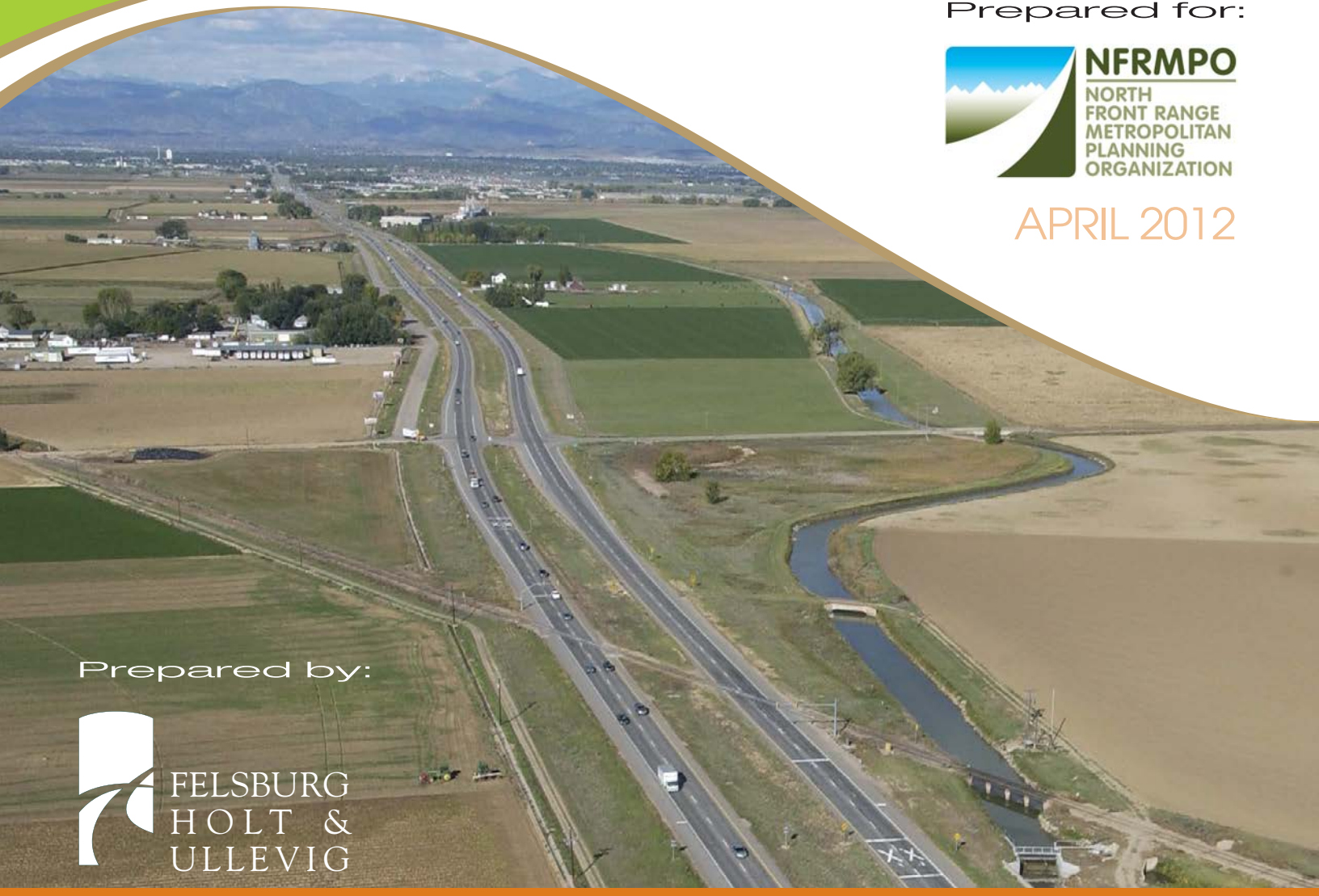
2011 NFRMPO
Transportation System Performance



Prepared for:

NFRMPO
NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

APRIL 2012

Prepared by:

FELSBURG HOLT & ULLEVIG

NFRMPO
NORTH FRONT RANGE METROPOLITAN PLANNING ORGANIZATION

Prepared for:

North Front Range MPO
419 Canyon Avenue, Suite 300
Fort Collins, 80521

This document serves the Federal Requirements for the
Congestion Management Process for the
North Front Range Metropolitan Planning Organization

