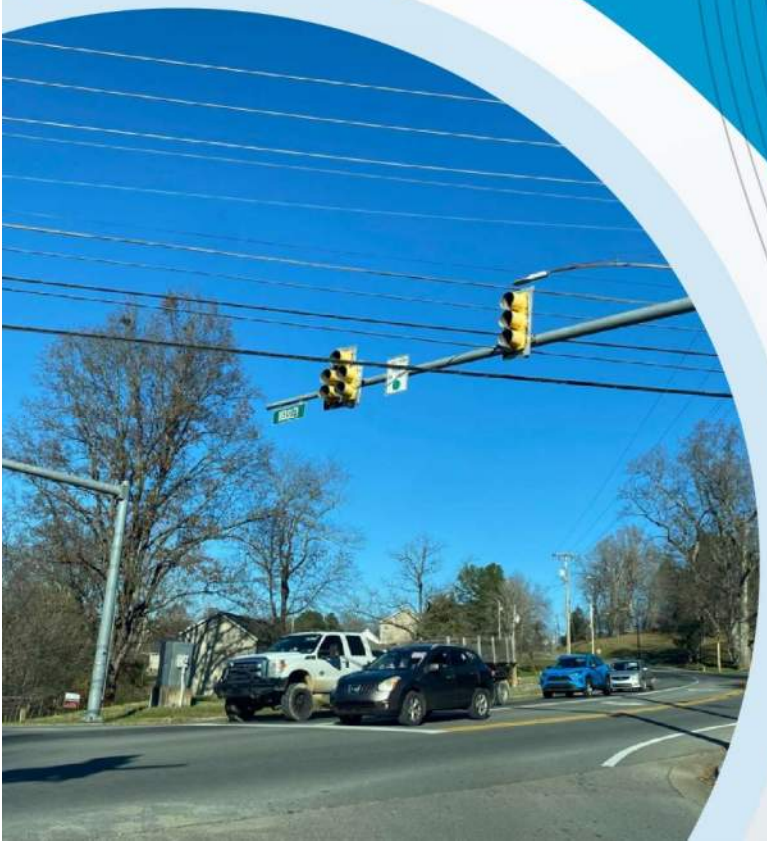

SAFETY ACTION PLAN

CITY OF DICKSON, TN

CITY OF DICKSON

600 EAST WALNUT STREET
DICKSON, TENNESSEE 37055
www.cityofdickson.com

DON L. WEISS JR., O.D.
MAYOR

(615) 441-9508
mayor@cityofdickson.com

Feb. 27, 2025

Dear Residents of Dickson:

Finding ways to improve safety on our roadways always has been a priority of this administration. In recent years, we have undertaken multiple projects to accommodate the growing number of vehicles that travel in and through our City.

As a regional hub for retail, industrial and healthcare employment attracting people from several surrounding counties, the City of Dickson sees more than 7,000 people commuting into the area every day to work, according to the U.S. Bureau of the Census. Additionally, Dickson is a center for shopping, recreation, entertainment and leisure activities for an area encompassing more than 100,000 people.

With Interstate 40, four state highways and a major U.S. highway intersecting within the city limits, Dickson also serves as a busy thoroughfare for traffic heading to other destinations around us in addition to local traffic.

To continue the ongoing effort to promote traffic safety, the leaders of the City of Dickson are proud to support this effort toward making our roadways more accommodating to the growing demands. This Comprehensive Safety Action Plan is a crucial first step toward making our commitment a reality. As a data-driven and actionable document, this Safety Action Plan creates the groundwork for strategies and projects that can make a tangible difference on our roadways.

We want to make traveling through our City safer, easier and quicker for residents in all areas of the City as well as visitors, commuters and those passing through on the way to their homes, jobs and other destinations. The City of Dickson cannot achieve these goals without the support and participation of the people in our community and our partner agencies. Each and every person has a role to play and a responsibility to help make our roads safer.

Our intent is that this Safety Action Plan will provide a roadmap of the steps the City of Dickson can take toward improving safety on the roadways. Based on an analysis of traffic and accident data and the input of citizens during the research phase, this plan provides specific steps needed and the progress markers allowing us the opportunity to take actions to improve traffic flow and safety in our City. The work has only just begun, but having a solid plan is the foundation for achieving our goals in working to eliminate preventable tragedies on our roadways.

Thank you for your commitment to improving roadway safety and the quality of life in the City of Dickson, Tennessee.

Sincerely,

Don L. Weiss Jr., O.D.
Mayor

Special Thanks

We extend our sincere appreciation and gratitude to the residents, advocacy groups, stakeholders, and the public who assisted in the public surveys, meetings, and the entire planning process. The critical input guided the development of the Safety Action Plan and in turn will have a positive impact on the City.

City of Dickson

Chris Hooper – Project Director/Safety Director

Bret Stock, P.E. – City Engineer

Rosalind Sowell – E911 Director

Chief Richard Greer – Dickson Fire Department

Chief Seth Lyles – Dickson Police Department

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INTRODUCTION

SAFETY ACTION PLAN

CITY OF DICKSON, TN

1. Introduction

1.1 Alignment with SS4A

The Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program to fund regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries involving motorists, pedestrians, and cyclists.

One of the initiatives funded by the SS4A program is the development of a Comprehensive Safety Action Plan. A Safety Action Plan (SAP) is a planning document that prioritizes safety improvements and justifies investment decisions. Having a formal plan will help the City of Dickson communicate clearly with stakeholders and access funding opportunities under this program.

Figure 1: Alignment with SS4A

1.1.1 Document Organization

The Dickson SAP is organized into the following Chapters:

- **Introduction**: Presents the project background, goals, and purpose of the SAP.
- **Safety Analysis**: Provides an overview of citywide crash trends and explains how equity informed the SAP.
- **Equity Considerations**: Identifying undeserved communities through data and partner collaboration and analyzing population characteristics and equity impacts of proposed projects and strategies.
- **Engagement and Collaboration**: Provides a summary of the City's efforts to inform, consult, involve, collaborate with, and empower the public in the development of this plan.
- **Strategies**: Describes potential engineering and driver-related countermeasures.
- **Policy and Process Changes**: Includes an assessment of current policies, plans, and standards to identify opportunities for prioritizing transportation safety, with implementation through adopting revised or new policies and guidelines.
- **Project Selections**: Includes criteria for prioritizing project and corridors, indicating where improvements should be implemented first.
- **Progress and Transparency**: Includes a description of measures the City will take over time to ensure transparency with stakeholders, including annual reporting on progress toward reducing roadway fatalities and serious injuries, and posting the Action Plan online.

1.2 Purpose of the SAP

The City of Dickson Safety Action Plan (SAP) provides a framework for identifying and prioritizing safety improvements that can be implemented. The SAP recommendations focus on transportation improvements that can be used to reduce fatal and suspected serious injury crashes guided by the principles established in the Tennessee Strategic Highway Safety Plan (TN SHSP) and through a systemic data analysis conducted specifically for the City of Dickson.

This report serves as an SAP, aligning with the components required to apply for SS4A implementation grant funding. As such, the SAP involves a community-informed and data-driven approach to roadway safety, with commitment from City leadership to reducing roadway fatalities and suspected serious injuries.

1.3 Leadership Commitment and Goal Setting

The City of Dickson's leadership commits to making progress toward the long-term goal of zero traffic deaths and serious injuries with an interim goal of a 20-percent reduction in fatal and serious injury crash rates (expressed in crashes per 1 million vehicle miles traveled [VMT]) by 2035 from the projected trend. **Figure 2** illustrates the five-year rolling averages of fatal and serious injury crash rates for the years 2019 to 2023. More detail is included in **Section 2.3 Crash Data Analysis** of this document. The activities conducted during this study build upon the Federal Highway Administration (FHWA) Safe System Approach, the TN SHSP, City-specific data analysis findings and community feedback.

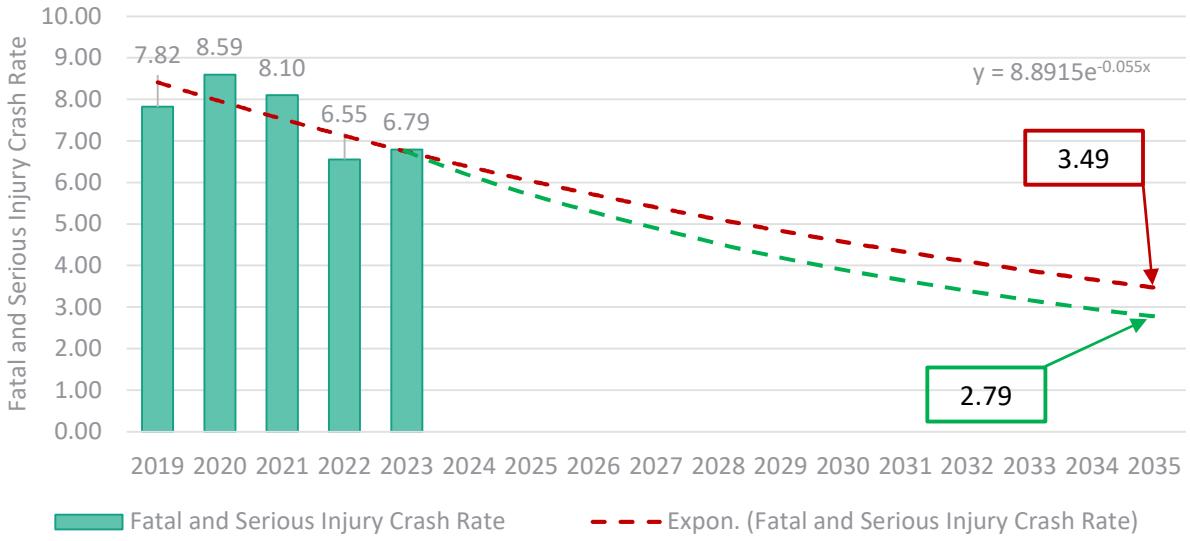


Figure 2: Dickson Fatal and Serious Injury Crash Rate Trend

The Safe System Approach is the guiding paradigm of the United States Department of Transportation (USDOT) regarding roadway safety (see **Figure 3**: Elements of the Safe System Approach (Source: USDOT). It prioritizes the elimination of crashes that result in death or serious injury. This approach is a shift from the conventional safety approach in that it focuses on both human mistakes and human vulnerability and seeks to design a system with multiple layers of protection. See **Figure 4** for a comparison between the traditional approach versus Safe System Approach. This SAP will integrate the Safe System Approach by analyzing the transportation system holistically and proposing solutions and strategies across the spectrum of principles that make up the Safe System Approach. Those principles are as follows:

- Deaths and Serious Injuries are Unacceptable
- Humans Make Mistakes
- Humans Are Vulnerable
- Responsibility is Shared
- Safety is Proactive
- Redundancy is Crucial

Figure 3: Elements of the Safe System Approach (Source: USDOT)

Traditional Approach	vs	Safe Systems Approach
Traffic Deaths and Serious Injuries are **Inevitable**		Traffic Deaths and Serious Injuries are **Preventable**
Improve Human Behavior		**Integrate** Human Error into Approach
Individual Responsibility		**Shared** Responsibility
Prevent **Collisions**		Prevent **Fatal** and **Serious Injury Crashes**
React Based on Crash History		**Proactively** Identify and Address Risks
Saving Lives is **Expensive**		Saving Lives is **Not Expensive**

Figure 4: Traditional Approach vs Safe System Approach

1.4 Study Area

The City of Dickson is the largest incorporated city in Dickson County, Tennessee, home to approximately 16,000 residents. As seen in **Figure 5,** Dickson is located just west of the Nashville Metropolitan area. Dickson is governed by an elected mayor and eight city council members, two from each of the four wards in the city.

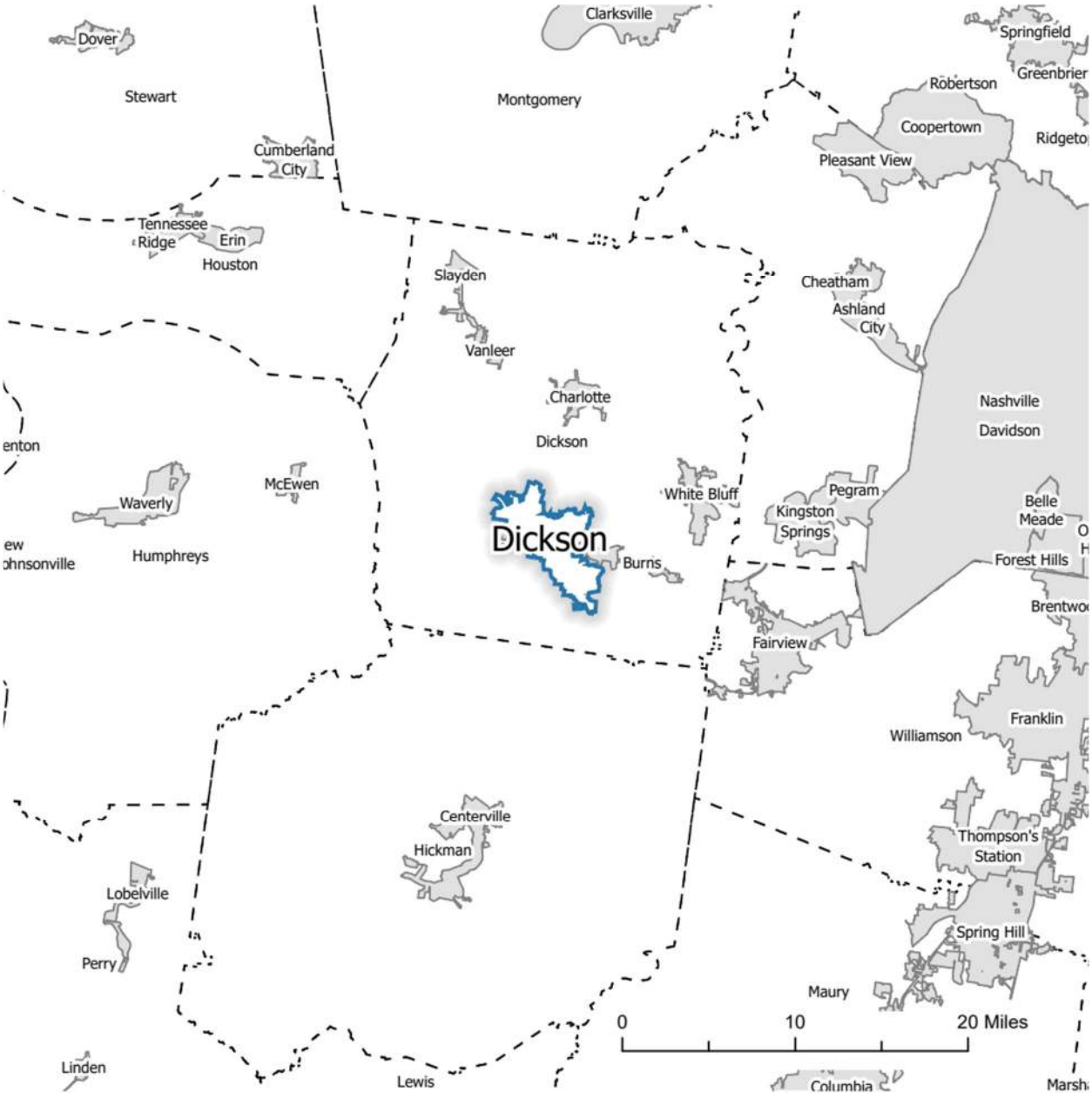


Figure 5: The City of Dickson with Surrounding Areas

1.4.1 History

The City of Dickson greatly benefitted from the introduction of U.S. Highway 70, the State of Tennessee's first east-west highway in the early 1910s. This route, now included in the "Broadway of America", allowed for the direct connection of Dickson with the Atlantic in North Carolina and the Pacific in California. With the construction of I-40 originally four miles south of Dickson, the city began to experience incredible influx of travel and commercial growth, ultimately allowing the city to incorporate south beyond the I-40 interchange. According to the 2020 Census, the City of Dickson is the 36th largest city in Tennessee, experiencing roughly 10 percent population growth in the past 10 years and over 219 percent over the past 60 years.

1.4.2 Land Uses and Attractions

The Dal-Tile and Tennsco plants, along with the schools and medical facilities, employ a high percentage of residents in Dickson, Tennessee. Dickson is home to a wide variety of historic sights, cultural activities, and outdoor attractions. Outdoor attractions include Henslee Park, Montgomery Bell State Park, Greystone Golf Club, and Buckner Park. Henslee Park has experienced recent renovations and has been approved for a wide variety of future improvements, including an aquatic center, playground, and pickleball courts.

1.4.3 Schools

There are ten (10) schools in the City of Dickson, including seven (7) elementary schools, one (1) middle school, one (1) high school, and one (1) combined (K-12) school.

- Dickson Elementary School
- Oakmont Elementary School
- Centennial Elementary School
- The Discovery School
- Sullivan Central Elementary School
- Dickson Middle School
- Dickson County High School
- Special Services Program
- Dickson Adventist School
- United Christian Academy

The City of Dickson is also home to two (2) college campuses, Nashville State Community College and Tennessee College of Applied Technology.

1.4.4 Roadway Networks

Dickson is located approximately 35 miles west of Nashville, mainly centered around the intersections of US-70 (Henslee Drive / College Street) with SR-46 (Mathis Drive) and SR-48 (N Main Street). Travelling along I-40, the drive to the Nashville Metropolitan area would take approximately 45 minutes, depending on traffic and time of day. The interchange of I-40 and I-840 is located just to the southeast of the City of Dickson, with a small section of I-40 passing through the south end of the city. The proximity to interstates I-40 and I-840 allows for the connection of Dickson with other Nashville suburbs such as Franklin, Murfreesboro, and Lebanon. The roadways of Dickson, along with the locations of schools within the City, are shown in **Figure 6** below.

Figure 6: Roadway Network of Dickson

SAFETY ANALYSIS

SAFETY ACTION PLAN

CITY OF DICKSON, TN

2. Safety Analysis

The safety analysis for the Dickson SAP explored city-wide historical trends to understand where crashes occurred, crash severities, and their contributing factors. This safety analysis section summarizes data sources, safety emphasis areas, city-wide crash trends, transportation equity considerations, and the identification of a high injury network. The safety analysis findings helped inform the development of the engineering projects and strategies identified in this plan.

The KABCO scale measures the injury severity for any person involved in the crash and is defined as K for fatal injury, A for suspected serious injury, B for suspected minor injury, C for possible injury, and O for no apparent injury. As shown* in Figure 7 *below, from January 2019 to December 2023, there were 3,008 reported crashes on roadways in the City of Dickson, of which 72 resulted in fatalities or serious injuries.

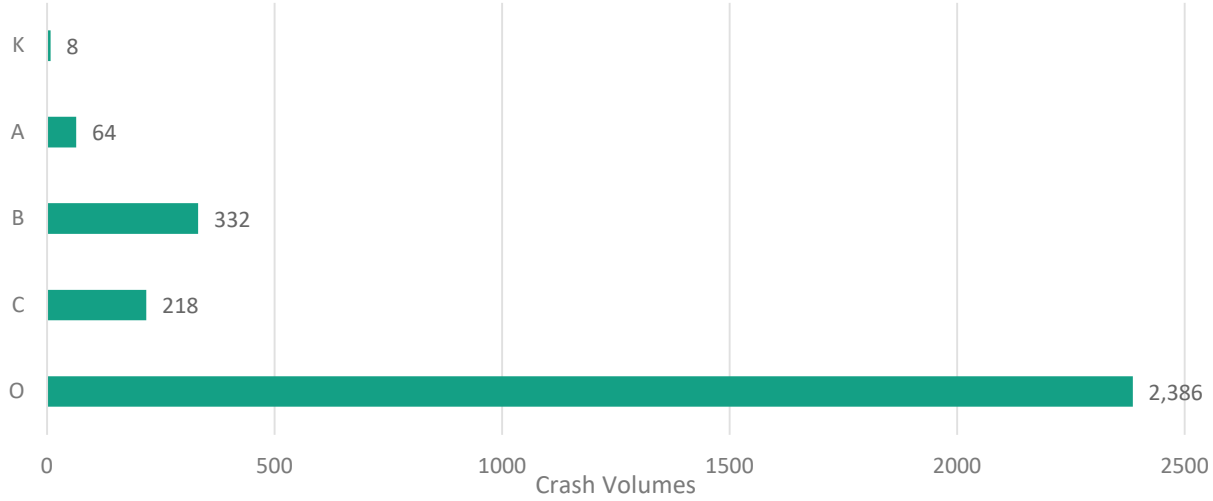


Figure 7: Crashes in Dickson by KABCO Scale

2.1 Data Gathering

Historical crashes were obtained from Tennessee Department of Transportation's (TDOT) AASHTOWare Safety[1] online crash database for crashes reported from 2019 to 2023. These findings are intended to represent trends for the study area, and the absolute values may not match different statewide crash data reporting sources. The data was combined and cleaned at a high level to provide a more complete record of crashes within the City. This cleaning included filtering out interstate crashes, duplicate crashes, erroneous crash information, and geographically inaccurate crash data. The analysis also incorporated roadway ownership information and additional roadway characteristics (such as road type and signal locations) provided by TDOT.

[1] TDOT, AASHTOWare Safety
https://tdot.aashtowaresafety.com/signin

2.2 Emphasis Areas

State DOTs develop Strategic Highway Safety Plans under the Federal Highway Administration's (FHWA) direction to identify safety emphasis areas based on historical crash trends and severities. Crashes resulting in fatalities and suspected serious injuries were evaluated in the 2020-2024 TN SHSP to identify the top statewide safety emphasis areas. These analysis results help inform how transportation safety funding should be directed to reduce statewide fatal and serious injury crashes for all road users.

Table 1 shows a comparison of the City of Dickson's fatal and serious injury crashes to statewide totals for crashes reported between 2019 and 2023 by emphasis area. Dickson experienced higher percentages for several emphasis areas, including crashes involving Unrestrained Occupants, Senior Drivers (65+), and Aggressive Drivers/Speeding. It should be noted that individual crash events may be associated with more than one emphasis area. For example, a roadway departure crash could have involved an impaired and/or young driver. As such, the values in the columns may not add to equal the total number of crashes. In Table 1, green shaded cells show which contributing factors were more prevalent in the City of Dickson than the statewide data over the five-year study period while the blue shaded cells show which contributing factors were less prevalent in the City of Dickson.

Table 1: Crashes in Dickson by Contributing Factors

Category	Emphasis Areas	City of Dickson (2019-2023)				State of Tennessee (2019-2023)			
		# of Fatal Crashes	# of Suspected Serious Injury Crashes	Total	% Fatal & Serious Injury Crashes	# of Fatal Crashes	# of Suspected Serious Injury Crashes	Total	% Fatal & Serious Injury Crashes
All Severe Crashes		8	64	72	100.0%	5,344	25,731	31,075	100.0%
Roadway	Roadway Departure	1	17	18	25.0%	2,892	10,046	12,938	41.6%
	Intersections	1	23	24	33.3%	1,241	8,267	9,508	30.6%
Drivers	Unrestrained Occupants	5	15	20	27.8%	1,659	4,242	5,901	19.0%
	Senior Drivers (65+)	5	17	22	30.6%	1,155	4,893	6,048	19.5%
	Teen Drivers (13-19)	1	7	8	11.1%	941	5,673	6,614	21.3%
	Impaired Drivers	1	11	12	16.7%	1,418	3,495	4,913	15.8%
	Inattentive, Distracted, and Drowsy Drivers	0	2	2	2.8%	341	2,609	2,950	9.5%
	Aggressive Drivers / Speeding	5	14	19	26.4%	916	2,770	3,686	11.9%
Vehicles	Motorcycles	1	9	10	13.9%	782	3,558	4,340	14.0%
	Large Trucks (Truck/Bus)	0	1	1	1.4%	474	1,331	1,805	5.8%
Special Users	Pedestrians	1	6	7	9.7%	754	1,753	2,507	8.1%
	Bicycles	0	1	1	1.4%	49	286	335	1.1%

2.3 Crash Data Analysis

Table 2 summarizes crashes by KABCO Scale severity and year occurring on all roadways (excluding interstates) within the City of Dickson.

Table 2: Crashes in Dickson by Severity

Year	Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury (B)	Possible Injury (C)	Property Damage Only (O)	Total
2019	2	7	110	13	503	635
2020	3	11	77	33	473	597
2021	2	11	43	74	502	632
2022	0	12	61	46	446	565
2023	1	23	41	52	462	579
Total	8	64	332	218	2386	3008
Percentage of All Crashes	**0.3%**	**2.1%**	**11.0%**	**7.3%**	**79.3%**	**100%**

For the purposes of this study, the data includes the total number of fatal and serious injury crashes within the analysis period. It is important to note that a single fatal crash can result in multiple fatalities, and similarly, a serious injury crash can lead to multiple serious injuries. **Figure 8** provides the vehicle miles traveled within Dickson County, expressed as millions of miles. **Figure 9, Figure 10,** and **Figure 11** provide the five-year rolling averages of crash rates for fatal crashes, serious injury crashes, and fatal and serious injury crashes combined for the period of 2019-2023. The historic data points fall along the projected trendline in each of the following figures. As shown in the figures, the overall trend for all three charts indicates an increase in fatal and serious injury crash year over year.

2.3.1 Vehicle Miles Traveled

Vehicle Mile Traveled data was collected through the TDOT's Highway Performance Monitoring System, organized by administrative systems, functional class, or county. From 2014 to 2023, Dickson County experienced approximately 5 percent growth in millions of vehicle miles traveled, as shown in **Figure 8** below.

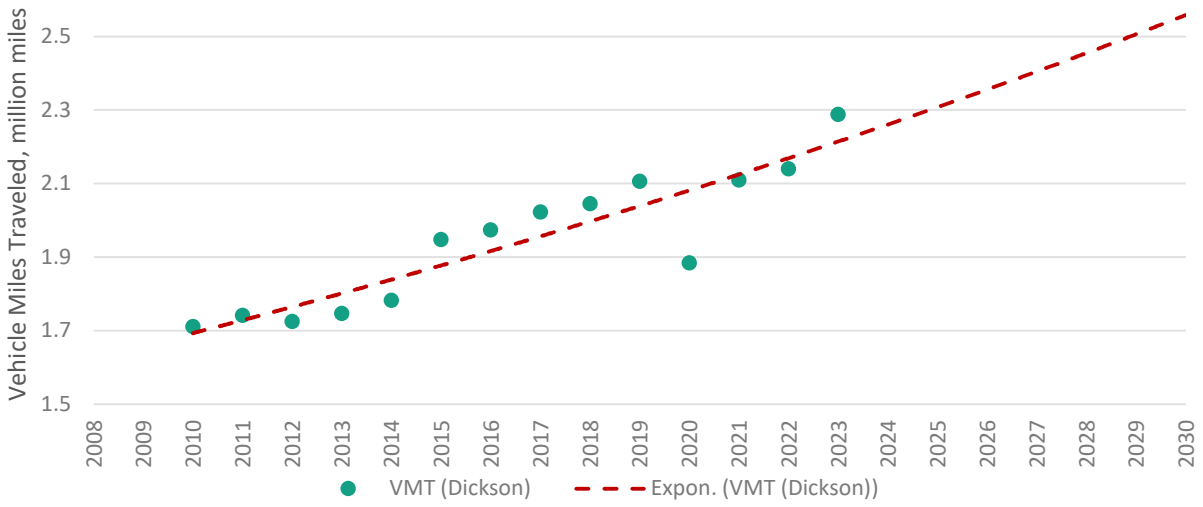


Figure 8: Vehicle Miles Traveled, Dickson County

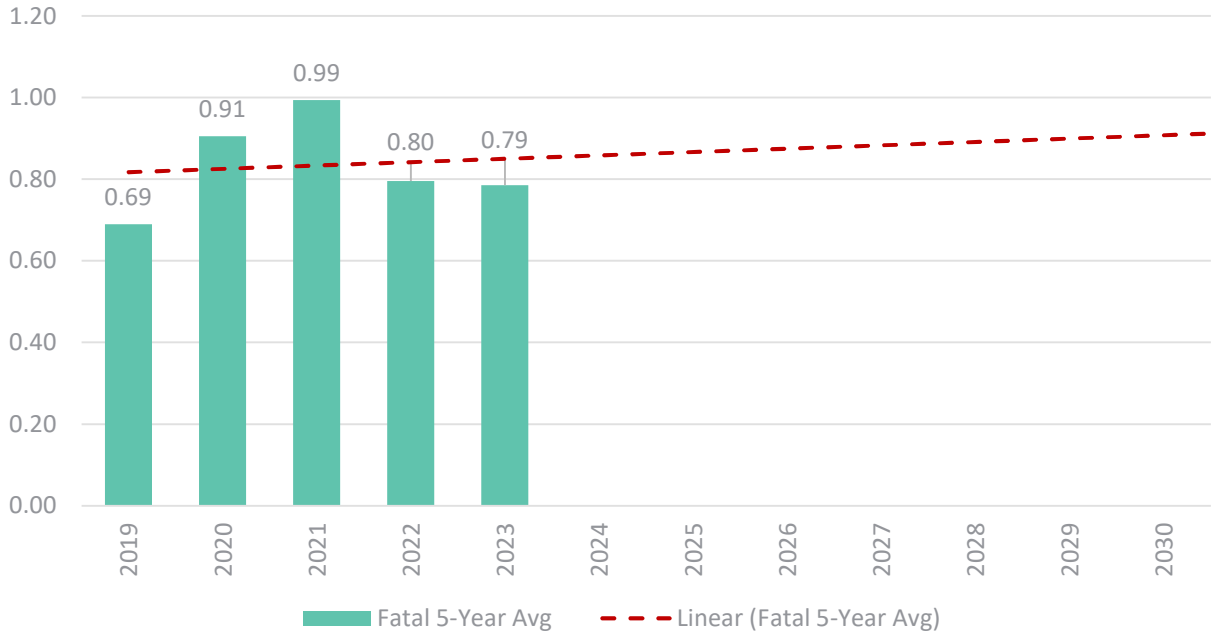


Figure 9: Five-year Rolling Average of Fatal Crash Rates in Dickson

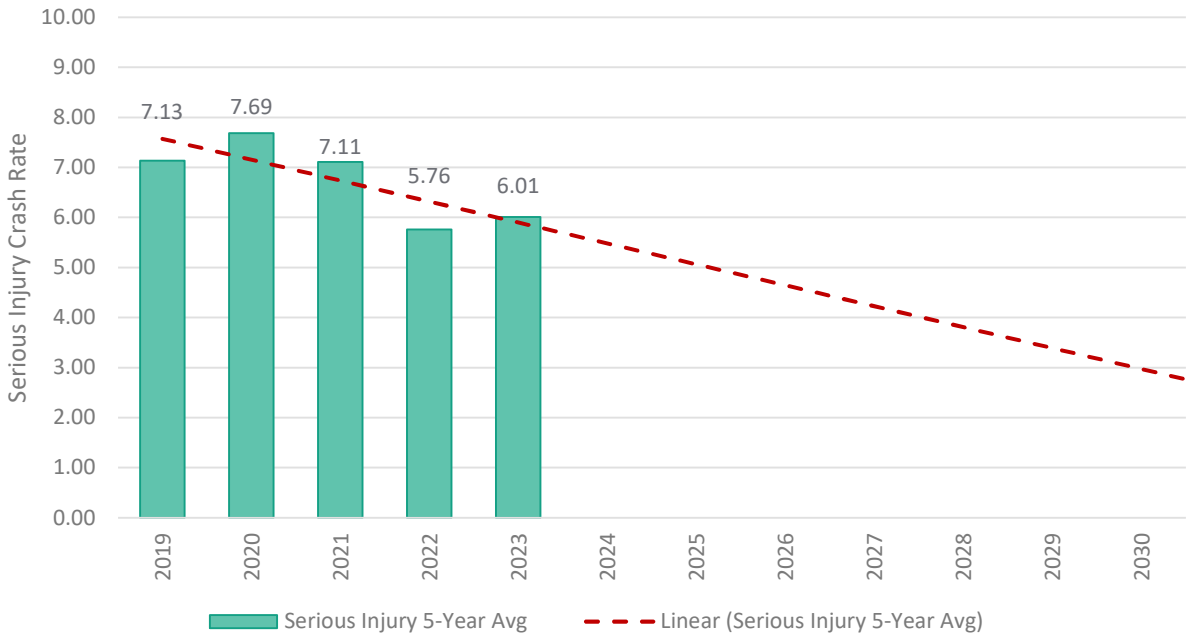


Figure 10: Five-year Rolling Average of Serious Injury Crash Rates in Dickson

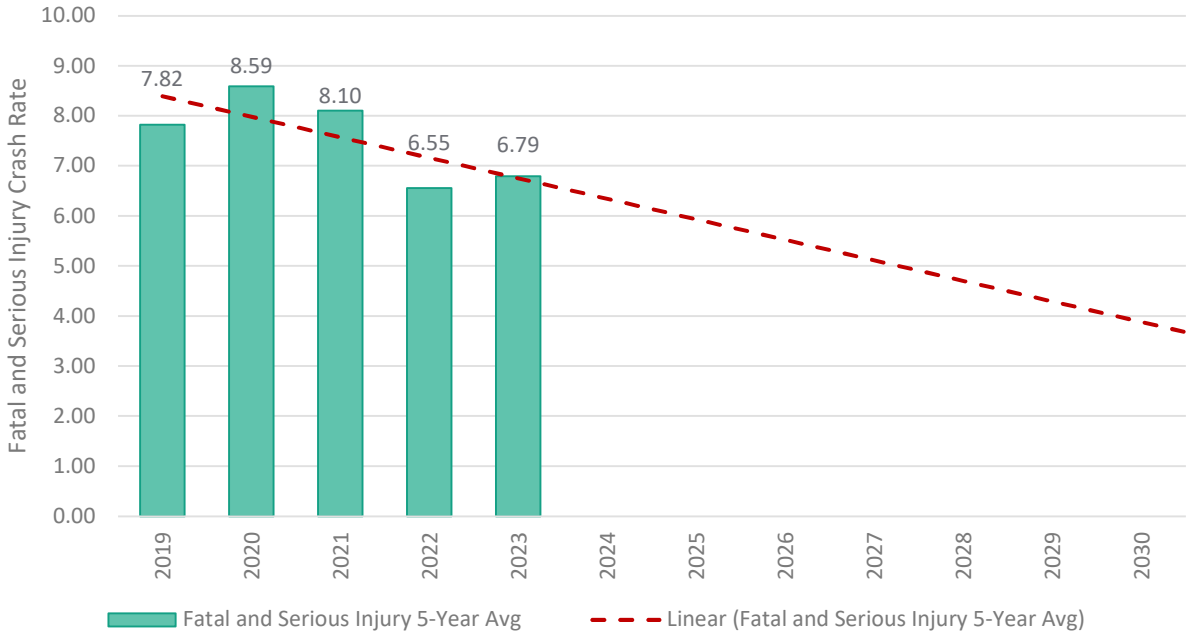


Figure 11: Five-year Rolling Average of Combined Fatal and Serious Injury Crash Rates in Dickson

2.3.2 Crash Density

Crash density can be defined as the total number of crashes per unit of road length, commonly defined as crashes per mile. **Figure 12** displays a total crash density map, highlighting locations where fatal and suspected serious injury crashes occurred along the roadway network. The highest crash densities are usually observed at locations with higher traffic volumes, as this translates to more exposure and potential risk for all road users. The highest crash density can be found along the TN-46 (Mathis Drive) corridor, where there is a large commercial presence. Another area of high crash density is near the interchange of SR-46 and I-40.

