



# FINAL Corridor Conditions Assessment Report

## SH 79 AND KIOWA-BENNETT CORRIDOR PLANNING AND ENVIRONMENTAL LINKAGE STUDY



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Submitted by



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# INTRODUCTION

## SH 79 and Kiowa-Bennett Corridor Planning and Environmental Linkage Study

The Town of Bennett, Adams County, Arapahoe County, and the Colorado Department of Transportation (CDOT), hired the David Evans and Associates, Inc. (DEA) team to produce a Planning and Environmental Linkage (PEL) Report to provide an overview and understanding of potential improvements to State Highway (SH) 79 near Bennett and Kiowa-Bennett Road south of I-70.

A PEL represents an approach to transportation decision-making that considers environmental, community and economic goals early in the planning stage and carries them through project development, design and construction.

This Corridor Conditions Report documents the current and anticipated future conditions of the corridor with regard to land use, the transportation system, and environmental resources and environmentally sensitive areas; this is mostly comprised of readily available data and field survey information. This report summarizes data collected as part of this study effort, data already available from CDOT, Town of Bennett, Arapahoe County, Adams County and other agencies, and the results of the evaluation of existing transportation conditions and environmental resources in the study area. The information presented in this report will be used in the development and analysis of improvement alternatives.

The purpose of the environmental overview within this report is to identify environmental resources early in the planning process in order to consider sensitive environmental resources and avoid potential fatal flaws. The intent is not to identify impacts but rather to identify potential “red flag” resource areas for use in alternatives analysis to avoid and minimize impacts to resources during subsequent study phases while developing alternatives that meet project Purpose and Need.

If a recommended improvement project receives Federal funding and/or involves a State or Federal facility, the results of the PEL Study will be carried forward at that time into project development, additional environmental review (National Environmental Policy Act (NEPA)-level or similar state environmental review process), design, and ultimately construction, maintenance, and operations.

## Study Area

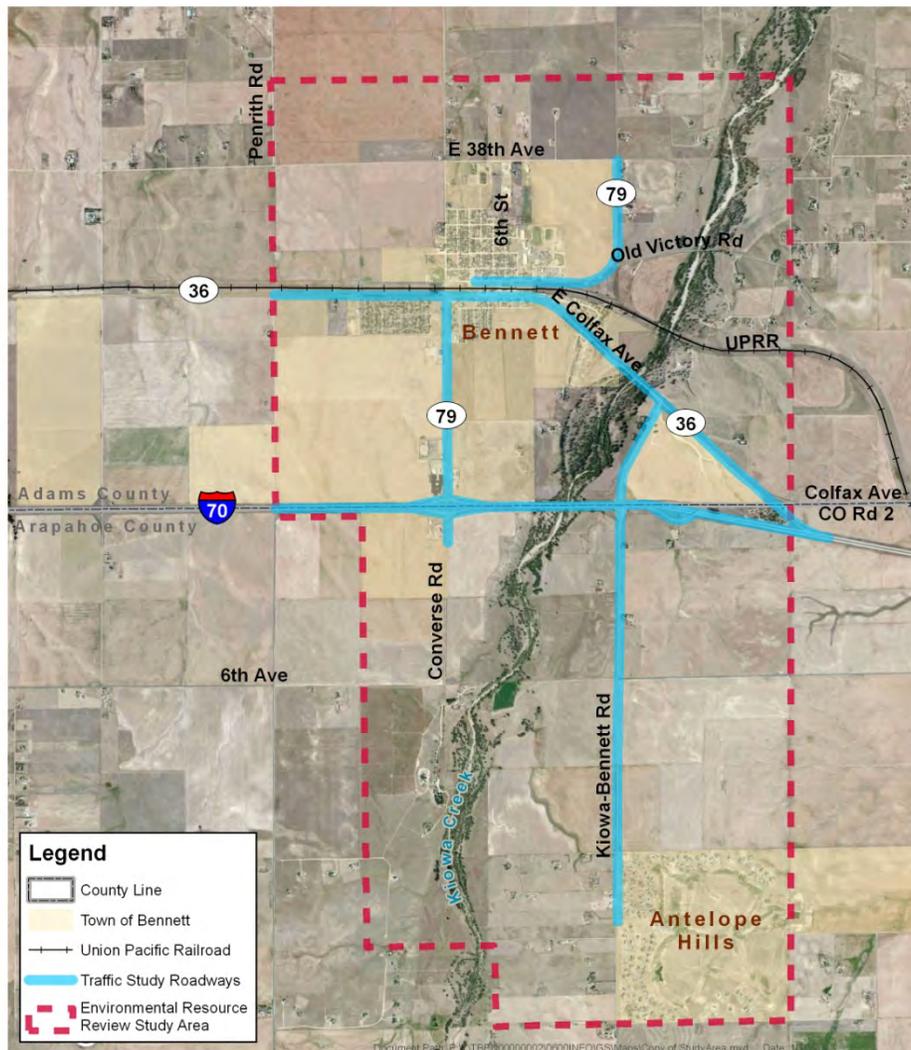
SH 79 begins at I-70 and continues north. SH 79 is the Town of Bennett’s most important north/south transportation corridor and Adams County’s most important rural transportation corridor that supports regional mobility and economic activity for Bennett. However, regional corridor traffic must maneuver the Town’s local street system and an at-grade crossing of the Union Pacific Railroad (UPRR) tracks.

This report documents the current and anticipated future conditions of the corridor with regard to land use, the transportation system, and environmental resources. The information presented in this report will be the basis for developing and evaluating possible transportation improvements in the study area.

Kiowa-Bennett Road serves as a regional north-south corridor through eastern Arapahoe County. Kiowa-Bennett Road does not have full, direct access to I-70 and traffic traveling between Kiowa-Bennett Road and SH 79 must travel along Colfax Avenue/US 36 and through downtown Bennett. Improving regional connectivity and access to the I-70 corridor will be essential to achieve economic development for eastern Adams and Arapahoe Counties.

The traffic study roadways and environmental resource review study area are illustrated in **Figure 1**. The study area limits include SH 79, Kiowa-Bennett Road, Colfax Avenue/US 36, and I-70. The environmental resource review area for the project is focused around the area of most likely physical impacts of corridor transportation improvements. To take into account the potential for indirect or secondary effects to community or environmental resources as a result of the proposed action, the initial focus area was extended to the back property line of area parcels to be more inclusive. The area includes the area generally bounded by Penrith Road to the west, the southern edge of Antelope Hills to the south, Colfax Avenue/US 36 and County Road 2 to the east, and 38th Avenue to the north. The traffic evaluation includes SH 79 south of 38th Avenue and the existing I-70 interchanges at SH 79, Kiowa-Bennett Road, and Colfax Avenue/US 36.

**Figure 1: Study Area**



# LAND USE AND COMMUNITY PROFILE

Planning for future growth and land uses is an important local government responsibility. A community's Comprehensive Plan, including its land use plan, reflects its desires and vision with respect to future growth and development. It is important to understand each community's vision and plan for the area in order to provide the best opportunity for proposed improvements which seamlessly integrate with existing and future land use. A variety of different sources were reviewed to create a summary of a community profile and land use maps. The summary was created using parcel data from the counties, US Census Bureau information, a visual inspection of the study area, and local land use planning documents.

## Community Profile

The community profile consists of population, household and employment characteristics for the study area, along with a summary of growth projections. These estimates and projections are extrapolated from data presented in the *Town of Bennett Comprehensive Plan*.

### Population, Household and Employment Characteristics

The study area's 2010 population of 2,308 persons is concentrated in the Town of Bennett. The population grew by 287 people between 2000 and 2010, which is an average annual rate of 1.3 percent. Households increased by 119 units over the past decade, from 715 to 834 households, an average annual rate of 1.6 percent. The average household size dropped from 2.83 people per household in 2000 to 2.77 in 2010. The average age of residents in the study area increased from 30.9 in 2000 to 35.2 in 2010. However, the average age is less than the average age of residents in Adams County (36.1) and Arapahoe County (35.7), reflecting a younger population than surrounding communities. Nearly one quarter of people in the study area (24.7 percent) is under the age of 15.

The study area experienced significant employment growth between 2001 and 2009. During this time, wage and salary employment nearly doubled from 417 to 786 jobs for an annual average growth rate of 8.2 percent. The study area's employment growth pattern is unique as jobs outpaced household growth by a ratio of 3:1. This is principally due to new commercial growth at the interchange of I-70 and Kiowa-Bennett Road which serves a very large, rural trade area.

### Growth Projections

Significant growth is projected between 2010 and 2035 for the eastern I-70 corridor from Watkins to Deer Trail, which includes the study area. The eastern I-70 corridor is estimated to grow by 6,454 housing units and 2,568 new jobs. This projected growth in housing units and employment equates to 1,381 acres of land demand: 1,149 acres of land is needed for new housing; 43 acres for office, 71 acres

The planning, design, and construction of roads and highways, as well as other transportation modes, is often based on land use development patterns and trends and affects existing land uses and plans, and proposals for future development.

for retail and 118 acres for industrial uses. These base numbers were forecasted using Denver Regional Council of Governments (DRCOG) growth rates, with modifications to reflect more current projections made by the Colorado Department of Local Affairs and the Center for Business and Economic Forecasts.

The study area is well-positioned to capture a considerable portion of this growth, as supporting water and sanitary sewer systems are either available or planned by the Town of Bennett. The Town's well water system can currently support an estimated 300 acres of new development within the study area. For sanitary sewer, Bennett utilizes a lagoon with a design capacity to serve a population of 10,000; current demand is less than 25 percent of design capacity. With the Town intending to introduce a renewable water supply into the study area, the prospect for growth and land development within the study area is substantial.

## Current Land Use

The study area is located in a rural area characterized by a concentrated mixture of residential, commercial, industrial and public/institutional properties surrounded by predominantly agricultural land. Existing dedicated open space is limited to the Kiowa Creek open space area south of I-70.

With the exception of the Antelope Hills residential subdivision located south of I-70, urban uses are generally located north of I-70 within the Town of Bennett's incorporated boundaries. Bennett consists primarily of low density, single family residential neighborhoods with light industrial development on its northern and eastern edges. The UPRR rail line and its core area industrial use transect the community generally along the Colfax Avenue/US 36 alignment. There is a limited amount of highway commercial development interspersed with vacant lots and structures along SH 79 as it winds through the original plat section of Bennett in the center of town. Recent commercial retail development is concentrated on the north side of the SH 79/I-70 interchange, which consists of the Love's Truck Stop and King Soopers.

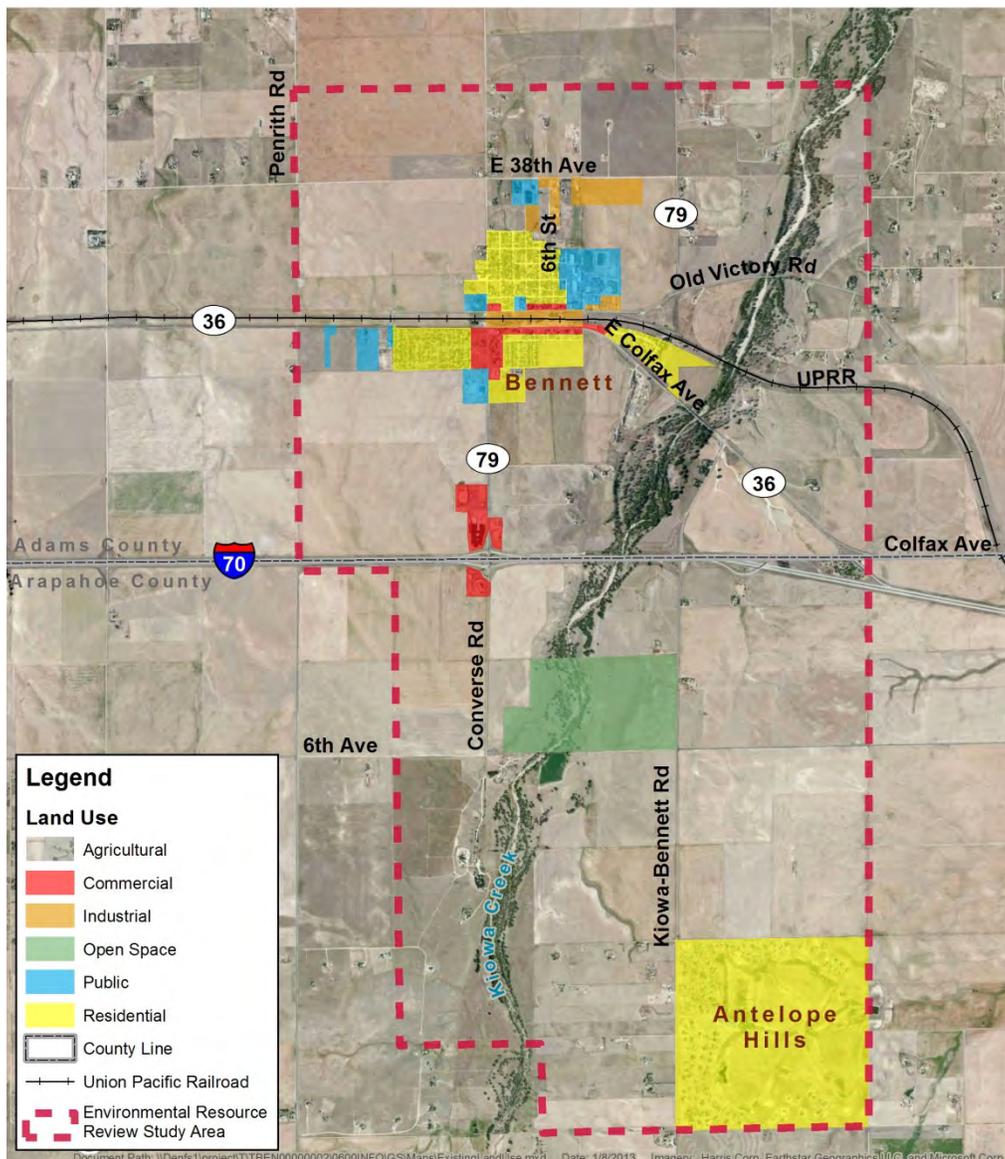
Current land uses are depicted in **Figure 2**. The designated land uses are relatively consistent with the zoning of three jurisdictions that regulate land use within the study area: Town of Bennett, Arapahoe County, and Adams County. Land development codes, adoption dates, and relevant zoning are summarized in **Table 1**.

**Table 1: Relevant Codes and Zoning**

RELEVANT CODES	DATE ADOPTED	STUDY AREA ZONING
Town of Bennett Land Use and Development Code	February 2011	Bennett is divided into 12 zoning districts.
Adams County Development Standards and Regulations	January 2007	Primarily A-3 zoning, with a few A-1 parcels. The A-3 zoning district provides land primarily in holdings of at least 35 acres for dry land or irrigated farming, pasturage, or other related food production uses. The A-1 zoning district provides for rural single-family dwellings and limited farming uses.
Arapahoe County Land Development Code	September 2011	A-1 zoning. The primary uses allowed in the A-1 zoning district are agricultural and open land uses, agriculture-dependent or agriculture-related uses, and other uses supportive of a rural, agriculture-based economy.

Source: Town of Bennett, Adams County, Arapahoe County and Plan Tools LLC

Figure 2: Existing Land Use



Source: Town of Bennett, Adams County, Arapahoe County and Plan Tools LLC

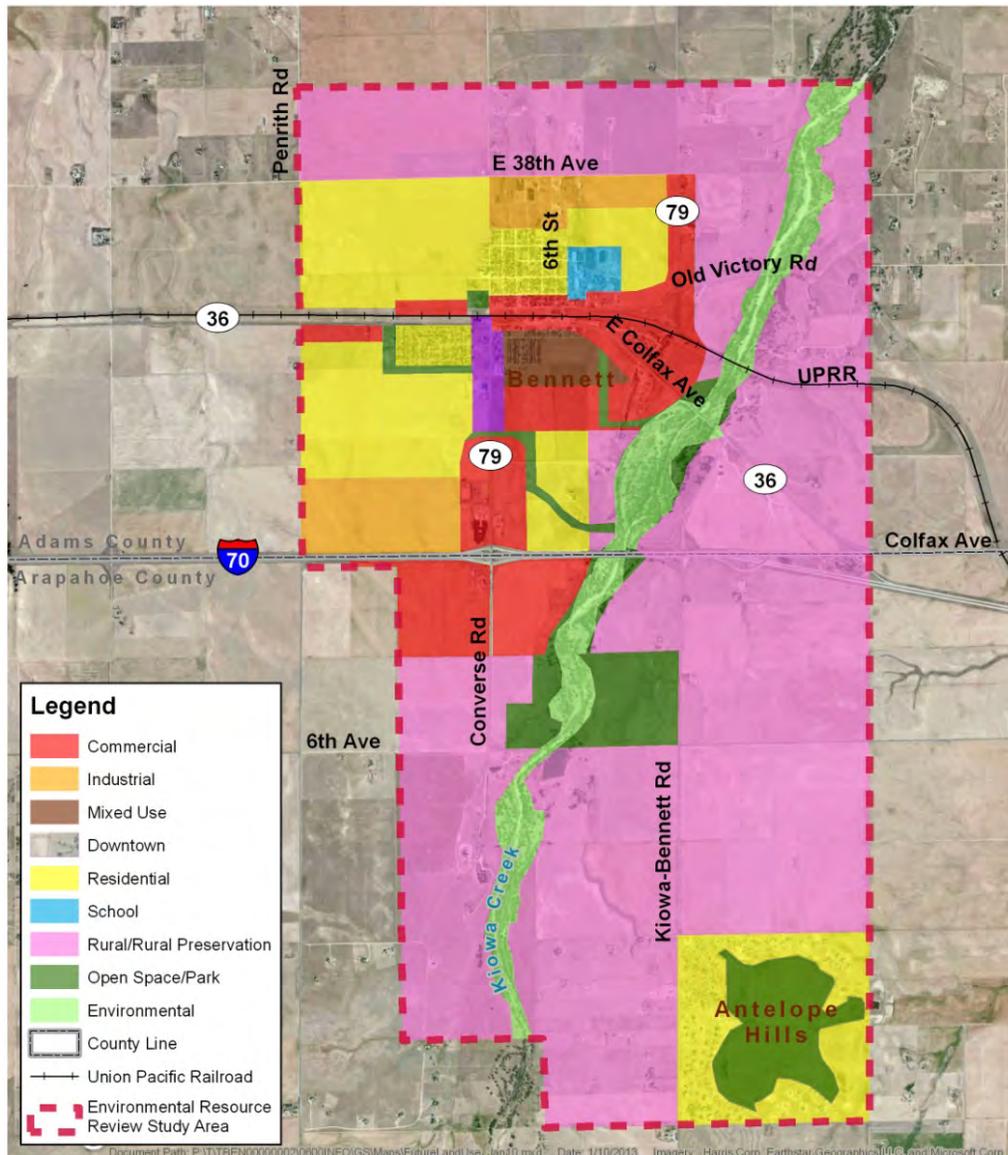
## Future Land Use

Future land uses are depicted in **Figure 3**. The land uses represented on this map reflects the local agencies' land use vision for the study area. The portion of the existing incorporated Town of Bennett surrounding the railroad and Colfax Avenue/US 36, as well as the Antelope Hills subdivision development is a well developed and mature urban environment with adequate services and infrastructure capability. Areas contiguous to this stable urban area are planned for urban development characterized by direct access to I-70 and proposed arterial roadways and transit, with the potential for targeted delivery of infrastructure and urban services. A variety of residential, commercial, light industrial, mixed use and open space land use designations are planned for these stable urban and developing urban areas. Passive open space is anticipated in the Antelope Hills subdivision with the transfer of the Antelope Hills Golf Course to the Town of Bennett. The future land use includes a plan for

a mixed-use development concept for a new downtown Bennett Main Street that could emerge with realignment of SH 79 and a railroad grade separation.

The Rural/Rural Preservation land use designation includes existing rural residential neighborhoods, large lot development, very low density cluster development and large agricultural land holdings that desire to remain rural in character. The Environmental land use designation is the 100-year flood plain for Kiowa Creek that transects the study area, representing significant value to current and future residents in terms of open space, trail systems, passive recreation, flood control, water quality and water supply.

**Figure 3: Future Land Use**



Source: Town of Bennett, Adams County, Arapahoe County and Plan Tools LLC

Several other local government comprehensive plans guide future land uses in the study area. Plans, adoption dates, and land uses for the study area are summarized in **Table 2**.

**Table 2: Relevant Plans and Land Uses**

RELEVANT PLANS	DATE ADOPTED	STUDY AREA LAND USES
Town of Bennett Comprehensive Plan	January 2012 Adopts by reference the 2010 Town of Bennett Downtown Study	Stable Urban, Developing Urban, Rural/Rural Preservation and Environmental planning tiers
Town of Bennett Downtown Study	January 2012	Main street concept with mixed-use office, retail and residential development
Adams County Comprehensive Plan	December 2012	Agriculture, Natural Resource Conservation, Estate Residential, and Mixed Use/Employment designations
Arapahoe County Comprehensive Plan	Adopted June 2001; currently undergoing revision	Rural and Riparian designations
Metro Vision 2035	Originally adopted 1982 Latest revision February 2011	Long range, regional framework for metro wide growth and development
I-70 Corridor Economic Assessment	April 2011	Market analysis, conditions assessment and action plan for eastern I-70 corridor

Source: Town of Bennett, Adams County, Arapahoe County, DRCOG, EPS and Plan Tools LLC

# EXISTING TRANSPORTATION SYSTEM

This report summarizes data collected as part of this study effort, data already available from CDOT, Town of Bennett, Arapahoe County, Adams County, and other agencies, and the results of the evaluation of existing transportation conditions.

## Roadway Network

SH 79 and Kiowa-Bennett Road provide both local and regional mobility within the study area.

### SH 79

SH 79 extends 22 miles from SH 52 at Prospect Valley south through Bennett to I-70. It is a regional north-south highway that is designated as an oversize load route by CDOT and a hazardous materials route by the Colorado Department of Public Safety.

**Figure 4** illustrates the regional nature of SH 79. With the indirect connection to Kiowa-Bennett Road south of I-70 which connects to SH 86 at Kiowa, and south of Kiowa along Elbert Road to US 24, a 75-mile north-south roadway corridor exists. This is the only north-south roadway corridor east of the Denver metro area until SH 71 at Limon, approximately 50 miles east of Bennett.

North of I-70, SH 79 is also primary entrance to the Bennett community, which makes it a dominant and focal element in the community. The stretch of highway from I-70 to Colfax Avenue/US 36 is also known as Converse Road. It is a two-lane rural highway with a posted speed limit of 35 miles per hour (MPH) through town and 50 MPH between I-70 and Colfax Avenue/US 36 and north of town to 38th Avenue. North of 38th Avenue, the speed limit is 65 MPH. CDOT recently conducted a speed study along the limits of SH 79 known as Converse Road and is recommending that the speed be reduced from 50 MPH to 45 MPH for approximately one mile both northbound and southbound.

SH 79 has an at-grade crossing of the UPRR in the center of town. The crossing is controlled with gates and lights. The sharply turned alignment of SH 79 through town and the at-grade crossing in the center of Bennett results in congestion and regional mobility issues.

CDOT defines the functional classification of SH 79 as a Major Collector. For access control, CDOT classifies SH 79 as Non Rural Arterial (NR-B) between I-70 and 38th Avenue and Rural Highway (R-B) from 38th Avenue north to SH 52 (20 miles north of the study area).

This section documents the existing transportation system in the study area, including roadway characteristics, travel characteristics, traffic operations, and alternative transportation modes. This information will be used for the determination of improvement needs and development and analysis of alternatives.

## Kiowa-Bennett Road

Kiowa-Bennett Road provides north-south travel from SH 86 in Kiowa in Elbert County (30 miles south of the study area), through Arapahoe County, to the intersection with Colfax Avenue/US 36 north of I-70. The roadway consists of two lanes and is relatively continuous, with a few curves. There is an off ramp for eastbound I-70, but other connections to I-70 are via Colfax Avenue/US 36 and County Road 2 east of Kiowa-Bennett Road. The speed limit along Kiowa-Bennett Road south of Colfax Avenue/US 36 is 45 MPH.

## Interstate 70

I-70 is a major east-west interstate highway that crosses the United States from Baltimore, Maryland to I-15 south of Salt Lake City, Utah. I-70 crosses central Colorado and travels through the middle of the Denver metropolitan area. Within the study area from MP 303.0 to MP 308.0, I-70 is a four-lane divided rural interstate freeway with a posted speed limit of 75 MPH. I-70 has a full diamond-style interchange at SH 79 with stop signs at the ramp intersections providing direct access to Bennett and an eastbound off ramp at Kiowa-Bennett Road, one mile east of SH 79. There is another eastbound off ramp, plus westbound off and on ramps at Colfax Avenue/US 36 and County Road 2, located one mile east of Kiowa-Bennett Road. The next I-70 interchange to the west is located at Manila Road, five miles west of SH 79.

There are a total of five bridges along this segment of I-70. There are two bridges that carry both westbound and eastbound I-70 over Kiowa Creek. Each of these bridges is approximately 40 feet in width to accommodate the two 12-foot travel lanes along with a 12-foot outside and 4-foot inside shoulder.

The overpasses at SH 79 and at Kiowa-Bennett Road are multi-span structures approximately 230 feet in length and 28 feet wide with two travel lanes and no sidewalks. The Kiowa-Bennett Road bridge over I-70 is considered structurally deficient and is scheduled for replacement. The overpass for the off ramp at Colfax Avenue/US 36 is also a multi-span structure approximately 330 feet in length and 28 feet wide with one travel lane serving ramp traffic.

Figure 4: Regional Map



## Colfax Avenue/US 36

Colfax Avenue/US 36 is a regional east-west highway that runs generally parallel to and south of the UPRR line within the study area. It is a two-lane rural highway with a posted speed limit of 35 MPH through town. The roadway provides a direct connection to Aurora and the Denver metropolitan area to the west and the towns of Strasburg and Byers to the east.

CDOT defines the functional classification of Colfax Avenue/US 36 as a Major Collector west of the SH 79/Adams Street intersection and as a Local east of the intersection. For access control, CDOT classifies Colfax Avenue/US 36 as a Non Rural Arterial (NR-B) between Penrith Road and Kiowa-Bennett Road. Outside that segment within the study area, Colfax Avenue/US 36 is designated as a Rural Highway (R-B) for access control.

## Roadway Features

Field visits of the study area were completed in October 2012 to document the locations and types of existing relevant roadway features such as shoulders, fencing, lighting, and design deficiencies.

### Cross Sections

**Table 3** provides an outline of the number of lanes and shoulder treatment along the study area major roadways. I-70 has a consistent 50-foot wide grass median within the limits of the study area. SH 79 between Centennial Drive and Colfax Avenue/US 36 and SH 79 between Colfax Avenue/US 36 and 6th Street has raised median. Portions of SH 79, Colfax Avenue/US 36, and Kiowa-Bennett Road have painted medians at intersections. Lane widths on existing roadways meet state and local standards.

CDOT has programmed improvements along SH 79/Converse Road that will increase the northbound storage capacity and improve sight distance at the King Soopers access. Median restriping is also anticipated at the Colfax Avenue/US 36 and Palmer Avenue intersection. These improvements will be completed Spring 2013.

Guardrail exists along I-70 both in the median and along portions of the outside shoulder to protect the bridge piers and overpasses. Guardrail is placed on SH 79, Kiowa-Bennett Road, and Old Victory Road to protect against obstructions and steep slopes. There is guardrail along the outside shoulders of Colfax Avenue/US 36 at the bridge over Kiowa Creek.

Due to this being a rural area, there are stretches of fencing running along the right-of-way (ROW) of the I-70. There are no traffic signals at the SH 79 interchange or at other locations within the limits of I-70 access control. There are various types of fencing along the ROW of SH 79, Kiowa-Bennett Road, and Colfax Avenue/US 36, including barbed wire, chain link, and wood fences. There are no fences that pose an issue with clear zone within the study area.

### Lighting

There is no continuous freeway illumination along I-70 in the study area, although there is roadway lighting at the SH 79 interchange. There is roadway lighting provided on power poles along SH 79 and Colfax Avenue/US 36 through downtown Bennett.

**Table 3: Lanes and Shoulder Treatment**

ROADWAY	LANES	SHOULDER TREATMENT
<b>I-70</b>		
EB I-70	2 general purpose	4 ft inside shoulder, 12 ft outside shoulder
WB I-70 at Colfax Ave/US 36 Off Ramp	2 general purpose	4 ft inside shoulder, 12 ft outside shoulder
WB I-70 at SH 79 On Ramp	2 general purpose	4 ft inside shoulder, 8 ft outside shoulder
<b>SH 79</b>		
End of pavement to I-70 Interchange	2 general purpose	No paved shoulders
I-70 Interchange to north of King Soopers shopping center	2 general purpose, turn lanes	1 ft paved shoulder NB, 4 ft paved shoulder SB
North of King Soopers shopping center to Bennett Ave	2 general purpose	4 ft paved shoulders
Bennett Ave to Centennial Dr	2 SB general purpose, 1 NB general purpose, left turn lane	8 ft shoulder NB, Curb and gutter SB
Centennial Dr to Colfax Ave/US 36	4 general purpose	Curb and gutter
Colfax Ave/US 36 to 6th St	2 general purpose, turn lane at Palmer Ave	Curb and gutter
6th St to 8th St	2 general purpose	Curb and gutter
8th St to 38th Ave	2 general purpose, turn lanes at Cemetery intersection	No paved shoulders
<b>Colfax Ave/US 36</b>		
Penrith Rd to SH 79/Converse Rd	2 general purpose	No paved shoulders
SH 79/Converse Rd to Cherry St	2 general purpose	1 ft paved shoulder WB, 8 ft paved shoulder EB, Curb and gutter EB
Cherry St to SH 79/Adams St	2 general purpose	1 ft paved shoulders, Head-in parking on south side with curb and gutter
SH 79/Adams St to Viewridge Dr	2 general purpose	1 ft paved shoulders, Head-in parking on south side with curb and gutter
Viewridge Dr to Kiowa Creek Bridge	2 general purpose	1 ft paved shoulders
Kiowa Creek Bridge to Kiowa-Bennett Rd	2 general purpose	8 ft paved shoulders
Kiowa-Bennett Rd to Colfax Ave/County Rd 2	2 general purpose	1 ft paved shoulders
Colfax Ave/County Rd 2 to WB I-70 ramp	2 general purpose	1 ft paved shoulders
I-70 to Colfax Ave/County Rd 2	2 general purpose	4 ft paved shoulders
<b>Kiowa-Bennett Road</b>		
Mississippi Ave to Colfax Ave/US 36	2 general purpose, turn lanes at Antelope Hills intersection	No paved shoulders

Source: Field visit by David Evans and Associates, October 2012

### Corridor Area Constraints and Deficiencies

The project identified locations of design deficiencies. Potential deficiencies evaluated were clear zone/obstructions, side slope (i.e., too steep without guardrail), horizontal and vertical sight distance, and tapers. Listed in **Table 4** and shown in **Figure 5** are the areas that appeared to have potential design deficiencies.

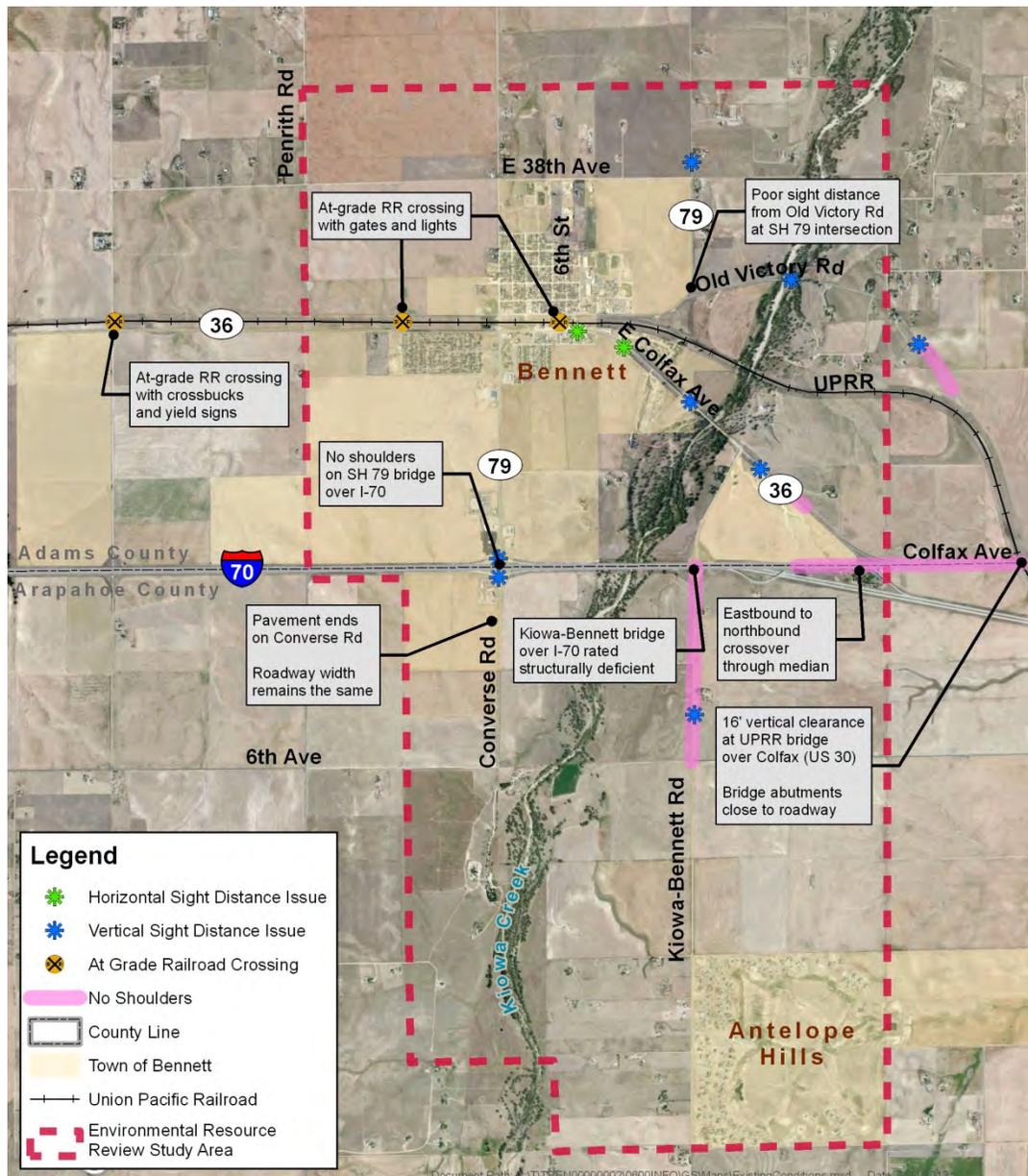
There are two existing at-grade crossings of the UPRR within the study area at Palmer Avenue and SH 79/Adams Street and one at-grade crossing immediately west of the study area at Harback Road. The crossing at SH 79/Adams Street in the center of Bennett consists of two rail crossings, one crossing of the mainline and one crossing of the spur rail line. While these at-grade crossings are not design deficiencies, they are constraints to travel on the area transportation system.

**Table 4: Study Area Potential Design Deficiencies**

LOCATION	CONDITION
<b>I-70</b>	
Through study area - SH 79 to Colfax Ave/US 36 interchange	Substandard shoulder width
<b>SH 79</b>	
End of Pavement to Colfax Ave/US 36	Utility poles in clear zone
Bridge over I-70	Poor vertical sight distance, no shoulders on bridge
Old Victory Rd intersection	Poor horizontal sight distance, poor intersection configuration
38th Ave intersection	Poor vertical sight distance
<b>Colfax Avenue/US 36</b>	
At Custer St	Poor horizontal sight distance
Custer St to Kiowa Creek bridge	Poor vertical sight distance
Kiowa Creek bridge to Colfax Ave/County Rd 2	Poor vertical sight distance
Colfax Ave/County Rd 2 intersection	Poor intersection configuration
UPRR bridge over Colfax Ave/County Rd 2	Vertical clearance 16 ft, bridge abutments in clear zone
<b>Kiowa-Bennett Road</b>	
6th Ave to I-70	Poor vertical sight distance, no shoulders
Bridge over I-70	Structurally deficient
<b>Old Victory Road</b>	
Kiowa Creek bridge to Provost Rd	Poor horizontal and vertical sight distance
Provost Rd to Colfax Ave	Poor horizontal and vertical sight distance

Source: Field visit by David Evans and Associates, October 2012

Figure 5: Area Constraints and Deficiencies



Source: Field visit by David Evans and Associates, October 2012

## Traffic Operations

Traffic count data were collected within the study area during September 2012. This data included peak hour turning movements at selected intersections and daily traffic on major roadways. Vehicle classification data was also collected. Daily traffic count data were available from CDOT, Arapahoe County, and the Town of Bennett. The collected traffic count data are included in **Appendix A**.

### Daily Traffic Volumes

The daily traffic counts collected for the project are summarized in **Figure 6**. According to CDOT count data, I-70 carries about 17,000 vehicles per day at the SH 79 interchange. East of the Kiowa-Bennett

Road and Colfax Avenue/US 36 partial movement interchanges, the Average Annual Daily Traffic (AADT) volume on I-70 drops to 15,000 vehicles per day. Truck percentages on the freeway range from 11 percent to 15 percent west and east of the SH 79 and Kiowa-Bennett Road interchanges.

Figure 6: Daily Traffic Volume Counts



Source: All Traffic Data, September 2012

SH 79 between I-70 and downtown Bennett carries nearly 6,600 vehicles per day. North of Bennett, traffic volumes drop to under 2,100 vehicles per day. CDOT traffic data indicates that truck traffic on SH 79 at the UPRR crossing is about 10 percent of the total traffic. An increasing number of trucks are using SH 79 as oil and gas development is increasing in the surrounding counties. The percentage of trucks is particularly high on SH 79 at the I-70 interchange due to the truck stop just north of the interstate at SH 79.

Colfax Avenue/US 36 carries over 1,200 vehicles per day west of Bennett. East of town and the Kiowa-Bennett Road intersection, Colfax Avenue/US 36 carries nearly 1,900 vehicles per day. South of I-70,

Kiowa-Bennett Road carries about 1,900 vehicles per day. South of the Antelope Hills subdivision, the daily traffic volume on Kiowa-Bennett drops to approximately 1,300 vehicles per day.

### Origin-Destination Survey

An origin-destination study was conducted to gain an understating of the existing underlying travel route characteristics within the study area. License plate survey data was collected on Tuesday, September 11, 2012 from 7:00 am to 7:00 pm. The license plate survey was conducted with video cameras located at the following six locations, consisting of five locations along the major roadways at the perimeter of the study area and one location in Bennett at the UPRR crossing:

- SH 79 - north of I-70 (north of Market Place access)
- Colfax Avenue/US 36 - west of study area (west of Penrith Road)
- SH 79/Palmer Avenue – north of UPRR crossing (east of Adams St)
- SH 79 - north of study area (north of 38th Avenue)
- Colfax Avenue/US 36 - east of study area (east of Kiowa-Bennett Road)
- Kiowa-Bennett Road - south of I-70 (south of 6th Avenue)

Images of license plates were recorded using high speed, high resolution video cameras. The video footage was digitally transferred to a database. The records in the database contain key data, such as the time of day and location of the license plate captured. The collected license plate data were matched between the different locations to determine the amount of traffic traveling through study area and the specific routes of each vehicle. The video cameras on the perimeter of the study area captured a total of 8,443 license plates during the 12 hours of the study. A total of 2,926 license plates were captured by the video camera located north of the UPRR crossing. The total number of license plates captured at each video camera location is shown in **Table 5**.

**Table 5: Total License Plates Captured**

LOCATION	DIRECTION		TOTAL TRAFFIC VOLUME CAPTURED BY CAMERA
	TRAVELING INTO STUDY AREA	TRAVELING OUT OF STUDY AREA	
SH 79 - north of I-70	2,233	2,300	4,533
Colfax Ave/US 36 - west of study area	492	242	734
SH 79/Palmer Ave – north of UPRR crossing	1,539 <sup>(1)</sup>	1,387 <sup>(2)</sup>	2,926
SH 79 - north of study area	578	668	1,246
Colfax Ave/US 36 - east of study area	619	666	1,285
Kiowa-Bennett Rd - south of I-70	332	313	645

Source: All Traffic Data, September 2012

<sup>(1)</sup> Northbound on SH 79

<sup>(2)</sup> Southbound on SH 79

### Travel Patterns

Travel patterns were identified by matching license plates at the different camera locations. **Table 6** illustrates the study area traffic volumes traveling through the study area from the license plates matched between the five perimeter cameras during the 12 hours of the study. The camera located north of the UPRR crossing was internal to the study area and was not used for the through trip matrix.

SH 79 north of the I-70 interchange was the highest volume origin and destination for vehicles traveling through the study area. The most prominent traffic route through the study area occurs between SH 79 north of I-70 and SH 79 north of the study area. This was the heaviest movement captured between cameras in both the northbound and southbound directions. Another major traffic route through the study area was captured between SH 79 north of I-70 and Colfax Avenue/US 36 east of Kiowa-Bennett Road. Most traffic traveling northbound on Kiowa-Bennett Road south of I-70 exited the study area on Colfax Avenue/US 36, probably headed to the Colfax Avenue/US 36 interchange to access westbound I-70. The origin-destination study shows the traffic route between Kiowa-Bennett Road south of I-70 and SH 79 north of the study area as a relatively minor movement.

**Table 6: Study Area Through Traffic Trip Matrix**

ORIGIN	DESTINATION					TOTAL
	SH 79 - NORTH OF I-70	COLFAX/ US 36 - WEST	SH 79 - NORTH	COLFAX/ US 36 - EAST	KIOWA-BENNETT RD - SOUTH OF I-70	
SH 79 - north of I-70	-	89	297	200	58	644
Colfax Ave/US 36 - west of study area	205	-	34	78	31	348
SH 79 - north of study area	318	14	-	24	37	393
Colfax Ave/US 36 - east of study area	256	42	71	-	56	425
Kiowa-Bennett Rd - south of I-70	83	6	32	114	-	235
Total	862	151	434	416	182	2,045

Source: All Traffic Data, September 2012

### Regional Traffic

Travel time field data indicated that it takes five to ten minutes to drive through the study area along any of the major study roadways. It was assumed that license plate matches for time periods longer than 15 minutes had meaningful stops along the way, indicating a local destination. For example, if there was a license plate match between the SH 79 camera located north of I-70 and the Colfax Avenue/US 36 camera located east of the study area that was 30 minutes apart, it was assumed that the driver stopped somewhere and did not simply pass-through the study area as regional traffic.

The regional traffic volumes that traveled between the license plate camera locations are summarized in **Table 7**. The regional volumes are also presented as a percentage of the total traffic volume collected at each location, which is shown graphically in figures included in **Appendix B**. The camera located north of the UPRR crossing was internal to the study area and was not used for the regional traffic summary.

**Table 7: Origin-Destination Study – Regional Traffic**

LOCATION	REGIONAL TRAFFIC	TOTAL TRAFFIC VOLUME CAPTURED BY CAMERA	PERCENT OF TOTAL VOLUME
SH 79 - north of I-70	836	4,533	18%
Colfax Ave/US 36 - west of study area	254	734	35%
SH 79 - north of study area	599	1,246	48%
Colfax Ave/US 36 - east of study area	440	1,285	34%
Kiowa-Bennett Rd - south of I-70	227	645	35%

Source: All Traffic Data, September 2012

The highest percentage of regional traffic was collected on SH 79 north of the study area. Approximately 600 of the 1,246 vehicles (48 percent) passed through Bennett on SH 79 without stopping within town, with the majority of these vehicles traveling to/from SH 79 north of I-70. SH 79 north of I-70 carried the lowest percentage of regional traffic with only 18 percent of the traffic collected traveling through town without stopping.

The origin-destination study shows that, while all of the study area roadways carry a relatively high percentage of regional traffic, SH 79 north of the study area carries the highest percentage of traffic traveling through the study area without a local destination. This indicates the affect regional “pass-through” traffic may have on the conflict and delay at the SH 79 at-grade railroad crossing within Bennett. The major travel patterns along the study roadways are illustrated in **Figure 7**.

### Peak Hour Intersection Traffic Volumes and Operational Analysis

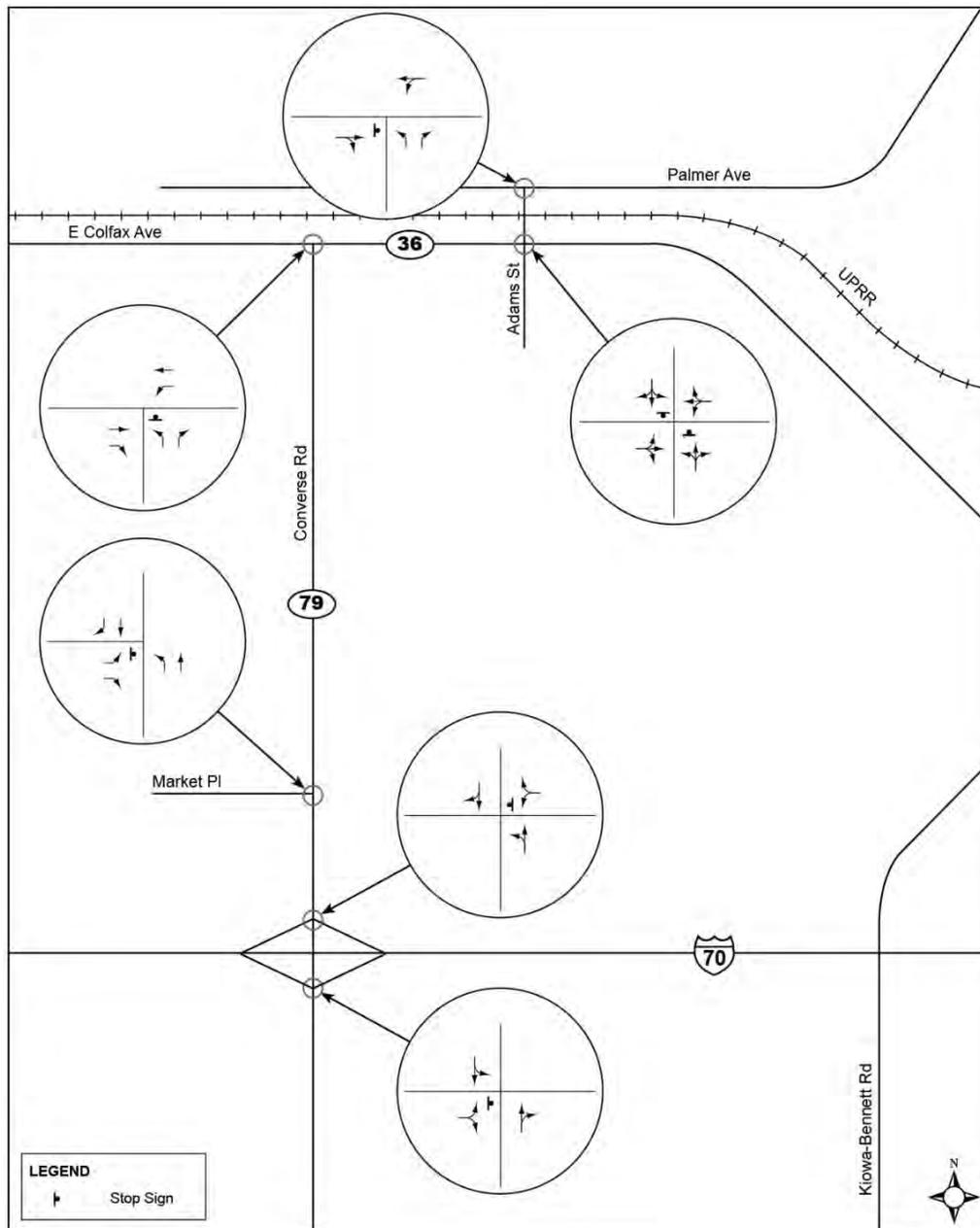
Peak hour intersection traffic volumes are used to evaluate and quantify traffic operations and capacity of a roadway system. Peak hour intersection counts were collected at the six main unsignalized intersections within the study area.

The peak hour intersection and roadway traffic volumes show directional travel movements within the study area towards the I-70 interchanges along SH 79 and Kiowa-Bennett Road and westbound towards the Denver metropolitan area along I-70 and Colfax Avenue/US 36 during the AM peak hour. Traffic volumes on SH 79 and Kiowa-Bennett Road are directional away from the interstate during the PM peak hour as commuters return from the Denver metropolitan area. However, morning and afternoon peak traffic is more evenly distributed within the downtown Bennett development area and surrounding the SH 79 at-grade railroad crossing.

In order to conduct the existing conditions analysis, a traffic model of the SH 79, Colfax Avenue/US 36, and Kiowa-Bennett Road network was built using Synchro 8 traffic analysis software. Intersection operational analysis was completed utilizing methods outlined in the latest Highway Capacity Manual (HCM 2010) and Synchro. The existing lane configurations and peak hour volumes developed for this study were used to analyze the levels of service at each study intersection during the AM and PM peak hours. The intersection lane configurations are illustrated in **Figure 8**.

Figure 7: Existing Major Travel Patterns



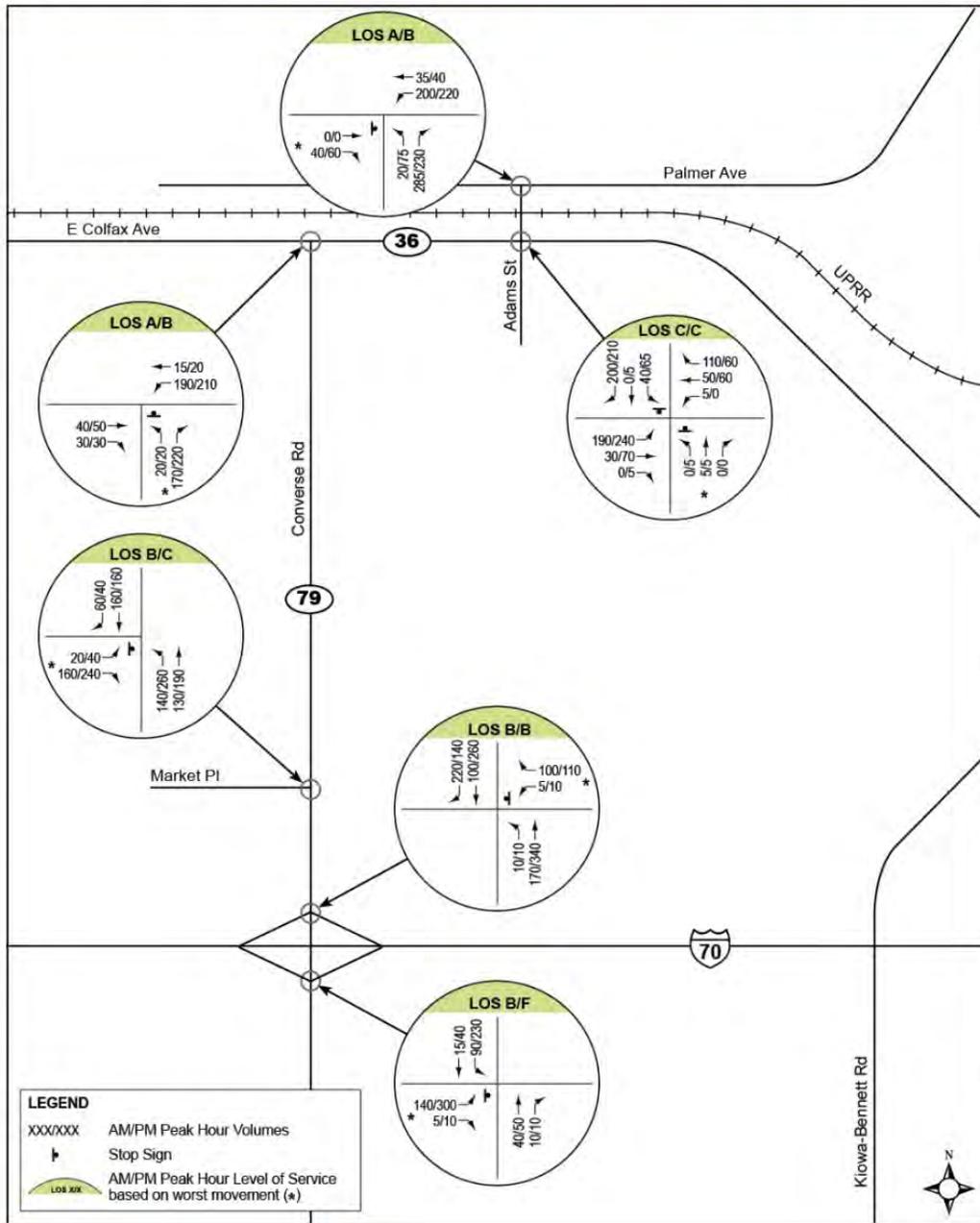
**Figure 8: Existing Intersection Lane Configurations**

Source: Field visit by David Evans and Associates, September 2012

The assessment of traffic operations and levels of service (LOS) was completed for the existing peak hour traffic volumes for the unsignalized intersections in the study area. LOS is a method of describing traffic operations in general and comparable terms based on letter grading of A through F. LOS A would describe the best operations with little or no delay, and LOS F describes over-capacity conditions with poor traffic operations and high delay. Generally, LOS D would be a reasonable expectation for peak-hour traffic operations where reasonable roadway capacity was provided within urban areas. Within rural areas, LOS C is generally expected for peak hour traffic operations. Arapahoe County has an established level of service threshold of LOS C for arterial roadways in rural areas, such as Kiowa-Bennett Road.

The peak hour intersection traffic counts and results of the unsignalized operational analysis are illustrated in **Figure 9**. The only intersection to operate with a LOS F is the SH 79/Eastbound I-70 Ramps intersection, due to the northbound traffic from the Eastbound I-70 Off Ramp conflicting with the southbound SH 79 traffic turning onto the Eastbound I-70 On Ramp.

**Figure 9: Existing Peak Hour Traffic Volumes and Level of Service**



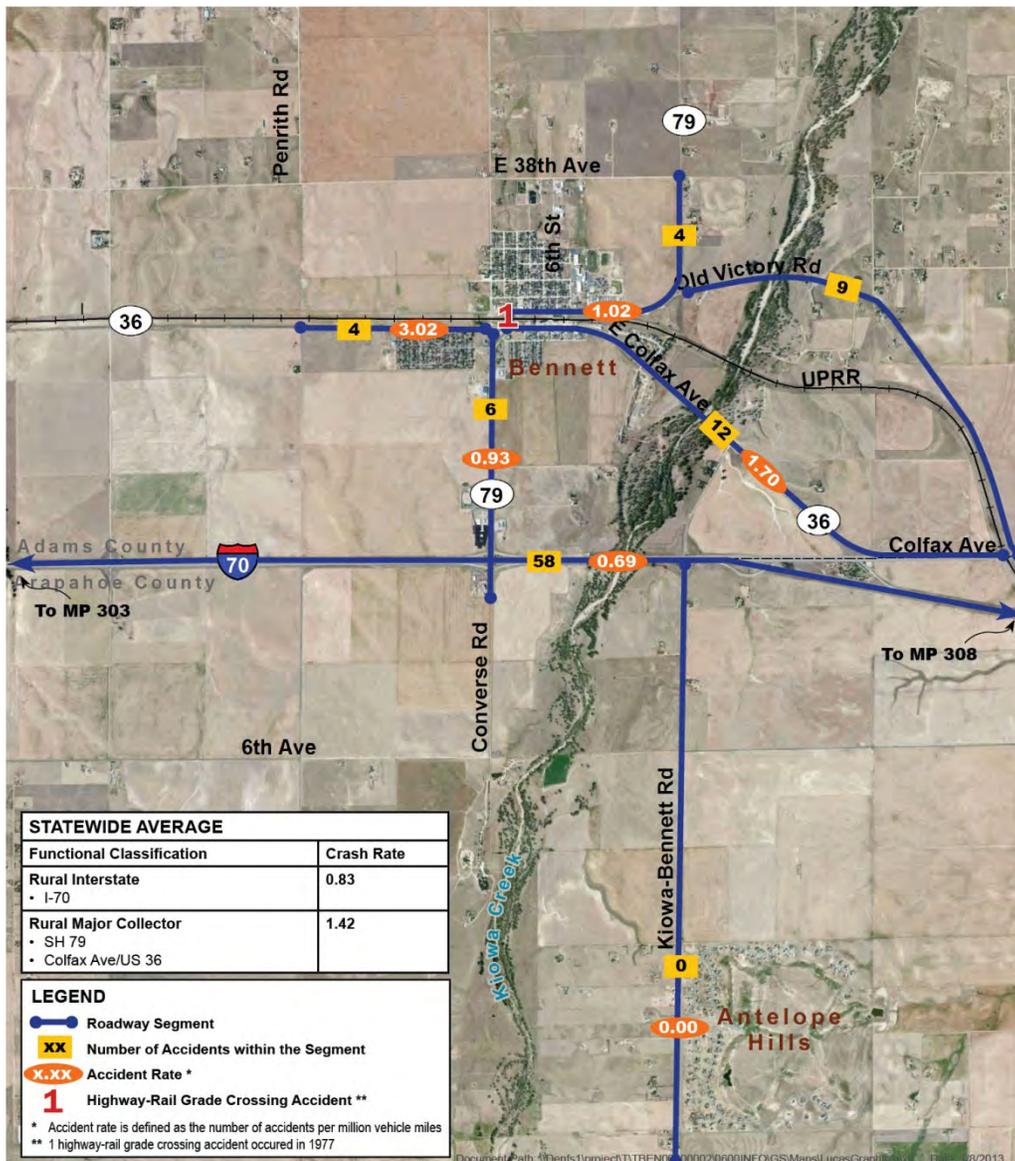
Source: Counts by All Traffic Data Services with analysis by David Evans and Associates

### Crash History

Crash history for the three-year period from January 1, 2009 through December 31, 2011 was examined for the major roadways within the study area to locate crash clusters and identify potential crash causes. Crash data for the study area was provided by CDOT, Adams County and Arapahoe County. Crashes along I-70 were examined for the section from Milepost 303.00 to Milepost 308.00. Crashes along SH 79, Kiowa-Bennett Road, East Colfax Ave, and Old Victory Road within the study area were also examined. The three year crash summary for the study area is shown in **Figure 10**.

As shown, only Colfax Avenue/US 36 has a crash rate above the statewide average (2010) for the corridor’s functional classification.

**Figure 10: Three Year Crash Summary (2009-2011)**



Source: CDOT, Arapahoe County, Adams County, Statewide Average from 2010 CDOT Accident Book

The severity of crashes is summarized in **Table 8**. Approximately 86 percent of the crashes in the study area were Property Damage Only (PDO). No fatal crashes were reported.

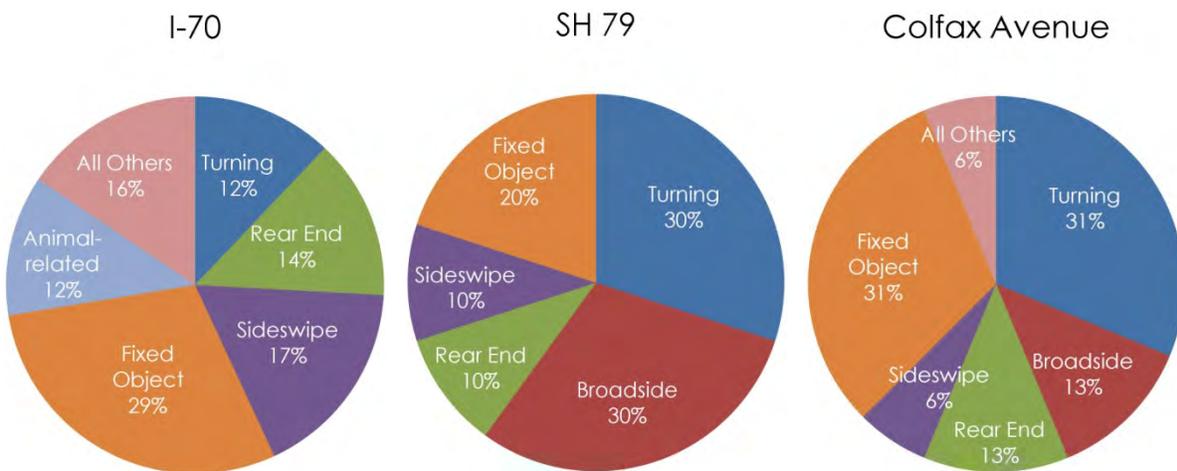
**Table 8: Study Area Crash Severity (2009-2011)**

SEGMENT	CRASH SEVERITY						TOTAL
	PROPERTY DAMAGE ONLY (PDO)		INJURY		FATALITY		
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	
I-70	50	86%	8	14%	0	0%	<b>58</b>
SH 79	7	70%	3	30%	0	0%	<b>10</b>
Kiowa-Bennett Rd	0	0%	0	0%	0	0%	<b>0</b>
Colfax Ave/US 36	15	94%	1	6%	0	0%	<b>16</b>
<b>Total</b>	<b>72</b>	<b>86%</b>	<b>12</b>	<b>14%</b>	<b>0</b>	<b>0%</b>	<b>84</b>

Source: CDOT, Arapahoe County, Adams County

Excluding I-70, the majority of the crashes along the study area roadways were intersection-related. The types of crashes along each roadway are shown in **Figure 11**. On SH 79, most crashes were turning and broadside crashes, which may be caused by inadequate sight distance at unsignalized intersections. On Colfax Avenue/US 36, most crashes were turning and fixed object. All area roadways had a relatively low number of rear-end crashes, which indicates crashes are not caused by congestion.

