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# **MOUNT RAINIER VISION ZERO ACTION PLAN**

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**June 2023**

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## APPENDICES

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Appendix B: Existing Conditions Memorandum

Appendix C: Descriptive Crash Analysis Memorandum



Intersection of Chillum Road and Queens Chapel Road, Mount Rainier, MD

# LAND ACKNOWLEDGEMENT

The City of Mount Rainier is located on the traditional territory of the Nacotchtank (Anacostan) and Piscataway peoples, among others.

# DEDICATION

This plan is dedicated to those who have lost their lives or sustained life-altering injuries in Mount Rainier, and to their family and friends. The quotes featured throughout this plan are from Mount Rainier residents who shared their stories and feedback in a community survey as part of this study process.



# CHAPTER 1: INTRODUCTION



# INTRODUCTION

Although progress has been made, we still see an unacceptable number of traffic deaths and life-changing injuries on our streets, throughout the DC area and in Mount Rainier specifically. The impacts of these tragedies extend beyond personal loss to the entire community, including far-reaching emotional trauma and significant taxpayer spending on emergency response, infrastructure restoration, and long-term healthcare costs. Furthermore, when we do not feel safe walking or bicycling on our streets, we suffer in terms of overall health and mobility.

This plan builds on the City of Mount Rainier, County, Region, and State's past work on traffic safety plans, actions, and policies to outline a holistic, equitable, and data-driven approach to achieving and maintaining zero traffic deaths and serious injuries in Mount Rainier.

# VISION AND GOALS

This plan is guided by the City of Mount Rainier's commitment to Vision Zero, which is formalized in the statement below and discussed in more detail on the following page.

**The City of Mount Rainier adopts a goal of eliminating traffic deaths and serious injuries by 2040 and endorses Vision Zero as a comprehensive and collaborative approach that will involve all City of Mount Rainier departments to achieve this goal.**

This plan will help Mount Rainier meet this commitment, while also addressing the goals outlined below.

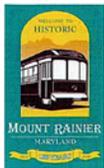
## Goals

- Prioritize the safety of children traveling in Mount Rainier.
- Improve access to transit, schools, parks, and other community destinations.
- Implement a holistic approach that focuses on safety, while also capturing dual benefits such as green infrastructure.
- Center equity in planning, design, and decision-making.
- Provide leadership in interjurisdictional collaboration around transportation safety.
- Redesign public infrastructure in Mount Rainier to make the city more walkable, bikeable, and sustainable.
- Focus attention, resources, and project improvements on specific corridors and intersections based on crash analysis results.

# AGENCY AND COMMUNITY COMMITMENT

In March 2023, the Council of the City of Mount Rainier adopted [Resolution 01-2023](#), “Creating the Safe Streets Task Force and directing the creation of a Vision Zero Safe Streets Plan.” The resolution recognized that traffic crashes are a leading cause of death and serious injury across the United States and the State of Maryland, and acknowledged that Mount Rainier is no exception, jeopardizing the safety and quality of life of City of Mount Rainier residents. Through the resolution, the development of this *Vision Zero Action Plan*, and support in the implementation of the actions outlined in the following pages, the Council has declared and affirmed the City of Mount Rainier’s commitment to eliminating deaths and serious injuries on its roads. The full City Council resolution is available in Appendix A.

**Section 1.** The City adopts a goal of eliminating traffic deaths and serious injuries by 2040; and endorses Vision Zero as a comprehensive and collaborative approach that will involve all City departments to achieve this goal.



FIRST READING: March 07, 2023  
 SECOND READING/ADOPTION: March 21, 2023  
 POSTED: April 04, 2023  
 EFFECTIVE DATE: March 22, 2023

CITY OF MOUNT RAINIER, MARYLAND  
 Resolution No. 01-2023  
 Introduced by the Mayor & City Council  
**AMENDED AFTER INTRODUCTION BY INTERLINEATION**

Creating the Safe Streets Task Force and directing the creation of a Vision Zero Safe Streets Plan

WHEREAS, traffic crashes are among the leading causes of death and injury within the United States and the State of Maryland; and

WHEREAS, traffic deaths and serious injuries in the United States have disproportionately impacted pedestrians, cyclists, people of color, low-income households, older adults and youth, people with disabilities, and households with limited vehicle access; and

WHEREAS, there are approximately 500 crash-related fatalities in Maryland each year and an average of nearly 34,000 crash-related injuries, and these deaths and injuries include substantial numbers in the City; and

WHEREAS, these serious accidents, deaths, and injuries jeopardize the quality of life of City residents and visitors and are largely preventable; and

WHEREAS, the federal Infrastructure Investment and Jobs Act established a Safe Streets and Roads for All (SS4A) grant program, with \$5 billion available from 2023 through 2028; and

WHEREAS, the SS4A program supports the National Roadway Safety Strategy and the U.S. Department of Transportation’s goal of zero deaths and serious injuries on the nation’s roadways and, to that end, provides grants to assist municipalities, among other entities, develop or update a comprehensive safety action plan (Action Plan); conduct planning, design, and development activities in support of an Action Plan, and carry out projects and strategies identified in an Action Plan.

WHEREAS, the City endorses Vision Zero, a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all; and

WHEREAS, the City wishes to receive grant funding through the SS4A program to improve roadway safety in the community; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mount Rainier that:

equity impact assessments of the proposed projects and strategies.  
 D. an assessment of current policies to identify opportunities to improve how processes prioritize transportation safety and proposals for the adoption of revised or new policies, guidelines, and/or standards, as appropriate.  
 E. Identification of a comprehensive set of projects and strategies to address the safety problems described in the Action Plan. These strategies should focus on a Safe System Approach, effective interventions, and consider multidisciplinary activities. Data limitations are identified and mitigated. The projects should be prioritized in a list that provides time ranges for when the strategies and countermeasures will be deployed (e.g., short-, mid-, and long-term timeframes).  
 F. A method to measure progress over time, including, at a minimum, annual public reporting on progress toward reducing roadway fatalities and serious injuries, and public posting of the Action Plan online.

**Section 4.** The City Council directs the City Manager to ensure the Vision Zero Action Plan addresses traffic deaths and serious injuries through a combination of engineering, enforcement, education, and evaluation.

**Section 5.** That this Resolution is adopted by the Council of the City of Mount Rainier this 21 day of March, 2023, and shall take effect immediately, provided that a fair summary has been read at the meeting at which it is introduced and adopted, that a copy shall be posted at City Hall for at least two weeks after it becomes effective, and that a fair summary is published at least once in a newspaper having general circulation in the City, inclusive of the City’s newsletter, or otherwise delivered to every City household.

Attest:  
  
 Melissa Sam, City Clerk

Celina R. Benitez, Mayor

Luke Chesek, Councilmember Ward 1

Jarrett Stoltzfus, Councilmember Ward 2

James Tarlau, Councilmember Ward 1

Valerie Woodall, Councilmember Ward 2

## City of Mount Rainier Council Resolution No. 01-2023, “Creating the Safe Streets Task Force and directing the creation of a Vision Zero Safe Streets Plan”

Mount Rainier’s commitment to Vision Zero aligns with and supports similar community efforts to focus attention on transportation safety. For example, in March 2023, Prince George’s County Councilmember Wanika Fisher, District of Columbia Councilmember Zachary Parker, Mount Rainier Mayor Celina Benitez and Councilmembers Jarrett Stoltzfus, Jimmy Tarlau, and Valerie Woodall, joined local residents for a walk along Eastern Avenue, the border between DC and Maryland. “Many residents of Mount Rainier live on or nearby Eastern, but DC manages the whole street and sidewalks,” noted a DC Advisory Neighborhood Commissioner who attended.<sup>1</sup> “This limits their ability to direct improvements that would benefit their community. What we learned, however, was many—if not all—improvements they’d like to see, folks in DC want to see as well! Safer streets, improved facilities, and better traffic management to reduce neighborhood commuter cut throughs.”



**DC Councilmember Zachary Parker, Prince George’s County Councilmember Wanika Fisher, and Mount Rainier Mayor Celina Benitez, joined by Mount Rainier City of Mount Rainier Councilmembers Jarrett Stoltzfus, Jimmy Tarlau, and Valerie Woodall, representatives of DC Advisory Neighborhood Commissions, and residents**

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<sup>1</sup> Commissioner Edward Borrego, “Eastern Avenue Walkthrough,” *5B01 News*, March 18, 2023, <http://news.anc5b01.com/2023/03/eastern-avenue-walkthrough.html>.

This plan will incorporate and expand upon the Maryland Department of Transportation State Highway Administration’s (MDOT SHA) “Toward Zero Deaths” and Prince George’s County’s “Vision Zero Prince George’s” commitments and programs, as highlighted below.

## Maryland

The Maryland Strategic Highway Safety Plan (SHSP) was adapted from a model by the American Association of State Highway and Transportation Officials (AASHTO) and has been revised periodically to meet requirements of the 2005 federal SAFETEA-LU transportation law.<sup>2</sup> As of 2023, the current version is the 2021–2025 plan, the state’s fifth version that was released in December 2020.

