March 2025

# Streets Athens

Athens, TN | Safe Streets and Roads for All



# OFFICE OF THE MAYOR

March 18, 2025

Dear Residents of Athens,

Ensuring the safety of our roadways is a top priority for our community. Our roads are essential for connecting us to work, school, healthcare, and leisure activities. It is our duty to make sure that these roads are safe for everyone.

From 2019 to 2023, Athens experienced 2,725 reported crashes on our roadways. Tragically, 6 of these crashes were fatal, and 64 resulted in serious injuries. These incidents are heartbreaking for the victims, their families, and our entire community. We believe that traffic fatalities and serious injuries are preventable, and we are dedicated to reducing and ultimately eliminating these occurrences.

To achieve this goal, we need to work together with community members, city departments, and advocacy groups. By collaborating, we can develop and implement programs, create ordinances, and establish infrastructure improvements that address common safety issues such as speeding or impaired driving. Through these collective efforts, we aim to eliminate preventable crashes and fatalities.

Our Comprehensive Safety Action Plan is a critical step toward this goal. This plan is based on available crash and public input data and provides actionable steps to improve safety on our roads. It is designed to benefit everyone in Athens, regardless of their income, location, race, or age.

The success of this plan depends on the support and participation of our community and partner agencies. Everyone has a role to play in making our roads safer. This Safety Action Plan will guide us on what actions to take first, what to do next, and how to track our progress.

We are just beginning this journey, but having a solid plan is essential for achieving our goals and preventing these tragedies. Thank you for your interest in roadway safety in Athens.

Sincerely,

for the fate

Larry Eaton Mayor

LARRY EATON MAYOR 815 NORTH JACKSON STREET ATHENS, TENNESSEE 37303

#### **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.

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McMinn County Schools Joe Young – McMinn County High School

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## Contents

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Approval Letter from Leadershipi
Special Thanksii
Introduction2
Alignment with SS4A2
Purpose of the SAP3
Leadership Commitment and Goal Setting3
Study Area5
Safety Analysis
Data Gathering9
Emphasis Areas
Crash Data Analysis
Identifying a High Injury Network
Demographics and Community Characteristics Considerations
Engagement and Collaboration
Introduction
Formation of a Steering Committee (Planning Structure)
Project Website
Public Outreach
Public Engagement Process (Online Engagement)
Key Takeaways
Strategies
Engineering Countermeasures
Driver-Related Countermeasures
Policy and Process Changes
Policy and Process Changes       47         Documents Reviewed       47         Plan Checklist       49         Recommendations       50         Project Selections       53
Policy and Process Changes       47         Documents Reviewed       47         Plan Checklist       49         Recommendations       50         Project Selections       53         Recommended Projects       53

# Figures

Figure 1: Alignment with SS4A
Figure 2: Athens Fatal and Serious Injury Crash Rate Trend3
Figure 3: Elements of the Safe Systems Approach (Source: USDOT)4
Figure 4: Traditional Approach vs Safe Systems Approach4
Figure 5: City of Athens with Surrounding Areas5
Figure 6: Roadway Networks of Athens7
Figure 7: Crashes in Athens by KABCO Scale
Figure 8: Vehicle Miles Travelled, McMinn County11
Figure 9: Fatal Injuries: Rates
Figure 10: Serious Injuries: Rates
Figure 11: Combined Fatal and Serious Injury Crash Rates
Figure 12: KA Crashes with Overall Heatmap
Figure 13: Crashes Involving Vulnerable Road Users
Figure 14: High Injury Network
Figure 15: Demographics of Athens
Figure 16: Social Vulnerability Index Map22
Figure 17: Areas of Persistent Poverty Map23
Figure 18: Historically Disadvantaged Communities Map24
Figure 19: Engagement and Collaboration Schedule
Figure 20: City of Athens SAP Website
Figure 21: Online Survey Input by Improvement Category
Figure 22: Online Survey Improvement-Related Public Comments
Figure 23: Results from Interactive Map
Figure 24: Interactive Map Input by Improvement Category
Figure 25: Interactive Map Improvement-Related Public Comments
Figure 26: Engagement and Collaboration Summary
Figure 27: Concentration of Location Specific Public Comments
Figure 28: Recommended Corridors for Early Project Implementation
Figure 29: Athens SAP Website

# Tables

Table 1: Crashes in Athens by Contributing Factors	. 10
Table 2: Yearly Crashes in Athens by KABCO Scale	. 11
Table 3: Crashes in Athens by Type	. 14
Table 4: Crashes by Lighting Conditions	. 15
Table 5: Crashes by Roadway Surface Conditions	. 15
Table 6: High-Crash Segments	. 16
Table 7: High-Crash Intersections	. 16
Table 8: Athens Countermeasures Toolbox	. 42
Table 9: Unrestrained Occupants Countermeasures	. 43
Table 10: Older Drivers (65+) Countermeasures	. 44
Table 11: Impaired Drivers Countermeasures	. 45
Table 12: Aggressive Drivers Countermeasures	. 45
Table 13: Existing Plans Summary	. 47
Table 14. Alignment of Safety Roadmap with Existing Plan	. 49
Table 15: Recommended Policy and Process Changes	. 50



# Introduction



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## Introduction

#### 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 SAP is a planning document that prioritizes safety improvements and justifies investment decisions. Having a formal plan will help the City of Athens communicate clearly with stakeholders and access funding opportunities under this program.

$\checkmark$	<b>'n</b> ₽	Leadership Commitment & Goal Settingsee page 3
$\checkmark$	<b>.</b>	Planning Structuresee pages ii and 26
~		Safety Analysissee page 9
$\checkmark$	<u>†</u> ††	Demographics & Community Characteristics Considerationssee page 21
~		Engagement & Collaborationsee page 26
$\checkmark$	Ø	Policy & Process Changessee page 47
~	(=	Project Selection & Prioritizationsee page 53
$\checkmark$	Ê	Progress & Transparencysee page 57

#### FIGURE 1: ALIGNMENT WITH SS4A

#### **Document Organization**

The City of Athens 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 demographics and community characteristics informed the SAP
- **Demographics and Community Characteristics Considerations**: Identifying underserved communities through data and partner collaboration and analyzing the population characteristics 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 implementing through adopting revised or new policies and guidelines.
- **Project Selection**: Includes criteria for prioritizing projects 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.

#### Purpose of the SAP

The Athens 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 TN SHSP and through systemic data analysis conducted specifically for the City of Athens.

This report serves as an SS4A Action Plan, 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.

#### Leadership Commitment and Goal Setting

The City of Athens' 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/serious injury crash rates for the years 2019 to 2023. More detail is included in the **Crash Data Analysis** section of this document. The activities conducted during this study build upon the federal Safe System Approach, the TN SHSP, and City-specific data analysis findings and community feedback.



FIGURE 2: ATHENS FATAL AND SERIOUS INJURY CRASH RATE TREND

The Safe System Approach is the guiding paradigm of the USDOT regarding roadway safety (see **Figure 2**). 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 3** for a comparison between the traditional approach versus Safe System Approach. This Safety Action Plan 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

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• Humans Are Vulnerable

- Responsibility is Shared
- Safety is Proactive
- Redundancy is Crucial



#### FIGURE 3: ELEMENTS OF THE SAFE SYSTEMS APPROACH (SOURCE: USDOT)

Traditional Approach	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 SYSTEMS APPROACH

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#### Study Area

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The City of Athens, located within McMinn County, Tennessee, encompasses approximately 13.98 square miles of land and is home to over 14,000 residents. Athens is home to Tennessee Wesleyan University and the site of the state's first railroad.





#### History

The City of Athens, Tennessee, was established in 1822 on land obtained from William Lowry and Joseph Calloway. The city originally consisted of 35 acres bordering on the Eastnalle Creek, which was used as a source of waterpower for various mills. Athens is the county seat of McMinn County and is known as "The Friendly City". The city was laid out and chosen as the county seat in 1822, and by 1834, it had grown to over 500 residents.

Athens lies in the Tennessee River valley, between the Great Smoky Mountains to the east and the Cumberland Plateau to the west. The Hiwassee Railroad, chartered in the mid-1830s, began construction in 1837, although it faced delays and was completed in 1851. The name "Athens" was likely chosen due to perceived topographical similarities to Athens, Greece

#### Land Uses and Attractions

Athens, Tennessee, offers a diverse range of land uses and attractions that cater to both residents and visitors. The city features a mix of residential, commercial, and industrial zones, with areas dedicated to parks and recreational activities. Notable attractions include the Athens Regional Park, which provides ample space for outdoor activities and community events, and the McMinn County Living Heritage Museum, where visitors can explore the rich history of the region. Another key attraction is the Mayfield Dairy Farms, where visitors can enjoy fresh ice cream and learn about the dairy production process. The Eureka Trail is another popular spot, offering a scenic route for hiking, biking, and horseback riding along a historic rail line. Additionally, the downtown area boasts charming shops, local eateries, and historic buildings, making it a vibrant hub for social and cultural activities. Whether you're interested in exploring nature, learning about local history, or enjoying the local cuisine, Athens has something to offer for everyone.

