Appendix D

Plan and Peer Agency Review

Technical Memorandum

Date:	May 8, 2024	Kittelson Project No: 29478
To:	Mike Ulrich, SRTC	
From:	Morgan Dean PhD, Chris Bame PE, Wende Wilber PTP	
Subject:	SRTC Regional Safety Action Plan Existing Plan Review	

Introduction

This technical memorandum reviews existing plans related to the transportation network. This includes comprehensive plans, safety plans, pedestrian and bicyclist plans, and capital improvement plans on the state, region, county, and city/town levels. The framework matrix presented captures key information for each of the plans, including the following:

- Framework for the plan's vision, goals, and policies.
- Travel modes focused on by the plan.
- Strategy for assessing existing conditions.
- Other relevant plans in support of or working with the plan of interest.

Additionally, the framework emphasizes the role of the existing plans in the Safe System Approach by answering the following questions:

- Does the plan include a safety analysis?
- Does the plan refer to public input as a source supporting the plan's development?
- Does the plan provide a project list?
- Does the plan prioritize the agency's needs? *This prioritization should provide one of the following: a method for prioritizing projects, prioritized list of projects, issues, locations, or crash types/factors.*
- Does the plan present performance targets? *These targets should be for zero fatal and serious injuries, progress toward zero fatal and serious injuries, or for other performance metrics identified in the plan.*
- Does the plan identify performance measures? *Measures may be provided for safety outcomes (e.g., number or percent reduction of fatal and serious injuries) or for project progress (e.g., number of quick-build projects implemented).*

Consistent Themes and Gaps

The project team reviewed the current practices and policies framework to identify common themes among the plans and existing gaps to help inform critical roles to be filled by the RSAP.

- **Safety Analysis.** The city/town plans often do not perform a safety analysis. Additionally, safety-specific plans are less common at the city/town level. This emphasizes the need for the RSAP to examine existing safety conditions by jurisdiction.
- **Public Input.** Results from public engagement efforts were often a source used to develop the plans. In some cases, a detailed review of the public engagement activities and data collected were presented.
- **Project Needs and Priorities.** In most cases, each plan identifies either 1) needs within the community or 2) a list of desired future projects. Some of the plans provide both. This makes the existing plans valuable resources for guiding the improvement of the transportation network in the region.
- **Performance Targets and Measures.** These are often identified at the state, region, and county level, but not at the city/town level.

Current Practices and Policies Framework

The framework has two parts: 1) state, region, and county plans and 2) city plans. In each section, plans are organized into three sub-sections: comprehensive plans, safety plans, and pedestrian and bicyclist plans. In the city plans section, a fourth sub-section exists for capital improvement plans. Across both plans, black and blue check marks are used to identify the plan's inclusion of the six safety elements described in the introduction.

✓ A black check mark indicates the element in present in the document.

○ An open circle indidcates the element is missing from the Plan.

State, Region, and County Plans

Table 1. State, Region, and County Plans

COMPREHENSIVE PLANS					
Washington Transportation Plan: 2040 & Beyond (2018) Washington State Transportation Commission					
The 2040 & Beyond plan supports achieving the statewide vision of safely connecting people and communities through **six transportation goals**: economic vitality, preservation, safety, mobility, environment and health, stewardship. The plan recommends **near-term and long-term strategies** to advance and support each of these goals. Additional facets of the plan include examining the current and future state of **funding and resources**, assessing **technologies and trends** on the horizon, and reviewing **perspectives of local** Regional Transportation Planning Organizations and Metropolitan Planning Organizations.					
Safety Analysis	**Public Input**	**Project List**	**Prioritizes Needs**	**Performance Targets**	**Performance Measures**
○	✓	○	○	○	○
Horizon 2045: Spokane Regional Metropolitan Transportation Plan (2021) Spokane Regional Transportation Council					
The SRTC Horizon 2045 plan considers **all modes** of transportation within the transportation network, including driving, walking, bicycling, and transit. The goal of the plan is to develop an **integrated and accessible network** to move people and goods safely and efficiently to and from their desired destinations. The plan focuses on **project identification, implementation strategies, measuring funding and project performance** to address current challenges and future needs. This includes both improvement projects as well as identifying future facilities. The Horizon 2045 plan has six **guiding principles**: Economic Vitality; Cooperation and Leadership; Stewardship; System Operations, Maintenance, and Preservation; Safety and Security; Quality of Life.					
Safety Analysis	**Public Input**	**Project List**	**Prioritizes Needs**	**Performance Targets**	**Performance Measures**
○	✓	✓	✓	✓	✓

Transportation Improvement Program 2024 – 2027 (2023)

Spokane Regional Transportation Council

Metropolitan Planning Organizations are required to develop, in cooperation with the state and public transit providers, a Transportation Improvement Programs (TIP) covering at least a four-year span that include:

- Capital and non-capital transportation projects and enhancements, including those related to bicycle and pedestrian facilities.
- Federal Lands Highway projects.
- Safety projects included in the State's Strategic Highway Safety Plan.
- Regionally significant projects receiving FHWA or FTA funds or for which FHWA or FTA approval is required.
- Non-federally funded projects that are consistent with the Metropolitan Transportation Plan.

Project details presented in TIP documents may differ from those seen in CFPs as they may be revised to reflect updated cost and timing estimates.

Additionally, the State of Washington requires the annual adoption of a six-year TIP for multi-modal transportation for all **cities, towns, and counties**. These short-range plans show the costs and funding sources for the next six years of transportation improvement projects and must be consistent with the agency's comprehensive plan. These plans together inform the development of the Statewide Transportation Improvement Program (STIP).

Spokane Regional Transportation Council's TIP identifies target implementation projects for 2024 through 2027. These projects demonstrate SRTC's progress toward implementing the region's long-range plan. The project list provides funding sources and amounts.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	○	✓	✓

Comprehensive Plan (2020)
Spokane County

The Comprehensive Plan establishes a **framework for growth** within the County through a detailed list of **goals, policies, and strategies** for land use, transportation, housing, economic development, and the built and natural environment. The Transportation chapter of the Plan focuses on achieving a **multi-modal network** that prioritizes the **safe and efficient movement** of people and goods. This Plan is largely coordinated with the Growth Management Act.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	○	○	○

Transportation Element (2019)
Spokane County

The Transportation Element plan coordinates with the County's Comprehensive Plan, Pedestrian Plan, and Bicyclist Plan, and the Horizon 2045 Plan to **support the county's future land use map** and **meet all safety and capacity needs**. The plan identifies existing deficiencies and future conditions and deficiencies for **all transportation modes** within the network. Several **mitigation measures**, equipped with estimated planning level costs and potential funding sources, are identified for the motorized vehicle network in the unincorporated county. The plan is built on the **planning goals** listed in the State's Growth Management Act: transportation, urban growth, environment, citizen participation and coordination, and public facilities and services.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	○	✓	○	○	○

SAFETY PLANS

Washington State Strategic Highway Safety Plan (2019)

Washington State Department of Transportation

The Strategic Highway Safey Plan (SHSP) sets the goal for **zero fatal and serious injury crashes by the year 2030**. To support this goal, the plan focuses on **characterizing fatal and serious injury crashes** through a detailed safety analysis focused on high-risk behaviors, crash type, and road user type. Through this analysis, the plan **identifies high priority risk factors** that occur in a large percentage of fatal crashes. Further, **strategies** for achieving the following facets of a safe system are tabulated throughout the plan:

- Multicultural communication
- Health equity
- Reduction of distracted driving fatal and serious injury (FSI) crashes
- Reduction of lane departure FSI crashes
- Reduction of FSI crashes on tribal reservations
- The “evaluation, analysis, and diagnosis” approach to traffic safety
- Applying the Safe Systems approach

The SHSP plan is driven by **five Es** (education and outreach, enforcement, engineering, emergency medical services, and evaluation) and reviews the status of implementing these elements at the **state, regional, and local levels**.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	○	○	✓	✓	✓

Vulnerable Road User Safety Assessment (2023)

Washington State Department of Transportation

WSDOT's Vulnerable Road User Safety Assessment is a guide to **assessing the progress** made toward protecting vulnerable road users on **both local and state roads** throughout the state. The report analyzes the **trajectory of various performance measures**, including number of fatalities, number of serious injuries, and number of non-motorized fatalities and serious injuries to compare recent outcomes to desired targets and baseline measurements. Through this analysis, it is identified that significant progress toward desired targets has not been made. Following the performance measure analysis, further data analysis is presented, assessing trends related to crash time of day, road user age, contributing factors, equity measures, posted speed. The findings are used to **identify systemic conditions associated with high vulnerable road user crash densities**. A **list of countermeasures** as they relate to crash exposure, likelihood, and severity is also provided as a tool for addressing vulnerable road user safety challenges.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	○	○	✓	✓	✓