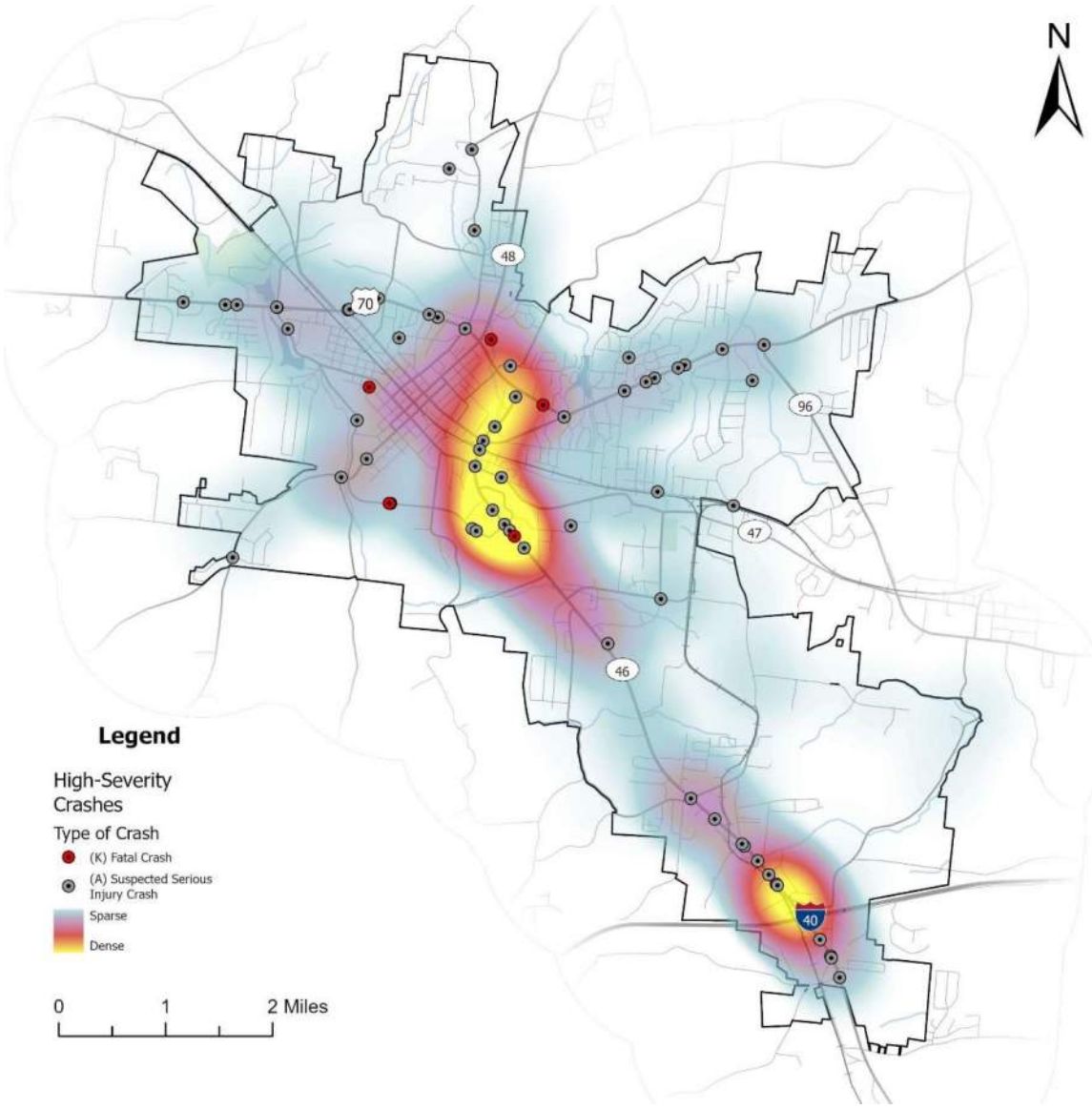


Figure 12: Fatal and Serious Injury Crashes with Overall Crash Heatmap

2.3.3 Crashes by Type

Crash type is indicated on crash reports submitted by law enforcement agencies. Rear End crashes were the most common crash type in terms of overall crashes. These types of rashes often occur in congested traffic or when drivers are distracted. These types of crashes tend to be less severe because they often occur at lower speeds with less damaging crash angles. Angle crashes were the second most common crash type over the study period in terms of overall crashes. These types of crashes tend to be more severe than many other crash types. The entire range of crash types is listed below in **Table 3**.

Table 3: Crashes in Dickson by Type

Type of Crash	2019	2020	2021	2022	2023	Total
Rear End	224	199	232	207	183	1,045
Angle	157	144	154	134	164	753
Not a Collision with Motor Vehicle	76	91	82	79	81	409
Sideswipe - Same Direction	64	52	81	65	63	325
Head On	35	20	25	17	15	112
Sideswipe - Opposite Direction	17	19	20	23	15	94
Rear to Side	3	7	2	3	3	18
Rear to Rear	0	4	1	0	1	6
Other	59	61	35	37	54	246
Total	**635**	**597**	**632**	**565**	**579**	**3,008**

Compared to statewide data, Dickson experienced a higher percentage of rear-end crashes and a lower percentage of crashes involving single vehicles (No Collision with Vehicle). This is largely due to the City of Dickson exhibiting more urban characteristics than other areas within the state, resulting in more traffic congestion and driver conflicts. Single vehicle crashes often occur along curves and uninterrupted rural sections of roadways, which usually tend to be outside of city limits.

Compared to other urban areas within the State of Tennessee, Dickson experienced a higher percentage of rear-end crashes, and a lower percentage of angle crashes. Overall, the trend comparisons between the City of Dickson and the State of Tennessee are relatively consistent, with the general order of crash types remaining similar.

2.3.4 Crashes by Lighting Conditions

Street lighting often serves as a safety countermeasure against nighttime crashes, and it can be a streetscaping asset if it fits the context of the community and built environment. Approximately 29 percent of crashes in Dickson occurred during non-daylight conditions (I.e., Dark, Dark – Not Lighted, Dark – Lighted, Dusk, and Dawn) which is very consistent with the statewide average during the same period of 30 percent. The entire range of crash lighting conditions is listed below in **Table 4**.

Table 4: Crashes in Dickson by Lighting Conditions

Lighting Condition	2019	2020	2021	2022	2023	Total
Daylight	440	403	466	427	399	2,135
Dark - Lighted	113	104	95	79	97	488
Dark - Not Lighted	28	25	29	14	27	123
Dusk	5	10	11	8	10	44
Dawn	2	5	6	10	4	27
Other	47	50	25	27	42	191
Total	**635**	**597**	**632**	**565**	**579**	**3,008**

2.3.5 Crashes by Road Surface Conditions

Pavement friction affects how vehicles interact with the roadway and directly influences the frequency of crashes. Wet pavement can further reduce traction and exacerbate the frequency and severity of vehicle crashes. Approximately 19 percent of crashes in Dickson occurred during non-dry road surface conditions, which is higher than the statewide average of 17 percent over the same period. The entire range of crash road surface conditions is listed below in **Table 5**.

Table 5: Crashes in Dickson by Roadway Surface Conditions

Surface Condition	2019	2020	2021	2022	2023	Total
Dry	512	465	526	464	475	2,442
Wet	79	81	77	61	61	359
Ice	1	0	2	10	1	14
Snow	0	0	4	7	0	11
Other	43	51	23	23	42	182
Total	**635**	**597**	**632**	**565**	**579**	**3,008**

2.3.6 High-Crash Locations

The total number of crashes at a location helps identify areas of concern, but it is not the only data that needs to be evaluated. It is known that areas with a higher traffic volume are more likely to experience a greater absolute number of crashes. Furthermore, locations with high crash volumes often experience congestion which may result in lower crash severities, but higher crash frequencies. Crash rate calculations account for the traffic volumes at specific locations to allow for a more effective comparison between similar locations with safety concerns. The crash rates found below are expressed as crashes per 100 million vehicle-miles of travel and were calculated in AASHTOWare, which uses methodology from the FHWA Roadway Departure Safety Manual. **Table 6** and **Table 7,** shown below, summarize the top 10 City roadway segments and intersections, respectively, ranked by crash frequency and crash rate. Identifying these segments and intersections was an important step toward defining the High Injury Network, which is introduced in **Section 2.4 Identifying a High Injury Network**.

Table 6: High-Crash Segments

Segment (Milepost Length)	Length (miles)	Crashes	Rank by Frequency	AADT	Crash Rate	Rank by Rate
Hwy 46 (4.93-7.98)	3.05	347	1	25,769	2.4	7
Hwy 46 (3.73-3.96)	0.23	138	2	29,215	11.3	2
Cowan Road (0.43-1.08)	0.65	130	3	12,676	8.6	3
Mathis Drive (8.18-8.66)	0.48	94	4	19,018	5.6	4
Hwy 46 (3.96-4.93)	0.97	89	5	29,215	1.7	9
Hwy 46 (0-3.19)	3.19	56	6	13,161	0.7	10
Hwy 46 (3.19-3.58)	0.39	53	7	13,161	5.6	4
Henslee Drive (8.57-9.31)	0.73	34	8	14,369	1.8	8
Hwy 46 (7.98-8.18)	0.20	34	9	27,325	3.5	6
Henslee Drive (9.66-9.79)	0.13	32	10	10,441	12.9	1

Table 7: High-Crash Intersections

Intersection	Crashes	Rank by Frequency	TEV	Crash Rate	Rank by Rate
Beasley Drive at Hwy 46	121	1	39,884	2.7	1
E Christy Drive at Hwy 46	72	2	30,725	1.4	3
E College Street at Hwy 46	69	3	48,706	1.2	4
Henslee Drive at Mathis Drive	47	4	29,459	1.0	6
E Walnut Street at Hwy 46	46	5	36,951	0.9	7
Alexander Drive at Hwy 46	40	6	29,215	0.4	9
Henslee Drive at Spring Street	33	7	13,493	1.8	2
Lewis Hollow Road at Hwy 46	32	8	27,515	0.7	8
Thornton Drive at Hwy 46	32	9	25,769	0.4	9
Beasley Drive at Center Avenue	30	10	16,878	1.1	5

2.3.7 Crashes Involving VRUs

Vulnerable roadway users (VRUs) include pedestrians, cyclists, mobility device users (e.g., wheelchairs), and micromobility device users (e.g., e-scooter). VRUs are more exposed and at-risk in the event of a crash with motorists. Over 30 percent of crashes involving VRUs resulted in serious injuries or fatalities in Tennessee between 2018 to 2022[2]. Furthermore, fatal and serious injury pedestrian and cyclist crashes increased by over 44 percent and 18 percent, respectively, from 2018 to 2022. The City of Dickson far exceeds that percentage, as 47 percent of crashes involving vulnerable road users result in fatalities or serious injuries. In Dickson, suspected serious injury crashes were the most likely outcome of a VRU crash, at roughly 41 percent (6 percent fatal). The percentage for serious injuries far exceeds other urban areas in the state (20 percent statewide urban areas). The characteristics of roadways and their surrounding areas such as retail density, number of travel lanes, and roadway speed limits can pinpoint locations with potentially higher risk for VRUs. As seen in **Figure 13**, VRU crashes are spread throughout the City.

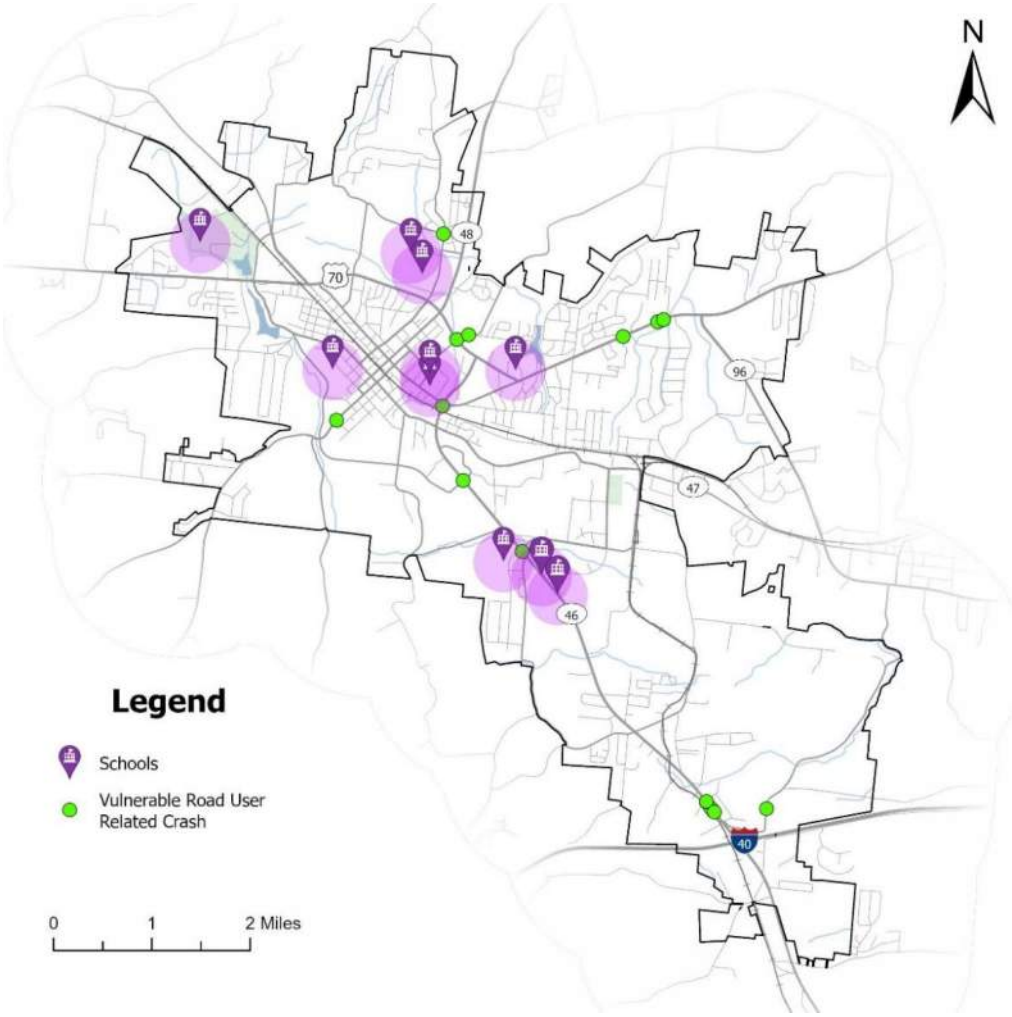


Figure 13: Crashes Involving Vulnerable Users (2019-2023)

[2] TDOT, Tennessee VRU Safety Assessment, 202
https://www.tn.gov/content/dam/tn/tdot/strategic/TDOT%202023%20VRU%20Safety%20Assessment%20Final%20w%20Appendix%2011-15-2023.pdf

2.4 Identifying a High Injury Network

A High Injury Network (HIN) was developed by identifying the routes with the highest frequency of fatal and serious injury crashes in the City of Dickson, in order to prioritize specific corridors in the City. A HIN is a collection of corridors where a disproportionate number of these crashes occurred as well as corridors that may pose higher risk for all road users. Developing a HIN allows for the proper allocation of effort and funds towards specific areas of the City that need it most. While the HIN typically includes the major thoroughfares of a study area, the methodology used also allows for minor roads to be considered for improvements. Creating the HIN is a key step toward focusing resources in the right direction to develop projects that will help reduce fatal and serious injury crashes for all road users in the City of Dickson.

2.4.1 Methodology

The HIN was identified by first evaluating segments throughout the City of Dickson's roadway network with the highest reported crash rates during the study period (2019-2023) using TDOT's AASHTOWare Safety Network Screening platform. Fifteen high-crash-rate segments were identified at logical termini (i.e., municipal boundary, road name changes, or roadway characteristic changes such as number of lanes). **Figure 14** shows the HIN identified in the table. Of the 3,008 crashes occurring in Dickson, 2,146, or 71 percent, were found to have occurred within the HIN. There were 8 fatal and 72 serious injury crashes, with 7 of the fatal and 48 of the serious injury being within the HIN. Lastly, of the 17 VRU crashes in Dickson, 11 of them were within the HIN.

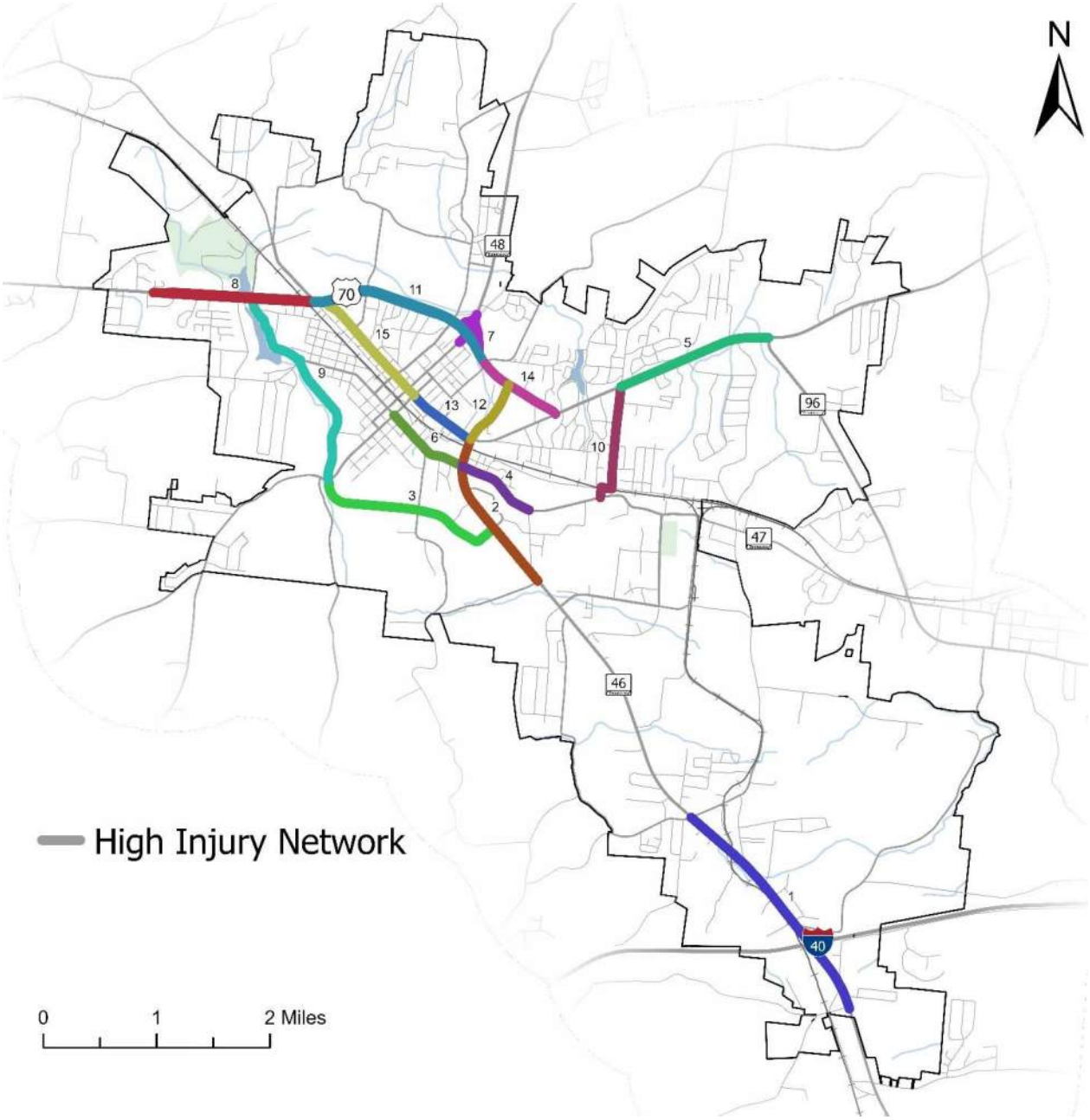
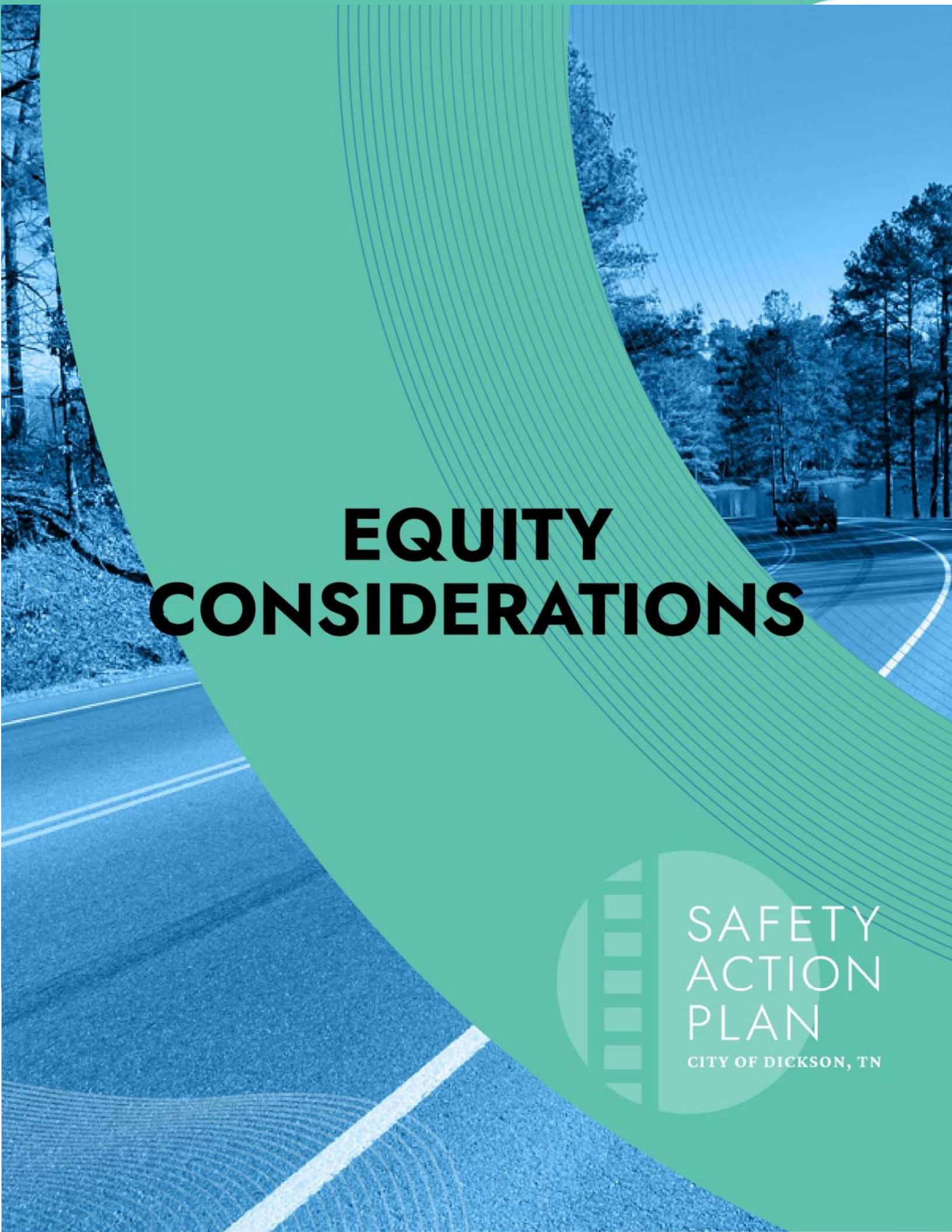


Figure 14: City of Dickson High Injury Network



EQUITY CONSIDERATIONS

SAFETY ACTION PLAN

CITY OF DICKSON, TN

3. Equity Considerations

Equity considerations are integral to addressing the needs of disadvantaged communities or vulnerable populations. Three measures of equity were utilized in the City of Dickson SAP process: the Centers for Disease Control (CDC) Social Vulnerability Index (SVI), Area of Persistent Poverty (APP) designation, and Historically Disadvantaged Community (HDC) designation. Justice40 Interim Guidance defines these measures as follows:

- The CDC's Social Vulnerability Index uses a combination of socioeconomic factors, household characteristics, racial and ethnic minority status, and housing and transportation issues to rank the social vulnerability of each census tract across the City. Those falling in or above the Medium-High (0.50 – 0.75) or High Vulnerability (0.75 – 1.00) groups were considered tracts of concern in the Dickson SAP.
- Areas of Persistent Poverty meet at least one of the following conditions:
  - The City in which the project is located consistently had greater than or equal to 20 percent of the population living in poverty in all three of the following datasets: (a) the 1990 decennial census; (b) the 2000 decennial census; and (c) the most recent (2021) Small Area Income Poverty Estimates; OR
  - The Census Tract in which the project is located has a poverty rate of at least 20 percent as measured by the 2014-2018 5-year data series available from the American Community Survey of the Bureau of the Census; OR
  - The project is in any territory or possession of the United States.
- Historically Disadvantaged Communities have been "marginalized by underinvestment and overburdened by pollution or include any Federally Recognized Tribe or Tribal entity, whether or not they have land". Note, the most recent downloadable geodatabase available (dated December 20, 2024) from the USDOT's Justice40 Initiative website included a list of census tracts considered by USDOT as Historically Disadvantaged Communities and Areas of Persistent Poverty in Dickson County. The city of Dickson was not found to have any historically disadvantaged communities, although it was found to have socially vulnerable communities and areas of persistent poverty.

The City of Dickson SAP considers these three measures in developing project implementation prioritization as these geographic areas are representative of equity concerns. **Figure 15** shows the demographic characteristics of Dickson, while **Figure 16** and **Figure 17** show areas of equity consideration.

The public and stakeholder involvement activities which were part of the City of Dickson SAP were done in person and virtually to be inclusive and representative of a broad cross-section of City's residents.

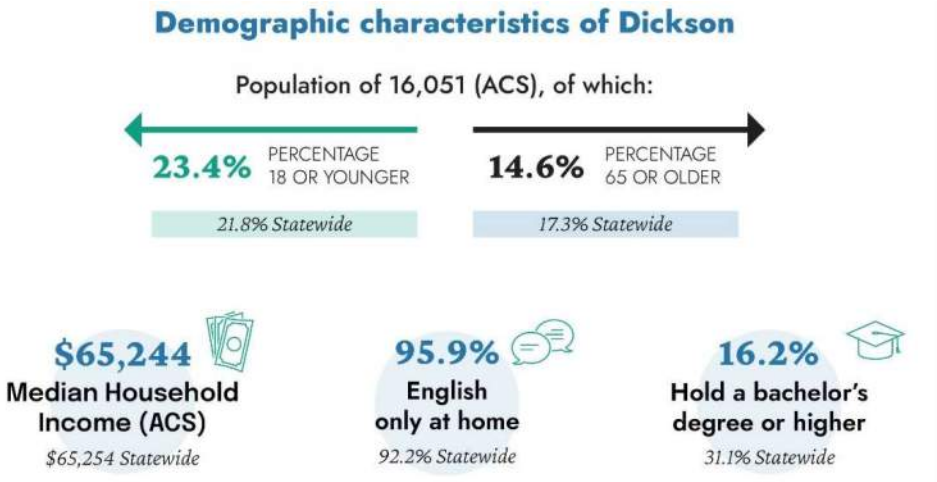


Figure 15: Demographic Characteristics of Dickson

3.0.1 Social Vulnerability Index

The CDC developed the Social Vulnerability Index (SVI)[3] tool that considers four overall categories of vulnerability: Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, and Housing Type & Transportation. Between these four (4) categories, 159 individual sub-categories are scaled and calculated to form an overall index score, ranging from 0 to 1 (where an index value of 1 is defined as the most socially vulnerable). Of the 3,008 total crashes occurring in Dickson, 2,229 crashes were found to have occurred in areas of medium-high social vulnerability, with 48 of those crashes resulting in a fatality or suspected serious injury.

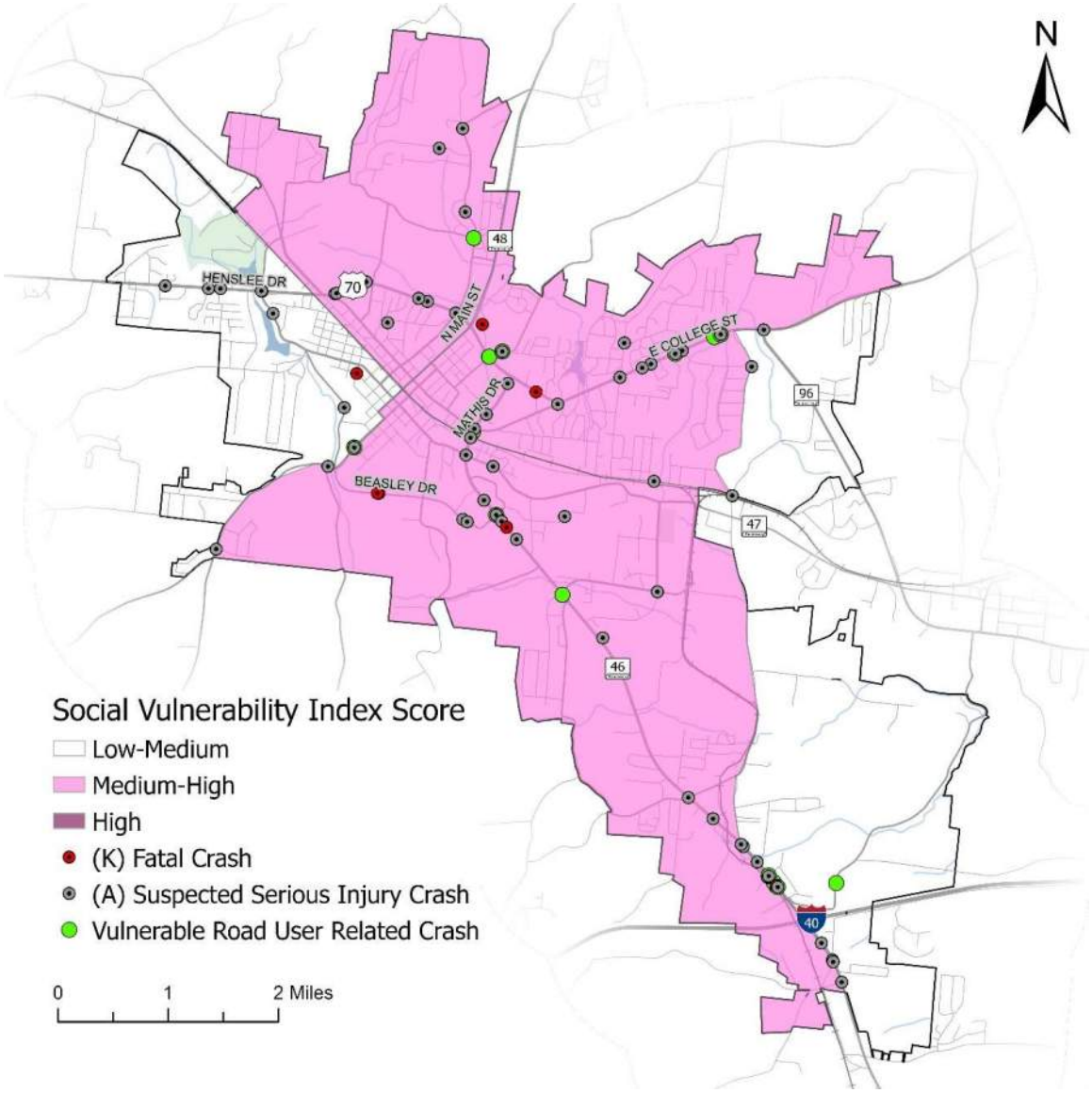


Figure 16: Social Vulnerability Index Map

[3] CDC/ATSDR SVI, https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

3.0.2 Areas of Persistent Poverty

Of the 3,008 total crashes occurring in Dickson, 1,513 were found to have occurred in areas of persistent poverty, with 32 resulting in a fatality or suspected serious injury. These numbers represent approximately 50 percent (36 of 72 total) of all total suspected serious injury crashes or fatalities within the City for the period between 2019-2023.

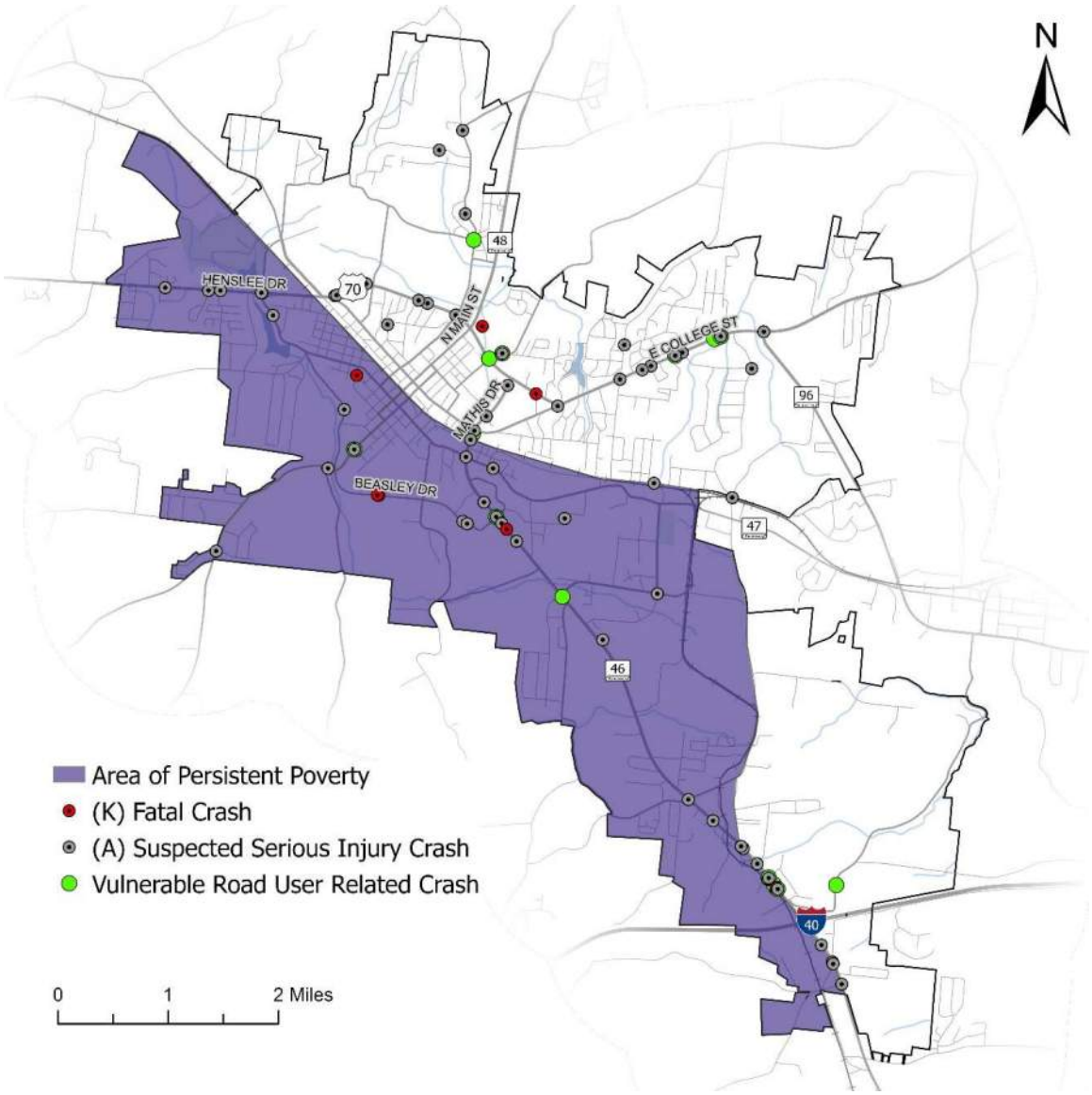


Figure 17: Areas of Persistent Poverty Map

ENGAGEMENT & COLLABORATION

SAFETY ACTION PLAN

CITY OF DICKSON, TN

4. Engagement and Collaboration

4.1 Introduction

Public outreach and engagement play a crucial role in collecting valuable insight into what community residents encounter daily while traveling routes in the study area, whether it is by car, bike, foot, mobility device, or bus. Throughout the process, multiple opportunities for participation and input were offered to community stakeholders. This included in-person events, targeted e-mail outreach, social media postings and a dedicated project website to gather and record public input as well as providing for the dissemination of information regarding the SS4A Grant Program. Through this variety of methods to gather input, it is the intention to provide the opportunity to capture feedback from all residents, especially those that are traditionally underserved population.