The Maryland 2021-2025 SHSP emphasizes that:

“Because traffic crashes are predictable and preventable events, any fatality or severe injury on the roads is unacceptable. This is the Zero Deaths Maryland philosophy and is aligned with the Zero Deaths Vision adopted by the U.S. Federal Highway Administration. Like the Toward Zero Deaths approach in previous Maryland Strategic Highway Safety Plans, Zero Deaths Maryland uses a data-driven and interdisciplinary strategy that applies education, enforcement, engineering and emergency medical services strategies to prevent fatal and severe crashes. The Zero Deaths Maryland strategy emphasizes a broad systems perspective that considers the interaction of the road user with the roadway infrastructure as a necessary component to achieve zero deaths.”<sup>3</sup>

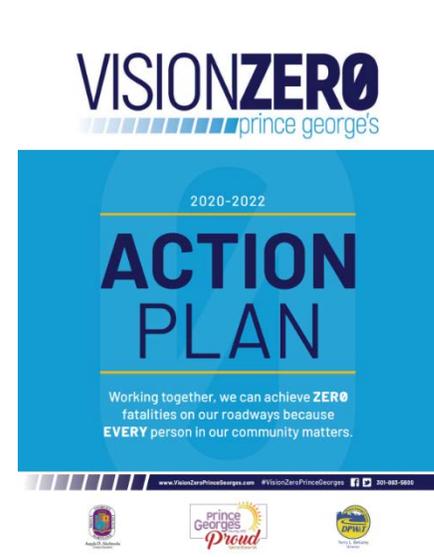
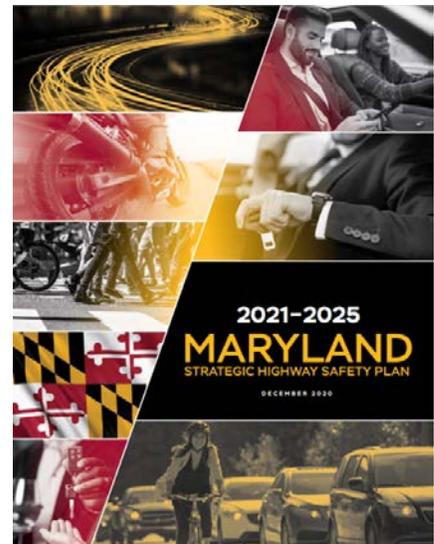
## Prince George’s County

The Vision Zero Prince George’s 2020–2022 Action Plan updated and replaced the County’s 2017-2020 Strategic Roadway Safety Plan,<sup>4</sup> which was built on the state’s Strategic Highway Safety Plan, similar to how this plan for Mount Rainier builds on the County and State plans.

The Prince George’s 2020-2022 Action Plan affirms that:

“A new approach is needed to address our vision for safety that emphasizes that traffic deaths are preventable and predictable. Participation in Vision Zero means everyone in the community shares responsibility for ensuring the safety of people on the roads, whether they are walking, bicycling, riding motorcycles, driving, or taking transit.

The number of traffic crashes on Prince George’s roadways has brought to light the immediate and essential need for action. The current crash data confirms that the problem is County wide and requires a multi-faceted approach. Prince George’s County, led by the Department of Public Works and Transportation (DPW&T), and in partnership with the Police Department and Public Schools, Maryland State Highway Administration, along with the community, and agency and elected leaders, is committed to enhancing roadway safety in Prince George’s County. Implementing Vision Zero efforts have emphasized our commitment to the community through strengthened programs and activities.”<sup>5</sup>



<sup>2</sup> (Maryland Department of Transportation 2020; Program Analysis Team 2005)

<sup>3</sup> (Maryland Department of Transportation 2020)

<sup>4</sup> (Prince George’s County n.d.)

<sup>5</sup> (Vision Zero Prince George’s 2019)

# PUBLIC ENGAGEMENT

The Mount Rainier *Vision Zero Action Plan* was developed through extensive public and stakeholder engagement, including the following activities:

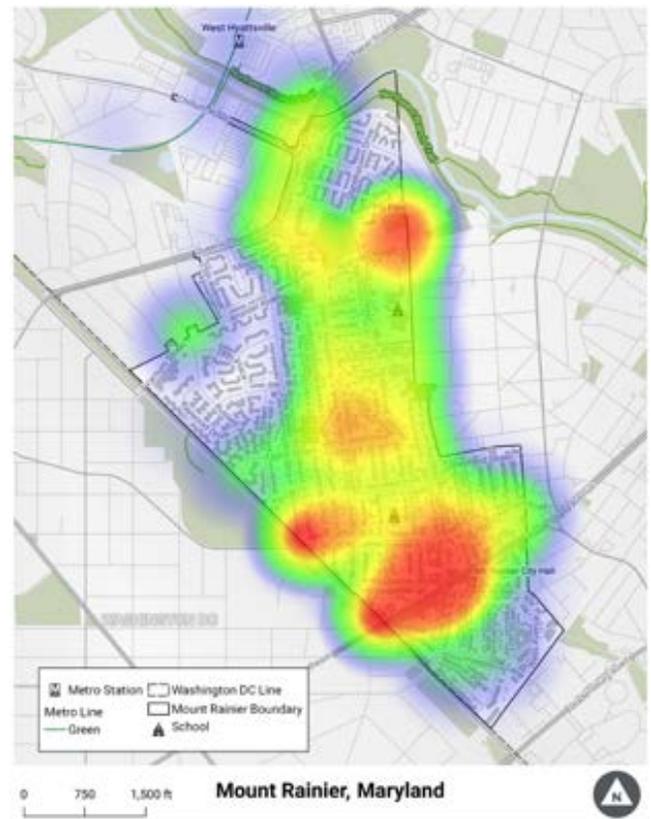
**Community Survey:** An online community input survey was available from September 2 to October 7, 2022, in English and Spanish. The survey was conducted during the first phase of this project, prior to it becoming a *Vision Zero Action Plan*; however, the results are directly applicable. Over 200 complete survey responses were received. The survey asked a broad range of questions, including:

- Where in the city do you most want to see changes to make it safer and more accessible to get around walking or riding a bike?
- If you don't currently ride a bike or walk to get around, but would like to, what do you most need the city to do so you can start?

Survey responses highlight the need for ongoing and enhanced community outreach. For example, Black/African-American and Hispano(a)/Latino(a) residents were significantly underrepresented, and while crash data (discussed later in this plan) illustrated that the most significant hazards for people walking are toward the northern area of the city, survey respondents requested the highest density of access and safety improvements toward the southern end of the city.

A detailed summary of the community survey results, and a full documentation of current conditions is provided in the *Existing Conditions Memorandum*, in Appendix B. Significant findings include:

- The top locations identified for pedestrian or bicycle access and safety improvements include the Rhode Island Avenue traffic circle; the intersections of 34<sup>th</sup> Street/Chillum Road and the Levee Trail, 34<sup>th</sup> Street and Bunker Hill Road, 34<sup>th</sup> Street and Arundel Road, Eastern Avenue and Rhode Island Avenue; and segments of 34<sup>th</sup> Street, Rhode Island Avenue, Bunker Hill Road, Arundel Road, and 31<sup>st</sup> Street.
- The top needs for respondents to shift from current to preferred modes of travel were better bicycle and pedestrian infrastructure, reduced motor vehicle speeds/traffic calming, and improved personal security.
- Significant locations where residents identified needs to calm or slow traffic were parts of 31<sup>st</sup> Street and Bunker Hill Road, the Rhode Island Avenue traffic circle, and the intersection of 31<sup>st</sup> Street and Taylor Street.
- The top location needing improvement in motorist yielding and needing to reduce cut-through traffic was Bunker Hill Road, which received more comments than the next two highest locations combined in both categories.



**Heat map illustrating locations where community survey respondents would like to see pedestrian access and safety improvements**

**Public Meetings:** Two online public meetings with residents and stakeholders were held on September 19, 2022, and May 13, 2023. The September meeting provided live translation in Spanish.

**Focus Group Meetings:** Multiple focus group meetings were conducted, to hear concerns and feedback from a diverse cross section of community stakeholders, including:

- Advocates for walking and biking (September 14, 2022, online)
- Rainier Manor residents (October 10, 2022, in-person)
- Mount Rainier Elementary School and Thomas S. Stone Elementary School Parent Teacher Organization (PTO) and Staff Representatives (October 12, 2022, online)
- City of Mount Rainier Tree Commission (November 3, 2022, online)

**Vision Zero Task Force Meetings:** The project team met with the Vision Zero Task Force three times during the development of this Action Plan, on March 22, May 11, and May 25, 2023.

**Mount Rainier City Council Engagement:** Members of the Mount Rainier City Council were engaged throughout the process, and at least two councilmembers attended every public meeting and Task Force meeting. Development of the Action Plan included a presentation to a Council Work Session on May 30, 2023, followed by it being submitted for consideration and adoption at a Council Legislative Meeting on June 6, 2023.

# PLANNING CONTEXT AND KEY CHALLENGES

Mount Rainer is a historic Route 1 gateway community located in Prince George's County, Maryland, just outside of Washington, D.C. The city is approximately 0.6 square miles and is bounded by Avondale to the northwest, Hyattsville to the north, Brentwood to the east, Cottage City of Mount Rainier to the southeast, and the Woodridge and North Michigan Park neighborhoods of Washington, D.C., to the southwest. It is within the Gateway Arts District, an area designated by the state and county for revitalization through development of arts and entertainment-oriented businesses.

## Key Challenges

- **High traffic volumes and high speeds on large arterial roads** maintained by Maryland SHA and the District Department of Transportation (DDOT) such as Queens Chapel Road, Rhode Island Avenue, and Eastern Avenue.
- **Missing and deficient multimodal infrastructure** makes it uncomfortable and/or unsafe to travel along and across streets, limiting access and connectivity to the West Hyattsville Metrorail station, Northwest Branch Trail, and other nearby transportation facilities and networks.
- **Overlapping jurisdictions** can make coordination and assignment of responsibility for implementing transportation safety improvements difficult.
- **Narrow streets and constrained public rights-of-way** require trade-off decisions and can limit options for improvements.
- **Cut through traffic** can present unsafe and uncomfortable conditions on local neighborhood streets.

- **Speeding is a significant concern** for residents, creating safety concerns and diminishing quality of life for everyone. Cut through traffic and speeding have persisted despite previous efforts.
- **Abutting and adjacent municipalities' actions and developments** increasingly affect how residents travel within and through Mount Rainier.
- **Limited bike and pedestrian infrastructure** in Mount Rainier presents an increasing gap in the larger regional network of Metropolitan Washington, as Washington, D.C. and nearby communities develop and expand their bike and pedestrian networks.
- **Limited tax revenue** makes budgeting for bigger and more complex transportation safety improvements difficult.
- **National trends** such as larger vehicle sizes, driver distraction, and flouting traffic laws, are increasing the frequency and severity of crashes and are occurring locally.



**34<sup>th</sup> Street, Mount Rainier, MD**

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*Make Queens Chapel, Route 1, and Eastern (or parallel paths) more friendly to bikes. Prioritize connection of Mount Rainier to the West Hyattsville station (via trail and quick + direct + frequent buses). That station is SO CLOSE to our town (huge asset) but it seems so far away because Queens Chapel is so hostile to pedestrians, and the bike route ... is not direct.*

— Survey Respondent

# STUDY PROCESS OVERVIEW



# WHAT IS VISION ZERO?

Vision Zero is a goal of zero traffic deaths or serious injuries on our roadways. It prioritizes safety over all other decision-making processes. The Safe System Approach is a proven methodology to achieving zero traffic deaths. Part of what makes this approach different from how traffic safety has traditionally been addressed is the recognition that while humans make mistakes when using our roads, death and severe injury should not be an acceptable outcome.

