metroplan orlando
A REGIONAL TRANSPORTATION PARTNERSHIP

2050 Metropolitan Transportation Plan

Chapter 9 | Regional Safety Element

Adopted: December 10, 2025

WHAT IS IN THIS DOCUMENT?

This chapter outlines MetroPlan Orlando's approach to transportation safety in the region, based on the Regional Safety Action Plan. An overview of transportation safety trends and how MetroPlan Orlando identified strategies and actions to reduce fatal and severe injury crashes on roads throughout the region is provided. Transportation safety projects identified in the regional, county, and local Safety Action Plans were prioritized for safety countermeasure implementation as a part of the overall MTP process, as described in other chapters of this plan. A summary of key transportation safety indicators that will be used to help measure and report progress toward regional safety goals and objectives is also provided.

Legal Information

The preparation of this report has been financed in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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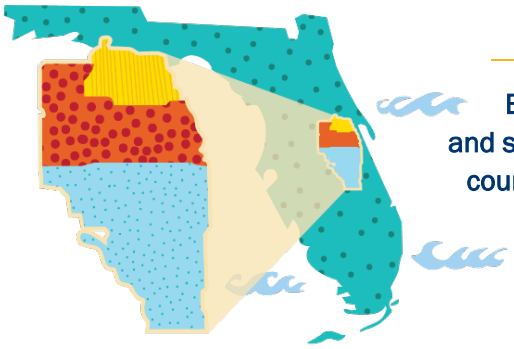
9.1 INTRODUCTION

In parallel with and in support of the 2050 MTP development process, MetroPlan Orlando and its partner agencies prepared regional and local Safety Action Plans to address traffic crashes that result in fatalities and serious injuries. The Regional Safety Action Plan[1] was the first step in the long-range transportation safety planning process. The Regional Plan identifies where deadly and serious injury crashes are most likely to occur and presents ways to reduce crash severity and frequency. The 2050 MTP's approach acknowledges that no loss of life or incapacitating injury due to traffic crashes is acceptable. This safety-focused method and strategy aligns with FDOT's Target Zero initiative and is organized around the core elements and principles of the Safe System Approach.



By 2050, MetroPlan Orlando commits to eliminating deaths and serious injuries on roads in Orange, Osceola, and Seminole counties through a proactive, data-informed, and community-based approach to safety.

Implementing the projects and strategies identified in the Regional Safety Action Plan, the companion county and local safety action plans, and the Florida Department of Transportation District 5 Safety Strategic Plan, will help our region achieve the vision of safer, more accessible, and more convenient travel in the Central Florida region for everyone — especially the most vulnerable road users.

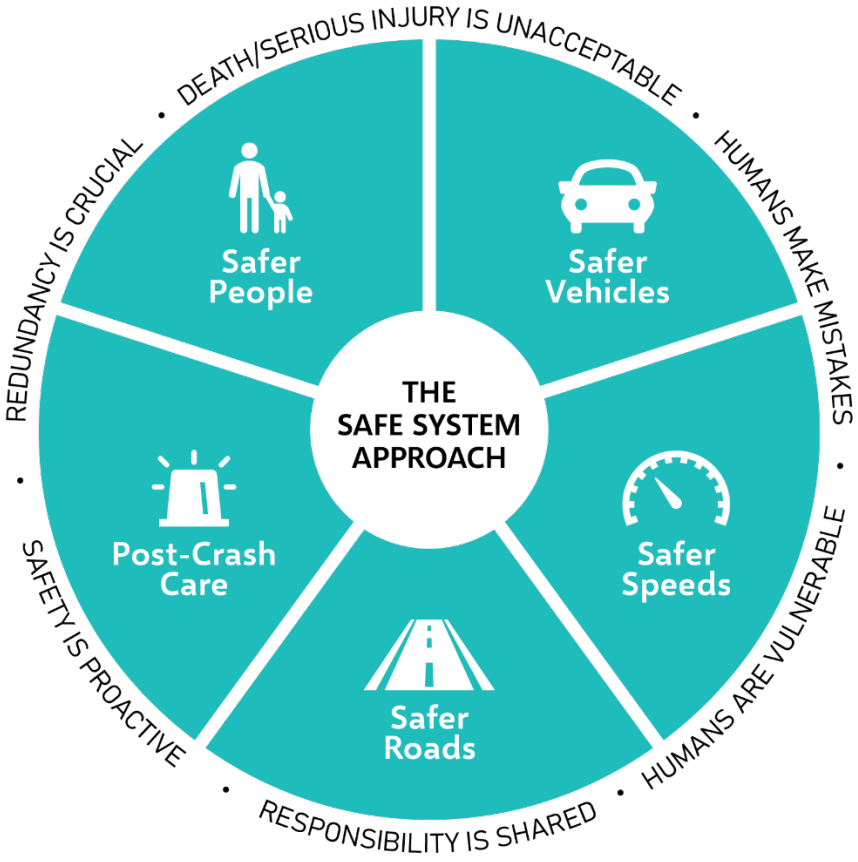
*The **safe system approach** aims to eliminate crashes that result in death and serious injuries by anticipating human mistakes and minimizing impacts on the human body when crashes do occur.*

Making a commitment to zero deaths means addressing every aspect of crash risks across the entire road system. The Safe System Approach acknowledges the vulnerability of the human body should be considered when designing and operating a transportation network to minimize serious consequences of crashes. Creating a Safe System means shifting some responsibility from road users to those who plan and design the transportation system. While road users are responsible for their own behavior, there is a shared responsibility with those who design, operate, and maintain the transportation network, including other key partners such as law enforcement and the legal system, government officials, and the automotive industry. In a Safe System, road system designers and operators take on the highest level of ethical responsibility to design and build our transportation system in a way that encourages safer behavior and provides redundancies. The Safe System Approach is built on the six principles and five elements, shown in Figure 9-1.

[1] https://metroplanorlando.gov/safety/plans-and-resources/

Figure 9-1 | Safe System Approach Elements

*The Safe System addresses **FIVE ELEMENTS**:*



Safer People

Encourage safe, responsible driving and behavior by people who use our roads, and create conditions that prioritize their ability to reach their destination unharmed.

Safer Vehicles

Proactively plan for a connected and autonomous vehicle fleet, and encourage the purchase of vehicles that feature crash prevention technology.

Post-Crash Care

Partner with emergency responders to identify strategic investments in crash response, crash assessment, and crash reporting.

Safer Roads

Prioritize roadway design changes throughout Central Florida that address the factors contributing to serious injury and fatal crashes.

Safer Speeds

Combine strategies that induce drivers to travel at appropriate speeds to reduce injuries.

Source: Adapted from Federal Highway Administration, 2024

9.2 UNDERSTANDING CRASH TRENDS

Each year in Central Florida, an average of 1,900 people are seriously injured, and another 300 people are killed, while traveling on our roads. With more people dying on the road each year, crash trends are going in the wrong direction. There is a lot of work that needs to be done to reverse this pattern and improve transportation safety.

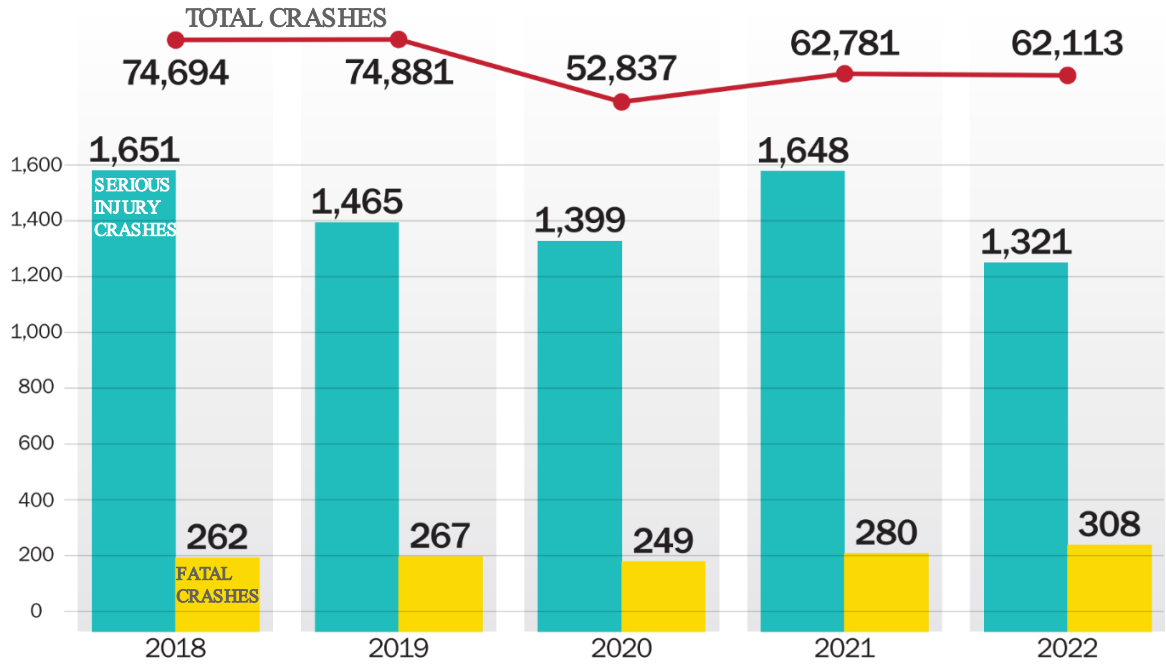
9.2.1 ANALYSIS METHODS

Several datasets were used to aid in the understanding of crash trends within the region, including data from Signal 4 Analytics (Signal 4), the Florida Injury Surveillance System (FISS), and the Florida Department of Transportation (FDOT) Modal Office. Data from Signal 4 reflects all crashes in the region that were reported to law enforcement and that involve a motor vehicle. From the FISS dataset, deaths, emergency room visits and hospitalizations for people who were injured while walking and biking, or using mobility devices, like electric bikes and scooters, are provided, including information for people who were injured or killed while walking or bicycling when a motor vehicle was not involved. The FDOT Modal Office provided information related to trespassing incidents near train tracks in the region as incidents between people walking or bicycling and trains do not typically show up in crash reports that would be included in the Signal 4 dataset unless a motor vehicle was involved. The data considered in this analysis is reflective of 2018 to 2022 from Signal 4 (downloaded in June 2023), data from October 2018 to March 2023 from the modal office, and data from 2011 to 2021 from FISS. For detailed information on crash data and analytics, see the Regional Safety Action Plan.

9.2.2 KEY FINDINGS

Deaths are going up (see Figure 9-2) even as serious injury crashes in Central Florida are slowly declining.

Figure 9-2 | Regional Crash History (2018-2022)

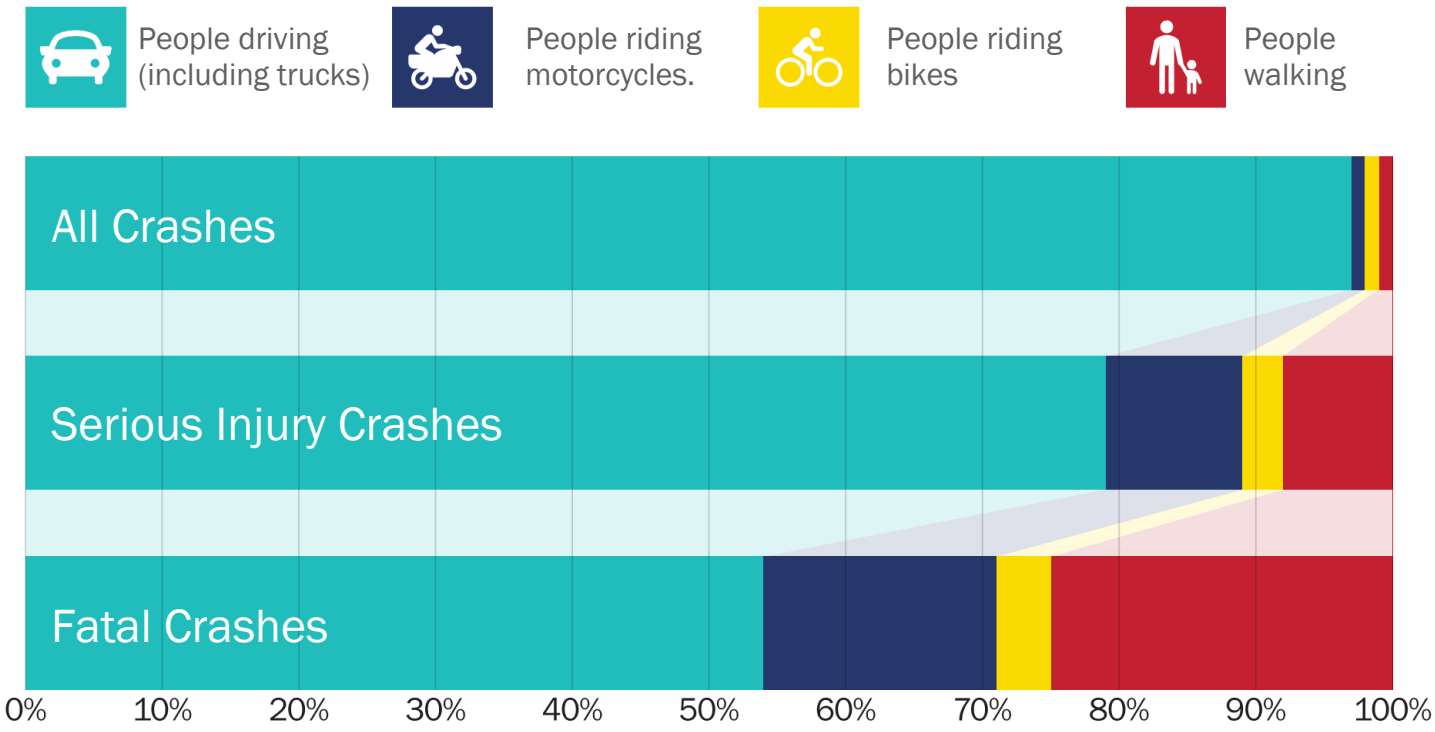


Note: Includes limited-access roads.