#### Schools

There are five (5) schools located within the City of Athens, including two (2) elementary schools, one (1) middle school, one (1) high school, and one (1) combined (K-12) school.

- Athens Intermediate School
- Athens Primary School
- Athens Middle School
- McMinn County High School
- Christ's Legacy Academy

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#### **Roadway Networks**

The City of Athens is centered mainly around the intersection of US-11 (Congress Parkway) and SR-30 (Decatur Pike/Green Street/South White Street). Excluding I-75, US-11 is the highest volume roadway in Athens, experiencing over 12,000 vehicles per day. Athens is located at the midpoint of Knoxville and Chattanooga, roughly 60 miles from each of the cities when travelling I-75. Other prominent roadways in Athens include state routes TN-39 (New Englewood/West Madison Avenue), TN 305 (John J Duncan Parkway/Ingleside Avenue), and TN 307 (E Madison Avenue).



FIGURE 6: ROADWAY NETWORKS OF ATHENS

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# **Safety Analysis**



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### Safety Analysis

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The safety analysis for the Athens SS4A Action Plan examined city-wide historical trends to understand crash locations, severities, and contributing factors. This section summarizes data sources, safety emphasis areas, city-wide crash trends, transportation demographics and community characteristics considerations, and the identification of the high-injury network. The findings from this analysis informed the development of the engineering projects and strategies outlined in this plan.

KABCO Crash Severity: 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. From January 2019 to December 2023, there were 2725 reported crashes on roadways in the City of Athens, of which 70 resulted in fatalities or serious injuries.





#### Data Gathering

Historical data was obtained from the Tennessee Department of Transportation's AASHTOWare Safety 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.

#### **Emphasis Areas**

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The Tennessee Department of Transportation, TDOT, are required to 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 Tennessee Strategic Highway Safety Plan (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 Athens' fatal and serious injury crashes to statewide totals for crashes reported between 2019 and 2023. **Table 1** is formatted to emulate the emphasis areas documented in the TN SHSP and intends to highlight how the emphasis areas in Athens compare to statewide trends. Athens experienced higher percentages for several emphasis areas, including crashes at intersections, and involving unrestrained occupants, senior drivers, impaired, and aggressive drivers. Fatal and serious injury crashes involving motorcycles and pedestrians were also higher than the state average. 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 young driver. As such, the values in the columns may not add to equal the exact totals. In **Table 1**, green shaded cells show which contributing factors were more prevalent in the City of Athens 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 Athens.

			City of Athens (20	19-2023	)	State of Tennessee (2019-2023)			
Category	Emphasis Areas	# 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 Cra	shes	6	64	70	100.0%	5,344	25,731	31,075	100.0%
Boadway	Roadway Departure	0	13	13	18.6%	2,892	10,046	12,938	41.6%
	Intersections	2	29	31	44.3%	1,241	8,267	9,508	30.6%
	Unrestrained Occupants	5	17	22	31.4%	1,659	4,242	5,901	19.0%
	Older Drivers (65+)	0	17	17	24.3%	1,155	4,893	6,048	19.5%
	Teen Drivers (13-19)	0	13	13	18.6%	941	5,673	6,614	21.3%
Drivers	Impaired Drivers	1	11	12	17.1%	1,418	3,495	4,913	15.8%
	Inattentive, Distracted, and Drowsy Drivers	0	1	1	1.4%	341	2,609	2,950	9.5%
	Aggressive Drivers / Speeding	1	11	12	17.1%	916	2,770	3,686	11.9%
Vehicles	Motorcycles	2	11	13	18.6%	782	3,558	4,340	14.0%
	Large Trucks (Truck/Bus)	1	3	4	5.7%	474	1,331	1,805	5.8%
Special	Pedestrians	2	4	6	8.6%	754	1,753	2,507	8.1%
Users	Bicycles	0	2	2	2.9%	49	286	335	1.1%

	TABLE 1	1:	<b>CRASHES IN</b>	ATHENS BY	CONTRIBUTING	<b>F</b> ACTORS
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#### Crash Data Analysis

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

Year	Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury (B)	Possible Injury (C)	Property Damage Only (O)	Total
2019	1	5	86	14	489	595
2020	1	19	59	22	404	505
2021	2	17	39	53	414	524
2022	2	11	44	48	440	544
2023	0	12	49	44	450	555
Total	6	64	277	181	2,197	2,725
Percentage of All Crashes	0.22%	2.35%	10.17%	6.64%	80.62%	100%

For the purposes of this study, the data includes the total number of fatalities and serious injuries resulting from crashes within the analysis period. It's 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. Figures 9-11 provide the five-year rolling averages of fatal crash rates, serious injury crash rates, and fatal and serious injuries combined rates for the period of 2019-2023. The historic data points are considered to have a "good fit" with the fatality trend as all values fall along or are close to the projected trendline. As shown in Figures 9-11, the overall trend shows a decrease on vehicular fatalities, while serious injury crashes and VRU charts indicates an increase year over year.

#### Vehicle Miles Travelled

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, McMinn County experienced approximately 1 percent growth in millions of vehicle miles traveled.



FIGURE 8: VEHICLE MILES TRAVELLED, MCMINN COUNTY







FIGURE	10:	<b>S</b> ERIOUS	<b>INJURIES:</b>	RATES
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#### **Crash Density**

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Crash density is defined as the total number of crashes per unit of road length, commonly measured 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 typically observed at locations with higher traffic volumes, as this translates to more exposure and potential risk for all road users. The highest crash density is found near the intersection of Decatur Pike (TN-30) and Congress Parkway (US-11 and TN-02), both major thoroughfares in the city. Another area of high crash density is near the 'Five-Points Intersection' in the City's Downtown area.



FIGURE 12: KA CRASHES WITH OVERALL HEATMAP

#### Crashes by Type

Crash type is indicated on crash reports submitted by law enforcement agencies. Angle crashes were the most common type over the study period, and they typically occur at intersections. They also tend to be more severe than many other crash types. Rear-end crashes were the second most common crash type, often occurring in congested traffic or when drivers are distracted. These types of crashes tend to be less severe because they often occur at lower speeds since they are also associated with more congested areas.

Type of Crash	2019	2020	2021	2022	2023	Total
Angle	187	160	153	169	171	840
Rear-end	160	146	172	136	135	749
No Collision with Vehicle	103	107	89	102	115	516
Sideswipe - Same Direction	39	26	41	33	65	204
Head-On	32	12	10	14	12	80
Sideswipe - Opposite Direction	13	10	13	13	10	59
Rear to Side	2	6	10	1	1	20
Rear to Rear	4	2	1	0	1	8
Other	55	36	36	77	45	249
Total	595	505	525	545	555	2,725

#### TABLE 3: CRASHES IN ATHENS BY TYPE

Compared to statewide data, the City of Athens experienced a higher percentage of rear-end crashes and a lower percentage of "no collision with vehicle" crashes. This is largely due to the City of Athens exhibiting more urban characteristics than other areas within the state, resulting in more traffic congestion and driver conflicts. "No collision with vehicle" crashes often occur along curves and uninterrupted rural sections of roadways, which usually tends to be outside of a city's limits.

Compared to other urban areas within the State of Tennessee, Athens experienced a lower percentage of angle crashes, but a higher percentage of rear-end & "no collision with vehicle" crashes. Overall, the trend comparisons between the City of Athens and the State of Tennessee are relatively consistent, with the general order of crash types remaining consistent and no crash type experiencing more than a 2 percent difference.

#### **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 19 percent of crashes in Athens occurred during non-daylight conditions (I.e., Dark, Dark–Not Lighted, Dark–Lighted, Dusk, and Dawn) which is lower than the statewide average of 30 percent.

Lighting Condition	2019	2020	2021	2022	2023	Total
Daylight	420	367	405	390	415	1997
Dark - Lighted	90	63	58	68	50	329
Dark - Not Lighted	19	26	28	23	22	118
Dusk	7	11	4	4	11	37
Dawn	7	5	5	2	7	26
Other	52	33	25	58	50	218
Total	595	505	525	545	555	2,725

#### TABLE 4: CRASHES BY LIGHTING CONDITIONS

#### 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 14 percent of crashes in Athens occurred during non-dry road surface conditions, which is lower than the statewide average of 17 percent over the same period.