Road Safety Plan (2023)

Spokane County

The Road Safety Plan supports the statewide 2030 Target Zero goal through the use of a data-driven approach to identify **three Target Zero contributing factor priority groups**. The three priority groups (#1, #2, and #3) contain contributing factors that occur in 30% (#1), 10% to 30% (#2), and less than 10% (#3) of all fatal and serious injury crashes. These contributing factors were used to identify **specific locations** within the network with relevant risk factors. **Countermeasures** were strategically selected from WSDOT's Strategic Highway Safety Plan to address each of the overrepresented crash types. Additionally, a prioritized project list addresses the location and cost of the **eight high priority projects** most likely to prevent fatal and serious crashes in Spokane County.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	○	✓	✓	○

PEDESTRIAN AND BICYCLIST PLANS

Pedestrian and Bicyclist Program and Safe Routes to Schools Program: 2023-2025 Prioritized Project List and Program Update (2022)

Washington State Department of Transportation

The Safe Routes to School and Pedestrian/Bicycle grant programs help to **fund cost-effective projects that support the safety of vulnerable road users** in the community. Following a Call for Projects, the WSDOT staff conducted a quantitative analysis of proposed projects using the following review criteria: safety, equity, deliverability/other, value, and project quality. The result was this document which presents a **prioritized projects list**, including projects specific to the Spokane agency.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	○	✓	✓	○	○

Active Transportation Plan: 2020 and Beyond (2021)

Washington State Department of Transportation

The Active Transportation Plan assesses the **current state** of active transportation facilities in the state, identifies **gaps in the network**, and provides information to **inform policymakers and future investment decisions**. Recommendations provided in the plan support the five active transportation goals – safety, partnerships, connectivity, participation, and opportunity – to achieve a complete, comfortable transportation system. While specific projects are not identified, **total estimated costs are presented for each need**. For example, $283 million is identified as the total fiscal need for addressing speed management for safety.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	○	✓	✓	✓

Spokane Regional Pedestrian Plan (2009)

Spokane Regional Transportation Council

Complementary to the Metropolitan Transportation Plan, the Regional Pedestrian Plan aims to **support pedestrian travel** through the **design and implementation of treatments** that improve pedestrian safety, health, and security. With a goal to increase pedestrian activity, the Plan provides a comprehensive **assessment of existing local barriers** and recommendations. Recommendations include a combination of **policy recommendations and suggested roadway treatments** related to complete streets, the

sidewalk network, shared use paths and trails, crosswalks, and traffic calming. The Plan also provides guidance on implementing the four Es: education, encouragement, evaluation, and enforcement.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	✓	○	✓	○

Pedestrian Master Plan (2023)

Spokane County

The Pedestrian Master Plan aims to improve pedestrian safety and resident health through the development of a **connected network** that encourages **multimodal travel** and is **accessible to all ages and abilities**. To achieve the goals of the Plan, combat current walking challenges in Spokane County, and address community needs and concerns, **recommendations are provided** in three categories: strategies to implement, current practices to continue, and partnerships to pursue with agencies, municipalities, and organizations. The Plan states its support of the statewide Target Zero goal.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	✓	✓	✓	✓

Bicycle Master Plan (2023)

Spokane County

The priorities of the Bicycle Master Plan include safety, connectivity, livability, health, equity, and choice. As the **first comprehensive Bicycle Master Plan for the County**, it is built heavily on existing plans for the region, county, and state. The Plan uses level of traffic stress and community engagement results to **develop goals and recommendations** for improving bike network infrastructure and education. The Plan provides a **matrix of proposed projects** and a **list of funding strategies** and sources. The Plan states its support of the statewide Target Zero goal.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	✓	✓	✓	✓

Trails Plan (2020)
Spokane County

The County's Trails Plan inventories the existing trails and **identifies future trail connections** necessary to achieve an integrated and connected trail network. Following a list of trail goals and policies, **five priority strategies** are identified. For each of the five strategies, **implementation measures** as they relate to specific project locations are described. The Plan directs readers to the Capital Facilities Plan and the Great Spokane River Gorge Strategic Master Plan for additional project lists.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	✓	○	○

City/Town Plans

Most of the city-level plans presented are comprehensive plans. These plans follow a similar layout in response to the Growth Management Act, which identifies eight mandatory comprehensive plan elements. One of the eight required elements is Transportation, with a goal to "encourage efficient multimodal transportation systems."

Table 2. City Plans

COMPREHENSIVE PLANS

Shaping Spokane: Comprehensive Plan for the City of Spokane (2017; 2023)
City of Spokane

Spokane's comprehensive plan has a foundation of **five main themes**: transportation choices, health and safety, livable streets, integration, and 'fix it first' (maintaining existing transportation facilities and infrastructure). It is through these themes that the plan poses a balanced approach to transportation, **combining conventional and more modern approaches** to creating a multi-modal transportation system accessible to and safe for everyone. The plan proposes a prioritized projects list, with details on their prioritization process in Volume 5 Appendix D.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	✓	○	○

City of Spokane Valley Comprehensive Plan 2017 – 2037 (2016)

City of Spokane Valley

The transportation chapter of Spokane Valley's Comprehensive Plan outlines five goals and 20 policies. The **five goals** include improving quality of life, planning for anticipated land use patterns, achieving zero serious and fatal injuries due to traffic crashes, providing safe and efficient freight mobility, and maintaining and enhancing a comprehensive multimodal system. The Plan details **existing conditions** and travel **patterns** across the network, including maps of existing and recommended pedestrian, bicycle, and transit facilities. **Roadway and traffic characteristics** are also reviewed, using level of service, functional classification, and average daily traffic to describe the network. Based on existing conditions and public feedback, **challenges, opportunities, development priorities, and best practices are identified**.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	✓	○	○

City of Airway Heights Comprehensive Plan (2023 Update)

City of Airway Heights

The City's Comprehensive Plan is broken into two volumes. Volume 1 lays out the **vision and policies** for each Plan element, including the element of Transportation. Volume 2 provides an **existing conditions analysis** for roadways, public transportation, air transportation, and pedestrian and bicyclist facilities. The analysis is followed by **recommended improvements** to each of these networks, along with a **list of projects** for the long-range capital improvement plan.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	✓	○	○

City of Airway Heights City Strategic Plan: Awaken Airway Heights (2021)

City of Airway Heights

The City of Airway Heights's Strategic Plan is organized around **six outcome areas**, two of which are '**Mobility'** and **'Safety and Security.'** To achieve progress in all six outcome areas – and therefore achieve the City's vision of being a safe, interconnected community – a list of **strategic objectives** is provided to guide initiatives.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	○	○	○

City of Airway Heights Downtown Plan (2021)

City of Airway Heights

The purpose of Airway Heights's Downtown Plan is to serve as a **guide for implementation** to achieve the **City's vision** of having a downtown that is "walkable, family-friendly, thriving and attractive." The Plan provides **downtown needs** and **recommended projects** to achieve this vision by keeping all road users safe. The project list is equipped with critical information, such as key partners, funding sources, cost, and timing.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	✓	○	○

City of Liberty Lake Comprehensive Plan 2015 – 2037 (2015)

City of Liberty Lake

The Liberty Lake Comprehensive Plan Transportation Element provides an **introduction to the transportation system**, a **history and background of various system characteristics**. The full list of these characteristics includes system design, intergovernmental coordination, consistency and concurrency, alternative modes of travel, road functional classifications, roadway design, safety, mobility, level of service, public participation, transportation finance, demand management strategies, and environment.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	○	○	○

City of Medical Lake Comprehensive Plan (2019)

City of Medical Lake

Designed to be a **decision-making tool**, Medical Lake's Comprehensive Plan anticipates future changes in the transportation network as a way to **prepare for changing mobility patterns**. The Plan presents a list of **implementing actions**, and how each action relates to the goals and policies of the City, which can be incorporated into annual work programs, budget requests, and meeting agendas. The focus on both **motorized and non-motorized modes** of transportation allows for the assessment of various components within the transportation network, ranging from comments on walkability to forecasted traffic volumes.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	✓	✓	○	○

City of Deer Park Comprehensive Plan (2017)

