Sevier County Comprehensive Safety Action Plan

SEVIER COUNTY SS4A

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Prepared for
Sevier County, Tennessee

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1.0

Introduction

1.0 Introduction

What is SS4A?

Safe Streets and Roads for All (SS4A) is a federal program established as part of the Bipartisan Infrastructure Law (BIL) that funds initiatives to improve roadway safety. The program's goal is to reduce and eliminate fatal and serious injury crashes on our roadways.

What is a Safety Action Plan?

The goal of a Safety Action Plan is to develop a holistic, well-defined strategy to prevent roadway fatalities and serious injury crashes.

What is the Safe System Approach?

The Safety Action Plan is built around the Safe System Approach, a nationally recognized framework for addressing roadway safety. The Safe System Approach acknowledges that human mistakes are inevitable, but fatalities and serious injuries are not. By focusing on five interrelated elements—**Safer People, Safer Roads, Safer Speeds, Safer Vehicles, and Post-Crash Care**—the plan prioritizes systemic improvements that reduce crash severity and protect all roadway users. This framework moves beyond individual responsibility to create a transportation system that is forgiving of mistakes and designed to save lives.[3]

[1]USDOT- Safe Streets and Roads for All (SS4A) Grant Program
[2]USDOT- Comprehensive Safety Action Plans

1.1 Study Area

Sevier County has many unique characteristics that contribute to safety on its transportation network. Characterized by its mountainous terrain, seasonal traffic surges, and a sharp contrast between densely developed tourist areas and winding rural roadways, the county poses a distinctive set of challenges for roadway safety. Gatlinburg, Pigeon Forge, Pittman Center, and Sevierville are its four incorporated cities which are attractors for both tourism and local travel. These cities are mostly concentrated along the Great Smoky Mountains Parkway (US 441), the only major corridor through the Great Smoky Mountains National Park (GSMNP) and a critical connector for both regional mobility and national park access.

Sevier County is bordered by Knox County to the west and intersected by Interstate 40 on its north end, which serves as a regional feeder for National Park visitors and other tourists. The diverse mix of driving conditions and driver characteristics underscores the need for effective traffic control and roadway management.

> Great Smoky Mountains National Park is the most visited national park in the United States, averaging between 12.1 and 14.2 million visitors annually, during the study period.[4]

[3]USDOT- Principles of Safe System Approach
[4]National Park Service- Visitor Use Statistics

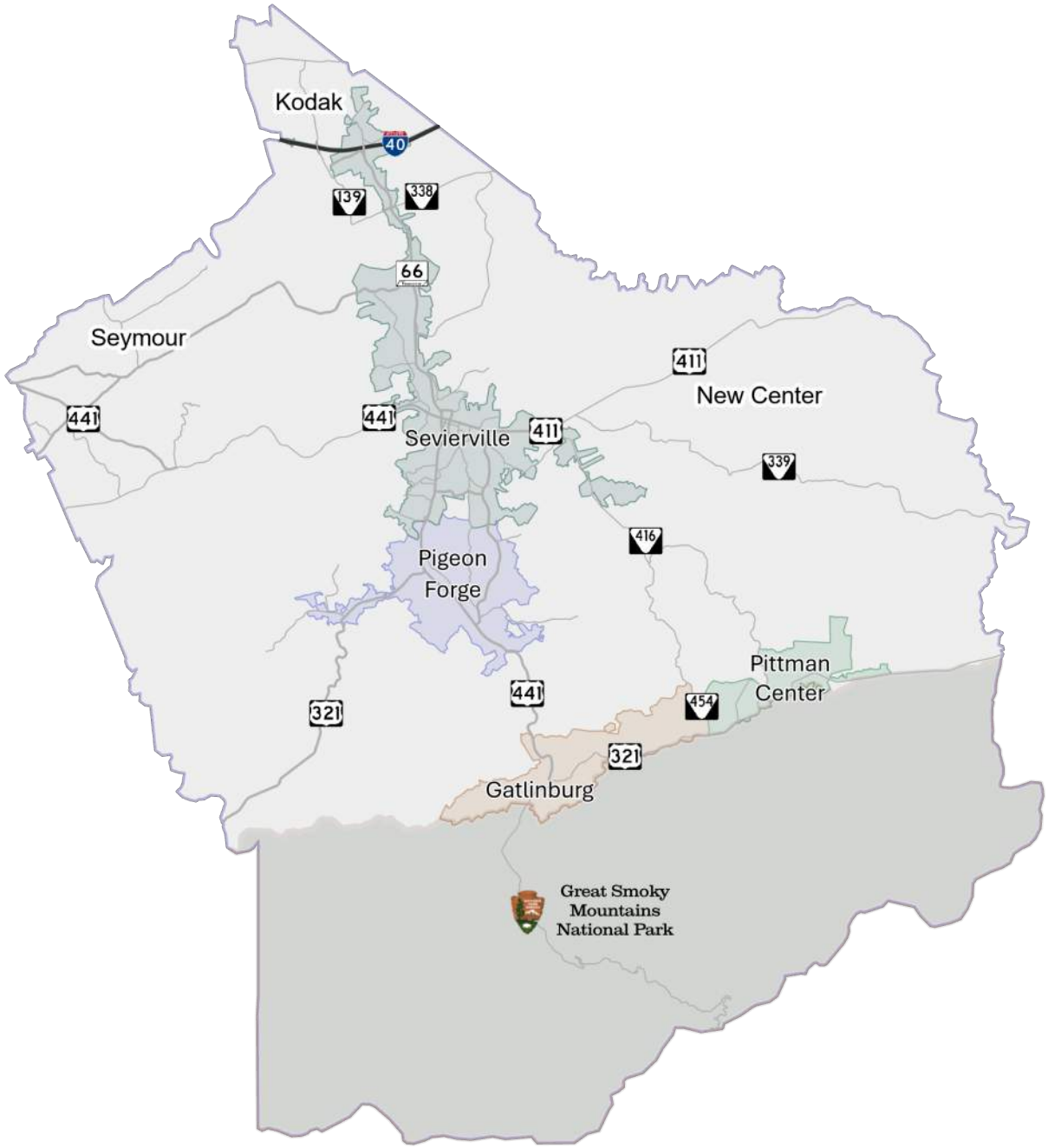
1.1.1 Sevier County

Sevier County's history reflects its shift from rural isolation to a key regional tourism and travel corridor. In the 19th century, movement relied on rugged wagon roads and river crossings. The short-lived Knoxville, Sevierville & Eastern Railway improved access in the early 1900s[5] but was replaced by road travel as automobiles became dominant.

The creation of Great Smoky Mountains National Park (GSMNP) in 1934 spurred major highway investment, particularly US 441, which became a vital north-south route linking Gatlinburg with Cherokee, North Carolina. Over time, US 411, US 321, and State Route 66 provided essential east-west and north-south links, improving access to surrounding counties and expanding tourism's reach.

Interstate 40, which passes along the northern edge of the county, serves as a primary regional connector, linking Knoxville to Asheville and beyond. Together, these routes form a critical network that supports both visitor access and regional commerce. Recent decades have focused on widening key corridors, developing bypasses like Veterans Boulevard, and expanding trolley systems to manage growing traffic demands from the county's robust tourism industry.

GSNMP constitutes approximately 33% of Sevier County's land area. Excluding GSMNP, 91% of land in Sevier County is unincorporated containing 87% of the residential land area and 64% of the county's commercial land. Despite this, the unincorporated county remains largely rural and low-density, with 60% of its area constituting, farms, agriculture uses, forest, or open space.

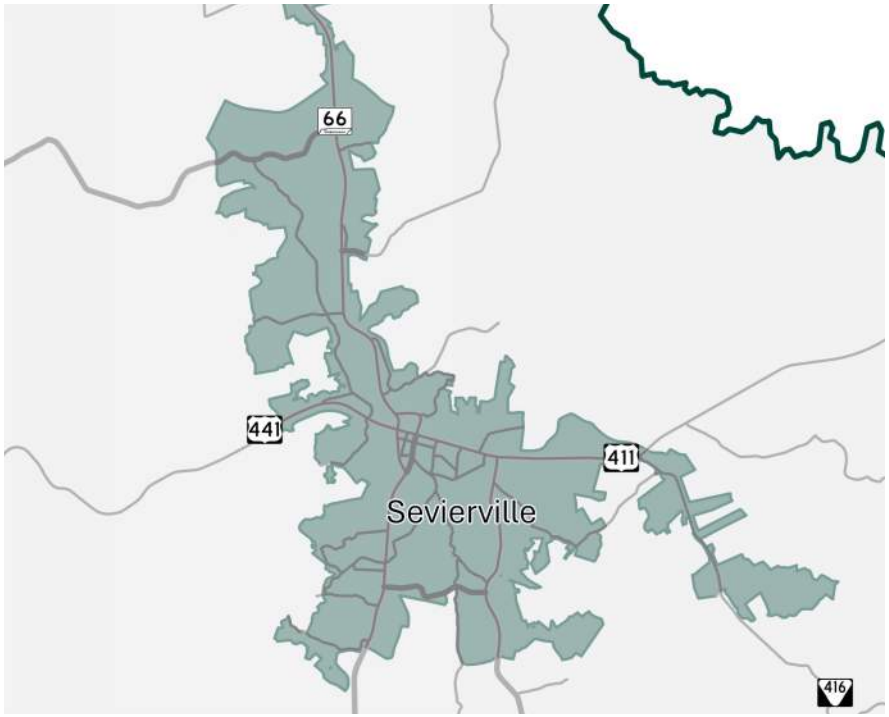


[5] The Smoky Mountain Railroad | The Knoxville Focus

1.1.2 Sevierville

The City of Sevierville is the largest incorporated community in Sevier County by population and land area and serves as the county seat. Since its founding in 1795, Sevierville has functioned as a civic and commercial hub for the county. Sevierville's transformation accelerated following the establishment of Great Smoky Mountains National Park in 1934, which positioned Sevierville as a key gateway for visitors entering the region. The intersection of US 441 and US 411 in downtown Sevierville reinforced its role as a crossroads, while the expansion of State Route 66 created a direct link to Interstate 40 and Knoxville—enhancing regional mobility and fueling sustained economic growth. Sevierville's role as a gateway and commercial anchor continues to shape its land use and transportation priorities.

With a population density of approximately 841 people per square mile, Sevierville is significantly more compact than the unincorporated areas of Sevier County, which average 211 people per square mile. Land use within the city is predominantly residential (32%); however, the largest share of land, 37%, remains undeveloped or underdeveloped, particularly along the city's outer limits near major transportation corridors. This pattern indicates strong potential for continued growth and future infrastructure development.



1.1.3 Pigeon Forge

Originally a quiet farming community along the Little Pigeon River, Pigeon Forge remained largely rural through the early 20th century. Transportation improvements in the mid-20th century, especially the development of US 441 (Parkway), were critical to Pigeon Forge's transformation. The road became the spine of the city, drawing visitors to the Great Smoky Mountains National Park and fueling the rise of roadside attractions, campgrounds, and motels. By the 1980s, the city had incorporated and shifted from rural town to tourism destination, catalyzed by the 1986 opening of Dollywood, which remains one of the region's top attractions.

Today, Pigeon Forge is highly developed with a concentration of theaters, restaurants, retail outlets, and amusement parks. While its land area and resident population are relatively small, its transportation system manages significant seasonal traffic volumes. Continued investments in transportation system and the city's trolley (bus) system aim to improve visitor flow and maintain access to its many attractions.

Land use in Pigeon Forge is nearly evenly split between residential and commercial uses. Residential land accounts for 26% of the city's total area, with a population density of approximately 497 people per square mile. Commercial land comprises 23% of the land area, reflecting the city's tourism-driven economy. Publicly owned property makes up 16%, while agricultural or undeveloped land accounts for 34% of the total.

1.1.4 Gatlinburg

Gatlinburg remained a remote mountain village until the early 20th century. A significant turning point came in 1934 with the creation of the Great Smoky Mountains National Park, which brought national attention and spurred a surge in tourism[6]. The subsequent completion of US 441, the only road passing directly through the park to North Carolina, positioned Gatlinburg as a critical southern gateway to the Smokies.

With the rise of automobile tourism in the mid-20th century, Gatlinburg rapidly commercialized. The Parkway corridor evolved into a dense strip of shops, restaurants, and lodgings, transforming the town into one of the region's most recognizable destinations. Despite its limited land area and mountainous setting, Gatlinburg was formally incorporated in 1945 and has since grown into a year-round resort city.

Today, Gatlinburg's development remains shaped by its narrow valley geography, which concentrates growth along the Parkway. The town's planning efforts are influenced by congestion, and limited expansion space. Land use is primarily residential (45%) and commercial (18%), with roughly 25% of the area undeveloped due to steep slopes and topographic constraints. The city has a residential population density of approximately 400 people per square mile.

[6]No Better Place to Experience Appalachian History & Culture | Gatlinburg, TN

1.1.5 Pittman Center

Pittman Center is a small town with a rich history, located in eastern Sevier County near the Greenbrier entrance to the Great Smoky Mountains National Park. Pittman Center was officially incorporated as a town in 1974 to preserve its heritage and ensure responsible stewardship of the land. Today, Pittman Center maintains a rural, low-density character, prioritizing scenic preservation, limited growth, and its identity as a quiet gateway to the Smokies—distinct from the larger, tourism-driven cities nearby.

Land use in Pittman Center reflects its rural character, with a low population density of 94 people per square mile. Over half of the town's land area (54%) is agricultural, forested, or otherwise undeveloped, while residential land accounts for 28% of the total area.

1.2 Safety Action Plan

Sevier County was awarded a Safe Streets and Roads for All (SS4A) planning grant from the US Department of Transportation to prepare a comprehensive Safety Action Plan for Gatlinburg, Pigeon Forge, Pittman Center, Sevierville, and the remainder of Sevier County. The Safety Action Plan will provide an actionable framework to guide the County and its municipalities toward eliminating fatal and serious injury crashes across the region.

The planning process has been carried out in three phases, each designed to build upon the previous step while incorporating robust community and stakeholder input:

PHASE 1 - Crash Analysis & Discovery of Traffic Safety Concerns

This phase includes collecting and analyzing five years of crash data to establish a clear picture of roadway safety issues across the county. The findings are intended not only to inform this Action Plan but also to serve as a publicly available resource for future use. Public and stakeholder engagement is conducted throughout this phase to identify safety concerns and provide local context to the data. Critical crash locations through each jurisdiction within the county, based on crash history data and public input were identified at the completion of Phase 1.

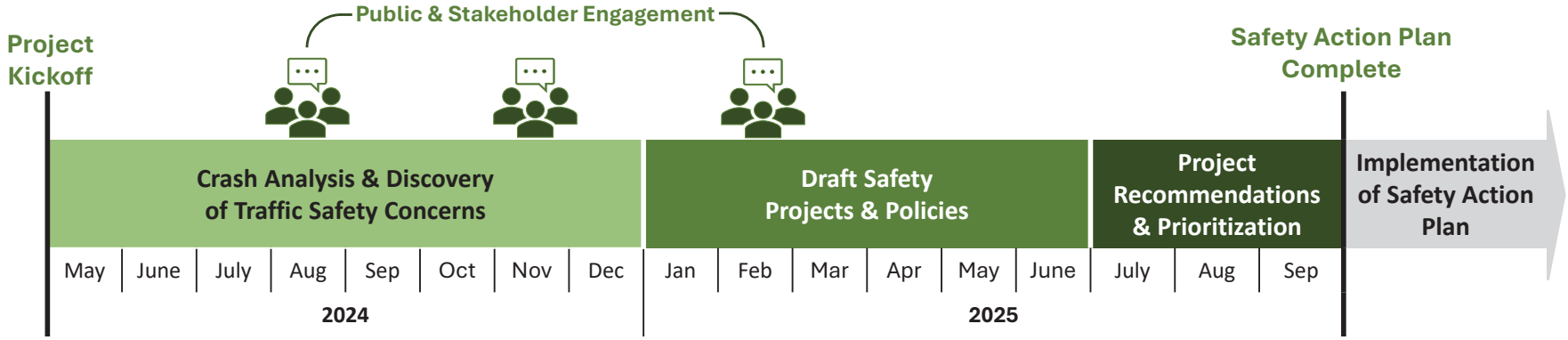
PHASE 2 - Draft Safety Projects & Policies

Based on the crash analysis and public input, safety countermeasures and strategies were developed and integrated into a draft Action Plan. Public and stakeholder engagement continued during this phase to refine the initiatives.

PHASE 3 - Project Recommendations & Prioritization

In the final phase, draft initiatives have been refined into specific project recommendations and prioritized for implementation. The proposed projects have been presented to the stakeholders to validate and adjust recommendations before finalizing the Action Plan.

The timeline for these phases spans 2024–2025, with project kickoff in May 2024 and plan completion September 2025. Throughout each phase, engagement with residents, local officials, and stakeholders has fostered the plan to reflect community priorities and sets the stage for pursuing SS4A Supplemental Planning, Demonstration, & Implementation Grants in the future.



1.3 Sevier County Safety Needs

This Safety Action Plan provides an actionable approach to work towards eliminating fatal and serious injury crashes throughout Sevier County. Between January 2019 and April 2024, there were 19,402 total crashes in all of Sevier County. Of those, 80 resulted in fatalities (K) and 379 resulted in serious injuries (A). **Table 1-1** summarizes the distribution of crashes across the five jurisdictions included in this plan.

Table 1-1 Crash Summary by Jurisdiction (January 2019–April 2024)

Jurisdiction	KA Crashes	BCO Crashes	KA Percentage(%)	Total Crashes
Gatlinburg	27	1,409	1.9	1,436
Pigeon Forge	45	3,594	1.2	3,639
Pittman Center	9	129	6.5	138
Sevier County	237	5,453	1.7	5,690
Sevierville	141	8,358	4.2	8,499
TOTAL	**459**	**18,943**	**5.5**	**19,402**

The table highlights several important findings. Sevierville, with 8,499 crashes, accounts for the largest share of total crashes in the county (44 percent). This reflects its role as the county's commercial hub and its location along high-volume state routes. Pigeon Forge (3,639 crashes) and Gatlinburg (1,436 crashes) also experienced high crash totals, largely attributable to their intense tourist activity, seasonal traffic surges, and concentration of attractions. While Pittman Center had the fewest total crashes (138), its fatal and serious injury crash percentage (6.5%) is the highest among jurisdictions, underscoring the elevated risks on its narrow, rural roadways.

Understanding the KABCO Crash Severity Scale

The KABCO scale is a national system used by law enforcement to classify crash severity on police crash reports.

- **K – Fatal Injury**
- **A – Suspected Serious Injury**
- **B – Suspected Minor Injury**
- **C – Possible Injury**
- **O – Property Damage Only**

In this Safety Action Plan, KA crashes (fatal and serious injury) are a primary focus, since they represent the highest severity outcomes targeted by the Safe Streets and Roads for All (SS4A) program.

Countywide, fatal and serious injury crashes (KA) make up 5.5 percent of total crashes, a rate that is consistent with regional patterns but represents a significant safety burden given Sevier County's heavy tourism-based traffic mix.

In addition to total crashes, it is important to examine fatality rates on a population-normalized basis. Using Fatality Analysis Reporting System (FARS) data, the five-year average fatality rate increased from 16.79 (2018–2022) to 19.62 (2019–2023) fatalities per 100,000 population. This rate is calculated by dividing the annualized five-year average number of fatalities by the 2020 U.S. Census population of 98,865 and normalizing per 100,000 persons.

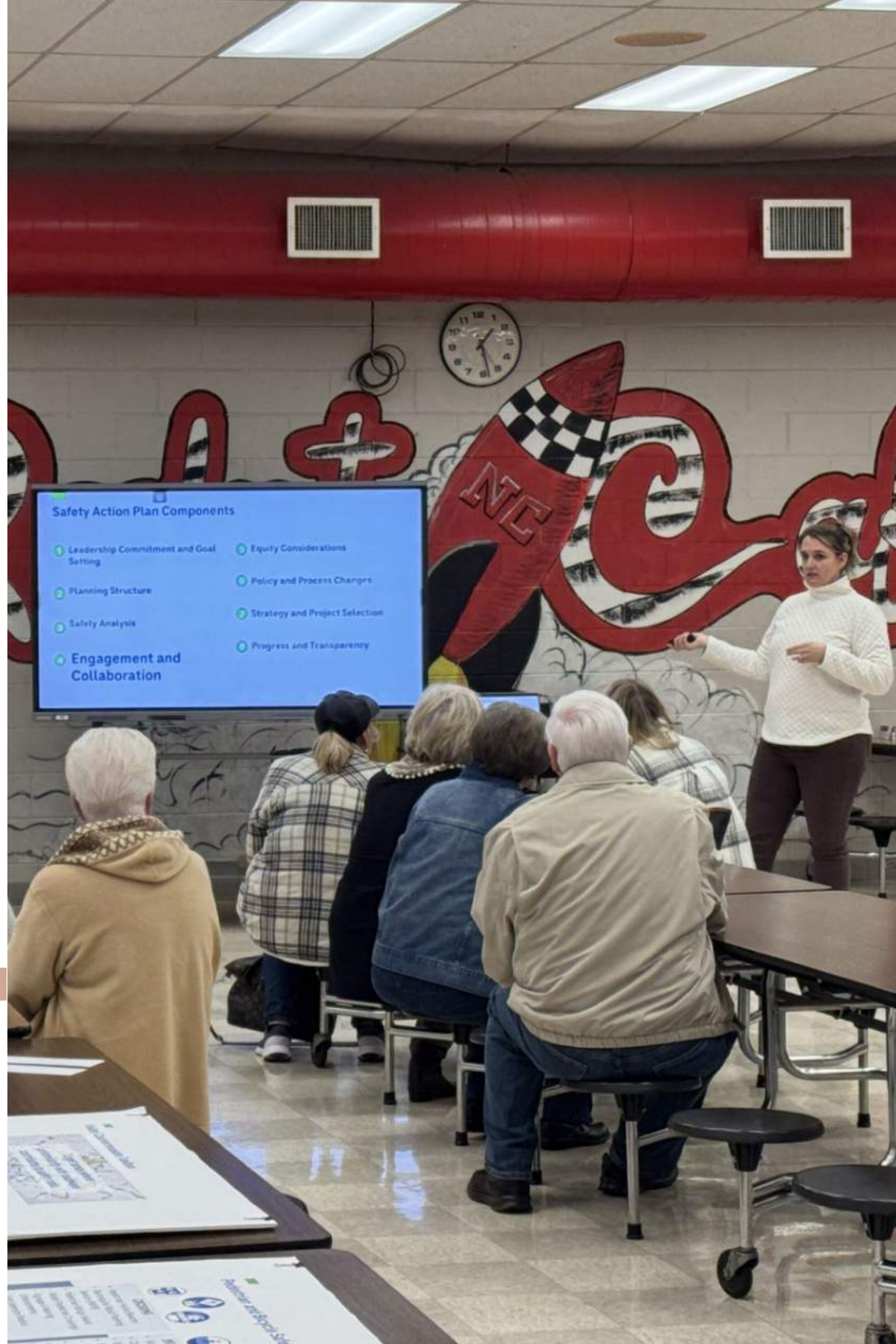
This upward trend in fatality rates is a cause for concern. It indicates that despite traffic volumes stabilizing in recent years following the COVID-19 pandemic, severe outcomes are increasing relative to population. Several factors contribute to this trend:

- **Tourism-related demand:** Seasonal surges bring large numbers of unfamiliar drivers to the roadway network, increasing crash risk.
- **Rural roadway characteristics:** Curvy, mountainous, and narrow two-lane roads amplify the severity of crashes, especially single-vehicle and lane-departure crashes.
- **Development pressures:** Continued growth adds driveways, intersections, and congestion points, creating additional conflict opportunities.
- **Visitor navigation patterns:** Reliance on GPS routes visitors onto lower-volume rural roads not designed for high traffic levels.