**Figure 11: Crash Type Distribution (2009-2011)**



Source: CDOT, Arapahoe County, Adams County

### Rail Crossing Operations

Currently the UPRR operates the Limon Subdivision from Denver to Topeka, Kansas through Bennett. The Limon Subdivision consists of one main line track and a siding track extending west approximately 0.4 miles past Palmer Avenue. The siding track is primarily used for trains to pass, but it can be used to store cars for the Farmers co-op facilities during the harvest season or for other railroad uses. There is

also a spur track serving the co-op facilities east of the SH 79 at-grade crossing, which is utilized seasonally.

UPRR operates an average of ten through freight trains per day through Bennett. With the projected steady growth of the railroad industry through 2035, UPRR could add additional capacity on the Limon Subdivision to accommodate projected rail traffic growth, which could consist of one or two additional main line tracks. It is also possible that the UPRR could extend the existing Bennett siding to accommodate longer trains on the Limon Subdivision.

The Federal Railroad Administration (FRA) inventory information was collected for each of the three existing mainline at-grade highway-railroad crossings in Bennett. The UPRR traverses each of these crossings with a typical number of daily train movements of five through trains during the day and five through trains during the evening. Currently, the train schedule has changed temporarily with more nighttime train traffic to avoid construction on the rail line within the Denver area west of Bennett. There is one mainline track crossing, one siding, and one spur in Bennett. This section of rail line in the study area is not a designated quiet zone. The key characteristics of each crossing are described briefly in **Table 9**.

Crash data was retrieved from the Federal Railroad Administration, Office of Safety Analysis. Since 1977, there has been one incident involving both a train and automobile at the SH 79/Adams Street at-grade railroad crossing in Bennett. The one crash resulted in no injuries because the driver was out of the vehicle.

**Table 9: Existing Railroad Crossing Characteristics**

CHARACTERISTIC	RAILROAD CROSSING		
	ADAMS STREET (SH 79) CROSSING #805518J MP 608.84	ADAMS STREET (SH 79) SPUR CROSSING #813931L MP 608.84	PALMER STREET CROSSING #805517C MP 609.65
Warning Devices	2 gates and lights	2 reflectorized crossbucks 2 yield signs	2 gates and lights
Max Time Table Speed at Crossing (Typical Range)	60 MPH (35 to 60 MPH)	15 MPH (1 to 15 MPH)	Main line 60 MPH (35 to 60 MPH) Siding (1 to 15 MPH)
Typical Number of Daily Train Movements	4 day through 4 night through	1 day through	5 day through 5 night through 2 day switching on siding
Traffic Lanes Crossing	2	2	2
Type and Number of Tracks	1 Main	1 Spur	1 Main 1 Spur
Predicted Collisions <sup>(1)</sup>	0.012440	0.005069	0.006849

Source: Federal Railroad Administration

<sup>(1)</sup> Probability that a collision between a train and highway vehicle will occur at the crossing in a year (determined using Federal Railroad Administration's web-accessible accident prediction system)

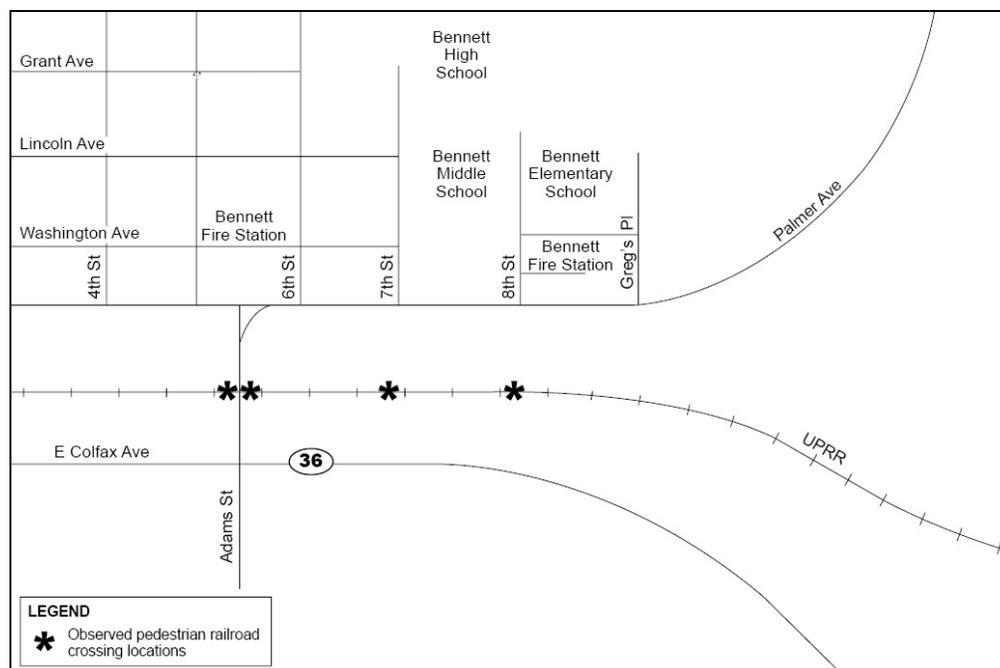
## Crossing Conflict and Delay

Bennett Elementary School, Middle School, and High School are located in the eastern section of downtown Bennett, north of the railroad tracks. The School District administration building is also located in the area, on 7th Street across from the High School. The district provides bus transportation for all students except those that live in the older residential area west of the schools and north of the railroad tracks. All students that live south of the tracks are provided bus transportation. However, many children walk across the tracks to and from school.

The SH 79 railroad crossing is congested during the school ingress and egress periods with parents dropping off children, high school students driving to and from school, school buses, and children walking across the tracks. The school buses are required by law to stop at the railroad crossing to look down the tracks and sight distance is a problem due to the siding track and co-op building location. Many of the side street intersections, such as Palmer Avenue and 6th Street, are blocked with the congestion surrounding the railroad crossing. Traffic in the crossing area is also busy mid-day during the High School lunch period, as students rush to get lunch and get back to school during their relatively short break.

Pedestrian railroad crossing behavior was observed on Tuesday, October 2, 2012 from 7:00 am to 9:00 am and 3:00 pm to 5:00 pm to gather information on the number of pedestrians crossing the UPRR railroad tracks and the locations of the crossings during school ingress and egress periods. A total number of fifteen pedestrians were observed crossing the railroad tracks including two adults and thirteen children. Out of the fifteen pedestrian crossings, only four pedestrians crossed the UPRR railroad tracks using the sidewalk on the west side of Adams Street. Eleven pedestrians were observed illegally crossing the railroad tracks at locations east of Adams Street as shortcuts to the schools. Seven of these crossings occurred south of 8<sup>th</sup> Street, while the remaining four crossings occurred south of the basketball court in the park. The observed pedestrian railroad crossing locations are illustrated in **Figure 12**.

**Figure 12: Observed Pedestrian Railroad Crossing Locations**



Freight trains frequently block Adams Street causing motorist delays for extended periods of time with limited options for alternate routes across the tracks. To avoid the congestion or a train at the SH 79 crossing, some drivers travel west to cross the tracks at the Palmer Avenue railroad crossing. Drivers have been observed traveling at relatively high speed along Palmer Avenue trying to beat a train approaching from the east.

The Bennett Fire Rescue Department is located north of Palmer Avenue at 8th Street and Sharis Court. The Fire District encompasses approximately 325 square miles surrounding Bennett. There are four fire stations within the District from which to respond when an emergency occurs. The fire station at Sharis Court serves the area between US 36 and I-70, south of the railroad tracks. The principal fire and rescue equipment is located at the station at 5th Street and Washington Avenue, also north of the railroad tracks. The emergency personnel cross the railroad tracks at the SH 79 at-grade crossing many times each day responding to various emergencies within the area.

SH 79 is designated as an oversize load route by CDOT and a hazardous material route by the Colorado Department of Public Safety. Trucks transporting oversize loads and hazardous materials cross the UPRR tracks at the SH 79 at-grade crossing in proximity to downtown Bennett and the Bennett schools.

## Alternative Transportation

The following section describes alternative modes of transportation within the study area including bicycle, pedestrian, and transit services and infrastructure.

### Bicycle and Pedestrian Facilities and Operations

Pedestrian and bicycle infrastructure were identified within the study area from sources that include the Town of Bennett *Parks, Trails and Open Space Master Plan (2009)* and the *Bennett Regional Trail Plan (2011)*, from Geographic Information Systems (GIS) data provided by Adams County and Arapahoe County, as well as from field observations.

Pedestrian amenities within the study area include some sidewalks, generally along the main streets within Bennett. The vast majority of roadways within Bennett and the study area do not have sidewalks and most do not have shoulders of more than four feet in width. The sidewalks often are located on only one side of a given roadway and lack connectivity throughout the study area. Bennett currently has one existing paved multi-use trail. The trail travels north-south along SH 79, connecting downtown Bennett at Palmer Avenue to the King Soopers and Bennett Marketplace just north of I-70.

Existing bicycle amenities within the study area are minimal. Bicyclists can use the multi-use trail connecting downtown Bennett and King Soopers/Bennett Marketplace and bike lanes can be found in Bennett along Washington Avenue and Lincoln Avenue.

### Transit

Bennett is served by a special transit service consisting of a small 20-person bus that currently operates twice per week on Tuesdays and Fridays. The service travels to/from Aurora with flexible destinations within Aurora. On one of the days the service provides riders with access to Aurora for physician visits. On the other day the service provides riders with access to Aurora for local services including grocery shopping and personal appointments. The service is primarily utilized by senior citizens but is available to all local residents.

In addition to the special transit service, DRCOG's Way to Go program, formerly known as the RideArrangers program, is available. The Way to Go program aims to reduce single occupant vehicle

(SOV) travel within the region in an effort to reduce traffic congestion, improve air quality, and save people money. The program attempts to increase ride sharing by identifying users with similar travel needs. Matches are based upon responses from a questionnaire that are entered into a database.

# FUTURE TRANSPORTATION CONDITIONS

This section describes the future transportation conditions for the SH 79 and Kiowa-Bennett corridor area, including future traffic forecasts and alternative mode planning.

The DRCOG 2035 regional travel demand model was used to develop 2035 traffic forecasts for the study area roadways.

## No Action Alternative

The No Action alternative is included as a means of comparison to the operational benefits that would result from potential improvements. Under the No-Action alternative, only improvements that are already planned and funded by CDOT, the Counties, or municipalities are included.

There are several operational and maintenance projects funded within the study area, including the reconstruction of Colfax Avenue/US 36 and restriping of SH 79 within the area north of the I-70 interchange. A new multi-use path along Kiowa-Creek Road from Antelope Hills to 6th Avenue is currently being constructed and planning is underway for the section north of 6th Avenue. Currently, there are no planned transportation capacity improvement projects within the study area. No potential improvements related to this study are included in the No Action alternative.

The following projects, located west of the study area, are included in the 2035 DRCOG regional travel demand model for the No Action Alternative. These projects are fiscally-constrained projects included in the 2035 DRCOG Regional Transportation Plan (RTP).

- 56th Ave from E-470 to Imboden Road: Widening from 2 lanes to 6 lanes
- Imboden Road from 48th Avenue to 56th Avenue: Widening from 2 lanes to 6 lanes
- 48th Avenue from Imboden Road to Quail Run Road: Widening from 2 lanes to 6 lanes
- Quail Run Road from I-70 to 48th Avenue: New 6-lane major arterial
- Watkins Road from Quincy Avenue to I-70: Widening from 2 lanes to 6 lanes
- Quincy Avenue from Hayesmount Road to Watkins Road: Widen from 2 lanes to 6 lanes

In addition, DRCOG administers an annual Transportation Improvement Survey intended to gather information from member governments regarding planned capacity-related projects on minor and collector roadways that are not included in the RTP. The following projects were identified during this process in the area surrounding the study area and are included in the 2035 DRCOG regional travel demand model for the No Action Alternative.

- 38th Avenue from Imboden Road to Manila Road: New 4-lane collector
- Manila Road from 48th Ave to I-70: Widening from 2 lanes to 4 lanes
- 6th Avenue from Powhaton Road to Watkins Road: New 4-lane minor arterial

## Travel Demand Model Adjustments

Because the study area is located in the eastern portion of the model, modifications were made to the model within and adjacent to the project study area to provide more detailed travel demand information. Adjustments were made to the traffic analysis zone structure, associated socioeconomic data, and roadway network. These adjustments are shown in **Appendix C**.

### Traffic Analysis Zone Structure

The DRCOG regional travel demand model utilizes traffic analysis zones (TAZs) to represent land uses throughout the region. Socioeconomic data is aggregated and assigned to the TAZ zone system. Within and surrounding the study area, there are a small number of large TAZs in the DRCOG model. For regional modeling these TAZ sizes are appropriate, but the TAZs are too large for the transportation analysis needed for this study.

For the purposes of this study, the TAZs were split to provide more detailed volume information and trip loading onto the roadway network. **Figure 13** illustrates the original TAZ system and the modified study TAZ system.

### Socioeconomic Data

The socioeconomic data within the DRCOG travel demand model was disaggregated to correspond to the splits of the TAZ system for both the 2010 and 2035 model years. The socioeconomic data was assigned to the smaller TAZs based on land use information in the *Town of Bennett Comprehensive Plan*, the Bennett TRAFFIX model (developed by the town for area development plans), and the travel demand model developed for the *Arapahoe County 2035 Transportation Plan*.

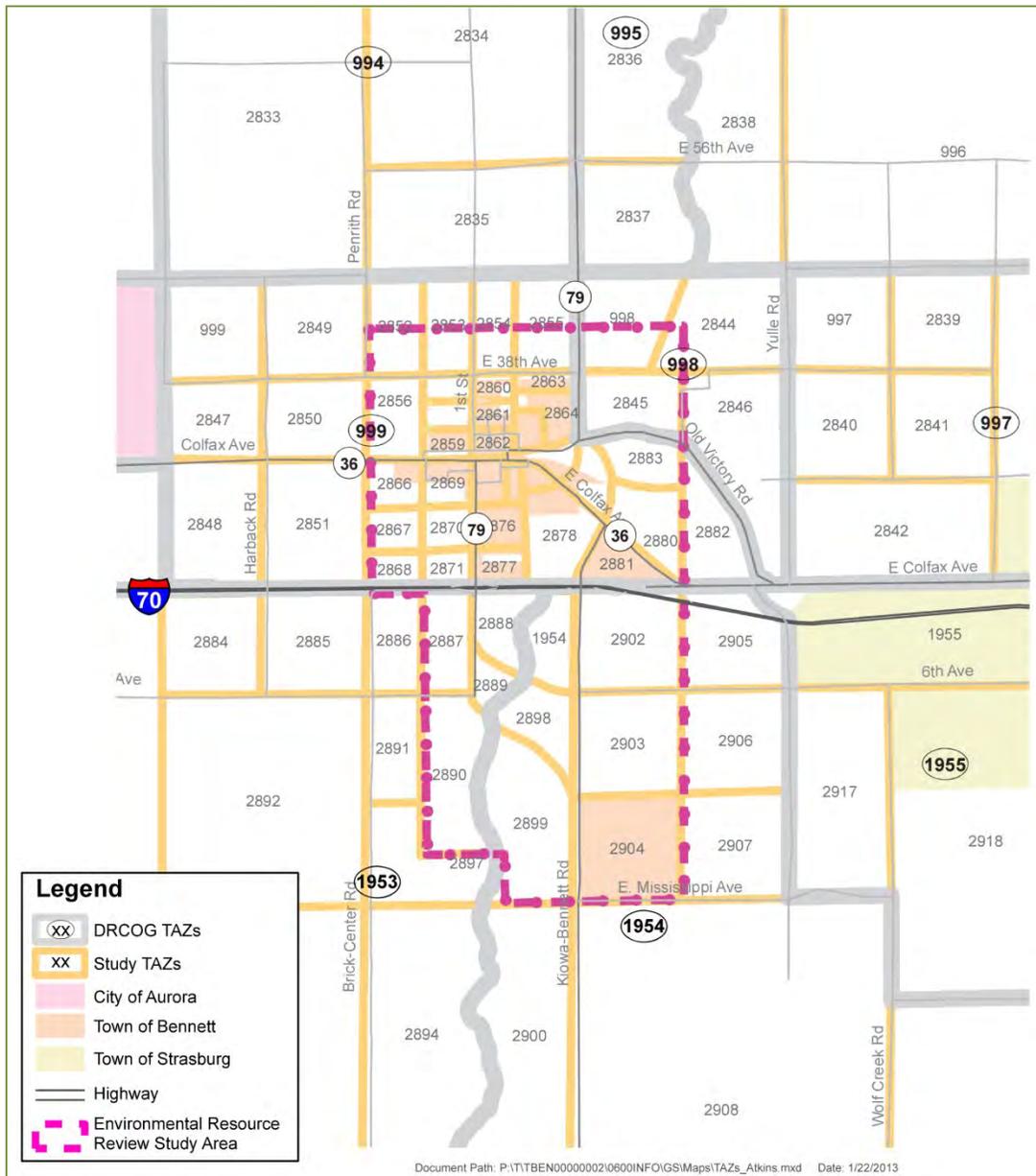
No changes were made to increase or reduce the overall socioeconomic data for the study area. The overall estimated for households, employment, and population were kept consistent with the DRCOG socioeconomic data.

### Roadway Network

The 2010 and 2035 DRCOG travel demand model roadway networks are sparse within the study area, as well as the surrounding area. In order to more effectively forecast traffic volumes for the study, the 2010 and 2035 models were augmented with additional local detail in and around the study area. Figures included in **Appendix C** illustrate the DRCOG roadway network and the modified roadway network developed for this study for the base year and year 2035.

The collector roadways for downtown Bennett were added to the network, including 38th Avenue and the streets north and south of the SH 79 railroad crossing. Major collector roadways, such as 6th Avenue, Old Victory Road, and Brick-Center Road, were also added to the model network to more effectively portray the travel routes available for trip distribution within and surrounding the study area.

Figure 13: Traffic Analysis Zones



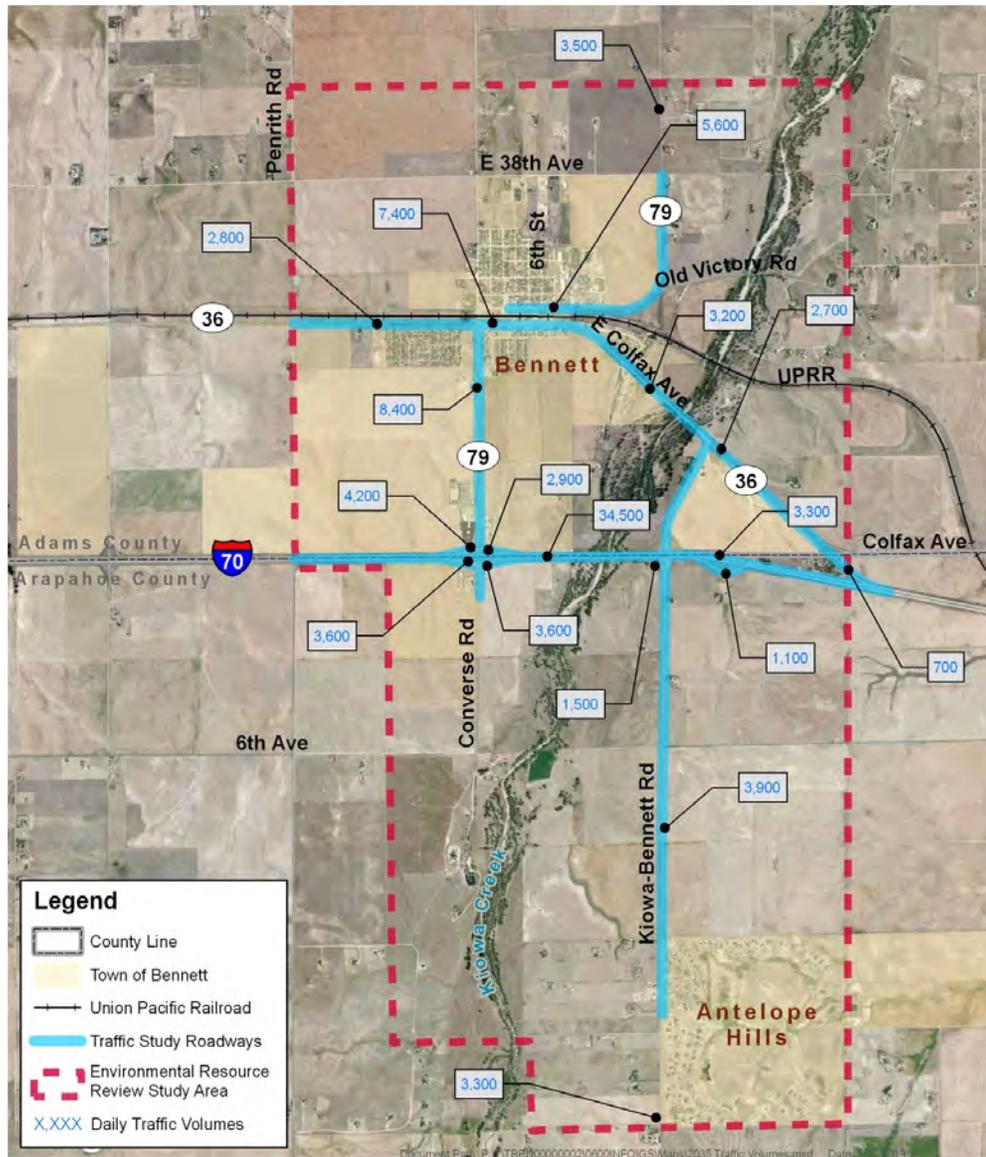
Source: DRCOG Regional Travel Demand Models, Atkins North America

## 2035 No Action Traffic Conditions

### Traffic Forecasts

Preliminary daily traffic forecasts for 2035 within the study area are illustrated in **Figure 14**. Assuming planning level capacities for the major arterials and roadways within the study area, the future traffic volumes remain below existing roadway capacities. The highest traffic volumes along SH 79 are through and south of downtown Bennett. The annual growth rates are shown in **Table 10**.

**Figure 14: Year 2035 Daily Traffic Volumes**



Source: 2035 DRCOG Travel Demand Forecast Model, Atkins North America

**Table 10: Traffic Volumes 2012 to 2035**

LOCATION	DAILY TRAFFIC VOLUMES		ANNUAL GROWTH RATE
	EXISTING (2012)	FUTURE (2035)	
<b>I-70</b>			
EB I-70 at SH 79 Off Ramp	2,570	3,600	1.5%
EB I-70 at SH 79 On Ramp	2,520	3,600	1.6%
WB I-70 at SH 79 Off Ramp	2,050	2,900	1.5%
WB I-70 at SH 79 On Ramp	2,970	4,200	1.5%
East of SH 79 Interchange	17,000	34,500	3.1%
EB I-70 at Kiowa-Bennett Rd Off Ramp	710	1,500	3.3%
EB I-70 at Colfax Ave/US 36 Off Ramp	750	1,100	1.7%
WB I-70 at Colfax Ave/US 36 On Ramp	1,420	3,300	3.7%
WB I-70 at Colfax Ave/US 36 Off Ramp	300	700	7.8%
<b>SH 79</b>			
North of Market Place	6,580	8,400	1.1%
East of Adams St	4,150	5,600	1.3%
North of 38 <sup>th</sup> Ave	2,090	3,500	2.3%
<b>Colfax Ave/US 36</b>			
West of Palmer Ave	1,260	2,800	3.5%
West of Adams St	5,650	7,400	1.2%
West of Kiowa-Bennett Rd	2,150	3,200	1.7%
East of Kiowa-Bennett Rd	1,890	2,700	1.6%
<b>Kiowa-Bennett Road</b>			
South of 6 <sup>th</sup> Ave	1,920	3,900	3.1%
South of Antelope Hills	1,310	3,300	4.1%

Source: All Traffic Data, September 2012, 2035 DRCOG Travel Demand Forecast Model, Atkins North America

Vehicle miles of travel (VMT) within the project study area are projected to increase by more than 85 percent by 2035, as shown in **Table 11**. VMT along SH 79 within the study area is projected to increase by over 40 percent while VMT along Kiowa-Bennett Road is projected to increase about 80 percent.

**Table 11: Study Area Vehicle Miles of Travel (VMT)**

STUDY AREA ROADWAYS	2010 VMT	2035 VMT	PERCENT CHANGE IN VMT 2010 TO 2035
I-70	50,300	101,700	+ 102%
SH 79	14,300	20,100	+ 41%
Colfax Avenue/US 36	7,700	11,600	+ 51%
Kiowa-Bennett Road	8,300	14,900	+ 80%
All Other Roadways	5,500	11,800	+ 115%
Total	86,100	160,100	+ 86%

Source: DRCOG Regional Travel Demand Models, Atkins North America

Vehicle hours of delay (VHD) is a measure commonly used to compare performance along various roadway facilities. A vehicle's delay along a roadway is its travel time minus the roadway's free-flow travel time. VHD is the sum of all vehicular delay along a roadway. According to the DRCOG travel demand model, there were two vehicle hours of delay daily within the study area in 2010. By year 2035, VHD is projected to increase to 52 hours daily. As shown in **Table 12**, mainline I-70 will experience an increase in VHD of over 30 hours daily, the greatest increase within the study area. SH 79 will experience an increase in VHD of 11 hours daily from 2010 to 2035.

**Table 12: Study Area Vehicle Hours of Delay (VHD)**

STUDY AREA ROADWAYS	YEAR 2010 VHD	YEAR 2035 VHD	CHANGE IN VHD 2010 TO 2035
I-70	1	33	+ 32
SH 79	1	12	+ 11
Colfax Avenue/US 36	0	5	+ 5
Kiowa-Bennett Road	0	2	+ 2
All Other Roadways	0	0	0
Total	2	52	+ 50

Source: DRCOG Regional Travel Demand Models, Atkins North America

The growth in vehicle hours of delay within the study area is generally the result of increased traffic volumes along a roadway network with no planned capacity improvements, although it is not necessarily an indication of future congestion. The growth in traffic volumes is due to increased development in the area and, to a greater extent, increased traffic traveling through the study area, especially along I-70.

### Intersection Operations

Future (2035) traffic operations were evaluated at the study area intersections, based on projected traffic volumes using the DRCOG travel demand model and anticipated future development.

As traffic volumes along SH 79 increase from 2010 to 2035 within the study area, intersection performance along the highway is expected to degrade. **Table 13** illustrates performance levels at the six primary intersections along SH 79 under 2010 and 2035 traffic conditions. As shown, the following three intersections are projected to operate at unacceptable levels of service during the PM peak hour:

- SH 79/Eastbound I-70 Ramps
- SH 79/Market Place
- SH 79/Adams Street.

SH 79/Market Place is also projected to operate at unacceptable levels of service during the AM peak hour. These over capacity operations will impact intersection performance and corridor travel times. As congestion at intersections increase, travel times through the study area will also increase.

**Table 13: Intersection Levels of Service**

SH 79 INTERSECTION	PEAK HOUR LEVEL OF SERVICE (LOS)			
	EXISTING (2012)		FUTURE (2035)	
	AM	PM	AM	PM
Eastbound I-70 On-/Off-Ramps	B	F	C	F
Westbound I-70 On-/Off-Ramps	B	B	B	C
Market Place	B	C	E	E
Colfax Avenue/US 36	A	B	B	B
Adams Street	C	C	C	E
Palmer Avenue	A	B	B	C

Source: David Evans and Associates

## Alternative Modes Planning

The following section describes alternative transportation planning efforts within the study area, including bicycle, pedestrian, and transit services and infrastructure. The *Town of Bennett Comprehensive Plan (2012)* suggests that walking, bicycling, and the use of transit as routine transportation choices will enhance community health.

### Bicycle and Pedestrian Facilities

The Town of Bennett has included bicycle and pedestrian elements in future planning efforts and identifies “improv[ing] access to facilities through the development of pedestrian and bicycle pathways and trails” as objectives for future planning.

The *Town of Bennett Comprehensive Plan (2012)* suggests conducting a sidewalk survey within Bennett. The survey would assist in preparing recommendations for new and improved sidewalk facilities. The *Town of Bennett Downtown Planning Study (2010)* identifies proposed future roadway cross sections for main street commercial and four lane arterial roadways within the downtown planning area. Both roadway cross sections include ROW for bike lanes and sidewalks.

The Comprehensive Plan also states that the Town of Bennett will implement the Regional Trails Plan. The *Bennett Regional Trails Plan (2011)* identifies nine planned trails and three planned trailheads as

preferred routes. The trail network is illustrated **Figure 15** and includes the following trail routes and trailheads:

- Trail Routes
  - Neighborhood-School Bike Route
  - East Town Loop Trail
  - West Town Loop Trail
  - Bennett-Strasburg Trail
  - Kiowa Creek Trail
  - Kiowa-Bennett Bike route
  - Watkins-Strasburg Bike Route
  - Kiowa-Bennett Road/SH 79 Trail
  - Alameda Trail
- Trailheads
  - Downtown Trailhead/Parking Facility
  - Arapahoe County Trailhead
  - Adams County Trailhead

The trail plan identifies dedicated bike lanes and bike routes within the study area. Generally, the dedicated bike lanes would be located along roadways within/near downtown Bennett and along Colfax Avenue/US 36 and SH 79 east of Bennett, as shown in **Figure 15**. Roadway greenways (paved) and multi-use split trails (paved and unpaved) are also identified extending throughout the study area. Additionally, designated bike routes would extend along various roadways outside of Bennett.

## Transit

The *Town of Bennett Comprehensive Plan (2012)* proposes the following phased transit elements by the year 2035, as illustrated in **Figure 15**.

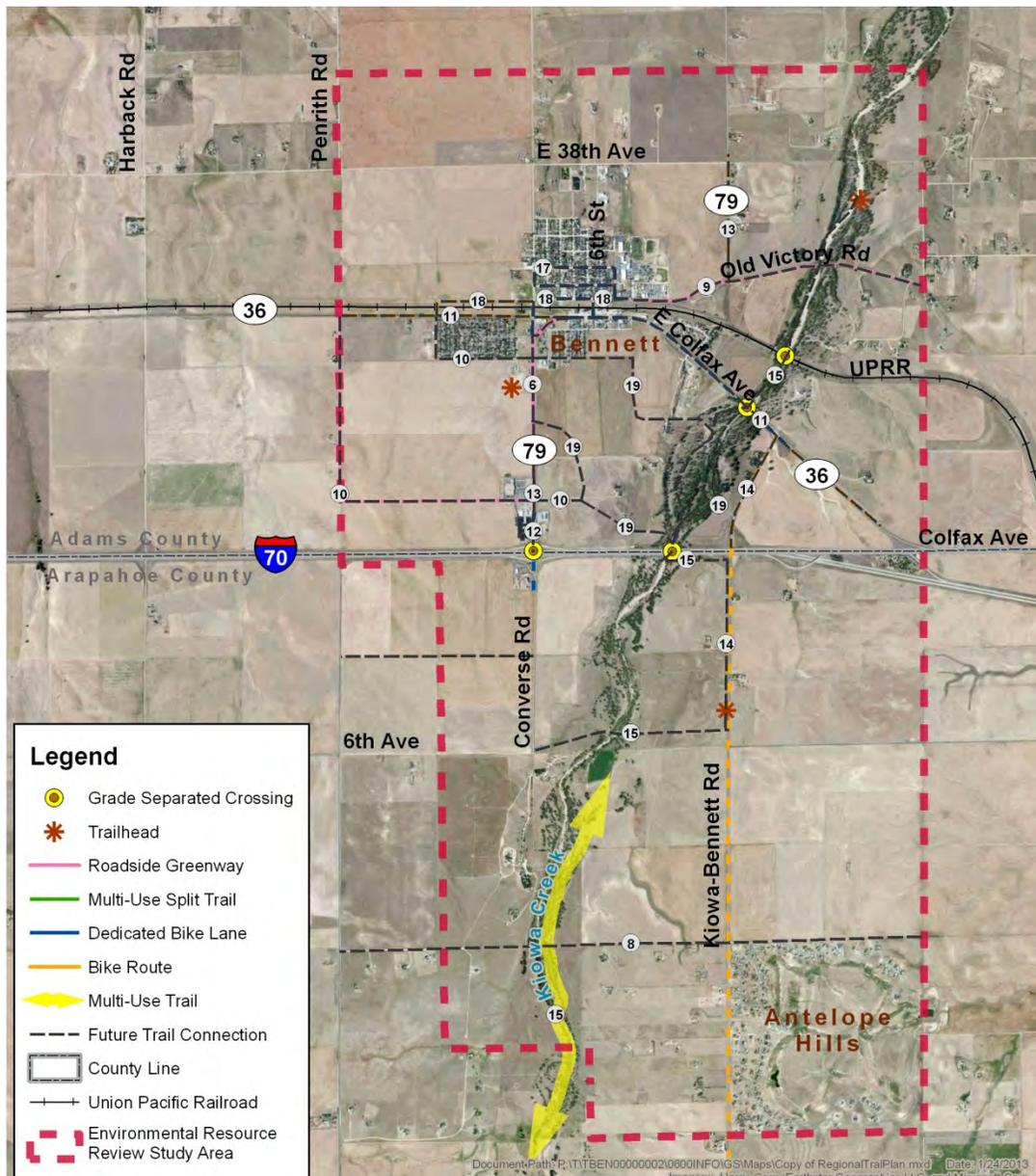
- Express bus service to the Denver metropolitan area.
- Initiate a local bus circulator or trolley service. This service would connect residents from various neighborhoods with other neighborhoods and employment centers.

Beyond the year 2035 planning horizon, the plan identifies the following potential transit improvements:

- Commuter rail service to RTD's East Corridor commuter rail line (currently under construction). Several station locations along the rail line would be considered including a potential stop in downtown Bennett.
- High speed rail service to RTD's East Corridor commuter rail line using a new rail line installed in the I-70 median. A high speed rail station would be located at an I-70 interchange near the study area with service from Denver.

Additionally, the *Town of Bennett Downtown Planning Study (2010)* identifies a potential commuter parking lot northwest of the I-70/SH 79 interchange. This lot would likely be shared with parking lots associated with the Bennett Marketplace.

Figure 15: Alternative Modes Planning



Source: Town of Bennett Comprehensive Plan, Town of Bennett Downtown Planning Study, Bennett Regional Trails Plan, Adams County GIS, and Arapahoe County GIS

# ENVIRONMENTAL OVERVIEW

This environmental overview identifies environmental resources and environmentally sensitive areas, based on readily available data and general field survey information.

The purpose of this overview is to identify resources early in the planning process and to consider sensitive environmental resources and avoid potential fatal flaws. The intent of this information is not to identify impacts but rather to identify potential “red flag” resource areas for use in alternatives analysis to avoid and minimize impacts to resources during subsequent study phases.

If a recommended improvement project receives Federal funding and/or involves a State or Federal facility, the results of the PEL Study will be carried forward at that time into project development, additional environmental review (NEPA-level or similar state environmental review process), design, and ultimately construction, maintenance, and operations. If the project is solely funded with local funds, a NEPA review process would still be required as any “federal nexus” initiates the NEPA process. This project may require access to I-70, a federally designated highway, similarly permits may be required from Federal agencies, such as a 404 Permit (impacts to wetlands) and/or modifications to the floodplain requiring coordination with the Federal Emergency Management Agency.

The environmental resources that were studied were selected based on the characteristics of the study area. The resources considered are generally consistent with NEPA, its implementing regulations, and with FHWA and CDOT guidelines. The environmental and community resources topics summarized in this report include:

- Air Quality
- Hazardous Materials
- Floodways and 100-year Floodplains
- Historic and Archeological Resources
- Mines
- Community or Public Wells
- Parks and Recreation Resources (Section 4(f)/6(f))
- Threatened and Endangered Species
- Wetlands, Noxious Weeds
- Noise
- Community Impacts (Neighborhood Business Displacements and Community Barriers)
- Prime and Unique Farmlands

This section summarizes the existing environmental conditions of the project study area. Avoidance and minimizing impacts to these resources will be considered with the development and evaluation of transportation improvement alternatives.

Data collection to identify the existing resources in the area was conducted in the fall of 2012 using readily available resources such as file searches from agencies with jurisdiction, a literature review, and general field surveys.

In addition, a letter was also sent out in November 2012 to the following resource agencies requesting the identification of any known resources or issues of concern within the study area.

- Adams County Parks and Community Resources
- Arapahoe County Open Spaces
- Colorado Department of Public Health and Environment (CHPHE) Air Pollution Control Division
- CHPHE Water Quality Control Division
- Colorado Wildlife and Parks
- Environmental Protection Agency (EPA)
- State Historic Preservation Office (SHPO)
- Town of Bennett Parks and Recreation
- United States Army Corps of Engineers (USACE)
- United States Department of Agriculture
- United States Fish and Wildlife Service (USFWS)
- Urban Drainage and Flood Control District

The results of the analysis for each of these resource topics are summarized below.

## Air Quality

The purposes of the air quality analysis are to ensure that transportation actions are consistent with planning goals in the air quality State Implementation Plan (SIP), present relevant air quality issues and information related to the SH 79 alternatives analysis, and provide information to support a subsequent analysis under NEPA.

### Air Quality Legislation, Regulations, and Requirements

Air quality is regulated at the national level by the Clean Air Act of 1970 (42 USC 7401 et seq) as amended in 1977 and 1990. The Act regulates emissions through the National Ambient Air Quality Standards (NAAQS) and the Hazardous Air Pollutants (HAP) program, which includes Mobile Source Air Toxics (MSAT). Specific requirements are placed on the transportation planning process in air quality nonattainment areas that do not meet the NAAQS emissions limits and in areas that have been reclassified from nonattainment to attainment/maintenance areas.

The NAAQS regulates six criteria pollutants – carbon monoxide (CO), ground level ozone, sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb). The EPA has established health and welfare-based exposure and concentration limits for the NAAQS. Of the six NAAQS pollutants, transportation sources contribute to CO, NO<sub>2</sub>, PM<sub>10</sub>, and ozone (EPA 2012b). EPA works with states and local jurisdictions to monitor ambient air levels for these pollutants. In addition, Mobile Source Air Toxics (MSATs) have been identified as an issue of concern related to transportation projects (EPA 2012a).

As of December 2012, all areas in Colorado are in attainment of all NAAQS criteria pollutants except for ground level ozone. Areas that were previously in nonattainment for CO and PM<sub>10</sub> have been redesignated to attainment/maintenance status (CDPHE 2012).

- **Ozone** – The Denver region is currently an ozone nonattainment area for exceeding the 8-hour standard. The SH 79 corridor resides in Adams and Arapahoe counties, which are both in the nonattainment area (CDPHE 2012, 2004). Therefore, a quantitative ozone precursor analysis would be necessary in a subsequent NEPA study. The quantitative analyses of VOC and NO<sub>x</sub> emissions from mobile sources would be based on EPA’s MOVES model.
- **Carbon Monoxide (CO)** – The Denver region is currently a CO maintenance area, and the area includes Bennett and the project study area on its eastern edge (66 FR 64751). A quantitative CO “hotspot” analysis would be necessary for a subsequent NEPA study for intersections that do not meet LOS C and are affected by the project.
- **Particulate Matter** – The Denver region was previously in nonattainment of PM<sub>10</sub> but has since been redesignated to attainment/maintenance (67 FR 58335). Bennett and the project study area are within the PM<sub>10</sub> attainment/maintenance area on the eastern edge, so a subsequent NEPA study for SH 79 may require a PM<sub>10</sub> hotspot analysis. PM<sub>2.5</sub> is not a pollutant of concern in Colorado as there are no nonattainment or maintenance areas in the state for this pollutant.
- **Mobile Source Air Toxics** – Tools and techniques for assessing MSATs are limited, and there are no approved exposure-concentration limits. FHWA has issued interim guidance for MSAT analyses associated with NEPA studies based on a tiered approach with no analysis necessary for projects with no potential MSAT effects, a qualitative analysis for projects with low potential MSAT effects, and a quantitative analysis to differentiate alternatives with higher potential MSAT effects (FHWA 2012). If an analysis is necessary, it should consider relative emission levels among no-build and build alternatives and attempt to reduce emissions as part of the alternatives analysis.
- **Greenhouse Gases** – Recent concerns with climate change have prompted calls for reducing greenhouse gases (GHG), of which carbon dioxide (CO<sub>2</sub>) is a primary component. There is no specific GHG analysis required for NEPA studies, but a qualitative analysis of GHGs in a subsequent NEPA study would be prudent.

Some of the study area is served by unpaved roads, such as Converse Road south of I-70. For unpaved roadways, the CDPHE requires that a roadway which has vehicular traffic exceeding 200 vehicles per day in PM<sub>10</sub> attainment areas (averaged over any consecutive three-day period) be paved or treated for dust abatement. Arapahoe County has established a daily threshold of 700 vehicles per day for paving gravel roads.

### Next Steps

Various performance indicators will be summarized for each alternative and a No Action alternative. Likewise, the LOS at key intersections will be estimated for each alternative. This information will be useful in making qualitative statements about potential air quality impacts from each alternative; and it will assist in determining which, if any, intersections would require either a CO or PM<sub>10</sub> hotspot analysis in a subsequent NEPA study.

If a NEPA study is conducted for this project in the future, qualitative air quality analyses will be necessary for ozone, CO, PM<sub>10</sub>, MSATs, and GHGs. A qualitative conformity-level emissions burden analysis of VOC and NO<sub>x</sub> ozone precursors and other criteria pollutants will also be required to compare emissions from each alternative to the No Action and to other alternatives. In addition, quantitative

analyses may be necessary for CO and PM<sub>10</sub> pollutants. It does not appear that a quantitative MSAT analysis would be required, but this should be monitored for changing conditions and revised project concept and design.

The transportation conformity rule, promulgated through the Clean Air Act legislation, is the mechanism through which transportation projects are evaluated for air quality impacts in nonattainment and maintenance areas (40 CFR Parts 51.390 and 93). The conformity process has two levels - regional air quality conformity and project-level conformity. The regional conformity analysis is conducted for the long-range Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP). Project-level conformity applies to transportation projects in air quality nonattainment and maintenance areas. It requires a review and possibly a quantitative "hotspot" analysis of CO and PM emissions. To pass project-level conformity, the project must be included in a conforming RTP and TIP, and the project cannot create new, increase the frequency of, or exacerbate the severity of air quality violations.

## Hazardous Materials

A preliminary environmental site assessment of the study area was conducted to evaluate the potential for hazardous waste or hazardous substances to impact the project, including:

- Reconnaissance survey of the site and surrounding area to evaluate present conditions related to hazardous materials; and
- Review of the compliance history of the study area, and of any adjacent sites, as identified by a regulatory database search (EDR, 2012).

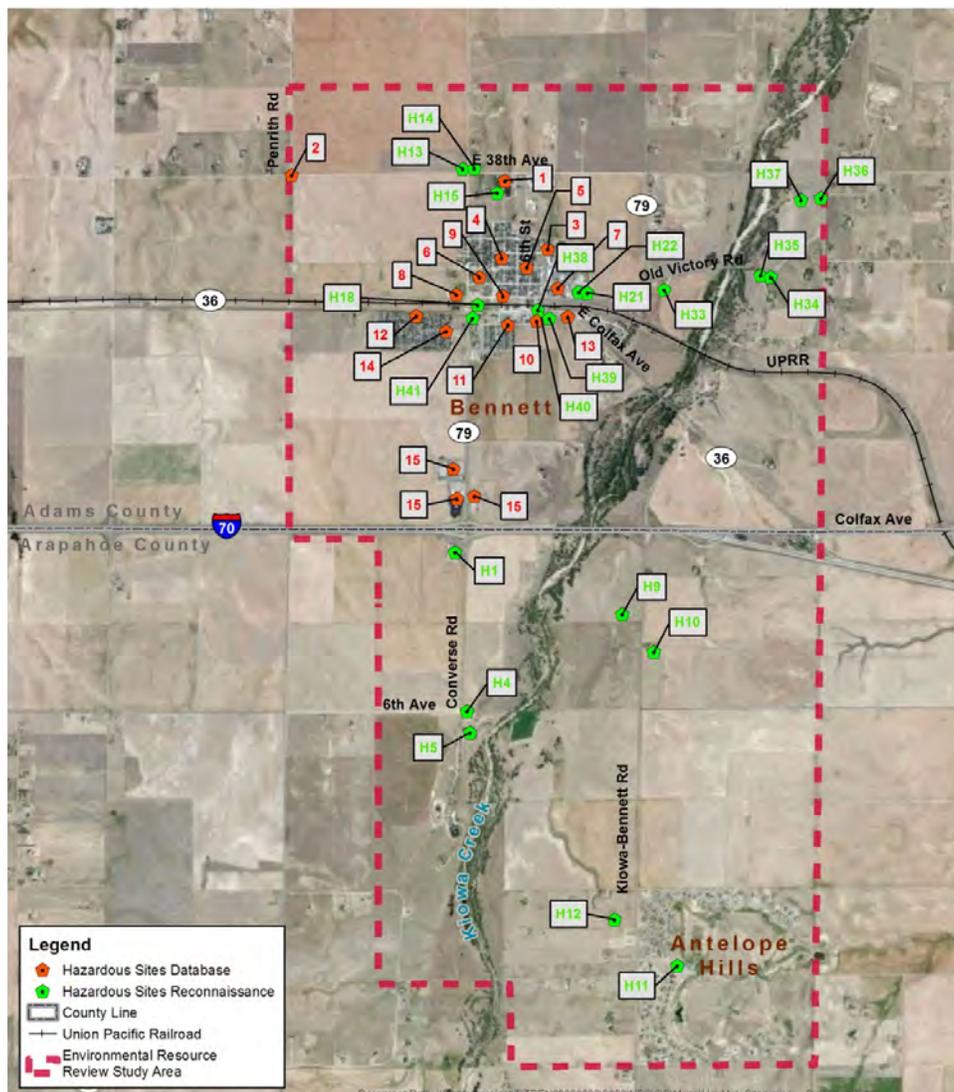
Generally, if a facility identified in a database report was active with an event that had the potential to contaminate the study area, or groundwater flow could cause migration of the contaminants into the study area, then the facility was considered to have the potential to impact the study area. Sites were categorized as either having high, medium, or low impact potential. As a result, 33 facilities were determined to have the potential to impact the study area, as shown in **Figure 16** and listed in **Table 14**.

- Three sites were identified with high potential to impact the study area due to open releases documented at the sites and their locations within the study area.
- Seven sites were identified with medium potential to impact the project, three of which were identified in the CDL database as methamphetamine laboratories. Further investigation is required to evaluate the appropriate level of concern for these facilities.
- One site ranked medium is a closed Leaking Underground Storage Tank facility.
- One site was listed in the FINDS and AIRS databases; however, a closed pump island was observed at the facility during the site reconnaissance.
- One site is a spill site with no indication of closure based on the EDR Report.
- One site was listed in the Integrated Compliance Information System, Emergency Response Notification System, Aerometric Information Retrieval System, and Facility Index System/Facility Registry System databases; however, multiple above-ground storage tanks (ASTs) greater than 500 gallons in size were observed at the facility, as well as an open pump island.
- Twenty-three sites were identified with a low potential to impact the study area. These sites are generally Resource Conservation and Recovery Act (RCRA) registered generators of hazardous

waste that are currently in compliance, asbestos sites that have been remediated, closed spills and historical CDL sites, or facilities with registered underground storage tanks (USTs) with no reported releases.

In addition, multiple pole-mounted and pad-mounted transformers were observed within the study area, with the highest concentration of transformers located within Bennett and the Antelope Hills subdivision. Transformers may contain polychlorinated biphenyls (PCBs). No leaks or stains were observed near the transformers during the site reconnaissance. However, not all properties were accessible for assessment. Further investigation will be required to evaluate whether the transformers may contain PCBs and/or if releases are present.

**Figure 16: Locations of Potential Hazardous Materials**



Source: Environmental Data Resources Report, SH79 PEL, Bennett, CO 80102, September 26, 2012

**Table 14: Agency Database Sites with the Potential to Impact the Study Area**

NUMBER/ (DATABASE NUMBER)	FACILITY NAME	FACILITY ADDRESS	DISTANCE (FEET)/ DIRECTION	TYPE	STATUS	POTENTIAL TO IMPACT STUDY AREA
1 / (1)	Sun Redi Mix	47600 38th Ave	~0 North	RCRA- NonGen,	Closed	Low
2 / (2)	N/A	38th and Penrith	~0 Northwest	CO ERNS, CDL	Unknown	Medium
3 / (3)	Bennett School district 29-J/ Adams 29-J School Dist	610 7th St	~0 North	HIST FTTS, FTTS, ICIS, ASBESTOS FINDS	Closed, Closed, Closed, Closed,	Low
4 / (3)	Adams 29-J School Dist	690 7th St	~0 North	FTTS, HIST FTTS	Closed, Closed	Low
5 / (4)	Environmental Rolloff Xpress, LLC	575 4th St	~0 North	RCRA- NonGen, FINDS	Closed, Closed	Low
6 / (5)	Sarah Copeland Rental Property	501 6th Ave	~0 North	FINDS	Unknown	Low
7 / (6)	N/A	429 2nd St	~0 North	ERNS	Closed	Low
8 / (7)	Corridor Collision, LLC	830 Sharis Ct	~0 North	FINDS, RCRA- CESQG	Open, Open	Low
9 / (7)	Bennett Middle School	455 8th St	~0 North	CO ERNS, FINDS	Closed, Closed	Low
10 / (7)	Bennett Elementary School	462 8th St	~0 North	FINDS	Closed	Low
11 / (7)	N/A	600 8th St	~0 North	CO ERNS	Closed	Low
12 / (7)	Corridor Community Academy	420 7th St	~0 North	FTTS, HIST FTTS, FINDS, ASBESTOS	Closed, Closed, Closed, Closed	Low
13 / (8)	City Park	201 W. Palmer	~0 North	CO ERNS, CDL	Unknown	Medium
14 / (8)	Bennett Food and Gas	100 S. 1st St	~0 North	FINDS, AIRS	Open, Open	Medium
15 / (8)	JD's Country Pawn LLC	101 S. First St	~0 North	UST	Closed	Low
16 / (9)	Bennett Schools 29J	375 Palmer Ave	~0 North	UST	Closed	Low
17 / (10)	Vacant Lot (behind repair shop)	Colfax and Pike St	~0 North	CO ERNS	Open	Medium
18 / (11)	N/A	200 Cherry St	~0 North	CO ERNS, CDL, US HIST CDL	Closed, Closed, Closed	Low
19 / (11)	N/A	475 Kiowa #14	~0 North	CO ERNS, CDL	Unknown	Medium
20 / (11)	Unknown	450 Colfax	~0 North	UST	Closed	Low
21 / (12)	Unknown	725 Madison Wy	~0 North	ASBESTOS	Closed	Low
22 / (13)	Roggen Farmers Elevator – Bennett	555 Colfax Ave	~0 North	ICIS, ERNS, AIRS, FINDS	Closed, Closed, Open, Open	Medium (Table 2)
23 / (14)	N/A	145 Cleveland Circle	~0 North	CO ERNS, CDL, US CDL	Closed, Closed, Closed	Low
24 / (15)	King Soopers #712	1085 S 1st St	~0 North	UST	Open	Low
25 / (15)	Bennett Travel Shoppe	1210 S. 1st St	~0 North	UST, AST, LUST TRUST	Open, Closed, Open	High
26 / (15)	Currently Ace Hardware	1115 Hwy 79	~0 North	FINDS, LUST	Closed, Closed	Medium (Table 2)
27 / (15)	Love's Travel Stop #300	1191 S. 1st St	~0 North	UST	Open	Low

NUMBER/ (DATABASE NUMBER)	FACILITY NAME	FACILITY ADDRESS	DISTANCE (FEET)/ DIRECTION	TYPE	STATUS	POTENTIAL TO IMPACT STUDY AREA
<b>Orphan Sites: Not mappable by EDR but identified in the vicinity of the study area.</b>						
28 / Orphan Site	Owens Brothers Concrete Co	1st & Rd 38	~ 0 North	LUST, UST	Unknown	High
29/ Orphan Site	Ogy	1-70 and Adams Cir	~ 0 North	UST	Unknown	Low
30 / Orphan Site	Nickerson Farms	I-70 & SH 79	~ 0 North	LUST, LUST TRUST	Unknown	High
31 / Orphan Site	Burroughs Service	610 East Colfax	~ 0 North	UST	Unknown	Low (Table 2)
32 / Orphan Site	James and Barbara Whitehead Property	15737 Elbert Cir	~ 0 North	UST	Unknown	Low
33 / Orphan Site	Clark's Equipment Sales and	100 I-70 Frontage Rd	~ 0 North	RCRA- NonGen	Unknown	Low

Source: Environmental Data Resources Report, SH79 PEL, Bennett, CO 80102, September 26, 2012

Notes:

ASBESTOS = Asbestos abatement and demolition projects by contractor

AIRS = Aerometric Information Retrieval System

CO ERNS = ERNS State Reported Spills

CDL = Methamphetamine Lab Locations Reported through Colorado Department of Public Health and ERNS= Emergency Response Notification System

FINDS = Facility Index System/Facility Registry System

FTTS = Administrative cases and pesticide enforcement action and compliance activities related to FIFRA (Federal Insecticide Fungicide Rodenticide Act), TSCA (Toxic Substances Control Act) and EPCRA (Emergency Planning and Community Right-to-Know Act)

HIST FTTS = Historical FTTS

ICIS = Integrated Compliance Information System

LUST= Leaking Underground Storage Tank

LUST TRUST = LUST Colorado's Petroleum Storage Tank Fund recipients

RCRA-NonGen = Resource Conservation and Recovery Act - Do Not Currently Generate Hazardous Waste

RCRA-CESQG = RCRA - Conditionally Exempt Small Quantity Generators

US CDL = National Clandestine Laboratory Register

US HIST CDL = Historical National Clandestine Laboratory Register

UST= Underground Storage Tank

## Next Steps

The most fundamental management for hazardous materials is to avoid contaminated sites, which often is not feasible. Wherever possible, responsibilities for known hazardous materials issues at properties targeted for ROW should be resolved prior to acquisition. Site-specific Health and Safety Plans (HASPs) and Materials Management Plans (MMPs) will be developed to address contaminated soil and groundwater. If buildings will be demolished, an Asbestos Abatement Plan and a Lead-Based Paint Assessment Plan will be required to document methodologies for completing the surveys in accordance with regulation. In the event septic systems and/or wells are disturbed during construction activities, proper closure in compliance with local regulations should be implemented. Encountering unanticipated soil or groundwater contamination during construction has the potential to affect the project negatively in terms of mitigation, cost, schedule and project personnel health and safety.

A more in-depth hazardous materials assessment is expected for the project. At a minimum, a CDOT Initial Site Assessment (ISA) would be required. If the ISA identifies hazardous material concerns, then

CDOT may require completion of an ASTM-compliant Phase I ESA, which would include more detailed review of historical sources, formal site visits, and agency contact. Based on the results of the Phase I ESA, further investigations (limited subsurface reports and Phase II ESAs), including the collection of surficial and subsurface soil samples and groundwater samples, may be required to delineate the horizontal and vertical extents of contamination in problem areas. During the planning and design process, this information can be used to identify avoidance options, when possible, and to assist with the development of specific contaminated soils/groundwater material management or mitigation measures. Properties to be acquired may also require individual Phase I ESAs and/or preliminary site investigations as part of the ROW acquisition process, and may require remediation prior to acquisition or development.

## Floodways and 100-year Floodplains

A floodplain is any area that can be expected to flood occasionally. It is the lowland area adjacent to a ditch, river, creek, stream, or lake. Almost all areas of the U.S. are subject to flooding in the right circumstances. However, the risk of flooding varies from place to place.

Major drainageways were identified by the delineated Federal Emergency Management Agency (FEMA) floodplain, as shown on Flood Insurance Rate Maps. The following FEMA-designated floodplains for this area include (FEMA 1995, 2007, 2010):

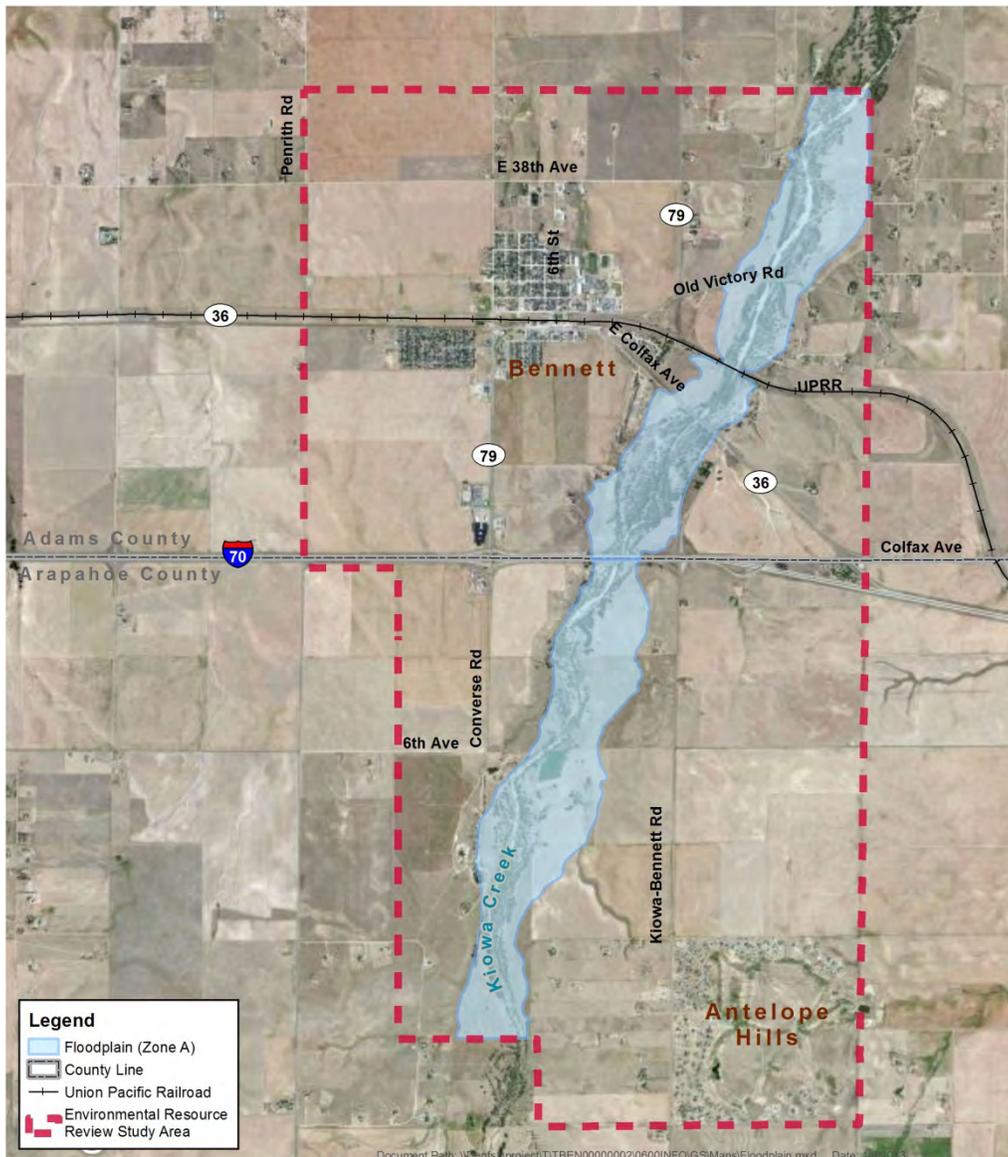
- Zone X is part of the FEMA 500-year flood area, 100-year flood area with average depths of less than one foot, or with drainage areas less than one square mile.
- Zone A is part of the FEMA 100-year flood hazard area where base flood elevations have not been determined, but a shaded, generalized floodplain is shown on the FEMA Flood Insurance Rate Maps. The 100-year flood is FEMA's base flood.

