



TOWN OF WHITE BLUFF Transportation Safety Action Plan

JULY, 2024



ACKNOWLEDGEMENTS



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Bibb-White Bluff Civic Center & Fire Station

INTRODUCTION

Residents and town leaders have recognized that a life lost on its streets is unacceptable and preventable. Already, public resources and significant private investment have laid the foundation to address safety and healthy living in the Town of White Bluff. Over the past 5 years, the Town has developed the White Bluff Community Mobility Plan (2021), The Bibb-White Bluff Nature Park Master Plan (2022), and, in partnership with the Tennessee Valley Authority’s (TVA) Economic Development Division, the White Bluff Strategic Plan (2020). The attitudes in these plans indicate that the town’s residents and leaders are proactively seeking change and recognize that the new Bibb-White Bluff Civic Center is a natural destination in relation to nearby public facilities, schools, and sites of future development that have already begun construction. The county generated the 2043 Dickson County Comprehensive Plan in

2023, and the Town of White Bluff has completed and endorsed its own Comprehensive Plan with a target year of 2044.

This Safety Action Plan seeks to solidify promises to address safety and connectivity for all transportation users, with a focus on the most vulnerable. It also identifies key assets and roadway segments along its High Injury Network (HIN) where prioritized improvements for safety should begin. The Plan looks to the future, connecting safety to the fast-growing business and residential developments while expanding access to other assets in Dickson County – namely, Montgomery Bell State Park, which sits on the Town’s western border along US-70. The Town has another powerful asset: its positive relationships with the Tennessee Department of Transportation (TDOT) and the Middle Tennessee Rural Planning Organization (RPO). Because US-70 (Broadway Street) and SR-47 (Cain Brake Road and Charles Speight Highway) are under the jurisdiction of TDOT and connect to Nashville and the City of Dickson, TDOT is a natural stakeholder that shares the Town’s goals



White Bluff Elementary School

of improving safety for all. Furthermore, this Plan prepares the Town to apply for federal construction funding to implement safety enhancements outlined in the Plan.



Site of Future Bibb-White Bluff Nature Park

Meeting the Challenge

Safety Action Plans (SAP) are comprehensive plans that use data analysis to identify and prioritize roadway safety improvements in a community. An action plan accomplishes this by characterizing roadway safety problems and identifying specific projects and strategies that address the most significant safety risks. This work is not completed in isolation, but rather builds on the decades of work by participants of the Vision Zero Network¹ to identify and prioritize these types of solutions. It also builds on the US Department of

Transportation’s National Roadway Safety Strategy², the Tennessee Strategic Highway Safety Plan³, and numerous programs under the Bipartisan Infrastructure Law⁴ supporting roadway safety initiatives.

Safe System Approach

The Safe System Approach recognizes that protecting human life and wellbeing should be the highest priority of a transportation system. Acknowledging that human error is inevitable, and that vulnerability exists, this approach emphasizes systemwide policies, initiatives, and infrastructure that incorporate redundancies. The approach advocates for proactive safety measures to address risk on the roadways and separate users in space and time, such as physically separated bikeways and leading pedestrian intervals. While the traditional approach focuses on shifting behaviors (e.g. driver’s education, awareness) and relies on enforcement (e.g. speeding tickets), the Safe System Approach manages all risks inherent in the transportation system and incorporates active speed management to eliminate deadly conditions. Humans are not perfect and will make mistakes. However, when they do, the Safe System Approach can reduce the risk that those mistakes result in death or serious injury⁵.



Source: FHWA.

¹ <https://visionzeronet.org/>

² <https://www.transportation.gov/NRSS>

³ <https://www.tn.gov/content/dam/tn/tdot/strategic/SHSP-2020.pdf>

⁴ <https://www.transit.dot.gov/BIL>

⁵ <https://www.transportation.gov/NRSS/SafeSystem>

The Safe System Approach will provide a framework for identifying and prioritizing projects, ensuring that this SAP:

- Addresses the causes and context for fatal and serious injury crashes throughout the system
- Prioritizes systemic change over behavior of individuals in solutions
- Focuses on factors that create risk in the entire system over the causes of individual crashes

By integrating these factors into the plan's recommendations and priorities, White Bluff will achieve a balance between 'reactive' strategies that tackle issues leading to fatal and serious injury crashes, and 'proactive' strategies that address system risks before such crashes occur.

The balance between these strategies will also be addressed through the baseline crash analysis (BCA) that identifies high-level patterns for fatal and serious injury crashes that have occurred, and the systemic safety analysis that identifies risk factors that could lead to future fatal and serious injury crashes if left unaddressed.

Goal Statement:
Human life is our
highest priority.

1 LEADERSHIP COMMITMENT

The families, workers, residents, and visitors of White Bluff deserve safer streets. Through discussion with Town leaders (Public Works, the Mayor's Office, and Town Council) and the examination of historical crash data from the last ten (10) years, the Plan identifies the areas and segments of roadways with the most fatalities and serious injuries. It is along these segments and at these intersections that investments and improvements will be strategically targeted to reduce the likelihood of future crashes and provide safer access for all users.

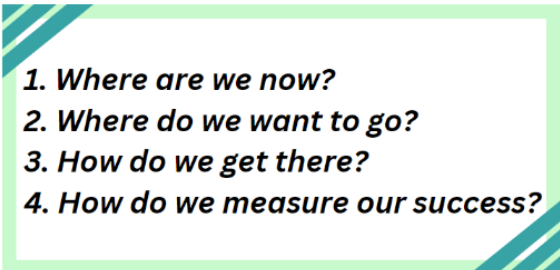
The Town seeks to achieve zero (0) transportation-related deaths per year by the year 2036.

To help achieve this, the town is committing to the following five (5) goals:

1. Reduce and eliminate fatal and serious injury crashes
2. Improved, safer infrastructure
3. Safer traffic patterns
4. Enhanced partnerships
5. Continuous data collection and analysis

2 PLANNING STRUCTURE

The plan will incorporate a rational, proven, planning model for safety action planning that includes crash data analysis, goal setting, safety strategy development, action planning, monitoring and evaluation of strategies, communication plans, and a continuous improvement process. Every strategic plan, regardless of the goals, must seek to answer four fundamental questions:

- 
- 1. *Where are we now?***
 - 2. *Where do we want to go?***
 - 3. *How do we get there?***
 - 4. *How do we measure our success?***

To answer these questions, this SAP follows a structured process:

- 1. Assessment and Data Collection:** Gather crash data and identify high-risk areas and trends
- 2. Goal Setting and Prioritization:** stakeholder engagement and development of data-driven priorities
- 3. Risk Assessment and Countermeasure Application:** Identify contributing factors and select evidence-based countermeasures
- 4. Develop Action Plan:** including projects, priorities, implementation guidelines, and evaluation strategies to monitor progress.

A key stakeholder group, comprising the Town Mayor, active City Council members, the Town Administrator, and the Town Planner, was convened as an advisory committee to oversee plan development. They held a kickoff meeting at the outset, participated in regular input sessions during plan development, and reviewed the final plan. This group will also take the lead in implementing the plan and leading future updates.

3 SAFETY ANALYSIS

The safety analysis uses data to identify crash patterns and trends and the contributing factors that have led to fatal and serious injury crashes in White Bluff. This analysis is based on ten (10) years of crash data (2014 - 2023), collected by enforcement agencies using AASHTOWare, and directly from police reports. Together, this information identifies the types of infrastructure, behavior, and contexts that have the greatest impact on safety in White Bluff. Safety analyses will inform policy, infrastructure, and programming improvements for all modes of travel, as described in **Section 6**.

There are three separate safety analyses covered in this section:

- **Baseline Crash Analysis (BCA):** This analysis is a series of maps, charts, tables, and narratives describing recent crash trends, key factors, and overall patterns in serious and fatal injury crashes over the past ten years.
- **High Risk Network (HRN):** The HRN is a map that illustrates locations that are at higher risk for fatal and serious injury crashes based on the Systemic Safety Analysis that considers factors like speed, traffic, road configuration, land use context, equity metrics, and more. This analysis can identify trends that support the systemic implementation of low-cost treatments.
- **High Injury Network (HIN):** The HIN is a map that identifies the roads in White Bluff with the highest concentration of severe crashes or risk factors identified by the BCA and HRN.

Why focus on fatal and serious injury crashes? The goal of the Safe System Approach is to eliminate fatalities and serious injuries. To support that goal, the safety analysis focuses on crash patterns and factors for fatal and serious injury crashes where possible. For less frequent crash types (e.g., pedestrians), additional crash severities may be included to help reveal crash patterns. Why look at ten (10) years of crash data? Crashes can fluctuate naturally from year-to-year based on road conditions, community circumstances, and

more. A ten-year study period effectively balances changes in safety over time while capturing overall trends. The result is a safety analysis that is comprehensive and supports long-term decision making.

3.1 Baseline Crash Analysis

The Baseline Crash Analysis (BCA) is an overview of the state of safety within White Bluff. The BCA summarizes key trends in safety performance with figures, maps, and tables. The findings of the BCA are used in developing the High-Risk Network (HRN) and the High Injury Network (HIN) but are useful on their own. The BCA pinpoints the factors that contribute to frequent and severe crashes.

