

MEMO

To: Natasha Longpine, OTO

From: Lochmueller Group

Date: September 26, 2024

Subject: OTO Safety Action Plan Policy and Process Review

Introduction

The Ozarks Transportation Organization (OTO) Safety Action Plan will include a diverse set of recommendations to comprehensively address roadway safety and reduce fatal and serious injury crashes in the region. New and/or updated policies, procedures, and programs are important strategies to improve safety outcomes for all users throughout the region. Following an assessment of existing policies and procedures, policy and program recommendations are tailored to specific needs within OTO while also considering national best practices. Each recommended strategy is a starting point from which municipalities can begin working, along with their partners, to adjust and implement policies.

Assessment of Policies & Processes

OTO member agencies were surveyed to determine if each has "a policy, plan, guideline, standard, or other formalized process that addresses" the topics identified in Table 1. Examples of formalized documentation include project selection procedures, design guidelines, speed management policies, and performance management processes.

The 15 topics identified in Table 1 are related to vulnerable road users (VRU) and transportation safety, and it is <u>not</u> required that agencies have or adopt policies addressing each. Rather, the assessment is to collectively gauge policy and procedural influence on safety decision-making across the metropolitan planning area.

TABLE 1. POLICY AND PROCESS ASSESSMENT TOPICS

	DECORPORTION	
<u>TOPIC</u>	<u>DESCRIPTION</u> A policy, plan, guideline, standard, or other formalized process that addresses:	
ADA Transition Plan	Pedestrian infrastructure improvements with respect to Americans with Disabilities Act (ADA) compliance	
Complete Streets	Roadway design for all users	
Educational Campaigns	Educational efforts regarding unsafe driving behavior and/or awareness of vulneral road users	
Equity	Funding dedication specifically for roadway safety projects in underserved and disadvantaged areas	
Funding	Funding dedication specifically for roadway safety; vulnerable road users, etc.	
Land Development	Incorporation of roadway safety and/or multimodal access standards into development review process for new developments	
Narrow Lanes	Roadway lane widths (could be part of Complete Streets policy)	
Performance Management	The annual tracking of fatal and serious injury crashes and safety projects; annual public updates; an entity to review fatal/serious injury crashes	
Project Selection	Improvement project prioritization based on proven safety countermeasures and/or safety for vulnerable road users	
Roundabout Pedestrian Crossings	Pedestrian crossings at roundabouts	
Safe Routes to School (SRTS)	Partnering with school districts to develop Safe Routes to School programs	
School Zones	Traffic calming strategies and deployments in school zones	
Speed Limits	Consistent speed limits are set on similar roadways throughout the region	
Speed Management	A means for residents to formally request speed humps/bumps/cushions, signage, or other traffic calming features to reduce vehicle speeds	
Traffic Operations	Levels of Service (LOS) along urban/high-pedestrian corridors	

Table 2 summarizes the responses from all nine OTO members, categorizing each as yes, no, or partial.

If a member has a formalized policy, it was assigned the "yes" designation. If a member does not have a formalized policy, or one could not be readily identified, it was assigned "no" designation. If a member has a tangentially related policy, it was assigned a "partial" designation, and descriptions of the five "partial" designations are as follows:

- Roundabout Pedestrian Crossings Greene County noted that pedestrian crossing incorporation at roundabouts is determined by the project designer and that, in most cases, Greene County does not desire additional or large amounts of right-of-way to accommodate pedestrian crossings at roundabouts.
- <u>Speed Management</u> Ozark utilizes a form for traffic sign installations and replacements, which represents one aspect of a comprehensive speed management program.
- <u>SRTS</u> Springfield has dedicated manuals for school crossings, but they do not incorporate all aspects of a SRTS program.
- <u>Educational Campaigns</u> Springfield's Public Works Department has a focused pedestrian safety program called "SGF Yields" but the program does not cover additional aspects of roadway safety.
- <u>Educational Campaigns</u> The Republic Police Department engages in sharing roadway safety tips with the public through social media but does not maintain a policy formalizing such efforts.

