

CENTRAL OHIO TRANSPORTATION SAFETY PLAN 2019

Executive Summary



This document was prepared by the Mid-Ohio Regional Planning Commission (MORPC), 111 Liberty St., Columbus, OH 43215, 614-228-2663, with funding from the Ohio Department of Transportation. The contents of this report reflect the views of MORPC, which is solely responsible for the information presented herein.

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MID-OHIO REGIONAL
MORPC
PLANNING COMMISSION

GLOSSARY OF ACRONYMS

COTSP: *Central Ohio Transportation Safety Plan*

MORPC: *Mid-Ohio Regional Planning Commission*

MPO: *Metropolitan Planning Organization*

MTP: *Metropolitan Transportation Plan*

MVMT: *Million Vehicle Miles Traveled*

ODOT: *Ohio Department of Transportation*

SHSP: *Strategic Highway Safety Plan*

WHAT IS THE CENTRAL OHIO TRANSPORTATION SAFETY PLAN?

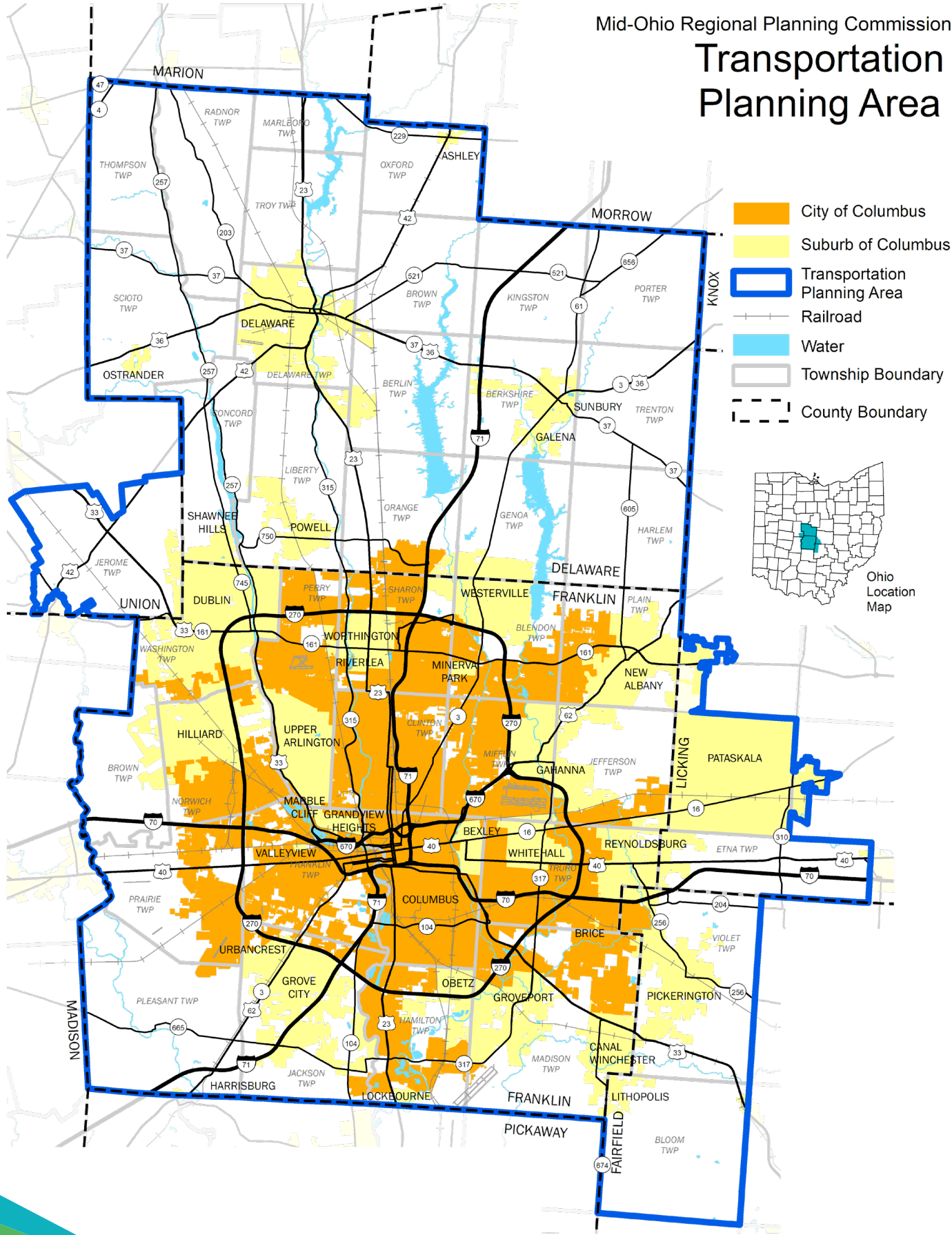
The Central Ohio Transportation Safety Plan (COTSP) is a comprehensive strategy that identifies the most significant causes of serious injuries and fatalities on the local roadway system in Central Ohio. The plan establishes a series of goals and benchmarks for safety improvements, identifies existing trends and critical safety priorities, and sets up a framework for how collaboration can improve safety throughout the region. This plan was developed by the Mid-Ohio Regional Planning Commission (MORPC) in collaboration with local, state, and private sector organizations with a wide array of expertise on transportation safety in Central Ohio. It was modeled in large part on the Ohio Strategic Highway Safety Plan (SHSP).