TABLE 5: CRASHES BY ROADWAY SURFACE CONDITIONS

Surface Condition	2019	2020	2021	2022	2023	Total
Dry	455	383	433	431	438	2140
Wet	89	86	71	50	78	374
Snow	1	5	0	3	0	9
Ice	0	0	0	4	0	4
Other	50	31	21	57	39	198
Total	595	505	525	545	555	2,725

#### **High-Crash Segments**

The total number of crashes at a location does not tell the whole story, as areas with a higher traffic volume are more likely to experience a greater absolute number of crashes. Furthermore, locations with high traffic volumes often experience congestion which may result in lower crash severities. Crash rate calculations account for the traffic volumes at specific locations to provide a more effective comparison between similar locations with safety concerns. The crash rates shown below are expressed as crashes per 100 million vehicle-miles of travel and were calculated in AASHTOWare using the FHWA Roadway Departure Safety manual methodology. The following tables summarize the top 10 city roadway segments and intersections, respectively, ranked by total crashes and crash rates. Identifying these segments and intersections was an important step toward defining the High-Injury Network, which is introduced in a later section.

ID	Segment (Milepost Length)	Length (miles)	Crashes	Rank by Crashes	Segment AADT	Crash Rate	Rank by Crash Rate
1	Decatur Pk (6.68-8.5)	1.82	108	1	19,859	1.6	6
2	Congress Pkwy (8.59-13.47)	4.88	76	2	7,303	1.2	8
3	Decatur Pk (8.7-9.32)	0.62	59	3	20,909	2.5	3
4	New Englewood Rd (9.44-11.45)	2.01	52	4	6,406	2.2	4
5	Sweetfield Valley Rd (0-3.06)	3.06	52	5	4,452	2.1	5
6	Decatur Pk (6.51-6.58)	0.17	36	6	10,579	10.7	1
7	S White St (10.9-11.65)	0.75	35	7	17,309	1.5	7
8	Decatur Pk (8.5-8.7)	0.2	35	8	20,909	4.6	2
9	Congress Pkwy (14.93-16.2)	1.27	32	9	12,720	1.1	10
10	S White St (11.65-12.77)	1.12	28	10	11,284	1.2	8

TABLE	6: H	IGH-C	RASH	SEGMENTS
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#### **TABLE 7: HIGH-CRASH INTERSECTIONS**

ID	Intersection	Crashes	Rank by Crashes	TEV	Crash Rate	Rank by Crash Rate
1	Decatur Pk at Congress Pkwy	99	1	27,162	2.0	4
2	John J Duncan Pkwy at Congress Pkwy	79	2	20,998	2.1	3
3	Decatur Pk at Dennis St	68	3	24,311	1.5	5
4	Congress Pkwy at Dennis St	47	4	11,755	2.2	2
5	Green St at N Jackson St	45	5	25,493	1.3	6
6	Green St at E Madison Ave	37	6	21,335	1.2	7
7	Decatur Pk at Holiday Dr	36	7	19,859	0.5	10
8	Green St at S Jackson St	33	8	16,699	1.1	8
9	Maple St at Old Riceville Rd	32	9	9,943	2.8	1
10	New Englewood Rd at S White St	29	10	20,284	0.8	9

#### Crashes Involving Vulnerable Users

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Vulnerable road users (VRU) include pedestrians, cyclists, mobility device users (e.g., wheelchairs), and shared micromobility riders (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 2019 to 2023<sup>1</sup>. 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 Athens far exceeds that percentage, as over 37 percent of crashes involving vulnerable road users result in fatalities or serious injuries. In Athens, serious injuries were the most likely outcome of a VRU crash, at roughly 27 percent (9 percent fatal). The percentage for serious injuries exceeds other urban areas in the state by over 10 percent (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.



FIGURE 13: CRASHES INVOLVING VULNERABLE ROAD USERS

#### <sup>1</sup> TDOT, Tennessee VRU Safety Assessment, 2023

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

#### Identifying a High Injury Network

A High-Injury Network (HIN) was developed to identify the routes with the most fatal and serious injury crashes in the City of Athens. A HIN is a collection of corridors where a disproportionate number of these crashes occur, as well as corridors that may pose higher risks 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 Athens.

#### Methodology

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The HIN was identified by first evaluating segments along the City of Athens roadway network with the highest reported crash rates during the study period (2019-2023) using TDOT's AASHTOWare Safety Network Screening platform. Twenty-three high-crash-rate segments were identified at logical termini (i.e., municipal boundary, road name changes, or roadway characteristics such as number of lanes). **Figure 14** shows the HIN identified in the table.



FIGURE 14: HIGH INJURY NETWORK



# **Demographics and Community Characteristics Considerations**



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## Demographics and Community Characteristics Considerations

Demographics and community characteristics considerations are integral to addressing the needs of disadvantaged communities or vulnerable populations. Three measures of community characteristics were utilized in the City of Athens SAP process: the Centers for Disease Control (CDC) Social Vulnerability Index, Area of Persistent Poverty designation, and Historically Disadvantaged Community 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 or High Vulnerability groups were considered tracts of concern in the Athens 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 McMinn County.

The City of Athens SAP considered these three measures in developing project implementation prioritization as these geographic areas are representative of demographic and community characteristic concerns. **Figure 15** describes the demographics of Athens, while Figures 16-18 show areas of community characteristic consideration. Disadvantaged communities and vulnerable populations in the City of Athens generally follows Decatur Pike and Congress Parkway or are in the center of the City.

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





#### FIGURE 15: DEMOGRAPHICS OF ATHENS

#### Social Vulnerability Index

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The Centers for Disease Control and Prevention (CDC) developed the Social Vulnerability Index (SVI)<sup>2</sup> tool that considers four overall categories of vulnerability: Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, and Housing Type & Transportation. Between these four 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 70 KA crashes occurring in Athens, 45 crashes were found to have occurred in areas of high social vulnerability. These numbers represent approximately 65 percent of all total fatalities or suspected serious injury crashes within the City for the period between 2019 and 2023.



FIGURE 16: SOCIAL VULNERABILITY INDEX MAP

<sup>2</sup> CDC/ATSDR SVI, https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

#### Areas of Persistent Poverty

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Of the 2,725 crashes occurring in Athens, 1,905 were found to have occurred in areas of persistent poverty, with 45 resulting in a fatality or suspected serious injury. These numbers represent approximately 65 percent of all total fatalities or suspected serious injury crashes within the City for the period between 2019 and 2023.



FIGURE 17: AREAS OF PERSISTENT POVERTY MAP

#### Historically Disadvantaged Communities

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The Climate and Economic Justice Screening Tool highlights disadvantaged census tracts nationwide. A community is considered disadvantaged if it is located within a census tract that meets the threshold for one or more environmental, climate, or other burdens, and at least two associated socioeconomic burdens. Of the 2,725 crashes that took place in Athens during the study period, 1,399 occurred in areas determined by the USDOT to be labeled as a Historically Disadvantaged Community, with 28 resulting in a fatality or suspected serious injury. Those numbers represent approximately 40 percent of all total fatalities or suspected serious injury crashes within the City, for the period between 2019 and 2023.



FIGURE 18: HISTORICALLY DISADVANTAGED COMMUNITIES MAP



# **Engagement and Collaboration**



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## **Engagement and Collaboration**

#### Introduction

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Public Outreach and Engagement plays a crucial role in collecting valuable insight into what community residents encounter daily while travelling routes in the study area, whether it is by car, bike, foot or bus. During the study, 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 was intended to capture feedback from all residents, especially those that are traditionally underserved population.

Following the kick-off meeting in July 2024, the following engagement schedule was utilized:



FIGURE 19: ENGAGEMENT AND COLLABORATION SCHEDULE

#### Formation of a Steering Committee (Planning Structure)

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 Athens. 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.

#### **Project Website**

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To facilitate the dissemination of crash related information as well as to provide a portal for input and information gathering from community stakeholders, a project specific website was created, <u>http://safestreetsathens.com</u>. Within the website, users could find information on what a Safety Action Plan is, how it can benefit the community, and how they can participate by providing input. This site yielded 736 individual page views.



## Safe Streets Athens

Enhancing Roadway Safety in Athens, TN: A Comprehensive Plan for All Users Prioritizing Improvements for Vehicles, Bicyclists, and Pedestrians, Bike Lanes, Crosswalks, and Sidewalks.

