

A Report to the Maryland General Assembly

Regarding

Transportation - Vision Zero - Establishment
(House Bill 885, Chapter 377, Acts of 2019)

The Maryland Department of Transportation

January 2025

This report is written in response to language contained in House Bill 885, Chapter 377 of 2019, which requires:

“On or before December 31 each year, the Department shall submit a report to the Governor and, in accordance with §2-1246 of the State Government Article, the General Assembly that includes:

(1) The status of Vision Zero;

(2) The activities, and any findings and recommendations, of the Coordinator;

And

(3) A summary of each quarterly public meeting held in the previous year.”

SAFE SYSTEM APPROACH

The United States Department of Transportation (USDOT) uses a Safe System Approach as its guiding paradigm to address roadway safety. The Safe System Approach has been embraced by the transportation community as an effective way to address and mitigate the risks inherent in the United States’ enormous and complex transportation system. It works by building and reinforcing multiple layers of protection to both prevent crashes from happening initially, and to minimize the harm caused to those involved when crashes do occur. It is a holistic and comprehensive approach that utilizes the following six principles to provide a guiding framework to eliminate crashes that result in death and serious injuries.

- Humans Make Mistakes
- Humans Are Vulnerable
- Responsibility is Shared
- Safety is Proactive
- Redundancy is Critical
- Death and serious injuries are unacceptable

MDOT EFFORTS

The Maryland Department of Transportation (MDOT) is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life’s opportunities. In every activity, MDOT places a significant emphasis on safety and continues to form new initiatives and build on key established efforts to drive toward the Vision Zero goal of zero vehicle-related deaths or serious injuries by 2030. With that goal in mind, MDOT has taken the following initiatives:

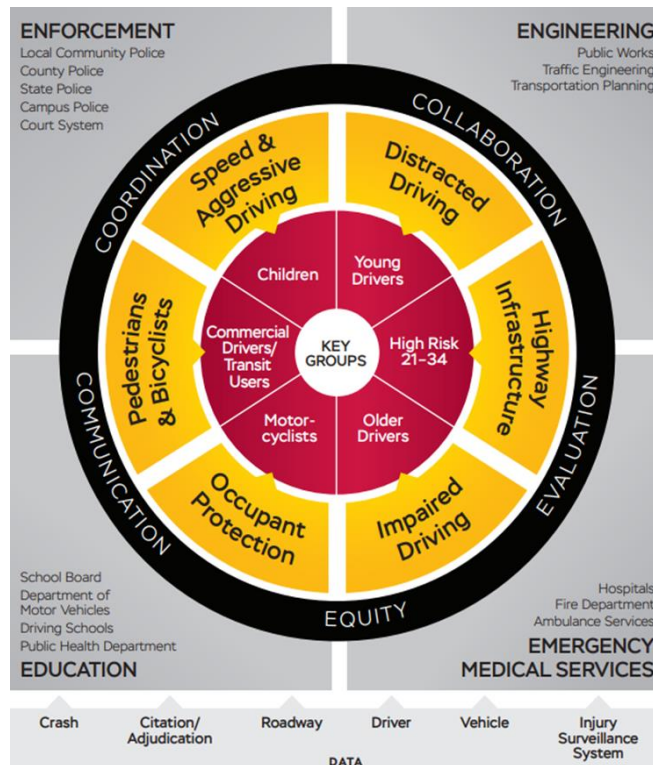
- The Maryland Motor Vehicle Administration’s (MVA) Highway Safety Office is the central point of coordination for safety programs at all levels of government and the private sector. MVA’s Highway Safety Office helps to identify and implement countermeasures to reduce fatalities and serious injuries on Maryland’s roadways. The Director of MVA’s Highway Safety Office is the state’s premier expert on roadway safety, with over 30 years of public health experience as an epidemiologist analyzing the causes and patterns of injury to reduce

the risk of negative outcomes. The Director is charged with overseeing Maryland's extensive network of safety programs and continues to serve as the Vision Zero Coordinator. The Director reports to the MVA Administrator, who also serves as the Governor's Highway Safety Representative, and is focused on advancing the goal of zero vehicle-related deaths or serious injuries by 2030. The Director reviews and recommends to the Administrator projects that will identify new safety countermeasures that can be adopted on a state and local level.

