

Juneau Access Improvements Project
Draft Supplemental Environmental Impact Statement
TRAVEL DEMAND

The purpose and need for the Juneau Access Improvements (JAI) Project is to provide improved surface transportation to and from Juneau within the Lynn Canal corridor. A primary component of this purpose and need is to provide the capacity to meet transportation demand.

To design possible alternatives that could satisfy traffic demand, the Alaska Department of Transportation and Public Facilities (DOT&PF) had to forecast traffic in Lynn Canal. The traffic forecasts are the result of two traffic model approaches—total demand modeling and travel choice modeling.

Total Demand Model: The total demand model predicts the amount of traffic that would occur if a hypothetical roadway were present between Juneau and Haines/Skagway to provide uninterrupted access between these communities at any time. Traffic generated by this concept is considered “unconstrained” demand. The unconstrained demand is not dampened by factors such as waiting times for ferries, and has maximum convenience because travelers can go at any time and at highway speeds. To get the total, unconstrained travel demand for the corridor, DOT&PF used information from household surveys, existing traffic volumes, and comparisons with other locations.

Travel Choice Model: Each of the alternatives has components (e.g., ferry schedule, varying travel times, waiting times, etc.) that will serve to dampen demand downward from the total, unconstrained demand in the corridor. Thus, each alternative will capture only a percentage of the total, unconstrained demand volume. The travel choice model predicts the proportion of the total, unconstrained demand that would travel under each alternative based on the relative costs, convenience, and travel time offered by each alternative. Information used in the development of the travel choice model includes auto travel time and cost, ferry travel time and cost, and waiting times for ferries.

The Travel Choice Model results in base year (2011) traffic volume forecasts. Growth projections were applied to the results to determine the 2020 annual average daily traffic (AADT) volumes. AADT is the total traffic for one year divided by 365. The summer average daily traffic (SADT) and the winter average daily traffic (WADT) were calculated from the AADT based on seasonal factors. This is necessary since traffic volumes in the summer are considerably more than winter traffic volumes and since the alternatives’ SADT and the WADT were the basis for determining the needed seasonal ferry capacity for each alternative.

Year 2020 SADTs for each alternative are shown in Figure 1 on the next page.

Figure 1: Traffic Forecast Results—Summer Average Daily Traffic, 2020



Traffic Forecast Results