Following the kick-off meeting in July 2024, the engagement schedule shown below in **Figure 18** was followed:

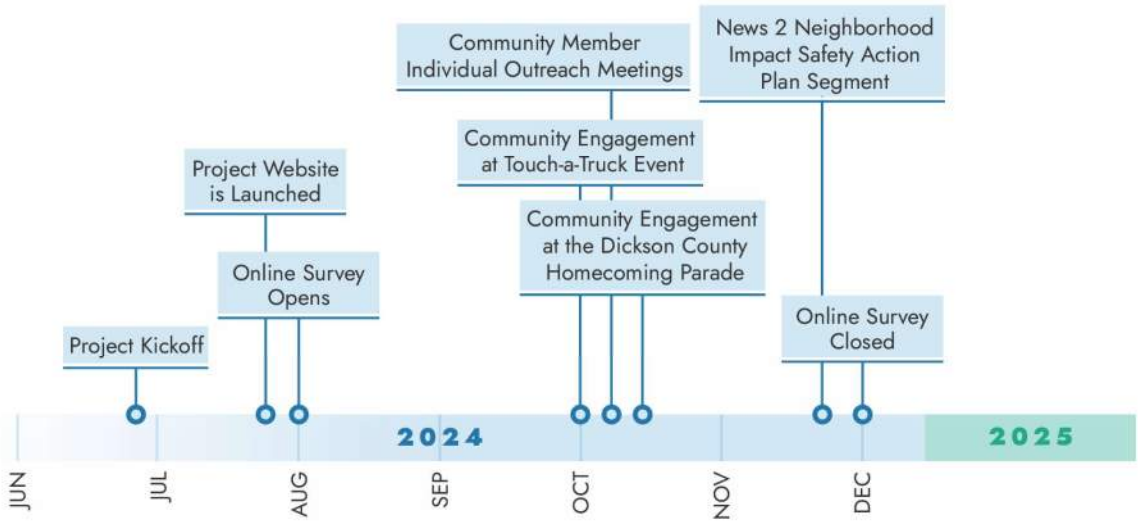


Figure 18: Engagement and Collaboration Schedule

4.2 Formation of a Steering Committee

To help guide the study, a Steering Committee of City representatives with a two-fold role was created. First, to provide local, informed input regarding current conditions and opportunities for improvement in Dickson. Secondly the members of the Steering Committee were to act as outreach conduits to the community. Many times, during the public engagement phase, the City and members of the Steering committee encouraged residents to get involved and provide input through direct e-mail communications, social media blasts or direct communication to groups in the community. The work of this committee is in large part responsible for the success of the public outreach portion of this study.

4.3 Project Website

To facilitate the dissemination of historical crash trends and provide a portal for community input, a project specific website was created, https://dicksonsafetyactionplan.com (see **Figure 19**). Within the website, users could find information on what a SAP is, how it can benefit the community, and how they can participate by providing input. This site yielded 1,414 individual page views.

Figure 19: City of Dickson SAP Website

4.4 Public Outreach

Starting in October 2024, a series of public outreach events were organized to inform the community about the SAP and collect feedback from various audiences. Additionally, the Homecoming Parade covered areas that are medium to high scoring in the Social Vulnerability Index, and the Dickson City Health Council Presentation was aimed at ensuring greater equity and inclusion by reaching underserved and harder-to-reach populations.

4.4.1 Homecoming Parade

In October 2024, a project information booth was also set up at the homecoming parade to educate residents about the newly introduced Safety Action Plan, designed to improve community safety. The booth provided comprehensive details about the plan's goals and how it would be implemented. To encourage active participation from all community members, QR codes were distributed, enabling attendees to conveniently visit the project's website and fill out an online survey to offer their insights and recommendations.

4.4.2 Touch-a-Truck

In October 2024, a project information booth was present at the Touch-a-Truck event to inform residents about the new Safety Action Plan aimed at enhancing local safety measures. Detailed information on the plan's objectives and implementation strategies was provided. To ensure inclusive community engagement, QR codes were made available, allowing attendees to easily access the plan's website and complete an online survey to share their feedback and suggestions.

4.4.3 News2 Interview

On November 25, 2024, the WKRN News 2 developed their Neighborhood Impact segment to shared information about Dickson's Safety Action Plan. The content included the grant award amount, the project website, and a request from the public to submit their feedback. Broadcasting this information on a prominent news channel is significant as it reaches a broad audience, increasing public awareness and encouraging community involvement. This level of transparency helps build trust and ensures that residents are informed about safety improvements and have an opportunity to contribute their feedback.

4.4.4 Dickson County Health Council Presentation

A comprehensive presentation of the Safety Action Plan was delivered to the Dickson County Health Council to reach a new audience. The council members were encouraged to share the plan's details with their constituents and promote participation in providing feedback. Recognizing the council's unique ability to serve individuals who are homeless or battling substance abuse, printed copies of the survey were distributed to ensure community members could share their input, regardless of their access to the internet. This outreach was crucial for engaging vulnerable populations and ensuring their voices were included in the planning process.

4.4.5 Individual Meetings with Community Leaders and Organizations

Starting in October 2024, a series of public outreach events were organized to inform the community about the Safety Action Plan and collect feedback from a wide range of audiences. These efforts included various presentations and meetings, each targeted at different sectors within the community. Below is a list of the organizations which outreach events were coordinated with:

Dickson County Chamber of Commerce, Dickson County Family YMCA, Dickson Electric System, Greater Dickson Gas Authority, Ignite Broadband, Tennsco Corporation, Tristar Horizon Medical Center, Water Authority of Dickson County

4.5 Public Engagement Process (Online Engagement)

Dispersion of the online survey and interactive map were achieved through a combination of tools as outlined in this section, each intended to drive traffic to and through the project website for ease of data collection and dissemination of project information.

4.5.1 Online Survey

In addition to providing a broad range of safety information, the website hosted two key participation avenues. The first was an online survey that focused on user demographics and concerns. A total of 408 participants completed the online survey, providing input and background data, ranging from travel related characteristics and demographic information to specific safety concerns. Embedded within the survey were open ended questions that served to measure participant sentiment, which resulted in a broad range of inputs as shown in **Figure 20** and **Figure 21** below.

Figure 20: Online Survey Input by Improvement Category

Figure 21: Online Survey Improvement-Related Public Comments

The desire for multimodal infrastructure was expressed the most frequently in the online survey along with concern over a lack of infrastructure. Additionally, people frequently cited a need for bicycle and pedestrian crossings. The data gathered from the online survey as well as individual comments provided were shared with the Steering Committee as part of their review and ranking of projects during a steering committee meeting.

4.5.2 Interactive Map

The second avenue for input on the website was an interactive map that allowed users to interactively identify concerns related to vehicle, pedestrian and bike safety as well as general concerns (See **Figure 22**). This map allowed the users to drop 'pins' at specific locations where they had or have experienced safety related concerns.

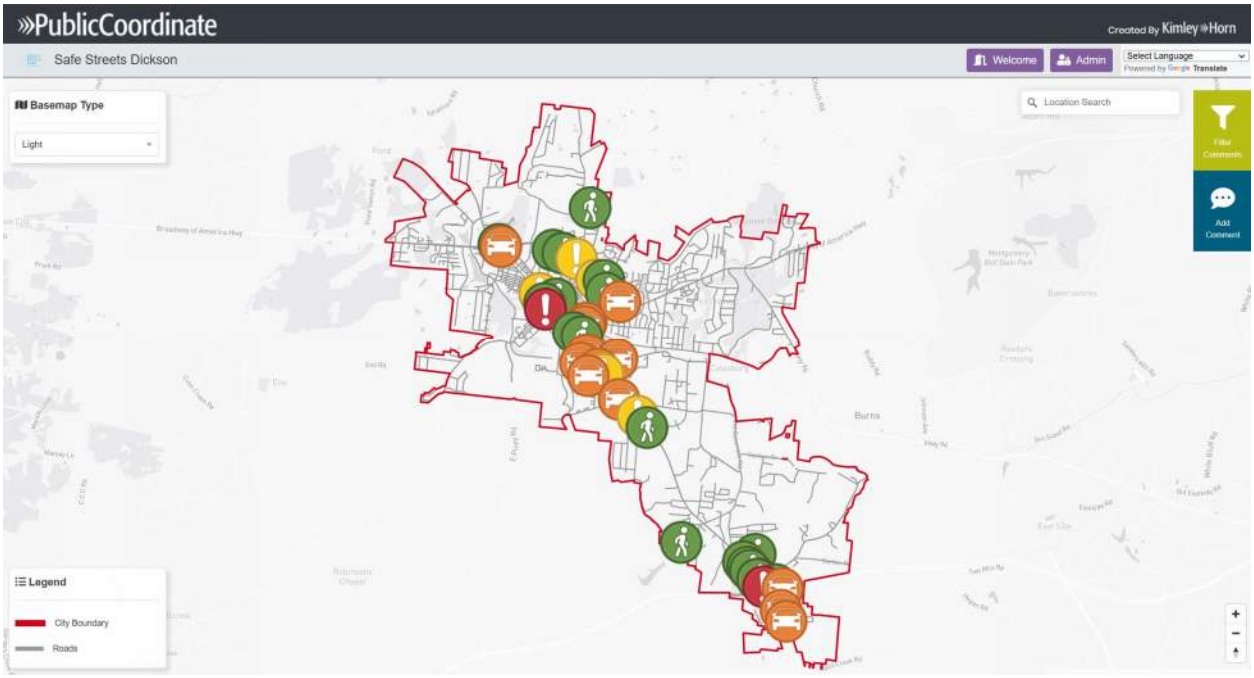


Figure 22: Results from Interactive Map

This map provided 43 separate comments or replies related to the categories of pedestrian, near crash, mobility, driver, and bicyclist. Individual comments were summarized by category for review by the Steering Committee as part of their considerations in corridor ranking. **Figure 23** and **Figure 24** displays a word cloud that summarizes many of the comments received via the interactive map, which contained similarities with the results from the survey.

Figure 23: Interactive Map Input by Improvements Category

Figure 24: Interactive Map Improvement-Related Public Comments

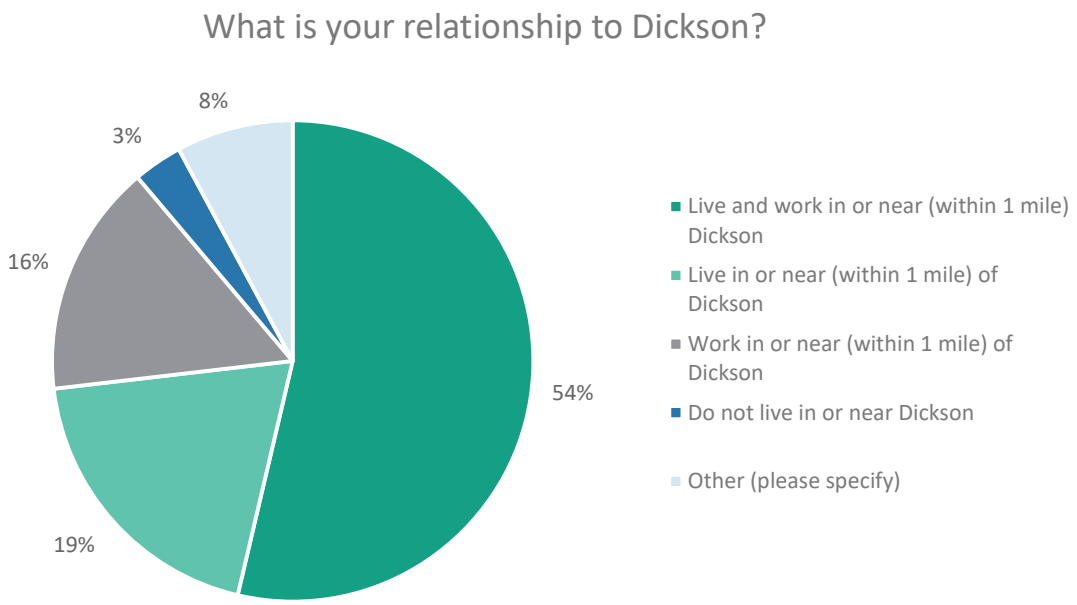
4.5.3 Public Outreach and Engagement Summary

Throughout the course of this study, thousands of community members were engaged across a variety of events and platforms as described previously. This resulted in a robust response with 1,414 pageviews being logged on the project website. Additional engagement metrics are shown in **Figure 25** below.

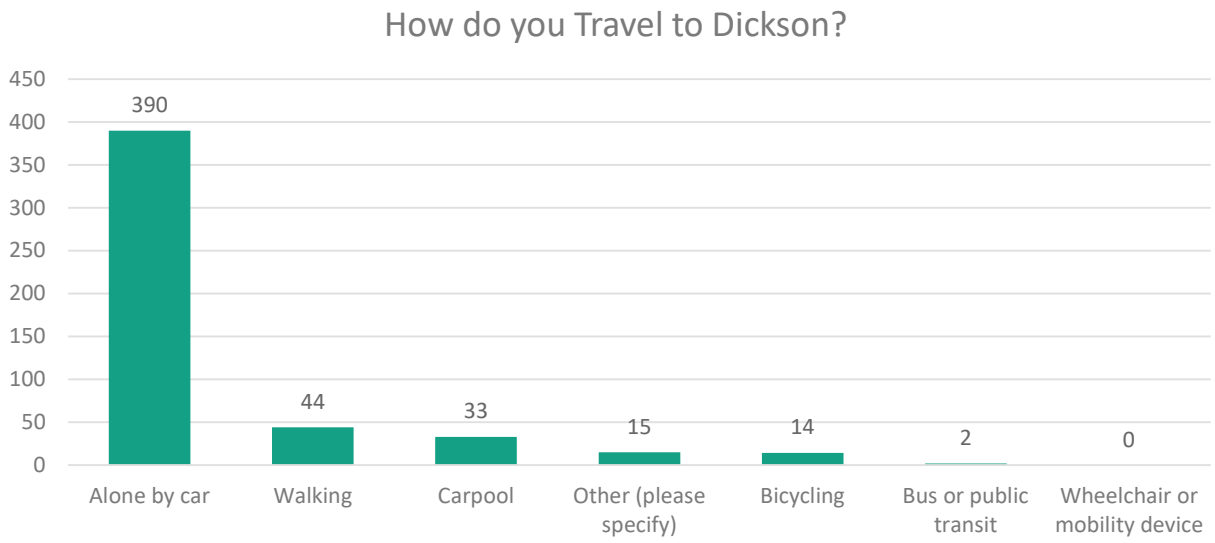
Figure 25: Engagement and Collaboration Summary

A "website pageview" refers to a single instance of a user loading the Dickson SAP website, whereas a "website session" refers to the instance of a user loading and remaining on the website. The online survey was designed to gather feedback from people in Dickson about safety issues or concerns they may have.

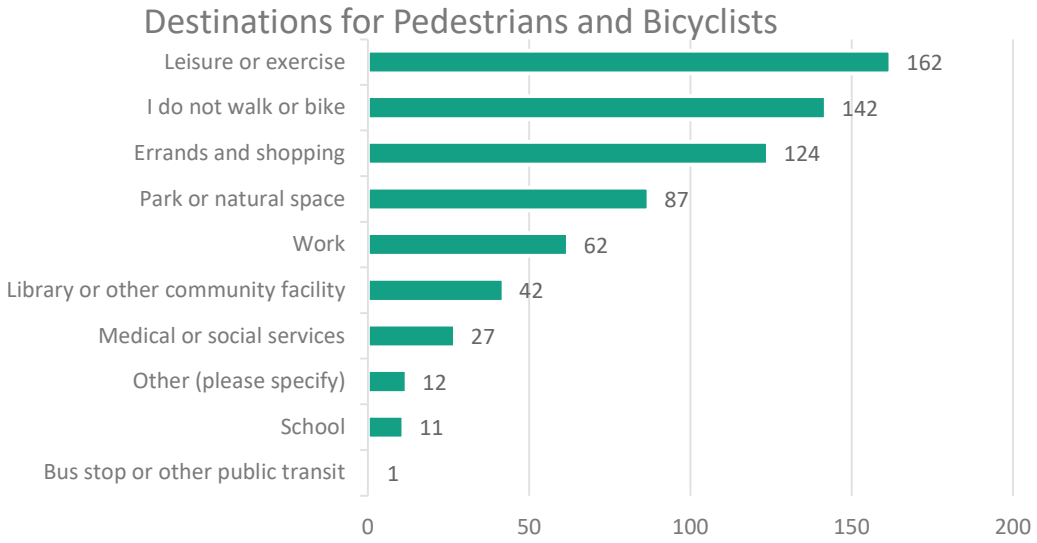
At the beginning of the survey, members were asked what their relationship to Dickson was, whether they live or work in the area. 54 percent of all respondents live or work either in or within one mile of Dickson, further validating that their experiences are focused on areas within the city.



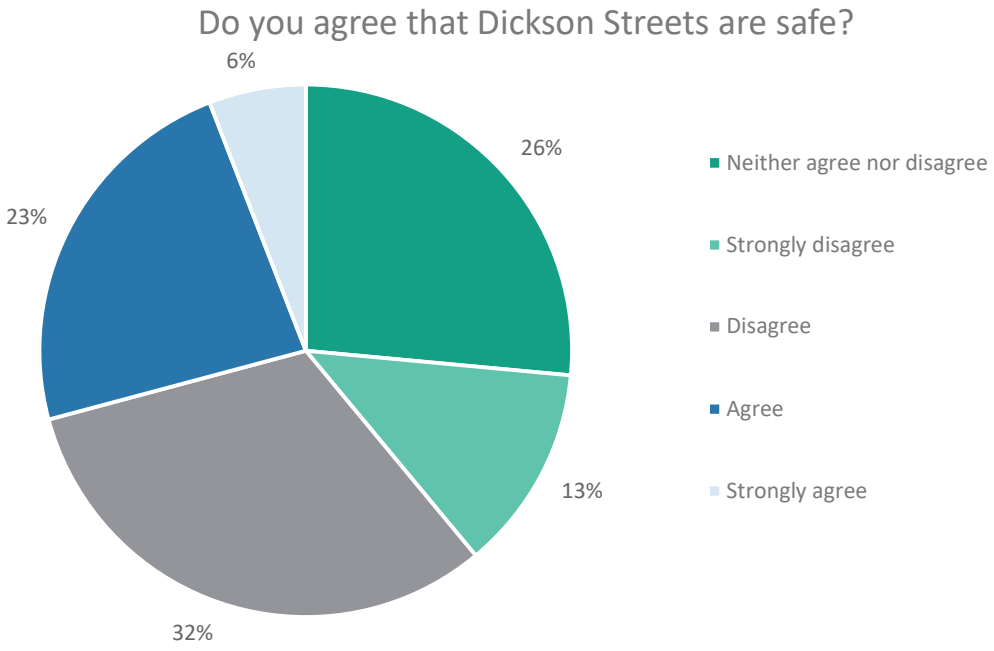
However, people provided information on how they travel to Dickson. They were allowed to select all modes of travel that apply to them. Most respondents travel alone by car (1390 responses). Some people walk (44 responses) and carpool (33 responses).



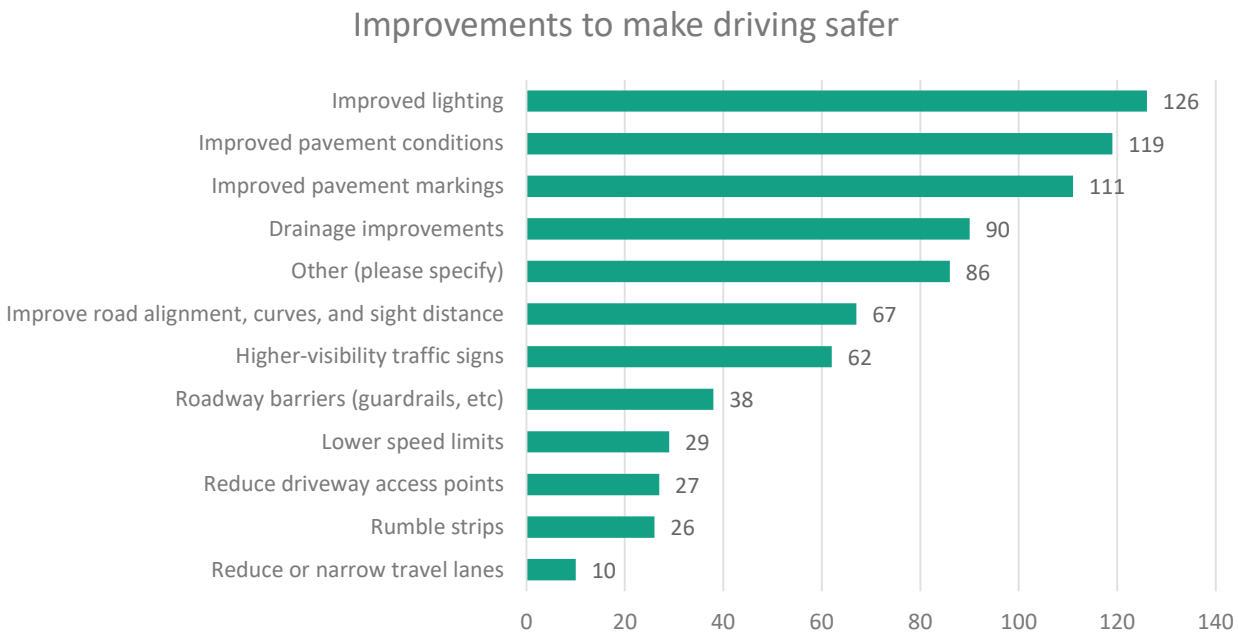
For people that walk or bike in Dickson, they were asked to select a destination category they are going to. The top two responses were that they either walk or bike for leisure or exercise (162 responses) or they do not walk or bike (142 responses).



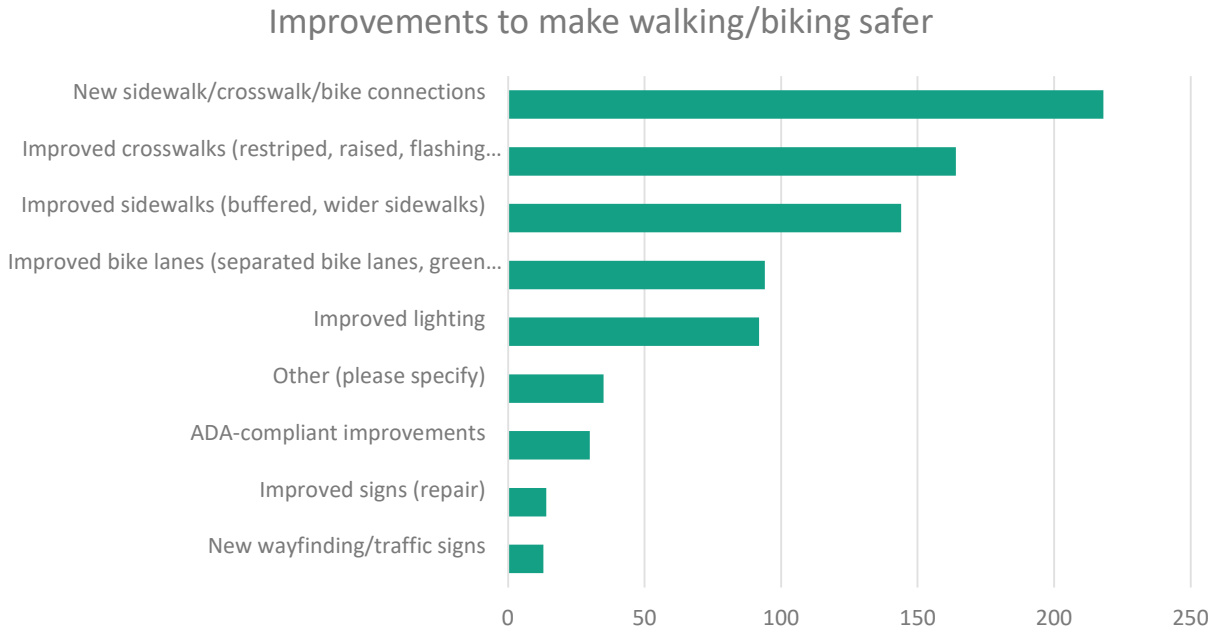
Respondents were also asked how strongly they agree that Dickson streets are safe. About a 29 percent of respondents felt that Dickson streets were safe. Around a 45 percent of respondents disagree however, indicating that they feel unsafe on the streets in Dickson.



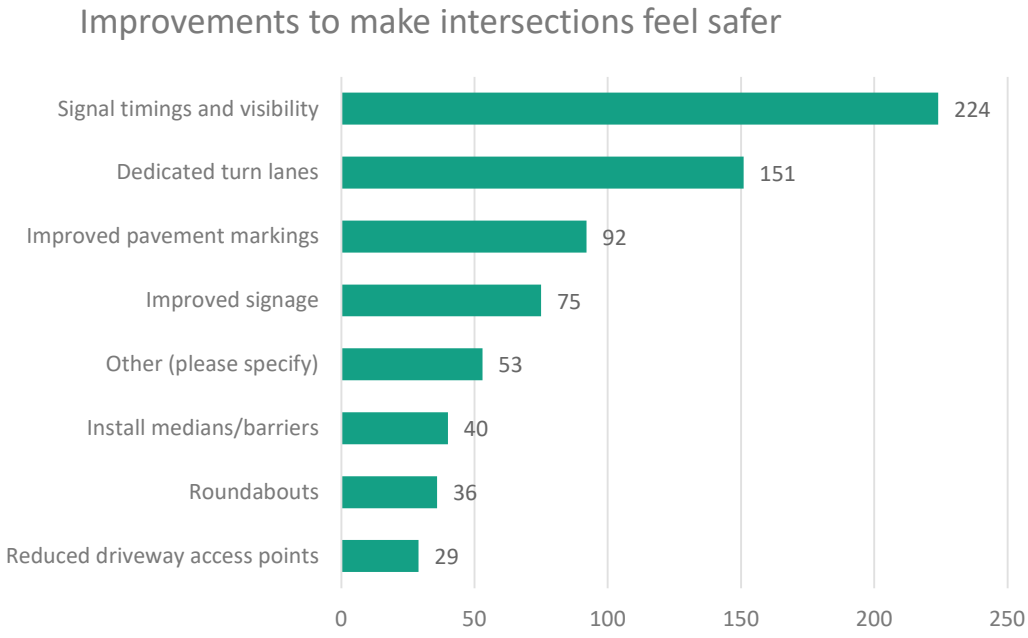
Respondents were asked to select up to three improvements that would make driving in Dickson feel safer. The top three responses were improved lighting (126 responses), improved pavement conditions (119 responses), and improved pavement markings (111 responses).



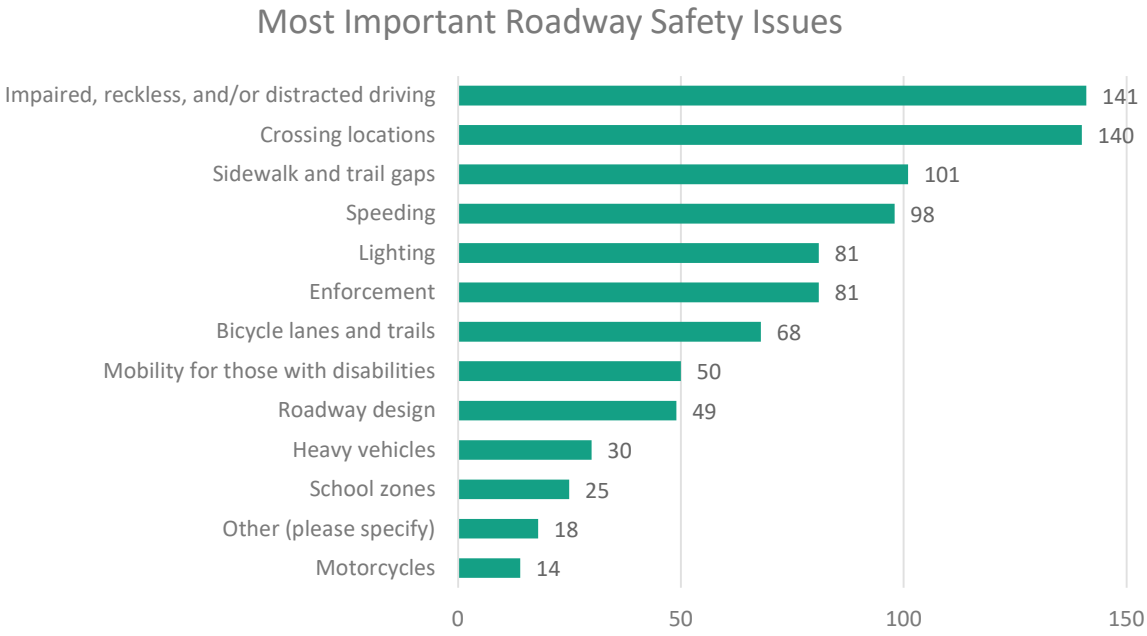
Respondents selected up to three improvements that may make walking/biking feel safer in Dickson. The top three were new sidewalk/crosswalk/bike connections (218 responses), improved crosswalks (164 responses), and improved sidewalks (144 responses).



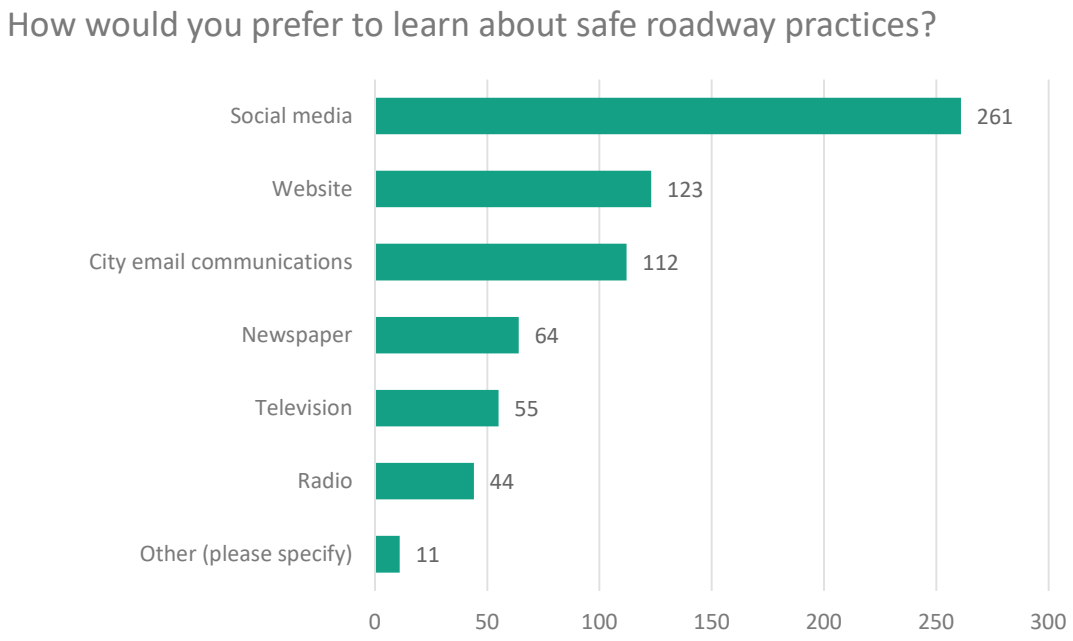
Respondents then selected up to three improvements that would make intersections feel safer. Signal timings and visibility improvements (224 responses) received the highest count followed by dedicated turn lanes (151 responses) and improved pavement markings (92 responses).



Respondents were then given the opportunity to select up to three safety issues that are most important to them. The most selected issue was impaired, reckless, and/or distracted driving (141 responses) then crossing locations (140 responses) and sidewalk and trail gaps (101 responses), which indicate a desire for enforcement improvements.

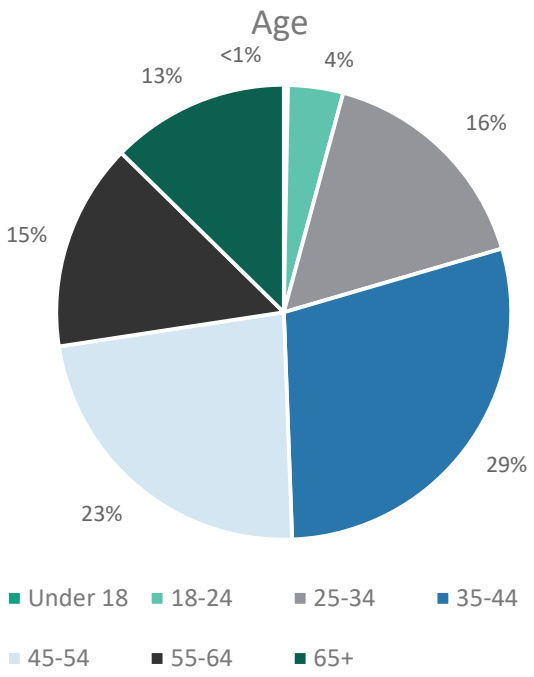


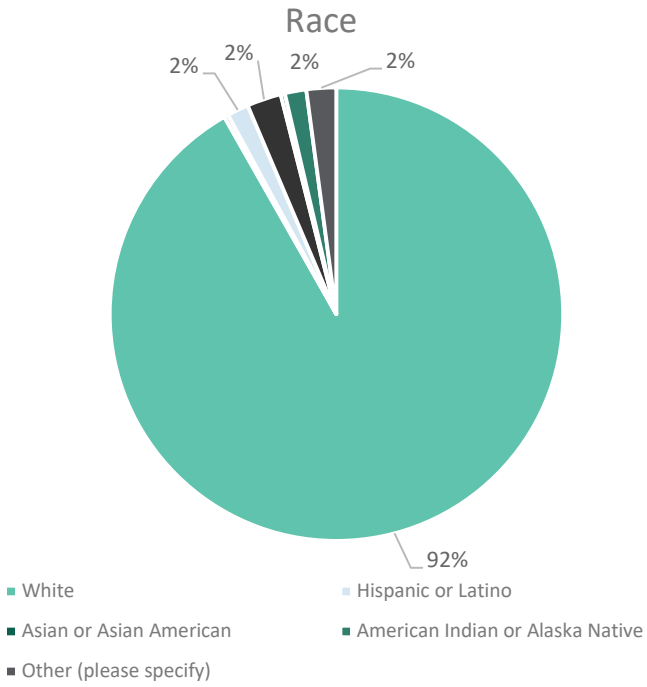
The next question then asked the preferred way people want to learn about safe roadway practices. The most common response was social media (261 responses). The second and third highest were by website (123 responses) and City email communications (112 responses), both of which were significant, indicating a broad communication approach would best serve the city.