## SAFE SYSTEMS APPROACH PRINCIPLES AND ELEMENTS<sup>6</sup>

### SAFE SYSTEM PRINCIPLES

#### Death and Serious Injuries are Unacceptable

While no crashes are desirable, the Safe System Approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.

#### Humans Make Mistakes

People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.

#### Humans Are Vulnerable

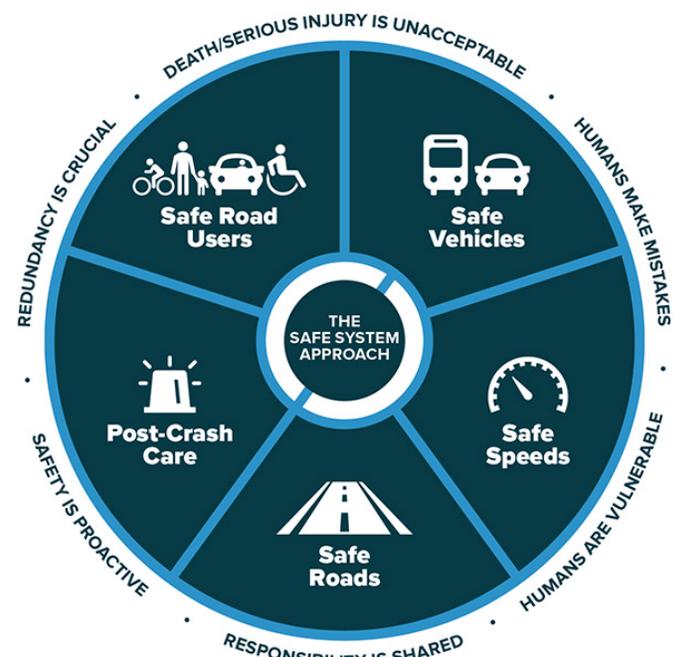
People have limits for tolerating crash forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.

#### Responsibility is Shared

All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don't lead to fatal or serious injuries.

#### Safety is Proactive

Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.



Source: FHWA.

<sup>6</sup> The text in this section is reproduced from FHWA's [Safe System Approach Flyer](#) (FHWA-SA-20-015)

## **Redundancy is Crucial**

Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.

# **SAFE SYSTEM ELEMENTS**

Making a commitment to zero deaths means addressing every aspect of crash risks through the five elements of a Safe System, shown below. These layers of protection and shared responsibility promote a holistic approach to safety across the entire transportation system. The key focus of the Safe System approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances.

## **Safe Road Users**

The Safe System approach addresses the safety of all road users, including those who walk, bike, drive, ride transit, and travel by other modes.

## **Safe Vehicles**

Vehicles are designed and regulated to minimize the occurrence and severity of collisions using safety measures that incorporate the latest technology.

## **Safe Speeds**

Humans are unlikely to survive high-speed crashes. Reducing speeds can accommodate human injury tolerances in three ways: reducing impact forces, providing additional time for drivers to stop, and improving visibility.

## **Safe Roads**

Designing to accommodate human mistakes and injury tolerances can greatly reduce the severity of crashes that do occur. Examples include physically separating people traveling at different speeds, providing dedicated times for different users to move through a space, and alerting users to hazards and other road users.

## **Post-Crash Care**

When a person is injured in a collision, they rely on emergency first responders to quickly locate them, stabilize their injury, and transport them to medical facilities. Post-crash care also includes forensic analysis at the crash site, traffic incident management, and other activities.



**CHAPTER 2:  
UNDERSTANDING SAFETY  
ISSUES IN MOUNT RAINIER**





Chillum Road, Mount Rainier, MD

## UNDERSTANDING SAFETY ISSUES IN MOUNT RAINIER

In order to understand crash-related safety issues in Mount Rainier, the project team downloaded data on crashes within Mount Rainier from the Maryland State Police's Crash Data Resource Open Data Portal.<sup>7</sup> Eastern Avenue, despite forming Mount Rainier's southwest border, is entirely within the District of Columbia (DC), so some DC crash data was also incorporated.<sup>8</sup> However, DC's data contains less information about crashes. For example, while Maryland breaks out "impairment" into impairment by medication, alcohol, other drugs, or a combination, DC only notes *if* an individual was impaired, not *by what*. Across both jurisdictions, crash data was often incomplete; for example, for some 25% of individuals involved in crashes, age was unknown or unavailable, which limited the analysis.

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<sup>7</sup> Including Crash Data tables [Statewide Vehicle Crashes](#), [Road Circumstances](#), [Weather Circumstances](#), Crash Vehicle Data tables [Vehicle Details](#) and [Vehicle Circumstances](#), and Crash Person Data tables [Person Details \(Anonymized\)](#) and [Person Circumstances](#).

<sup>8</sup> DC crash data used the [Crashes in DC](#) and [Crash Details](#) datasets from DC Open Data.

Another critical limitation was that the data only includes crashes reported to police. For various reasons, many crashes are not reported or may not be responded to by police—as many as 10% of all crashes, up to 30% of crashes involving people walking or riding a bike, and as much as 40% of crashes in certain communities.<sup>9</sup> However, crash report forms completed by police on scene are often the most complete, if not the only data source of necessary details.

Crashes were coded based on the most vulnerable road user involved, in the following order: pedestrian, bicycle, motorcycle, motor vehicle. For example, a crash between a motor vehicle and a pedestrian involves both of those modes, but since the person walking is the more vulnerable road user, the overall crash would be coded as pedestrian. When a crash occurred between users of the same mode, or a lone individual, the crash was coded to that mode. For example, a crash between two motor vehicles, or a crash of just a single motor vehicle, would both be coded as a motor vehicle crash. For this analysis, people walking and those using wheelchairs or other assistive devices are included as “pedestrians,” people riding e-bikes are included as “bicyclists,” and people riding mopeds and motor scooters are included as “motorcyclists.” These three groups are collectively referred to as “vulnerable road users.”

Crashes are graded by injury as assessed by the responding police officer at the time of reporting, and categorized depending on the most serious injury suffered, including: Fatal injury; major, serious, severe, or incapacitating injury; minor, moderate, or possibly incapacitating injury; possible or non-incapacitating injury; and unknown or no injury. The severity codes used by Maryland and DC were converted into the “KABCO” severity scale developed by the National Safety Council, which assigns letters to the five categories: K (Fatal), A (Serious), B (Minor), C (Possible), O (No injury).<sup>10</sup>

The focus of Vision Zero and the Safe System Approach is on eliminating fatal and severe-injury crashes on roadways. Therefore, while all reported traffic crashes occurring in Mount Rainier from the beginning of 2017 to the end of 2021 were analyzed, special focus was given to crashes in which a person was killed or seriously injured (KSIs), also referred to as KA crashes using the KABCO scale. “KSI” and “KA crash” are used interchangeably in the information that follows.

Local crash data was then combined with data from the Maryland Department of Transportation State Highway Administration, Prince George’s County Planning Department, District [of Columbia] Department of Transportation, and OpenStreetMap to better understand the land use and roadway context of crashes that occurred. For a full list of data sets and sources and the comprehensive safety analysis results, see Appendix C.

## SUMMARY OF KEY FINDINGS: 2017–2021

- There were 785 reported crashes in the study area<sup>11</sup> between January 1, 2017, and December 31, 2021, involving 1,608 people. Although zero were fatal, 21 crashes (2.7%) resulted in one or more serious injuries, 79 resulted in minor injuries (10%), and 66 resulted in a possible injury (8.4%). The remaining 619 crashes resulted in no known injury (79%).<sup>12</sup>
- Vulnerable road user crashes made up 7% of all crashes but comprised 57% of KA crashes.
  - Crashes involving people walking made up 4.5% of all crashes, but 43% of KA crashes; one of every four pedestrian crashes resulted in a serious injury.

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<sup>9</sup> Laura Bliss, “The Car Crashes That Go Undetected,” *Bloomberg CityLab*, July 15, 2021, <https://www.bloomberg.com/news/articles/2021-07-15/how-many-traffic-crashes-are-going-unreported>.

<sup>10</sup> Note that severity is not updated after the initial incident report, so if someone had injuries that were not apparent or which developed later, or if their condition was more (or less) serious than the responding officer’s initial assessment, that would not be reflected in the data.

<sup>11</sup> The study area includes the entire territory of the City of Mount Rainier, plus the section of the District of Columbia’s Eastern Avenue NE which borders the City.

<sup>12</sup> Percentages may not add to 100 due to rounding.

- Crashes involving someone riding a motorcycle made up 1.5% of all crashes, but 9.5% of KA crashes; one of every six motorcycle crashes resulted in a serious injury.
- Crashes involving someone riding a bicycle made up 1.0% of all crashes, but 4.8% of KA crashes; one of every eight bike crashes resulted in serious injury.
- Crashes involving only motor vehicles made up 93% of all crashes but only 43% of KA crashes. Less than one of every 80 crashes that only involved motor vehicles resulted in serious injury.
- While just over 1% of motor vehicle crashes resulted in serious injury, more than 25% of pedestrian crashes resulted in serious injury. There were more than 20 times more motor vehicle crashes than pedestrian crashes, but the same number of crashes resulted in a KA outcome for each: 9.
- Travelers in the 20- and 30-year-old age groups were involved in a disproportionate share of crashes overall and of KA crashes specifically. People aged 75–79 are the smallest demographic group in the city, and the most overrepresented in crashes.
- Across the five years of crash data analyzed, 2020 and 2021 had the smallest and second-smallest shares of all crashes, and the second smallest and smallest shares of KA crashes. 2021 had the lowest percentage of crashes resulting in KA outcomes, less than half of 2017's percentage. 2021 was the second consecutive year of reductions in the number of KA crashes and the share resulting in a KA outcome.
- The highest number of crashes occurred during the afternoon, particularly at rush hour; however, evening, and late-night crashes were more likely to be severe.
- Crashes occurred slightly more often at intersections than along street segments but were much more likely to result in significant injuries.
- Larger, higher-speed, and higher-traffic roads had more crashes than smaller roads, and they were more likely to result in serious injuries. Less than one-sixth of the road network accounted for half of all crashes, and almost two-thirds of KA crashes.