- MVA's Highway Safety Office Director continues to serve as a member of the Statewide Emergency Services Advisory Committee and planning committees, working closely with local Metropolitan Planning Organizations (i.e. Washington Council of Governments and Baltimore Metropolitan Council) to coordinate highway safety efforts in those regions. These efforts include the continued use of the *Street Smart* and *Look Alive* pedestrian safety campaigns. Additionally, the Washington Council of Governments continued to authorize the allocation of grant funds for projects related to transportation safety. This funding comes from the Regional Safety Program overseen by the Transportation Planning Board. Several of those grants supported Maryland-based projects.
- MVA's Highway Safety Office staff continue to be engaged in ongoing dialogue with other states and jurisdictions in order to bring innovative practices back to Maryland. In 2024, the Highway Safety Office participated in trainings and workshops held by the National Highway Traffic Safety Administration (NHTSA), the Governor's Highway Safety Association, and other state highway safety offices. These presentations/trainings focused on a variety of behavioral programs that can be implemented to reduce motor vehicle crashes and fatalities. In addition, the MVA's Highway Safety Office hosted its annual Highway Safety Summit in April. Over 300 attendees participated in workshops that focused on pedestrian safety, impaired driving, occupant protection, and other highway behaviors.
- Driving behaviors – including speeding and impaired driving – continued to contribute to fatal crashes. A total of 621 people were killed in 2023. Increases in fatalities were not just limited to Maryland, similar increases were observed in neighboring states and continued to be attributed to an increase in risky driving behavior, notably speeding, distracted, and impaired driving.
- MVA's Highway Safety Office's communications campaign *Be the Driver* was expanded to include multiple program areas. *Be the Driver* focuses on educational messages related to impaired driving, occupant protection, pedestrian safety, and other behaviors that can reduce crashes and save lives on Maryland's roadways. As a result of several high-profile crashes over the past year, work zone safety, roadside emergency, and child passenger safety were included as core elements of *Be the Driver*. This year the campaign began a transition from animated characters to live action to further make the connection that your behavior on the roadway has real life consequences.
- Over the past year, and moving forward into 2025, MVA's Highway Safety Office will continue to implement programs and activities based on NHTSA's *Countermeasures That Work* guidelines to reduce the number of crashes, injuries, and fatalities on Maryland's

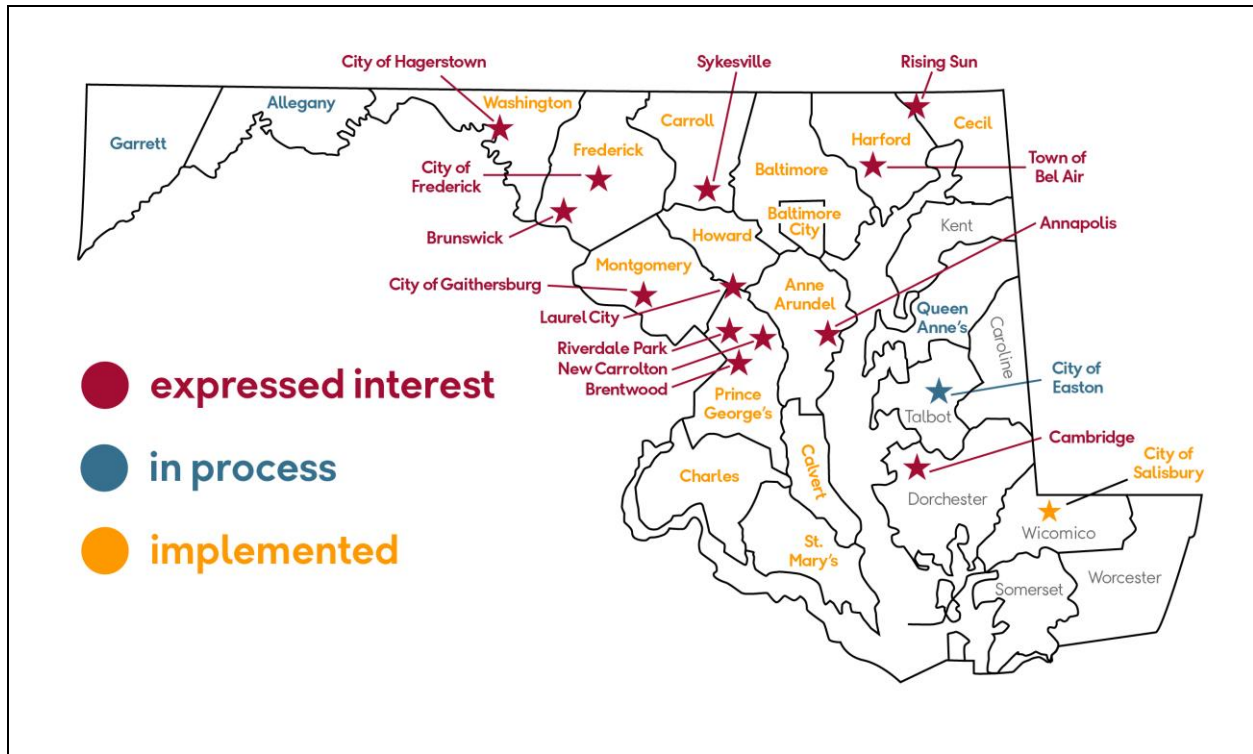
roadways. Figure 1 provides a graphic description of the components of the 2021-2025 Maryland Strategic Highway Safety Plan (SHSP). A SHSP is a federal requirement of the Highway Safety Improvement Program (23 U.S.C. § 148). Each of these highway safety programs are addressed through collaborative partnerships among State and local government agencies, legislative and judicial leaders, regional authorities, and non-governmental organizations. Together, these agencies and professionals are collaborating as members of Maryland’s Emphasis Area Teams with a mission to strengthen and enforce driving laws and educate the public about safe driving behaviors.