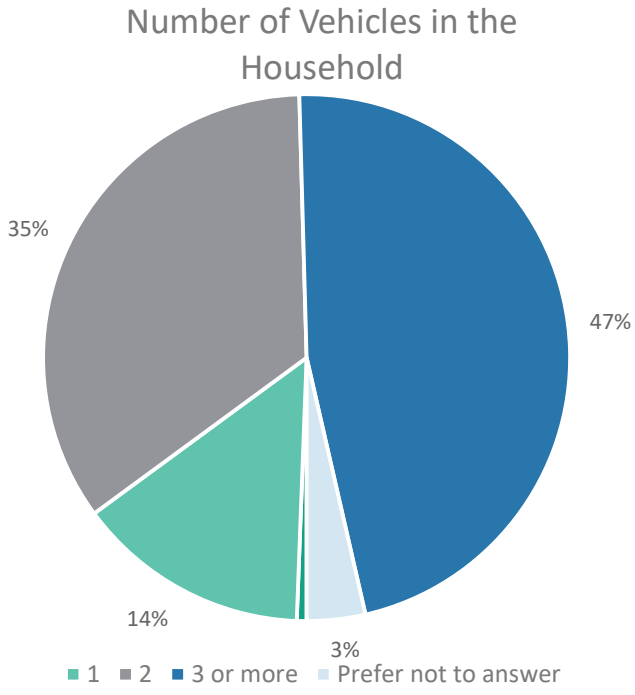


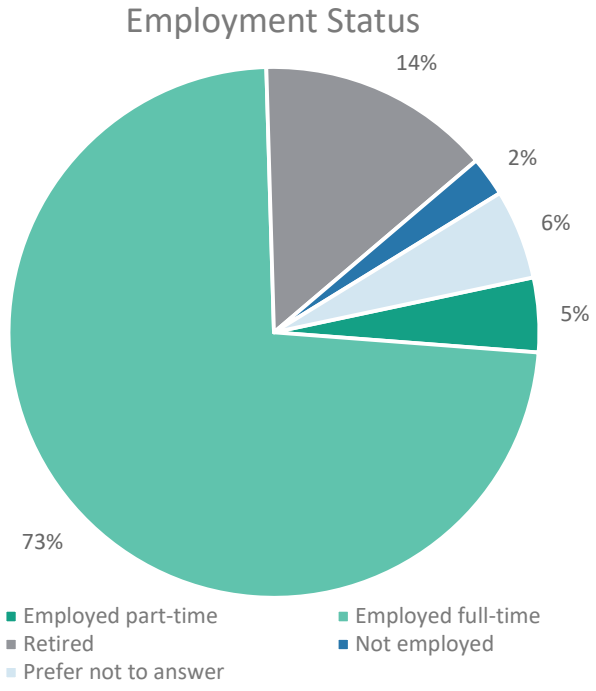
4.5.4 Key Demographics

The survey concluded by asking optional demographic questions. Responses were representative of the community makeup.









4.5.5 Summary of Survey Results

The survey results reveal that a significant number of respondents reside and work in Dickson and primarily rely on driving alone for their transportation needs. The majority of respondents do not walk or bike. Those that do primarily do so for leisure or exercise. Though many participants felt that Dickson streets are safe, around a third felt they were unsafe. There was strong support for various improvements, including better lighting, new sidewalk/crosswalk/bike connections, creating dedicated turn lanes, and addressing signal timing and visibility. The survey also highlights that respondents considered the most prominent roadway issue in Dickson to be reckless driving and roadway design. Concerns were expressed about intersections in Dickson, including signal timing and a lack of pedestrian infrastructure like sidewalks and crosswalks. Additionally, respondents indicated a preference for accessing safety information through social media platforms, City email communications, or the website.

4.5.6 Public Input Heat Map

Combining the input provided in Public Coordinate with the location specific comments provided in the survey, a heat map was prepared. As illustrated in **Figure 26**, there is a direct correlation between the crash density heat map presented earlier in the report and the areas receiving the most public comments for safety concerns. Specifically, the intersections of Mathis Drive at Henslee Drive and Beasley Drive received the largest number of public comments, highlighting the need for improvements in these areas. **Figure 26** shows the concentration of public input comments within the City. Additionally, APP and areas with medium-high SVI were displayed on the map. Multiple comments were placed within these regions as shown with the heat map, which highlights the community's needs and concerns.

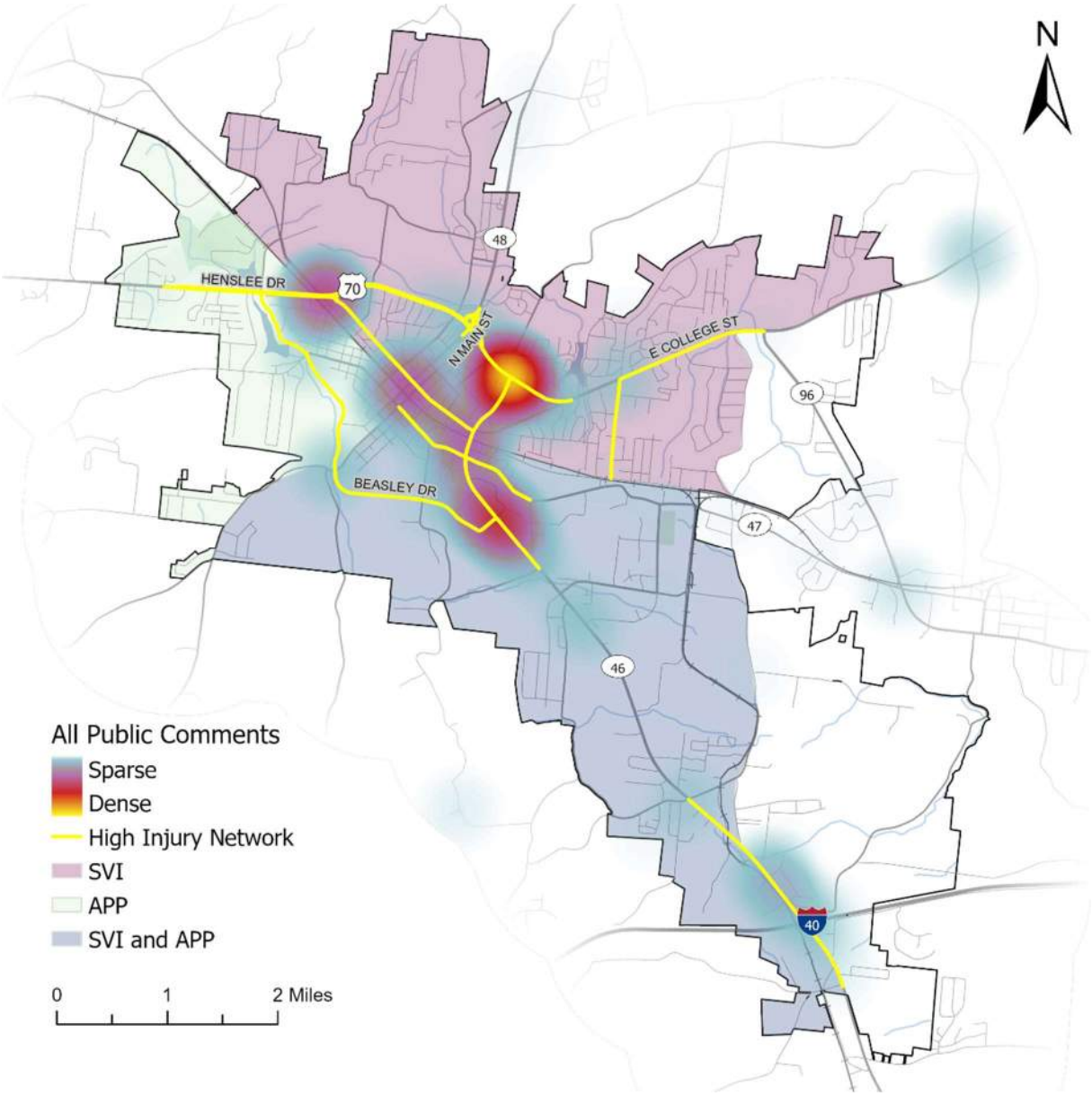


Figure 26: Concentration of Location Specific Public Comments

4.6 Key Takeaways

Based on the comments placed on the interactive map, most of the comments are pedestrian-related concerns and driver-related concerns. Many comments call for multimodal infrastructure, such as bicycle/pedestrian crossings, along with visibility concerns. These suggestions aim to reduce accidents, improve traffic flow, foster better driving habits, and protect all road users. Furthermore, there are several comments regarding congestion in the area and the lack of pavement markings/signage. These comments align with the need to address safety concerns in locations that have a higher likelihood of accidents or injuries, as reflected in the high injury network. By incorporating improvements in these areas, it allows for a targeted approach to enhance transportation safety for both drivers and pedestrians.

STRATEGIES

SAFETY ACTION PLAN

CITY OF DICKSON, TN

5. Strategies

The SAP identifies countermeasures and strategies addressing the City's fatal and serious injury emphasis areas mentioned in Section 2. Safety Analysis. The countermeasures are classified into two categories: (1) engineering countermeasures (project recommendations) and (2) driver related countermeasures (education, enforcement, and emergency medical services).

5.1 Engineering Countermeasures

Engineering countermeasures in an SAP refer to physical changes to the transportation infrastructure. These measures can include:

- Traffic signal upgrades: Installing or improving traffic signals to better manage traffic flow.
- Roadway design changes: Modifying road layouts such as adding roundabouts, medians, or bike lanes.
- Pedestrian and cyclist infrastructure: Installing or Improving crosswalks, sidewalks, and bike paths.
- Speed management: Implementing measures such as road diets, bulb-outs, chicanes, or reduced lane widths.
- Visibility improvements: Installing or improving street lighting, adding reflective signs, and improving roadway striping.

These countermeasures were determined based on data analysis and safety studies to address specific risks and improve overall road safety.

Crash Modification Factors (CMF)

Crash Modification Factors (CMF) can be used to assess the potential safety impact of improvements. A CMF is a numerical value that indicates the proportion of crashes that would be expected at a location after implementing a safety countermeasure. A CMF with a value of less than 1.0 indicates an expected decrease in crashes. Conversely, a CMF with a value greater than 1.0 indicates an expected increase in crashes. Because funding for infrastructure improvements is limited, the City of Dickson can benefit from a way to quantify and compare the potential benefit of safety countermeasures and treatments. The FHWA maintains the CMF Clearinghouse, an online repository of CMFs documented in the Highway Safety Manual (HSM) and other industry resources. The following guidance should be considered when selecting and applying CMFs:

- Use a minimum of three years of crash data for urban and suburban sites and five years of crash data for rural sites.
- CMFs should be selected from Part D of the HSM or FHWA's CMF Clearinghouse website (https://www.cmfclearinghouse.org/).
- If possible, use CMFs with star ratings of four or five. The star rating indicates the quality or confidence in the results of the study producing the CMF.

CMFs are multiplicative, meaning the individual CMFs must be multiplied to estimate the overall expected crash reduction. However, the application of multiple CMFs can overestimate the expected crash reduction. Typically, three (3) or less independent CMFs are used at a particular site.

5.1.2 Engineering Countermeasures Toolkit

A toolkit of engineering countermeasures was compiled based on general applicability in the study area, their level of evidence in crash reduction, and stakeholders and public feedback obtained during the public engagement. **Table 8** provides a summary of these countermeasures, their source, and the order of magnitude cost for their implementation.

Table 8: City of Dickson Toolkit

Source	Countermeasure	Cost
	Install/Upgrade Stiping & Signage for Off-Ramp Travel	$
● ● ●	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$
●	Provide Turn Lanes	$$$
●	Install/Upgrade Rail Crossing Gate Arms & Advance Signage	$$$$
● ● ●	Install Pedestrian Facilities (Sidewalks/Crosswalks)	$$$
● ●	Optimize Signal Cycle & Timings	$$
● ● ●	Implement Access Management (Minimize Driveway Density)	$$
●	Install Flashing Yellow Arrows	$$
● ● ●	Install Lighting Structures	$$$
● ●	Install Backplates with Retroreflective Borders to Traffic Signal Heads	$
●	Consider Restricting/Relocating Side Street Movements	$$$
● ●	Modify Crosswalks & Ramps to Provide Better Alignment	$$
● ●	Install Various Pavement Friction Applications	$$
●	Convert Traffic Signal to Include Protected Phasing for Side Streets	$$$
	Conduct Intersection Control Evaluation Study	$$
● ● ●	Evaluate Appropriate Speed Limit for All Road Users	$
● ● ●	Implement Various Speed Reducing Countermeasures	$$
● ●	Install Curve Warning Feedback Signage & Striping	$
● ●	Install Combination Centerline / Edge line Rumble Strips	$$
● ●	Upgrade Striping & Signage to Optimize Stops & Turn Angles at All Approaches	$
● ● ●	Implement Road Diet / Reconfiguration	$$
● ● ●	Implement Various Red-Light Running Countermeasures	$$
●	Evaluate On/Off Ramp Configurations to Limit Driver Conflicts	$
●	Upgrade Traffic Signal Heads	$
● ● ●	Install RRFB at Pedestrian Crossing	$$
	Differentiate between TWSC & AWSC Intersections with Signage	$$
●	Modify Crosswalks & Ramps to Provide Better Alignment	$
● ● ●	Install High-Emphasis Crosswalks & Facilities	$
● ● ●	Widen Shoulders on both sides of the road	$$$

●	FHWA Proven Safety Countermeasure
●	Crash Modification Factors Countermeasure
●	Vulnerable Road User Related Countermeasure

$	0 - 50,000
$$	50,001 - 100,000
$$$	100,001 - 500,000
$$$$	> 500,0000

5.2 Driver-Related Countermeasures

As described and presented in Section 2. Safety Analysis. The data shows the City of Dickson experienced higher percentages of crashes involving unrestrained occupants, senior drivers (65+), impaired drivers, and aggressive drivers than the State of TN average. The following includes specific strategies to reduce crashes on these emphasis areas. These strategies incorporate the other three Es of traffic safety: Education, Enforcement, and Emergency Medical Services.

5.2.1 Unrestrained Occupants

Unrestrained occupants refer to individuals in a vehicle who are not using seat belts or other safety restraints (such as car seats for children) at the time of a crash. As shown earlier in 2. Safety Analysis. 28 percent (20 crashes) of all fatal and serious injury crashes between 2019 and 2023 within the City of Dickson involved unrestrained occupants as a contributing factor. This is 9 percent higher than the TN State Average of 19 percent.

In Tennessee, the Child Passenger Restrain Law requires that:

- Children under 1 year old or weighing 20 pounds or less must be secured in a rear-facing child passenger restraint system in the rear seat, if available.
- Children aged 1 to 3 years and weighing more than 20 pounds must be secured in a forward-facing child passenger restraint system in the rear seat, if available.
- Children aged 4 to 8 years and measuring less than 4 feet 9 inches must be secured in a belt-positioning booster seat system in the rear seat, if available.
- Children aged 9 to 12 years or any child through 12 years of age measuring 4 feet 9 inches or more must be secured in a seat belt system.
- Children aged 13 to 15 years must be secured using a passenger restraint system, including safety belts

The law also provides for the use of medically prescribed modified child restraints for children who cannot be safely transported in conventional systems.

The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes with unrestrained occupants:

Table 9: Unrestrained Occupants Countermeasures

Countermeasure	Strategy
Conduct High-Visibility Enforcement	Continue to collaborate with Dickson's police department to conduct high-visibility enforcement at targeted areas for occupant protection compliance.
Promote Proper Child Restraint Use	Continue to coordinate and promote child passenger safety initiatives.
Conduct Social Media Campaigns	Promote high-risk driver-education programs and defensive driving programs targeting drivers aged 15-21 focusing on seatbelt usage such as Buckle Up in your Truck Campaign and Click-it-or-Ticket
Enforce the Child Passenger Restraint Law	Participate in conference and training programs for law enforcement officers to be aware and implement the Child Passenger Restraint Law.

5.2.2 Senior Drivers (65+)

Older drivers refer to drivers aged 65 and older. This group is more likely to experience to age-related changes in vision, physical fitness, and cognitive abilities, which can affect driving performance and increase crash risk. As shown earlier in 2. Safety Analysis. 31 percent (22 crashes) of all fatal and serious injury crashes between 2019 and 2023 within the City of Dickson involved older drivers. This is 11 percent higher than the TN State Average of 20 percent. The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes involving older drivers:

Table 10: Senior Drivers (65+) Countermeasures

Countermeasure	Strategy
License Renewal Process	Support the pursue of legislation to require in-person driver license renewal and vision testing for older drivers every five years starting at age 75.
Educational Programs	Support education programs for older drivers including Yellow Dot, AAA Driver Improvement Program, and Car Fit check events.
Encourage Alternative Transportation Options	Encourage efforts to link seniors to the Mid Cumberland Public Transit, and other ride-share options and increase awareness of public and private transportation alternatives to driving.

5.2.3 Impaired Drivers

Impaired Drivers refer to individuals operating a vehicle while under the influence of alcohol, drugs (including prescription, over-the-counter, and illicit substances), or other substances that impair their ability to drive safely. This definition encompasses any condition that affects a driver's cognitive, physical, or motor skills, increasing the risk of crashes and endangering all road users. As shown earlier in **2. Safety Analysis.** 17 percent (12 crashes) of all fatal and serious injury crashes between 2019 and 2023 within the City of Dickson involved impaired drivers. This is 1 percent higher than the TN State Average of 16 percent. The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes involving impaired drivers:

Table 11: Impaired Drivers Countermeasures

Countermeasure	Strategy
Educational Programs	Participate in conference and training programs for enforcement agencies pertaining to detection, arrest, and conviction of impaired drivers, including Standard Field Sobriety Testing (SFST), Advanced Roadside Impaired Driving Enforcement (ARIDE), and Drug Recognition Expert (DRE).
DUI Enforcement Projects	Participate in DUI enforcement projects, such as saturations and check points, which provide highly visible patrols, selective enforcement methods utilizing current field sobriety techniques and target areas with high impaired driving arrests and crashes through data-driven analysis.
Blood Alcohol Content (BAC) tracking	Support establishing statewide tracking system for Blood Alcohol Content (BAC) levels of offenders.
Higher Enforcement Near College Campuses	Increased level of enforcement in college campus areas where there are impaired driving and other high risk transportation related behavior issues.
Collaborate with organizations focusing on drug and alcohol prevention	Collaborate with organizations to address youth alcohol and drug problems i.e., select Committee on Children and Youth and Tennessee Council of Juvenile and Family Court Judges.

5.2.4 Aggressive Drivers/Speeding

Aggressive Drivers refer to individuals who engage in unsafe driving behaviors with deliberate disregard for safety. These behaviors can include speeding, tailgating, weaving in and out of traffic, running red lights, and other actions that endanger other road users. The data shows that 26 percent (19 crashes) of all fatal and serious injury crashes between 2019 and 2023 within the City of Dickson involved aggressive drivers and/or speeding. This is 15 percent higher than the TN State average of 12 percent. The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes involving aggressive drivers and or speeding:

Table 12: Aggressive Drivers/Speeding Countermeasures

Countermeasure	Strategy
Enforcement at high frequency areas	Develop and implement enforcement program aimed at aggressive driving in high frequency areas.
Develop a City-wide Traffic Calming Program	Develop an initiative designed to implement various measures across the city to reduce vehicle speeds, involving physical changes to the roadway environment, such as roundabouts, curb extensions, and improved pedestrian crossings, to alter driver behavior and create safer conditions for all road users.

POLICIES & PROCESS CHANGES

SAFETY ACTION PLAN

CITY OF DICKSON, TN

6. Policy and Process Changes

6.1 Documents Reviewed

Existing City's plans and policies were compiled and reviewed to gain perspective on the existing efforts for transportation-related improvements within the City of Dickson. High-level key points regarding transportation improvements and safety-related topics were identified to inform recommendations in the SAP. **Table 13** outlines the pertinent existing and past plans or policies that impact the City of Dickson.

Table 13. Existing Plans Summary

Document	Summary/Goals
City of Dickson Intelligent Transportation System (ITS) Master Plan 2017	• The City created a master plan for communications, traffic management, and ITS applications to guide future ITS and signal improvement programs for the next 30 years. • The plan includes an assessment of current traffic control equipment and ITS, analysis of future needs, exploration of communications network alternatives, and a phased implementation plan.
City of Dickson Bicycle and Pedestrian Master Plan 2019	• The plan, funded in part by the Community Transportation Planning Grant, focuses on improvements for residents that use non-motorized modes of travel. • Route recommendations were made for pedestrian and bicycle facilities based on feedback from City staff and the public, safety concerns, connections to and from neighborhoods, and the state of existing facilities. • The plan also included recommended facilities and design standards for pedestrian improvements to consider when planning, designing, and constructing roadway and sidewalk projects.
Design Review Manual 2020	• The City of Dickson Design Review Manual, which was amended in 2020, promotes a set of design standards for new development along the major corridors in the City, aimed at ensuring that Dickson lives up to its residents' aspirations. • The purpose of the Manual is to conserve property values within the City of Dickson along its major corridors by establishing design review standards for the review of new development to promote qualities that sustains the community's well-being.
Dickson County Comprehensive Plan 2023	• The 2043 Dickson County Comprehensive Plan, adopted in 2023, outlined specific goals and strategies to achieve one vision, enable County and municipalities to co-operate, create a resource to inform policy decisions, and set priorities for staff and leadership to initiate tasks and aid decision making. • The plan includes sections on population, economic development, natural resources, cultural resources, community facilities, land use, and transportation with each having their own identified core values. • The transportation component evaluated existing studies and plans, analyzed the current transportation network, and determined recommendations that considered all modes of travel and encouraged safe, connected mode choices to enhance overall mobility.
Middle Tennessee RPO Rural Regional Transportation Plan 2022-2023	• The Middle Tennessee RPO Rural Regional Transportation Plan addressed and strategized for the Middle Tennessee RPO's regional transportation network. • The plan aims to improve rural transportation infrastructure investments by involving local officials in the decision-making process, providing data and information for planning documents, and encouraging communities to seek grants and studies that align with their long-term visions and goals.
Middle Tennessee Connected 2021-2045 Regional Transportation Plan	• The Middle Tennessee Connected Regional Transportation Plan, prepared by the Greater Nashville Regional Council (GNRC), represents the collective goals of municipal and county governments, public transit agencies, county highway departments, and (TDOT). • The plan provides a process for improving mobility and identifies top priorities for state funding.

6.2 Plan Checklist

To ensure the safety and well-being of all individuals, it is imperative for agencies to have a set of plans and guidelines in place. A set of plans and guidelines have been compiled to serve as a roadmap for addressing safety concerns and implementing appropriate measures. The plans include Complete Street Policy Guidelines, the ADA Transition Plan, a Multi-Modal Plan, Traffic Impact Study Guidelines, Comprehensive Plan, and Pavement Management Plan. These plans provide strategies for designing and managing streets that prioritize safety, address accessibility needs, promote various transportation modes, assess traffic impacts of new developments, and outline a long-term vision for land use, transportation, and community development with a focus on safety considerations. **Table 14** contains the list of plans and the corresponding plan in the City of Dickson.

Table 14. Alignment of Safety Roadmap with Existing Plans

Checklist	Plan	Corresponding City of Dickson Plan
◐	**Complete Street Policy Guidelines**	Middle Tennessee Connected 2021-2045 Regional Transportation Plan
●	**ADA Transition Plan**	
◐	**Multi-Modal Plan**	Middle Tennessee Connected 2021-2045 Regional Transportation Plan Dickson County Comprehensive Plan 2023 Middle Tennessee RPO Rural Regional Transportation Plan 2022-2023
○	**Traffic Impact Study Guidelines (with Safety)**	
●	**Comprehensive Plan**	Dickson County Comprehensive Plan 2023
○	**Pavement Management Plan**	

● = Has Plan ◐ = Mentioned in Other Plans ○ = Does Not Have Plan

6.3 Recommendations

Policy recommendations were derived from the checklist of critical guidelines and policies described above, as well as a review of the emphasis areas that experienced high rates of fatal and serious injury crashes within the City. The top three emphasis areas identified were intersections, accounting for 33 percent of total fatal and serious injury crashes, followed by senior drivers (65+) at 31 percent and unrestrained occupants at 28 percent. The recommendations listed in **Table 15** below specifically target these emphasis areas.

Table 15: Recommended Policy and Process Changes

Action	Timeframe	Lead
Integrate safety policy into all existing documents	Short-Term	Planning and Zoning Department
Update roadway and intersection design standards to promote safety for all roadway users and address deficiencies	Short-Term	Public Works Department
Establish a targeted enforcement program (for aggressive driving and high speeds) and coordinate with local law enforcement.	Short-Term	Police Department
Create a "Safety Champion" position/role within the City to organize educational campaigns/ provide information through community outreach. • Topics include: driving behavior, speed awareness, seatbelt usage, safe practices, for bicyclists and pedestrians • Celebrate projects that improve safety and positive movements toward the City's Safety Action Plan's goal annually. • Create increased awareness withing agency departments	Short-Term	Treasurer's Office
Create a Safe Routes to School Partnership Program, coordinating with School Districts to organize Bike or Ride to School Days.	Short-Term	Public Works Department and School Districts
Partner with existing organizations that promote VRU safety.	Short-Term	City Manager's Office
Review complete street policies regarding meeting the needs of the emergency responders.	Short-Term	Planning and Zoning Department and Fire/Police Department
Update Municipal Codes Titles 15 and 16	Short-Term	Legal Department
Implement a speed management program and traffic calming program	Mid-Term	Public Works Department
Create Traffic Impact Study guidelines for future development, considering Safety. If projects are proposed that will utility corridors within the HIN network, an evaluation of countermeasure to be implemented by the development project should be part of the process.	Mid-Term	Planning and Zoning Commission
Reprioritize future projects that achieve safety goals for future funding allocations.	Mid-Term	Planning and Zoning Department
Implement streetscaping techniques to reduce distracted driving.	Mid-Term	Planning and Zoning Department
Develop an Access Control Plan	Mid-Term	Planning and Zoning Department
Incorporate proposed safety projects from this plan into future developments and transportation projects	Long-Term	Planning and Zoning Department
Implement the use of ITS technologies as appropriate. Develop and ITS Master Plan and identify system upgrades such as TMC, etc.	Long-Term	Planning and Zoning Department and IT Department

Action	Timeframe	Lead
Conduct detailed studies on crash hotspots and regularly update the High Injury Network (HIN) with future crash data and update project priorities as needed.	Long-Term	Planning and Zoning Department
Encourage businesses and special event permit holders to promote mobility alternatives for patrons through the permit process by identifying things such as bike parking areas or bike/ped connectors from parking areas to the event(s).	Long-Term	Planning and Zoning Department and Public Information Officer
Develop a Pavement Management Plan	Long-Term	Public Works Department
Establish a "Safety Team" that would meet regularly to review all fatal and serious injury crashes and identify/evaluate maintenance measures such as signage, pavement markings, and roadway/sidewalk modifications.	Long-Term	Police Department

PROJECT SELECTION

SAFETY ACTION PLAN

CITY OF DICKSON, TN

7. Project Selection

7.0.1 Prioritization

After the review and validation of the HIN by the Steering Committee, the following percentages were used to prioritize potential projects.

- The number of fatal and serious injury crashes along the segment (30%)
- The number of pedestrian/bicycle crashes along the segment (20%)
- The Replica Risk score showing risky driving behavior along the segment (15%)
- The segment crash rate expressed in crashes per million vehicle miles traveled per day (20%)
- Equity consideration, defined as the HIN segment crossing an area of the City with an SVI score of medium or high, an Area of Persistent Poverty, or a Historically Disadvantaged Community area (15%)

Appendix A provides a summary of the HIN prioritization exercise.

7.1 Recommended Projects

Following the prioritization, a list of high-scoring City and State roadway segments and intersections was reviewed with City staff. Locations with known programmed capital improvement projects were removed from the list and replaced with subsequent high-ranking locations. City staff provided feedback on the locations to identify fifteen (15) road segments to determine engineering improvements for. The fifteen (15) recommended locations are shown in **Figure 27** and listed below:

1. SR-46 from Pomona Road to Turkey Creek Road
2. SR-46 from E College Street to Barbeque Road
3. Beasley Drive from Center Avenue to SR-46
4. E Walnut Street from SR-46 to Lewis Hollow Road
5. E College Street from Hummingbird Lane to SR-96
6. E Walnut Street from Center Avenue to SR-46
7. SR-48/N Main Street from Cherry Street to McFarland Lane
8. US-70 (W College Street) from Parkway W to SR-46/Pond Road/West End Ave
9. Beasley Drive from College Street to Center Avenue
10. Hummingbird Lane from Blue Road to E College Street
11. Henslee Drive from SR-46/Pond Road/West End Avenue to Pump Hill Road
12. Mathis Drive from Henslee Drive to E College Street
13. US-70 (Business) from Center Avenue to SR-46/Mathis Drive
14. Henslee Drive from Pump Hill Road to College Street
15. US-70 (Business) from Henslee Drive to Center Avenue

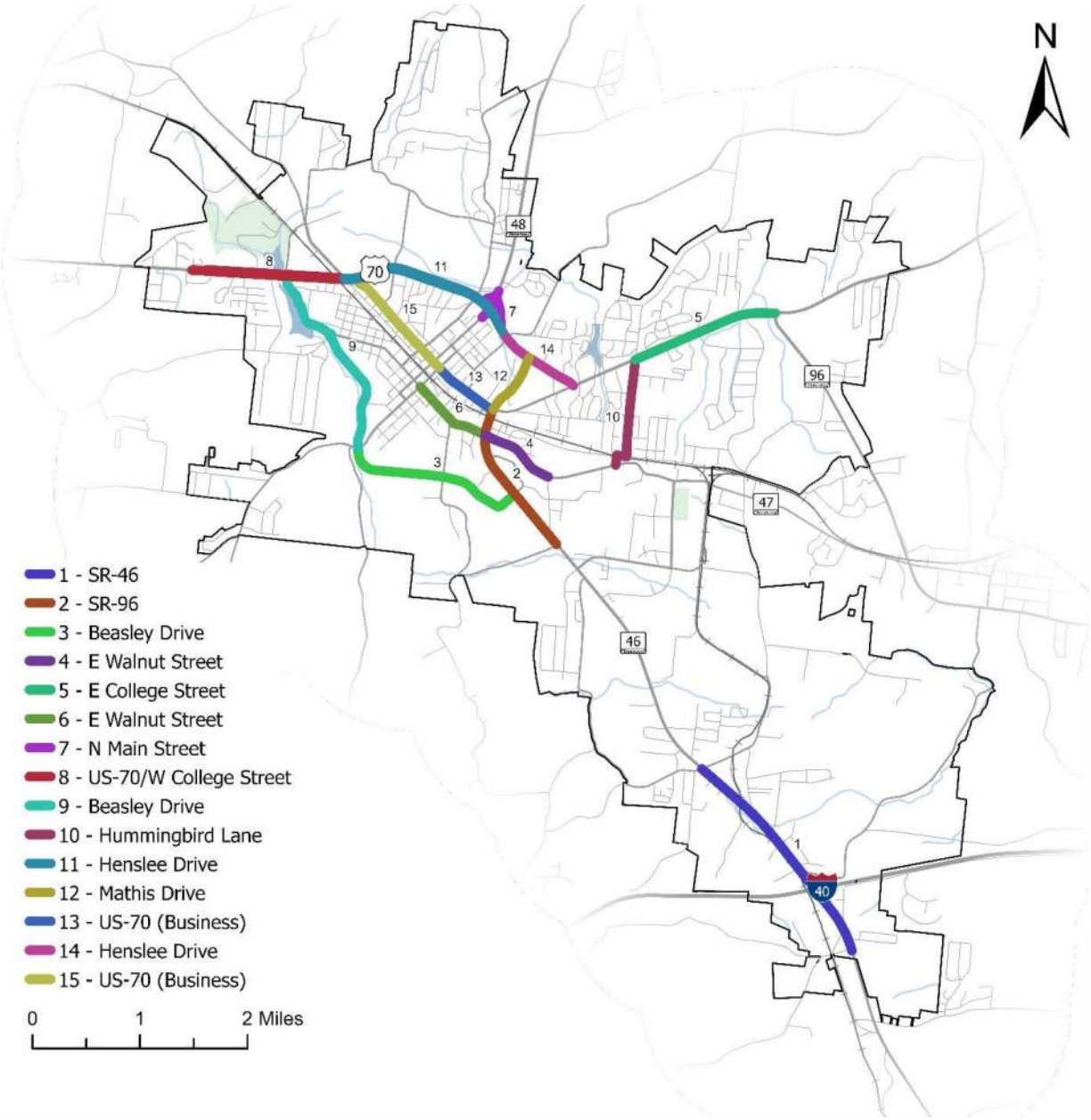


Figure 27: Recommended Corridors for Early Project Implementation

7.1.1 Recommended Project Fact Sheets

Following the selection of the top fifteen (15) project locations, safety improvement recommendations were developed for each location using the Engineering Countermeasures Toolkit presented earlier in the SAP.

Project fact sheets were developed for each of the fifteen (15) locations and are included in Appendix B. The fact sheets summarize the crash data analysis, public input, and selected engineering countermeasures with their benefits. The draft project sheets were reviewed by City staff for input related to engineering judgment and site-specific knowledge. The fact sheets provide a concise summary of each project location for ease of reference in future funding and project programming opportunities.

8. Progress and Transparency

The Dickson SAP recommends a set of actions that will support the successful implementation and monitor of the recommended projects and strategies.

8.0.1 Task Force Implementation and Monitoring

It is recommended that a subset of the Steering Committee regroup as the Safety Task Force to direct the SAP implementation, monitoring, and future progress. The Task Force may consist of planning, engineering, and public works staff from the City, local emergency service providers, key TDOT staff, other adjacent communities, and other stakeholders as needed. It is recommended that this task force meet annually after the adoption of the Dickson SAP to review the latest available crash data trends, project completion progress, and driver-related strategy performance measures. This will also provide the Safety Task Force an opportunity to discuss modifications to the plan or identify additional resources needed based on changes in crash trends, community needs, and new technologies

8.0.2 Public Posting of the Dickson SAP

Upon completion and adoption, this plan will be made public on a dedicated project website (See **Figure 28**: Dickson SAP Website) and the City's website. The project website should be maintained to update the public with the latest crash data trends and the implementation status of projects.