Taken together, these findings demonstrate that Sevier County faces a dual challenge: managing safety in dense urban and tourist areas with high crash frequency, and addressing severe, often fatal crashes on rural roads with challenging geometry. The rising fatality rate emphasizes the urgency of implementing strategies outlined in this Action Plan to reverse the trend and move toward the County's long-term goal of eliminating roadway fatalities and serious injuries.

2.0

Sevier County's Safety Goals



2.0 Sevier County's Safety Goals

A cornerstone of the Safe Streets and Roads for All (SS4A) program is a clear and official public commitment by local leadership to eliminate roadway fatalities and serious injuries. Leadership commitment is essential to signal that traffic safety is a top priority for Sevier County and its municipalities, and to ensure that the Safety Action Plan is supported by policies, resources, and accountability.

Sevier County has demonstrated this commitment through the adoption of a formal resolution by the Board of Commissioners. This resolution affirms that roadway fatalities and serious injuries are unacceptable and preventable and sets forth a unified vision of achieving zero deaths and serious injuries on the County's transportation system. In line with SS4A requirements, the resolution establishes both a long-term target of zero fatalities and an interim safety milestone. Specifically, Sevier County has committed to reducing roadway fatalities and serious injuries by **at least 50 percent by 2035**, with an eventual goal of eliminating them entirely.

This resolution also directs the County to implement data-driven policies and projects, monitor progress regularly, and collaborate with regional and state partners to maintain momentum toward its goals. By formally adopting these commitments, Sevier County leadership has laid the foundation for a culture of safety that guides decision-making and prioritizes investments that save lives.

The resolution shown illustrates this commitment, serving as the guiding framework for the Safety Action Plan and ensuring that leadership accountability and public transparency remain at the center of implementation. Additional information on Sevier County's safety policy can be found in Appendix A.

A RESOLUTION OF SEVIER COUNTY, TENNESSEE IN SUPPORT OF THE SAFE STREETS AND ROADS FOR ALL (SS4A) INITIATIVE AND THE COMMITMENT TO A GOAL OF ELIMINATING ROADWAY FATALITIES AND SERIOUS INJURIES

WHEREAS, Sevier County recognizes that roadway fatalities and serious injuries are preventable and that even one life lost on our transportation system is unacceptable; and

WHEREAS, Sevier County is committed to improving safety for all roadway users, including pedestrians, bicyclists, motorists, transit riders, and those with mobility challenges; and

WHEREAS, the U.S. Department of Transportation's Safe Streets and Roads for All (SS4A) program supports the development and implementation of comprehensive safety action plans aimed at eliminating roadway fatalities and serious injuries; and

WHEREAS, Sevier County is currently undertaking a Safety Action Plan in alignment with the SS4A framework, using a data-driven approach to prioritize transportation safety investments and interventions;

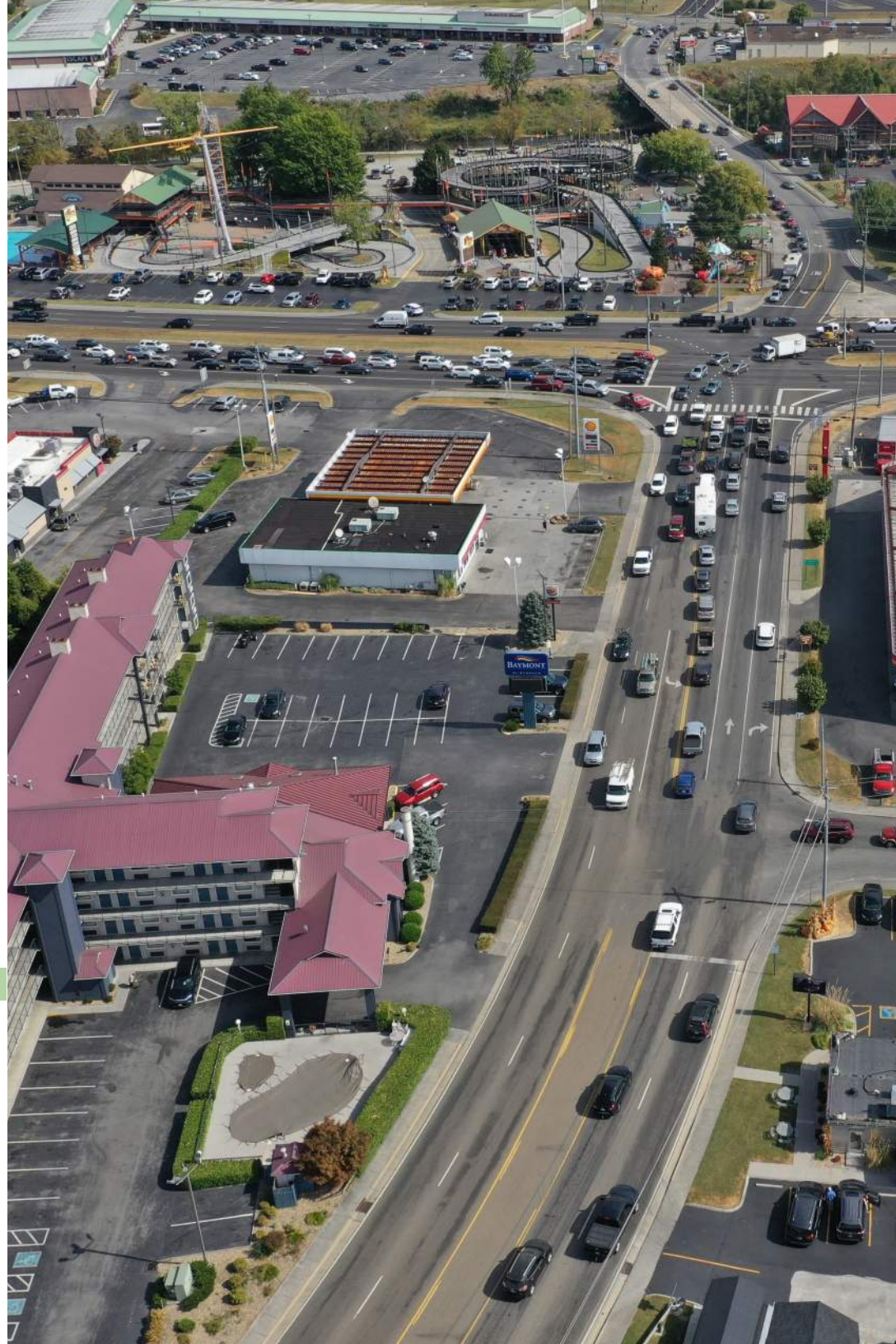
NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Sevier County, Tennessee:

1. **Eventual Goal to Zero**: Sevier County formally adopts the long-term goal of achieving zero roadway fatalities and serious injuries on the County's roadways.
2. **Interim Safety Target**: Sevier County commits to the goal of achieving a minimum 50% reduction in roadway fatalities and serious injuries by the year 2035 as an interim milestone on the path to zero.
3. **Action-Oriented Planning and Implementation**: Sevier County will continue to develop and implement data-driven strategies, policies, and infrastructure investments as outlined in its Safety Action Plan to reduce traffic-related fatalities and serious injuries.
4. **Ongoing Evaluation**: The County will monitor progress toward its safety goals through regular performance tracking, adjusting strategies as needed to stay on course toward zero.
5. **Collaboration and Leadership**: Sevier County will lead and collaborate with local, regional, and state partners, including transportation agencies, law enforcement, public health, and community organizations, to foster a culture of safety.

BE IT FURTHER RESOLVED, this Resolution shall take effect from and after its passage, the public welfare requiring it.

3.0

Safety Analysis



3.0 Safety Analysis

This section summarizes analysis of historical (observed) crash trends and highlights risk factors (predictive) identified within Sevier County. Particular focus is given to characteristics which disproportionately affect seasonal traffic, rural roadways, and high-conflict tourism corridors. The findings in this report aim to support data-driven recommendations for countermeasures, education & enforcement strategies, public policy, and other means to improve safety for both residents and visitors.

Crash data used in this analysis is accessed from the Enhanced Tennessee Roadway Information Management System (ETRIMS) for the period between January 2019 and April 2024.

3.1 Summary Crash Statistics

More than 1,500 miles of roadway within Sevier County and its 4 incorporated cities were analyzed, accounting for an estimated peak daily vehicle miles traveled exceeding 3 million miles.[7] A total of 19,402 crashes were reported during the period of analysis, including 80 fatal crashes and 379 serious injury crashes, which resulted in 101 deaths and 565 incapacitating injuries.

Figure 3-1 shows that the vast majority of crashes in Sevier County between 2019 and 2024 resulted in property damage only, accounting for 15,648 crashes. While less common, crashes involving injuries remain a critical concern, with 3,295 possible or minor injury crashes recorded. Of greater significance, 379 serious injury crashes and 80 fatal crashes occurred during this period.

Figure 3-2 illustrates that rear-end collisions are the most common crash type in Sevier County, accounting for nearly 6,000 crashes, followed closely by angle crashes (4,143) and single-vehicle crashes (3,672). These patterns point to congestion-related conflicts, turning movements, and roadway departure issues as significant safety challenges. Sideswipe crashes, particularly in the same direction, also represent a notable share of crashes, reflecting lane-change and merging conflicts. Less frequent but severe crash types, such as head-on collisions (529) and pedestrian crashes (97), highlight the critical need for countermeasures that address both common crash types and those with the highest risk of serious injury or fatality.

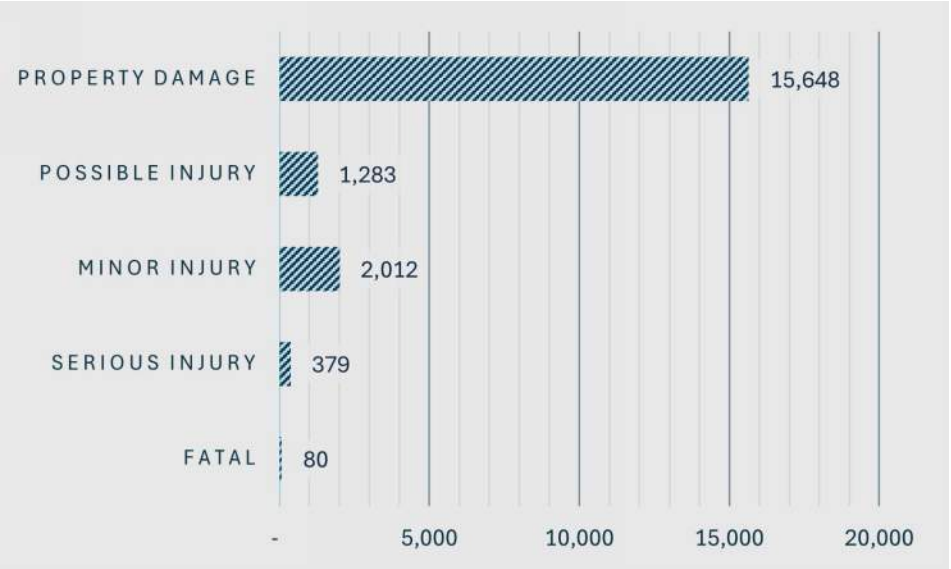


Figure 3-1 Total crashes by injury severity

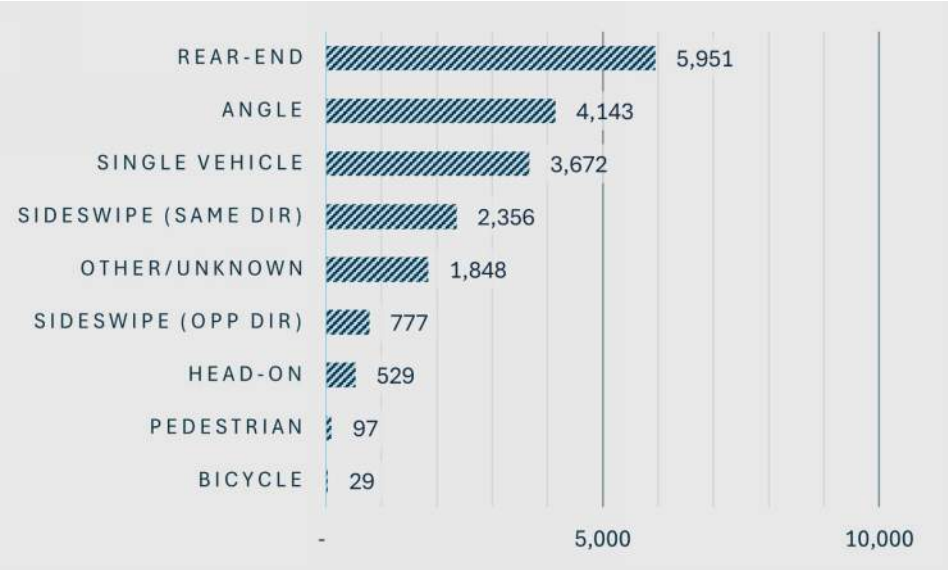


Figure 3-2 Total crashes by manner of collision

[7]Derived from Replica probe vehicle data for July 2023

Understanding crash severity trends is critical to identifying high-priority safety issues. Approximately 2.4% of the crashes that occurred during the analysis period resulted in a serious injury or fatality. **Table 3-1** provides a breakdown of crash types by injury severity. Rear-end crashes are the most frequent overall (accounting for over 30% of total crashes), but tend to result in lower injury severity, with fewer than 1% involving fatal or serious injury (KA). In contrast, angle, head-on, and single-vehicle roadway departure crashes collectively account for 78% of all fatal and serious injury crashes, despite representing only 43% of total crashes. Vulnerable Road User (VRU) crashes, primarily referring to bicycle and pedestrian-involved crashes, resulted in a fatality or documented injury 72% of the time.

In **Figure 3-3,** total crash volumes fluctuate annually, with the lowest crash count in 2020—likely influenced by pandemic-related traffic reductions. However, the number of fatal and serious injury crashes has remained remarkably consistent year-over-year, fluctuating between 85 and 97 annually. This finding suggests that even when overall crashes drop (as in 2020), the most severe crashes persist.

Table 3-1 Summary of crashes by type and injury

Crash Type	Fatal	Serious Injury	Minor Injury	Possible Injury	Property Damage	Total
	(K)	(A)	(B)	(C)	(O)	
Rear End	8	34	507	459	4,943	5,951
Angle	14	104	580	355	3,090	4,143
Single Vehicle	39	147	567	243	2,676	3,672
Sideswipe (Same Dir)	0	6	60	56	2,234	2,356
Other/ Unknown	2	10	55	40	1,741	1,848
Sideswipe (Opp Dir)	0	7	52	36	682	777
Head On	10	43	136	69	271	529
Pedestrian	7	24	41	18	7	97
Bicycle	0	4	14	7	4	29
Total	**80**	**379**	**2,012**	**1,283**	**15,648**	**19,402**

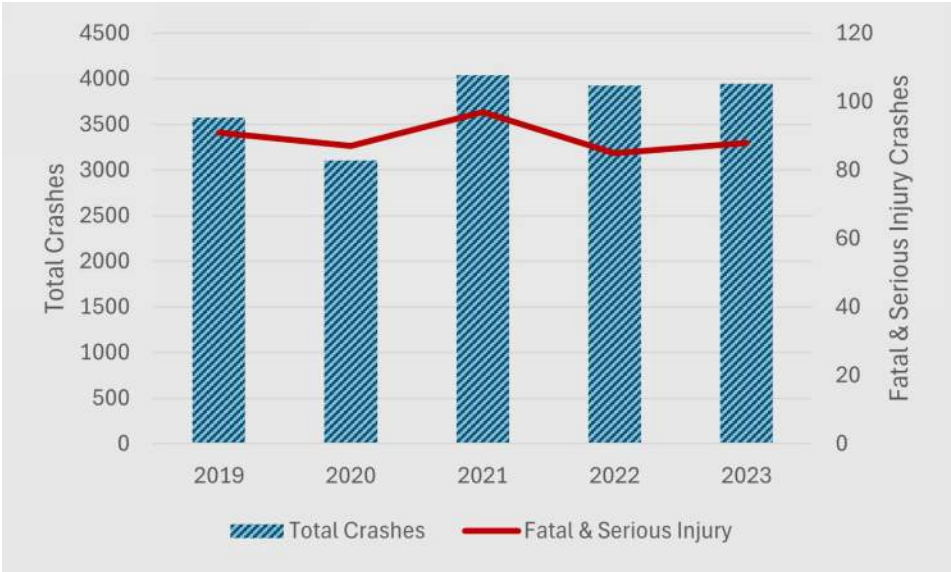
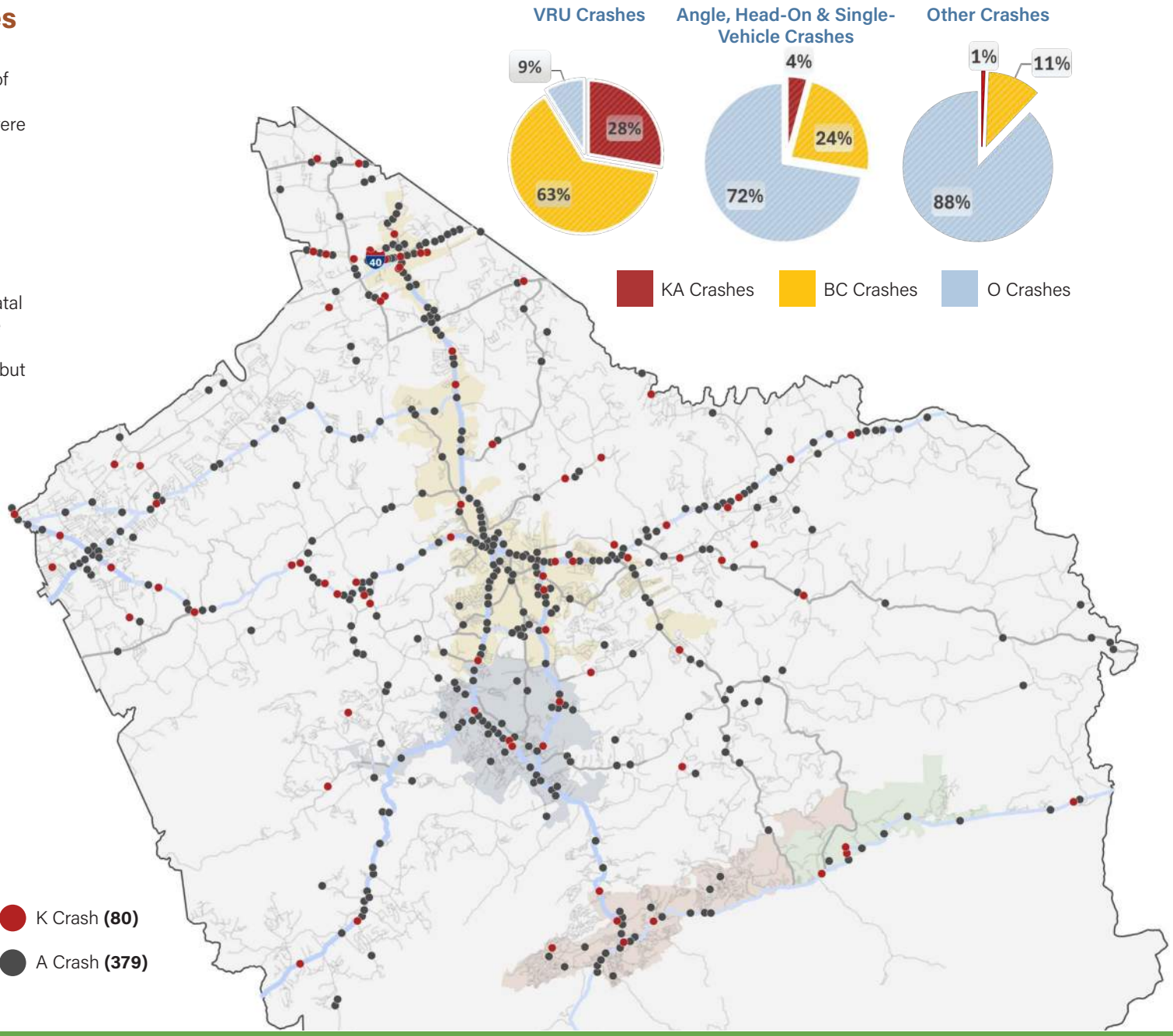


Figure 3-3 Crash severity by year

Fatal & Serious Injury Crashes

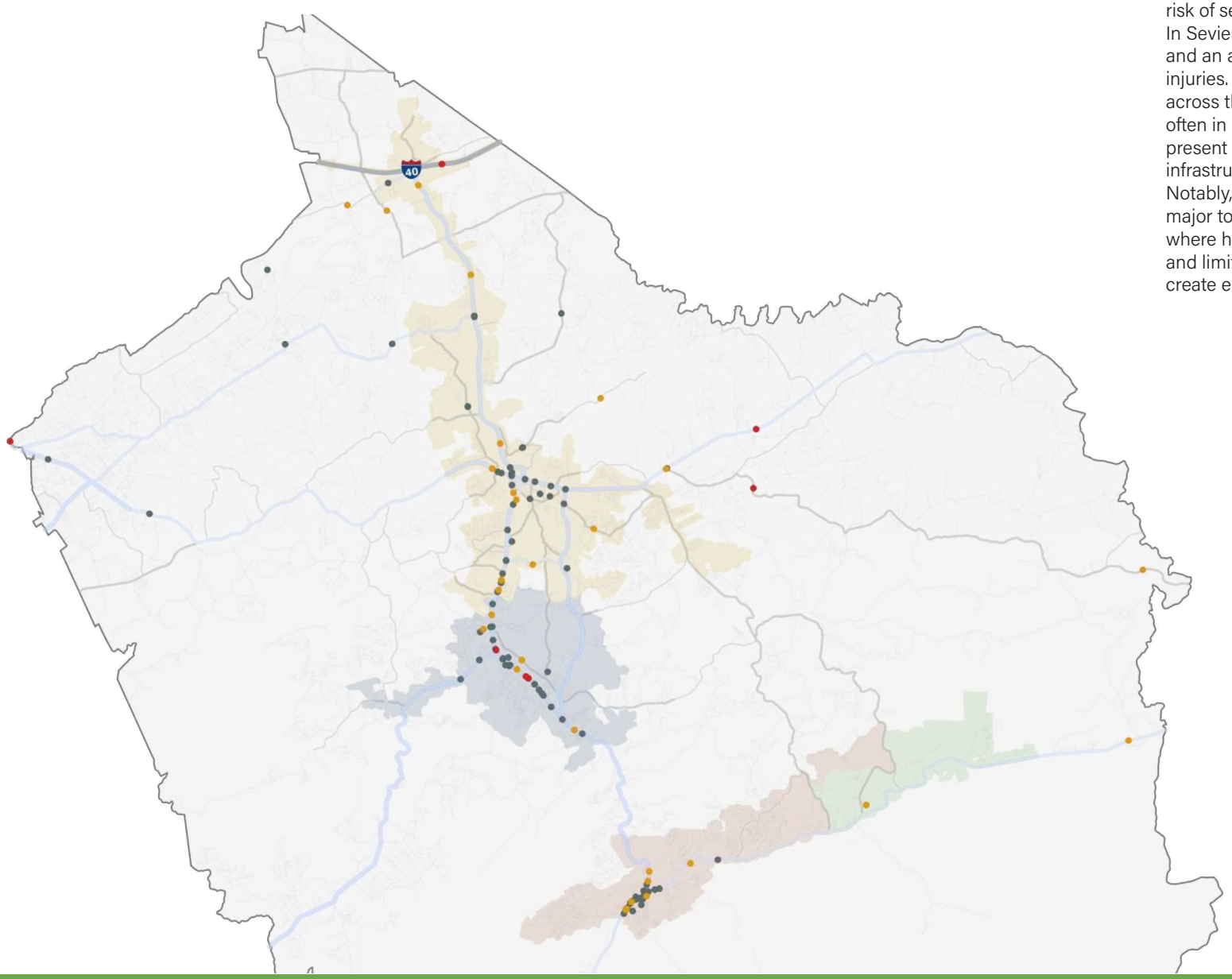
The crash map highlights corridors and clusters of fatal (K) and serious injury (A) severity crashes across the study area. High concentrations of severe crashes are visible along major arterial and state highway corridors, particularly near high-speed segments or complex intersections.