City of Deer Park

The Comprehensive Plan Update is **one part of a three-part approach** to Deer Park's Growth Management Act Implementation Program. The other two facets of the Program are the Implementation Regulations and the Appendices to the Plan. The Transportation Element of the Plan discusses **coordination efforts** with, and **impacts of the transportation plan and system** on, neighboring jurisdictions. The Element sets forth goals and policies buttressed by the Horizon 2040 principles and policies and tabulates a **list of transportation related projects** identified as part of the Capital Improvement Program, which monitors and evaluates project prioritization.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	○	○	○	○	○

Town of Fairfield Comprehensive Plan 2017 – 2023 (2017)

Town of Fairfield

As part of the Town's Comprehensive Plan, the Transportation Element seeks to **integrate vehicle, pedestrian, and bicycle traffic** with existing and future land use. With **seven transportation goals** in mind, the Plan performs an **existing conditions** analysis as well as a **projected transportation needs** analysis, and further identifies other agencies to coordinate with. The plan refers to the Transportation Improvement Program when discussing projects, timelines, and funding.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	○	○	○

City of Cheney Comprehensive Plan (2019)

City of Cheney

The Transportation Element of the City of Cheney's Comprehensive Plan provides an overview of the City's **existing conditions** and transportation-related **concerns, goals, policies, and programs**. Overall, the plan aims to address a variety of considerations that make getting from point A to point B safe, convenient, and comfortable. To support this, Appendix C provides further details on the roadway network and community characteristics.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	✓	○	○

City of Millwood Comprehensive Plan (2019)

City of Millwood

Like the other jurisdiction's comprehensive plans, the Millwood Comprehensive Plan relies heavily on **analyzing the existing conditions** of the transportation network to inform future alternatives to enhance multimodal transportation. The **community shares a vision** for transportation within the City, which is to **maintain the current roadway widths**, particularly for the City's only major arterial, to avoid making pedestrian crossings more uncomfortable, unsafe, and generally difficult. It is stated that roadway width expansion should only be done to **accommodate bicycle and pedestrian lanes** specific to non-motorized traffic.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
○	✓	○	○	○	○

SAFETY PLANS

Vision Zero Action Plan (2023)

City of Spokane

The City of Spokane's Vision Zero Action Plan, like the states **Target Zero Plan**, aims to reduce the number of serious and fatal injuries due to traffic crashes to zero. The Plan takes a **data-driven approach** to assessing the current state of road user safety across the network, prioritizing needs (such as which crash types need to be addressed first and high priority locations) and identifying projects and strategies. For each recommended project and strategy, location, improvement details, cost, and timeline are provided.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	✓	✓	✓	✓	✓

PEDESTRIAN AND BICYCLIST PLANS

Pedestrian Master Plan (2015)

City of Spokane

The City of Spokane's Pedestrian Master Plan identifies walking as the "most fundamental transportation choice" and **supports achieving a more walkable Spokane** through the provision of goals for the pedestrian environment, an existing conditions assessment, and recommended policies and actions. The Plan works hand in hand with the Comprehensive Plan and multiple Design Guides to **identify best practices** for sidewalks and buffers,

intersections, crossings, connectivity, and accessibility. The precipice of the Plan is **an in-depth Pedestrian Needs Analysis that identifies gaps and priority zones** within the pedestrian network.

Safety Analysis	Public Input	Project List	Prioritizes Needs	Performance Targets	Performance Measures
✓	○	✓	✓	○	○

Additional Resources

Table 3. Additional Resources

CAPITAL IMPROVEMENT/FACILITIES PLANS

Most jurisdictions have a Capital Improvement Plan (CIP) or Capital Facilities Plan (CFP). Often, the comprehensive plans for each jurisdiction refer to these plans for detailed project lists. They provide an overview of the existing and future facilities within the jurisdiction. When discussing future facilities, details such as the following are presented for each of the proposed investments:

- Project type and description
- Location
- Funding source and cost
- Timeline

COMPLETE STREETS POLICIES

Complete Streets is an approach to transportation planning that emphasizes providing roadway networks that are safe, convenient, and comfortable for road users of all ages and abilities using all transportation modes. Washington State DOT, along with several of the agencies that comprise the Spokane Region, have adopted ordinances related to the Complete Streets framework. The table below summarizes the agencies currently partaking in this endeavor.

✓ A Complete Streets ordinance exists. ○ A Complete Streets ordinance does not exist.

*	WSDOT	***	City of Cheney
**	SRTC	✓	City of Medical Lake
✓	Spokane County	✓	City of Deer Park
✓	City of Spokane	○	Town of Fairfield
✓	City of Spokane Valley	✓	City of Millwood
✓	City of Airway Heights	○	Town of Rockford
○	City of Liberty Lake	○	Town of Latah
○	Town of Spangle	○	Town of Waverly

*A 'Safe and Complete Streets Policy' document complements the ordinance.

**A memo to project development engineers exists to provide policy and instruction.

*** No ordinance/policy but is mentioned in comprehensive plan transportation element.

SPEED AND SPEED ENFORCMENT POLICIES

Speed Policies

Revised Code of Washington (RCW) 46.61.400 sets the standard for basic rules and maximum limits related to speed. The following limits are identified:

- 25 miles per hour on city and town streets.
- 50 miles per hour on county roads.
- 60 miles per hour on state highways.

Spokane County refines these maximum limits to the following list. Any exceptions to the county's maximum limits are documented in **Municipal Code Chapter 46.61**, "Rules of the Road."

- 25 mph on local access roads in urban areas.
- 35 mph on arterial roads.
- 35 mph on gravel roads.
- 45 mph on paved rural roads.

The City of Spokane Valley provides a Master Speed Limit Schedule which identifies specific sections of road that qualify for specific speed limits.

Speed Enforcement Policies

Both the State of Washington and the City of Spokane have speed enforcement policies as part of their jurisdiction codes. **RCW 46.63.170**, "Automated Traffic Safety Cameras – Definition" allows for the use of automated traffic safety cameras to issue infraction notices for the following locations:

- Intersections of two or more arterials.
- Railroad crossings.
- School speed zones.
- Roadways identified in a school walk area as defined in RCW 28A.160.160.
- Public park speed zones.
- Hospital speed zones.

Additionally, **RCW 46.61.470,** "Speed traps defined, certain types permitted—Measured courses, speed measuring devices, timing from aircraft", identifies three speed trap types that are admissible against a person issued a notice or arrested for a traffic infraction.

Spokane Municipal Code **Section 16A.64.210**, "Authorized Use of Automated Traffic Safety Cameras" authorizes law enforcement to use traffic safety cameras to enforce traffic control device obedience (RCW 46.61.050) for two-arterial intersections and school speed zones.

CITY OF SPOKANE TRAFFIC CALMING PROGRAM

Spokane's traffic calming program is a revised program based on an initial program introduced in 2010. The current program is comprised of two workshops: one to identify issues (held in spring/summer of 2022) and one to prioritize project solutions (held in spring 2023). From these workshops, 135 projects were identified. A subset of these projects have been chosen for construction 2024, and the list will continue to be used to identify projects for construction in 2025, 2026, and 2027.

MEMORANDUM

May 8, 2024

To: Mike Ulrich

Organization: Spokane Regional Transportation Council

From: Toole Design Group

Project: Spokane Regional Transportation Council (SRTC) Regional Safety Action Plan

Re: Technical Memorandum #2 - Peer Agency Review – Final Draft

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Overview

The cities and towns of Spokane County share a goal with municipalities across the world – reducing and eliminating fatal and serious injury crashes on their roadways. This memo highlights peer agency safety planning efforts and implementation work to inform the Spokane Regional Transportation Council (SRTC) Regional Safety Action Plan (RSAP). This memo is intended to inform recommended strategies and implementation of the RSAP.