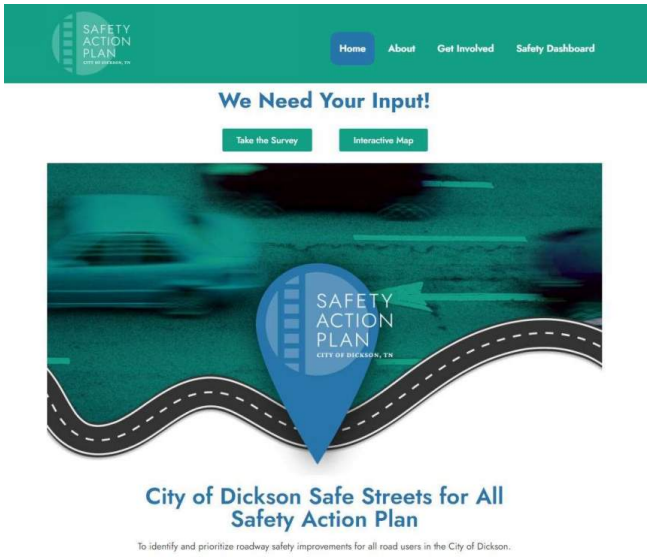


Figure 28: Dickson SAP Website

APPENDIX A
PROJECT PRIORITIZATION

SAFETY ACTION PLAN

CITY OF DICKSON, TN

City of Dickson High Injury Network												
ID	Road Name	From	To	Ownership	AADT	Length (miles)	K&A Crashes	Observed Crash Rate	Replica Risk Index	Equity Points	VRU Crashes	Total Screening Points
1	SR-46	Pomona Rd	Turkey Creek Rd (south of I-40)	TDOT	25,000	1.78	14	6.5	99	20	5	83.7
2	SR-46	E College St	Barbecue Rd	TDOT	30,000	1.21	10	9.8	97	20	2	64.8
3	Beasley Drive	Center Avenue	SR-46	City	9,500	1.41	8	14.3	86	20	1	57.4
4	E Walnut St	SR-46	Lewis Hollow Rd	TDOT	2,500	0.59	2	34.5	82	20	-	51.6
5	E College Street	Hummingbird Lane	SR-96	TDOT	13,000	1.13	8	3.1	95	-	3	45.3
6	E Walnut St	Center Avenue	SR-46	TDOT/City	5,500	0.62	1	11.6	87	20	-	37.0
7	SR-48/N Main Street	Cherry Street	McFarland Lane	TDOT	4,000	0.24	1	34.8	88	-	-	35.5
8	US-70/W College St	Parkway W (Valleywood Dr)	SR-46/Pond Rd/West End Ave	TDOT	6,000	1.85	5	3.5	93	10	-	34.3
9	Beasley Drive	College St	Center Avenue	City	9,500	1.55	4	4.6	86	10	-	31.7
10	Hummingbird Lane	Blue Rd	E College St	City	1,000	0.72	2	26.5	79	-	-	31.5
11	Henslee Drive	SR-46/Pond Rd/West End Ave	Pump Hill Rd	TDOT	20,000	1.69	6	2.8	96	-	-	29.0
12	Mathis Dr	Henslee Dr	E College St	TDOT	30,000	0.48	3	9.7	97	-	-	26.7
13	US-70 (Business)	Center Avenue	SR-46/Mathis Dr	TDOT	8,500	0.51	1	18.3	91	-	-	26.5
14	Henslee Drive	Pump Hill Rd	College Street	TDOT	25,000	0.63	1	6.2	96	-	1	24.3
15	US-70 (Business)	Henslee	Center Avenue	TDOT	4,000	0.91	2	8.6	89	-	-	22.7

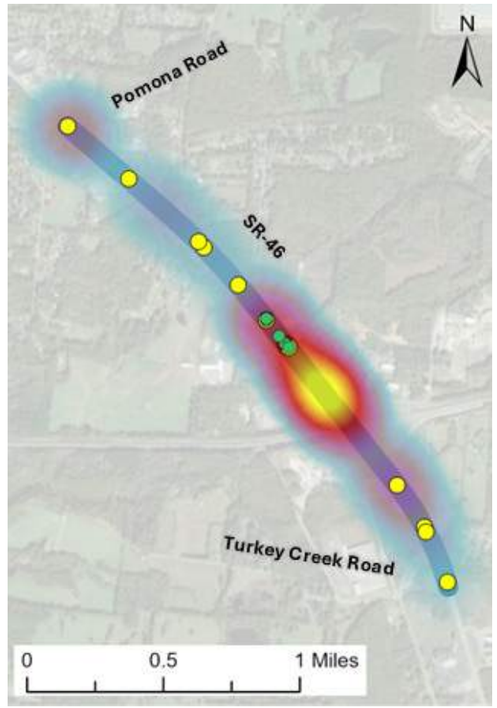
APPENDIX B
PROJECT FACT SHEETS

SAFETY ACTION PLAN

CITY OF DICKSON, TN

SAFETY ACTION PLAN
CITY OF DICKSON, TN

SR-46
from Pomona Road to Turkey Creek Road



VRU (5) Serious Injury (13) Fatal (1)

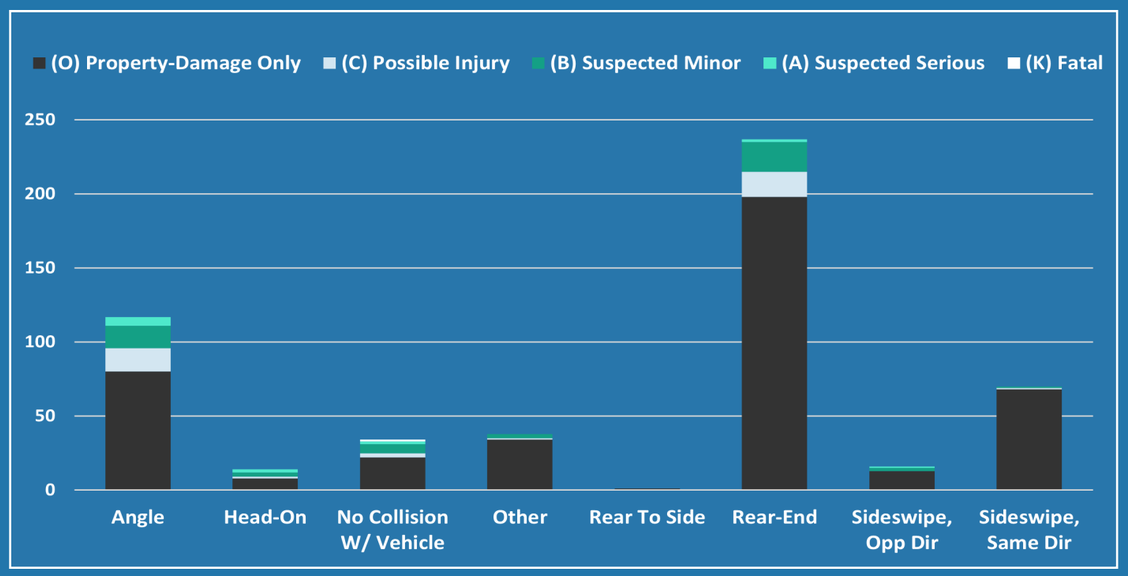
State Route

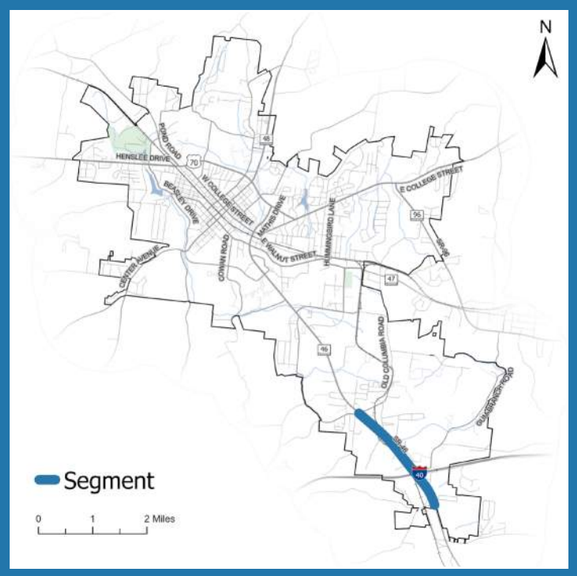
Speed Limit	45 mph
Lanes	4
Vehicles/Day	25,000
Total Crashes	527
HIN Intersections	3

Characteristics

The section of SR-46 is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment exhibits a nearly straight alignment, over a lightly rolling terrain. Sidewalks are not present along this section of SR-46.

Along SR-46, Facing Southeast, Just Northwest of W Christi Drive





Overall Ranking: 1

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Narrow entrance to and from Alexander Dr and it is missing road markings.
- Regularly have close calls at Ravenwood Circle as people fail to merge efficiently or race to get ahead.
- There needs more and better signage at SR-46 & I40 entrance ramp to west-over head to note which lane to be in prior to traffic lights. There are a lot of last minute lane changing & congestion. There needs to be paint added for directional signage on pavement or overhead signage.

SR-46
from Pomona Road to Turkey Creek Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

SR-46
from Pomona Road to Turkey Creek Road

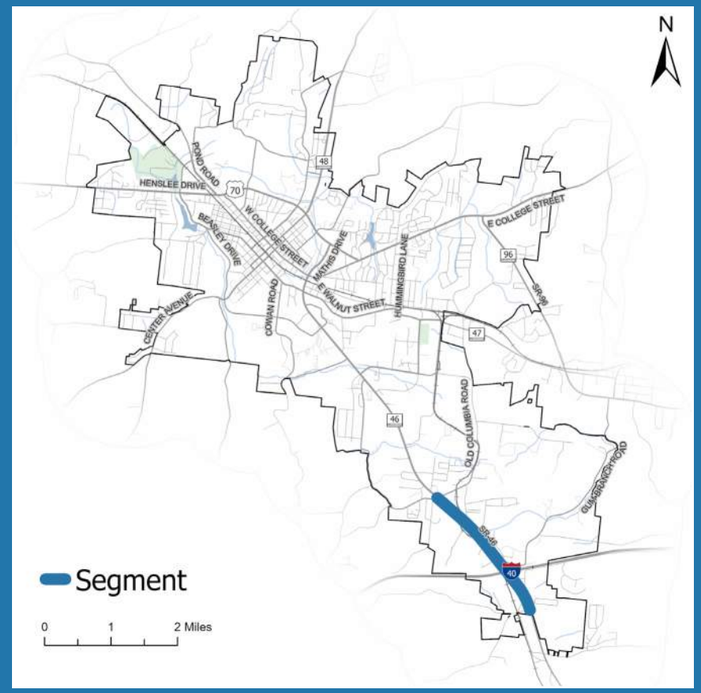
	ID	Countermeasure	Cost	Schedule	Project Readiness
	1.1	Install/Upgrade Striping & Signage for Off-Ramp Travel	$	Short-Term	Ready
● ● ●	1.2	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Long-Term	Ready
●	1.3	Provide Turn Lanes	$$$	Long-Term	●
●	1.4	Install/Upgrade Rail Crossing Gate Arms & Advance Signage	$$$$	Long-Term	●
● ● ●	1.5	Install Pedestrian Facilities (Sidewalks/Crosswalks) at Signalized Intersection	$$$	Mid-Term	●
● ●	1.6	Optimize Signal Cycle & Timings	$$	Short-Term	Ready
● ● ●	1.7	Implement Access Management (Minimize Driveway Density)	$$	Mid-Term	●
●	1.8	Install Flashing Yellow Arrows	$$	Short-Term	Ready
● ● ●	1.9	Install Lighting Structures	$$$	Mid-Term	●
●	1.10	Consider Restricting/Relocating Side Street Movements from Gum Branch Road & Shell Gas Station	$$$	Mid-Term	● ●
●	1.11	Install Raised Pavement Markers	$	Short-Term	Ready
● ● ●	1.12	Install Sidewalks	$$$	Mid-Term	●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

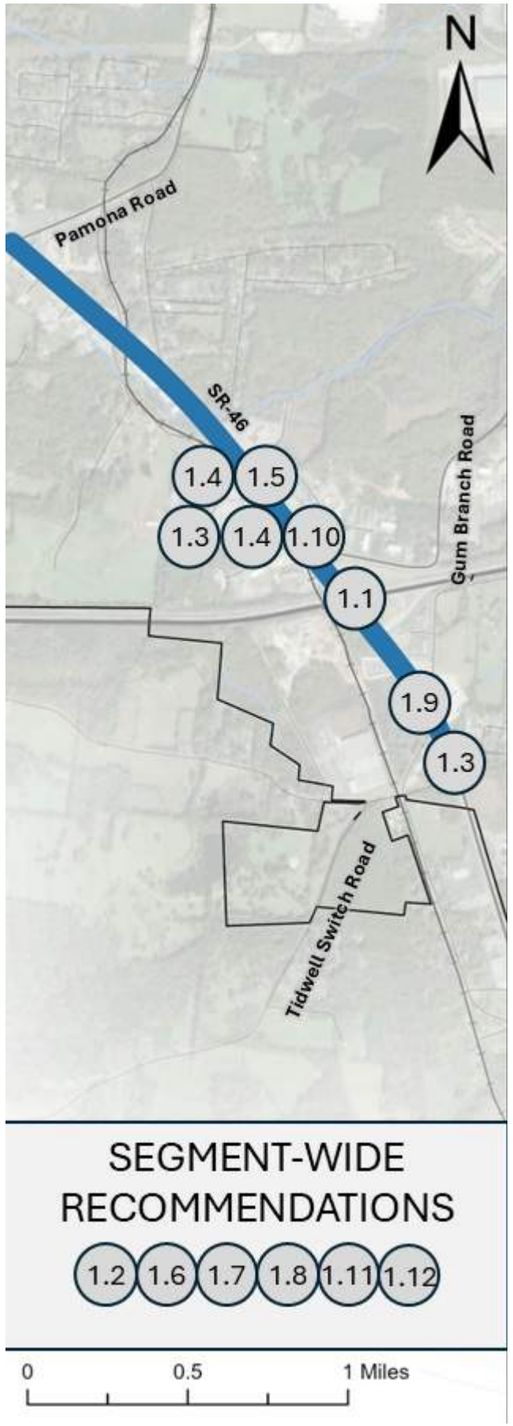
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Turn lanes provide a dedicated space for drivers intending to make a turning manuever, separating them from through traffic and reducing the likelihood of rear-end crashes.
- Railroad crossing gates act as a physical barrier between vehicles and an approaching train, significantly reducing the risk of train/vehicle collisions. Advance signage provides guidance and visibility to drivers approaching the crossing.
- Flashing yellow arrows at intersections reduce left-turn crashes, improve driver comprehension, enhance traffic flow, and increase safety for all road users.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.



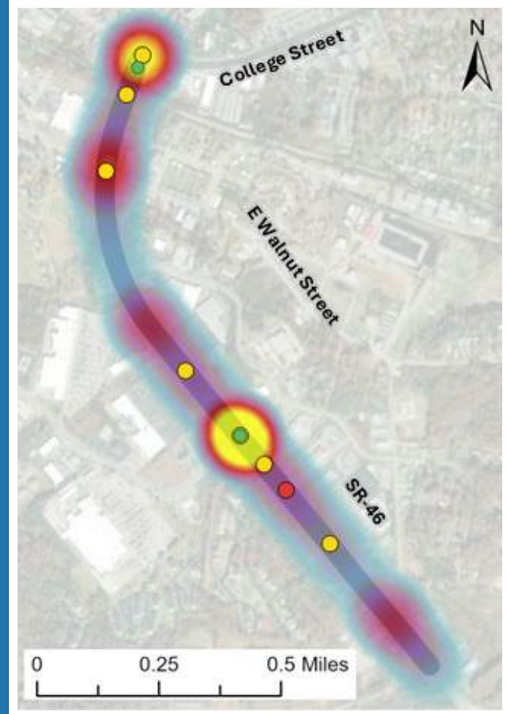
RECOMMENDED COUNTERMEASURES



SR-46
from Pamona Road to Turkey Creek Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

SR-46
from E College Street to Barbeque Road



VRU (2) Serious Injury (8) Fatal (2)

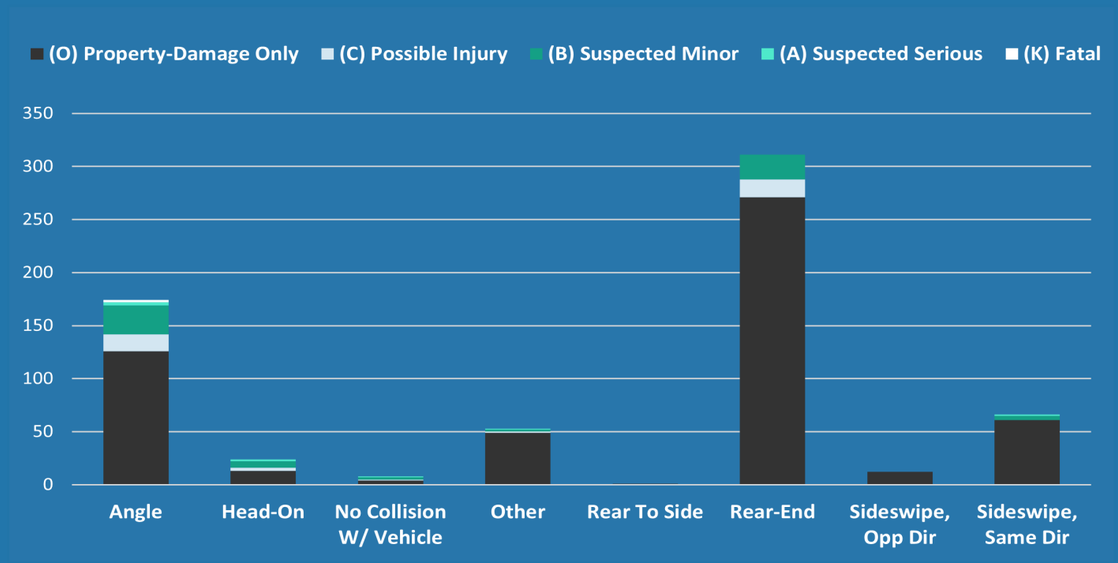
State Route

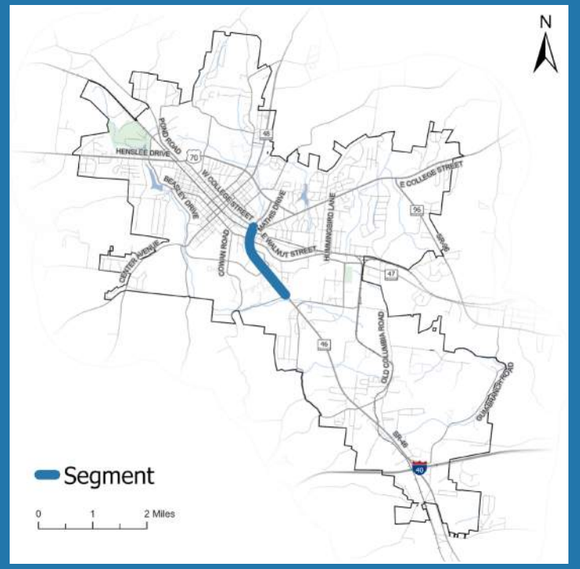
Speed Limit	45 mph
Lanes	4
Vehicles/Day	25,000
Total Crashes	649
HIN Intersections	3

Characteristics

This section of SR-46 is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment exhibits a curved alignment on the northern end, then straightens out as the roadway reaches south. It follows a rolling terrain, and has 6-ft wide sidewalks along the northern end of the segment.

Along SR-46, Facing Southeast, Just Northwest of Valley View Drive





Overall Ranking: 2

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Equity Consideration:

low — high

Community Input

- The intersection with Thornton Drive needs green arrows or alternating greens. Drivers are not properly yielding on left turn during green lights (when coming from the commercial centers).
- Intersections with E Walnut, College Street, Beasley Drive, are a concern.

SR-46
from E College Street to Barbeque Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

SR-46
from E College Street to Barbeque Road

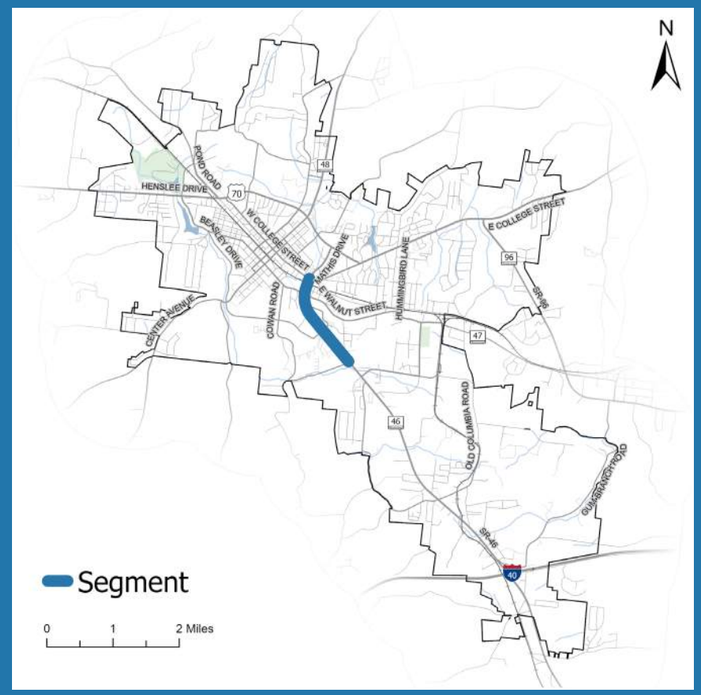
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	2.1	Optimize Signal Cycle & Timings	$$	Short-Term	Ready
● ● ●	2.2	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Long-Term	Ready
●	2.3	Install Flashing Yellow Arrows	$$	Short-Term	Ready
● ● ●	2.4	Install Sidewalks & Pedestrian Facilities	$$$	Mid-Term	●
● ●	2.5	Modify Crosswalks & Ramps to Provide Better Alignment	$$	Mid-Term	Ready
● ● ●	2.6	Improve Corridor Access Management by Reducing Driveway Density	$$$	Mid-Term	●
● ●	2.7	Install Various Pavement Friction Applications	$$	Short-Term	Ready
●	2.8	Convert Traffic Signal to Include Protected Phasing for Side Streets	$$$	Mid-Term	Ready
	2.9	Conduct Intersection Control Evaluation Study	$$	Short-Term	● ●
● ●	2.10	Install Backplates with Retroreflective Borders to Traffic Signal Heads	$	Short-Term	Ready
● ● ●	2.11	Improve Lighting	$$	Mid-Term	●
● ●	2.12	Install Turn Lanes (Right & Left), where warranted	$$$	Long-Term	● ●
●	2.13	Realign Barbeque Road with Lewis Hollow Road	$$$$	Long-Term	● ●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

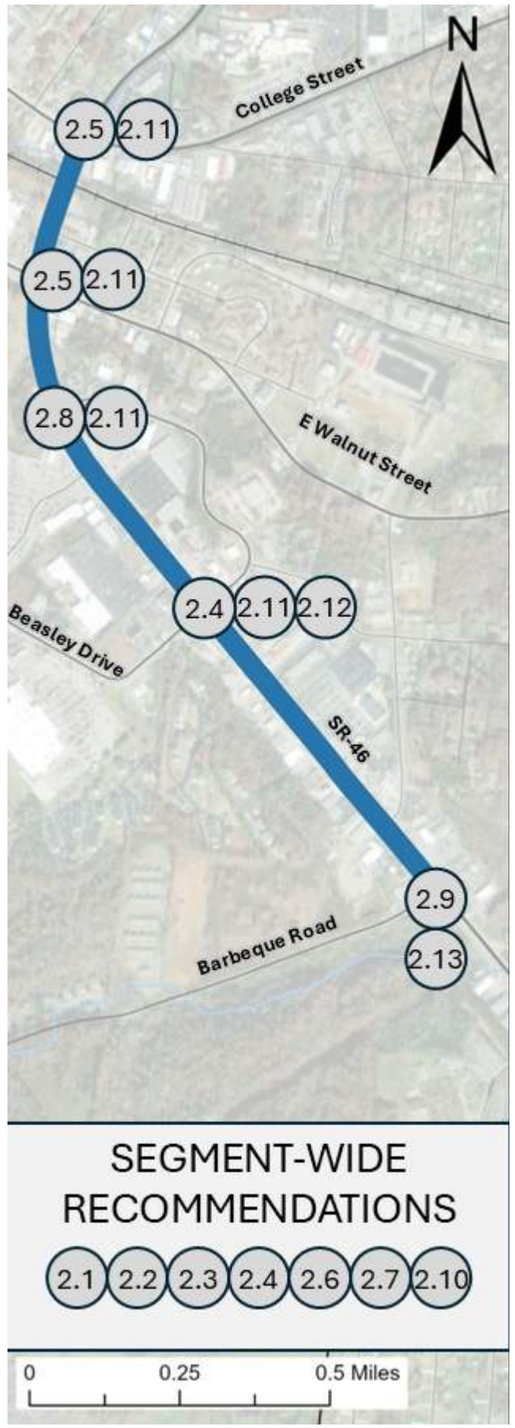
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Studies have shown that flashing yellow arrows significantly reduce the number of left-turn crashes by providing a more distinct indication that drivers are required to yield during the permissive phase.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.
- High-friction surfaces help to minimize skidding and hydroplaning, particularly in wet conditions. Higher friction levels can also help reduce the impact speed, potentially decreasing the severity of injuries and vehicle damage. Applying high-friction surfaces in high-risk areas such as intersections, curves, pedestrian crossings, and steep gradients can significantly reduce crashes in these locations.
- Conducting an Intersection Control Evaluation (ICE) at intersection improves safety by identifying the safest and most cost-effective intersection designs, ensuring transparency, and considering innovative solutions.



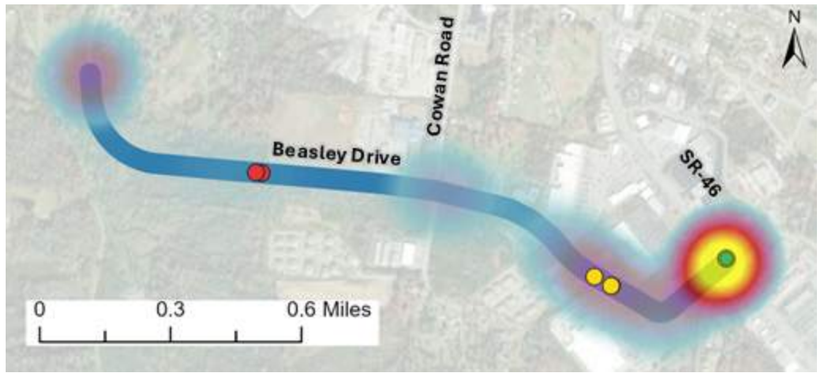
RECOMMENDED COUNTERMEASURES



SR-46
from E College Street to Barbeque Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Beasley Drive
from Center Avenue to SR-46



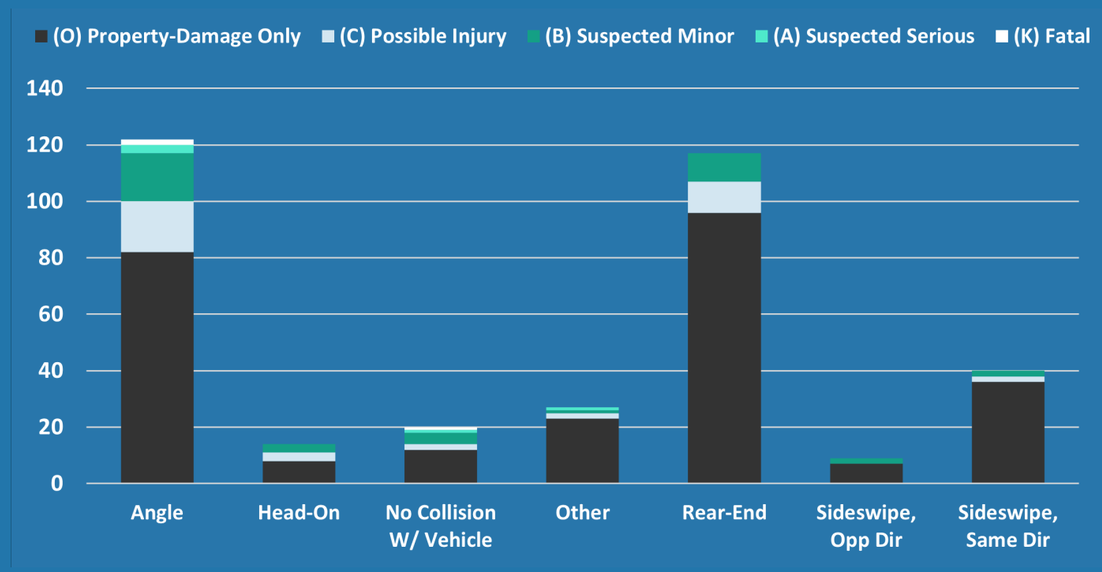
Municipal

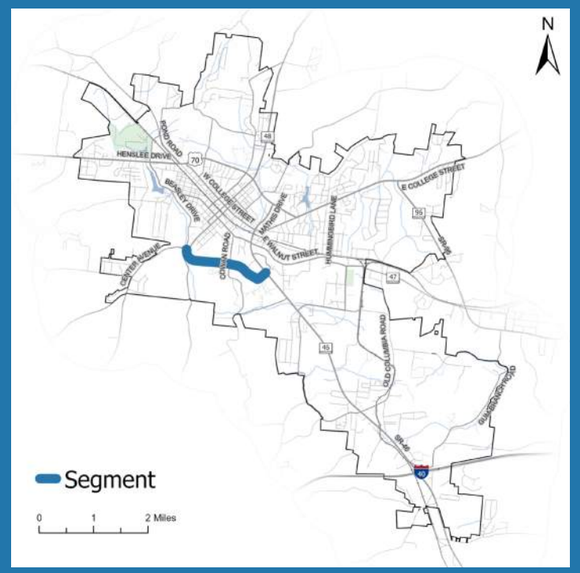
Speed Limit	45 mph
Lanes	4
Vehicles/Day	9,500
Total Crashes	349
HIN Intersections	1

Characteristics

This segment is a two-way roadway, divided by a two-way left-turn lane (TWLTL). Beasley Drive follows a curved alignment with major rolling grade. There are 6' wide sidewalks along the eastern end of this segment, where the area is more commercial.

Along Beasley Drive, Facing East, Just West of Cowan Road





Overall Ranking: 3

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

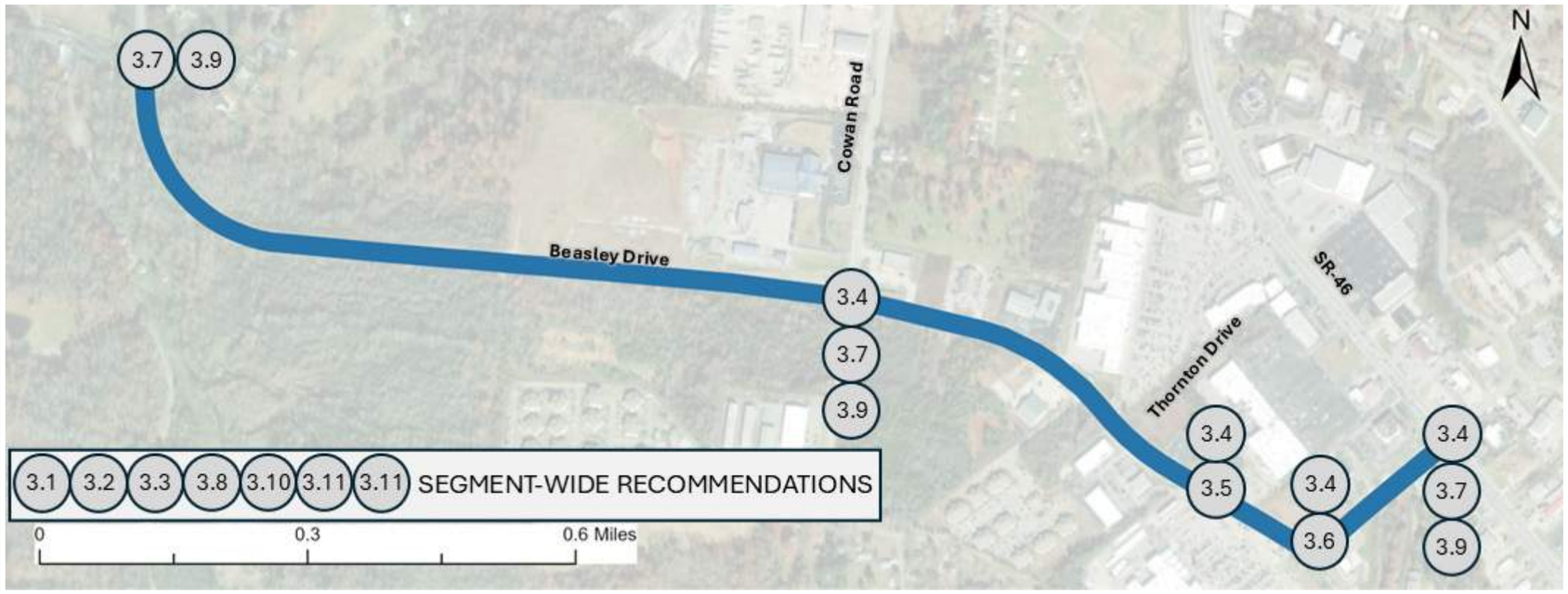
- The 4-way at SR-46 and Beasley Drive is dangerous.
- The entrance to the Walmart needs a stoplight.
- The sharp turn that leads into Walmart parking is always difficult to navigate due to poor sight lines, or other vehicles blocking views.
- The intersection with SR-46 needs a longer left-turn light when you are coming from Beasely Drive and turning onto SR-46. The turn light only allows 2-4 cars through currently depending on who actually pays attention when the light turns green.
- There are often significant backups when making a left hand turn onto Beasley Drive from Hwy 46. This back up causes safety issues with users trying the use the center turn lane to enter or exit the businesses in this area.