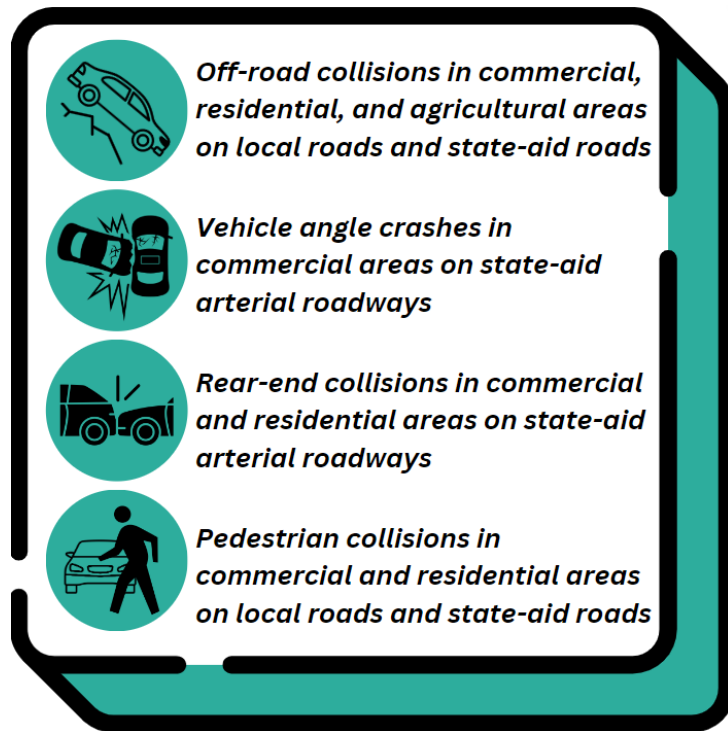
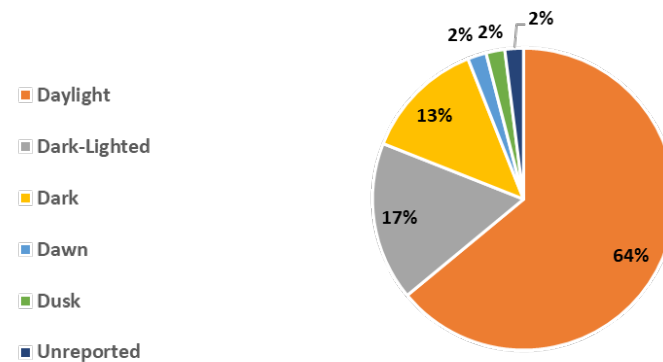


Figure 1 Most Common Crash Types, White Bluff Safety Analysis

3.1.1 Baseline Crash Analysis Findings

From 2014 to 2023 in White Bluff, the most frequent fatal and serious injury crashes involved rear-end and off-road collisions on US or State Routes. These incidents often resulted from failure to yield right-of-way, distracted driving, and disregarding traffic controls. Additionally, some crashes occurred on local roads and involved pedestrians. **Figures 2** summarizes the most common crash types, lighting, and weather conditions at the time of crashes. **Table 1** summarizes findings from the baseline crash analysis.

Lighting Conditions



Weather Conditions

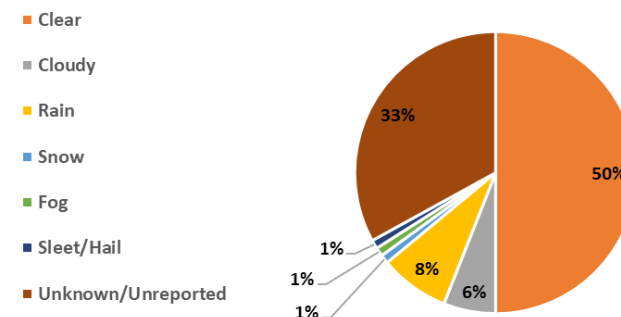


Figure 2 Most Common Crash Lighting and Weather Conditions at Time of Crash, White Bluff Safety Analysis



Table 1, Baseline Crash Analysis Findings

Factor	Findings
Most common causes of fatal/serious injuries	<ul style="list-style-type: none"> • Rear-end • Off-road (buildings, embankments, mailboxes, utility poles, trees, etc.) • Sideswipe • Angle
Most common roadway types or areas for fatal/serious injury crashes	<ul style="list-style-type: none"> • Along roadways <ul style="list-style-type: none"> • Two thirds (66%) of the crashes within the 10-year period occurred along a state-aid roadway (SR-1/US-70 and SR-47) • The remaining one third (33%) of crashes occurred on local roads • At an intersection <ul style="list-style-type: none"> • 37% of crashes occurred at an intersection. Of that percentage, a majority (over 80%) occurred at an intersection with a state route
Most common roadway user types involved in fatal and serious injury crashes	<ul style="list-style-type: none"> • Vehicle drivers and/or passengers = 98% • Involving pedestrians = 1% • Involving bicyclists = 1%
Most common actions of roadway users involved in crashes	<ul style="list-style-type: none"> • Failure to Yield Right of Way • Following Improperly • Careless Erratic Driving • Driver Distracted • Failure to Obey Traffic Controls
Most common weather conditions under which crashes occurred (see graph on page 5)	<ul style="list-style-type: none"> • Clear (non-rainy) = 50%
Most common lighting conditions under which crashes occurred (see graph on page 5)	<ul style="list-style-type: none"> • Daylight = 64%



Relative crash or fatal/serious injury crash rates/densities in White Bluff

The crash hotspots map below illustrates that some of the greatest concentrations of fatal and serious injury crashes are along segments with more activity (red and yellow thermal coloring). These areas are the intersection of US-70 and SR-47/Charles Speight Highway, the intersection of School Road, areas with denser commercial development along US-70, and residential areas along White Bluff Road.

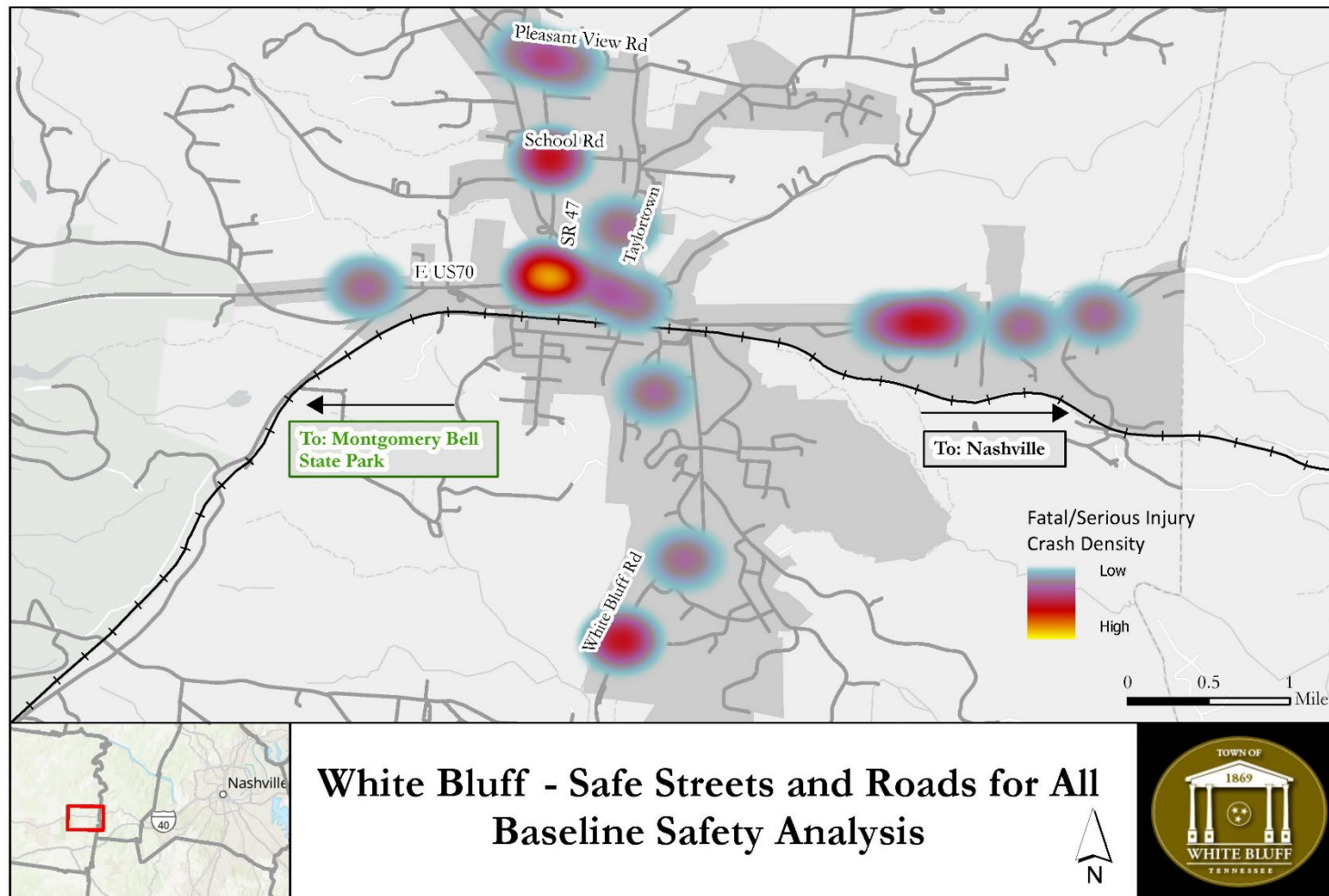


Figure 3, Concentrations of Fatal and Serious Injury Crashes on White Bluff Roadways

3.2 High-Risk Network

The High-Risk Network (HRN) identifies opportunities to proactively improve traffic safety. The HRN is developed using a systemic safety analysis, outlined by the Federal Highway Administration (FHWA). This analysis identifies the types of roads and land use contexts that correlate with more frequent crashes. Risk factors, like speed, high traffic volumes, and roadway configurations, vary across communities, and relate to different safety outcomes.