TABLE 2: POLICIES IDENTIFIED BY OTO MEMBERS

	OTO Member Agency								
<u>TOPIC</u>	County		City						
	Christian	Greene	Battlefield	Nixa	Ozark	Republic	Springfield	Strafford	Willard
ADA Transition Plan	No	Yes	No	No	Yes	Yes	Yes	No	No
Complete Streets	No	No	Yes	No	No	No	Yes	No	No
Educational Campaigns	No	No	No	No	No	Partial	Partial	No	No
Equity	No	No	No	No	No	No	No	No	No
Funding	No	Yes	No	Yes	Yes	Yes	Yes	No	No
Land Development	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Narrow Lanes	Yes	Yes	No	No	No	Yes	No	No	No
Performance Management	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Project Selection	No	Yes	No	Yes	No	Yes	No	No	No
Roundabout Pedestrian Crossings	No	Partial	No	No	No	No	No	No	No
Safer Routes to School (SRTS)	No	Yes	No	No	No	No	Partial	No	No
School Zones	Yes	No	No	No	No	No	Yes	No	No
Speed Limits	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Speed Management	No	No	No	No	Partial	Yes	Yes	No	No
Traffic Operations	No	No	No	No	No	No	No	No	No

The information gleaned from the OTO member policy and process assessment was utilized to identify opportunities to affect and improve roadway safety for all users.

Topics by Emphasis Areas

Guided by the policy and process assessment and public engagement activities, the 15 topics were grouped into seven emphasis areas. Collectively, the emphasis area topics form the seven identified policy and process recommendations to improve roadway safety for all users throughout the OTO region. Resources are identified for each topic to support and guide the implementation of the identified recommendations.

Americans with Disabilities Act (ADA) Compliance

The Americans with Disabilities Act (ADA) is a federal civil rights law that prohibits discrimination against people with disabilities in everyday activities, and it guarantees that people with disabilities have the same opportunities as everyone else to enjoy employment opportunities, purchase goods and services, and participate in state and local government programs¹.

Furthermore, the updated <u>Public Right of Way Accessibility Guidelines (PROWAG)</u> were finalized on August 8, 2023. Identifying and inventorying accessibility barriers and non-compliances that exist within a transportation network enable agencies to prioritize and incorporate needed improvements into projects.

ADA Transition Plan

An effective means to document such needs is with an ADA Transition Plan², which is required for agencies with 50 or more employees and solidifies a community's effort to improve accessibility. A plan also acts as a tool to assess, document, and monitor locations for ADA compliance.

The FHWA provides <u>comprehensive guidance and resources</u> for communities to address ADA compliance when undergoing roadway and transportation projects, and a <u>guide to best management practices</u> for ADA Transition Plans is available for use.

RECOMMENDATION #1

Develop or update ADA Transition Plans (when required by the public entity).

The 2023 update to PROWAG is an ideal trigger to update, or implement, transition plans where they are required to be established. To aid in the development or update of a transition plan, FHWA provides an <u>overview</u> and <u>self-evaluation basics</u> for agencies. FHWA also recommends suggests the <u>City of Rancho Cordova transition plan</u> as an example document.

Complete Streets

A variety of safety concerns regarding bicyclists and pedestrians were noted in the public survey for OTO residents, and Complete Streets is a holistic approach to roadway planning and design, encompassing all types of road users (pedestrians, bicyclists, motorists, and transit users of all ages and abilities) and encouraging safety and inclusion.

¹ https://www.ada.gov/topics/intro-to-ada/

² https://highways.dot.gov/civil-rights/programs/ada/ada-transition-plans-memoranda

Complete Streets

Smart Growth America and the National Complete Streets Coalition identify a <u>Complete Streets Policy Framework</u>, which lists ten ideal elements of a policy establishing including a vision and commitment, addressing all projects and phases, allowing only for clear exceptions, adopting excellent design guidance, and creating a plan for implementation. The <u>Elements of a Complete Streets Policy</u> are explored and explained in further detail to help communities develop and/or implement policies and practices.

OTO hosts a <u>Complete Streets Toolbox</u> to assist member communities to consider the safety aspects for all users during the project development process.