Source: Signal Four Analytics, 2018-2022

Crashes that result in death or serious injury disproportionately impact people who are outside of cars and trucks, including people walking, biking, and riding motorcycles, as well as people using wheelchairs, mobility assistance devices, and electric bikes and scooters (see Figure 9-3).

Figure 9-3 | Who is involved in Regional Crashes (2018-2022)



Source: Signal Four Analytics, 2018-2022

Serious injury and deadly crashes are happening throughout Central Florida communities. Fatal and serious injury crashes are most likely to occur on roads that have been designed to accommodate vehicle travel at highway speeds, but are also expected to serve pedestrians, bicyclists, and transit, all while providing direct and convenient access to destinations.

Roads that are more likely to be the location of a fatal or serious injury crash tend to:

- Have lots of drivers - these roads serve 15,000+ vehicles a day.
- Have multiple driving lanes - these roads tend to have four or more driving lanes.
- Be classified as an arterial - “arterials” are major roads carrying lots of traffic.
- Be classified as Suburban Commercial - this is a FDOT Context Classification.
- Have high speed limits - these roads typically have a posted speed limit of 40 to 55 miles per hour.
- Provide transit service - people need to cross the street to reach bus stops.
- Serve lots of destinations - these roads provide direct access to a multitude of different places, like grocery stores, gas stations, schools, apartments, and restaurants.

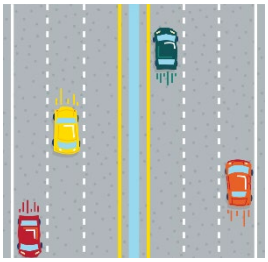
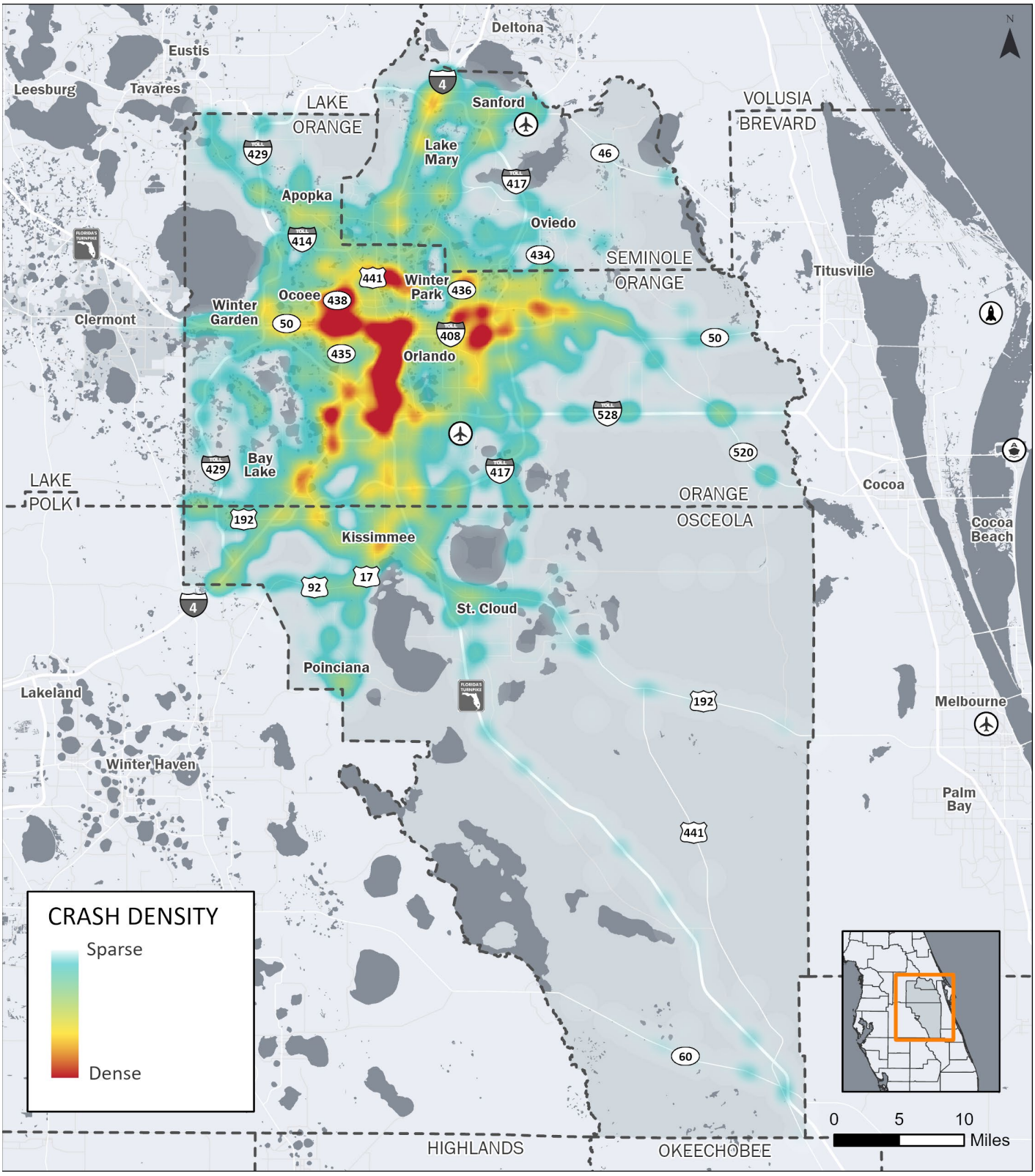


Figure 9-4 shows the density of fatal and serious injury crashes across Orange, Osceola, and Seminole counties.

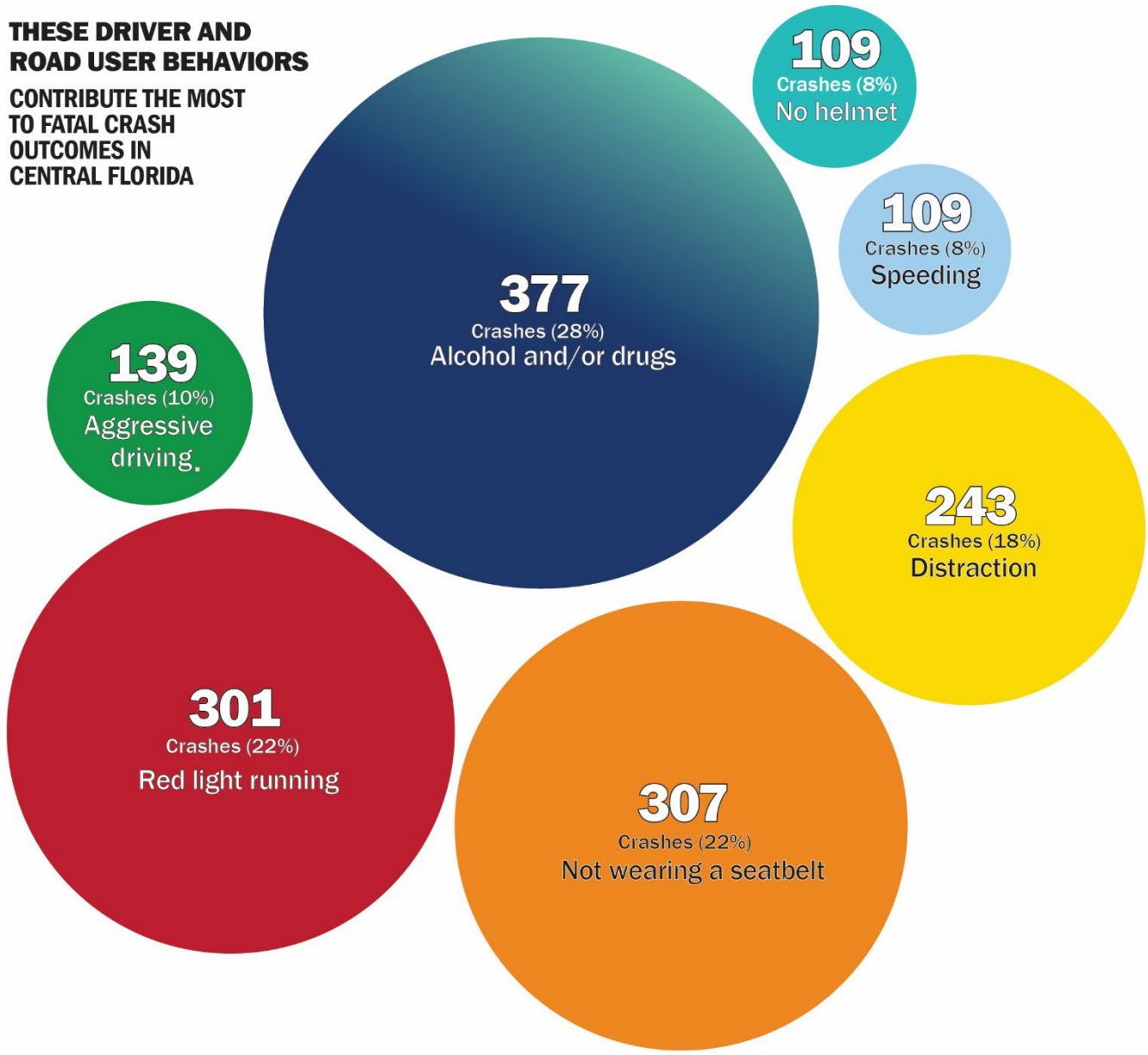
Figure 9-4 | Fatal and Serious Injury Crash Density in Orange, Osceola and Seminole Counties (2018-2022)



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

There is no single cause of deadly crashes in our communities. Instead, numerous factors combine to make crashes worse as shown in Figure 9-5.

Figure 9-5 | Contributing Driver and Road User Behaviors to Fatal Crashes



Note: Crashes involving speeding are based on the reporting officer's assessment of travel speed and are likely an under-count of crashes with a direct correlation to speeding. Some crashes have multiple factors, so total fatal crashes may be different than shown in other tables and figures and may sum to more than 100%.

Source: Signal Four Analytics, 2018-2022.

Consistent with state and national trends, younger drivers are more likely to be involved in speeding-related and impaired-driving crashes. Figure 9-6 shows speed-related and impaired fatal and serious injury crashes by age in Central Florida. Crashes that result in someone being killed or severely injured (KSI) are referred to as KSI crashes.

Figure 9-6 | Speed-Related and Impaired KSI Crashes by Age in Central Florida

Source: Signal Four Analytics, 2018-2022.

9.3 HIGH INJURY NETWORK

A high injury network (HIN) is a collection of streets and intersections where a disproportionate number of fatal and serious injury crashes occur. MetroPlan Orlando developed a regional High Injury Network by identifying the streets and intersections where the most fatal and serious injury crashes occurred. We emphasized crashes involving people walking, bicycling, and motorcycling as those road users are more likely to be seriously injured or killed if a crash does occur. The resulting network provides a comprehensive set of locations for MetroPlan Orlando and partner jurisdictions to prioritize safety improvements that yield the largest benefit.