Identifying White Bluff's risk factors helps highlight where crashes can be expected in the future based on roadway conditions, even if recent crashes have not yet occurred in these locations. The HRN was developed using a Facility Profile Analysis (FPA) methodology, which is a decision tree that identifies high-risk areas using a combination of risk factors (such as high-speed roads in a residential setting, or some other combination of factors). Risk factors tell us where the community may need safety investments to ensure a balance between accessibility and risk mitigation, such as safe crosswalks, adequate signage, and improved lighting.

The HRN is especially valuable in communities that have infrequent crashes or dispersed crashes that do not concentrate in particular locations. The HRN is also useful when studying crashes involving pedestrians or bicyclists and in rural areas with less vehicular traffic. The HRN analysis isolates areas with a higher risk for crashes because of their risk factors. Both the baseline crash analysis and the HRN are important tools and can influence the overall strategy for choosing priorities and making investments.

3.2.1 High Risk Network Findings

The project team created a model for assessing risk across White Bluff using a function that systematically compared:

- Speed limits or recorded speed
- Traffic volumes
- Road lanes
- Surrounding land use types

This model revealed that the highest risk roadways include a collection of Minor Arterials, Minor Collectors, and Local Roads.

Figure 4, Predictive Crash Analysis illustrates the findings of this model. In this figure, predicted crashes are compared with observed crashes, revealing several key features to be incorporated into plan findings and recommendations.

- First, there are several roads that fall into the category of both high predicted and high observed crashes. These roads are primarily the state routes running through White Bluff (dark brown on map). These roads should be a priority for future safety implementation efforts.
- Second, several road segments had a low observed fatal/serious injury crash rate but contained the design or environmental factors that are predicted to lead to future deadly crashes (darker orange on map). These roads should be a priority for future safety implementation efforts.
- Third, several road segments had a high observed fatal/serious injury crash rate but did not contain the design or environmental factors that are predicted to lead to future deadly crashes (lighter blue on map). These roads should be a priority for future investigations and safety implementation efforts.

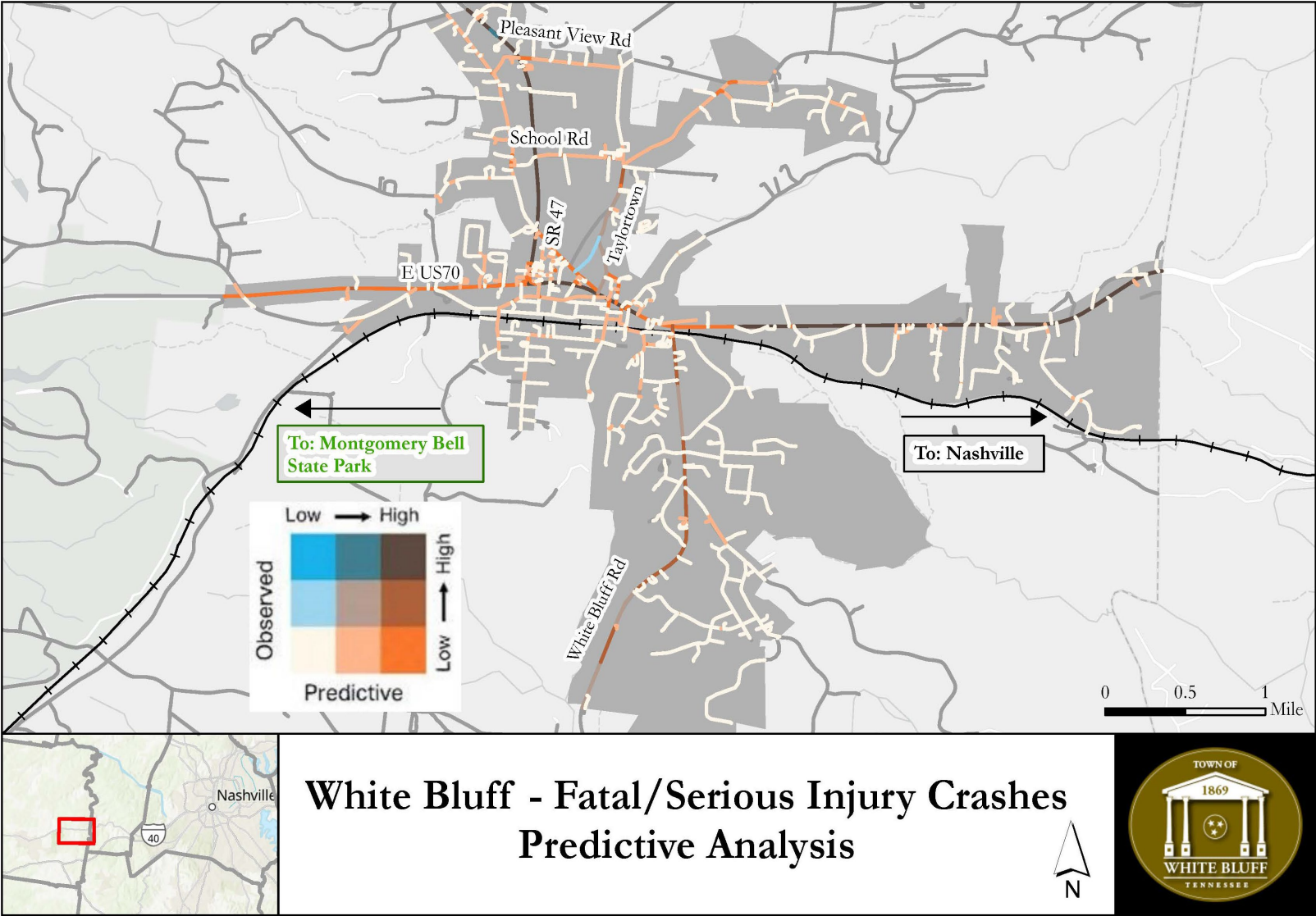
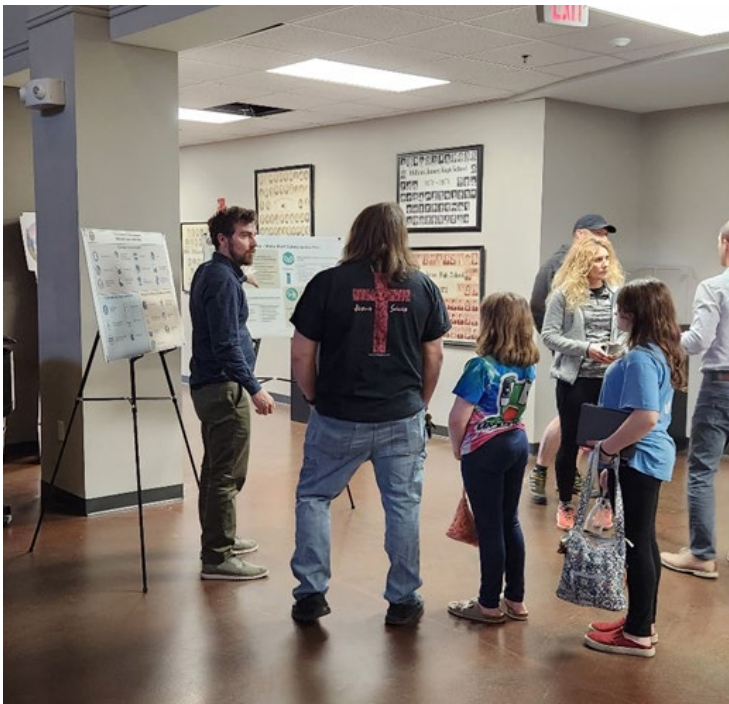


Figure 4, Predictive Crash Analysis

3.3 High-Injury Network

The HIN is a powerful tool that maps the locations of fatal and serious injury crashes from the past ten years and identifies the roads with the highest concentration of crashes and factors leading to risk of future crashes. The HIN accounts for crashes involving all modes including motor vehicles, pedestrians, and bicyclists. The result is a map that supports a data-driven approach to understanding crash patterns. The HIN is a tool that can guide safety investments and can improve safety outcomes by identifying the locations with the greatest potential for safety improvement based on both crash history and risk.

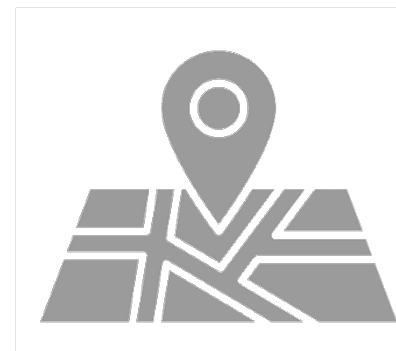


Discussions with residents about the high injury network and crash types

3.3.1 Findings

The high injury network roadway segments were identified using crash data (AASHTOWare) from the years 2015 to 2023. These figures were supplemented by local data provided from police reports to complete the ten-year (2014 – 2023) period for analysis. The HIN segments, which are identified in red on **Figure 5** on the following page, had higher concentrations of vehicle and pedestrian serious injuries and fatalities. In total, there were two (2) fatalities and eighteen (18) serious injuries along these HIN segments in the last ten years.

The HIN only accounts for 5.8 miles – or about 10% – of the total 51.6 miles of roadway in the entire Town of White Bluff, but 100% of fatal and serious injury crashes. The identified HIN also accounts for the roadway segments with the conditions creating the greatest risk for future crashes. Of the total 471 crashes in White Bluff over the last ten years, 56% – or 265 – occurred on the HIN.