Figure 1. Maryland’s Strategic Approach to Reduce Fatalities and Serious Injuries



- MVA and the Highway Safety Office continue to work with local jurisdictions on the development of local Strategic Highway Safety Plans. Figure 2 (next page) displays the status of all local plans across the state.

Figure 2. Status of Local Strategic Highway Safety Plans in Maryland



- The website dedicated to Vision Zero and all the State's highway safety information, resources, and initiatives is zerodeathsmd.gov. This site now includes a variety of highway safety information and resources, including password protected law enforcement training videos and crash data for the previous calendar year. New for 2023 is an interactive dashboard providing regular updates on motor vehicle fatalities across the state.
- MVA's Highway Safety Office utilizes MSP crash data to provide standardized reports on the zerodeathsmd.gov website. These benchmarks provide basic information such as the day, time, driver, and pedestrian demographics, and other characteristics of motor vehicle crashes in the State. This data is used to aid targeted enforcement along with education efforts across each of the emphasis areas outlined in the SHSP.
- MVA's Highway Safety Office, Maryland Transportation Authority, and State Highway Administration closely collaborate on all safety-related objectives. MVA's Highway Safety Office and State Highway Administration (SHA) are using police crash report data to identify corridors where traffic crashes are closely aligned with needed infrastructure

improvements and concerns with driver behavior. This data, along with community input, is used to inform and prioritize engineering, enforcement, and education to make these efforts as effective as possible.

- “Complete Streets” is a MDOT-wide initiative to make Maryland roads safer by ensuring connectivity across the transportation modes and prioritizing bike lanes and pedestrian crossings for vulnerable users. Updated for the first time in 10 years, the MDOT Complete Streets Policy reinforces Maryland’s Vision Zero goal of reducing crashes, preventing injuries, and eliminating fatalities. The Policy applies to all projects as of January 1, 2025. The Director of the Highway Safety Office serves as the Complete Streets champion for MVA.

As part of this MDOT initiative, the Department is partnering with Smart Growth America through its Complete Streets Leadership Academy to install temporary “quick build” safety measures in Howard County, the City of Hagerstown, and the Town of Bel Air. These projects target dangerous intersections or corridors with a known history of traffic fatalities or crashes. Each project has a cohort of city or county staff, engineers, planners, community advocates, and other professionals who participate in workshops and plan demonstration projects with a new, safe street design. The projects are temporary but help TSO and SHA staff develop new strategies for target areas. Similar demonstration projects in other states have led to the construction of mid-block crossings, pedestrian refuges, temporary cycle tracks, and traffic lane reconfigurations (also known as road diets).

In addition, in June of this year, MDOT worked with the Maryland Department of Planning to host a Complete Streets webinar entitled “Safe Streets: Lessons Learned from On-The-Ground Projects from Alaska to Connecticut.” In this [webinar](#), MDOT and Smart Growth America staff share what worked/didn’t work in previous projects. The webinar speakers emphasized how lessons learned and shared can lead to advances in street safety nationwide.