FIGURE 20: CITY OF ATHENS SAP WEBSITE

#### Public Outreach

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In September and October of 2024, members of the team attended the Run to the Table 5k Race and Pumpkintown Festival to inform residents about the new Safety Action Plan aimed at enhancing local safety

measures. At both events, our team provided detailed information on the plan's objectives and implementation strategies. 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. These initiatives were a collaborative effort to create a safer environment for all Athens residents through proactive public involvement, which



overlapped with areas of persistent poverty and a high social vulnerability index.

#### Public Engagement Process (Online Engagement)

Public notification of the on-line survey and interactive map was 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.

#### **Online Survey**

In addition to providing a broad range of safety information, the website hosted two key participation avenues. The first was an on-line survey that focused on user demographics and concerns. A total of 124 participants completed the on-line 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 below.

Visibility Concern Adjust Speed Limits Bicycle/Ped Coossings Davement Marking/Signage Roadway Design Safety Traffic Stop Sign Violations Multioned Information Reckless Driving Pavement Repairs Speeding Law Enforcement

FIGURE 21: ONLINE SURVEY INPUT BY IMPROVEMENT CATEGORY



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FIGURE 22: ONLINE SURVEY IMPROVEMENT-RELATED PUBLIC COMMENTS

Multimodal infrastructure and safer crossings were mentioned frequently along with desires for traffic enforcement. Additionally, people were concerned about speeding. The data gathered from the on-line 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.

#### Interactive Map

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



FIGURE 23: RESULTS FROM INTERACTIVE MAP

This map provided 10 separate comments or replies to comments in the categories of pedestrian, near crash, mobility, driver, and bicyclist. Individual comments were analyzed and placed in descriptive categories for review by the Steering Committee as part of their considerations in project ranking. Below, a word cloud summarized many of the comments received via the interactive map.

# Pavement Repairs Traffic Roadway Design Pavement Marking/Signage Lack of Infrastructure Lane Adjustments

Safety Bicycle/Ped Crossing

FIGURE 24: INTERACTIVE MAP INPUT BY IMPROVEMENT CATEGORY



FIGURE 25: INTERACTIVE MAP IMPROVEMENT-RELATED PUBLIC COMMENTS

#### Public Outreach and Engagement Summary

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Throughout the course of this study, thousands of community members were reached across a variety of events and platforms as described above. This resulted in a robust response with 736 pageviews being logged on the project website. Additional engagement metrics are shown below.



#### FIGURE 26: ENGAGEMENT AND COLLABORATION SUMMARY

The online survey was designed to gather feedback from people in Athens about safety issues or concerns they may have. The survey asked a series of questions to understand trends, concerns, and improvements that the public would like to see. The first few questions were about the respondents' relationship to the area and how they usually get around. Then, the survey asked about specific improvements for driving, walking/biking, and intersections. Finally, there were optional questions about the respondents' demographics. The goal of the survey was to gather a wide range of perspectives and suggestions to help improve safety in Athens.
At the beginning of the survey, members were asked what their relationship to Athens was, whether they live or work in the area. 94 percent of all respondents live or work either in or within one mile of Athens, further validating that their experiences are focused on areas within the City.



In the response to one question, people provided information on how they travel to Athens. They were allowed to select all modes of travel that apply to them. Most respondents travel alone by car (120 responses). Some people walk (26 responses) and carpool (15 responses).



### How do you Travel to Athens?

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For people that walk or bike in Athens, they were asked to select what destination they are going to. The top two responses were that they either walk or bike for leisure or exercise (73 responses) or do so to get to a park or nature space (42 responses).



Respondents were also asked how strongly they agree that Athens streets are safe. About 38 percent of respondents felt that Athens streets were safe. Around 37 percent respondents disagree however, indicating that they feel unsafe on the streets in Athens.



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Respondents were asked to select up to three improvements that would make driving in Athens feel safer. The top three responses were improved pavement conditions (55 responses), improved pavement markings (39 responses), and improved lighting (34 responses).





Respondents selected up to three improvements that may make walking/biking feel safer in Athens. The top three were new sidewalk/crosswalk/bike connections (64 responses), improved sidewalks (58 responses), and improved crosswalks (39 responses).



### Improvements to make walking/biking safer

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Respondents then selected up to three improvements that would make intersections feel safer. Signal timings and visibility improvements (68 responses) received the highest count followed by dedicated turn lanes (49 responses) and improved pavement markings (32 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 (48 responses) then crossing locations (39 responses) and speeding (38 responses), which indicate a desire for enforcement and pedestrian improvements.



### Most Important Roadway Safety Issues

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The next question then asked the preferred way people want to learn about safe roadway practices. The most common response was social media (77 responses). The second and third highest were City email communications (58 responses) and by website (47 responses), both of which were significant, indicating a broad communication approach would best serve the City.



### How would you prefer to learn about safe roadway practices?

### **Key Demographics**

The survey concluded with asking demographic questions that members could choose to answer. Responses were representative of the community makeup.





- Black or African American
- Asian or Asian American
- American Indian or Alaska Native
- Other (please specify)
- White



## Number of Vehicles in the Household



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### Summary of Survey Results

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The survey results reveal that a significant number of respondents reside and work in Athens, primarily relying on driving alone for their transportation needs. Respondents reported mostly biking or walking for leisure purposes. Though many participants felt that Athens 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 highlighted that the most prominent roadway issue in Athens is reckless driving and roadway design. Concerns were expressed about lane configurations and pavement markings. Additionally, respondents indicated a preference for accessing safety information through social media platforms, City email communications, or the website.

### **Public Input Heat Map**

Combining the input provided in Public Coordinate with the location-specific comments from the survey, a heat map is shown below. As illustrated in the map, 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 Five Point Intersection received the largest number of public comments, highlighting the need for improvements in this area near Downtown Athens. **Figure 27** shows the concentration of public input comments within the City. The map also features polygons representing Areas of Persistent Poverty (APP), regions with a high Social Vulnerability Index (SVI), and Historically Disadvantaged Communities (HDC). The heat map highlights that multiple comments have been made within these regions. Notably, the areas where all three underserved indicators—APP, high SVI, and HDC—converge show a concentration of comments, highlighting the community's needs and concerns.



FIGURE 27: CONCENTRATION OF LOCATION SPECIFIC PUBLIC COMMENTS

### Key Takeaways

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Based on the survey responses, concerns about lane configuration were prominent, with a balanced number of respondents viewing Athens as safe. Safety problems identified include reckless driving, speeding, and dangerous crossing locations. Participants highlighted the need for improvements in pavement conditions, markings, and lighting. There is a strong demand for new multimodal infrastructure, as well as enhancements to existing sidewalks and crossings. Signal timings and visibility, along with turn lanes, also require attention. These insights 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**



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### Strategies

The SAP identifies countermeasures and strategies addressing the City's fatal/suspected serious injury emphasis areas mentioned in the Safety Analysis Section. The countermeasures are classified into two categories: (1) Engineering Countermeasures (project recommendations) and (2) driver related countermeasures (Education, Enforcement, and Emergency Medical Services).

### **Engineering Countermeasures**

Engineering Countermeasures in a Safety Action Plan refer to specific physical changes or improvements made to the roadway environment to enhance safety and reduce the likelihood of crashes. These measures can include:

- **Traffic signal upgrades**: Installing or improving traffic signals to better manage traffic flow and reduce collisions.
- **Roadway design changes:** Modifying road layouts, such as adding roundabouts, medians, or bike lanes, to improve safety for all users.
- **Pedestrian and cyclist infrastructure**: Enhancing crosswalks, sidewalks, and bike paths to protect non-motorized road users.
- **Speed management**: Implementing measures like road diets, bulb-outs, chicanes, or road narrowing to control vehicle speeds.
- **Visibility improvements**: Increasing street lighting, adding reflective signs, and improving road markings to enhance visibility for drivers.

These countermeasures are designed based on data analysis and safety studies to address specific risks and improve overall road safety

### Crash Modification Factors (CMF)

Because funding for infrastructure improvements is limited, the City of Athens can benefit from a way to quantify and compare the potential benefit of safety countermeasures and treatments. 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. The FHWA maintains the CMF Clearinghouse, an online repository of CMFs documented in the Highway Safety Manual (HSM) and other industry resources. The following provides guidance to 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 (<u>https://www.cmfclearinghouse.org/</u>).
- 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. However, the application of multiple CMFs can overestimate the expected crash reduction. It is recommended to use no more than three (3) independent CMFs at a particular site.