49% of all deaths happen on just 2% of this road network

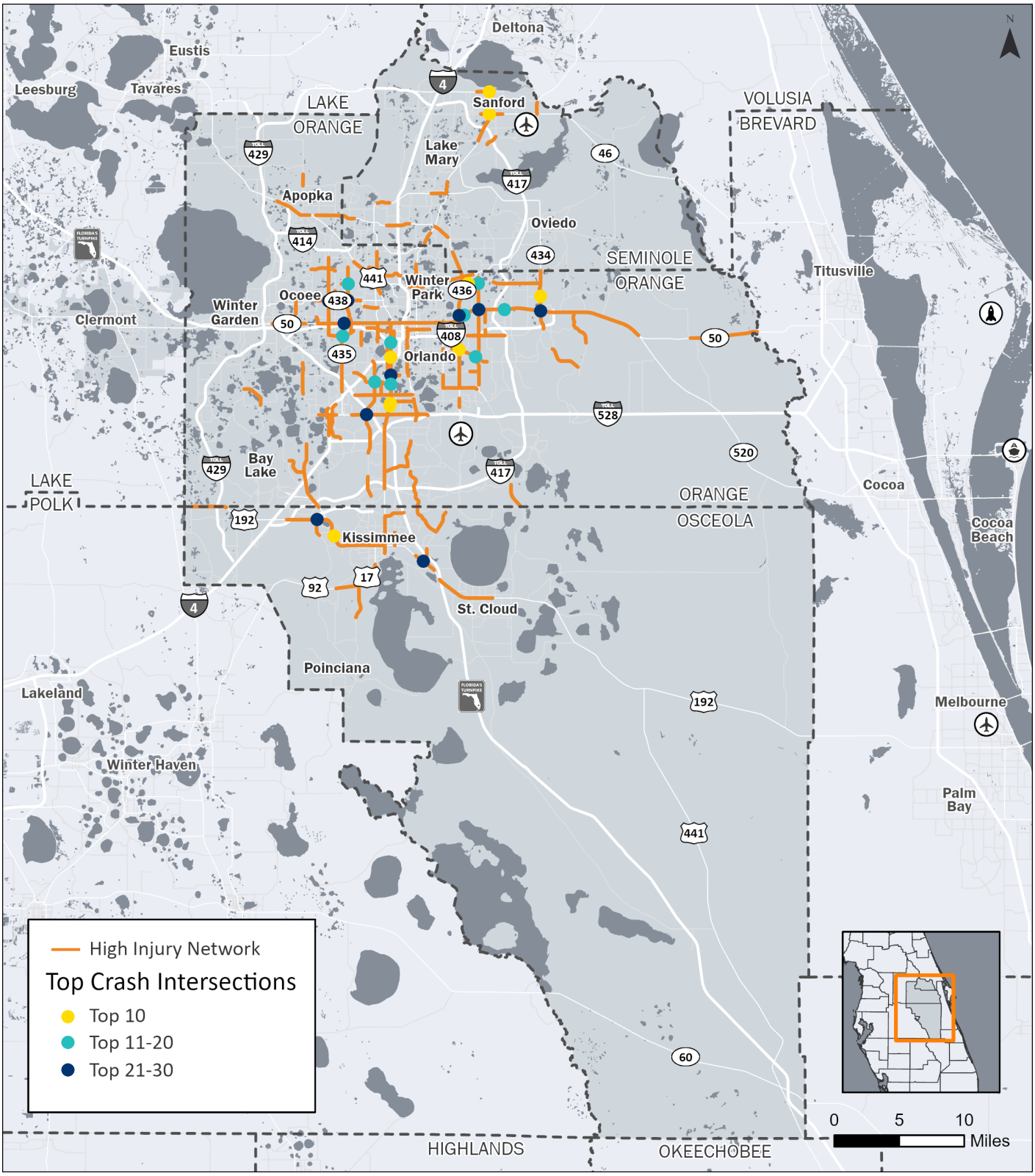
There are approximately 11,000 miles of roads in the region, including limited-access roads such as Interstate 4. 49% of all deaths happen on just 2% of this road network. When excluding limited-access roads, 47% of all fatal and serious injury crashes occur on just 2% of roads. The overall regional HIN is shown in Figure 9-7 with detailed statistics in Figure 9-8.

The HIN was calculated using a structured, data-driven approach that emphasizes crash severity. Crashes were weighted based on severity using a method called the Equivalent Property Damage Only (EPDO) using values derived from crash costs from the FDOT Safety Office. To emphasize the higher vulnerability of people outside vehicles, crashes involving pedestrians, bicyclists, or motorcyclists were given 3 times more weight due to their disproportionate representation in serious and fatal crashes. Using a Sliding Window Analysis, a 1-mile window with a 0.2-mile offset was used to scan corridors for crash clusters. This method accounts for inaccuracies in crash location data by evaluating overlapping segments. For each window, a Safety Score was calculated by summing all weighted crashes. After calculating Safety Scores for all windows, the highest scoring segments were identified as candidate HIN corridors. A list of the top 30 streets and intersections, based on the calculated safety score, is shown in Table 9-1 and Table 9-2. Final HIN segments were selected based on the weighted score per mile, highlighting areas with the most severe crash histories.

Additional details of how the regional High Injury Network was calculated are provided in the Technical Appendix for the Regional Safety Action Plan[2].

[2] https://metroplanorlando.gov/safety/plans-and-resources/

Figure 9-7 | Regional High Injury Network and Top Crash Intersections



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

Figure 9-8 | MetroPlan Orlando Regional HIN Statistics

*High Injury Network **AVERAGE SPEEDS**:*

43 MPH

AVERAGE POSTED SPEED LIMIT

53 MPH

AVERAGE PREVAILING SPEED (BASED ON CONNECTED VEHICLE DATA)

*High Injury Network **JURISDICTIONS**:*

*High Injury Network **OVERALL STATISTICS**:*

	ALL ROADS	HIN	% HIN	FEDERAL AID (FA) NETWORK	% HIN OF FA
Centerline miles	10,728	258	2%	1,965	13%
All crashes	272,523	98,975	36%	229,278	43%
Total Deaths	1,217	601	49%	1,139	53%
KSI Crashes	7,146	3,378	47%	6,398	53%
Pedestrian KSI Crashes	949	576	61%	854	67%
Bicyclist KSI Crashes	327	164	50%	285	58%
Motorcyclist KSI Crashes	956	416	44%	864	48%

Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

Table 9-1 | Top 30 Regional High Injury Network Intersections

#	Intersection	Maintaining Agency	Safety Score
1	John Young Parkway at Sand Lake Road	FDOT	10,140
2	Alafaya Trail at Colonial Drive	FDOT	10,103
3	Orange Blossom Trail at Holden Avenue	FDOT	10,055
4	Hiawassee Road at Silver Star Road	FDOT	9,630
5	N Poinciana Boulevard at Irlo Bronson Memorial Highway	FDOT	9,399
6	Pine Hills Road at Silver Star Road	FDOT	8,673
7	Semoran Boulevard at Old Cheney Hwy	FDOT	8,509
8	W Colonial Drive at N Kirkman Road	FDOT	7,097
9	Goldenrod Road at Colonial Drive	FDOT	7,040
10	Simpson Road at Irlo Bronson Memorial Highway	FDOT	6,946
11	Orange Blossom Trail at Gore Street	FDOT	6,769
12	N Kirkman Road at Old Winter Garden Road	FDOT	6,724
13	Goldenrod Road at Curry Ford Road	FDOT	6,715
14	John Young Parkway at Conroy Road	FDOT	6,699
15	Pine Hills Road at North Lane	FDOT	6,651
16	Colonial Drive at Econlockhatchee Trail	FDOT	6,480
17	Powers Drive at Silver Star Road	FDOT	6,415
18	Orange Blossom Trail at Conroy Road/Americana Boulevard	FDOT	6,401
19	Old Cheney Highway/Tucker Avenue at Colonial Drive	FDOT	6,386
20	Goldenrod Road at University Boulevard	FDOT	6,224
21	Alafaya Trail at Lokanotosa Trail	FDOT	5,905
22	Semoran Boulevard at Curry Ford Road	FDOT	5,504
23	S French Street at W 25th Street	FDOT	5,459
24	Hastings Street at Silver Star Road	FDOT	5,368
25	Orange Blossom Trail at Orlando Central Parkway	FDOT	5,160
26	Orange Blossom Trail at Michigan Street	FDOT	4,924
27	Irlo Bronson Memorial Highway at Club Sevilla	FDOT	4,812
28	Forsyth Road at University Boulevard	Orange County	4,722
29	N French Avenue at W 1st Street (US 17/92)	FDOT	4,294
30	Orange Blossom Trail at Premier Row	FDOT	3,919

Source: MetroPlan Orlando Regional Safety Action Plan, September 2024

Note: The Safety Score is calculated based on the total number of crashes, the highest level of injury sustained in each crash, and the travel mode of victims. Crashes that result in death or serious injury, or include a person outside a vehicle have different factors applied. With the Safety Score, a higher score indicates the location experiences a high crash rate and a lower score indicates a lower crash rate. A Safety Score of zero indicates no history of crashes at the location.

Table 9-2 | Top 30 Regional High Injury Network Corridors

#	Road Name	From	To	Maintaining Agency	Safety Score
1	John Young Parkway (SR 423)	SR 50	Orange Center Blvd.	FDOT	17,478
2	Sand Lake Road/McCoy Road (SR 482)	Turkey Lake Road	Universal Blvd.	FDOT	17,104
3	Chickasaw Trail	Frontage Road	Lake Underhill Rd.	Orange County	14,589
4	Hiawassee Road (CR 435)	SR 438/Silver Star Road	SR 50	Orange County	14,547
5	Oak Ridge Road (CR 528A)	Millenia Blvd.	S. Orange Blossom Trl.	Orange County	14,296
6	Kirkman Road (SR 435)	SR 50	Raleigh St.	FDOT	14,130
7	Goldenrod Road (SR 551)	SR 50	Lake Underhill Rd.	FDOT	14,129
8	Semoran Boulevard (SR 436)	Lee Vista Road	TG Lee Blvd.	FDOT	14,088
9	Pine Hills Road (CR 431)	SR 50	Old Winter Garden Rd	Orange County	13,941
10	Alafaya Trail (SR 434)	SR 50	Lake Underhill Rd.	FDOT	13,564
11	Kirkman Road (SR 435)	LB Mcleod Rd.	Major Blvd.	FDOT	13,466
12	Colonial Drive (SR 50)	Orange Blossom Trl. N.	N Bumby Ave.	FDOT	13,415
13	North Lane	Westgate Rd.	N Pine Hills Rd.	Orange County	12,946
14	Hiawassee Road (CR 435)	SR 50	Old Winter Garden Rd	Orange County	12,344
15	Alafaya Trail (SR 434)	McCulloch Rd.	SR 50	FDOT	12,284
16	Oak Ridge Road (CR 506)	S. Orange Blossom Trl.	Orange Ave S.	Orange County	12,054
17	Lee Road (SR 423)	N. Orange Blossom Trl.	N. Wymore Rd.	FDOT	11,972
18	University Boulevard	Semoran Blvd. (SR 436)	Lake Mirage Blvd.	Orange County	11,938
19	Rosalind Avenue (SR 527)	E. Livingston St.	S. Lucerne Cir.	FDOT	11,526
20	Semoran Boulevard (SR 436)	Lake Underhill Rd.	Lake Margaret Dr.	FDOT	11,419
21	US 192/Vine Street	Celebration Ave.	Four Winds Blvd.	FDOT	11,347
22	Goldenrod Road (SR 551)	Lake Underhill Rd.	Beatty Dr.	FDOT	11,182
23	N Ronald Reagan Boulevard	Elder Springs Cir.	Jones Ave	Seminole County	10,951
24	W First Street (US 17/92)	N. Persimmon Ave.	N French Ave.	FDOT	10,856
25	Edgewater Drive./Highland Avenue	Clarcona Ocoee Rd	Lee Rd.	Orange County/FDOT	10,652
26	Conway Road (SR 15)	Curry Ford Rd.	E. Michigan St.	FDOT	10,570
27	Pershing Avenue	Woodgate Blvd.	Goldenrod Rd.	Orange County	10,554
28	John Young Parkway (SR 423)	SR 528 Ramps	Lazio Ln.	FDOT	10,510

#	Road Name	From	To	Maintaining Agency	Safety Score
29	East Lake Mary Boulevard	North of Celery Ave.	SR 46	FDOT	10,477
30	Poinciana Boulevard	US 192	Siesta Lago Dr.	Osceola County	10,431