- “Context Driven” is an SHA initiative that stems from strategies outlined in Maryland’s SHSP. Context Driven solutions approach traffic safety by considering how land use interacts with transportation systems. SHA’s Context Driven guidebook, published in 2020 and located [here](#), is a key part of the Context Driven initiative and offers practitioners guidelines for safe transportation solutions. The guide includes a framework for understanding various Maryland land area “contexts,” including urban core, urban center, traditional town center, suburban activity center, suburban, and rural. By incorporating different contexts in planning, this strategy avoids a one-size-fits-all approach to traffic safety. The Context Driven Toolkit (located [here](#)) provides details for each context listed above. SHA’s statewide map, available on the SHA public website ([here](#)), tracks context driven safety solutions from 2019 to 2024.
- The Pedestrian Safety Action Plan (PSAP) plan puts everything SHA has learned about safety into practice. The PSAP plan, which is a key part of the Context Driven framework, complements existing pedestrian safety programs and harnesses the collective benefit of the 4 E’s: Enforcement, Engineering, Education, and Emergency Medical Services. SHA’s ultimate goal through the plan is to reduce traffic-related injuries and fatalities. Through a

data-driven approach, SHA identified five initial corridors for pedestrian safety improvements and held public informational workshops in fall 2024. The corridors are:

- MD 650 (New Hampshire Avenue) between MD 193 (University Blvd.) and Powder Mill Road in Montgomery and Prince George's counties;
- US 1 (Washington Blvd.) between the Prince George's County Line and Gorman Road in Howard County;
- MD 2 (Ritchie Highway) between MD 648 (Baltimore Annapolis Blvd.) and MD 177 (Mountain Road) in Anne Arundel County;
- MD 150 (Eastern Avenue), between MD 700 (Martin Blvd.) and MD 702 (Southeast Freeway) in Baltimore County; and
- MD 410 (East-West Highway), between MD 212 (Riggs Road) and MD 500 (Queens Chapel Road) in Prince George's County.

Future roadway improvements will make these corridors safer for bicyclists and pedestrians. Tracking outcomes and measuring the effectiveness of these changes are a critical part of the overall PSAP effort as SHA will use lessons learned in future PSAP corridors.

- As part of the Infrastructure Investment and Jobs Act, SHA completed a Vulnerable Road User (VRU) Safety Assessment in 2020 within the state's SHSP. A VRU Safety Assessment is a comprehensive statewide examination aimed at understanding the transportation safety challenges faced by VRUs. The assessment directs SHA staff to utilize data-driven approaches when evaluating safety performance; analyze and identify high-risk areas; consult with stakeholders; and develop a plan to improve safety at specific locations. SHA is developing VRU safety improvement projects on high-risk corridors identified in the assessment through the PSAP plan. SHA's study, design, and construction of VRU safety projects supports the Federal Highway Administration's (FHWA) Highway Safety Improvement Program goals.
- Work Zones present challenging conditions for drivers and work zone employees alike as there is little to no margin for driver error. Driving too fast, inattentively, or aggressively through work zones increases the possibility of a crash or fatality. Unfortunately, last year work zone crashes continue to escalate. As of November 2024, there were 11 fatalities in Maryland work zones, 271 non-fatal injuries, and 1,070 total crashes. To address this persistent issue, MDOT takes a multi-pronged approach, including:
 - Education: MDOT educates the public year-round on the importance of driving safely in work zones by communicating safe driving messages through social media outlets and through partnerships with other government agencies, non-profit organizations, and industry members. During the month of April, SHA expanded its outreach and promoted National Work Zone Awareness Week (NWZAW), an event officially created in 1999. This year, MDOT hosted the 2024 kickoff event for NWZAW. The event was held atop

the I-70 overpass of the Baltimore Beltway near the site where six roadway workers were killed in 2023. The event drew dozens of media outlets, more than 100 guests, and leaders who spoke about the importance of work zone safety, including Maryland's Lieutenant Governor Aruna Miller. Following the event, a unity ride commenced, with approximately 350 cars and construction-related vehicles participating.

