Appendix D

VMT Analysis

VMT ANALYSIS

Methodology

Fehr & Peers worked with several academic researchers to develop a state-of-the-art mixed-use trip generation model for the US EPA. The MXD model estimates the percentage of trips that remain internal to a project site as well as external transit, walk, and vehicle mode splits, and calculates the resulting vehicle miles of travel (VMT) for the project. The model is based on surveys of residents and employees in 240 mixed-use projects in six major metropolitan areas (Sacramento, Houston, Boston, Atlanta, Portland, and Seattle) in the United States.

The MXD model considers a variety of project attributes including project density, mix of uses, surrounding land uses, expected household size, vehicle ownership, and transit service. These site-specific variables were input into the model for the Antelope Crossing project for both the existing (baseline) condition, and the proposed (future) condition. The difference between the baseline and future conditions represent the expected change in VMT as a result of the proposed project.

Results

The MXD model estimates that the existing shopping center produces approximately 155,000 daily vehicle miles. The future shopping center is estimated to produce approximately 113,000 daily vehicle miles. This results in an estimated 27.5 percent reduction in vehicle miles travelled as a result of the Antelope Crossing improvements.