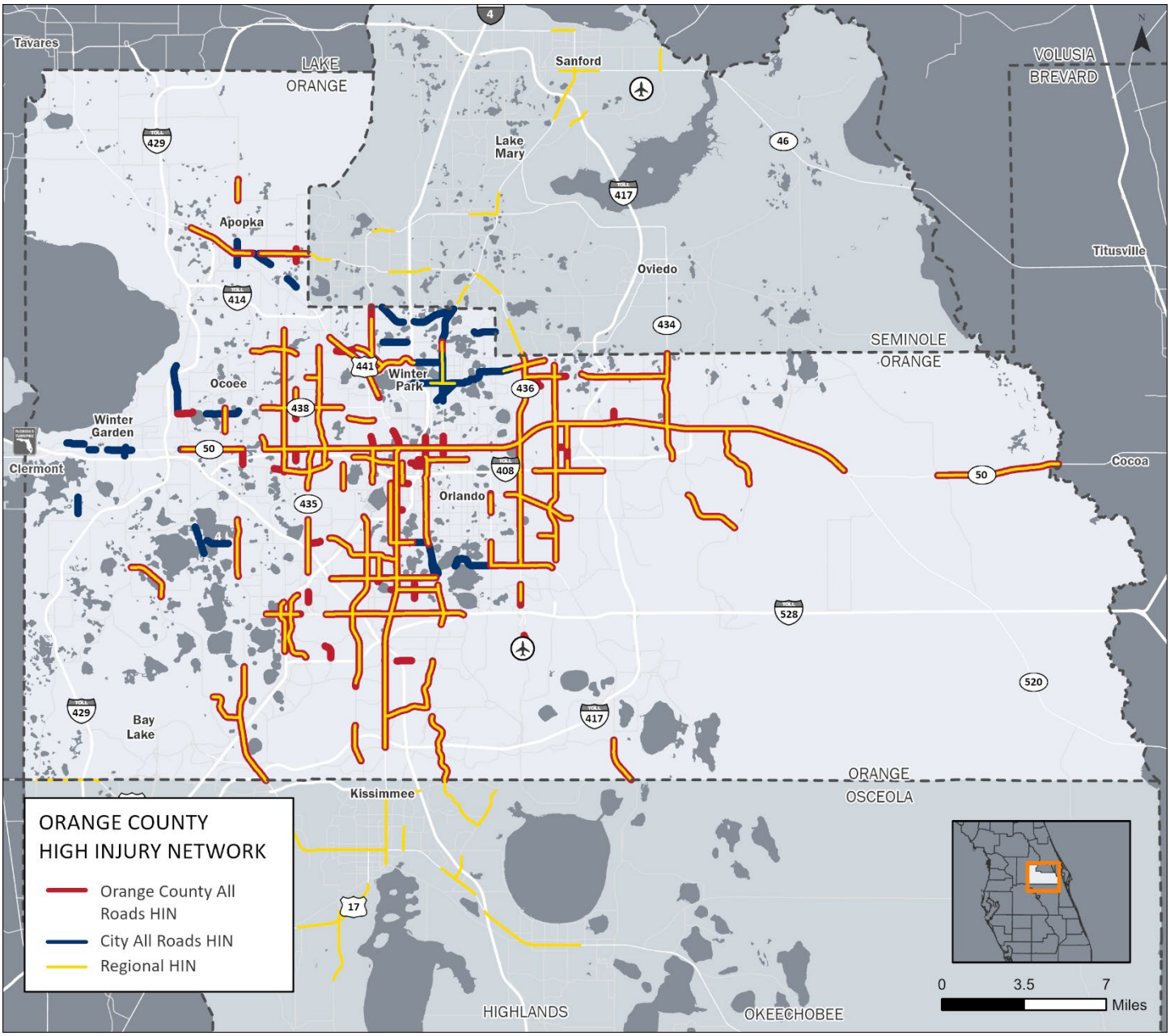
Source: MetroPlan Orlando Regional Safety Action Plan, September 2024

Note: The Safety Score is calculated based on the total number of crashes, the highest level of injury sustained in each crash, and the travel mode of victims. Crashes that result in death or serious injury, or include a person outside a vehicle have different factors applied. With the Safety Score, a higher score indicates the location experiences a high crash rate and a lower score indicates a lower crash rate. A Safety Score of zero indicates no history of crashes at the location.

As part of the Central Florida 2024 Regional Transportation Safety Action Plan initiative, all local governments in the region also developed county and municipal-level high injury networks. The high injury networks in Orange County are shown in Figure 9-9, those in Osceola County are shown in Figure 9-10 and those in Seminole County are shown in Figure 9-11. An online interactive map displaying the regional, county, and municipal-level high injury networks is also available[3].

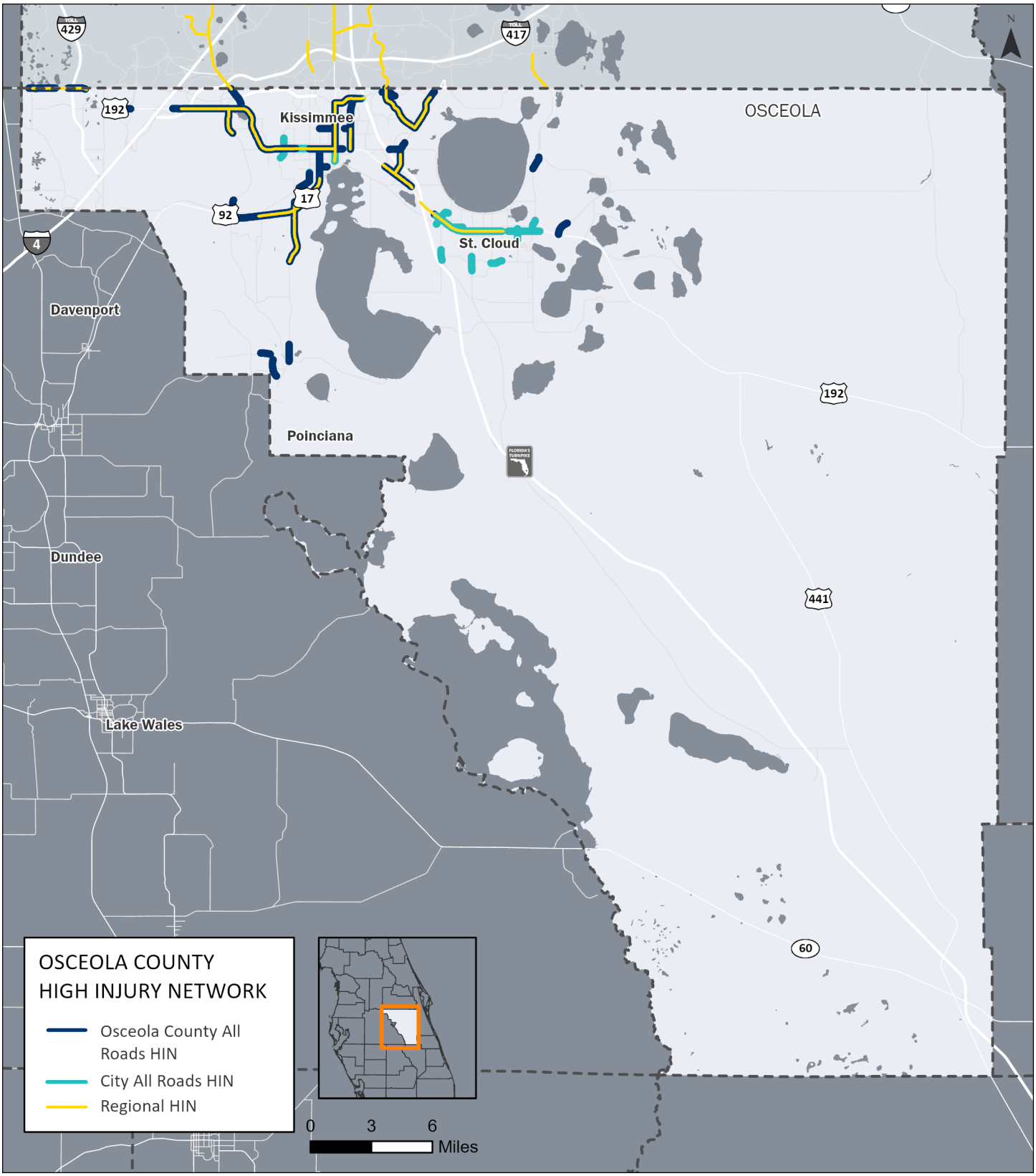
[3] https://metroplan.maps.arcgis.com/apps/dashboards/7796ac634d714baab9f84793e09edc73

Figure 9-9 | High Injury Networks within Orange County



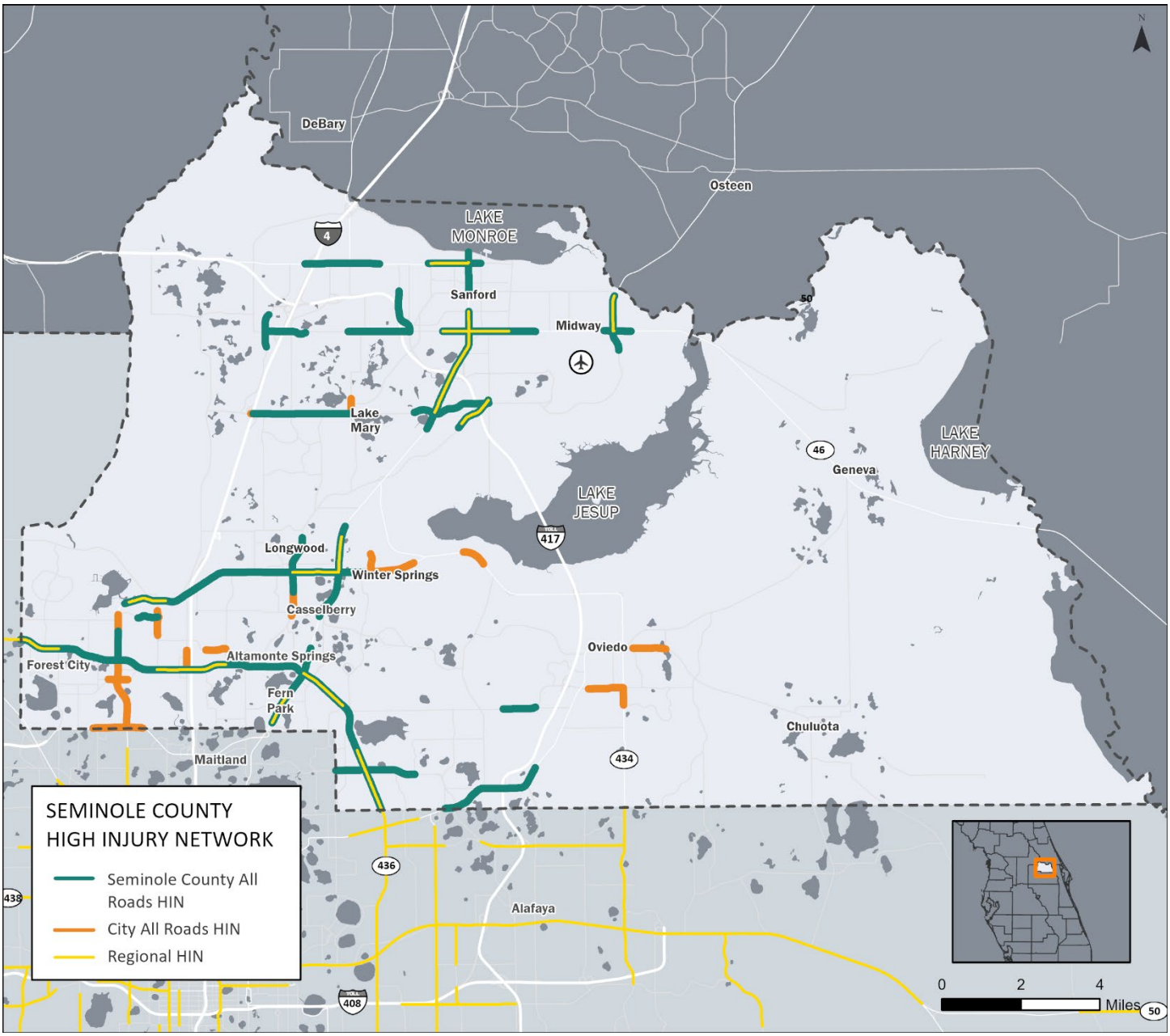
Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