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### 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, crash modification factor (where available), and the order of magnitude cost for their implementation.

Source	Countermeasure	Cost
	Improve Corridor Access Management	\$\$\$
	Clear Obstacles in Driver Sight Triangles	\$
	Install Backplates w/ Retroreflective Borders	\$
	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	\$\$\$
	Wider Edge Lines	\$
	Install Raised Pavement Markers	\$
	Install Side Path/Sidewalks	\$\$
	Install Crosswalk	\$
	Rectangular Rapid Flashing Beacon (RRFB)	\$
	Optimize Signal Timings & Cycle	\$
	Eliminate Negative offset Left-Turns	\$\$\$
	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	\$
	Upgrade Signage and Pavement Marking	\$
	Implement Various Pavement Friction Applications	\$
	Convert 5-Section Signal Heads to FYAs (Flashing Yellow Arrow)	\$
	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	\$\$\$
	Restricted Crossing U-Turn (RCUT)	\$
	Rail Pre-Emption Improvements	\$\$\$\$
	Improve At-Grade Crossing Equipment & System	\$\$\$\$
	Install Curve Feedback Warning Signs	\$
	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	\$
	Install Advanced Warning Signage ahead of Stop-Controlled Intersection	\$
	Conduct ICE (Intersection Control Evaluation) Study	\$\$
	Implement Roadway Diet / Reconfiguration	\$\$\$
	Install High-Emphasis Crosswalks	\$
	Restrict Left-Turn Movements	\$\$
	Convert Approach to Right-In Right-Out (RIRO)	\$\$
	Install Red-Light Flashing Beacons	\$

### TABLE 8: ATHENS COUNTERMEASURES TOOLBOX

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

### **Driver-Related Countermeasures**

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

### **Unrestrained Occupants**

Unrestrained Occupants refer to individuals in a vehicle who are not using seat belts or other safety restraints at the time of a crash. This term typically includes drivers and passengers who are not wearing seat belts, as well as children who are not properly secured in car seats or booster seats. As shown earlier in the Safety Analysis Section, 31.4 percent (22 crashes) of all fatal and serious injury crashes between 2019 and 2023 in the City of Athens involved unrestrained occupants as a contributing factor. This is 12.4 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:

Countermeasure	Strategy
Conduct High-Visibility Enforcement	Continue to collaborate with Athen'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 Bucke 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.

### TABLE 9: UNRESTRAINED OCCUPANTS COUNTERMEASURES

### Older Drivers (65+)

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Older Drivers refers to drivers aged 65 and older. This group is often considered due to age-related changes in vision, physical fitness, and cognitive abilities, which can affect driving performance and increase crash risk. As shown earlier in the Safety Analysis Section, 24.3 percent (17 crashes) of all fatal and serious injury crashes between 2019 and 2023 in the City of Athens involved older drivers. This is 4.8 percent higher than the TN State Average of 19.5 percent. The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes involving older drivers:

Countermeasure	Strategy
License Renewal Process	Support the pursuit 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 Southeast Tennessee Human Resource Agency (SETHRA) Transit System, and other ride-share options and increase awareness of public and private transportation alternatives to driving.

### TABLE 10: OLDER DRIVERS (65+) COUNTERMEASURES

### **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 the Safety Analysis Section, 17.1 percent (12 crashes) of all fatal and serious injury crashes between 2019 and 2023 in the City of Athens involved impaired drivers. This is 1.3 percent higher than the TN State Average of 15.8 percent. The following are recommended strategies that should be implemented to reduce fatal and serious injury crashes involving impaired drivers:

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.

### TABLE 11: IMPAIRED DRIVERS COUNTERMEASURES

### **Aggressive Drivers**

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 17 percent (12 crashes) of all fatal and serious injury crashes between 2019 and 2023 in Athens involved aggressive drivers and/or speeding. This is 5 percent higher than the TN 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 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.

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# **Policy and Process Changes**



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# Policy and Process Changes

### **Documents Reviewed**

Existing City's plans and policies were reviewed and compiled as a part of the SAP process to gain perspective on the existing efforts for transportation-related improvements within Athens. 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 Athens.

### TABLE 13: EXISTING PLANS SUMMARY

Document	Summary/Goals
Athens Municipal Code - Titles 15 and 16	<ul> <li>Title 15 of the Athens Municipal Code established standards for Motor Vehicles, Traffic, and Parking and includes chapters on emergency vehicles, speed limits, turning movements, stopping and yielding, parking, bicycles and motor driven cycles, and enforcement</li> <li>Title 16 of the Athens Municipal Code, titled Streets and Sidewalks, includes guidelines on streets, sidewalks and excavations</li> </ul>
City of Athens Traffic Signal Specifications	• The Traffic Signal Specifications outline the installation procedures for traffic signal components, specify the appropriate TDOT Standard Specifications to follow, and, in some cases, recommend specific models and materials to use
New Structure Application Packet	<ul> <li>Managed by the Community Development and Buildings Inspections Department, the packet includes all forms, guidelines, and requirements for submitting plans for new buildings or additions to existing structures</li> <li>Includes the driveway permit</li> </ul>
City of Athens ADA Self Evaluation and Transition Plan	<ul> <li>Acting as an update to the 1994 plan, the ADA Self-Evaluation and Transition Plan outlined the reevaluation of Athens's activities, provided policy and program recommendations, and updated the Transition Plan for modifying facilities, public rights-of-way, and programs to ensure accessibility.</li> <li>This document gave necessary modifications and demonstrated the City's ongoing commitment to inclusive policies, programs, and facilities.</li> </ul>
City of Athens Signal Timing and Operations Study, 2019	<ul> <li>The City of Athens conducted a Signal Timing and Operations Study in 2019 that was funded with State Planning and research dollars from USDOT FHWA, specifically the Community Transportation Planning Grant</li> <li>The improved signal timings were implemented, and a list of pedestrian safety improvements was made</li> </ul>
McMinn County, Tennessee ADA and Self-Evaluation and Transition Plan, 2019	<ul> <li>The McMinn County, Tennessee ADA Self-Evaluation &amp; Transition Plan document outlines the process used to assess McMinn County's activities and offers recommendations for policies and programs</li> <li>It includes an update to the Transition Plan for modifying facilities, public rights-of-way, and programs to ensure accessibility</li> </ul>

Athens City Schools Traffic Impact Study (2017) and Update (2020)	<ul> <li>In 2017, Athens City School conducted a Traffic Impact Study to assess traffic impact changes from the opening of a new preK-5 school, expanding a middle school, and possibly closing a road</li> <li>The assessment provided two options with recommended high-cost and low-cost projects to mitigate the additional trips generated. A preferred site plan alternative was not selected</li> <li>In 2020, an update to the traffic study was completed to assess new traffic impacts from recent site changes. The two alternatives were studied and another alternative was identified that combined the original alternatives 1 and 2</li> </ul>				
Athens Experience Masterplan: the Friendly City, 2020	<ul> <li>The Athens Experience Masterplan combined community-led placemaking and branding to inform downtown Athen's spatial planning and future development, attract investment, create a visual brand identity to promote the Friendly City</li> <li>The masterplan is organized into four sections, The Friendly City Brand, Friendly City Wayfinding, Streetscape Improvements, Facade Improvements and Infill Design</li> </ul>				
Comprehensive 20-Year Land Use Plan, 2020	<ul> <li>The Athens Comprehensive Land Use Plan Update, adopted in 2020, provides the long-term vision for the residential, business, and institutional elements of the city</li> <li>The comprehensive plan aims to preserve existing zoning through an updated Land Use Plan, assess necessary resources for future population growth, protect historic assets, enhance trail and greenway connectivity, coordinate housing studies to improve housing diversity, and evaluate land use to support industrial development in Athens</li> </ul>				
City of Athens Community Mobility Plan, 2021	<ul> <li>The City of Athens Community Mobility Plan was created through the TDOT's Community Transportation Planning Grant (CTPG) to identify deficiencies and opportunities in the city's current transportation network and provide recommendations and improvements to be implemented</li> <li>The Community Mobility Plan aims to extend the friendly city to all users, make Athens more of a destination, support economic growth &amp; development, connect Athens to its region and state, and ensure equitable access to Athens' resources &amp; amenities</li> <li>The plan provides recommended improvements for each identified focus area, connecting each recommendation back to the goal it seeks to achieve</li> </ul>				
ATHENS Bike & Pedestrian Master Plan 2023	<ul> <li>The ATHENS Bike and Pedestrian Master Plan, adopted in 2023, was created from a recommendation in the city's Community Mobility Plan to plan for non-motorized transportation needs and uses</li> <li>The plan prioritizes important corridors for biking and walking, recommends improvements to create safe street and crossings, and identifies needed policy and ordinance updates to support walking and biking in the city</li> <li>The plan adopts the same overarching goals as the Community Mobility Plan but identifies objectives specific to improving the pedestrian and bicycle facility network in the city</li> </ul>				

### **Plan Checklist**

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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, and a Comprehensive 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 Athens.