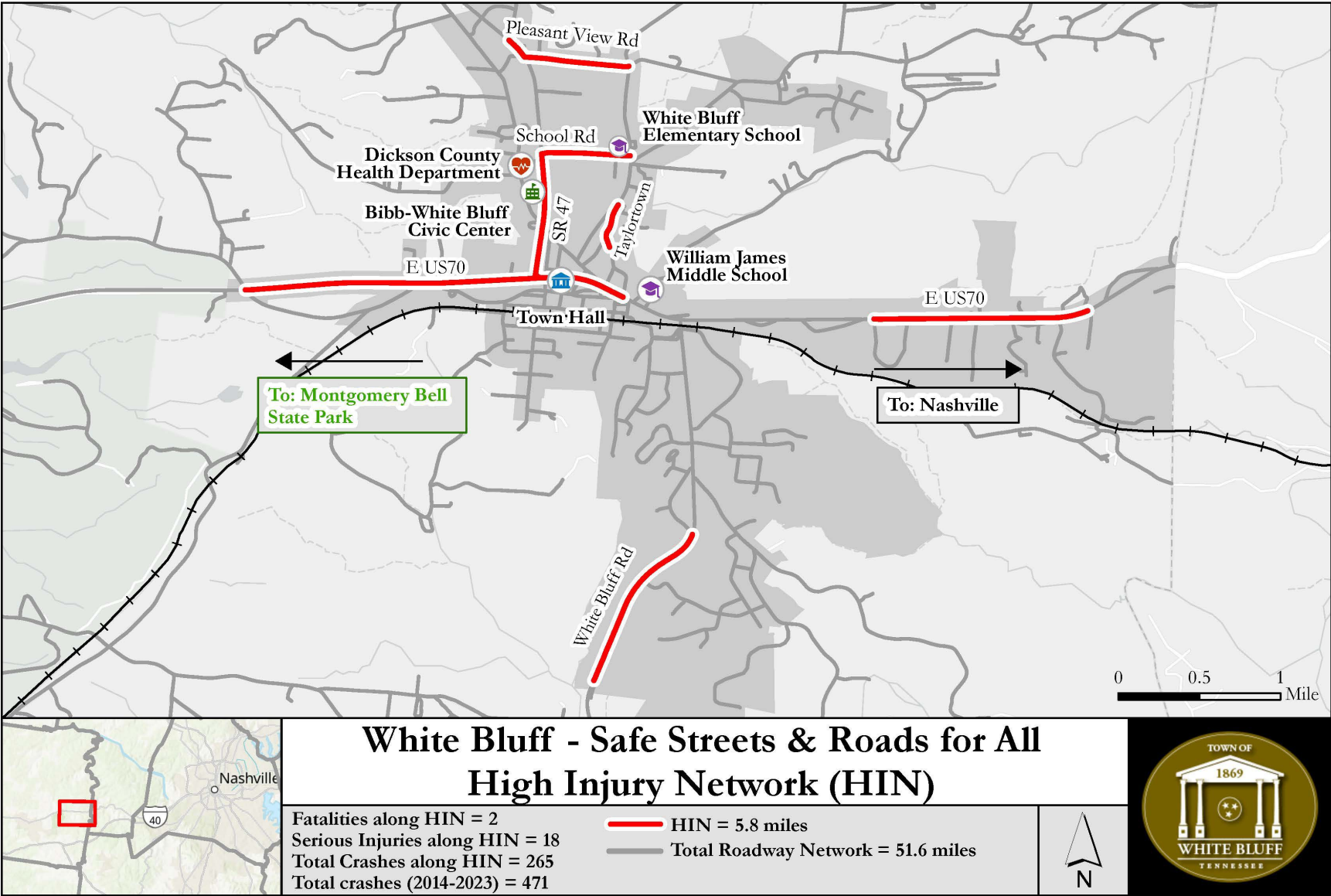


Figure 5, High Injury Network

4 COMMUNITY ENGAGEMENT

Input from the community was necessary for a complete understanding of how residents of the Town experience the safety on their roads. The residents and leadership agencies who utilize the roadways have a unique perspective as they travel and experience safety issues on a regular basis. Such anecdotal data was essential for capturing a comprehensive understanding of the community’s concerns upon which to base the Safe Streets and Roads for All (SS4A) strategy. Virtual and in-person methods were used to collect input and inform the Plan’s implementation.

4.1 Stakeholder Meetings

The project team hosted their kick-off meeting on Thursday, November 16th, 2023, at the Bibb-White Bluff Civic Center. Members from the Town Council, Mayor, Public Works Director, and County/Town Planning Office were present to discuss project scope, budget, and timeline.

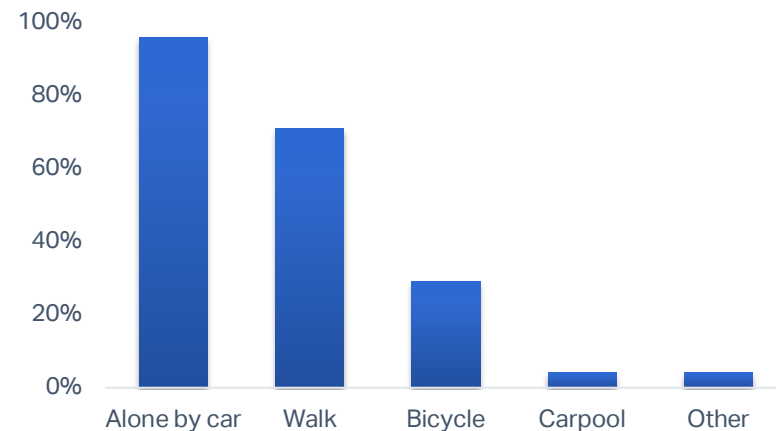
Stakeholder meetings were held virtually once per month until March 2024, when the in-person workshop was held at the Bibb-White Bluff Civic Center. At each meeting, the project team discussed progress for the project, public engagement strategies, opportunities for future safety and grant funding, and any outstanding data needs.

4.2 Surveys

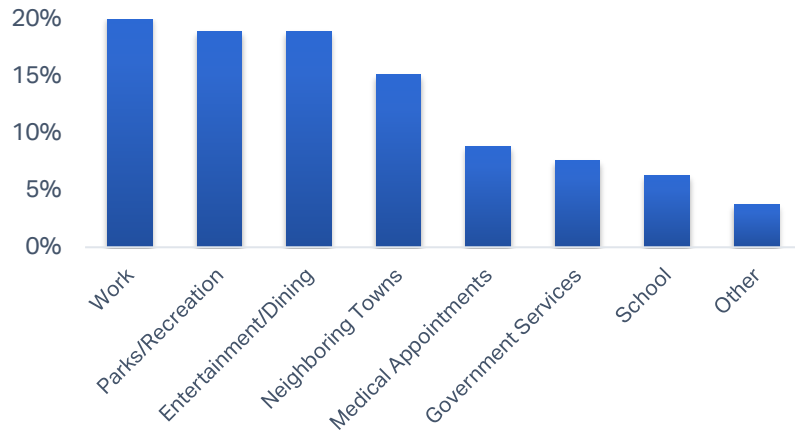
Paper and online surveys were developed for soliciting input from residents and stakeholders as part of the public engagement process. The online survey was created in Survey123 and included a digital mapping tool in which respondents could easily mark unsafe areas along road segments. The same questions were included on the printed versions, which were distributed and collected at the in-

person public engagement workshop. On both the paper and online surveys, respondents could include thoughts, comments, or questions for the project team’s consideration and for inclusion in the Plan. The online survey was open for two weeks, from March 15th to March 29th, 2024. The surveys were advertised locally and through word of mouth. The project team collected a total of twenty-four (24) surveys. Following is a summary of feedback gathered from these surveys:

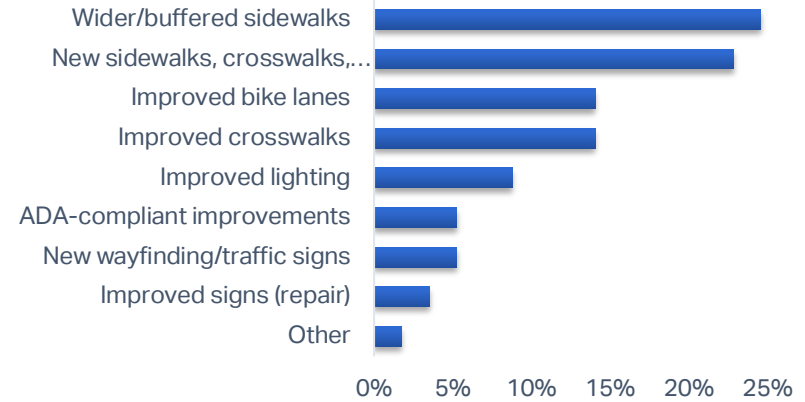
How do you travel?



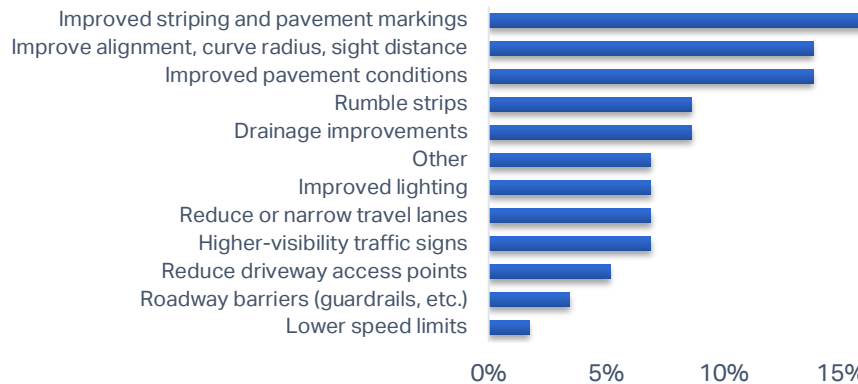
Which destinations are most important?