## CRASHES PER CAPITA AND PER MILE

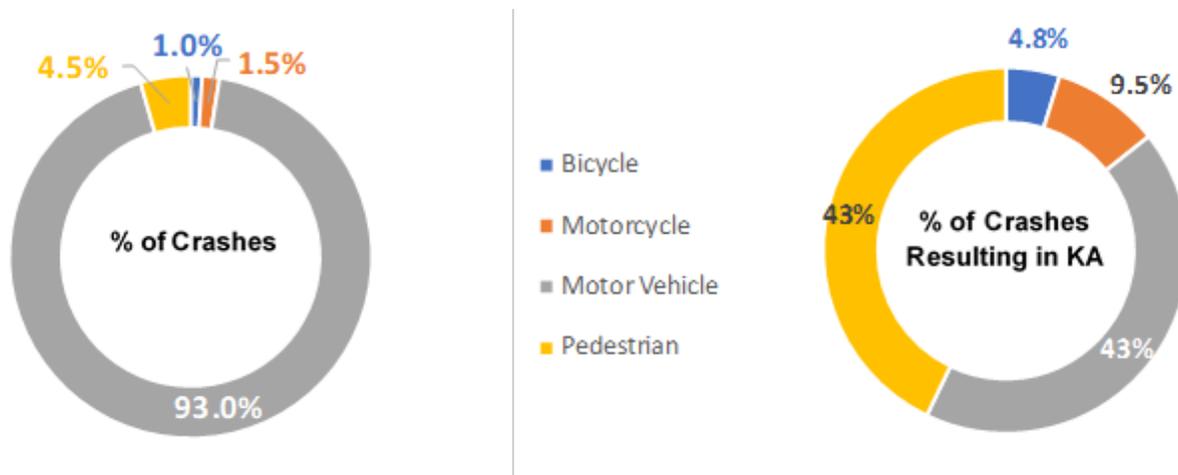
Mount Rainier's largest roads, and the locations of the majority of its crashes, are major regional corridors, so it's not known how many of the persons involved in crashes within Mount Rainier are city residents. This means that both the population contributing to crashes on residents' doorsteps, and the population potentially affected by crashes in the city, are considerably larger than the city's 8,290 residents.

However, a small city population and geographic footprint doesn't mean Mount Rainier has small challenges. The reported 785 crashes and 21 KSIs in a city of 8,290 equates to approximately one crash per every 10.6 residents and one KSI per every 395 residents, or about 94.7 crashes and 2.5 KSIs per 1,000 people. The city has approximately 18.6 miles of roadway within its 0.64 square miles, which yields an average of 42.1 crashes and 1.1 KSI per street mile and approximately 1,226 collisions and 32.8 KSIs per square mile.

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*We need to create a culture that values safety and plans to not be in a hurry driving through the neighborhood. I'm tired of being tailgated when I am driving the speed LIMIT, the topmost speed anyone is supposed to be driving. This means it should be acceptable to go LESS! Sometimes I cannot back into my driveway because the person behind me on Rainier Ave is following so close. Why is everyone in such a hurry?!*

— Survey Respondent



**Figure 1: Share of crashes, and share of crashes resulting in a fatal or serious injury, by mode of travel**

Over the period analyzed, Mount Rainier had substantially fewer crashes per resident and per square mile than the neighboring District of Columbia, which saw 173 crashes per thousand residents, or 1,951 per square mile. Mount Rainier had slightly fewer crashes per thousand residents than Prince George’s County (99), and slightly more than the State of Maryland (89.7) — but six times as many crashes per square mile as the County (198), and over 20 times as many crashes per square mile as the State of Maryland (57).

## WHO IS MOST AT RISK?

### People not in vehicles, particularly people walking

Of every 100 crashes in Mount Rainier, 93 involve only motor vehicles. However, the 7% of crashes that involve users of vulnerable modes, and especially the 4.5% of crashes that involve pedestrians, are significantly more likely to result in a serious injury. While about 1 of every 81 motor-vehicle-only collisions caused a severe injury, 1 in 8 bike crashes, 1 in 6 motorcycle crashes, and 1 in every 4 pedestrian crashes resulted in a serious injury.

### Disadvantaged populations are disproportionately impacted

While socioeconomic and race/ethnic data is not available for crashes in Mount Rainier, the locations—and largest concentrations—of crashes, as well as the highest-volume, and highest-speed roads, are in the northern area of the city. This northern area also has the highest population density, the highest populations of non-White residents, the highest share of households that do not own or operate motor vehicles, and the highest proportion of households living in poverty.

### Crashes also do not affect all age groups equally

People in their 20s and 30s were in a disproportionate share of crashes overall and of KSI crashes specifically; they are 27% of the city population, but are in 40–50% of crashes and 55–67% of crashes w/ KA outcomes.<sup>13</sup> People aged 75–79 are the smallest age cohort in the city, but the most overrepresented in crashes by a large margin—this group forms just 0.4% of population, but they are 1–1.5% of the people involved in crashes.

<sup>13</sup> Note that age data was not available for about 24.5% of people involved in crashes, including 18% of people in KA crashes.

# WHEN DO CRASHES OCCUR?

## In the Afternoon and Overnight

The greatest numbers of crashes occurred in the afternoon and evening, peaking in the period between 3-6pm, but the most dangerous periods were the early evening—the period between 6-9pm saw the greatest number of KA crashes both overall and for vulnerable users—and late night. The highest share of crashes resulting in KA outcomes came in the period between midnight and 3am, both for all road users and vulnerable users. Without exposure information (e.g., how many people are on the road between the end of school and dinner time, or overnight?), it's hard to know if there are more crashes in the afternoon simply because more people are on the road, or if there is a deeper cause. More analysis is also needed to determine to what degree lighting quality or other factors influence or contribute to collisions.

## On Fridays and Saturdays

Crashes were evenly distributed across the week; there were nearly the same number of crashes on each day of the week—except Fridays, which had 35% more crashes than any other day. For vulnerable users, the pattern of total crashes was different, with significantly fewer collisions occurring on Sundays and Mondays and nearly half of all crashes happening on Wednesdays (20%) and Fridays (24%).

For road users in general and vulnerable users in particular, Saturdays were by far the most relatively dangerous day. More than half of vulnerable-mode KA crashes occurred on Fridays (25%) and on Saturdays (33.3%). For all users, Saturday crashes resulted in a KA outcome more than 50% more often than the second-most dangerous day and more than twice as often as the average across the week.

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*I've almost been hit by turning cars multiple times — while I was in the middle of the crosswalk.*

— Survey Respondent

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## In Mid-Summer, Early Fall, and Mid-Winter

Crashes in Mount Rainier occur significantly more often the summer months, with July and August each being about 10% of all crashes. A smaller peak is experienced in early winter; January sees 9.7% of all crashes. The largest numbers of KA crashes occur in February, July, and September, with February crashes being twice as likely to result in KSIs as the average.

For vulnerable road users, the largest numbers of crashes are seen in April and July, with the largest numbers of KA crashes in February, July, and August. For motorcyclists, one third of crashes occurred in April; for bike riders, more crashes occurred in May than any two other months, and more pedestrian crashes occurred in July and August than any other, with April also being slightly elevated.

# WHERE DO CRASHES OCCUR?

Nationally, about half of all traffic injuries and roughly a quarter of traffic fatalities occur at intersections.<sup>14</sup> In Mount Rainier, while there were no fatalities, nearly two-thirds of serious injury crashes occurred at intersections. Half of all crashes occurred at intersections, meaning that crashes at intersections were more than 50% more likely to result in significant injuries. One of every 30 intersection crashes resulted in a KA outcome; conversely, one of every 45 crashes between intersections caused serious injury.

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<sup>14</sup> Office of Safety. "About Intersection Safety." Federal Highway Administration, May 18, 2022. <https://safety.fhwa.dot.gov/intersection/about/>. Accessed April 26, 2023.

Crashes involving vulnerable users were evenly split between intersection and segment locations. For vulnerable users, segment crashes were marginally more likely to cause severe injuries than intersection crashes.

## **Functional Classification, Traffic Volume, Size, and Speed Limit Predict Crash Severity**

Mount Rainier's higher-classification (i.e., Primary and Secondary<sup>15</sup>) roads have more lanes, more traffic, and higher speed limits; the roads with more lanes have higher classifications, volumes, and speed limits; and so on. The reverse is also true; Mount Rainier's local streets are almost all narrow, have low traffic volumes, and have lower speed limits. Therefore, statistics by functional classification, traffic volume, and road size show very similar numbers for both quantity in the city and for number and severity of crashes.

### *Functional Classification*

Secondary roads form 10% of the city road network and account for more than 25% of its crashes. Primary roads are responsible for an even more disproportionate share of crashes in Mount Rainier: they form just 5% of the network, but 20% of all crashes and nearly 40% of KA crashes occur on these roads.

Crashes involving vulnerable road users were spread evenly between local streets, collectors, and primary roads, with lower numbers on secondary roads, but as noted previously the crashes on higher-classification roads caused more injury: half of vulnerable-user crashes causing serious injury occurred on primary and secondary roads.

The city has two very small special categories: Primary Link, the traffic circle at Rhode Island Avenue, 34th Street, and Perry Street, and Secondary Link, the slip lanes connecting the southbound side of Queens Chapel Road to the state-maintained section of Chillum Road. 0.8% of crashes in the study period occurred on these ramps, which formed 0.4% of the road network until their recent removal by Maryland SHA as part of the Queens Chapel Road project. Three percent of all crashes in the study period occurred on the 0.5% of the road network represented by the Rhode Island Avenue traffic circle.

### *Traffic Volume*

The highest volume roads in Mount Rainier see many more crashes, and far more crashes causing serious injuries, than the city's majority of low-volume streets. More than half of Mount Rainier's crashes, and nearly two thirds of serious-injury crashes, occur on the one-sixth of roads which carry more than 10,000 vehicles per day on average. One third of serious-injury crashes occurred on the one-twentieth of roads with over 15,000 vehicles per day.

### *Road size*

Similarly, just 8% of Mount Rainier's roads have four or more lanes, but those see nearly a third of all crashes, and more than half of crashes which result in serious injuries.

