DRAFT FINDING OF NO SIGNIFICANT IMPACT

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
Construction and Operation of a 4th Infantry Division Complex at Fort Carson, CO
September 2006

1. **Description of Action.** The proposal by Fort Carson, Colorado to construct and operate a 4th Infantry Division (ID) Complex on Fort Carson, Colorado to permanently house additional forces was considered in an Environmental Assessment (EA) completed in 2005. Based on reevaluation of the site for the 4th ID Complex, a Supplemental EA was required to consider the construction of this Complex on a different part of the cantonment of Fort Carson. This changed Proposed Action was analyzed by comparing potential environmental consequences against existing conditions. Findings indicate that implementation of the Proposed Action would result in no significant adverse environmental consequences not already analyzed in the Final Environmental Assessment for Construction of FY06 Facilities at Fort Carson. However, there would be short term adverse impacts to traffic on Fort Carson. The impacts would be limited to the cantonment area of Fort Carson and implementation of recommended measures would reduce or eliminate these impacts. The environment would not be significantly or adversely affected by proceeding with the Proposed Action.

Satisfaction of the Army's significant need to provide soldiers with adequate facilities at Fort Carson is considered to outweigh the relatively minor environmental impacts, and every effort would be made to mitigate those impacts. The Proposed Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required, and preparation of a Finding of No Significant Impact is appropriate.

2. **Anticipated Environmental Effects**. There would be no change in environmental impacts than those determined in the Environmental Assessment of FY06 Construction of Facilities at Fort Carson for air quality, soils, water resources, biological resources, cultural resources, or the socio-economic environment. There would be minor effects on flora and fauna, particularly on construction sites. There would be no effects on federally-listed species and wetlands. There would be no significant noise impacts off Fort Carson. There would be adverse impacts to traffic on Fort Carson.

3. **Conclusions**. Based on a review of the information contained in the Supplemental EA for the Proposed Action, it is concluded that construction and operation of the 4th ID complex on Fort Carson is not a major federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Accordingly, the preparation of an Environmental Impact Statement for this Proposed Action is not required.

4. **Point of Contact**. All interested agencies, groups, and individuals are invited to submit written comments to the Directorate of Environmental Compliance and Management, 1636 Elwell Street, Building 6236, Fort Carson, CO 80913-4000, by sending a telefax to (719) 526-2601, or by e-mail to NEPA@carson.army.mil within 30 days after publication of this notice. The 2005 EA and the Supplemental EA are available for public examination, upon request, by writing to the above address or by calling (719) 526-4666. The 2005 EA and the Supplemental EA are also available for review at the Penrose Public Library, Colorado Springs, CO, the Fountain Valley News, Fountain, CO, and the Grant Library, Building 1528, Fort Carson, CO.

Approved By:

EUGENE B. SMITH
COL, FA
Garrison Commander
Fort Carson, Colorado

15 Nov 06
Date

Supplemental Environmental Assessment Construction and Operation of a 4th Infantry Division Complex at Fort Carson, CO September 2006

Fort Carson
Directorate of Environmental Compliance & Management

FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Construction and Operation of a 4th Infantry Division Complex at Fort Carson, CO
September 2006

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Appendix C 4th Infantry Headquarters Complex Supplemental Traffic Study

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Finding of No Significant Impact: Construction of FYOG Facilities at Fort Carson, Colorado

Supplemental Environmental Assessment
Construction and Operation of a 4th Infantry Division Complex
Fort Carson, CO
September 2006

INTRODUCTION

The Environmental Assessment (EA) for the Construction of FY06 Facilities at Fort Carson was completed, and a Finding of No Significant Impact (FONSI) was signed December 28, 2005 (attached). The EA analyzed effects of the construction of FY06 facilities on Fort Carson.

Subsequent to the completion of the EA and signing of the FONSI, new information has become available regarding the need to change locations for the 4th Infantry Division (4th ID) Complex on the Fort Carson cantonment to meet the Installation's desire to preserve the existing ball fields and utilize areas of the cantonment that are more conducive to unit cohesiveness.

This supplemental EA documents the analysis of this new information. This supplemental EA and any public comment will be considered to determine if the original decision is to remain in effect and unchanged, with the additional scope included.

BACKGROUND

On December 28, 2005, a Finding of No Significant Impact (FONSI) was signed by the Garrison Commander, COL Michael Resty, for the Construction of FY06 Facilities at Fort Carson, CO, December 2005 (attached). The approved activity was proposed by the 7th Infantry Division and Fort Carson to permanently house additional forces and to construct new facilities to support them. Fort Carson proposed to implement three construction projects within or immediately adjacent to the cantonment area of Fort Carson. The projects included facilities for an Infantry Brigade Combat Team (IN BCT), Heavy Brigade Combat Team (Heavy BCT), and the 4th Infantry Division (ID) Complex. The 4th ID Complex was to be constructed on approximately 20 acres, replacing two existing sports fields (Appendix A).

PURPOSE AND NEED

The proposed action is to begin construction of operational and support facilities for forces that will be stationed at Fort Carson. The purpose and need for this action is to support initial elements of BRAC initiatives, as well as the long-term transformation planning process, by facilitating the efficient relocation of forces from Fort Hood, Texas and Korea to Fort Carson, Colorado.

As a result of Army Modular Force (AMF), Integrated Global Presence and Basing Strategy (IGPBS) also known as Global Defense Posture Realignment, and Base Realignment and Closure Act (BRAC), additional combat and supporting forces have been assigned to Fort Carson. Existing facilities at Fort Carson are inadequate to permanently house these forces and new facilities must be secured. Although existing facilities at Fort Carson (including those that require remodeling) would be used to the extent practicable to accommodate the increased population, the majority of the operations and support facilities that comprise the proposed action would require new construction. If the proposed action were not implemented, the Army would be unable to provide facilities to maintain troops stationed at Fort Carson as a result of IGPBS or BRAC, and would not meet the Army's readiness or rapid response objectives.

PROPOSED ACTION AND ALTERNATIVES

An initial site plan to support these projects was drafted during a planning charrette conducted by the Omaha District, Corps of Engineers in September of 2005. Specific guidance was given at

that time to ensure all facilities were closely located, and separate from the current post headquarters. The requirement for collocation with the current Post Headquarters was not known and the emphasis, at that time, was locating the Division Headquarters in the general vicinity of the maneuver Brigades. This site plan required that an 11-field sports complex be demolished and relocated to an existing recreational park. Although the planned relocation of the ball fields was possible, it was going to be difficult fitting the 11 fields in this park. Funding for the fields was subsequently cut from the project, thus the replacement fields would not be scheduled to be built for several years. The existing sports field complex is in premier condition and well used in its current location. Fort Carson determined that reconsidering another site option for these projects which did not require demolition and replacement of the sports fields would be to the advantage of the Army. The proposed 4th ID Complex would remain unchanged in scope, to include the headquarters facility, barracks, battalion HQ, four company ops, a vehicle maintenance facility and band training facility, with only the location on the Cantonment changing. According to Omaha District, relocation to this proposed site could be accomplished at some additional cost, but that additional cost would be less than the cost of replacing the sports field complex.

All facilities for the 4th ID Headquarters Complex listed in the 2005 EA would be the same square footage and construction requirements would not change except for construction site. The 37,500 sq ft tactical equipment maintenance facility (TEMF) would be constructed northwest of Building 9072, approximately 2 miles southwest of the main complex. The proposed site boundaries are detailed in Appendix B.

ALTERNATIVES

Alternatives considered in developing the approved construction of facilities at Fort Carson that were identified and assessed in the Final Environmental Assessment for FY06 Construction of Facilities for Fort Carson. No additional alternatives were considered in this supplemental EA.

NO ACTION ALTERNATIVE

Under the no action alternative, no facilities would be constructed or renovated to support the 4th Infantry Division. This alternative is not viable because existing facilities on Fort Carson are not adequate to support the new unit. The no action alternative serves as a baseline for evaluation of the potential effects of the proposed action and is discussed as such in this Supplemental EA.

ENVIRONMENTAL IMPACTS AND CONSIDERATIONS

Any areas of concern in the original EA not mentioned in the supplemental EA are not changed by the relocation of the 4th ID Complex.

Land Use

Construction of facilities within the proposed location would not result in significant change in land use. The site is currently comprised of administrative/vacant space. The proposed changes in land use are compatible with surrounding land use in the cantonment area.

Water Resources

Stormwater

In addition to storm water mitigation required during construction phases, storm water from the completed projects should not change historical runoff values, cause downstream damage, or adversely impact adjacent properties. To accomplish this, the project should employ a variety of natural and built features that reduce the rate of runoff, filter out pollutants and facilitate infiltration into the ground. Refer to the DoD Low Impact Development document, UFC-3-210-10, dated 25 October 2004.

Biological and Cultural Resources

The relocation of the 4th ID Complex would have no detrimental effects on cultural resources and would not change from those determined in the Environmental Assessment of FY06 Construction of Facilities at Fort Carson.

The I Ditch (Clover Ditch) is a Water of the United States and runs adjacent to Pershing Dr. which is the eastern boundary of the proposed site. During a site visit on September 8, 2006, by the USACE Pueblo Field Office, the agency determined that this waterway is jurisdictional. The proposed action does not anticipate impacting this area. Once the boundaries of the project are determined based on project designs, mitigation of potential impacts, if necessary, would be coordinated through the USACE Pueblo Field Office.

The Proposed Action would eliminate the need to reconstruct the ball park fields at Iron Horse Park. This would eliminate any changes to biological resources at Iron Horse Park.

Transportation
A traffic analysis was performed to assess the effects of the relocation of the 4th ID Complex. This analysis supplements the findings of the Ft Carson Comprehensive Transportation Study, September 2005 (Appendix C).

Since the publication of the Comprehensive Transportation Study, the proposed location for the Complex would shift approximately 1.1 miles northwest of its original location. This would have a significant impact on the traffic patterns in and around the proposed Complex area. Based on the future traffic projections noted in the Comprehensive Transportation Study, these impacts would result in traffic volume increases or decreases as noted in the Table 1, below:

TABLE 1. Proposed Action Projected Traffic Shifts

Average Daily Total (ADT) Vehicles	% Increase (+) / Decrease (-)	Location	AM Peak Hour (+)/(-) Vehicles	PM Peak Hour (+)/(-) Vehicles
7934	+ 3%	Magrath Ave, between Khe Sahn St. and Nelson Blvd.	+ 32	+ 34
6776	+ 3.5%	Barkeley Ave, between Khe Sahn St. and Nelson Blvd	+ 32	+ 34
13130	+ 2.7%	Specker Ave, between Khe Sahn St. and Flint St	+ 49	+ 41
13645	+ 6.7%	Specker Ave, between Flint St and Nelson Blvd	+ 120	+ 104
3007	+ 15.7%	Flint St, between Chiles Ave and Specker Ave	+ 71	+ 60
4581	+ 69.9%	Nelson St, between Barkeley Ave and Specker Ave	+ 427	+ 399
19117	- 4.0%	Prussman Blvd, between Chiles Ave and Specker Ave	- 71	- 62
12322	- 2.6%	Chiles Ave, between Flint St and Prussman Blvd	- 71	- 62

The traffic pattern changes generated by the proposed action would require the addition of turning lanes and traffic signals at four key intersections. The justification for signals at these locations is based on satisfaction of Traffic Signal Warrant 3, Peak Hour, of the Manual on

Uniform Traffic Control Devices (MUTCD). The intersections which will require these improvements are:

a. Nelson Blvd and Barkeley Ave, Peak hour entering traffic volume: 836 vehicles
b. Specker Ave and Ellis St, Peak hour entering traffic volume: 839 vehicles
c. Specker Ave and Nelson Blvd, Peak hour entering traffic volume: 1,207 vehicles
d. Specker Ave and Flint St, Peak hour entering traffic volume: 1,252 vehicles

In addition to the roadway network improvements recommended in the Comprehensive Transportation Study, the widening of Specker Ave between Prussman Blvd and O'Connell Blvd to a four lane configuration would be required. Signalization of the Specker Ave intersections identified above would need to be integrated into the expansion plans, as well as other intersection improvements as required.

