Appendix D: County of Orange Local Road Safety Plan (LRSP) Safe Systems Benchmarking Assessment

The Safe System Benchmarking Assessment is a self-evaluation tool developed by the Federal Highway Adminstration (FHWA) and is used to help agencies assess how the Safe System approach is incorporated into their policies, programs, and routine business practices. The assessment is adapted from the FHWA Primer on the Safe System Approach for Pedestrians and Bicyclists. The tool was developed to support agencies in identifying opportunities to integrate Safe System principles across planning, design, operations, and project delivery. It is not intended to be all-encompassing; rather, the assessment is designed to be adaptable and iterative, allowing agencies to update and refine it as new information becomes available or as additional opportunities to implement the Safe System approach are identified.

Core Element	Category	Benchmark	State of Current Practice	Existing Assessed Level of Commitment/Implementation			Path to Institutionalization			Recommended Strategies
				Not a Current Practice	Implemented Where Practicable	Institutionalized Practice	No Action Needed	Accomplish with the LRSP	Further Actions Post-Adoption	
Safety Planning and Culture	Leadership and commitment	Leaders publicly commit to a "Zero" goal for traffic fatalities and serious injuries within a specific timeframe, and exhibit buy-in for the Safe System approach through media, public events, and support for related policies and programs.	Orange County Board of Supervisors and Public Works staff recognize roadway safety as a core transportation goal. Orange County Public Works demonstrates strong engagement through participation in the **LRSP** and related policy initiatives, with a unified, countywide commitment to safety.		X			X		Strengthen countywide commitment to roadway safety by formally adopting the **LRSP** and publish the plan on the County's website for public access.
		Establish key safety performance indicators and implement a monitoring process to evaluate progress.	The County actively monitors safety performance; however, current efforts are primarily focused on responding to incidents. Expanding toward a more proactive, data-informed approach would strengthen the County's ability to anticipate and prevent future safety issues.		X			X		Adopt and track the Safety Performance Indicators (SPIs) identified in the **LRSP**, and implement a regular monitoring process to proactively assess progress and guide future safety investments.
	Data and analysis	Apply a proactive and transparent approach to data-driven safety analysis, including the use of systemic profiles, roadway and roadside condition, and modal specific condition assessments.	The County maintains a solid framework for proactive, data-driven safety analysis through the 2019 **Systemic Safety Analysis Report (SSAR)** and regular Safety Plan updates.			X	X			
		Focus network screening and benefit/cost calculations on fatal and serious injuries, instead of all collisions, to identify the core safety issues for human vulnerability.	The County's evaluation methods already emphasize fatal and serious injury crash reduction.			X	X			
		Maintain a GIS inventory and actively work to improve accuracy of crash data and roadway data such as missing sidewalks, bikeways, intersection controls, etc.	The County maintains a comprehensive GIS inventory that includes crash and roadway data, such as sidewalks, bikeways, and intersection controls, and continues to improve data accuracy to support effective safety analysis and planning.			X	X			
		Use innovative data collection and analysis approaches, such as crowdsourcing or video detection data, to identify emphasis areas related to near misses or crashes previously unreported by vulnerable communities.	The County is exploring innovative data collection and analysis methods. There remains significant opportunity to expand their use.		X				X	Leverage crowdsourcing tools, third-party mobility data, and video-based detection or conflict analysis to identify near-miss events and safety concerns that may not be captured in police-reported crash data. These approaches can help agencies better understand risk patterns affecting vulnerable road users and communities that are historically underrepresented in crash reporting, thereby improving the identification of emphasis areas and informing more proactive and equitable safety investments.