Angle, head-on, and single-vehicle roadway departure crashes are disproportionately severe. While these crash types made up only 43% of all reported crashes, they accounted for 78% of all fatal and serious injury (KA) crashes, making them the greatest risk to motor vehicle occupants. By contrast, VRU crashes were less frequent overall but carried a much higher likelihood of severe outcomes. Nearly three out of four VRU crashes resulted in a fatality or documented injury, underscoring the heightened risks faced by pedestrians and bicyclists compared to vehicle occupants. The "other" crash types, while more common, were overwhelmingly property damage only events and rarely resulted in KA crashes.



Vulnerable Road Users

Vulnerable road users (VRUs) face a much higher risk of severe outcomes when involved in crashes. In Sevier County, 5.6% of VRU crashes were fatal and an additional 22.2% resulted in serious injuries. These crashes are not evenly distributed across the roadway network—they occur most often in areas where pedestrians and cyclists are present in higher numbers and where infrastructure does not fully support their safety. Notably, 69% of pedestrian crashes occurred along major tourism corridors such as US 441 Parkway, where heavy traffic volumes, multimodal activity, and limited crossing opportunities combine to create elevated risks.



3.1.1 Temporal Trends

The unique mix of roadway users in Sevier County produces crash patterns that differ from typical commuter-driven trends. Even across jurisdictions, variation is evident. In general, crash frequency is higher on weekends than during the week, reflecting the influence of visitors. Sevierville and Sevier County (excluding the municipal areas) see crash peaks on Fridays, while Pigeon Forge and Gatlinburg, the busiest tourist destinations, peak on Saturdays (**Figure 3-4**).

Time-of-day trends (**Figure 3-5**) show AM peak periods occurring around 7 AM for Sevierville and Sevier County, which matches typical commuter traffic patterns. However, Pigeon Forge and Gatlinburg peak later, around 10 AM. Crash frequency continues to rise throughout the day, with the daily peaks occurring around 4:00 PM. These peak periods, assumed to be good indicators of traffic volumes overall, are spread throughout the day, due to the considerable portion of traffic that are not commuters.

Monthly crash occurrences (**Figure 3-6**) increase steadily throughout the year. Four peak periods, likely driven by visitors, occur in March, June, July, and October.

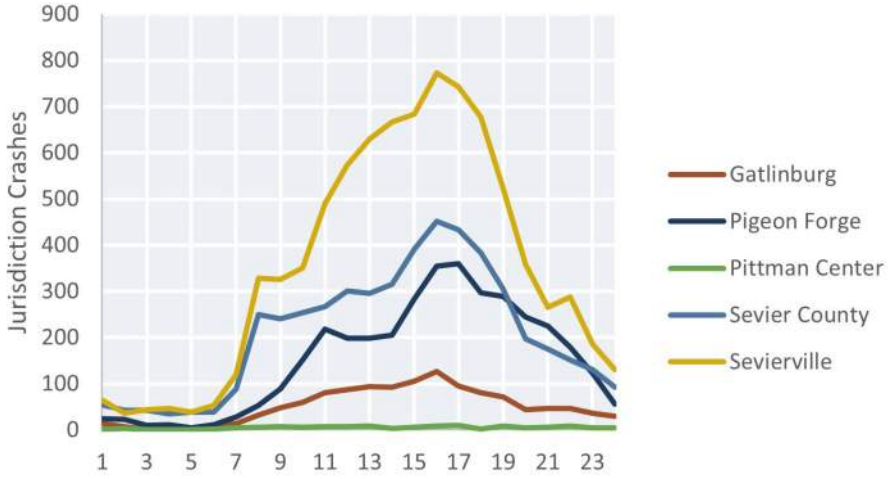


Figure 3-5 Jurisdiction crashes by hour-of-day

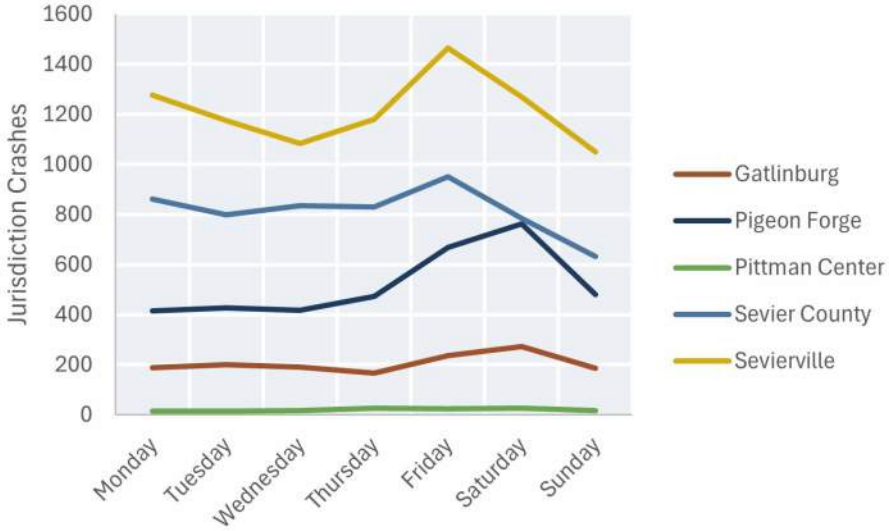


Figure 3-4 Jurisdiction crashes by day-of-week

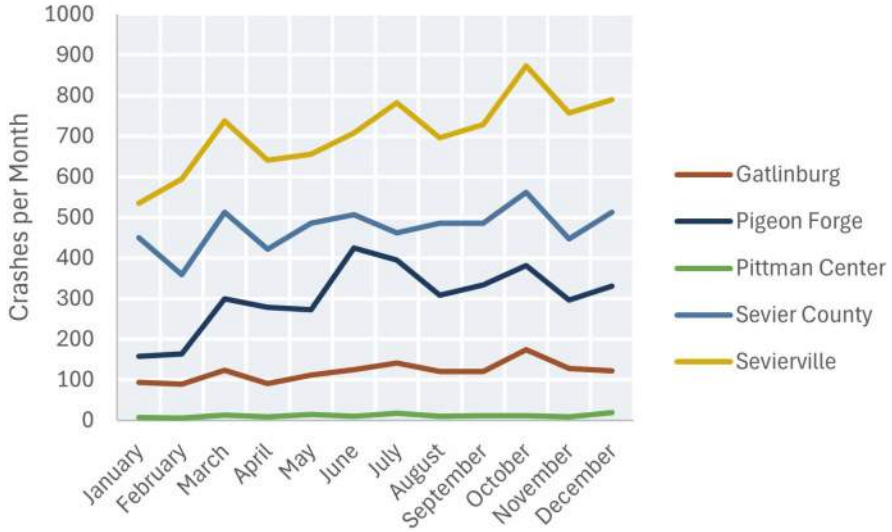


Figure 3-6 Average crashes by month

3.1.2 Intersection Traffic Control

The Highway Safety Manual (HSM) offers a variety of statistical crash calculations. One such calculation is called the 'crash rate' defined as the total crashes per million vehicle miles (for segments) and million entering vehicles (for intersections). When there are no other data points available besides historic crashes and traffic volume, the crash rate is a common calculation to determine how a segment or intersection compares with averages. Crash rates are strongly correlated with traffic control type, as shown in **Figure 3-7**. Signalized intersections have an aggregate crash rate of approximately 1.07 crashes per million entering vehicles (MEV). All-way stop-controlled intersections had 0.86 crashes per MEV. Partial stop and other control types had crash rates of 0.42 and 0.36 crashes per MEV, respectively.

Traffic control type is also strongly correlated with traffic volume and other characteristics that impact crash rate. Crash rates typically increase with volume, because crash risk has a non-linear relationship with volume. However, this should not be confused with the impact that traffic control has on safety impacts. In Sevier County for instance, signalized intersections experience the highest crash rate for all types of crashes when compared with other intersection control types. However, when compared with other control types, signalized intersections experience a much lower instance of fatal and serious injury (KA) crashes. Therefore, while total crash comparison between control type is helpful to identify locations experiencing the greatest crash burden, it does not mean that those locations also experience the most severe crash injury results. For example, crashes at all-way stop intersections (0.21) in Sevier County experience almost double the number at signalized intersection

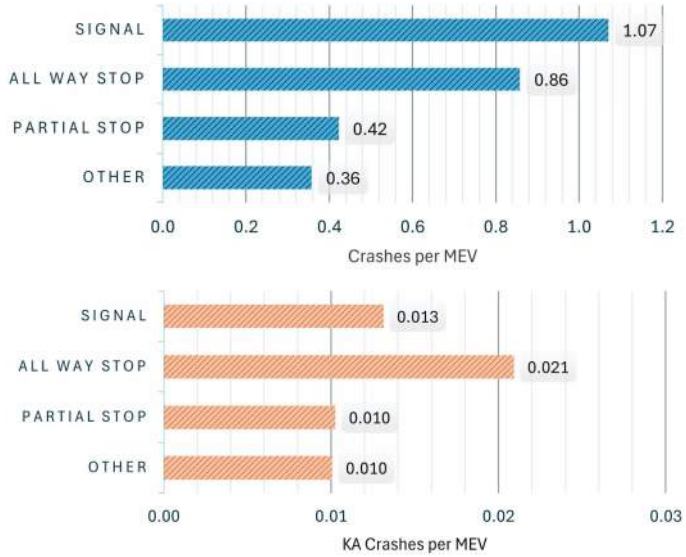


Figure 3-7 Signalized intersections have higher crash rates, but lower average injury severity

3.1.3 Roadway Functional Classification

Understanding crash distribution by roadway functional classification helps identify the types of facilities where crash mitigation strategies may be most urgently needed. Roadways vary in their design, access control, and operational purpose, all of which influence crash frequency and exposure.

As shown in **Table 3-2**, major arterials experienced the highest number of crashes during the analysis period, with 9,149 crashes, representing nearly 47% of all reported crashes despite comprising just 3% of the total roadway mileage in the study area. This disproportionate concentration reflects the role of major arterials as high-volume, high-speed corridors with frequent access points and turning movements, often through commercial and mixed-use zones. Local roads, although representing the vast majority of network mileage (1,235.3 miles, or over 81% of the total), had 3,770 crashes, or about 19% of the total. This indicates that while local roads are abundant, they typically carry lower volumes and speeds, reducing crash exposure.

Table 3-2 Crash frequency by classification

Functional Classification	Length (mi)	Crashes
Interstate	4.8	451
Major Arterial	49.9	9,149
Minor Arterial	69.3	2,484
Major Collector	93.3	2,644
Minor Collector	70.9	904
Local	1,235.3	3,770

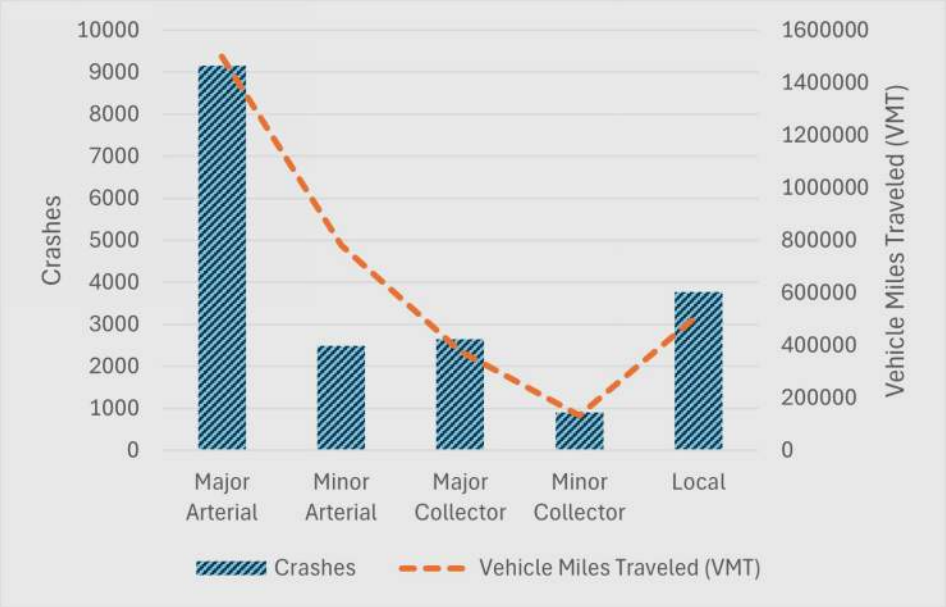


Figure 3-8 Vehicle Miles Traveled, functional classification, and crash frequency

Figure 3-8 shows estimated Vehicle Miles Traveled (VMT) by functional classification. Major arterials not only had the highest number of crashes, but also the highest VMT, indicating high exposure due to complex operational conditions.

To understand how crash characteristics differ by roadway context, crash data was categorized by both injury severity and crash type, distinguishing between arterials (major and minor) and collector (major and minor)/local roads. This analysis provides valuable insights into the nature and severity of crashes across the roadway network and informs the application of targeted safety interventions.

Major and minor arterial roadways in Sevier County account for approximately 69% of vehicle miles traveled (excluding interstates) and 60% of crashes, despite only comprising 8% of the roadway mileage. As a result, crash risk is largely dependent on characteristics that influence traffic interactions, like density of intersecting roadways or driveways and traffic control types at intersections.

More than one third (38%) of all crashes in Sevier County occurred on two-lane roadways classified as either Local or Collector. Lower vehicle volume does tend to reduce the frequency of conflict between vehicles.

Figure 3-9 illustrates the distribution of crash severity across arterial and collector/local roadways. Arterial roadways had significantly higher crash volumes for all severity levels, especially in the property damage only (PDO) category, with 9,462 crashes compared to 5,820 on collector/local roads. This is expected given higher vehicle volumes and speeds on arterials. However, this distribution shown in **Figure 3-9** underscores that while arterials carry greater overall crash exposure risk, collector/local roadways still contribute substantially to severe crash outcomes, often due to lack of access control, mixed user types (pedestrians, cyclists), or roadway design features. For example, collector/local roadways experience almost the same number of fatal (174 versus 194) and serious injury (32 versus 41) crashes despite carrying less volume.

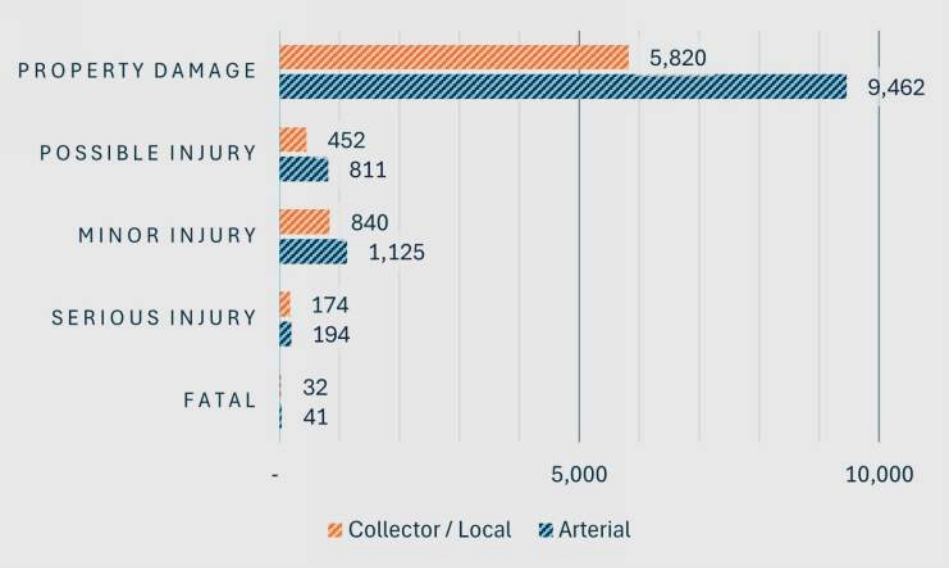


Figure 3-9 Injury severity and functional classification comparison

Figure 3-10 compares crash types on arterial roadways versus collector and local roads, highlighting important differences in severity and crash patterns. Lower traffic volumes on rural local and collector routes often invite higher travel speeds, while the narrow and curvy roads constrained by mountainous terrain creates greater risks when crashes occur. This combination leads to more severe outcomes, particularly single-vehicle crashes, which made up over 52 percent of all fatal and serious injury crashes in this analysis.

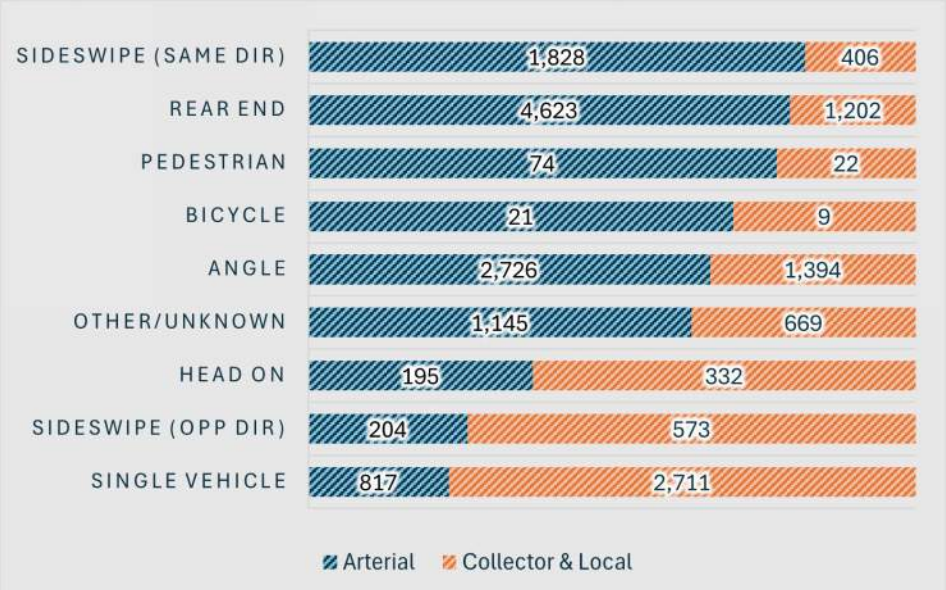


Figure 3-10 Crash type by roadway functional class

Lane departure-related crashes occurred frequently on local and collector routes but had the highest frequency on narrower road segments. On two-lane collectors and local roads with a combined lane width of less than 22 feet, lane departure crashes accounted nearly half (49.3%) of all crashes. By comparison, on wider roads (22 feet or greater), lane-departure crashes made up only 24.1 percent of crashes.

3.1.4 Distracted Driving

Distracted driving is a prominent safety concern, whether it be associated with a personal electronic device or where visitor activity and visual stimulation outside the vehicle are high. The visual and cognitive demand of multi-tasking while driving or navigating unfamiliar areas reduces the capacity for attention and can increase reaction time significantly.

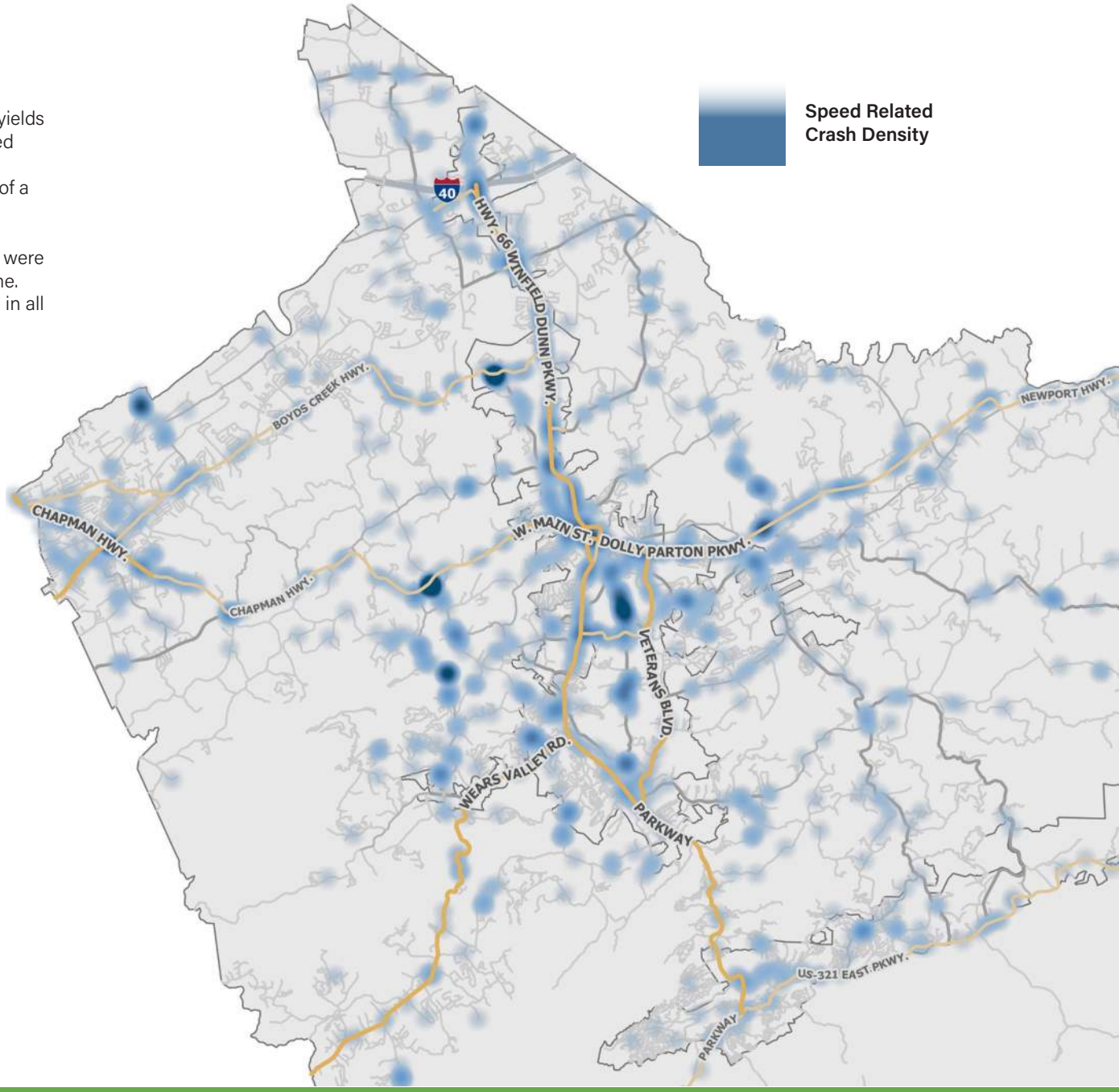
Nearly 5% of crashes reported at least one distracted driver. This measure is expected to be under-reported, because it often relies on drivers' own admission of guilt. Almost one-third (32%) of distractions were reported to be outside the vehicle.