We reviewed numerous Vision Zero and Safety planning and implementation efforts from across the nation. These examples are relevant to the Spokane RSAP either because they are in planning areas that are similar in size to the Spokane region, are a good example from the State of Washington, or have achieved notable successes in the implementation of Vision Zero and safety measures. This memo includes a review of safety planning and implementation efforts from:

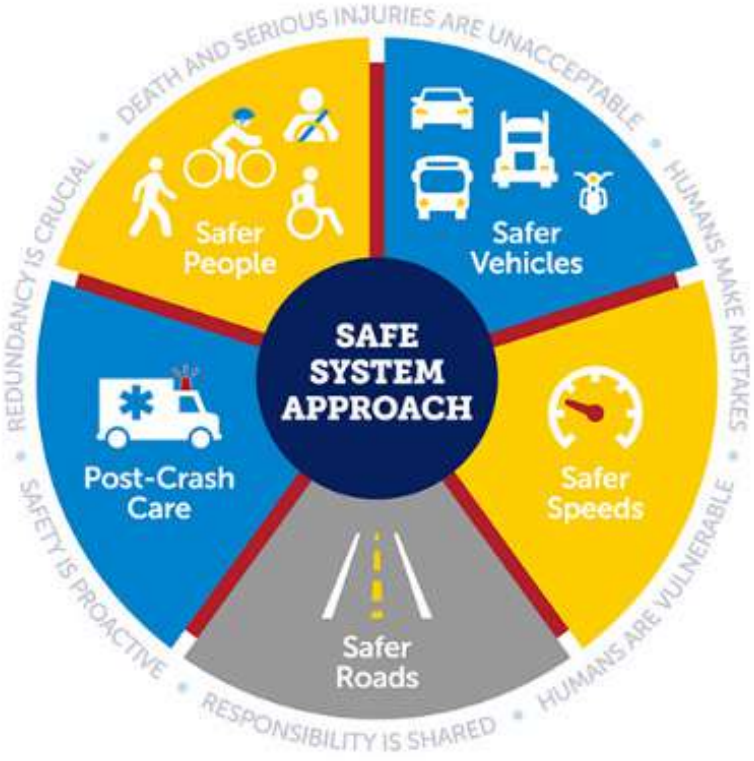
- Northwest Arkansas Regional Planning Commission (RPC)
- Denver Regional Council of Governments (COG)
- City of Hoboken, New Jersey
- City of Tacoma, Washington

Additional notable Vision Zero and Safety planning efforts and practices from other agencies beyond those listed above are highlighted where appropriate. The Federal Highway Administration's Safe System Approach framework and design hierarchy, as well as that agency's endorsement of alternative speed setting methodologies as captured in the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD) are also discussed.

Safe System Approach

The RSAP will be framed around the Safe System Approach. The Federal Highway Administration (FHWA) provides guidance on the Safe System Approach, which recognizes that road safety is a shared responsibility between those that design, build, operate, and use the road system. It recognizes that to reduce risks to humans all parts of the transportation system must be strengthened, so that if one part fails, the other parts still protect people.

Safe System Principles are illustrated in the outer ring of the graphic with the Safe System elements found on the inner ring: Safer People, Safer Vehicles, Safer Speeds, Safer Roads, and Post-Crash.



The Safe System Approach aims to eliminate fatal and serious injury crashes using a proactive approach that prepares for human mistakes- and reduces the severity of crashes that do happen, so the impact is less likely to be fatal or cause serious injury. There are notable strategies and practices included in this memo that are focused on safer roads, safer speeds, safer people, safer vehicles, and post-crash care.

Table 1: Summary of agency, region/city, and safety plan characteristics

Lead Agency (Type)	Number of member agencies	Population (2020)	Planning Area Size (sq. miles)	Type of Plan	Year of Plan	Vision Zero Target Date
Northwest Arkansas Regional Planning Commission (MPO)	44	559,180 (total 4 counties)	3,224 (total 4 counties)	Regional "Vision Zero" Comprehensive Safety Action Plan	2023	2038
Denver Regional Council of Governments (COG)	50+	2,798,757 (2010) (total 9 counties)	(Total 9 counties)	Regional Vision Zero	2020	N/A
City of Hoboken, NJ (Municipality)	1	60,419	1.97	Vision Zero Action Plan	2021	2030
City of Tacoma, WA (Municipality)	1	219,383	62.34	Vision Zero Tacoma Action Plan	2020	2035

Northwest Arkansas Regional Planning Commission Regional "Vision Zero" Comprehensive Safety Action Plan

Overview

This is a model plan in many ways because of its robust community engagement efforts, data analysis, incorporation of equity into all aspects of the plan, and implementation funding that it has garnered. Community engagement was multi-pronged with outreach done via Pop Up tables at community events, webinars about the Safe System Approach for decision makers and the general public, online surveys and webmaps, walkshops, and task force that provided input on the plan development. The project prioritization framework, reflects this by incorporating weighted scores based on analysis from the HIN and crashes, equity analysis, and number of unsafe location comments from the public. The resulting project and action list is very extensive with corridor names, extents, scores, timeframes, rough cost estimates, action leaders, and supporting partners. The city of Fayetteville in Washington County, which is one of the four counties that are part of the Northwest Regional Planning Commission, recently was awarded a $25 million SS4A implementation grant to support safety improvements on its roadways.

Primary Goal: "15 years to Zero"

Additional Goals:

1. Promote a culture that prioritizes people's safety

2. Reduce conflicts between roadway users
3. Establish policies, practices, and programs that focus on safety at all levels
4. Slow vehicle speeds

Denver Regional Council of Governments (COG) Regional Vision Zero

Overview

The Denver Regional COG Regional Vision Zero plan does a good job of balancing urban, suburban, and rural contexts found in its region. Crash data analysis includes these three context types.

The plan highlights best practices in equity such as including demographic, social, public health, and economic data into crash analysis and project prioritization and recommended strategies to integrate equity and empathy into enforcement and community engagement. The plan also includes an extensive section on crash profiles for each regional context and corresponding potential countermeasures.

Goal: To eliminate traffic-related fatalities and severe injuries on our roadways and make safety a priority for all users of the transportation system.

Primary Objectives:

1. Improve collaboration between allied agencies
2. Increase awareness and adoption of vision zero
3. Design and retrofit roadways to prioritize people's safety
4. Improve data collection and reporting
5. Increase funding and resources
6. Increase legislative support

City of Tacoma Vision Zero Action Plan

Overview

The development of this plan was done in conjunction with other related planning and design efforts, such as the development of a Local Road Safety Plan, Speed Reduction Plan, and a Concept Design for a corridor located on a High Risk Network (HRN). The plan personalizes safety issues by including testimonials from survey respondents and listening session participants about the long-lasting and devastating effects of traffic violence on their families and lives. The Plan has also been instrumental in in the City hiring a new Vision Zero Coordinator position and receiving funding for design of a corridor on the High Risk Network from Puget Sound Regional Council.

Primary Goal: To achieve zero traffic deaths and serious injuries by 2035.

City of Hoboken, New Jersey Vision Zero Action Plan

Overview

Hoboken's Vision Zero Action Plan is noteworthy to highlight because of their considerable success eliminating fatalities and reducing injuries. Hoboken hasn't reported a single traffic death since 2017 and has had a 41%

reduction in injuries.[1] Implementation has included the use of quick-build treatments and also included city-wide policy changes that lowered the speed limit to 20 MPH on all city streets and 15 MPH in school and park zones.

Goals:

1. Achieve zero traffic related deaths or injuries by 2030
2. Become a city of safe and comfortable streets
3. Make equitable and context sensitive investment

Notable Strategies and Practices

Designing Safer Roads: Countermeasures and Strategies

This Safe System Approach focuses on "systemic safety" with the aim of reducing crash potential before the crashes occur. By analyzing crash types and potential contributing factors, practitioners can choose appropriate countermeasures and strategies to improve systemic safety.

The FHWA's Safe System Roadway Design Hierarchy "includes four tiers that are arranged from most to least aligned with the Safe System principles. Tiers 1 through 3 include solutions to remove potential roadway conflicts and separate vulnerable road users from traveling vehicles, with the goal of reducing crash kinetic energy if a crash does occur, whereas Tier 4 countermeasures and strategies provide critical information to the road user so they can take appropriate action."