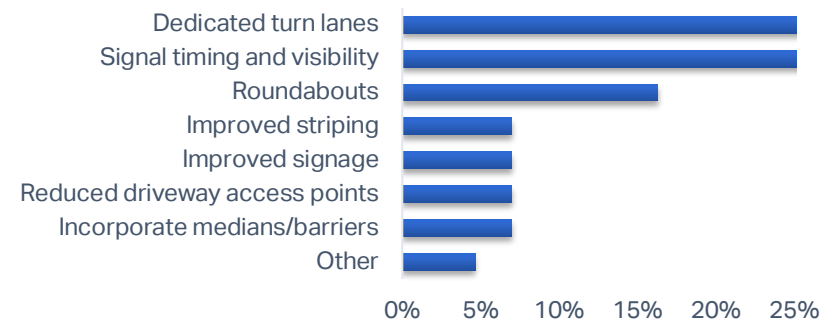
What improvements would make walking and biking safer?



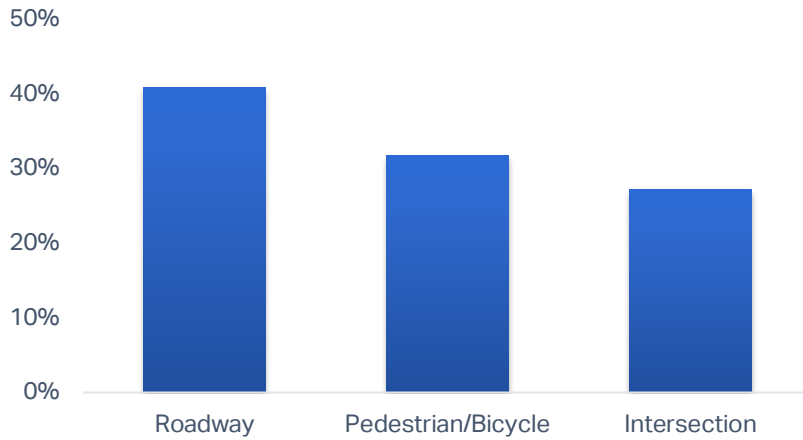
What improvements would make driving safer?



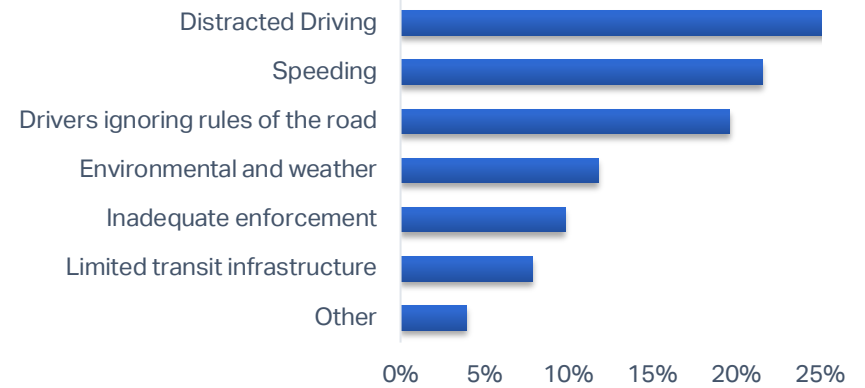
What improvements would make intersections safer?



Which improvements are most important to you?

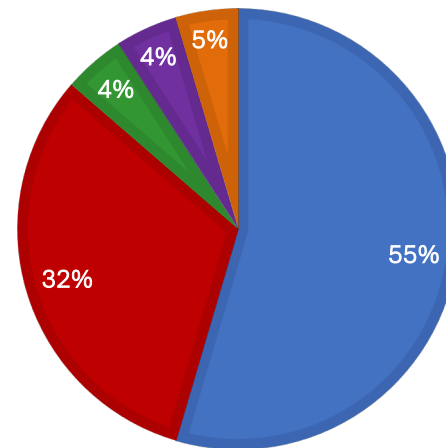


What other major issues affect your safety on the roadways?



Please indicate your age group:

■ 51-70 ■ 31-50 ■ 20 - 30 ■ 71+ ■ 8-19



ArcGIS Survey123 Platform Used for Engagement

4.3 Open House Workshop



The Town of White Bluff hosted an in-person workshop on March 21st, 2024, at the Bibb-White Bluff Civic Center from 6pm-8pm.

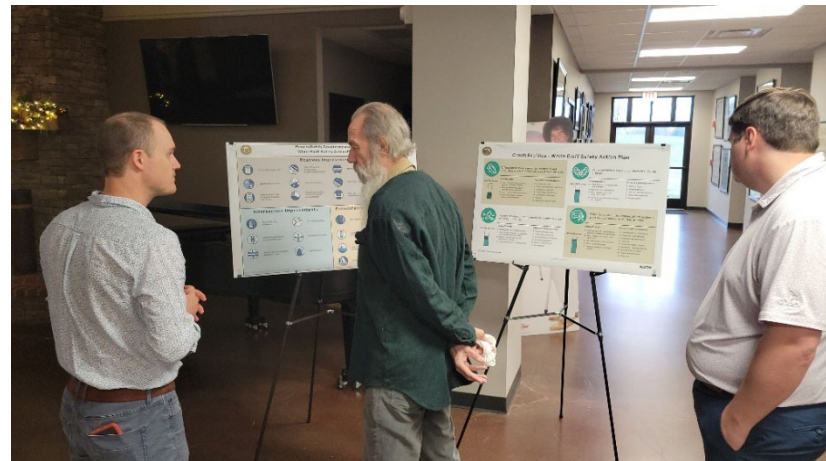
Stakeholders from the White Bluff Town Council, the Dickson County/White Bluff Planning Department, Public Works, White Bluff Police Department, the Mayor of White Bluff, and about 20 residents attended to participate in the mapping exercises and provide input.

Each attendee was greeted by project staff and given a printed hand-out that provided overview information about the project, the purpose of the workshop, a timeline for next steps, and eligibility for future implementation funding.

There were three (3) informational posters on easels – Crash Profiles, the High Injury Network (HIN), and Proven Safety Countermeasures from the Federal Highway Administration (FHWA). There was also one (1) large (36”x48”) project location map, where attendees could add color-coded stickers to indicate the places they traveled and any locations that they felt unsafe.



Adding stickers and taking notes on a map of White Bluff to identify problem locations at Open House Workshop on March 21st



Describing common crash profiles and countermeasures at Open House Workshop on March 21st

Transportation Safety Action Plan

In total, attendees added twelve (12) blue dots to indicate places of interest and seventeen (17) green dots to highlight areas where they felt unsafe on the table map. Additionally, fifteen (15) sticky notes with additional comments about what felt unsafe or what they would like to see changed were placed on the map.



Figure 6, Essential Destinations in White Bluff



5 EQUITY

Equity considerations are critical to the White Bluff Safety Action Plan. The Plan uses crash data for all roadway users, but focuses heavily on safety, connectivity, and access for vulnerable users (i.e. pedestrians, bicyclists, mobility-impaired individuals, students, the elderly, and those without access to a vehicle).

The Institute of Transportation Engineers (ITE) has broadly recognized several factors as structural components of transportation equity. Those components include the distribution of resources, the distribution of costs or burdens, the provision of inclusive facilities that serve persons of all abilities, affordability, and social justice⁶. Following are some additional resources and tools that can be used by White Bluff to measure how investments in safety improvements create more equitable outcomes in these areas.

Equity Category	Resources/Metrics
Resource Distribution Universal Access	<ul style="list-style-type: none"> • Walk Score & Bike Score⁷ • TDOT Pavement Management Pavement Quality Index⁸
Cost/Burden Distribution	<ul style="list-style-type: none"> • DOT Transportation Insecurity Analysis Tool⁹
Affordability	<ul style="list-style-type: none"> • Housing + Transportation Affordability Index¹⁰
Social/Environmental Justice	<ul style="list-style-type: none"> • USDOT Equitable Transportation Community (ETC) Explorer¹¹

⁶ Litman, Todd, *Evaluating Transportation Equity: Guidance for Incorporating Distributional Impacts in Transport Planning*, ITE Journal, April 2022

⁷ <https://www.walkscore.com/>

⁸ <https://www.tn.gov/tdot/maintenance/pavement-office/pavement-management.html>

⁹ <https://www.transportation.gov/priorities/equity/justice40/transportation-insecurity-analysis-tool>

Equitable Development in Context

Historically, permits for new commercial and residential developments were only given if sufficient driveway access and vehicle parking were provided. Article III, Section B(1) of the White Bluff subdivision regulations outlines maximum length of blocks and “shall require sidewalks on both sides of the street.” The White Bluff Planning Commission may also, at their discretion, require developers “to install public crosswalks at least ten feet wide, extending entirely across the block, if the block intersects with a major connector or arterial at any point.”¹². These private investments in sidewalks are essential for White Bluff to build upon for its overall sidewalk network. These investments also mean more pathways for non-motorists to safely access essential destinations, including grocery stores, governments services medical facilities, and schools.