Traffic pattern changes resulting from the relocation of these facilities would remain internal to Fort Carson. Traffic counts and distribution among the Installation's Access Control Points (ACPs) would remain essentially unchanged.

Hazardous and Toxic Substances
Relocating the 4th ID Complex would not change the current need for a Full Risk screening report to the Colorado Department of Public Health and Environment (CDPHE) on Solid Waste Management Unit (SWMU) 67, as this has already been performed and the site has attained a No Further Action (NFA) status in Ft. Carson's Part B Permit. There are no SWMUs within the footprint of the proposed action except SWMU 39, which is also a NFA site. There are no actual SWMUs in the proposed TEMF construction footprint west of Building 9072. However, this area is directly downgradient of Landfill 2 (SWMU 2). Therefore, coordination is required for safety, waste management, monitoring well integrity, and information purposes.

The proposed new locations have been surveyed for Asbestos-Contaminated Materials (ACM) and no ACM was visible. Fort Carson will comply with all applicable soil regulations.

Cumulative Impacts
Cumulative impacts would not change from those determined in the Environmental Assessment of FY06 Construction of Facilities at Fort Carson.

CONCLUSION

The Proposed Action to relocate and construct a 4th ID Complex on the cantonment of Fort Carson was analyzed by comparing potential environmental consequences against existing conditions. Findings indicate that implementation of the Proposed Action would result in no significant adverse environmental consequences not already analyzed in the Final Environmental Assessment for Construction of FY06 Facilities at Fort Carson. There would be a lessening of effects based on the change to the original Proposed Action that would eliminate the need to rebuild the ball field complex in Iron Horse Park. The environment would not be significantly or adversely affected by proceeding with the Proposed Action.

Satisfaction of the Army's significant need to provide soldiers with adequate facilities at Fort Carson is considered to outweigh the relatively minor environmental impacts, and every effort would be made to mitigate those impacts. The Proposed Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required, and preparation of a Finding of No Significant Impact is appropriate.

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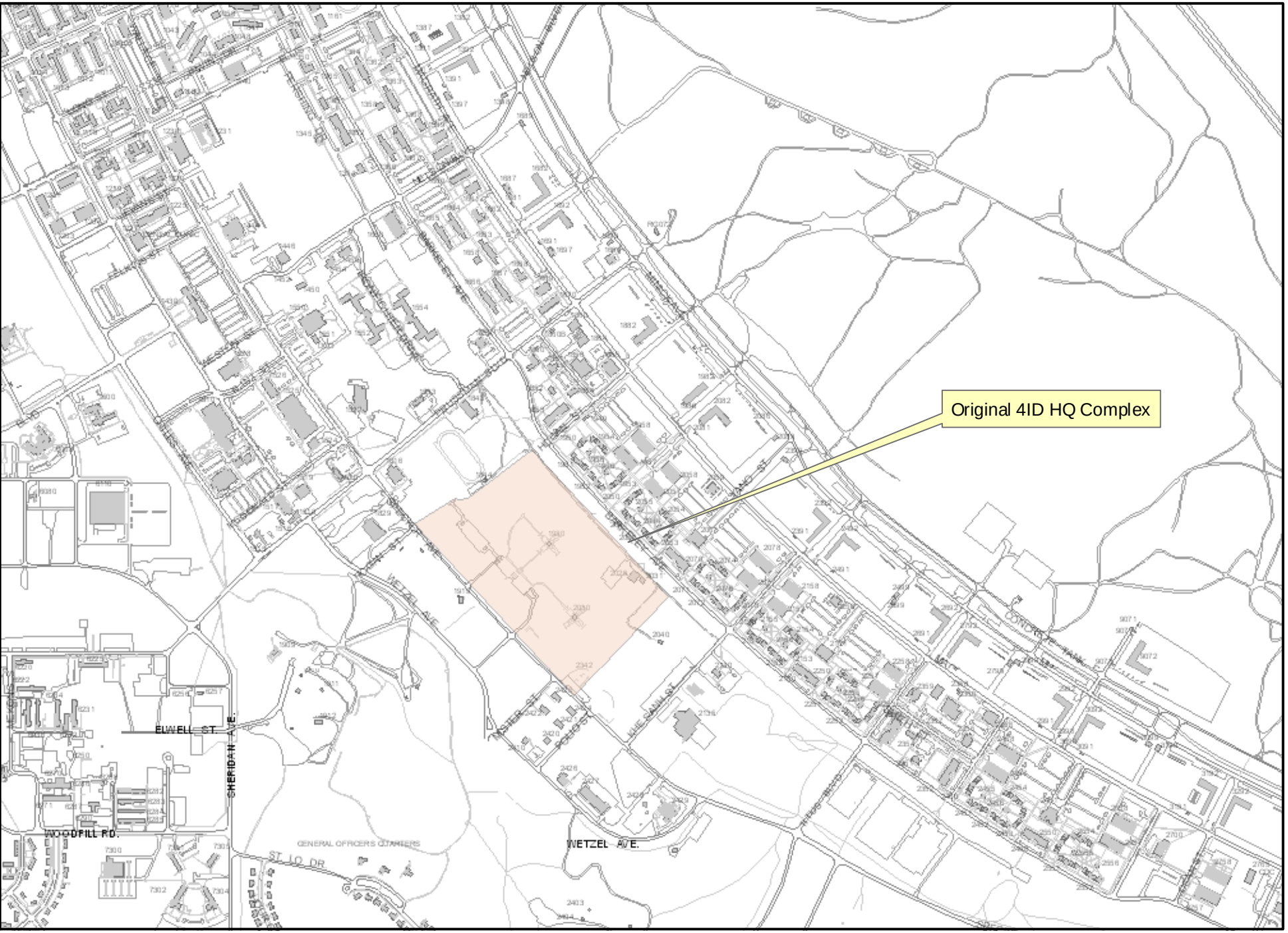
APPENDIX A

The 4th ID Complex Location as Proposed In the Environmental Assessment for the Construction of FY06 Facilities at Fort Carson, CO, December 2005

Fort Carson Military Reservation



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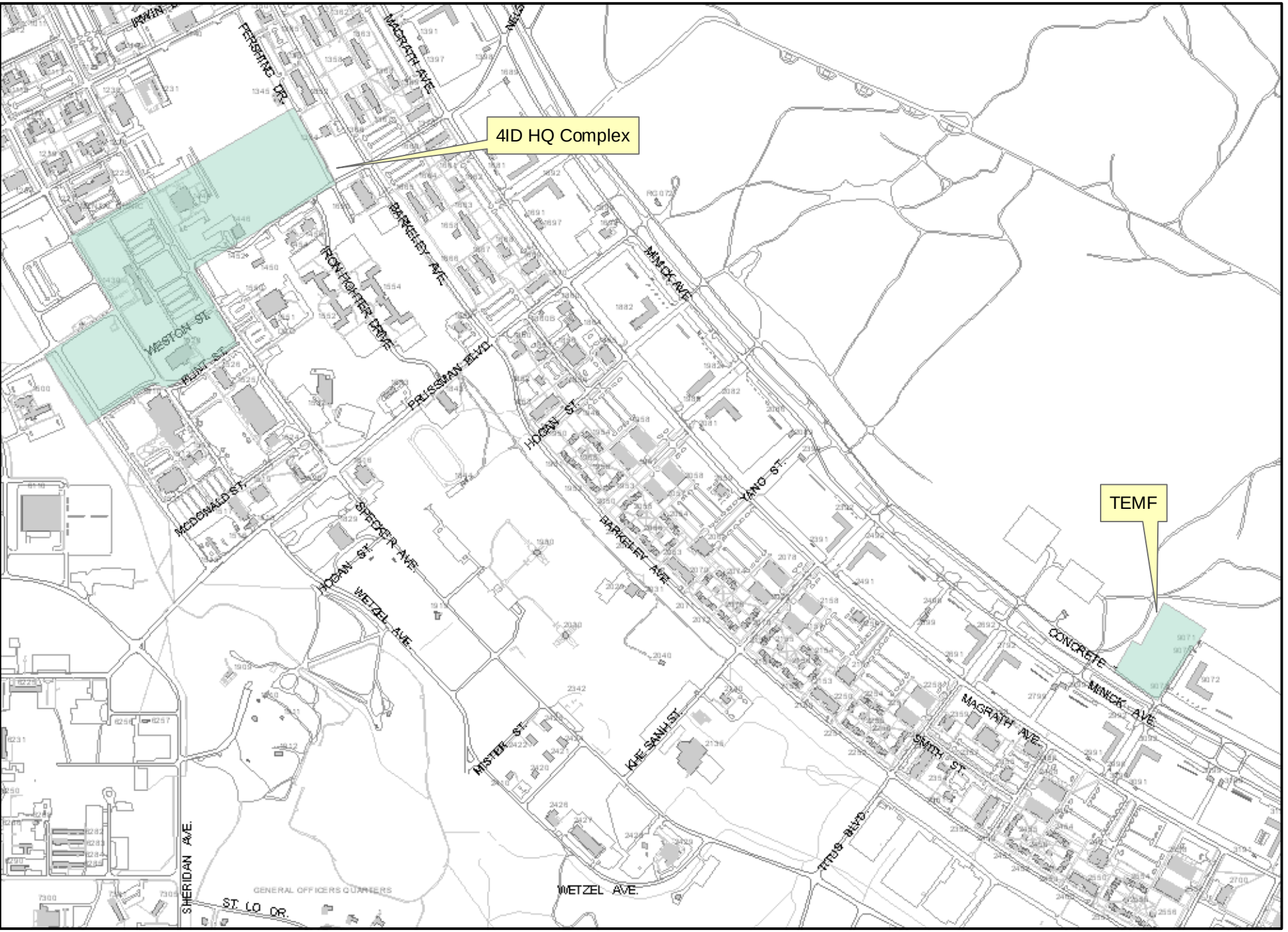
APPENDIX B

The Proposed Location for the 4th ID Headquarters Complex.

Fort Carson Military Reservation



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APPENDIX C

4th Infantry Headquarters Complex Supplemental Traffic Study

4th INFANTRY HEADQUARTERS COMPLEX SUPPLEMENTAL TRAFFIC STUDY

Prepared by

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26 October 2006

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1. EXECUTIVE SUMMARY

1.1. OVERVIEW

The purpose of this traffic study is to assess the effects of the relocation of the 4th Infantry Division (4th ID) Headquarters Complex and to identify long term transportation needs to safely provide for future traffic demands generated by this action. Primary areas of focus include intersections and roadway corridors impacted by the relocation. The goal of this study is to provide recommendations to improve traffic flow and safety and to assist in future planning. This study supplements the findings of the Ft Carson Comprehensive Transportation Study, September 2005.