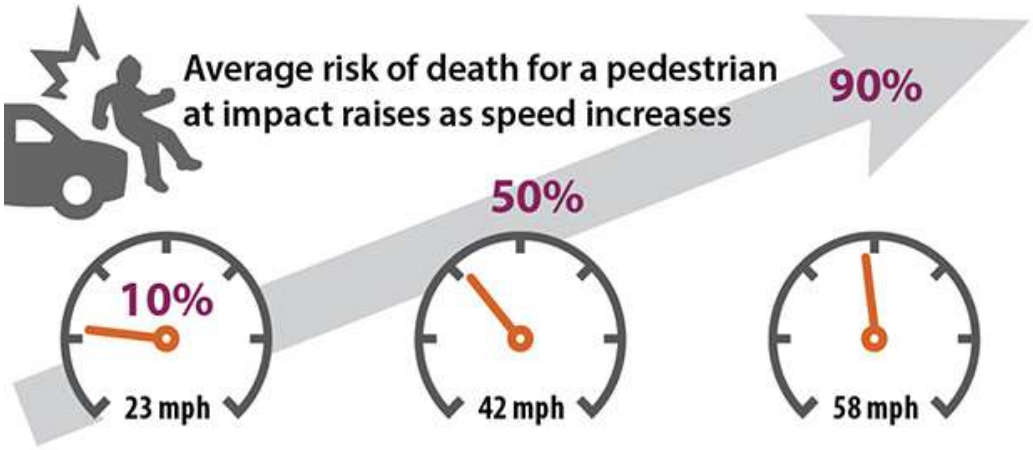
- **Tier 1: Remove Severe Conflicts**: Removing severe conflicts by separating road users moving at different speeds or in different directions and can include strategies to remove intersection crossing conflicts, removing fixed objects along the roadway or provide physical separation between motorized and non-motorized users.
- **Tier 2: Reduce Vehicle Speeds:** Reducing speeds and resulting kinetic energy if a crash occurs through by implementing speed management strategies such as self-enforcing roadways, traffic calming measures, and speed safety cameras at the same time as setting reduced speed limits.
- **Tier 3: Manage Conflicts in Time:** Separating users in time through the use of traffic control devices such as traffic signals or hybrid beacons creates a safer environment by minimizing vehicle conflicts and also improving comfort for non-motorized users.
- **Tier 4: Increase Attentiveness and Awareness:** Alerting roadway users of certain types of conflicts so that appropriate action can be taken through interventions such as crossing visibility enhancements, backplates with retroreflective borders, and rumble strips/stripes.

The FHWA provides further guidance on these types of interventions with a collection of 28 Countermeasures and Strategies that are effective in reducing fatalities and serious injuries on roadways. Each countermeasure addresses at least one safety focus area: speed management, pedestrian/bicyclists, roadway departure, intersections, and crosscutting—countermeasures that address multiple safety focus areas.

[1] Christopher Robbins, "Hoboken Hasn't Had a Traffic Death in 4 Years. What's It Doing Right?," Curbed, June 17, 2022, https://www.curbed.com/2022/06/hoboken-traffic-deaths-none-vision-zero-streets.html.

Safer Speeds

A key consideration in reducing crash frequencies and severity is reducing vehicle speeds. The FHWA notes "that speeding or traveling too fast for conditions or exceeding posted speed limits is a contributing factor in 29 percent of all fatalities" in 2021 in the United States.[2]



Source: Federal Highway Administration. Based on data from the AAA Foundation for Traffic Safety, Impact Speed and a Pedestrian's Risk of Severe Injury or Death, September 2011.

To set appropriate speed limits and design speeds, the newly updated *Manual of Uniform Traffic Control Devices* (MUTCD) recommends that practitioners consider the following six factors "*roadway environment, roadway characteristics, geographic context, crash experience, speed distribution, and analysis of speed trends*"[3]

As noted in the Federal Register regarding the updated MUTCD published in December 2023, "The FHWA emphasizes that there is no existing or new requirement that a speed limit must be set at the 85th-percentile speed" and clarifies that "*on urban and suburban arterials and rural main streets, the 85th-percentile speed should not be used as the sole consideration in setting speed limits*."[4]

2 "Speed Management | FHWA." n.d. Highways.dot.gov. https://highways.dot.gov/safety/speed-management.

3 "Federal Register :: Request Access." n.d. Unblock.federalregister.gov. Accessed January 30, 2024. https://www.federalregister.gov/documents/2023/12/19/2023-27178/national-standards-for-traffic-control-devices-the-manual-on-uniform-traffic-control-devices-for.

4 "Federal Register :: Request Access." n.d. Unblock.federalregister.gov. Accessed January 30, 2024. https://www.federalregister.gov/documents/2023/12/19/2023-27178/national-standards-for-traffic-control-devices-the-manual-on-uniform-traffic-control-devices-for.

The plans reviewed typically identified the most common crash causes or profiles and then recommended countermeasures to address these crash profiles. A follow up phone interview with each agency could provide further insights to better understand the benefits and considerations of their practices, as well as steps to take, and obstacles faced, to implement their best practices.

NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan (CSAP)

As noted above, the Northwest Arkansas region is comparable to the Spokane region in terms of the range of contexts within it. The CSAP addresses the needs within these different contexts with context-specific countermeasures.

For more urban contexts the Plan highlights 6 Countermeasures to use as part of project implementation:

- "Install pedestrian-scale lighting along the HIN, especially at trail crossings and along arterials.
- Reduce distances between crossings along arterials with long distances between signalized intersections.
- Daylight intersections (remove obstacles that impair sight lines) in town centers and in high-volume pedestrian areas.
- Implement leading pedestrian intervals at signalized intersections, specifically on applicable HIN corridors.
- Implement no right turns on red on the HIN or high-volume pedestrian routes.
- Adjust signal timing and signage for speed limit on arterials."

For the rural context the CSAP focuses on the following action items:

- "Install edge and center line treatment with bicycle-friendly rumble strips on roadways with marked shoulders.
- Install backplates with retroreflective boards at all signalized intersections and use reflectors on curves and bridges, starting with the HIN.
- Provide buffers to sidewalks and sidepaths (paint, greenspace, trees, etc.).
- Identify walking zones for schools, recreation centers, and other community identified priorities for connectivity.
- Implement road diets along the HIN where applicable."

For each recommended location included in the project list, the Plan provides a Location-Specific Project Monitoring Framework that includes 7 steps to understand crash causes, selected safety countermeasures, model Crash Modification Factors (CMF), design and engineering, construction, and safety outcome performance monitoring (using both field observations and surveys in addition to crash data).

Denver Regional Council of Governments Regional Vision Zero

The plan analyzes crash profiles by urban, suburban/compact community, rural, limited access highways areas and behavior profiles. For each area, the top 3-4 crash profiles are listed with corresponding percent Killed or Severely Injured (KSI) and percent fatal for that area. The plan dials down further for each crash profile listed, for example, "Failed to yield Right-of-Way and left turn" and provides more details about:

- What types of crashes the profile includes (for example, if they involve a person walking or bicycling or if they result in vehicle-vehicle broadside crashes)
- Where most tend to occur (for example, on arterial streets and at/near signalized intersections)
- If survey respondents rank this type of crash profile in their top three safety concerns
- How to identify these crashes in crash reports or crash data

Then for each type of crash profile, the plan recommends a menu of possible countermeasures.

Examples of countermeasures recommended for crash profiles based on context:

Urban Area

Crash Profile: Pedestrian-Involved

Mechanism/Pattern: Signalized intersection

Potential Countermeasures: "Advance stop bar, Bulbout, Countdown pedestrian signal heads, Dual curb ramps, Extend pedestrian crossing time, Far-side bus stops, High-visibility crosswalks, Leading pedestrian interval, Lighting, Parking prohibition, etc."

Suburban Area

Crash Profile: Failed to Yield Right-of-Way and Turning Conflict Crashes

Mechanism/Pattern: Broadside crashes

Potential Countermeasures: "Advance warning signs, All-way stop, Appropriate yellow/all-red signal timing (at signalized locations), Lighting, Overhead flashing beacon (at unsignalized locations), Prohibit left turn, Red-light camera, Roundabout, Signal coordination (at signalized locations), Stop lines, etc."

Rural Area

Crash Profile: Departing from the Travel Lane

Mechanism/Pattern: Departure to left

Crash Profile: Failed to Yield Right-of-Way and Turning Conflicts

Potential Countermeasures: "Advance warning sign (with optional beacon), High-friction pavement, Median barrier, No-passing zone, Pavement markings, Raised median, Rumble strips, and See "Speeding countermeasures"

Crash Profile: Left turn at signalized intersection

Potential Countermeasures: Protected turn phase, Roundabout

City of Tacoma Vision Zero Action Plan

Countermeasure Toolkit

A Safety Countermeasure Toolkit Guide provides a framework for applying countermeasures on corridors in the High Risk Network (HRN) that evaluates crash causation within project area, determines which countermeasure(s) will best resolve those crash types through the lens of the Safe System Approach. After designing and building safety improvements, projects are monitored, and additional countermeasures may be added based on actual crash data. It also provides detailed countermeasures to address crossing the roadway, daylighting/lighting, driveway improvements, roadway design, safety, signal phasing, speeding, and visual narrowing.