Beasley Drive
from Center Avenue to SR-46

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Beasley Drive
from Center Avenue to SR-46

RECOMMENDED COUNTERMEASURES



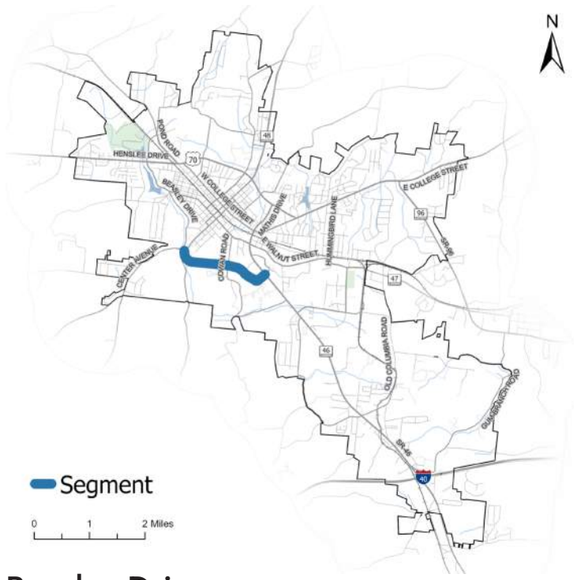
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	3.1	Evaluate Appropriate Speed Limit for All Road Users	$	Short-Term	Ready
● ● ●	3.2	Implement Various Speed Reducing Countermeasures	$$	Short-Term	Ready
● ● ●	3.3	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Mid-Term	Ready
● ● ●	3.4	Install/Upgrade Pedestrian Facilities (Sidewalks/Crosswalks)	$$	Short-Term	● ●
	3.5	Restrict Through Movements from Side Streets	$$	Short-Term	Ready
● ●	3.6	Install Curve Warning Feedback Signage & Striping	$	Short-Term	Ready
● ●	3.7	Install Backplates with Retroreflective Borders to Traffic Signal Heads	$	Short-Term	Ready
● ● ●	3.8	Implement Access Management (Minimize Driveway Density)	$$	Short-Term	Ready
● ●	3.9	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ●	3.10	Install Combination Centerline / Edge line Rumble Strips	$$	Short-Term	Ready
● ● ●	3.11	Install Lighting Structures	$$	Short-Term	● ●
●	3.12	Install Raised Pavement Markers	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

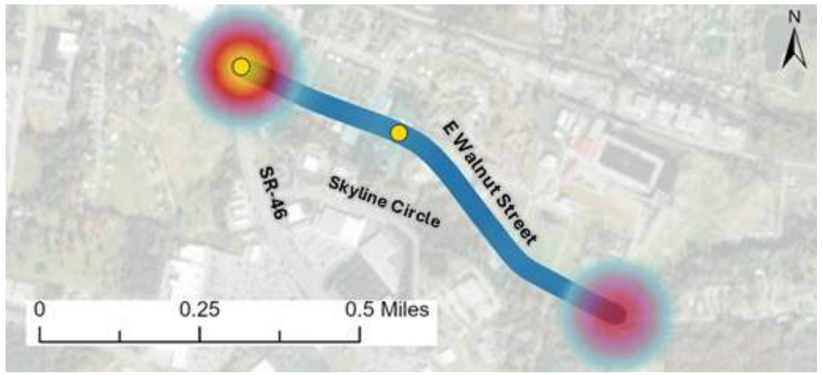
- Grooved edge/centerlines provide tactile and auditory feedback to drivers when their vehicle strays from the lane, helping to reduce the risk for roadway departure crashes and head-on collisions.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- When speed limits are set based on thorough traffic studies and are reasonable, drivers are more likely to comply with them, leading to a safer road environment.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.



Beasley Drive
from Center Avenue to SR-46

SAFETY ACTION PLAN
CITY OF DICKSON, TN

E Walnut Street
from SR-46 to Lewis Hollow Road



- VRU (0)
- Serious Injury (2)
- Fatal (0)

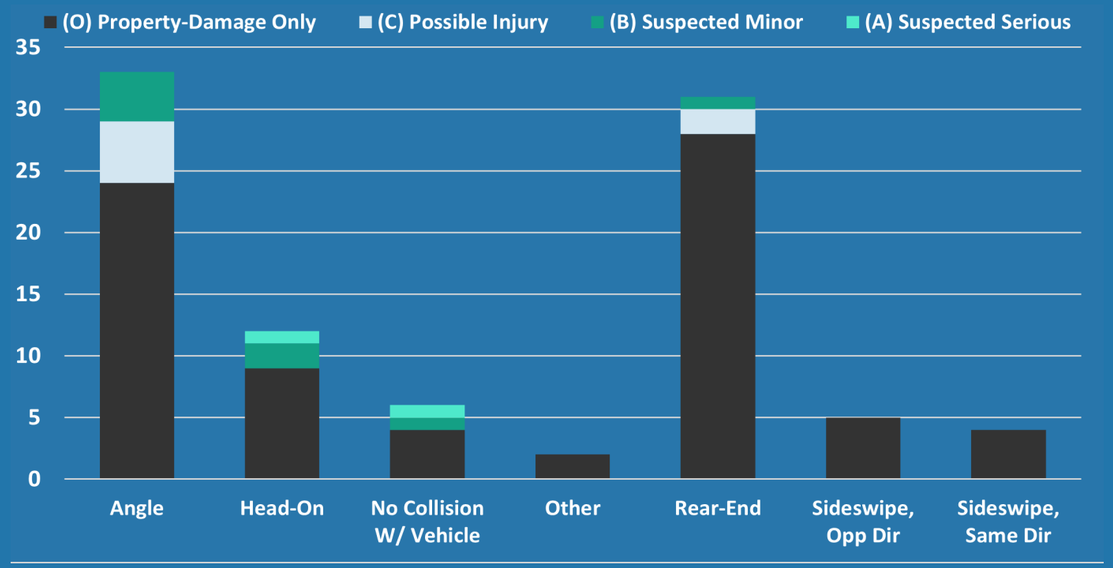
State Route

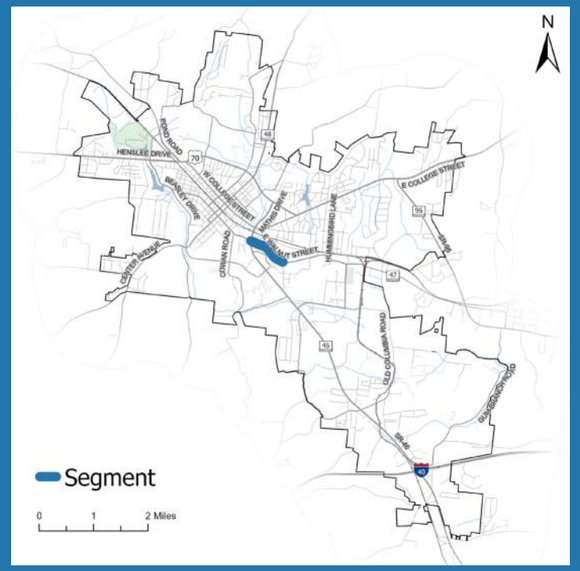
Speed Limit	30 mph
Lanes	2,4
Vehicles/Day	2,500
Total Crashes	93
HIN Intersections	1

Characteristics

This section of E Walnut Street is a two-way roadway, divided by a two-way left-turn lane (TWLTL). This segment follows a curved alignment, with a medium rolling terrain. 6-ft sidewalks are present along the western end of this corridor.

Along E Walnut Street, Facing West, Just West of Martin Luther King Jr Boulevard





Overall Ranking: 4

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Difficult sight lines for people coming from Lewis Hollow Rd due to the hill.
- Multiple concerns expressed about the intersection with SR-46.

E Walnut Street
from SR-46 to Lewis Hollow Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

E Walnut Street
from SR-46 to Lewis Hollow Road

RECOMMENDED COUNTERMEASURES

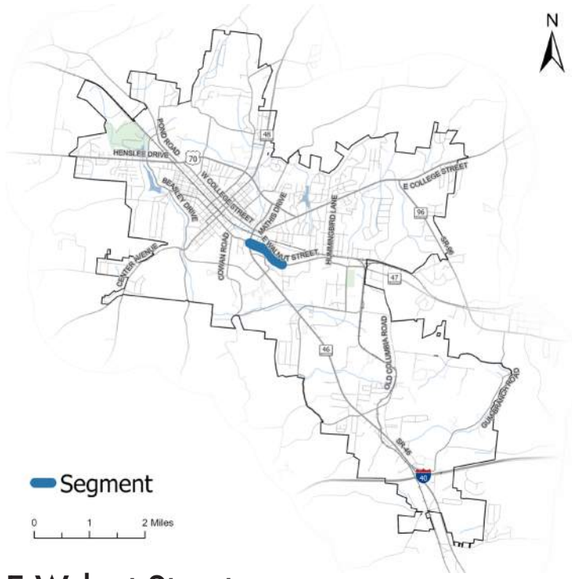
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	4.1	Upgrade Striping & Signage to Optimize Stops & Turn Angles at All Approaches	$	Short-Term	Ready
● ● ●	4.2	Implement Road Diet / Reconfiguration	$$	Short-Term	Ready
● ● ●	4.3	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Long-Term	Ready
● ● ●	4.4	Implement Various Speed Reducing Countermeasures	$$	Short-Term	Ready
● ● ●	4.5	Install/Upgrade Pedestrian Facilities (Sidewalks/Crosswalks)	$$$	Short-Term	● ●
● ●	4.6	Modify Crosswalks & Ramps to Provide Better Alignment	$$	Mid-Term	Ready
●	4.7	Install Turn Lanes (Right & Left), where warranted	$$$	Long-Term	● ●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

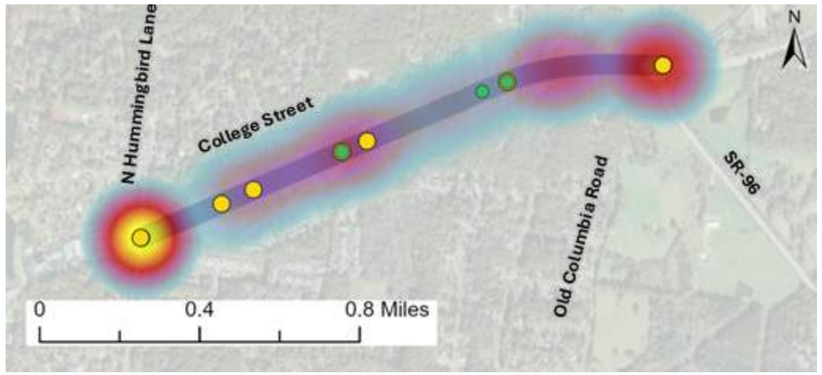
- A road diet, which involves reducing the number of vehicular lanes and repurposing the extra roadway width for other modes of travel, typically results in lower vehicle speeds, fewer conflict points, and safer accommodations for pedestrians and cyclists.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows.
- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.
- Proper stop bar placement and skew correction can help provide improved sight distance for the side street approach. Defined driveway access points provide clear guidance and predictability to drivers, leading to safer navigation. Advance intersection warning signage on the mainline alerts drivers of an approaching intersection, leading to increased awareness and potentially more cautious driving.



E Walnut Street
from SR-46 to Lewis Hollow Road

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street (US-70)
from Hummingbird Lane to SR-96



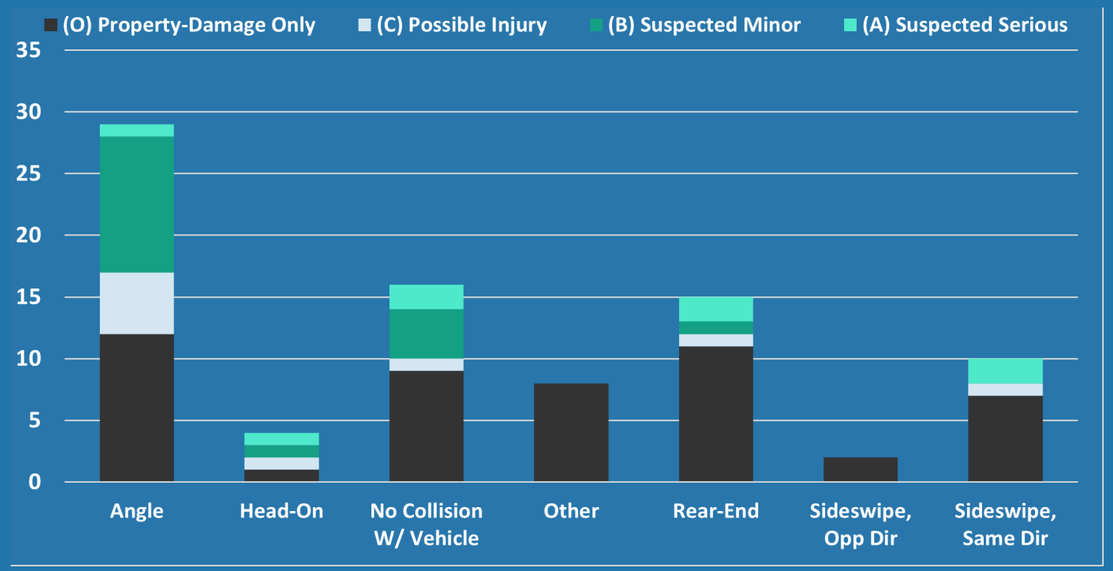
Federal Route

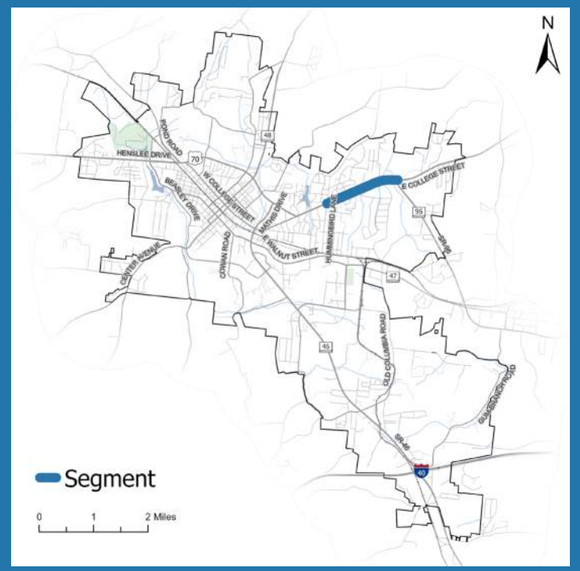
Speed Limit	35 mph
Lanes	4
Vehicles/Day	13,000
Total Crashes	84
HIN Intersections	1

Characteristics

This section of College Street is a two-way roadway, divided by a two-way left-turn lane (TWLTL). This segment follows a straight alignment, with a light curve along the eastern end of the corridor, and rolling terrain throughout. Sidewalks are not present along this section of College Street.

Along College Street, Facing East, Just West of Eastdale Lane





Overall Ranking: 5

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

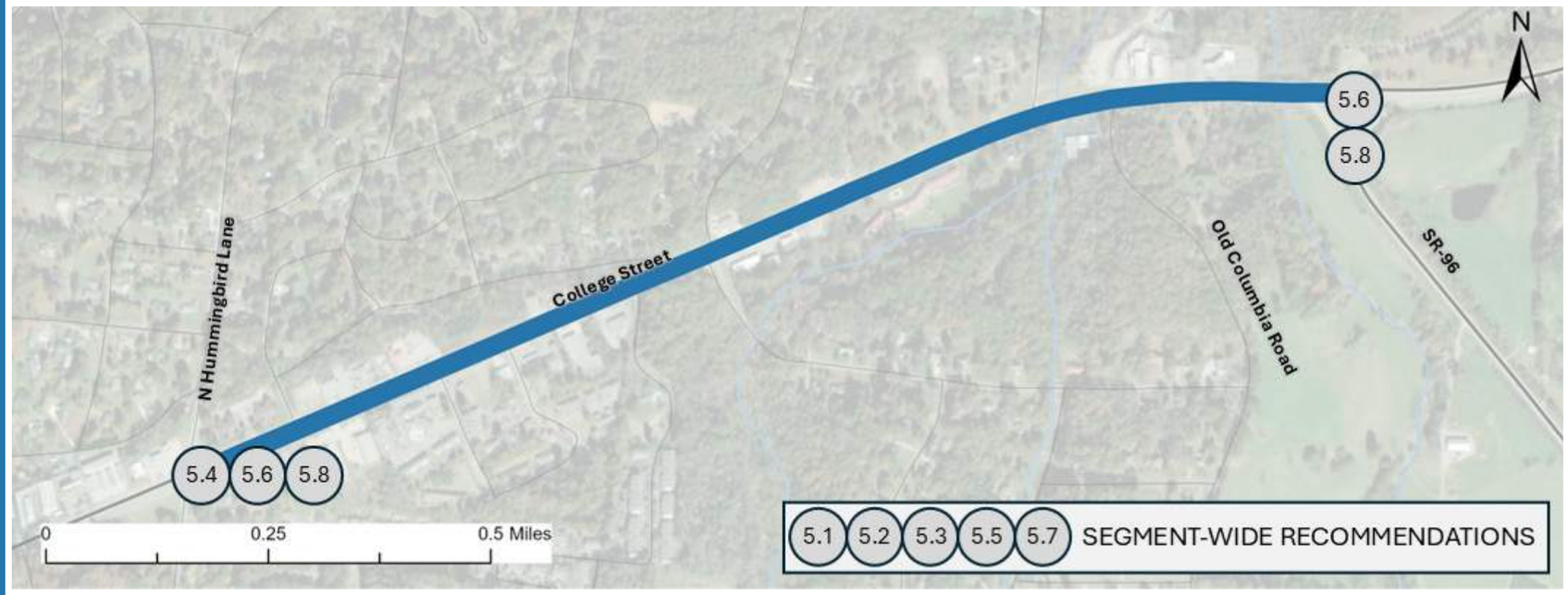
- People expressed concerns about the intersections with Eastwood Drive, Hummingbird Lane, and SR-96.

College Street (US-70)
from Hummingbird Lane to SR-96

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street (US-70)
from Hummingbird Lane to SR-96

RECOMMENDED COUNTERMEASURES



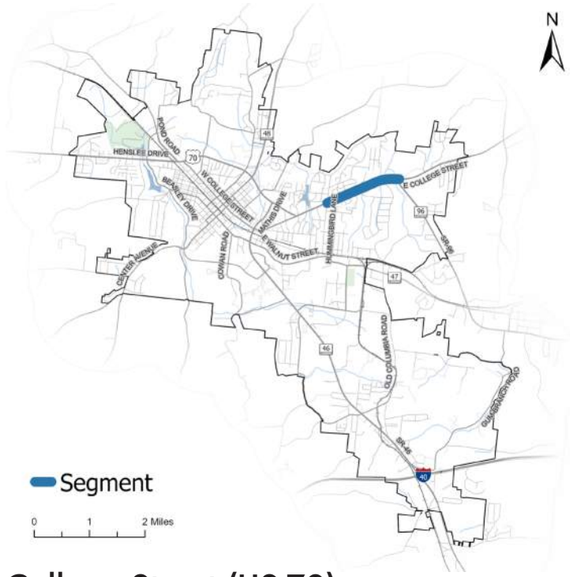
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	5.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Mid-Term	Ready
● ● ●	5.2	Implement Access Management by Minimizing Driveway Density	$$	Mid-Term	Ready
● ●	5.3	Upgrade Signage and Pavement Markings	$$	Short-Term	Ready
	5.4	Restrict Movements at Driveways of Shell Gas Station	$$	Mid-Term	Ready
● ● ●	5.5	Implement Various Speed Reducing Countermeasures	$	Short-Term	Ready
● ●	5.6	Install Advance Warning Signage and Striping before Intersection	$	Short-Term	Ready
● ● ●	5.7	Install Sidewalks & Bicycle Lanes	$$$	Mid-Term	● ●
● ●	5.8	Implement Red-Light Running Flashers & Enforcement	$$	Mid-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

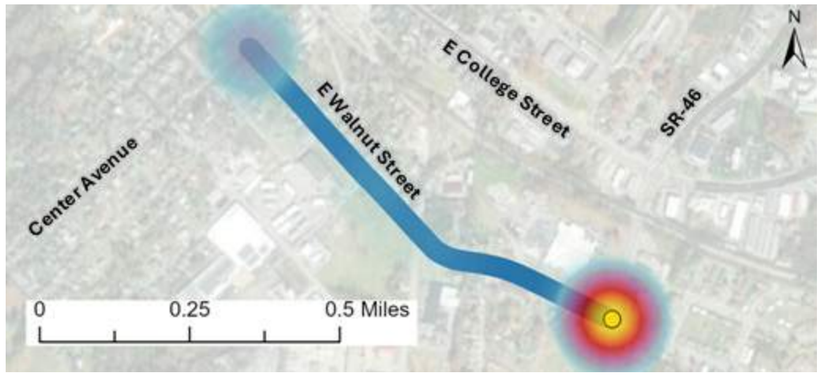
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



College Street (US-70)
from Hummingbird Lane to SR-96

SAFETY ACTION PLAN
CITY OF DICKSON, TN

E Walnut Street
from Center Avenue to SR-46



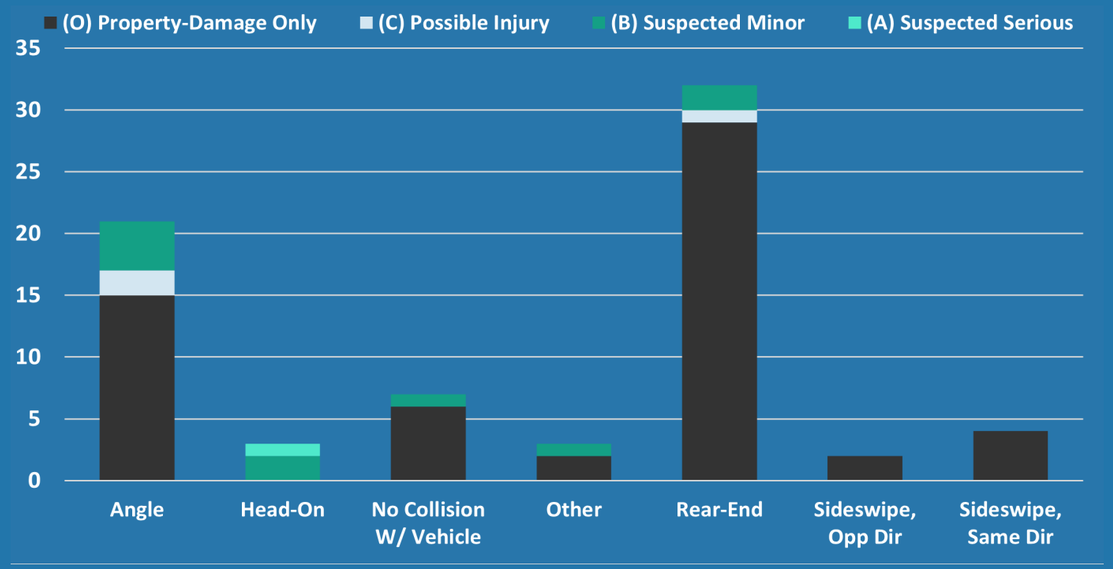
Municipal

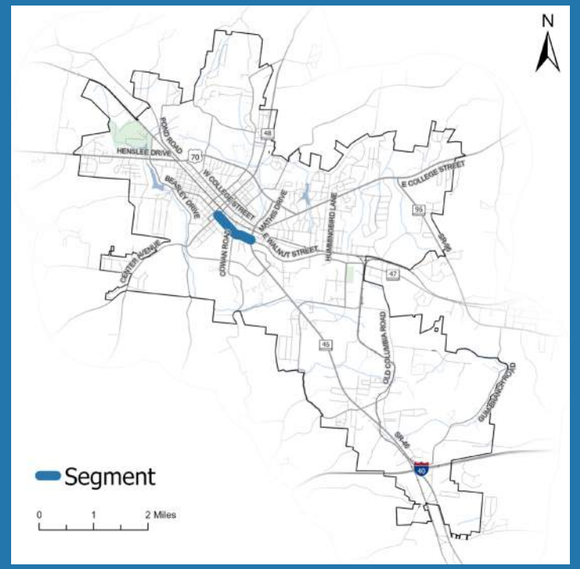
Speed Limit	30 mph
Lanes	2
Vehicles/Day	5,500
Total Crashes	72
HIN Intersections	1

Characteristics

This section of E Walnut Street is a two-way roadway, with no separation between opposing travel lanes. This segment follows a lightly curved alignment, with a low rolling terrain. 6-ft sidewalks are present along a large majority of this corridor.

Along E Walnut Street, Facing West, Just East of Flowers Street





Overall Ranking: 6

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- E Walnut Street at SR-46 and Cowan Road have safety issues.
- People walking down Hwy. 46 often have trouble crossing at the intersection with E Walnut Street and heavy traffic makes it very dangerous.
- Additional pedestrian crossings are needed around Clifton Park Drive near City Hall.

E Walnut Street
from Center Avenue to SR-46

SAFETY ACTION PLAN
CITY OF DICKSON, TN

E Walnut Street
from Center Avenue to SR-46

RECOMMENDED COUNTERMEASURES

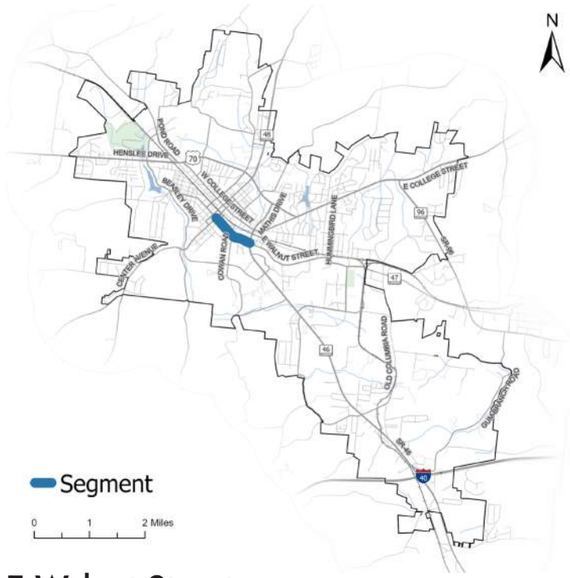
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	6.1	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ●	6.2	Upgrade Striping & Signage to Optimize Stops & Turn Angles at All Approaches	$	Short-Term	Ready
● ●	6.4	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Long-Term	Ready
● ● ○	6.5	Modify Crosswalks & Ramps to Provide Better Alignment	$$	Mid-Term	Ready
●	6.6	Install Turn Lanes (Right & Left), where warranted	$$$	Long-Term	○
● ● ○	6.7	Improve Lighting	$$	Mid-Term	○

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
○ Vulnerable Road User Related Countermeasure
○ Requires ROW Acquisition
○ Requires Utility Relocation

Benefit Summary

- Properly placed stop bars provide drivers with a clear line of sight to other traffic, promote safer turning movement speeds, and improve traffic flow through the intersection.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Turn lanes provide a dedicated space for vehicles to decelerate and wait for a safe gap to turn, reducing the likelihood of rear-end and side-swipe collisions.
- Proper lighting improves visibility, helping drivers see the road, obstacles, and other users more clearly.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.



E Walnut Street
from Center Avenue to SR-46

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Main Street (SR-48)
from Cherry Street to McFarland Lane

VRU (0) Serious Injury (0) Fatal (1)

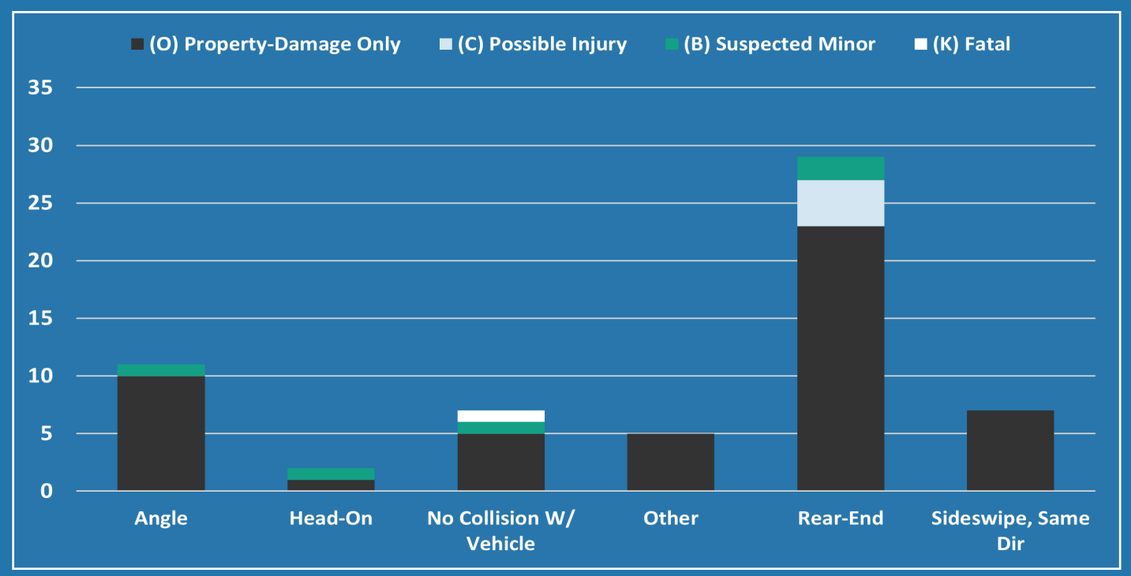
State Route

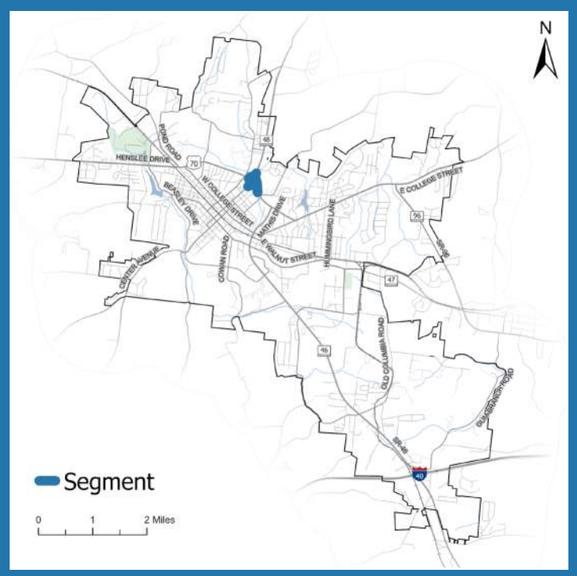
Speed Limit	30 mph
Lanes	4
Vehicles/Day	4,000
Total Crashes	61
HIN Intersections	0

Characteristics

This section of N Main Street is a two-way roadway, with no separation between opposing travel lanes. The segment follows a curved alignment over medium rolling terrain, with no sidewalks present in the area. The connecting on/off ramps are one-way travel lanes, with merge/stop control in order to continue onto N Main Street.

Along the Main Street On-Ramp, Facing North, Just North of Henslee Drive





Overall Ranking: 7

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Henslee Dr at Main Street has safety issues and too many people on the bypass are running through the light.

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Main Street (SR-48)
from Cherry Street to McFarland Lane

	ID	Countermeasure	Cost	Schedule	Project Readiness
●	7.1	Evaluate On/Off Ramp Configurations to Limit Vehicular Conflicts	$$$	Mid-Term	● ●
● ●	7.2	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ●	7.3	Implement Various Speed Reducing Countermeasures	$	Short-Term	Ready
	7.4	Conduct Intersection Control Evaluation Study	$$	Short-Term	● ●
● ● ○	7.5	Improve Lighting	$$	Mid-Term	●
	7.6	Install Positive Separation between Through & Merge Lanes and Extend Solid White Striping to McFarland Lane	$$	Mid-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

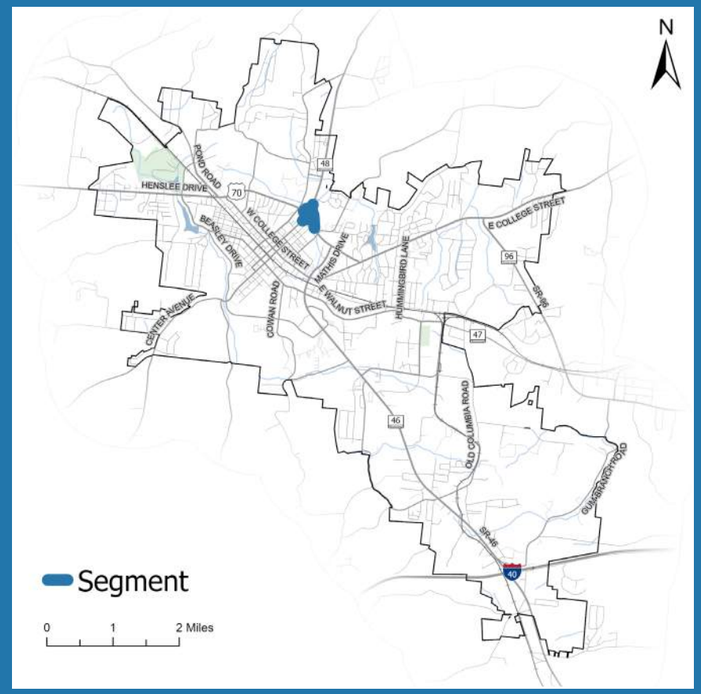
○ Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

Benefit Summary

- A partial cloverleaf interchange can lead to increased potential for wrong-way driving, cause weaving conflicts, and create problems for drivers unfamiliar with the area. Further study to ensure that the partial cloverleaf interchange is properly configured and has the appropriate signage and markings would be helpful in alleviating these potential issues.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.



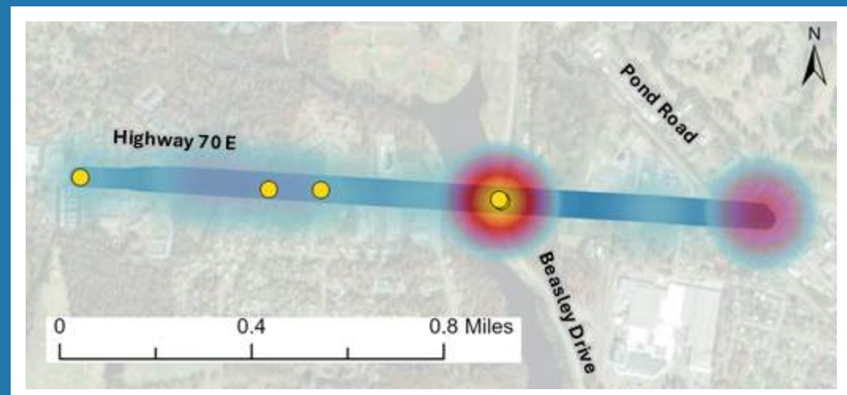
DISCLAIMER
23 United States Code Section 407 - Discovery and admission as evidence of certain reports and surveys
Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data

RECOMMENDED COUNTERMEASURES

Main Street
from Cherry Street to McFarland Lane

SAFETY ACTION PLAN
CITY OF DICKSON, TN

US-70
from Parkaway W to Pond Drive

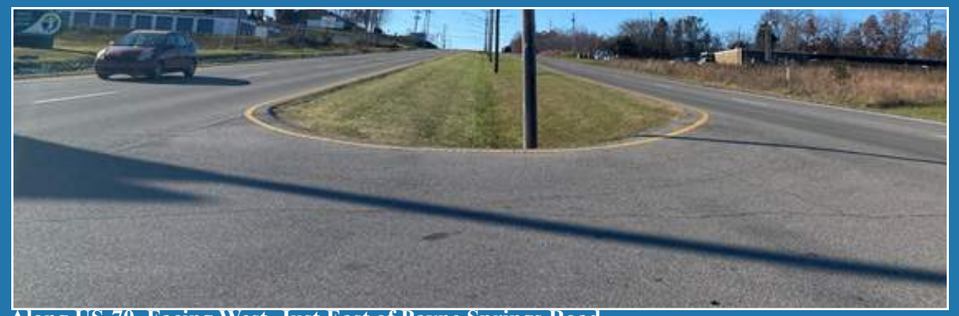


Federal Route

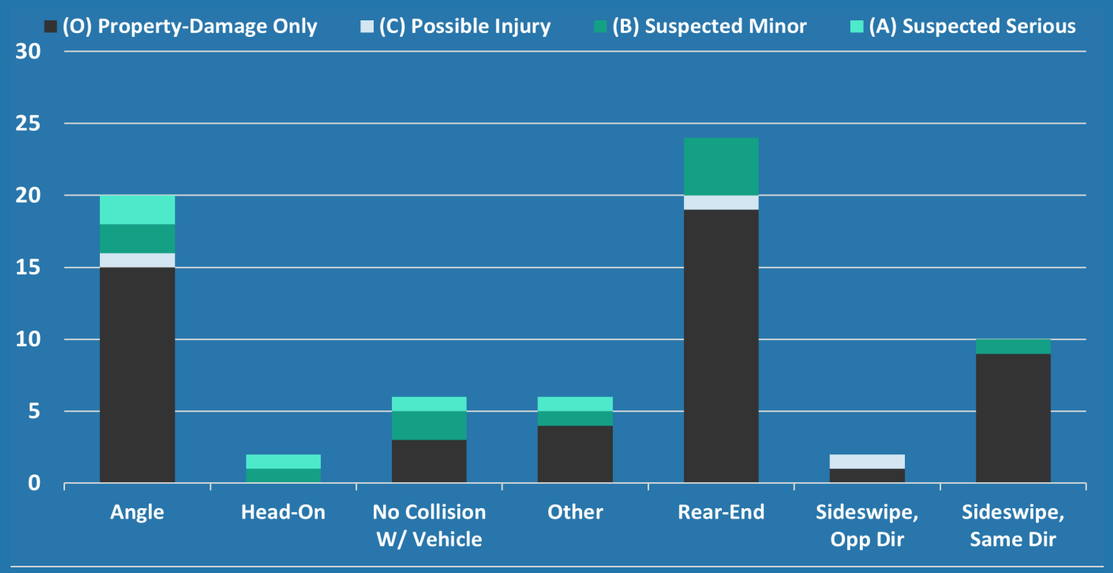
Speed Limit	45 mph
Lanes	4
Vehicles/Day	6,000
Total Crashes	70
HIN Intersections	1

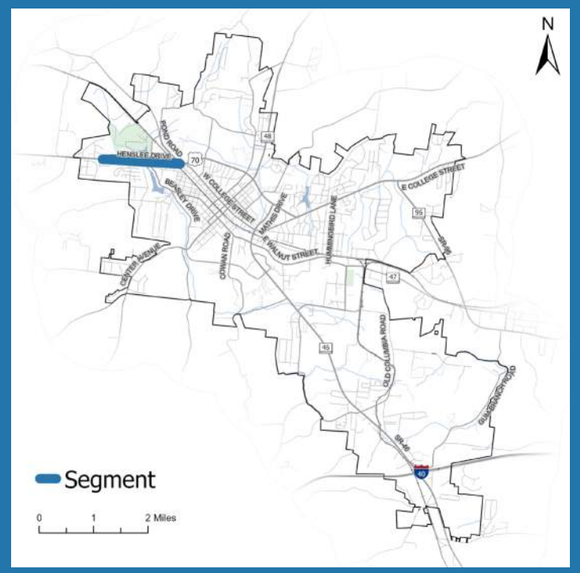
Characteristics

This section of US-70 is a two-way roadway, divided by a 30-ft grass median. The segment follows a straight alignment, with large rolling terrain. Sidewalks are not present along this corridor.