Figure 9-10 | High Injury Networks within Osceola County



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

Figure 9-11 | High Injury Networks within Seminole County



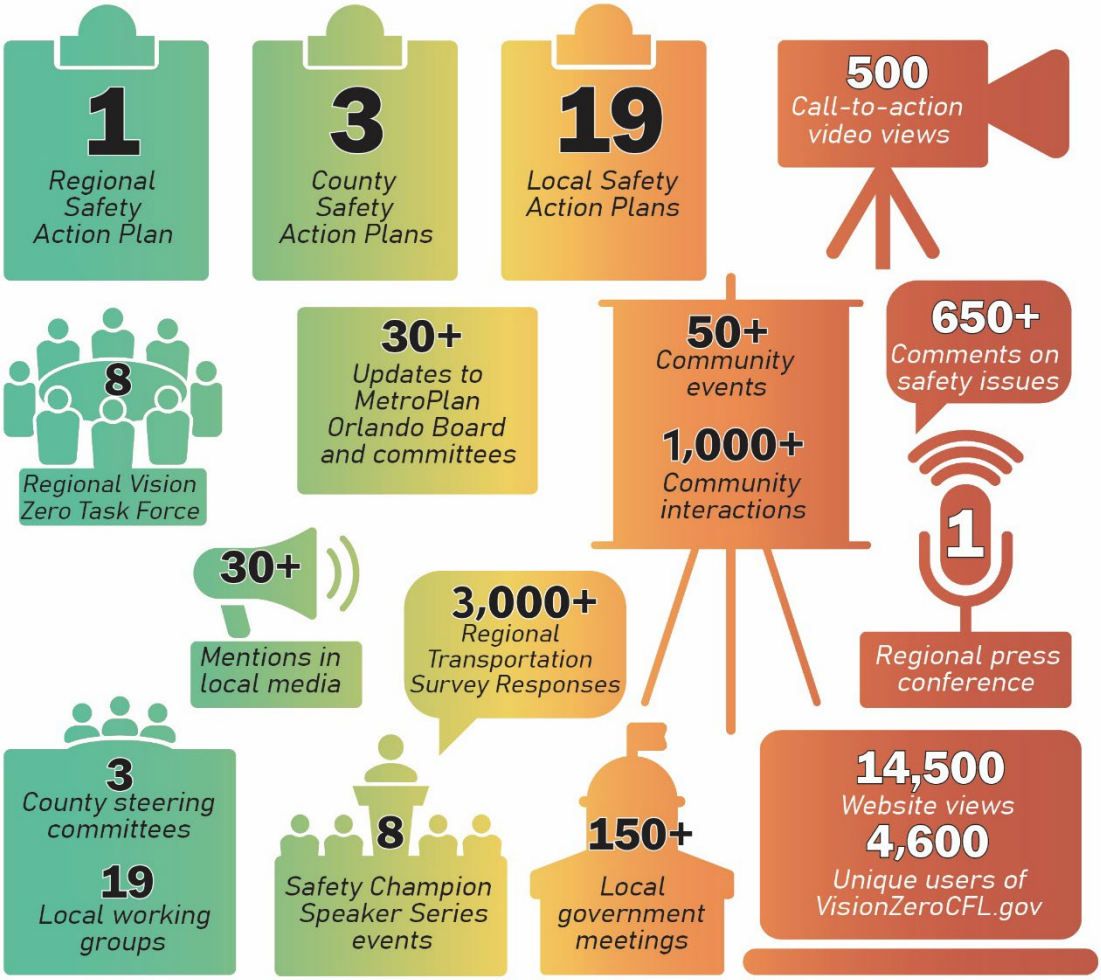
Source: MetroPlan Orlando Regional Safety Action Plan, September 2024 based on Signal Four Analytics, 2018-2022.

9.4 FEEDBACK FROM THE COMMUNITY

Engagement strategies targeted two main audiences: stakeholders and the public. Stakeholder engagement was designed to bring government officials and staff from local agencies, the Florida Department of Transportation (FDOT), law enforcement, and emergency responders into the conversation about transportation safety. Outreach efforts were aimed at building capacity, providing materials to streamline local safety efforts, and developing materials for social media engagement.

Public engagement was also aimed at collecting feedback from Central Florida residents and visitors – the "everyday people" who make up most travelers on our roads, but who may not think regularly about traffic safety. These strategies include a range of in-person and online approaches to help community members shape the planning process. Figure 9-12 summarizes the extent of the engagement that went into the development of the Regional Safety Action Plan as well as the local safety action plans. Additional engagement activities occurred as a part of the 2050 MTP process and are summarized in Chapter 15.

Figure 9-12 | Transportation Safety Engagement by the Numbers



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024.

As a part of the Regional Safety Action Plan, a Safety Speaker series was established to provide opportunities for a more in-depth discussion on a variety of transportation safety topics to help inform regional and local strategies. Table 9-3 summarizes the topics and approximate attendance for the eight Speaker Series webinars completed through July 2025. Additional speaker series presentations are planned for 2025 and beyond.

Table 9-3 | Engagement Numbers for Safety Speaker Series

	Date	Topic	Total No. Attendees
1	November 15, 2023	Uniting on a Quest for Zero Traffic Deaths	61
2	April 4, 2024	Moving the Needle on Pedestrian and Bicyclist Safety	76
3	May 23, 2024	Centering Equity and Safety	98
4	June 4, 2024	From the Perspectives of those Left Behind	57
5	June 13, 2024	A Plan of Action for Walking and Cycling	82
6	November 19, 2024	Speed Management	108
7	April 15, 2025	Balancing Safer Roads and Post Crash Care	121
8	July 10, 2025	Pathways to Move Safety Projects Forward	105

Source: MetroPlan Orlando, 2025

MetroPlan Orlando's safety planning activities are guided by a regional Vision Zero Task Force. The Task Force includes local agency representatives, Florida Department of Transportation staff, public health officials, medical professionals, walking and biking advocates, and members of the public. For each county and local plan, separate steering committee and working group meetings were held, and MetroPlan Orlando staff attended each meeting. Feedback from various local and county discussions was incorporated into the regional plan. The Task Force provided key feedback on technical analyses, public engagement strategies, policy benchmarking, action plan elements, and project prioritization criteria. Several smaller focused discussions were conducted with key stakeholders to review the policy benchmarking and prioritization criteria, and feedback from the Task Force was incorporated into the final set of actions and prioritization criteria. The regional Task Force continues to meet quarterly to share information and ideas, and collaborate on new actions and strategies.

9.4.1 WHAT DO PEOPLE HAVE TO SAY ABOUT TRAFFIC SAFETY?

Near-misses and close calls are common themes, as are safety concerns affecting people's ability to get around, the routes they take, and the times of day they feel safe travelling.

Over 50 community workshops and pop-up events were held for county and local plans. These events let people in the community know about the Safety Action Plan process and asked for feedback about transportation safety concerns in their community. Each county and local plan provides a summary of the key engagement events that were conducted and the feedback that was received.

To support the 2050 MTP, MetroPlan Orlando conducted a regional transportation public opinion survey in 2024 of more than 3,000 Central Floridians. The survey found that most respondents (80%) understand that speed and safety are closely related, meaning lower speeds lead to greater safety for everyone on the road. However, 37% of respondents reported that they habitually drive 10 mph over the speed limit and some (8%) even faster. The full results of the transportation survey are summarized in Chapter 15.

9.5 TOOLKIT OF STRATEGIES

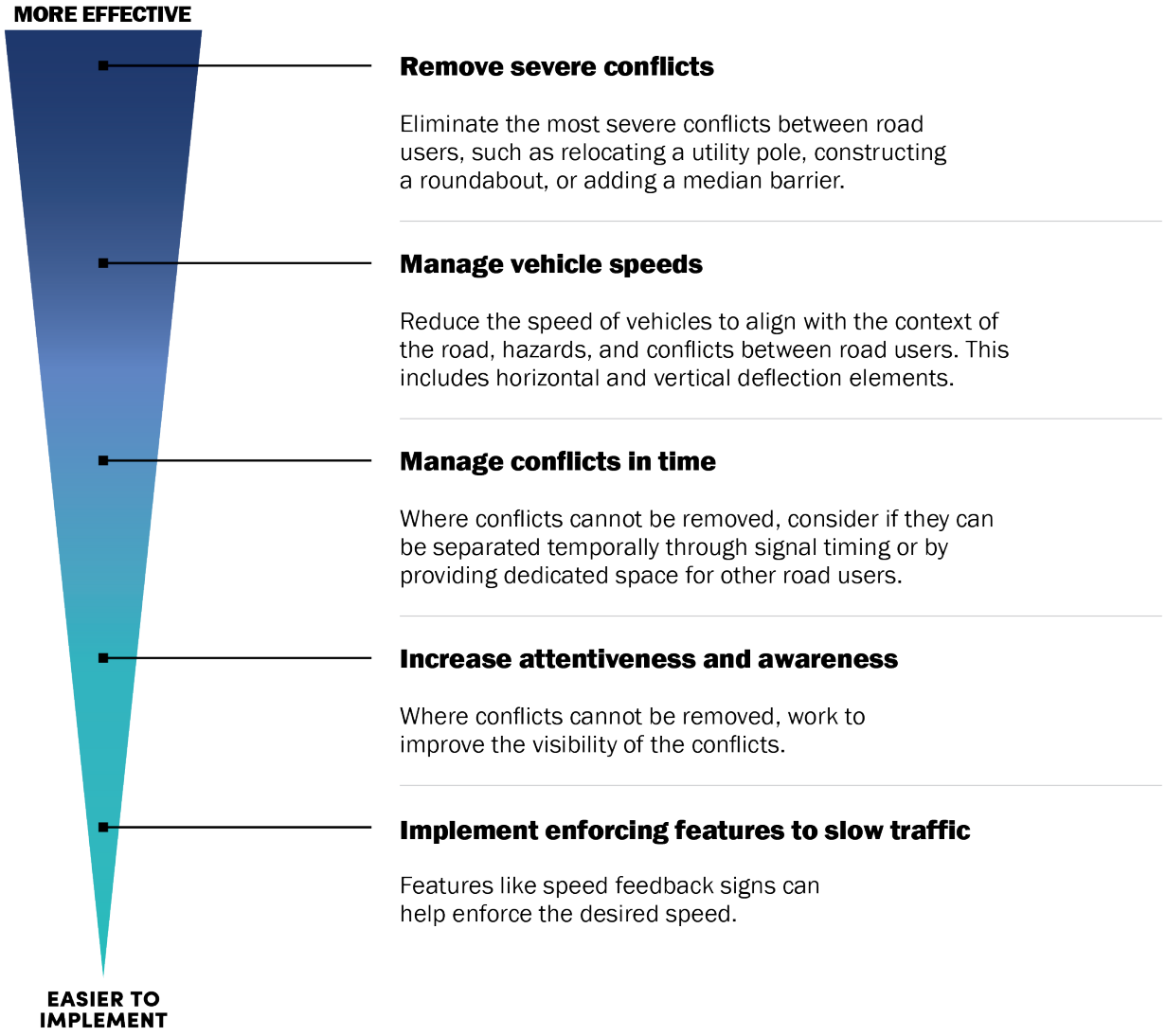
Strategies included in the Regional Safety Action Plan are aimed at reducing the frequency and severity of crashes, such that when crashes do occur, people are less likely to be severely injured or killed. As traffic crashes are caused by a multitude of factors, a variety of strategies need to be employed to reduce crashes. These strategies, known as countermeasures, are broken into engineering and non-engineering strategies, and include policy guidance.

Anticipating human error is consistent with the Safe System Approach Framework outlined by the Federal Highway Administration (FHWA). The Institute of Transportation Engineers (ITE) and the Road to Zero Coalition have developed a Safe Systems Explanation and Framework that explains four steps for how to anticipate human mistakes:

- **Separating users in physical space** - Providing dedicated space to road users moving at different speeds or different directions, such as turning vehicles, helps minimize conflicts.
- **Separating users in time** - When different users need to occupy the same space on the roadway, separating users in time helps minimize conflicts, such as an exclusive pedestrian crossing phase.
- **Alerting users to potential hazards** - These strategies increase visibility, increase attentiveness, and reduce impairment.
- **Accommodating human injury tolerance** - These strategies reduce speed or impact force on the human body, like physical design treatments and vehicle occupant protection.

Anticipating human mistakes through these strategies provides a system with built-in redundancies to reduce the likelihood of death or serious injury when a crash occurs. However, the strategies have varying levels of effectiveness, feasibility, and implementation time frames. FHWA has therefore developed a solutions hierarchy within the Safe System element of Safe Roads, as shown in Figure 9-13. The most effective strategies remove conflicts and minimize hazards, and when that is not feasible, better manage the conflict.

Figure 9-13 | FHWA Safe Systems Solutions Hierarchy



Source: FHWA, MetroPlan Orlando Regional Safety Action Plan, September 2024.