Checklist	Plan	Corresponding City of Athens Plan			
	Complete Street Policy Guidelines	City of Athens Community Mobility Plan, 2021			
	ADA Transition Plan	City of Athens, Tennessee ADA Self- Evaluation & Transition Plan			
	Multi-Modal Plan	City of Athens Community Mobility Plan, 2021 ATHENS Bike & Pedestrian Master Plan 2023			
0	Traffic Impact Study Guidelines (with Safety)				
	Comprehensive Plan	Comprehensive 20-Year Land Use Plan, 2020			
0	Pavement Management Plan				
	Driveway Permit Policy	New Structure Application Packet			
	Standard Street and Sidewalk Design Specifications				
	Subdivision Regulations				
= Has F	Plan = Mentioned in Other Plans	= Does Not Have Plan			

### TABLE 14. ALIGNMENT OF SAFETY ROADMAP WITH EXISTING PLAN

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### Recommendations

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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 serious and fatal injuries within the City. The top three emphasis areas identified were roadway intersections, accounting for 44 percent of total serious and fatal injury crashes, followed by unrestrained occupants at 31 percent, and senior drivers (65+) at 24 percent. The recommendations listed below aim to address these areas and create a safer place for all roadway users.

Action	Timeframe	Lead
Integrate safety policy into all existing documents	Short-Term	Public Works Department and City Planning 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	Athens Police Department
<ul> <li>Create a "Safety Champion" position/role within the City to organize educational campaigns/ provide information through community outreach.</li> <li>Topics include: driving behavior, speed awareness, seatbelt usage, safe practices, for bicyclists and pedestrians</li> <li>Celebrate projects that improve safety and positive movements toward the City's Safety Action Plan's goal annually.</li> <li>Create increased awareness withing agency departments</li> </ul>	Short-Term	City Manager'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 District
Partner with existing organizations that promote VRU safety.	Short-Term	City Planning Department and Public Works Department
Review complete street policies regarding meeting the needs of the emergency responders.	Short-Term	City Planning Department and Emergency Services
Update Municipal Codes Titles 15 and 16 (specify requirement for new development to include sidewalks)	Short-Term	Legal Department
Implement a speed management program and traffic calming program	Mid-Term	Public Works Department
Prepare a Complete Streets Policy and Multi-Modal Plan to prioritize design and construction of projects for future funding allocations, in combination with multi-modal plan.	Mid-Term	City Planning Department

### TABLE 15: RECOMMENDED POLICY AND PROCESS CHANGES

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	City Planning Department
Reprioritize future projects that achieve safety goals for future funding allocations.	Mid-Term	City Planning Department
Implement streetscaping techniques to reduce distracted driving.	Mid-Term	City Planning Department
Develop an Access Control Plan	Mid-Term	City Planning Department
Incorporate proposed safety projects from this plan into future developments and transportation projects	Long-Term	City Planning Department
Implement the use of ITS technologies as appropriate. Develop and ITS Master Plan and identify system upgrades such as TMC, etc.	Long-Term	Public Works Department
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	City Planning 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	City Planning Department and Community Development Office
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	Athens Police Department



# **Project Selections**



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## **Project Selections**

### Prioritization

After the review and validation of the HIN by the Steering Committee, ranking weight was determined for each of the following variable to be used for the project prioritization:

- The number of fatal and serious injury crashes along the segment (35%).
- The number of pedestrian/bicycle crashes along the segment (25%).
- The segment crash rate expressed in crashes per million vehicle miles traveled per day (25%).
- Demographics and community characteristics 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. The results indicate that Decatur Pike between the City Limits and Regional Park Drive was the TDOT-owned roadway with the highest score, while Dennis Street between West Madison Avenue and Decatur Pike was the highest-scoring local roadway.

### **Recommended Projects**

Following the initial assessment, a list of high-scoring city-maintained and State Route roadway segments and intersections was reviewed with City staff. Locations with known programmed capital improvements were removed from the list and replaced with subsequent high-ranking locations. City staff provided feedback on the highest-scoring segments and intersections to identify six (6) road segments that would be candidates for engineering improvements. The six (6) recommended locations are shown in **Figure 28** and listed below:

- Decatur Pike from west of Dennis Street to Dupit Street
- Old Riceville Road from West Madison Avenue to Decatur Pike
- Green Street from Decatur Pike to South White Street
- Congress Parkway from Decatur Pike to Railroad Avenue
- Dennis Street from West Madison Avenue to Decatur Pike
- Congress Parkway from Railroad Avenue to Dollar General Parking Lot



20

FIGURE 28: RECOMMENDED CORRIDORS FOR EARLY PROJECT IMPLEMENTATION

### **Recommended Project Fact Sheets**

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Following the selection of the top 6 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 six 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 priority project location for ease of reference in future funding and project programming opportunities.



# **Progress and Transparency**



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### Progress and Transparency

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The City of Athens SAP recommends a set of actions that will support the successful implementation and monitoring of the recommended projects and strategies.

### Task Force Implementation and Monitoring

It is recommended that a subset of the Steering Committee reconvene in the future as an Athens Safety Task Force to direct the SAP implementation, monitoring, and future progress. The Task Force can consist of Public Works staff, other City of Athens departments, Athens Police Department, other local emergency service providers, key McMinn County staff, key TDOT staff, other adjacent communities, and other stakeholders as needed. It is recommended that this group convene annually after the adoption of the Athens SAP to review the latest available crash data trends, engineering project completion progress, and driver-related strategy performance measures. The Task Force will discuss opportunities to build upon the plan to address any changing crash trends alongside community needs, new technologies, and additional resources available to assist in implementation.

### Public Posting of the Athens SAP

Upon completion and adoption, this plan will be made public on a dedicated project website and the City's website. It is recommended the project website be maintained to update the public with new crash data trends and the implementation status of accomplishments.



Home About Get Involved Safety Dashboard

Safe Streets Athens Enhancing Roadway Safety in Athens, TN: A Comprehensive Plan for All Jeers Prioritizing Improvements for Vehiclos, Bicyclists, and Pedestrians. Billic Lanes, Crosswalka, and Sidewalks.

FIGURE 29: ATHENS SAP WEBSITE

# Streets Athens

APPENDIX A

### A RESOLUTION ADOPTING THE CITY OF ATHENS SAFETY ACTION PLAN AND ITS SAFETY TARGETS

WHEREAS, there were 2,725 crashes reported within the city limits of Athens from 2019 to 2023; and

WHEREAS, 6 people lost their lives in crash-related deaths on Athens roadways in the five-year period; and

**WHEREAS**, there were 64 people with suspected serious injuries caused from crashes on Athens roadways in the five-year period; and

WHEREAS, the City of Athens is committed to the goal of significantly reducing and ultimately eliminating roadway fatalities and serious injuries on roadways within the City's police jurisdiction.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Athens, Tennessee, as follows:

That the City adopts an interim target of reducing fatal and serious injury crash rates expressed in crashes per 100 million vehicle miles travel by twenty (20) percent by the year 2035; and

**BE IT FURTHER RESOLVED** that the City adopts this Safety Action Plan, of the Safe Streets and Roads for All initiative, to serve as a guiding document for the City as it work toward achieving its safety performance goals.

ON MOTION BY	Vice Mayor Curtis	,
SECONDED BY	Councilmember Duggen	,

said Resolution was approved by roll call vote on the 18<sup>th</sup> day of March 2025.