CENTRAL OHIO ROADMAP

The COTSP is focused on the communities within MORPC's Metropolitan Planning Organization (MPO) boundary. To help improve local road safety in Central Ohio, MORPC also provides technical assistance to communities within the MPO. The MPO area, also known as MORPC's transportation planning area, is shown on the following page. It includes Franklin County, Delaware County, and portions of Fairfield, Licking, and Union counties. This is the area referenced throughout the COTSP and the extents for all data in the plan, unless otherwise noted.

Mid-Ohio Regional Planning Commission

Transportation Planning Area



PLANNING PROCESS

The plan is less a collection of specific recommendations and projects than it is a framework for an ongoing planning process – a closely monitored, analyzed, and adjusted strategy to reach certain goals and foster greater collaboration and standards among Central Ohio communities. The planning process includes five phases:

PHASE 01

ENGAGE AND ESTABLISH LEADERSHIP

Key regional stakeholders were invited to form a Regional Transportation Safety Plan Working Group and focus group that were engaged at strategic milestones throughout the planning process to help build a better understanding of the safety-related challenges and opportunities for the region and guide plan development. Local jurisdictions, organizations, and agencies with direct, day-to-day work on safety in Central Ohio were engaged through this process. These stakeholders also provided critical insights and feedback on the feasibility of the strategies identified for improving regional transportation safety.

PHASE 02

DATA COMPILATION AND ANALYSIS

MORPC collected and analyzed regional crash data from 2013-2017 to understand the critical safety issues throughout the region. This analysis helped to identify the most common crash types, specific crash types with the most severe injuries, driver behaviors that affect frequency and severity of crashes, and recurring characteristics of crashes. Understanding these factors is critical to addressing transportation safety in Central Ohio.

PHASE 03

PRIORITY SAFETY LOCATION IDENTIFICATION

Additional analysis focused on key intersections and corridors with high numbers of fatal and serious crashes. Mapping these locations allows agencies to better understand where to invest funding and resources to reduce severe crashes and improve transportation safety in Central Ohio.

PHASE 04

REGIONAL SAFETY ACTION PLAN AND SAFETY STRATEGY DEVELOPMENT

The working group and focus group developed strategies and action items to address the safety issues identified through the data analysis. This was combined with work from prior phases to help prioritize safety actions to be implemented in collaboration with stakeholders and partners.

PHASE 05

IMPLEMENTATION AND EVALUATION

The result of this process is a road map to achieve goals by implementing the Action Plan. An implementation committee will be established to coordinate that process and evaluate its progress over time. Evaluation will be a significant part of the implementation process and critical to ensuring the overall success of the plan. The implementation committee is likely to include key members of the working group, along with other selected experts.

GOALS AND TARGETS

The overall goals established for the COTSP reflect the regional goals and targets set by MORPC's 2016-2040 Metropolitan Transportation Plan (MTP) and include the following:

Reduce the number of fatalities by 8 percent from 2017 to 2025

Reduce the fatality rate by 1 percent annually

Reduce the number of serious injuries by 8 percent from 2017 to 2025

Reduce the serious injury rate by 1 percent annually

Reduce the number of non-motorized fatalities and serious injuries by 8 percent from 2017 to 2025

Reaching these goals will require extensive collaboration among regional entities and partners, as well as outreach to the public. The framework for that approach is the “Six E’s of Safety:” Education, Engineering, Enforcement, Emergency Response, Evaluation, and Equity. These strategic focus areas support safe, multimodal transportation and consider all aspects of transportation safety.