9.6 ENGINEERING COUNTERMEASURES

Using the Safe System Approach, engineering countermeasures that have a transportation safety benefit were compiled into a toolkit. Measures identified in the toolkit are designed to:

- Inform partner jurisdictions about safety treatment options and their appropriate uses and contexts
- Communicate safety tools using easy-to-understand language and graphics
- Facilitate coordination between staff, contractors, developers, and the community when discussing transportation safety improvements
- Create a shared understanding and realistic expectations around safety treatments

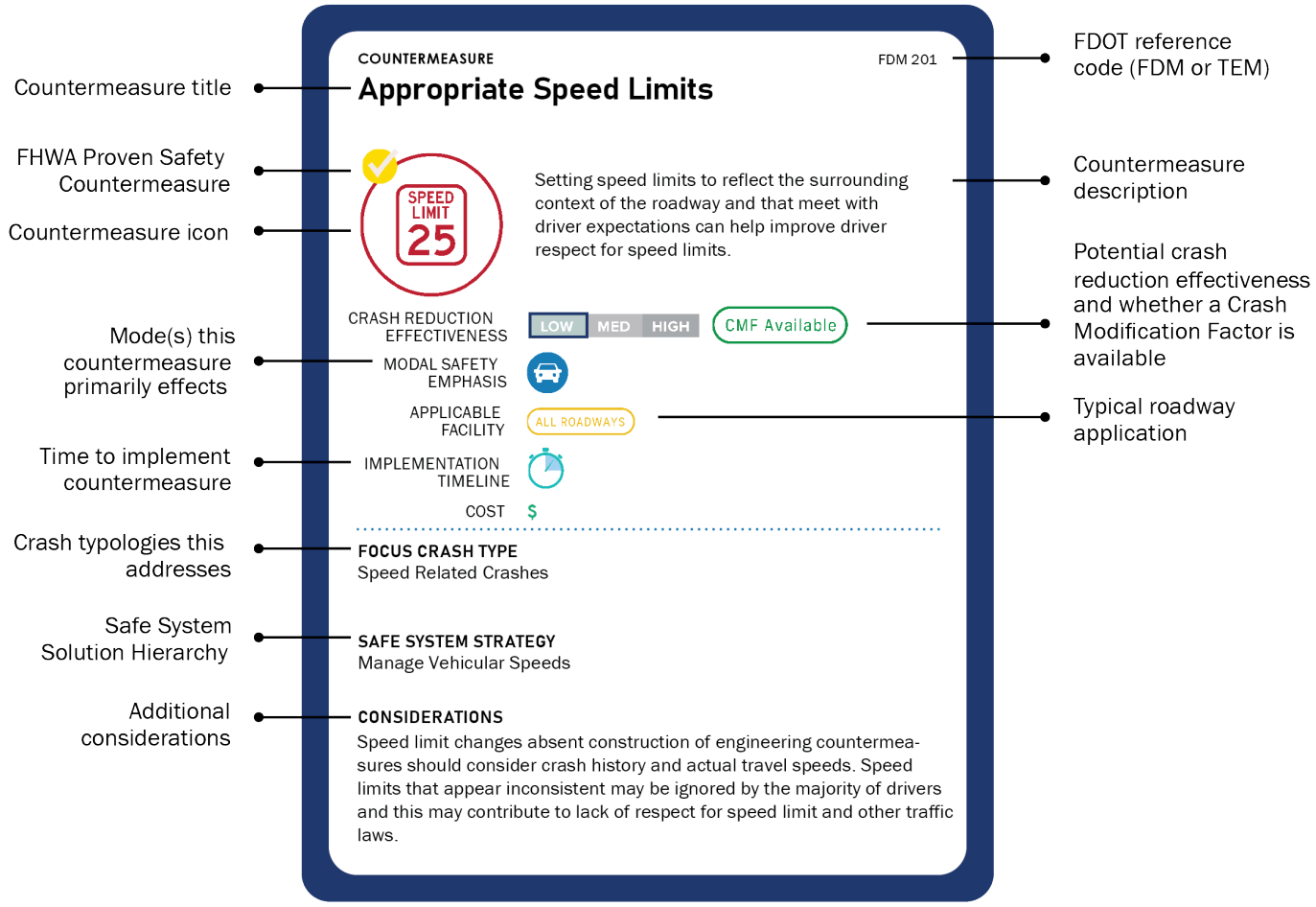
This toolkit describes a range of engineering countermeasures, how they can be applied to address safety, and their expected effectiveness at reducing crashes when that information is available. The expected crash reduction is based on Crash Modification Factors from FHWA's Crash Modification Clearinghouse or other published studies.

The Engineering Countermeasures Toolkit is not intended to be a menu from which community members can request safety tools for their street, but rather a tool for agency staff to facilitate conversations within their community about potential transportation safety countermeasures. The countermeasures are organized into the following categories:

- Intersections and Roadways
- Signals
- Signing and Striping
- Speed Management
- Bikeways
- Pedestrian Facilities
- Other Engineering Strategies

Each strategy in the toolkit is organized as shown in Figure 9-14, which includes the countermeasure name, a description, the types of crashes the countermeasure addresses, the expected crash reduction effectiveness, implementation timeline, potential cost, potential considerations, if the countermeasure is a FHWA proven safety countermeasure and the applicable design standard from the Florida Design Manual or Traffic Engineering Manual. The toolkit can be found in the Guidance Appendix of the Regional Safety Action Plan.

Figure 9-14 | Sample Engineering Countermeasure Information



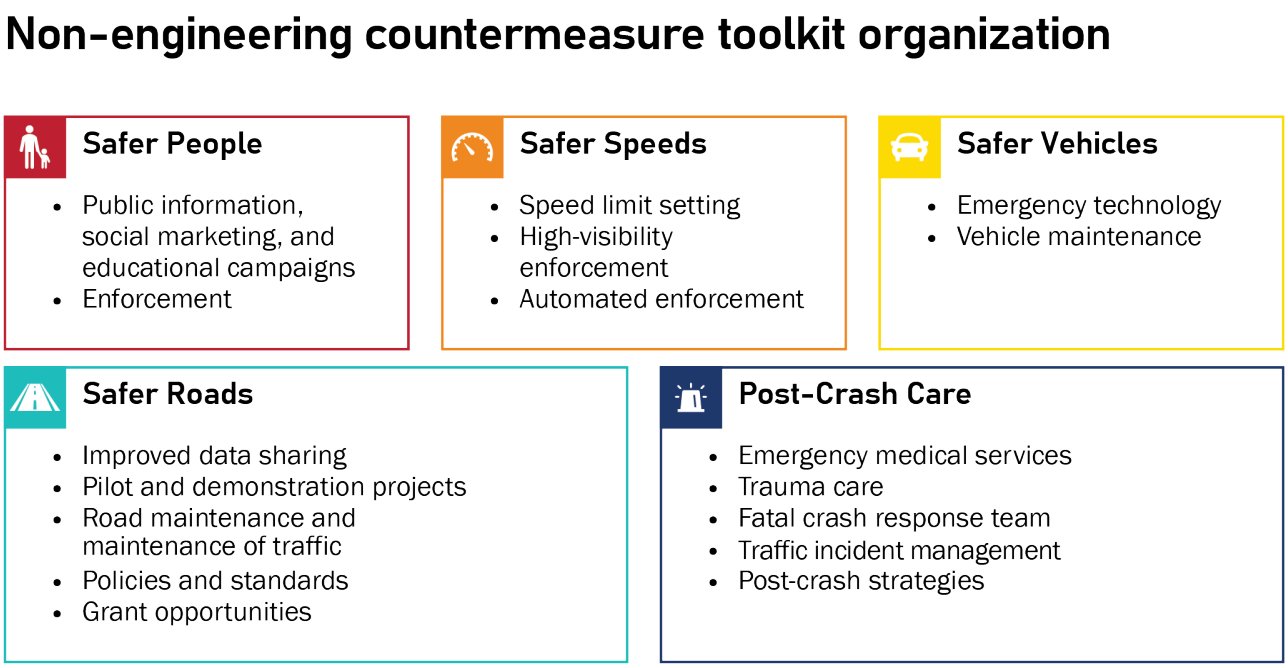
Source: MetroPlan Orlando Regional Safety Action Plan, September 2024.

9.7 NON-ENGINEERING COUNTERMEASURES

Engineering countermeasures alone are not sufficient and can be combined with non-engineering countermeasures for maximum benefit. Non-engineering countermeasures can be employed at scale to influence large segments of the community via marketing campaigns, high-visibility enforcement, and publicized sobriety checkpoints – which affect the social environment by increasing the perceived risk of being caught. These strategies can also be focused on specific road user groups like teen drivers or motorcyclists.

The non-engineering countermeasures compiled in the Guidance Appendix of the Regional Safety Action Plan are shown in Figure 9-15, and are not intended to be an exhaustive list of strategies. Instead, they offer a menu for local agencies to consider as they develop their own Safety Action Plans. As agencies implement non-engineering countermeasures, they should consider how they can have the broadest impact.

Figure 9-15 | Non-Engineering Countermeasures Organization



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024.

9.8 POLICY BENCHMARKING

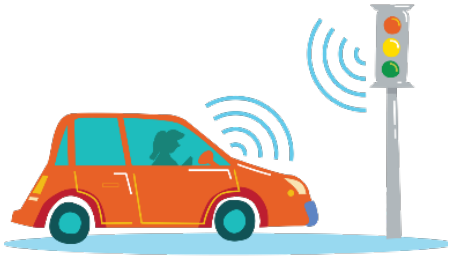
Policy and procedural barriers can stand in the way of eliminating severe injury and fatal crashes on our roads. An example is vehicle delay-based requirements that encourage streets to be designed and operated to accommodate high-speed vehicle traffic – crashes that occur at higher speeds are more likely to result in a severe injury or fatality, especially in areas where there are people walking and biking.

Policies and plans were reviewed for their alignment with the Safe System Approach to identify such barriers. The full benchmarking guide is provided in the Guidance Appendix of the Regional Safety Action Plan. The results of the benchmarking exercise for MetroPlan Orlando are provided in the Technical Appendix of the Regional Safety Action Plan. The exercise helped inform the various strategies outlined in Section 9.10.

9.9 SAFETY TECHNOLOGY

Technology can play an important role in improving transportation safety, preventing crashes from happening, contributing to faster emergency response times, and providing more detailed analytics about why crashes are happening. This can help with the identification and application of the most appropriate crash countermeasure.

As more autonomous and connected vehicles join the region's vehicle fleet, there are opportunities for additional safety technologies to be implemented. These technologies can alert drivers when people are walking or biking nearby, recommend optimal speeds to drivers when approaching congested areas, and predict where and when crashes are likely to happen, allowing first responders to respond more rapidly. These technologies help improve safety and convenience for all road users. However, the region should not become overly reliant on technology at the expense of other strategies, as it is just one



layer of addressing transportation safety. Technology deployments should consider how systems operate when there are power or cellular communication outages as well as weather events – sensors prone to fall out of alignment in high winds or be damaged under wet conditions may need a different installation or maintenance strategy such that they can come back online quickly after a storm event.

9.10 SAFETY PROJECTS AND A PLAN OF ACTION

MetroPlan Orlando seeks to eliminate deaths and serious injuries on our roads by 2050. To achieve this goal, the Regional Safety Action Plan identified engineering countermeasures for the top 30 segments of the regional High Injury Network, as well as for the top segments on jurisdictional networks, as described in their individual action plans. The following describes the process that was used during development of the Regional Safety Action Plan to identify potential engineering countermeasures. While some prioritization occurred as a part of the preparation of the various safety action plans, the projects were reprioritized as part of the overall 2050 MTP prioritization process (Chapter 16).

9.10.1 PROJECT DEVELOPMENT

The following process was used to identify specific ***crash reduction countermeasures***:

- **IDENTIFY GLOBAL COUNTERMEASURES** - A high-level screening helped identify countermeasures that can potentially be implemented across the entire transportation network. For example, bus stops with many nearby pedestrian crashes and no marked pedestrian crossings could be candidates for enhanced crossing treatments like pedestrian hybrid beacons. Intersections with many crashes related to red-light running may be candidates for a red-light camera or signal timing modifications. Crash trends and crash types in each jurisdiction helped inform this analysis.
- **ANALYZE HIGH INJURY NETWORK** - A more detailed analysis of select High Injury Network intersections and street segments was conducted, including crash summaries and other readily available contextual information, such as the number of travel lanes, location of signalized intersections, locations of bus stops, transit ridership, posted speed limits, and the context classification or functional classification of the road. This information helped filter out crash countermeasures that might not be applicable to a particular location.
- **IDENTIFY PLANNED IMPROVEMENTS** - For each road segment or intersection included in the countermeasure selection process, any planned projects along the segment were identified. For example, there may be a planned maintenance or capacity projects that could be leveraged to incorporate safety improvements. The schedule of planned improvements was considered, so for projects where final design is completed and construction is imminent, they could be removed from consideration.
- **IDENTIFY POTENTIAL COUNTERMEASURES** - For the top 30 High Injury Network segments, potential countermeasures were identified using the Engineering Countermeasures Toolkit, FDOT and FHWA guidelines, as well as professional judgment to identify preliminary countermeasures. Before projects are implemented, additional analysis and community outreach would be conducted. Corridors where implementation of planned improvements was imminent were flagged for future review to determine the safety efficacy of implemented improvements.