Prepared by:

Felsburg Holt & Ullevig
6300 South Syracuse Way, Suite 600
Centennial, CO 80111
303/721-1440

FHU Reference No. 10-045-08
April 2012

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

Federal requirements state that regions with more than 200,000 people, known as Transportation Management Areas (TMAs), must maintain a Congestion Management Process (CMP) and use it to make informed transportation planning decisions. The Federal Highway Administration (FHWA) defines a CMP as a "systematic transparent process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing mobility." The purpose of the CMP is to define congested corridors in the region, develop strategies to mitigate the congestion, and provide a way to monitor the effectiveness of the strategies. The CMP is also intended to use performance measures to direct funding toward projects and strategies that are most effective for addressing congestion. The official Federal Register regarding the CMP (Title 23, Section 450.320 and Section 500.109) is available in the Appendix. This document serves the Federal reporting requirements for the Congestion Management Process for the North Front Range Metropolitan Planning Organization (NFRMPO).

The NFRMPO completed an update to the region's Congestion Management Process which was adopted by the Planning Council in September 2010. One key change in the CMP is an increased focus on data collection to measure and monitor the transportation system's performance rather than relying heavily on the regional travel demand model for performance measures. In addition to meeting the Federal CMP reporting requirements, the NFRMPO has a desire to use this Transportation System Performance report as a mechanism to provide regional benchmarking to inform transportation investment decisions and to paint a clear picture of the region's transportation system and needs. This report serves to document the system-wide performance measures related to congestion.

Purpose of Annual Transportation System Performance Report

This 2011 Transportation System Performance report has been structured to focus on reporting the system-wide and project-level data collection and performance measures outlined in the 2010 NFRMPO CMP. Since this is the second year of data collection, in many cases this report provides a comparison between 2010 and 2011 data. *In subsequent years, the Transportation System Performance report will continue to document and analyze the trends for each of the performance measures.* Where historical and comparable data were available, this report provides a comparison of system performance over multiple years.

As recommended in the 2010 NFRMPO CMP, in the 2010/2011 Call for Projects (for Surface Transportation Program Metropolitan (STP-Metro), Transportation Enhancement, and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding), project applicants were required to commit to completing before and after data collection. *Although these data are not yet available, the project-level data and performance measures will be included in future Transportation System Performance reports.*

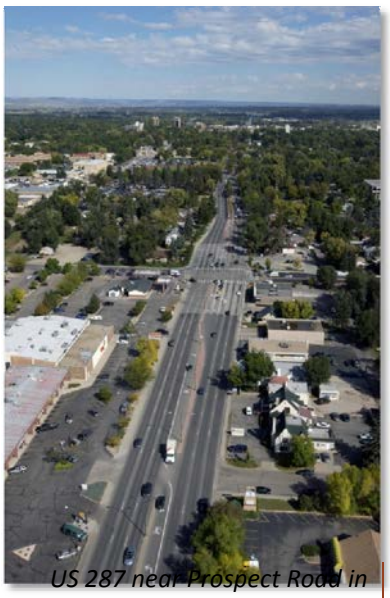
It is important not only to document the system-wide and project-level performance measures, but also to evaluate the trends in the performance measures over time to identify and analyze the factors affecting congestion-related performance measures. This Transportation System Performance report is intended to benefit the region by:

- Providing measurements of how the region's towns, cities, and counties are doing in terms of managing congestion on an annual basis;
- Guiding project accountability by requiring before and after data collection for all projects funded through the MPO;
- Providing tools and data to inform decisions on how to spend available transportation funding;
- Providing a basis for pursuing additional transportation funding by "painting" a clear picture of the region's transportation needs; and
- Providing supporting data to the Chambers of Commerce and Economic Development Corporations responsible for "selling" the region's transportation system as beneficial for prospective businesses and future economic investment.