1.2. TABLE OF RECOMMENDATIONS

Recommended Improvements

Roadway Network Improvements

Provide 4-lane section along Specker Ave, 2-lanes in each direction from Prussman Boulevard to O'Connell Boulevard

Cost
$ 6.56 million

Traffic Signals

Traffic Signals are recommended at the following locations

Nelson Boulevard and Barkeley Avenue
Specker Avenue and Ellis Street
Specker Avenue and Nelson Boulevard
Specker Avenue and Flint Street

Warrants

Where traffic signal installation is recommended, traffic signal warrants are likely to be satisfied at full build out conditions, however an engineering study should be conducted prior to installation. Traffic volumes should be periodically monitored as development progresses to insure that the signal is warranted.

Miscellaneous

All new signals should be of LED type
Locate signals no less than 40' from the STOP bar
Install pedestrian signals and pushbuttons at all signalized intersections
Roadway improvements will require modification to traffic signal installation

General

Install crosswalk markings at all signalized intersections
Install curb cuts at all intersection corners
STOP bars should be located at least 4feet behind crosswalks

Intersection Improvements

1. Barkeley Avenue and Nelson Boulevard

Long Term
Widen eastbound Nelson Boulevard to provide right turn lane
Install traffic signal

Cost
$ 303,000

2. Specker Avenue and Ellis Street

Immediate Actions
Remove 4-way STOP condition. Allow northbound traffic and southbound Specker Ave to be free flow. Maintain STOP condition on eastbound and westbound Ellis St approaches
Eradicate left/thru arrow on eastbound approach left-turn lane.
Pavement marking arrows are not necessary in the rightmost lane of this intersection. If installed, they should be shared thru/right arrows and not thru arrows.
Relocate eastbound approach lane use control sign so it does not block the one-way sign

Long Term
Install traffic signal

Cost
Included in the Specker Ave corridor widening cost estimate ($6.56M).

3. Specker Avenue and Nelson Boulevard.

Long Term
Install traffic signal
Widen westbound Nelson Boulevard to provide right turn lane
Provide right turn lane on northbound Specker Avenue

Cost
Included in the Specker Ave corridor widening cost estimate ($6.56M).

4. Specker Avenue and Flint Street.

Long Term

Install traffic signal

Provide right turn lane on southbound Specker Avenue

Cost

Included in the Specker Ave corridor widening cost estimate ($6.56M).

2. BACKGROUND AND INTRODUCTION

Since the publication of the Ft Carson Comprehensive Transportation Study, September 2005, various site requirements have necessitated the relocation of the proposed 4th ID Headquarters Complex. The individual facilities comprising this complex are noted below:

a. 4th Division Headquarters
b. Battalion Headquarters
c. Barracks Facility
d. Division Band Facility

The facilities were relocated approximately 1.1 miles northwest of their original locations along Specker Ave. This relocation will result in a significant change in the traffic patterns and volumes from those forecasted in the original transportation study.

2.1. STUDY PURPOSE AND GOALS

The purpose of this traffic study is to assess the effects of the relocation of the 4th Infantry Division Headquarters Complex and to identify long term transportation needs to safely provide for future traffic demands generated by this action. Primary areas of focus include intersections and roadway corridors impacted by the relocation. The goal of this study is to provide recommendations to improve traffic flow and safety and to assist in future planning. This study supplements the findings of the Ft Carson Comprehensive Transportation Study, September 2005.

2.2. ORGANIZATION OF STUDY

.

The study is organized into six major sections:

1. Executive Summary – Summary of study including key findings, recommendations, and costs.

2. Background and Introduction – Overview of HQ Complex relocation, study purpose and goals, and administrative information such as organization and resources.

3. Data Collection Activities – Summary of applicable data received the Ft Carson Transportation Study and recent traffic analysis. Serves as the baseline for analyses.

4. Current Transportation System – This section outlines the existing transportation system to include internal roadways and alternative travel modes.

5. Sustainability – Identification of various improvements for reducing vehicle dependency for the Complex and furthering Ft Carson's Sustainability goals.

6. Transportation Planning Considerations – Determination of impacts and required improvements at key intersections and roadways. Locations evaluated are those that will be impacted significantly by the additional traffic and new travel patterns expected to result from future development.

7. Study Findings and Conclusions

2.3. RESOURCES AND REFERENCES

Existing and proposed roadway conditions were analyzed using traffic engineering and safety standards as documented in the following sources, while also considering local standards:

Traffic Engineering and Safety

Manual on Uniform Traffic Control Devices (MUTCD), FHWA, 2003
Highway Capacity Manual (HCM), Transportation Research Board Specia/ Report 209, 1997 and 2000
SDDCTEA Pamphlet 55-8. Traffic Engineering Study Reference, 1987
SDDCTEA Pamphlet 55-10, Traffic Engineering for Better Roads, 1985
SDDCTEA Pamphlet 55-14, Traffic Engineering for Better Signs and Markings, 1985
SDDCTEA Pamphlet 55 Pamphlet 55-17. Better Military Traffic Engineering, 1987
SDDCTEA Bulletin - Safety Audits – May 2005
SDDCTEA Bulletin Traffic Calming - April 2003
SDDCTEA Bulletin Roadside Safety - A Forgiving Roadside - January 2002
SDDCTEA Bulletin Highway Safety Driver-Aid Treatments - May 2001
SDDCTEA Bulletin Roadside Safety - January 2001

Geometric Design

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2000
Roadside Design Guide, American Association of State Highway and Transportation Officials (AASHTO), 2002

Access Management

Transportation and Land Development, ITE, 2003
SDDCTEA Bulletin Access Management - October 2004
SDDCTEA Bulletin Parking - October 2003

Key references and materials utilized for this study include:

Ft Carson Comprehensive Traffic Study, September 2005
Ft Carson DPW IFS Data Base
Ft Carson Inventory of Military Real Property
Ft Carson PMO COPS Accident Data Base
Ft Carson Transformation Plan

2.4 EVALUATION METHODOLOGY

The findings of the Ft Carson Comprehensive Transportation Study, September 2005 form the foundation of this supplementary study. Analyses and recommendations for this later study are primarily based on the traffic data, recorded field observations including geometric conditions, traffic control devices, and deficiencies, inventoried parking, and installation mapping utilized in the original September 2005 document. The relocation of the 4th Infantry Division Headquarters Complex and the related shift of the traffic generated by it were reviewed to evaluate future conditions.

Traffic volumes and lane configurations were analyzed in SYNCHRO to determine intersection levels of service (LOS). LOS describes the operational condition of an intersection and usually falls into one of six categories, A through F. LOS A represents operating conditions with relatively little traffic and no congestion, while LOS F represents relatively high traffic and unpredictable operating conditions including high delay and driver discomfort. Generally, a facility operating at or better than LOS D is considered acceptable. Figure 2.1 details and graphically provides examples and definitions of LOS A through F.

Geometric evaluations were conducted in accordance with A Policy on Geometric Design of Highways and Streets. All other analyses were conducted in accordance with the aforementioned references. The study team developed recommendations considering traffic volume demands, analyses performed and field observations.

EVALUATION APPROACH

1. Collect data and field observations
2. Evaluate safety
3. Assess short-term and long term transportation demands
4. Analyze transportation operations and capacity
5. Develop recommendations to accommodate future demands

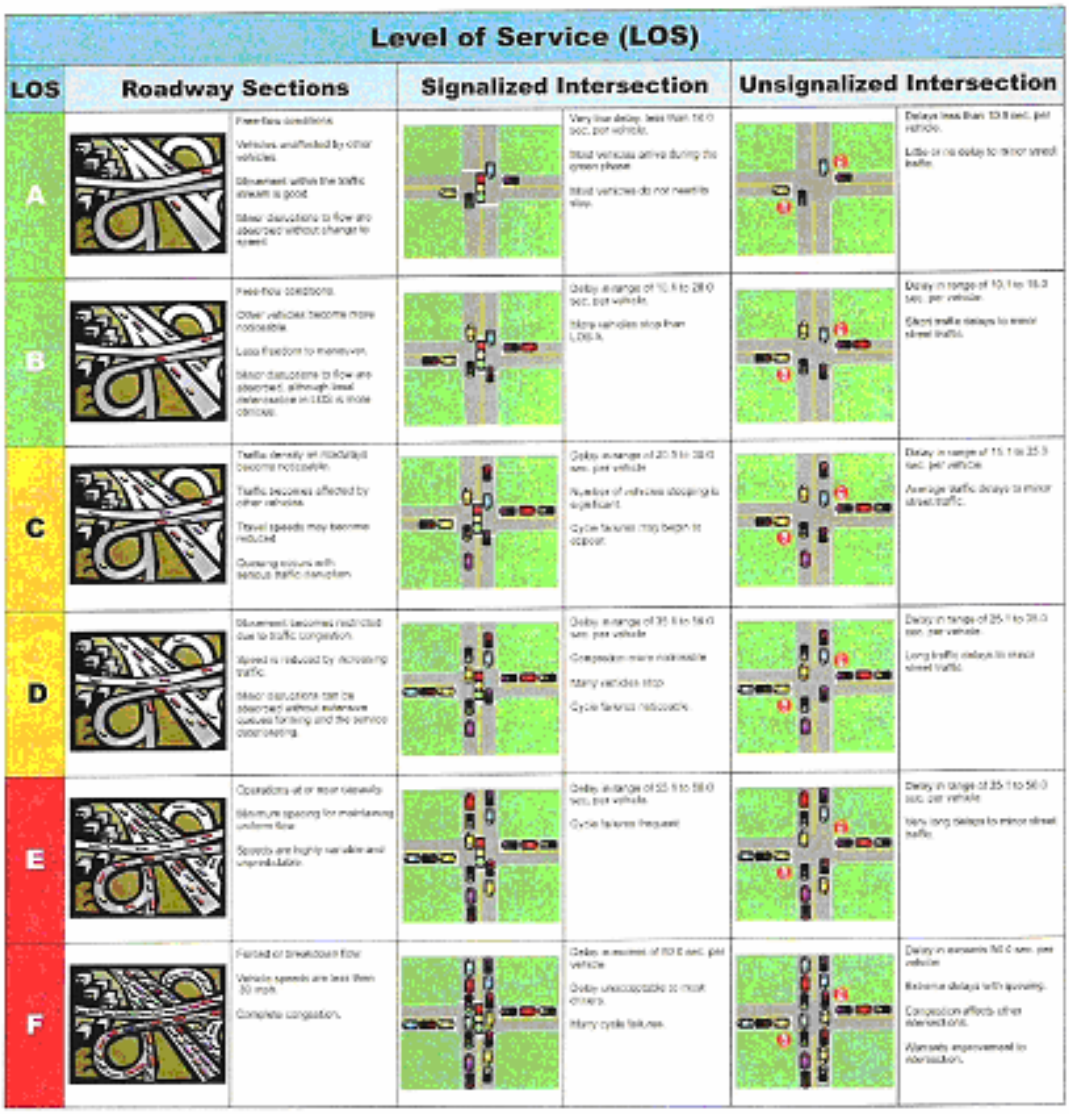


Figure 2.1 Level of Service Definitions

3. DATA COLLECTION ACTIVITIES

The study team originally conducted a data collection program during July 2005 as part of The Ft Carson Comprehensive Transportation Study. This included turning movement counts (TMC's) collected during the weekday morning, mid-day and evening peak periods; 24-hour traffic volume recordings; traffic control device inventory; intersection surveys; and observation of traffic operations.

