

SECTION IX. Transportation

Fort Carson is a major source of, and destination for, auto traffic in the Pikes Peak Region. The Post operates multiple entry gates that determine how vehicles access the installation and thus influences the distribution. In recent years, due in part to increased security, peak hour congestion at the gates has been the most notable traffic problem. The rapid growth of troop levels has also caused considerable congestion on-post, which has a street system designed for a much smaller population.

In the process of developing the Fort Carson Regional Growth Plan, Felsburg Holt and Ullevig (FHU), a Denver-based transportation-consulting firm, produced a technical study of existing and future Fort Carson generated traffic and its impact on area roadways. These findings are used to determine what future transportation system enhancements are needed to address the highway, pedestrian and transit systems on and around the Post.

Roadway Analysis

The transportation analysis focused on two scenarios: existing and high travel demand. Each planning horizon was based on the number of Soldiers on-post, which represents the number of Soldiers assigned to Fort Carson minus those who have been deployed. Analysis shows that the number of Soldiers on-post at any given time is the most important determinant of travel to and from Fort Carson. The Existing Conditions Scenario (2010) evaluates traffic based on conditions in late 2009 to early 2010. At this time, there were approximately 24,000 Soldiers assigned to Fort Carson and about 19,000 were on-post. The High Travel Demand Scenario has a five-year planning horizon (2015) and is intended to ***represent a maximum transportation demand condition in which there are no troop deployments***. It should be stated that no timetable has been established for the return of all Fort Carson troops but for the purposes of this analysis it was necessary to establish a potential future condition as a basis for determining future transportation system needs. In this high travel demand scenario the number of Soldiers assigned to Fort Carson is estimated at approximately 26,000. Within this High Travel Demand Scenario, the transportation analysis was tested with existing gates and with the opening of Gates 6 and 19.

Approach. The transportation analysis used a variety of sources and tools to evaluate travel to and from Fort Carson. These are described as:

- Historic Gate Counts;
- Fort Carson Comprehensive Transportation Plan; and
- PPACG Travel Demand Model.

The PPACG Travel Demand Model was the main analysis tool used in assessing travel patterns of current and future Fort Carson traffic. For this analysis, the PPACG model incorporated data from the newly developed Fort Carson Demographic Model (FCDM) (see Section I) output.

Non-Motorized Transportation

The public involvement process undertaken for the Pikes Peak Area Council of Governments' 2035 Regional Transportation Plan, and specifically, the Regional Non-Motorized Transportation (NMTP) Plan, showed that residents of the region are looking for non-motorized transportation alternatives. The lack of options to driving was one of the top three transportation issues identified in the NMTP. While there are numerous pedestrian and bicycle facilities surrounding Fort Carson, no designated on-street bicycle facilities directly serve any of the active gate access points. Similarly, no pedestrian or bicycle accommodations currently exist at the gates, thus pedestrians and bicyclists must queue in with motorized vehicles. On-post, a sidewalk system allows for pedestrian travel, and bicyclists can use the existing roadway system for travel.

One initiative supporting the Post's stated objective of reducing gate traffic is the promotion of alternatives to the single-occupant vehicle. Efforts are being made by Fort Carson planners to identify methods to decrease the number of single-occupant vehicles operating on-post. Several options being studied include a vehicle-sharing service that could be composed of high-efficiency cars; the development of a pedestrian and low impact vehicle system supported by human-powered bicycles, electric bicycles, and personal mobility vehicles such as Segways; the integration of high-density housing and mixed-use developments both on-post and near-post that could support travel without privately-owned vehicles; and the establishment of efficient, quality public transportation services.

Recommendations suggest that through the efforts of Fort Carson and neighboring communities, several targeted improvements on-post, at the gate access points, and in areas surrounding the installation could greatly increase non-motorized transportation opportunities to the post.

Transit Service

Until recently Mountain Metropolitan Transit provided bus service for Fort Carson. Route 30 and Route 33 entered the Post at Gate 4, and had several stops on-post. Due to budget cuts at Mountain Metropolitan Transit and very low ridership, the routes were eliminated. Currently, five routes operate near Fort Carson. Routes 10, 11, 15, 25, and 31 all serve the third busiest City transfer station at Pikes Peak Community College (PPCC). Stops at PPCC are not convenient and would likely see very limited use by Fort Carson personnel due to limited pedestrian connections between PPCC and Fort Carson and the frequency of stops is once every 30 to 60 minutes.

