

BIA Route 2 – Kyle to SD Highway 44 Traffic Forecasting

Current and Forecasted Traffic Flows

Existing traffic flow data for BIA Route 2 was gathered from 2006-2010 and again in 2018 and 2019. The ADT average's east of Kyle stayed near 700. Traffic counts in Kyle are assumed near 2,000 per day based on traffic counts from roads entering the community. The 20-year forecasting factor of 1.276 was derived from the SDDOT "20-Year Traffic Forecasting Factors SD1999-04". To determine the Future ADT's with the project completed, it was assumed that 10% of the traffic from SD 44 and SD 73 would reroute and use the newly constructed BIA 2. An increase in truck traffic for mineral mining and passenger and buses for tourism traffic was estimated. Following is a summary of the historic, current, projected and project impacted ADT's, including truck traffic. An average forecast of 1.77 is assumed for the next 20 years.

Road Name (Location)	BIA 2 (West of Kyle, SD)	BIA 2 (east of Kyle, SD near BIA 39)	BIA 2 (near Veterans Cemetery)	BIA 2 (near Potato Creek)	BIA 2 (near SD 44)
2006-2008 Recorded ADT / Truck / %Trucks	2072 / 236 / 11.4%	1184 / 208 / 17.6%		402 (SDDOT total ADT only)	388 / 45 / 11.4%
2018-2019 Recorded ADT / Truck / %Trucks		750 / 125 / 16.7%	694 / 116 / 16.8%	623 / 62 / 10%	
Future 20-Year ADT / Truck without Project Completed	2100 / 240	1200 / 210	700 / 120	700 / 65	700 / 45
20-year Forecasting Factor	1.276	1.276	1.276	1.276	1.276
Future 20-Year ADT / Truck with normal economic increase	2500 / 310	1200 / 160	900 / 150	900 / 80	900 / 60
Traffic Shifting to BIA 2 due to Project Completed	+100 / 20	+100 / 20	+100 / 20	+100 / 20	+100 / 20
Truck Traffic Increase due to Mineral Mining	+0 / 50	+0 / 50	+0 / 100	+0 / 170	+0 / 100
Tourism Traffic Increases to BIA 2 due to Project Completed	+250 / 50	+250 / 50	+250 / 50	+250 / 50	+250 / 50
Future 20-Yr ADT / Truck / % Trucks with Project Completed	2850 / 430 / 15%	1550 / 280 / 18%	1250 / 320 / 26%	1250 / 320 / 26%	1250 / 230 / 18%
Projected Forecasting Factor for Vehicles / Trucks	1.35 / 1.79	1.29 / 1.33	1.78 / 2.67	1.78 / 4.92	1.78 / 5.1