

SAFETY

Crash Reduction Model. CDOT's crash reduction model focused on the crashes that would be avoided as a result of TEAMS Project construction activities on SH 119 between mileposts 4.9 and 6.3 only. This is the section of SH 119 that would be widened and realigned to reduce curves. It was assumed that crash reduction would be minimal on other sections of TEAMS Project roads. The model incorporates the crash reduction factors from various improvements, including shoulder size, number of lanes, existence of medians, improved guardrails and improved curves.

Traffic Volume and Crash Projections. Because the crash reduction model only quantifies reductions on SH 119, annual traffic volume was also only projected for SH 119. Projections of SH 119 traffic volumes for 2010 through 2030 are based on the historical annual average increase in traffic on this road and projections of increased traffic volume due to Colorado's new gaming rules. SH 119 crash projections between 2010 and 2030 without the TEAMS Project are based on the historical ratio of crashes, by type, to traffic volume.

Crash Reduction and Cost Savings. The crash reduction model produces aggregate crash reduction factors for specific portions of SH 119. These factors were applied to the crash projections to determine the reduction in crashes as a result of the TEAMS Project. Crash cost savings were estimated using US DOT's *Treatment of the Value of a Statistical Life in Department Analyses- 2009 Annual Revision* and *The Economic Impact of Motor Vehicle Crashes 2000*. Cost values in these documents were inflated by 2.88 percent per year to account for inflation, based on historical CPI data obtained from the Bureau of Labor Statistics.