Land Development

Established and adopted policies can ensure the consistent incorporation of VRU accommodations as communities develop. The 2019 document titled <u>Lessons Learned in Implementation of Pedestrian-Oriented Zoning Provisions</u> provides useful information, community references, and catalysts for implementing zoning changes.

The promotion of pedestrian and bicycle supportive development is also addressed in FHWA's 2016 report titled Noteworthy Local Policies That Support Safe and Complete Pedestrian and Bicycle Networks.

Narrow Lanes

The narrowing of roadway travel lanes is a common consideration of a Complete Street. Accordingly, lane narrowing is covered in the Complete Streets resources identified.

Roundabout Pedestrian Crossings

Accommodating pedestrians safely within roundabouts can be challenging. FHWA offers a <u>summary brochure</u> that highlights key elements for pedestrian, and bicycle, accommodation in addition to educational resources.

<u>Enhancing pedestrian experiences at roundabouts</u> is also the topic of a 2023 Minnesota research study, which articulates the associated challenges, relevant case studies, and recommended design guidance to better assimilate pedestrians in the roundabout setting.

Traffic Operations

In urban and high-pedestrian volume corridors, vehicular traffic and pedestrians must operate harmoniously. One mode cannot prevent the other from operating safety and effectively. Considering level of service for pedestrians is a means to support the interactions between the two.

In addition to the Complete Streets resources for designing roadways for all users, Sacramento's <u>Best Practices for Pedestrian Master Planning and Design</u> touches on level of service from the pedestrian's perspective. It identifies a Pedestrian Level of Service tool that can be used to measure impacts to walkability, which can inform vehicular operational decision during project development.

RECOMMENDATION #2

Adopt a Complete Streets policy.

Complete Streets policies imbed VRU considerations into transportation project development, which can improve safety for all users, including motor vehicles. Furthermore, Complete Streets policies can encompass multiple topics, including vehicular speeds. In addition to the resources above for developing a policy, steps to adopting a strong Complete Streets Policy are available to guide implementation. Example local policies for consideration are identified by FHWA in a 2016 technical report, which includes reference to the Delaware Valley Regional Planning Commission's Pedestrian and Bicycle Friendly Policies, Practices and Ordinances.

Data-based Decision-making

Comprehensive data and information are necessities for making sound transportation investments. Understanding and utilizing the available data and information brings the decision-making process full circle.

Equity

Disadvantaged communities have been underserved and overburdened. Identifying such communities and understanding the relevant data is foundational in order to address inequities in communities and improve roadway safety for all users. Prioritizing new and additional funding for projects in these areas is a means to improve roadway safety for the underserved. Using a community's equity data and information, multiple resources are available for integrating equity into procedures.

FHWA's "Integrating Equity into Transportation Planning" article is informative, summarizes the USDOT Equity Action Plan, and identifies additional resources. The Victoria Transport Institute offers comprehensive guidance titled "Evaluating Transportation Equity" to analyze equity and best incorporate equity during the decision-making process. The Mobility Equity Framework (How to Make Transportation Work for People) provides similar useful and informative guidance.

Funding

Targeted funding is a key strategy to address inequities in communities regarding roadway safety for all users. Many funding programs instituted under the 2021 Infrastructure Investment and Jobs Act (IIJA) focus on, or at a minimum incorporate, equity in transportation. Similarly, agencies or municipalities can designate funding that prioritizes or incorporates equity. "Generating and Prioritizing Funding for Active Transportation" highlights a case study example of such a measure, where the Los Angeles County transportation agency passed a sales tax increase that focused on prioritizing equity, and other measures, for improvements via funding guidelines.

Performance Management

Performance management is the process by which safety targets are monitored over time to assess the outcomes of projects. Safety projects should go under regular evaluations to assess safety performance by tracking the number and rate of fatalities, number and rate of serious injuries, and

number of non-motorized fatalities and serious injuries. The following resources provide guidance for communities to employ performance management processes in efficient and beneficial ways.