An analysis of the facilities comprising the 4th Division Headquarters Complex was conducted to determine the traffic volumes that each would generate. This information was utilized to determine the traffic shift which would occur as a result of the relocation of those facilities. The traffic shift information was used to identify key roadways and intersections which would be effected by the Headquarters Complex relocation.

3.1. INTERSECTION TURNING MOVEMENT COUNTS

Traffic operations were reevaluated at each of the intersections in the original study to determine the impact of traffic shifts relating to the relocation of the HQ Complex. Manual intersection turning movement counts (TMC's) were analyzed at the following locations:

1. Chiles Avenue and O'Connell Boulevard
2. Specker Avenue and O'Connell Boulevard
3. Specker Avenue and Ellis Street
4. Barkeley Avenue and Nelson Boulevard
5. Magrath Avenue and Nelson Boulevard
6. Specker Avenue and Prussman Boulevard
7. Chiles Avenue and Prussman Boulevard
8. Barkeley and Prussman
9. Magrath and Prussman
10. Minick and Nelson

These TMC's were generally conducted between the weekday hours of 0600 – 0830, 1100 – 1300, and 1500 – 1730. The detailed peak hour turning movement counts for the intersections were changes were noted are provided in Exhibits 3.1 and 3.2.

Significant increases in the entering traffic volumes are projected for the intersections of Specker Avenue & Nelson Boulevard and Specker Avenue & Flint Street. Since individual turning movement counts were not calculated for these intersections during the initial study, there is currently insufficient information to provide the projected changes to the TMC's without further engineering evaluation.

3.2. AVERAGE DAILY TRAFFIC VOLUME DATA

3.2.1. Volumes

The projected future traffic volumes and patterns noted in the 2005 Comprehensive Transportation Study were used as the baselines for determining the traffic impacts relating to the Headquarters Complex relocation.
These impacts are primarily limited to the area between the original Complex location in the vicinity of Khe Sahn Street and Specker Avenue and the new proposed location in the vicinity of Nelson Boulevard and Specker Avenue, 1.1 miles to the northwest.
Adjusted average daily traffic volumes are illustrated in Exhibit 3.3. Traffic volume impacts are noted in Table 1.

3.2.2. HEAVY VEHICLES

In addition to average daily traffic counts, vehicle classification studies were conducted along the impacted routes. It should be noted that heavy vehicles were classified as any vehicle in FHWA vehicle class 4 or higher. This includes larger two axle vehicles including busses and vehicles with three or more axles.
The heavy vehicle traffic patterns and volumes will not be significantly effected to the relocation of the Complex facilities.

TABLE 1. Projected Traffic Shifts

Adjusted Average Daily Total (ADT)	% Increase (+) / Decrease (-)	Location	AM Peak Hour (+)/(-) Vehicles	PM Peak Hour (+)/(-) Vehicles
7,934	+ 3%	Magrath Ave, between Khe Sahn St. and Nelson Blvd.	+ 32	+ 34
6,776	+ 3.5%	Barkeley Ave, between Khe Sahn St. and Nelson Blvd	+ 32	+ 34
13,130	+ 2.7%	Specker Ave, between Khe Sahn St. and Flint St	+ 49	+ 41
13,645	+ 6.7%	Specker Ave, between Flint St and Nelson Blvd	+ 120	+ 104
3,007	+ 15.7%	Flint St, between Chiles Ave and Specker Ave	+ 71	+ 60
4,581	+ 69.9%	Nelson St, between Barkeley Ave and Specker Ave	+ 427	+ 399
19,117	- 4.0%	Prussman Blvd, between Chiles Ave and Specker Ave	- 71	- 62
12,322	- 2.6%	Chiles Ave, between Flint St and Prussman Blvd	- 71	- 62

3.2.3. SPEEDS

Speed data was collected for the 2005 Transportation Study and used to establish the 85th percentile speed of all vehicles on Ft Carson's primary roadways. The 85th percentile speed is considered a reasonable upper limit for speeds and is a determining factor in the establishment of speed limits.

With the exception of slowing due to congestion during peak traffic periods, the 85th percentile speeds of the roadways will remain largely unaffected by the relocation of the Headquarters Complex.

