	$ 600,000	0.6	5-15
7	Wyatt Earp & Matt Down Eastbound Left Turn Lane	1	0	4	6	$ 14,961,617	0.25	$ 3,740,404	$300,000	12.5	0-5
8	US-50 and Melancamp Left Turn Lanes	0	0	2	16	$ 668,066	0.25	$ 167,017	$ 600,000	0.3	5-15
9	Combined #6, #7, #8	1	0	12	22	$ 17,072,713	0.25	$ 4,268,178	$ 1,500,000	2.8	5-15
10	Wyatt Earp & Underpass ICE (placeholder cost)	0	5	5	13	$ 5,098,768	0.82	$ 4,180,990	$750,000	5.6	5-15
11	14th & Park ICE (placeholder cost)	0	0	8	30	$ 2,274,770	0.3	$ 682,431	$400,000	1.7	5-15
12	Enhanced Pedestrian Crossings (Wyatt Earp, 14th & Spruce)	0	2	5	1	$ 2,711,920	0.4	$ 1,084,768	$ 230,250	4.7	5-15
13	Comanche Intersection Improvements	0	0	2	0	$ 481,010	0.4	$ 192,404	$ 63,750	3.0	5-15
14	6th Street Intersection Geometrics/ Ped. Crossings (Edgemore to Comanche)	0	0	2	19	$ 703,139	0.4	$ 281,256	$ 40,000	7.0	5-15
15	Combined #12, #13, #14	0	2	9	20	$ 3,896,069	0.4	$ 1,558,428	$ 334,000	4.7	5-15

Benefit-cost ratios have been calculated for each of the countermeasure project groups. The number of fatal, serious injury, other injury, and property damage only crashes were identified within each countermeasure project area for the 10-year period 2014 – 2023. The total crash cost was obtained by multiplying the number of crashes the project is expected to address over a 10- year period by the crash cost. The following represents the year 2024 crash costs: Fatal-$13,999,597, Serious Injury-$748,852, Other Injury-$240,505, and PDO-$11,691.

The Crash Benefit was then calculated by multiplying the Crash Reduction Factor (CRF) by the Total Crash Cost. The resulting Benefit-Cost Ratio is the Crash Benefit divided by the Project Cost.

The BC Ratios provide a comparative measure of project effectiveness, with a desired minimum ratio of 1.0 or greater representing the case where project benefits exceed the project cost. There are lower cost safety projects that can provide BC Ratios of over 25. Often a minimum BC Ratio of 3 or greater is considered to indicate a safety project that would be competitive for implementation funding.

APPENDIX E: PROJECT SHEETS

Each of the ten priority projects outlines countermeasures that should be implemented as short-term improvements and medium-term improvements. Project time frames include the following:

- Short-Term: projects anticipated to be completed in 0-5 years.
- Medium-Term: projects anticipated to be completed in 5-15 years, if not earlier.

Add Left Turn Lanes on Wyatt Earp Blvd and Matt Down Road

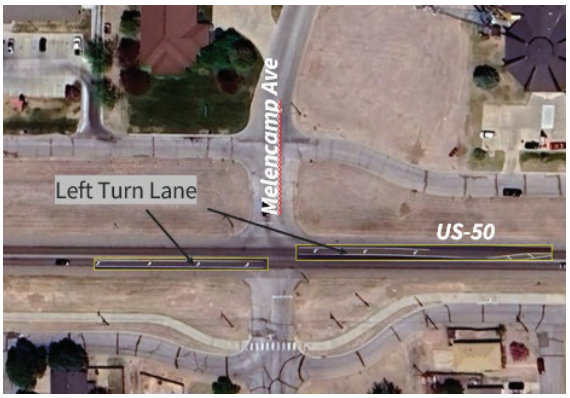
Location Description

Roadway: Wyatt Earp Blvd. and Matt Down Road

Project Information

Description: Provide left turn lanes to reduce rear end crashes and to provide a consistent highway section on Wyatt Earp Blvd. Project would construct 7 left turn lanes.
10-year Crash History: 1 fatal, 1 serious injury, 7 other injuries, 27 property damage only
Project Selection Criteria: Crash hot spot plus public comments
Time Frame: Medium-Term
Project Cost: $1,500,000
Benefit-Cost Ratio: 2.85

Concept Design/Project Location Map



Traffic Signal Retroreflective Borders

Location Description

Roadway: Citywide at 20 intersections.

Project Information

Description: Backplates added to a traffic signal head to improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background. The improved visibility of a signal head with a backplate is made even more conspicuous by framing it with a 1- to 3-inch yellow retroreflective border. Signal heads that have backplates equipped with retroreflective borders are more visible and conspicuous in both daytime and nighttime conditions.