	Funding	Change project evaluation methods for funding to primarily focus on fatal and serious injury crash reduction opportunities.	The County's evaluation methods already emphasize fatal and serious injury crash reduction.			X	X			
		Institutionalize safety considerations in all project types to systematically fund projects through operations and maintenance efforts (such as repaving projects).	Through development of the **Active Transportation Plan (ATP)** and **Americans with Disabilities Act (ADA) Transition Plan**, the County is actively identifying corridors and locations where safety enhancements can be integrated into a variety of project types. The County's existing peer review process/evaluation method considers and incorporates recommendations from the various plans for pavement and Capital Improvement Program (CIP) projects.			X	X			
Safe Road Users	Education	Perform outreach through educational programs on rules of the road and the use of protective equipment, with a focus on those behaviors and target audiences most linked to death and serious injuries.	Current programs primarily emphasize school-based education and regulatory initiatives, with opportunities to expand into more proactive, countywide campaigns that address the behaviors most linked with fatal and serious injury crashes.		X				X	Expand safety education through partnerships with local agencies, schools, and community organizations, and introduce e-bike safety and training programs to reach broader audiences and address emerging safety challenges.
	Enforcement	Reallocate enforcement activities to target behaviors and locations most linked to death and serious injury.	The California Highway Patrol (CHP) and the Orange County Sheriff's Department allocate resources for high-visibility enforcement focused on high-risk behaviors such as impaired driving and excessive speeding. However, challenges such as the County's large geographic area and competing priorities can limit the consistent application of targeted enforcement across all high-risk locations.		X				X	Continue and formalize coordination with the California Highway Patrol and the Orange County Sheriff's Department through existing Traffic Committees and related interagency forums to align enforcement priorities, share data, and reinforce a consistent focus on behaviors and locations most associated with fatal and serious injury crashes. While recognizing that enforcement deployment decisions, staffing levels, and budget constraints fall largely outside the purview of Orange County Public Works, these coordination efforts can help maximize the effectiveness of available resources and support targeted, data-driven enforcement where feasible.
Safe Roadways	Project implementation	Expand the systematic use of proven countermeasures to separate users in space and time and to improve attentiveness and awareness, such as protected signal phases, clear zones, and vertical and horizontal separation for pedestrians and bicyclists.	The County's transportation and safety plans increasingly apply the Safe System Approach, identifying proven, context-sensitive countermeasures. While these countermeasures are incorporated through planning efforts, their implementation is not yet fully systemic across the County roadway network. Opportunities remain to more consistently apply these treatments to better align with Safe System principles and address locations with elevated risk for pedestrians and bicyclists.		X				X	Systematically implement proven safety countermeasures that separate users in space and time and improve attentiveness and awareness across County roadways, prioritizing locations with elevated risk and advancing consistent application of Safe System principles beyond individual projects.
		Complete infrastructure connectivity for pedestrians and bicyclists and make progress toward providing separation where needed based on crash exposure, crash history, and characteristics of the roadway and adjacent land use associated with higher levels of use.	The County is making progress toward improving pedestrian and bicycle connectivity through efforts such as the **ATP** and **ADA Transition Plan**, which identify key corridors and gaps in the network. However, opportunities remain to provide greater physical separation where crash exposure, crash history, and land use patterns indicate higher risk or activity levels. Continued expansion of safe, connected, and context-sensitive active transportation infrastructure will strengthen user protection and accessibility.		X				X	Prioritize completion of pedestrian and bicycle networks by targeting locations with high crash risk and activity, and incorporate context-based separation treatments informed by roadway characteristics, land use, and crash data.

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Safe Roadways (continued)	Policies and tradeoffs	Designate functional class and modal priority for roadways to pinpoint the most effective safety countermeasures and streamline tradeoff decisions.	The County's current **Transportation Element** provides general roadway classifications but lacks clearly defined modal priorities and a structured framework for selecting context-appropriate safety countermeasures.	X					X	Establish functional roadway classifications and clearly defined modal priorities to support selection of context-appropriate safety countermeasures and improve transparency and consistency in tradeoff decisions, with particular focus on corridors experiencing higher rates of fatal and serious injury crashes.