In addition, in August 2024, the MVA incorporated updates to its Driver Education curriculum and Three-Hour Alcohol and Drug Education curriculum. This includes awareness around the use of recreational cannabis and communicating appropriate choices to drive; education around the Maryland Road Worker Protection Act, which requires new signage indicating the beginning and end of work zones, and flashing blue lights that signal an active work zone; as well as new sanctions for the Sarah Debbink Langenkamp Act around failure to yield the right of way to bicyclists lawfully operating in marked bike lanes, on road shoulders, or in crosswalks.

- Training: SHA offers several work zone training courses, including Flagger Training, Flagger Instructor Training, Basic Temporary Traffic Control Training, Traffic Manager's Training, and Work Zone Law Enforcement Training. These courses are updated frequently to maintain the highest industry standards.
- Engineering: SHA has standards for temporary traffic control in work zones to ensure the safety of all road users. For every construction and maintenance activity, SHA requires a Traffic Control Plan to guide traffic past, around, and through work zones safely. For significant projects, SHA also requires a Transportation Management Plan, which mandates more advanced safety strategies and public outreach.
- Automated Speed Enforcement: SHA utilizes Automated Speed Enforcement (ASE) to enforce speed limits in work zones. ASE supplements law enforcement as work zone space often limits traditional law enforcement activities. ASE is effective in slowing traffic as evidenced by the decrease in citations issued. In addition, Governor Moore signed House Bill 513/Chapter 17 into law in 2024. The new law expands the ASE program, allowing more speed cameras in work zones and increasing fines for violators. Fines recently increased from \$40 to \$80 per violation and are moving to a tiered fine system in January.
- Fiscal Year 2024, SHA upgraded 1,009 crosswalks at 462 intersections across the state. These upgrades help pedestrians cross Maryland's roads safely and allow motorists to better identify vulnerable users. This is a key accomplishment toward the Vision Zero goal and an improvement making an immediate difference state-wide.
- Under the Highway Safety Improvement Program, SHA obligated more than \$40 million of federal funds to safety improvements in Federal Fiscal Year 2024, with over \$8 million dedicated to Vulnerable Road User (VRU) safety projects. For Federal Fiscal Year 2025, SHA plans another \$88 million for safety improvements, with approximately \$39 million on VRU safety projects.

- To improve traffic safety systemically across the entire roadway network, SHA applies FHWA’s Proven Safety Countermeasures, including but not limited to, rumble strips, traffic barriers, signal backplates with retroreflective borders, roadway lighting, crosswalks with high visibility, leading pedestrian intervals, pedestrian hybrid beacons, rectangular rapid flashing beacons, pedestrian refuge islands, and bike lanes. SHA uses these systemic improvements to address safety proactively and in an areawide manner with relatively less cost compared to major capital improvements. For example, on lighting improvements, SHA updated its lighting design guidance and developed a pedestrian lighting policy. SHA also developed various lighting improvement projects at interchanges and corridors with heavy pedestrian traffic.

Each of these efforts are supported by the framework of the Maryland SHSP. Led by an Executive Committee consisting of leadership from multiple state agencies (MDOT, Maryland State Police, Maryland Department of Health, and Maryland Institute for Emergency Medical Services Systems), the SHSP focuses on strategies and actions to help Maryland reach zero fatalities by 2030. The fatality and serious injury goals and their interim targets, which are set in the SHSP, are aligned with those reported to NHTSA through the Triennial Highway Safety Plan, and to the FHWA through the Highway Safety Improvement Plan. These plans outline the projects and programs Maryland will utilize to improve highway safety. The FHWA requires reporting of the number of fatalities, the fatality rate, the number of serious injuries, the serious injury rate, and the total number of non-motorized fatalities and serious injuries. These metrics serve as the performance measures used to track the State’s progress. The federal agencies providing funding have indicated that the targets included in these plans should be based on existing data to allow for a realistic evaluation of the State’s safety programs.

The current implementation of the SHSP began January 1, 2021, and it continues through December 31, 2025. The current plan – and the 2026-2030 SHSP that is under development – reflect the mandated fatality goal, and Maryland’s commitment to zero fatalities and serious injuries. However, the interim targets will continue to be based on recent trends and will help focus highway safety resources on existing and emerging infrastructural and behavioral priorities to eliminate roadway deaths and serious injuries. Maryland’s Triennial Highway Safety Plan will continue to outline the State’s highway safety programs and spending, and it is posted on the zerodeaths.gov website.