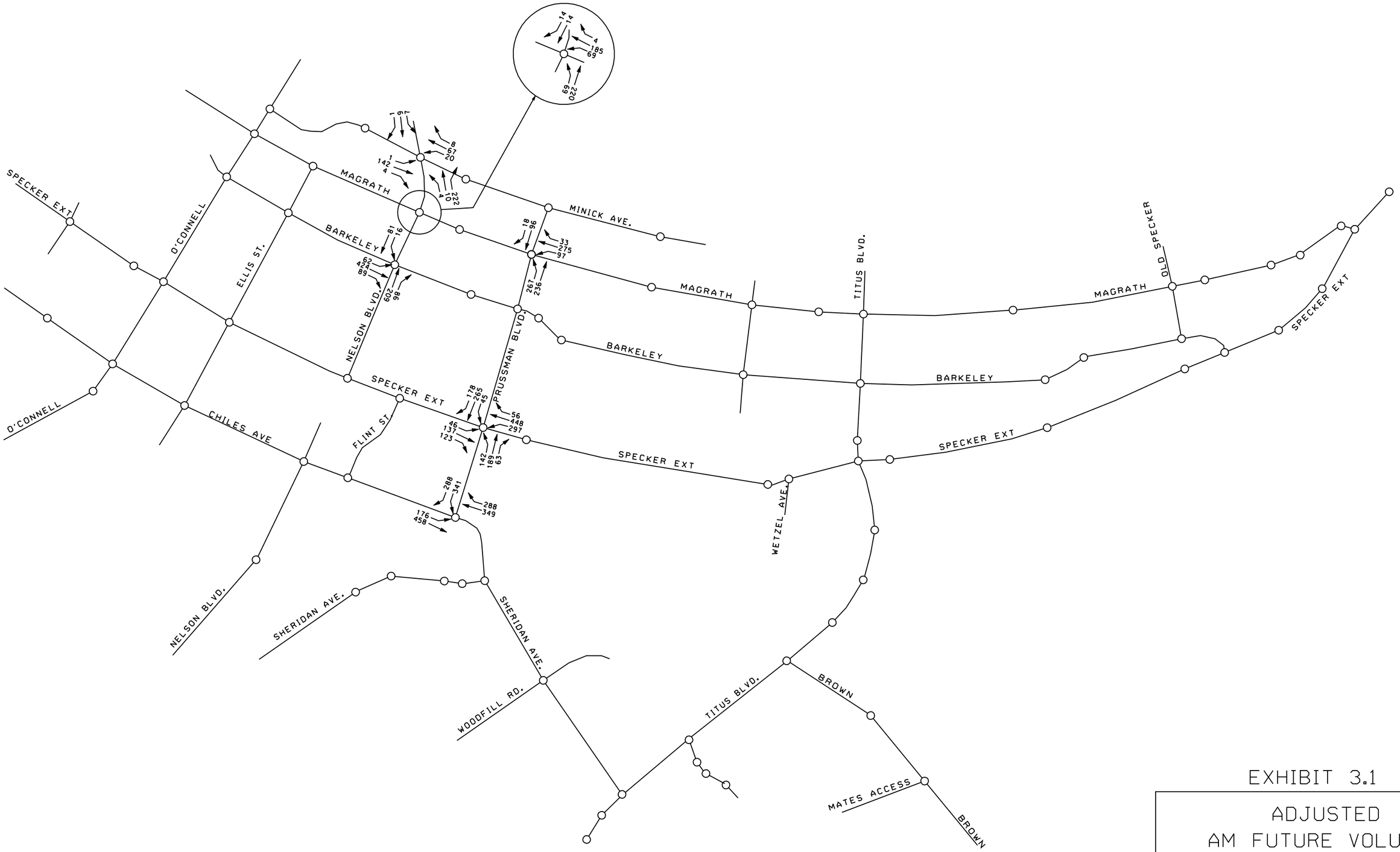


EXHIBIT 3.1

ADJUSTED
AM FUTURE VOLUMES

FORT CARSON, COLORADO

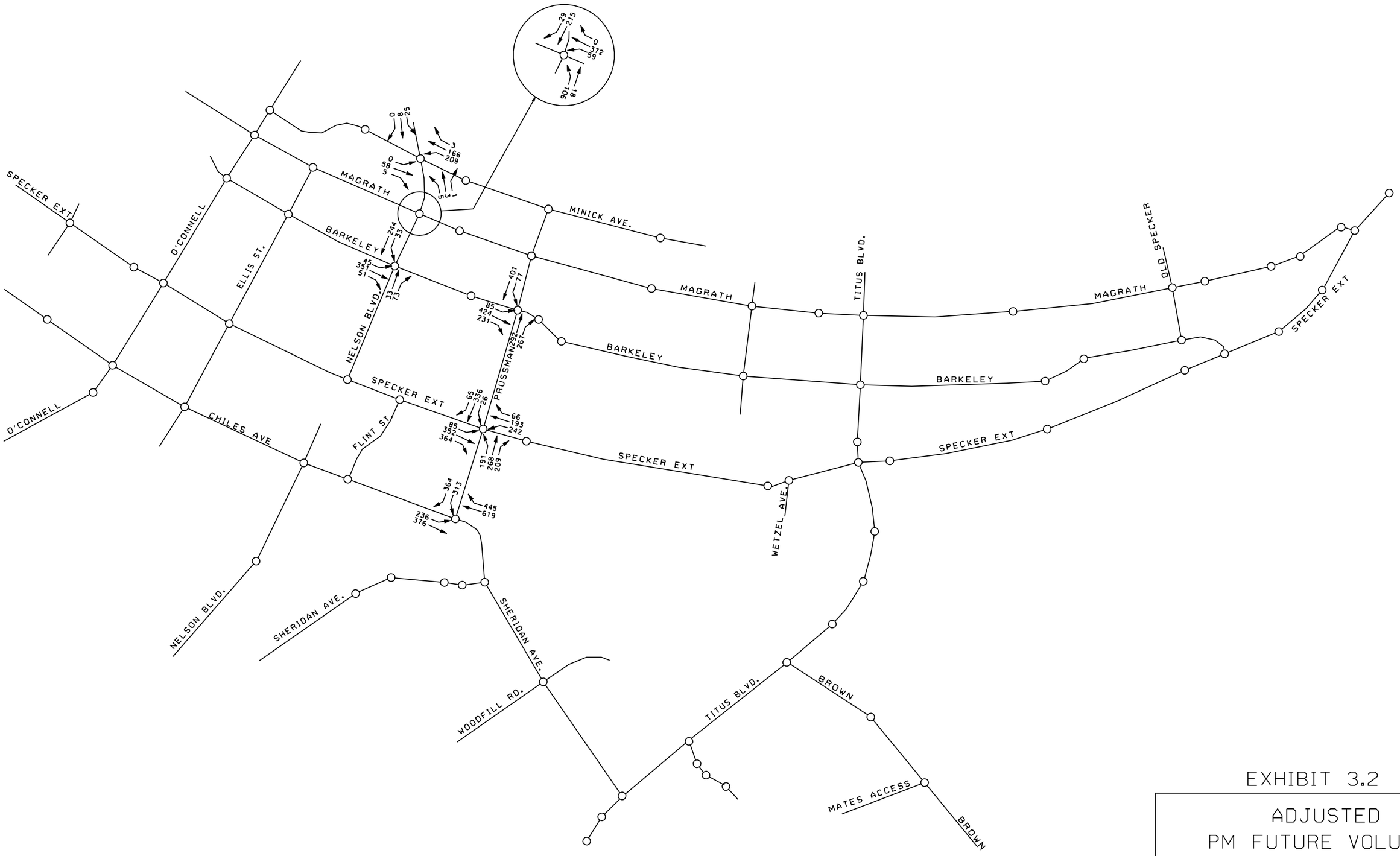


EXHIBIT 3.2

ADJUSTED
PM FUTURE VOLUMES

FORT CARSON, COLORADO

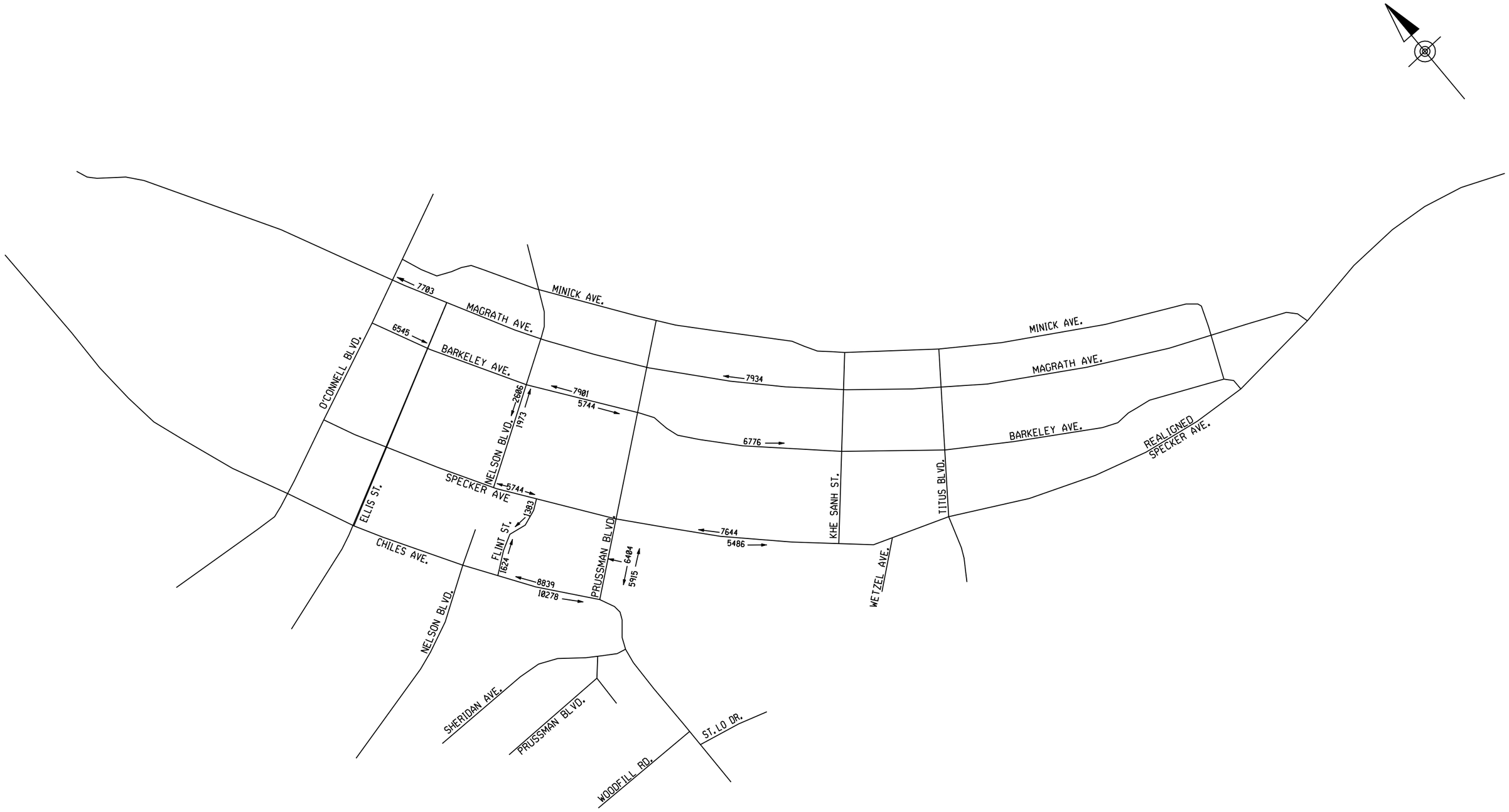


EXHIBIT 3.3

ADJUSTED AVERAGE DAILY TRAFFIC VOLUMES

FORT CARSON, COLORADO

4. CURRENT TRANSPORTATION SYSTEM

4.1. Internal Roadway Network

The roadway system at Fort Carson forms somewhat of a grid pattern with roadways in the main cantonment area running in a general east-west or north-south direction. The primary routes in this area include O'Connell Boulevard, Chiles Avenue, Specker Avenue, Prussman Boulevard, and the one-way pair of Barkeley and MacGrath Avenues. Outside of this area Butts Road provides access to the southwest more remote areas of the post and to Wilderness Road.

The roadways on Fort Carson can be classified into one of the three types according to the function they serve in moving people and freight:

Arterial Highways – Serve the movement of people and freight regionally between population and activity centers with a minimal level of access to adjacent properties

Collector Roadways – Serve the movement of people and freight from population and activity centers and funnel them onto arterial highways with a moderate level of access to adjacent properties.

Local Roadways – Provide access to adjacent properties and move people onto collector and arterial roadways.

These various roadways are described in detail in the following sections.

4.1.1. Arterial Highways

Arterial highways are divided into principal arterial highways and minor arterial highways. Principal arterial highways serve national and regional movements. Minor arterial highways serve movements between population and activity centers within a region. Arterial roadways generally have four, five or six lane cross-sections within developed areas. Outside of developed areas, minor arterial highways may have a cross-section with two or more lanes. Traffic demand determines the number of lanes required on a roadway. Arterial highways located in less developed areas should be designed to permit safe travel at speeds greater than 45 miles per hour. At Fort Carson, Butts Road and the one-way pair of Magrath and Barkeley Avenues would be classified as arterials.

4.1.2. Collector Roadways

Collector roadways may be grouped into major collector roadways and minor collector roadways. Major collector roadways connect larger population and activity centers with arterial highways. Minor collector roadways connect smaller areas or portions of larger areas with major collector roadways or arterial highways. Collector roadways located within Carson include:

• O'Connell Boulevard

• Ellis Street
• Nelson Boulevard
• Prussman Boulevard
• Titus Boulevard
• Butts Road
• Specker Avenue
• Chiles Avenue
• Harr Avenue
• Sheridan Avenue
• Minick Avenue

4.1.3. Local Roadways

The final classification of roadway located within Fort Carson is the local roadway. Local roadways are located in all portions of Fort Carson and serve as the direct connection to parking lots and adjacent properties. Examples include Khe Sanh Street and Woodfill Road.

4.2. Alternate Modes

In addition to vehicular transportation, Ft Carson and the 4th ID Headquarters Complex area are accessible via alternative modes. This modes are discussed in further detail in the Ft Carson Comprehensive Transportation Study, Sep 2005, under section 7, Sustainability.

4.2.1. Transit

Bus transit on post and the surrounding Colorado Springs area is provided by Mountain Metropolitan Transit (Formally: Springs Transit System) Routes 30 and 33 providing hourly weekday service between Colorado Springs and Ft Carson. Route 30 provides service to the post on Saturday. Service is not currently provided on Sunday. Service connects to other expansive routes in and around the greater Colorado Springs vicinity.

Currently there is no rail transit in the greater Colorado Springs area.

4.2.2. Pedestrian/ Bicycle Activity

Bicycle activity is minimal at Ft Carson. Most pedestrian activity is associated with fitness activities. There is significant pedestrian activity along Magrath and Minick Aves during morning physical training and also throughout the day along the paved fitness routes that are provided on post.

5. SUSTAINABILITY

Ft Carson has developed a Five Year Plan to reduce automobile dependency and provide balanced land use and transportation systems by 2027 with interim goals. The desired end state is to enhance the quality of life and support rapid deployment, increase viable alternatives to urban sprawl and associated single occupancy vehicles, decrease on- and off-post travel time, and reduce adverse air emissions.

5.1. Transportation Sustainability Improvements

The following or similar measures should be taken into consideration in the 4th ID Headquarters Complex design in order to mitigate increased traffic congestion in the areas around these new facilities.

Provide for direct pedestrian access between walking destinations in and around the Headquarters Complex. Direct walkways should be constructed between the various Complex facilities as well as to the Wolf Dining Facility, Library, and Manhart Field.

Create a pedestrian spine that directly connects the administrative facilities to the north of this site with the Division Complex and the existing Ft Carson Headquarters building.

Improve the bus stops on each side of Specker Ave in the vicinity of the Headquarters building and Wolf Dining Facility. Improvements should include bus stop shelters and turnouts to allow the busses to load and off-load passengers without blocking traffic flow along the main road.

The Complex should include bicycle parking and changing facilities that can service both the Complex and the existing Headquarters building.

Limit the amount of new parking to encourage alternative modes of transportation. Minimize the amount of new parking built for the Division Headquarters Complex by considering all available existing parking within a ¼ mile radius while determining the amount of additional parking required.

6. TRANSPORTATION PLANNING CONSIDERATION

6.1. FACTORS INFLUENCING EXISTING AND FUTURE TRAFFIC

To properly assess the existing and future transportation infrastructure needs, variances from “normal” conditions as well as anticipated future growth were considered.

6.1.1. Existing Volume Adjustments

Existing traffic counts were conducted from Monday, July 11, 2005 through Friday, July 15, 2005. Two variances from “normal” traffic conditions were identified during the traffic count program:

Variance 1: Monday and Friday Count Data

Variance 2: Current Deployments

6.1.1.1. Weekday Adjustment Factor

Traffic volume data is typically collected mid-week on Tuesday, Wednesday or Thursday. Data collection on either Monday or Friday can vary from mid-week conditions due to flextime work week schedules, vacation schedules, or part-time work schedules, and result in potentially lower traffic volumes along a roadway. To adjust for this condition, an adjustment factor was developed and applied to intersection volume data collected on Monday or Friday.

6.1.1.2. Deployment Adjustment Factor

Current Deployments

Approximately 16,000 soldiers are currently assigned to Fort Carson. In July 2005, approximately 55% to 60% of the active duty military personnel were deployed. As such, existing traffic volumes as counted on the installation were found to be significantly less when compared to a pre-deployment or “normal” condition. Existing (July 2005) volumes were, therefore, adjusted for each study intersection to represent “normal” pre-deployment volumes.

Future Deployments (Re-stationing)

Deployments to and from Ft Carson through FY 2011 are noted in Exhibit 6.1: Military Force Structure.