10-year Crash History: 0 fatal, 1 serious injury, 3 other injuries, 65 property damage only

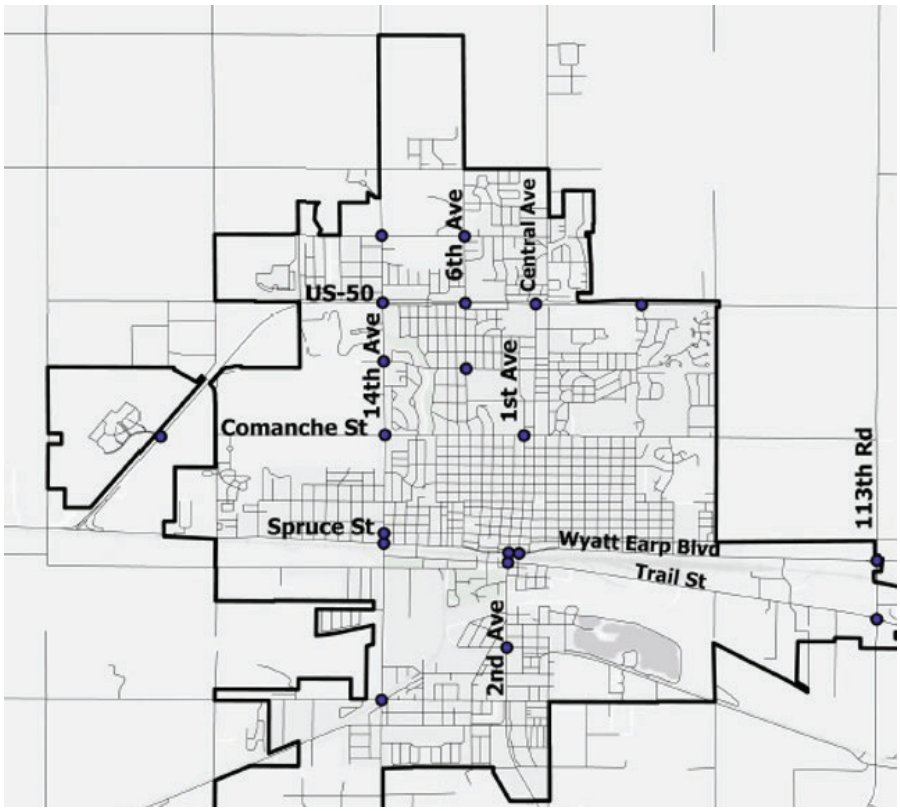
Project Selection Criteria: Crash hot spot plus public comments

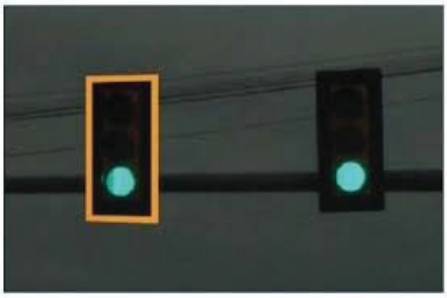
Time Frame: Short-Term

Project Cost: $130,000

Benefit-Cost Ratio: 32.4

Concept Design/Project Location Map





US-50 and 6th Ave
Wyatt Earp Blvd and 14th Ave
US-50 and Comanche St
Spruce St and 14th Ave
US-50 and Central Ave
Comanche St and 14th Ave
Wyatt Earp Blvd and 113th Rd/US-56
US-50 and 14th Ave
1st Ave and Wyatt Earp Blvd
US 50 and Fairway Dr
14th Ave and Ross Blvd
14th Ave and Soule St
Comanche St and 1st Ave
Trail St and 2nd Ave
Trail St and US-56
14th Ave and Beeson Rd
6th Ave and Soule St
2nd Ave and Sycamore St
6th Ave and Ross Blvd

Ross Boulevard Cycle Track / Mixed Use Path

Location Description

Roadway: Ross Boulevard from Avenue A to 14th Ave to High School entrance drive

Project Information

Description: Ross Boulevard is a four-lane roadway from Avenue A to 14th Avenue and a three-lane roadway from 14th Ave to the High School entrance road. This project will convert the north lane of the four-lane section to a cycle track using precast median barriers to provide separation from vehicle traffic for a bicycle lane in each direction. West of 14th Ave, a separated multiuse path would be constructed providing a continuous route from Ave A to the High School. The project would contribute to reducing vehicle speeds on Ross Boulevard, and directly serve the Ross Elementary School and the Dodge City High School.