Nearly half (47%) of all distracted-driving crashes occurred on State Routes 35, 66, and 71, where there is a heavy combination of demands for drivers' attention. Focus is required to navigate the complex traffic conditions created by the multi-lane, divided facilities. There also exist continuous conflict points due to intersections and frequent driveway access. One of the most densely developed corridors is a 3-mile segment of the Parkway (SR 66), which has over 200 driveway access points and 24 intersections. This 6-lane divided highway also has 35 median openings, with various levels of turning-movement restrictions in place at each.

3.1.5 Speed Related

Vehicle speed is well established as one of the primary contributors to increased injury risk in a crash. Higher speed yields decreased time for drivers to perceive and react to unexpected roadway conditions or obstructions. Braking distance also increases exponentially with speed, increasing the likelihood of a crash and transferring more energy in the event of a collision.

Crashes in Sevier County where speeding or reckless driving were indicated resulted in a fatality or serious injury 9.3% of the time. That is more than 5x the rate of fatal and serious occurrences in all other crashes (1.8%).



Crashes where SPEED was indicated as a contributing factor

5x

As likely to result in fatality or serious injury

Twice as likely to have occurred in a curve

3.1.6 Visitors to Sevier County

The population of Sevier County is only about 100,000 people; however, it hosts more than 21 million visitors annually. That equates to an average of 57,500 visitors per day. Many of these drivers may be unfamiliar with the roadways they are traveling, and during interactions between residents and visitors, behavior may be less predictable.

The portion of vehicles involved in crashes that were registered out of state varies by jurisdiction within the county, as shown in **Table 3-3**. These ratios also fluctuate seasonally in line with tourism trends and play an important role in roadway design, traffic control, and enforcement strategies. It is important to note that vehicles with Tennessee license plates are not necessarily driven by local residents; many may still be visitors to the area who rented cabins or are traveling from nearby regions. Because more precise driver home addresses were not available at the time of analysis, the figures presented here represent a conservative estimate of visitor-related crashes.

Table 3-3 Crash frequency by classification

Percent of Crash Vehicles Registered Out of State				
Pigeon Forge	Gatlinburg	Pittman Center	Sevierville	Sevier County
42%	**41%**	**36%**	**19%**	**13%**

Figure 3-11 shows the seasonal variation in crash vehicles registered in Tennessee compared to those registered out-of-state. The busiest tourist months, March, June, July, and October, correspond with some of the highest crash totals, with a significant proportion of these crashes involving out-of-state drivers. This reflects Sevier County's role as a major tourism destination, where unfamiliar drivers contribute to increased crash risk. Even in months with fewer visitors, out-of-state vehicles consistently make up a substantial share of crashes, underscoring the ongoing influence of tourism on roadway safety conditions throughout the year.

Crashes most frequently involved a vehicle registered out of state on the short section of Interstate 40 passing through Sevier County (**Figure 3-12**). A large proportion of vehicles on any Interstate route are expected to be non-local. The proportion of vehicles registered out of state is also considerably higher on arterials and local roads than it is on collectors. This might suggest that visitors spend a higher percentage of their time between major corridors where tourist attractions are located and smaller, rural roads which provide access to secluded lodging and outdoor attractions. It may also be the case that these roadways are associated more strongly with other characteristics that impact driver safety or attention.

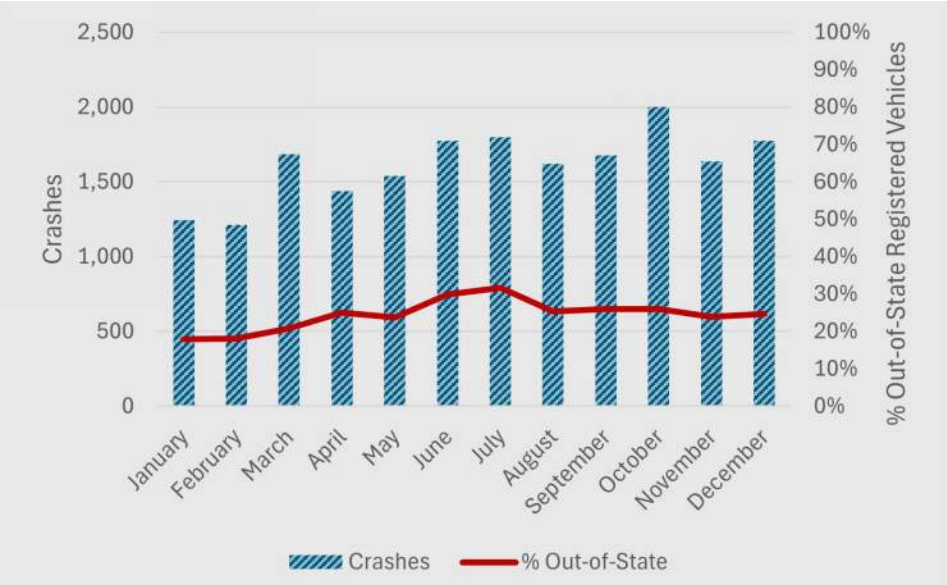


Figure 3-11 Proportion of crash vehicles registered in Tennessee varies throughout the year

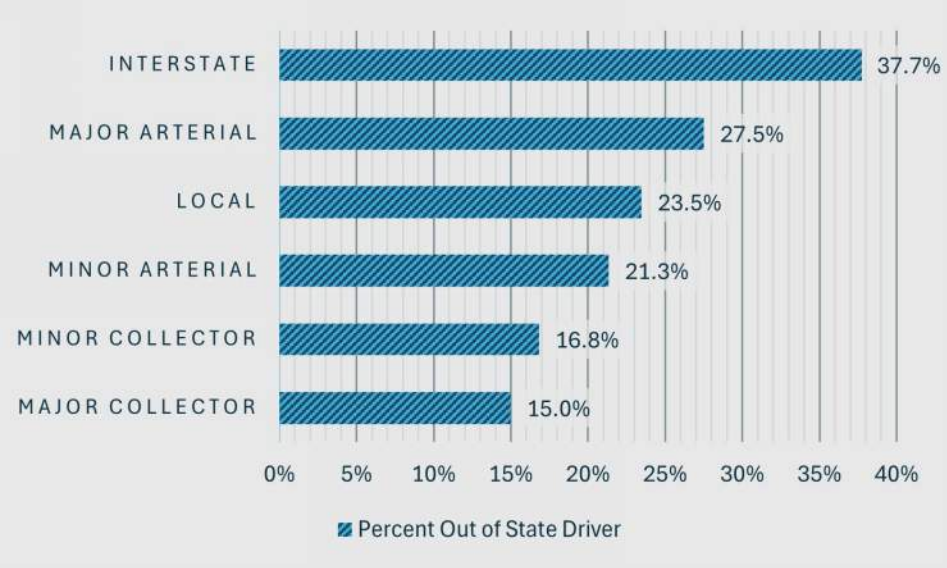


Figure 3-12 Proportion of out-of-state drivers involved in crashes varies by roadway classification

3.2 Systemic Crash Analysis

The intent of this section is to provide stakeholders in Sevier County with a holistic understanding of what is driving crash risk and injury outcomes in their jurisdictions. Systemic crash analysis achieves this by describing what types of locations are at increased risk and where potential opportunities exist to make an impact, and to do so in an unbiased, data-driven manner. The information in this section is intended to assist in network screening and in the targeting of programmed site improvements.

3.2.1 Crash Model Relationships

Regression models quantify relationships between roadway attributes and crash risk, while controlling for other variables. These trends do not necessarily indicate a cause-and-effect relationship, but they can still be informative and may be worth exploring in more detail. To better understand the complex nature of how these relationships impact crash risk, future studies should target more specific analysis.

Predictions are made per unit of vehicle exposure, i.e. million-vehicle-miles (MVM) for segments and million-entering-vehicles (MEV) for intersections and curves. This isolates the impact on safety for each road user, instead of allowing locations with the highest vehicle volumes to dominate.

The following tables shows relationships identified in the predictive models. Positive relationships (**+**) indicate an increase in that attribute correlated with an increase in the crash risk for each vehicle using the roadway or intersection. Negative relationships (-) imply the opposite. Complex (**~**) relationships were indicated as significant overall, but they were non-linear and may not have achieved statistical significance positively or negatively. This can occur when the relationship is only significant for a subset of the sites or its relationship to crash risk is both positive and negative at differing values in its range.

Segments

Roadway segment models showed the strongest predictive ability with geometric design characteristics like curvature, pavement width, shoulder width, number of lanes, and the number of intersections.

Horizontal curvature and intersection density showed significant effect on all road types. Curvature and road width had a joint effect on crash risk, but only for 2-lane roadways.

Segment Attributes	Relationship
Traffic Volume	-
Horizontal Curvature (-2Lane Roads)	+
Horizontal Curvature (Multilane Roads)	-
Average Lane Width (-2Lane Rural Roads)	~
Intersecting Volume	~
Lane Width (-2Lane Roads)	~
Shoulder Width & Pavement Width	~

Intersections

Many relationships predicting intersection crashes were significant only at partial-stop controlled intersections. These intersections were particularly sensitive to the ratio of vehicle volumes on the major and minor roads. Angle of roadway approaches was also a significant predictor of crash risk.

Left turn lane presence affected crash outcomes, dependent on both adjacent and opposite thru lane volumes. A similar relationship was. This effect was observed for partial stop and signal controlled intersections, although the relationship differed between the two traffic control types.

Intersection Attributes	Relationship
Traffic Volume	+
Major Road Deflection (Partial Stop Control)	+
Major / Minor Volume Ratio (Partial Stop Control)	~
Approach Volume & Left-Turn Lane Presence (Signal & Partial Stop Control)	~
Opposing Volume & Left-Turn Lane Presence (Partial Stop Control)	~

Curves

Crash risk in curves was most strongly linked to total pavement width, unpaved shoulder width, and curve geometry. Very tight curves showed a reduced crash risk, although data was sparse in that region, and curves with an estimated design speed of 35 miles per hour and greater showed a significant and strong reduction in crash risk. Curve radius showed a significant increased crash risk with design speeds between 15 and 30 miles per hour. Compound curves correlated with an increased number of crashes, but this effect diminished in multi-curve sections after about 5 curves.

Vehicle volume had no significant impact on per-vehicle crash risk at volumes lower than approximately 3,000 vehicles per day. Above that volume, crash risk was strongly negative.

The effect of paved shoulder width was minimal, as it seems total pavement width was the more significant measure. However unpaved shoulders of a few feet did indicate a slight reduction in crash risk. On sharper curves, pavement width above 20 feet correlated with a decrease in crashes. However, on curves with a design speed higher than 25 miles per hour, this effect was reversed, indicating wider roadways are may not be advantageous for higher speed curves.

Curve Attributes	Relationship
Traffic Volume	-
Curve Design Speed	~
Pavement Width	~
Compound Curvature (Multiple Curves)	+
Shoulder Width	~

3.2.2 Predictive Crash Risk

Predictive crash data modeling led to the identification of a variety of crash risk relationships that can inform project prioritization and countermeasure selection on the transportation network as a whole. The intent is that this network screening allows local agencies to apply countermeasures and/or perform safety audits at many locations, so locations where these practices can be achieved quickly and economically are prioritized.

These systemic recommendations apply anywhere analysis and modeling identify potential for crash risk mitigation, based on the following safety data modeling.

Elevated Crash Risk

Risk models yield predicted crash occurrence rates for each facility on the network. Based on the data available to train these models, some predictions have a larger error range than others. Due to the error range, only locations where models indicate a significantly elevated crash risk with a high degree of confidence are targeted as having potential for crashes. This predictive technique is especially helpful to target lower volume locations, where historical data is more susceptible to being skewed by random variance.

Sites chosen based on predicted elevated crash risk are those where crashes are expected due to roadway attributes identified in the data.

High Residual Crash Risk

A high residual site is one where observed (historical) crashes significantly exceed their predicted value. Each prediction has a standard error associated with it based on the number of similar locations and the quality of the associated data. These residuals (actual crashes minus predicted crashes) are studentized, meaning they are scaled by the variance of each prediction, based on the quality of the data. This allows them to be compared against one another while reducing the skew introduced by limited or inconsistent data.

Sites chosen based on residuals are those where crash risk is elevated, likely due to something not captured in the data, because historical crashes are significantly higher than model predictions.

Systemic Treatment Effects

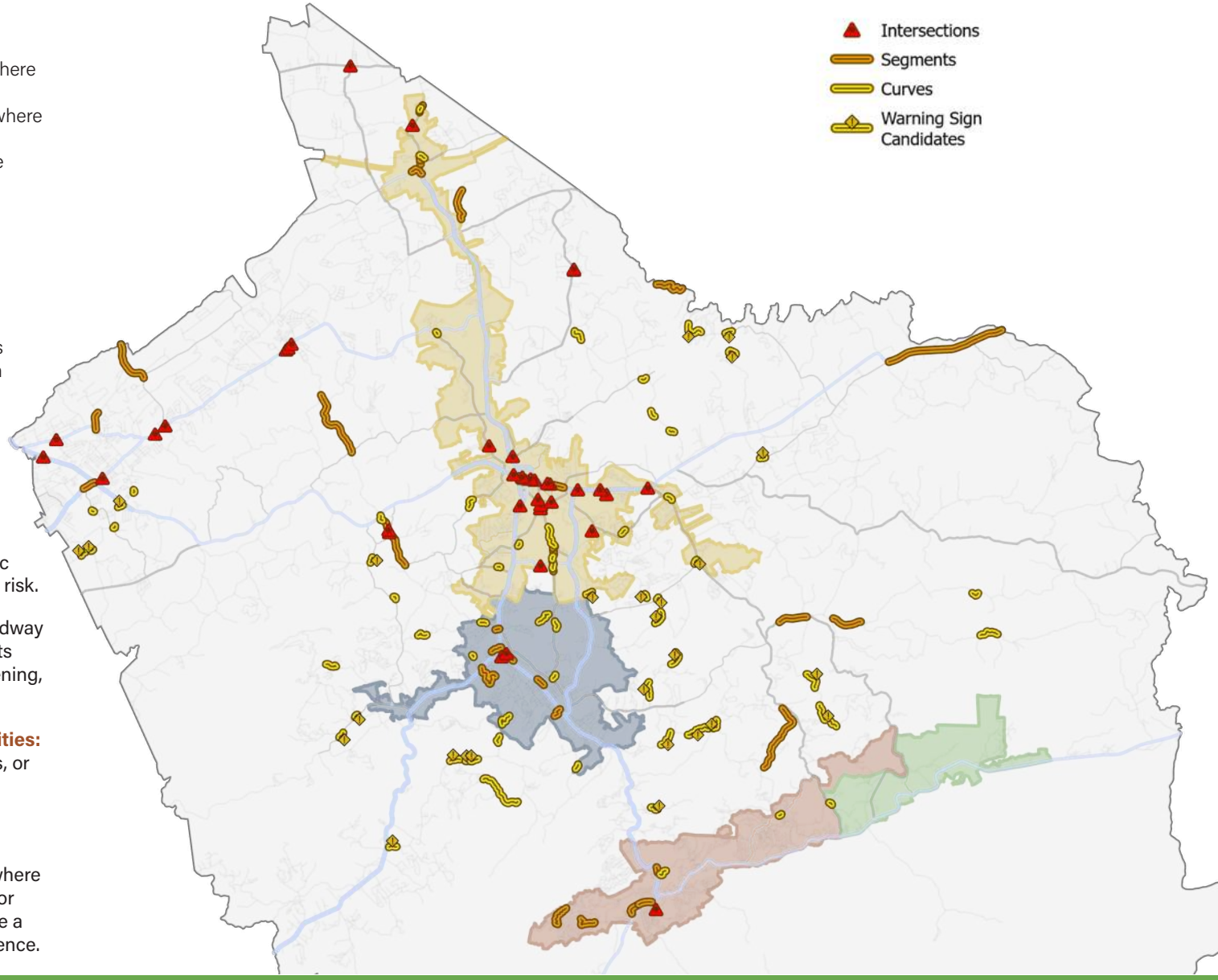
Various analysis methods produce a conditional treatment effect, revealing a likelihood of reducing the crash risk under certain conditions by implementing a specific countermeasure. Some are the result of summarizing the data and identifying sets of characteristics that conditionally affect crash risk. Others result from a causal model, which achieves a similar result by regression rather than inspection. The result of these models is a Conditional Average Treatment Effect (CATE) for each modeled location, which is a change in predicted crashes that would be expected by moving it from the untreated group to the treated, or vice versa.

Sites chosen based on CATE values are those where the data indicates that a change to their design shows the potential for a reduction in crash risk.

Predicted Crash Risk Map

Predicted Crash Risk Map illustrates locations on the roadway network where predictive modeling identified higher than expected crash risk. These include sites where crash risk is elevated due to roadway attributes (Elevated Crash Risk), sites where observed crashes are significantly higher than predicted (High Residual Crash Risk), and sites where conditional treatment effects suggest that countermeasures have strong potential to reduce crashes.

By combining these modeling approaches, the analysis highlights intersections, segments, and curves where targeted countermeasures can improve safety. The map also pinpoints curves where additional or upgraded warning signage has the greatest potential to reduce crashes. This predictive approach provides local agencies with actionable priorities, ensuring that resources are directed toward the locations most likely to benefit from safety investment.



Opportunities

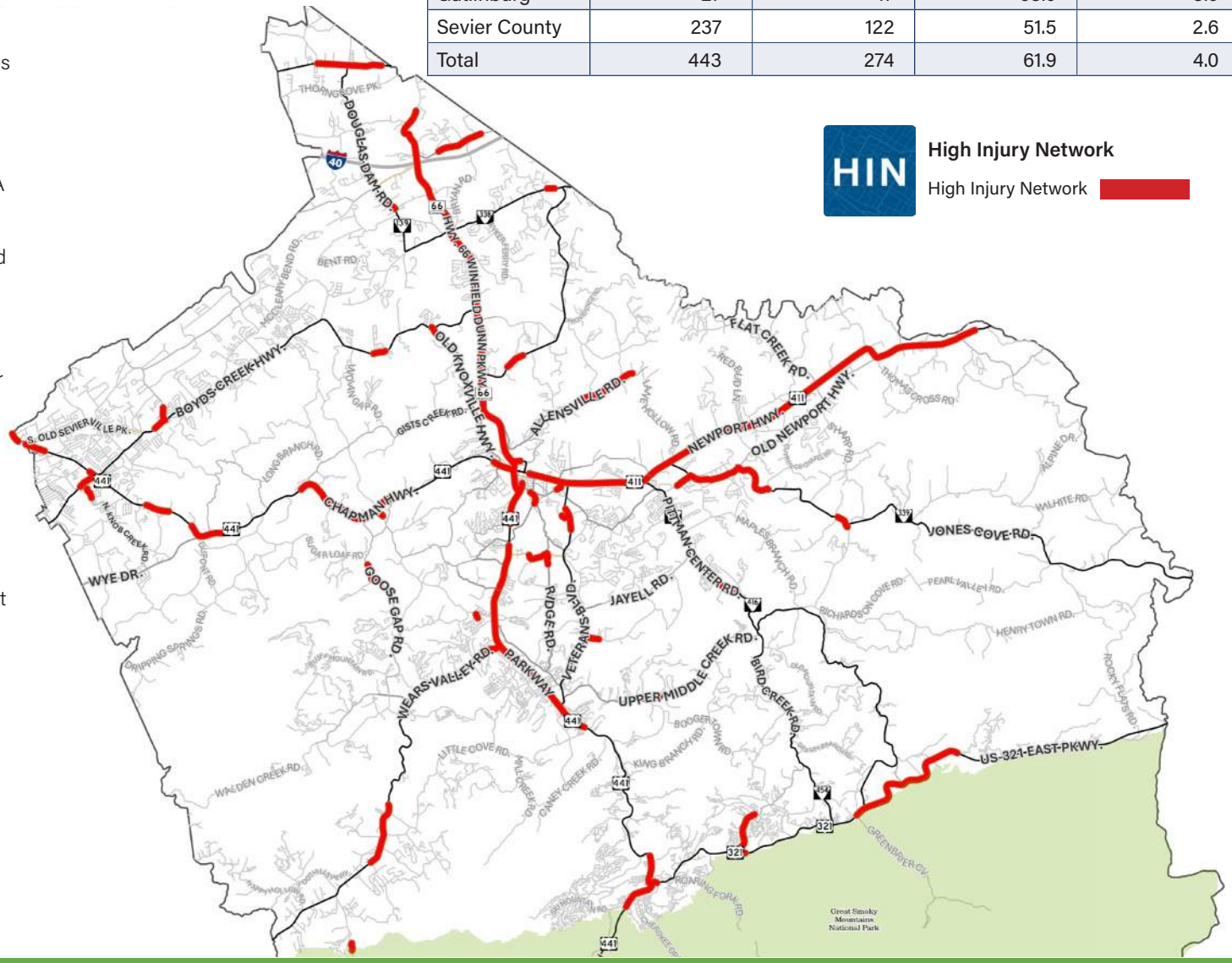
- **Intersection Modification Opportunities:** Locations where intersection design or traffic control changes can address elevated crash risk.
- **Segment Modification Opportunities:** Roadway segments where infrastructure improvements such as access management, shoulder widening, or surface treatments can mitigate risk.
- **Curve Delineation Modification Opportunities:** Curves where additional markings, chevrons, or enhanced delineation can improve driver awareness and reduce roadway departure crashes.
- **Curve Warning Sign Candidates:** Curves where predictive analysis indicates that additional or upgraded curve warning signage would have a measurable effect on reducing crash occurrence.