¹⁰ <https://htaindex.cnt.org/>

¹¹ <https://www.transportation.gov/priorities/equity/justice40/etc-explorer>

¹² *White Bluff Subdivision Regulations*, Article III (B), Blocks & Thoroughfare Management (2024)

The Town of White Bluff is also located in a census tract (#47043060300) that is identified to be overburdened and underserved, according to the White House Council on Environmental Quality (CEQ) as part of the Biden-Harris Administration’s Justice40 Initiative.

Communities that appear in identified census tracts within the Climate and Economic Justice Screening Tool (CEJST)¹³ experience heavier burdens and fewer benefits overall.

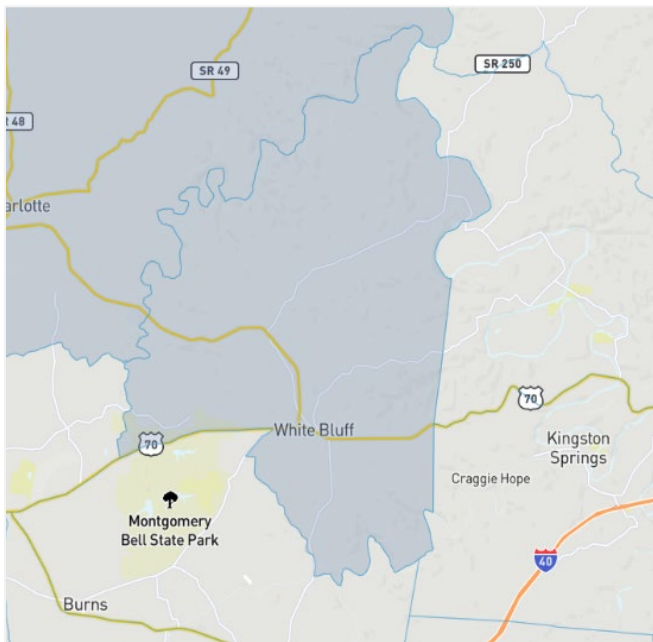






Figure 7, White Bluff Census Tract (shaded area) via Climate and Economic Justice Screening Tool (CEJST)³

The CEJST indicates that the census tract containing White Bluff meets two (2) burden thresholds: transportation barriers (average relative cost and time spent on transportation) and low-income burden (households where income is less than or equal to twice the federal poverty level). Under these conditions, larger investments in safety planning and improvements would have a greater impact because they would be benefiting a community that has a greater need.

- 

High Injury Network (HIN)
All **5.1 miles** of HIN are within the disadvantaged census tract
- 

Transportation Burden
97th percentile for average cost and time spent on transportation
- 

Income Burden
69th percentile for households where income is less than twice the federal poverty level
- 

SS4A Investment
More **equitable** resource distribution in disadvantaged census tracts has higher impact

Figure 8, Underserved Community Statistics Climate and Economic Justice Screening Tool

¹³ <https://screeningtool.geoplatform.gov/>

6 ACTION PLAN

A local jurisdiction pursuing a Safe Streets and Roads for All (SS4A) Implementation Grant must have an Action Plan that outlines its goals and prioritized projects ([transportation.gov](https://www.transportation.gov)). The Action Plan outlines the specific steps and strategies to address the safety challenges and goals in White Bluff. Based on the Goals and Commitments established under **Section 1: Leadership Commitment**, White Bluff generated specific, measurable objectives that can be linked to actions and investments. Next, recommended activities, such as engineering standards, new infrastructure, or policy changes were articulated to meet the goals and objectives. Finally, benchmarks or metrics were also generated to provide a way for White Bluff to target projects, timelines, and progress. These benchmarks and metrics also provide an important data point for maintaining the progress and transparency of implementation efforts described in greater detail under **Section 8: Progress and Transparency**. Following are the goals outlined in **Section 1: Leadership Commitment**, accompanied by specific objectives.

Goal 1 – Reduce and eliminate fatal and serious injury crashes by the year 2036

Objective 1.1 – Reduced fatal and serious injury crashes per year on HIN

Objective 1.2 – Reduced percentage of crashes per year resulting in fatalities or serious injuries

Goal 2 – Improved, safer infrastructure

Objective 2.1 – Improved visibility and signage

Objective 2.2 – Intersection improvements

Objective 2.3 – Shoulder and edge safety improvements

Objective 2.4 – Separated sidewalks, crosswalks, and bike lanes

Objective 2.5 – Complete streets, a place for all uses

Goal 3 – Safer traffic patterns

Objective 3.1 – Reduced speeds in residential and commercial areas

Objective 3.2 – Fewer conflicts between users

Objective 3.3 – Consistent traffic level-of-service

Goal 4 – Enhanced partnerships

Objective 4.1 – TDOT partnerships and funding on application of countermeasures

Objective 4.2 – Local and regional partnerships for Federal Highway Administration grant pursuits

Objective 4.3 – Formalized safety programs in partnership with educational institutions

Objective 4.4 – Formalized partnerships to advance safety with developers

Goal 5 – Continuous data collection and analysis

Objective 5.1 – Establish data tracking template or website

Objective 5.2 – Track traffic deaths and serious injuries over time

Objective 5.3 – Roadway miles and intersections with safety improvements

Objective 5.4 – Develop metrics for safety impacts for vulnerable populations

Objective 5.5 – Reduced percentage of citations related to speeding, distracted driving, and other unsafe behaviors

Objective 5.6 – Collect and report public feedback on safety improvements

6.1 Policy and Process Changes

Eliminating fatal and serious injury crashes while improving the safety of roads in White Bluff will require political will and public support for ambitious and transformative policies. The project team explored evidence-based and high-impact policies to reduce fatal and serious injury crashes within the jurisdiction. In accordance with the FHWA's priorities under the SS4A program, policy recommendations were geared towards providing redundancies to protect human life, and address the following areas:

- Leadership commitment to safety
- Equity and community engagement
- Safe infrastructure and safe speeds
- Data-driven transparency and accountability

Following are a description of each of the policy and process changes recommended in White Bluff. Policy and process recommendations are organized by the themes listed above.

Leadership Commitment to Safety

- Endorse this Safety Action Plan by Resolution and commit to target year or rate of fatal and serious crash decreases in community.
- Develop and enhance collaborative relationship with TDOT and FHWA to improve safety of state and US routes running through White Bluff.
- Develop and enhance collaborative relationships with other cities and counties in the region to advance large-scale projects and funding applications that advance safety.
- Provide leadership in testing and demonstrating new ideas to improve safety within White Bluff.

Equity and Community Engagement

- Conduct annual surveys or other engagement with stakeholders and public to understand priorities for safety and traffic operations.
- Develop poster, website, or social media account to provide public interface tracking safety data and improvements
- Track and prioritize investments benefiting disadvantaged demographics using the tools provided in **Section 5**.
- Incorporate Universal Design criteria into improvements to maximize accessibility
- Support and encourage enforcement training that specifically targets speeding, distracted driving, and other unsafe behaviors

Safe Infrastructure and Safe Speeds

- Prioritize projects based on the safety, equity, context, and cost/timeline criteria provided in the matrix in **Section 6.4**.
- Focus on policies for safer speeds near schools, essential services, and other facilities providing services to vulnerable populations.
- Enhance predictability of traffic operations in residential areas.
- Improve visibility through appropriate lighting and signage
- Separate roadway users with appropriately divided spaces, signage, and signals.
- Incorporate safety as criteria into land use planning and support zoning and land use changes that improve safety and connectivity.

Data-driven transparency and accountability

- Collect data and track crash trends annually, particularly for fatal and serious injury crashes, to inform decisions
- Collect data on operational changes and infrastructure investments to track progress

6.2 Proven Safety Countermeasures

Under the Federal Highway Administration's Proven Safety Countermeasures Initiative (PSCI), a series of twenty-eight (28) countermeasures and strategies to effectively reduce fatal and serious injury crashes was introduced. Each countermeasure provides a focused way to address at least one of the following safety areas:

- Speed management;
- Intersection safety;
- Roadway departures; and
- Pedestrians and bicyclists.

Some of the countermeasures are also crosscutting, addressing several of these safety areas. The safety countermeasures are applicable across a wide spectrum of road types with applications for dense urban road networks, rural roads, less traveled two-lane state, and county roads, signalized and unsignalized crossings, and horizontal curves, just to name a few. FHWA provides considerations, applications, and expected safety benefits for each countermeasure ([Proven Safety Countermeasures | FHWA \(dot.gov\)](https://www.fhwa.dot.gov/psci/)).

The project team used these FHWA Proven Safety Countermeasures and the Safe System Roadway Design Hierarchy¹⁴ as starting points to generate the recommendations provided in this Action Plan.



¹⁴ https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-01/Safe_System_Roadway_Design_Hierarchy.pdf

6.3 Countermeasure Applications

During development of the plan, initial projects and strategies were identified to provide an effective and transparent approach to improve safety on White Bluff’s Roads. To meet the goals and objectives of the plan, the project team began with the proven safety countermeasures published by the Federal Highway Administration (FHWA) and identified additional viable projects that have a known track record of successful implementation and improvements to safety in Tennessee. The following table illustrates the countermeasures recommended by corridor on the high injury network. Countermeasures are organized into the categories Short-Term, Mid-Term, and Long-Term, according to the anticipated amount of time, effort, cost, and coordination needed for each countermeasure.