10-year Crash History: 0 fatal, 1 serious injury, 3 other injuries, 65 property damage only

Project Selection Criteria: Crash hot spot plus public comments.

Time Frame: Medium-Term

Project Cost: $600,000

Benefit-Cost Ratio: 1.13

Concept Design/Project Location Map

Off-Street Trail: West of 14th Ave

On-street: East of 14th Ave

14th Avenue Lane Assignment and Signal Phasing

Location Description

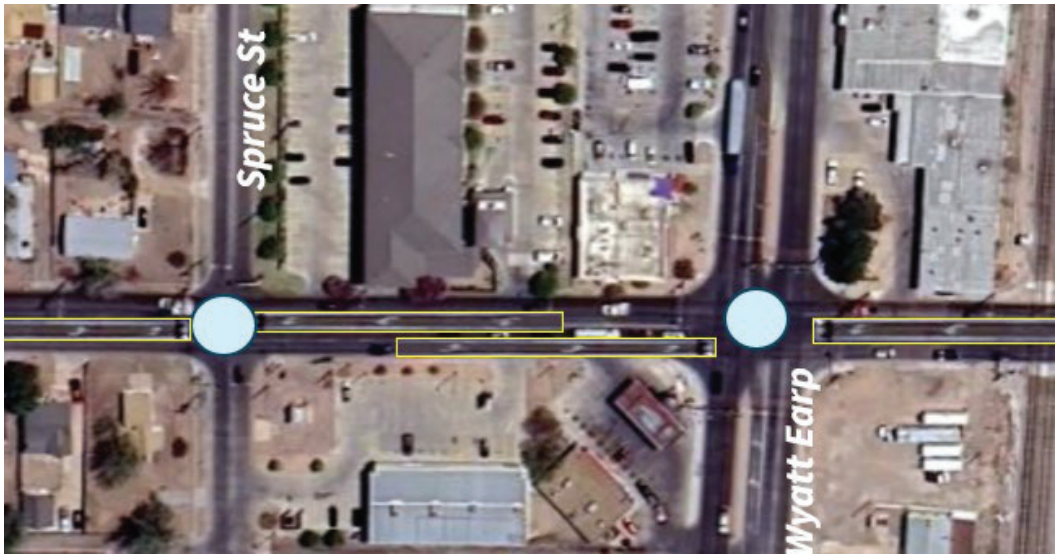
Roadway: 14th Avenue and Wyatt Earp Boulevard, 14th Avenue and Spruce Street

Project Information

Description: 14th Avenue has 4 through lanes and no turning lanes. Split phase signal timing is used at both intersections to provide left turn movement. For this project, the center lanes in both directions will be designated as left turn lanes, removing the split phase timing. The project will also complete sidewalk gaps on west side of 14th Avenue, provide signal coordination between the two signals, and add pedestrian signal heads and crosswalks.
10-year Crash History: 0 fatal, 0 serious injury, 23 other injuries, 153 property damage only
Project Selection Criteria: Crash hot spot plus public comments
Time Frame: Short-Term
Project Cost: $130,000
Benefit-Cost Ratio: 17.2

Concept Design/Project Location Map

North



Enhanced Pedestrian Crossings

Location Description

Roadway: Multiple locations: Wyatt Earp Blvd. near Ave. E, 14th and Wyatt Earp Blvd, 14th Avenue and Spruce Street, 14th and Comanche Road.

Project Information

Description: Crash data and public input identified locations where enhancements could be considered to improve pedestrian travel. One project provides a pedestrian hybrid beacon on Wyatt Earp Boulevard in the vicinity of Ave. E and Ave. F. The project includes a median refuge and a speed table at the crossing location. At the other locations, painted crosswalks, pedestrian buttons, and leading pedestrian interval signal timing would be provided.

10-year Crash History: 0 fatal, 2 serious injury, 5 other injuries, 1 property damage only

Project Selection Criteria: Crash hot spot plus public comments

Time Frame: Medium-Term

Project Cost: $240,000

Benefit-Cost Ratio: 4.6

Concept Design/Project Location Map

6th Avenue Traffic Calming / Pedestrian Improvement

Location Description

Roadway: 6th Avenue from Edgemore Street to Comanche Road

Project Information

Description: Dodge City has a programed project on 6th Avenue from Soule Street to the south. This project addresses 6th Avenue north of Soule Street. 6th Avenue is approximately 30 feet wide with parking allowed on both sides of the street. Travel speed can exceed the speed limit. Sidewalks are provided primarily on the east side of the street. This project will provide a raised crosswalk at three locations on 6th Avenue to enable pedestrians including students walking to school a safer crossing to the sidewalk on the east side. The raised crosswalks will reduce vehicle travel speeds on 6th Avenue.