3.2.3 High Injury Network

The High Injury Network (HIN) was developed individually for each jurisdiction to account for the unique roadway characteristics, travel patterns, and safety concerns present in each area. By tailoring the HIN to each jurisdiction, the analysis reflects localized safety priorities and ensures that the network captures the segments and intersections where serious and fatal (KA) crashes are most concentrated. For each jurisdiction, roadway segments or intersection locations where one or fewer KA crashes were recorded have not been included. This does not discount the unimaginable pain and suffering experienced by crash victims and their families. Instead, this allows the network to focus on the most critical safety locations.

When combined, the comprehensive HIN for Sevier County encompasses 61.9 percent of all KA crashes, concentrated on just 4 percent of total roadway miles. For prioritization purposes, not all locations within the HIN were selected for High-Priority Project Identification. Instead, each jurisdiction's top 30–40 percent of HIN locations—representing the highest crash densities—were identified as the most urgent areas for potential safety improvements.

Jurisdiction	KA Crashes	HIN Crashes	% of Crashes	% of Roadway
Sevierville	125	98	78.4	11.8
Pittman Center	9	7	77.8	14.1
Pigeon Forge	45	30	66.7	6.5
Gatlinburg	27	17	63.0	3.0
Sevier County	237	122	51.5	2.6
Total	443	274	61.9	4.0

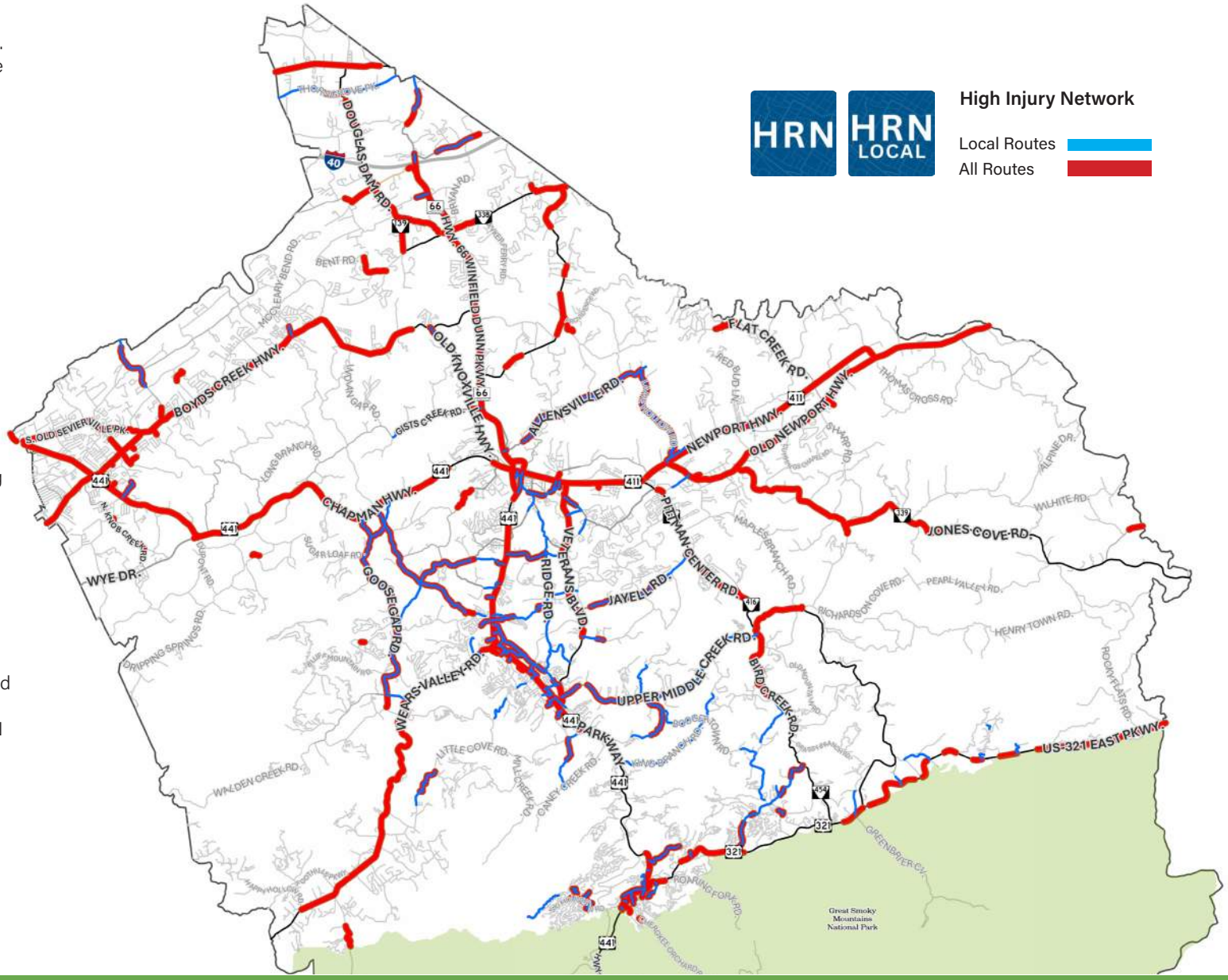


3.2.4 High Risk Network

The High Risk Network (HRN) identifies roadway segments with the greatest potential for future fatal and serious injury (KA) crashes. Since KA crashes represent only a small share of total vehicle interactions—and near misses are never formally documented or reported—this network uses all reported crashes to assess risk. A weighted scoring system is applied, giving the highest weight to fatal crashes and progressively lower weights to serious injury, minor injury, and property damage only (PDO) crashes. This approach highlights locations with recurring crash patterns that have a higher likelihood of resulting in severe outcomes in the future.

The Local High Risk Network (HRN Local) refines this analysis by removing all state and federal routes, focusing exclusively on locally maintained roads. While state and federal facilities carry the highest traffic volumes and account for the majority of crashes, examining the local network separately allows for the identification of high-risk locations that may otherwise be overlooked.

For project prioritization, the High Priority Project Locations were chosen from each jurisdiction's top 30–50 percent of HRN locations—representing the highest crash densities—ensuring that resources are directed to the areas with the greatest potential for safety improvement. The comprehensive HRN covers 72.5% of the county's total crashes on 11.1% of roadway miles, while the HRN Local captures 50.4% of total local road crashes on just 6.9% of local roadway miles. Together, these networks provide a valuable tool for targeting safety investments on both high-volume corridors and lower-volume local streets with recurring crash issues.



4.0

Engagement & Collaboration

4.0 Engagement & Collaboration

Engagement and collaboration represent a critical component of this Safety Action Plan, providing opportunities for a broad range of stakeholders to inform the planning process. This chapter outlines the outreach activities conducted and summarizes the feedback collected at each event. Outreach efforts were structured to reach a diverse range of stakeholders, including: community members, local organizations, and key public sector representatives, including public works directors, emergency response personnel, and engineering staff. Engagement activities were distributed across Sevier County to encourage participation from all areas of the community. Feedback collected through these efforts was carefully analyzed and incorporated to guide the development of strategies and recommendations that align with local conditions and community priorities.

4.1 Community Engagement

Community engagement is a vital element of coordinated transportation safety planning. It promotes transparency, supports interagency collaboration, and helps align decisions with regional safety objectives and technical requirements. Early involvement allows potential conflicts to be identified, investment priorities to be refined, and technical issues that could affect implementation to be addressed proactively. To support this process, a Community Leader Task Force and a Public Safety Task Force were convened to provide targeted feedback. Agency representatives provided valuable operational and technical expertise, while broader community feedback offered practical insights on user needs and conditions. Together, these perspectives informed data-driven decisions and strategies that are both implementable and responsive to local priorities. This planning and engagement process helped to ensure that the Safety Action Plan reflects technical considerations as well as community needs.

4.1.1 Pop-Up Events

To engage a broader cross-section of the local community, two public pop-up events were held at historically well-attended local gatherings to meet residents in familiar settings. This approach makes participation more accessible and inclusive, particularly for individuals less likely to attend traditional public meetings. At both events, attendees participated in interactive mapping exercises, using sticky dots and written comments to identify transportation safety concerns.

Feedback from these events provided valuable insight into safety issues identified by the community, including concerns that may not have been reflected in the crash data due to underreporting or the prevalence of near-miss incidents.

POP-UP EVENTS	PARTICIPANTS
Bloomin' BBQ Music & Food Festival (May 2024 ,18-17)	45
Sevier County Fair (August 2024 ,31)	3

Figure 4-1 Photo of Pop-Up Event at Bloomin' BBQ Music & Food Festival

4.1.2 Public Survey

To ensure the safety action plan reflects local priorities and interests, an online survey was used for public engagement, using a survey form and an interactive map. The survey form included questions such as the respondent's primary mode of transportation, biggest safety concern as a driver and non-driver, the largest behavior co ntributing to unsafe conditions, and more. The interactive map allowed participants to place a pin anywhere within Sevier County and categorize their comment based on 1 of the 11 categories available to choose from, as shown in **Table 4-1**. Together, these tools captured community preferences and supported the creation and improvement of the project recommendations. Participation

SURVEY PARTICIPATION
Public Contributors - 449 Contributions – 1,041

Table 4-1 Public Survey Interactive Map Categories

POP-UP EVENTS	PARTICIPANTS
	Speeding Concern
	Pedestrian Safety
	Bicycle Safety
	Lighting Concern
	Visibility Concern
	Roadway Concern
	Accessibility
	Access to Transit
	Near Miss
	Ideas or Suggestions
	Safety Win

4.1.3 Community Leader Task Force

The Community Leader Task Force was comprised of members from Leadership Sevier and Leadership Tomorrow – two programs focused on developing and engaging established and emerging leaders within Sevier County. Engaging this Task Force was twofold: to provide feedback as local community representation and to help promote the public engagement within their respective communities and networks to broaden participation and awareness of the Safety Action Plan. Two Community Leader Task Force meetings were held.

Meeting 1 – April 24, 2024

PARTICIPANTS
April 24, 2024 – 29

The first Community Leader Task Force meeting was held on April 24, 2024, at the outset of the safety study. Although detailed crash data analysis had not been completed, the meeting introduced the Safe Streets and Roads for All grant, provided a high-level overview of recent crash statistics, outlined the purpose and importance of the study, and initiated discussions to identify locations of concern for the community.

Large roll-out maps of each of the five jurisdictions were provided for participants to mark up, allowing them to identify specific safety concerns such as near-miss locations, frequent crash sites, and areas where unsafe driver behavior is often a concern.

Meeting 2 – September 18, 2024

PARTICIPANTS
September 18, 2024 – 32

A follow-up meeting with the Community Leader Task Force was held on September 18, 2024, to present preliminary crash data trends and outline the next phase of public engagement activities. The initial safety findings were shared with participants and the study team provided an overview of the project website and public survey. As key engagement partners, Task Force members were asked to assist in disseminating this information within their networks to enhance public awareness and encourage participation in the survey and upcoming public meetings.

Figure 4-2 Community Leader Task Force Kick Off Meeting

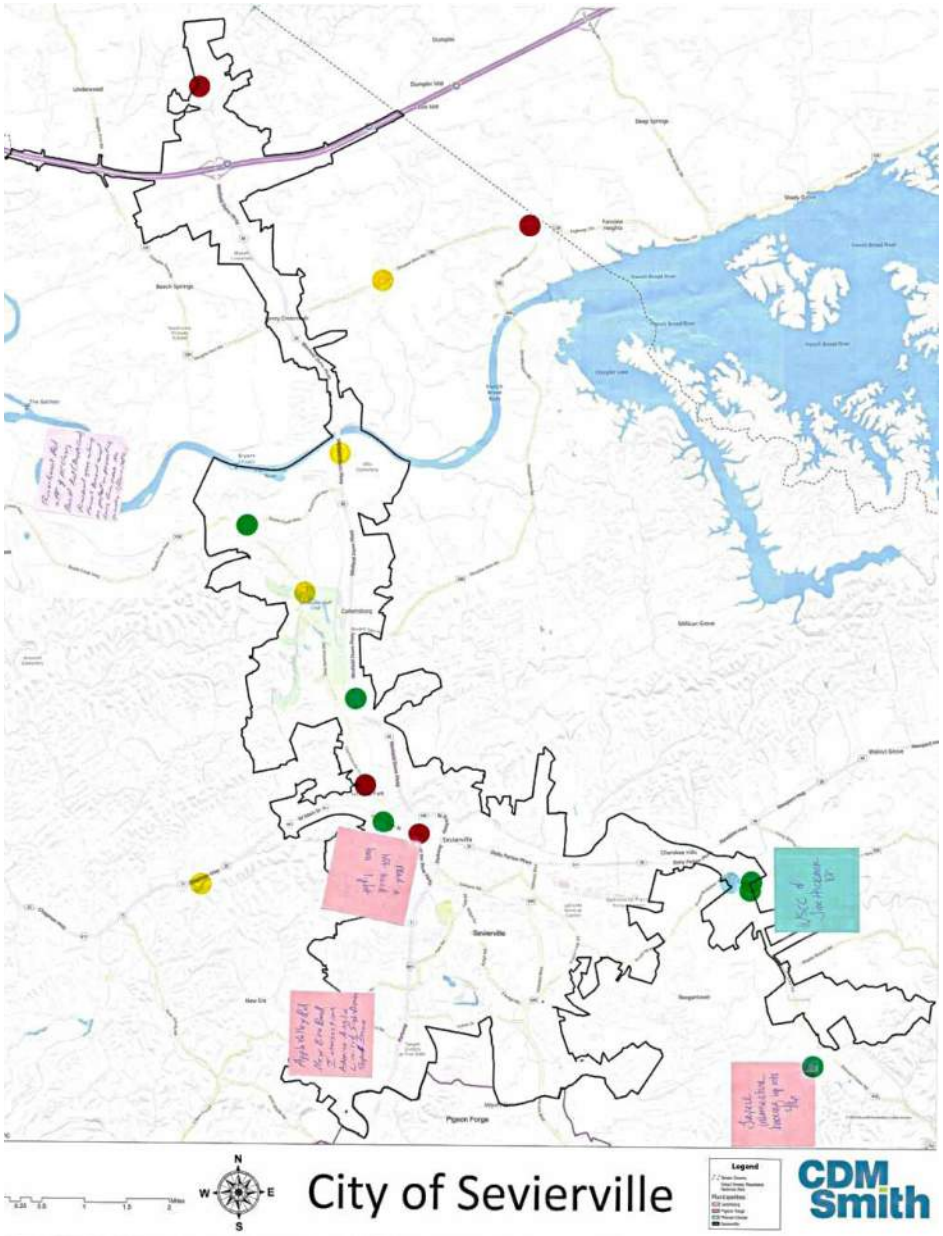


Figure 4-3 Community Leader Task Force Comments

4.1.4 Public Safety Task Force

The Public Safety Task Force was comprised of safety personnel from each jurisdiction, including law enforcement, fire, emergency services, and public works staff. This group played a critical role in identifying locations with recurring safety concerns, particularly areas where first responders are frequently called to address crashes or other roadway incidents.

Figure 4-4 Public Safety Task Force Meeting

PSTF

Meeting 1 – November 12, 2024

PARTICIPANTS
November 12, 2024 – 12

During the Public Safety Task Force meeting, participants marked specific locations on jurisdictional maps to document areas of concern and then ranked those locations based on priority. The operational knowledge and firsthand experience of these task force members provided essential context to help validate crash data trends and inform the development and prioritization of targeted safety strategies within the Action Plan.

4.1.5 Public Meetings

Four public meetings were organized in geographically diverse communities throughout across Sevier County to encourage wide maximize participation and collect valuable feedback gather input from a broad range of community members who frequently use the transportation system users.

November 12, 2024 at Rocky Top Sports World

November 14, 2024 at Northview Academy

November 19, 2024 at Seymour High School

November 21, 2024 at New Center Elementary School

Each meeting began with a presentation by the project team reviewing countywide and jurisdiction-specific crash data to highlight key trends and priority safety concerns. Potential countermeasures were introduced, with explanations of how each could address common issues such as roadway departures, high-speed corridors, and intersection conflicts. The team also summarized preliminary feedback received through the public survey to highlight recurring themes and emerging priorities.

To gather actionable input, attendees were encouraged to participate in three interactive activities:

- **Mapping Activity:** Marking specific locations on maps to identify areas of concern.
- **Priority Ranking:** Listing locations with the greatest safety concerns and identifying potential countermeasures they felt were most appropriate.
- **Improvement Preferences:** Indicating the types of safety improvements they would most like to see implemented.

This format encouraged hands-on participation and meaningful dialogue between residents and the project team. The feedback gathered through these meetings provided localized insight that complemented the crash data analysis.

PUBLIC MEETING	PARTICIPANTS
Gatlinburg (November 12, 2024)	5
Kodak (November 14, 2024)	3
Seymour (November 19, 2024)	7
Sevierville (November 21, 2024)	10

4.2 Summary of Public and Stakeholder Feedback

Engagement and collaboration represent a critical component of this Safety Action Plan, providing opportunities for a broad range of stakeholders to inform the planning process. This chapter outlines the outreach activities conducted and summarizes the feedback collected at each event. Outreach efforts were structured to reach a diverse range of stakeholders, including: community members, local organizations, and key public sector representatives, including public works directors, emergency response personnel, and engineering staff. Engagement activities were distributed across Sevier County to encourage participation from all areas of the community. Feedback collected through these efforts was carefully analyzed and incorporated to guide the development of strategies and recommendations that align with local conditions and community priorities.

4.2.1 Feedback from Pop-Up Events

The pop-up events helped engage community members who may not have participated in traditional meetings or surveys. Feedback collected at these events reinforced many of the concerns expressed in other forums, including speeding, intersection and angle crash concerns, and need for roadway widening. Participants also highlighted localized issues, such as unsafe passing zones, inadequate shoulders, and areas with poor sight distance. These sessions were particularly valuable in identifying near-miss locations and other unreported safety concerns, offering a qualitative layer of insight that complemented the quantitative crash data.

4.2.2 Feedback from Task Force Meetings

The Community Leader Task Force provided critical insight into localized safety concerns and community priorities. Members identified areas with frequent near-misses, roadway departures, and access challenges that may not be captured in the crash data. They emphasized the need for targeted countermeasures, such as shoulder or lane widening, speed management tools, and intersection enhancements. The Public Safety Task Force contributed operational context by identifying locations with a high frequency of emergency response calls. Their input helped validate crash data trends and provided detailed information on the types of incidents occurring, enabling the project team to match countermeasures more effectively to documented issues.

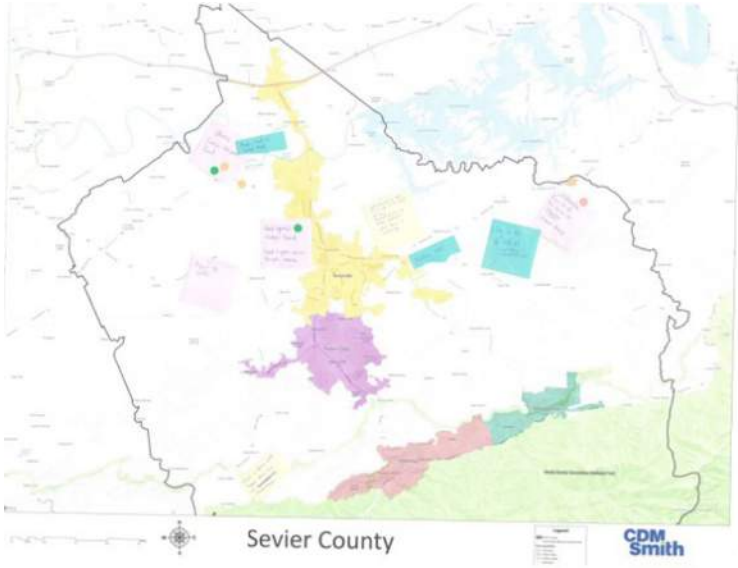


Figure 4-5 Bloomin BBQ Music and Food Festival Map Comments

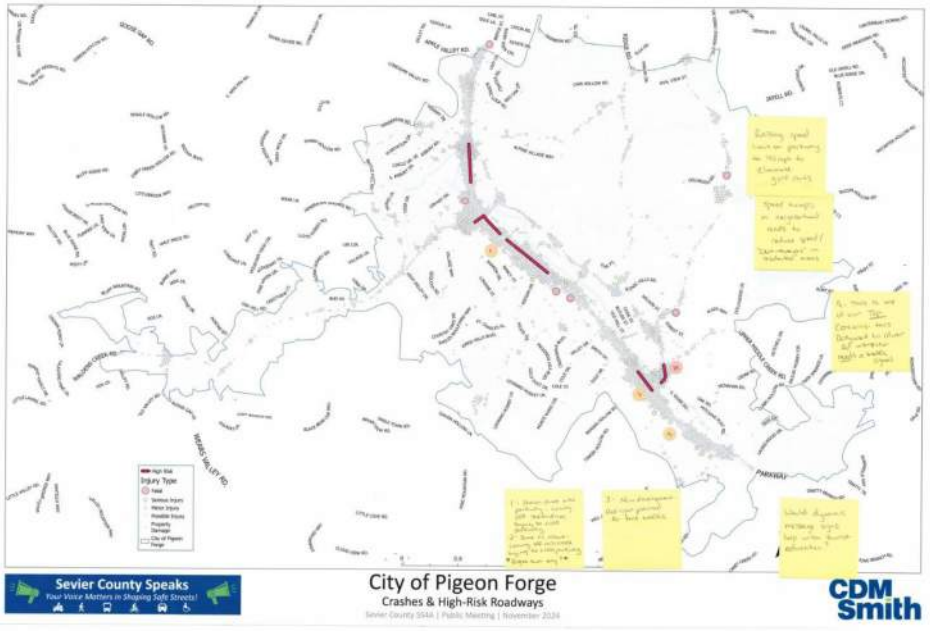


Figure 4-6 Public Safety Task Force Comments

4.2.3 Feedback from Public Survey

The public survey generated valuable countywide feedback, capturing the experiences of residents and regular roadway users. Respondents frequently cited concerns related the condition of the roadway, limited visibility at key intersections, and near-misses. Many also highlighted their top safety concerns are speeding, narrow roads, and dangerous curves. The survey results also reflected the top contributing factors to unsafe driving are aggressive driving, distracted driving, unfamiliar drivers, and speeding.