Roadway Name	Begin Point	End Point	Segment Length	Suggested Countermeasure Applications
Pleasant View Road	Nash Drive	Hawkins Road	0.6 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Wide edge line striping (min 6") • New speed limit signs with flashing LED borders • Radar speed feedback signs <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Longitudinal rumble strips <p>Long-Term</p> <ul style="list-style-type: none"> • Add paved shoulders • Targeted local road safety plan for Pleasant View Road

Roadway Name	Begin Point	End Point	Segment Length	Suggested Countermeasure Applications
School Road	SR-47	Taylorstown Road	0.4 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Wide edge line striping (min 6") • Install crosswalks with high visibility striping, pushbutton-activated rectangular rapid flashing beacons (RRFB), and unsignalized pedestrian crosswalk signs (R1-6a and R1-5B) <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Intersection improvements (square off corners and tighten turning radii for traffic turning between School Rd and SR-47) • Conduct traffic study, consider adding traffic signal or pedestrian hybrid beacon (PHB) at School Rd and SR-47 • Mid-block crossing with pedestrian hybrid beacon (PHB) crossing school Road to access future sidewalks and future park development south of School Road <p>Long-Term</p> <ul style="list-style-type: none"> • New walkways and walkway connections (sidewalks or greenways)
Taylorstown Road	Charlton Street	Trace Creek (Bottom of Buck Spring Hill)	0.2 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Wide edge line striping (min 6") <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Intersection improvements (square off corners, tighten turning radii, and improve visibility at Taylorstown Rd. & Jordan St.) • Roadside design improvements at curves • Midblock crossing with pedestrian hybrid beacon (PHB) across from higher density residential development at 1220 Taylorstown Rd <p>Long-Term</p> <ul style="list-style-type: none"> • Access management • New walkways and walkway connections (sidewalks) • Buffered bike lanes • Intersection realignment



Roadway Name	Begin Point	End Point	Segment Length	Suggested Countermeasure Applications
SR-47	School Road	East US-70	0.7 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Wide edge line striping (min 6") • Reflective backplates or LED borders on signs and traffic signals • Radar Speed feedback signs <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Longitudinal rumble strips • Concrete medians on both sides ahead of intersection of Charles Speight Highway and Old Charlotte Road • Operational changes to reduce conflicts between different user types <p>Long-Term</p> <ul style="list-style-type: none"> • New walkways and walkway improvements (both sides of roadway) • Buffered bike lanes on both sides of roadway • Roundabout at intersection of Charles Speight Highway and Old Charlotte Road • Access management • Add paved shoulders



Roadway Name	Begin Point	End Point	Segment Length	Suggested Countermeasure Applications
East US-70	Wm Driver Lane	Old Highway 70-2	1.1 miles	<p>Short-Term</p> <ul style="list-style-type: none"> Improved signage and tightened turning radii for intersection of US-70 and Old US Highway 70-3 Reflective backplates or LED borders on signs and traffic signals Conduct speed study – feasibility of lowering speed limit to 30 mph <p>Mid-Term</p> <ul style="list-style-type: none"> Improved lighting with high-visibility LEDs Add midblock crossing with signage and pushbutton activated PHB to intersection of Pinewood Drive and Old US Highway 70-3 to improve access to Veteran Memorial Park Driveway intersection improvements (square off and add curbing to access points for turning vehicles to businesses along segment, especially those at 4978 E Highway 70 and 5122 US-70) <p>Long-Term</p> <ul style="list-style-type: none"> Access management New walkways and walkway connections (both sides of the roadway) Buffered bike lanes on both sides of the road

Roadway Name	Begin Point	End Point	Segment Length	Suggested Countermeasure Applications
East US-70	Commerce St	Cain Brake Road	1.8 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Add new crosswalk markings at intersection of US-70 and SR-47 • Install "Turning Traffic Must Yield to Pedestrians" signage (R10-15) on all mast arms and guide wires at intersection of US-70 and SR-47 <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Longitudinal rumble strips • Add leading pedestrian intervals to existing traffic signal at SR 47 to improve access to White Bluff City Hall and grocery store • Consider removing/significantly tightening slip lane at US-70 and SR-47 • Add midblock crossing with crosswalk striping, PHB, and appropriate signage at Willey Street to improve access to White Bluff Skate and Bike Park and Post Office <p>Long-Term</p> <ul style="list-style-type: none"> • Add new walkways and walkway connections (both sides of roadway) • Consider roundabout at skewed intersection of US-70 with Jordan St and Old Charlotte Rd
White Bluff Road	Williams Drive	At Bend near Fivemile Creek	1.1 miles	<p>Short-Term</p> <ul style="list-style-type: none"> • Lower speed limit to 30 mph • New speed limit signs with flashing LED borders • Wide edge line striping (min 6") <p>Mid-Term</p> <ul style="list-style-type: none"> • Improved lighting with high-visibility LEDs • Longitudinal rumble strips <p>Long-Term</p> <ul style="list-style-type: none"> • Roadside design improvements (guardrail and high-visibility chevrons or flex-post delineators at curves at Hill Drive and near Fivemile Creek) • Add paved shoulders

Table 2, Initial Countermeasure Applications, White Bluff Safety Action Plan

This is not an exhaustive list of countermeasures, but rather a starting place for identifying projects on White Bluff’s road network. This list may be further refined and categorized when using the Project Prioritization Matrix provided in **Section 6.4**.

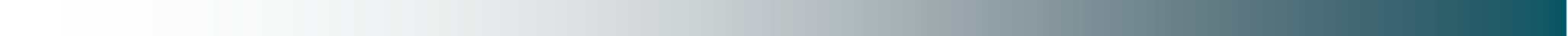
6.4 Prioritization Matrix

A prioritization matrix was developed to provide a strategic tool for White Bluff to evaluate and rank safety projects based on their impact and feasibility. The matrix provides a tool for assessing each project’s potential to address critical safety issues and its alignment with overall safety goals. By assigning scores or weights to various criteria (such as severity of risk, cost, and implementation timeline), the matrix will help identify high-priority projects that strike a balance between reactive and proactive strategies. The score or weight for each criterion is determined by local needs and priorities. Incorporating all these elements in the plan’s priorities will allow projects to meet the greatest safety challenges while meeting the priorities of the Safe Streets and Roads for All (SS4A) Program.

	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7	Project 8	Project 9	Project 10	Project 11	Project 12	Project 13	Project 14	Project 15
Total for All Criteria															
Safety Impacts															
Total Safety Criteria Met															
Segment or intersection on the High-Injury Network?															
Segment or intersection in above 75% KSI crash density?															
Segment or intersection in above 50% KSI crash density?															
Segment or intersection on corridor with high-predictive-crash score?															
Will project improve safety for drivers?															
Will project improve safety for pedestrians or bicyclists?															
Will project improve safety for transit users?															
Is project likely to reduce speeds along corridor or intersection?															
Will project improve visibility of other motorists, pedestrians, and bicyclists?															
Does project align with a Safe Routes to School plan or other local transportation safety initiative?															
Has project been identified in roadway safety audit or similar evaluation?															



	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7	Project 8	Project 9	Project 10	Project 11	Project 12	Project 13	Project 14	Project 15
Equity Impacts															
Total Equity Criteria Met															
Is project is in a DOT-defined disadvantaged area?															
Improves fairness in resource distribution?															
Improves fairness in external cost distribution?															
Incorporates or improves Universal Design?															
Improves travel affordability?															
Improves connectivity for community cut off by previous transportation infrastructure investment?															
Improves connectivity to goods and services in the area?															
Addresses deferred upgrades to infrastructure?															
Context															
Total Context Criteria Met															
Is project located near a school/school zone or other facility serving large numbers of vulnerable individuals?															
Is project part of a recognized short-trip opportunity area?															
Is project located downtown or in a dense commercial or residential area?															
Is project located in a rural area?															
Is project located in a suburban or general commercial area?															
Does project have demonstrated public support?															
Was project identified in a prior comprehensive plan or transportation plan?															
Cost/Timeline															



	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7	Project 8	Project 9	Project 10	Project 11	Project 12	Project 13	Project 14	Project 15
Total Cost/Timeline Criteria Met															
Is project part of STIP/CIP or local funded priority?															
Are project cost and timeline well understood?															
Can project be implemented using existing local resources?															
Have grants, loans, or other funding opportunities been identified to support the project?															
Has a cost-benefit analysis (BCA) shown the project to be beneficial and economically feasible?															
Can project be implemented in the short term (first 5 years after plan completion)?															
If not feasible in the short term, can the project be implemented in the mid-term (less than 10 years after plan completion)?															
Have partnerships been identified to support project implementation?															

Table 3, Project Prioritization Matrix (Also provided to community as a spreadsheet for data entry and use)

6.5 Initial Priorities

The Town of White Bluff intends to apply for grant funding to begin demonstrating countermeasures in higher priority areas. Projects in these areas should be fully vetted and weighed against each other using the prioritization criteria provided in **Section 6.4**. It is also recommended that they be presented in a public forum, such as Council workshops or meetings, with opportunities for public input.

High priority areas considered for initial round of demonstration projects include those around School Road, the US 70 and SR-47 intersection, and Taylortown Road. Under current consideration for these higher priority areas are projects using signage, transverse striping, flex posts, engineered rubber curbing, and other similar materials to tighten turning radii and change intersection dimensions and alter operations on both road segments and at intersections. The goal is to test safety improvements that can be later replaced with more permanent infrastructure and operational change.

7 PARTNERSHIPS & FUNDING OPPORTUNITIES

The following sections outline in greater detail some of the key partnerships & funding opportunities available for implementing this Safety Action Plan.