Along US-70, Facing West, Just East of Payne Springs Road





Overall Ranking: 8

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

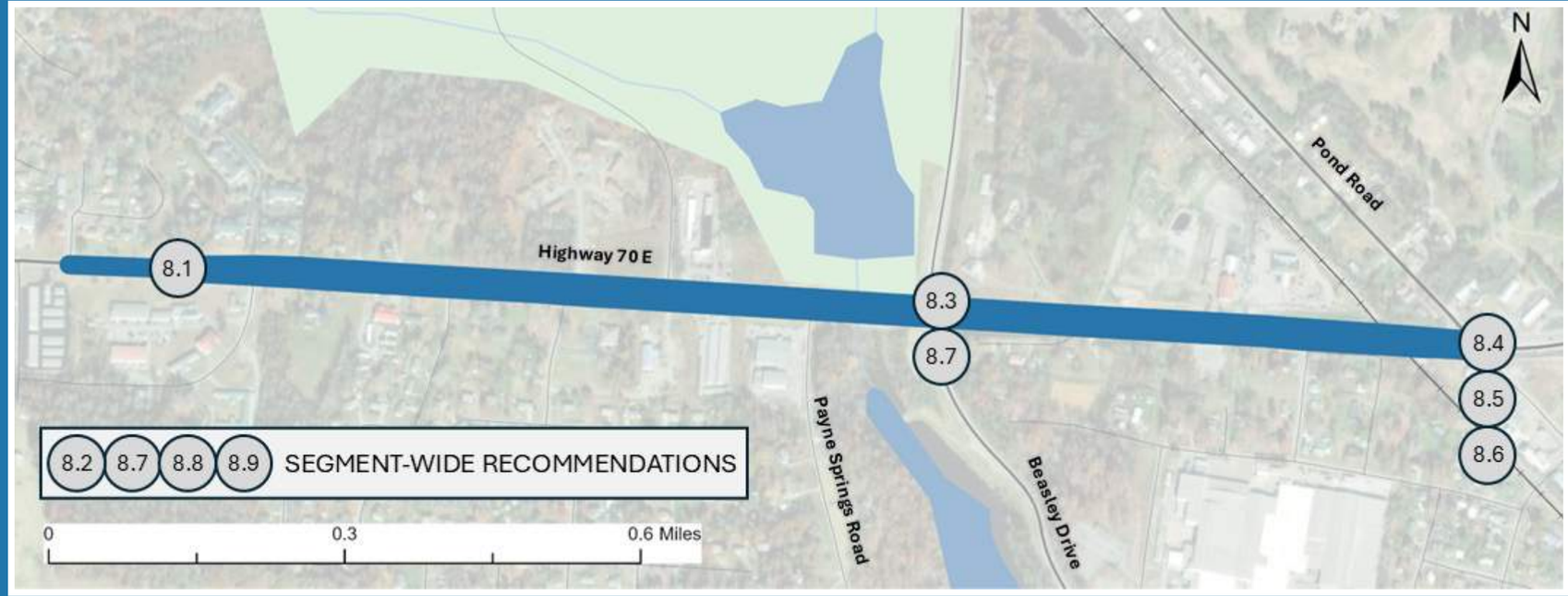
- There are roadway improvements needed near Pond Road, such as fixing potholes because cars often swerve to miss them.
- Intersection with Pond Road is a safety concern as well.

US-70
from Parkaway W to Pond Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

US-70
from Parkaway W to Pond Drive

RECOMMENDED COUNTERMEASURES



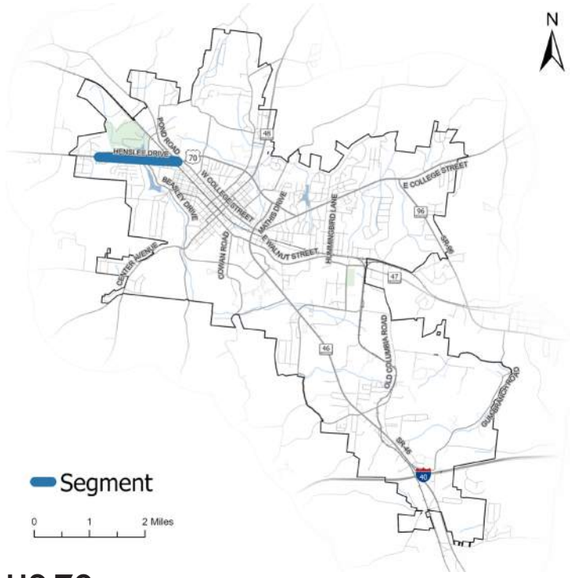
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	8.1	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ● ○	8.2	Implement Access Management (Minimizing Driveway Density)	$$	Mid-Term	Ready
●	8.3	Install Offset Left-Turn Lanes	$$$	Mid-Term	Ready
●	8.4	Evaluate Signal Clearance Intervals	$	Short-Term	Ready
● ○	8.5	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ●	8.6	Install Backplates w/ Retroreflective Borders	$	Short-Term	Ready
● ●	8.7	Install Various Pavement Friction Applications	$$	Short-Term	Ready
● ● ○	8.8	Install Sidewalks & Sidepaths	$$$	Mid-Term	● ○
●	8.9	Install Raised Pavement Markers (RPMs)	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
○ Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

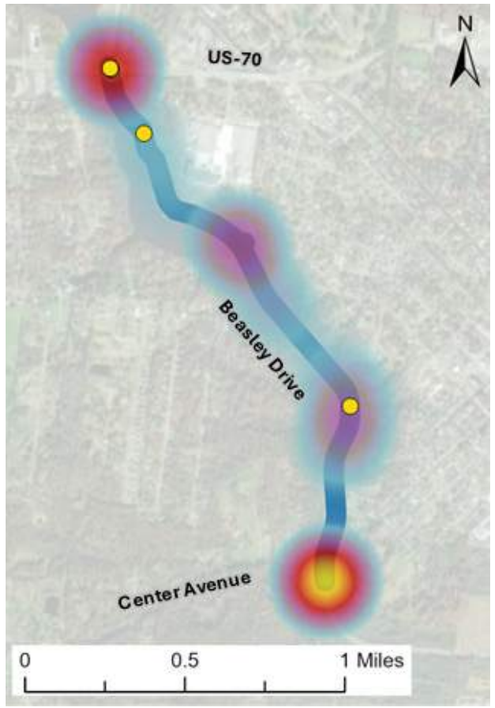
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- By offsetting the left-turn lanes, drivers have a clearer view of oncoming traffic, reducing the likelihood of collisions when making left turns.
- RPMs enhance visibility in low-light and adverse weather conditions, such as fog and rain, making it easier for drivers to see lane markings and road edges.
- Sidewalks provide a dedicated space for pedestrians, keeping them separated from vehicular traffic and reducing the risk of accidents.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.



US-70
from Parkaway W to Pond Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Beasley Drive
from College Street to Center Avenue



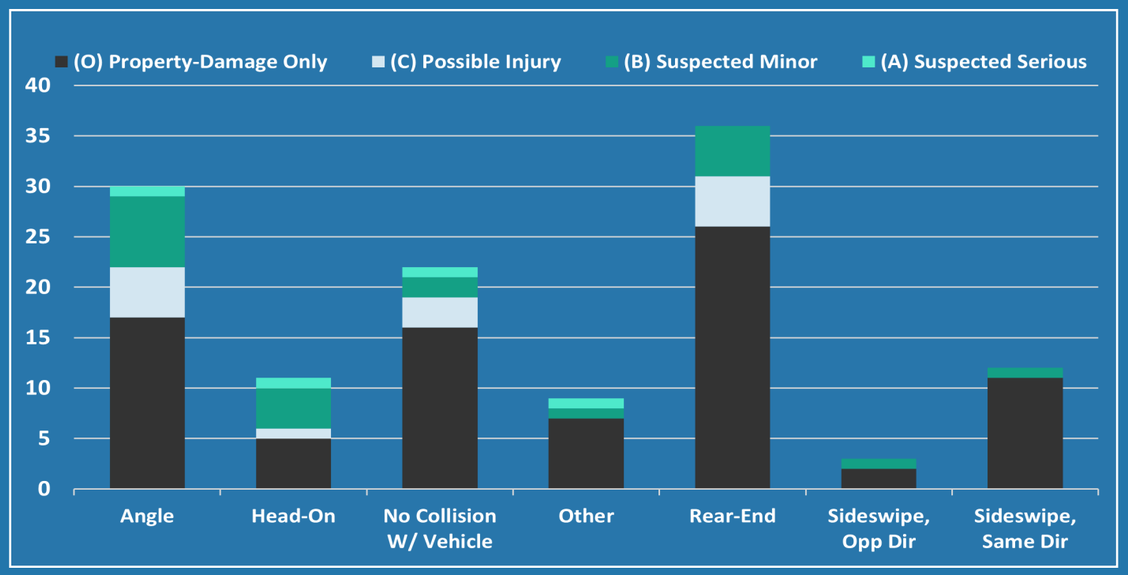
Municipal

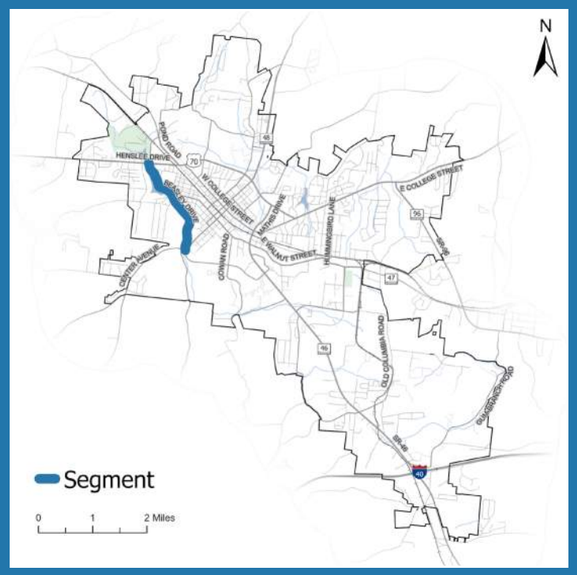
Speed Limit	40 mph
Lanes	2
Vehicles/Day	9,500
Total Crashes	123
HIN Intersections	1

Characteristics

This section of Beasley Drive is a two-way roadway, with no separation between opposing travel lanes. The segment follows a highly curved alignment, with large terrain changes. Sidewalks are not present along this corridor, however there are areas for vehicles to park along the road near Lake Dickson.

Along Beasley Drive, Facing Southeast, Just Southeast of W Walnut Street





Overall Ranking: 9

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Multiple people expressed concerns about the intersection with Furnance Hollow.

Beasley Drive
from College Street to Center Avenue

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Beasley Drive
from College Street to Center Avenue

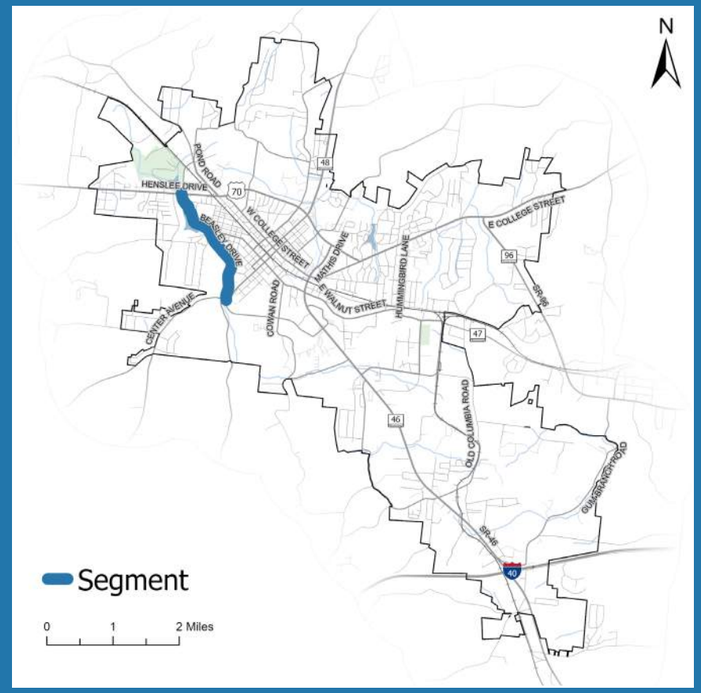
	ID	Countermeasure	Cost	Schedule	Project Readiness
●	9.1	Install/Upgrade Left-Turn Striping & Signage	$	Short-Term	Ready
● ●	9.2	Implement Various Speed Reducing Countermeasures	$	Short-Term	Ready
● ●	9.3	Install Curve Warning Feedback Signage & Striping	$	Short-Term	Ready
● ●	9.4	Install Combination Centerline / Edge line Rumble Strips	$$	Short-Term	Ready
● ●	9.5	Install Backplates with Retroreflective Borders to Traffic Signal Heads	$	Short-Term	Ready
● ●	9.6	Evaluate Signal Clearance Intervals	$	Short-Term	Ready
● ○	9.7	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ●	9.8	Upgrade Signage and Pavement Marking	$	Short-Term	○
● ○	9.9	Convert to a Signalized Intersection	$$$	Mid-Term	◉ ○
●	9.10	Upgrade Signal Detection	$$	Short-Term	Ready
● ●	9.11	Install Turn Lanes (Right & Left), where warranted	$$$	Mid-Term	○

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

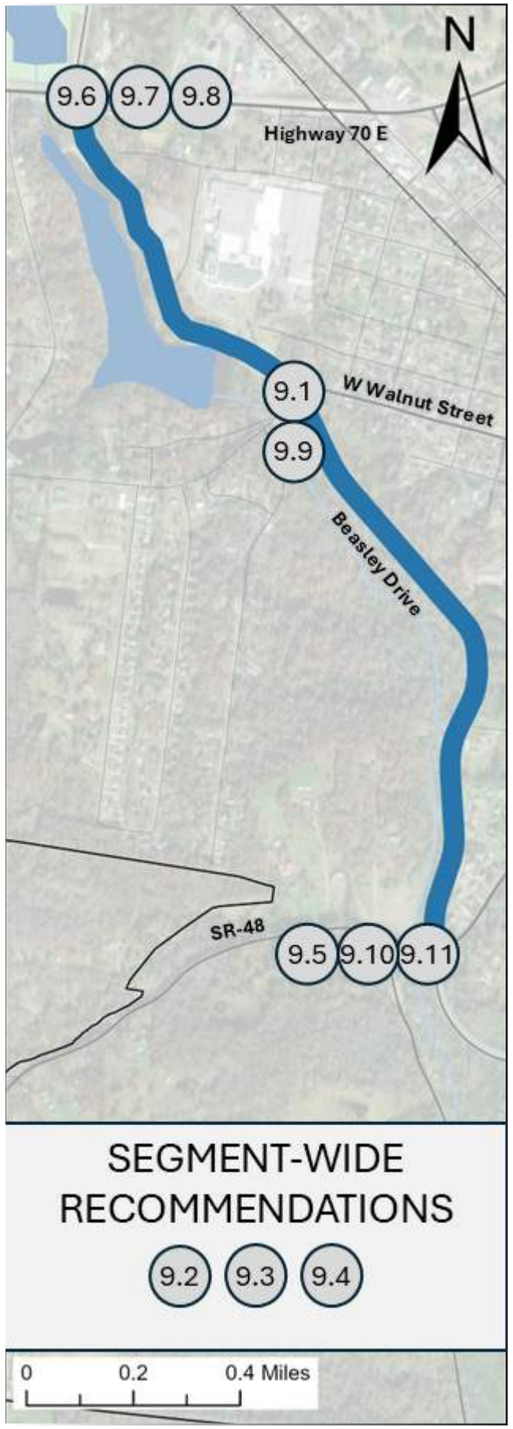
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
○ Vulnerable Road User Related Countermeasure
◉ Requires ROW Acquisition
○ Requires Utility Relocation

Benefit Summary

- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.
- Enhanced curve signage, grooved edge/centerlines, and pavement friction applications collectively address various risk factors associated with curves. Signage provides enhanced guidance and awareness, grooves provide tactile and auditory feedback to drivers, and increased pavement friction helps vehicles stay on the roadway, reducing the risk of roadway departure.
- Grooved edge/centerlines provide tactile and auditory feedback to drivers when their vehicle strays from the lane, helping to reduce the risk for roadway departure crashes and head-on collisions.
- Advanced detection systems can adjust signal timings in real-time based on current traffic conditions, reducing congestion and the likelihood of accidents caused by sudden stops and starts.
- Traffic signals help manage the flow of vehicles and pedestrians, reducing the likelihood of angle (broadside) collisions, which are often severe.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.



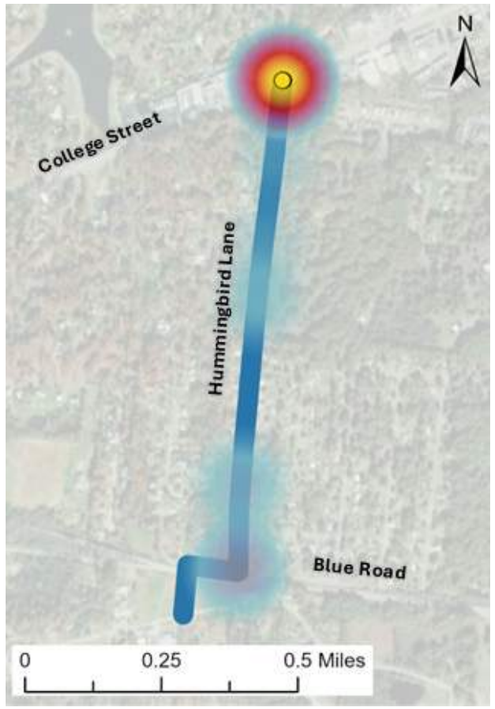
RECOMMENDED COUNTERMEASURES



Beasley Drive
from College Street to Center Avenue

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Hummingbird Lane
from College Street to E Walnut Street



VRU (0) Serious Injury (2) Fatal (0)

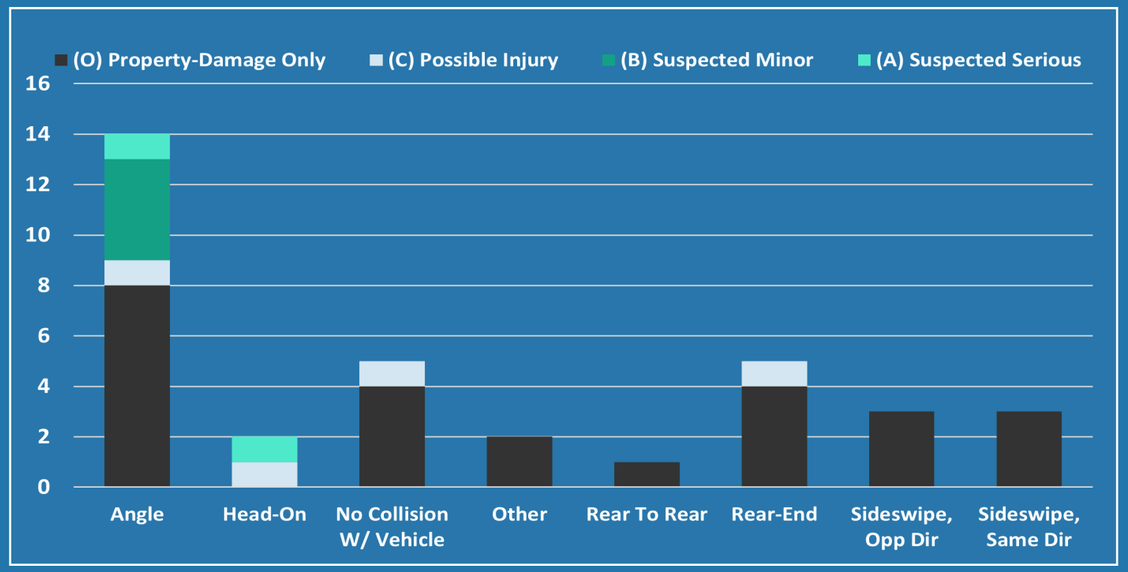
Municipal

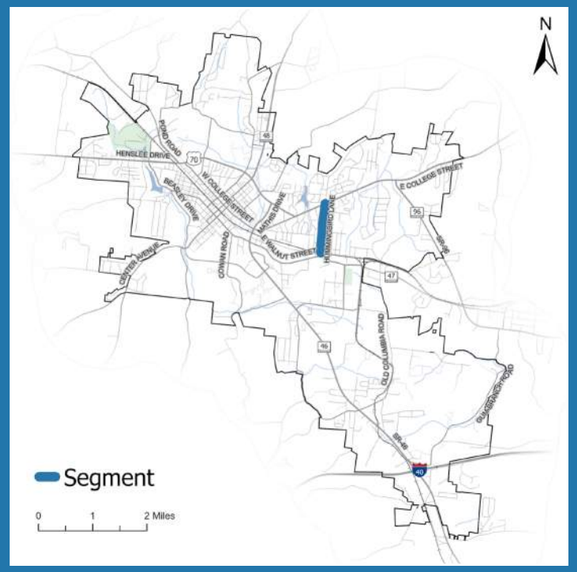
Speed Limit	30 mph
Lanes	2
Vehicles/Day	1,000
Total Crashes	35
HIN Intersections	1

Characteristics

This section of Hummingbird Lane is a two-way roadway, with no separation between opposing travel lanes. The segment follows a straight alignment, with a medium rolling terrain. Sidewalks are not present along this corridor, and shoulders are thin.

Along Hummingbird Lane, Facing South, Just North of Canary Drive





Overall Ranking: 10

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Multiple concerns about the intersection with College Street, particularly how people run the light often.

Hummingbird Lane
from College Street to E Walnut Street

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Hummingbird Lane
from College Street to E Walnut Street

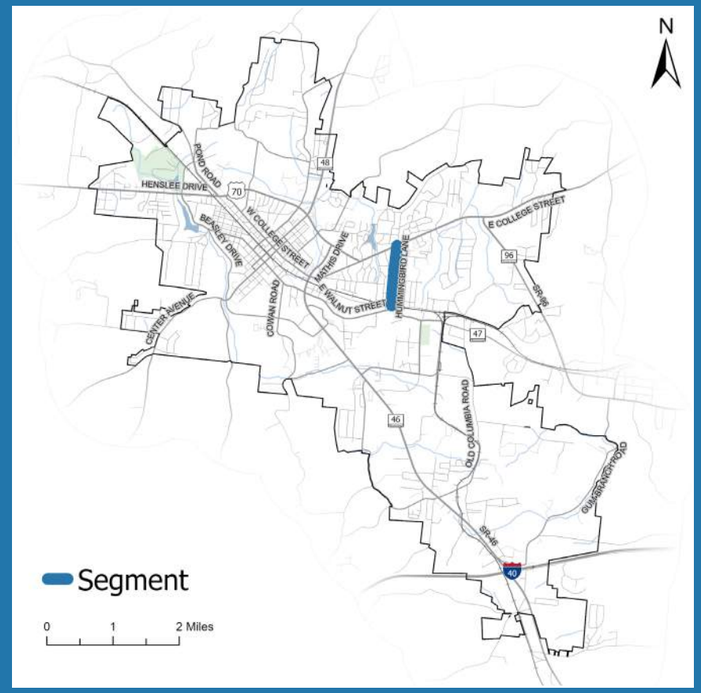
	ID	Countermeasure	Cost	Schedule	Project Readiness
●	10.1	Install/Upgrade Rail Crossing Gate Arms & Advance Signage	$$	Long-Term	●
● ●	10.2	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ● ●	10.3	Implement Various Red-Light Running Countermeasures	$	Short-Term	Ready
● ●	10.4	Install Combination Centerline / Edge line Rumble Strips	$$	Short-Term	Ready
● ● ●	10.5	Widen Shoulders on Both Sides	$$$	Mid-Term	● ●
● ●	10.6	Install Flashing Beacons at Stop-Controlled Intersections	$$	Short-Term	Ready
●	10.7	Remove Vegetation to Increase Sight Distance	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

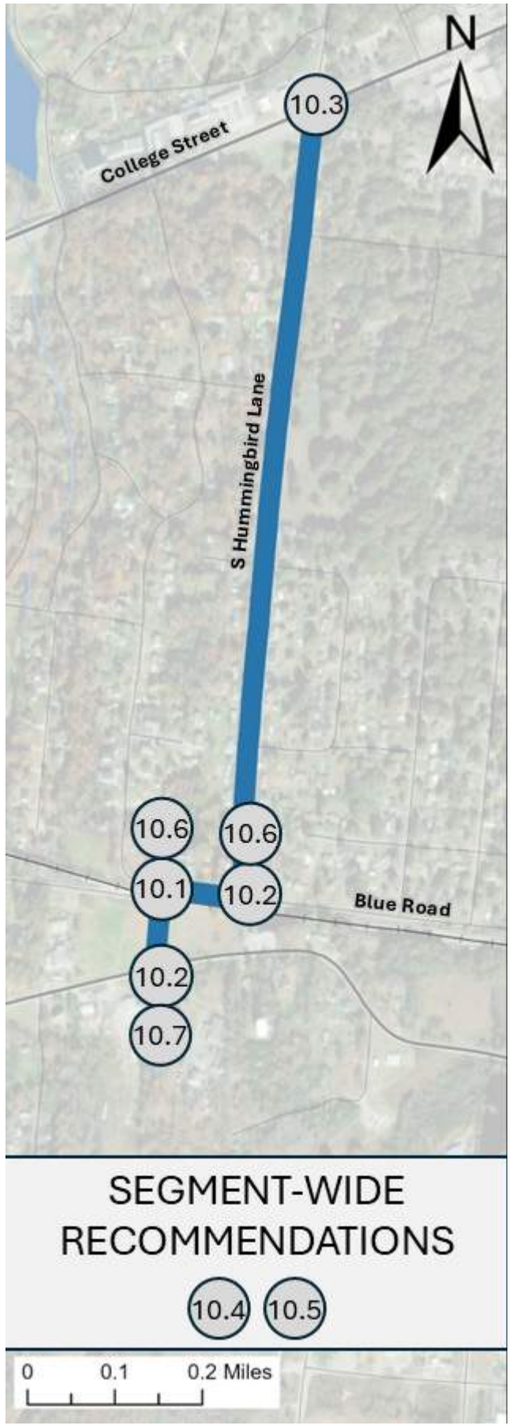
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Grooved edge/centerlines provide tactile and auditory feedback to drivers when their vehicle strays from the lane, helping to reduce the risk for roadway departure crashes and head-on collisions.
- Wider shoulders provide an increased recovery area for errant vehicles and offer a safer space for non-motorized roadway users.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Railroad crossing gates act as a physical barrier between vehicles and an approaching train, significantly reducing the risk of train/vehicle collisions. Advance signage provides guidance and visibility to drivers approaching the crossing.



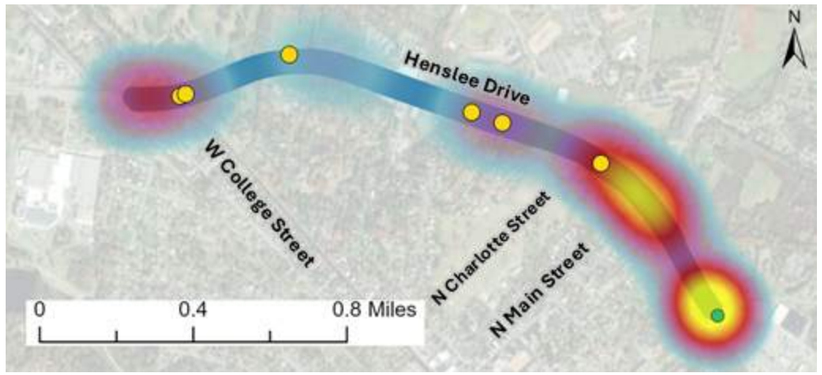
RECOMMENDED COUNTERMEASURES



Hummingbird Lane
from College Street to E Walnut Street

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Henslee Drive (US 70)
from Pond Drive to Pump Hill Drive



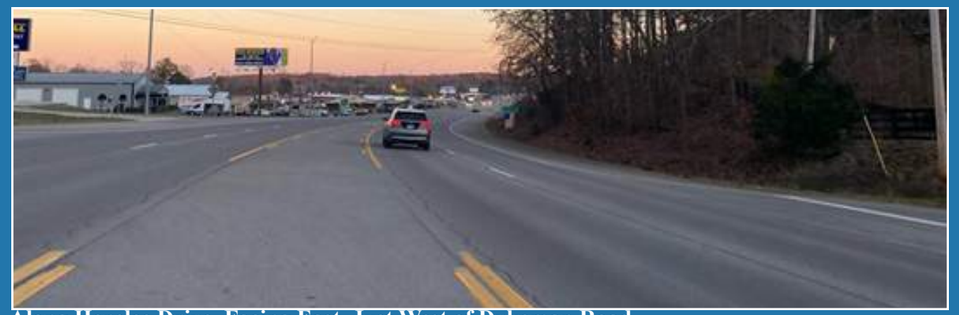
- VRU (1)
- Serious Injury (6)
- Fatal (0)

Federal Route

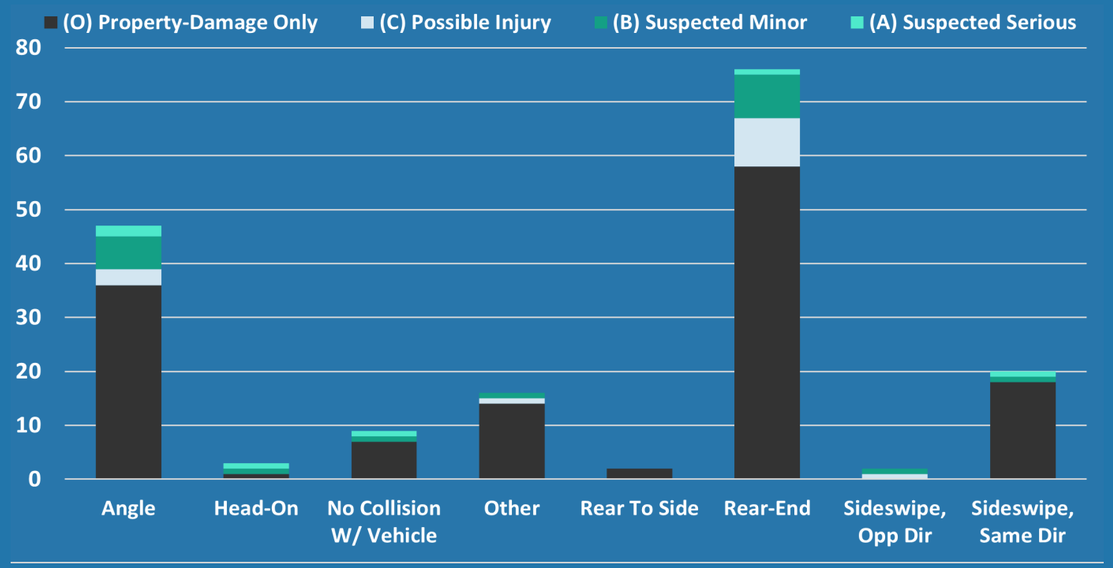
Speed Limit	45 mph
Lanes	4
Vehicles/Day	20,000
Total Crashes	175
HIN Intersections	1

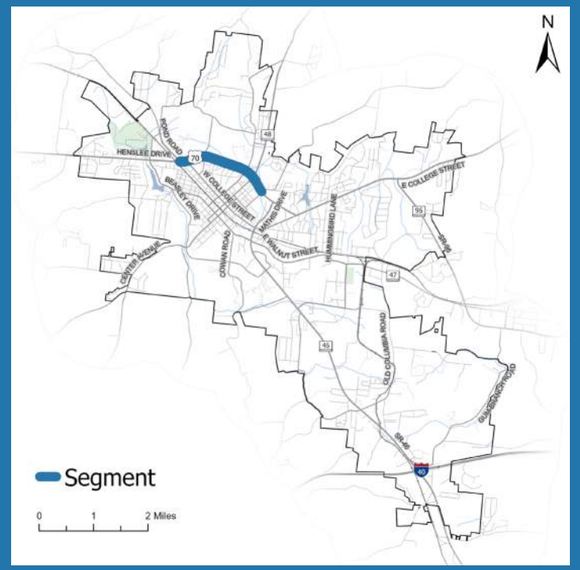
Characteristics

This section of Henslee Drive is a two-way roadway, divided by a two-way left-turn lane (TWLTL). It follows a curved alignment, with a medium rolling terrain. Sidewalks are not present along this section of Henslee Drive, however, there are upgraded pedestrian facilities near Dickson High School.