The SH 79 study area lies within Arapahoe and Adams counties, within the Kiowa Creek watershed. Kiowa Creek is shown as a Zone A floodplain by FEMA on Flood Insurance Rate Maps as follows (FEMA 1995, 2007, 2010):

- Panel 0718H, Adams County, dated March 5, 2007
- Panel 0981H, Adams County, dated March 5, 2007
- Panel 0260K, Arapahoe County, dated December 17, 2010

Zone A floodplains do not include base flood elevation determinations, detailed hydrologic or hydraulic models, or delineated floodway. **Figure 17** shows the FEMA Zone A floodplain for Kiowa Creek in the study area. The Town of Bennett, Arapahoe County and Adams County are responsible for floodplain management within their jurisdiction. Both Arapahoe County and Adams County have local floodplain permitting requirements for development activities within the floodplain. Arapahoe County requires a Conditional Letter of Map Revision (CLOMR) for all projects that impact the floodplain. Arapahoe County also requires a Letter of Map Revision (LOMR) to be completed and issued in order to revise the effective floodplain (Arapahoe County 2011, .FEMA 2007, FEMA 2010).

Figure 17: Floodplains/Floodways



Source: FEMA, October 2012

### Next Steps

Floodplain modeling will be required to assess future bridge crossings and floodplain impacts and may require a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR).

### Historic and Archeological Resources

To warrant consideration of impacts in a federally-funded project, historic and archeological resources must be listed on or meet the eligibility criteria established for the National Register of Historic Places (NRHP).

The Colorado Historical Society/Office of Archeology and Historic Preservation performed a file search in October 2012 for land sections encompassed by the study area. The file search was followed by an online search for more information about the identified cultural resources in order to determine the potential for effects to these properties by the project.

After the range of alternatives has been narrowed, county assessor's parcel data will be reviewed to determine dates of construction for structures that may be affected and reconnaissance "windshield" surveys will be conducted to identify any additional potentially eligible resources in the study area.

A historic overview of study area development has been included to support the evaluation of cultural resources and allow better understanding of historical patterns, themes, and periods that may contribute to the significance of cultural resources.

### **History of Arapahoe County**

Arapahoe County was named for the Arapaho Indians, one of the larger tribes of plains Indians, who, along with the Cheyenne, occupied Arapahoe County east of Colorado's foothills into what is now western Kansas. Arapahoe County is Colorado's first county, originally 30 miles wide and extending from Sheridan Boulevard to the Kansas border. In the late 1820s to 1840s, trappers searched this region for beavers and buffalo skins. In 1832, the first trading post on the South Platte River was built on Cherry Creek, which was then part of Arapahoe County (Arapahoe County n.d.).

In 1848, gold prospectors found gold, just west of Englewood where Dry Creek flows into the Platte River. This was the first important discovery of gold in Colorado. More gold was found where the river joined Cherry Creek. A camp was established here that later became Denver. Denver was the seat of Arapahoe County until 1902, when the County was divided into several counties that make up the Denver metro area today (Arapahoe County n.d.).

During the 1860s, farmers took up claims along the streams because of the ample irrigation for their land. The Leavenworth and Pikes Peak Express, the first stagecoaches arriving in Denver in May 1859, supplied early transportation for gold seekers and other pioneers. In the 1870s, the Kansas Pacific Railroad, which later became the Union Pacific Railroad, was built across the plains from the Missouri River to Denver (Arapahoe County n.d.).

The eastern portion of the county was comprised mainly of sheep and cattle ranches. Many of the ranches homesteaded during the 1870s through the 1900s are still in the ownership and operation of the descendants of the early pioneers. Today, Arapahoe County spans 850 square miles, has a population of more than 500,000, and is one of Denver's fastest growing neighbors. The eastern end of the county remains largely rural with wheat farms and a few cattle and sheep ranches. While three-fourths of the county is rural, the western part is largely urban (Arapahoe County n.d.).

### **History of Adams County**

In 1902, voters approved creation of Adams County which, prior to that time, had been part of Arapahoe County (Adams County n.d.). Adams County originally stretched 160 miles from present-day Sheridan Boulevard to the Kansas state border. In 1903, the eastern 88 miles of Adams County was transferred to the new Washington County and the new Yuma County, reducing the length of Adams County to the present 72 miles. On November 8, 1904, Adams County voters chose Brighton as the permanent county seat (e-Reference 2011).

## History of the Town of Bennett

Documents from the Bureau of Land Management show that four Bennet brothers filed homestead papers in 1862 for two sections (34 and 24). These two sections were adjacent diagonally on the north and south to the current location of the Post Office and together with other sections homesteaded by the Bennet brothers, formed the Bennet Ranch (Bennett 2012b).

One of these brothers, Hiram Pitt Bennet, was a respected judge in the early territory of Colorado. Mr. Bennet was elected the first Territorial Representative for Colorado in 1862 and was instrumental in obtaining statehood for Colorado, having introduced the first bill on statehood in 1863. Mr. H. P. Bennet went on to become the third Postmaster of Denver in 1869. Through the years the English name of Bennet was Americanized to Bennett; thus the town name evolved from the old Bennet Ranch (Bennett 2012b).

## Resources in the Study Area

### *Historic Resources*

Eight cultural surveys have been conducted within the study area between 1987 and 2008. Three potentially eligible historic resources and one eligible resource were identified in the study area: the Mount View Cemetery/Bennett Cemetery, Muegge House, and a segment of the Kansas Pacific Railroad. No archaeological resources were identified. **Figure 18** shows the locations of these properties. **Table 15** lists the properties and associated potential issues.

### *Kiowa Creek Bridge (Colfax Avenue/US 36)*

The Kiowa Creek Bridge on Colfax Avenue/ US 36 is an historic bridge that was surveyed in 1999 and found to be officially eligible for the NRHP by SHPO during an historic bridge inventory conducted in 2000. However, it has been replaced in its entirety it is no longer eligible for the NRHP (CO Historical Society 2012, pers. comm. Schoch 2012).

### *Mount View Cemetery/Bennett Cemetery*

The Mount View Cemetery is located adjacent to SH 79 just south of the intersection at 38th Avenue, in the northeast point of Bennett (Bennett 2012a). The cemetery was surveyed in 1982 and was recommended to be “not eligible” for the NRHP by the Colorado Historical Society. However, no official determination has been made by the State Historic Preservation Officer.

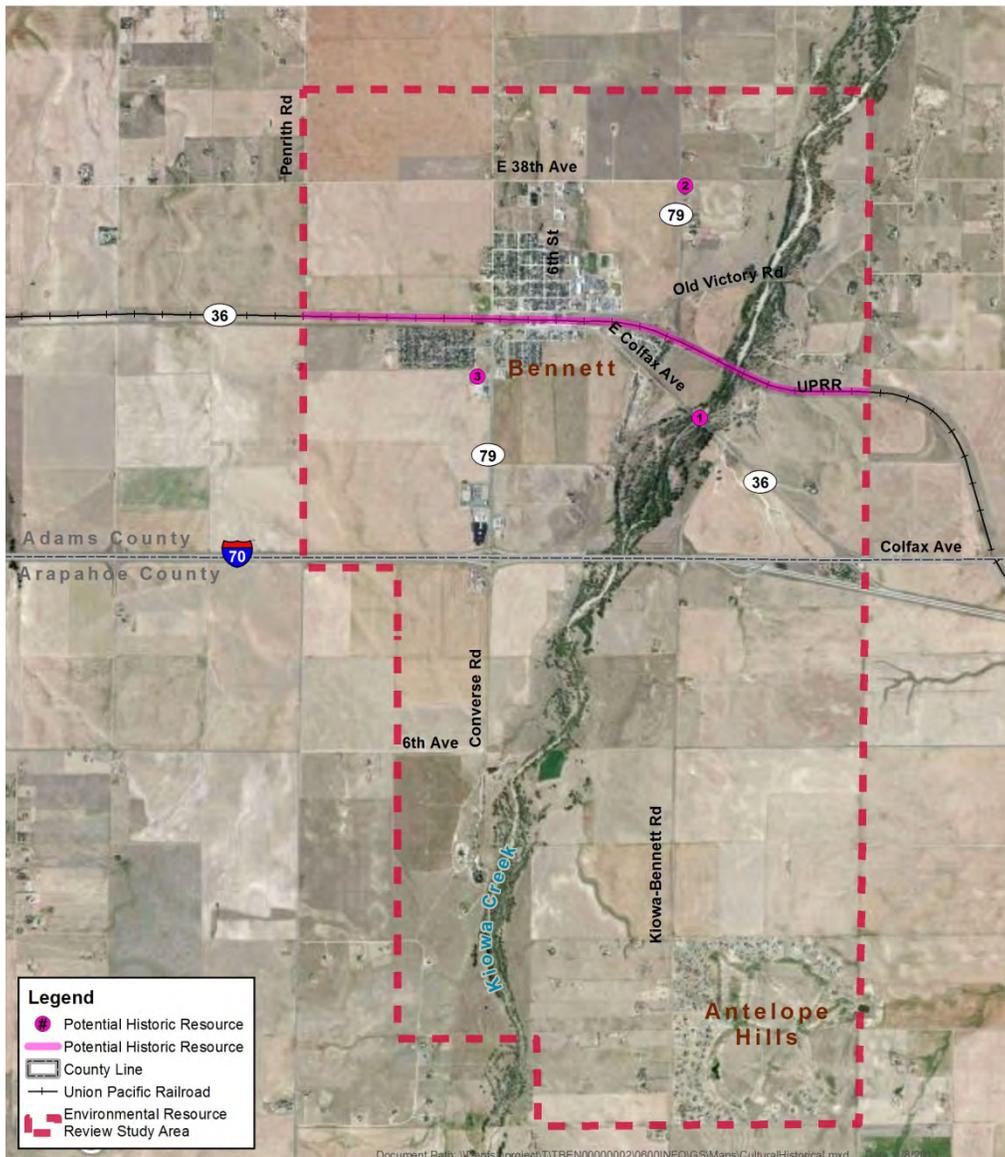
### *Muegge House*

This 1913 farmhouse is a simple front-gable wood-frame box with a wrap-around porch and subtle Victorian embellishments, typifies vernacular High Plains architecture of its period. The property has been donated to the town. The Colorado Historical Society has assessed the Muegge House as an historic resource that is “field not eligible” and provides no assessment of its condition (CO Historical Society 2012). However, no official determination has been made by SHPO.

### *Kansas Pacific Railroad*

The Kansas Pacific Railroad completed Colorado's first railroad connection in 1870; Bennett was founded in 1877 on the Kansas Pacific line about 25 miles east of Denver (Fogelberg 2002). The Kansas Pacific Railroad merged with the Union Pacific Railroad in 1880 (Colorado Historical Society n.d.). The railroad segment was surveyed in 2009. The Colorado Historical Society identifies this segment of the railroad as “supports eligibility of entire linear resource; field eligible” and states that its condition is “good” (CO Historical Society 2012). However, no official determination has been made by SHPO.

**Figure 18: Cultural Resources within Study Area**



Source: Colorado State Historic Preservation Office, October 2012

**Table 15: Potentially Eligible Historic Resources within Study Area**

SITE NAME (MAP #)	SITE ADDRESS	ELIGIBILITY
Kiowa Creek Bridge (1)	Colfax Ave/US 36 and Kiowa Creek	Replaced; no longer eligible
Mount View Cemetery/ Bennett Cemetery (2)	SH 79 south of intersection at 38th Ave	Recommended as not eligible
Muegge House (3)	SH 79 and Bennett Ave	Recommended as not eligible
Kansas Pacific Railroad	North of Bennett, traveling east to west through study area	Eligible for the NRHP

Source: Colorado State Historic Preservation Office, October 2012

### *Archaeological/Paleontological Resources*

The file search revealed three prehistoric archaeological sites and one paleontological resource in the study area. Due to the sensitive nature of these resources, the sites cannot be mapped. Once an alternative has been recommended and funding has been identified, a registered archeologist will locate the resources and work with the project team to avoid, minimize and mitigate resource effects.

#### **Section 4(f)**

Section 4(f) refers to a portion of a law that only applies to actions of the U.S. Department of Transportation (DOT) Agencies. It is applicable when there is some type of “federal nexus,” i.e., the project or portion of is the project/action funded, authorized, or carried out by a Federal agency. Section 4(f) of the Department of Transportation (USDOT) Act of 1966 was set forth in Title 49 United States Code (U.S.C.), Section 303. In 2008, the Section 4(f) Final Rule was moved to 23 CFR Part 774. It protects historic sites either on the NRHP, eligible to be on the NRHP, or in some cases, of state and local significance. These properties are referred to as “Section 4(f) properties”. The law requires that before a US DOT may use all or any portion of these properties, the agency must prove that

1. There is no prudent or feasible alternative to using that land, and
2. The program or project includes all possible planning to minimize harm ....to the historic site resulting from that use.

Therefore, although there is no “formal” federal nexus, when the project proceeds to construction these properties will warrant special protection. This includes the three properties previously discussed: the Mount View Cemetery/Bennett Cemetery, Muegge House, and a segment of the Kansas Pacific Railroad. These properties are being carefully considered during the alternatives development process, and all measures to avoid them are being considered throughout the analysis. As the project proceeds, these considerations will be documented for use in the future “Section 4(f) Evaluation”.

#### **Next Steps**

##### *Cultural Resources*

Historical and archaeological sites are not renewable; as such, the best resource management is to avoid impacts to properties listed or evaluated as eligible for inclusion on the NRHP. Next steps for impacts to historic resources *prior* to the NEPA process include:

- Once the alternatives being considered have been screened, properties adjacent to the remaining alternatives should be evaluated for potential eligibility for the NRHP.
- Avoidance and minimization measures considered during the alternatives evaluation should be documented as part of this PEL study process for use in future consultation with the SHPO (described in more detail below).

Avoiding or minimizing impacts to cultural resources can be accomplished by the following methods:

- Avoid direct and indirect impacts to known NHRP-eligible or listed resources during alternative development and design;
- Develop alternatives that are consistent with historic character of area; and
- Mitigate unavoidable impacts to NRHP-eligible resources through data recovery, analysis, and publication of findings.

Next steps for impacts to historic resources *during* the NEPA process include detailed evaluation of any recommended alternatives as part of a NEPA document, requiring compliance with Section 106 of the National Historic Preservation Act. Section 106 requires federal agencies to consider the effects of their undertakings upon historic properties that are considered significant (i.e., listed or eligible for listing on the NRHP). Compliance with Section 106 involves a consultative process with the SHPO and a sequence of steps: identification, evaluation, determination of effects, and resolution of effects, described in more detail below:

- Consult with the SHPO to define an appropriate Area of Potential Effects (the geographic area within which an undertaking may directly or indirectly cause changes in character or use) for historic and archaeological resources;
- Identify and invite relevant government agencies, organizations, and tribes to participate as consulting parties in the Section 106 process;
- Conduct intensive-level field surveys in all areas that may be subject to project impacts. Undetected resources, primarily archaeological sites, may exist within the study area. All identified cultural resources will be evaluated or re-evaluated for NRHP eligibility and documentation submitted to SHPO for concurrence;
- Evaluate effects to NRHP-eligible or listed properties from the project by applying federal Criteria of Adverse Effect (which is a specific term defined under Section 106 to evaluate effects);
- Consult with SHPO and other consulting parties to resolve any adverse effects through project redesign/avoidance, minimization of impacts, or mitigation;
- Involve the Advisory Council on Historic Preservation if any adverse effects cannot be resolved through consultation;
- Document the resolution of any identified adverse effects and mitigation prescriptions in a Memorandum of Agreement signed by FHWA, CDOT, SHPO and if appropriate, consulting parties; and
- Implement the specified mitigation measures. Mitigation of impacts to historic sites may include: permanent recording by historical narrative, medium or large format black-and-white photography, measured drawings, and public interpretation. Mitigation of impacts to archaeological sites typically involves data recovery.

#### **Section 4(f) Resources**

Next steps for impacts to Section 4(f) resources *prior to* the NEPA process include:

- Once the alternatives being considered have been screened, a windshield survey should be conducted to identify any potentially eligible Section 4(f) properties adjacent to the remaining alternatives, and these should be considered and identified for Section 4(f) Applicability.
- Avoidance and Minimization measures considered during the alternatives evaluation will be documented as part of this PEL study process for use in the future Section 4(f) evaluation.

Next steps for impacts to Section 4(f) resources *during* the NEPA process include:

- The full 4(f) evaluations will be conducted during any future NEPA processes. Coordination with SHPO will be required to determine official “eligibility” of a property and to determine effects to those properties and any required mitigation if effects cannot be avoided.

- Using information from this study, a formal evaluation will be conducted to determine if a “feasible and prudent alternative” exists. If no alternative exists that avoids use of a protected property, a “least harm analysis” will be conducted to determine which alternative causes the least overall harm to eligible and protected properties.

## Mines

GIS data was obtained from the Colorado Division of Reclamation, Mining and Safety to identify potential permitted mine locations within the study area and their characteristics.

### Resources in the Study Area

A file search of past and current mining operations revealed that two saleable mining sites occur in the study area, both privately owned by one individual. Saleable minerals include common mineral materials such as sand, gravel, stone, pumice, clay, and petrified wood. **Table 16** lists the sites and identifies possible issues associated with them.

**Table 16: Mines within Study Area**

SITE NAME	SITE ADDRESS	POTENTIAL ISSUE
Mitchell Pit	Latitude: 39.751 Longitude: -104.41628 (West side of Kiowa Creek southeast of Bennett)	<ul style="list-style-type: none"> <li>• The project could affect the ability to explore or extract mineral deposits or affect mineral leases.</li> <li>• The most recognized health hazards from sand and gravel mines involve airborne particulate emissions. Total Suspended Particulates (TSPs) is a measure of all particulates emitted by a mine; PM<sub>10</sub> particles represent some of the smallest particles that can stay suspended in the air for long periods and pose the greatest respiratory health hazards (Blodgett 2004).</li> <li>• Sand and gravel mining may affect rainwater recharge to groundwater and can decrease a soil’s ability to bind substances and thus clean water, potentially contaminating groundwater (University of Maine 2006). Because sand and gravel mines are required to wash some materials on site and also control dust, some mines use millions of gallons of groundwater for these tasks (Blodgett 2004).</li> <li>• Fugitive dust and diesel fumes, increased traffic congestion, safety hazards, and aesthetic degradation resulting from sand and gravel pits pose potential cumulative impacts (Blodgett 2004).</li> </ul>
Mitchell Pit #2	Latitude: 39.74731 Longitude: -104.42098 (West side of Kiowa Creek southeast of Bennett)	Same as above.

Source: Colorado Department of Natural Resources Division of Reclamation, Mining and Safety October 15, 2012

### Mitchell Pit

Mitchell Pit is an active sand and gravel surface mine permitted in 1987 and located in Adams County. The surface size is approximately ten acres.

### **Mitchell Pit #2**

Mitchell Pit #2 is an active gravel surface mine permitted in 1991 and also located in Adams County. The surface size is approximately 6.8 acres.

#### **Next Steps**

The primary reason to define impacts to minerals is to reduce, minimize, or mitigate effects to minerals from project construction and operations. Mineral activities must comply with NEPA, Endangered Species Act, and other laws. The environmental requirements for mining, including environmental permitting for mine operation and post-mining reclamation are administered through state and federal programs via the EPA, Department of Environmental Quality, and the Colorado Division of Reclamation Mining & Safety.

The presence of existing mineral claims and leases could interfere with plans to construct a new roadway. As part of the pre-construction process, the project proponents would have to identify mineral claims and leases and either negotiate permission to use the land surface in these areas or re-locate the roadway to avoid existing claims and leases. Where access to mineral resources may be restricted, the proponents would provide compensation for damage, access rights, and easements with mine owners, claimants, and lease holders. If necessary, the proponents would provide mine operators with mine access during construction.

Construction of the roadway would result in the need for saleable minerals, including fill material for grade changes, sand and gravel for concrete production, gravel for road beds, and similar uses. The use of saleable minerals would provide an economic benefit to local mineral providers but would also result in consumption of materials that would not be available for other uses.

Air quality monitoring at these two sand and gravel pits is recommended to determine the extent of TSPs and particulate matter they emit. An impact on air quality that could result from increased traffic or decreased congestion, depending on the results of a proposed roadway project, could combine cumulatively with potential air quality hazards presented by the mines. Similarly, an increase in impervious surfaces from roadway improvements could combine cumulatively with possible groundwater contamination from these operations. On-site water availability during roadway construction could also be an issue. These possibilities should be considered in an ensuing environmental assessment or environmental impact statement.

### **Wells**

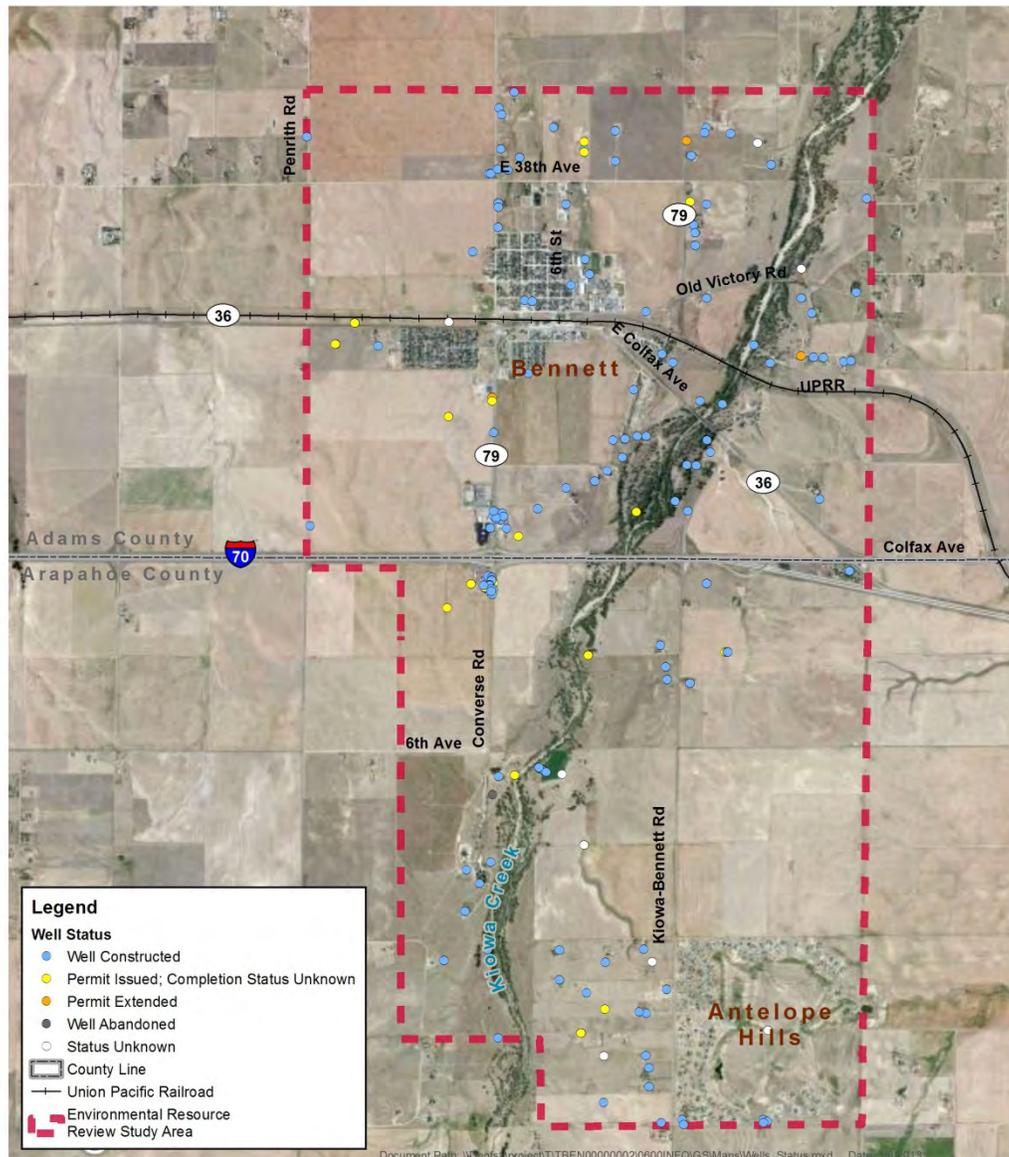
This section describes the existing wells located in the study area. Wells may be drilled for residential, commercial, irrigation, or other uses, such as groundwater monitoring. Acquisition of ROW for a project recommended by the study may require use of groundwater normally allocated to the well owner, relocation of wells or potential for groundwater contamination, requiring costly mitigation. It is important to identify the location of wells so they may be avoided during design and construction activities.

Existing wells in the study area were identified through a survey of GIS data from the Colorado Division of Water Resources (2012).

Approximately 254 wells were identified in the study area. The distribution and construction status of the wells is depicted in **Figure 19**. The majority (65 percent) of wells is already constructed and nearly a

quarter of all wells within the study area have issued permits, though the status of the well is unknown. According to records, there are currently no wells with expired or cancelled permits, though roughly eight percent of wells have an unknown status (Colorado Division of Water Resources, 2012). Within the entire study area only four wells have been abandoned.

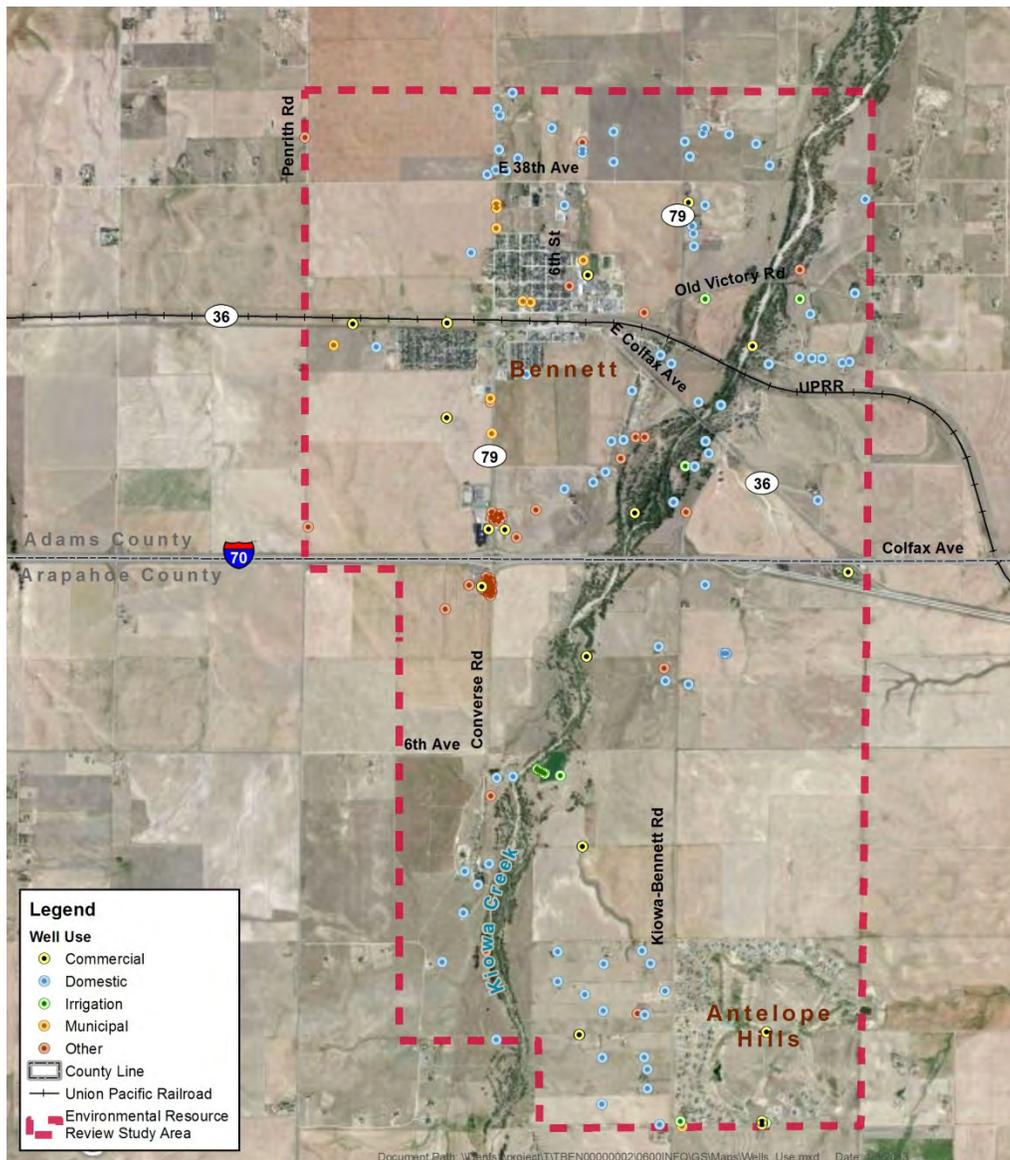
**Figure 19: Distribution and Status of Wells in Study Area**



Source: Colorado Division of Water Resources, October 15, 2012

Over one-third of the wells are classified for domestic or residential uses such that the wells serve as the principal source of water for most households. Roughly 22 percent of the wells within the study area are for commercial use and approximately one-third of the wells are classified for “other” usages; including geothermal, stock, and monitoring. Monitoring wells are constructed for the purpose of locating water, pump or aquifer testing, monitoring ground water, or collection of water quality samples. A few wells are used for municipal or irrigation purposes. No specific information is available regarding the aquifer the wells draw from. **Figure 20** depicts well usage (Colorado Division of Water Resources, 2012.).

Figure 20: Well Usage in Study Area



Source: Colorado Division of Water Resources, 2012

### Next Steps

Mitigation measures that protect water rights will be required as part of any improvements that would impact water supplies.

Construction projects resulting from this study may require dewatering permits, depending on the local groundwater levels. Dewatering permits typically involve conversion of an existing well to a dewatering system. Groundwater monitoring may also be necessary to confirm no contamination has occurred. This would require obtaining a well permit from the Colorado Division of Water Resources (Colorado Division of Water Resources, 2012).

Next steps for water well resources during the NEPA process include:

- A detailed analysis of the project design impacts to existing water wells;
- A plan for avoidance of existing wells during and after construction;
- Identification of the necessary permits for construction activities;
- Assessment of the need for groundwater monitoring before, during, and after the project; and
- Coordination with local planners and other city officials.

## Parks and Recreation Resources (Section 4(f)/6(f))

This section describes the parklands and recreational areas in the study area. Section 4(f) of the Department of Transportation Act of 1966 stipulates that the FHWA and other Department of Transportation agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historic sites unless there is no feasible and prudent alternative to the use of land, and the action includes all possible planning to minimize harm to the property resulting from use.

The Land and Water Conservation Fund (LWCF) Act of 1965 established a Federal funding program to assist states in developing outdoor recreation sites. Section 6(f) of the act prohibits the conversion of property acquired or developed with these funds to a non-recreational purpose without the approval of the National Park Service (NPS) (NPS, 2008).

The Town of Bennett *Parks, Trails and Open Space Master Plan (2009)*, the *Adams County Open Space, Parks & Trails Plan (2012)*, and the *Bennett Regional Trail Plan (2011)* were consulted in combination with a survey of GIS data provided by Adams County and Arapahoe County to identify existing and future parks and recreation facilities within the study area. The Town of Bennett has 18 acres of parks (Adams County 2012). The town has also included open space elements in future planning and identifies “developing new facilities which are complementary to the Town’s existing parks, trails and open space systems” and “improv[ing] access to facilities through the development of pedestrian and bicycle pathways and trails” as objectives for future planning. These elements include both developed parks and passive open space, with natural resources and riparian areas that will be preserved.

Adams County has identified recreational opportunities, including horseback riding, natural trail, picnic area, and wildlife watching, in the vicinity of Kiowa Creek northeast of Bennett. The county’s 2012 *Open Space, Parks & Trails Plan* recommends designating the land surrounding Kiowa Creek as open space and to allow for the creation of publicly accessible trails, noting that the trail could connect to Arapahoe County’s open space system currently underway with the newly acquired Kiowa Creek Open Space Park (Adams County 2012).

Six existing park and trail facilities and 18 planned park and trail facilities were identified within the study area. These facilities are listed in **Table 17** and depicted in **Figure 21**.

### Land and Water Conservation Fund Resources

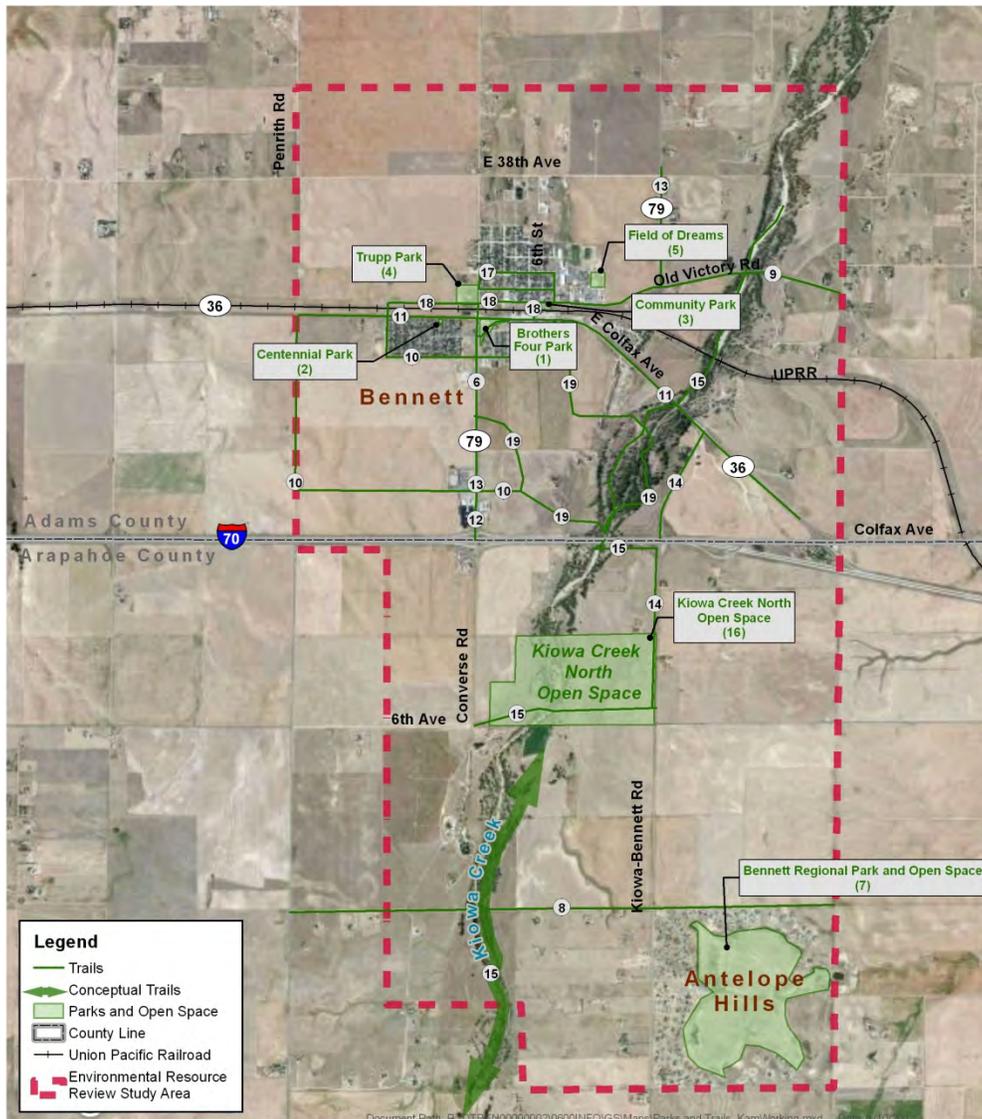
A file search was conducted in November 2012 to determine whether LWCF 6(f) funds were used on any facilities within the study area. One facility was identified; the Bennett Swimming Pool located at Bennett Middle School, 400 7th St. Bennett, CO 80102.

**Table 17. Existing and Proposed Park and Trail Facilities**

MAP NUMBER	FACILITY NAME	FACILITY TYPE
<b>Existing Park and Trail Facilities</b>		
1	Brothers Four Park	Neighborhood Park
2	Centennial Park	Neighborhood Park
3	Community Park	Neighborhood Park
4	Trupp Park	Community Park
5	Field of Dreams	Special Use Park
6	Unnamed Trail	Greenway
<b>Proposed Park and Trail Facilities</b>		
--	Adams County Trailhead (not shown on map)	Trailhead
7	Antelope Hills Park	Neighborhood Park
8	Alameda Corridor Trail	Off-Street Multi-Use Trail
--	Arapahoe County Trailhead (not shown on map)	Trailhead
9	Bennett-Strasburg Trail / Old Victory Road	Off-Street Multi-Use Trail
--	Downtown Trailhead/Parking Facility (not shown on map)	Trailhead
10	East Town Loop Trail	Off-Street Trail Route
11	US 36/Colfax Ave Trail / Watkins-Strasburg Bike Route	On-Street Bike Route
12	SH 79 Bike Lane	On-Street Bike Route
13	SH 79 Trail	On-Street Bike Route
14	Kiowa-Bennett Road/SH 79 Trail	On-Street Bike Route / Off-Street Multi-Use Trail
15	Kiowa Creek Trail	Off-Street Multi-Use Trail
16	Kiowa Creek North Open Space	Open Space Conservation Area
17	Neighborhood-School Bike Route	On-Street Bike Route
18	Palmer Ave Trail	On-Street Bike Route / Off-Street Multi-Use Trail
19	West Town Loop Trail	Off-Street Trail Route
20	Kiowa Creek Greenway	Greenway

Source: Town of Bennett Parks, Trails and Open Space Master Plan, 2009, Bennett Regional Trail Plan, 2011, Adams County Open Space, Parks & Trails Plan (2012), Adams County and Arapahoe County GIS Data

Figure 21: Planned and Future Park and Trail Facilities



Source: Town of Bennett Parks, Trails and Open Space Master Plan, 2009, Bennett Regional Trail Plan, 2011, Adams County and Arapahoe County GIS Data

Note: Numbers correspond to Table 17: Existing and Proposed Park and Trail Facilities

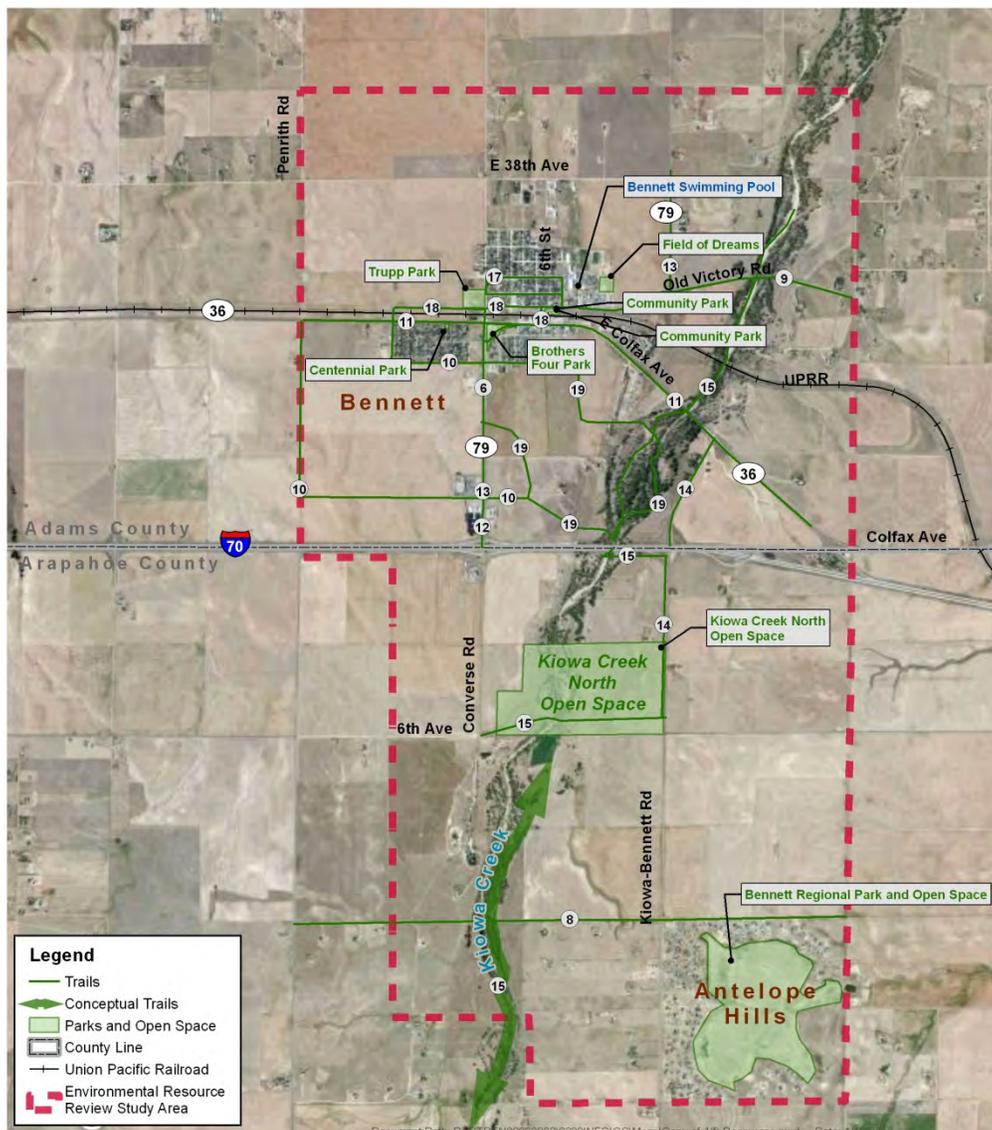
#### Section 4(F) Resources

The following seven potential Section 4(f) resources exist within the study area as depicted in **Figure 22**:

- Brothers Four Park is a 2.9 acre parcel under the jurisdiction of the Town of Bennett. It is located at the intersection of SH 79 and Colfax Avenue/US 36.
- Centennial Park is a 0.4 acre parcel under the jurisdiction of the Town of Bennett. It is located at the intersection of Madison Way and Hancock Court within a residential subdivision. (605 Madison Way)
- Community Park is a 1.7 acre parcel under the jurisdiction of the Town of Bennett. It is located south of the SH 79 and Palmer Avenue intersection.

- Field of Dreams is a 4.3 acre parcel under the jurisdiction of the Town of Bennett. It is the Town's only baseball field and is located on the Bennett Middle School campus near Washington Way and Greg's Place.
- Trupp Park is a 7.1 acre parcel under the jurisdiction of the Town of Bennett. It is located at the intersection of N Converse Road and Palmer Avenue.
- Unnamed Trail is an off-street multi-use trail and extends approximately 1 mile south from Brothers Four Park, terminating at the commercial development located north of the I-70 and SH 79 interchange.
- Kiowa Creek North Open Space is a 265 acre parcel under the jurisdiction of Arapahoe County. It is located approximately 1 mile south of the I-70 and SH 79 interchange on North County Road and is a planned conservation area with public access.

**Figure 22: Known Section 4(f) and LCWF Resources**



Source: Town of Bennett Parks, Trails and Open Space Master Plan, 2009, Bennett Regional Trail Plan, 2011, Adams County Open Space, Parks & Trails Plan (2012), Adams County and Arapahoe County GIS Data

## Next Steps

During the alternatives development, the conceptual design will be modified to avoid impacts to parks and recreational resources wherever possible.

Next steps for impacts to Section 4(f) resources *prior to* the NEPA process include:

- Once the alternatives being considered have been screened, potential Section 4(f) properties adjacent to the remaining alternatives should be evaluated for Section 4(f) Applicability.
- Avoidance and Minimization measures considered during the alternatives evaluation will be documented as part of this PEL study process for use in the future Section 4(f) evaluation.
- The Adams County Parks & Community Resources Department suggests limiting transportation impacts in the area of Kiowa Creek and considering or accommodating a public trail running north/south under new crossings of the creek.

Next steps for impacts to Section 4(f) resources *during* the NEPA process include:

- A detailed analysis of the impacts of the project design to parkland and recreational resources; and
- A Section 4(f) evaluation which includes: avoidance of park and recreational resources; mitigation, or measures to minimize harm; documentation of feasible and prudent avoidance alternatives; and coordination with FHWA and officials with jurisdiction.

## For 6(f) properties:

The primary reason to define impacts to properties protected by 6(f) is to avoid a conversion of these properties during the project construction. If a conversion of land cannot be avoided, efforts should be made to minimize or mitigate effects to these properties. During NEPA, the lead agencies must mitigate any impacts to these properties with a replacement of lands of equal value, location and usefulness of the impacted land.

## Threatened and Endangered Species

Consideration of biological resources in the study area must consider area vegetation, wildlife and habitat such as riparian areas, wetlands and/or Waters of the U.S. (WUS). Impacts associated with roadway improvements have the potential to cause habitat loss, the spread of noxious weeds, impacts to aquatic species due to impacts to water resources and impacts wildlife downstream as a result of depletions to the South Platte River.

The project team reviewed existing information on wildlife, and threatened, endangered and special-status species that could occur within the study area near Bennett, Colorado. The study area was assessed for:

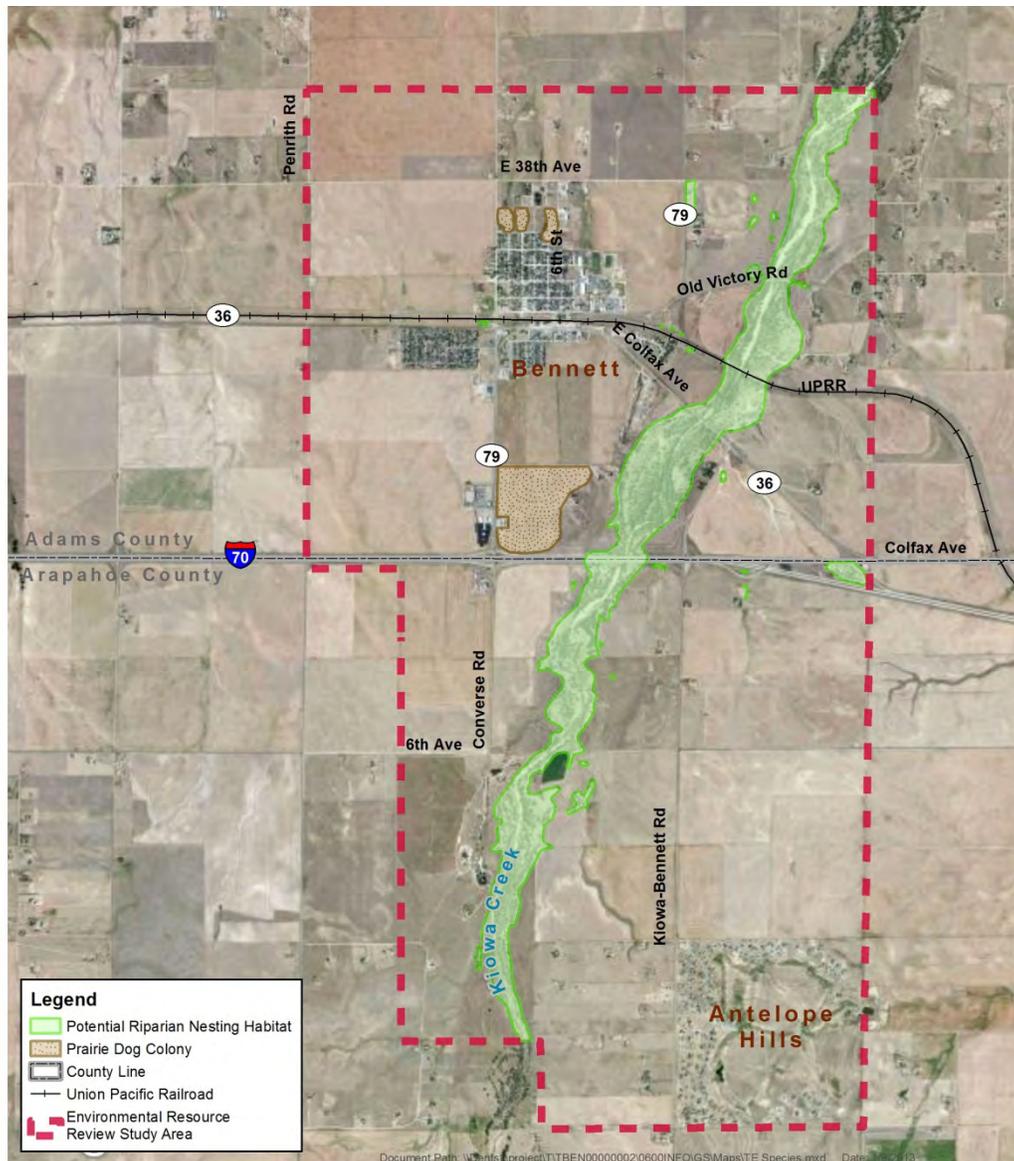
- Habitat types;
- Habitat for state- and federally-listed species;
- Prairie dogs;
- Migratory birds including raptors; and
- Any other potential environmental concern associated with wildlife.

Background data reviewed for the study area included the following:

- Federally-listed species for the SH 79 Study Area obtained from the USFWS Information, Planning, and Conservation System (IPaC) (USFWS, 2012a); and
- A list of Colorado State Species of Concern obtained from the Colorado Parks and Wildlife (CPW) (CPW, 2012a).

The potential areas for threatened and endangered species are shown in **Figure 23**.

**Figure 23: Threatened and Endangered Species**



Source: Pinyon Environmental, 2012

### Federally-Listed Threatened and Endangered Species

There are nine federally-listed species with potential to occur in or be impacted by projects in the study area (USFWS, 2012a). Minimal habitat was observed for several of the federally-listed species.

Depletions of the South Platte River are not anticipated as a result of the project; therefore, downstream species are not likely to be impacted.

Three of the nine listed species are associated with sub-irrigated soils along stream and floodplains in riparian habitat. These listed species include Preble's meadow jumping mouse (PMJM) (*Zapus hudsonius preblei*), the Colorado butterfly plant (CBP) (*Gaura neomexicana* spp. *coloradensis*) and the Ute ladies'-tresses orchid (ULTO) (*Spiranthes diluvialis*) (USFWS, 2012a). The habitat is marginal along Kiowa Creek, having poorly defined riparian, shrub and herbaceous layers, and it is unlikely that these species would occur in the study area.

Five species are listed because they occur downstream of the study area along the South Platte River, and could be impacted by projects that would result in water depletions: interior least tern (*Sternula antillarum*), pallid sturgeon (*Scaphirhynchus albus*), piping plover (*Charadrius melodus*), whooping crane (*Grus americana*) and western prairie fringed orchid (*Platanthera praeclara*) (USFWS, 2012a). The proposed project is not anticipated to alter the flow of the water to the South Platte River; therefore, there would be no potential to impact these species.

No suitable habitat occurs in the study area for the remaining species, the Mexican spotted owl (*Strix occidentalis*), which live in mixed conifer forests and rocky canyons (USFWS, 2012a). This habitat does not exist in the study area.

### State-listed Species

The habitat preferences and known locations of state-specific Species of Concern with the potential to occur in the study area were also researched (CPW, 2012a). Black-tailed prairie dogs (*Cynomys ludovicianus*) habitat was observed in the project study area. Two areas of active prairie dogs were observed in two areas of the project study area: 1) a large area in a vacant field northeast of the Interstate 70 (I-70) and County Road 133 (CR 133) intersection, and 2) vacant land just north of Bennett, north of Truman Avenue. Black-tailed prairie dogs may provide nesting habitat for burrowing owls (*Athene cunicularia*), which are a state Species of Concern and also protected under the Migratory Bird Treaty Act (MBTA) (CPW, 2012a and CPW, 2012b). There is moderate potential for the northern leopard frog (*Rana pipiens*) and the common garter snake (*Thamnophis sirtalis*), both State Species of Concern, to occur in the wetland habitat along Kiowa Creek, ditches, ponds, and stormwater detention basins within the study area.

### Migratory Bird Treaty Act

The MBTA protects all birds their nests, and their eggs (except for pigeons [*Columba livia domestica*] and starlings [*Sturnus vulgaris vulgaris*]) (MBTA, 1918). Bald eagles (*Haliaeetus leucocephalus*) were removed from the endangered species list in 2007, but continue to receive protection under the MBTA and the Bald and Golden Eagle Protection Act (Eagle Act). The USFWS is responsible for enforcement of both these acts, and works in cooperation with the CPW. The CPW has published guidelines on buffer distances to minimize impacts to nesting raptors (CDOW, 2008).

Tree removal, vegetation grubbing, earth moving, and other construction activities have the potential to destroy nests of bird species protected under the MBTA. Nearby construction activities during the breeding season may cause raptors to abandon nests. Similarly, winter construction activities may cause bald eagles to abandon roosting areas and the USFWS has published guidelines to minimize disturbance (USFWS, 2007).

Although raptor nests were not observed in the study area, the mature trees throughout the study area, especially along Kiowa Creek, provide raptor nesting habitat. In addition, the mature trees may also

provide winter roost sites for bald eagles. Bridges and larger culverts may also provide habitat for swallows, although swallows were not observed during the site visit.

### Next Steps

Burrowing owls and raptor nesting habitat were observed in the study area. In Colorado, most nesting and rearing activities occur between April 1 and August 31, but raptors may nest as early as February 15. These dates are guidelines and nesting birds are protected at all times. The project will schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture or kill; attempt to take, capture, kill or possess) migratory birds protected by the MBTA. Pre-construction surveys for nesting birds will be completed and will follow the methods set forth by the USFWS and CPW.

Swallows were not observed in the study area, but bridges and larger culverts in the study area could provide habitat. Nesting locations may change from year to year, and areas will be re-surveyed prior to construction. No bridge or box culvert work will take place if there are nesting birds present. Bridge or box culvert work that may disturb nesting birds will be completed before birds begin to nest or after the young have fledged (typically between April 1 and August 31). If work activities are planned between these dates, old swallow nests will be removed before nesting begins and appropriate measures taken to assure no new nests are built prior to construction. Appropriate measures to keep birds from nesting include installing plastic sheeting to prevent swallows from accessing the bridge or removing any new nests within three days. Failure to keep new nests from becoming established may postpone project construction.

The necessary wildlife coordination will be conducted during future NEPA processes according to CPW or USFWS survey protocol. This may include a formal concurrence request from the USFWS that no federally-listed species would be adversely affected by the project.

## Wetlands, Waters of the U.S., and Noxious Weeds

Wetlands, Waters of the U.S. (WUS), and noxious weeds evaluations were completed of the study area near Bennett, Colorado. Section 404 of the Clean Water Act protects wetlands and waters of the United States (USEPA, 1972). DRCOG's *MetroVision 2035 Plan* (February 2011) also acknowledges the importance of protecting regional surface waters, riparian areas and wetlands by committing to preserve and protect them from the planned increase in development. Field maps of the study area were prepared and reviewed for potential wetlands and WUS was reviewed prior to a site visit. Potential wetlands and WUS areas were marked on aerial photography, and noxious weed species identified were noted. A preliminary assessment of feature types and flow directions was made based on United States Geographic Survey (USGS) maps and field observations. Features named are based on USGS data and GIS data. Formal wetland delineations were not performed at this stage of the project. Following the site visits, any areas that could not be accessed were evaluated more closely on aerial photographs. Potential wetlands and WUS were then mapped using GIS.

### Wetlands

Because the area is primarily used for agriculture, several irrigation ditches and small stock ponds occur within the study area. The ditches are generally well-defined with unconsolidated channels. Wetlands were generally not associated with the ditches as they appeared to be highly channelized and ephemeral. The dominating water feature in the study area is Kiowa Creek. The creek traverses the

study area from the southwest corner to the northeast corner of the project boundary. The creek was dry at the time of the site visits. Generally, the vegetation abutting the creek was marginal for wetland vegetation. In areas where the creek is constricted, it appeared that water potentially overflowed into the adjacent upland benches, allowing for the development of more defined wetlands. Therefore, the creek has the potential to sustain fringe wetlands along its banks, especially in areas where the ordinary high water mark (OHWM) is narrow and where flows could overtop the creek channel and disperse laterally from the creek channel. Potential wetland and WUS features are summarized in **Table 18** and shown in **Figure 24**.

**Table 18: Potential Wetland and Waters of the U.S. Identified in the Study Area**

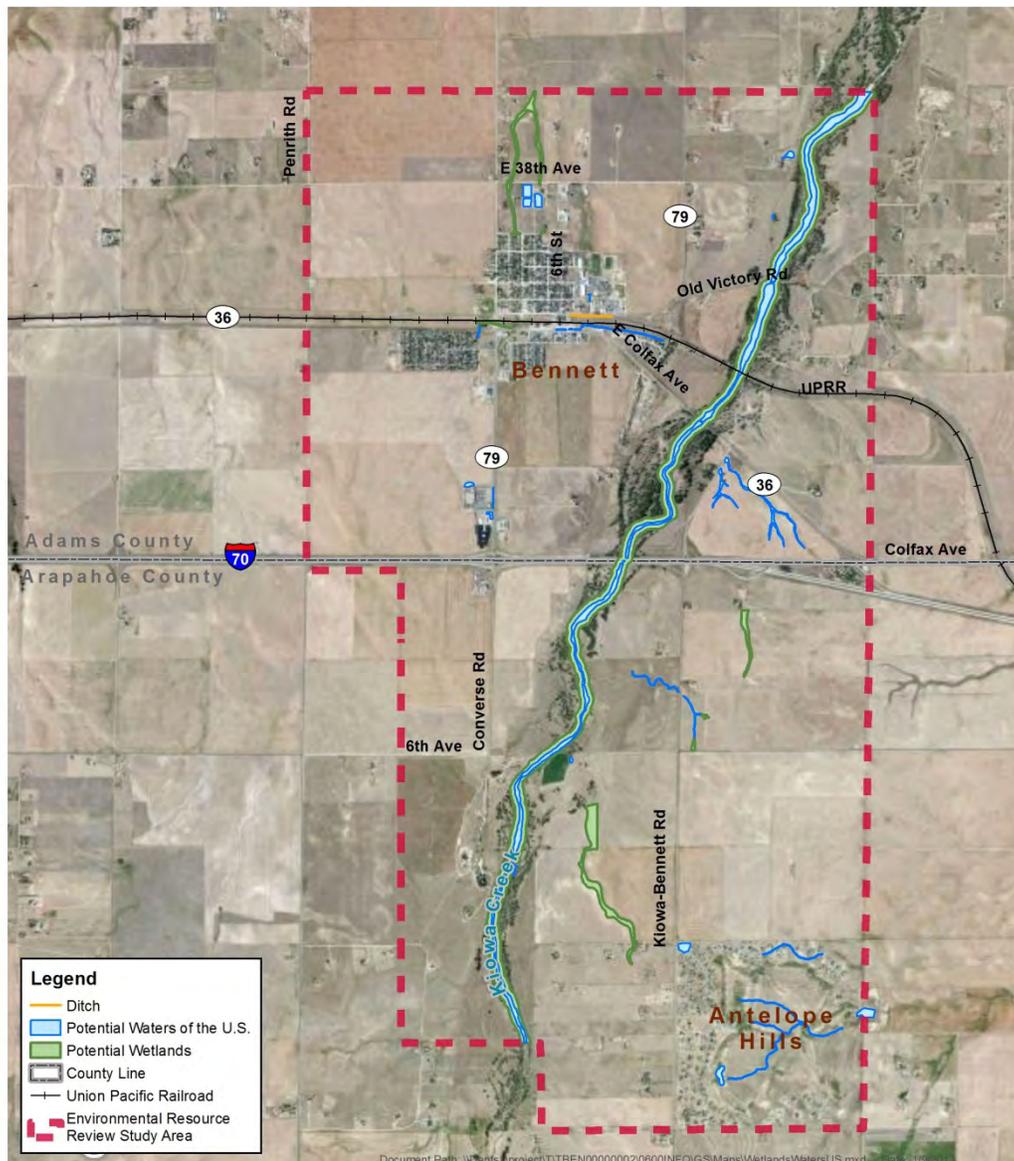
NAME OR UNIQUE IDENTIFIER	FLOW DIRECTION*	SOURCE*	NOTES
<b>Wetlands</b>			
Kiowa Creek	Northeast	Precipitation/Groundwater	Fringe wetlands along Kiowa Creek, more defined in areas where the channel of the Creek is constricted causing flow to overtop and disperse laterally from the Creek channel.
WL-1	North	Precipitation/Groundwater	Depressional herbaceous wetland area that receives seasonal precipitation. Shown on the USGS map as an ephemeral drainage. Two distinct channels occur north and south of 38th Ave north of Bennett.
WL-2	North	Precipitation/Groundwater	Depressional herbaceous wetland area that receives seasonal precipitation. Appears to be a remnant of WL-1 and may have once been connected to WL-1.
WL-3	East	Stormwater	Drainage located between UPRR and Colfax Ave/US 36 in the southern part of Bennett. It is dominated by herbaceous wetland species.
WL-4	North	Precipitation/Groundwater	Depressional area shown on the USGS map as an ephemeral drainage. Not accessed in field. Area digitized from aerial photo. Appears to be dominated by herbaceous species.
WL-5	NA	Precipitation/Groundwater and Stormwater	Low-lying area at the end of Ditch-5, NE of Kiowa-Bennett Rd and 6th Ave. Dominated by herbaceous species.
WL-6	NA	Precipitation/Groundwater	Low-lying area at the end of Ditch-5 in the field NE of Kiowa-Bennett Rd and 6th Ave. Area digitized from aerial photo. Appears to be dominated by herbaceous species.
WL-7	Northwest	Precipitation/Groundwater	Depressional area shown on the USGS map as an ephemeral drainage. Generally located east of Kiowa Creek and west of Kiowa-Bennett Rd in the southern portion of the study area. Not accessed in field. Area digitized from aerial photo. Appears to be dominated by herbaceous species.
<b>WUS/Open Waters</b>			
Kiowa Creek	Northeast	Natural	Ephemeral drainage. Dry at the time of the site visit.
OW-1	None	Man-made	Series of three man-made gravel ponds located south of 38th Ave, north of Bennett. No wetlands observed with the ponds.
OW-2	None	Man-made	Man-made stock pond associated with a farm house in the NE corner of the study area. Possible that there is an outlet to Kiowa Creek, but could not confirm this due to access issues. Pond digitized from aerial photo.