Traditionally, the approach to transportation safety planning includes only four E’s (Engineering, Enforcement, Emergency Response, and Education). The COTSP included two additional aspects to highlight the importance of these factors in the planning process. Evaluation is the critical role of tracking data to assess whether the strategies are effective in improving safety, and then determine what changes may be needed. Equity recognizes that transportation programs and policies affect every aspect of the community, and they have the potential to bring people together or deepen existing social and accessibility inequities. This plan aims to increase safety for all residents of Central Ohio.



TRENDS IN TRANSPORTATION SAFETY

STATE OF OHIO

In 2017, the state of Ohio had the 6th highest number of traffic fatalities in the country, accounting for more than 3 percent of all fatalities nationwide. While traffic fatalities across the U.S. decreased overall between 2016 and 2017, there was a 4 percent increase in Ohio. This represented the fourth year in a row that traffic fatalities have increased in Ohio.

While traffic fatalities in Ohio increased almost across the board in terms of crash types, the most significant increases throughout the state over the 2013-2017 time period included the following:

- » A 37 percent increase in fatalities related to rear end crashes
- » A 44 percent increase in fatalities related to crashes involving older drivers (65+)
- » A 62 percent increase in pedestrian fatalities

While traffic fatalities across the state have been increasing, the total number of serious injuries has decreased since 2013. Crashes involving pedestrians and older drivers were two critical categories of crashes that experienced both a significant increase in fatalities and an increase in serious injuries over the 2013-2017 time period throughout Ohio.

CENTRAL OHIO REGION

Similar to statewide trends, traffic fatalities in Central Ohio increased by 27.8 percent over the 2013-2017 time period, while the number of serious injuries decreased by slightly more than 4 percent.

During this five-year time period in Central Ohio:

- » 196,792 crashes were reported; **an overall increase of 21.2%**
- » 498,131 people were involved; **an overall increase of 19.9%**
- » 528 people were killed; **an overall increase of 27.8%**
- » 4,323 people were seriously injured; **an overall decrease of 4.2%**

The overall trends for this time period indicate that our region is moving toward meeting the established targets related to serious injuries but is not on track to meet the targets established regarding traffic fatalities or serious and fatal injuries to non-motorized users.

Figure 1. Annual Performance Toward Targets

| YEAR | NUMBER OF FATALITIES | NUMBER OF SERIOUS INJURIES | NUMBER OF NON-MOTORIZED FATAL & SERIOUS INJURIES | RATE OF FATALITIES/ 100 MVMT | RATE OF SERIOUS INJURIES/ 100 MVMT |
|------|----------------------|----------------------------|--------------------------------------------------|------------------------------|------------------------------------|
| 2013 | 98 | 922 | 125 | 0.71 | 6.65 |
| 2014 | 97 | 898 | 133 | 0.69 | 6.46 |
| 2015 | 100 | 883 | 138 | 0.72 | 6.35 |
| 2016 | 105 | 878 | 145 | 0.74 | 6.26 |
| 2017 | 107 | 866 | 145 | 0.74 | 6.11 |

Note: The data shown in the chart above represent the five-year rolling averages required for the federal performance measures. The cells highlighted in orange represent the highest numbers within each metric.

REGIONAL SAFETY PRIORITIES

The information gathered through the data analysis conducted as part of the planning process for the COTSP provided critical insight into where, as well as what types of, safety improvements need to be made throughout Central Ohio. These findings helped to establish the following priorities and emphasis areas for the region:

- » **Serious Crash Types:** Fixed Object, Rear End, Angle, Left Turn, and Head On;
- » **Vulnerable Roadway Users:** Pedestrians, Bicyclists, and Motorcyclists;
- » **Driving Safety Concerns:** Younger and Older Drivers, Impaired Driving, Speeding, Seat Belt / Restraint Use, and Distracted Driving;
- » **Emerging technologies:** Autonomous / Connected Vehicles, Electric Vehicles, and Electric Scooters

These emphasis areas established a framework to guide the development of strategies for improvement that are presented in the Action Plan for implementation.