### *Speed*

Relatively few of the crashes had speeding recorded as a factor—less than 5% of crashes, and 9.5% of KSIs—but those crashes were more than twice as likely to result in a serious injury. However, vehicle speed can be exceedingly difficult to determine after the fact: since a determination of speeding may have legal implications, it often requires evidence that may not exist or be available to a responding officer. Therefore, not declaring speeding a factor often does not mean that nobody was speeding, just that the officer did not feel they could prove it. Further, speed or speeding being declared a factor often only means that a driver was provably traveling well over the posted speed limit; higher speeds, even where legal, are more likely to cause severe injury or death.

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<sup>15</sup> It is interesting to note that none of the roads in Mount Rainier classified as "Primary" or "Secondary" are maintained by the City — both Primary roads, Queens Chapel Rd (MD-500) and Rhode Island Ave (US-1), and one of the two Secondary roads, Chillum Rd northwest of Queens Chapel (MD-501) are all controlled by MDOT SHA. The other Secondary road, Eastern Ave, is owned by the District of Columbia.

What is known definitively is the posted speed limit. Mount Rainier streets have either 25 mph or 35 mph speed limits. The higher-speed roadways make up just eight percent of the street network but were nearly one third of crashes and almost half of the severe-injury crashes. Crashes were nearly twice as likely to result in serious injury on the 35-mph roads.

## High Risk Network Maps

To graphically illustrate where in the city and on what roads crashes occur, particularly crashes causing fatal and severe injuries, a series of maps were created illustrating the city’s High-Injury Network (HIN). These map the corridors where the largest numbers of people have been most seriously injured in the city. A HIN was developed for each travel mode (e.g., motor vehicle, bicycle, etc.) as well as a composite HIN (i.e., all modes) overlaid with the city’s disadvantaged census tracts, highlighting the city’s lowest-income and lowest-mobility areas. Sixty-five percent of all crashes and 86% of KSI crashes occur on the overall HIN shown in Figure 6.

As noted previously, while socioeconomic and race/ethnic data is not available for crashes in Mount Rainier, the locations—and largest concentrations—of crashes, as well as the highest-volume, and highest-speed roads, are in the northern area of the city. This northern area also has the highest population density, the highest populations of non-White residents, the highest share of households that do not own or operate motor vehicles, and the highest proportion of households living in poverty.

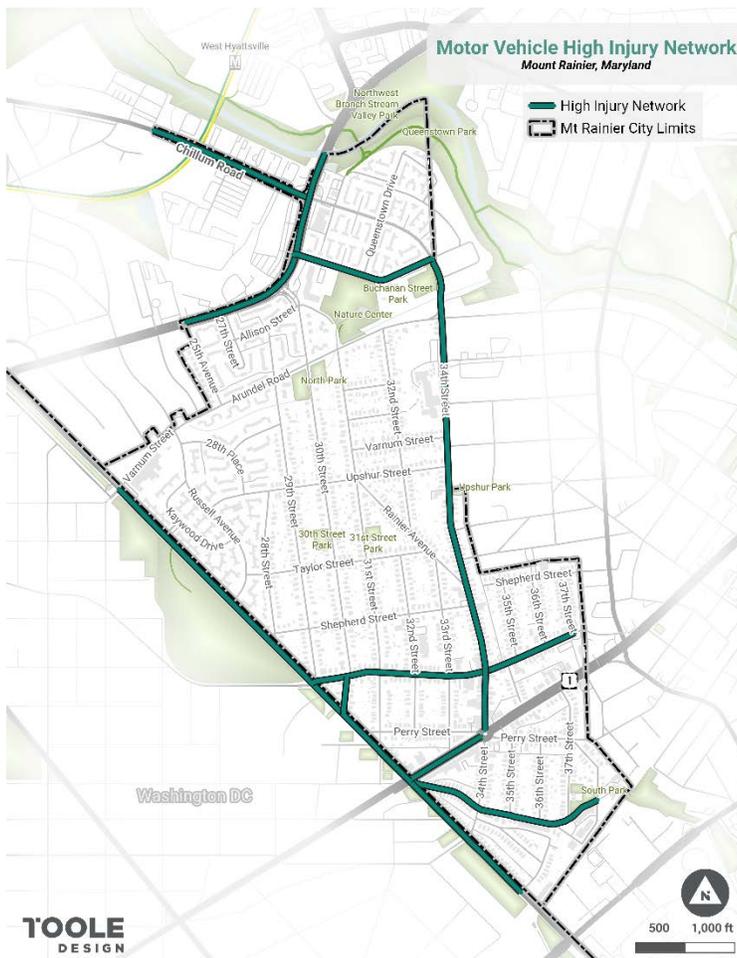


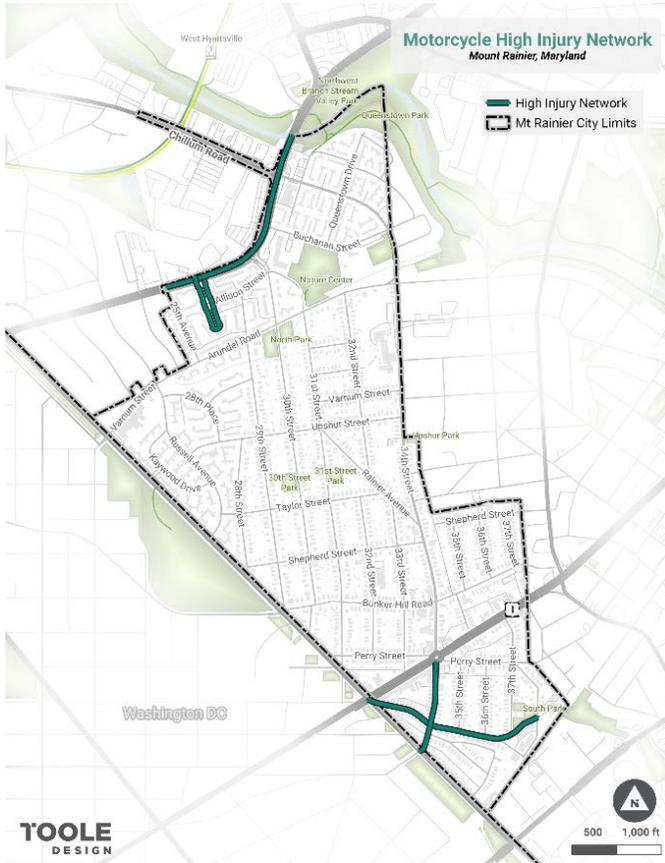
Figure 2: Motor Vehicle High Injury Network

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*[People] drive too fast and do not stop at stop signs or intersections.*

— Survey Respondent

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**Figure 3: Motorcycle High Injury Network**



**Rhode Island Avenue Traffic Circle, Mount Rainier, MD**

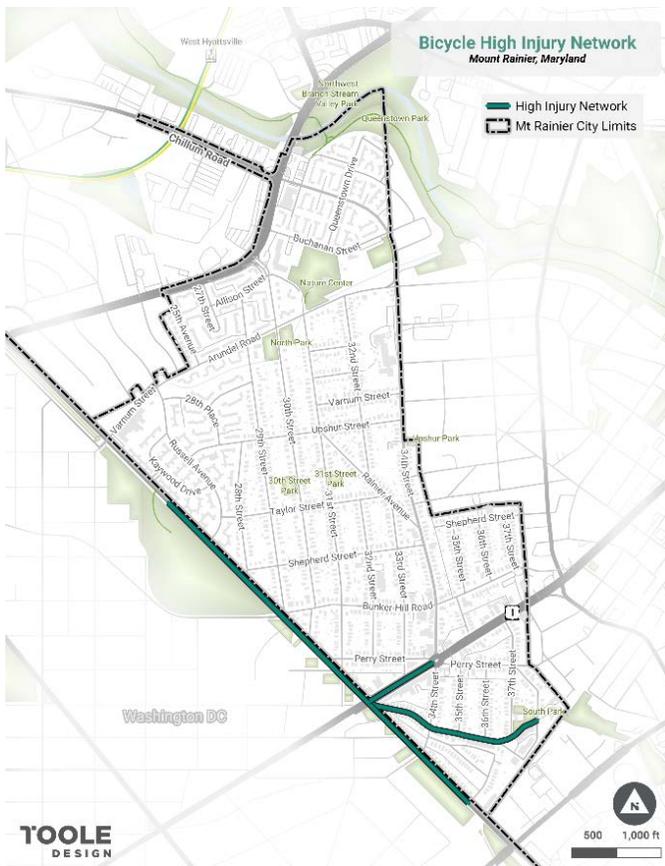


Figure 4: Bicycle High Injury Network

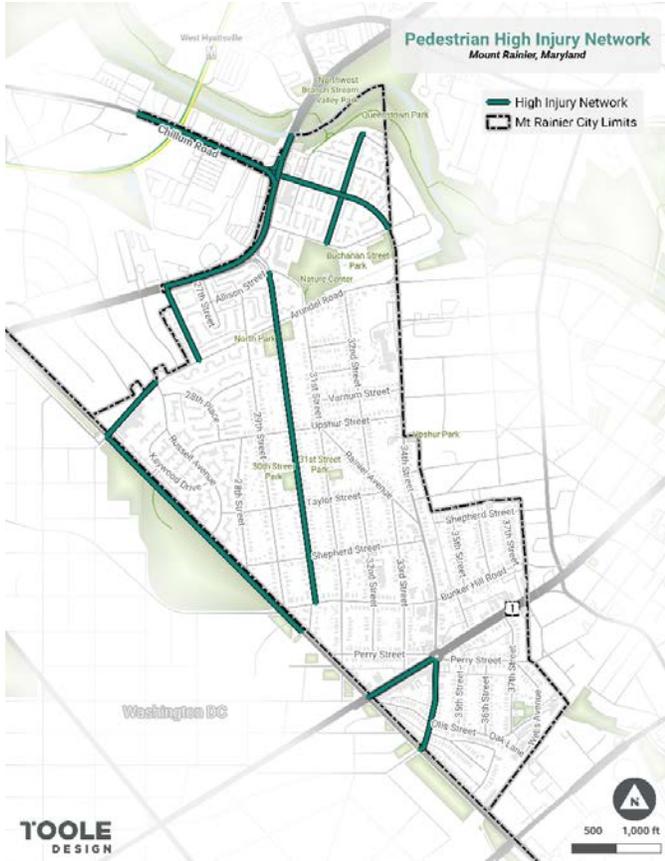
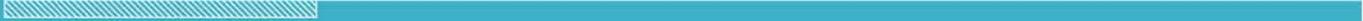


Figure 4: Pedestrian High Injury Network





**CHAPTER 3:  
HOW MOUNT RAINIER WILL  
ACHIEVE VISION ZERO**



# HOW MOUNT RAINIER WILL ACHIEVE VISION ZERO

This section describes actions the City of Mount Rainier will take and specific transformative projects it will implement to achieve the goal of zero traffic deaths and serious injuries by 2040. The actions and projects have been identified based on crash data analysis, community engagement, guidance from the Vision Zero Task Force, and input from the community survey. Existing plans, policies, guidelines, and standards were assessed as part of this study process and this information is incorporated in the recommended actions below. Detailed findings from the existing conditions analysis are provided in the *Existing Conditions Memorandum*, which is included as Appendix B.