NAME OR UNIQUE IDENTIFIER	FLOW DIRECTION*	SOURCE*	NOTES
OW-3	Northwest	Precipitation/Groundwater	Ephemeral drainage. Channel was dry during site visit. Located in a field between Colfax Ave/US 36 and I-70.
OW-4	Northwest	Precipitation/Groundwater	Ephemeral drainage. Channel was dry during site visit. Located in a field between Colfax Ave/US 36 and I-70.
OW-5	None	Stormwater	Stormwater detention pond associated with King Soopers commercial area.
OW-6	None	Stormwater	Stormwater detention pond associated with King Soopers commercial area.
OW-7	None	Stormwater	Stormwater drainage associated with King Soopers commercial area.
OW-8	None	Stormwater	Stormwater detention pond associated with Bennett High School area.
OW-9	None	Man-made	Man-made stock pond associated with farm house in the NE corner of the study area. Pond digitized from aerial photo.
OW-10	None	Man-made	Man-made stock pond associated with farm land in southern portion of the study area, east of Kiowa Creek. Possible that there is an outlet to Kiowa Creek, but could not confirm this due to access issues. Pond digitized from aerial photo.
OW-11	None	Man-made	Man-made stock pond associated with a farm land in the southern portion of the study area, east of Kiowa Creek. Possible that there is an outlet to Kiowa Creek, but could not confirm this due to access issues. Pond digitized from aerial photo.
OW-12	None	Stormwater	Stormwater detention area associated with Antelope Hills subdivision. Located in the NW corner of Antelope Hills development.
OW-13	None	Man-made	Man-made pond for Antelope Hills Golf Course.
OW-14	None	Man-made	Man-made pond for Antelope Hills Golf Course.
Ditch-1	East	Irrigation	Approximately 10- to 15-ft wide ditch that meanders through Antelope Hills Golf Course. There are several branches of ditch.
Ditch-2	East	Irrigation/Stormwater	Roughly 5-ft wide concrete-lined ditch along the south side of West Antelope Hills Drive.
Ditch-3	East	Irrigation	Approx. 10- to 15-ft wide ditch between Colfax Ave/US 36 and UPRR. Appears to dead end before reaching Kiowa Creek.
Ditch-4	North	Irrigation/Stormwater	Approx. 10-ft wide ditch that runs north from a residential area in the SW part of Bennett. Appeared to be hydrologically connected to WL-3.
Ditch-5	Northwest	Precipitation/Groundwater	Defined drainage that may have once connected to Kiowa Creek. Terminal ends of the drainage are associated with WL-5 and WL-6.
Ditch-6	None	Stormwater	Roughly 5-ft wide roadside ditch, south of Palmer Ave in Bennett.

Source: Pinyon Environmental, 2012.

\*Type and flow direction are based on field observations, existing GIS Data and USGS topographic maps

Figure 24: Wetlands and Waters of the U.S. in the Study Area



Source: Pinyon Environmental, 2012

### Next Steps

Under the Section 404 of the Clean Water Act, impacts to WUS, including wetlands and open water features, must be avoided, minimized, or mitigated to ensure that there is no net loss of functions and values of jurisdictional wetlands (USEPA, 1972). To the extent practicable, future planning and design will incorporate avoidance and minimization of impacts to known wetland areas. Where avoidance and minimization would not be practicable, mitigation for impacts to wetlands could be achieved through the use of temporary and permanent Best Management Practices (BMPs).

A Section 404 permit would likely be required from the USACE to authorize placement of dredge or fill material in any WUS including wetlands. Impacts under 0.5 acre are often permitted under existing Nationwide Permits (NWP), such as Number 14 which covers linear transportation projects. Impacts greater than 0.5 acre would require obtaining an Individual Permit. An Individual Permit includes a

public notice and would trigger a NEPA clearance for the USACE. Generally, mitigation would be required under either permit type for impacts exceeding 0.1 acre of jurisdictional WUS or wetlands. Prior to application for a permit, a wetland delineation survey would need to be conducted to document wetland boundaries and impact footprints.

To the extent practicable, future planning and design should incorporate avoidance and minimization of impacts to known wetland and WUS areas. Where avoidance and minimization would not be practicable, mitigation for impacts to wetlands could be achieved through the use of temporary and permanent BMPs and replacement of lost wetlands at a 1:1 ratio. Coordination and Section 404 permitting through the USACE could be done earlier to facilitate avoidance during subsequent NEPA processes. The type of USACE permit (Nationwide or Individual), and level of documentation for CDOT, if needed, will be determined after design of the preferred alternative is selected and impacts are known.

CDOT regulates wetlands regardless of USACE jurisdiction. A CDOT Wetland Findings report may be required if permanent wetland impacts exceed 500 square feet or if temporary impacts exceed 1,000 square feet, regardless of whether USACE has jurisdiction. This does not include impacts to open water areas.

### Noxious Weeds

The project is located in a predominantly rural area dominated by agricultural properties, with the exception of Bennett, which provides numerous landscaped areas associated with adjacent commercial and residential properties. The State of Colorado noxious weed list (Colorado Department of Agriculture [CDOA] 2012) was reviewed prior to a site visit. Weeds present within the project boundaries are typical of Colorado Front Range roadsides and disturbed areas. However, it is expected that additional weeds are present in the study area. Weeds within the study area are shown in **Table 19** and categorized according to the Colorado Department of Agriculture. No Category A species were identified, which are those designated for eradication and require prevention of seed production or development of reproductive propagules.

**Table 19: Noxious Weeds in the Study Area**

COMMON NAME	SCIENTIFIC NAME	STATE WEED LIST
Canada thistle	<i>Cirsium arvense</i>	B
Cheatgrass	<i>Bromus tectorum</i>	C
Common mullein	<i>Verbascum thapsus</i>	C
Field bindweed	<i>Convolvulus arvensis</i>	C

Source: CDOA, 2012

Notes: B: species are managed and controlled by a noxious weed management plan, with the goal of stopping the continued spread of these species. C: species for which a project would develop management plans with the goal of supporting jurisdictions that choose to require management of those species.

### Next Steps

Preparation of an Integrated Noxious Weed Management Plan, which would include steps to control existing noxious weeds, would be required. Weeds in the study area should be mapped during the growing season and an Integrated Weed Management Plan may be warranted to reduce the spread of noxious weeds within the study area.

## Noise

Noise is defined as any unwanted sound. As mobility increases, transportation, in particular, can be a key source of noise across modes, from airports to rail to new roads. An overview of the study area existing noise conditions was conducted to determine noise sensitive locations within the study limits. This information will later be used for the alternatives screening process.

The existing conditions noise analysis was performed in accordance with the requirements of Title 23 Code of Federal Regulations Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, using methodology established by CDOT in their *Noise Analysis and Abatement Guidelines* (2011). A noise sensitive site is any property (owner occupied, rented, or leased) where frequent exterior human use occurs and where a lowered noise level would be of benefit. CDOT has established noise levels at which noise abatement must be considered. Known as Noise Abatement Criteria (NAC), these criteria vary according to a property's land use category and are described in **Table 20**.

**Table 20: CDOT Noise Abatement Criteria**

ACTIVITY CATEGORY	L <sub>EQ</sub> (h)	DESCRIPTION OF LAND USE ACTIVITY CATEGORY
A	56 dBA (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 dBA (Exterior)	Residential
C	66 dBA (Exterior)	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	51 dBA (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 dBA (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, ship yards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	Undeveloped lands that are not permitted for development.

Source: CDOT *Noise Analysis and Abatement Guidelines* (2011)

CDOT has determined that a traffic noise impact occurs when the projected traffic noise levels meet or exceed the NAC levels, or when projected noise levels substantially exceed existing noise conditions. CDOT defines "substantially exceeding the existing noise levels" as an increase of 10 dBA or more over the existing levels (CDOT 2011).

### Existing Noise Sensitive Locations

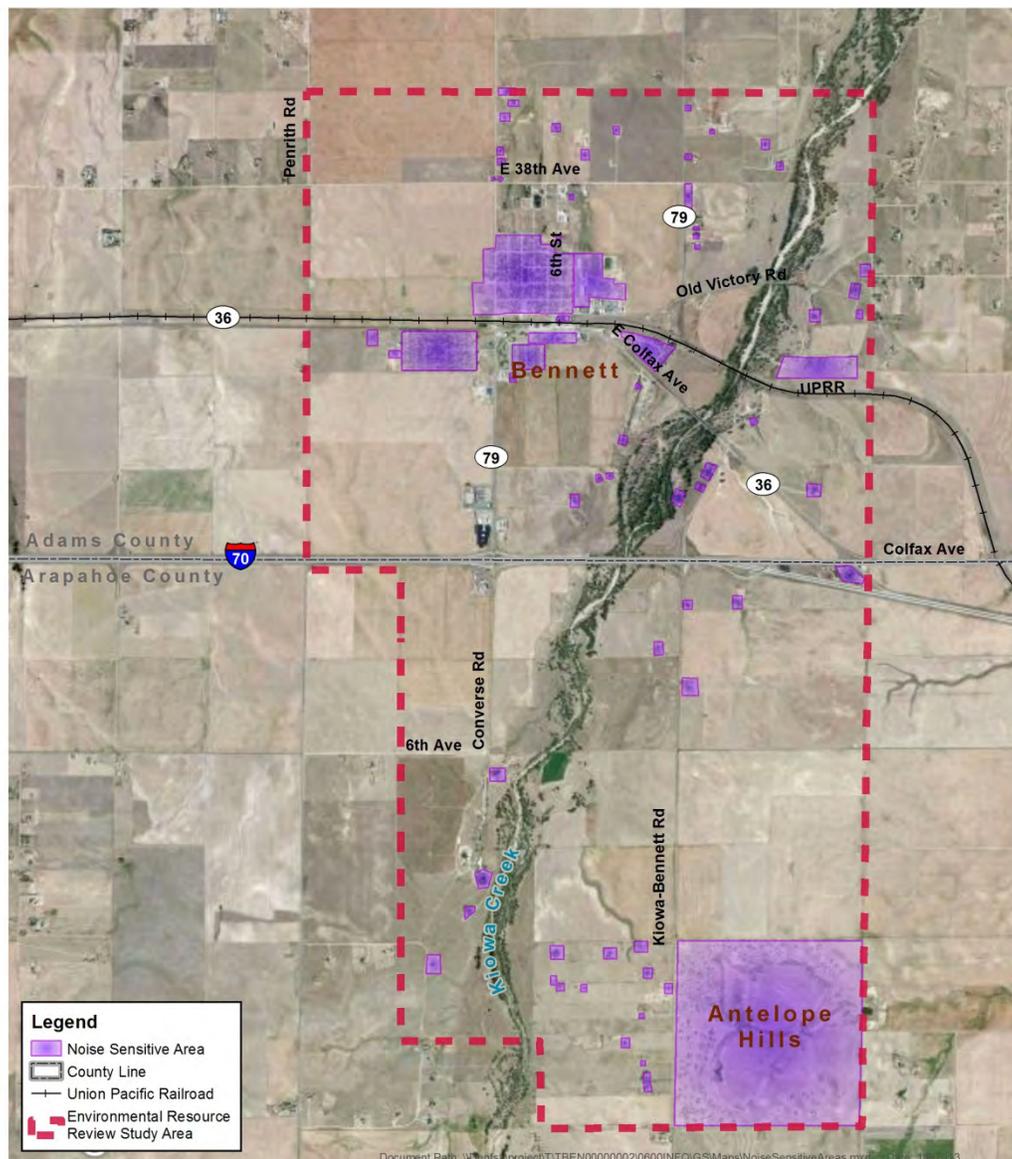
Existing land uses within the study limits were observed and all potential noise sensitive receivers were documented. The locations with noise-sensitive activity categories NAC B and NAC C are shown in **Figure 25**. The following summarizes each Activity Category within the project limits:

- No NAC A land uses were observed within the project limits.
- The NAC B land uses are highlighted in Figure 2 by neighborhood within the core Bennett area and Antelope Hills, and individual homes are highlighted in rural areas. Due to the high level of the study, neighborhoods that contain NAC B receivers were identified, but every receiver located within a neighborhood was not identified.
- Some NAC C land uses exist within the core Bennett area, which are highlighted as one large shaded area of potential receivers. The following are examples of NAC C sites in the project limits that may be impacted by roadway traffic noise:
  - Town parks and playgrounds
  - Bennett middle school and charter school
  - Churches
  - Bennett Cemetery
  - Antelope Hills golf course
- Interior noise readings, NAC D, will not be considered for this project.
- NAC E land uses include restaurants, offices, gas stations, and other commercial use within the study area. These land uses are typically located within town limits or along SH 79 near I-70. This activity category requires that a threshold of 71 dBA be reached in order to consider mitigation. Property owners of NAC E land uses typically prefer accessibility and visibility to their business over lowered noise levels, so NAC E land uses are not shown in Figure 2.
- Category NAC F includes industrial and agriculture uses. There are several NAC F sites within the core Bennett area, and in rural areas this category includes manufacturing and farming uses. These locations are considered to generate significant on-site noise and are therefore not considered noise sensitive receivers.

Undeveloped lands that do not have permitted development are not included in noise analyses.

Noise from traffic emanates from four primary sources: tire/road interface, engines, aerodynamics, and exhaust stacks. Roadway traffic noise depends on the number of vehicles travelling on the road, the number of heavy vehicles using the roadway, and the speeds at which the vehicles travel. Within Bennett town limits where the speeds are between 25 and 35 miles per hour (mph), the existing noise impacts for NAC B and C receivers likely do not exceed more than 25 feet past the edge of pavement. Where the speed limit is posted at 45 mph, the expected existing noise impacts for NAC B and C receivers are likely less than 100 feet from the roadway based on the current traffic volumes. Rural locations typically have low existing noise levels, so a new roadway would be more likely to cause a significant increase over existing noise levels.

Figure 25: Noise Sensitive Locations



Source: Atkins North America, 2012

### Next Steps

When alternatives are developed, a noise assessment will be performed to determine noise sensitive sites that may be impacted by the proposed alternatives. Typically, any receivers within 500 feet of the roadway are included in the analysis to ensure that they will not exceed the NAC threshold. In a location where a new roadway alignment is proposed, any receivers within 1,000 feet should be analyzed to determine whether a substantial increase in noise is anticipated. Future NEPA studies will analyze a preferred alternative in detail, and at that time, a detailed noise study will be performed. The noise study will include modeling existing and future conditions to determine if mitigation may be required. For noise mitigation to be recommended as part of the project, it must be considered both “reasonable and feasible” based on CDOT criteria.

## Community Impacts

### Neighborhood/Business Displacement

ROW comprises the land use to operate and maintain transportation facilities in the study area. Neighborhoods comprised of individual residences and commercial areas, including individual businesses, may be impacted due to ROW acquisition if warranted by the project. Impacts to the community may occur if land is acquired for ROW from privately owned property and incorporated as part of the proposed project. Existing ROW widths were identified using assessor parcel data provided by Arapahoe and Adams Counties (2012).

ROW within the study area is generally under the jurisdiction of the FHWA, UPRR, CDOT, and the local municipalities. Approximate existing ROW widths for the study area roadways are identified below<sup>1</sup>:

- **I-70:** ROW ranges from 378 feet to 424 feet (with ROW widths at the interchange areas being much larger to accommodate the on/off ramps). The ROW width at the interchanges ranges from 930 to 1585 feet.
- **SH 79:** ROW ranges from 76 to 110 feet. Through Bennett, the ROW is about 75 feet. The greatest width occurs north of the I-70 interchange at 110 feet with the average ROW at approximately 85 to 90 feet.
- **Kiowa-Bennett Road:** ROW ranges from 78 to 106 feet. The I-70 interchange has a larger ROW of 785 feet to accommodate the ramps.
- **Colfax Avenue/US 36:** ROW ranges from 90 feet to 500 feet. The overall ROW averages approximately 130 feet outside of Bennett to 85 feet within Bennett.

### Next Steps

The following steps can be taken to avoid, minimize, or mitigate private property acquisition and associated residential or business relocations:

- Impacts to private properties can be avoided or minimized during the alternatives development process by shifting roadway alignments or adding retaining walls to limit acquisition. Preliminary alternative footprints will be overlaid with recent aerial images and parcel data to identify potential impacts.
- If property acquisition is required for ROW, acquisition proceedings would not occur until the project was cleared through the NEPA process and final design was completed. Any acquisitions would conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and the Uniform Relocation Act Amendments of 1987 (as amended). For all real property acquired, the property owner will be paid just compensation.
- Opportunities for the participation and consultation of communities affected by the proposed project will be provided at each stage of the project development process.

<sup>1</sup> ROW impacts were determined by measuring between parcel outlines using GIS data provided by Arapahoe and Adams Counties (2012). If no specific ROW data was available, a GIS-based measurement was used and a range of impacts is available (e.g. "ROW ranges from 90 to 500 feet").

The next step will be to develop and evaluate alternatives. During this process, potential impacts to neighborhoods, businesses, and individual residences will be identified. Stakeholders will be provided with opportunities to provide input and express concerns related to the project.

### Community Barrier

Transportation projects can have negative impacts on a community by introducing a “barrier effect.” For example, construction or widening of a roadway may isolate or cut off one section of a neighborhood, separating residents from their neighbors and the businesses and community facilities or services they use. Transportation projects can also have beneficial impacts, by reducing the amount of residential cut-through traffic, improving pedestrian and bicycle facilities, improving mobility (both motorized and non-motorized), increased opportunity for neighbor interactions, and relocating community facilities or services to a more accessible location.

Existing and future land use data was reviewed for indicators of barrier effects, such as neighborhoods divided by transportation facilities, or isolation of a neighborhood from a community facility. The predominant activity center is Bennett, which is comprised of both residential and community facilities. Within the town, the UPRR is a substantial transportation barrier. This railroad separates the southern portion of the town from the schools and public services available to the north of the railroad. While there are only two crossings of the railroad (Palmer Avenue and SH 79/Adams Street), there are several informal footpaths that have been created by people crossing the tracks.

The other existing transportation barrier in the area is I-70, which was constructed through the area in the late 1960s (CDOT, 2009). The interstate does not divide any subdivisions, however, the interstate did create a barrier effect to the property owners and residents in the community who wish to easily access areas north or south of the interstate. There are limited access points at which residents can cross the interstate: the SH 79 overpass and the Kiowa Bennett Road overpass. There are currently no pedestrian facilities to safely cross I-70 within the study area.

Kiowa Creek acts as a natural barrier separating the properties on either side of it. Property adjacent to the creek is rural in nature and undeveloped, so it creates less of a barrier effect.

**Figure 26** shows the location of commercial, retail, and public facilities in the study area (Colorado State Department of Labor and Employment, 2012). Nearly all of the area’s commercial, retail, and public service buildings are located in downtown Bennett, though there are several retail and commercial facilities in Antelope Hills and near the SH 79 and I-70 interchange.

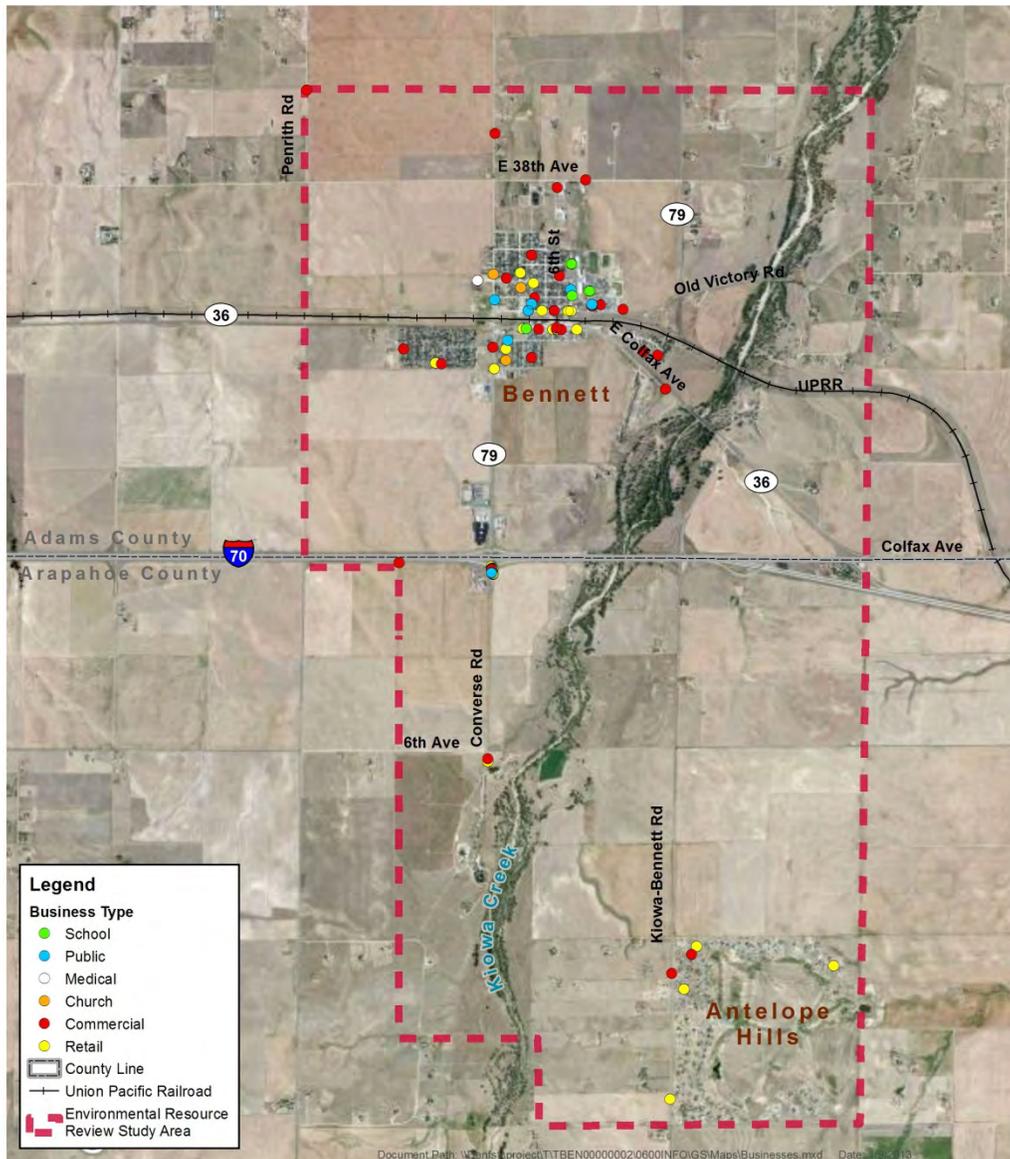
### Next Steps

Potential impacts will be identified for each land use, business, or residence affected by the recommendations of the study, with mitigation measures to be evaluated in a future NEPA process. To the extent possible, impacts will be avoided or minimized by rerouting of road alignments, bridging or other methods to avoid direct impacts. Where avoidance is not technically or economically feasible, potential impacts will be evaluated.

Because land use planning is under the purview of local agencies, ongoing coordination with local planners is an important part of the process and will be an essential part of future project development to ensure that changes resulting from any recommendations are compatible with the intent of the local agencies’ visions for the area. Ongoing conversations with property owners, businesses, and residences potentially affected will also be a critical part of future project development. A more detailed assessment of the businesses or residences potentially affected will be needed. During the final

planning and design process, this information can be used to identify avoidance options or mitigation measures to assist with concerns as a result of construction and ongoing operations.

**Figure 26: Commercial, Retail, and Public Facilities**



Source: Colorado Department of Labor and Employment, October 22, 2012

## Prime and Unique Farmlands

Productive agricultural farmland supports local communities and economies. Prime and unique farmlands are valued resources that can produce food and other important crops. A preliminary analysis of existing prime and unique farmlands was performed to investigate the existence of these resources within the study area as to determine the potential for future development concerns.

Prime farmland is land that has the best combination of physical characteristics for producing food, feed, fiber and oilseed crops. The farmlands' combination of soil properties, growing season, and moisture supply produce sustained high yields of crops when it is treated and managed according to acceptable farming methods. Land is considered prime farmland if it meets the following criteria (Soil Survey Staff 2012):

- Protected from flooding or not frequently flooded during the growing season
- Has an adequate and dependable water supply
- Reclaimed of excess salts, sodium, and rocks
- The product of I (soil erodibility) x C (Climate factor) does not exceed 60 (such that the wind erodibility is not too great)

Unique farmland is non-prime farmland that can be used to produce high-value food and fiber crops. This land is economically valuable because it has the potential to yield to yield high returns of these specialized crops (Soil Survey Staff 2012).

To determine whether any prime or unique farmland soils of statewide or local importance are present in the study area, data were downloaded from the 2012 NRCS Soil Data Mart database. The Natural Resources Conservation Service (NRCS) identified several categories of soil types that are protected in the study area. **Figure 27** depicts the farmlands that are potentially prime and unique.

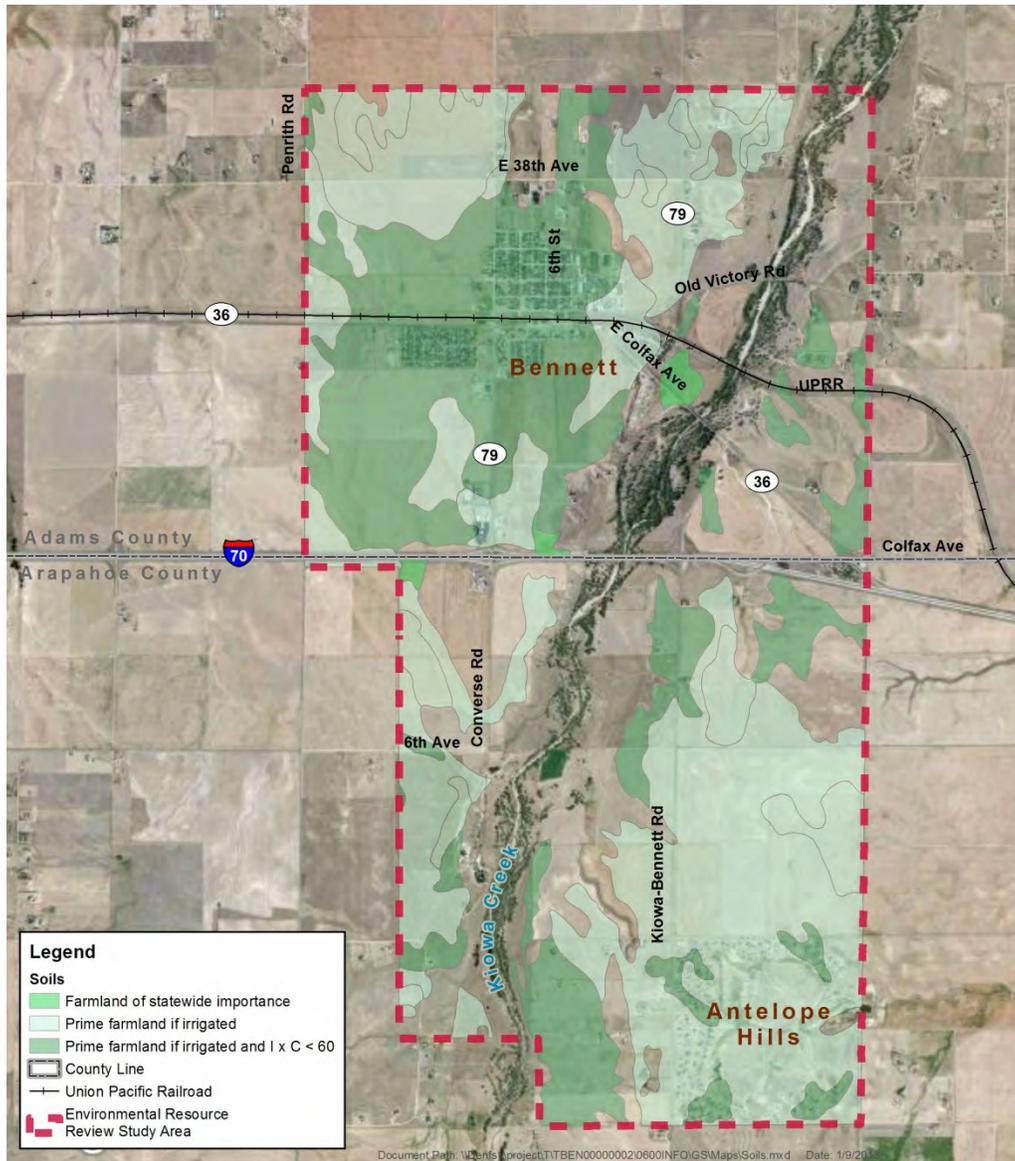
### Next Steps

The next steps for prime and unique farmland resources include:

- A detailed analysis of the project design impacts to existing prime and unique farmlands;
- Identification of the necessary permits for construction activities;
- Assessment of the need for groundwater monitoring before, during, and after the project; and
- Coordination with local planners and other local officials.

Ongoing coordination with local planners and NRCS representatives will be an essential part of future project development to ensure that changes resulting from any recommendations are compatible with environmental regulations and the local planning offices. Additionally, ongoing conversations with property owners, businesses, and residences potentially affected will also be a critical part of future project development.

Figure 27: Prime and Unique Farmlands



Source: Natural Resources Conservation Service (NRCS), October 15, 2012

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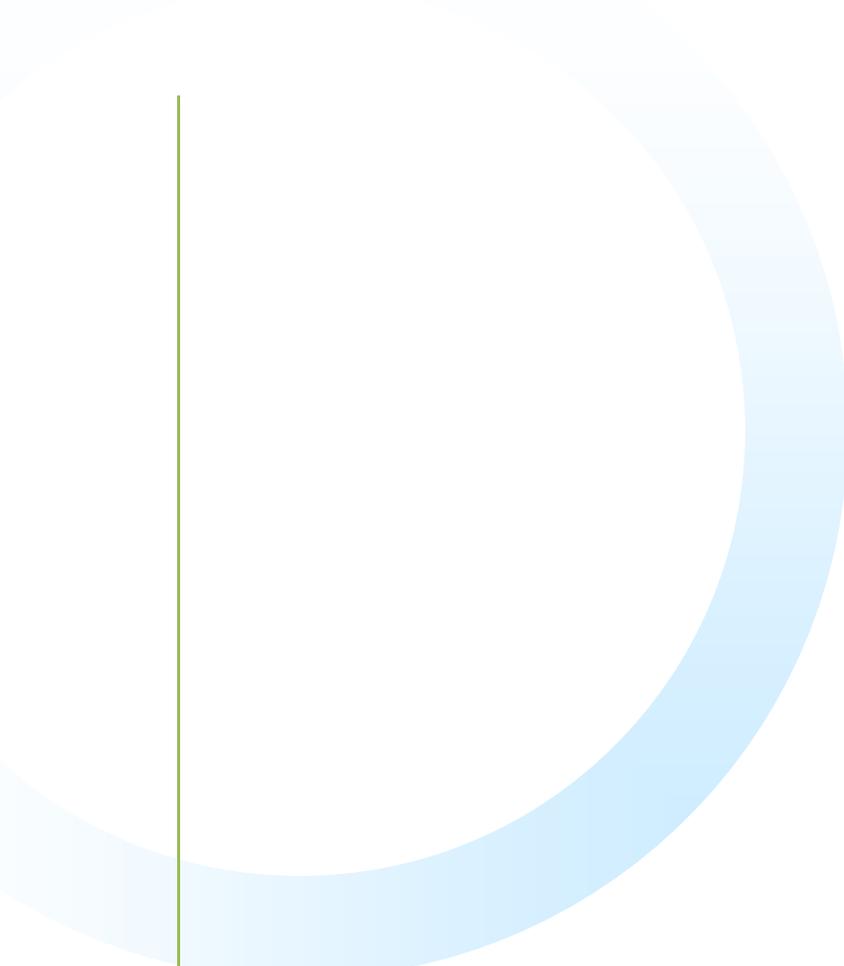
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# **APPENDIX A**

## **TRAFFIC DATA**







Site Code: 5  
 Station ID:

CONVERSE RD N/O MARKET PLACE NORTH ACCES

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	1	10	1	0	0	0	0	0	2	0	0	0	0	14
01:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
02:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
03:00	0	4	0	0	0	0	0	0	1	0	0	0	0	5
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	0	16	4	0	1	0	0	0	2	0	0	0	0	23
06:00	1	41	11	0	2	10	0	0	2	0	0	0	0	67
07:00	1	135	24	0	7	0	0	0	3	0	0	0	0	170
08:00	2	95	18	0	5	0	0	1	2	0	0	0	0	123
09:00	3	138	21	0	1	1	0	1	4	0	0	0	0	169
10:00	1	139	19	0	3	1	0	1	5	0	0	0	0	169
11:00	3	139	28	0	0	3	0	1	9	1	0	0	0	184
12 PM	1	149	33	0	6	1	0	3	4	0	0	0	0	197
13:00	5	156	19	0	0	0	0	1	5	0	0	0	0	186
14:00	3	173	22	0	6	0	0	2	6	1	0	0	0	213
15:00	0	257	31	3	9	2	0	1	2	0	0	0	0	305
16:00	6	340	40	1	7	2	0	0	5	0	0	0	0	401
17:00	3	329	45	2	7	1	0	1	5	1	0	0	0	394
18:00	4	258	45	0	3	1	0	2	1	0	0	0	0	314
19:00	0	173	25	0	2	0	0	1	6	0	0	0	0	207
20:00	2	120	14	0	2	0	1	0	2	0	0	0	0	141
21:00	1	49	18	0	1	0	0	0	1	0	0	0	0	70
22:00	3	35	12	0	2	0	0	0	3	0	0	0	0	55
23:00	0	23	4	0	1	0	0	0	1	0	0	0	0	29
Total	40	2799	435	6	65	22	1	15	72	3	0	0	0	3458
Percent	1.2%	80.9%	12.6%	0.2%	1.9%	0.6%	0.0%	0.4%	2.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	09:00	10:00	11:00		07:00	06:00		08:00	11:00					11:00
Vol.	3	139	28		7	10		1	9	1				184
PM Peak	16:00	16:00	17:00	15:00	15:00	15:00	20:00	12:00	14:00	14:00				16:00
Vol.	6	340	45	3	9	2	1	3	6	1				401



Site Code: 5  
 Station ID:

CONVERSE RD N/O MARKET PLACE NORTH ACCES

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	20	2	0	0	0	0	0	0	0	0	0	0	22
01:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	6	4	1	0	0	0	0	0	0	0	0	0	11
04:00	0	5	1	0	1	0	0	0	1	0	0	0	0	8
05:00	0	18	4	0	0	3	0	0	1	0	0	0	0	26
06:00	0	39	9	0	2	0	0	0	5	0	0	0	0	55
07:00	1	133	20	1	3	0	0	0	12	0	0	0	0	170
08:00	1	116	24	1	6	2	0	0	6	0	0	0	0	156
09:00	1	93	18	0	4	0	0	1	2	0	0	0	0	119
10:00	1	103	24	0	2	0	0	2	6	0	0	0	0	138
11:00	1	82	16	0	7	1	0	1	4	0	0	0	0	112
12 PM	1	136	30	0	6	1	0	3	4	0	0	0	0	181
13:00	5	139	17	0	0	0	0	1	5	0	0	0	0	167
14:00	3	156	19	0	6	0	0	2	6	1	0	0	0	193
15:00	0	231	27	3	9	2	0	1	2	0	0	0	0	275
16:00	6	307	36	1	7	2	0	0	5	0	0	0	0	364
17:00	1	299	34	1	9	1	0	2	5	0	0	0	0	352
18:00	2	301	41	0	5	0	0	0	1	0	0	0	0	350
19:00	3	157	31	0	4	0	0	0	2	0	0	0	0	197
20:00	0	96	18	0	2	0	0	2	0	0	0	0	0	118
21:00	0	57	11	0	1	1	0	0	1	0	0	0	0	71
22:00	0	39	6	0	1	0	0	0	0	0	0	0	0	46
23:00	0	20	4	0	0	0	0	0	1	0	0	0	0	25
Total	26	2565	396	8	75	13	0	15	69	1	0	0	0	3168
Percent	0.8%	81.0%	12.5%	0.3%	2.4%	0.4%	0.0%	0.5%	2.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	03:00	11:00	05:00		10:00	07:00					07:00
Vol.	1	133	24	1	7	3		2	12					170
PM Peak	16:00	16:00	18:00	15:00	15:00	15:00		12:00	14:00	14:00				16:00
Vol.	6	307	41	3	9	2		3	6	1				364
Grand Total	66	5364	831	14	140	35	1	30	141	4	0	0	0	6626
Percent	1.0%	81.0%	12.5%	0.2%	2.1%	0.5%	0.0%	0.5%	2.1%	0.1%	0.0%	0.0%	0.0%	



Site Code: 5  
 Station ID:

CONVERSE RD N/O MARKET PLACE NORTH ACCES

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	2	10	0	0	0	0	0	0	3	0	0	0	0	15
01:00	0	9	0	0	0	0	0	0	2	0	0	0	0	11
02:00	3	5	0	0	0	0	0	0	0	0	0	0	0	8
03:00	2	11	1	0	0	0	0	0	0	0	0	0	0	14
04:00	2	37	4	0	1	0	0	0	2	0	0	0	0	46
05:00	7	93	2	0	1	0	0	0	2	0	0	0	0	105
06:00	13	161	7	0	5	0	0	0	3	0	0	0	0	189
07:00	15	218	7	0	0	0	0	0	7	0	0	0	0	247
08:00	9	213	7	0	1	1	0	0	4	0	0	0	0	235
09:00	6	158	9	0	1	2	0	0	5	0	0	0	0	181
10:00	10	154	6	0	1	3	0	1	5	0	0	0	0	180
11:00	9	188	4	0	2	1	0	0	9	1	0	0	0	214
12 PM	11	201	7	0	3	2	0	1	11	2	0	0	0	238
13:00	7	142	6	0	0	4	0	0	5	0	0	0	0	164
14:00	3	142	5	0	0	1	0	0	1	0	0	0	0	152
15:00	5	168	9	0	1	4	0	0	8	1	0	0	0	196
16:00	10	226	12	0	4	7	0	1	9	0	0	0	0	269
17:00	6	228	5	0	0	5	0	0	4	0	0	0	0	248
18:00	8	209	6	0	3	4	0	0	2	0	0	0	0	232
19:00	8	143	5	0	1	0	0	1	0	0	0	0	0	158
20:00	6	126	3	0	1	0	0	1	1	0	0	0	0	138
21:00	3	43	2	0	0	0	0	0	1	0	0	0	0	49
22:00	1	39	0	0	2	0	0	0	1	0	0	0	0	43
23:00	1	21	0	0	0	0	0	0	4	0	0	0	0	26
Total	147	2945	107	0	27	34	0	5	89	4	0	0	0	3358
Percent	4.4%	87.7%	3.2%	0.0%	0.8%	1.0%	0.0%	0.1%	2.7%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00		06:00	10:00		10:00	11:00	11:00				07:00
Vol.	15	218	9		5	3		1	9	1				247
PM Peak	12:00	17:00	16:00		16:00	16:00		12:00	12:00	12:00				16:00
Vol.	11	228	12		4	7		1	11	2				269



Site Code: 5  
 Station ID:

CONVERSE RD N/O MARKET PLACE NORTH ACCES

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	1	7	0	0	0	0	0	0	2	0	0	0	0	10
01:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
02:00	1	7	0	0	1	0	0	0	0	0	0	0	0	9
03:00	3	9	1	0	1	0	0	0	1	0	0	0	0	15
04:00	2	28	1	0	0	1	0	0	0	0	0	0	0	32
05:00	7	94	1	0	0	2	0	1	1	0	0	0	0	106
06:00	16	159	6	0	4	0	0	0	7	0	0	0	0	192
07:00	14	209	9	1	1	2	0	0	6	0	0	0	0	242
08:00	9	210	8	0	2	2	0	0	14	0	0	0	0	245
09:00	7	127	13	0	0	2	0	0	3	0	0	0	0	152
10:00	6	170	4	0	1	2	0	1	9	0	0	0	0	193
11:00	12	156	4	0	1	0	0	0	12	0	0	0	0	185
12 PM	10	184	7	0	3	2	0	1	10	2	0	0	0	219
13:00	7	128	6	0	0	4	0	0	5	0	0	0	0	150
14:00	3	128	5	0	0	1	0	0	1	0	0	0	0	138
15:00	5	151	9	0	1	4	0	0	8	1	0	0	0	179
16:00	10	202	10	0	4	7	0	1	9	0	0	0	0	243
17:00	8	219	5	0	0	4	0	0	6	0	0	0	0	242
18:00	10	191	4	0	2	3	0	1	4	0	0	0	0	215
19:00	12	158	5	0	0	1	0	0	6	1	0	0	0	183
20:00	4	103	4	0	0	0	0	0	5	0	0	0	0	116
21:00	1	49	2	0	0	0	0	0	5	1	0	0	0	58
22:00	1	23	1	0	0	0	0	0	3	0	0	0	0	28
23:00	0	13	0	0	0	0	0	0	1	0	0	0	0	14
Total	149	2732	105	1	21	37	0	5	118	5	0	0	0	3173
Percent	4.7%	86.1%	3.3%	0.0%	0.7%	1.2%	0.0%	0.2%	3.7%	0.2%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	09:00	07:00	06:00	05:00		05:00	08:00					08:00
Vol.	16	210	13	1	4	2		1	14					245
PM Peak	19:00	17:00	16:00		16:00	16:00		12:00	12:00	12:00				16:00
Vol.	12	219	10		4	7		1	10	2				243
Grand Total	296	5677	212	1	48	71	0	10	207	9	0	0	0	6531
Percent	4.5%	86.9%	3.2%	0.0%	0.7%	1.1%	0.0%	0.2%	3.2%	0.1%	0.0%	0.0%	0.0%	



Site Code: 6  
 Station ID:  
 COLFAX AVE W/O PENRITH RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	7	1	0	0	0	0	0	0	0	0	0	0	8
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
03:00	1	1	2	0	0	0	0	0	0	0	0	0	0	4
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	7	2	0	3	0	0	0	0	0	0	0	0	12
07:00	0	28	6	0	4	2	0	0	0	0	0	0	0	40
08:00	0	20	6	0	2	0	0	0	1	0	0	0	0	29
09:00	0	13	8	0	4	1	0	1	1	0	0	0	0	28
10:00	2	21	6	0	1	0	0	0	1	0	0	0	0	31
11:00	3	19	7	0	4	0	0	1	2	0	0	0	0	36
12 PM	3	18	12	1	5	0	0	1	0	0	0	0	0	40
13:00	3	28	1	0	2	2	0	1	2	0	0	0	0	39
14:00	0	23	5	0	0	1	0	0	4	0	0	0	0	33
15:00	3	44	6	0	4	0	0	0	0	0	0	0	0	57
16:00	5	45	16	0	12	0	0	1	2	0	0	0	0	81
17:00	3	56	17	0	6	1	0	1	1	0	0	0	0	85
18:00	0	52	14	1	3	0	0	0	1	0	0	0	0	71
19:00	1	21	4	0	3	0	0	1	0	0	0	0	0	30
20:00	1	15	6	0	3	0	0	0	0	0	0	0	0	25
21:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
22:00	0	7	2	0	0	0	0	1	0	0	0	0	0	10
23:00	1	10	0	0	0	0	0	0	0	0	0	0	0	11
Total	27	447	127	2	57	7	0	8	15	0	0	0	0	690
Percent	3.9%	64.8%	18.4%	0.3%	8.3%	1.0%	0.0%	1.2%	2.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	09:00		07:00	07:00		09:00	11:00					07:00
Vol.	3	28	8		4	2		1	2					40
PM Peak	16:00	17:00	17:00	12:00	16:00	13:00		12:00	14:00					17:00
Vol.	5	56	17	1	12	2		1	4					85



Site Code: 6  
 Station ID:  
 COLFAX AVE W/O PENRITH RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	8	0	0	0	0	0	0	0	0	0	0	0	8
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
05:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	7	2	0	2	0	0	1	0	0	0	0	0	12
07:00	0	23	5	0	5	2	0	0	1	0	0	0	0	36
08:00	0	18	11	0	3	0	0	0	0	0	0	0	0	32
09:00	1	14	1	0	3	0	0	1	0	0	0	0	0	20
10:00	0	18	10	0	4	0	0	0	2	0	0	0	0	34
11:00	0	24	8	1	1	1	0	0	0	0	0	0	0	35
12 PM	0	23	7	0	1	0	0	2	2	0	0	0	0	35
13:00	0	24	8	0	4	2	0	1	1	0	0	0	0	40
14:00	0	29	11	0	3	0	0	0	0	0	0	0	0	43
15:00	0	35	12	0	2	0	0	0	0	0	0	0	0	49
16:00	1	45	16	0	5	0	0	0	0	0	0	0	0	67
17:00	1	46	12	0	4	0	0	0	0	0	0	0	0	63
18:00	0	31	7	0	3	0	0	1	0	0	0	0	0	42
19:00	0	28	6	0	4	0	0	0	0	0	0	0	0	38
20:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
21:00	0	24	2	0	0	0	0	0	0	0	0	0	0	26
22:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
23:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
Total	3	431	125	1	47	5	0	6	6	0	0	0	0	624
Percent	0.5%	69.1%	20.0%	0.2%	7.5%	0.8%	0.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	08:00	11:00	07:00	07:00		06:00	10:00					07:00
Vol.	1	24	11	1	5	2		1	2					36
PM Peak	16:00	17:00	16:00		16:00	13:00		12:00	12:00					16:00
Vol.	1	46	16		5	2		2	2					67
Grand Total	30	878	252	3	104	12	0	14	21	0	0	0	0	1314
Percent	2.3%	66.8%	19.2%	0.2%	7.9%	0.9%	0.0%	1.1%	1.6%	0.0%	0.0%	0.0%	0.0%	



Site Code: 6  
 Station ID:  
 COLFAX AVE W/O PENRITH RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	2	6	0	0	0	0	0	0	0	0	0	0	0	8
04:00	0	5	2	0	1	0	0	0	1	0	0	0	0	9
05:00	2	19	4	0	3	0	0	0	0	0	0	0	0	28
06:00	0	41	15	0	5	0	0	0	1	0	0	0	0	62
07:00	4	34	9	0	4	0	0	0	1	0	0	0	0	52
08:00	1	28	12	0	3	0	0	0	1	0	0	0	0	45
09:00	1	24	6	0	4	0	0	0	2	0	0	0	0	37
10:00	0	19	6	0	4	0	0	0	1	0	0	0	0	30
11:00	3	17	12	0	4	0	0	0	0	1	0	0	0	37
12 PM	2	20	8	0	5	7	0	1	5	0	0	0	0	48
13:00	1	18	10	0	1	2	0	1	1	0	0	0	0	34
14:00	4	23	2	0	1	0	0	0	3	0	0	0	0	33
15:00	0	16	13	1	4	2	0	0	3	0	0	0	0	39
16:00	1	26	5	1	7	0	0	0	0	0	0	0	0	40
17:00	1	21	4	0	1	0	0	0	0	0	0	0	0	27
18:00	0	21	5	0	2	0	0	1	1	0	0	0	0	30
19:00	0	22	7	0	4	0	0	0	0	0	0	0	0	33
20:00	0	13	0	0	2	0	0	0	0	0	0	0	0	15
21:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
22:00	1	6	3	0	1	0	0	0	0	0	0	0	0	11
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	23	389	125	2	56	11	0	3	20	1	0	0	0	630
Percent	3.7%	61.7%	19.8%	0.3%	8.9%	1.7%	0.0%	0.5%	3.2%	0.2%	0.0%	0.0%	0.0%	
AM Peak	07:00	06:00	06:00		06:00				09:00	11:00				06:00
Vol.	4	41	15		5				2	1				62
PM Peak	14:00	16:00	15:00	15:00	16:00	12:00		12:00	12:00					12:00
Vol.	4	26	13	1	7	7		1	5					48



Site Code: 6  
 Station ID:  
 COLFAX AVE W/O PENRITH RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	1	5	0	0	0	0	0	0	0	0	0	0	0	6
04:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
05:00	0	25	6	0	3	0	0	0	0	0	0	0	0	34
06:00	1	35	15	0	6	0	0	0	0	0	0	0	0	57
07:00	0	36	9	0	1	0	0	0	0	0	0	0	0	46
08:00	0	41	6	0	2	0	0	0	1	0	0	0	0	50
09:00	0	15	7	0	1	0	0	0	0	0	0	0	0	23
10:00	0	17	4	0	1	0	0	0	0	0	0	0	0	22
11:00	1	23	7	0	6	0	0	1	0	0	0	0	0	38
12 PM	0	24	7	1	3	2	0	1	0	0	0	0	0	38
13:00	0	20	6	0	5	0	0	0	1	0	0	0	0	32
14:00	0	18	5	0	2	2	0	0	0	0	0	0	0	27
15:00	0	25	9	0	3	0	0	1	0	0	0	0	0	38
16:00	0	26	6	0	6	0	0	0	0	0	0	0	0	38
17:00	0	21	3	0	2	0	0	2	0	0	0	0	0	28
18:00	1	15	5	0	1	0	0	0	0	0	0	0	0	22
19:00	0	24	1	0	2	0	0	0	0	0	0	0	0	27
20:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
21:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
22:00	0	3	1	0	1	0	0	0	0	0	0	0	0	5
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Total	4	409	102	1	46	4	0	5	2	0	0	0	0	573
Percent	0.7%	71.4%	17.8%	0.2%	8.0%	0.7%	0.0%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	03:00	08:00	06:00		06:00			11:00	08:00					06:00
Vol.	1	41	15		6			1	1					57
PM Peak	18:00	16:00	15:00	12:00	16:00	12:00		17:00	13:00					12:00
Vol.	1	26	9	1	6	2		2	1					38
Grand Total	27	798	227	3	102	15	0	8	22	1	0	0	0	1203
Percent	2.2%	66.3%	18.9%	0.2%	8.5%	1.2%	0.0%	0.7%	1.8%	0.1%	0.0%	0.0%	0.0%	



Site Code: 8  
 Station ID:  
 PALMER AVE-SH79 E/O ADAMS ST

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	3	0	0	0	0	0	1	2	0	0	0	0	6
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	1	0	0	0	0	0	2	0	0	0	0	5
03:00	0	2	0	0	1	0	0	0	1	0	0	0	0	4
04:00	0	1	1	0	0	0	0	0	1	0	0	0	0	3
05:00	0	13	6	0	1	0	0	0	5	0	0	0	0	25
06:00	0	35	12	0	4	2	0	1	3	0	0	0	0	57
07:00	1	221	26	0	15	3	0	4	3	1	0	0	0	274
08:00	0	81	24	0	5	12	1	4	6	0	0	0	0	133
09:00	0	53	20	0	1	1	0	3	7	0	0	0	0	85
10:00	0	66	19	0	6	8	0	1	8	0	0	0	0	108
11:00	2	96	24	0	4	6	0	1	16	0	0	0	0	149
12 PM	1	84	18	2	1	3	0	6	6	0	0	1	0	122
13:00	0	82	25	0	2	3	0	6	6	0	0	0	0	124
14:00	0	75	14	0	5	1	0	3	13	1	0	0	0	112
15:00	0	142	27	2	8	2	0	2	6	0	0	0	0	189
16:00	2	185	38	0	7	5	0	3	5	0	0	1	1	247
17:00	0	119	23	2	19	2	0	4	7	1	0	0	0	177
18:00	1	94	27	0	6	1	0	3	6	0	0	0	3	141
19:00	0	65	12	1	1	1	0	1	5	0	0	0	0	86
20:00	0	47	8	1	3	0	0	1	3	0	0	0	0	63
21:00	0	14	4	0	0	0	0	0	4	0	0	0	0	22
22:00	0	13	1	0	0	0	0	0	2	0	0	0	0	16
23:00	0	3	1	0	0	0	0	0	5	0	0	0	0	9
Total	7	1499	331	8	89	50	1	44	122	3	0	2	4	2160
Percent	0.3%	69.4%	15.3%	0.4%	4.1%	2.3%	0.0%	2.0%	5.6%	0.1%	0.0%	0.1%	0.2%	
AM Peak	11:00	07:00	07:00		07:00	08:00	08:00	07:00	11:00	07:00				07:00
Vol.	2	221	26		15	12	1	4	16	1				274
PM Peak	16:00	16:00	16:00	12:00	17:00	16:00		12:00	14:00	14:00		12:00	18:00	16:00
Vol.	2	185	38	2	19	5		6	13	1		1	3	247



Site Code: 8  
 Station ID:  
 PALMER AVE-SH79 E/O ADAMS ST

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	2	0	0	1	0	0	0	0	0	0	0	0	3
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	4	1	1	0	0	0	0	0	0	0	0	8
04:00	0	2	0	0	1	0	0	0	4	0	0	0	0	7
05:00	0	12	7	0	1	3	0	0	1	0	0	0	0	24
06:00	0	46	8	0	5	0	0	0	5	0	0	0	1	65
07:00	3	251	31	0	15	2	0	2	10	1	0	0	0	315
08:00	1	134	24	0	6	2	0	1	3	0	0	0	0	171
09:00	0	69	21	2	6	3	0	2	3	1	0	0	0	107
10:00	1	84	15	0	4	0	0	2	12	2	0	0	0	120
11:00	1	90	16	2	7	0	1	1	12	0	0	0	0	130
12 PM	0	85	28	0	4	2	0	4	4	0	0	0	0	127
13:00	1	86	16	0	8	2	0	3	9	2	0	0	0	127
14:00	0	54	18	1	5	2	0	1	6	0	0	0	0	87
15:00	2	126	28	0	2	0	0	4	5	0	0	0	0	167
16:00	1	172	34	0	8	1	0	0	4	2	1	0	0	223
17:00	1	124	16	1	12	1	0	3	8	0	0	0	0	166
18:00	1	81	15	0	1	1	0	1	10	0	0	0	0	110
19:00	0	64	11	0	4	1	0	1	6	0	0	0	0	87
20:00	0	26	4	0	3	0	0	0	3	0	0	0	0	36
21:00	0	23	3	0	2	0	0	0	0	0	0	0	0	28
22:00	0	7	1	0	0	0	0	0	2	0	0	0	0	10
23:00	0	4	1	0	0	0	0	0	4	0	0	0	0	9
Total	12	1548	302	7	96	20	1	25	111	8	1	0	1	2132
Percent	0.6%	72.6%	14.2%	0.3%	4.5%	0.9%	0.0%	1.2%	5.2%	0.4%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	05:00	11:00	07:00	10:00	10:00			06:00	07:00
Vol.	3	251	31	2	15	3	1	2	12	2			1	315
PM Peak	15:00	16:00	16:00	14:00	17:00	12:00		12:00	18:00	13:00	16:00			16:00
Vol.	2	172	34	1	12	2		4	10	2	1			223
Grand Total	19	3047	633	15	185	70	2	69	233	11	1	2	5	4292
Percent	0.4%	71.0%	14.7%	0.3%	4.3%	1.6%	0.0%	1.6%	5.4%	0.3%	0.0%	0.0%	0.1%	



Site Code: 8  
 Station ID:  
 PALMER AVE-SH79 E/O ADAMS ST

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	5	1	0	0	0	0	0	3	0	0	0	0	9
01:00	0	2	0	0	0	0	0	0	2	0	0	0	0	4
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	12	1	0	1	0	0	0	1	0	0	0	0	15
05:00	0	31	13	0	0	0	0	0	2	0	0	0	0	46
06:00	0	58	11	0	9	0	0	1	4	1	0	0	0	84
07:00	3	133	13	0	8	0	0	2	4	1	0	0	0	164
08:00	0	128	25	0	6	0	0	1	9	0	0	0	0	169
09:00	1	75	14	0	5	5	0	0	8	0	0	0	0	108
10:00	2	63	21	0	3	8	0	2	3	0	0	0	0	102
11:00	1	91	21	0	3	17	0	1	8	0	0	0	0	142
12 PM	1	86	33	0	1	6	1	2	14	2	0	0	0	146
13:00	0	70	18	0	4	0	1	1	7	0	0	0	0	101
14:00	0	56	10	0	6	1	0	4	3	0	0	0	0	80
15:00	2	80	15	1	3	0	0	4	9	1	0	0	0	115
16:00	1	200	34	0	8	0	1	1	9	1	0	0	0	255
17:00	1	126	13	1	4	2	0	2	9	1	0	0	0	159
18:00	0	104	18	1	3	0	0	0	4	0	0	0	0	130
19:00	0	64	10	1	2	1	0	0	0	0	0	0	0	78
20:00	0	77	8	2	1	0	0	0	1	0	0	0	0	89
21:00	0	17	3	0	0	1	0	1	1	0	0	0	0	23
22:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
23:00	0	6	1	0	0	0	0	0	3	0	0	0	0	10
Total	12	1500	283	6	67	41	3	22	104	7	0	0	0	2045
Percent	0.6%	73.3%	13.8%	0.3%	3.3%	2.0%	0.1%	1.1%	5.1%	0.3%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00		06:00	11:00		07:00	08:00	06:00				08:00
Vol.	3	133	25		9	17		2	9	1				169
PM Peak	15:00	16:00	16:00	20:00	16:00	12:00	12:00	14:00	12:00	12:00				16:00
Vol.	2	200	34	2	8	6	1	4	14	2				255