Figure 4-7 Public Survey Mapping Exercise Summary

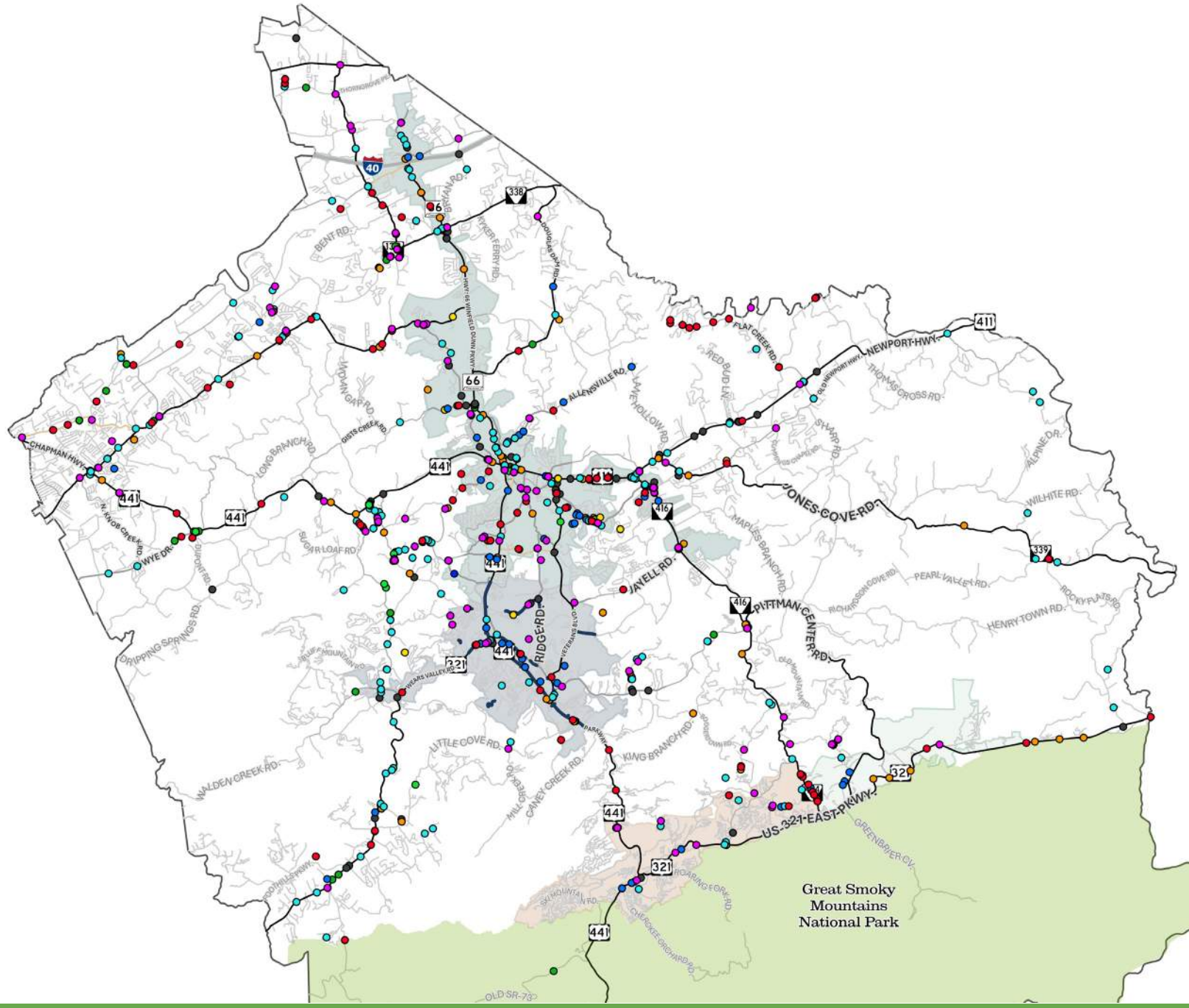
Figure 4-8 Top Contributing Factors to Unsafe Driving

Figure 4-9 Top Safety Concerns for Drivers

Figure 4-10 Top Safety Concerns for Non-Drivers

Figure 4-11 Key Findings from Public Survey

Public Survey Responses



4.2.4 Feedback from Public Meetings

The four public meetings provided an opportunity for in-depth discussion and interactive feedback. Participants engaged in mapping exercises to pinpoint safety concerns, ranking their top-priority locations, and shared preferences for specific types of improvements. Across the county, common themes emerged, including the need for speed management on rural roadways as well as improvements to intersection control and visibility. Participants also expressed support for data-driven improvements, particularly where proposed countermeasures were explained in terms of their ability to address specific crash patterns or operational issues.

Figure 4-12 Exercise from Public Meetings

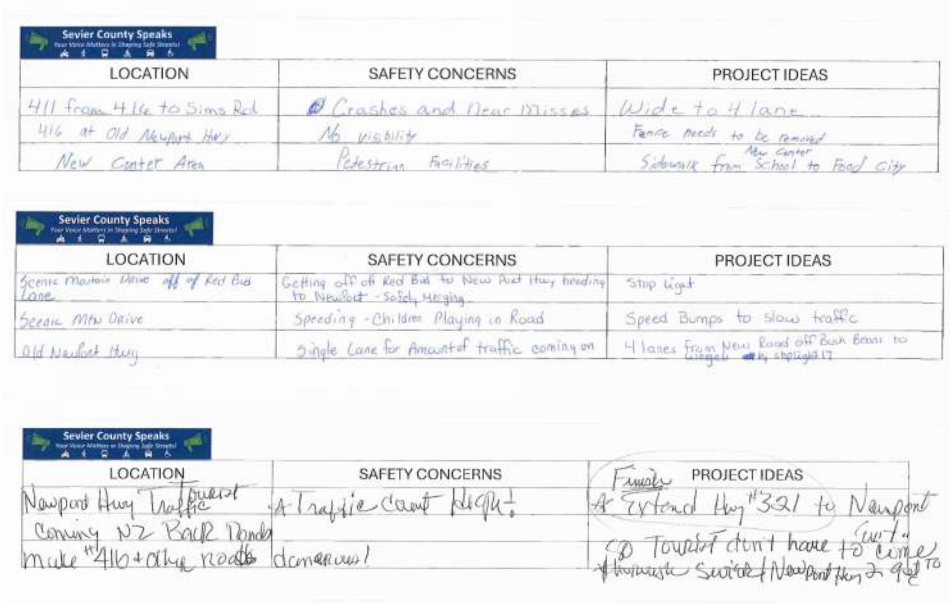


Figure 4-13 Safety Concern and Project Feedback

Figure 4-14 Photo of Public Meeting at Rocky Top Sports World

5.0

Policy & Process Changes

5.0 Policy & Process Changes

The Sevier County Comprehensive Safety Action Plan recognizes that building a safer transportation network requires more than physical infrastructure improvements. It also demands policy and process changes that embed roadway safety as a core value in every decision made by Sevier County and its municipalities—Sevierville, Gatlinburg, Pigeon Forge, Pittman Center, and the unincorporated county. Incorporating these changes into daily operations, long-range planning, and development review processes would keep safety as a central consideration in transportation, land use, and capital investment decisions.

Sidewalks & Bikeways

Subdivision regulations, zoning ordinances, and land use policies could be reviewed and updated to include clear criteria for when sidewalks and safe bicycle infrastructure are required in new developments. By integrating these elements during the design phase – where appropriate – the county and municipalities can minimize the need for expensive retrofits and ensure that safety is built into the community from the outset.

Safe System Framework

Institutionalizing a Safe System approach shifts the county's focus from reacting to high-crash locations to proactively reducing risk across the entire system. Embedding safety metrics and crash reduction factors into project prioritization will ensure that safety outcomes are considered alongside cost, congestion, and mobility when evaluating transportation investments.

Long Range Transportation Plan (LRTP)

The Sevier County Transportation Board could incorporate the Action Plan's larger high-priority safety projects into the Long-Range Transportation Plan (LRTP). Doing so programs these initiatives into the county's capital improvement framework, positioning them to compete effectively for state and federal funding. This integration also connects near-term safety actions with long-term transportation goals, ensuring that safety improvements become foundational elements of the future transportation network rather than stand-alone initiatives.

Formal Collaboration

Coordinated planning and project delivery can be strengthened by establishing a countywide safety review panel composed of representatives from Sevier County, municipal governments, TDOT, and emergency services. This panel would assess key projects that span jurisdictional boundaries during the concept and design phases, allowing for early identification of safety improvements. Additionally, local roadway design policies should be updated to require the use of AASHTO, MUTCD, ADA, and PROWAG standards, thereby aligning expectations for speed management, pedestrian crossings, lighting, and multimodal facilities.

Operations & Maintenance

The county could integrate safety into operations and maintenance to address hazards proactively. Work order processes could authorize maintenance crews to install high-visibility crosswalks markings, update signage, or trim vegetation for sightlines without requiring separate project funding cycles. Local maintenance crews could also be equipped and routinely trained to properly install speed and road departure countermeasures, such as speed feedback signs, guardrail, or warning signs.

Funding Requirements

Policy changes can also secure funding and encourage safety-first investments. The county and each local jurisdiction could require safety impact assessments for roadway projects seeking local match funding to ensure measurable safety benefits. This would be a formal, independent evaluation of how a proposed road project or traffic scheme could affect the number and severity of traffic crashes on existing and future roads.

Community Engagement

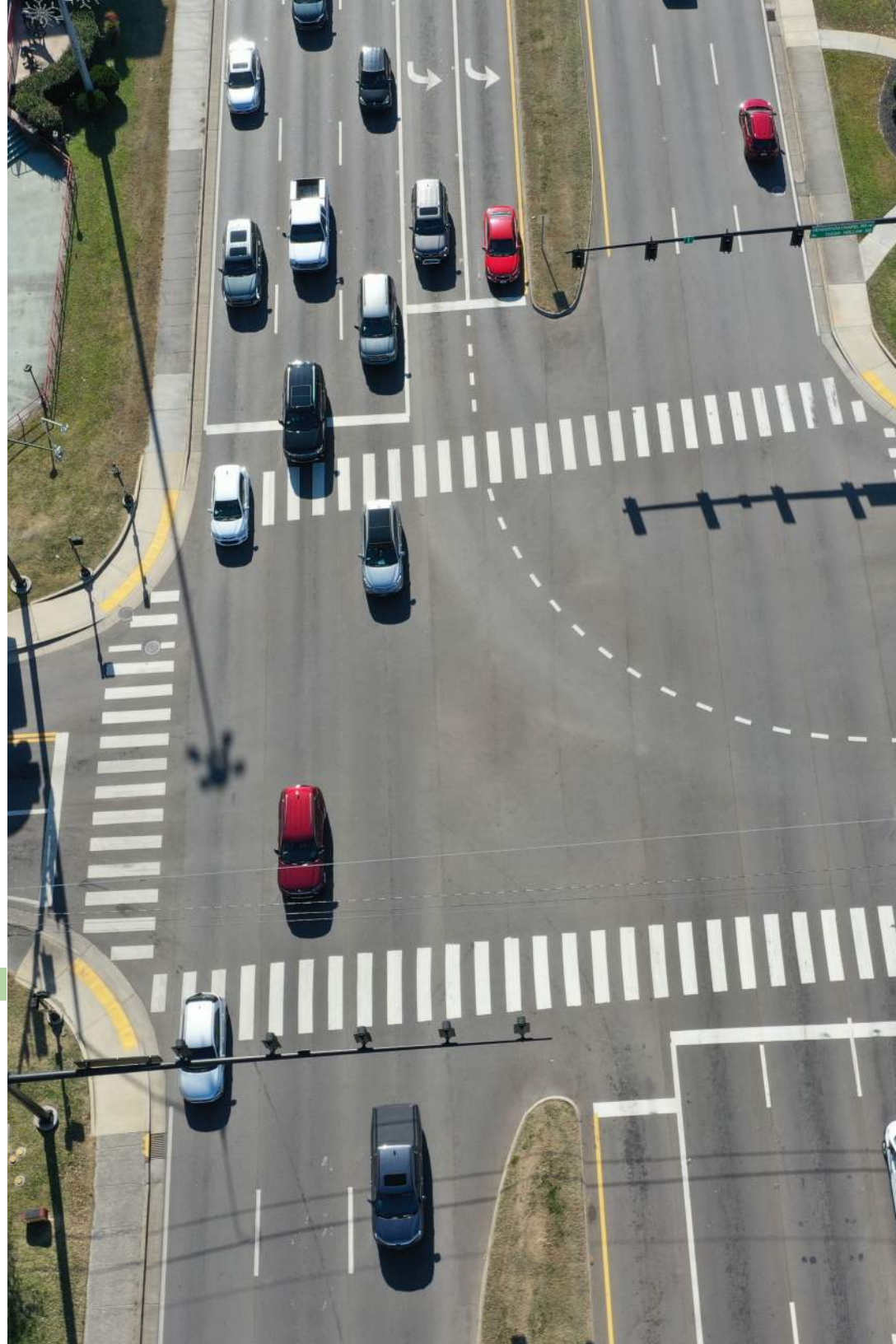
The county could embed community engagement into its decision-making. It can formalize community safety audits in which residents and business owners join walking and biking reviews of their neighborhoods. Public education and coordinated enforcement campaigns could target behaviors such as speeding, failing to yield to pedestrians, and distracted driving.

Evaluation & Continuous Improvement

Finally, the county could conduct before-and-after studies of completed projects to measure effectiveness and refine design standards. A review and update of safety-related ordinances every five years would allow Sevier County to incorporate lessons learned, adopt new technologies, and stay aligned with evolving best practices.

6.0

Project Identification & Prioritization



6.0 Project Identification & Prioritization

6.1 High Priority Project Identification

Sevier County's Safety Action Plan uses a data-driven, inclusive, and field-informed approach to identify and prioritize safety projects. This process ensures that investments address the most critical crash locations and community concerns while supporting equitable and effective solutions.

The process begins with a comprehensive analysis using multiple inputs to locate high-crash and high-severity areas.

After data and community inputs are analyzed, an **internal safety review** is conducted. This multidisciplinary discussion evaluates crash patterns, contributing factors, and potential countermeasures.

Following this review, the project team **visits each high-priority location in the field** to observe on-the-ground conditions, verify contributing factors, and identify practical improvements.

Finally, **potential project concepts are shared with local staff and decision-makers** to gather input, ensure alignment with local priorities, and confirm feasibility before moving forward to design or implementation phases.

This collaborative, evidence-based process ensures that projects directly target Sevier County's most pressing roadway safety needs while reflecting community values and local knowledge.

6.1 High Injury & High Risk Networks

The High Injury Network (HIN) and High Risk Network (HRN) are historical crash maps highlighting corridors where crashes occurred with the greatest frequency. The HIN summarizes only fatal & serious injury crashes, while the HRN incorporates all crashes, weighted by severity. These analyses target clusters of crashes along roadways, so the results are not equivalent to simply the highest crash locations overall. More details and maps are included in Sections 3.2.2 and 3.2.3.

HIGH PRIORITY IDENTIFICATION CRITERIA

High Injury Network (HIN), including all roads

Identifies corridors and intersections with the highest concentrations of fatal and serious injury crashes across the entire county network.

High Risk Network (HRN), including all roads

Identifies roadway segments with recurring crash patterns, using a weighted analysis of all crash types to highlight locations most in need of proactive safety improvements.

High Risk Network (HRN), excluding federal & state roads

Provides a localized risk-focused analysis to guide county-led improvements.

Community Task Force input

Collects qualitative insights from local stakeholders who understand daily travel patterns, local concerns, and near-miss events.

Public Safety Task Force input

Incorporates feedback from law enforcement, emergency responders, and public safety professionals who encounter safety challenges firsthand.

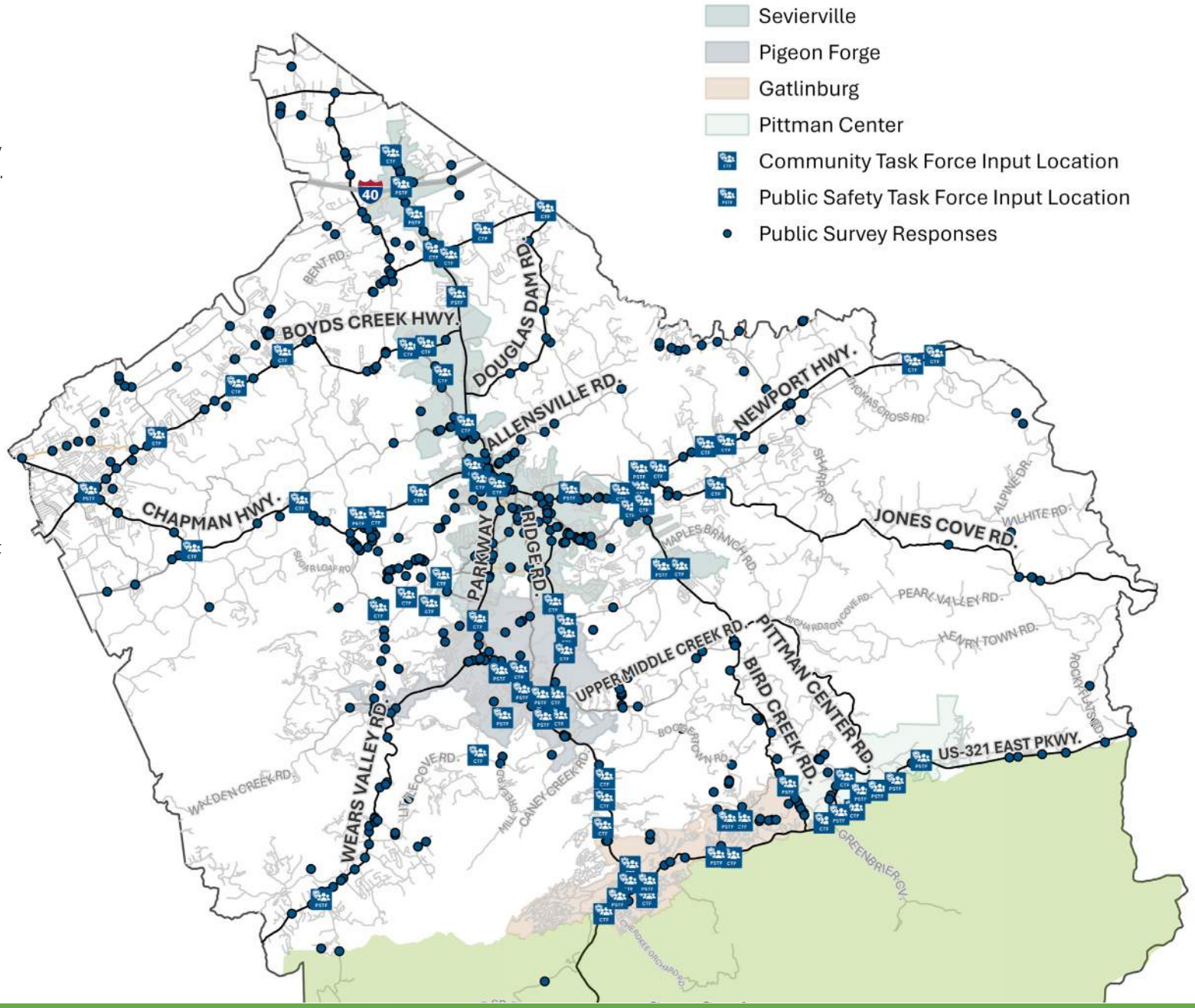
Public Outreach events and community survey feedback

Ensures that resident and visitor perspectives are integrated, highlighting locations where people feel unsafe or have experienced close calls.

6.2 Task Forces & Public Input

Public and stakeholder engagement played a central role in shaping the Sevier County Comprehensive Safety Action Plan. The map above illustrates the locations where feedback was received from the Community Task Force and the Public Safety Task Force. At these locations, participants identified roadway safety concerns and suggested potential safety projects, ranging from intersection improvements to speed management and pedestrian infrastructure. Task force input ensured that the plan reflects the on-the-ground knowledge of those who work daily in transportation, public safety, and community development.

In addition to task force contributions, the map also highlights the public survey responses received across Sevier County. These responses capture the perspectives of residents, workers, and visitors, providing valuable insights into where roadway users feel unsafe and where investments are most needed.



6.3 High Priority Projects

The High Priority Project Locations represent the most critical roadway segments in Sevier County for targeted safety improvements. These sites were selected through a data-driven process that incorporated the High Injury Network, High Risk Network, and High Risk Network Local. The selection focused on locations with the highest concentrations of fatal and serious injury crashes, as well as areas with recurring crash patterns likely to lead to severe outcomes in the future. To ensure that the list reflects both technical analysis and community priorities, the Community Safety Task Force, Public Safety Task Force, and public input were also used to guide the prioritization process.

The resulting list includes both corridor segments and intersections that represent a range of roadway contexts—from high-volume state routes to lower-volume local roads— ensuring a comprehensive, locally informed approach to addressing safety needs throughout the county. Roadways with existing safety improvements underway or planned were ultimately removed. The table and map that follow provide details on each location, including crash history and the safety networks in which the site was identified.

Project IDs have been assigned to each project and begin with the jurisdiction's initials followed by an assigned number that does not indicate priority ranking.

Of the **18,963 total crashes** that occurred countywide between 2019 and 2024, more than **10,392 crashes (54.8%)** are captured within the High Priority Projects.

Jurisdiction	Total Crashes	High Priority Project Crashes	
		Crashes	%
Sevier County	5,700	1,696	29.8%
Sevierville	8,050	5,378	66.8%
Pigeon Forge	3,639	2,434	66.9%
Gatlinburg	1,436	840	58.5%
Pittman Center	138	44	31.9%
Total	**18,953**	**10,392**	**54.8%**

6.3.1 Sevier County

In Sevier County, a total of 33 High Priority Projects have been identified through a data-driven process that considered crash history, roadway risk factors, and community input. Of the 5,700 crashes that occurred countywide during the study period, 1,696 crashes (29.8 percent) were captured within these High Priority Project locations. While this percentage is lower than in other jurisdictions, it reflects the County's extensive roadway network and the more dispersed nature of crashes across its rural and mountainous areas. The selected locations represent the most significant crash concentrations in the County, ensuring that limited resources are directed toward corridors and intersections with the highest potential for reducing fatalities and serious injuries.

Additional project details, including recommendations and crash mapping, can be found in the Sevier County Jurisdiction SAP in Appendix B.