Exhibit 6.1

FORT CARSON MILITARY FORCE STRUCTURE SUMMARY, as of 27 SEP 06

LEGEND

ITALICS – UNIT IS NOT ON ASIP, ON ASIP BY MISTAKE, OR NOT IN CORRECT FY.

	POP=17,592 (ASIP) FY06		POP=16,675 FY07	POP=20,868 FY08	POP=21,434 FY09	POP=26,101 FY10	POP=26,145 FY11
FY06 EXISTING UNITS 13,323 Not included in yellow box total	71 EOD GRP 100 3-4 HBCT 3800 2-2 IBCT 3400 USAG 20 2/91 TSD 275	43 ASG 2131 SMC III CORPS 66 10TH SFG (A) 1200 MEDDAC / DENTAC 375	11th BDE West Reg ROTC 6 1st MOB BDE 50 2-4 HBCT (F) 1900				
CONVERT + 660	*4/3 ACR to 1-6 AIR CAV SQD JUL 06 +418*			REFLAG 2-2 to 4-4 OCT 07 10SFG GSC to GSB OCT 07 + 73	43 ASG to SUST BDE APR 08 + 169		
ACTIVATE + 1088	*1ST ARMY DIV WEST OCT 06 +150* *C CO MED 2/227 AVN REG APR 06 + 85*		4th EN BN HQ OCT 06 +173 62 EN CO OCT 06 +104 576EN CO OCT 06 + 124 569 EN CO OCT 06 +124 549 QM CO OCT 06 +122 41 MP DET CID OCT 06 +32	ARSPACE BDE? +44 *26th MED DET OCT 07 + 33*	*4FMCO OCT 08? + 73*	*EOD CO OCT 09? + 44*	*4BN 10SFG FY13 + 430*
BRAC + 4833	*SPT SQDRN 3ACR to Hood JUL 06 –920* *4/3 ACR to Hood JUL 06 – 460*		14PAD to Hood OCT 06 - 8 *4th ID HQs (-) to Carson NOV 06 + 250* *2-4 HBCT to Carson JUN 07 +3800* *110 MP CO AUG 07 +170* *62nd EOD CO MAR 07 +23*	*749th EOD CO JUL 08 + 44* *USAF ACAD MED GRP to Carson +33* *IGPBS MP CO to Carson OCT 07 +170*	1-4 HBCT to Carson FY09 +3800 *4th ID HQs to Carson FY08 + 750* *748th EOD CO JUN 09 + 44*		Brunswick Naval Air Station VET activity FY11 + 2
RE-STATION + 2865							
INACTIVATE - 240	7 ID AUG 06 -140 *DET 502 PSB JUN 06 -50*		*DET 502 PSB APR 07 -50*				
+ 9206 NET TOTAL GAIN FY 06-11	- 917		+ 4193	+ 566	+4667	+44	+ 2
	POP= 16,675		POP=20, 868	POP=21,434	POP=26,101	POP=26, 145	POP=26,147

6.2. TRAFFIC VOLUME PROJECTIONS

Traffic volumes were developed for the future condition by applying the pre-deployment conditions and by adding new trips generated by proposed development. These trips were generated and then distributed throughout the roadway network as discussed below.

6.2.1. Trip Generation

Trip generation is often performed using trip rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 7th Edition. Because of limited land uses provided in this publication with respect to military installations, trip generation data was developed in part using ITE trip generation rates and in part using a K-factor. The K-factor is a calculated rate comparing the entering and exiting trip rate distribution occurring during a peak hour to 24-hour daily volumes. For this study, the K-factor developed was based on pre-deployment 24-hour gate count data collected at Fort Carson.

Table 2 K-Factor

Peak Hour	Enter	Exit
Morning	0.14	0.05
Evening	0.05	0.12

6.2.2. Trip Distribution

Upon generating new trips, the trips were distributed to and from each new land use accordingly. The resulting future peak hour traffic volumes were provided earlier in Exhibit 3.3. The distribution was based upon existing and previously projected traffic volume data as well as engineering judgment. From these peak hour volumes future ADT (24-hour) volumes were calculated.

6.3. ROADWAY AND INTERSECTION IMPACTS

Traffic analyses were performed for future traffic volumes resulting from the relocation of the 4th ID HQ Complex. The traffic volumes used are those that were provided in Exhibits 3.1 and 3.2. It determined what improvements were required at each intersection based on these volumes and on attaining acceptable levels of service. Requirements at individual intersections sometimes forced more widespread improvements over the roadway corridor. Both roadway network and intersection improvements are summarized in the following table along with respective costs.

RECOMMENDED IMPROVEMENTS

Roadway Network Improvements

Provide 4-lane section along Specker Ave, 2-lanes in each direction from Prussman Boulevard to O'Connell Boulevard

Cost
$ 6.56 million

Traffic Signals

Traffic Signals are recommended at the following locations

Nelson Boulevard and Barkeley Avenue
Specker Avenue and Ellis Street
Specker Avenue and Nelson Boulevard
Specker Avenue and Flint Street

Warrants

Where traffic signal installation is recommended, traffic signal warrants arelikely to be satisfied at full build out conditions; however an engineering study should be conducted prior to installation. Traffic volumes should be periodically monitored as development progresses to insure that the signal is warranted.

Miscellaneous

All new signals should be of LED type
Locate signals no less than 40' from the STOP bar
Install pedestrian signals and pushbuttons at all signalized intersections
Roadway improvements will require modification to traffic signal installation

General

Install crosswalk markings at all signalized intersections
Install curb cuts at all intersection corners
STOP bars should be located at least 4feet behind crosswalks

Intersection Improvements

1. Barkeley Avenue and Nelson Boulevard

Long Term
Widen eastbound Nelson Boulevard to provide right turn lane
Install traffic signal

Cost
$ 303,000

2. Specker Avenue and Ellis Street

Immediate Actions
Remove 4-way STOP condition. Allow northbound traffic and southbound Specker Ave to be free flow. Maintain STOP condition on eastbound and westbound Ellis St approaches
Eradicate left/thru arrow on eastbound approach left-turn lane.
Pavement marking arrows are not necessary in the rightmost lane of this intersection. If installed, they should be shared thru/right arrows and not thru arrows.
Relocate eastbound approach lane use control sign so it does not block the one-way sign

Long Term
Install traffic signal

Cost
Included in the Specker Ave corridor widening cost estimate ($6.56M).

3. Specker Avenue and Nelson Boulevard.

Long Term
Install traffic signal
Widen westbound Nelson Boulevard to provide right turn lane
Provide right turn lane on northbound Specker Avenue

Cost
Included in the Specker Ave corridor widening cost estimate ($6.56M).

4. Specker Avenue and Flint Street.

Long Term
Install traffic signal
Provide right turn lane on southbound Specker Avenue

Cost
Included in the Specker Ave corridor widening cost estimate ($6.56M).

7. STUDY FINDINGS AND CONCLUSSIONS

The relocation of these facilities will have a significant effect on the traffic patterns in and around the new Complex area. Based on the future traffic projections noted in the Comprehensive Transportation Study, these effects will result in traffic volume increases or decreases as noted below:

A 3% increase in traffic volume will occur on Magrath Ave, between Khe Sahn St. and Nelson Blvd. The Average Daily Total (ADT) will be increased by 231 vehicles, from 7703 to 7934. (AM Peak Hour increase: 32 vehicles, PM Peak Hour increase: 34 vehicles)

A 3.5% increase in traffic volume will occur on Barkeley Ave, between Khe Sahn St. and Nelson Blvd. The ADT will be increased by 231 vehicles, from 6545 to 6776. (AM Peak Hour increase: 32 vehicles, PM Peak Hour increase: 34 vehicles)

A 2.7% increase in traffic volume will occur on Specker Ave, between Khe Sahn St. and Flint St. The ADT will increase by 345 vehicles, from 12,785 to 13,130. (AM Peak Hour increase: 49 vehicles, PM Peak Hour increase: 41 vehicles)

A 6.7% increase in traffic volume will occur on Specker Ave, between Flint St and Nelson Blvd. The ADT will increase by 860 vehicles, from 12,785 to 13,645. (AM Peak Hour increase: 120 vehicles, PM Peak Hour increase 104 vehicles)

A 15.7% increase in traffic volume will occur on Flint St, between Chiles Ave and Specker Ave of 407 vehicles The ADT will increase by 407 vehicles, from 2,600 to 3,007. (AM Peak Hour increase: 71 vehicles, PM Peak Hour increases: 60 vehicles)

A 69.9% increase in traffic volume will occur on Nelson St, between Barkeley Ave and Specker Ave. The ADT will increase by 1,885 vehicles, from 2,696 to 4,581. (AM Peak Hour increase: 427 vehicles, PM Peak Hour increase: 399 vehicles)

A 2.6% decrease in traffic volume will occur on Chiles Ave, between Flint St and Prussman Blvd. of 510 vehicles The ADT will decrease by 510 vehicles, from 19,627 to 19,117. (AM Peak Hour decrease: 71 vehicles, PM Peak Hour decrease: 62 vehicles)

A 4% decrease in traffic volume will occur on Prussman Blvd, between Chiles Ave and Specker Ave. of 510 vehicles The ADT will decrease by 510 vehicles, from 12,832 to 12,322. (AM Peak Hour decrease: 71 vehicles, PM Peak Hour decrease: 62 vehicles)

The traffic pattern changes generated by the relocation of the 4th Infantry Division Headquarters Complex will require the addition of turning lanes and traffic signals at four key intersections. The justification for signals at these locations is based on satisfaction of Traffic Signal Warrant 3, Peak Hour, of the Manual on Uniform Traffic Control Devices (MUTCD). The intersections which will require these improvements are:

Nelson Blvd and Barkeley Ave, Peak hour entering traffic volume: 836 vehicles

Specker Ave and Ellis St, Peak hour entering traffic volume: 839 vehicles

Specker Ave and Nelson Blvd, Peak hour entering traffic volume: 1,207 vehicles

Specker Ave and Flint St, Peak hour entering traffic volume: 1,252 vehicles

In addition to the roadway network improvements recommended in the Comprehensive Transportation Study, the widening of Specker Ave between Prussman Blvd and O'Connell Blvd to a four lane configuration will now also be required. Signalization of the Specker Ave intersections identified above must be integrated into this expansion plans, as well as other intersection improvements as required This widening is warranted by projected traffic volume along this primary roadway.

Cost estimates for the recommended improvements are listed below. These estimates are preliminary in nature and subject to change as more detailed engineering and design information becomes available.

