Variable Speed Limits

VSLs are speed limits that change based on road, traffic, and weather conditions to better reflect a safe traveling speed. Demonstrated applications and benefits of variable speed limits include:

- Flow-Based Operations Smoother traffic flow and less delay by proactively managing speed on congested roadways.
- Work Zone Reduced speed so that vehicles approach construction areas and pass-through work zones at safer speeds.
- Weather Based Operations VSL systems during inclement weather improve safety by decreasing the risks associated with traveling at speeds that are higher than appropriate for the conditions.

CDOT developed a Protocol and State of Practice in 2018 and is now in the process of developing the CDOT VSL Guidelines and feasibility evaluation tool to ensure standards with implementation flexibility for all regions. The new guidelines include how to deploy manually and automatic VSL corridors.

VSL corridors are being deployed with flow based and weather-based algorithms on the I-70 Corridor in Glenwood Canyon and on the I-70 Eastbound Peak Period Shoulder Lanes. Additional corridors on Wolf Creek Pass, Westbound Peak Period Shoulder Lane, Eastbound I-70: Genesee to Wadsworth, and with the I-25 GAP area are under consideration.

Guidelines should be published in December of 2022.