Please refer to the COTSP for additional information on the emphasis areas.

SERIOUS CRASH TYPES

Throughout Central Ohio between 2013 and 2017, these five crash types (Fixed Object, Rear End, Angle, Left Turn, and Head On) accounted for nearly 70 percent of fatalities and serious injuries.

VULNERABLE ROADWAY USERS

While pedestrians accounted for less than 1 percent of all units involved in crashes from 2013-2017, they represented more than 12 percent of all serious injuries and fatalities during the time period. Additionally, the rate of serious injury or fatality for pedestrians (more than 20 percent) was significantly higher than for most other unit types - motorcyclists were the only other unit type that experienced a similarly high rate (19 percent).

The same can be said for motorcyclists and bicyclists, who accounted for less than 1 percent of all units involved in crashes combined, but experienced rates of serious and fatal injury of 19 percent and 9.5 percent respectively. This data indicates a much greater risk of serious and fatal injury to people walking, bicycling, and riding motorcycles.

DRIVING SAFETY CONCERNS

Alcohol and/or drugs were suspected in crashes that resulted in 26.9 percent of all fatalities and 14.3 percent of all serious injuries during the 2013-2017 time period.

Crashes classified as speed related accounted for 24.8 percent of all fatalities and 17.4 percent of all serious injuries during the 2013-2017 time period in Central Ohio, which is on-par with crashes related to impaired driving.

51 percent of all fatalities to motor vehicle occupants were people not wearing a seat belt. Around 16 percent of all serious injuries to motor vehicle occupants were people not wearing a seat belt.

The highest risk age groups within Central Ohio during the 2013-2017 time period included drivers between the ages of 16 and 29, as well as drivers 75 and older. Drivers age 16 to 29 accounted for the greatest total number of persons involved in crashes during this time period, as well as more than 30 percent of all fatalities and serious injuries. However, while drivers age 75 and older accounted for the lowest total number of persons involved in crashes, they experienced the highest rate of fatality and serious injury (1.8 percent) of any age group.

Crashes reported as distracted driving related accounted for 5 percent of all fatalities and 6.7 percent of all serious injuries during the 2013-2017 time period in Central Ohio.

EMERGING TECHNOLOGIES

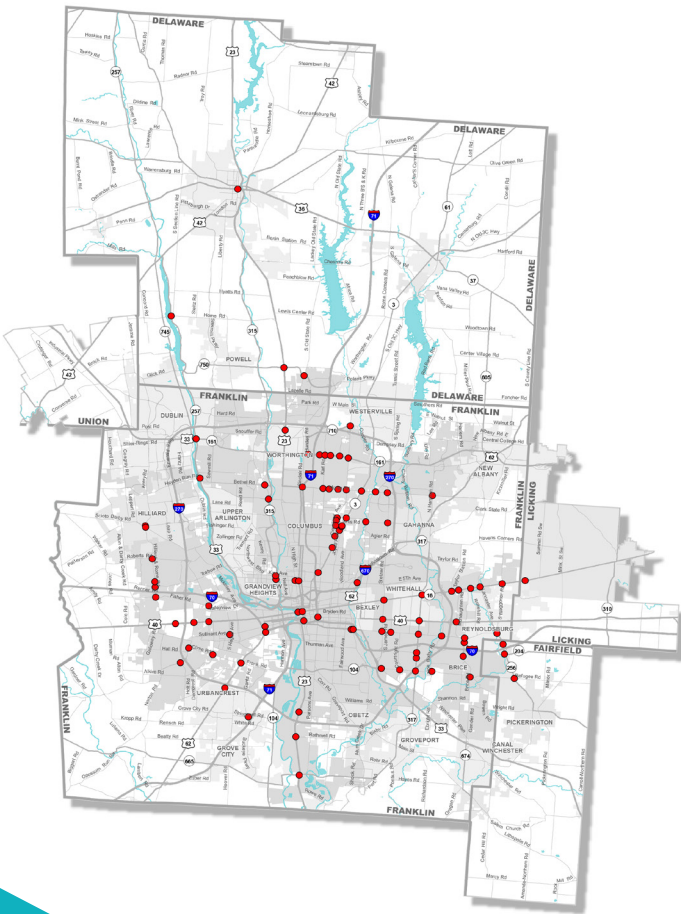
In recent years, a number of new mobility options have arrived on the streets within Central Ohio, and others are expected to come in the future. While the COTSP does not provide any analysis of crash data related to these emerging technologies, this is understood to be a current challenge for Central Ohio and has been identified as the fourth emphasis area in the COTSP, Emerging Technologies.