Provide 4 lane section along Specker Ave, 2 lanes in each direction from Prussman Blvd to O'Connell Blvd. Cost: $ 6.56 million

Specker Ave and Ellis St. intersection improvements/signalization
Cost: Included in Specker Ave expansion

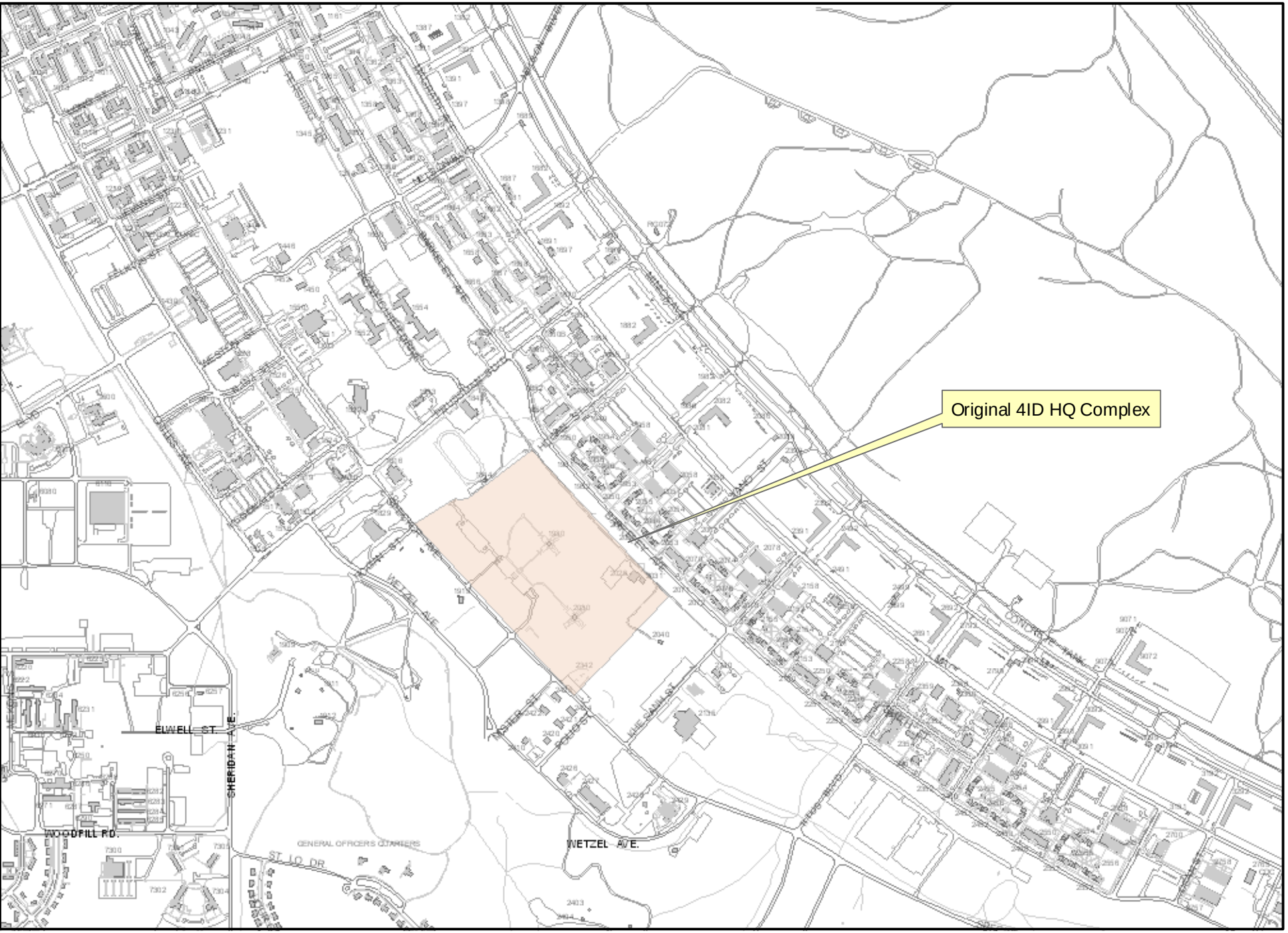
Specker Ave and Nelson Blvd. intersection improvements/signalization
Cost: Included in Specker Ave expansion

Specker Ave and Flint St. intersection improvements/signalization
Cost: Included in Specker Ave expansion

Nelson Blvd and Barkeley Ave. intersection improvements/signalization
Cost: $303,000

Traffic pattern changes resulting from the relocation of these facilities will remain internal to Ft Carson. Traffic counts and distribution among Post's Access Control Points (ACPs) will remain essentially unchanged.

Fort Carson Military Reservation



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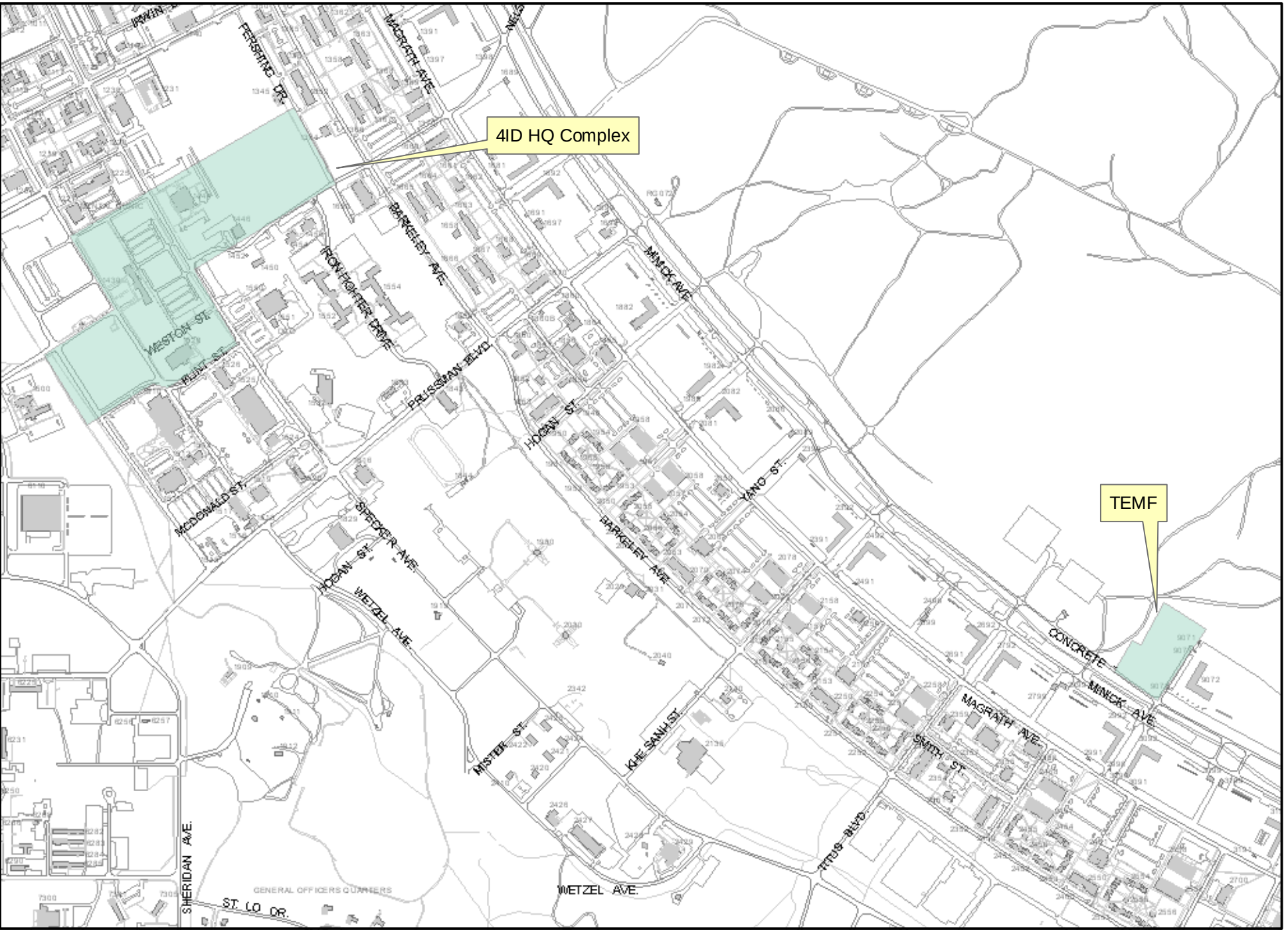
Fort Carson Military Reservation



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Appendix C
Sustainable Transportation
Five-Year Plan

Sustainable Transportation

Reduce automobile dependency and provide balanced land use and transportation systems.

The long term goal for this Five-Year Plan is to reduce automobile dependency and provide balanced land use and transportation systems by 2027 with interim goals. The desired end state is to enhance quality of life and support rapid deployment, increase viable alternatives to urban sprawl and associated single occupancy vehicles, decrease on- and off-post travel-time, and reduce adverse air emissions.

Background
The original goal from the Sep 2002 sustainability conference related to sustainable transportation is:

Reduce automobile dependency, and provide balanced land use and transportation systems.

This goal has a cousin in the goal for sustainable water and energy use. However, the objective in that goal is to provide for alternative fuels, whereas this goal is focused on how to use automobiles less, thereby creating less pollution as well as reducing traffic congestion on and off the Installation.

Desired end states related to sustainable transportation and land use from the Sept 2002 conference are as follows:

- Increased use of mass transit with clean fuels.
- Schedules that reduce vehicle emissions.
- Innovative materials and placement that provides sustainable transportation systems.
- Reduction of average daily commute miles.
- Regional partnerships for alternative and multiple occupancy vehicles.
- Reduce the amount of vehicles on the roadway to reduce congestion.
- Control urban expansion and zone to discourage vehicle use.

This goal addresses vehicle use as a detriment to quality of life. More time spent in vehicles typically equates to less time spent with families. Furthermore, with increased security, the more vehicles coming into the gates, the more congestion is created, and the

more time is spent in vehicles. This goal seeks to reduce the magnitude of these quality of life issues.

The Natural Step System Conditions

1. Nature is not subject to systematically increasing concentrations of substances extracted from the earth's crust.
2. Nature is not subject to systematically increasing concentrations of substances produced by society.
3. Nature is not subject to increasing degradation by physical means.
4. Human needs are met worldwide.

The sustainable transportation goal supports all of the System Conditions. As buses and carpools are used in lieu of single occupancy vehicles, fewer fossil fuels will need to be extracted from the earth's crust, working toward System Condition 1. System Condition 2 is supported by the decrease in the number of personal vehicles used and disposed of; and the decrease of wear and tear on vehicle parts, such as tires that eventually go to the landfill. Adding just one extra person per vehicle could reduce the amount of pollution emitted from automobiles by half. In addition, paving over natural landscapes for freeways and water runoff from the freeways severely degrades nature. Prevention of the construction of more freeways by reducing the number of cars using them will support System Condition 3. Carpooling creates friends and allows neighbors to get to know each other. It also reduces individual gasoline bills and automobile repairs, which allow for other human needs to be better met, supporting System Condition 4. Sustainable transportation supports all of the system conditions in many other direct and indirect ways.

Challenges and Barriers

- Perception of independence and status of automobile
- City bus system does not currently support Fort Carson's needs
- On-post shuttle service not used (scheduling/awareness)
- Rideshare forms not allowed in The Mountaineer
- Current infrastructure supports single occupancy vehicles (parking, building distances from each other and from services)
- Rapidly changing technologies
- High startup costs for mass transit
- Legal challenges (currently illegal to fund commuting to and from work and for personal trips)
- Many people are afraid to walk, bicycle, or take public transportation
- In many cases it is easier to take a personally-owned vehicle (POV)

Strategies

- Address administrative policies that encourage individual transportation
- Enhance infrastructure that encourages sustainable transportation
- Increase number of pedestrian pathways
- Explore telecommuting possibilities
- Create more opportunities for teleconferencing and video conferencing
- Create flexible work schedules
- Research opportunities for carpooling and shuttle use

Areas of Overlap

- Sustainable Energy
- Master Planning
- Hazardous Air Pollution Reduction
- Partnerships
- Procurement

Objectives, Initiatives, Steps and Resources

Objective 2.1: Reduce the number of automobiles entering the Installation by 25 percent by 2007.