The FHWA maintains a <u>Transportation Performance Management (TPM)</u> website that contains a wealth of information, which is supplemented by the <u>TPM Toolbox</u>. Additional resources for incorporating performance management into the planning process are the <u>Transportation Safety Planning and the Zero Deaths Vision</u> technical report and the Safety Performance Management Target Setting <u>Communication Plan and Toolkit</u>.

Project Selection

With competing interests and entities, project selection needs to be rooted in priorities. Once defined, a prioritization can be developed to objectively support transportation decision-making.

<u>Modern Project Prioritization for Transportation Investments</u> offers a well-rounded assessment of and recommendations for prioritizing transportation projects overall, including scoring objectives and recommended evaluation criteria. Focusing on VRUs, the <u>Vision Zero Network</u> identifies five key steps to develop a robust and equity-centered prioritization process, which aligns nicely with the intent of the Safe Streets and Roads for All (SS4A) program and the safety action planning process.

The <u>National Center for Safe Routes to School</u> also identifies a process for safety-based prioritization of schools for Safe Routes to School (SRTS) infrastructure projects, which is applicable to the SRTS emphasis area.

RECOMMENDATION #3

Develop guidance to utilize OTO's Social Equity Index data.

As evidenced by the Data-based Decision-making topics above, data and information are necessities for making sound transportation investments. The OTO website contains the publicly available <u>Social Equity Index</u>, which is an incredible source of both quantitative and graphical information based on census data. The website explains the "why" and the "how" of the Index; however, the missing question to be answered is "What can I do with this information?"

It is recommended that brief guidance be developed that would be utilized by member agencies. The guidance would outline what information can be accessed, how to understand and interpret the information, and how can I utilize the information to prioritize projects and/or seek targeted funding.

RECOMMENDATION #4

Develop guidance to utilize OTO's crash and High Injury Network (HIN) data.

As evidenced by the Data-based Decision-making topics above, data and information are necessities for making sound transportation investments. The OTO webpage for Destination Safe Streets contains the publicly available High Injury Network (HIN) Analysis interactive map. As part of the SS4A Safety Action Plan, there is an expectation that the HIN will be updated at future intervals.

To make this data more understandable and therefore informative to both member agencies and the public, it is recommended that a basic guidance document be developed to supplement the interactive map. In addition to fully defining legend elements, the concept of a HIN segment and risk should be explained. For decision-makers, the guidance should outline how the HIN information can

be appropriately utilized (not misinterpreted) to prioritize project decisions and to support funding efforts.

Safe Routes to School (SRTS)

Safe Routes to School (SRTS)

SRTS programs encourage walking and biking to and from schools with an emphasis on safety. SRTS programs are required to have a designated coordinator and typically include safety education for students, targeted traffic enforcement, encouragement activities such as Walk to School Day or "walking school buses," and can incorporate infrastructure improvements to slow vehicular traffic near schools or provide contiguous sidewalk connections. Additionally, the intent is to embed safety knowledge and mindfulness into the young minds of students.

The <u>Safe Routes Partnership</u> is a national non-profit organization that serves as a resource for understanding and developing SRTS programs. The <u>Safe Routes to School Online Guide</u> is a similar resource useful information.

School Zones

A school zone is a unique location that often accommodates high pedestrian, bicycle, vehicular, and bus traffic daily during short windows in time. Understanding this setting, with respect to each individual school layout, is important to determining traffic calming needs and other opportunities. Guidance for <u>understanding the environment around the school</u> is offered by the SRTS Guide.

Although not a SRTS program, the City of Markham (near Toronto, Canada) is currently developing a <u>School Zone Safety Guide</u> to improve safety for all road users in the vicinity of its schools. Although the guide is not yet complete, the objectives are comprehensive, and the results will ultimately include policy improvements, engineering measures, and education and outreach recommendations.

From the vehicular perspective, traffic calming strategies can increase safety for students in school zones and also for the walking public at any appropriate location. Traffic calming treatments are intended to reduce vehicle speed and encourage more deliberate driving behavior. Basic examples of traffic calming measures include speed bumps, crosswalks, and high visibility crosswalks.