PRIORITY SAFETY LOCATIONS

Throughout the region, there are intersections and corridors that exhibit a high concentration of crashes. Crash data analysis helps to pinpoint these locations and develop safety improvements aimed at reducing crash rates and crash severity.

MORPC performs an analysis on crash data every year for crashes occurring within the MPO area to identify high-crash locations from the three most recent years. This analysis produces the Top 100 Regional High-Crash Locations, which has historically been used to prioritize safety improvements at intersections throughout the region. More information about this analysis is available at morpc.org/safety.

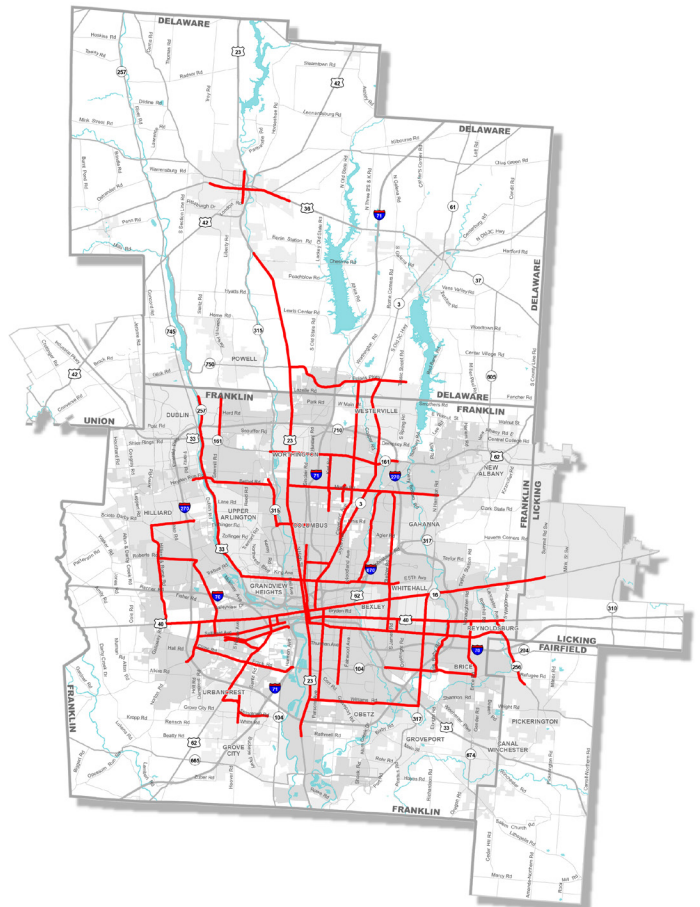
Figure 2. Top 100 Regional High-Crash Locations



For the purpose of the COTSP, an additional analysis was conducted to identify the corridors throughout the region that experienced the greatest concentration of serious injury and fatal crashes from 2013-2017. This analysis established the Central Ohio High Injury Network.

These analyses of High-Crash Intersections and High Injury Corridors will be used to understand more specifically where Central Ohio communities should prioritize future safety improvements. Please refer to the Central Ohio Transportation Safety Plan for more information.

Figure 3. Central Ohio High Injury Network



IMPLEMENTATION AND EVALUATION

Both implementation of the plan and evaluation of the success of the plan will be guided by the action plan that was developed as part of the COTSP. The action plan includes strategies and action items that are intended to address the challenges and opportunities identified in the COTSP. The partners who assisted in development of the plan, as well as those who continue to be involved through the implementation committee, will assist with the implementation and evaluation processes. One of the primary next steps for the COTSP will include the development of an annual report to track success through the output measures identified in the action plan.

Additionally, MORPC will continue to provide technical assistance to guide Central Ohio communities through this process. MORPC will use the information in the COTSP to coordinate with local governments within the MPO area to study the regional safety priorities and priority locations in more detail and identify funding opportunities for improvements. MORPC will continue to work with ODOT and regional partners to move the action plan forward and continue to improve transportation safety throughout Central Ohio.

Please refer to the COTSP and action plan documents for more information about the plan.