Coordinator Findings and Recommendations

The Vision Zero Coordinator provides the following recommendations to reduce fatalities and serious injuries in Maryland.

1. Improve Road Design and Infrastructure

- Implement the Complete Streets Program.
- Identify additional candidate locations for pedestrian safety improvements.

2. Increase Traffic Enforcement and Law Compliance

- **Stronger Enforcement of Speed Limits:** Speeding is a major contributor to fatal crashes. Using speed cameras and law enforcement to crack down on speeding can help reduce fatalities.
- **Distracted Driving Enforcement:** Target distracted driving through campaigns and the use of technology such as cameras that detect cell phone use.
- **Drunk Driving Prevention:** Enhance the enforcement of Driving Under the Influence/Driving While Intoxicated laws with checkpoints, sobriety tests, and public awareness campaigns.

3. Expand Public Awareness and Education

- **Be the Driver:** Expand the statewide educational campaign about the importance of road safety, safe driving behaviors, and the risks of speeding, distracted driving, and impaired driving.
- **Driver Education:** Integrate more comprehensive driver education into the licensing process, particularly for new drivers, focusing on defensive driving techniques and hazard awareness.
- **Community Engagement:** Work with local communities, schools, and businesses to promote safe driving and active transportation practices (e.g., walking, cycling).

4. Leverage Technology and Data

- **Traffic Monitoring Systems:** Use data-driven traffic management tools and real-time monitoring to optimize traffic flow, prevent congestion, and reduce crash risk.
- **Vehicle Safety Technology:** Promote and incentivize the use of advanced driver assistance systems (ADAS) like automatic braking, lane-keeping assist, and collision warning systems, as ADAS help prevent crashes.
- **Crash Data Analysis:** Continue to analyze crash data to identify high-risk locations and patterns. This data can guide infrastructure improvements and targeted enforcement efforts.

5. Promote Safe Road Use Behaviors

- **Impairment Awareness Campaigns:** Increase awareness about the dangers of driving under the influence of alcohol, drugs, and/or other substances, especially with the legalization of recreational cannabis.
- **Seatbelt Use:** Continue to emphasize the importance of seatbelt use for all passengers with an emphasis on pick-up truck drivers and passengers.

6. Collaboration with Stakeholders

- **Collaboration with Law Enforcement:** Ensure close coordination between state, local, and federal law enforcement agencies to maintain consistent enforcement across the State.
- **County and Local Governments:** Encourage County and local governments to develop local road safety plans to address their specific highway safety concerns and needs.

7. Legislative Action and Policy Changes

- **Tighten Graduated Driver Licensing laws:** Tighten passenger restrictions and night-time driver restrictions for those holding a graduated driver's license in line with recommended practices.

8. Addressing Vulnerable Road Users

- **Pedestrian and Bicycle Safety:** Prioritize the safety of pedestrians and cyclists by creating safer walking and biking infrastructure, educating non-motorized users, and implementing laws that protect them from reckless drivers.
- **At-Risk Groups:** Focus on protecting vulnerable groups, such as elderly pedestrians, children, and motorcyclists, through targeted education and safety initiatives.

9. Data-Driven Evaluation and Adaptation

- Regularly assess the effectiveness of safety measures by tracking traffic fatalities, injuries, and other key metrics. Use this data to refine strategies and adjust policies.
- Support collection and integration of traffic records data. Develop a warehouse or electronic repository for automated enforcement data. Current practices prohibit the sharing and collection of road-user patterns that would be key metrics in identifying problematic driver trends and/or physical engineering designs that could help reduce fatalities and crash rates.

Vision Zero Quarterly Meetings

Senate Bill 345, Chapter 603, 2024 Acts of Maryland took effect on October 1, 2024. As a result, the first quarterly Vision Zero meeting took effect in the fourth quarter of 2024. Please find a copy of the 2024 Fourth Quarter Vision Zero Meeting agenda here:

<https://zerodeathsmd.gov/wp-content/uploads/2024/12/VZ-Quarterly-meeting-1-Dec-2024.pdf>

A video replay of the meeting is available at the following link as well:

<https://youtu.be/X800pUPvWOc?si=nf7uStQ6h68pkqUu>

Finally, meeting minutes will be posted to the Vision Zero website in the coming weeks and can be accessed on the following website link when available:

<https://zerodeathsmd.gov/highway-safety-office/vision-zero/>

