



# DRAFT RECOMMENDATIONS TO IMPROVE TRAFFIC SAFETY IN THE WASHINGTON, DC METROPOLITAN AREWA

## INTRODUCTION

For the past year, the National Capital Region Transportation Planning Board (TPB) Technical Committee has conducted a Regional Safety Study to:





























- Understand the factors contributing to fatal and serious injury crashes in the National Capital Region (NCR);
- Determine where crashes on the roadway transportation network are over-represented;
- Identify and recommend proven effective solutions (policy, programmatic, project);
- Provide the TPB and member jurisdictions specific suggestions to improve safety; and
- Inform future Transportation Safety Subcommittee and Street Smart efforts.

Following are recommended actions that can, if implemented, reduce the number of people killed or seriously injured throughout the region in four areas that were identified through data analysis as the area's serious traffic safety problems including pedestrian, intersection, major arterial, and young driver crashes.
















## LEGEND





































	Intersections		Major Arterials		Roadway Departure		Rear-end Collisions
	Speeding		Alcohol Impaired Driving		Distracted Driving		Occupant Protection
	Pedestrians		Young Drivers		Older Drivers		Enforcement
	Education		Emergency Medical Services		Communications		Legislation

**DESIGN AND OPERATE SAFER INFRASTRUCTURE**

		Install pedestrian hybrid beacon and advanced yield signs, stop markings and signs, high visibility crosswalk markings.	
		Implement leading pedestrian interval (LPI) at intersections with high turning vehicle volumes.	
		Conduct pedestrian road safety audits in areas with a higher than average crashes.	
			Reduce motor vehicle speeds by using data driven, effective, and equitable enforcement methods that utilize available technology, such as automated speed cameras, and other traffic calming strategies such as narrower lanes, adding roundabouts, and implementing road diets.
			Evaluate mid-block crossings with higher rates of fatalities and serious injuries (especially those over 10,000 Annual Average Daily Traffic (AADT)) to determine the need for more improvements such as medians, refuge islands, pedestrian hybrid beacon, and rectangular rapid flashing beacons.
			Install pedestrian countdown signals.
			Improve geometry of pedestrian and bicycle facilities at signalized intersections with high frequencies of pedestrian and/or bicycle crashes and on routes serving schools or other generators of pedestrian and bicycle traffic.
			Install lighting at intersection and mid-block crossings to ensure motorists can see pedestrians crossing the road at locations with high pedestrian crashes.
			Evaluate double-right turns at intersections to determine if removal of one right-turn lane is warranted.
			Implement audible pedestrian crossing signals where appropriate.
			Create pedestrian safety zone programs in areas with high occurrences of pedestrian crashes.
			Replace intersections that have high numbers of fatalities and serious injuries with roundabouts, a circular intersection configuration with channelized approaches and a center island that results in lower speeds and fewer conflict points, wherever feasible.
			Utilize multiphase signal operation at signalized intersections with a high frequency of angle crashes involving left turning and opposing through vehicles as well as rear-end and sideswipe crashes.
			Increase change intervals (when the traffic lights change) at signalized intersections at locations where too-short signal change intervals cause rear-end crashes and crashes between vehicles continuing and entering the intersection between phases.
			Improve left-turn channelization (providing definite paths for vehicles to follow) at signalized intersections where left-turn crashes are an issue.
			Improve right-turn channelization at signalized intersections with a high number of rear-end collisions.
			Install LED heads and reflective backplates (reflective borders around traffic lights that make them more visible) in locations with high numbers of signalized intersection fatal and serious injury crashes.

**DESIGN AND OPERATE SAFER INFRASTRUCTURE**

		Restrict access to properties using driveway closures or turn restrictions that are near signalized intersections with high crash frequencies related to driveways.
		Restrict or eliminate turning maneuvers (including right turns on red) or employ signal coordination at signalized intersections with a high frequency of crashes related to turning maneuvers.
		Improve signage at unsignalized intersections by ensuring foliage does not block the sign, the lettering is still reflective, and the sign is located where it can be seen by motorists.
		Add reflective material to sign posts at unsignalized intersections.
		Install LED-enhanced stop signs at unsignalized intersections where there are a higher than average number of fatal and serious injury crashes.
		Implement high friction treatment at intersections that have a high number of rear-end crashes.
	 	Implement left-turn traffic calming (left turn hardening) to reduce left turn speeds and provide for safe turning behavior at intersections that show a pattern of pedestrian-related left turn crashes and intersection geometry that facilitates high speeds.
		Implement roadside design improvements such as clear zones, slope flattening, and adding or widening shoulders to improve ability for drivers to safely recover if they leave the travel lane.
		Implement enhanced delineation treatments to alert drivers in advance of the curve including pavement markings; post-mounted delineation; larger signs and signs with enhanced retro-reflectivity; and dynamic advance curve warning signs and sequential curve signs.
		Implement improvements including installation of cable barriers, guardrails, and concrete barriers to reduce the severity of roadway departure crashes.
		Identify areas in the region that could benefit from traffic calming including road diets that reduce the number of traffic lanes and planting trees that encourage reduced speeds.
	 	Install high friction surface treatment (HFST) in locations where the available pavement friction is not adequate to support operating speeds at a sharp curve, inadequate cross-slope design, wet conditions, polished roadway surfaces, or driving speeds in excess of the curve advisory speed.
		Install longitudinal rumble strips and stripes in locations where run-off-the-road crashes are high.
		Install the Safety Edge to eliminate the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely.
		Develop a regional Safety Checklist or template as a tool for local jurisdictions to use during planning and project identification efforts

ENCOURAGE SAFER BEHAVIOR		
 		Include pedestrian safety and the risks of impairment for pedestrians and drivers in alcohol related media campaigns.
 		Develop and implement pedestrian safety programs for elementary school students.
 		Continue the regional Street Smart Campaign and strengthen by aiding member jurisdictions to engage street teams and other elements of the campaign at more locations throughout the year.
 		Develop and implement school focused pedestrian strategies building on the work done in the Safe Routes to Schools program.
  		Conduct education and fair, equitable, data-driven compliance campaigns focused on distracted driving (D.R.I.V.E, Texting and Driving Initiative).
 		Support legislative classification of distracted driving as a "moving violation" and decide if changes are needed.
  		Provide public information, education, and training for older drivers on risks associated with signalized intersections such as red-light running, speeding, not yielding to pedestrians, and difficulty judging speed and distance of approaching vehicles when making left turns.
		Conduct a study to determine the safety needs of older adults in the region and coordinate internally and externally to provide information on transportation alternatives other than driving.
  		Increase automated enforcement at intersections including speed on green lights, stop-light camera, blocking the box, etc.
		Implement safety awareness campaigns specifically for low seat belt use groups.
 		Support state primary seat belt legislation.
		Evaluate incident response times to determine if additional Traffic Incident Management (TIMS) training and/or other resources are needed.
		Develop incident response plans for interstates and arterials throughout the region.
 		Implement strategic and well-publicized compliance programs aimed at young drivers.
  		Conduct well publicized, multi-component compliance campaigns throughout the region to address underage drinking, including licensing actions for underage alcohol violations, and vendor compliance checks to reduce underage drinking.
  		Implement and enhance server training programs to enable servers to identify underage customers and prevent overserving.
  		Increase use of ignition interlocks for impaired driving offenders.

**ENCOURAGE SAFER BEHAVIOR**



Provide and encourage use of ride sharing programs (like SoberRide) to reduce impaired driving.



Conduct well-publicized compliance programs aimed at impaired drivers.



Encourage more late-night transit service to provide options other than driving while impaired.

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