RECOMMENDATION #5

Establish Safe Routes to School (SRTS) programs in combination with developing a toolbox of traffic calming strategies for school zones.

OTO members can partner with their school districts to develop and implement SRTS programs. The Online Guide provides <u>8 Steps to Creating a SRTS Program</u>, which outlines starting a program from scratch through evaluating and improving the established program.

Combining educational elements with engineering treatments can holistically lead to a safer environment for all road users, and providing a customized traffic calming toolbox for the OTO region would offer a menu of options for consideration that could steer consistency across school zones. However, the measures identified in a toolbox could be applied to any appropriate non-school location to impact driver behaviors. FHWA's <u>Traffic Calming ePrimer</u> is a detailed resource that

includes a toolbox of traffic calming measures, and the Urban Street Design Guide includes easy-tounderstand graphics of a variety of <u>speed reduction mechanisms</u> to inform toolbox development.

Vehicular Speeds

Law enforcement and engineering measures can be effective tools to mitigate dangerous driving behaviors such as aggressive driving, distracted driving, and speeding – the top three safety concerns received from the project's public engagement activities.

Speed Limits

As shown in Table 2, most members have a formalized policy or process for determining speed limits, which ensures consistency within a jurisdiction.

Speed Management

Multiple traffic calming measures are noted throughout the resources in this document, and the Speed Enforcement Program Guidelines identify a variety of countermeasures and strategies that can be deployed to manage traffic speeds. However, identifying locations where such measures need to be applied is not as straightforward.

Although vehicular speed data and crash history can be easily collected, perspectives and perceptions can vary between users (pedestrians, vehicles, bicyclists), between residents and passers-by, and between other variants of transportation network users. Offering a mechanism to obtain the public's requests to manage speed can supplement speed data or help pinpoint locations where speed data should be analyzed.

RECOMMENDATION #6

Partner with law enforcement agencies to implement targeted enforcement efforts.

OTO members can collaborate closely with local law enforcement agencies to identify areas or specific locations for targeted enforcement efforts. Available information to consider when determining target locations includes the HIN locations, crash history, speed study information, and locations of public concern, specifically the speeding locations identified through the interactive public survey conducted for the Destination Safe Street safety action plan.

Public Educational Campaigns

Communicating with community members about on-going efforts and initiatives is an effective means to directly, or indirectly, educate citizens about transportation safety matters. U.S Department of Transportation (USDOT) agencies maintain a wide variety of educational campaign materials that are intended to be used by local agencies and other entities. Information often includes facts, social media posts, graphics (multiple languages), and video/audio advertisements.

Educational Campaigns

The National Highway Traffic Safety Administration (NHTSA) <u>Communication Resources</u> webpage offers a plethora of safety marketing tools for use by partner organizations and highway safety professionals. Similarly, the Federal Motor Carrier Safety Administration (FMCSA) offers <u>All Our Roads</u>, <u>Our Safety</u> campaign resources related to commercial motor vehicles.

RECOMMENDATION #7

Utilize transportation educational campaign materials provided by USDOT.

It is recommended that OTO and its members use the campaign materials offered by USDOT for frequent and routines messaging of transportation safety topics.

Summary of Recommendations

These recommendations are the result of analyzing the policies and processes identified by member agencies, as well public survey results. Categorized by emphasis area, the policy and process recommendations offer opportunities to implement best practices for safe streets. Since OTO is a regional transportation planning organization without local policy making authority, some policy and process recommendations would require member action. Policy and process recommendations are shown in Table 3 and include the entity that would be responsible for implementation.