The City of Colorado Springs and Mountain Metropolitan Transit are currently engaged with a consultant to prepare an Academy Boulevard Corridor Multi-modal Transportation and Transit Readiness Plan for the six-mile long segment of Academy Boulevard extending north from Drennan Road. This study will model and evaluate the transportation-related limits and opportunities of this corridor to support and accommodate land use revitalization within the surrounding planning area. The feasibility of all applicable transit options will be evaluated. Outcomes of this project will include recommendations for functional classifications, transit readiness options and complete streets profiles.

Fort Carson and its neighbors are currently involved with several public transportation initiatives that could improve mobility for troops and their families, as well as workers and visitors to the Post. Initiatives include further study for Personal Rapid Transit development, a higher-speed commuter rail service along the Front Range, an update to the 2035 Long Range Transit Plan, and a study looking at the potential of a new governance and funding structure for public transportation in the region.

Summary of Findings

The following are the key findings from the Fort Carson traffic analysis.

- Over the last four years, travel to/from Fort Carson has increased significantly. Gate counts from October 2009 show about 74,000-vehicle trips to/from Fort Carson each day. This is 90 percent higher than gate counts in 2005.
- The main driver of the gate counts is the number of Soldiers on-post. Within the next five years, if all Soldiers assigned at Fort Carson were not deployed and remained on-post then traffic volumes to/from Fort Carson could increase by another 30 percent to almost 96,000 vehicles per day.
- Existing morning inbound peak hour volumes exceed gate capacity at Gate 20. High travel demand projected volumes would exceed gate capacities at Gate 1 and Gate 20 and could approach capacity at Gate 4. However, the gate capacity in totality is adequate to accommodate both existing and high travel demand projected peak hour inbound volumes.
- Field observations show gate queues during peak inbound times extending off-post into adjacent intersections and roadways.
- Recent improvements to the State Highway 16 / Interstate 25 interchange have significantly upgraded capacity and storage on the approach to Gate 20. These improvements have reduced queuing onto adjacent roadways. Ongoing improvements to State Highway 16 between Interstate 25 and US Highway 85 will provide additional capacity and storage for the Gate 20 approach.
- Ongoing improvements to South Academy Boulevard and programmed improvements to State Highway 115¹ will adequately address capacity and safety issues on these roadways.
- Recent capacity improvements to the adjacent roadway system will accommodate existing traffic volumes and high travel demand projected volumes. A few locations around the Post may experience Level of Service (LOS) “E” conditions but congestion will be localized to those areas.
- During the morning peak times, inbound single occupant vehicles comprise about 93 percent of the traffic. This is consistent with the greater Pikes Peak region. However, single occupant vehicle percentages are lower for on-post traffic and for traffic entering/leaving the Post during off peak times.

¹ The Colorado Department of Transportation has conducted a separate report related to planning for safety and capacity improvements along State Highway 115 to accommodate Fort Carson growth. This analysis is included as a supplemental report to the Phase II Growth Plan.

- Improvements to Fort Carson's and the region's non-motorized system can assist in meeting Fort Carson's transportation needs by alleviating gate queuing and on-post traffic; recommendations include funding priority projects identified in PPACG's Non-Motorized Transportation Plan.
- Transit services, both to Fort Carson and on the installation, are very limited. However, several regional studies and Fort Carson-initiated efforts are currently underway, including a comprehensive review of regional transit needs and opportunities for transit-oriented development. Fort Carson officials should continue participation in these efforts to ensure that future transit options and potential transit oriented developments serve the post well.

As concluded in the traffic operational analysis, despite Fort Carson's significant impact to roadways surrounding the Post, recent capacity improvements along South Academy Boulevard, State Highway 16 and State Highway 115 generally would accommodate existing and high Post travel demands. One potential issue that cannot be specifically evaluated with typical traffic engineering analysis is vehicle queuing at gates.

The complete Transportation Technical Report is included in Appendix C of this report. Additional transportation-related recommendations are addressed further in the Sustainability report (Section X).