Example transportation safety projects on the regional High Injury Network are summarized in Table 9-4. Sample projects on the Federal Aid network from within each county as presented in jurisdictional plans are summarized in Table 9-5.

Table 9-4 | Example Proposed Safety Improvements – Regional Safety Action Plan

Road Name	From	To	Example Identified Countermeasures
Hiawassee Road	Colonial Drive	Old Winter Garden Road	Improved lighting, additional marked and controlled crossings, especially at transit stops, and evaluate lane width reduction to add median refuge.
W. First Street (US 17/92)	N. Persimmon Avenue	N. French Avenue	Close sidewalk gaps, evaluate feasibility of installing retroreflective backplates, improve lighting, retime traffic signals for speed management, install speed feedback signs, and evaluate transit stop locations and incorporate enhancements to support ridership.
Pine Hills Road	Colonial Drive	Old Winter Garden Road	Evaluate feasibility of installing retroreflective backplates, improve lighting, prohibit right-turns on red, retime signals to reduce red light running, enhance crosswalk markings, and add additional traffic control.
Oak Ridge Road	S. Orange Blossom Trail	Orange Ave S.	Reduce curb radii, conduct access control evaluation including potential for driveway consolidation, add a pedestrian hybrid beacon, locate transit stops at marked/controlled crossings, and improve lighting.
Chickasaw Trail	Frontage Road	Lake Underhill Road	Replace faded pavement markings, evaluate cycle length and coordination along corridor for speed management, prohibit right-turns on-red, realign channelized turn lane, add protected left-turn phasing, and add red light cameras.
North Lane	Westgate Road	N Pine Hills Road	Improve lighting, install traffic calming devices, add protected left-turn phasing, harden centerline, and locate transit stops at marked/controlled crossings.
W Irlo Bronson Memorial Highway	Celebration Avenue	Four Winds Boulevard	Install additional traffic signals or pedestrian hybrid beacons, evaluate potential traffic signal modifications, including protected lefts, no right-turn on red blank out signs, installation of high visibility crosswalks, locate transit stops at marked/controlled crossings, and evaluate potential to add retroreflective backplates.
University Boulevard	Semoran Boulevard	Lake Mirage Boulevard	Upgrade traffic signal to mast arms (from span wire), widen sidewalk, reduce curb radii, evaluate potential to install retroreflective backplates, locate transit stops with marked/controlled crossings, add leading pedestrian interval and evaluate eliminating channelized right-turn lanes, especially at high pedestrian conflict areas.
Goldenrod Road	Lake Underhill Road	Beatty Drive	Install pedestrian refuge island, signal timing adjustments, including protected left-turns, installation of pedestrian hybrid beacon, reduce turn radii, evaluate potential to install retroreflective backplates, and widen sidewalk along with planned roadway widening project.
Poinciana Boulevard	US 192	Siesta Lago Drive	Close sidewalk gaps, narrow travel lanes, evaluate access management, add pedestrian hybrid beacon, add a median barrier, and add crosswalk at an existing signalized intersection, connecting to the transit stop.

Table 9-5 | Example Proposed Safety Improvements – Jurisdictional Safety Action Plans

Road Name	From	To	Plan	Example Identified Countermeasures
Pine Hills Road	Old Winter Garden Road	SR 50	Orange	Leading pedestrian intervals, update pavement markings, improve lighting, reduce lane widths, high emphasis crosswalks with pedestrian hybrid beacons, speed sensitive traffic signals, access management and lane width reduction.
Dean Road	SR 408	River Park Boulevard	Orange	Leading pedestrian intervals, update pavement markings, improve lighting, reduce lane widths, upgrade crosswalks near schools, access management and lane width reduction.
Oak Ridge Road	Millenia Boulevard	Orange Blossom Trail	Orange	Leading pedestrian intervals, update pavement markings, retroreflective backplates, improve lighting, co-locate bus stops with crossing treatments, reduce lane widths, high emphasis crosswalks, and lane width reduction.
N Poinciana Boulevard	Siesta Lago Drive	US 192	Osceola	Close sidewalk gaps, install high visibility crosswalks, enhance signage and pavement markings, upgrade lighting, install median barrier at curves, upgrade left-turn signal phasing to protected only.
E Carroll St	US 17/441 (OBT) Michigan Ave	US 17/441 (OBT) Michigan Ave	Osceola	Close sidewalk gaps, install high visibility crosswalks, harden centerlines, refresh pavement markings, upgrade lighting, install median barrier at curves, evaluate signal timing optimization, and install retroreflective backplates.
E Osceola Pkwy	US 17/441 (OBT)	Coralwood Circle/Plumwood Circle	Osceola	Close sidewalk gaps, install high visibility crosswalks, pedestrian refuge island, harden centerline, and install retroreflective backplates
SR 434	Wilma Street	US 17-92	Seminole	Safety improvements to manage visibility and multimodal transportation safety.
SR 46	Avocado Avenue	US 17-92	Seminole	Safety improvements to manage speeds and increase active transportation.
US 17-92	Seminole Boulevard	13th Street	Seminole	Safety improvements to increase active transportation safety and use.
SR 436	Weathersfield Avenue	Westmore Drive	Altamonte Springs	Safety improvements to manage speeds.
SR 436	Westmont Drive	Boston Avenue	Altamonte Springs	Safety improvements to manage speeds.
SR 434	Jamestown Boulevard	SR 434	Altamonte Springs	Safety improvements to manage / reduce speed and increase active transportation safety
E Semoran Blvd	S Orange Blossom Trail	City Limits	Apopka	Close sidewalk gap, enhance signing and pavement markings, co-locate transit stops with marked and controlled pedestrian crossing locations, centerline hardening, leading pedestrian intervals, pedestrian refuge island and review signal phasing.
US 441	E Semoran Boulevard	Piedmont Wekiwa Road	Apopka	Close sidewalk gap, add corridor lighting, access management review, add pedestrian crossing, update signal timing, leading pedestrian interval, speed feedback signs, and retroreflective backplates.
US 441	Central Avenue	E Semoran Boulevard	Apopka	Construct multi-use path, lower target speed, centerline hardening, leading pedestrian intervals, add pedestrian signal, signal retiming, and review access management.

Road Name	From	To	Plan	Example Identified Countermeasures
SR 436	Lake Howell Lane	Winter Woods Boulevard	Casselberry	Leading pedestrian intervals, eliminate slip lanes, convert signals to mast arms and add retroreflective backplates, pedestrian hybrid beacon, mark crosswalks on all legs of signalized intersections, and co-locate bus stops with crossing locations.
SR 436	US 17/92	Georgetown Drive	Casselberry	Eliminate unwarranted turn lane, reduce driveway widths and curb radii, widen sidewalk eliminate slip lanes and co-locate bus stops with crossing locations.
S Winter Park Drive	Marigold Road	Red Bug Lake Road	Casselberry	Narrow travel lane, convert signal to roundabout, add 10-foot shared use path, and add crosswalk at signalized intersection,

Note: Listing organized alphabetically for each county, followed by each city. Readers should refer to specific jurisdictional safety action plans for more information. Not all communities identified projects on the federal aid network in their community.

The safety projects identified on the Federal Aid Network through the regional and local safety action plans helped to inform the needs assessment and refinement for the overall MTP. The projects resulting from the safety action plan process are included in Appendix I.

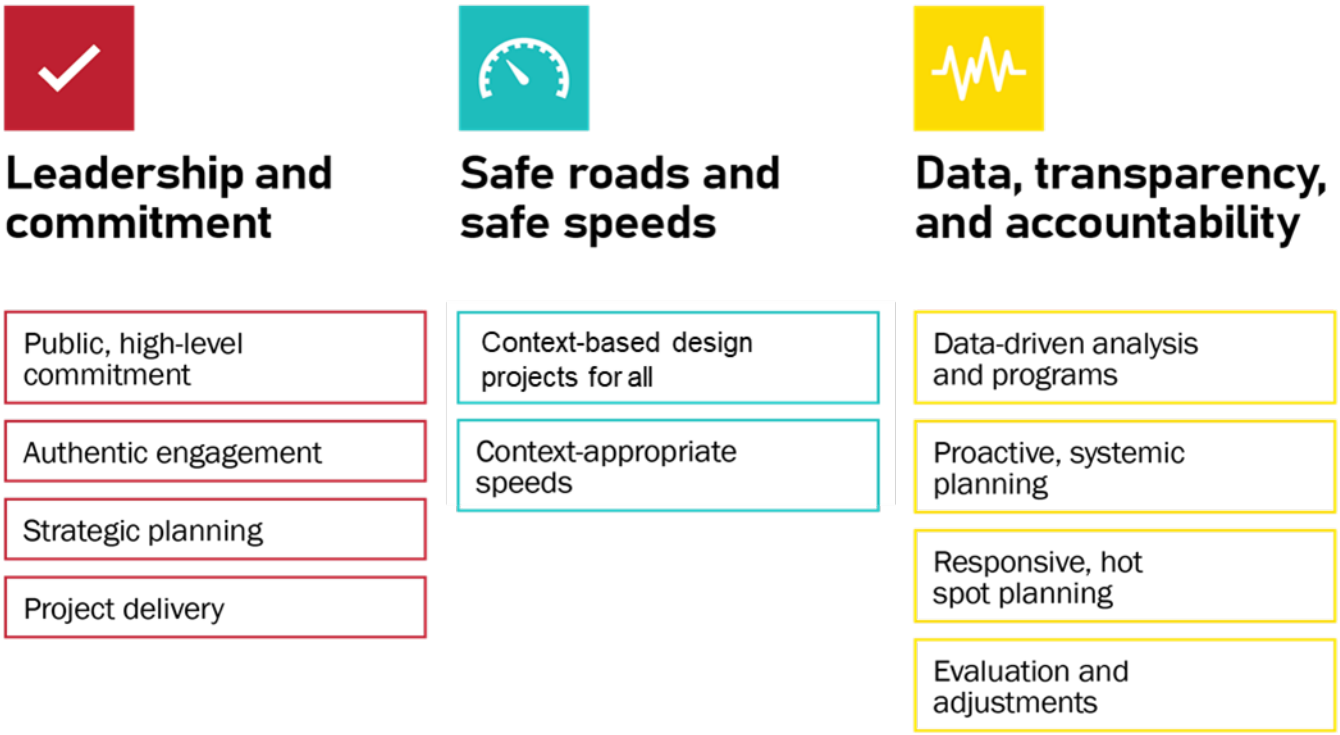
9.10.2 STRATEGIES AND ACTIONS

Implementation of the strategies and actions identified in the Regional Safety Action Plan requires partnerships and collaboration with jurisdictions, local organizations, the Florida Department of Transportation, and the community. These strategies and actions are organized around three key themes:

- Leadership and Commitment
- Safe Roads and Safe Speeds
- Data, Transparency, and Accountability

Within each theme, there are different types of strategies that can be implemented, as shown in Figure 9-16.

Figure 9-16 | Organization of Safety Actions



Source: MetroPlan Orlando Regional Safety Action Plan, September 2024.

Within the Regional Safety Action Plan, the partners that will help support implementation of each action are identified along with a timeline for implementation and measures for tracking progress. These actions will be periodically revisited, and actions that are successful may be expanded. Actions that are less successful will be revised or eliminated and replaced with other strategies. As conditions and strategies evolve, the actions and supporting elements will evolve as well. A summary of each action and the current status is provided in the following sections, organized around the themes noted above. For actions that have not been completed or started, the timeframe of when those actions are expected to begin is also noted.

LEADERSHIP AND COMMITMENT

PUBLIC, HIGH-LEVEL COMMITMENT:

- **Adopt a Vision Zero Resolution** – Vision Zero Resolution will specify 2050 as the date to reach zero as a region with interim goals that are aligned with goals of other jurisdictions in the region (*completed*).
- **Establish an ongoing Vision Zero Task Force** – Establish and identify role, goals, and vision for a regional Vision Zero Task Force, including schedule of meetings beyond plan adoption (*on-going*).
- **Explore opportunities to provide Vision Zero and Safe System training to first responders** – Coordinate with regional traffic incident management staff to identify potential training and resources for local first responders (Emergency Medical Services, fire, and police) related to Vision/Target Zero and Safe System, to incorporate their concerns into strategies that both maintain adequate response times and reduce their calls for service to traffic crashes (timeframe: within 4 years of plan adoption).
- **Promote safety-related legislative changes** – Collaborate with other metropolitan planning organizations and the legislature to promote potential legislative changes that have a safety benefit, such as greater funding for driver's education in high schools, stricter licensing standards, removal of barriers to automated speed enforcement, and

motorcycle helmet laws. This action will require collaboration with the board to identify legislative priorities (timeframe: within 3 years of plan adoption).