TABLE 3: POLICY AND PROCESS RECOMMENDATIONS

Emphasis Area	Recommended Strategy	Responsibility	
ADA Compliance	#1 – Develop or update ADA Transition Plans (when required by the public entity)	Members	
Complete Streets	#2 – Adopt a Complete Streets policy	Members	
Data-based Decision-making	#3 – Develop guidance to utilize OTO's Social Equity Index data	ото	
Data-based Decision-making	#4 – Develop guidance to utilize OTO's crash and High Injury Network data	ОТО	
Safe Routes to School	#5 – Establish Safe Routes to School programs in combination with developing a toolbox of traffic calming strategies for school zones	Members/OTO	
Vehicular Speeds	#6 – Partner with law enforcement agencies to implement targeted enforcement efforts	Members	
Public Educational Campaigns	#7 – Utilize transportation educational campaign materials provided by USDOT. Members		

<u>Document Reference</u>	<u>Source</u>	<u>Web Address</u>
Americans with Disabilities Act (ADA) Compliance		
Public Right of Way Accessibility Guidelines (PROWAG)	Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way	https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-the-public-right-of-way
Comprehensive guidance and resources	FHWA ADA Resources	https://highways.dot.gov/civil-rights/programs/ada/resources
Guide to best management practices	ADA Transition Plans: A Guide to Best Management Practices	https://www.fhwa.dot.gov/indiv/docs/ada_transition_plans_report.pdf
Overview	Federal-aid Essentials: Americans with Disabilities Act Transition Plans	https://highways.dot.gov/sites/fhwa.dot.gov/files/32transitionplans.pdf
Self-evaluation basics	Federal-aid Essentials: Americans with Disabilities Act Self-evaluation Basics	https://highways.dot.gov/sites/fhwa.dot.gov/files/33self%20evaluation.pdf
City of Rancho Cordova transition plan	City of Rancho Cordova Americans with Disabilities Action Transition Plan (FHWA example)	https://www.scribd.com/document/21193230/City-of-Rancho-Cordova-ADA-Transition-Plan-Final
Complete Streets		
Complete Streets Policy Framework	Complete Streets Policy Framework	https://smartgrowthamerica.org/resources/elements-complete-streets-policy/
Elements of a Complete Streets Policy	The Elements of a Complete Streets Policy	https://smartgrowthamerica.org/wp-content/uploads/2018/02/CS-Policy-Elements.pdf
Complete Streets Toolbox	OTO's Complete Streets Toolbox	https://www.ozarkstransportation.org/our-resources/planning-tools/cstools
Lessons Learned in Implementation of Pedestrian-Oriented Zoning Provisions	Lessons Learned in Implementation of Pedestrian-Oriented Zoning Provisions: A Research Brief	https://p3rc.uic.edu/wp-content/uploads/sites/561/2020/02/PAPRN_brief_and_profiles508v2Sept5.pdf
Noteworthy Local Policies That Support Safe and Complete Pedestrian and Bicycle Networks	FHWA Technical Report: Noteworthy Local Policies that Support Safety and Complete Pedestrian and Bicycle Networks	https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa17006-Final.pdf
Summary brochure	FHWA Roundabouts with Pedestrians & Bicycles - A Safe Choice for Everyone	https://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa15016.pdf
Enhancing pedestrian experiences at roundabouts	Enhancing Pedestrian Experiences at Roundabouts	https://mntransportationresearch.org/2023/04/18/enhancing-pedestrian-experiences-at-roundabouts/
Best Practices for Pedestrian Master Planning and Design	Best Practices for Pedestrian Master Planning and Design	https://nacto.org/docs/usdg/best_practices_ped_master_planning_design_sacramento.pdf
Steps to adopting a strong Complete Streets Policy	Adopting a Strong Complete Streets Policy	https://smartgrowthamerica.org/program/national-complete-streets-coalition/policy-atlas/policy-development/
Example local policies	FHWA Technical Report: Noteworthy Local Policies that Support Safety and Complete Pedestrian and Bicycle Networks	https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa17006-Final.pdf
Pedestrian and Bicycle Friendly Policies, Practices and Ordinances	Delaware Valley Regional Planning Commission: Pedestrian and Bicycle Friendly Policies, Practices, and Ordinances (Chapter 5)	https://www.dvrpc.org/reports/11019.pdf