Site Code: 8  
 Station ID:  
 PALMER AVE-SH79 E/O ADAMS ST

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	4	0	0	0	0	0	0	2	0	0	0	0	6
01:00	0	2	0	0	0	0	0	0	1	0	0	0	0	3
02:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
03:00	0	3	0	0	1	0	0	0	1	0	0	0	0	5
04:00	0	12	1	0	0	0	0	1	0	0	0	0	0	14
05:00	0	27	18	0	2	2	0	0	2	0	0	0	0	51
06:00	0	53	11	0	11	0	0	0	3	0	0	0	0	78
07:00	3	134	18	1	5	4	0	0	4	0	0	0	1	170
08:00	0	135	25	0	10	2	0	3	7	0	0	0	1	183
09:00	0	59	20	0	8	0	0	0	4	0	0	0	0	91
10:00	0	83	12	1	4	0	0	3	6	0	0	0	1	110
11:00	0	101	23	0	9	0	0	2	19	0	0	0	0	154
12 PM	1	79	27	0	7	0	0	1	10	1	0	0	1	127
13:00	0	62	14	0	4	0	0	0	6	1	0	0	0	87
14:00	0	60	15	0	4	1	0	2	14	0	0	0	0	96
15:00	1	90	18	0	3	1	0	1	7	0	0	0	0	121
16:00	3	215	28	0	11	0	1	2	2	0	0	0	0	262
17:00	0	111	14	0	4	1	0	2	7	0	0	0	0	139
18:00	0	108	16	0	3	0	0	2	2	0	0	0	1	132
19:00	0	59	7	3	1	0	0	0	4	0	0	0	0	74
20:00	0	14	5	0	3	0	0	0	4	0	0	0	0	26
21:00	0	14	0	0	0	0	0	0	2	0	0	0	0	16
22:00	0	7	1	0	0	0	0	0	2	0	0	0	0	10
23:00	0	6	2	0	0	0	0	0	3	0	0	0	0	11
Total	8	1441	275	5	90	11	1	19	113	2	0	0	5	1970
Percent	0.4%	73.1%	14.0%	0.3%	4.6%	0.6%	0.1%	1.0%	5.7%	0.1%	0.0%	0.0%	0.3%	
AM Peak	07:00	08:00	08:00	07:00	06:00	07:00		08:00	11:00				07:00	08:00
Vol.	3	135	25	1	11	4		3	19				1	183
PM Peak	16:00	16:00	16:00	19:00	16:00	14:00	16:00	14:00	14:00	12:00			12:00	16:00
Vol.	3	215	28	3	11	1	1	2	14	1			1	262
Grand Total	20	2941	558	11	157	52	4	41	217	9	0	0	5	4015
Percent	0.5%	73.3%	13.9%	0.3%	3.9%	1.3%	0.1%	1.0%	5.4%	0.2%	0.0%	0.0%	0.1%	



Site Code: 9  
 Station ID:  
 SH79 N/O 38TH AVE

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	1	0	0	0	0	0	0	1	4	0	0	0	0	6
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	0	0	0	0	0	0	2	0	0	0	0	4
03:00	0	0	1	0	2	0	0	0	1	0	0	0	0	4
04:00	0	3	2	0	1	0	0	0	1	0	0	0	0	7
05:00	0	2	11	0	4	0	0	0	4	0	0	0	0	21
06:00	0	21	8	1	12	1	0	1	4	0	0	0	0	48
07:00	0	27	8	0	6	0	0	0	5	1	0	0	0	47
08:00	0	22	11	1	7	0	0	4	3	0	0	0	0	48
09:00	1	18	10	1	2	0	0	3	6	0	0	0	0	41
10:00	0	23	10	0	4	0	0	4	9	0	0	0	0	50
11:00	3	27	7	4	4	3	0	3	10	0	0	0	0	61
12 PM	0	21	8	3	5	1	0	6	8	0	0	0	0	52
13:00	1	31	16	1	4	0	0	6	7	0	0	0	0	66
14:00	1	30	14	1	7	2	0	3	13	0	0	0	0	71
15:00	1	43	8	2	9	1	0	2	7	0	0	0	0	73
16:00	1	64	23	3	10	1	0	1	7	0	0	1	0	111
17:00	0	63	13	2	13	0	0	5	3	0	0	0	0	99
18:00	0	48	13	2	12	0	0	3	11	2	0	0	0	91
19:00	0	34	6	2	4	0	0	1	7	0	0	0	0	54
20:00	1	30	9	1	4	0	0	1	3	0	0	0	0	49
21:00	1	11	4	0	0	0	0	0	5	0	0	0	0	21
22:00	0	10	1	0	1	0	0	0	3	0	0	0	0	15
23:00	0	3	1	2	0	0	0	0	3	0	0	0	0	9
Total	11	534	184	26	111	9	0	44	126	3	0	1	0	1049
Percent	1.0%	50.9%	17.5%	2.5%	10.6%	0.9%	0.0%	4.2%	12.0%	0.3%	0.0%	0.1%	0.0%	
AM Peak	11:00	07:00	05:00	11:00	06:00	11:00		08:00	11:00	07:00				11:00
Vol.	3	27	11	4	12	3		4	10	1				61
PM Peak	13:00	16:00	16:00	12:00	17:00	14:00		12:00	14:00	18:00		16:00		16:00
Vol.	1	64	23	3	13	2		6	13	2		1		111



Site Code: 9  
 Station ID:  
 SH79 N/O 38TH AVE

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	0	2	1	0	0	0	0	0	0	0	0	5
04:00	0	2	0	0	1	0	0	0	4	0	0	0	0	7
05:00	0	8	8	0	4	1	0	0	2	0	0	0	0	23
06:00	0	18	9	0	7	0	0	1	4	0	0	0	1	40
07:00	2	21	7	2	5	0	0	2	11	0	0	0	1	51
08:00	0	29	13	0	8	1	0	3	6	0	0	0	0	60
09:00	1	24	5	3	11	3	0	1	5	0	0	0	0	53
10:00	3	31	5	4	5	0	0	1	15	0	0	0	0	64
11:00	1	25	5	5	4	1	0	1	11	0	0	0	0	53
12 PM	0	26	13	0	8	2	0	1	4	1	0	0	0	55
13:00	0	27	4	2	13	0	0	3	11	2	0	0	0	62
14:00	0	25	9	2	6	0	0	1	10	1	0	0	0	54
15:00	0	37	6	0	5	0	0	2	5	0	0	0	0	55
16:00	0	61	29	0	10	0	0	2	6	1	0	0	0	109
17:00	0	58	10	4	14	0	0	1	8	0	0	0	0	95
18:00	0	41	10	1	8	0	0	1	9	0	0	0	0	70
19:00	2	42	5	0	5	0	0	3	5	0	0	0	0	62
20:00	0	19	6	2	4	0	0	1	4	0	0	0	0	36
21:00	0	18	2	0	5	0	0	0	0	0	0	0	0	25
22:00	0	11	0	1	0	0	0	0	1	0	0	0	0	13
23:00	0	2	0	1	0	0	0	0	3	0	0	0	0	6
Total	9	529	147	29	125	8	0	24	124	5	0	0	2	1002
Percent	0.9%	52.8%	14.7%	2.9%	12.5%	0.8%	0.0%	2.4%	12.4%	0.5%	0.0%	0.0%	0.2%	
AM Peak	10:00	10:00	08:00	11:00	09:00	09:00		08:00	10:00				06:00	10:00
Vol.	3	31	13	5	11	3		3	15				1	64
PM Peak	19:00	16:00	16:00	17:00	17:00	12:00		13:00	13:00	13:00				16:00
Vol.	2	61	29	4	14	2		3	11	2				109
Grand Total	20	1063	331	55	236	17	0	68	250	8	0	1	2	2051
Percent	1.0%	51.8%	16.1%	2.7%	11.5%	0.8%	0.0%	3.3%	12.2%	0.4%	0.0%	0.0%	0.1%	



Site Code: 9  
 Station ID:  
 SH79 N/O 38TH AVE

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	10	1	1	0	0	0	0	2	0	0	0	0	14
01:00	0	1	0	0	0	0	0	0	2	0	0	0	0	3
02:00	1	2	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	6	1	0	1	0	0	2	0	0	0	0	0	10
05:00	0	22	10	0	3	0	0	0	1	0	0	0	0	36
06:00	1	38	18	0	9	0	0	2	3	1	0	0	0	72
07:00	2	63	16	0	13	1	0	4	3	1	0	0	0	103
08:00	0	35	12	3	9	0	0	5	7	0	0	0	0	71
09:00	1	30	13	0	4	0	0	1	6	0	0	0	0	55
10:00	2	19	6	3	6	0	0	3	2	0	0	0	0	41
11:00	2	22	12	3	7	1	0	3	6	1	0	0	0	57
12 PM	1	35	10	3	5	0	0	10	8	1	0	0	0	73
13:00	1	25	15	1	6	0	0	5	5	0	0	0	0	58
14:00	1	21	9	2	7	1	0	3	2	0	0	0	0	46
15:00	0	33	14	1	5	0	0	5	6	0	0	0	0	64
16:00	0	43	10	3	12	1	0	4	8	0	0	0	0	81
17:00	0	48	16	3	10	1	0	3	7	0	0	0	0	88
18:00	0	20	14	1	6	0	0	3	3	0	0	0	0	47
19:00	0	21	7	1	4	0	0	0	1	0	0	0	0	34
20:00	1	26	5	2	4	0	0	0	1	0	0	0	0	39
21:00	0	7	2	1	3	0	0	0	2	0	0	0	0	15
22:00	1	6	1	0	0	0	0	0	0	0	0	0	0	8
23:00	0	7	2	0	0	0	0	1	1	0	0	0	0	11
Total	14	542	194	28	114	5	0	54	76	4	0	0	0	1031
Percent	1.4%	52.6%	18.8%	2.7%	11.1%	0.5%	0.0%	5.2%	7.4%	0.4%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	08:00	07:00	07:00		08:00	08:00	06:00				07:00
Vol.	2	63	18	3	13	1		5	7	1				103
PM Peak	12:00	17:00	17:00	12:00	16:00	14:00		12:00	12:00	12:00				17:00
Vol.	1	48	16	3	12	1		10	8	1				88



Site Code: 9  
 Station ID:  
 SH79 N/O 38TH AVE

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	4	2	0	1	0	0	0	2	0	0	0	0	9
01:00	0	1	0	0	1	1	0	0	0	0	0	0	0	3
02:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
03:00	0	6	1	0	1	0	0	0	1	0	0	0	0	9
04:00	0	13	1	0	0	0	0	0	0	0	0	0	0	14
05:00	1	14	8	1	7	0	0	1	2	0	0	0	0	34
06:00	4	44	13	1	7	0	0	3	2	0	0	0	0	74
07:00	4	67	17	3	9	3	0	2	4	0	0	0	1	110
08:00	4	52	10	4	14	3	0	7	0	0	0	0	1	95
09:00	1	29	11	1	11	1	0	4	2	0	0	0	0	60
10:00	1	32	12	2	4	1	0	2	7	0	0	0	0	61
11:00	6	33	12	4	8	5	0	4	14	0	0	0	0	86
12 PM	2	24	5	1	13	0	0	5	11	0	0	0	1	62
13:00	0	31	15	1	9	1	0	2	3	0	0	0	0	62
14:00	1	32	6	3	6	4	0	2	4	0	0	0	1	59
15:00	1	40	11	4	2	0	0	3	6	0	0	0	0	67
16:00	1	30	14	0	9	0	0	3	3	0	0	0	0	60
17:00	1	36	8	0	13	0	0	4	5	0	0	0	0	67
18:00	0	30	11	2	9	0	0	3	3	0	0	0	0	58
19:00	1	27	6	4	6	0	0	1	4	0	0	0	0	49
20:00	0	15	5	0	8	1	0	2	0	0	0	0	0	31
21:00	0	8	0	2	0	0	0	1	0	0	0	0	0	11
22:00	0	2	1	1	0	0	0	1	1	0	0	0	0	6
23:00	0	4	2	1	1	0	0	0	1	0	0	0	0	9
Total	28	577	171	35	139	20	0	50	76	0	0	0	4	1100
Percent	2.5%	52.5%	15.5%	3.2%	12.6%	1.8%	0.0%	4.5%	6.9%	0.0%	0.0%	0.0%	0.4%	
AM Peak	11:00	07:00	07:00	08:00	08:00	11:00		08:00	11:00				07:00	07:00
Vol.	6	67	17	4	14	5		7	14				1	110
PM Peak	12:00	15:00	13:00	15:00	12:00	14:00		12:00	12:00				12:00	15:00
Vol.	2	40	15	4	13	4		5	11				1	67
Grand Total	42	1119	365	63	253	25	0	104	152	4	0	0	4	2131
Percent	2.0%	52.5%	17.1%	3.0%	11.9%	1.2%	0.0%	4.9%	7.1%	0.2%	0.0%	0.0%	0.2%	



Site Code: 11  
 Station ID:  
 COLFAX AVE E/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	4	1	0	0	0	0	0	1	0	0	0	0	6
02:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
03:00	1	1	0	0	0	0	0	0	1	0	0	0	0	3
04:00	0	4	5	0	0	0	0	0	0	0	0	0	0	9
05:00	1	22	12	0	4	0	0	0	2	0	0	0	0	41
06:00	1	53	13	0	11	0	0	0	2	2	0	0	0	82
07:00	0	62	16	0	7	3	0	0	1	0	0	0	0	89
08:00	1	41	25	1	14	3	0	0	0	0	0	0	0	85
09:00	1	27	13	1	5	2	0	1	1	0	0	0	0	51
10:00	0	42	16	1	4	4	0	0	1	0	0	0	0	68
11:00	2	22	19	4	1	11	0	1	0	0	0	0	0	60
12 PM	0	31	23	1	7	2	0	1	3	0	0	0	0	68
13:00	4	39	11	1	3	2	0	1	2	0	0	0	0	63
14:00	0	38	8	0	9	0	0	0	2	0	0	0	0	57
15:00	0	63	11	5	4	1	1	1	0	0	0	0	0	86
16:00	0	52	10	0	0	0	0	0	0	0	0	0	0	62
17:00	5	56	14	0	6	0	0	1	3	0	0	0	0	85
18:00	0	55	19	1	3	0	0	2	2	0	0	0	0	82
19:00	1	29	12	0	3	1	0	0	1	0	0	0	0	47
20:00	1	26	3	0	3	0	0	0	1	0	0	0	0	34
21:00	0	15	3	1	1	0	0	0	0	0	0	0	0	20
22:00	1	8	2	0	0	0	0	0	0	0	0	0	0	11
23:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
Total	19	698	240	16	87	29	1	8	23	2	0	0	0	1123
Percent	1.7%	62.2%	21.4%	1.4%	7.7%	2.6%	0.1%	0.7%	2.0%	0.2%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	08:00	11:00	08:00	11:00		09:00	05:00	06:00				07:00
Vol.	2	62	25	4	14	11		1	2	2				89
PM Peak	17:00	15:00	12:00	15:00	14:00	12:00	15:00	18:00	12:00					15:00
Vol.	5	63	23	5	9	2	1	2	3					86



Site Code: 11  
 Station ID:  
 COLFAX AVE E/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	2	0	0	0	0	0	1	0	0	0	0	5
03:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
04:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
05:00	0	23	8	0	8	0	0	0	0	0	0	0	0	39
06:00	0	56	11	0	9	0	0	0	4	0	0	0	0	80
07:00	0	81	23	0	8	1	0	0	1	0	0	0	0	114
08:00	0	42	9	0	4	0	0	0	0	0	0	0	0	55
09:00	0	34	13	0	7	0	0	0	4	0	0	0	0	58
10:00	1	27	3	0	3	1	0	0	1	0	0	0	0	36
11:00	2	28	5	0	5	0	0	1	1	0	0	0	0	42
12 PM	0	32	13	0	5	0	0	1	0	0	0	0	0	51
13:00	0	49	15	1	7	2	0	0	1	0	0	0	0	75
14:00	0	33	9	0	5	0	0	0	1	1	0	0	0	49
15:00	0	36	8	0	6	0	0	1	0	0	0	0	0	51
16:00	0	50	13	0	2	0	0	0	0	0	0	0	0	65
17:00	1	50	16	0	3	0	0	0	0	0	0	0	0	70
18:00	0	46	14	0	5	0	0	1	1	0	0	0	0	67
19:00	0	35	6	0	2	0	0	0	1	0	0	0	0	44
20:00	0	16	3	0	3	0	0	0	0	0	0	0	0	22
21:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
22:00	0	6	0	0	1	0	0	0	0	0	0	0	0	7
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Total	4	678	177	1	83	4	0	4	17	1	0	0	0	969
Percent	0.4%	70.0%	18.3%	0.1%	8.6%	0.4%	0.0%	0.4%	1.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00		06:00	07:00		11:00	06:00					07:00
Vol.	2	81	23		9	1		1	4					114
PM Peak	17:00	16:00	17:00	13:00	13:00	13:00		12:00	13:00	14:00				13:00
Vol.	1	50	16	1	7	2		1	1	1				75
Grand Total	23	1376	417	17	170	33	1	12	40	3	0	0	0	2092
Percent	1.1%	65.8%	19.9%	0.8%	8.1%	1.6%	0.0%	0.6%	1.9%	0.1%	0.0%	0.0%	0.0%	



Site Code: 11  
 Station ID:  
 COLFAX AVE E/O KIOWA-BENNETT RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	3	0	0	0	0	0	1	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
03:00	1	2	1	1	0	0	0	0	0	0	0	0	0	5
04:00	0	3	0	0	0	0	0	0	4	0	0	0	0	7
05:00	0	11	1	0	2	1	0	0	2	0	0	0	0	17
06:00	0	18	9	0	4	0	0	0	2	1	0	0	0	34
07:00	1	31	14	0	3	1	0	2	5	1	0	0	0	58
08:00	0	46	16	4	5	6	0	1	1	0	0	0	0	79
09:00	1	28	13	1	8	7	0	0	2	0	0	0	0	60
10:00	0	29	14	1	7	0	0	0	2	0	0	0	0	53
11:00	0	35	22	4	7	0	0	0	1	0	0	0	0	69
12 PM	1	33	16	3	9	1	0	3	2	0	0	0	0	68
13:00	0	23	12	2	7	0	0	1	1	0	0	0	0	46
14:00	1	40	14	2	7	1	0	4	3	0	0	0	0	72
15:00	0	52	5	0	0	0	0	0	1	0	0	0	0	58
16:00	1	55	16	0	0	0	0	0	3	0	0	0	0	75
17:00	1	52	16	0	0	0	0	2	3	0	0	0	0	74
18:00	0	41	12	0	0	0	0	1	8	0	0	0	0	62
19:00	0	22	4	0	1	0	0	0	3	0	0	0	0	30
20:00	0	11	3	0	2	0	0	0	0	0	0	0	0	16
21:00	0	13	3	0	0	0	0	0	3	0	0	0	0	19
22:00	0	10	2	0	0	0	0	0	0	0	0	0	0	12
23:00	0	1	0	0	0	0	0	0	5	0	0	0	0	6
Total	7	561	193	18	62	17	0	15	52	2	0	0	0	927
Percent	0.8%	60.5%	20.8%	1.9%	6.7%	1.8%	0.0%	1.6%	5.6%	0.2%	0.0%	0.0%	0.0%	
AM Peak	03:00	08:00	11:00	08:00	09:00	09:00		07:00	07:00	06:00				08:00
Vol.	1	46	22	4	8	7		2	5	1				79
PM Peak	12:00	16:00	12:00	12:00	12:00	12:00		14:00	18:00					16:00
Vol.	1	55	16	3	9	1		4	8					75



Site Code: 11  
 Station ID:  
 COLFAX AVE E/O KIOWA-BENNETT RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	1	0	0	1	0	0	0	0	0	0	0	0	2
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	2	0	1	0	0	0	0	0	0	0	0	0	3
04:00	0	4	0	0	0	0	0	0	3	0	0	0	0	7
05:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
06:00	1	28	6	0	2	0	0	0	3	1	0	0	1	42
07:00	0	41	9	0	3	0	0	0	2	1	0	0	0	56
08:00	0	46	10	0	5	0	0	0	0	0	0	0	0	61
09:00	0	36	8	0	0	0	0	0	5	0	0	0	0	49
10:00	1	27	5	0	1	1	0	0	5	1	0	0	0	41
11:00	0	39	3	2	1	1	0	2	3	0	0	0	0	51
12 PM	0	30	9	0	4	2	0	1	2	1	0	0	0	49
13:00	0	27	7	0	2	2	0	0	9	1	0	0	0	48
14:00	1	27	7	1	3	2	0	1	2	0	0	0	0	44
15:00	0	39	7	0	4	1	0	1	3	0	0	0	0	55
16:00	0	41	8	0	3	0	0	0	7	0	0	0	0	59
17:00	0	32	11	1	1	1	0	1	8	0	0	0	0	55
18:00	0	27	11	0	1	0	0	0	9	0	0	0	0	48
19:00	0	27	5	0	0	0	0	0	1	0	0	0	0	33
20:00	0	18	4	0	1	0	0	0	2	0	0	0	0	25
21:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14
22:00	0	4	1	0	0	0	0	0	1	0	0	0	0	6
23:00	0	1	0	0	0	0	0	0	3	0	0	0	0	4
Total	3	518	116	5	32	10	0	6	68	5	0	0	1	764
Percent	0.4%	67.8%	15.2%	0.7%	4.2%	1.3%	0.0%	0.8%	8.9%	0.7%	0.0%	0.0%	0.1%	
AM Peak	06:00	08:00	08:00	11:00	08:00	10:00		11:00	09:00	06:00			06:00	08:00
Vol.	1	46	10	2	5	1		2	5	1			1	61
PM Peak	14:00	16:00	17:00	14:00	12:00	12:00		12:00	13:00	12:00				16:00
Vol.	1	41	11	1	4	2		1	9	1				59
Grand Total	10	1079	309	23	94	27	0	21	120	7	0	0	1	1691
Percent	0.6%	63.8%	18.3%	1.4%	5.6%	1.6%	0.0%	1.2%	7.1%	0.4%	0.0%	0.0%	0.1%	



Site Code: 15  
 Station ID:  
 KIOWA-BENNETT RD S/O 6TH AVE

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	2	0	0	0	0	0	0	1	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	1	2	0	0	0	0	0	0	1	0	0	0	0	4
04:00	0	7	6	0	1	0	0	0	0	0	0	0	0	14
05:00	0	42	7	1	2	0	0	3	0	0	0	0	0	55
06:00	0	73	20	0	4	0	0	0	1	0	0	0	0	98
07:00	0	109	21	0	13	0	0	0	2	0	0	0	0	145
08:00	1	46	15	0	4	0	0	6	0	0	0	0	0	72
09:00	0	31	18	0	2	0	0	1	1	0	0	0	0	53
10:00	0	27	6	0	2	0	0	5	1	0	0	0	0	41
11:00	0	26	19	0	6	0	0	7	0	0	0	0	0	58
12 PM	0	28	7	1	0	0	0	5	0	0	0	0	0	41
13:00	0	22	9	2	2	0	0	2	0	0	0	0	0	37
14:00	0	26	9	0	5	0	0	4	0	0	0	0	0	44
15:00	0	27	8	0	6	1	0	3	0	0	0	0	0	45
16:00	0	46	17	0	3	0	0	1	0	0	0	0	0	67
17:00	0	52	18	1	7	0	0	2	0	0	0	0	0	80
18:00	1	29	15	0	1	0	0	2	0	0	0	0	0	48
19:00	0	19	5	1	2	0	0	0	0	0	0	0	0	27
20:00	0	14	1	0	3	0	0	1	0	0	0	0	0	19
21:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Total	3	638	206	6	63	1	0	42	7	0	0	0	0	966
Percent	0.3%	66.0%	21.3%	0.6%	6.5%	0.1%	0.0%	4.3%	0.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak	03:00	07:00	07:00	05:00	07:00			11:00	07:00					07:00
Vol.	1	109	21	1	13			7	2					145
PM Peak	18:00	17:00	17:00	13:00	17:00	15:00		12:00						17:00
Vol.	1	52	18	2	7	1		5						80



Site Code: 15  
 Station ID:  
 KIOWA-BENNETT RD S/O 6TH AVE

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	1	3	0	0	0	0	0	1	0	0	0	0	0	5
04:00	0	12	3	0	0	0	0	0	1	0	0	0	0	16
05:00	0	32	18	0	3	0	0	0	0	0	0	0	0	53
06:00	0	68	13	0	3	0	0	2	1	0	0	0	0	87
07:00	0	126	23	0	11	0	0	1	1	0	0	0	0	162
08:00	0	52	13	0	0	0	0	1	1	0	0	0	0	67
09:00	0	37	12	2	3	2	0	3	0	0	0	0	0	59
10:00	0	31	7	0	5	0	0	1	0	0	0	0	0	44
11:00	0	27	12	0	3	0	0	1	0	0	0	0	0	43
12 PM	0	26	16	0	3	0	0	0	1	0	0	0	0	46
13:00	0	23	8	0	2	0	0	1	0	0	0	0	0	34
14:00	1	24	13	0	1	1	0	2	0	0	0	0	0	42
15:00	1	33	9	0	4	0	0	0	0	0	0	0	0	47
16:00	0	38	14	0	2	0	0	1	0	1	0	0	0	56
17:00	0	41	10	0	2	0	0	0	0	0	0	0	0	53
18:00	0	38	5	0	4	0	0	2	0	0	0	0	0	49
19:00	0	18	4	0	0	0	0	2	1	0	0	0	0	25
20:00	0	19	5	0	2	0	0	1	0	0	0	0	0	27
21:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
22:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
23:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Total	3	665	188	2	49	3	0	19	6	1	0	0	0	936
Percent	0.3%	71.0%	20.1%	0.2%	5.2%	0.3%	0.0%	2.0%	0.6%	0.1%	0.0%	0.0%	0.0%	
AM Peak	03:00	07:00	07:00	09:00	07:00	09:00		09:00	04:00					07:00
Vol.	1	126	23	2	11	2		3	1					162
PM Peak	14:00	17:00	12:00		15:00	14:00		14:00	12:00	16:00				16:00
Vol.	1	41	16		4	1		2	1	1				56
Grand Total	6	1303	394	8	112	4	0	61	13	1	0	0	0	1902
Percent	0.3%	68.5%	20.7%	0.4%	5.9%	0.2%	0.0%	3.2%	0.7%	0.1%	0.0%	0.0%	0.0%	



Site Code: 15  
 Station ID:  
 KIOWA-BENNETT RD S/O 6TH AVE

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	4	1	0	1	0	0	0	0	0	0	0	0	6
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	1	0	1	0	0	0	1	0	0	0	0	6
05:00	0	7	3	0	2	0	0	0	0	0	0	0	0	12
06:00	1	17	7	6	7	0	0	0	3	0	0	0	0	41
07:00	0	11	12	1	6	0	0	0	0	1	0	0	0	31
08:00	0	28	15	1	3	2	0	2	1	0	0	0	0	52
09:00	0	14	10	0	9	0	0	1	2	0	0	0	0	36
10:00	0	13	11	2	9	0	0	1	4	0	0	0	0	40
11:00	0	18	15	0	9	0	0	1	0	0	0	0	0	43
12 PM	1	21	14	0	3	1	0	3	2	0	0	0	0	45
13:00	0	22	14	1	1	1	0	1	1	0	0	0	0	41
14:00	1	23	9	0	9	1	0	2	0	0	0	0	0	45
15:00	1	47	31	1	6	1	0	2	2	0	0	0	0	91
16:00	1	54	32	1	13	0	0	4	3	0	0	0	0	108
17:00	2	62	27	3	11	1	0	1	1	0	0	0	0	108
18:00	0	73	20	0	6	1	0	0	1	0	0	0	0	101
19:00	0	55	23	1	10	0	0	1	1	0	0	0	0	91
20:00	0	31	15	1	2	0	0	0	0	0	0	0	0	49
21:00	0	23	8	1	5	0	0	0	0	0	0	0	0	37
22:00	0	11	2	0	2	0	0	0	0	0	0	0	0	15
23:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
Total	7	545	273	19	116	8	0	19	22	1	0	0	0	1010
Percent	0.7%	54.0%	27.0%	1.9%	11.5%	0.8%	0.0%	1.9%	2.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	08:00	06:00	09:00	08:00		08:00	10:00	07:00				08:00
Vol.	1	28	15	6	9	2		2	4	1				52
PM Peak	17:00	18:00	16:00	17:00	16:00	12:00		16:00	16:00					16:00
Vol.	2	73	32	3	13	1		4	3					108



Site Code: 15  
 Station ID:  
 KIOWA-BENNETT RD S/O 6TH AVE

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	4	1	0	1	0	0	0	0	0	0	0	0	6
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	1	1	0	0	0	0	0	1	0	0	0	0	3
05:00	0	5	3	0	2	0	0	1	1	0	0	0	0	12
06:00	0	19	4	0	3	0	0	0	1	0	0	0	0	27
07:00	0	20	8	0	6	1	0	1	2	0	0	0	0	38
08:00	0	24	11	3	5	3	0	0	2	0	0	0	0	48
09:00	0	14	13	2	8	0	0	3	1	0	0	0	0	41
10:00	0	19	7	0	5	0	0	1	0	0	0	0	0	32
11:00	0	25	8	1	3	0	0	0	0	0	0	0	0	37
12 PM	0	17	7	0	9	0	0	2	1	0	0	0	0	36
13:00	0	14	11	0	7	0	0	0	1	1	0	0	0	34
14:00	0	34	10	0	6	1	0	3	2	0	0	0	0	56
15:00	0	41	15	0	9	1	0	1	0	0	0	0	0	67
16:00	1	55	30	1	11	0	0	1	1	0	0	0	0	100
17:00	0	75	24	1	12	0	0	1	3	0	0	0	0	116
18:00	0	67	17	0	6	0	0	2	0	0	0	0	0	92
19:00	0	51	17	0	8	0	0	1	0	0	0	0	0	77
20:00	0	27	10	0	3	0	0	0	0	0	0	0	0	40
21:00	0	20	7	1	2	0	0	0	0	0	0	0	0	30
22:00	0	9	7	1	0	0	0	1	0	0	0	0	0	18
23:00	0	7	2	0	0	0	0	1	1	0	0	0	0	11
Total	1	556	213	10	106	6	0	19	17	1	0	0	0	929
Percent	0.1%	59.8%	22.9%	1.1%	11.4%	0.6%	0.0%	2.0%	1.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak		11:00	09:00	08:00	09:00	08:00		09:00	07:00					08:00
Vol.		25	13	3	8	3		3	2					48
PM Peak	16:00	17:00	16:00	16:00	17:00	14:00		14:00	17:00	13:00				17:00
Vol.	1	75	30	1	12	1		3	3	1				116
Grand Total	8	1101	486	29	222	14	0	38	39	2	0	0	0	1939
Percent	0.4%	56.8%	25.1%	1.5%	11.4%	0.7%	0.0%	2.0%	2.0%	0.1%	0.0%	0.0%	0.0%	



Site Code: 1  
 Station ID:  
 EB OFF RAMPS (304) W/O CONVERSE RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	1	7	0	0	0	0	0	0	3	0	0	0	0	11
01:00	0	9	0	0	0	1	0	0	2	0	0	0	0	12
02:00	0	3	2	0	2	0	0	0	6	0	0	0	0	13
03:00	0	3	3	0	1	0	0	0	2	0	0	0	0	9
04:00	0	5	3	0	0	0	0	0	1	0	0	0	1	10
05:00	0	14	10	0	2	1	0	0	3	0	1	1	0	32
06:00	0	27	9	1	6	11	0	1	5	0	0	0	0	60
07:00	0	95	20	1	6	0	0	2	9	0	1	1	0	135
08:00	1	67	19	0	6	2	0	2	11	0	0	2	0	110
09:00	1	61	15	0	3	1	0	0	25	0	0	1	0	107
10:00	2	65	14	0	8	1	0	2	26	0	0	0	0	118
11:00	0	69	35	1	4	5	0	3	29	2	0	0	0	148
12 PM	0	71	19	2	3	0	0	5	17	0	0	0	0	117
13:00	3	71	20	2	5	0	0	2	17	0	0	0	0	120
14:00	1	92	30	1	9	0	0	2	15	1	0	0	1	152
15:00	3	144	26	2	10	1	0	7	15	0	0	0	0	208
16:00	3	215	53	1	9	5	0	2	18	1	0	1	1	309
17:00	2	200	43	1	15	1	0	2	11	2	0	0	0	277
18:00	1	154	38	0	6	1	0	3	10	0	0	0	0	213
19:00	1	118	22	0	4	1	0	2	24	0	0	1	0	173
20:00	1	58	17	0	9	0	0	2	10	0	0	0	0	97
21:00	0	45	19	0	4	0	0	0	16	0	1	0	0	85
22:00	3	30	9	0	4	1	0	0	9	0	0	1	0	57
23:00	0	14	3	0	1	0	0	0	2	0	0	0	0	20
Total	23	1637	429	12	117	32	0	37	286	6	3	8	3	2593
Percent	0.9%	63.1%	16.5%	0.5%	4.5%	1.2%	0.0%	1.4%	11.0%	0.2%	0.1%	0.3%	0.1%	
AM Peak	10:00	07:00	11:00	06:00	10:00	06:00		11:00	11:00	11:00	05:00	08:00	04:00	11:00
Vol.	2	95	35	1	8	11		3	29	2	1	2	1	148
PM Peak	13:00	16:00	16:00	12:00	17:00	16:00		15:00	19:00	17:00	21:00	16:00	14:00	16:00
Vol.	3	215	53	2	15	5		7	24	2	1	1	1	309



Site Code: 1  
 Station ID:  
 EB OFF RAMPS (304) W/O CONVERSE RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	11	2	0	0	0	0	0	3	0	0	0	0	16
01:00	0	5	1	0	1	0	0	0	2	0	0	0	0	9
02:00	0	4	2	0	0	0	0	0	3	0	0	1	0	10
03:00	0	8	5	0	0	0	0	0	3	0	0	0	0	16
04:00	0	6	1	0	0	1	0	0	0	0	0	0	1	9
05:00	1	10	9	0	0	2	0	0	2	0	1	1	0	26
06:00	0	38	5	1	2	1	0	0	15	0	0	0	0	62
07:00	0	93	13	0	5	1	0	1	17	0	0	0	0	130
08:00	0	60	22	0	5	1	0	0	7	0	0	0	0	95
09:00	1	56	12	0	4	1	0	1	15	1	0	1	0	92
10:00	2	72	21	0	5	0	0	5	23	0	0	0	0	128
11:00	2	70	17	0	4	1	0	2	25	0	0	1	0	122
12 PM	2	74	24	2	6	2	0	2	26	1	1	0	0	140
13:00	1	87	27	1	7	0	0	4	20	0	0	0	1	148
14:00	1	84	21	0	7	1	0	1	19	0	0	1	0	135
15:00	2	140	42	0	8	2	0	2	25	0	0	1	0	222
16:00	1	192	44	0	8	1	0	5	26	1	1	1	1	281
17:00	2	217	54	0	20	1	0	1	14	1	0	1	1	312
18:00	0	176	33	0	10	1	0	0	11	0	0	0	0	231
19:00	1	81	11	0	3	0	0	2	12	0	0	1	0	111
20:00	0	56	15	0	5	0	0	0	9	0	0	0	1	86
21:00	0	41	7	0	3	0	0	0	10	0	0	0	0	61
22:00	1	32	7	1	2	0	0	0	11	0	0	0	0	54
23:00	0	26	8	0	0	0	0	0	8	0	0	0	0	42
Total	17	1639	403	5	105	16	0	26	306	4	3	9	5	2538
Percent	0.7%	64.6%	15.9%	0.2%	4.1%	0.6%	0.0%	1.0%	12.1%	0.2%	0.1%	0.4%	0.2%	
AM Peak	10:00	07:00	08:00	06:00	07:00	05:00		10:00	11:00	09:00	05:00	02:00	04:00	07:00
Vol.	2	93	22	1	5	2		5	25	1	1	1	1	130
PM Peak	12:00	17:00	17:00	12:00	17:00	12:00		16:00	12:00	12:00	12:00	14:00	13:00	17:00
Vol.	2	217	54	2	20	2		5	26	1	1	1	1	312
Grand Total	40	3276	832	17	222	48	0	63	592	10	6	17	8	5131
Percent	0.8%	63.8%	16.2%	0.3%	4.3%	0.9%	0.0%	1.2%	11.5%	0.2%	0.1%	0.3%	0.2%	



Site Code: 10  
 Station ID:  
 COLFAX AVE W/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	3	2	0	0	0	0	0	0	0	0	0	0	5
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
06:00	0	9	3	1	1	9	0	0	3	1	0	0	0	27
07:00	1	25	12	0	8	2	0	0	2	0	0	0	0	50
08:00	0	25	13	1	4	0	0	0	1	0	0	0	0	44
09:00	0	15	18	2	5	2	0	1	3	0	0	0	0	46
10:00	0	30	16	1	5	7	0	1	2	0	0	0	0	62
11:00	2	21	18	3	4	16	0	2	1	0	0	0	0	67
12 PM	1	32	20	1	7	1	0	2	1	0	0	0	0	65
13:00	3	29	13	2	6	1	0	1	1	0	0	0	0	56
14:00	0	33	6	1	6	0	0	2	1	0	0	0	0	49
15:00	1	41	12	0	5	0	0	4	3	0	0	0	0	66
16:00	2	45	25	0	11	0	0	3	3	0	0	0	0	89
17:00	3	55	23	1	6	1	0	2	3	0	0	0	0	94
18:00	1	57	18	3	7	0	0	2	2	0	0	0	0	90
19:00	0	29	17	0	3	0	0	0	2	0	0	0	0	51
20:00	1	22	2	1	0	0	0	0	0	0	0	0	0	26
21:00	0	16	3	0	2	0	0	0	0	0	0	0	0	21
22:00	1	14	3	0	1	0	0	0	0	0	0	0	0	19
23:00	0	1	2	1	1	0	0	0	0	0	0	0	0	5
Total	17	513	231	18	82	39	0	20	28	1	0	0	0	949
Percent	1.8%	54.1%	24.3%	1.9%	8.6%	4.1%	0.0%	2.1%	3.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	10:00	09:00	11:00	07:00	11:00		11:00	06:00	06:00				11:00
Vol.	2	30	18	3	8	16		2	3	1				67
PM Peak	13:00	18:00	16:00	18:00	16:00	12:00		15:00	15:00					17:00
Vol.	3	57	25	3	11	1		4	3					94



Site Code: 10  
 Station ID:  
 COLFAX AVE W/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4
05:00	0	6	1	1	2	0	0	0	0	0	0	0	0	10
06:00	0	10	2	1	1	0	0	0	3	0	0	0	0	17
07:00	0	25	21	2	9	2	0	1	0	0	0	0	0	60
08:00	0	19	11	1	3	0	0	0	1	0	0	0	0	35
09:00	0	21	14	2	7	0	0	2	1	0	0	0	0	47
10:00	0	18	13	0	5	0	0	0	1	0	0	0	0	37
11:00	0	27	12	1	5	0	0	2	0	0	0	0	0	47
12 PM	0	24	15	0	8	0	0	3	2	0	0	0	0	52
13:00	0	32	26	1	6	1	0	2	1	1	0	0	0	70
14:00	0	28	17	0	5	0	0	1	0	0	0	0	0	51
15:00	0	35	14	0	6	0	0	1	0	0	0	0	0	56
16:00	1	52	23	1	9	0	0	0	0	0	0	0	0	86
17:00	0	48	17	1	10	0	0	1	1	0	0	0	0	78
18:00	0	55	16	0	10	0	0	3	1	0	0	0	0	85
19:00	0	27	15	0	6	0	0	0	0	0	0	0	0	48
20:00	0	12	5	0	1	0	0	0	0	0	0	0	0	18
21:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
22:00	0	5	3	0	1	0	0	1	0	0	0	0	0	10
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
Total	1	463	234	11	95	3	0	17	12	1	0	0	0	837
Percent	0.1%	55.3%	28.0%	1.3%	11.4%	0.4%	0.0%	2.0%	1.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak		11:00	07:00	07:00	07:00	07:00		09:00	06:00					07:00
Vol.		27	21	2	9	2		2	3					60
PM Peak	16:00	18:00	13:00	13:00	17:00	13:00		12:00	12:00	13:00				16:00
Vol.	1	55	26	1	10	1		3	2	1				86
Grand Total	18	976	465	29	177	42	0	37	40	2	0	0	0	1786
Percent	1.0%	54.6%	26.0%	1.6%	9.9%	2.4%	0.0%	2.1%	2.2%	0.1%	0.0%	0.0%	0.0%	



Site Code: 10  
 Station ID:  
 COLFAX AVE W/O KIOWA-BENNETT RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	4	0	0	0	0	0	1	0	0	0	0	0	5
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
03:00	2	4	1	1	0	0	0	0	0	0	0	0	0	8
04:00	0	5	0	0	1	0	0	0	3	0	0	0	0	9
05:00	0	20	2	0	0	0	0	0	5	0	0	0	0	27
06:00	0	38	10	0	2	1	0	0	4	0	0	0	0	55
07:00	1	83	26	0	9	0	0	1	6	1	0	0	0	127
08:00	2	56	23	0	5	14	0	2	4	0	0	0	0	106
09:00	1	40	16	1	5	1	0	0	2	1	0	0	0	67
10:00	0	38	18	0	6	10	0	3	5	0	0	0	0	80
11:00	3	49	26	1	11	7	0	0	11	0	0	0	0	108
12 PM	1	42	15	1	3	2	0	6	4	0	0	0	0	74
13:00	2	43	19	1	6	0	0	1	3	0	0	0	0	75
14:00	2	50	13	0	5	1	0	3	8	0	0	0	0	82
15:00	2	65	21	1	11	4	0	1	5	0	0	0	0	110
16:00	3	62	20	2	6	0	1	3	0	0	0	0	0	97
17:00	0	76	24	1	7	1	0	2	2	0	0	0	0	113
18:00	0	55	11	1	4	0	0	2	8	1	0	0	0	82
19:00	0	29	4	1	4	0	0	0	2	0	0	0	0	40
20:00	0	15	3	0	0	0	0	0	1	0	0	0	0	19
21:00	0	12	7	0	1	0	0	1	3	0	0	0	0	24
22:00	0	12	1	0	0	0	0	0	0	0	0	0	0	13
23:00	0	3	0	1	1	0	1	0	3	0	0	0	0	9
Total	19	803	260	12	87	41	2	26	80	3	0	0	0	1333
Percent	1.4%	60.2%	19.5%	0.9%	6.5%	3.1%	0.2%	2.0%	6.0%	0.2%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	03:00	11:00	08:00		10:00	11:00	07:00				07:00
Vol.	3	83	26	1	11	14		3	11	1				127
PM Peak	16:00	17:00	17:00	16:00	15:00	15:00	16:00	12:00	14:00	18:00				17:00
Vol.	3	76	24	2	11	4	1	6	8	1				113



Site Code: 10  
 Station ID:  
 COLFAX AVE W/O KIOWA-BENNETT RD

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	1	1	0	1	0	0	0	0	0	0	0	0	3
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	2	0	1	0	0	0	0	0	0	0	0	0	4
04:00	0	8	0	0	1	0	0	0	3	0	0	0	0	12
05:00	0	17	2	0	2	0	0	0	0	0	0	0	0	21
06:00	1	36	9	0	6	0	0	0	6	0	0	0	1	59
07:00	0	90	24	0	12	0	0	1	1	0	0	0	1	129
08:00	0	58	13	0	8	0	0	2	1	0	0	0	0	82
09:00	1	49	15	2	5	2	0	0	6	0	0	0	0	80
10:00	0	53	9	3	6	1	0	1	5	0	0	0	0	78
11:00	0	46	21	6	5	1	0	2	3	0	0	0	0	84
12 PM	0	37	14	0	13	2	0	1	3	1	0	0	0	71
13:00	0	33	12	2	1	0	0	1	8	2	0	0	0	59
14:00	1	36	11	2	9	3	0	2	1	0	0	0	0	65
15:00	1	60	12	0	7	0	0	1	2	0	0	0	1	84
16:00	0	54	16	0	7	0	0	1	7	1	0	0	0	86
17:00	0	45	12	2	9	0	0	1	9	0	0	0	0	78
18:00	0	44	13	1	8	0	0	1	9	0	0	0	0	76
19:00	0	28	7	0	0	0	0	1	2	0	0	0	0	38
20:00	0	25	5	0	1	0	0	0	3	0	0	0	0	34
21:00	0	11	4	0	2	0	0	0	0	0	0	0	0	17
22:00	0	5	0	0	2	0	0	0	1	0	0	0	0	8
23:00	0	2	1	0	0	0	0	0	2	0	0	0	0	5
Total	5	742	202	19	105	9	0	15	72	4	0	0	3	1176
Percent	0.4%	63.1%	17.2%	1.6%	8.9%	0.8%	0.0%	1.3%	6.1%	0.3%	0.0%	0.0%	0.3%	
AM Peak	03:00	07:00	07:00	11:00	07:00	09:00		08:00	06:00				06:00	07:00
Vol.	1	90	24	6	12	2		2	6				1	129
PM Peak	14:00	15:00	16:00	13:00	12:00	14:00		14:00	17:00	13:00			15:00	16:00
Vol.	1	60	16	2	13	3		2	9	2			1	86
Grand Total	24	1545	462	31	192	50	2	41	152	7	0	0	3	2509
Percent	1.0%	61.6%	18.4%	1.2%	7.7%	2.0%	0.1%	1.6%	6.1%	0.3%	0.0%	0.0%	0.1%	



Site Code: 12  
 Station ID:  
 306 WB OFF RAMPS S/O COLFAX

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	0	0	0	0	0	0	1	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	0	0	0	0	3	0	0	0	0	4
05:00	1	3	0	0	1	1	0	0	1	0	0	0	1	8
06:00	2	4	2	0	2	3	0	0	0	0	0	0	0	13
07:00	1	11	4	0	2	1	0	1	5	1	0	0	0	26
08:00	0	9	1	1	0	0	0	1	0	0	0	0	0	12
09:00	2	12	1	1	1	1	1	0	1	0	0	0	0	20
10:00	0	5	3	0	1	0	0	0	2	0	0	0	0	11
11:00	1	8	4	2	4	0	0	1	2	0	0	0	0	22
12 PM	0	6	1	1	4	0	0	1	2	0	0	0	0	15
13:00	1	9	5	2	3	0	0	0	2	0	0	0	0	22
14:00	0	10	4	2	1	0	0	0	3	0	0	0	0	20
15:00	0	6	0	1	3	0	0	0	2	0	0	0	0	12
16:00	2	12	2	2	0	0	0	0	2	0	0	0	0	20
17:00	2	13	2	0	0	0	0	1	1	0	0	0	0	19
18:00	5	13	4	4	0	2	0	1	3	0	0	0	0	32
19:00	1	6	2	0	0	1	0	0	2	0	0	0	0	12
20:00	0	3	1	0	4	0	0	0	0	0	0	0	0	8
21:00	0	1	1	0	1	0	0	0	2	0	0	0	0	5
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	1	6	0	0	0	1	0	0	2	0	0	0	0	10
Total	19	138	39	17	27	10	1	7	37	1	0	0	1	297
Percent	6.4%	46.5%	13.1%	5.7%	9.1%	3.4%	0.3%	2.4%	12.5%	0.3%	0.0%	0.0%	0.3%	
AM Peak	06:00	09:00	07:00	11:00	11:00	06:00	09:00	00:00	07:00	07:00			05:00	07:00
Vol.	2	12	4	2	4	3	1	1	5	1			1	26
PM Peak	18:00	17:00	13:00	18:00	12:00	18:00		12:00	14:00					18:00
Vol.	5	13	5	4	4	2		1	3					32



Site Code: 12  
 Station ID:  
 306 WB OFF RAMPS S/O COLFAX

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	1	1	0	0	1	0	0	1	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	1	0	0	0	0	0	0	3	0	0	0	0	4
05:00	0	3	0	0	2	0	0	0	0	0	0	0	0	5
06:00	2	7	1	0	1	3	0	0	2	0	0	0	1	17
07:00	1	16	4	0	3	3	0	0	1	0	0	0	0	28
08:00	0	12	1	0	2	0	0	1	0	0	0	0	0	16
09:00	1	7	4	0	1	1	0	0	4	0	0	0	0	18
10:00	3	9	4	2	1	2	0	0	2	0	0	0	0	23
11:00	1	8	1	3	0	0	0	0	2	0	0	0	0	15
12 PM	0	6	5	0	1	0	0	1	2	1	0	0	0	16
13:00	2	4	2	3	1	1	0	0	9	2	0	0	0	24
14:00	1	5	3	2	1	0	0	1	3	0	0	0	0	16
15:00	0	3	8	0	2	0	0	1	3	0	0	0	0	17
16:00	1	5	3	0	1	1	0	1	6	0	0	0	0	18
17:00	5	9	3	4	2	2	0	0	2	0	0	0	0	27
18:00	4	8	2	2	3	2	0	0	4	0	0	0	0	25
19:00	0	4	4	0	3	0	0	0	1	0	1	0	0	13
20:00	0	5	2	1	1	0	0	0	1	0	0	0	0	10
21:00	0	3	2	0	1	1	0	0	0	0	0	0	0	7
22:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
23:00	0	0	0	2	0	0	0	0	1	0	0	0	0	3
Total	22	116	49	20	27	16	0	6	48	3	1	0	1	309
Percent	7.1%	37.5%	15.9%	6.5%	8.7%	5.2%	0.0%	1.9%	15.5%	1.0%	0.3%	0.0%	0.3%	
AM Peak	10:00	07:00	07:00	11:00	07:00	06:00		00:00	09:00				06:00	07:00
Vol.	3	16	4	3	3	3		1	4				1	28
PM Peak	17:00	17:00	15:00	17:00	18:00	17:00		12:00	13:00	13:00	19:00			17:00
Vol.	5	9	8	4	3	2		1	9	2	1			27
Grand Total	41	254	88	37	54	26	1	13	85	4	1	0	2	606
Percent	6.8%	41.9%	14.5%	6.1%	8.9%	4.3%	0.2%	2.1%	14.0%	0.7%	0.2%	0.0%	0.3%	



Site Code: 13  
 Station ID:  
 EB OFF AND WB ON RAMP W/O US36

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	2	1	0	1	0	0	0	0	0	0	0	0	4
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	0	3	1	0	0	0	0	0	1	0	0	0	0	5
06:00	0	13	3	0	0	0	0	0	1	0	0	0	0	17
07:00	1	20	8	1	2	0	0	0	0	0	0	0	0	32
08:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14
09:00	0	11	11	1	0	0	0	0	1	0	0	0	0	24
10:00	1	18	11	0	2	0	0	0	0	0	0	0	0	32
11:00	0	7	7	0	0	0	0	0	0	0	0	0	0	14
12 PM	0	14	8	0	3	0	0	0	0	0	0	0	0	25
13:00	0	27	8	0	2	1	0	2	2	1	0	0	0	43
14:00	0	42	13	1	1	0	0	0	0	0	0	0	0	57
15:00	0	39	11	1	3	0	0	2	0	0	0	0	0	56
16:00	0	60	15	0	3	0	0	1	3	0	0	0	0	82
17:00	0	85	21	0	4	1	0	0	0	0	0	0	0	111
18:00	0	65	22	0	6	0	0	0	0	0	0	0	0	93
19:00	0	39	8	0	7	0	0	2	0	0	0	0	0	56
20:00	0	25	6	0	3	0	0	0	0	0	0	0	0	34
21:00	0	22	1	0	1	0	0	0	0	0	0	0	0	24
22:00	0	6	5	0	1	0	0	0	0	0	0	0	0	12
23:00	0	8	2	0	2	0	0	0	0	0	0	0	0	12
Total	2	523	170	4	42	2	0	7	8	1	0	0	0	759
Percent	0.3%	68.9%	22.4%	0.5%	5.5%	0.3%	0.0%	0.9%	1.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	09:00	07:00	07:00				05:00					07:00
Vol.	1	20	11	1	2				1					32
PM Peak		17:00	18:00	14:00	19:00	13:00		13:00	16:00	13:00				17:00
Vol.		85	22	1	7	1		2	3	1				111



Site Code: 13  
 Station ID:  
 EB OFF AND WB ON RAMP W/O US36

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	4	0	0	1	0	0	0	0	0	0	0	0	5
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	2	4	0	2	0	0	0	0	0	0	0	0	8
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	0	0	0	1	0	0	0	0	0	0	0	4
06:00	0	10	1	0	1	1	0	0	1	0	0	0	0	14
07:00	0	19	5	1	2	0	0	0	0	0	0	0	0	27
08:00	0	17	4	0	1	0	0	0	0	0	0	0	0	22
09:00	0	14	7	1	0	0	0	0	0	0	0	0	0	22
10:00	0	16	6	0	0	0	0	1	0	0	0	0	0	23
11:00	0	8	6	0	2	0	0	0	1	0	0	0	0	17
12 PM	0	21	6	1	1	1	0	0	0	0	0	0	0	30
13:00	0	18	12	0	0	1	0	0	0	0	0	0	0	31
14:00	0	26	9	0	3	1	0	0	0	0	0	0	0	39
15:00	0	48	14	1	5	0	0	0	0	0	0	0	0	68
16:00	0	51	22	0	4	1	0	1	0	0	0	0	0	79
17:00	0	95	19	1	9	0	0	0	0	0	0	0	0	124
18:00	0	65	12	1	4	0	0	1	0	0	0	0	0	83
19:00	0	39	10	0	4	0	0	0	0	0	0	0	0	53
20:00	0	24	3	0	3	0	0	0	0	0	0	0	0	30
21:00	0	22	8	0	2	0	0	0	0	0	0	0	0	32
22:00	0	10	5	0	0	0	0	1	0	0	0	0	0	16
23:00	0	3	4	0	0	0	0	0	1	0	0	0	0	8
Total	0	521	159	6	44	6	0	4	3	0	0	0	0	743
Percent	0.0%	70.1%	21.4%	0.8%	5.9%	0.8%	0.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	09:00	07:00	03:00	05:00		10:00	06:00					07:00
Vol.		19	7	1	2	1		1	1					27
PM Peak		17:00	16:00	12:00	17:00	12:00		16:00	23:00					17:00
Vol.		95	22	1	9	1		1	1					124
Grand Total	2	1044	329	10	86	8	0	11	11	1	0	0	0	1502
Percent	0.1%	69.5%	21.9%	0.7%	5.7%	0.5%	0.0%	0.7%	0.7%	0.1%	0.0%	0.0%	0.0%	



Site Code: 13  
 Station ID:  
 EB OFF AND WB ON RAMP W/O US36

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	1	1	0	0	0	0	0	1	0	0	0	0	3
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
03:00	0	4	2	0	0	0	0	0	1	0	0	0	0	7
04:00	0	11	12	2	8	0	0	0	0	0	0	0	0	33
05:00	0	57	31	1	21	2	0	0	0	0	0	0	0	112
06:00	0	99	58	2	48	0	0	1	1	1	0	0	0	210
07:00	0	78	62	3	24	1	0	2	1	0	0	0	0	171
08:00	1	42	49	3	25	0	0	1	0	0	0	0	0	121
09:00	0	46	29	3	18	0	0	0	1	0	0	0	0	97
10:00	1	33	20	2	13	0	0	1	0	0	0	0	0	70
11:00	1	20	29	2	5	0	0	3	0	0	0	0	0	60
12 PM	0	27	27	1	14	0	0	2	1	0	0	0	0	72
13:00	1	18	18	0	12	0	0	4	1	0	0	0	0	54
14:00	1	22	28	1	13	1	0	2	0	0	0	0	0	68
15:00	0	20	22	1	12	1	0	0	3	0	0	0	0	59
16:00	0	23	34	0	9	1	0	2	2	0	0	0	0	71
17:00	0	23	23	0	11	0	0	0	0	0	0	0	0	57
18:00	0	35	24	0	8	0	0	2	0	0	0	0	0	69
19:00	0	18	14	0	11	0	0	0	0	0	0	0	0	43
20:00	0	17	7	1	3	0	0	0	0	0	0	0	0	28
21:00	1	10	8	0	3	0	0	0	0	0	0	0	0	22
22:00	0	9	3	0	2	0	0	0	0	0	0	0	0	14
23:00	0	4	6	0	0	0	0	0	0	0	0	0	0	10
Total	6	621	510	22	261	6	0	20	12	1	0	0	0	1459
Percent	0.4%	42.6%	35.0%	1.5%	17.9%	0.4%	0.0%	1.4%	0.8%	0.1%	0.0%	0.0%	0.0%	
AM Peak	08:00	06:00	07:00	07:00	06:00	05:00		11:00	00:00	06:00				06:00
Vol.	1	99	62	3	48	2		3	1	1				210
PM Peak	13:00	18:00	16:00	12:00	12:00	14:00		13:00	15:00					12:00
Vol.	1	35	34	1	14	1		4	3					72



Site Code: 13  
 Station ID:  
 EB OFF AND WB ON RAMP W/O US36

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	0	0	0	1	0	0	0	1	0	0	0	0	2
01:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
02:00	1	0	1	0	3	1	0	0	0	0	0	0	0	6
03:00	0	3	7	0	0	1	0	0	1	0	0	0	0	12
04:00	0	15	10	1	2	0	0	0	0	0	0	0	0	28
05:00	0	53	28	0	31	1	0	3	0	0	0	0	0	116
06:00	0	88	56	1	37	0	0	1	1	0	0	0	0	184
07:00	1	92	59	0	36	0	0	0	2	0	0	0	0	190
08:00	0	53	48	0	18	0	0	0	1	0	0	0	0	120
09:00	0	30	24	2	14	3	0	2	1	0	0	0	0	76
10:00	0	16	25	2	11	0	0	0	0	0	0	0	0	54
11:00	0	24	25	0	12	0	0	2	0	0	0	0	0	63
12 PM	0	29	27	1	17	2	0	1	0	0	0	0	0	77
13:00	0	14	19	0	11	1	0	2	1	0	0	0	0	48
14:00	0	24	11	2	12	0	0	2	1	1	0	0	0	53
15:00	0	30	19	0	7	0	0	2	0	0	0	0	0	58
16:00	0	24	19	1	14	0	0	1	0	0	0	0	0	59
17:00	0	30	34	0	5	0	0	1	0	0	0	0	0	70
18:00	0	24	31	0	10	0	0	0	0	0	0	0	0	65
19:00	0	12	14	0	5	0	0	1	1	0	1	0	0	34
20:00	0	16	9	1	5	0	0	0	0	0	0	0	0	31
21:00	0	9	6	1	3	0	0	0	1	0	0	0	0	20
22:00	0	1	4	0	3	0	0	0	0	0	0	0	0	8
23:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
Total	2	595	480	12	258	9	0	18	11	1	1	0	0	1387
Percent	0.1%	42.9%	34.6%	0.9%	18.6%	0.6%	0.0%	1.3%	0.8%	0.1%	0.1%	0.0%	0.0%	
AM Peak	02:00	07:00	07:00	09:00	06:00	09:00		05:00	07:00					07:00
Vol.	1	92	59	2	37	3		3	2					190
PM Peak		15:00	17:00	14:00	12:00	12:00		13:00	13:00	14:00	19:00			12:00
Vol.		30	34	2	17	2		2	1	1	1			77
Grand Total	8	1216	990	34	519	15	0	38	23	2	1	0	0	2846
Percent	0.3%	42.7%	34.8%	1.2%	18.2%	0.5%	0.0%	1.3%	0.8%	0.1%	0.0%	0.0%	0.0%	