		During development review, evaluate site access, internal circulation, and recommended transportation demand management measures to ensure they follow safety best practices and encourage active transportation modes.	Although the County's **Transportation Implementation Manual** includes active transportation and transportation demand management review as part of the development process, its guidance continues to rely primarily on vehicle Level of Service (LOS) to identify adverse operational impacts. This approach limits consideration of safety-focused metrics, such as vehicle queues, conflict points, or other indicators of crash risk.		X				X	Enhance the development review process to prioritize safety-focused performance measures and best practices for active transportation and transportation demand management, reducing reliance on vehicle Level of Service and incorporating metrics such as conflict points, queuing, and multimodal safety to ensure circulation within and around new development supports safe access for all users.
		Ensure safety for all users is prioritized, and accessibility maintained, during construction and road maintenance projects.	The **Orange County Traffic Manual** and **Orange County Municipal Code** include requirements for permits, safety devices, and traffic control during construction and maintenance projects, as well as provisions for temporary pedestrian walkways when access is impeded. However, these documents primarily focus on vehicular operations and work zone management, with limited guidance addressing multimodal safety or accessibility for all users, such as bicyclists and pedestrians. As a result, while basic construction safety measures are established, consistent multimodal safety practices are not yet fully institutionalized.		X				X	Strengthen construction and maintenance policies and procedures to move beyond the current case-by-case assessment of work zone safety and accessibility and more consistently prioritize multimodal safety and access for all users, such as pedestrians, bicyclists, and people with disabilities, through standardized requirements.
Safe Speeds	Design and operations	Adopt roadway design standards that are focused on speed management, such as target speed-based design. Adjust roadway geometries for context-appropriate speeds.	The County's transportation and safety plans, such as the **SSAR and ATP** identify proven countermeasures, such as roundabouts, refuge islands, and road diets, to manage vehicle speeds and reduce collision angles. However, existing design guidance offers limited flexibility to consistently apply traffic calming and target speed–based design across roadway types. As a result, opportunities remain to more systematically incorporate context-appropriate roadway geometries and proactive speed management strategies throughout the County roadway network.		X				X	Adopt roadway design standards that prioritize speed management by incorporating target speed–based design and context-appropriate roadway geometries, enabling more consistent and systemic application of traffic calming and speed management treatments across County roadways rather than relying on project-by-project discretion.
	Enforcement	Deploy automated speed enforcement.	Automated speed enforcement is not currently legal in California, except in select pilot cities authorized under recent state legislation, which prevents the County from implementing this measure at this time.	X					X	Monitor the outcomes of California's automated speed enforcement pilot programs and remain prepared to pursue authorization and implementation if state law is expanded, including evaluating potential corridors, equity considerations, and administrative requirements to support effective deployment when permitted.
	Policy and training	Follow speed limit setting methodologies that determine appropriate speeds based on roadway context and modal priority, rather than exclusively using the historic behavior of road users. Provide speed management training to staff focused on fatality and serious injury minimization.	The County is aware of California Assembly Bill 43 (AB 43) and is applying its provisions, which allow local authorities to set speed limits based on roadway context and vulnerable users rather than solely the 85th-percentile speed. The LRSP will further identify safety corridors consistent with AB 43, providing the foundation for context-sensitive speed management.		X			X		Provide staff training on AB 43 methodologies, update speed-setting procedures to prioritize vulnerable users, and establish a routine review process to align speed limits with **LRSP** corridor designations and evolving safety data.
Post Crash Care	Partnerships	Share data across departments and organizations, including first responders and hospitals, to develop a holistic understanding of the safety landscape and improve accuracy.	The County currently shares crash data across departments and partner agencies; however, hospital and injury outcome data are not included, limiting a complete understanding of crash severity and recovery outcomes. Additionally, data sharing is not yet automated or integrated within a centralized County system, making updates and analyses time-consuming and resource-intensive.		X				X	Support and participate in collaborative, interagency efforts to advance integrated and automated sharing of crash, roadway, enforcement, and injury outcome data among state, county, and local agencies, law enforcement, and hospitals. Emphasizing standardized data practices, appropriate privacy protections, and coordinated governance can help improve data accuracy, timeliness, and completeness, while reducing reliance on manual processes and supporting a more comprehensive understanding of roadway safety outcomes.