10-year Crash History: 0 fatal, 0 serious injury, 2 other injuries, 19 property damage only

Project Selection Criteria: Crash hot spot plus public comments

Time Frame: Medium-Term

Project Cost: $56,000

Benefit-Cost Ratio: 2.5

Concept Design/Project Location Map

Comanche Road Intersection and Pedestrian Improvements

Location Description

Roadway: Comanche Street from 1st Avenue to Avenue C

Project Information

Description: This project will provide for improved pedestrian movement along Comanche Street. The project includes providing three crosswalks and extending sidewalks on the north side of the street to Avenue C. The project also includes improving southbound traffic flow on 1st Avenue at Comanche by improving lane assignments and providing signal coordination with the signal at Central Avenue and Comanche.

10-year Crash History: 0 fatal, 0 serious injury, 2 other injuries, 0 property damage only

Project Selection Criteria: Crash hot spot plus public comments

Time Frame: Medium-Term

Project Cost: $47,000

Benefit-Cost Ratio: 4.1

Concept Design/Project Location Map

Intersection Timing Lane evaluation

Sidewalk

Crosswalk

APPENDIX F: VISION ZERO PROCLAMATION

RESOLUITON NO. 2025-17

A RESOLUTION ADOPTING A VISION ZERO POLICY AND PROCLAIMING THE CITY'S COMMITMENT TO END TRAFFIC FATALITIES AND SERIOUS INJURY CRASHES IN DODGE CITY AND IMPLEMENTATION OF A SAFE STREETS AND ROADS PLAN FOR ALL BY 2040

WHEREAS, in 2021 the Bipartisan Infrastructure Law established the Safe Streets and Roads for All (SS4A) discretionary program which funds regional, local and Tribal initiatives through grants to prevent roadway deaths and serious injuries; and,

WHEREAS, in 2022 Dodge City made an application for a SS4A planning grant from the U.S. Department of Transportation to create SS4A compliant action plans; and,

WHEREAS, the SS4A program supports the U.S. Department of Transportation's National Roadway, Safety Strategy and the goal of zero roadway deaths using a Safe System Approach; and,

WHEREAS, Dodge City's Vision Zero policy supports the Kansas Department of Transportation's Drive to Zero program and the goals of the Kansas Strategic Highway Safety Plan; and,

WHEREAS, five individuals were needlessly killed and 460 individuals were injured on Dodge City's roadways between 2014 and 2023; and,

WHEREAS, the life and health of all persons living and traveling within Dodge City are our utmost priority, and no one should die or be seriously injured while traveling on our city streets; and,

WHEREAS, Vision Zero is the concept that traffic deaths and serious injuries on our roadways are unacceptable; and,

WHEREAS, Vision Zero is a proven framework for eliminating traffic deaths and serious injuries through intergovernmental and community partnerships leveraging resources and funds to ensure safe and efficient multimodal transportation; and,

WHEREAS, A comprehensive Vision Zero policy unifies existing safety efforts and elevates improvements through engineering and street design, education and engagement efforts, enforcement and technology, evaluation and data analysis, and equity; and,

WHEREAS, Dodge City's policies and practices support Vision Zero efforts to lead with roadway design that prioritizes safety and plans for a safe network for all users, for all modes of transportation, in all communities, and for people of all ages and abilities; and,

WHEREAS, Dodge City recognizes the need to prioritize hearing from the entire community and supports Vision Zero efforts to address inequities by prioritizing interventions in areas most in need of safety improvements; and,

WHEREAS, Dodge City finds that this resolution is necessary and proper to promote and protect the safety, health, mobility, and general welfare of Dodge City and its inhabitants;

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

SECTION 1: The City Commission hereby adopts a Vision Zero policy with the goal of achieving zero fatalities and serious injuries by the year 2040.

SECTION 2: The City Commission hereby adopts the Safe Streets and Roads for All Action Plan, attached hereto as Exhibit A.

SECTION 3: This Resolution shall take effect and be in force from and after its passage and publication in the official city newspaper.

PASSED BY THE GOVERNING BODY OF THE CITY OF DODGE CITY, KANSAS THIS 2nd DAY OF JUNE, 2025.

SEAL OF THE CITY OF DODGE CITY INCORPORATED NOV. 2, 1875 KANSAS

ATTEST:

CONNIE MARQUEZ, CITY CLERK

JEFFERY J. REINERT, MAYOR