Site Code: 14  
 Station ID:  
 EB OFF RAMP 305 W/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	6	0	0	1	0	0	0	0	0	0	0	0	7
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	1	2	1	0	1	0	0	0	0	0	0	0	0	5
03:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
04:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	3	2	0	1	0	0	0	1	0	0	0	0	7
06:00	6	11	4	0	5	2	0	0	5	0	0	0	0	33
07:00	0	9	6	0	3	0	0	0	0	0	0	0	0	18
08:00	0	9	9	0	1	2	0	0	0	0	0	0	0	21
09:00	0	15	6	0	6	1	0	1	0	0	0	0	0	29
10:00	0	11	7	1	5	0	0	1	2	0	0	0	0	27
11:00	0	15	8	0	3	0	0	0	0	0	0	0	0	26
12 PM	0	12	5	0	1	1	0	3	2	0	0	0	0	24
13:00	1	14	6	0	3	1	0	0	0	0	0	0	0	25
14:00	1	20	7	0	8	1	0	0	0	0	0	0	0	37
15:00	0	47	12	0	2	1	0	1	1	0	0	0	0	64
16:00	0	43	18	0	11	0	0	1	1	0	0	0	0	74
17:00	2	65	9	0	10	0	0	1	1	0	0	0	0	88
18:00	0	64	10	0	6	0	0	0	0	0	0	0	0	80
19:00	0	49	14	1	3	0	0	1	1	0	0	0	0	69
20:00	0	33	8	0	3	0	0	0	1	0	0	0	0	45
21:00	0	21	7	0	7	0	0	0	0	0	0	0	0	35
22:00	0	12	1	0	2	0	0	0	0	0	0	0	0	15
23:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
Total	11	471	144	2	83	9	0	9	15	0	0	0	0	744
Percent	1.5%	63.3%	19.4%	0.3%	11.2%	1.2%	0.0%	1.2%	2.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	09:00	08:00	10:00	09:00	06:00		09:00	06:00					06:00
Vol.	6	15	9	1	6	2		1	5					33
PM Peak	17:00	17:00	16:00	19:00	16:00	12:00		12:00	12:00					17:00
Vol.	2	65	18	1	11	1		3	2					88



Site Code: 14  
 Station ID:  
 EB OFF RAMP 305 W/O KIOWA-BENNETT RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	4	0	0	1	0	0	0	0	0	0	0	0	5
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	1	0	0	0	0	1	0	0	0	0	0	4
06:00	0	9	3	0	1	0	0	0	1	0	0	0	0	14
07:00	0	12	2	0	3	1	0	0	1	0	0	0	0	19
08:00	0	12	5	0	5	1	0	0	0	0	0	0	0	23
09:00	0	13	4	0	6	0	0	1	1	0	0	0	0	25
10:00	0	12	3	0	1	0	0	1	1	0	0	0	0	18
11:00	0	21	7	0	1	0	0	0	1	0	0	0	0	30
12 PM	0	15	9	0	6	0	0	0	0	0	0	0	0	30
13:00	0	9	3	0	7	0	0	0	0	0	0	0	0	19
14:00	0	27	5	0	4	1	0	2	2	0	0	0	0	41
15:00	0	34	9	0	5	0	0	1	0	0	0	0	0	49
16:00	0	54	9	0	5	0	0	0	1	0	0	0	0	69
17:00	0	66	17	0	10	0	0	0	2	0	0	0	0	95
18:00	0	60	13	0	6	0	0	1	1	0	0	0	0	81
19:00	0	43	8	0	6	0	0	0	0	0	0	0	0	57
20:00	0	23	2	0	3	0	0	0	0	0	0	0	0	28
21:00	0	20	4	0	3	0	0	0	0	0	0	0	0	27
22:00	0	12	4	0	1	1	0	0	0	0	0	0	0	18
23:00	0	10	1	0	0	0	0	1	0	0	0	0	0	12
Total	0	463	110	0	74	4	0	8	11	0	0	0	0	670
Percent	0.0%	69.1%	16.4%	0.0%	11.0%	0.6%	0.0%	1.2%	1.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	11:00		09:00	07:00		05:00	06:00					11:00
Vol.		21	7		6	1		1	1					30
PM Peak		17:00	17:00		17:00	14:00		14:00	14:00					17:00
Vol.		66	17		10	1		2	2					95
Grand Total	11	934	254	2	157	13	0	17	26	0	0	0	0	1414
Percent	0.8%	66.1%	18.0%	0.1%	11.1%	0.9%	0.0%	1.2%	1.8%	0.0%	0.0%	0.0%	0.0%	



Site Code: 16  
 Station ID:  
 KIOWA-BENNETT RD S/O CR14

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
02:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
04:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
05:00	0	23	6	0	3	0	0	0	3	0	0	0	0	35
06:00	0	42	11	0	6	0	0	0	0	0	0	0	0	59
07:00	0	41	14	0	7	1	0	0	2	1	0	0	0	66
08:00	0	32	11	0	8	0	0	4	2	0	0	0	0	57
09:00	0	17	12	0	4	0	0	1	1	0	0	0	0	35
10:00	0	19	7	0	1	0	0	3	3	0	0	0	0	33
11:00	1	13	13	0	4	0	0	3	5	0	0	0	0	39
12 PM	0	18	6	1	0	0	0	3	4	0	0	0	0	32
13:00	1	9	6	1	1	0	0	1	1	0	0	0	0	20
14:00	0	17	3	0	4	0	0	1	3	0	0	0	0	28
15:00	0	15	9	0	5	1	0	1	2	0	0	0	0	33
16:00	0	26	11	0	1	1	0	1	0	0	0	0	0	40
17:00	0	32	17	1	11	0	0	1	1	0	0	0	0	63
18:00	0	27	9	0	2	0	0	1	1	0	0	0	0	40
19:00	0	20	8	1	2	0	0	0	0	0	0	0	0	31
20:00	0	12	2	0	4	0	0	0	1	0	0	0	0	19
21:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
22:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	376	150	4	66	3	0	20	31	1	0	0	0	653
Percent	0.3%	57.6%	23.0%	0.6%	10.1%	0.5%	0.0%	3.1%	4.7%	0.2%	0.0%	0.0%	0.0%	
AM Peak	11:00	06:00	07:00		08:00	07:00		08:00	11:00	07:00				07:00
Vol.	1	42	14		8	1		4	5	1				66
PM Peak	13:00	17:00	17:00	12:00	17:00	15:00		12:00	12:00					17:00
Vol.	1	32	17	1	11	1		3	4					63



Site Code: 16  
 Station ID:  
 KIOWA-BENNETT RD S/O CR14

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	1	0	0	0	0	2
04:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
05:00	0	17	8	0	7	0	0	0	0	0	0	0	0	32
06:00	0	43	10	0	5	0	0	0	3	0	0	0	0	61
07:00	0	53	14	0	11	0	0	1	1	0	0	0	0	80
08:00	0	31	10	0	2	0	0	0	1	0	0	0	0	44
09:00	0	20	13	2	4	2	0	0	3	0	0	0	0	44
10:00	0	19	6	0	5	1	0	0	2	0	0	0	0	33
11:00	0	12	10	0	3	0	0	0	1	0	0	0	0	26
12 PM	0	15	9	0	8	0	0	0	0	0	0	0	0	32
13:00	0	15	7	0	2	1	0	1	1	0	0	0	0	27
14:00	1	15	3	0	7	1	0	0	2	0	0	0	0	29
15:00	0	18	10	0	3	0	0	1	0	0	0	0	0	32
16:00	0	21	14	0	2	0	0	1	0	1	0	0	0	39
17:00	0	32	7	0	7	1	0	0	0	0	0	0	0	47
18:00	0	30	7	0	4	0	0	0	0	0	0	0	0	41
19:00	0	12	5	0	2	0	0	2	2	0	0	0	0	23
20:00	0	12	3	0	4	0	0	0	1	0	0	0	0	20
21:00	0	9	0	0	1	0	0	0	0	0	0	0	0	10
22:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	385	137	2	79	6	0	6	19	1	0	0	0	636
Percent	0.2%	60.5%	21.5%	0.3%	12.4%	0.9%	0.0%	0.9%	3.0%	0.2%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00	09:00	07:00	09:00		07:00	06:00					07:00
Vol.		53	14	2	11	2		1	3					80
PM Peak	14:00	17:00	16:00		12:00	13:00		19:00	14:00	16:00				17:00
Vol.	1	32	14		8	1		2	2	1				47
Grand Total	3	761	287	6	145	9	0	26	50	2	0	0	0	1289
Percent	0.2%	59.0%	22.3%	0.5%	11.2%	0.7%	0.0%	2.0%	3.9%	0.2%	0.0%	0.0%	0.0%	



Site Code: 16  
 Station ID:  
 KIOWA-BENNETT RD S/O CR14

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	2	1	0	1	0	0	0	1	0	0	0	0	5
05:00	0	3	3	0	1	0	0	0	0	0	0	0	0	7
06:00	1	20	4	0	10	0	0	1	6	0	0	0	0	42
07:00	0	19	10	1	4	0	0	0	1	1	0	0	0	36
08:00	0	23	6	1	3	1	0	1	0	0	0	0	0	35
09:00	0	13	11	0	3	1	0	1	2	0	0	0	0	31
10:00	0	4	7	1	9	0	0	1	3	0	0	0	0	25
11:00	0	13	7	0	6	0	0	2	1	0	0	0	0	29
12 PM	1	13	10	0	5	1	0	2	0	0	0	0	0	32
13:00	0	15	9	0	0	1	0	1	4	0	0	0	0	30
14:00	1	16	7	0	7	1	0	2	0	0	0	0	0	34
15:00	0	26	18	0	3	1	0	2	3	0	0	0	0	53
16:00	1	37	18	0	10	0	0	2	4	0	0	0	0	72
17:00	1	38	15	1	12	1	0	4	2	0	0	0	0	74
18:00	0	45	12	0	4	0	0	0	1	0	0	0	0	62
19:00	0	28	16	0	10	0	0	1	0	0	0	0	0	55
20:00	0	18	3	1	3	0	0	0	1	0	0	0	0	26
21:00	0	14	2	1	4	0	0	0	0	0	0	0	0	21
22:00	0	11	4	0	2	0	0	0	0	0	0	0	0	17
23:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	5	364	166	6	97	7	0	20	29	1	0	0	0	695
Percent	0.7%	52.4%	23.9%	0.9%	14.0%	1.0%	0.0%	2.9%	4.2%	0.1%	0.0%	0.0%	0.0%	
AM Peak	06:00	08:00	09:00	07:00	06:00	08:00		11:00	06:00	07:00				06:00
Vol.	1	23	11	1	10	1		2	6	1				42
PM Peak	12:00	18:00	15:00	17:00	17:00	12:00		17:00	13:00					17:00
Vol.	1	45	18	1	12	1		4	4					74



Site Code: 16  
 Station ID:  
 KIOWA-BENNETT RD S/O CR14

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	2	1	0	0	0	0	0	1	0	0	0	0	4
05:00	0	6	3	0	2	0	0	1	1	0	0	0	0	13
06:00	0	20	3	0	2	0	0	0	1	0	0	0	0	26
07:00	0	19	5	0	5	1	0	0	2	0	0	0	0	32
08:00	0	16	4	3	5	3	0	1	1	0	0	0	0	33
09:00	0	10	8	1	7	0	0	3	3	0	0	0	0	32
10:00	0	13	5	0	3	0	0	1	0	0	0	0	0	22
11:00	0	12	6	0	4	0	0	0	1	0	0	0	0	23
12 PM	0	19	7	0	2	0	0	2	1	0	0	0	0	31
13:00	0	8	6	0	10	0	0	0	1	1	0	0	0	26
14:00	0	16	8	0	3	1	0	2	2	0	0	0	0	32
15:00	0	27	9	0	11	0	0	1	0	0	0	0	0	48
16:00	0	24	12	0	8	0	0	0	2	0	0	0	0	46
17:00	1	53	18	0	8	0	0	1	4	0	0	0	0	85
18:00	0	35	12	0	5	0	0	1	0	0	0	0	0	53
19:00	0	31	11	0	8	0	0	1	0	0	0	0	0	51
20:00	0	7	7	0	4	0	0	0	0	0	0	0	0	18
21:00	0	15	5	1	1	0	0	0	0	0	0	0	0	22
22:00	0	8	6	0	0	1	0	1	0	0	0	0	0	16
23:00	0	6	1	0	0	0	0	1	1	0	0	0	0	9
Total	1	356	137	5	88	6	0	16	21	1	0	0	0	631
Percent	0.2%	56.4%	21.7%	0.8%	13.9%	1.0%	0.0%	2.5%	3.3%	0.2%	0.0%	0.0%	0.0%	
AM Peak		06:00	09:00	08:00	09:00	08:00		09:00	09:00					08:00
Vol.		20	8	3	7	3		3	3					33
PM Peak	17:00	17:00	17:00	21:00	15:00	14:00		12:00	17:00	13:00				17:00
Vol.	1	53	18	1	11	1		2	4	1				85
Grand Total	6	720	303	11	185	13	0	36	50	2	0	0	0	1326
Percent	0.5%	54.3%	22.9%	0.8%	14.0%	1.0%	0.0%	2.7%	3.8%	0.2%	0.0%	0.0%	0.0%	



Site Code: 2  
 Station ID:  
 EB ON RAMPS (304) E/O CONVERSE RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	0	12	1	0	0	4	0	1	1	0	0	0	0	19
01:00	0	14	2	0	0	1	0	0	3	0	0	0	0	20
02:00	0	5	2	0	0	1	0	0	3	0	0	0	0	11
03:00	0	3	1	0	2	0	0	0	2	0	0	0	0	8
04:00	0	3	3	0	1	0	0	1	4	0	0	0	0	12
05:00	0	11	7	0	7	2	0	0	4	0	2	0	1	34
06:00	0	28	10	0	8	2	0	1	9	0	0	0	0	58
07:00	0	62	20	2	9	4	0	1	10	0	0	1	0	109
08:00	1	47	22	0	11	4	0	1	12	0	0	1	0	99
09:00	0	58	16	3	14	4	0	4	13	0	0	1	0	113
10:00	0	65	31	1	14	5	0	1	20	0	0	0	0	137
11:00	3	68	32	1	13	9	0	3	14	1	0	0	0	144
12 PM	0	75	29	1	11	8	0	5	19	0	0	0	0	148
13:00	1	77	35	0	10	3	0	3	14	0	0	0	0	143
14:00	0	76	29	2	12	2	1	1	11	0	0	0	1	135
15:00	2	102	21	0	21	9	0	5	7	0	0	0	0	167
16:00	2	132	54	0	13	9	0	2	10	1	0	1	1	225
17:00	2	146	39	0	18	8	0	1	6	0	0	0	0	220
18:00	0	126	35	0	23	3	0	1	9	0	0	0	0	197
19:00	0	87	22	0	11	2	0	3	9	0	0	1	0	135
20:00	0	66	29	0	10	3	0	2	11	0	0	0	0	121
21:00	0	57	16	0	13	3	0	1	12	0	1	0	0	103
22:00	0	37	7	0	4	3	0	0	5	0	0	0	0	56
23:00	0	19	2	0	3	2	0	0	4	0	0	1	0	31
Total	11	1376	465	10	228	91	1	37	212	2	3	6	3	2445
Percent	0.4%	56.3%	19.0%	0.4%	9.3%	3.7%	0.0%	1.5%	8.7%	0.1%	0.1%	0.2%	0.1%	
AM Peak	11:00	11:00	11:00	09:00	09:00	11:00		09:00	10:00	11:00	05:00	07:00	05:00	11:00
Vol.	3	68	32	3	14	9		4	20	1	2	1	1	144
PM Peak	15:00	17:00	16:00	14:00	18:00	15:00	14:00	12:00	12:00	16:00	21:00	16:00	14:00	16:00
Vol.	2	146	54	2	23	9	1	5	19	1	1	1	1	225



Site Code: 2  
 Station ID:  
 EB ON RAMPS (304) E/O CONVERSE RD

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	9	1	0	0	1	0	0	2	0	0	0	0	13
01:00	0	9	2	0	0	1	0	0	2	0	0	0	0	14
02:00	0	5	2	0	0	0	0	0	3	0	0	0	0	10
03:00	0	3	4	0	0	0	0	0	1	0	0	1	0	9
04:00	0	8	4	0	0	1	0	0	0	0	0	0	1	14
05:00	0	10	5	1	5	1	0	1	3	0	1	1	0	28
06:00	0	30	9	2	11	3	0	1	9	0	0	0	0	65
07:00	0	67	23	1	9	4	0	1	10	0	0	1	0	116
08:00	1	51	24	0	12	4	0	1	12	0	0	1	0	106
09:00	0	64	16	0	15	4	0	4	14	0	0	1	0	118
10:00	0	71	34	1	15	5	0	1	22	0	0	0	0	149
11:00	3	73	36	0	14	9	0	3	14	1	0	0	0	153
12 PM	0	81	32	6	12	8	0	5	21	0	0	0	0	165
13:00	1	84	39	0	11	3	0	3	14	0	0	0	0	155
14:00	0	84	32	2	12	2	1	1	12	0	0	0	1	147
15:00	2	111	23	3	23	9	0	5	8	0	0	0	0	184
16:00	1	119	44	0	13	6	0	6	18	0	0	0	0	207
17:00	2	161	51	0	24	8	0	6	11	0	0	0	0	263
18:00	0	147	48	0	18	2	0	0	11	0	0	0	0	226
19:00	1	108	37	0	11	5	0	3	9	1	0	0	0	175
20:00	0	71	25	0	12	1	0	0	6	0	0	0	0	115
21:00	0	44	8	0	8	2	0	2	6	0	0	0	0	70
22:00	0	38	9	0	2	2	0	1	8	0	0	0	0	60
23:00	0	14	3	0	2	1	0	0	2	0	0	1	1	24
Total	11	1462	511	16	229	82	1	44	218	2	1	6	3	2586
Percent	0.4%	56.5%	19.8%	0.6%	8.9%	3.2%	0.0%	1.7%	8.4%	0.1%	0.0%	0.2%	0.1%	
AM Peak	11:00	11:00	11:00	06:00	09:00	11:00		09:00	10:00	11:00	05:00	03:00	04:00	11:00
Vol.	3	73	36	2	15	9		4	22	1	1	1	1	153
PM Peak	15:00	17:00	17:00	12:00	17:00	15:00	14:00	16:00	12:00	19:00		23:00	14:00	17:00
Vol.	2	161	51	6	24	9	1	6	21	1		1	1	263
Grand Total	22	2838	976	26	457	173	2	81	430	4	4	12	6	5031
Percent	0.4%	56.4%	19.4%	0.5%	9.1%	3.4%	0.0%	1.6%	8.5%	0.1%	0.1%	0.2%	0.1%	



Site Code: 1  
 Station ID: 1  
 I-70 WB ON RAMP

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/10/12	2	5	3	0	0	2	0	3	3	0	0	0	0	18
01:00	4	5	2	0	0	4	0	0	2	0	0	0	0	17
02:00	1	1	2	0	0	1	0	0	4	0	0	0	0	9
03:00	2	11	6	3	2	1	0	2	7	0	0	0	0	34
04:00	3	24	6	1	1	3	0	0	6	0	0	0	0	44
05:00	9	73	31	6	19	7	0	1	7	0	1	0	0	154
06:00	8	137	43	4	38	5	0	3	13	0	0	0	1	252
07:00	9	142	37	7	17	11	0	7	18	1	0	0	1	250
08:00	5	124	43	5	22	3	0	1	18	0	0	0	0	221
09:00	4	69	29	3	9	4	0	7	11	1	0	0	1	138
10:00	4	89	37	3	20	6	0	6	6	0	0	2	0	173
11:00	2	62	41	6	14	2	0	7	11	0	0	0	0	145
12 PM	5	72	24	2	16	6	0	2	8	0	0	0	0	135
13:00	5	57	26	4	19	8	0	4	7	0	0	0	0	130
14:00	4	59	29	2	16	8	0	6	2	0	0	0	1	127
15:00	1	61	16	5	11	0	0	2	10	1	0	1	0	108
16:00	6	88	28	3	16	4	0	0	5	1	0	0	0	151
17:00	7	68	16	6	8	4	0	1	9	0	0	0	0	119
18:00	3	52	18	3	7	4	0	1	5	0	0	0	0	93
19:00	3	50	19	3	5	0	0	1	3	0	0	1	0	85
20:00	4	29	14	1	3	4	0	0	7	0	0	0	0	62
21:00	2	21	4	3	6	2	0	0	7	0	0	0	0	45
22:00	2	12	4	2	2	2	0	0	2	0	0	0	0	26
23:00	0	7	4	3	1	0	0	0	3	0	0	2	0	20
Day Total	95	1318	482	75	252	91	0	54	174	4	1	6	4	2556
Percent	3.7%	51.6%	18.9%	2.9%	9.9%	3.6%	0.0%	2.1%	6.8%	0.2%	0.0%	0.2%	0.2%	
AM Peak	05:00	07:00	06:00	07:00	06:00	07:00		07:00	07:00	07:00	05:00	10:00	06:00	06:00
Vol.	9	142	43	7	38	11		7	18	1	1	2	1	252
PM Peak	17:00	16:00	14:00	17:00	13:00	13:00		14:00	15:00	15:00		23:00	14:00	16:00
Vol.	7	88	29	6	19	8		6	10	1		2	1	151
Grand Total	95	1318	482	75	252	91	0	54	174	4	1	6	4	2556
Percent	3.7%	51.6%	18.9%	2.9%	9.9%	3.6%	0.0%	2.1%	6.8%	0.2%	0.0%	0.2%	0.2%	



Site Code: 2  
 Station ID: 2  
 I-70 WB OFF RAMP

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
10/10/12	0	3	5	2	0	0	0	1	5	0	0	0	0	16
01:00	0	3	0	0	0	0	0	0	8	0	0	0	0	11
02:00	0	3	2	0	1	0	0	1	4	0	0	0	0	11
03:00	0	5	2	2	0	0	0	1	7	0	0	0	0	17
04:00	0	8	3	2	2	0	0	0	7	0	1	0	0	23
05:00	1	28	14	3	11	0	0	0	6	0	0	0	0	63
06:00	0	49	16	2	8	1	0	0	6	0	0	0	0	82
07:00	0	65	29	1	9	0	0	5	15	1	0	0	0	125
08:00	1	62	25	2	6	0	0	2	16	0	0	0	0	114
09:00	1	65	27	1	12	2	0	6	12	0	0	0	0	126
10:00	1	62	14	1	8	0	0	3	15	1	0	0	0	105
11:00	0	65	12	2	11	1	0	0	16	0	0	0	0	107
12 PM	0	62	33	0	7	6	0	2	11	0	1	0	0	122
13:00	0	50	21	1	11	4	0	2	14	0	0	0	0	103
14:00	0	66	17	1	12	0	0	5	10	0	0	0	1	112
15:00	0	79	16	4	10	1	0	0	18	1	0	1	0	130
16:00	0	47	24	5	15	0	0	1	24	1	0	0	0	117
17:00	0	72	17	4	6	0	0	1	18	0	0	0	0	118
18:00	1	61	36	5	7	2	0	2	18	0	0	1	0	133
19:00	1	50	16	6	6	0	0	1	16	0	0	0	0	96
20:00	0	25	8	4	3	0	0	1	15	0	0	0	0	56
21:00	0	23	9	2	2	0	0	0	10	0	0	0	0	46
22:00	0	12	5	2	1	1	0	0	6	0	0	1	0	28
23:00	0	5	4	2	0	0	0	0	4	0	0	1	0	16
Day Total	6	970	355	54	148	18	0	34	281	4	2	4	1	1877
Percent	0.3%	51.7%	18.9%	2.9%	7.9%	1.0%	0.0%	1.8%	15.0%	0.2%	0.1%	0.2%	0.1%	
AM Peak	05:00	07:00	07:00	05:00	09:00	09:00		09:00	08:00	07:00	04:00			09:00
Vol.	1	65	29	3	12	2		6	16	1	1			126
PM Peak	18:00	15:00	18:00	19:00	16:00	12:00		14:00	16:00	15:00	12:00	15:00	14:00	18:00
Vol.	1	79	36	6	15	6		5	24	1	1	1	1	133
Grand Total	6	970	355	54	148	18	0	34	281	4	2	4	1	1877
Percent	0.3%	51.7%	18.9%	2.9%	7.9%	1.0%	0.0%	1.8%	15.0%	0.2%	0.1%	0.2%	0.1%	



Site Code: 7  
 Station ID:  
 COLFAX AVE W/O ADAMS ST

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	3	10	3	0	0	2	0	0	0	0	0	0	0	18
01:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
02:00	1	6	1	0	0	1	0	0	0	0	0	0	0	9
03:00	2	0	1	0	0	1	0	0	0	0	0	0	0	4
04:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	0	6	4	0	1	0	0	0	0	0	0	0	0	11
06:00	1	27	4	1	7	9	0	1	1	0	0	0	0	51
07:00	6	134	17	0	11	0	0	3	2	0	0	0	0	173
08:00	3	118	23	0	6	4	0	0	2	0	0	0	0	156
09:00	5	80	26	0	7	1	0	1	1	0	0	0	0	121
10:00	5	92	20	0	9	4	0	2	4	0	0	0	0	136
11:00	6	115	33	0	4	5	0	0	6	0	0	0	0	169
12 PM	11	99	35	0	8	6	0	2	2	0	0	0	0	163
13:00	4	123	22	1	6	2	0	1	4	0	0	0	0	163
14:00	8	105	21	1	10	6	0	2	2	0	0	0	0	155
15:00	8	141	36	1	9	3	0	2	2	0	0	0	0	202
16:00	9	210	39	0	12	3	0	5	2	0	0	0	0	280
17:00	9	223	44	1	19	5	1	4	0	0	0	0	0	306
18:00	7	160	41	2	11	3	0	3	1	1	0	1	1	231
19:00	4	129	31	0	8	0	0	0	2	0	0	0	0	174
20:00	1	76	17	0	4	0	0	0	1	0	0	0	0	99
21:00	2	44	15	0	3	1	0	0	0	0	0	0	0	65
22:00	1	26	8	0	4	1	0	0	2	0	0	0	0	42
23:00	0	16	2	0	1	0	0	0	0	0	0	0	0	19
Total	96	1952	445	7	140	57	1	26	34	1	0	1	1	2761
Percent	3.5%	70.7%	16.1%	0.3%	5.1%	2.1%	0.0%	0.9%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	06:00	07:00	06:00		07:00	11:00					07:00
Vol.	6	134	33	1	11	9		3	6					173
PM Peak	12:00	17:00	17:00	18:00	17:00	12:00	17:00	16:00	13:00	18:00		18:00	18:00	17:00
Vol.	11	223	44	2	19	6	1	5	4	1		1	1	306



Site Code: 7  
 Station ID:  
 COLFAX AVE W/O ADAMS ST

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	1	11	2	0	0	1	0	0	0	0	0	0	0	15
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
04:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
05:00	0	13	2	0	1	2	0	0	0	0	0	0	0	18
06:00	3	28	4	0	5	0	0	0	2	0	0	0	0	42
07:00	5	119	17	0	10	8	0	0	3	0	0	0	0	162
08:00	11	148	35	2	11	5	0	2	1	0	0	0	0	215
09:00	1	71	17	0	10	0	0	2	0	0	0	0	0	101
10:00	7	88	17	2	16	1	0	2	1	0	0	0	1	135
11:00	7	104	21	1	10	3	0	1	2	0	0	0	0	149
12 PM	3	103	41	0	14	2	0	2	0	0	0	0	0	165
13:00	7	126	38	0	13	5	0	3	3	0	0	0	0	195
14:00	7	107	28	0	14	3	0	0	1	0	0	0	0	160
15:00	4	109	29	0	12	3	0	1	0	0	0	0	0	158
16:00	9	209	55	0	13	2	0	1	0	0	0	0	0	289
17:00	10	193	34	0	20	1	0	0	0	0	0	0	0	258
18:00	4	162	27	0	9	1	0	2	1	0	0	0	0	206
19:00	8	130	18	0	9	2	0	1	0	0	0	0	0	168
20:00	6	73	11	0	4	2	0	0	0	0	0	0	0	96
21:00	0	46	3	0	5	0	0	0	0	0	0	0	0	54
22:00	0	21	5	0	0	0	0	0	0	0	0	0	0	26
23:00	1	21	4	0	1	0	0	0	1	0	0	0	0	28
Total	94	1898	413	5	178	41	0	17	15	0	0	0	1	2662
Percent	3.5%	71.3%	15.5%	0.2%	6.7%	1.5%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	08:00	08:00	10:00	07:00		08:00	07:00				10:00	08:00
Vol.	11	148	35	2	16	8		2	3				1	215
PM Peak	17:00	16:00	16:00		17:00	13:00		13:00	13:00					16:00
Vol.	10	209	55		20	5		3	3					289
Grand Total	190	3850	858	12	318	98	1	43	49	1	0	1	2	5423
Percent	3.5%	71.0%	15.8%	0.2%	5.9%	1.8%	0.0%	0.8%	0.9%	0.0%	0.0%	0.0%	0.0%	



Site Code: 7  
 Station ID:  
 COLFAX AVE W/O ADAMS ST

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/11/12	1	13	3	1	0	1	0	0	0	0	0	0	0	19
01:00	0	11	0	0	1	0	0	0	0	0	0	0	0	12
02:00	1	3	0	0	0	0	0	0	0	0	0	0	0	4
03:00	2	7	0	0	2	0	0	0	0	0	0	0	0	11
04:00	0	14	3	1	1	0	0	1	2	0	0	0	0	22
05:00	2	49	16	0	6	0	0	0	1	0	0	0	0	74
06:00	3	97	25	0	19	1	0	1	1	0	0	0	0	147
07:00	5	128	28	0	17	1	0	2	3	0	0	0	0	184
08:00	5	170	40	1	10	3	0	3	1	0	0	0	0	233
09:00	5	119	35	2	22	4	0	4	4	0	0	0	0	195
10:00	6	91	32	1	18	2	0	2	2	0	0	0	0	154
11:00	9	109	35	1	18	1	0	1	4	0	0	0	0	178
12 PM	10	125	34	1	16	12	0	5	8	1	0	0	1	213
13:00	7	111	42	2	7	3	0	4	0	0	0	0	0	176
14:00	1	99	30	1	7	1	0	2	2	0	0	0	0	143
15:00	8	106	32	4	16	6	0	1	3	0	0	0	0	176
16:00	9	189	42	1	18	1	0	0	2	0	0	0	0	262
17:00	9	165	29	1	9	7	1	1	1	0	0	0	0	223
18:00	5	137	33	1	7	3	0	3	0	0	0	1	0	190
19:00	1	114	20	1	7	2	0	0	0	0	0	0	0	145
20:00	3	100	23	1	7	0	0	0	0	0	0	0	0	134
21:00	0	28	5	1	5	0	0	0	1	0	0	0	0	40
22:00	1	31	4	0	3	1	0	0	0	0	0	0	0	40
23:00	3	16	1	0	1	1	0	0	1	0	0	0	0	23
Total	96	2032	512	21	217	50	1	30	36	1	0	1	1	2998
Percent	3.2%	67.8%	17.1%	0.7%	7.2%	1.7%	0.0%	1.0%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	08:00	09:00	09:00	09:00		09:00	09:00					08:00
Vol.	9	170	40	2	22	4		4	4					233
PM Peak	12:00	16:00	13:00	15:00	16:00	12:00	17:00	12:00	12:00	12:00		18:00	12:00	16:00
Vol.	10	189	42	4	18	12	1	5	8	1		1	1	262



Site Code: 7  
 Station ID:  
 COLFAX AVE W/O ADAMS ST

WB

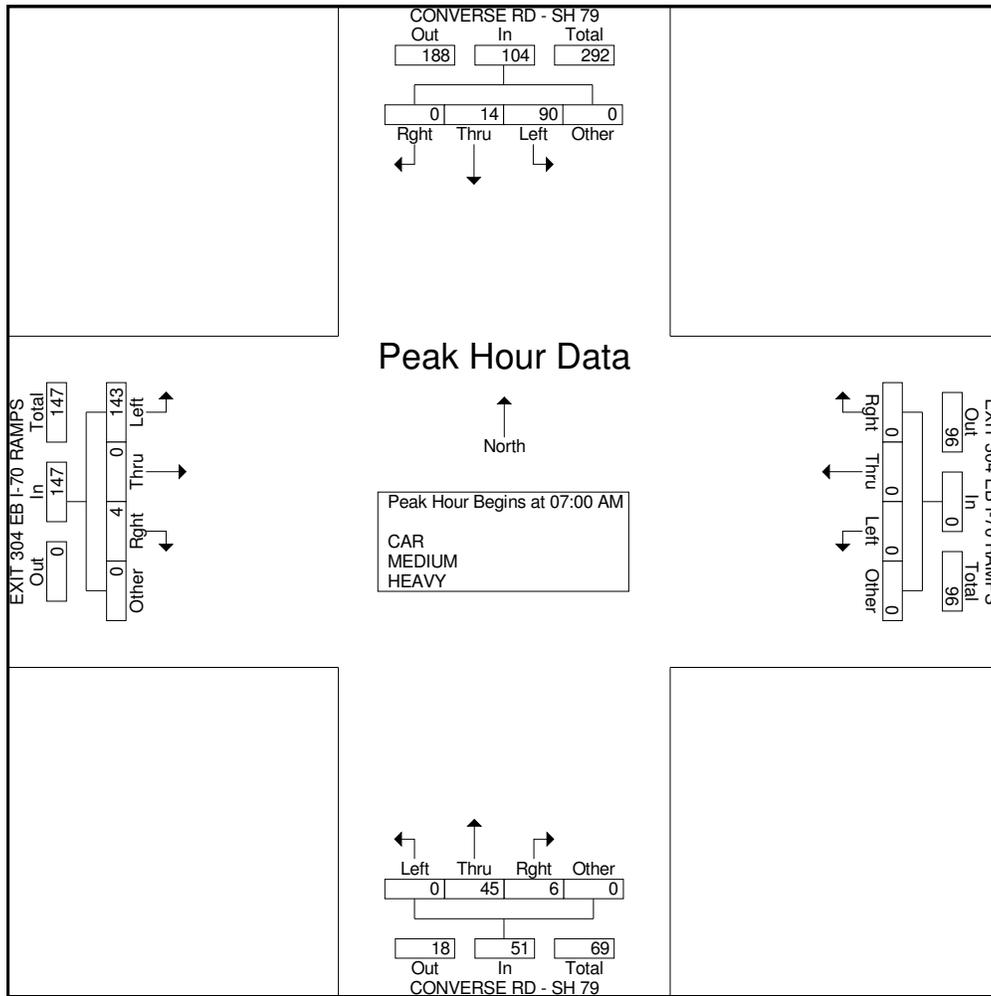
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/12/12	0	7	2	0	0	1	0	0	1	0	0	0	0	11
01:00	1	8	1	0	0	0	0	0	0	0	0	0	0	10
02:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
03:00	1	6	0	1	0	0	0	0	0	0	0	0	0	8
04:00	1	19	2	0	2	2	0	0	0	0	0	0	0	26
05:00	0	45	10	0	6	0	0	1	0	0	0	0	0	62
06:00	3	89	23	1	21	3	0	0	2	0	0	0	0	142
07:00	8	142	24	3	11	6	0	2	3	0	0	0	0	199
08:00	7	173	46	2	22	7	0	2	2	0	0	0	0	261
09:00	1	100	32	0	18	1	0	0	1	0	0	0	0	153
10:00	4	107	19	0	13	3	0	2	1	0	0	0	0	149
11:00	7	131	46	4	13	6	0	3	5	0	0	0	0	215
12 PM	4	118	42	2	20	4	0	1	2	0	0	0	0	193
13:00	6	101	37	1	18	1	0	2	2	0	0	0	0	168
14:00	7	103	35	2	13	5	0	2	3	0	0	0	0	170
15:00	7	97	30	1	17	2	0	0	3	0	0	0	0	157
16:00	6	204	39	0	18	1	0	3	0	0	0	0	0	271
17:00	7	144	25	0	14	6	0	3	0	0	0	0	0	199
18:00	3	122	25	0	10	1	0	0	2	0	0	0	0	163
19:00	2	120	26	3	6	3	0	0	2	0	0	0	0	162
20:00	1	46	8	0	5	0	0	0	0	0	0	0	0	60
21:00	1	38	4	1	4	0	0	0	1	0	0	0	0	49
22:00	1	21	2	1	1	0	0	0	0	0	0	0	0	26
23:00	1	10	2	0	1	0	0	0	0	0	0	0	0	14
Total	79	1955	480	22	234	52	0	21	30	0	0	0	0	2873
Percent	2.7%	68.0%	16.7%	0.8%	8.1%	1.8%	0.0%	0.7%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	11:00	08:00	08:00		11:00	11:00					08:00
Vol.	8	173	46	4	22	7		3	5					261
PM Peak	14:00	16:00	12:00	19:00	12:00	17:00		16:00	14:00					16:00
Vol.	7	204	42	3	20	6		3	3					271
Grand Total	175	3987	992	43	451	102	1	51	66	1	0	1	1	5871
Percent	3.0%	67.9%	16.9%	0.7%	7.7%	1.7%	0.0%	0.9%	1.1%	0.0%	0.0%	0.0%	0.0%	



All Traffic Data Services  
 Wheat Ridge, CO 80033  
 303-668-0220

File Name : #1 CONVERSE&EXIT304EBRAMPSAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 2

Start Time	CONVERSE RD - SH 79 Southbound					EXIT 304 EB I-70 RAMPS Westbound					CONVERSE RD - SH 79 Northbound					EXIT 304 EB I-70 RAMPS Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	5	18	0	23	0	0	0	0	0	2	10	0	0	12	2	0	35	0	37	72
07:15 AM	0	2	27	0	29	0	0	0	0	0	0	10	0	0	10	0	0	45	0	45	84
07:30 AM	0	3	33	0	36	0	0	0	0	0	3	19	0	0	22	0	0	25	0	25	83
07:45 AM	0	4	12	0	16	0	0	0	0	0	1	6	0	0	7	2	0	38	0	40	63
Total Volume	0	14	90	0	104	0	0	0	0	0	6	45	0	0	51	4	0	143	0	147	302
% App. Total	0	13.5	86.5	0		0	0	0	0		11.8	88.2	0	0		2.7	0	97.3	0		
PHF	.000	.700	.682	.000	.722	.000	.000	.000	.000	.000	.500	.592	.000	.000	.580	.500	.000	.794	.000	.817	.899

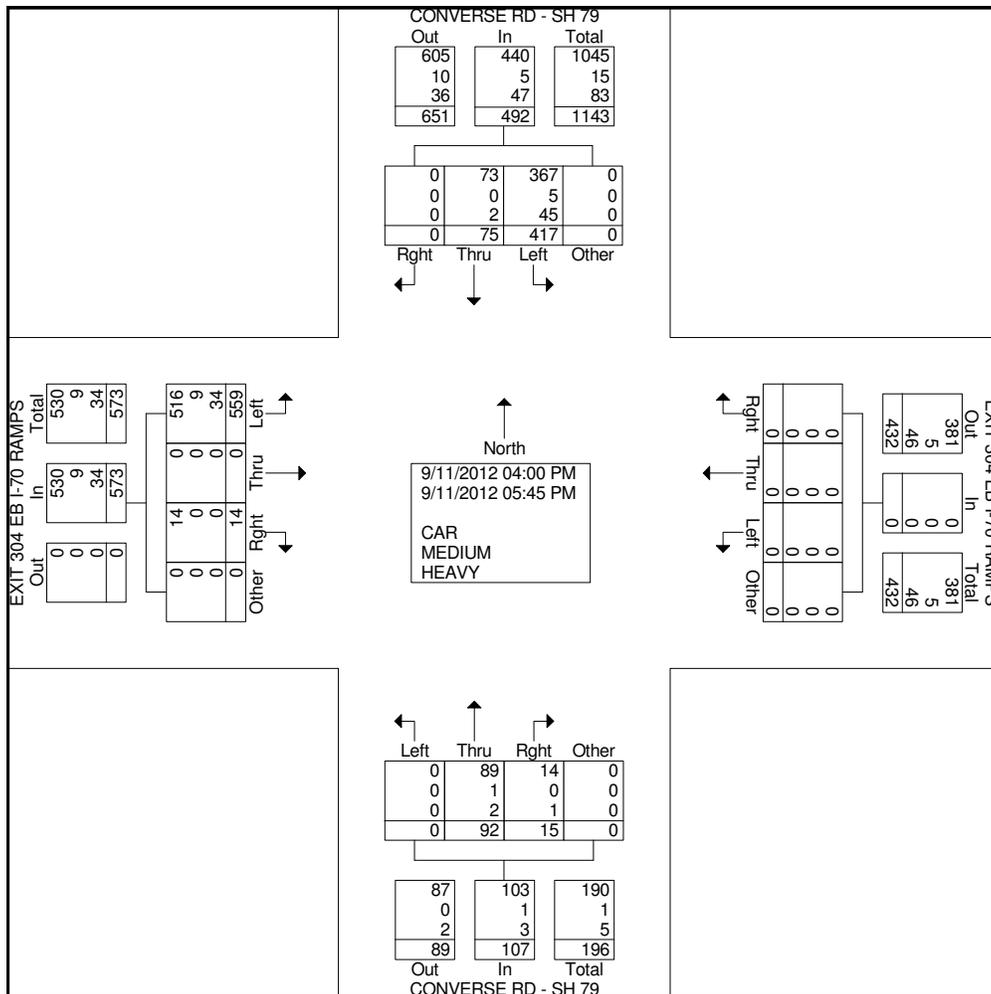


All Traffic Data Services  
 Wheat Ridge, CO 80033  
 303-668-0220

File Name : #1 CONVERSE&EXIT304EBRAMPSPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

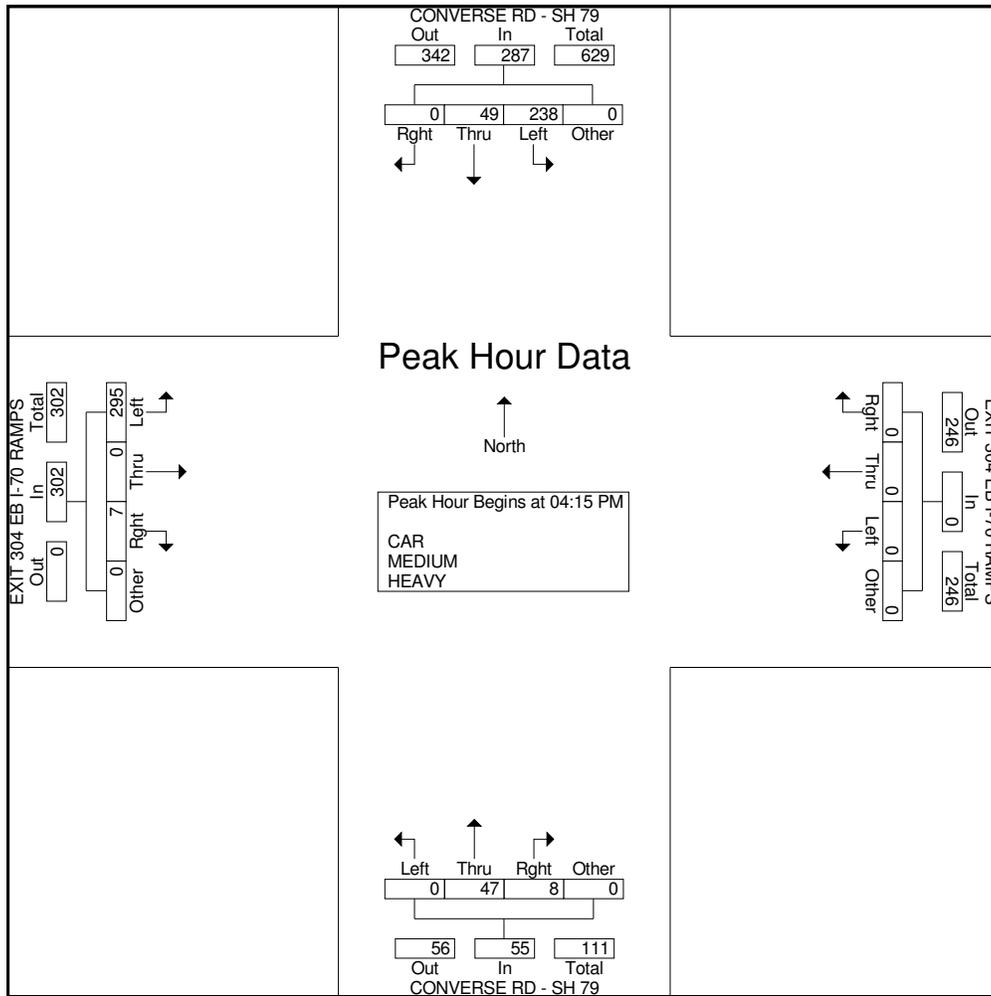
Start Time	CONVERSE RD - SH 79 Southbound				EXIT 304 EB I-70 RAMPS Westbound				CONVERSE RD - SH 79 Northbound				EXIT 304 EB I-70 RAMPS Eastbound				Int. Total
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	
04:00 PM	0	6	50	0	0	0	0	0	2	15	0	0	2	0	75	0	150
04:15 PM	0	12	49	0	0	0	0	0	1	12	0	0	1	0	78	0	153
04:30 PM	0	13	65	0	0	0	0	0	4	14	0	0	0	0	70	0	166
04:45 PM	0	11	60	0	0	0	0	0	2	11	0	0	4	0	83	0	171
Total	0	42	224	0	0	0	0	0	9	52	0	0	7	0	306	0	640
05:00 PM	0	13	64	0	0	0	0	0	1	10	0	0	2	0	64	0	154
05:15 PM	0	6	36	0	0	0	0	0	1	14	0	0	2	0	69	0	128
05:30 PM	0	7	51	0	0	0	0	0	2	8	0	0	2	0	65	0	135
05:45 PM	0	7	42	0	0	0	0	0	2	8	0	0	1	0	55	0	115
Total	0	33	193	0	0	0	0	0	6	40	0	0	7	0	253	0	532
Grand Total	0	75	417	0	0	0	0	0	15	92	0	0	14	0	559	0	1172
Apprch %	0	15.2	84.8	0	0	0	0	0	14	86	0	0	2.4	0	97.6	0	
Total %	0	6.4	35.6	0	0	0	0	0	1.3	7.8	0	0	1.2	0	47.7	0	
CAR	0	73	367	0	0	0	0	0	14	89	0	0	14	0	516	0	1073
% CAR	0	97.3	88	0	0	0	0	0	93.3	96.7	0	0	100	0	92.3	0	91.6
MEDIUM	0	0	5	0	0	0	0	0	0	1	0	0	0	0	9	0	15
% MEDIUM	0	0	1.2	0	0	0	0	0	0	1.1	0	0	0	0	1.6	0	1.3
HEAVY	0	2	45	0	0	0	0	0	1	2	0	0	0	0	34	0	84
% HEAVY	0	2.7	10.8	0	0	0	0	0	6.7	2.2	0	0	0	0	6.1	0	7.2



All Traffic Data Services  
 Wheat Ridge, CO 80033  
 303-668-0220

File Name : #1 CONVERSE&EXIT304EBRAMPSPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 2

Start Time	CONVERSE RD - SH 79 Southbound					EXIT 304 EB I-70 RAMPS Westbound					CONVERSE RD - SH 79 Northbound					EXIT 304 EB I-70 RAMPS Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	12	49	0	61	0	0	0	0	0	1	12	0	0	13	1	0	78	0	79	153
04:30 PM	0	13	65	0	78	0	0	0	0	0	4	14	0	0	18	0	0	70	0	70	166
04:45 PM	0	11	60	0	71	0	0	0	0	0	2	11	0	0	13	4	0	83	0	87	171
05:00 PM	0	13	64	0	77	0	0	0	0	0	1	10	0	0	11	2	0	64	0	66	154
Total Volume	0	49	238	0	287	0	0	0	0	0	8	47	0	0	55	7	0	295	0	302	644
% App. Total	0	17.1	82.9	0		0	0	0	0		14.5	85.5	0	0		2.3	0	97.7	0		
PHF	.000	.942	.915	.000	.920	.000	.000	.000	.000	.000	.500	.839	.000	.000	.764	.438	.000	.889	.000	.868	.942

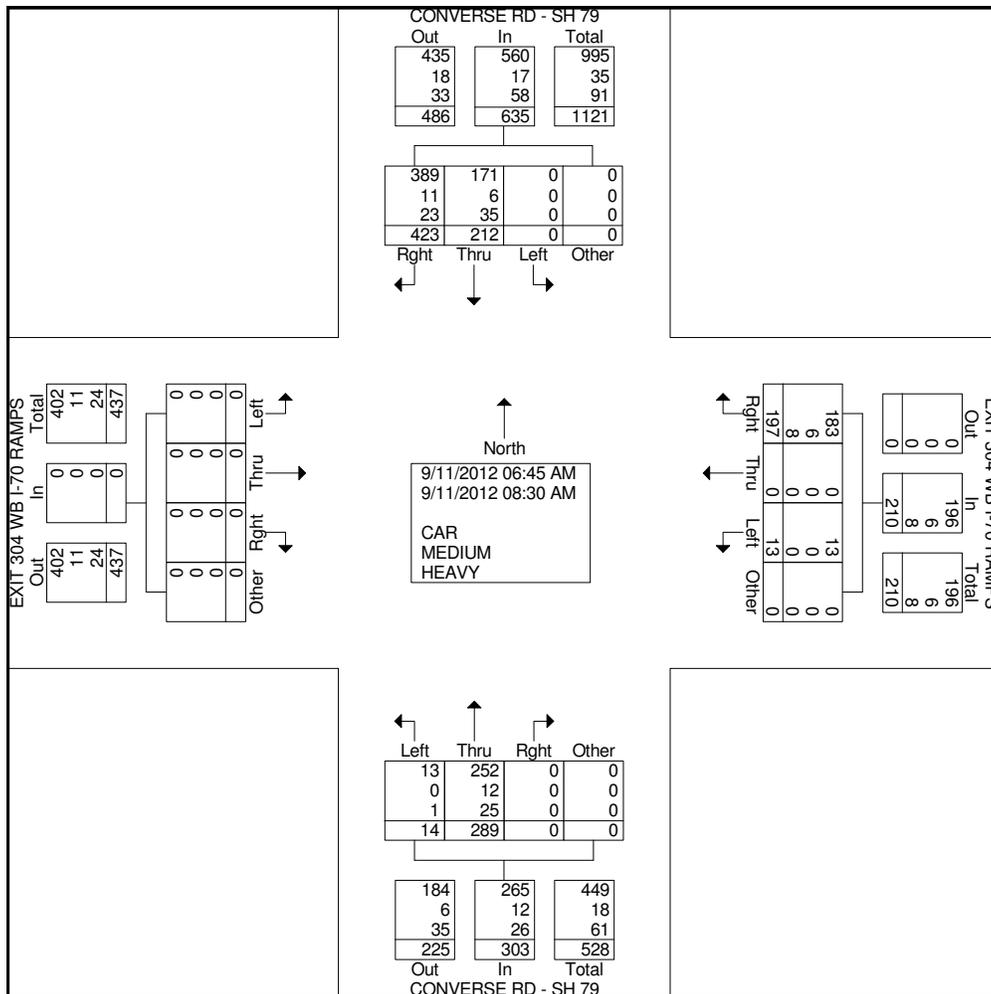


All Traffic Data Services  
 Wheat Ridge, CO 80033  
 303-668-0220

File Name : #2 CONVERSE&EXIT304WBRAMP  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

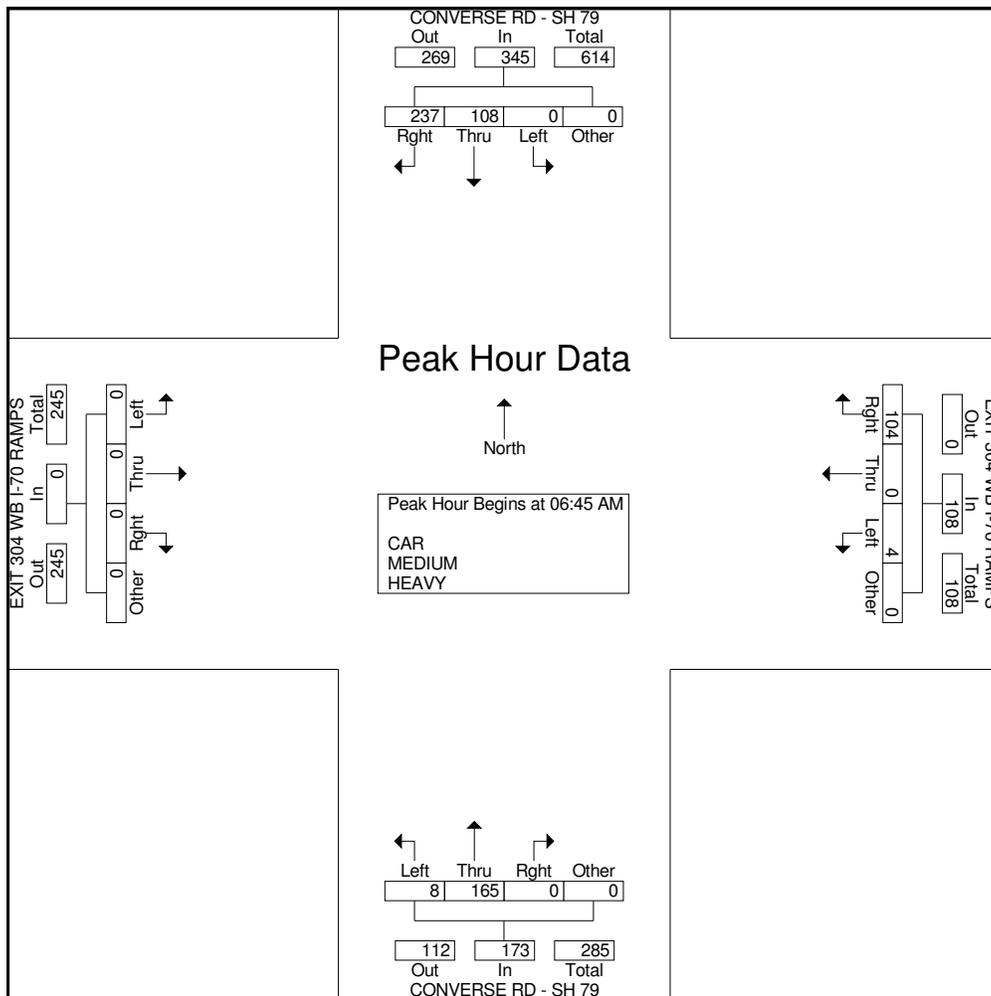
Groups Printed- CAR - MEDIUM - HEAVY

Start Time	CONVERSE RD - SH 79 Southbound				EXIT 304 WB I-70 RAMPS Westbound				CONVERSE RD - SH 79 Northbound				EXIT 304 WB I-70 RAMPS Eastbound				Int. Total	
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other		
06:45 AM	60	23	0	0	27	0	1	0	0	34	0	0	0	0	0	0	0	145
Total	60	23	0	0	27	0	1	0	0	34	0	0	0	0	0	0	0	145
07:00 AM	54	22	0	0	30	0	1	0	0	42	3	0	0	0	0	0	0	152
07:15 AM	64	27	0	0	25	0	2	0	0	51	1	0	0	0	0	0	0	170
07:30 AM	59	36	0	0	22	0	0	0	0	38	4	0	0	0	0	0	0	159
07:45 AM	51	16	0	0	24	0	0	0	0	43	1	0	0	0	0	0	0	135
Total	228	101	0	0	101	0	3	0	0	174	9	0	0	0	0	0	0	616
08:00 AM	56	32	0	0	23	0	6	0	0	29	0	0	0	0	0	0	0	146
08:15 AM	37	23	0	0	24	0	2	0	0	27	2	0	0	0	0	0	0	115
08:30 AM	42	33	0	0	22	0	1	0	0	25	3	0	0	0	0	0	0	126
Grand Total	423	212	0	0	197	0	13	0	0	289	14	0	0	0	0	0	0	1148
Apprch %	66.6	33.4	0	0	93.8	0	6.2	0	0	95.4	4.6	0	0	0	0	0	0	
Total %	36.8	18.5	0	0	17.2	0	1.1	0	0	25.2	1.2	0	0	0	0	0	0	
CAR	389	171	0	0	183	0	13	0	0	252	13	0	0	0	0	0	0	1021
% CAR	92	80.7	0	0	92.9	0	100	0	0	87.2	92.9	0	0	0	0	0	0	88.9
MEDIUM	11	6	0	0	6	0	0	0	0	12	0	0	0	0	0	0	0	35
% MEDIUM	2.6	2.8	0	0	3	0	0	0	0	4.2	0	0	0	0	0	0	0	3
HEAVY	23	35	0	0	8	0	0	0	0	25	1	0	0	0	0	0	0	92
% HEAVY	5.4	16.5	0	0	4.1	0	0	0	0	8.7	7.1	0	0	0	0	0	0	8



File Name : #2 CONVERSE&EXIT304WBRAMP  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 2

Start Time	CONVERSE RD - SH 79 Southbound					EXIT 304 WB I-70 RAMPS Westbound					CONVERSE RD - SH 79 Northbound					EXIT 304 WB I-70 RAMPS Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	60	23	0	0	83	27	0	1	0	28	0	34	0	0	34	0	0	0	0	0	145
07:00 AM	54	22	0	0	76	30	0	1	0	31	0	42	3	0	45	0	0	0	0	0	152
07:15 AM	64	27	0	0	91	25	0	2	0	27	0	51	1	0	52	0	0	0	0	0	170
07:30 AM	59	36	0	0	95	22	0	0	0	22	0	38	4	0	42	0	0	0	0	0	159
Total Volume	237	108	0	0	345	104	0	4	0	108	0	165	8	0	173	0	0	0	0	0	626
% App. Total	68.7	31.3	0	0		96.3	0	3.7	0		0	95.4	4.6	0		0	0	0	0		
PHF	.926	.750	.000	.000	.908	.867	.000	.500	.000	.871	.000	.809	.500	.000	.832	.000	.000	.000	.000	.000	.921

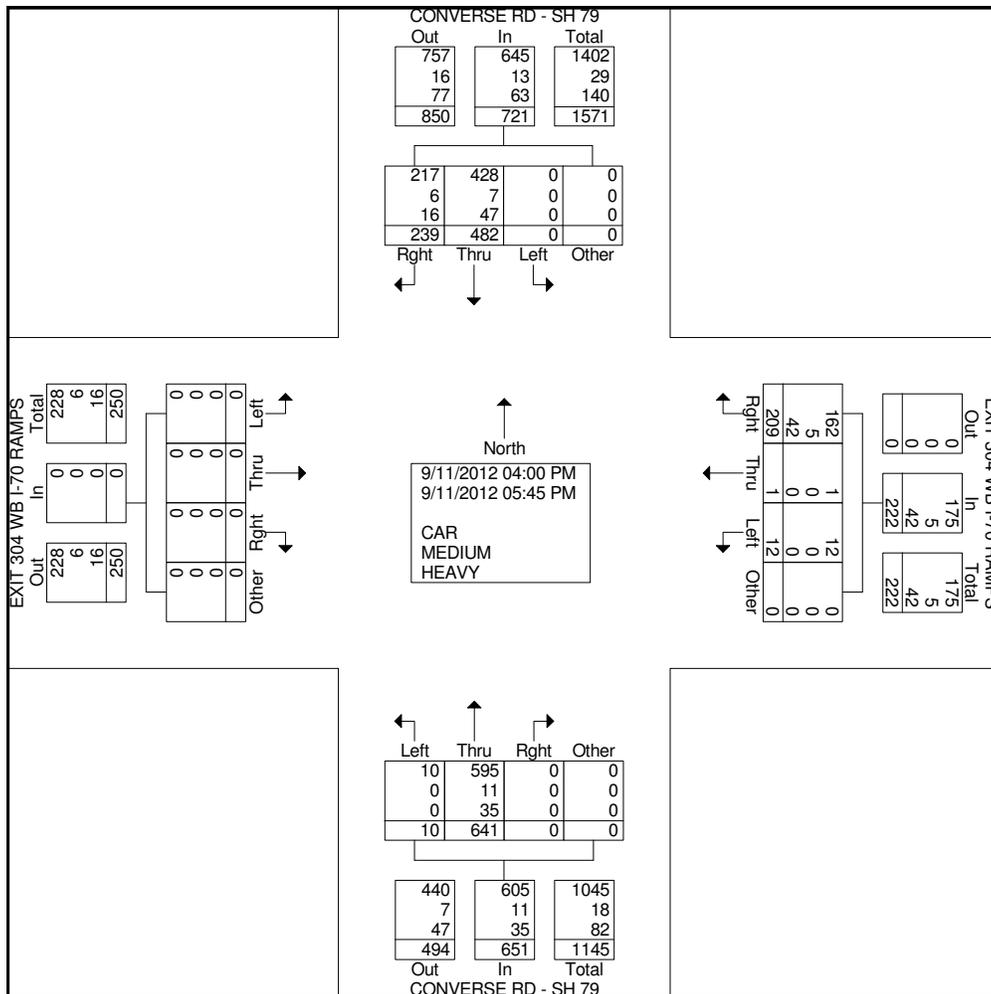


All Traffic Data Services  
 Wheat Ridge, CO 80033  
 303-668-0220

File Name : #2 CONVERSE&EXIT304WBRAMPSPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