AUTHENTIC ENGAGEMENT:

- **Establish a community partner network –** As a part of the MetroPlan Orlando Transportation for All approach, establish a partner network to help streamline the efforts of identifying various community-based organizations that are aligned with Vision Zero. Evaluate opportunities and barriers to provide support to community-based organizations (*on-going*).
- **Continue targeted outreach –** Continue to lead and support targeted public outreach and education of key safety topics of interest to local jurisdictions and the public that address crash trends in the region (*on-going*).

STRATEGIC PLANNING:

- **Join the Vision Zero Network –** Join the Vision Zero Network and support local jurisdictions in the application process (timeframe: upon plan adoption).
- **Regularly update the regional Safety Action Plan** – Update the regional Safety Action Plan at least every 5 years (timeframe: within 5 years of plan adoption).
- **Support incorporation of safety into the development review process** – Develop transportation impact study best practices for local agencies that include guidelines for how to address safety and multimodal travel as part of the development review process (timeframe: within 3 years of plan adoption).
- **Implement safety-focused performance measures –** Implement transportation system performance measures that better align with goals of Vision Zero, including quality of service, accessibility, transit accessibility, vehicle-miles of travel per person, emergency response time, and other potential measures (timeframe: within 3 years of plan adoption).
- **Provide guidance on updating construction-related traffic requirements** – In collaboration with the Florida Department of Transportation and Orange, Osceola, and Seminole counties, review maintenance of traffic templates used throughout the region and support applicable updates to align with the 2023 Manual on Uniform Traffic Control Devices, which includes additional requirements and guidance to accommodate bicycle and pedestrian travel during construction projects (timeframe: within 3 years of plan adoption).
- **Support Safe Routes to School projects –** The program will fund assessments for schools with a High Injury Network segment within their enrollment boundaries to identify potential countermeasures that help reduce and eliminate barriers to walking or biking to school (timeframe: within 4 years of plan adoption).

PROJECT DELIVERY:

- **Align the regional Safety Action Plan and 2050 Metropolitan Transportation Plan –** Ensure that the Safe System Approach, and the goals and objectives of this Safety Action Plan are integrated into the 2050 Metropolitan Transportation Plan (*completed*).
- **Provide more details on safety in projects –** Projects in the 2050 Metropolitan Transportation Plan will provide more detailed descriptions related to safety components (*completed*).
- **Identify grant opportunities** – Inventory currently used grant programs and interview other metropolitan planning organizations to see if there are grant opportunities that are being missed. Maintain a list with project requirements, application deadlines, and application information (*on-going*).
- **Build crash modification factors into project prioritization –** Research incorporating crash modification factors into the project prioritization process (timeframe: within 4 years of plan adoption).

SAFE ROADS AND SAFE SPEEDS

CONEXT-BASED DESIGN PROJECTS FOR ALL

- **Develop a Context-based Design Policy Template –** Develop sample context-based design policy language to support jurisdictions in the region that do not yet have an adopted policy or are considering an update to their existing policy (timeframe: within 2 years of plan adoption).
- **Lead Road Safety Audits on the High Injury Network –** Work with member jurisdictions and the Florida Department of Transportation to conduct road safety audits on sections of the High Injury Network with a focus on Tier 1 and Tier 2 corridors (*on-going*).
- **Support incorporating safety into road design standards –** Support Orange, Osceola, and Seminole counties in updating design standards that incorporate safety and speed management features, including the potential to identify best practice standards and participate in technical review committees (timeframe: within 3 years of plan adoption).

CONTEXT APPROPRIATE SPEEDS:

- **Explore using speed reduction as an evaluation criterion** - Evaluate the potential to include target speed reductions as an evaluation or prioritization criterion in future Metropolitan Transportation Plans (*on-going*).
- **Formalize target speed setting** - Work with the Florida Department of Transportation (and other jurisdictions to formalize the process of target speed setting on all segments of the Federal Aid System of roads. For Federal Aid roads on the High Injury Network, the target speed shall be set at the lowest allowable speed based on the context classification with detailed justification provided if that target speed cannot be met (timeframe: within 1 year of plan adoption).
- **Develop educational materials for local agencies** - Develop educational materials that can be provided to local agencies and their elected officials (*on-going*).
- **Advance a regional 20 mile per hour residential speed limit** - Develop a draft policy and strategy roadmap for local agencies to adopt a 20 mile per hour speed limit ("20 is Plenty") on all residential streets in their jurisdiction, pivoting from the Florida Statute 316.183 that allows a maximum speed limit of 20 or 25 miles per hour to be set on local streets and highways after an investigation determines that such a speed limit is reasonable (timeframe: within 3 years of plan adoption).
- **Pilot use of signal timing to regulate speeds** - Identify corridors where traffic signal timing strategies could be used to control speeds and conduct a pilot project in partnership with the Florida Department of Transportation and local agencies (timeframe: within 3 years of plan adoption).

DATA, TRANSPARENCY, AND ACCOUNTABILITY

FOCUSED ANALYSIS AND PROGRAMS:

- **Study the involvement of unhoused people in crashes** - Analyze the extent to which unhoused people are involved in pedestrian and bicyclist crashes, and explore outreach and infrastructure strategies to address their crash risk (timeframe: within 5 years of plan adoption).
- **Identify locations with underreported crashes** - Work with community health partners and others to identify where in the region bicyclist, pedestrian, and hit-and-run crashes are likely underreported (timeframe: within 5 years of plan adoption).

PROACTIVE, SYSTEMIC PLANNING:

- **Participate in Florida Department of Transportation Traffic Safety Coalitions** - MetroPlan Orlando staff will attend Florida Department of Transportation Traffic Safety Coalition meetings that align with the most pressing safety issues in the region. This will provide insight into resources and materials prepared at the statewide level that could benefit the region (*on-going*).
- **Serve as a regional data clearinghouse** - Serve as a clearinghouse for regional location-based data, such as connected vehicle speed, roadway, demographic, and other data that could inform crash patterns and project prioritization (*on-going*).

- **Develop an emergency vehicle preemption plan** - Work with the Florida Department of Transportation and local agencies to develop a plan for installing emergency vehicle preemption on all routes to Level 1 Trauma Centers in the region (timeframe: within 3 years of plan adoption).
- **Report on annual crash data** - With the annual update of the crash dashboard, report on progress, how it aligns with regional goals, and if new focus areas or crash trends are emerging (*on-going*).

EVALUATION AND ADJUSTMENTS:

- **Test new safety strategies in the region** - Research and develop a policy related to supporting pilot projects to test new safety strategies in the region (timeframe: within 2 years of plan adoption).
- **Conduct before and after studies of projects** - Develop a process to conduct before and after studies for projects that meet certain criteria to document safety benefits of different treatments in the regional context, for both engineering and non-engineering countermeasures (*on-going*).
- **Evaluate enforcement outcomes** - Document enforcement activities in the region to understand correlation between levels of enforcement and crash outcomes (timeframe: within 2 years of plan adoption).
- **Evaluate the effectiveness of existing MPO-funded pedestrian safety educational programs** - Document and evaluate the effectiveness of existing pedestrian safety educational programs funded by MetroPlan Orlando and partner jurisdictions and explore whether alternative approaches would offer a greater benefit to the region (timeframe: within 3 years of plan adoption).

9.11 PRIORITIZING SAFETY

Eliminating fatal and severe injury crashes has long been a priority of MetroPlan Orlando, and the adoption of the Regional Safety Action Plan reinforces the region's commitment to safer streets that support local and regional travel demand for people as well as commerce. Through the MTP process, MetroPlan Orlando is further prioritizing safety projects by:

- Dedicating funding to safety-specific planning efforts on key safety issues
- Facilitating multi-agency communication by sharing information and collaboratively generating strategies
- Continued implementation of safety strategies identified in the Regional Safety Action Plan
- Partnering with FDOT to implement projects identified in the Highway Safety Improvement Program

9.12 FUNDING LIMITATIONS AND OPPORTUNITIES

The safety needs identified throughout the region are a result of the land development patterns and roadway design criteria over several generations, and retrofitting our transportation system through a safety lens will take time and financial resources. No single reasonable available funding source will be able to pay for all the safety improvements identified in the regional plan as well as the county and local safety action plans in the foreseeable future.

While MetroPlan Orlando will continue to look for opportunities to layer safety related projects onto other capital improvement projects, maintenance projects, and through review and approval of projects in the Prioritized Project List (PPL) and Transportation Improvement Program (TIP), there are grant opportunities at the federal and state level that can be considered to supplement local funding sources. Other potential funding sources include impact fees and sales taxes.

9.13 NEXT STEPS

The 2050 Metropolitan Transportation Plan establishes the vision of Central Florida's entire transportation system. This Safety Element within the long-range transportation plan also identifies current and future transportation needs, and these projects, as shown in Appendix I, have been directly incorporated into the 2050 MTP Needs Assessment. As other documents are updated following the adoption of the 2050 MTP, such as the Prioritized Project List and Transportation Improvement Program, there are opportunities to identify potential refinements to already planned projects that aim to improve transportation safety outcomes while meeting other regional needs to better leverage available resources.

The implementation of the strategies and projects identified in the Regional Safety Action Plan will continue, including key next steps.

- **Continuation of the Regional Vision Zero Task Force.** Instrumental in the development of the regional plan, this subcommittee of the Technical Advisory Committee, will continue their work. They will help implement the various action items of the plan, by providing feedback, identifying resources, and holding other jurisdictions accountable for their role in reaching zero. The Vision Zero Task Force will be involved in overseeing the annual safety progress report.
- **Refinement of Safety Projects in MetroPlan Orlando work products**, including the Congestion Management Plan, Prioritized Project List, and Transportation Improvement Program.
- **Continued Education and Outreach** to jurisdictional partners and the public through hosting the Safety Speaker Series, collaboration with other agency staff and promoting sharing of resources and knowledge throughout the region.
- **Monitoring progress** made toward reaching zero traffic fatalities and serious injuries by 2050 will help MetroPlan Orlando evaluate the success of current action items and adopt new strategies as needed. Performance metrics will be used to evaluate the effectiveness of the Regional Safety Action Plan. The data sources used to monitor progress are identified in the next section.

Relationship to CMP

The objectives-driven, performance-based approach of the Congestion Management Process (CMP), promoted by FHWA and FTA, focuses on working toward desired system performance outcomes rather than just responding to problems. This approach recognizes that what is measured matters in decision making, and that specific, measurable performance objectives will facilitate incorporating operations strategies into the CMP.

The safety performance measures developed for MetroPlan Orlando's CMP align with the long-term goal of eliminating traffic fatalities by tracking:

1) The total number of fatalities/serious injuries occurring on roadways within the MetroPlan Orlando planning area.

2) The ratio of the total number of fatalities/serious injuries on roadways within the boundaries of MetroPlan Orlando per 100 million VMT.

3) The total number of pedestrian and bicyclist fatalities and serious injuries on roadways within the boundaries of MetroPlan Orlando.

9.13.1 MONITORING DATA

Crash data is primarily obtained from Signal 4, which receives data from Florida's statutory custodian of records, the Florida Department of Highway Safety and Motor Vehicles (FLHSMV). Crash records are typically added to the system within two months of a reported crash, but all data is considered preliminary until the year is reconciled and closed out by the FLHSMV, and thus certain adjustments may be made to verify the data where clerical errors are noted. Additional verification is also conducted for fatal crashes, and data summaries for the prior year can be in flux for at least the first six months of the year, if not longer. Additional data should also be incorporated into the progress monitoring, including data from the Florida Injury Surveillance System (FISS) and the Florida Department of Transportation (FDOT) Modal Development Office. Emergency room and other hospital visit data could also be obtained from local hospitals. Data from FISS and FDOT may have an even greater time lag than from Signal 4.

For example, from FISS, 2022 was the most current year for which data is available as of May 2024. In July of each year, the annual monitoring process should begin with Signal 4 data for the most recent full year, and the most current data obtained from other sources. Using the data, a variety of metrics should be calculated, such as total fatalities, fatality rate, serious injuries, and non-motorized fatalities and serious injuries. These metrics will be supplemented by other information, such as the number of implemented safety improvements, results of any completed safety project evaluations, and a summary of progress made on specific action items. Additional monitoring information is provided in the Regional Safety Action Plan.

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