

Section 4

Land Use Projections and Future Densities

Traffic Forecasting & Travel Demand Modeling

Travel demand modeling uses information such as roadway and transit networks, population, and employment data to calculate the anticipated demand for future transportation facilities. Travel demand models are developed to simulate actual travel patterns and existing demand conditions. Travel demand is generated using socioeconomic data such as household size, automobile avail-

ability, and employment data. This data is oftentimes projected for future year conditions, allowing an understanding of what transportation needs and impacts could occur. When future demographic data is available, densities and future traffic volumes can be projected through travel demand modeling.

The Community Planning Association of Southwest Idaho (COMPASS) maintains a travel demand model and provides technical oversight on travel demand forecasting.



Intersection of Eagle Road and SH 44

A range of modeling assumptions was used for the Northwest Foothills Transportation Study. The baseline assumption is the COMPASS model. ACHD also explored travel demand modeling for the area using somewhat different model assumptions to look at the sensitivity of the conclusions. The alternative analysis assumed different assumptions of drivers response to congestion and delay. In most cases, the conclusions from the modeling assumptions were similar. For a few roadway segments the results differ somewhat and were analyzed separately.

Travel demand models are based on input assumptions and considering more than one set of assumptions can provide a valuable comparison of model outputs. Using more than one set of assumptions for the traffic analysis helps to better understand future uncertainties that support long-range planning. The year 2030 is considered the planning horizon year for this study.

Future Development Densities

On June 16, 2008 COMPASS provided a summary of model runs and demographic assumptions used to conduct previous studies in the project area of the Northwest Foothills Transportation Study. This summary included model runs conducted for the City of Eagle Comprehensive Plan, the M3 development, and the SH 55 Consortium Study. Each study used different assumptions for their model runs which required further agreement on development assumptions for the Northwest Foothills Transportation Study.

The assumptions used in previous model runs documented demographic projections for the following properties:

- Harmon
- Alpine Creek
- Connolly
- Dry Creek
- Trailhead
- Kastera
- SunCor
- M3

Based on different demographic assumptions from several model runs, an updated list of assumptions was created that combines and compares the most pertinent and updated demographic assumptions from previous studies.

Since the City of Eagle Comprehensive Plan was an approved, working land use plan at the time of this study, the maximum projected densities from this plan were utilized for the Northwest Foothills Study. As identified in Eagle's Comprehensive Plan, the maximum allowable density for property in the Northwest Foothills is 1 unit per 2 acres. Density projections for this study were compiled and reviewed by the City of Eagle for compatibility to the density requirements identified in their Comprehensive Plan.



M3 Eagle Village Center

Previous land use and demographic assumptions from land owners in the project area were compared to maximum allowable densities identified in the Eagle Comprehensive Plan. Landowners were contacted to verify the assumptions to be used for this study. This provided the base for density projections to be used for future traffic demand modeling. The demographic numbers used for this study are 24,266 housing units and 10,822 jobs.

Demographic Projections for Properties Without Development Plans

Some privately owned parcels were not allocated any population or jobs in previous model runs for the study area. Since these areas are considered developable, demographic estimates were allocated to these areas. The methodology for developing demographic estimates for the areas where no housing units or jobs were previously allocated is covered in detail in the Model Demographics Memorandum dated July 7, 2008, included in the appendix of this report.