City of Tacoma Vision Zero Action Plan (continued)

Complete Streets Policy and Process

The plan's Transformative Action 5 is "Institute a Vision Zero/Complete Streets checklist to institutionalize prioritizing safety first in all stages of capital project planning and development, and project review." As part of this process, the City of Tacoma's Complete Streets policy and process was evaluated to determine how both could be revised to improve complete streets outcomes. A Vision/Zero Complete Street checklist was developed and adopted to use on all capital project planning and development. This checklist includes an evaluation of speed and potential countermeasures, equity in relation to project location and community engagement, accessibility to nearby transit stops, presence of all ages and abilities bicycle facilities and amenities, sidewalks, signal timing, streetscape improvements, trees, and green/vegetated stormwater facilities.

For non-access-controlled state routes that interface with the local network in Tacoma, the plan recommends coordination with the Washington State Department of Transportation (WSDOT).

City of Hoboken, New Jersey Vision Zero Action Plan

Some keys to Hoboken's success have been embracing quick-build infrastructure road safety improvements and then making them permanent as time goes on.

- Leverage routine road maintenance work such as repaving to implement low-cost, high-impact safety measures:
  - » Daylighting intersections with painted curb extensions and flex posts, bike racks, or bollards.[5]
  - » Any road with a high number of crashes and proximity to schools, hospitals, and parks are given wider sidewalks and medians when they get are repaved[6]
  - » Install high visibility crosswalks

A significant policy change to note is the implementation of 20 MPH citywide speed limit and 15 MPH speed limit in park and school zones within the City of Hoboken.

Approaches to Impaired Driving

NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan

The plan highlights the following legislation and actions related to impaired driving:

- Action 1-15 recommends, **"**Support DUI/DWI court programs that focus on education and treatment over punishment."
- Arkansas mandates ignition interlock devices (IIDs) for certain driving under the influence (DUI) offenders, as a condition of license reinstatement.

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[5] John Surico, "It's Been a Deadly Year on US Roads. except in This City.," Bloomberg.com, December 28, 2022, https://www.bloomberg.com/news/features/2022-12-28/it-s-been-a-deadly-year-on-us-roads-except-in-this-city.

[6] Christopher Robbins, "Hoboken Hasn't Had a Traffic Death in 4 Years. What's It Doing Right?," Curbed, June 17, 2022, https://www.curbed.com/2022/06/hoboken-traffic-deaths-none-vision-zero-streets.html.

Denver Regional Council of Governments (COG) Regional Vision Zero

The Denver Regional COG addresses behavior considerations as a "Crash Profile" and includes general countermeasures to address behaviors:

> **Crash Profiles:** Careless or reckless driving, Alcohol and Drugs, Aggressive driving, Distracted driving in urban, suburban/compact community, rural, and limited access highway contexts
>
> **Countermeasures:** Enforcement (that incorporates equity, for example with traffic safety cameras and graduated fines or education programs), legislation (reducing city residential street speed limits to 20mph), and culture change campaigns (for example, "twenty is plenty") to inform and educate public.

City of Tacoma Vision Zero Action Plan

The plan recommends the following actions and performance metrics to address distracted and impaired driving:

- "Promote services and create partnerships with mobility providers that help prevent impaired driving" (Supporting Action 6)
  - » Performance Metrics include "reducing fatal and severe injuring crashes involving impaired users and the development impaired driving media campaign by 2027."
  - » "Notes: Promotion should involve establishments serving alcohol, rideshare services, Pierce Transit, and other mobility services that may be available in Tacoma."
- "Collaborate with fleet operators to develop educational courses that emphasize safe operations around cyclists and pedestrians in urban areas." (Supporting Action 7)
  - » "Notes: Messaging should also emphasize the danger of distracted driving and speeding."

City of Hoboken Vision Zero Action Plan

The plan recommends the following actions to address distracted and impaired driving:

- "Implement a "Place of Last Drink Survey" to track where DUI offenders last obtained alcohol and analyze data to promote responsible practices in the sale of alcoholic beverages."(SB17)
- "Develop relationships with community-based partners and service providers to address contributing factors of crashes." (SB24)
- "Invest in communities of color and experiencing low income first." (SB26)

Approaches to Distracted Driving

According to the National Highway Traffic Safety Administration (NHTSA), distracted driving contributed to 3,522 fatalities during 2021, or 8% of all traffic fatalities. [7] Distractions include talking with other passengers, adjusting car radio, eating and drinking, using cell phones, reading email or text messages, billboard signage, etc. NHTSA suggests that new technologies such as lane departure warning, forward collision warning, and autonomous braking, offered in many new vehicles may aid in reducing distracted driving crashes. Research suggests applications available in smart phones such as "Do not disturb while driving" modes reduce driver interactions with their phones. However, since many drivers still want to be able to use their phones for navigation purposes or listening to music, the uptake of these applications tends to be limited.

While NHTSA recommends high visibility enforcement efforts to deter distracted driving, other countries such as the Netherlands, Spain, the United Kingdom, and Australia are using automated high-definition cameras to detect cell phone use while driving. While extensive research evaluating automated camera detection of cell phone use while driving still remains to be done, one study of the New South Wales driving population suggests that the automated cameras had "achieved 30% to 40% deterrence" of cell phone use while driving after its implementation in December 2019.[8] In Washington, the King County Target Zero Coalition expects to pilot automated cameras to detect cell phone use while driving in the near future.

Studies suggest that both teenagers and adults engage in distracting activities while driving, but teenagers are at higher risk of a crash when engaged in distracted activities. [9] Teenage passengers appear to be a major source of distraction for teenage drivers. As a result, there are currently laws in 46 states that restrict the number of passengers that teenage drivers are allowed to carry with a Graduated Driver License (GDL). The NHTSA ranks GDL passenger limits as one of the most effective strategies for reducing driver crashes and injuries.[10] Washington State restricts passengers under the age of 20 (immediate family excluded) in the first six months after a teenager is issued an Intermediate Driver's License.

The plans reviewed in this memo include recommendations for targeted enforcement, awareness campaigns with drivers and employers, and legislation banning of handheld devices while driving (already law in WA State). Additionally, the Southeast Michigan COG included engineering countermeasures such as installing rumble strips on edge and center lines as a strategy to increase driver awareness of potentially dangerous situation when distracted.

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7 "Distracted Driving | NHTSA." n.d. Www.nhtsa.gov. Accessed January 30, 2024. https://www.nhtsa.gov/book/countermeasures-that-work/distracted-driving.

8 "Nsw Evaluation of Mobile Phone Detection Camera Effectiveness." n.d. Bing. Accessed January 31, 2024. https://www.bing.com/search?q=nsw+evaluation+of+mobile+phone+detection+camera+effectiveness&cvid=79294b03aadd4451aeb323291ed2693a&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQRRj8VdIBCTE0NjcwajBqNKgCALACAA&FORM=ANAB01&PC=U531.

9 "GDL Passenger Limits for Young Drivers | NHTSA." n.d. Www.nhtsa.gov. Accessed January 30, 2024. https://www.nhtsa.gov/book/countermeasures-that-work/distracted-driving/countermeasures/legislation-and-licensing/gdl-passenger-limits-young.

10 "GDL Passenger Limits for Young Drivers | NHTSA." n.d. Www.nhtsa.gov. Accessed January 30, 2024. https://www.nhtsa.gov/book/countermeasures-that-work/distracted-driving/countermeasures/legislation-and-licensing/gdl-passenger-limits-young.

Efforts That Promote Safety Culture

The summary below includes some highlights education, awareness campaigns, and policies to address different aspects of Safe System Elements.

Safer Road Users / People

- NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan
  - » Bicycle education programs offered to youth by a local non-profit organization.
  - » "Partner with youth organizations to create peer-to-peer anti-distraction messaging campaigns" (1-7)
  - » "Develop a Region-Wide Safety Campaign to Share Information with the Community about Traffic Safety for All Modes" (1-10)
  - » "Conduct ongoing safety campaigns and events with the community - community safety advisory team (religious leaders, community centers, rec centers" (1-15)

- Denver Regional Council of Governments (COG) Regional Vision Zero
  - » One of the plan's primary goals is to "Increase awareness and adoption of Vision Zero" through the inclusion of educational campaigns targeted at driver behavior, and promoting Vision Zero principles.

- Tacoma Vision Zero
  - » "Creation of education materials related to common driver violations that put vulnerable users in harm's way for enforcement personnel to utilize when they witness a violation."
  - » "Annual education campaign related to common driver safety violations."
  - » Deploy high visibility campaigns around key safety issues to raise awareness and provide education as a first step before enforcement."