ATTEST:

Randall Dowling, City Manager

Larry Eaton, Mayor

APPROVED AS TO FORM:

Christopher M. Caldwell, City Attorney

# Streets Athens

APPENDIX B

### High Injury Network Prioritization Summary

HIN ID	Road Name	From	То	Length, miles	Ownership	AADT	Demographics & Community Characteristics	Crash Rate	KA Crashes	VRU Crash	Score (100 Max)
1	Decatur Pk (1)	City Limit	Regional Park Dr	1.34	TN	40,000	2	0.09	1.00	1.0	77
5	Congress Pkwy (2)	Decatur Pk	Railroad Ave	1.49	US	15,000	2	0.25	0.89	0.3	61
13	Dennis St	W Madison Ave	Decatur Pk	1.36	Municipal	5,000	2	0.73	0.67	0.0	57
2	Decatur Pk (2)	W of Dennis St	Dupit St	0.73	TN	50,000	2	0.17	0.78	0.3	55
16	Old Riceville Rd	W Madison Ave	Decatur Pk	0.85	Municipal	1,200	2	1.00	0.11	0.3	52
11	Green St	Decatur Pk	S White St	0.84	TN	40,000	1	0.14	0.33	1.0	48
6	Congress Pkwy (3)	Railroad Ave	DG Parking Lot	1.39	US	10,000	1	0.24	0.67	0.3	45
8	W Madison Ave (2)	Dennis St	Cook Dr	0.86	TN	6,000	2	0.62	0.33	0.0	42
10	Ingleside Ave	Tellico Ave	Congress Pkwy	1.20	TN	12,000	1	0.23	0.78	0.0	41
14	N Jackson St	Tellico Ave	Green St	0.59	Municipal	1,000	2	1.00	0.00	0.0	40
19	Tellico Ave	N Jackson St	Astrid St	0.22	Municipal	1,200	2	1.00	0.00	0.0	40
23	Railroad Ave	Royal Ave	Tellico Ave	0.30	Municipal	2,000	2	1.00	0.00	0.0	40
9	W Madison Ave (1)	Cook Dr	N White St	0.98	TN	7,000	2	0.32	0.44	0.0	39
22	Washington Ave	Green St	W Madison Ave	0.53	Municipal	5,000	2	0.75	0.11	0.0	38
18	TN SR-307	Forest Ave	Knox Park	0.15	TN	5,000	1	0.26	0.33	0.3	34
7	S White St	Green St	Ervin St	1.09	TN	45,000	0	0.05	0.33	0.7	30
15	S Jackson St	Wayne Rd	Ervin St	0.51	Municipal	1,200	0	1.00	0.11	0.0	29
3	Decatur Pk (3)	Maple St	Howard St	0.62	TN	40,000	2	0.08	0.33	0.0	29
20	Denso Dr (1)	Private Brand Way	Decatur Pk	0.35	Municipal	5,000	0	0.51	0.33	0.0	24
4	Congress Pkwy (1)	City Limit	Dennis St	0.68	US	15,000	2	0.21	0.11	0.0	24
17	Hammer Hill Rd	Anton St	Jenkins Rd	0.80	Municipal	1,000	1	0.22	0.22	0.0	21
12	John Duncan Pkwy	CR 249	Holiday Inn Dr	0.42	TN	9,000	1	0.09	0.11	0.0	14
21	Denso Dr (2)	City Limit	City Limit (from Out)	0.70	Municipal	1,000	0	0.19	0.22	0.0	12

# Streets Athens

APPENDIX C

### Safe Streets Athens Congress Parkway from Decatur Pike to Railroad Avenue



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eed Limit	45 mph
nes	4
nicle/Day	15,000
al Crashes	260
l Intersections	1

### Characteristics

This segment is a Two-Way roadway, divided by a grass median, with a straight alignment and minor grade. Sidewalks are not present on this portion of Congress Parkway.



Along Congress Parkway, Facing Southeast, Near Garden Drive





# **Overall Ranking: 2**

# Ranking Index



# **Community Input**

- The intersections at Decatur Pike, Velma Road, and ALDI driveway are concerning.
- Improved traffic signal crossings are desired.

# Congress Parkway from Decatur Pike to Railroad Avenue

# **Recommended Countermeasures**

ID	Countermeasure	Cost	Schedule	Project Readiness
2.1	Improve Corridor Access Management	\$\$\$	Long-Term	
2.2	Clear Obstacles in Driver Sight Triangles	\$	Short-Term	Ready
2.3	Install Backplates w/ Retroreflective Borders	\$	Short-Term	Ready
2.4	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	\$\$\$	Long-Term	
2.5	Wider Edge Lines	\$	Short-Term	Ready
2.6	Install Raised Pavement Markers (Both Sides of Road)	\$	Short-Term	Ready
2.7	Install Side Path/Sidewalks	\$\$	Long-Term	
2.8	Install Crosswalk	\$	Short-Term	Ready
2.9	Rectangular Rapid Flashing Beacon (RRFB)	\$	Short-Term	Ready
2.10	Optimize Signal Timings & Cycle	\$	Short-Term	Ready
2.11	Eliminate Negative offset Left-Turns	\$\$\$	Long-Term	

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

FHWA Proven Safety Countermeasure

Safe Safe

**Crash Modification Factors** Countermeasure

Vulnerable Road User Related Countermeasure

Requires ROW Acquisition

**Requires Utility Relocation** 

# **Benefit Summary**

- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide a safer environment for those who rely on walking as their primary mode of transportation.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.
- Realigning left-turn lanes to eliminate negative offset improves sight lines for leftturning vehicles, allowing drivers to see oncoming traffic more clearly and make safer left-turn maneuvers.
- Signal timing improvements enhance safety by reducing intersection conflicts, preventing red-light running, ensuring pedestrian safety, smoothing traffic flow, and accommodating turning movements.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Backplates w/ 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.



# **Recommended Countermeasures**



# **Congress Parkway** from Decatur Pike to Railroad Avenue

# Dennis Street

from W Madison Avenue to Decatur Pike



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eed Limit	30 mph
ies	2
nicle/Day	5,000
al Crashes	227
I Intersections	2

# Characteristics

This segment is a two-way roadway, divided by a partial two-way left turn lane (TWLTL). The roadway follows a curved alignment with significant vertical curvature present. There are sidewalks present on a single side of this segment from Wal-Mart to Congress Parkway.



Along Dennis Street, Facing South, Near Bojangles' West Entrance



# **Overall Ranking: 3**

# Ranking Index



# Community Input

Ν

- The Dennis Street at Decautur Pike intersection is concerning.
- Improved traffic signal crossings are desired.

# Dennis Street from W Madison Avenue to Decatur Pike

# Recommended Countermeasures

ID	Countermeasure	Cost	Schedule	Project Readiness
3.1	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	\$	Short-Term	Ready
3.2	Wider Edge Lines	\$	Short-Term	Ready
3.3	Optimize Signal Timings & Phasing Plans	\$	Short-Term	Ready
3.4	Install Backplates w/ Retroreflective Borders	\$	Short-Term	Ready
3.5	Upgrade Signage and Pavement Marking	\$	Short-Term	Ready
3.6	Implement Various Pavement Friction Applications	\$	Short-Term	Ready
3.7	Convert 5-Section Signal Heads to FYAs (Flashing Yellow Arrow)	\$	Short-Term	Ready
3.8	Improve Corridor Access Management	\$\$\$	Long-Term	
3.9	Optimize Signal Timings & Phasing Plans	\$	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

Vulnerable Road User Related Countermeasure

Requires ROW Acquisition

**Requires Utility Relocation** 

# **Benefit Summary**

- 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.
- Flashing yellow arrows at intersections reduce left-turn crashes, improve driver comprehension, enhance traffic flow, and increase safety for all road users.
- Realigning left-turn lanes to eliminate negative offset improves sight lines for leftturning vehicles, allowing drivers to see oncoming traffic more clearly and make safer left-turn maneuvers.
- Signal timing improvements enhance safety by reducing intersection conflicts, preventing red-light running, ensuring pedestrian safety, smoothing traffic flow, and accommodating turning movements.
- 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.



# **Recommended Countermeasures**



# **Dennis Street**

from W Madison Avenue to Decatur Pike

# Decatur Pike from W of Dennis Street to Dupit Street



State Route	
Speed Limit	35 mph
Lanes	4
Vehicles/Day	50,000
Total Crashes	277
HIN Intersections	2

# Characteristics

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This segment is a two-way roadway, split between being divided by a grass median and a two-way left-turn lane (TWLTL). This roadway follows a curved alignment, with a lightly rolling grade. There is minimal sidewalk coverage throughout this segment of Decatur Pike.



Along Decatur Pike, Facing West, Just West of Dupit Street



# **Overall Ranking: 4**

# Ranking Index



# **Community Input**

- Driveways to the Athens Plaza Shopping Center cause a multitude of issues, including congestion and multiple vehicle accidents.
- The intersection of Congress Parkway and Decatur Pike is a significant safety concern.