## ACTIONS

The following actions are organized by the Safe System Approach elements outlined in Chapter 1: Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads, and Post-Crash Care.

### A. Safe Road Users

- 1. Expand Safe Routes to School (SRTS) programs.** SRTS is a program to encourage and enable students in grades K-12 to safely walk and bicycle to school. Thomas S. Stone Elementary School and Mount Rainier Elementary School currently participate in some SRTS activities, including Walk & Roll to School Day in the fall and Bike & Roll to School Day in the spring. The City of Mount Rainier will work with the schools and other local partners to expand these programs to incorporate additional activities to promote traffic safety, such as:
  - Pedestrian and/or bicyclist safety and skills education.
  - Support for walking school buses and bike trains.
  - Annual outreach to parents regarding arrival and dismissal procedures and safe driving near schools.
  - Annual observation of arrival and dismissal and audit of student walking and bicycling routes.
  - Annual surveys of parents and caregivers to identify safety concerns, understand barriers to walking and bicycling to school, and track the impact of program implementation.
- 2. Implement driver safety education campaign.** The City will supplement the regional Street Smart Program with a local driver safety education campaign focused on high-risk driver groups and crash hot spots on the HIN. The City will also explore partnering with the existing Street Smart Safety Campaign.

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*It would be nice if children could bike to school; especially those who are on the edges of the school boundary and therefore travel a further distance.*

— Survey Respondent

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## B. Safe Vehicles

- 1. Discourage through truck traffic.** The City of Mount Rainier will implement measures to discourage large trucks from using local streets in Mount Rainier. Potential measures include an ordinance prohibiting truck traffic beyond a specified weight class, signage to communicate the prohibition, automated enforcement of violators, and physical traffic calming and traffic diversion. Streets that are often used by large trucks traveling through the City of Mount Rainier include Perry Street, Bunker Hill Road, and 34<sup>th</sup> Street.
- 2. Require large vehicles owned or operated by or on behalf of the City of Mount Rainier to be fitted with side-underrun guards.** Side-underrun guards are designed to prevent people walking, biking, or driving motorcycles from falling between the wheels of a large vehicle during a collision.
- 3. Purchase safer City of Mount Rainier vehicles.** As the City of Mount Rainier's existing vehicles wear out or become obsolete, the City of Mount Rainier will, to the maximum extent possible, replace them with vehicles that are safer for all roadway users, particularly vulnerable users. Attributes that generally contribute to lower crash frequency and severity include lower profile, lighter weight, and a design that enables drivers to easily see pedestrians, cyclists, and other roadway users, even when they are close to the vehicle.
- 4. Take actions to encourage use of safer and more sustainable modes, including pedestrian and bicycle travel, transit, and shared micromobility.** The City of Mount Rainier will coordinate with WMATA and Prince George's County TheBus to increase the frequency and reliability of public transit service provided to City of Mount Rainier residents and improve connections to key destinations, such as the West Hyattsville Metrorail Station. The City of Mount Rainier will also work with Capital Bikeshare to install additional bikeshare stations at key locations such as the Nature Center/PG Pool and next to the Levee Trail.

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*Our two year old loves to visit the fire station. Except there is no safe place to cross [Bunker Hill Rd].*

— Survey Respondent

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### Intersection of 34<sup>th</sup> Street and Eastern Avenue, Mount Rainier, MD



## C. Safe Speeds

- 1. Reduce speeds on all streets under the City of Mount Rainier’s control to 20 mph.** The City of Mount Rainier will pass an ordinance reducing speed limits on all streets under its control to 20 mph. Marginal reductions in speed limit can have a significant impact on the severity and frequency of crashes, especially when supported by physical traffic calming measures.
- 2. Implement automated speed enforcement on residential streets.** Under Maryland law, automated speed enforcement can be implemented on residential streets with speed limits less than 35 mph.<sup>16</sup> The City of Mount Rainier will coordinate with Prince George’s County and MD SHA to determine what administrative or legislative steps may be necessary for the City of Mount Rainier to implement ASE on residential streets. After completing these steps, the City of Mount Rainier will begin implementing residential ASE, prioritizing residential street locations on the HIN and/or near parks and schools.
- 3. Explore applying school zone speed limits to additional street segments near Mount Rainier Elementary School and Thomas Stone Elementary School and the potential for applying school zone ASE to zones on 34<sup>th</sup> Street and Bunker Hill Road.** A 15-mph school zone speed limit is currently in place on 34<sup>th</sup> Street adjacent to Thomas Stone; however, there are no school zone speed limits on streets adjacent Mount Rainier Elementary School, including on 34<sup>th</sup> Street and Bunker Hill Road near the school, which are higher traffic streets near the school that many Mount Rainier students must cross. In connection with potential school zone speed limits on Bunker Hill Road and 34<sup>th</sup> Street, the City of Mount Rainier will also consider implementing school zone ASE, which, per Maryland law, would require a school zone speed limit of no less than 20 mph, a City of Mount Rainier ordinance authorizing school zone ASE, and other steps.<sup>16</sup>

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*DC has switched to 20 mph or 15 mph on many residential streets to improve pedestrian safety. I believe we should follow their lead, especially as the proliferation of enormous trucks and SUVs has increased the likelihood of serious injury and death for pedestrians.*

*— Survey Respondent*

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### Intersection of 31<sup>st</sup> Street, Upshur Street, and Rainier Avenue, Mount Rainier, MD



<sup>16</sup> MD. Transportation Code § 21-809 (b) (1) (vi), <https://mgaleg.maryland.gov/mgawebsite/Laws/StatuteText?article=qtr&section=21-809>.

4. **Pair speed feedback signs with ASE.** Wherever possible, the City of Mount Rainier will pair speed feedback signs with ASE to increase driver awareness of how their operating speed compares to the posted speed limit.

## D. Safe Roads

### *Systemic Safety Improvements*

Systemic safety improvements are improvements that can be implemented citywide or within specific contexts to increase traffic safety. The City of Mount Rainier will implement the following systemic safety improvements, prioritizing interventions on the High Injury Network. It is assumed that this is dependent on and will require a range of funding sources, and funding options are documented in Appendix B.

1. **High-visibility crosswalks.** Within the next five years, the City of Mount Rainier will install ladder-style high-visibility crosswalks at all pedestrian crossing locations on the HIN and all locations where there have been fatal or serious injury pedestrian crashes. Within 5-10 years, the City of Mount Rainier will install high-visibility crosswalks within 500 feet of a school or park. .
2. **Intersection daylighting.** Within the next five years, the City of Mount Rainier will install physical measures to restrict parking near intersections, e.g., curb extensions, and/or parking restrictions at all intersections on the HIN to “daylight” them, that is, to make pedestrians at the corner more visible to drivers and vice versa. Within 5-10 years, the City of Mount Rainier will install curb extensions and/or parking restrictions at all remaining intersection locations.
3. **Gateway treatments.** The City of Mount Rainier will implement gateway treatments at key entry points to the City. Gateway treatments mark transitions away from higher-speed environments to lower-speed areas and signal to drivers that they should slow down and expect to see more people outside of cars, particularly people walking. Gateways may combine a variety of different treatments, including curb extensions, speed limit signage, landscaping and placemaking elements, and changes in pavement color and/or texture.

Within the next 5 years, the City of Mount Rainier will implement gateway treatments on:

- Chillum Road south of Queens Chapel Road
- Varnum Street east of Eastern Avenue
- Bunker Hill Road east of Eastern Avenue
- 30<sup>th</sup> Street north of Easter Avenue
- 34<sup>th</sup> Street east of Eastern Avenue

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*I usually walk with my dog and I get fearful thinking about how he may get hit by a car that is driving too fast or recklessly/not paying attention. So we don't walk as often as we'd like.*

*— Survey Respondent*

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Within the next 10 years, the City of Mount Rainier will implement gateway treatments on:

- Bunker Hill Road west of 37<sup>th</sup> Street
- Russel Road east of Eastern Avenue
- Perry Street east of Rhode Island Avenue

- Perry Street west of 37<sup>th</sup> Place
4. **Leading Pedestrian Intervals and No Right Turn on Red restrictions.** Within the next five years, the City of Mount Rainier will coordinate implementation of leading pedestrian intervals (LPIs) and No Right Turn on Red restrictions at all signalized intersections on the HIN.
  5. **Street Lighting.** Within the next five years, the City of Mount Rainier will review lighting for all parts of the HIN, ensuring adequate illumination of both streets and sidewalks, and upgrade lighting where deficiencies are identified. Within 5–10 years, the City of Mount Rainier will assess lighting on the remainder of its street and sidewalk network and address any further deficiencies.