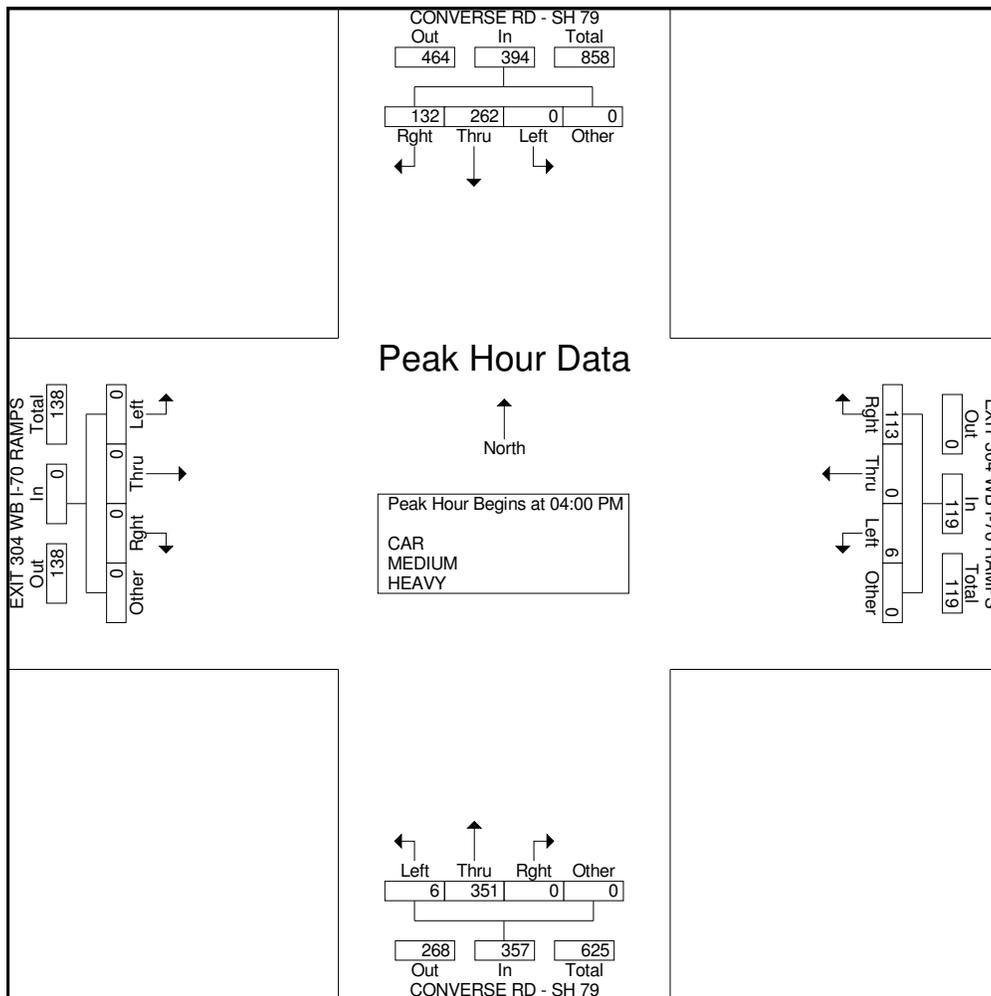
Groups Printed- CAR - MEDIUM - HEAVY

Start Time	CONVERSE RD - SH 79 Southbound				EXIT 304 WB I-70 RAMPS Westbound				CONVERSE RD - SH 79 Northbound				EXIT 304 WB I-70 RAMPS Eastbound				Int. Total	
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other		
04:00 PM	32	57	0	0	26	0	0	0	0	88	1	0	0	0	0	0	0	204
04:15 PM	33	60	0	0	19	0	2	0	0	87	3	0	0	0	0	0	0	204
04:30 PM	44	75	0	0	40	0	3	0	0	81	2	0	0	0	0	0	0	245
04:45 PM	23	70	0	0	28	0	1	0	0	95	0	0	0	0	0	0	0	217
Total	132	262	0	0	113	0	6	0	0	351	6	0	0	0	0	0	0	870
05:00 PM	31	77	0	0	22	0	0	0	0	74	0	0	0	0	0	0	0	204
05:15 PM	36	40	0	0	24	1	2	0	0	79	1	0	0	0	0	0	0	183
05:30 PM	19	55	0	0	28	0	3	0	0	75	2	0	0	0	0	0	0	182
05:45 PM	21	48	0	0	22	0	1	0	0	62	1	0	0	0	0	0	0	155
Total	107	220	0	0	96	1	6	0	0	290	4	0	0	0	0	0	0	724
Grand Total	239	482	0	0	209	1	12	0	0	641	10	0	0	0	0	0	0	1594
Apprch %	33.1	66.9	0	0	94.1	0.5	5.4	0	0	98.5	1.5	0	0	0	0	0	0	
Total %	15	30.2	0	0	13.1	0.1	0.8	0	0	40.2	0.6	0	0	0	0	0	0	
CAR	217	428	0	0	162	1	12	0	0	595	10	0	0	0	0	0	0	1425
% CAR	90.8	88.8	0	0	77.5	100	100	0	0	92.8	100	0	0	0	0	0	0	89.4
MEDIUM	6	7	0	0	5	0	0	0	0	11	0	0	0	0	0	0	0	29
% MEDIUM	2.5	1.5	0	0	2.4	0	0	0	0	1.7	0	0	0	0	0	0	0	1.8
HEAVY	16	47	0	0	42	0	0	0	0	35	0	0	0	0	0	0	0	140
% HEAVY	6.7	9.8	0	0	20.1	0	0	0	0	5.5	0	0	0	0	0	0	0	8.8



File Name : #2 CONVERSE&EXIT304WBRAMPSPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 2

Start Time	CONVERSE RD - SH 79 Southbound					EXIT 304 WB I-70 RAMPS Westbound					CONVERSE RD - SH 79 Northbound					EXIT 304 WB I-70 RAMPS Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	32	57	0	0	89	26	0	0	0	26	0	88	1	0	89	0	0	0	0	0	204
04:15 PM	33	60	0	0	93	19	0	2	0	21	0	87	3	0	90	0	0	0	0	0	204
04:30 PM	44	75	0	0	119	40	0	3	0	43	0	81	2	0	83	0	0	0	0	0	245
04:45 PM	23	70	0	0	93	28	0	1	0	29	0	95	0	0	95	0	0	0	0	0	217
Total Volume	132	262	0	0	394	113	0	6	0	119	0	351	6	0	357	0	0	0	0	0	870
% App. Total	33.5	66.5	0	0		95	0	5	0		0	98.3	1.7	0		0	0	0	0		
PHF	.750	.873	.000	.000	.828	.706	.000	.500	.000	.692	.000	.924	.500	.000	.939	.000	.000	.000	.000	.000	.888

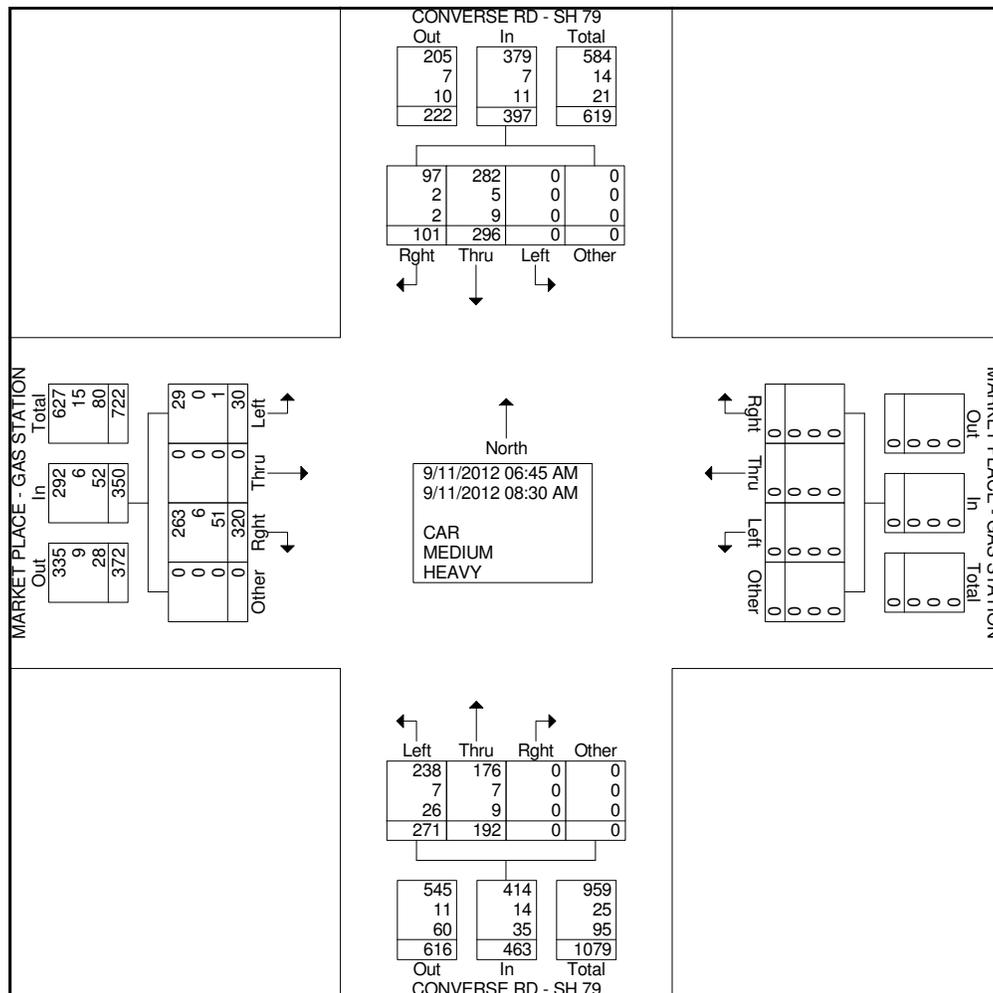


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File Name : #3 CONVERSE&MARKETPLACEAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

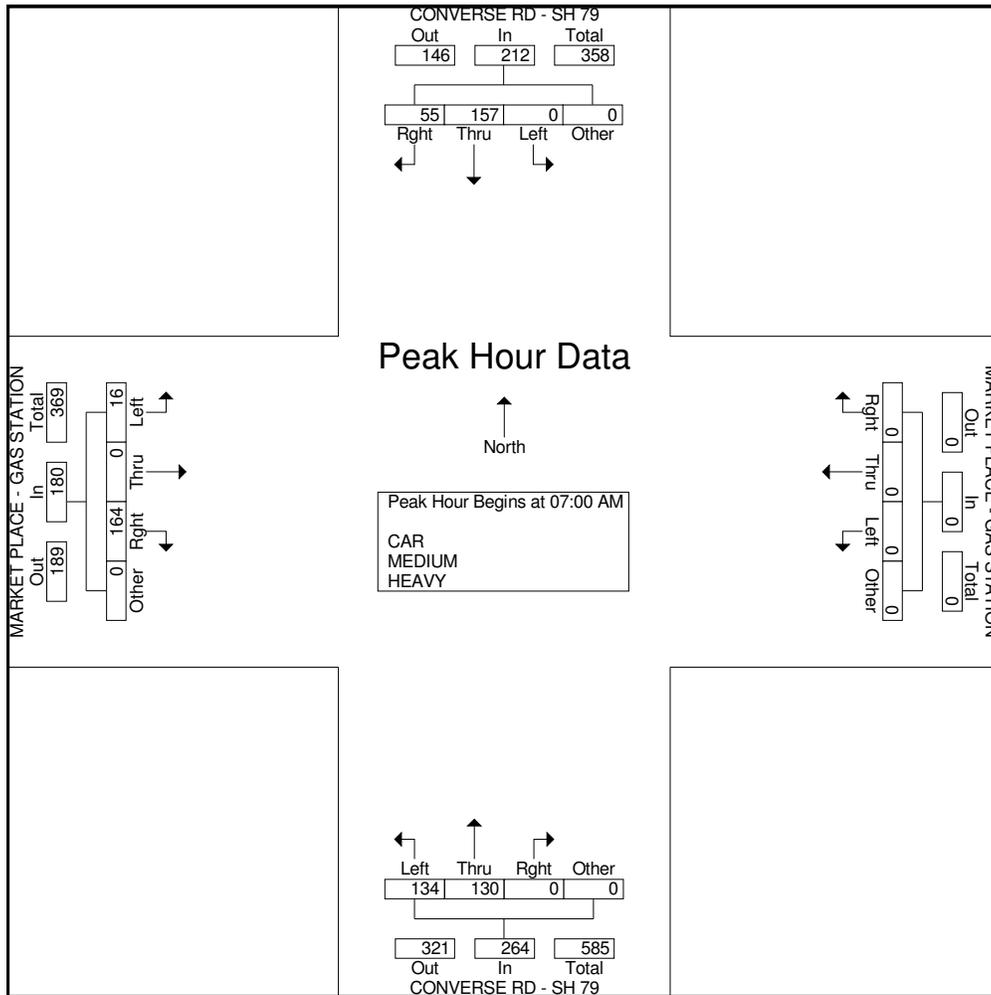
Start Time	CONVERSE RD - SH 79 Southbound				MARKET PLACE - GAS STATION Westbound				CONVERSE RD - SH 79 Northbound				MARKET PLACE - GAS STATION Eastbound				Int. Total
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	
06:45 AM	8	40	0	0	0	0	0	0	0	17	41	0	38	0	2	0	146
Total	8	40	0	0	0	0	0	0	0	17	41	0	38	0	2	0	146
07:00 AM	12	41	0	0	0	0	0	0	0	34	38	0	34	0	5	0	164
07:15 AM	16	36	0	0	0	0	0	0	0	32	39	0	53	0	4	0	180
07:30 AM	8	39	0	0	0	0	0	0	0	35	22	0	47	0	3	0	154
07:45 AM	19	41	0	0	0	0	0	0	0	29	35	0	30	0	4	0	158
Total	55	157	0	0	0	0	0	0	0	130	134	0	164	0	16	0	656
08:00 AM	12	41	0	0	0	0	0	0	0	16	36	0	46	0	5	0	156
08:15 AM	12	23	0	0	0	0	0	0	0	20	27	0	33	0	5	0	120
08:30 AM	14	35	0	0	0	0	0	0	0	9	33	0	39	0	2	0	132
Grand Total	101	296	0	0	0	0	0	0	0	192	271	0	320	0	30	0	1210
Apprch %	25.4	74.6	0	0	0	0	0	0	0	41.5	58.5	0	91.4	0	8.6	0	
Total %	8.3	24.5	0	0	0	0	0	0	0	15.9	22.4	0	26.4	0	2.5	0	
CAR	97	282	0	0	0	0	0	0	0	176	238	0	263	0	29	0	1085
% CAR	96	95.3	0	0	0	0	0	0	0	91.7	87.8	0	82.2	0	96.7	0	89.7
MEDIUM	2	5	0	0	0	0	0	0	0	7	7	0	6	0	0	0	27
% MEDIUM	2	1.7	0	0	0	0	0	0	0	3.6	2.6	0	1.9	0	0	0	2.2
HEAVY	2	9	0	0	0	0	0	0	0	9	26	0	51	0	1	0	98
% HEAVY	2	3	0	0	0	0	0	0	0	4.7	9.6	0	15.9	0	3.3	0	8.1



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File Name : #3 CONVERSE&MARKETPLACEAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
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Start Time	CONVERSE RD - SH 79 Southbound					MARKET PLACE - GAS STATION Westbound					CONVERSE RD - SH 79 Northbound					MARKET PLACE - GAS STATION Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	12	41	0	0	53	0	0	0	0	0	0	34	38	0	72	34	0	5	0	39	164
07:15 AM	16	36	0	0	52	0	0	0	0	0	0	32	39	0	71	53	0	4	0	57	180
07:30 AM	8	39	0	0	47	0	0	0	0	0	0	35	22	0	57	47	0	3	0	50	154
07:45 AM	19	41	0	0	60	0	0	0	0	0	0	29	35	0	64	30	0	4	0	34	158
Total Volume	55	157	0	0	212	0	0	0	0	0	0	130	134	0	264	164	0	16	0	180	656
% App. Total	25.9	74.1	0	0		0	0	0	0		0	49.2	50.8	0		91.1	0	8.9	0		
PHF	.724	.957	.000	.000	.883	.000	.000	.000	.000	.000	.000	.929	.859	.000	.917	.774	.000	.800	.000	.789	.911

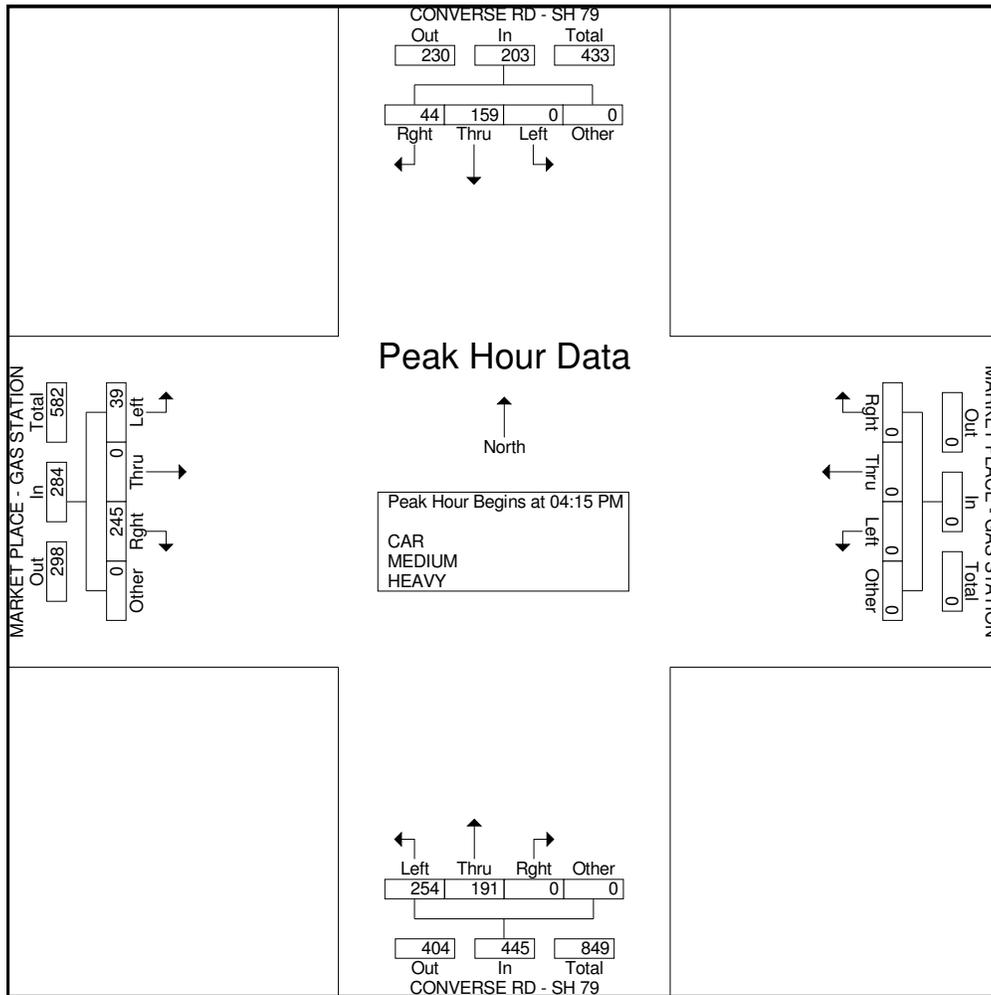




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 303-668-0220

File Name : #3 CONVERSE&MARKETPLACEPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 2

Start Time	CONVERSE RD - SH 79 Southbound					MARKET PLACE - GAS STATION Westbound					CONVERSE RD - SH 79 Northbound					MARKET PLACE - GAS STATION Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	13	31	0	0	44	0	0	0	0	0	0	47	55	0	102	58	0	12	0	70	216
04:30 PM	9	53	0	0	62	0	0	0	0	0	0	48	76	0	124	62	0	5	0	67	253
04:45 PM	12	31	0	0	43	0	0	0	0	0	0	51	68	0	119	61	0	9	0	70	232
05:00 PM	10	44	0	0	54	0	0	0	0	0	0	45	55	0	100	64	0	13	0	77	231
Total Volume	44	159	0	0	203	0	0	0	0	0	0	191	254	0	445	245	0	39	0	284	932
% App. Total	21.7	78.3	0	0		0	0	0	0	0	0	42.9	57.1	0		86.3	0	13.7	0		
PHF	.846	.750	.000	.000	.819	.000	.000	.000	.000	.000	.000	.936	.836	.000	.897	.957	.000	.750	.000	.922	.921

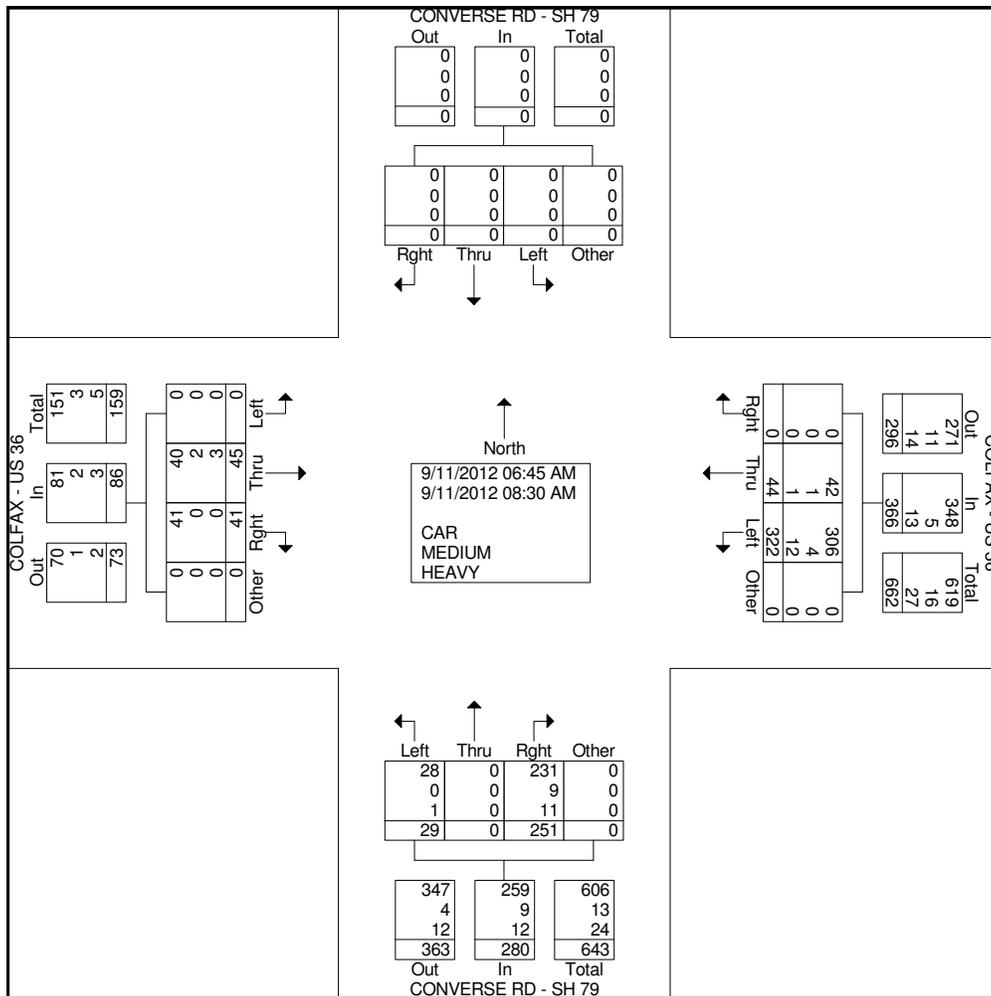


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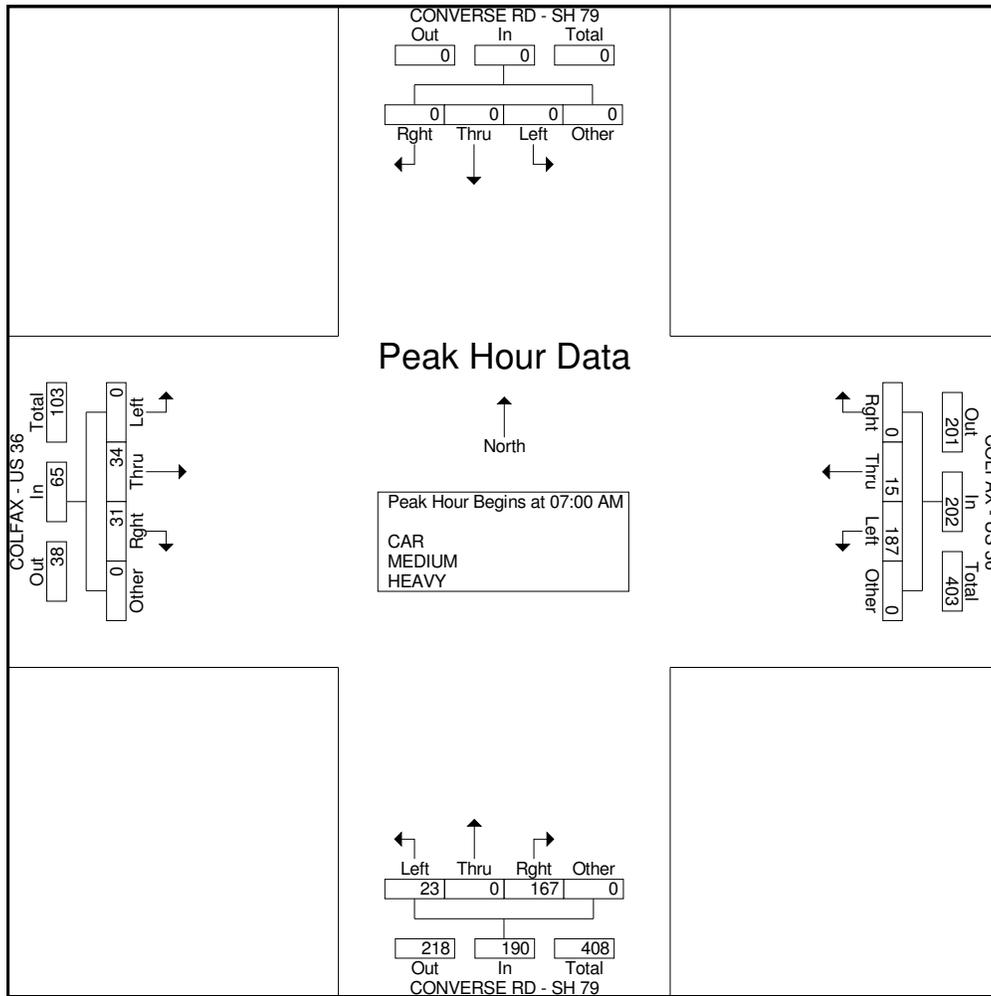
File Name : #4 CONVERSE&COLFAXAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

Start Time	CONVERSE RD - SH 79 Southbound				COLFAX - US 36 Westbound				CONVERSE RD - SH 79 Northbound				COLFAX - US 36 Eastbound				Int. Total
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	
06:45 AM	0	0	0	0	0	10	26	0	19	0	3	0	2	1	0	0	61
Total	0	0	0	0	0	10	26	0	19	0	3	0	2	1	0	0	61
07:00 AM	0	0	0	0	0	3	35	0	39	0	4	0	7	7	0	0	95
07:15 AM	0	0	0	0	0	5	37	0	38	0	7	0	8	3	0	0	98
07:30 AM	0	0	0	0	0	3	44	0	51	0	4	0	7	16	0	0	125
07:45 AM	0	0	0	0	0	4	71	0	39	0	8	0	9	8	0	0	139
Total	0	0	0	0	0	15	187	0	167	0	23	0	31	34	0	0	457
08:00 AM	0	0	0	0	0	8	44	0	19	0	1	0	3	4	0	0	79
08:15 AM	0	0	0	0	0	7	37	0	22	0	1	0	2	3	0	0	72
08:30 AM	0	0	0	0	0	4	28	0	24	0	1	0	3	3	0	0	63
Grand Total	0	0	0	0	0	44	322	0	251	0	29	0	41	45	0	0	732
Apprch %	0	0	0	0	0	12	88	0	89.6	0	10.4	0	47.7	52.3	0	0	
Total %	0	0	0	0	0	6	44	0	34.3	0	4	0	5.6	6.1	0	0	
CAR	0	0	0	0	0	42	306	0	231	0	28	0	41	40	0	0	688
% CAR	0	0	0	0	0	95.5	95	0	92	0	96.6	0	100	88.9	0	0	94
MEDIUM	0	0	0	0	0	1	4	0	9	0	0	0	0	2	0	0	16
% MEDIUM	0	0	0	0	0	2.3	1.2	0	3.6	0	0	0	0	4.4	0	0	2.2
HEAVY	0	0	0	0	0	1	12	0	11	0	1	0	0	3	0	0	28
% HEAVY	0	0	0	0	0	2.3	3.7	0	4.4	0	3.4	0	0	6.7	0	0	3.8



Start Time	CONVERSE RD - SH 79 Southbound					COLFAX - US 36 Westbound					CONVERSE RD - SH 79 Northbound					COLFAX - US 36 Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	3	35	0	38	39	0	4	0	43	7	7	0	0	14	95
07:15 AM	0	0	0	0	0	0	5	37	0	42	38	0	7	0	45	8	3	0	0	11	98
07:30 AM	0	0	0	0	0	0	3	44	0	47	51	0	4	0	55	7	16	0	0	23	125
07:45 AM	0	0	0	0	0	0	4	71	0	75	39	0	8	0	47	9	8	0	0	17	139
Total Volume	0	0	0	0	0	0	15	187	0	202	167	0	23	0	190	31	34	0	0	65	457
% App. Total	0	0	0	0	0	0	7.4	92.6	0		87.9	0	12.1	0		47.7	52.3	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.658	.000	.673	.819	.000	.719	.000	.864	.861	.531	.000	.000	.707	.822

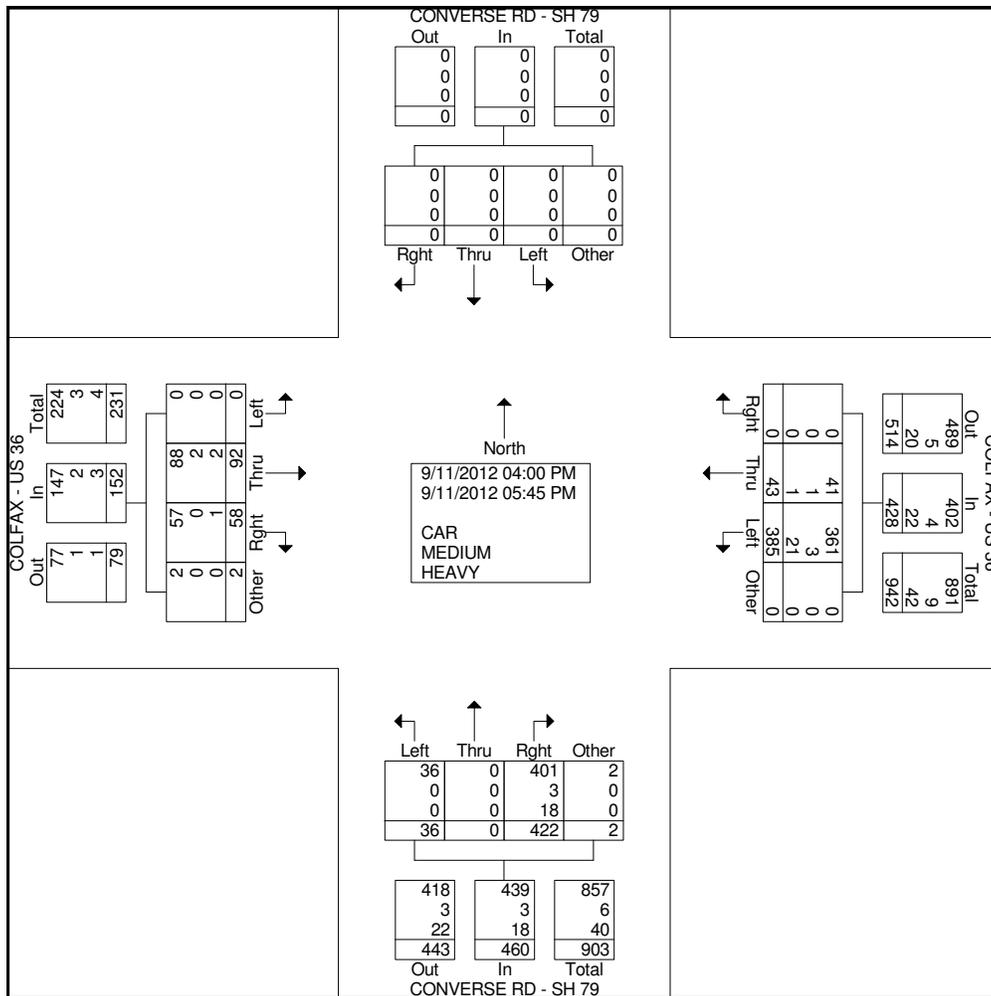


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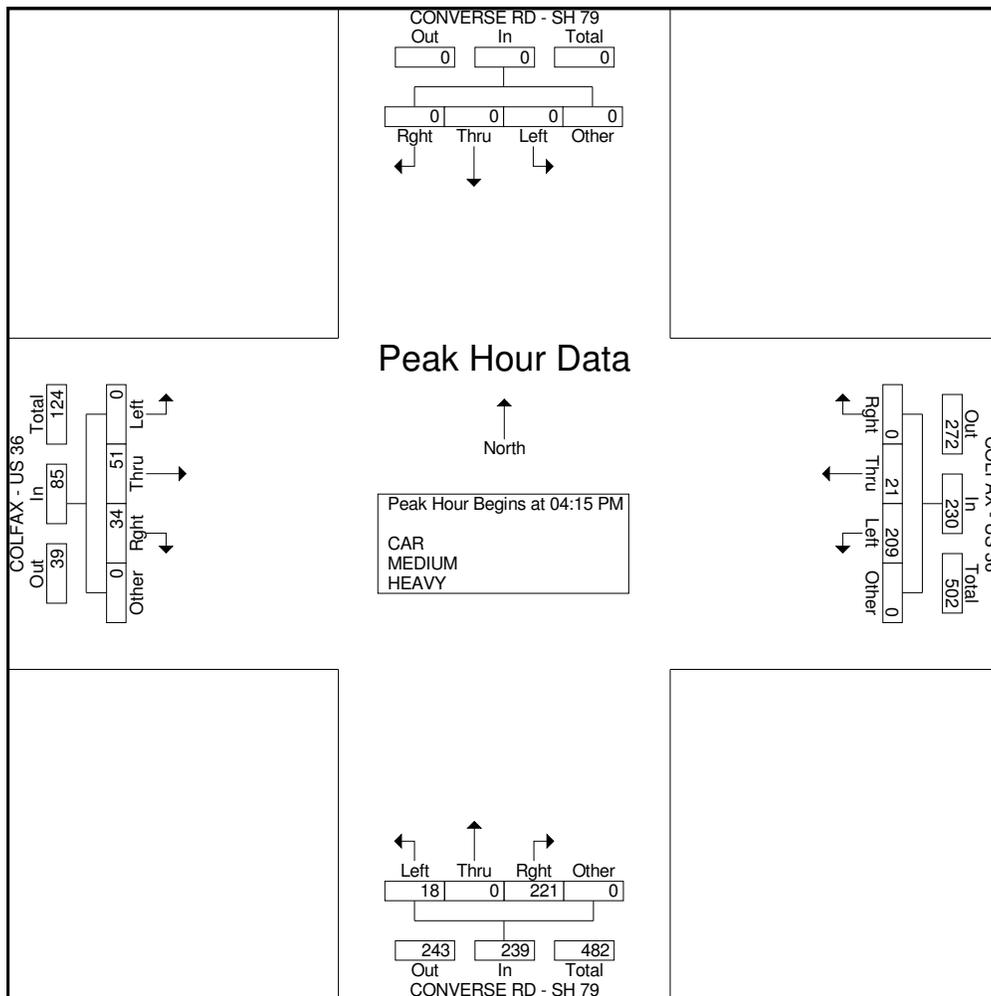
File Name : #4 CONVERSE&COLFAXPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

Start Time	CONVERSE RD - SH 79 Southbound				COLFAX - US 36 Westbound				CONVERSE RD - SH 79 Northbound				COLFAX - US 36 Eastbound				Int. Total
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	
04:00 PM	0	0	0	0	0	5	63	0	44	0	3	0	5	14	0	0	134
04:15 PM	0	0	0	0	0	5	65	0	58	0	5	0	8	7	0	0	148
04:30 PM	0	0	0	0	0	4	52	0	49	0	4	0	10	14	0	0	133
04:45 PM	0	0	0	0	0	5	36	0	57	0	6	0	6	12	0	0	122
Total	0	0	0	0	0	19	216	0	208	0	18	0	29	47	0	0	537
05:00 PM	0	0	0	0	0	7	56	0	57	0	3	0	10	18	0	0	151
05:15 PM	0	0	0	0	0	4	46	0	49	0	4	2	7	14	0	2	128
05:30 PM	0	0	0	0	0	6	36	0	66	0	4	0	4	9	0	0	125
05:45 PM	0	0	0	0	0	7	31	0	42	0	7	0	8	4	0	0	99
Total	0	0	0	0	0	24	169	0	214	0	18	2	29	45	0	2	503
Grand Total	0	0	0	0	0	43	385	0	422	0	36	2	58	92	0	2	1040
Apprch %	0	0	0	0	0	10	90	0	91.7	0	7.8	0.4	38.2	60.5	0	1.3	
Total %	0	0	0	0	0	4.1	37	0	40.6	0	3.5	0.2	5.6	8.8	0	0.2	
CAR	0	0	0	0	0	41	361	0	401	0	36	2	57	88	0	2	988
% CAR	0	0	0	0	0	95.3	93.8	0	95	0	100	100	98.3	95.7	0	100	95
MEDIUM	0	0	0	0	0	1	3	0	3	0	0	0	0	2	0	0	9
% MEDIUM	0	0	0	0	0	2.3	0.8	0	0.7	0	0	0	0	2.2	0	0	0.9
HEAVY	0	0	0	0	0	1	21	0	18	0	0	0	1	2	0	0	43
% HEAVY	0	0	0	0	0	2.3	5.5	0	4.3	0	0	0	1.7	2.2	0	0	4.1



Start Time	CONVERSE RD - SH 79 Southbound					COLFAX - US 36 Westbound					CONVERSE RD - SH 79 Northbound					COLFAX - US 36 Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	0	5	65	0	70	58	0	5	0	63	8	7	0	0	15	148
04:30 PM	0	0	0	0	0	0	4	52	0	56	49	0	4	0	53	10	14	0	0	24	133
04:45 PM	0	0	0	0	0	0	5	36	0	41	57	0	6	0	63	6	12	0	0	18	122
05:00 PM	0	0	0	0	0	0	7	56	0	63	57	0	3	0	60	10	18	0	0	28	151
Total Volume	0	0	0	0	0	0	21	209	0	230	221	0	18	0	239	34	51	0	0	85	554
% App. Total	0	0	0	0	0	0	9.1	90.9	0		92.5	0	7.5	0		40	60	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.804	.000	.821	.953	.000	.750	.000	.948	.850	.708	.000	.000	.759	.917

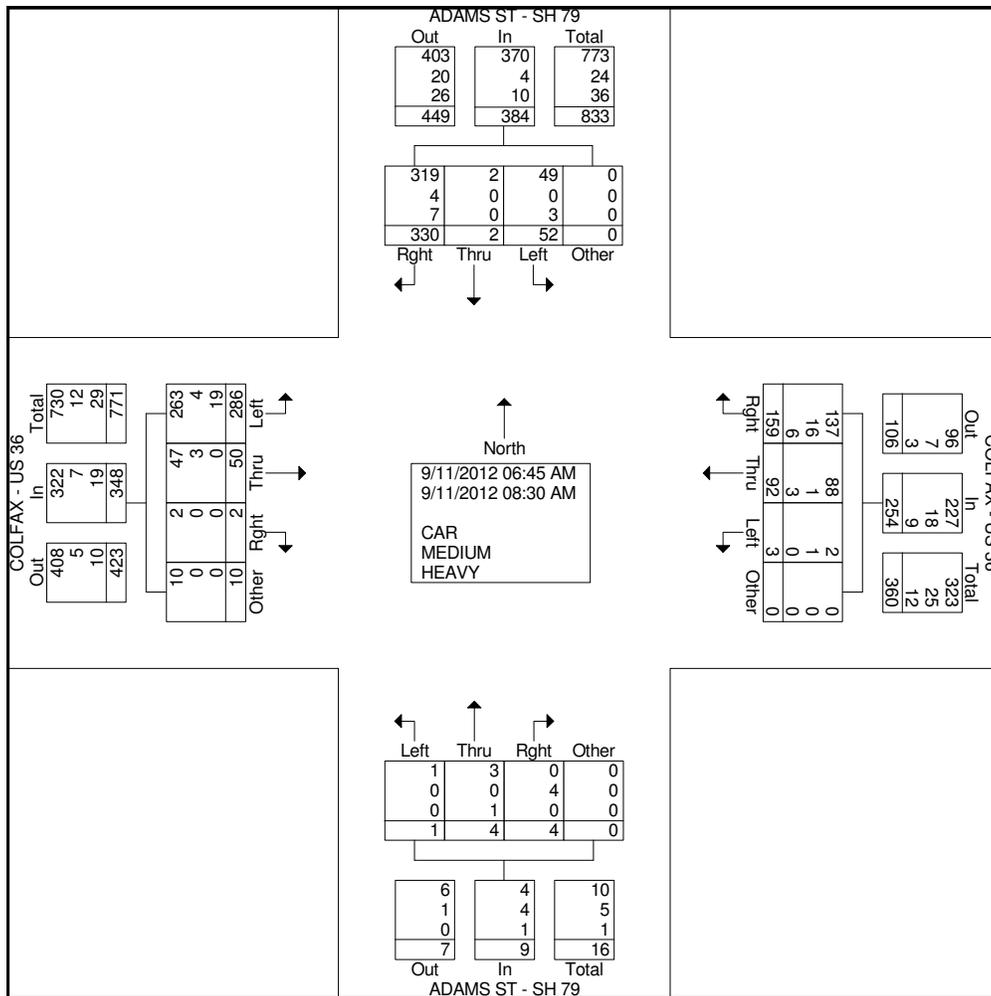


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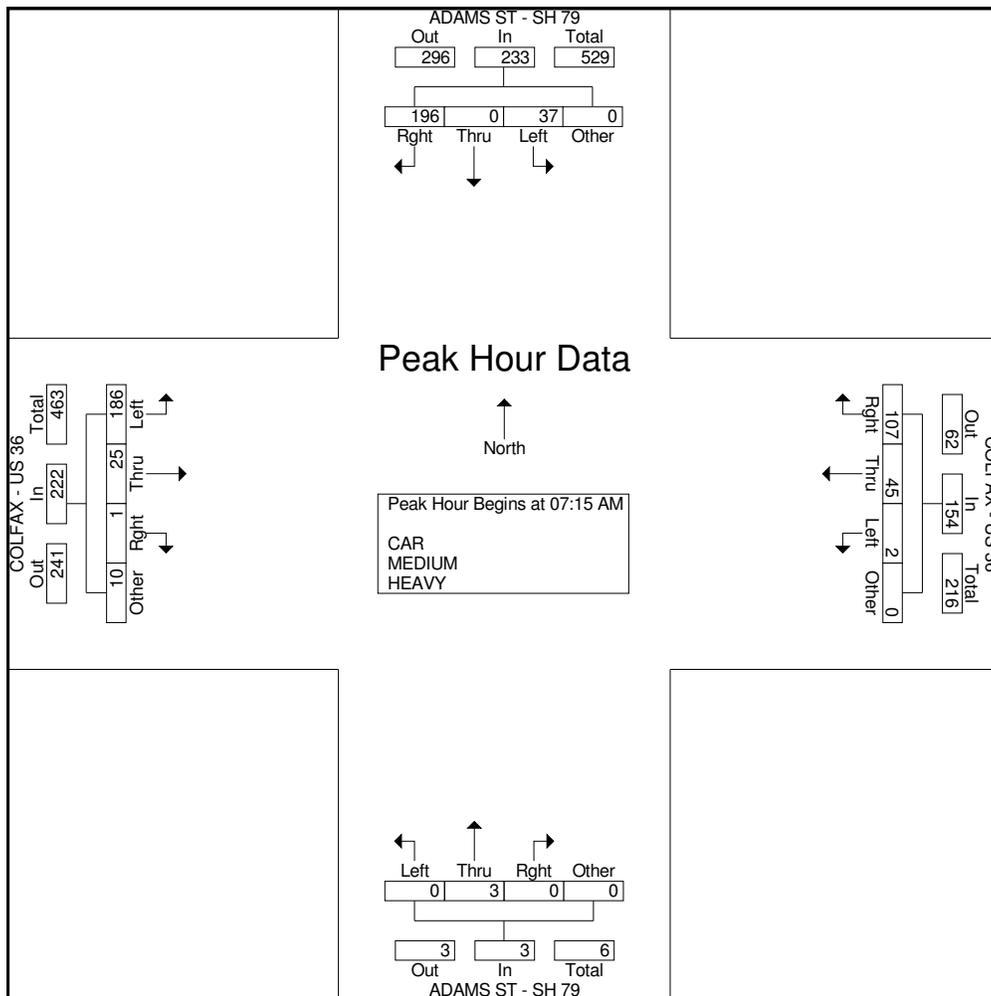
File Name : #5 ADAMS&COLFAXAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

Start Time	ADAMS ST - SH 79 Southbound				COLFAX - US 36 Westbound				ADAMS ST - SH 79 Northbound				COLFAX - US 36 Eastbound				Int. Total
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	
06:45 AM	30	0	2	0	11	14	0	0	1	0	0	0	1	4	24	0	87
Total	30	0	2	0	11	14	0	0	1	0	0	0	1	4	24	0	87
07:00 AM	34	1	6	0	11	12	1	0	3	1	0	0	0	5	36	0	110
07:15 AM	28	0	3	0	18	11	2	0	0	0	0	0	0	8	44	1	115
07:30 AM	50	0	5	0	29	10	0	0	0	2	0	0	0	9	51	8	164
07:45 AM	67	0	16	0	35	10	0	0	0	1	0	0	1	4	62	1	197
Total	179	1	30	0	93	43	3	0	3	4	0	0	1	26	193	10	586
08:00 AM	51	0	13	0	25	14	0	0	0	0	0	0	0	4	29	0	136
08:15 AM	37	1	2	0	18	11	0	0	0	0	1	0	0	5	18	0	93
08:30 AM	33	0	5	0	12	10	0	0	0	0	0	0	0	11	22	0	93
Grand Total	330	2	52	0	159	92	3	0	4	4	1	0	2	50	286	10	995
Apprch %	85.9	0.5	13.5	0	62.6	36.2	1.2	0	44.4	44.4	11.1	0	0.6	14.4	82.2	2.9	
Total %	33.2	0.2	5.2	0	16	9.2	0.3	0	0.4	0.4	0.1	0	0.2	5	28.7	1	
CAR	319	2	49	0	137	88	2	0	0	3	1	0	2	47	263	10	923
% CAR	96.7	100	94.2	0	86.2	95.7	66.7	0	0	75	100	0	100	94	92	100	92.8
MEDIUM	4	0	0	0	16	1	1	0	4	0	0	0	0	3	4	0	33
% MEDIUM	1.2	0	0	0	10.1	1.1	33.3	0	100	0	0	0	0	6	1.4	0	3.3
HEAVY	7	0	3	0	6	3	0	0	0	1	0	0	0	0	19	0	39
% HEAVY	2.1	0	5.8	0	3.8	3.3	0	0	0	25	0	0	0	0	6.6	0	3.9



Start Time	ADAMS ST - SH 79 Southbound					COLFAX - US 36 Westbound					ADAMS ST - SH 79 Northbound					COLFAX - US 36 Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	28	0	3	0	31	18	11	2	0	31	0	0	0	0	0	0	8	44	1	53	115
07:30 AM	50	0	5	0	55	29	10	0	0	39	0	2	0	0	2	0	9	51	8	68	164
07:45 AM	67	0	16	0	83	35	10	0	0	45	0	1	0	0	1	1	4	62	1	68	197
08:00 AM	51	0	13	0	64	25	14	0	0	39	0	0	0	0	0	0	4	29	0	33	136
Total Volume	196	0	37	0	233	107	45	2	0	154	0	3	0	0	3	1	25	186	10	222	612
% App. Total	84.1	0	15.9	0		69.5	29.2	1.3	0		0	100	0	0		0.5	11.3	83.8	4.5		
PHF	.731	.000	.578	.000	.702	.764	.804	.250	.000	.856	.000	.375	.000	.000	.375	.250	.694	.750	.313	.816	.777

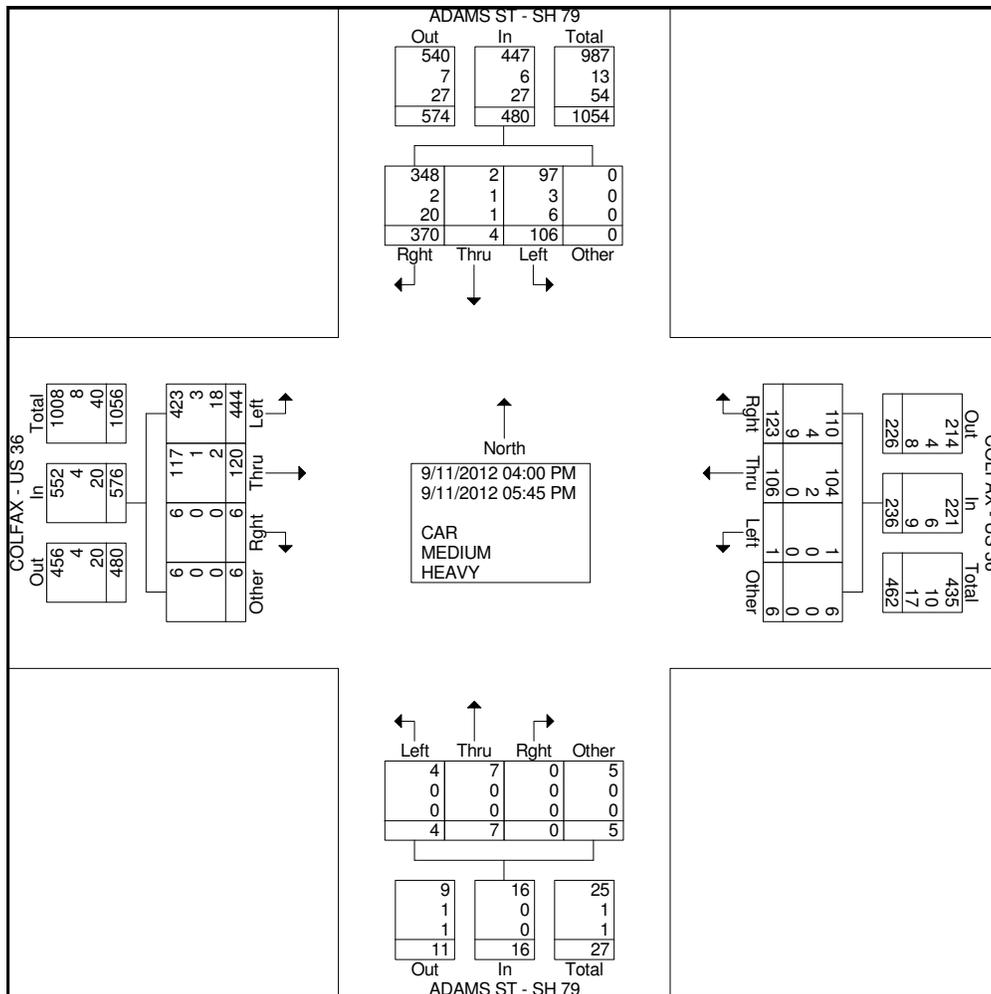


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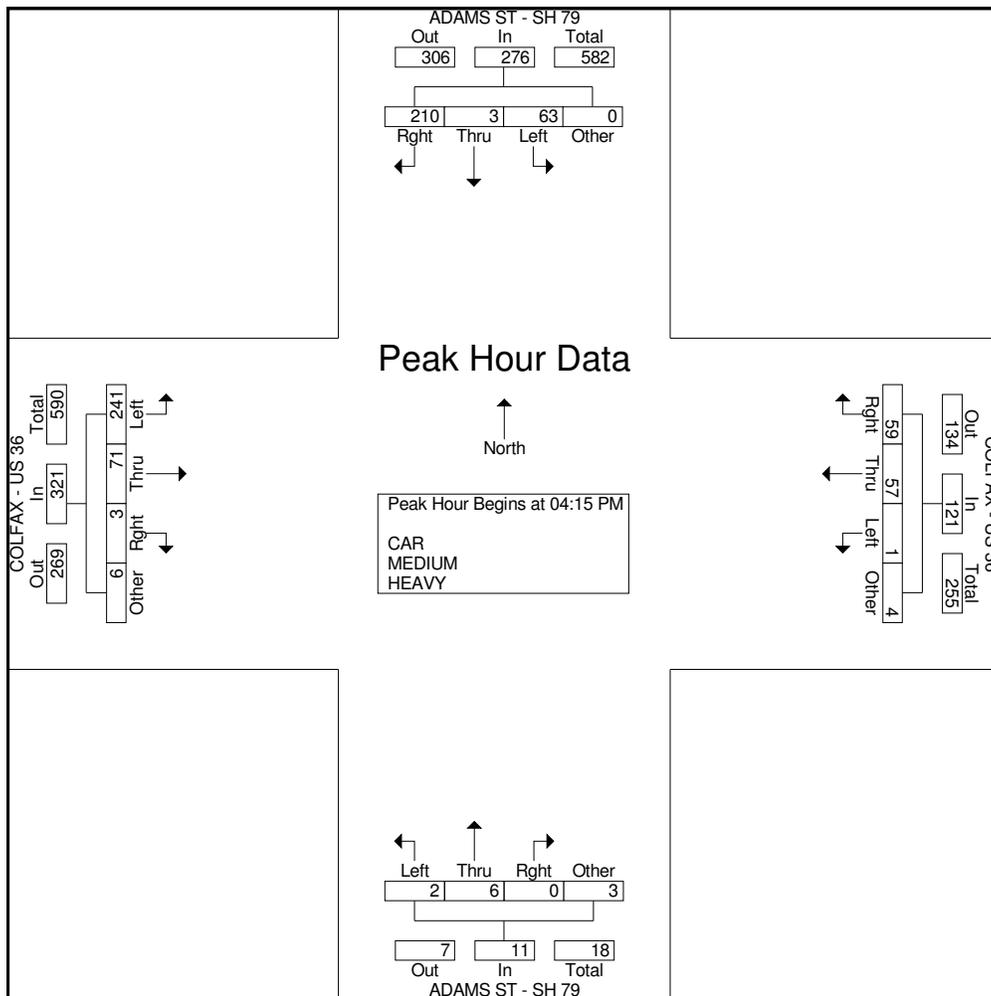
File Name : #5 ADAMS&COLFAXPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

Start Time	ADAMS ST - SH 79 Southbound				COLFAX - US 36 Westbound				ADAMS ST - SH 79 Northbound				COLFAX - US 36 Eastbound				Int. Total
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	
04:00 PM	43	1	10	0	10	10	0	0	0	0	1	0	0	7	36	0	118
04:15 PM	78	1	27	0	12	15	1	3	0	1	1	3	1	12	64	3	222
04:30 PM	55	1	14	0	21	12	0	1	0	2	0	0	0	13	65	2	186
04:45 PM	38	0	13	0	10	10	0	0	0	1	1	0	0	14	55	1	143
Total	214	3	64	0	53	47	1	4	0	4	3	3	1	46	220	6	669
05:00 PM	39	1	9	0	16	20	0	0	0	2	0	0	2	32	57	0	178
05:15 PM	50	0	10	0	17	14	0	0	0	0	0	0	0	17	47	0	155
05:30 PM	37	0	10	0	17	11	0	2	0	0	0	1	2	15	66	0	161
05:45 PM	30	0	13	0	20	14	0	0	0	1	1	1	1	10	54	0	145
Total	156	1	42	0	70	59	0	2	0	3	1	2	5	74	224	0	639
Grand Total	370	4	106	0	123	106	1	6	0	7	4	5	6	120	444	6	1308
Apprch %	77.1	0.8	22.1	0	52.1	44.9	0.4	2.5	0	43.8	25	31.2	1	20.8	77.1	1	
Total %	28.3	0.3	8.1	0	9.4	8.1	0.1	0.5	0	0.5	0.3	0.4	0.5	9.2	33.9	0.5	
CAR	348	2	97	0	110	104	1	6	0	7	4	5	6	117	423	6	1236
% CAR	94.1	50	91.5	0	89.4	98.1	100	100	0	100	100	100	100	97.5	95.3	100	94.5
MEDIUM	2	1	3	0	4	2	0	0	0	0	0	0	0	1	3	0	16
% MEDIUM	0.5	25	2.8	0	3.3	1.9	0	0	0	0	0	0	0	0.8	0.7	0	1.2
HEAVY	20	1	6	0	9	0	0	0	0	0	0	0	0	2	18	0	56
% HEAVY	5.4	25	5.7	0	7.3	0	0	0	0	0	0	0	0	1.7	4.1	0	4.3



Start Time	ADAMS ST - SH 79 Southbound					COLFAX - US 36 Westbound					ADAMS ST - SH 79 Northbound					COLFAX - US 36 Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	78	1	27	0	106	12	15	1	3	31	0	1	1	3	5	1	12	64	3	80	222
04:30 PM	55	1	14	0	70	21	12	0	1	34	0	2	0	0	2	0	13	65	2	80	186
04:45 PM	38	0	13	0	51	10	10	0	0	20	0	1	1	0	2	0	14	55	1	70	143
05:00 PM	39	1	9	0	49	16	20	0	0	36	0	2	0	0	2	2	32	57	0	91	178
Total Volume	210	3	63	0	276	59	57	1	4	121	0	6	2	3	11	3	71	241	6	321	729
% App. Total	76.1	1.1	22.8	0		48.8	47.1	0.8	3.3		0	54.5	18.2	27.3		0.9	22.1	75.1	1.9		
PHF	.673	.750	.583	.000	.651	.702	.713	.250	.333	.840	.000	.750	.500	.250	.550	.375	.555	.927	.500	.882	.821