Land use will need to change so that in the future automobiles are less vital than they are today. Co-locating activities is one way to support this effort. Fort Carson activities supported sustainable transportation in the early years through building barracks, dining facilities and training areas all within walking distance of each other. Perhaps some of the practices of the past should be re-examined.

Administrative activities can support alternative modes of transport as much as physical means. Identifying who travels where and when is key in determining how to reduce the number of automobiles on the road at any given time. This will require the support of Fort Carson's command as well as external agencies, such as RideFinders.

Initiative 2.1.1: Baseline data for number of cars that enter the Installation on an average yearly basis.

Lead: DOL

Action Agents: DPW, Provost Marshal's Office (PMO)

Steps	Resources Needed	Time/Cost
Install counters at all gates	Time to acquire and set up counters	40 hours
Develop a normalization protocol	Time to determine how to count cars and what is average based on activities	10 hours
Analyze data and organize into a presentable format	Time to collect and organize	10 hours

for yearly analysis and comparison	data	

Measure: Complete data set on the number of vehicles entering the Installation beginning with calendar year 2004.

Initiative 2.1.2: Reduce administrative actions that support individual transportation.

Leads: DGC, Chief of Staff

Action Agents: DPTM/G3

Steps	Resources Needed	Time/Cost
Move physical training (PT) to the last hour of the day.	Time to write and distribute Command Memo	10 hours
Reorient troops to change in PT hours	Time for adjustment	6 months

Measure: 90% of troops are performing PT at the last hour of the day by 2007.

Initiative 2.1.3: Enhance infrastructure that encourages sustainable transportation.

Leads: DPW, DOL

Action Agents: DPW, DOL

Steps	Resources Needed	Time/Cost
Prevent all parking close to buildings by establishing a fee/permit program	Time for cost-benefit analysis and set up	80 hours
Provide AFVs for on-post travel from building to building	Time to determine common on-post trips Funding for purchases of AFVs	20 hours Already Programmed
Work with Master Planning for long term changes that create paths, establish routes for biking, set up bike racks, etc. that encourage biking and walking	Time to work with Military Police Time to incorporate changes into Master Plan	20 hours 10 hours
Create an awareness program for Fort Carson personnel to understand how to use alternative modes and that they exist.	Time to create maps and publish articles in The Mountaineer.	20 hours

Measure: Yearly increase in the number of people who acquire permits, use AFVs for on –post travel, and use bike and foot paths.

Initiative 2.1.4: Increase carpooling, city bus, and shuttle use.

Leads: DOL, PMO

Action Agents: DOL with DECAM and El Paso County Rideshare Assist

Steps	Resources Needed	Time/Cost
Work with RideFinders to assist with carpooling needs	Time to meet with RideFinders	3 hours
Re-establish awareness program and promote Fort Carson rideshare list	Time to write articles for the Mountaineer, work with	40 hours

	Rideshare agency, and create letter from Command	
Create incentive program for sharing rides (coupons, gift certificates, etc.)	Time to work with vendors and others for gift certificates and coupons. Funding for gift certificates	50 hours $10,000
Require all soldiers, civilians and contractors to register with ridefinders	Time to create database Funding and time for tracking Distribution "A" command emphasis letter requiring registration	Free – Ridefinders will do this for Fort Carson. 20 hours
Rearrange work schedules to accommodate carpooling.	Time to coordinate	Individual
Provide shuttle schedule for off-post trips to lunch alternatives, quick shopping areas, and common quick errand locations	Time to determine most common off-post trips Time to determine best vehicles for local travel Funding for route study Funding for shuttles, gas and drivers	20 hours 10 hours $10,000 Needs further analysis

Measure: 10 percent increase each year in the number of shuttle riders, carpoolers, and city bus riders.

Goal 2 - Sustainable Transportation: Reduce automobile dependency and provide balanced land use and transportation systems

Objective 2.1: Reduce the number of automobiles entering the Installation by 25% by 2007.

Measure:

By 2007, the number of automobiles entering the Installation has been reduced by 25% from a 2004 baseline.

Target: 6-25 Years

40% reduction in POVs entering post

40% increase in alternative modes

Alternative mode network in place

Target 1-5 Years

Carpools and bus riding increased by 25%

POVs entering post reduced by 25%

Baseline FY 2001

Unknown, but very little carpooling and bus riding.

Infrastructure that supports POVs

Initiatives:

Baseline data for the number of cars that enter the Installation on an average yearly basis

Reduce administrative actions that support individual transportation

Enhance infrastructure that encourages sustainable transportation

Research opportunities for carpooling, city bus and shuttle use

Restricted/limited parking

Convenient post shuttle system

TRIP DISTRIBUTION AND TRIP GENERATION ASSUMPTIONS

1. Division Headquarters Building

- Located between Specker Ave and Wetzel St, south of the existing Post Headquarters, Building 1430.
- Daily trips = 1,455
- Peak hour trips follow K Factor as determined from gate volume count

AM Peak Hour trips:	Enter: 203 veh/hr	Exit: 73 veh/hr
PM Peak Hour trips:	Enter: 73 veh/hr	Exit: 175 veh/hr

- 40% of the trips come from on-post; 29% come from family housing areas along Harr Ave and Sheridan Ave; 11% come from the new barracks
- 60% of the trips come from off-post following the projected gate distribution thru Gates 1,2,3,4,5, and 20.

2. Battalion Headquarters Building

- Located between Specker Ave and Pershing Dr, east of the Wolf Dining Facility, Building 1444.
- Daily trips = 848
- Peak hour trips follow K Factor as determined from gate volume count

AM Peak Hour trips:	Enter: 114 veh/hr	Exit: 41 veh/hr
PM Peak Hour trips:	Enter: 41 veh/hr	Exit: 98 veh/hr

- 30% of the trips come from on-post family housing areas along Harr Ave and Sheridan Ave
- 70% of the trips come from off-post following the projected gate distribution thru Gates 1,2,3,4,5, and 20.

3. Division Band facility

- Located on the southeast corner of Specker Ave and Nelson Blvd
- Daily trips = 93
- Peak hour trips follow K Factor as determined from gate volume count

AM Peak Hour trips:	Enter: 13 veh/hr	Exit: 5 veh/hr
PM Peak Hour trips:	Enter: 5 veh/hr	Exit: 11 veh/hr

- 30% of the trips come from on-post: 20% from the family housing areas along Harr Ave and Sheridan Ave; 10% come from the new barracks

- 70% of the trips come from off-post following the projected gate distribution thru Gates 1,2,3,4,5, and 20.

4. Barracks Facility

- Located between Specker Ave and Pershing Dr, north of Nelson Blvd
- Daily trips = 324
- Peak hour trips follow K Factor as determined from gate volume count

AM Peak Hour trips:	Enter: 0 veh/hr	Exit: 162 veh/hr
PM Peak Hour trips:	Enter: 162 veh/hr	Exit: 0 veh/hr

- Assume 100% of trips leave barracks area during the AM Peak Hour and travel to the soldiers places of duty. Assume 100% of trips places of duty during the PM Peak Hour and return to the barracks.

Finding of No Significant Impact:
Construction of FY06 Facilities at Fort Carson, Colorado

Fort Carson has prepared an Environmental Assessment (EA) (January 2006) that evaluates the potential environmental and socioeconomic impacts associated with construction of complexes for an Infantry Brigade Combat Team (IN BCT), Heavy Brigade Combat Team (Heavy BCT), and 4th Infantry Division (ID) Headquarters (HQ) Complexes at Fort Carson. The facilities are proposed to support Army Modular Force (AMF), Integrated Global Presence and Basing Strategy (IGPBS), and initial elements of BRAC. Preparation of a separate Environmental Impact Statement (EIS) will address additional BRAC actions, the permanent stationing of troops at Fort Carson, and construction programs commencing after 2006.

Description of the Proposed Action

Fort Carson is proposing three construction projects representing approximately 123 acres of construction within a total project area of approximately 365 acres. All construction would occur within or immediately adjacent to the cantonment area. The projects would provide facilities for an IN BCT, a Heavy BCT, and the 4th ID HQ Complexes. Construction of recreational facilities in Iron Horse Park to replace facilities lost as a result of construction will be addressed in the EIS for BRAC actions. Construction characteristics common to all projects include that the facilities be built to meet the Gold level as indicated by the Sustainable Project Rating Tool, comply with requirements under the Americans with Disabilities Act, and comply with requirements for anti-terrorism/force protection. In addition, mitigation for construction in contaminated soils and impacts to wetlands would be conducted under the proposed action.

Facilities provided by the three projects include administrative buildings, barracks, dining halls, organizational and private vehicle parking, storage buildings, vehicle maintenance facilities (including wash racks), a heliport, and company operations facilities.

The specific components of the Proposed Action are described in the attached EA. Construction for the three projects under the proposed action is scheduled to commence in March 2006 and continue through June 2010.

Wilderness Road Alternative

A site on Wilderness Road was considered as an alternative location to be used by either the Heavy BCT or the 4th ID HQ Complexes. The alternative site is located downrange from the cantonment area. The site is undeveloped on gently sloping terrain. Implementation of the alternative would require routing of additional new utility services from the cantonment area or offsite locations to the site. The site is not within or adjacent to the cantonment area, and thus lacks required operational support services. Duplicate services would have to be built to accommodate personnel working at this

alternative site. [illegible]
would be conducted as part of implementation of the alternative.

No Action Alternative

Under the no action alternative, no facilities would be constructed or renovated to support stationing of the new units. This alternative is not viable because existing facilities on Fort Carson are not capable of housing both currently assigned units and the additional units to be stationed under AMF and IGPBS.

Environmental Consequences

No significant negative environmental or socioeconomic consequences that could not be mitigated were identified in the EA for the proposed action. Implementation of the proposed action would result in less than significant permanent, adverse impacts to all resources. In addition, construction-related effects to all resource areas would be temporary and localized and potentially affect air quality, noise, geology and soils, water resources, transportation, and hazardous materials.

A temporary, minor, beneficial impact to the local economy would result from construction-related jobs and construction-related purchases of supplies and materials. A permanent, beneficial impact to water supply would result from installation of a water tank by the Heavy BCT project that would improve water pressure for a significant portion of the cantonment area.

There would be minor displacement of wildlife from the project areas, but this impact would dissipate with time as animals acclimate to the new areas. There would be no impacts to rare, threatened, or endangered species.

Conclusion

The attached EA was prepared pursuant to 32 Code of Federal Regulations (CFR) 651 and U.S. Council on Environmental Quality (CEQ) regulations (Title 40, U.S. Code, Parts 1500-1508) for implementing the procedural requirements of the National Environmental Policy Act (NEPA). The finding of this EA is that the Proposed Action, with minor mitigation, would have no significant impact on the human or natural environment. Therefore, based on review of the EA, I conclude that the Proposed Action is not a major federal action that would significantly affect the quality of the environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Accordingly, no Environmental Impact Statement (EIS) is required.

MICHAEL RESTY, JR
COL, CM
Garrison Commander
Fort Carson, Colorado

Date: [redacted]