### *Roadway Policies*

Mount Rainier will also pursue and adopt policies to improve street safety citywide, including the following:

1. **Traffic calming plan.** The City of Mount Rainier will develop a comprehensive plan for areawide traffic calming for streets within the City of Mount Rainier that prioritizes HIN segments, transitions from arterial and collector streets to local streets, and routes to schools and parks. The City of Mount Rainier will also work with the District Department of Transportation, the Maryland State Highway Administration, and Prince George’s County to implement coordinated traffic calming measures on Eastern Avenue, Rhode Island Avenue, Queens Chapel Road, Chillum Road north of Queens Chapel Road, and other streets adjacent to the City of Mount Rainier.
2. **Develop sidewalk repair policy.** The City of Mount Rainier will develop a proactive sidewalk repair and replacement policy that divides the City of Mount Rainier up into sidewalk repair zones and ensures that all sidewalks in each zone are inspected and repaired at least once every 10 years.
3. **Implement sidewalk maintenance policy review and property owner outreach campaign.** The City of Mount Rainier will review its policies and procedures for removal of snow, debris, and overhanging vegetation from sidewalks to determine if these policies need to be updated to improve traffic safety or pedestrian access. The City of Mount Rainier will also conduct an outreach campaign to inform property owners of their sidewalk maintenance responsibilities, including how they relate to the City of Mount Rainier’s Vision Zero goals, e.g., overhanging vegetation can obstruct sight lines between drivers and pedestrians at crossings.
4. **Prioritize green infrastructure/ safety co-benefits.** Wherever feasible, the City of Mount Rainier will seek to incorporate green infrastructure into projects implemented as part of this action plan.

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*The sidewalks with no green buffer (tree box) between the sidewalks and the road make me feel much more vulnerable....*

*— Survey Respondent*

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## E. Post-Crash Care

- 1. Improve crash/injury reporting and analysis.** The City of Mount Rainier will improve crash and injury reporting by providing regular training to police officers on how to fill out crash forms and by exploring potential modifications or supplements to the form to better capture contributing factors, including factors related to street design. The City of Mount Rainier will also work with partners at the County, State, and District levels to make sure all data about crashes and the roads on which they occur is accurate and complete.
- 2. Provide traffic incident management training to first responders.** The City of Mount Rainier will require police officer and volunteer firefighters to receive traffic incident management training upon joining the Mount Rainier Police Department or Volunteer Fire Department and on a regular cycle thereafter, e.g., every two years.

## PROJECT ACTION PLAN

The projects outlined on the following pages were identified through a combination of existing conditions analysis, crash analysis findings, and public engagement. A broad overview of each project is provided on the following pages and full details will be confirmed in the concept design and engineering process.

### Project Action Plan

Map ID	Project	Notes	Project Located on Mount Rainier's High Injury Network
1	Chillum Road	The Chillum Road project will directly address a high crash location in the study area that also serves as a critical link between Mount Rainier and the West Hyattsville Metrorail station. This section of Chillum Road is on the City of Mount Rainier's High Injury Network and has an important equity component, given that it connects the higher density and lower income parts of the city to Metro. A "road diet" will be explored, which is an FHWA Proven Safety Countermeasure, specifically the project design will examine a potential roadway reallocation from four motor vehicle lanes (two in each direction) to three motor vehicle lanes (one in each direction and a center turn lane). This space would be recaptured and used to provide space for separated bike lanes, improved sidewalks, and green infrastructure. Pedestrian crossing improvements would also be incorporated, including pedestrian refuge islands, also a Proven Safety Countermeasure. Existing driveways also create multiple potential conflict points so access management would be incorporated into the design where possible.	X
2	Chillum Road/34 <sup>th</sup> Street Traffic Calming	The Chillum Road/34 <sup>th</sup> Street project will implement traffic calming on Chillum Road east of Queens Chapel Road and 34th Street. It will likely include improvements at the Levee Trail Crossing of 34 <sup>th</sup> Street, which could include a new pedestrian signal, high visibility cross walks,	X

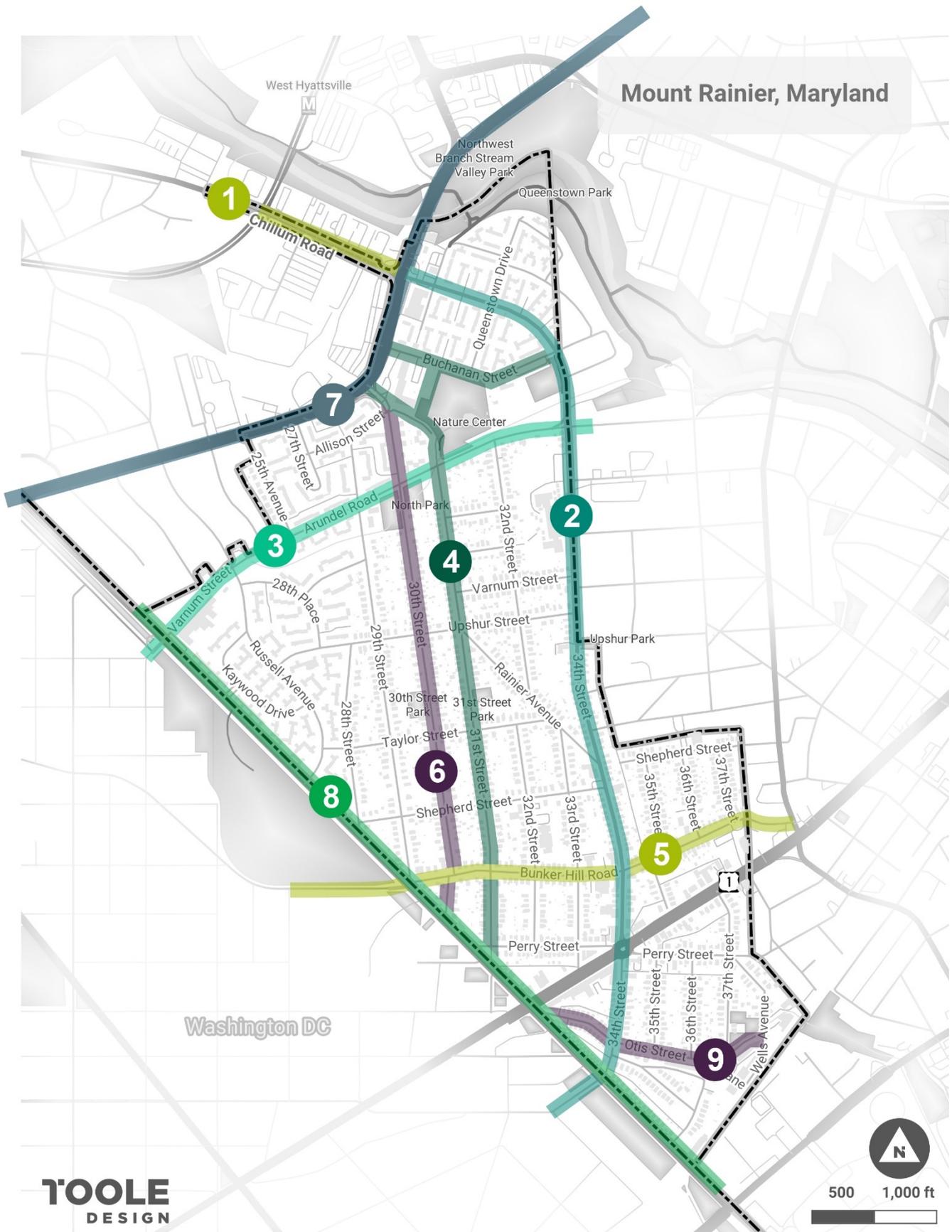
		a neck down, and other design retrofits to make it safer and more comfortable for trail users to cross the street at this location. The project will include safety interventions in the vicinity of Thomas S. Stone Elementary School, which could include Automated Enforcement Cameras, curb extensions and neck-downs, and other speed management techniques to slow speed, while also making clear to drivers that they are traveling through a school zone and must act accordingly. The project may also encompass intersection improvements at 34th Street/Rainier Avenue to include green infrastructure and will incorporate improvements at the Bunker Hill Road/34th Street intersection. Lastly, this project will include modifications and minor retrofits to the Rhode Island Avenue traffic circle to slow speed, increase visibility, and improve conditions for people walking and biking.	
3	Varnum Street/Arundel Road Complete Street/East Coast Greenway Improvement	The Varnum Street/Arundel Road project will incorporate a complete streets design in the current street with the goal of reallocating excessive pavement width, implementing green infrastructure features, and slowing motor vehicle travel speeds. Various options will be considered including a gateway treatment on Varnum Street east of Eastern Avenue, a roundabout at Varnum Street and Russell Avenue, and a "lane diet" to create space for parking protected separated bike lanes, pedestrian crossing improvements, and green infrastructure at key locations such as the intersection of Arundel Road and 30 <sup>th</sup> Street. This project will also serve as an improvement to conditions on the existing East Coast Greenway alignment.	X (Varnum Street section of HIN)
4	31 <sup>st</sup> Street Bicycle Boulevard	The 31 <sup>st</sup> Street Bike Boulevard project will provide an important North/South connection linking community destinations such as the Mount Rainier Nature Center, Prince George's County Pool, and Mount Rainier 31 <sup>st</sup> Street Neighborhood Mini Park. It will include a range of design interventions including curb extensions, neck-downs, green infrastructure, and recognizable wayfinding to enhance user awareness and experience. This will be an opportunity for green infrastructure and traffic diversion may also be considered.	
5	Bunker Hill Bicycle Network Improvement	This corridor improvement will enhance an important connection to adjacent bicycle networks in DC to the west and Maryland communities east of Mount Rainier. It will include traffic calming, green infrastructure, and enhanced wayfinding.	X
6	30 <sup>th</sup> Street Bicycle Boulevard	The 30 <sup>th</sup> Street bike boulevard will include similar features as the one on 31 <sup>st</sup> Street described above. It will proactively address safety issues, while also improving access to Mount Rainier Park, Mount Rainier Community Garden, and other community destinations.	X
7	Queens Chapel Road Systemic Safety Improvements	The Maryland State Highway Administration has recently completed a corridor improvement project on this street, which should improve safety. This includes features such as new traffic signals, a Regular Rapid Flashing Beacon (RRFB), narrower travel lanes, removal of slip ramps, and high visibility crosswalks. This project will build on these important improvements, for example by coordinating with SHA to add more of the systemic safety features outlined below throughout the corridor.	X
8	Eastern Avenue Complete Streets Improvements	This project will build on the findings and ongoing engagement from a pedestrian safety walk that included the Mayor and Councilmembers from Mount Rainier, as well as District of Columbia and Prince George's County councilmembers. The project will ensure that Mount Rainier can contribute to improvements in partnership with DC and County agencies.	X