Along Henslee Drive, Facing East, Just West of Dykeman Road





Overall Ranking: 11

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Intersection with North Charlotte and Pump Hill Drive have safety concerns.
- Significant number of pedestrians have been utilizing the shoulders of this corridor which has significant safety concerns. Sidewalks or greenways with horizontal separation from vehicular traffic would provide significant safety improvements. Additionally, sidewalk connections to the high school would help improve the safety of students walking to school.
- There have beens problems with vehicles traveling eastbound on Henslee Dr. (Hwy 70) and running the red light (possibly due to highway hypnosis or other distractions).
- The intersection that's entering Henslee park is a challenge- the stop sign is a little dangerous across the road from Henslee, especially if you're trying to cross that busy road during the busy times of day.

Henslee Drive (US-70)
from Pond Drive to Pump Hill Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Henslee Drive (US 70)
from Pond Drive to Pump Hill Drive

RECOMMENDED COUNTERMEASURES

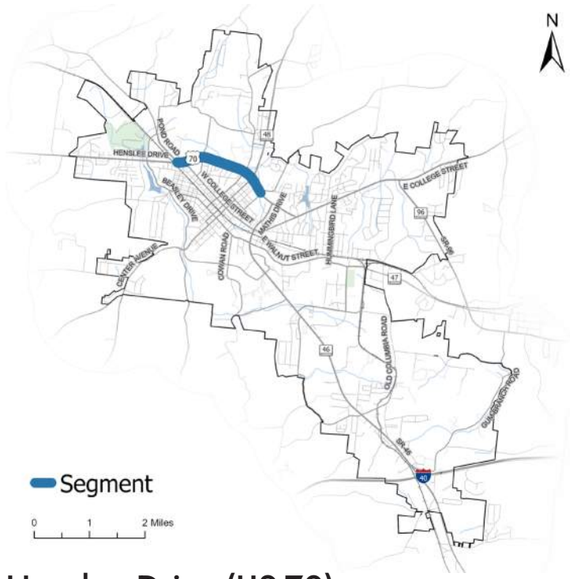
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ○	11.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$	Mid-Term	Ready
● ○	11.2	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ● ○	11.3	Implement Access Management by Minimizing Driveway Density	$$	Mid-Term	Ready
● ● ○	11.4	Implement Various Speed Reducing Countermeasures	$$	Short-Term	Ready
● ● ○	11.5	Install Lighting Structures	$$	Short-Term	● ○
● ○	11.6	Implement Various Red-Light Running Countermeasures	$$	Short-Term	Ready
● ● ○	11.7	Install Sidewalks & Pedestrian Facilities along School Routes	$$$	Mid-Term	● ○
● ○	11.8	Conduct Intersection Control Evaluation (ICE) Study	$	Short-Term	Ready
●	11.9	Improve Lane Delineation through Intersection	$	Short-Term	Ready
●	11.10	Upgrade to Retroreflective Striping & Signage	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

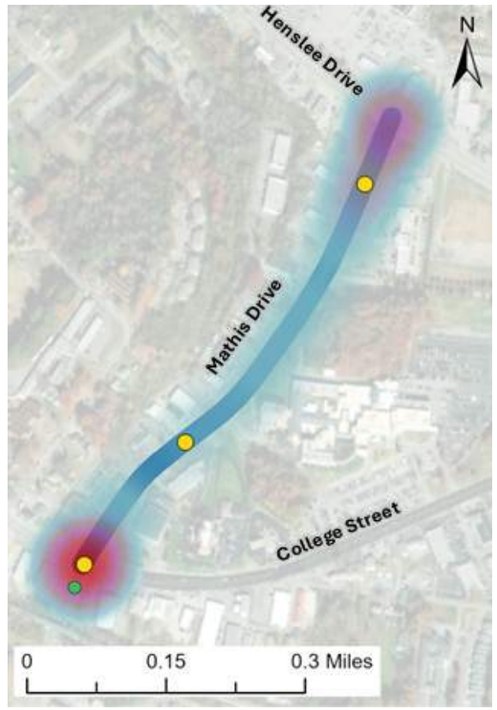
- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Properly timed signals can minimize conflicts at intersections by providing appropriate time intervals for different movements, such as dedicated left-turn phases, which reduce the likelihood of T-bone collisions.
- Sidewalks provide a dedicated space for pedestrians, keeping them separated from vehicular traffic and significantly reducing the risk of accidents.
- Countermeasures that successfully deter red-light running, such as the use of red-light cameras, signal timing adjustments, and targeted enforcement, can offer substantial safety benefits through the reduction in frequency and severity of crashes at signalized intersections.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



Henslee Drive (US-70)
from Pond Drive to Pump Hill Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Mathis Drive (SR-46)
from Henslee Drive to E College Street



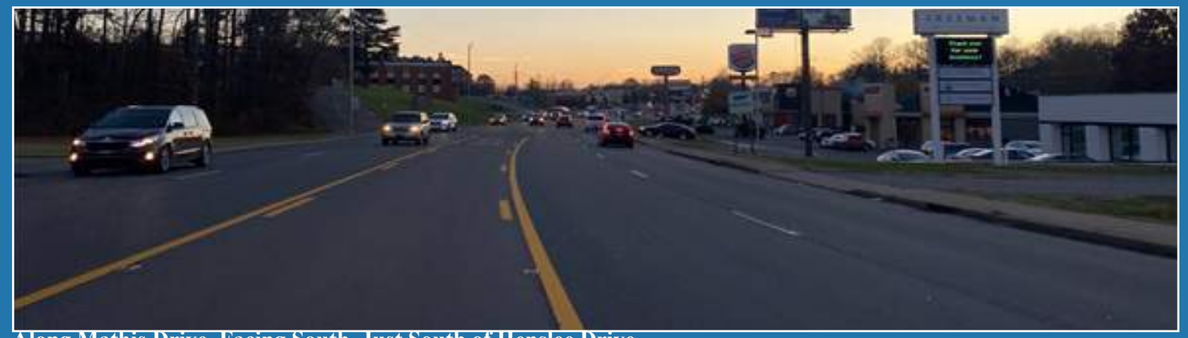
VRU (1) Serious Injury (3) Fatal (0)

State Route

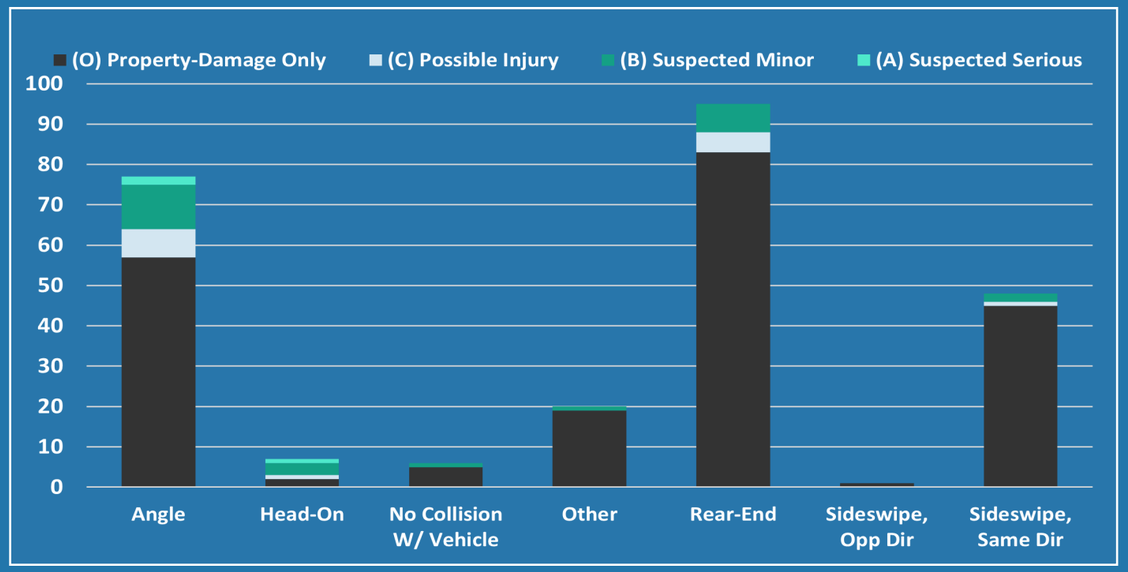
Speed Limit	45 mph
Lanes	4
Vehicles/Day	20,000
Total Crashes	254
HIN Intersections	1

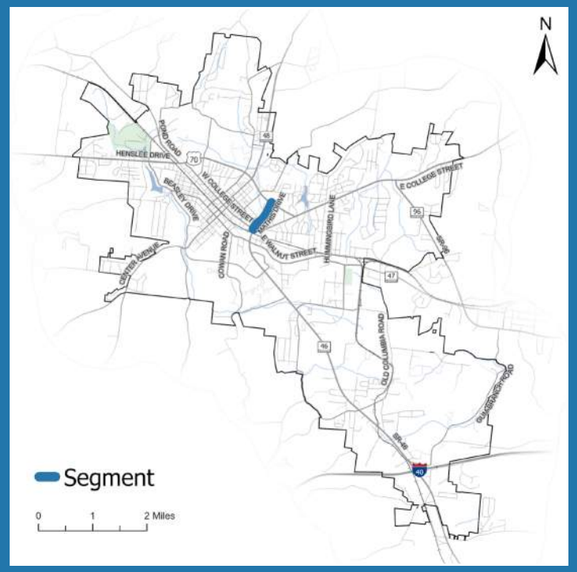
Characteristics

This section of Mathis Drive is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a lightly curved alignment, with a low rolling terrain. 6-ft sidewalks are present along both sides of Mathis Drive, with pedestrian facilities located at the major intersections.



Along Mathis Drive, Facing South, Just South of Henslee Drive





Overall Ranking: 12

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Safety concerns with the intersection at State Street and at College Street.
- Large issue at the intersection with Henslee Drive and pedestrian safety.
- With the up and coming recovery community, pedestrians are at a high safety risk when crossing to and from the Dickson plaza. Adding a crosswalk will greatly increase their safety.

Mathis Drive (SR-46)
from Henslee Drive to E College Street

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Mathis Drive
from Henslee Drive to E College Street

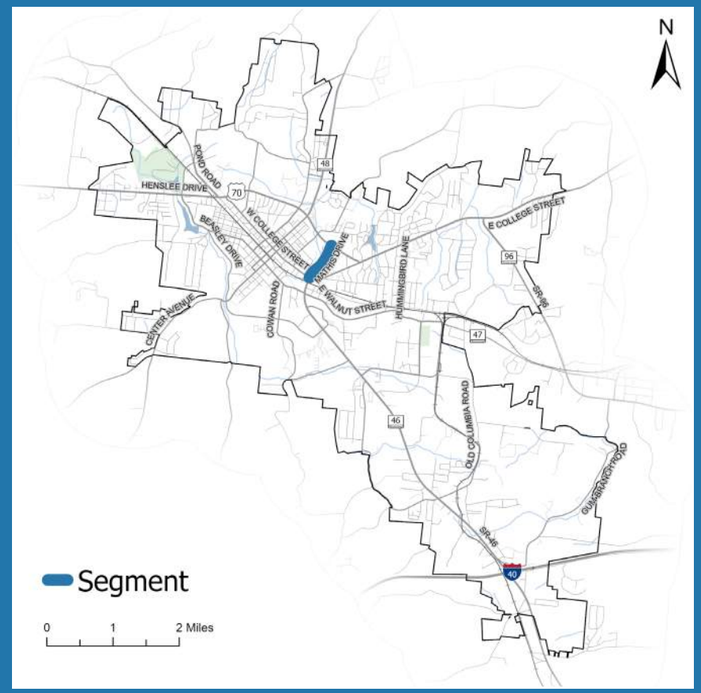
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	12.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$	Mid-Term	Ready
● ●	12.2	Install Backplates with Retroflective Borders to Traffic Signal Heads	$	Short-Term	Ready
●	12.3	Upgrade Traffic Signal Heads	$	Short-Term	Ready
● ●	12.4	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ● ●	12.5	Improve Corridor Access Management by Minimizing Driveway Density	$$	Short-Term	● ●
●	12.6	Install Flashing Yellow Arrows	$	Short-Term	Ready
● ● ●	12.7	Improve Lighting	$$	Mid-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Studies have shown that flashing yellow arrows significantly reduce the number of left-turn crashes by providing a more distinct indication that drivers are required to yield during the permissive phase.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.

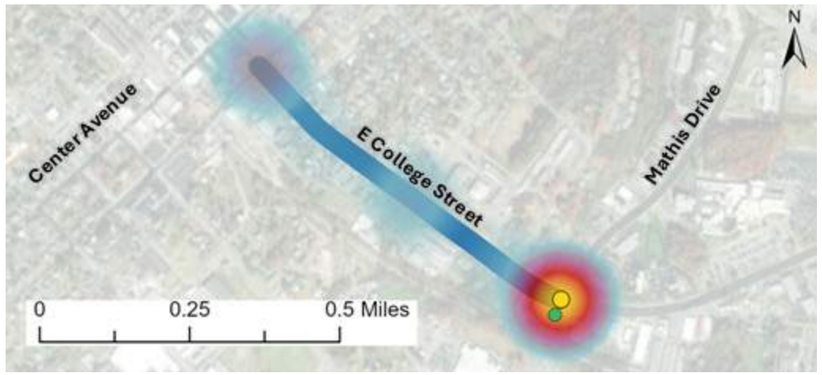


RECOMMENDED COUNTERMEASURES

Mathis Drive (SR-46)
from Henslee Drive to E College Street

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street (US-70)
from Center Avenue to Mathis Drive



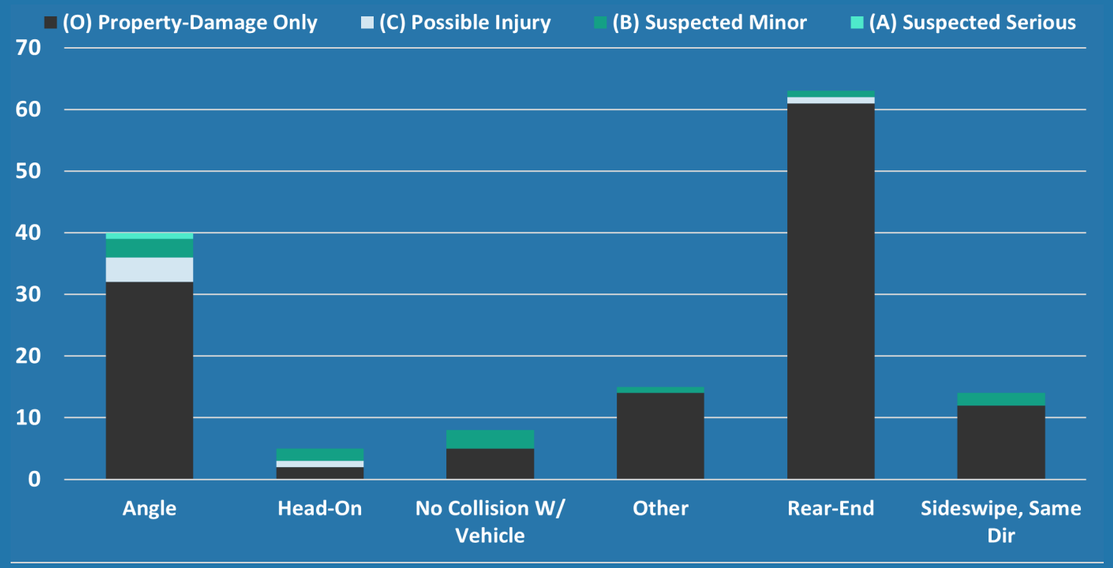
Federal Business Route

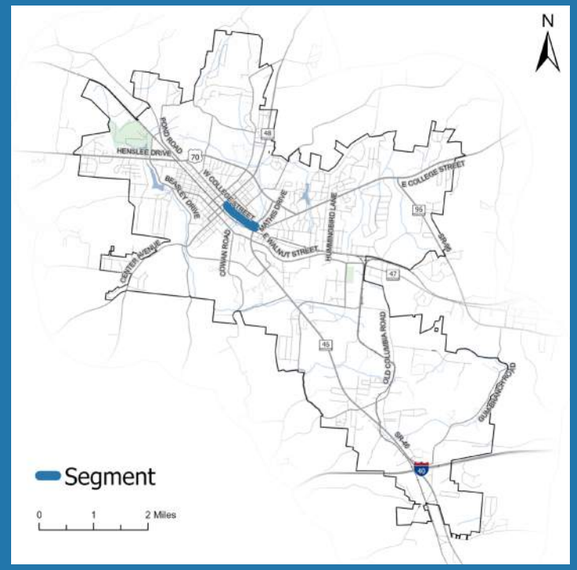
Speed Limit	30
Lanes	2
Vehicles/Day	8,500
Total Crashes	145
HIN Intersections	1

Characteristics

This section of College Street is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a straight alignment, with medum rolling terrain. 6-ft sidewalks are present along both sides of this corridor.

Along College Street, Facing West, Just East of Herman Avenue





Overall Ranking: 13

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Intersections with safety concerns include Church Street (needs a 4-way stop), Poplar Street, Academy Street, and McLemore Street.
- Crosswalks and a three way stop are needed at Dickson Middle School.

College Street (US-70)
from Center Avenue to Mathis Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street (US-70)
from Center Avenue to Mathis Drive

RECOMMENDED COUNTERMEASURES

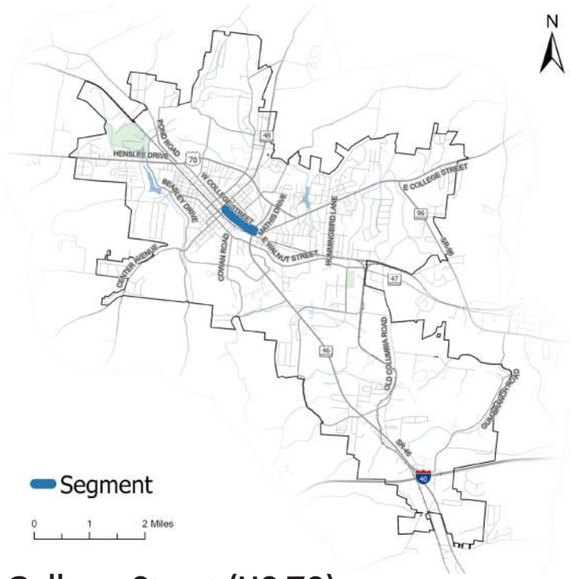
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	13.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$	Mid-Term	Ready
● ● ●	13.2	Install RRFB at Pedestrian Crossing	$$	Short-Term	● ●
●	13.3	Modify Crosswalks & Ramps to Provide Better Alignment	$$	Short-Term	●
● ● ●	13.4	Upgrade Pedestrian Facilities (Sidewalks/Crosswalks)	$$	Short-Term	● ●
● ● ●	13.5	Install High-Visibility Crosswalks	$$	Short-Term	Ready
	13.6	Differentiate between TWSC & AWSC Intersections with Signage	$$	Short-Term	Ready
● ● ●	13.7	Improve Lighting	$$	Mid-Term	●
● ● ●	13.8	Optimize Signal Cycle & Timings	$$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

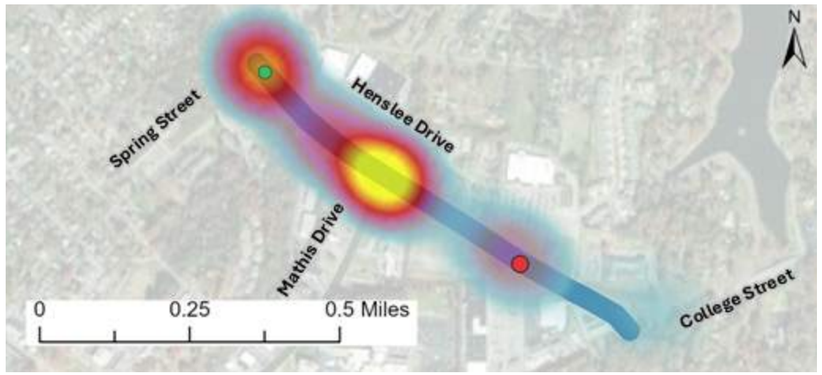
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.
- Properly aligned crosswalks provide shorter crossing distances, offer a more predictable experience to pedestrians and drivers, are safer for the visually impaired. Properly placed stop bars provide drivers with a clear line of sight to other traffic, promote safer turning movement speeds, and improve traffic flow through the intersection.
- High-emphasis crosswalks are designed to improve pedestrian safety by making crosswalks more visible and conspicuous to drivers.They also provide a designated area for crossing, making pedestrian movements more predictable and reducing the risk of collision.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



College Street (US-70)
from Center Avenue to Mathis Drive

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Henslee Drive (HWY-70)
from Pump Hill Drive to College Street



- VRU (1)
- Serious Injury (0)
- Fatal (1)

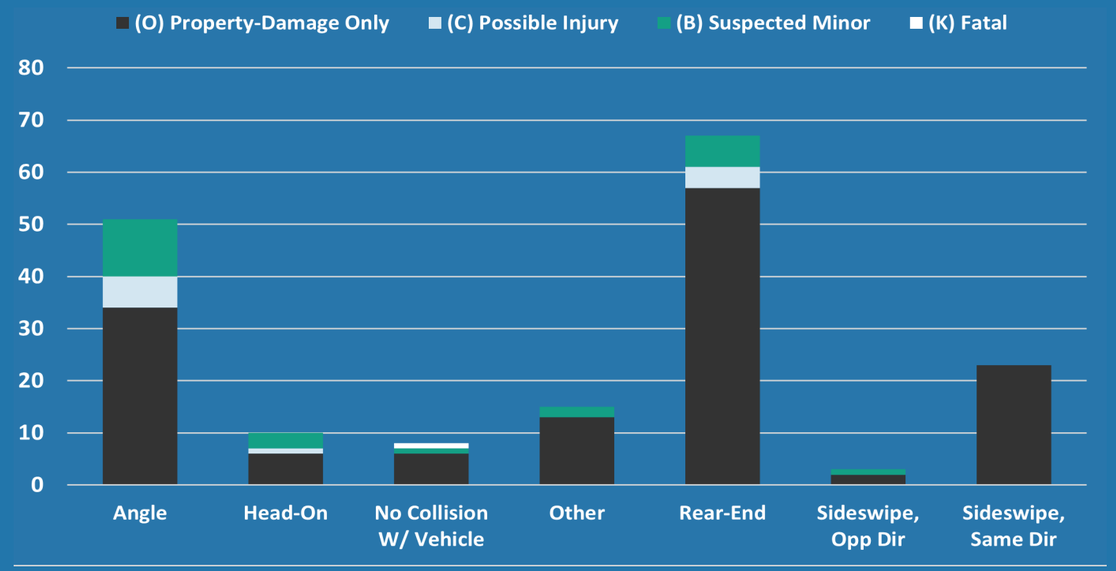
Federal Route

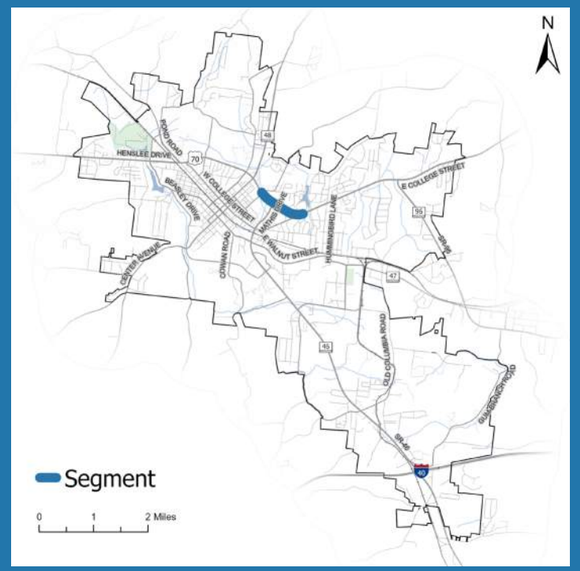
Speed Limit	35 mph
Lanes	4
Vehicles/Day	25,000
Total Crashes	177
HIN Intersections	2

Characteristics

This section of Henslee Drive is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The majority of this segment follows a straight alignment, with there being a light curve along the eastern end. Sidewalks are not present along this corridor.

Along Henslee Drive, Facing East, Just West of Mathis Drive





Overall Ranking: 14

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Please add traffic lanes on the shopping center sides of the intersection of Dickson Plaza Dr and left turn signals.
- At Mathis Drive, a crosswalk is greatly needed. There is little to no way to walk/bike safely around the YMCA.
- Safety concerns for intersection at Pump Hill Drive, Villa Circle, and Lake Villa Boulevard.

SAFETY ACTION PLAN
CITY OF DICKSON, TN

Henslee Drive (HWY-70)
from Pump Hill Drive to College Street

RECOMMENDED COUNTERMEASURES

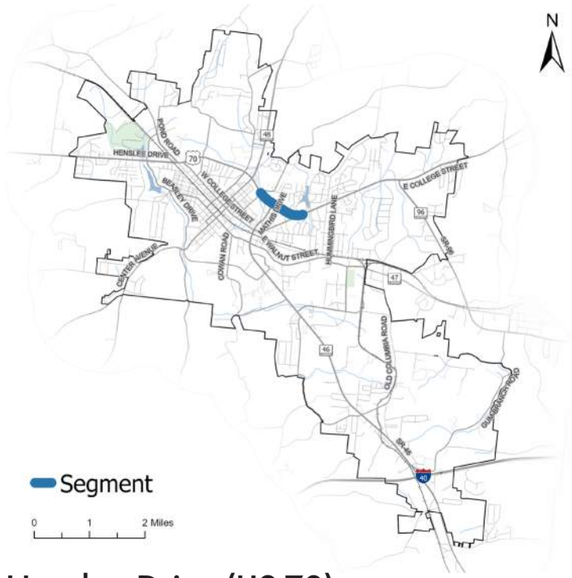
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	14.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Mid-Term	Ready
● ●	14.2	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ● ●	14.3	Implement Access Management by Minimizing Driveway Density	$$	Mid-Term	Ready
●	14.4	Upgrade Traffic Signal Heads	$	Short-Term	Ready
● ●	14.5	Install Backplates with Retroreflective Borders to Traffic Signal Heads	$	Short-Term	Ready
● ●	14.6	Optimize Yellow-Clearance Intervals	$	Short-Term	Ready
● ●	14.7	Implement Red-Light Running Flashers & Enforcement	$$	Mid-Term	Ready
● ● ●	14.8	Close Popeyes Driveway	$	Mid-Term	Ready
●	14.9	Convert Right-Turn to Smart-Channel	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

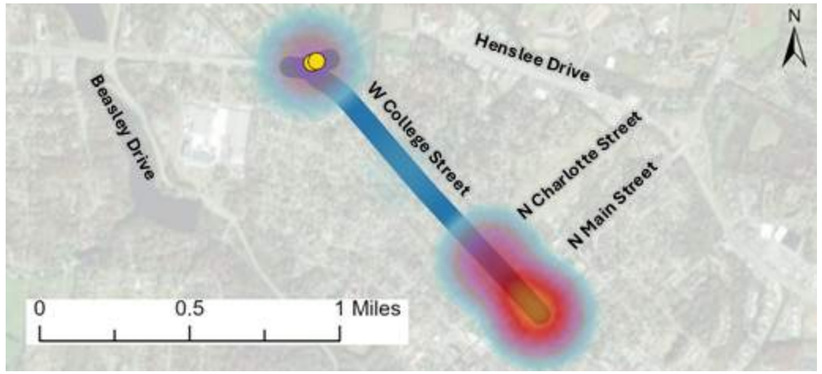
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- By promoting slower turning speeds and better visibility, Smart-Channel right turns help reduce the likelihood of collisions at intersections.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



Henslee Drive (US-70)
from Pump Hill Drive to College Street

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street (US-70)
from Henslee Drive to Center Avenue



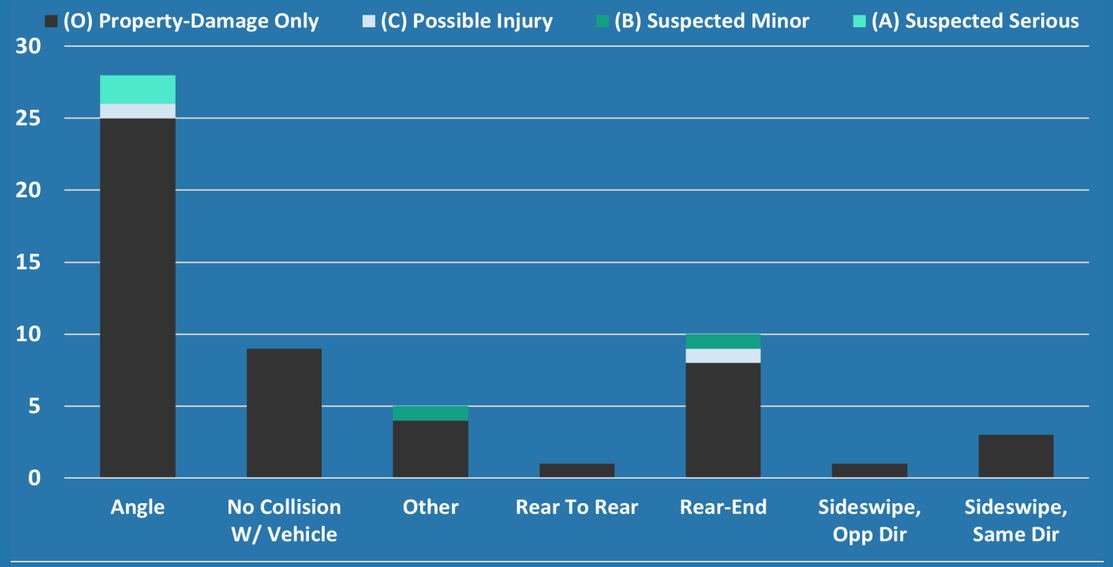
Federal Business Route

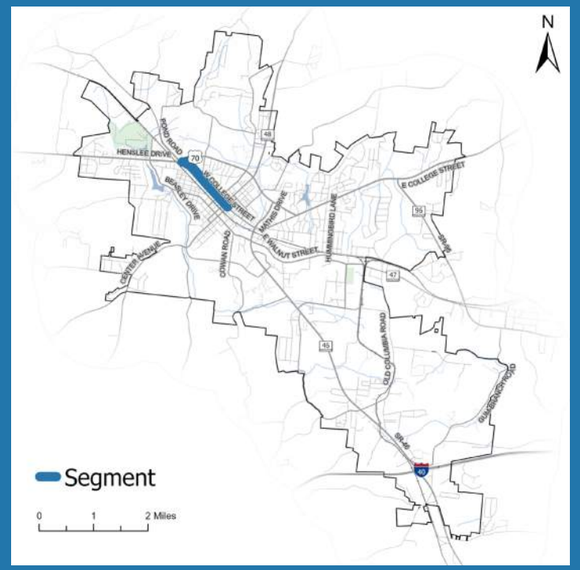
Speed Limit	30
Lanes	2
Vehicles/Day	4,000
Total Crashes	57
HIN Intersections	0

Characteristics

This section of College Street is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a striaght alingment, with a medium rolling terrain. 6-ft sidewalks are present along both sides of this segment, with upgraded pedestrian facilities throught the corridor.

Along College Street, Facing West, Just East of N Mulberry Street





Overall Ranking: 15

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Equity Consideration:
low — high

Community Input

- Intersections with safety concerns include Hwy 46 and Church Street.
- Vehicles on 70e turning west rarely use turn indicators which is frustrating for opposing traffic from Country Club Dr turning left or going straight.
- There have been multiple accidents at W. College and N. Charlotte Streets. A four way stop would slow people down on College Street coming from the west. Many drivers do not correctly navigate this intersection because they belive it already is four-way stop. they assume College Street will stop and then pull out in front of them. Also, at certain times of the day it is difficult to see up the hill on College Street (to the west) went going south on Charlotte Street.

College Street (US-70)
from Henslee Drive to Center Avenue

SAFETY ACTION PLAN
CITY OF DICKSON, TN

College Street
from Henslee Drive to Center Avenue

RECOMMENDED COUNTERMEASURES

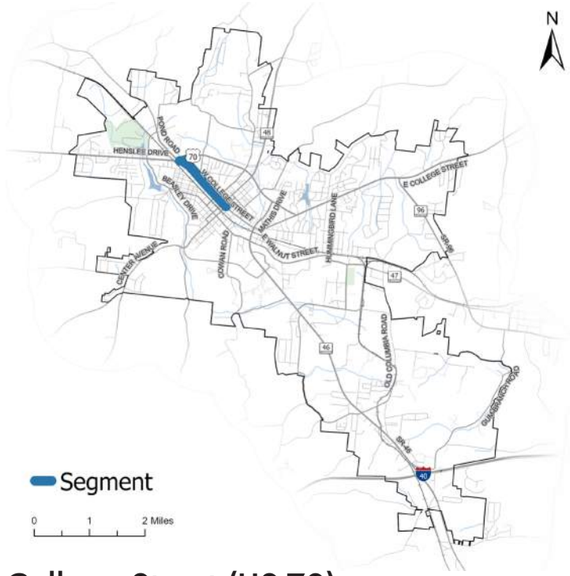
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	15.1	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$	Mid-Term	Ready
● ●	15.2	Upgrade Signage and Pavement Marking	$	Short-Term	Ready
● ● ●	15.3	Implement Various Speed Reducing Countermeasures	$	Short-Term	Ready
●	15.4	Modify Crosswalks & Ramps to Provide Better Alignment	$	Short-Term	Ready
● ● ●	15.5	Install RRFBs at Mid-Block and Non-Signalized Intersections	$$	Short-Term	● ●
● ●	15.6	Install a Raised Intersection	$	Short-Term	Ready
● ● ●	15.7	Install High-Emphasis Crosswalks & Facilities	$	Short-Term	● ●
● ●	15.8	Conduct ICE Study (Consider Merging Intersections)	$	Mid-Term	●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

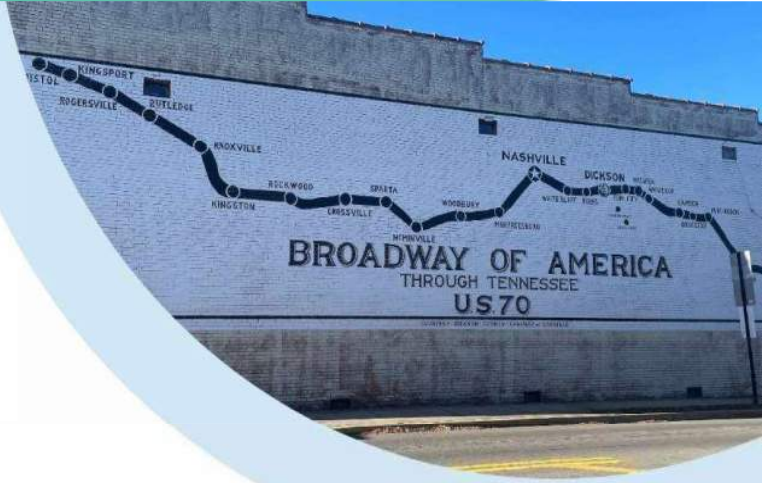
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- Speed-reducing countermeasures make it clear to drivers that lower speeds are expected and required. Safer speeds have been shown to lead to lower crash severity, increased driver reaction time, enhanced pedestrian and cyclist safety, and environmental benefits.
- Properly aligned crosswalks provide shorter crossing distances, offer a more predictable experience to pedestrians and drivers, are safer for the visually impaired.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



College Street (US-70)
from Henslee Drive to Center Avenue



SAFETY ACTION PLAN

CITY OF DICKSON, TN