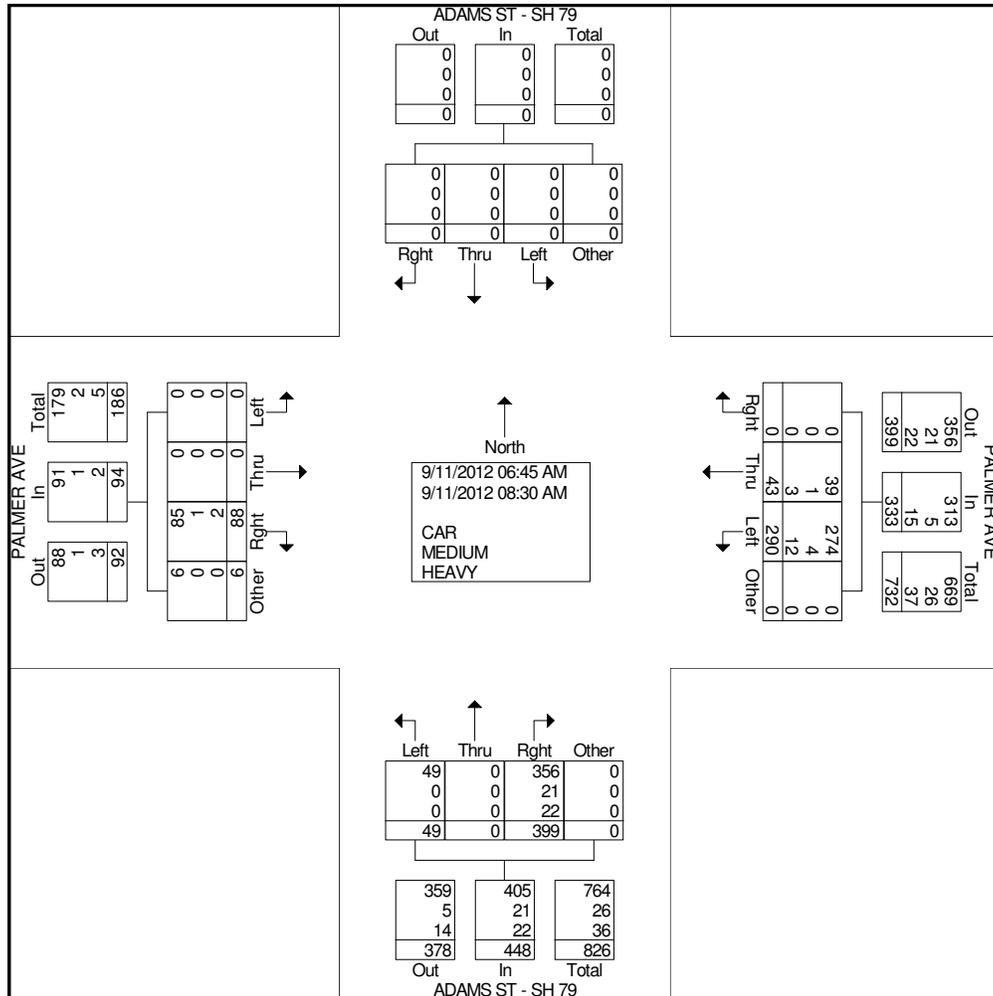


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File Name : #6 ADAMS&PALMERAM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

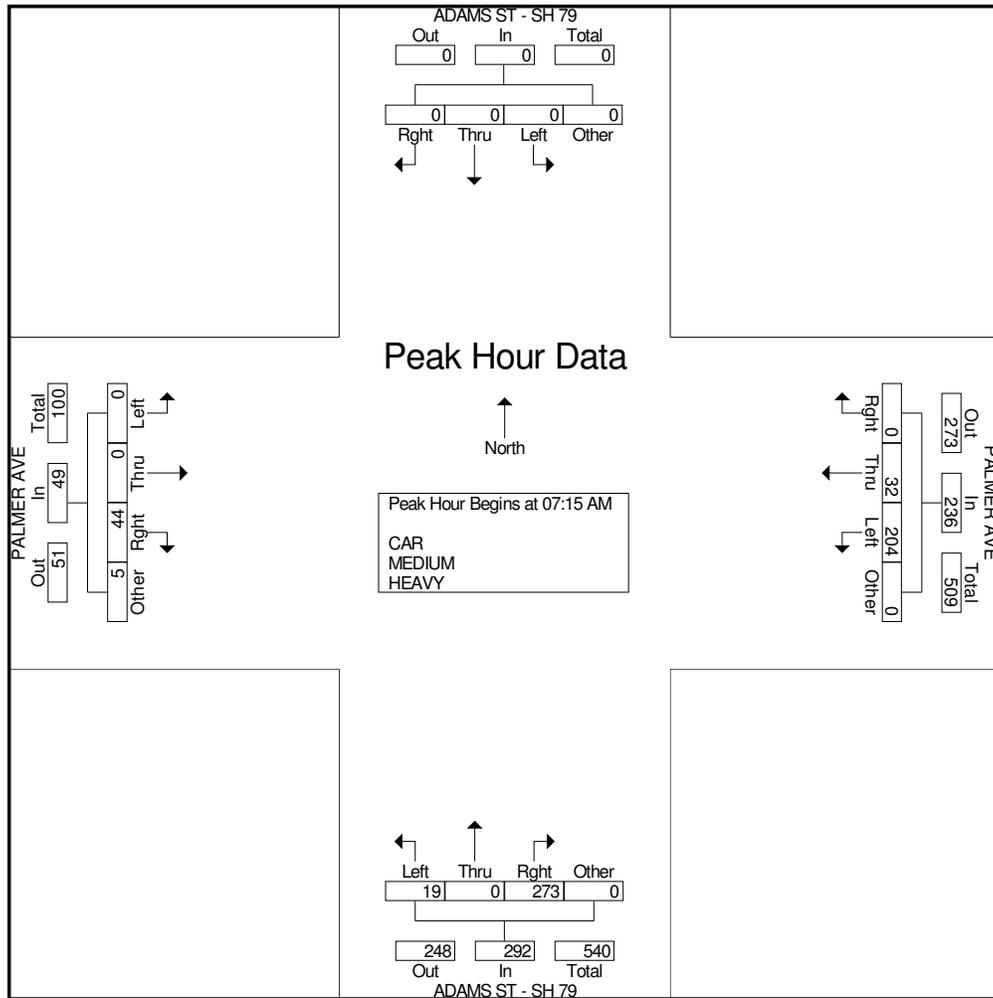
Start Time	ADAMS ST - SH 79 Southbound				PALMER AVE Westbound				ADAMS ST - SH 79 Northbound				PALMER AVE Eastbound				Int. Total
06:45 AM	0	0	0	0	0	1	17	0	19	0	9	0	13	0	0	0	59
Total	0	0	0	0	0	1	17	0	19	0	9	0	13	0	0	0	59
07:00 AM	0	0	0	0	0	1	17	0	51	0	6	0	11	0	0	1	87
07:15 AM	0	0	0	0	0	4	30	0	62	0	4	0	11	0	0	0	111
07:30 AM	0	0	0	0	0	6	48	0	79	0	3	0	12	0	0	4	152
07:45 AM	0	0	0	0	0	12	76	0	91	0	6	0	11	0	0	1	197
Total	0	0	0	0	0	23	171	0	283	0	19	0	45	0	0	6	547
08:00 AM	0	0	0	0	0	10	50	0	41	0	6	0	10	0	0	0	117
08:15 AM	0	0	0	0	0	5	31	0	26	0	10	0	11	0	0	0	83
08:30 AM	0	0	0	0	0	4	21	0	30	0	5	0	9	0	0	0	69
Grand Total	0	0	0	0	0	43	290	0	399	0	49	0	88	0	0	6	875
Apprch %	0	0	0	0	0	12.9	87.1	0	89.1	0	10.9	0	93.6	0	0	6.4	
Total %	0	0	0	0	0	4.9	33.1	0	45.6	0	5.6	0	10.1	0	0	0.7	
CAR	0	0	0	0	0	39	274	0	356	0	49	0	85	0	0	6	809
% CAR	0	0	0	0	0	90.7	94.5	0	89.2	0	100	0	96.6	0	0	100	92.5
MEDIUM	0	0	0	0	0	1	4	0	21	0	0	0	1	0	0	0	27
% MEDIUM	0	0	0	0	0	2.3	1.4	0	5.3	0	0	0	1.1	0	0	0	3.1
HEAVY	0	0	0	0	0	3	12	0	22	0	0	0	2	0	0	0	39
% HEAVY	0	0	0	0	0	7	4.1	0	5.5	0	0	0	2.3	0	0	0	4.5



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File Name : #6 ADAMS&PALMERAM  
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Start Time	ADAMS ST - SH 79 Southbound					PALMER AVE Westbound					ADAMS ST - SH 79 Northbound					PALMER AVE Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	0	4	30	0	34	62	0	4	0	66	11	0	0	0	11	111
07:30 AM	0	0	0	0	0	0	6	48	0	54	79	0	3	0	82	12	0	0	4	16	152
07:45 AM	0	0	0	0	0	0	12	76	0	88	91	0	6	0	97	11	0	0	1	12	197
08:00 AM	0	0	0	0	0	0	10	50	0	60	41	0	6	0	47	10	0	0	0	10	117
Total Volume	0	0	0	0	0	0	32	204	0	236	273	0	19	0	292	44	0	0	5	49	577
% App. Total	0	0	0	0	0	0	13.6	86.4	0		93.5	0	6.5	0		89.8	0	0	10.2		
PHF	.000	.000	.000	.000	.000	.000	.667	.671	.000	.670	.750	.000	.792	.000	.753	.917	.000	.000	.313	.766	.732

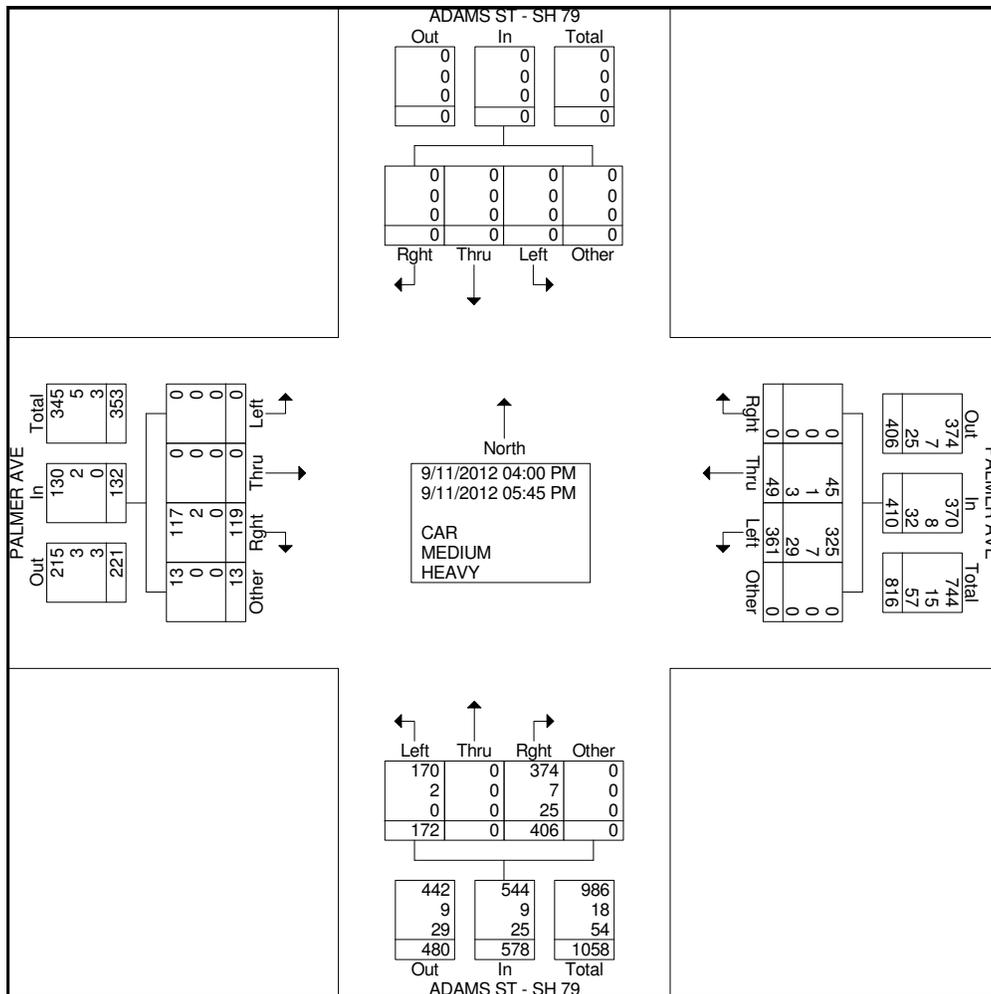


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 303-668-0220

File Name : #6 ADAMS&PALMERPM  
 Site Code : 00000000  
 Start Date : 9/11/2012  
 Page No : 1

Groups Printed- CAR - MEDIUM - HEAVY

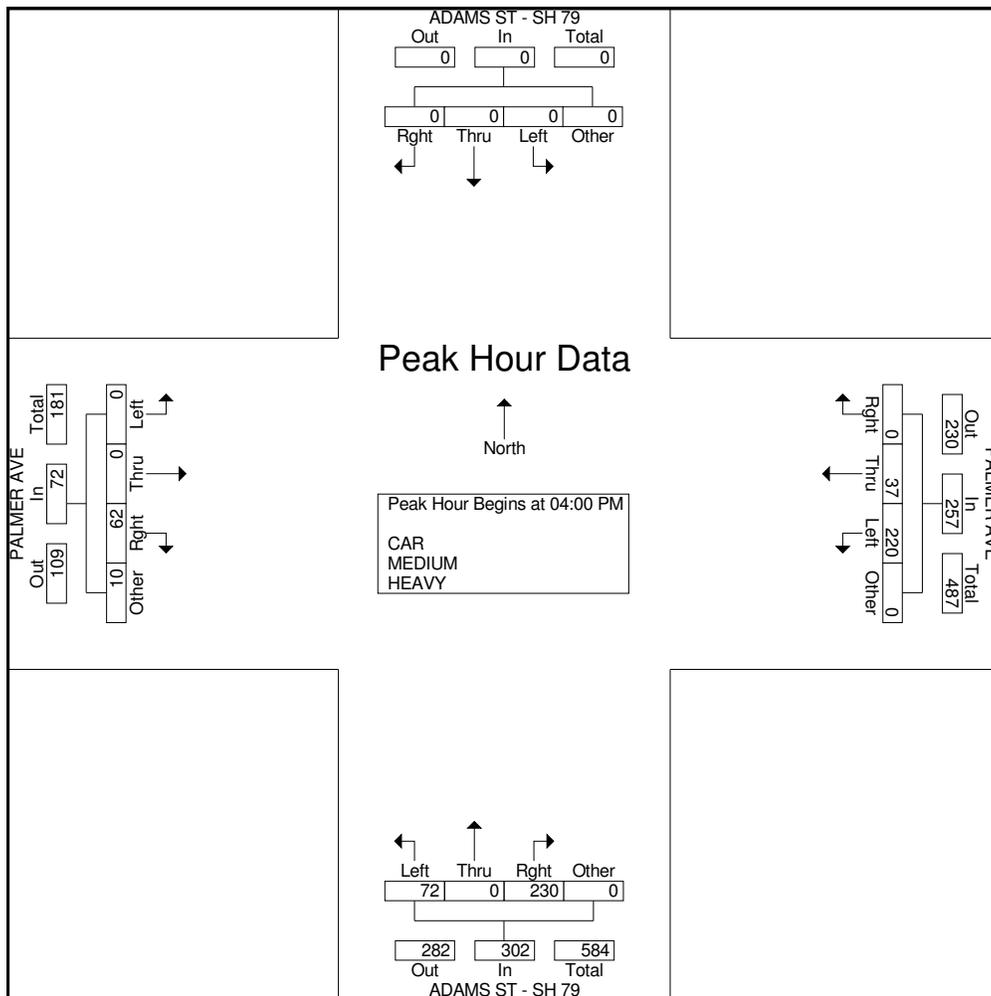
Start Time	ADAMS ST - SH 79 Southbound				PALMER AVE Westbound				ADAMS ST - SH 79 Northbound				PALMER AVE Eastbound				Int. Total
	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	
04:00 PM	0	0	0	0	0	14	68	0	56	0	11	0	14	0	0	0	163
04:15 PM	0	0	0	0	0	14	69	0	70	0	17	0	16	0	0	8	194
04:30 PM	0	0	0	0	0	5	54	0	61	0	20	0	16	0	0	1	157
04:45 PM	0	0	0	0	0	4	29	0	43	0	24	0	16	0	0	1	117
Total	0	0	0	0	0	37	220	0	230	0	72	0	62	0	0	10	631
05:00 PM	0	0	0	0	0	2	43	0	45	0	27	0	16	0	0	0	133
05:15 PM	0	0	0	0	0	3	39	0	39	0	20	0	12	0	0	2	115
05:30 PM	0	0	0	0	0	3	32	0	52	0	30	0	13	0	0	1	131
05:45 PM	0	0	0	0	0	4	27	0	40	0	23	0	16	0	0	0	110
Total	0	0	0	0	0	12	141	0	176	0	100	0	57	0	0	3	489
Grand Total	0	0	0	0	0	49	361	0	406	0	172	0	119	0	0	13	1120
Apprch %	0	0	0	0	0	12	88	0	70.2	0	29.8	0	90.2	0	0	9.8	
Total %	0	0	0	0	0	4.4	32.2	0	36.2	0	15.4	0	10.6	0	0	1.2	
CAR	0	0	0	0	0	45	325	0	374	0	170	0	117	0	0	13	1044
% CAR	0	0	0	0	0	91.8	90	0	92.1	0	98.8	0	98.3	0	0	100	93.2
MEDIUM	0	0	0	0	0	1	7	0	7	0	2	0	2	0	0	0	19
% MEDIUM	0	0	0	0	0	2	1.9	0	1.7	0	1.2	0	1.7	0	0	0	1.7
HEAVY	0	0	0	0	0	3	29	0	25	0	0	0	0	0	0	0	57
% HEAVY	0	0	0	0	0	6.1	8	0	6.2	0	0	0	0	0	0	0	5.1

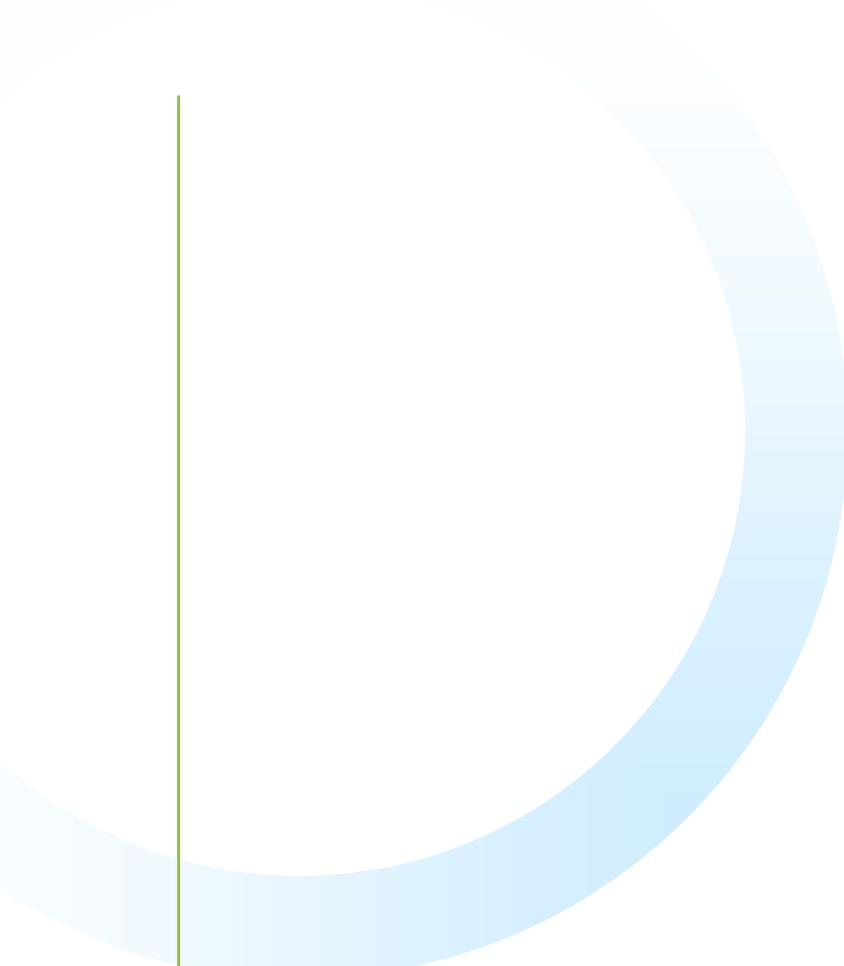


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File Name : #6 ADAMS&PALMERPM  
Site Code : 00000000  
Start Date : 9/11/2012  
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Start Time	ADAMS ST - SH 79 Southbound					PALMER AVE Westbound					ADAMS ST - SH 79 Northbound					PALMER AVE Eastbound					Int. Total
	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	Right	Thru	Left	Other	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	14	68	0	82	56	0	11	0	67	14	0	0	0	14	163
04:15 PM	0	0	0	0	0	0	14	69	0	83	70	0	17	0	87	16	0	0	8	24	194
04:30 PM	0	0	0	0	0	0	5	54	0	59	61	0	20	0	81	16	0	0	1	17	157
04:45 PM	0	0	0	0	0	0	4	29	0	33	43	0	24	0	67	16	0	0	1	17	117
Total Volume	0	0	0	0	0	0	37	220	0	257	230	0	72	0	302	62	0	0	10	72	631
% App. Total	0	0	0	0	0	0	14.4	85.6	0		76.2	0	23.8	0		86.1	0	0	13.9		
PHF	.000	.000	.000	.000	.000	.000	.661	.797	.000	.774	.821	.000	.750	.000	.868	.969	.000	.000	.313	.750	.813





# **APPENDIX B**

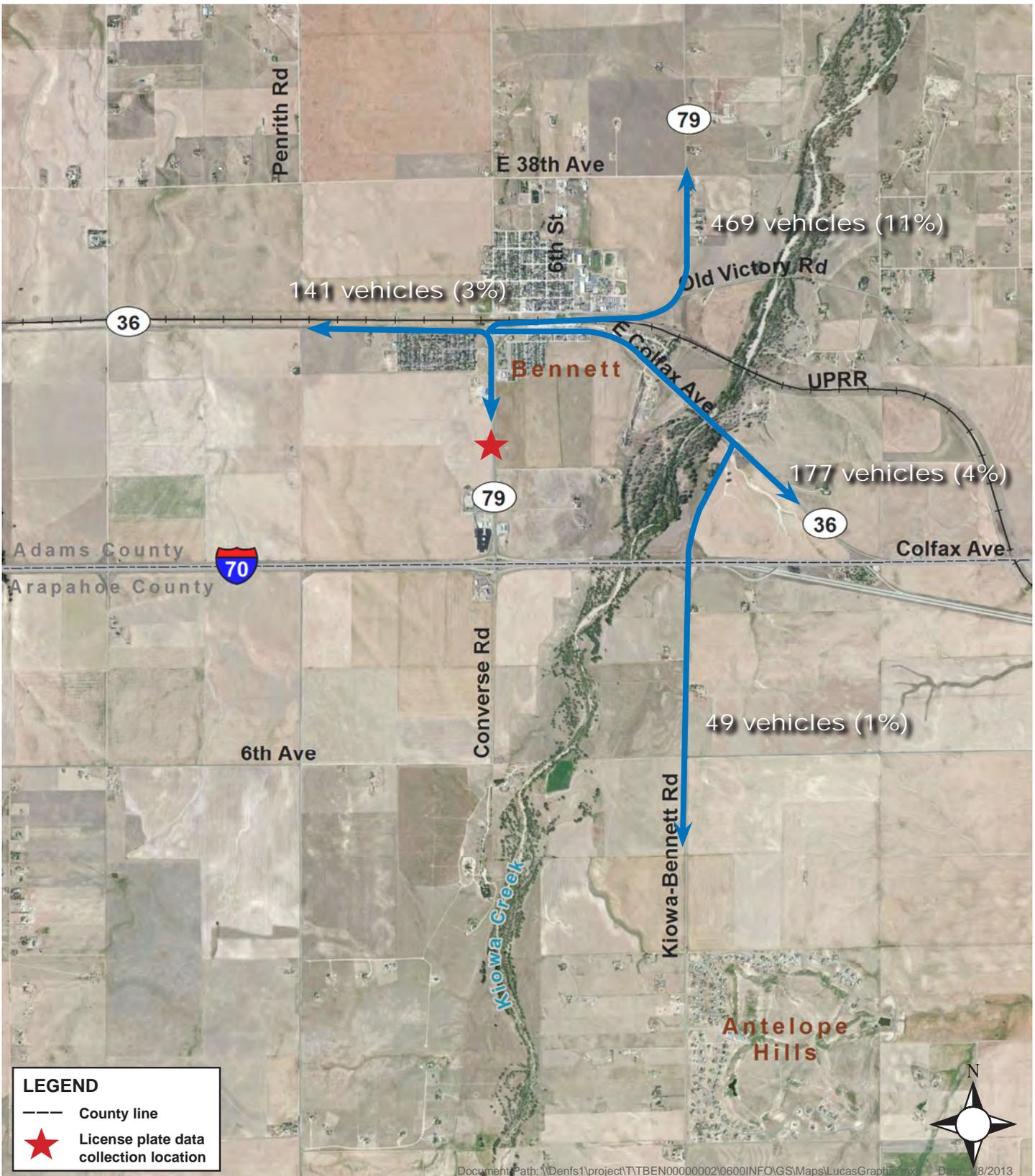
## **ORIGIN-DESTINATION STUDY ROUTES**





# Converse Rd (north of Market Place north access) SH 79 AND KIOWA-BENNETT CORRIDOR PEL STUDY

## Pass-Through Traffic



# SH 79 AND KIOWA-BENNETT CORRIDOR PEL STUDY

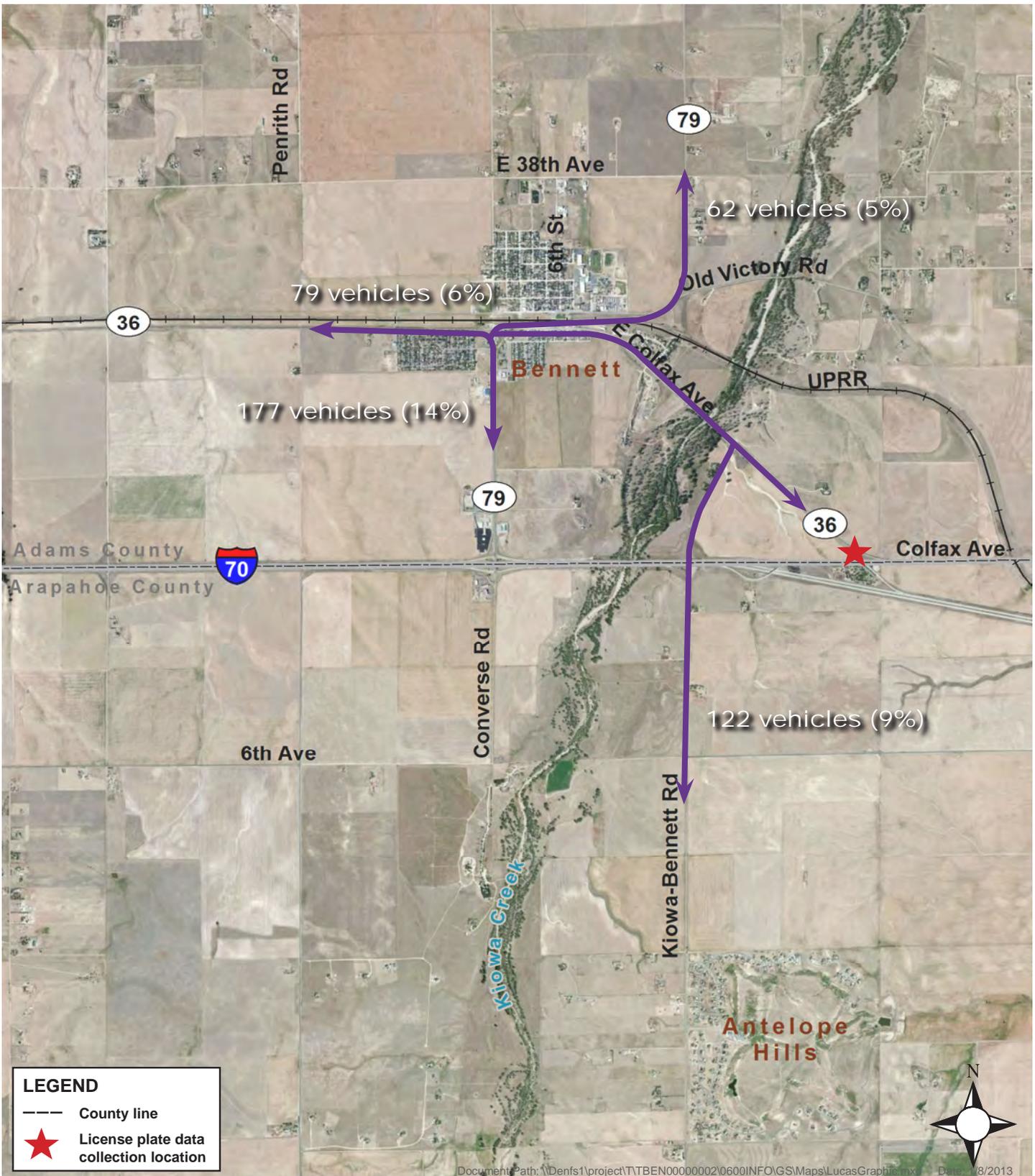
## Colfax Avenue (west of Penrith Rd) Pass-Through Traffic





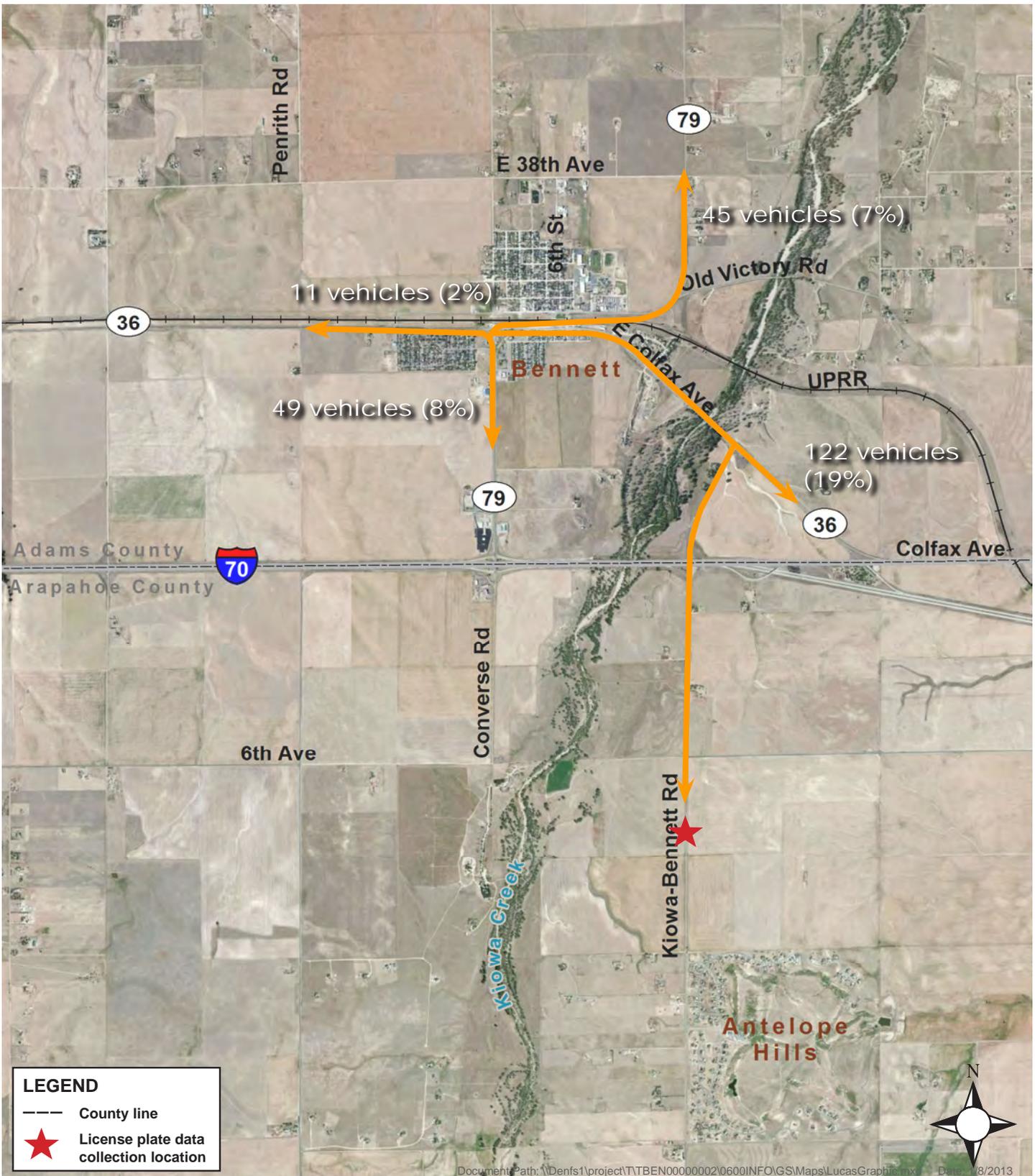
# SH 79 AND KIOWA-BENNETT CORRIDOR PEL STUDY

## Colfax Avenue (east of Kiowa-Bennett Rd) Pass-Through Traffic

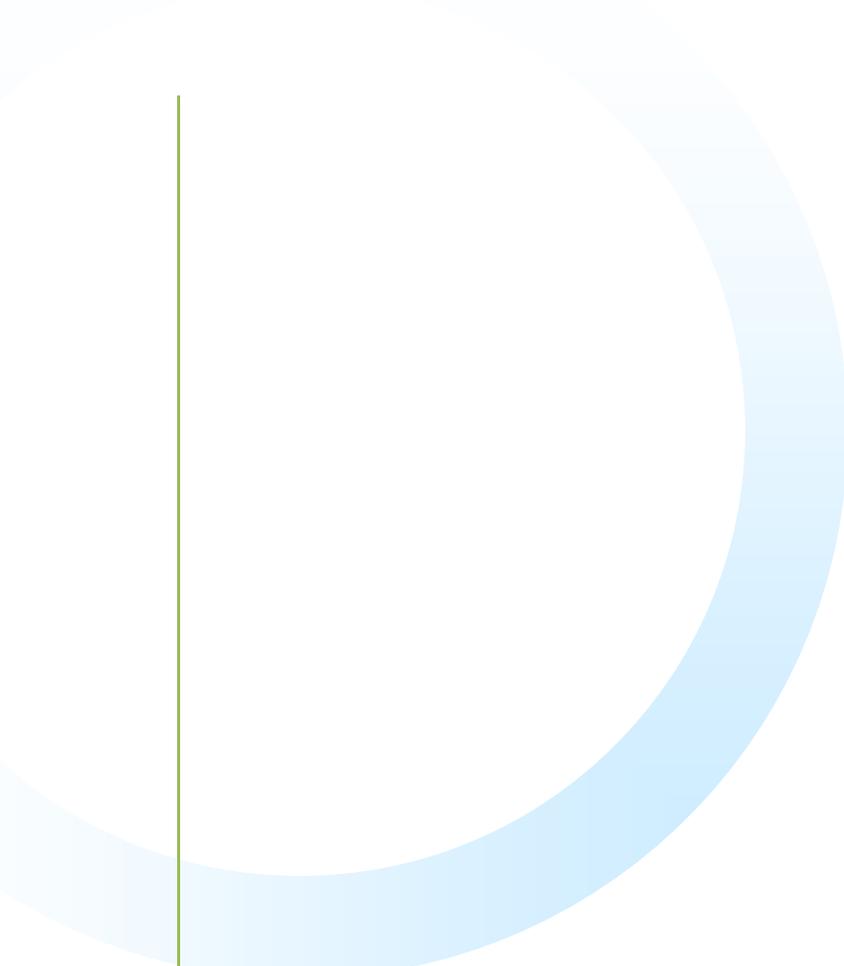


# SH 79 AND KIOWA-BENNETT CORRIDOR PEL STUDY

## Kiowa-Bennett Road (south of 6th Ave) Pass-Through Traffic







**APPENDIX C**  
**TRAVEL DEMAND FORECASTING MODEL**  
**INFORMATION**





**Exhibit 3**  
**SH-79 PEL Study**  
**Household and Employment Disaggregation**

Original TAZ	New TAZs	2010 Population	2035 Population	2010 Households	2035 Households	Avg HH Size 2010	Avg HH Size 2035	Total Employment 2010	Total Employment 2035
994	994			527	617			73	141
	2833			17	20			0	0
	2834			16	18			0	0
	2835			5	6			0	0
	<b>Subtotal</b>	<b>1,505</b>	<b>1,730</b>	<b>564</b>	<b>661</b>	<b>2.67</b>	<b>2.62</b>	<b>73</b>	<b>141</b>
995	995			53	54			13	19
	2836			31	32			8	14
	2837			16	16			21	24
	<b>Subtotal</b>	<b>274</b>	<b>273</b>	<b>100</b>	<b>102</b>	<b>2.74</b>	<b>2.68</b>	<b>42</b>	<b>57</b>
996	996			418	422			64	121
	2838			33	35			0	8
	<b>Subtotal</b>	<b>1,200</b>	<b>1,193</b>	<b>451</b>	<b>457</b>	<b>2.66</b>	<b>2.61</b>	<b>64</b>	<b>129</b>
997	997			11	91			0	0
	2839			2	91			0	0
	2840			0	181			16	21
	2841			22	429			27	47
	2842			54	658			27	48
	2843			565	859			228	364
	<b>Subtotal</b>	<b>1,740</b>	<b>6,020</b>	<b>654</b>	<b>2,309</b>	<b>2.66</b>	<b>2.61</b>	<b>299</b>	<b>480</b>
998	998			10	14			0	0
	2844			20	29			0	0
	2845			13	18			7	30
	2846			34	48			0	0
	<b>Subtotal</b>	<b>210</b>	<b>290</b>	<b>77</b>	<b>108</b>	<b>2.73</b>	<b>2.69</b>	<b>7</b>	<b>30</b>
999	999			1	20			0	0
	2847			1	20			0	0
	2848			0	28			0	0
	2849			28	58			0	0
	2850			0	38			0	0
	2851			0	56			0	0
	2852			0	19			0	0
	2853			1	20			0	0
	2854			11	27			0	0
	2855			2	20			0	0
	2856			0	601			0	0
	2857			0	401			0	0
	2858			8	401			0	0
	2859			0	401			0	0
	2860			2	2			0	53
	2861			258	187			0	0
	2862			208	151			154	100
	2863			0	0			0	53
	2864			0	280			0	32
	2865			0	0			0	0
2866			165	195			0	0	
2867			0	195			0	0	
2868			0	0			0	53	
2869			179	195			26	17	
2870			1	195			0	0	

**Exhibit 3**  
**SH-79 PEL Study**  
**Household and Employment Disaggregation**

Original TAZ	New TAZs	2010 Population	2035 Population	2010 Households	2035 Households	Avg HH Size 2010	Avg HH Size 2035	Total Employment 2010	Total Employment 2035
	2871			1	1			0	53
	2872			197	244			163	106
	2873			18	122			0	208
	2874			33	24			0	0
	2875			2	158			0	32
	2876			0	469			0	208
	2877			3	469			0	208
	2878			9	6			0	0
	2879			6	4			0	32
	2880			2	40			0	0
	2881			0	0			0	0
	2882			1	40			0	0
	2883			82	59			0	0
	<b>Subtotal</b>	<b>3,299</b>	<b>13,615</b>	<b>1,221</b>	<b>5,143</b>	<b>2.70</b>	<b>2.65</b>	<b>343</b>	<b>1,154</b>
<b>1002</b>	<b>1002</b>	<b>125</b>	<b>126</b>	<b>45</b>	<b>46</b>	<b>2.78</b>	<b>2.74</b>	<b>150</b>	<b>224</b>
<b>1003</b>	<b>1003</b>	<b>308</b>	<b>307</b>	<b>108</b>	<b>110</b>	<b>2.85</b>	<b>2.79</b>	<b>4</b>	<b>11</b>
<b>1004</b>	<b>1004</b>	<b>8</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>2.67</b>	<b>2.67</b>	<b>81</b>	<b>4,340</b>
<b>1005</b>	<b>1005</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>
<b>1006</b>	<b>1006</b>	<b>367</b>	<b>475</b>	<b>132</b>	<b>175</b>	<b>2.78</b>	<b>2.71</b>	<b>29</b>	<b>574</b>
<b>1264</b>	<b>1264</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>6</b>	<b>6</b>
<b>1265</b>	<b>1265</b>	<b>510</b>	<b>2,256</b>	<b>181</b>	<b>817</b>	<b>2.82</b>	<b>2.76</b>	<b>28</b>	<b>144</b>
<b>1951</b>	<b>1951</b>	<b>16</b>	<b>60</b>	<b>6</b>	<b>22</b>	<b>2.67</b>	<b>2.73</b>	<b>0</b>	<b>0</b>
<b>1952</b>	<b>1952</b>	<b>103</b>	<b>103</b>	<b>38</b>	<b>39</b>	<b>2.71</b>	<b>2.64</b>	<b>18</b>	<b>22</b>
<b>1953</b>	1953			242	752			42	68
	2884			8	30			0	5
	2885			16	64			0	6
	2886			13	47			2	6
	2887			13	47			3	8
	2888			8	34			0	3
	2889			4	17			0	2
	2890			8	34			0	3
	2891			8	34			0	3
	2892			17	38			0	6
	2893			84	68			16	15
	2894			16	14			2	3
	2895			63	234			10	38
	2896			126	298			21	32
2897			8	31			0	3	
	<b>Subtotal</b>	<b>1,681</b>	<b>4,510</b>	<b>636</b>	<b>1,742</b>	<b>2.64</b>	<b>2.59</b>	<b>96</b>	<b>200</b>
	1954			1	1			1	1
	2898			0	0			0	0
	2899			11	11			6	9
	2900			29	29			6	5
	2901			15	15			2	2
	2902			3	3			2	2
	2903			1	1			1	1
	2904			106	105			58	86
	2905			0	0			0	0
	2906			0	0			0	0

Exhibit 3  
SH-79 PEL Study  
Household and Employment Disaggregation

Original TAZ	New TAZs	2010 Population	2035 Population	2010 Households	2035 Households	Avg HH Size 2010	Avg HH Size 2035	Total Employment 2010	Total Employment 2035
1954	2907			11	11			6	9
	2908			44	44			17	12
	2909			29	48			10	23
	2910			98	145			46	100
	2911			29	29			8	6
	2912			78	77			22	16
	2913			44	44			12	9
	2914			25	39			10	12
	2915			83	82			23	17
	2916			385	394			22	74
	<b>Subtotal</b>	<b>2,619</b>	<b>2,781</b>	<b>993</b>	<b>1,076</b>	<b>2.64</b>	<b>2.58</b>	<b>251</b>	<b>383</b>
1955	1955			340	496			102	148
	2917			2	41			4	21
	2918			36	319			16	35
		<b>Subtotal</b>	<b>994</b>	<b>2,208</b>	<b>378</b>	<b>857</b>	<b>2.63</b>	<b>2.58</b>	<b>122</b>
1956	1956	2,383	9,532	920	3,756	2.59	2.54	205	446
1958	1958	236	235	89	90	2.65	2.61	27	30
1959	1959	37	36	14	14	2.64	2.57	5	4
1991	1991	2,618	14,964	1,003	5,852	2.61	2.56	25	1,294
1992	1992	387	2,074	146	799	2.65	2.60	468	565
2002	2002	5	5	2	2	2.50	2.50	0	0
2003	2003	0	0	0	0	0.00	0.00	0	0
New 2012 Data	Original	20,625	62,801	7,761	24,180	2.66	2.60	2,343	10,437
	After Splits	20,622	62,801	7,760	24,180	2.66	2.60	2,343	10,437
2009 Data	Original	19,937	79,885	7,454	30,502	2.67	2.62	2,021	17,248
	After Splits	19,937	79,885	7,453	30,502	2.68	2.62	2,021	17,248
Difference	Original	688	-17,084	307	-6,322	-0.02	-0.02	322	-6,811
	After Splits	685	-17,084	307	-6,322	-0.02	-0.02	322	-6,811
Percent Difference	Original	3.5%	-21.4%	4.1%	-20.7%	-0.6%	-0.8%	15.9%	-39.5%
	After Splits	3.4%	-21.4%	4.1%	-20.7%	-0.7%	-0.8%	15.9%	-39.5%

## Legend

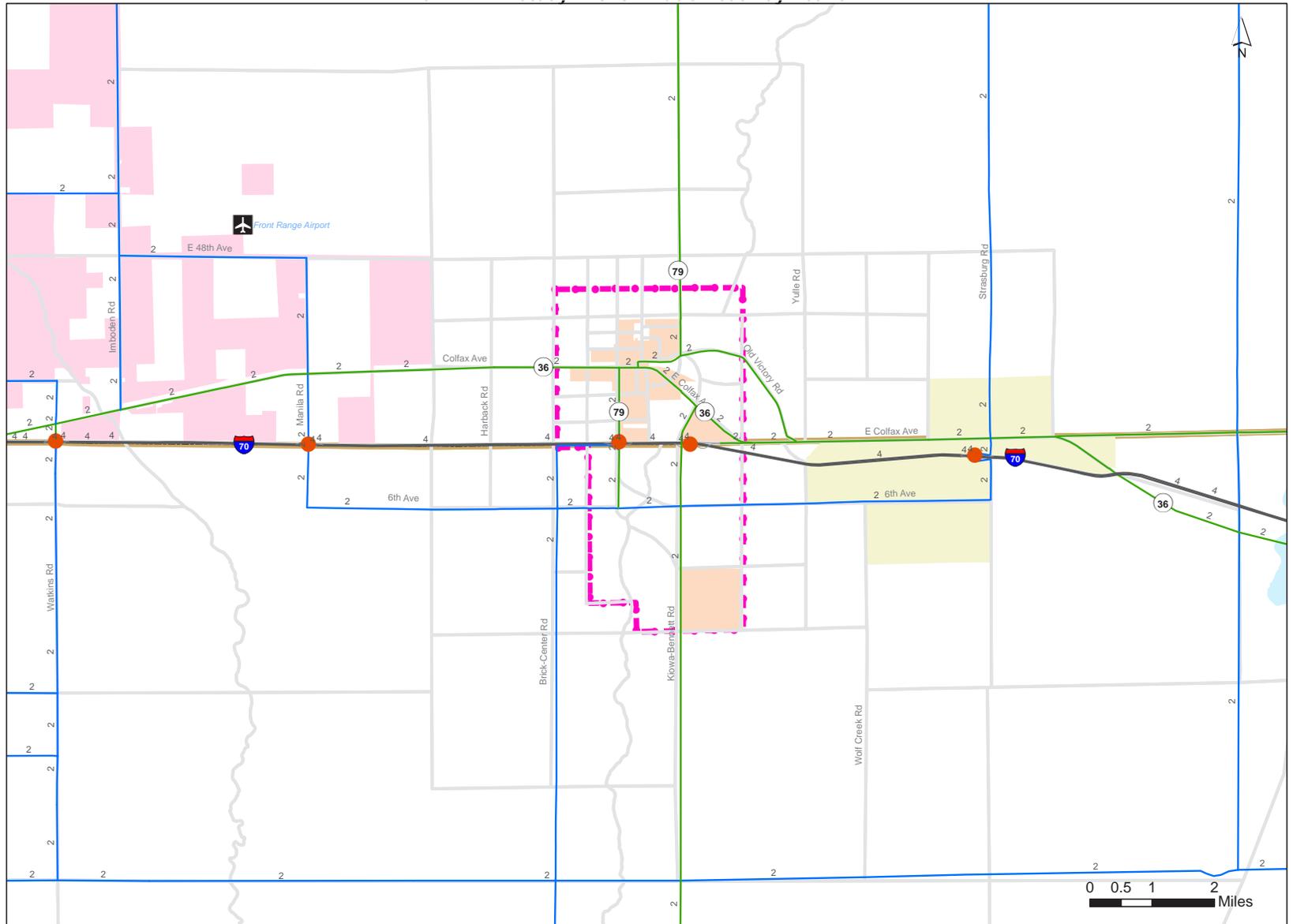
### 2010 Facility Type

-  Interstate/Freeways
-  Expressways
-  Principal Arterials
-  Minor Arterials
-  Collectors
-  Ramps
-  Interchanges
-  Traffic Analysis Zones

### Cities

-  Aurora
-  Bennett
-  Byers
-  Strasburg
-  Study Area
-  County Boundary

X: Total Number of Lanes



## Legend

### 2010 Facility Type

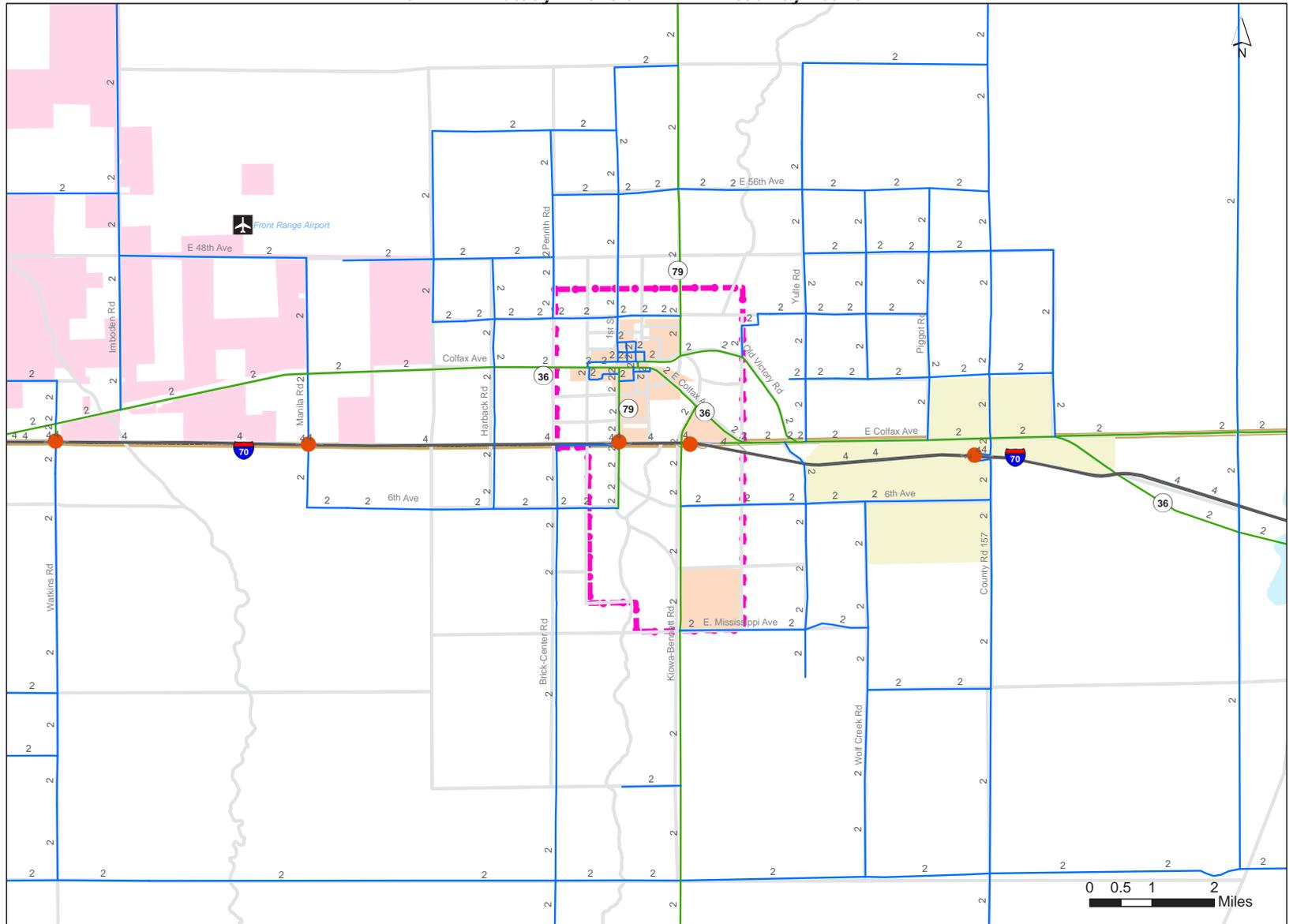
-  Interstate/Freeways
-  Expressways
-  Principal Arterials
-  Minor Arterials
-  Collectors
-  Ramps

-  Interchanges
-  Traffic Analysis Zones

### Cities

-  Aurora
-  Bennett
-  Byers
-  Strasburg
-  Study Area
-  County Boundary

X: Total Number of Lanes



## Legend

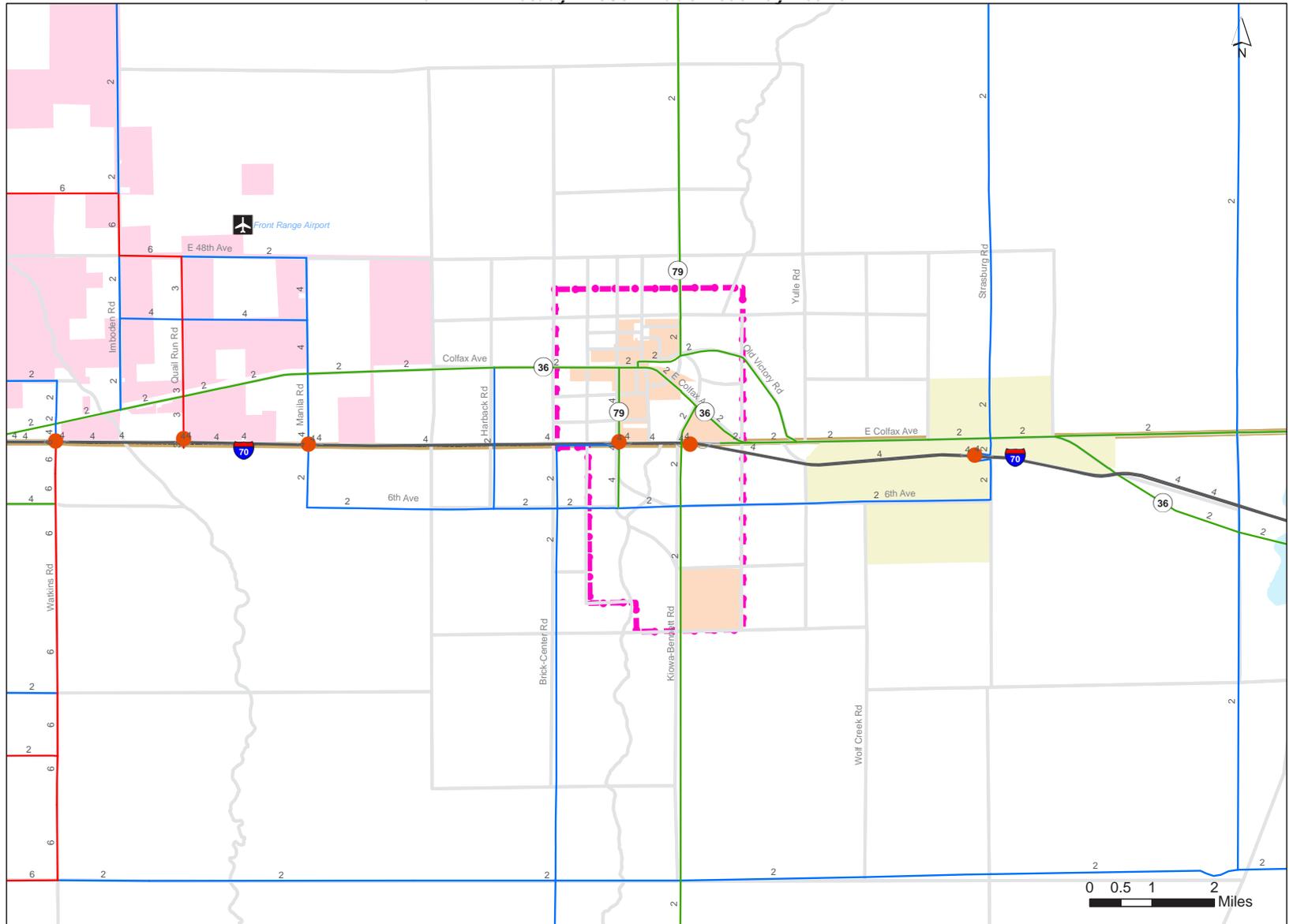
### 2035 Facility Type

-  Interstate/Freeways
-  Expressways
-  Principal Arterials
-  Minor Arterials
-  Collectors
-  Ramps
-  Interchanges
-  Traffic Analysis Zones

### Cities

-  Aurora
-  Bennett
-  Byers
-  Strasburg
-  Study Area
-  County Boundary

X: Total Number of Lanes



## Legend

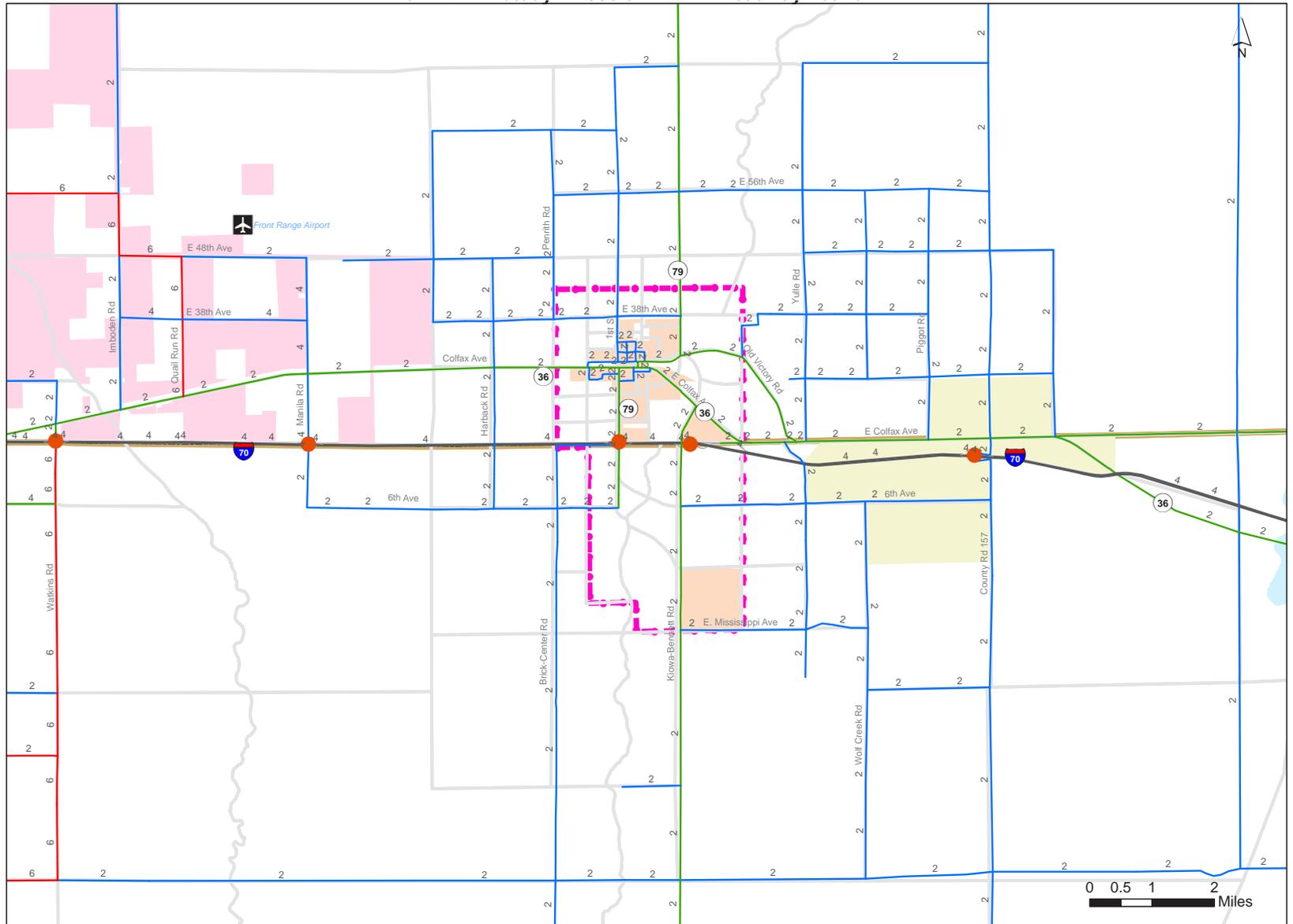
### 2035 Facility Type

-  Interstate/Freeways
-  Expressways
-  Principal Arterials
-  Minor Arterials
-  Collectors
-  Ramps
-  Interchanges
-  Traffic Analysis Zones

### Cities

-  Aurora
-  Bennett
-  Byers
-  Strasburg
-  Study Area
-  County Boundary

X: Total Number of Lanes



## Legend

### 2035 Facility Type

- Interstate/Freeways
- Expressways
- Principal Arterials
- Minor Arterials
- Collectors
- Ramps

### 2035 Improvements

- New Roads
- Roadway Widening
- Traffic Analysis Zones

### Cities

- Aurora
- Bennett
- Byers
- Strasburg
- Study Area
- County Boundary

X: Total Number of Lanes

(X): Improvement ID