# Decatur Pike from W of Dennis Street to Dupit Street
Decatur Pike from W of Dennis Street to Dupit Street

## Recommended Countermeasures

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**Streets** 

Athens



ID	Countermeasure	Cost	Schedule	Project Readiness
4.1	Improve Corridor Access Management	\$\$\$	Long-Term	
4.2	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	\$\$\$	Long-Term	Ready
4.3	Install Backplates w/ Retroreflective Borders	\$	Short-Term	Ready
4.4	Optimize Signal Cycle & Timings	\$	Short-Term	Ready
4.5	Eliminate Negative Offset Left-Turns	\$\$	Long-Term	
4.6	Convert 5-Section Signal Heads to FYAs (Flashing Yellow Arrow)	\$	Short-Term	Ready
4.7	Optimize Signal Timings & Cycle Length	\$	Short-Term	Ready

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





## **Benefit Summary**

- 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.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Flashing yellow arrows at intersections reduce left-turn crashes, improve driver comprehension, enhance traffic flow, and increase safety for all road users.
- Signal timing improvements enhance safety by reducing intersection conflicts, preventing red-light running, ensuring pedestrian safety, smoothing traffic flow, and accommodating turning movements.
- Realigning left-turn lanes to eliminate negative offset improves sight lines for left-turning vehicles, allowing drivers to see oncoming traffic more clearly and make safer left-turn maneuvers.



#### Decatur Pike from W of Dennis Street to Dupit Street

Safe Streets Athens

#### Old Riceville Road from W Madison Avenue to Decatur Pike



#### Characteristics

This segment is a two-way, undivided roadway, with a curved alignment and rolling grade (3%). There are 5' sidewalks on one side of Old RIceville Road, spanning approximately 0.5 miles



Along Old Riceville Road, Facing Northeast, Just North of Rocky Mountain Road



# **Overall Ranking: 5**

## Ranking Index



## **Community Input**

Ν

 Safety Concerns at the intersections of Old Riceville Road at: Rocky Mountain Road W Madison Avenue



#### Old Riceville Road from W Madison Avenue to Decatur Pike

Old Riceville Road from W Madison Avenue to Decatur Pike

## Recommended Countermeasures

Safe

**Streets** 

Athens



ID	Countermeasure	Cost	Schedule	Project Readiness
5.1	Restricted Crossing U-Turn (RCUT)	\$	Short-Term	Ready
5.2	Rail Pre-Emption Improvements	\$\$\$\$	Long-Term	Ready
5.3	Improve At-Grade Crossing Equipment & System	\$\$\$\$	Long-Term	Ready
5.4	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	\$	Short-Term	Ready
5.5	Clear Obstacles in Driver Sight Triangles	\$	Short-Term	Ready
5.6	Wider Edge Lines	\$	Short-Term	Ready
5.7	Install Curve Feedback Warning Signs	\$	Short-Term	Ready
5.8	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	\$	Short-Term	Ready
5.9	Install Advanced Warning Signage ahead of Stop-Controlled Intersection	\$	Short-Term	Ready
5.10	Conduct ICE (Intersection Control Evaluation) Study	\$\$	Long-Term	

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





## **Benefit Summary**

- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These lowcost countermeasures provide a significant safety return on investment, improving safety without the need for expensive modifications.
- Curve warning signage alerts drivers about the upcoming curve, encouraging reduced speeds and more cautious driving. The feedback signage offers real-time feedback based on vehicle speeds, enhancing responsiveness and compliance with speed limits.
- Conducting an Intersection Control Evaluation (ICE) at ramps improves safety by identifying the safest and most cost-effective intersection designs, ensuring transparency, and considering innovative solutions.
- Wider edge lines enhance visibility, reduce roadway departures, lower crash rates, and support automated vehicle navigation.
- 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.



#### Old Riceville Road from W Madison Avenue to Decatur Pike

## Green Street from Decatur Pike to S White Street



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Streets

Athens

#### State Route

peed Limit	30 mph
·	
anes	4
ehicle/Day	40,000
otal Crashes	214
IIN Intersections	3

#### Characteristics

This segment is a two-way, undivided roadway , with a curved alignment and rolling grade (5%). There is approximately 60% of sidewalk presence along Green Street.



#### Along Green Street, Facing South, Just North of Ingleside Avenue/Washington Avenue





# **Overall Ranking: 6**

## **Ranking Index**



## **Community Input**

- Concerning intersections are Green Street at E Washington Avenue, E Madison Avenue, and Decatur Pike.
- Crosswalk in front of First Baptist Church has no time to cross without a green light in some direction.
- Green Street from Depot Hill to Madison is very tight. Pavement markers are faded and difficult to see at night.
- Left turn lanes at Ingleside Avenue and Madison Avenue from Decatur Pike are too short and narrow.



Streets Athens

**Green Street** from Decatur Pike to S White Street

## Recommended Countermeasures

ID	Countermeasure	Cost	Schedule	Project Readiness
6.1	Install Side Path/Sidewalks	\$\$\$	Long-Term	
6.2	Install Crosswalk	\$	Short-Term	Ready
6.3	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	\$\$\$	Long-Term	
6.4	Clear Obstacles in Driver Sight Triangles	\$	Short-Term	Ready
6.5	Install Backplates w/ Retroreflective Borders	\$	Short-Term	Ready
6.6	Implement Leading Pedestrian Intervals at Crosswalks	\$	Short-Term	Ready
6.7	Install Advanced Intersection Warning Signs	\$	Short-Term	Ready
6.8	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	\$	Short-Term	Ready
6.9	Implement Roadway Diet / Reconfiguration	\$\$\$	Long-Term	Ready
6.10	Install High-Emphasis Crosswalks at All Approaches	\$	Short-Term	Ready
6.11	Optimize Signal Timings & Phasing Plans	\$	Short-Term	Ready
6.12	Restrict Left-Turn Movements from Southbound S White Street	\$\$	Short-Term	Ready
6.13	Realign S White Street SB Approach to Smart-Chanellized Right-Turn	\$\$	Long-Term	Ready
6.14	Install a Bicycle Lane	\$\$	Short-Term	Ready
6.15	Install Signalized Crossings for Non-Motorists	\$\$	Long-Term	Ready
6.16	Install Rectangular Rapid Flashing Beacons (RRFBs)	\$	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

- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide a safer environment for those who rely on walking as their primary mode of transportation.
- 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 rearend and angle crashes at signalized intersections.
- 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.



#### **Recommended Countermeasures**



#### Green Street from Decatur Pike to S White Street

## **Congress Parkway**

from Railroad Avenue to Dollar General Parking Lot

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d Limit	45 mph			
S	4			
:le/Day	10,000			
Crashes	150			
ntersections	1			

#### Characteristics

This segment is a two-way roadway, divided by a grass median. The roadway follows a straight alignment with minor grade. Sidewalks are not present on this segment of Congress Parkway.



Along Congress Parkway, Facing Northeast, Just Southwest of AgCentral Co-Op Entrance





# **Overall Ranking: 7**

## Ranking Index



## **Community Input**

• The intersections of Congress Parkway at Mt Verd Road and Ingleside Avenue are concerning.



#### **Congress Parkway** from Railroad Avenue to Dollar General Parking Lot

## Recommended Countermeasures

ID	Countermeasure	Cost	Schedule	Project Readiness
7.1	Wider Edge Lines	\$	Short-Term	Ready
7.2	Install Raised Pavement Markers (Both Sides of Road)	\$	Short-Term	Ready
7.3	Improve Corridor Access Management	\$\$\$	Long-Term	
7.4	Clear Obstacles in Driver Sight Triangles	\$	Short-Term	Ready
7.5	Install Side Path/Sidewalks	\$\$\$	Long-Term	
7.6	Install Crosswalk	\$	Short-Term	Ready
7.7	Rectangular Rapid Flashing Beacon (RRFB)	\$	Short-Term	Ready
7.8	Convert Approach to Right-In Right-Out (RIRO)	\$\$	Short-Term	Ready
7.9	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	\$\$\$	Long-Term	
7.10	Install Red-Light Flashing Beacons	\$	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**

- Correcting a skew can improve sight lines and reduce blind spots, allowing drivers to see oncoming traffic more clearly and make safer crossing or turning decisions.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Wider edge lines enhance visibility, reduce roadway departures, lower crash rates, and support automated vehicle navigation.
- Raised pavement markers enhance visibility, provide better lane guidance, improve wet-night visibility, and help calm traffic.
- Countermeasures that successfully deter red-light running, such as the use of redlight cameras, signal timing adjustments, and targeted enforcement, can offer substantial safety benefits through the reduction in frequency and severity of crashes at signalized intersections.



#### **Recommended Countermeasures**



**Congress Parkway** from Railroad Avenue to Dollar General Parking Lot

# Safe Streets Athens

Athens, TN | Safe Streets and Roads for All