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
SC-1	US 411 from SR 416 to Sims Rd	HIN HRN HRN LOCAL CTF PSTF PUBLIC	432	4	123	305	3	1	2	0
SC-2	US 411 at SR 339	HIN HRN HRN LOCAL CTF PSTF PUBLIC	92	0	19	73	2	0	2	0
SC-3	US 411 at Flat Creek Rd	HIN HRN PSTF PUBLIC	20	0	8	12	0	0	0	0
SC-4	Lane Hollow Rd from Walnut Grove Rd to Rauhuff Hollow Rd	HIN HRN LOCAL	66	0	11	55	0	0	0	0
SC-5	Allensville Rd from Sylvia Ln to Robinson Gap Rd	HIN HRN HRN LOCAL	20	2	7	11	1	0	1	0
SC-6	SR 416 at Jayell Rd	HIN HRN LOCAL CTF PSTF PUBLIC	24	0	7	17	0	0	0	0
SC-7	SR 416 from Meadows Dr to Chestnut Springs Way	HIN HRN	22	1	7	14	0	0	0	0
SC-8	Old Newport Hwy from Harrisburg Mill Rd to Jones Cove Rd	HIN HRN HRN LOCAL CTF PUBLIC	58	1	16	41	0	0	0	0
SC-9	SR 454 at Upper Middle Creek Rd	HIN HRN PUBLIC	15	0	4	11	0	0	0	0
SC-10	Grassy Branch Loop at Hawks View Trail	PUBLIC	3	0	1	2	0	0	0	0
SC-11	US 411 at Pleasant Hill Rd	HIN HRN HRN LOCAL CTF PSTF PUBLIC	80	1	25	54	0	0	0	0
SC-12	Pleasant Hill Rd Curve South of US 411	HIN HRN HRN LOCAL PUBLIC	75	1	12	62	0	0	0	0
SC-13	Whites School Rd at Pleasant Hill Rd & River Divide Rd	HIN HRN HRN LOCAL	51	2	8	41	0	0	0	0
SC-14	Whites School Rd from US 411 to Goose Gap Rd	HIN HRN HRN LOCAL CTF PUBLIC	31	0	5	26	0	0	0	0
SC-15	Whites School Rd at Goose Gap Rd	HIN HRN HRN LOCAL PUBLIC	9	0	1	8	0	0	0	0
SC-16	Goose Gap Rd from Whites School Rd to Seagle Hollow Rd	HIN HRN HRN LOCAL PUBLIC	78	0	29	49	0	0	0	0
SC-17	Goose Gap Rd at Gibson Hollow Rd	HIN HRN HRN LOCAL	8	0	4	4	0	0	0	0
SC-18	Goose Gap Rd Near Sleepy Valley Ln	HIN HRN HRN LOCAL PUBLIC	29	0	5	24	0	0	0	0

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
SC-19	River Divide Rd from Whites School Rd to Henderson Rd	HIN HRN LOCAL PUBLIC	116	0	28	88	0	0	0	0
SC-20	US 411 from Zion Hill Rd to Whites School Rd	HIN HRN CTF PUBLIC	57	3	12	42	0	0	0	0
SC-21	US 441 at Wye Dr	HRN PUBLIC	40	1	12	27	0	0	0	0
SC-22	US 441 at SR 338	HRN PSTF PUBLIC	155	0	26	129	0	0	0	0
SC-23	US 441 at Macon Ln	HRN LOCAL	58	0	11	47	0	0	0	0
SC-24	SR 338 at Porterfield Gap Rd	HRN CTF PUBLIC	23	0	4	19	0	0	0	0
SC-25	Porterfield Gap Rd from W Union Valley Rd to Knox County Line	HRN HRN LOCAL PUBLIC	55	0	17	38	0	0	0	0
SC-26	Gists Creek Rd at Cedar Top Dr	HRN HRN LOCAL PUBLIC	8	0	4	4	0	0	0	0
SC-27	US 321 from Robeson Rd to Valley View Rd	HRN HRN PUBLIC	81	1	27	53	0	0	0	0
SC-28	US 321 at Line Springs Rd	HRN PSTF PUBLIC	19	0	3	16	0	0	0	0
SC-29	US 25W from Anna Maria Ln to Robinhood Cir	HIN HRN PUBLIC	58	2	25	31	0	0	0	0
SC-30	US 25W at SR 139	HRN PUBLIC	36	0	15	21	0	0	0	0
SC-31	SR 139 from Catlett Dr to W Mount Rd	HRN PUBLIC	16	2	4	10	1	0	1	0
SC-32	East Dumplin Valley Rd from County Limits to Sevierville City Limits	HIN HRN HRN LOCAL PUBLIC	21	0	10	11	0	0	0	0
SC-33	Snyder Rd from Sevierville City Limits to Banks Tr	HRN HRN LOCAL CTF PUBLIC	29	0	6	23	0	0	0	0

6.3.2 Sevierville

In Sevierville, 29 High Priority Projects have been identified, targeting locations with the highest concentrations of severe and recurring crashes. Of the 8,050 crashes that occurred within the city during the study period, 5,378 crashes (66.8 percent) were captured within these project locations. This high percentage reflects the city's more compact roadway network and the concentration of traffic volumes and crash activity along key corridors. The selected projects focus on addressing these high-density crash areas, providing the greatest opportunity for measurable safety improvements within Sevierville's jurisdiction.

Additional project details, including recommendations and crash mapping, can be found in the Sevierville Jurisdiction SAP in Appendix C.

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
S-1	SR 449 at Middle Creek Rd	HIN HRN HRN LOCAL PUBLIC	39	1	5	33	1	0	1	0
S-2	SR 449 from Middle Creek Rd to Collier Dr	HIN HRN PUBLIC	174	2	28	144	1	0	1	0
S-3	Middle Creek Rd from SR 449 to Ernest McMahan Rd	HIN HRN LOCAL PUBLIC	55	0	9	46	0	0	0	0
S-4	Middle Creek Rd from US 411 to SR 449	HRN HRN LOCAL PUBLIC	80	0	11	69	0	0	0	0
S-5	Eastgate Rd from Middle Creek Rd to High St	HRN HRN LOCAL PUBLIC	98	0	9	89	0	0	0	0
S-6	Park Rd at Eastgate Rd	HRN HRN LOCAL PUBLIC	49	0	6	43	1	0	1	0
S-7	Parkway from Bruce St to SR 66	HIN HRN HRN LOCAL PUBLIC	274	0	28	246	0	0	0	0
S-8	Parkway from Court Ave to Prince St	HRN HRN LOCAL	40	0	7	33	0	0	0	0
S-9	SR 71 from SR 66 to Parkway	HIN HRN PUBLIC	292	0	35	257	2	0	1	1
S-10	US 411 from SR 66 to Pigeon St	HIN HRN PUBLIC	172	0	29	143	3	0	3	0
S-11	US 411 from Love Rd to Mize Ln	HIN	28	1	8	19	0	0	0	0
S-12	SR 66 from US 411 to Bass Pro Dr	HRN HRN LOCAL PSTF PUBLIC	2,368	4	419	1,945	6	0	5	1
S-13	SR 66 from N Parkway to Smoky Mountain Gateway Dr	HRN HRN LOCAL PUBLIC	751	0	109	642	1	0	1	0
S-14	SR 66 from Gists Creek Rd to Hardin Hills Rd	HRN HRN LOCAL CTF PUBLIC	229	0	31	198	0	0	0	0
S-15	SR 66 at SR 338	HRN CTF	150	0	78	72	0	0	0	0
S-16	SR 66 from SR 338 to Two Rivers Blvd	HRN CTF	157	1	36	120	2	0	2	0
S-17	SR 66 at Swaggerty Rd	HRN HRN LOCAL CTF PUBLIC	59	0	15	44	0	0	0	0
S-18	SR 66 at SR 139 (Henry Crossroads)	HRN CTF PUBLIC	134	0	34	100	0	0	0	0
S-19	SR 66 at Mount Rd	HRN HRN LOCAL PSTF PUBLIC	43	0	14	29	0	0	0	0

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
S-20	SR 66 at Gateway Blvd	HRN PUBLIC	57	1	8	48	1	0	1	0
S-21	Interstate 40 Exit 407	HRN HRN LOCAL PSTF PUBLIC	101	2	16	83	0	0	0	0
S-22	Snyder Rd from Hardin Rd to Sevier County Line	HRN HRN LOCAL CTF PUBLIC	32	0	7	25	0	0	0	0
S-23	Parkway from Pigeon Forge City Limits to SR 71	HIN HRN HRN LOCAL	1,022	0	144	878	13	0	10	2
S-24	Collier Dr from Parkway to SR 449	HIN HRN HRN LOCAL PUBLIC	388	0	56	332	4	0	4	0
S-25	Collier Dr at Ridge Rd	HIN HRN HRN LOCAL PUBLIC	28	0	13	15	0	0	0	0
S-26	Ridge Rd from Centerview Rd to Park Rd	HIN HRN LOCAL PUBLIC	161	0	37	124	0	0	0	0
S-27	Old Newport Hwy from US 411 to Rivers Edge Ln	HRN PUBLIC	17	1	4	12	0	0	0	0
S-28	SR 416 at Old Newport Hwy	HRN CTF PUBLIC	34	0	11	23	0	0	0	0
S-29	Ernest McMahan Rd from Belle Meadows Blvd to Fine Glen Dr	PUBLIC	24	0	4	20	0	0	0	0

6.3.3 Pigeon Forge

In Pigeon Forge, 27 High Priority Projects have been identified, focusing on the corridors and intersections with the most significant crash concentrations. Of the 3,639 crashes that occurred in the city during the study period, 2,434 crashes (66.9 percent) were captured within these project locations. This high capture rate reflects the city's concentrated tourist activity and heavy seasonal traffic, which result in crashes being clustered along a limited number of major routes. The selected projects aim to address these high-density crash areas, improving safety for both residents and the millions of visitors who travel through Pigeon Forge each year.

Additional project details, including recommendations and crash mapping, can be found in the Pigeon Forge Jurisdiction SAP in Appendix D.

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
PF-1	Teaster Ln from E Wears Valley Rd to Jake Thomas Rd	HRN, HRN LOCAL, CTF, PUBLIC	31	0	6	25	0	0	0	0
PF-2	Teaster Ln from The Island Dr to Jake Thomas Rd	HRN, HRN LOCAL, CTF, PUBLIC	38	0	4	34	1	0	1	0
PF-3	Teaster Ln from Forest Dr to Ridge Rd	HRN, HRN LOCAL	48	0	11	37	0	0	0	0
PF-4	Teaster Ln at Old Mill Ave	HRN, HRN LOCAL, CTF, PUBLIC	37	0	6	31	0	0	0	0
PF-5	The Island Dr from US 321 to Teaster Ln	HRN, HRN LOCAL, PUBLIC	21	0	3	18	1	0	1	0
PF-6	US 321 at Dollywood Ln	HIN, HRN, PUBLIC	75	0	15	60	0	0	0	0
PF-7	Dollywood Ln at River Rd	HRN, HRN LOCAL, CTF, PSTF, PUBLIC	51	0	20	31	0	0	0	0
PF-8	SR 449 at Dollywood Ln	HIN, HRN, PUBLIC	58	0	9	49	0	0	0	0
PF-9	McCarter Hollow Rd from SR 449 to McCarter Dr	HIN, HRN, HRN LOCAL	32	0	6	26	0	0	0	0
PF-10	US 321 from Sevierville City Limits to Ranmoor Way	HIN, HRN, HRN LOCAL, CTF, PSTF, PUBLIC	1,732	1	295	1,436	18	3	15	0
PF-11	US 321 at Teaster Ln	HIN, HRN, HRN LOCAL, PUBLIC	76	0	12	64	0	0	0	0
PF-12	US 321 at Community Center Dr	HRN, HRN LOCAL, PSTF	30	0	3	27	0	0	0	0
PF-13	US 321 at Wears Valley Rd & Florence Dr	HIN, HRN, HRN LOCAL, PUBLIC	167	0	21	146	0	0	0	0
PF-14	US 321 at Sharon Dr	HIN, HRN, HRN LOCAL, PSTF	84	0	23	61	0	0	0	0
PF-15	US 321 at Jake Thomas Rd	HIN, HRN, HRN LOCAL, CTF, PUBLIC	32	0	6	26	2	2	0	0
PF-16	US 321 at Mill Creek Rd	HIN, HRN, HRN LOCAL	49	0	11	38	0	0	0	0
PF-17	US 321 at Jehu St	HIN, HRN	45	0	9	36	1	0	1	0
PF-18	US 321 at Conner Heights	HIN, HRN, HRN LOCAL, PSTF, PUBLIC	33	0	7	26	1	0	1	0
PF-19	Ridge Rd from Round Top Rd to Highland Park Dr	PUBLIC	20	0	8	12	1	0	1	0

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
PF-20	Ridge Rd from Rolen Hollow Rd to Sugar Hollow Rd	HRN LOCAL, PUBLIC	37	0	13	24	0	0	0	0
PF-21	Sugar Hollow Rd from Alpine Village Way to Ridge Rd	HRN, HRN LOCAL, PUBLIC	51	0	8	43	0	0	0	0
PF-22	Waldens Creek Rd at Goose Gap Rd	HRN, HRN LOCAL, PUBLIC	34	0	5	29	0	0	0	0
PF-23	Henderson Springs Rd Curve near Henry Springs Blvd	PSTF	17	0	2	15	0	0	0	0
PF-24	Wears Valley Rd from Sequioa Rd to McGill St	HIN, HRN, PUBLIC	89	0	16	73	1	0	0	1
PF-25	SR 449 from McCarter Hollow Rd to Jake Thomas Rd	HIN, HRN, HRN LOCAL, CTF, PSTF	66	1	21	44	0	0	0	0
PF-26	Henderson Rd at Hickory Ln	HRN LOCAL	22	0	4	18	0	0	0	0
PF-27	Pine Mountain Rd from Fiddlers Creek Way to Pine Peak Way	HRN LOCAL	28	0	5	23	0	0	0	0

6.3.4 Gatlinburg

In Gatlinburg, 15 High Priority Projects have been identified to address the city's most critical safety concerns. Of the 1,436 crashes recorded during the study period, 840 crashes (58.5 percent) were captured within these project locations. Notably, Gatlinburg has a high proportion of vulnerable road user (VRU) activity, with 40 VRU crashes occurring during the study period; the identified projects capture 36 of these crashes, ensuring that pedestrian and bicyclist safety is a key focus. The selected projects prioritize locations with high visitor foot traffic, challenging roadway geometry, and crash patterns that present the greatest opportunity for reducing severe injuries and fatalities.

Additional project details, including recommendations and crash mapping, can be found in the Gatlinburg Jurisdiction SAP in Appendix E.

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
G-1	**River Road from US 441 to Oak St**	HRN HRN LOCAL PUBLIC	67	0	3	64	2	0	1	1
G-2	Greystone Heights Rd	HRN HRN LOCAL PUBLIC	5	0	0	5	1	0	1	0
G-3	Dudley Creek Rd from US 321 to Ridge Rd	HIN HRN HRN LOCAL	51	0	5	46	0	0	0	0
G-4	US 321 from N Park Ln to Ski Mountain Rd	HIN HRN HRN LOCAL CTF PSTF PUBLIC	500	1	20	479	31	0	29	2
G-5	US 321 at Dudley Creek Rd	HIN HRN HRN LOCAL PSTF	47	0	6	41	0	0	0	0
G-6	US 441 at US 321	HIN HRN CTF PSTF PUBLIC	111	0	1	110	2	0	2	0
G-7	US 321 at Baskins Creek Bypass	HIN HRN HRN LOCAL	28	0	3	25	1	0	1	0
G-8	US 441 at River Rd	HRN HRN LOCAL PSTF PUBLIC	49	0	2	47	7	0	7	0
G-9	US 441 at Reagan Dr & Maples Ln	HRN HRN LOCAL PSTF PUBLIC	33	0	1	32	11	0	10	1
G-10	Glades Rd from US 321 to SR 454	HRN HRN LOCAL CTF PSTF PUBLIC	127	0	22	105	0	0	0	0
G-11	SR 454 at Glades Rd	HRN HRN LOCAL PSTF PUBLIC	10	0	3	7	0	0	0	0
G-12	US 321 at Glades Rd	HRN HRN LOCAL PSTF PUBLIC	32	0	5	27	0	0	0	0
G-13	SR 454 from US 321 to Glades Rd	PSTF PUBLIC	27	0	2	25	0	0	0	0
G-14	SR 454 Curve near Ogle Rd	PUBLIC	15	0	0	15	0	0	0	0
G-15	SR 454 near Berry Clark Dr	PUBLIC	1	0	0	1	0	0	0	0

6.3.5 Pittman Center

In Pittman Center, 8 High Priority Projects have been identified to address safety needs along key roadway segments and intersections. Of the 138 crashes that occurred in the town during the study period, 44 crashes (31.9 percent) were captured within these project locations. While this represents a smaller percentage compared to other jurisdictions, it reflects the town's low overall crash frequency and the dispersed nature of incidents across its rural road network. The selected projects focus on known crash clusters and locations with roadway characteristics that present elevated safety risks, ensuring targeted improvements where they will have the greatest impact.

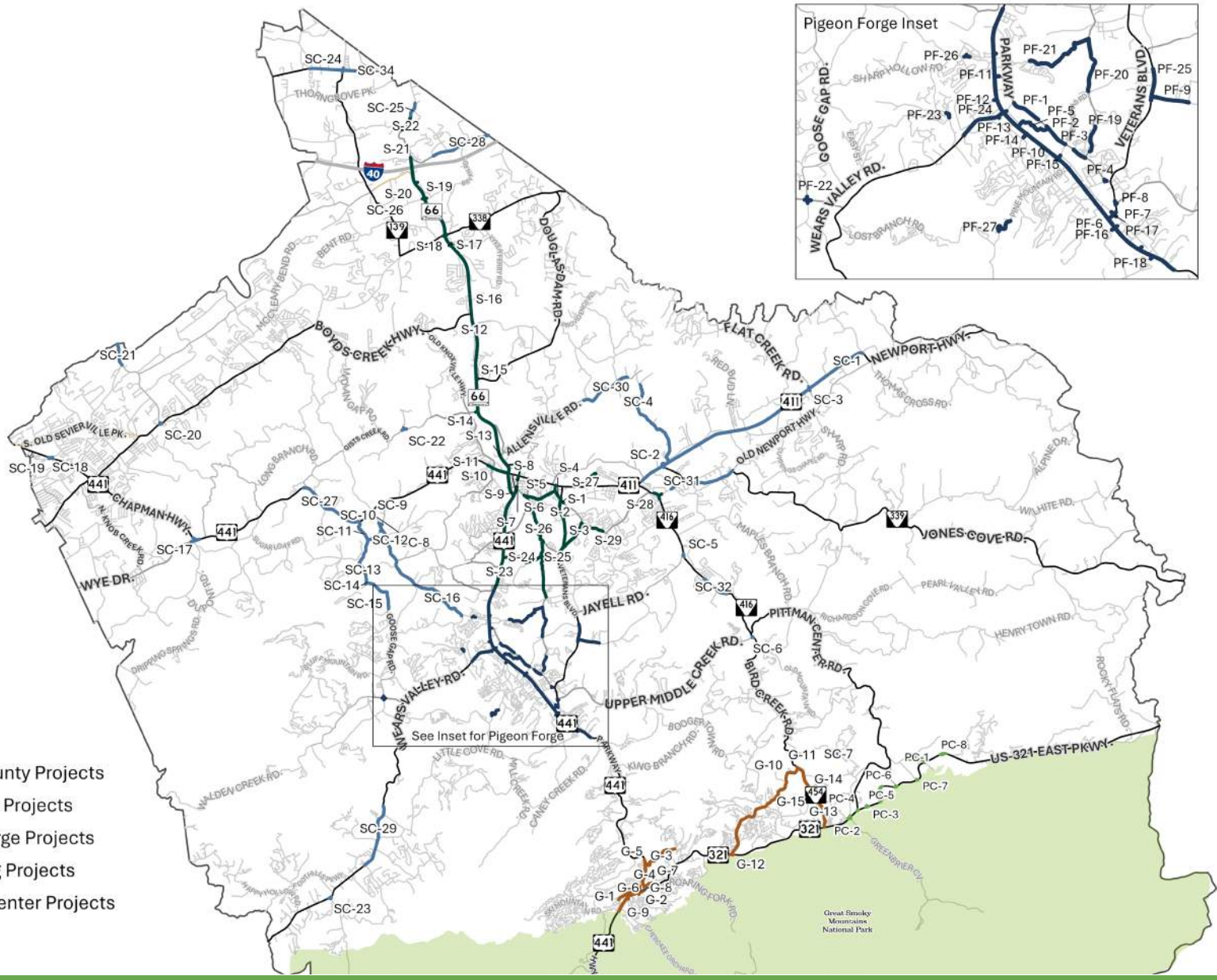
Additional project details, including recommendations and crash mapping, can be found in the Pittman Center Jurisdiction SAP in Appendix F.

ID	Location	Identification	Vehicle Crashes				VRU Crashes			
			Total	K	ABC	O	Total	K	ABC	O
PC-1	**Webb Creek Rd from US 321 to Hickey Rd**	HRN LOCAL	7	0	1	6	0	0	0	0
PC-2	US 321 at Hills Creek Rd & Greenbrier Rd	HRN HRN LOCAL CTF	6	0	2	4	0	0	0	0
PC-3	US 321 at Tom Ogle Rd	HRN CTF	6	0	0	6	0	0	0	0
PC-4	US 321 at SR 416	HRN CTF PSTF	1	0	1	0	0	0	0	0
PC-5	US 321 Curve near John Green Rd	HRN CTF PSTF PUBLIC	12	2	2	8	0	0	0	0
PC-6	US 321 at Copeland Rd	HIN HRN HRN LOCAL PSTF PUBLIC	4	0	2	2	0	0	0	0
PC-7	US 321 at Tunis Rd	HRN PSTF PUBLIC	3	0	0	3	0	0	0	0
PC-8	US 321 at Pittman Center Convenience Center	HRN PSTF PUBLIC	5	0	2	3	0	0	0	0

High Priority Projects Map

Public and stakeholder engagement played a central role in shaping the Sevier County Comprehensive Safety Action Plan. The map above illustrates the locations where feedback was received from the Community Task Force and the Public Safety Task Force. At these locations, participants identified roadway safety concerns and suggested potential safety projects, ranging from intersection improvements to speed management and pedestrian infrastructure. Task force input ensured that the plan reflects the on-the-ground knowledge of those who work daily in transportation, public safety, and community development.

In addition to task force contributions, the map also highlights the public survey responses received across Sevier County. These responses capture the perspectives of residents, workers, and visitors, providing valuable insights into where roadway users feel unsafe and where investments are most needed.