Data-based Decision-making		
Equity Action Plan	Equity Action Plan 2023 Update	https://www.transportation.gov/sites/dot.gov/files/2023-12/2023%20update%20to%20the%20DOT%20Equity%20Action%20Plan.pdf
Evaluating Transportation Equity	Evaluating Transportation Equity Guidance for Incorporating Distributional Impacts in Transport Planning	https://www.vtpi.org/equity.pdf
Mobility Equity Framework	Mobility Equity Framework - How to Make Transportation Work for People	https://greenlining.org/wp-content/uploads/2019/01/MobilityEquityFramework 8.5x11 v GLI Print Endnotes-march-2018.pdf
Generating and Prioritizing Funding for Active Transportation	Generating and Prioritizing Funding for Active Transportation	https://www.saferoutespartnership.org/sites/default/files/resource files/generating and prioritizing funding for active transportation.pdf
Transportation Performance management (TPM) website	Transportation Performance management	https://www.fhwa.dot.gov/tpm/
TPM Toolbox	TPM Toolbox	https://www.tpmtools.org/
Transportation Safety Planning and the Zero Deaths Vision	Transportation Safety Planning and the Zero Deaths Vision: A Guide for Metropolitan Planning Organizations and Local Communities	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/MPOLocalSafetyPlanGuide_508compliant.pdf
Communication Plans and Toolkit	FHWA Safety Performance Management Target Setting - Communication Plan and Toolkit	https://safety.fhwa.dot.gov/hsip/spm/fhwasa18006/docs/fhwasa18006.pdf
Modern Project Prioritization for Transportation Investments	Modern Project Prioritization for Transportation Investments	https://files.library.northwestern.edu/transportation/online/unrestricted/repository/2021/Noyce ProjectPrioritization Report CTEDD-REM.pdf
Vision Zero Network	Developing a Robust Vision Aero Prioritization Process	https://visionzeronetwork.org/developing-a-robust-vision-zero-prioritization-process/
National Center for Safe Routes to School	Safety-based prioritization of schools for Safe Routes to School	
	infrastructure projects: A process for transportation professionals	https://www.pedbikeinfo.org/pdf/SRTSstate_SafetyBasedPrioritization.PDF
Social Equity Index	OTO's Social Equity Index	https://experience.arcgis.com/experience/bac0937f5e4a48878381f493aaad7988/
High Injury Network (HIN) Analysis	OTO's High Injury Network Analysis, 2018-2022 Fatal & Serious Injury	https://experience.arcgis.com/experience/2eba59388e6544ca85faee092fd20745/
Safe Routes to School (SRTS)		
Safe Routes Partnership	Safe Routes Partnership	https://www.saferoutespartnership.org/
Safe Routes to School Online Guide	Welcome to the Safe Routes to School Online Guide	http://guide.saferoutesinfo.org/index.cfm
Understanding the environment around the school	SRTS Guide: Around the School	http://guide.saferoutesinfo.org/engineering/the_school_zone.cfm
School Zone Safety Guide	City of Markham - School Zone Safety Guide	https://yourvoicemarkham.ca/school-zone-safety-guide?tool=map
8 Steps to Creating a SRTS Program Traffic Calming a Primer	Steps to Creating a Safe Routes to School Program	http://guide.saferoutesinfo.org/steps/index.cfm https://bigbways.det.gov/safety/paed_management/traffic_calming_enrimer
Traffic Calming ePrimer Speed reduction mechanisms	FHWA Traffic Calming ePrimer NACTO Urban Street Design Guide	https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer https://nacto.org/publication/urban-street-design-guide/design-controls/design-speed/speed-reduction-mechanisms/
	INVELO OLDAN STIEGT DESIRN GRIDE	nttps://nacto.org/publication/ulbair-street-uesign-guide/design-controls/design-speed/speed-reduction-mechanisms/
Vehicular Speeds		
Speed Enforcement Program Guidelines	NHTSA Speed Enforcement Program Guidelines	https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa1304/resources/Speed%20Enforcement%20Program%20Guidelines.pdf
Public Educational Campaigns		
Communication Resources	NHTSA Traffic Safety Marketing Communication Resources	https://www.trafficsafetymarketing.gov/
All Our Roads, Our Safety	FMCSA All Our Roads, Our Safety Campaigns	https://www.fmcsa.dot.gov/ourroads/all-our-roads-our-safety-campaigns