9	Otis Street Complete Streets Improvements	This project will implement a range of complete streets and speed management improvements on Otis Street, which is on Mount Rainier's High Injury Network.	X
10	Systemic Safety Improvements	This project will include improvements throughout City of Mount Rainier that are incorporated on an ongoing basis as part of normal operating procure. These will include features such as No Turn on Red, Leading Pedestrian Intervals, and High Visibility crosswalks at all applications, as well as intersection daylighting, school zone improvements, enhanced lighting, and reduced speed limits.	X



**32<sup>nd</sup> Street near Mt. Rainier Elementary School, Mount Rainier, MD**

Figure 7: Project Action Plan Map



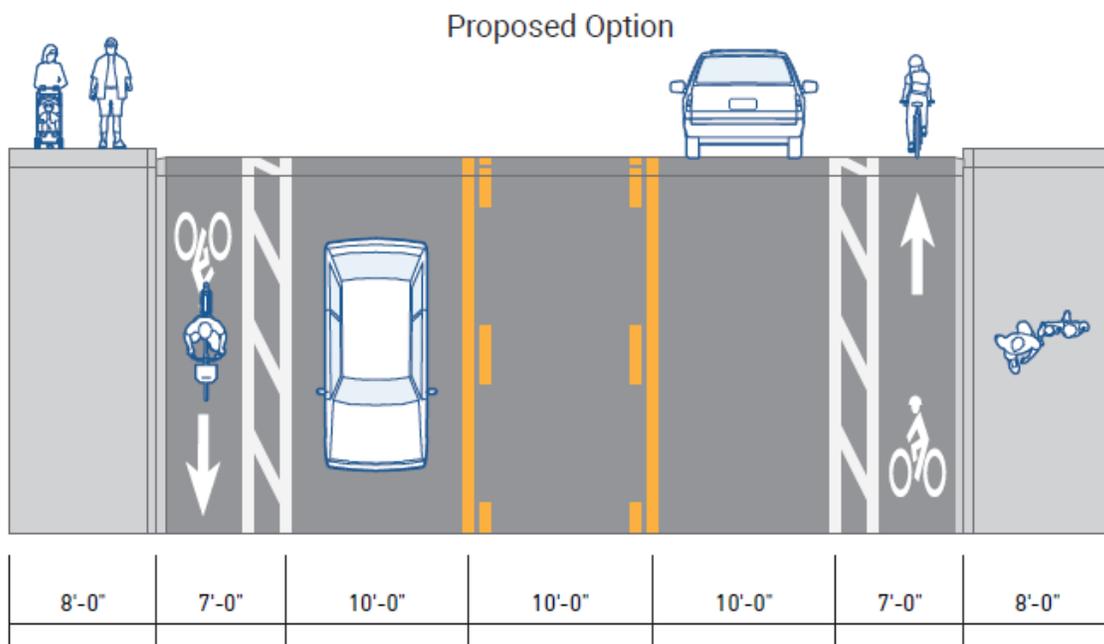
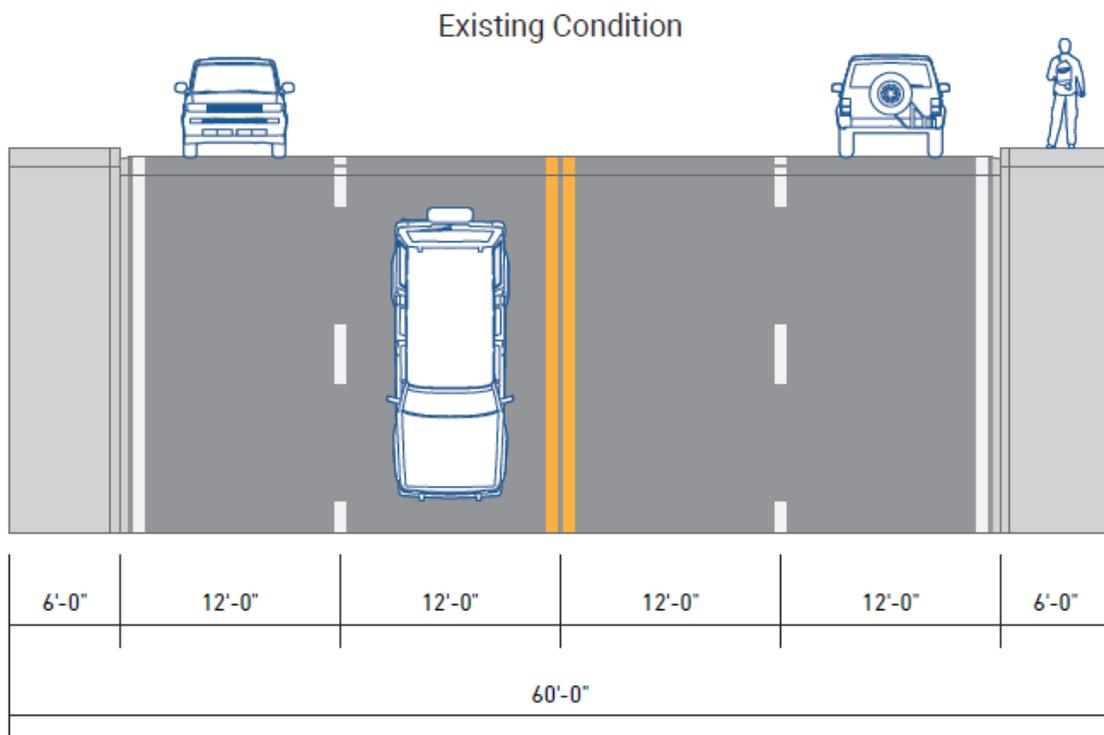
## NEAR-TERM TRANSFORMATIVE ACTION

The Chillum Road project will directly address a high crash location in the study area that also serves as a critical link between Mount Rainier and the West Hyattsville Metrorail station. This section of Chillum Road is on the City of Mount Rainier’s High Injury Network and has an important equity component, given that it connects the higher density and lower income parts of the city to Metro. A “road diet” will be explored, which is an FHWA Proven Safety Countermeasure. Specifically, the project design will examine a potential roadway reallocation from four motor vehicle lanes (two in each direction) to three motor vehicle lanes (one in each direction and a center turn lane). This concept is shown in the existing and proposed cross section on the following page.

The public right-of-way recaptured through this project will be reallocated to provide separated bike lanes, improved sidewalks, and green infrastructure. Pedestrian crossing improvements will be incorporated, including pedestrian refuge islands, also a Proven Safety Countermeasure. Existing driveways create multiple potential conflict points so access management will also be incorporated into the design where possible.



**Chillum Road, Mount Rainier**



**Figure 8: Existing and Proposed Cross-section for Chillum Road Project**

## The Countermeasure Toolkit

Moving forward, the City of Mount Rainier will be incorporating a range of countermeasures to improve safety in the citywide. A countermeasure toolkit will be created in a subsequent phase of this study process. It will include Proven Safety Countermeasures and document associated Crash Modification Factors, where available.

The Countermeasure Toolkit is anticipated to include elements such as:

- Intersection Daylighting
- Leading Pedestrian Interval
- No Turn on Red
- Pedestrian Refuge Islands
- Pedestrian Signals
- Neck Downs
- Curb Extensions
- Lateral Shifts
- Speed Management
- Roundabouts
- Green Infrastructure

## Community Engagement Moving Forward

Community engagement around traffic safety issues does not end with the completion of this Plan. The City of Mount Rainier Council will serve as the primary oversight body for evaluation and implementation of the Plan, with support from the Vision Zero Coordinating Committee, discussed in *Part III: Monitoring Our Progress Toward Zero* below. While safety enhancements will be focused on the High Injury Network identified in this plan, it is also important that community members within these areas are engaged in Vision Zero related project planning, design, and development. Furthermore, the City of Mount Rainier will work to ensure that the interests and experiences of persons with disabilities are thoroughly represented in project planning and development.



**Intersection of Bunker Hill Road and 34<sup>th</sup> Street, Mount Rainier, MD**



**CHAPTER 4:  
MONITORING OUR PROGRESS  
TOWARD ZERO**



# MONITORING OUR PROGRESS TOWARD ZERO

This Plan represents a commitment to a set of actions that will put the City of Mount Rainier on track to meet its Vision Zero goal. Successfully implementing these actions will require sustained effort and collaboration between all the key implementers as well as the ongoing support of those who live and work in the City of Mount Rainier.

## Performance Measures

To track progress towards achieving plan goals, the City of Mount Rainier has identified the following performance measures, which will be tracked annually to assess progress toward meeting the City of Mount Rainier's Vision Zero goal:

- Number of fatal and severe injury crashes
  - Involving bicycles and pedestrians
  - Occurring on HIN
- Number of ladder-style high-visibility crosswalks installed
- Number of intersection daylighting treatments installed
- Number of gateway treatments installed
- Number of LPIs and No Turn on Red restrictions installed
- Miles of sidewalk inspected and repaired
- Miles of new bicycle infrastructure installed

In addition, City of Mount Rainier staff will track progress on the actions listed in the previous chapter. Performance measures can be used by City of Mount Rainier staff and community members to help keep the City of Mount Rainier on track to meet its Vision Zero goals. The performance measures can also provide insight into which actions are working well and which ones may need adjustment or additional support.

## Annual Report

The City of Mount Rainier will produce and publish on its website an annual report or report card documenting actions the City of Mount Rainier has taken in the past year to implement the plan. The annual report will also include updates on the performance measures listed above as well as other information about where, when, and how crashes are occurring. The annual report will help the City of Mount Rainier track progress toward its Vision Zero goal and will inform decisions about what additional actions are needed to achieve it.

## Vision Zero Coordinating Committee

The City of Mount Rainier will establish a standing Vision Zero Coordinating Committee to monitor and provide input on Plan implementation and Vision Zero outreach and to review all KA crashes to understand how street design, land use, and other factors may have contributed to crash causation and severity. The committee will ideally include:

- City of Mount Rainier staff, including the City Manager, Director of Public Works, and the Chief of Police.
- City Council Members
- Representatives from Thomas Stone Elementary School and Mount Rainier Elementary School
- A representative from the City of Mount Rainier Green Team
- A representative from the City of Mount Rainier Tree Commission
- Community representatives, including but not limited to Black and Latino representatives, representatives from Mount Rainier’s apartment communities, and community members who have disabilities.

The committee will establish an annual agenda and meet regularly after Plan adoption.



**Arundel Road, Mount Rainier, MD**