7.1 Partnerships

Partnerships are an essential part of effective implementation for any major public investment or campaign for change. White Bluff should continue to cultivate and support partnerships with:

- Federal agencies, including those for transportation, national highway safety, emergency response, and public health.
- State agencies, including the Tennessee Department of Transportation, Department of Safety & Homeland Security, Department of Health, Department of Environment and Conservation, Department of Economic and Community Development, and the Governor’s Highway Safety Office.
- Regional partner agencies, including the Dickson County Commission, Highway Department, and Health Department, as well as the Greater Nashville Regional Council and Middle Tennessee Rural Planning Organization (RPO).
- Private partnerships with developers throughout the Town and region.

7.2 Funding

Following is a list of funding sources at the federal, state, and local levels that can be used to implement strategies for safer streets in rural areas like the Town of White Bluff.

- FHWA: Safe Streets and Roads for All (SS4A)
- FHWA: Reconnecting Communities and Neighborhoods (RCN)
- FHWA: Healthy Streets
- FHWA: Carbon Reduction Program Funding
- FHWA: Surface Transportation Block Grants (STBG)
- FHWA: Congestion Mitigation and Air Quality Program (CMAQ)
- FHWA: Rebuilding American Infrastructure with Sustainability and Equity (RAISE)
- EPA: Climate Pollution Reduction Grants
- TDOT: Pedestrian Road Safety Initiative (PRSI)
- TDOT: Rural Community Transportation Planning Grant
- TDOT: Transportation Alternatives Program (TAP)
- TDOT: Multimodal Access Grants (MMAG)
- TDEC: Recreational Trails Program (RTP)
- TDEC: Local Parks and Recreation Fund (LPRF)
- TDH: Healthy Built Environment Grants
- TDH: Project Diabetes Grants
- Blue Cross Blue Shield Healthy Places Grants
- Multimodal Project Discretionary Grant common application (MPDG)
- FAST Act Grants
- TN ECD Grants

8 PROGRESS & TRANSPARENCY

A process and tools for measuring progress and providing transparency was established with residents and other relevant stakeholders during the plan development process. Progress and transparency methods were developed for both the plan process and for further use during implementation.

During development of the Plan, bi-weekly team meetings allowed progress to be tracked and reported to the broader group of stakeholders. Regular touch points were established with community leadership, and they were invited to be involved in all major decisions. The project team also maintained quarterly and annual reporting on project progress throughout plan development.

To deliver on progress and transparency goals during implementation, White Bluff is committed to providing the following on an ongoing basis:

Progress Measures

- **Annual Reporting:** Regularly assess the progress made toward reducing roadway fatalities and serious injuries. This involves annual public and accessible reporting on the outcomes achieved through the action plan.
- **Outcome Data:** Provide relevant data or information measuring the impact of implemented strategies. This data-driven approach helps track improvements over time.

Transparency Measures:

- **Public Posting:** Make the action plan available to the public by posting it online. Transparency ensures that residents, stakeholders, and interested parties can access the plan's details, including all regular updates.
- **Ongoing Communication:** Maintain an open line of communication with the community and stakeholders during updates, town hall meetings, and engagement sessions fostering transparency and building trust.
- **Regular Town Council updates:** Keep the Council informed on activities and progress to share at public meetings.

These progress and transparency measures together provide a platform for ongoing accountability as the plan is implemented. These reports should capture the activities and progress since the previous reporting period. They should also be related directly to the recommendations and priority projects and strategies provided in the Action Plan under **Section 6**. Progress under each of these recommendations should be addressed in these reports, ensuring that project success builds on previous activities and reporting.

APPENDIX A – COMMUNITY ENGAGEMENT RECORD

Safe Streets & Roads for All

OPEN HOUSE

COMMUNITY MEETING

Thursday, March 21, 2024
Bibb White Bluff Civic Center
1054 Old Charlotte Road
6:00 – 8:00 pm



Please drop by &
provide your input!



Summary from Mapping Exercise (public workshop, March 21, 2024):

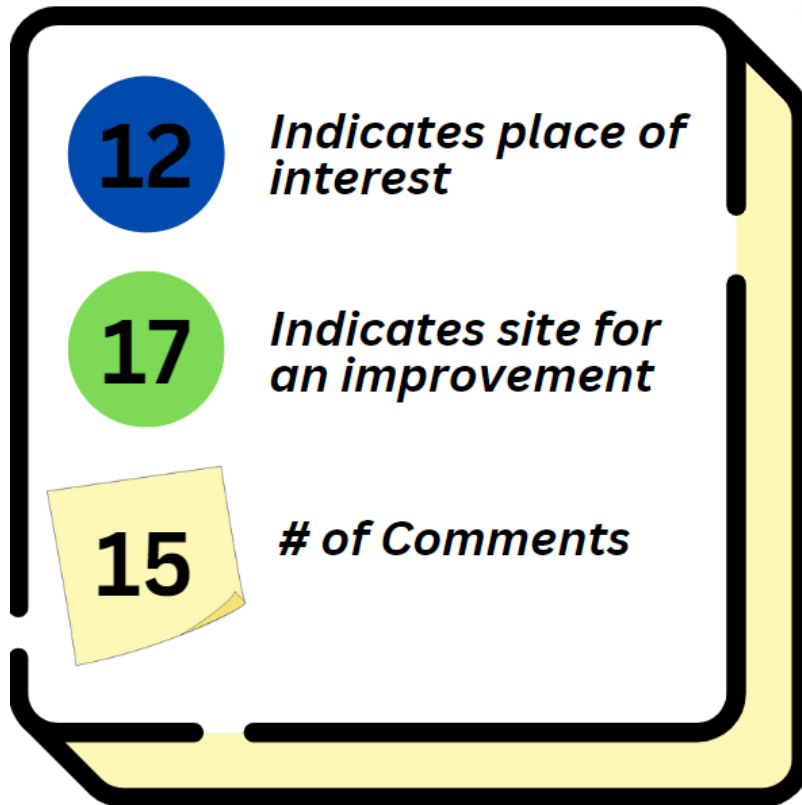


Figure 9, Number of Stickers & Notes from Public Workshop

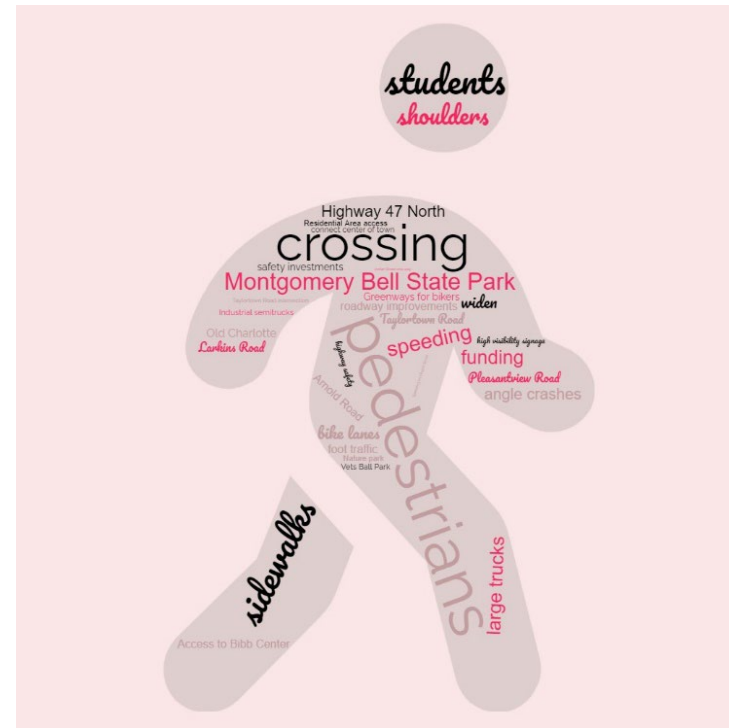


Figure 10, Word Cloud of Comment Responses



Survey Comments (paper and online survey)
"Future planning of a greenway to connect White Bluff to Montgomery Bell State Park will require an investment in safe routes for bicyclists and pedestrians"
"Sidewalks/greenways needed along Hwy 70 near Dollar General"
"Old Charlotte as cut-through to avoid traffic light;" "Cutting through McDonald's to avoid traffic light;" "To avoid 47, drivers use Old Charlotte;" "Speeding on Church Street and cut-through"
"Make Jordan a one-way at the corner of Jordan and Highway 70"
"BlueZoners – bike riders applying some principles in the U.S.; "Walkways in the center of town – funding available"
"White Bluff Road – do not narrow, but add new striping and high visibility signage with LEDs"
"Widen White Bluff Road, add sidewalks to provide connection from residential area into town; If sidewalks cannot be added, provide shoulders to allow drivers to feel safe"
"Angle crashes, sideswipes"; "Rear-ends at Vets Ball Park (speeding)"
"Sidewalks and bike lanes"; "Difficult to walk into town, impossible and unsafe to ride bikes to Montgomery Bell State Park; Taylortown Road is unsafe because of no sidewalks"
"There is anticipated need to a safe crossing between the Bibb Center and the planned nature park across Highway 47"
"Widen Taylortown Road, traffic light intersection of Taylortown"
"Students killed almost every year on Highway 47 N to HS"
"Industrial semis that run through town to Taylortown Road at Arnold, coming up Pleasantview; Roads not built for semis, 4x overturned in six years"
"Large trucks dangerous for bikers – need roadway improvements; trucks turnover with metal recycling – Arnold Road, Larkins Road"
"I would like to see an access between the Bibb Center and the proposed nature park on School Road and Highway 47. A safe route across the highway (or under) will be vital for foot traffic"

Table 4, Survey Comments from Paper and Online Surveys





AECOM