- Hoboken Vision Zero
  - » The plan recommends collaboration with the New Jersey State Department of Education to support the integration of traffic safety education into school curriculum.
  - » "Require specialized driver safety training for anyone authorized to drive City of Hoboken fleet vehicles or for hire drivers." (SV6)
  - » "Require scooter and bike share providers to develop safety and encouragement campaign aimed at their users, with paid promotions via community-based organizations." (SV7)
  - » "Enforce existing regulations that require micromobility companies to implement in-app tutorials and messaging for safe scooter riding." (SV8)
  - » "Plan and organize safe bicycle training programs for the general public." (SB1)
  - » "Develop and deliver mandatory second grade safe bicycle training programs in schools." (SB2)
  - » "Conduct traffic safety outreach through media and events. (SB3)
  - » "Develop an educational campaign directed at residents, businesses, students, and community organizations about road user safety and empathy." (SB5)
  - » "Institute a street safety awareness campaign during the fall when crash rates increase as the daylight decreases" (SB7)

Safer Vehicles

- Hoboken Vision Zero
  - » The plan recognizes that "Certain types of vehicles, notably larger vehicles, pose greater safety risks to people walking and biking not only because they are heavier, but also because there are

inherent blind spots. Actions for safe vehicles focus on safety features and designs for large vehicles and shared vehicles. In addition, actions for smaller vehicles will be necessary to maintain the high level service quality of fire, waste management, and delivery on streets where protected bikeways and other safety treatments may require operations to take place further from the curb."

  - » Driver training and advanced crash impact reduction technologies for parties outside of the vehicle can reduce the severity of crashes that involve large vehicles. However, the plan also recommends additional actions to update the City fleet with latest technology and safety equipment available, purchase hose extensions to allow fire trucks to access hydrants farther away from curb, and update vehicle purchasing standards to begin phasing smaller vehicles with latest crash reduction and safety technology into the fleet when possible.
  - » Key actions related to "Safe and Smaller Vehicles" include:
    i. "Regulate vehicles to incorporate safety features that protect vulnerable road users.
    ii. Educate vehicle operators on safe vehicle operations around vulnerable road users."

Safer Speeds

- City of Hoboken Vision Zero Action Plan
  - » "Implement a safe speed educational campaign using speed cameras (SSP10).
  - » Widespread dissemination of '20 is Plenty' campaign material via signage and social media posts. Survey of community awareness of campaign." (SSP11)

- City of Tacoma Vision Zero Action Plan
  - » Based on a comprehensive speed study of its network, the City of Tacoma lowered speed limit in 2023 to 20 MPH on residential 25 MPH on arterial streets in four of the city's Neighborhood Business Districts[11]. It plans to reduce speeds on additional arterials following guidance that was developed as part of the Vision Zero planning effort.

Safer Roads

- Denver Regional Council of Governments Regional Vision Zero
  - » Recommends educational campaigns related to street design tactics.

- City of Tacoma Vision Zero Action Plan
  - » Safe System elements were included in the City of Tacoma's Complete Streets checklist to institutionalize the approach in city design review practices.

- City of Hoboken Vision Zero Action Plan
  - » "Develop videos that describe the benefits of new street design elements." (SB8)

Post-Crash Care

- NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan

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11 "Vision Zero." Home - City of Tacoma. Accessed January 30, 2024. https://www.cityoftacoma.org/cms/one.aspx?pageId=190027.

    - » “Work with media partners to report traffic crashes more accurately, to avoid victim blaming, and report crashes in the context of Vision Zero” (1-1)
    - » “Enhance training for law enforcement and emergency service personnel responsible for crash reporting to address the unique attributes required to accurately report crash circumstances involving people walking and bicycling” (1-2)
- Denver Regional Council of Governments Regional Vision Zero
    - » Recommended actions include the development of resources and trainings to local communities and governments and media outlets about crash data sources and analysis and the promotion of consistent messaging and crash reporting language.

Implementation

Project Prioritization

NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan

The NW Arkansas Regional “Vision Zero” Comprehensive Safety Action Plan incorporates number of injuries, HIN, equity and degrees of disadvantage, total crashes, and public feedback into its project prioritization framework. The plan includes recommended actions to address specific safety issues and *identifies 123 locations (based on the framework detailed below in Table 2 that are recommended for infrastructure interventions)*. The complete location list is included in the plan appendix. For each location, an ID is assigned, with a corridor name and extents, municipality, length (mi), project tier, total score, KSI score, KSI crashes/mile, all crash score, all crashes/mile, equity score, HIN score, public comment score, and HIN Modes. The plan document highlights the top 15 highest priority projects.

The plan also identifies non-infrastructure projects or strategies which includes polices and programmatic actions.

The NW Arkansas Regional “Vision Zero” Comprehensive Safety Action Plan prioritizes projects into the following timeframes:

- Immediate (0-2 years)
- Short (2-5 years)
- Medium-Long (5-10 years

Funding sources are not identified for specific projects, but rough estimates of cost are included for the actions recommended by the plan:

- as
- $$ - medium (between $100k-$500k)
- $$$ - high ($500k and above)

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Table 2: NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan Project Prioritization Framework

Metric	Weight	Score Type (Tier)
Number of Killed or Seriously Injured crashes	30%	Part of HIN 3 – Yes | 0 - No
On the overall High Injury Network (HIN)	20%	3 – Highest | 2 – Middle |1 - Lowest
Equity and Degrees of Disadvantage	25%	3- Highest (degree of disadvantage, persistent poverty, and social vulnerability
Total crashes	10%	3 – Highest | 2 – Middle |1 - Lowest
Number of unsafe location comments from public	15%	3 – Highest | 2 – Middle |1 – Lowest Density of Comments 0 – No comments

Denver Regional Council of Governments Regional Vision Zero

The plan states that:

- "The Vision Zero approach is to prioritize Complete Streets and roadway design and operation projects in disadvantaged communities, and to show empathy in enforcement of behaviors in disadvantaged communities"
- "Projects should be prioritized along the regional (or local) High-Injury Networks or at locations that will reduce the risk of fatal and serious injury crashes."
- Additionally, Action 8 under Objective 3 (Design and retrofit roadways to prioritize people's safety) recommends the following strategy for project implementation: "Provide guidance on the implementation of quick build projects. Implement quick-build projects at high-priority locations when long-term solutions may lack sufficient immediate funding or have a long construction timeline."

City of Tacoma Vision Zero Action Plan

Prioritization of projects within the City's LRSP is focused on the High Risk Network, for which results of the Speed Reduction Study were a primary component. The City's Equity Index is also an important prioritization factor

Another recommended supporting action (5) related to implementation, includes implementing "a quick-build pilot program that includes low-cost traffic calming measures, prioritizing corridors, crossings, and districts identified for speed reduction or pedestrian safety improvements, particularly in areas with low Equity Index scores." This pilot program incorporates monitoring and evaluation through observations and surveys to compliment any crash data that may not be readily available.

City of Hoboken Vision Zero Action Plan

Some actions included in the plan related to project prioritization include:

- "Develop a Traffic Calming Master Plan to guide the installation of traffic calming infrastructure. Focus on installing speed reduction infrastructure along high crash segments where excessive speed is a prominent crash factor." (SS25)
- "Regularly assess crash data, identify crash hot spots, and prioritize improvement areas. Use this information to inform budget appropriations or grant application priorities." (DDS15)
- "Conduct annual road safety audits at high crash locations to identify contributing roadway factors and inform appropriate safety countermeasures." (DDS8)

City of Kansas City Missouri Vision Zero Action Plan

Although not included in other parts of this review, Kansas City's Vision Zero Action Plan's project prioritization framework is worth highlighting:

"The highest level prioritization metric is the High Injury Network priority. The HIN was broken down into Top, High, Medium, and Moderate priority segments, solely based on their weighted KSI score. After narrowing the corridor list down to those ranked priority HIN corridors, a further prioritization metric is used to rank projects within the HIN groups. This metric includes:

- Equity (focus on prioritizing community engagement and projects in Transportation Disadvantaged areas)
- Inclusion on the proposed bike network
- Inclusion on the road diet candidate network.
- Leveraging other adjacent projects
- Feasibility of quick implementation"

Project lists for Immediate Target Steps (Year 1), Short-Term Targeted Steps (Year 1-3), Medium-Term Targeted Steps (Year 3-5), and Long-Term Targeted Steps (Year 5-10) were developed using the above metrics.