6.4 Supplemental Planning & Demonstration Projects

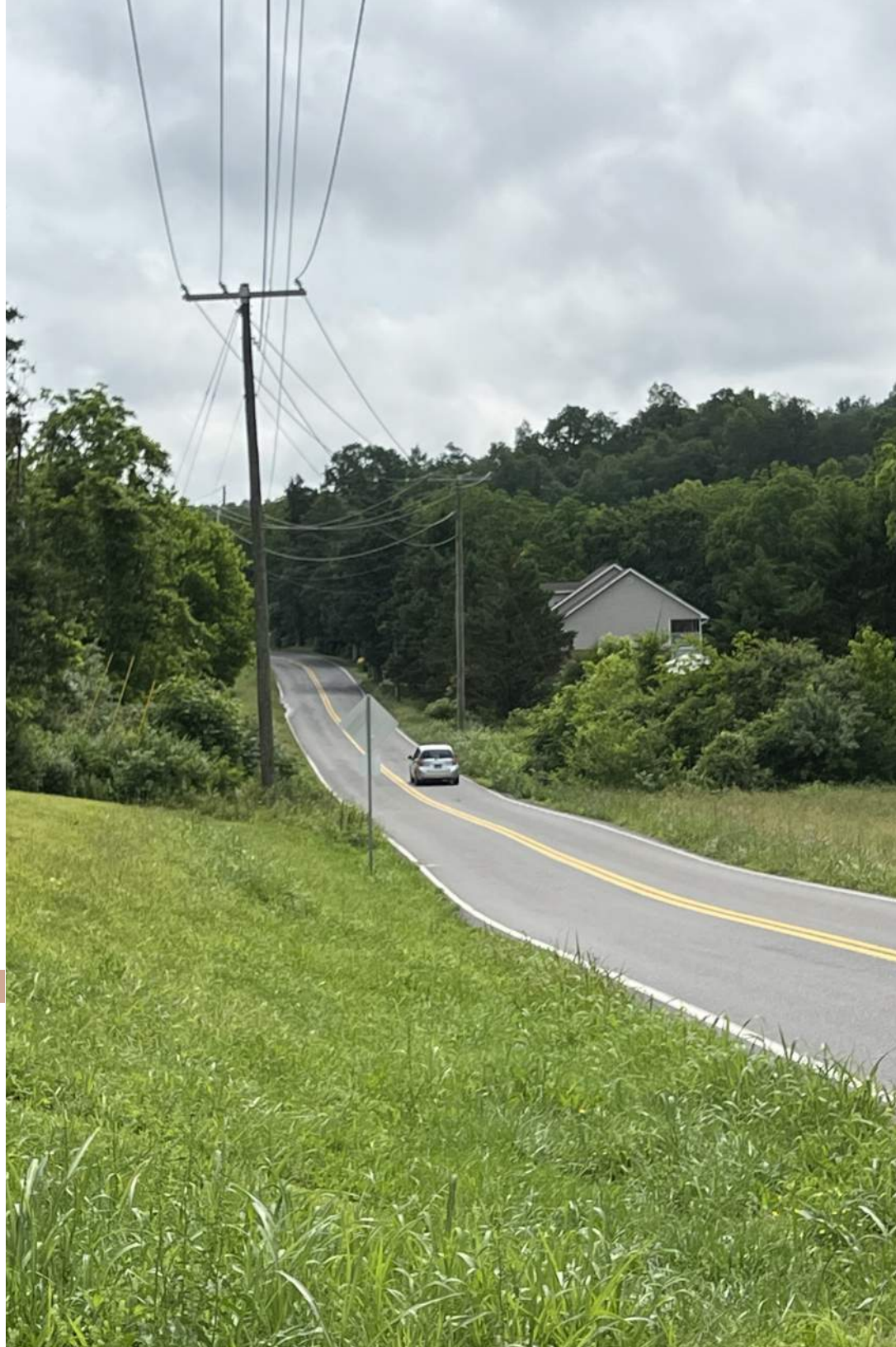
In addition to the High Priority Project Locations, it is recommended that Sevier County and its jurisdictions advance a set of supplemental planning and demonstration projects. These initiatives are designed to strengthen and expand the Safety Action Plan, provide critical data and community feedback, and guide the design of future large-scale capital investments. Each project addresses an identified safety concern while also serving as a testbed for strategies and countermeasures that can be replicated countywide. Collectively, they will help refine implementation priorities, validate countermeasure effectiveness, and ensure that future investments are based on proven approaches tailored to Sevier County's unique roadway conditions and travel patterns. Recommended Supplemental Planning and Demonstration Projects include:

Dynamic Speed Feedback Sign Pilot Study	Deploys mobile radar speed feedback signs at speeding hotspots (school zones, rural curves, speed transition areas) to evaluate their impact on operating speeds and compliance.
Tourist Vulnerable Road User (VRU) Safety Feasibility Study	Tests temporary pedestrian safety enhancements such as curb extensions, high-visibility crosswalks, lighting, and signal timing changes in high-tourism corridors to assess their effect on pedestrian safety and driver yielding.
Dynamic Message Sign & Queue Warning Pilot Study	Uses portable Dynamic Message Signs with queue detection sensors to provide real-time congestion alerts on major tourist corridors, aiming to reduce rear-end and sideswipe crashes.
Speed Management Plan	Countywide analysis of speed profiles, crash data, and roadway context to develop consistent, context-sensitive speed limits and targeted countermeasure recommendations.
Curve Safety Deployment Toolkit	Creates a set of standard, low-cost curve safety design packages and a field manual for rapid deployment by County crews at high-risk curve locations.
School Zone Safety Audit	Conducts consistent, countywide mini road safety audits for 21 school zones, producing tailored, low-cost safety recommendations.
Parkway Median Access Study	Evaluates access management strategies along the Parkway in Pigeon Forge to reduce turning movement crashes through median modifications, U-turn accommodations, and driveway consolidation.
Teaster Lane Corridor Study	Assesses multimodal needs, intersection performance, and pedestrian connectivity along Teaster Lane, a growing alternative to the Parkway.
River Road Corridor Study	Evaluates operational, safety, and multimodal improvements along River Road in Gatlinburg, focusing on pedestrian crossings, access, and congestion mitigation.
State Route 66 Corridor Study	Studies safety and mobility conditions from I 40 through downtown Sevierville, identifying crash patterns, operational bottlenecks, and multimodal improvements.
Road Safety Audits	Performs site-specific safety audits at Copeland Rd, Tunis Rd, Webb Creek Rd & Dudley Creek Rd/Ridge Rd to recommend low-cost improvements such as signage, chevrons, and realignments.

Additional information on the recommended supplemental planning and demonstration projects can be found in Appendix G.

7.0

Emphasis Areas & Recommended Countermeasures



7.0 Emphasis Areas & Recommended Countermeasures

7.1 Emphasis Areas

Sevier County's roadway network is unique: it supports millions of visitors each year, rural communities, and a vibrant local population. This diversity creates distinct safety challenges. Based on crash data analysis, local knowledge, and community feedback, five Emphasis Areas have been identified to guide Sevier County's Safety Action Plan and future projects.

Speed Management

Managing vehicle speeds is critical to reducing the severity and likelihood of crashes. In Sevier County, this includes addressing variable speeds due to terrain, enforcing safe speeds in school zones, and improving safety on curves. Speed management strategies — such as dynamic speed feedback signs and consistent speed limit setting — help support a safer, more predictable roadway environment.

Rural Roadway Safety

Sevier County's mountainous and rural roads are overrepresented in serious and fatal crashes due to lane and roadway departures. Many crashes occur when vehicles run off the road due to curves, narrow lanes, or limited shoulders. Enhancing roadside environments, improving pavement markings and delineation, and adding rumble strips are key strategies to mitigate these risks.

Unfamiliar & Risky Driver Behavior

A large share of drivers are visitors or recreational vehicle operators unfamiliar with local roads. This leads to sudden stops, last-minute lane changes, and unexpected maneuvers — compounded by risky behaviors such as distraction, phone use, intoxication, and aggressive driving. Addressing this emphasis area includes targeted enforcement, educational campaigns, better signage, and proactive design to accommodate driver error.

Vulnerable Road User (VRU) Safety

Sevier County experiences high pedestrian and bicyclist activity, particularly in tourist zones and near schools. The combination of high traffic volumes, limited crossing opportunities, and lighting gaps creates significant risk for VRUs. Improving sidewalks, adding separated facilities, enhancing crossings, and improving lighting will help create a safer, more accessible multimodal environment.

Congested Corridor Safety

Corridors with high congestion are characterized by frequent access points, signal timing challenges, and queuing issues. These areas also suffer from poor wayfinding and inadequate lighting, which create additional conflicts. Improved access management, optimized signal timing, strategic driveway consolidation, and clearer signage can help reduce conflicts, enhance traffic flow, and improve safety outcomes.

7.2 Countermeasures

Sevier County's roadway safety challenges are unique due to its combination of rural mountainous terrain, high tourist volumes, and community destinations that draw both local and visitor traffic. To address these diverse issues, the Safety Action Plan outlines a comprehensive set of recommended countermeasures aligned with each emphasis area.

These countermeasures are informed by crash data analysis, national best practices such as FHWA's Proven Safety Countermeasures, and community and stakeholder input. Each measure is designed to reduce the frequency and severity of crashes, improve comfort and confidence for all road users, and support the County's long-term vision of zero fatalities and serious injuries. The countermeasures are organized by the following countermeasure groups: Behavior, Vulnerable Road User, Urban Segments, Intersections, and Rural & Highway.

Each countermeasure includes a description and the following explanatory material:

- **Applicable Crash Type** identifies which crash patterns or risk factors the countermeasure addresses.
- **Crash Reduction Factor (CRF)** provides the estimated percentage reduction in crashes based on research and national studies.
- **Planning Level Cost Estimate** is presented in four ranges:

$	< $10,000
$ $	$10,000 – $100,000
$ $ $	$100,000 – $500,000
$ $ $ $	> $500,000

- **Time Estimate** - indicates typical implementation duration:

⏱	< 6 months
⏱⏱	6 months – 1 year
⏱⏱⏱	1 year – 3 years
⏱⏱⏱⏱	> 3 years

7.2.1 Behavior Countermeasures

The Behavior category includes countermeasures that influence how road users act, especially around speed and awareness. These tools address risky driving behaviors through enforcement, education, and feedback. Common strategies include speed feedback signs, setting appropriate speed limits, deploying law enforcement presence, issuing citations, and launching public awareness campaigns. These measures are foundational to fostering a culture of safe driving and increasing compliance with traffic laws.

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Speed Feedback Signs**	Install electronic signs that display a driver's current speed alongside the speed limit to encourage self-correction and reduce speeding behavior.	All	7%	$	
 **Appropriate Speed Limit**	Set speed limits that match the functional class, land use context, and crash history, aligning with Safe System principles.	All	-	$ $ $	
 **Speed Enforcement**	Use targeted police presence or automated enforcement (e.g., speed cameras) to deter speeding, especially in high-risk areas.	All	-	$ $ $	
 **Awareness & Safety Campaigns**	Conduct media, social, or community campaigns to raise awareness of traffic safety issues and promote behavior change.	All	-	$ $ $	
 **Educational Classes/ Training**	Offer workshops or school-based programs that teach safe travel behavior to pedestrians, bicyclists, or drivers.	All	-	$ $	

7.2.2 Vulnerable Road User Countermeasures

The Vulnerable Road User (VRU) countermeasures includes strategies specifically designed to protect pedestrians, bicyclists, and other non-motorized users. These countermeasures enhance visibility, provide separation from traffic, and give priority to VRUs at crossings and along corridors. Treatments in this group include pedestrian hybrid beacons, high-visibility crosswalks, raised pedestrian crossings, RRFBs (Rectangular Rapid Flashing Beacons), pedestrian bridges, bike lanes, LPIs (Leading Pedestrian Intervals), extended crossing times, pedestrian lighting, and refuge islands. These elements support the Safe System Approach by recognizing the inherent vulnerability of these users and reducing exposure to vehicle conflicts.

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Enhanced Pedestrian Signage and Markings**	Apply MUTCD-compliant pedestrian signs, high-contrast crosswalks, advance yield markings, and tactile warnings to improve visibility and safety at crossings.	VRU	25-42%	$	⏱
 **Systemic Crossing Modification**	Upgrade multiple crossing locations based on risk factors (e.g., uncontrolled, multilane, high-speed) rather than only crash history.	VRU	-	$ $	⏱ ⏱
 **High-Visibility Crosswalk**	Use ladder-style or continental striping, durable materials, and contrast color treatments to enhance crosswalk visibility.	VRU	48%	$ $	⏱
 **Raised Pedestrian Crosswalk**	Elevate the crosswalk to sidewalk level to slow approaching vehicles and make pedestrians more visible.	VRU	25-31%	$ $	⏱
 **Rectangular Rapid Flashing Beacon (RRFB)**	Add pedestrian-activated RRFBs, which use two rectangular, yellow, LED-based lights that flash rapidly, mounted with warning signs to alert drivers at unsignalized crossings.	VRU	47%	$ $ $	⏱
 **Pedestrian Hybrid Beacon (PHB)**	Install a beacon that activates upon pedestrian pushbutton to stop traffic and provide a clear crossing opportunity.	VRU	55%	$ $ $	⏱ ⏱
 **Pedestrian Bridge/ Overpass**	Provide grade-separated crossings at high-speed or high-volume corridors where at-grade crossings are unsafe or infeasible.	VRU	86%	$ $ $ $	⏱ ⏱ ⏱
 **Implement Leading Pedestrian Interval (LPI)**	Adjust signal timing so pedestrians begin crossing before vehicles receive a green light, reducing conflict with turning traffic.	VRU	59%	$	⏱
 **Increase Pedestrian Crossing Time**	Extend pedestrian walk and clearance intervals to accommodate slower walkers and wider roads.	VRU	51%	$	⏱
 **Bike Lanes**	Provide dedicated, marked lanes for bicyclists, separated from vehicle traffic where possible.	Bike	26-56%	$ to $ $ $	⏱ ⏱

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Sidewalk**	Build paved pedestrian walkways separated from the road by a buffer to enhance walkability and reduce pedestrian-vehicle conflicts.	VRU	88%	$ $	⏱ ⏱
 **Install Pedestrian Overhead Lighting**	Illuminate pedestrian zones and crosswalks with downward-facing lighting to increase night-time visibility.	VRU	23%	$ $	⏱
 **Pedestrian Fencing**	Use fencing or planters to channel pedestrian movement to crosswalks and discourage midblock crossings or unsafe desire lines.	VRU	12-29%	$	⏱

7.2.3 Urban Segments Countermeasures

Urban Segment countermeasures improve safety along midblock corridors by managing access, reducing conflict points, and enhancing driver awareness. Treatments such as raised medians, J-turn and U-turn intersections, and driveway consolidation reduce turning conflicts and vehicle-pedestrian interactions. Low-cost measures like wayfinding signage, advanced street name signs, and signal warning signs improve navigation and give drivers more time to react, especially near intersections.

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Wayfinding/Navigation Signage**	Use clear and consistent signs to help travelers find destinations and make safe navigational decisions.	All	-	$	⏱
 **Provide Raised Median** **J-Turn Intersection, Superstreet, RCUT** **U-turn (MUT) intersection** **Full Access to Directional Access**	Install concrete medians to control access, provide pedestrian refuge, and reduce head-on and turning crashes. Redesign intersections to redirect side-street lefts/U-turns to safer median locations, reducing conflict points. Implement medians with designated U-turn openings to replace direct lefts from minor roads. Modify full-movement intersections to right-in/ right-out with directional median openings.	Angle	30% 35-59% 47% 51%	$ $	⏱ ⏱
 **Reduce Driveway Density** **Close Driveway Near Intersection**	Remove or combine driveways to reduce vehicle-pedestrian conflict points and improve traffic flow. Eliminate driveways within close proximity to intersections to reduce turning movement conflicts.	All Angle Rear End	25-31% 7%	$ $	⏱ ⏱

7.2.4 Intersection Countermeasures

The Intersections countermeasures addresses locations where crashes are most concentrated due to conflicting movements. These countermeasures aim to simplify decision-making, improve visibility, and manage turning conflicts. Measures include left- and right-turn lanes, channelization, signal upgrades (e.g., protected left turns), intersection realignment, restricted turn movements (e.g., no right on red), and the installation of all-way stop control.

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Intersection Warning Sign with Advanced Street Name Signs**	Install plaques under intersection warning signs that display street names ahead of intersections.	All	1-10%	$	⏱
 **Advanced Signal Warning Signs**	Use flashing or static signs to warn drivers of signalized intersections ahead, particularly where visibility is limited.	Rear End	20-35%	$	⏱
 **Convert to Right-In/ Right-Out (RI/RO)**	Limit access to right-turn movements to reduce crashes at high-speed intersections or median openings.	Angle	45-68%	$ $	⏱
 **Extend Existing Turn Lane Length**	Lengthen left or right-turn bays to accommodate vehicle queues and reduce rear-end crashes.	Rear End	-	$ $	⏱
 **New Left Turn Lane** **New Right Turn Lane**	Add a dedicated lane for left-turning vehicles to improve intersection operation and minimize delay and angle crashes. Provide a dedicated right-turn bay to reduce delays and avoid blocking through traffic.	Rear End	21-36% 1-16%	$ $	⏱ ⏱
 **Acceleration Lane**	Add lanes that allow merging vehicles to reach operating speed before entering main traffic flow and accommodate two-stage left turn movements.	Angle	10-48%	$ $	⏱ ⏱
 **Improve Angle of Channelized Right**	Adjust channelization islands or turning radii to encourage slower, safer right turns.	VRU Angle	44-60%	$ $	⏱
 **Realign Intersection**	Redesign skewed or offset intersections to improve sight distance and turning movement clarity.	Angle	69%	$ $ $	⏱ ⏱ ⏱
 **Install Traffic Signal**	Introduce a signal where warranted to improve control and reduce crash risk at complex or high-volume intersections.	Angle	44%	$ $ $ $	⏱ ⏱ ⏱
 **Improve Signal Visibility**	Enhance signal heads by adding reflective backplates, additional signal heads, or repositioning to reduce red-light running and confusion.	Rear End	44%	$ $	⏱

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Protected Left-Turn Phase**	Separate left turns from opposing through traffic with a protected green arrow to reduce angle crashes.	Angle	6-55%	$	
 **Adjust Signal Coordination**	Synchronize signal timing along corridors to improve flow and reduce rear-end crashes and red-light violations.	All	5-60%	$ $	
 **Restrict Right Turn On Red (RTOR)**	Prohibit RTOR movements where pedestrian conflicts are high, particularly at downtown or school locations.	VRU Angle	-	$	
 **All-Way Stop Control**	Convert intersections to all-way stop control where warranted to simplify operations and reduce crash severity.	Angle	60%	$	

7.2.5 Rural & Highway Countermeasures

Rural & Highway countermeasures focus on road departure crashes, which are particularly severe in high-speed and lower-volume environments. These measures aim to prevent vehicles from leaving the travel lane or to mitigate the consequences when they do. Treatments include curve delineation (e.g., chevrons, warning signs), shoulder widening, rumble strips (centerline, edgeline, transverse), guardrails, high-friction surface treatments, signage upgrades, and horizontal/vertical alignment improvements. Many of these measures are systemic in nature and cost-effective for large-scale deployment.

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Enhanced Signage and /or Markings**	Improve driver guidance using larger signs, better pavement markings, and clearer visual cues.	All	18%	$ $	
Chevrons	Install chevron signs around curves to guide drivers through alignment changes.	Lane Departure Run Off	32%	$	
Curve Warning Sign	Post advance signs indicating sharp curves to help drivers adjust speed accordingly.		30%		
 **Curve Warning Sign with Advisory Speed**	Combine curve warning with a recommended speed for safe navigation.		13%		
Chevrons & Curve Warning Signs	Use both curve warning signs and chevrons to reinforce curve presence and severity.		53%		
Chevrons & Curve Warning Sign with Flashing Beacon	Add chevrons and flashing beacons to curve warning sign to draw attention at especially hazardous or crash-prone curves.		37-76%		

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
Improve Guardrail	Upgrade outdated or damaged guardrails to meet current safety standards and prevent roadway departures.	Lane Departure Run Off Nighttime	22%		
 **Install Guardrail**	Place guardrail at high-risk locations like embankments, fixed objects, or steep drop-offs to contain vehicles.		58%	$ $	⏱ ⏱
Install Guardrail with Reflectors	Combine guardrail protection with butterfly reflectors to increase nighttime safety.		2-15%		
Post-Mounted Delineators	Use reflectorized posts to mark roadway edge, especially at curves or transitions.	Lane Departure Run Off Nighttime	10-15%	$	
 **Reflective Pavement Markers**	Use reflective markers at the centerline or edge line to guide drivers.		6-33%	$	⏱
Wider Edge Lines (4 to 6 inches)	Improve visibility of roadway edges, particularly beneficial for low-visibility travel.		17.50%	$ $	
Transverse Rumble Strips	Apply across travel lanes to alert drivers of stop conditions or sharp curves ahead.	Lane Departure Run Off	34%		
 **Centerline Rumble Strips**	Install in the center of undivided roadways to prevent head-on collisions from lane departures.	Lane Departure	17%	$	⏱
Edgeline Rumble Strips	Place rumble strips along shoulders to warn drifting drivers and reduce run-off-road crashes.	Run Off	33%		
 **Apply High-Friction Surface Treatment**	Use specialized pavement to reduce skidding on curves.	Lane Departure Run Off Wet	24-35%	$ $ $	⏱ ⏱
 **Widen Shoulder (provide 2' paved shoulder)**	Add or pave shoulder width to reduce roadway departure crashes.	Run Off	6-34%	$ $ $	⏱ ⏱
 **Flatten crest vertical curve**	Modify vertical alignment to improve sight distance over hills.	All	20-51%	$ $ $	⏱ ⏱ ⏱
Flatten horizontal curve	Reduce curvature to allow safer navigation at higher speeds or to meet current design criteria.		68-74%		

Countermeasure	Description	Applicable Crash Type	All Crash Reduction	Cost Estimate	Time Estimate
 **Convert to one-way**	Change travel direction to eliminate opposing conflicts.	Angle Sideswipe (Opp) Head-On	47%	$	⏱
 **Widen Lanes (from 11' to 12')**	Increase lane width to allow for safer vehicle passage and fewer sideswipes.	All Sideswipe (Opp) Head-On	5%	$ $ $	⏱ ⏱
 **Add Two-Way-Left-Turn-Lane (TWLTL)**	Install a center lane for shared left-turns at driveways and intersections to reduce turning conflicts.	Rear End	8-20%	$ $ $	⏱ ⏱
 **Dynamic Message Sign (queue ahead)** **Dynamic Message Sign (crash ahead)**	Deploy changeable signs to warn of unexpected congestion or backups. Alert drivers to downstream crashes so they can slow or reroute.	Rear End	16% 44%	$ $	⏱ ⏱
 **Install Lighting**	Provide overhead or pole-mounted lighting to reduce nighttime crash risk, especially at intersections and crossings.	All Nighttime	32%	$ $	⏱ ⏱

8.0

Progress and Transparency

8.0 Progress and Transparency

The Sevier County Comprehensive Safety Action Plan is designed to be a dynamic and evolving framework – one that benefits from ongoing monitoring and open communication. To support transparency and track progress toward safety goals, the County may consider implementing the following practices:

To remain accountable, Sevier County should:

- **Annual crash data updates** across all jurisdictions to monitor fatalities, serious injuries, and contributing factors.
- **Development of an annual progress report** that highlights crash trends, safety project implementation, and measurable outcomes.
- **Public posting of reports and updates online** to provide information for residents, businesses, and stakeholders.
- **Yearly engagement with the Public Safety Task Force and community members** to review progress, validate findings, and explore adjustments to priorities.
- **Periodic updates to the Safety Action Plan (potentially every five years)** to reflect changing conditions, emerging technologies, and evolving best practices.

These approaches can help keep safety at the forefront of decision-making and encourage evaluation of projects and policies based on real-world outcomes.

To measure progress toward its adopted safety targets, Sevier County might also consider:

- Aiming for **at least a 50% reduction in roadway fatalities and serious injuries by 2035,** and
- Pursuing the **long-term goal of eliminating roadway fatalities and serious injuries entirely.**

By exploring options such as consistent data collection, transparent reporting, and collaborative review, Sevier County can foster accountability, build public trust, and stay aligned with its vision for a safer transportation system.