"In addition to implementing quick build projects, the Kansas City Public Works department has already implemented Vision Zero as a key ranking factor in rating Capital Improvement Plan (CIP) projects. If a project is located on the High Injury Network as included in this plan, the projects receive a higher score for implementation. Additionally, if the project greatly adds safety countermeasures as outlined by Vision Zero principles in this plan, it scores even higher. This project prioritization is now a permanent part of CIP planning in Kansas City."

Actions and Performance Metrics

NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan

The plan includes a total of 75 recommended actions under each of its four overarching goals (1. Promote a culture that prioritizes people's safety, 2. Reduce conflicts between roadway users, 3.Establish policies, practices, and programs that focus on safety at all levels, and 4. Slow vehicle speeds).
Monitoring recommendations include annual reporting, a data dashboard, and monitoring by member agencies.
Performance metrics include, but are not limited to:

- Crashes involving bicycles and pedestrians
- Crashes resulting from unsafe speeds
- Crashes in rural versus urbanized areas
- Crashes occurring on roadways in Historically Disadvantaged Communities, Areas of Persistent Poverty, and/or Socially Vulnerable communities.

Denver Regional Council of Governments Regional Vision Zero

The Plan includes the following six overarching objectives.

1. Improve collaboration between allied agencies
2. Increase awareness and adoption of vision zero
3. Design and retrofit roadways to prioritize people's safety
4. Improve data collection and reporting
5. Increase funding and resources
6. Increase legislative support

For each objective, action initiatives, sub-actions, responsibility (lead agency), and action year are defined. Performance metrics highlighted in a section called Tracking Progress" are included for each objective. For Objective 2 (Increase awareness and adoption of vision zero) includes the metric," Number of local governments that develop safety plans for reducing fatal and serious-injury crashes."

Some examples of metrics for Objective 3 (Design and retrofit roadways to prioritize people's safety) include:

- "Number of traffic safety improvement projects implemented along the regional High-Injury Network."
- "Publication of the Complete Streets Toolkit."
- "Update to CDOT's Roadway Design Guide and State Highway Access Code."

City of Tacoma Vision Zero Action Plan

The Tacoma Vision Zero plan recommends 11 Transformative Actions and 14 Supporting Actions. For each Transformative and Supporting Action, the Key Implementer(s), Focus Area (from the Safe System Approach principles), Progress Metric(s), and Implementation Notes are specified. The City of Tacoma also maintains an online Vision Zero Dashboard that includes a map with crash locations and performance measures each year from 2016-2022 with the number of:

- Fatal Crashes
- Serious injury crashes
- Youth in Crashes – Age 18 and under
    - » KSI crashes involving young drivers
    - » All crashes involving young bicyclists and pedestrians
- KSI Crashes on High Risk Network
- KSI Crashes Involving Impaired Users
- KSI Crashes on Arterials
- Mid-block Crashes by Posted Speed

City of Hoboken Vision Zero Action Plan

The implementation strategy is centered around Action Items related to the Safe System Approach principles (Safe Streets, Safe Speeds, Safe and Smaller Vehicles, Safe Behaviors, Post-Crash Investigation and Care, Data Driven Decisions) with attached time frames (Immediately, Within Two Years, and Within Five Years). Anticipated impact (low, moderate, and high) and performance metrics are included for each action.

Funding

Funding plan implementation was approached in a variety of ways in the jurisdictions reviewed, from recommendations to dedicate specific budget line, and grant applications for additional federal funding sources (such as the Safe Streets for All (SS4A) Implementation grants.

NW Arkansas Regional Planning Commission Comprehensive Safety Action Plan

The plan includes a recommended action to secure a sustainable funding source for transit to increase frequency, reduce travel time, an expand service area (1-14). Additionally, the plan addresses funding and equity questions by citing the Regional Planning Commission's ability to offer storytelling,

> "NWARPC allocates funding but is not an implementing agency. Additionally, many safety interventions must happen at the local level, although NWARPC has a regional focus. Still, NWARPC can influence equity outcomes through storytelling using the high-level issues and patterns identified in the regional analyses. The regional mapping can be used by smaller towns and rural communities with fewer resources to conduct their own analyses. In this way, NWARPC can help these jurisdictions tell the story of their transportation needs and who is vulnerable to mobility limitations."

One significant outcome of this planning effort was the recent award a $25 million SS4A implementation grant in December 2023 to the city of Fayetteville to support safety improvements on five transportation corridors identified on Fayettville's High-Injury Network as well as a community-wide education and awareness campaign[12]. Fayetteville is located in Washington County, which is one of the four counties that are part of the Northwest Regional Planning Commission. This was one of the highest SS4A grant amounts awarded (out of 620 recipients) nationwide.

Denver Regional Council of Governments Regional Vision Zero

In the Increase funding and resources objectives, some action s include:

- "Modified Transportation Improvement Program criteria to prioritize safety projects on regional HIN that address key crash profiles, or otherwise reduce killed and serious-injury crashes (DRCOG)
- Dedicate a Capital Improvement Project funding source for safety improvements, targeting the regional (or local) High-Injury Network or specific crash profiles depending on area type, land use context and street function, with a focus on communities of concern. (Local Governments)
- Dedicate funding and resources to maintenance of facilities that enhance safety. (CDOT, Local Governments)
- Research and identify grants as potential funding resources for local governments and provide data and analysis for applications and letters of support." (DRCOG)

Tracking progress: Annual regional and local funding dedicated to traffic safety projects.

City of Tacoma Vision Zero Action Plan

A Local Road Safety Plan (LRSP) was developed in conjunction with the Vision Zero Action Plan. The LRSP is a requirement to receive funding from the Washington State Department of Transportation (WSDOT). The plan's transformative action 2 also relate to securing funding for the implementation of Vision Zero strategies and for long-term maintenance of improvements. Implementation Notes include the following actions related to funding:

- "Use data to equitably direct funding and resources to eliminate crash disparities.
- Increase Street Operations and Traffic Signal and Streetlight Shop full-time positions dedicated to supporting installation and maintenance of crosswalks, green markings, Rectangular Rapid-Flashing Beacons (RRFBs), protected bike lanes, quick-build projects, and other safety improvements.

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[12] "City of Fayetteville, Arkansas." n.d. Www.fayetteville-Ar.gov. Accessed January 28, 2024. https://www.fayetteville-ar.gov/4318/Safe-Streets-and-Roads-for-All.

- Fund a full-time Vision Zero Coordinator, Pedestrian Coordinator, and Transit Coordinator position."

City of Hoboken Vision Zero Action Plan

For each recommended action, there is an evaluation of whether the action can be accomplished with a reallocation of current resources, existing grant programs or resources, and whether funding has been secured.

Other actions related to funding include:

- "Create dedicated expenditure line within the transportation operating budget for bicycle infrastructure." (SS8)
- "Establish a permanent funding source for VZ program and align existing funding sources through joint budget requests." (SS10)
- "Update planned capital improvement program to consider high crash corridors." (SS22)

Southeast Michigan Council of Governments Transportation Safety Plan

SE Michigan COG's Transportation Safety Plan's includes of a variety of possible federal funding source opportunities:

- Highway Safety Improvement Program (HSIP)
- Safe Streets and Roads for All (SS4A)
- Office of Highway Safety Planning Grants
- Surface Transportation Block Grant Program (STBG)
- Transportation Alternatives Program (TAP)
- Safe Routes to School (SRTS) Major Grants
- Air Quality Programs
- Federal Railroad Administration (FRA) Railway-Highway Crossing Program

The Recommended action: "Identify and promote funding opportunities for safety projects Prioritize safety in all Federal-aid investments and in all appropriate projects, using not only HSIP funding but also other Federal-aid funding and other funding opportunities as they arise. Also promote economies of scale through joint grants and applications of new facilities."

Conclusion

This memo has highlighted Vision Zero planning and implementation efforts of the Northwest Arkansas Regional Planning Commission, Denver Regional Council of Governments, the City of Tacoma, Washington and the City of Hoboken, New Jersey. Each of these planning and implementation efforts includes approaches that are excellent references in our work developing the Safety Action Plan for the Spokane Regional Transportation Council. There is something to learn from each of these efforts, whether it's Northwest Arkansas multi-pronged approach to community engagement, robust data analysis and incorporation of equity into all aspects of its work or the Denver region's menu of countermeasures based on crash profile and rural, suburban, and urban contexts or the quick-build implementation approaches that Hoboken is utilizing to gain fast progress in their Vision Zero goals.