Structure of Congestion Management Process

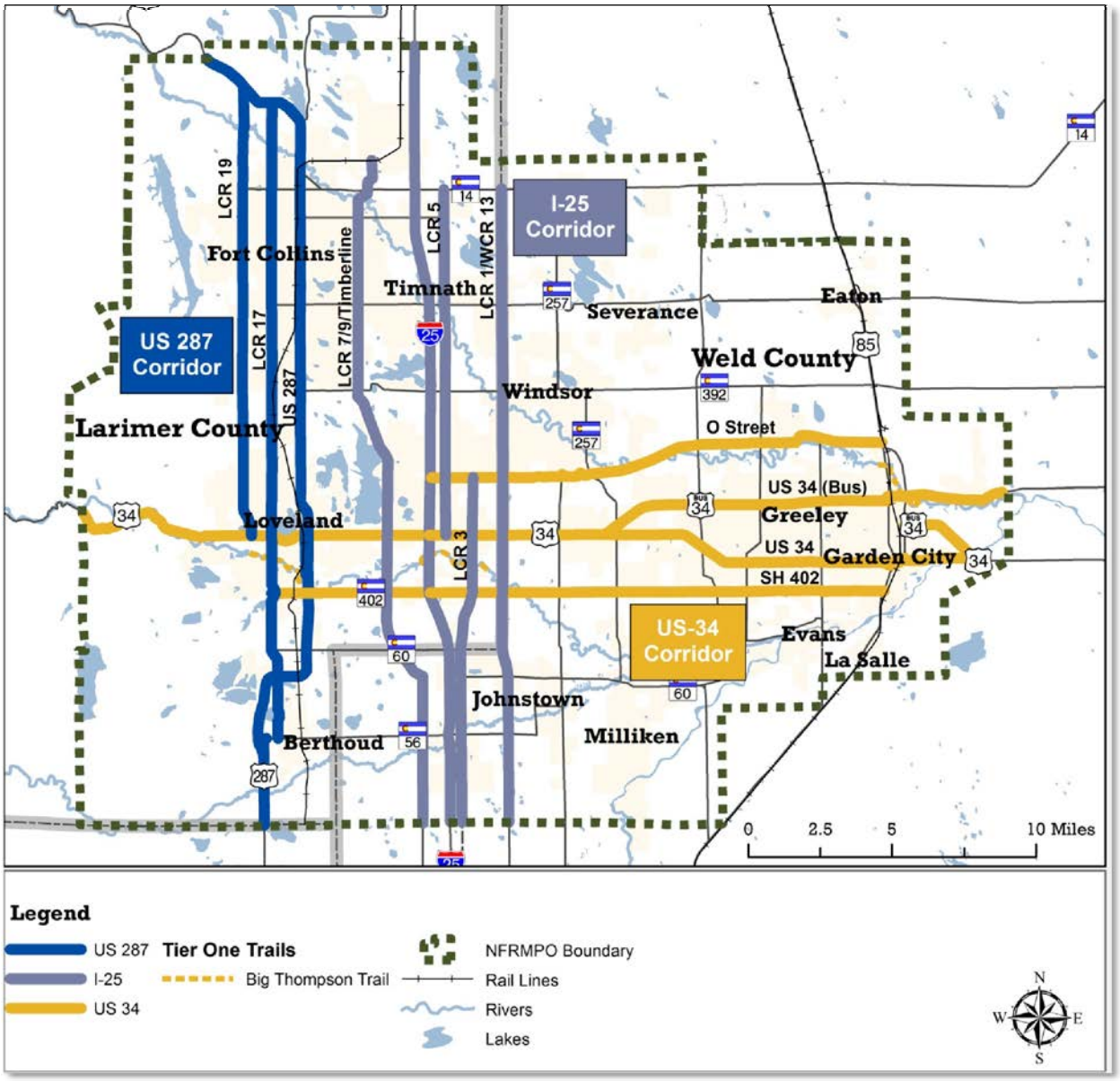
The 2035 Regional Transportation Plan (RTP) Update identifies Tier One of the Regionally Significant Corridors (RSCs) to be the focus of the Congestion Management Process in the North Front Range. Therefore the data collected for this Transportation System Performance report is heavily focused on the Tier One corridors (as defined in the 2035 Regional Transportation Plan), which include I-25, US 287, and US 34 and their parallel facilities, as shown on **Figure 1**.

The structure of the MPO's Congestion Management Process is depicted on **Figure 2**. The green boxes represent elements of the CMP that establish the state of the region's congestion and what is important to the region in terms of managing or mitigating the congestion.



US 287 near Prospect Road in Fort Collins.

Figure 1. Tier One Corridors

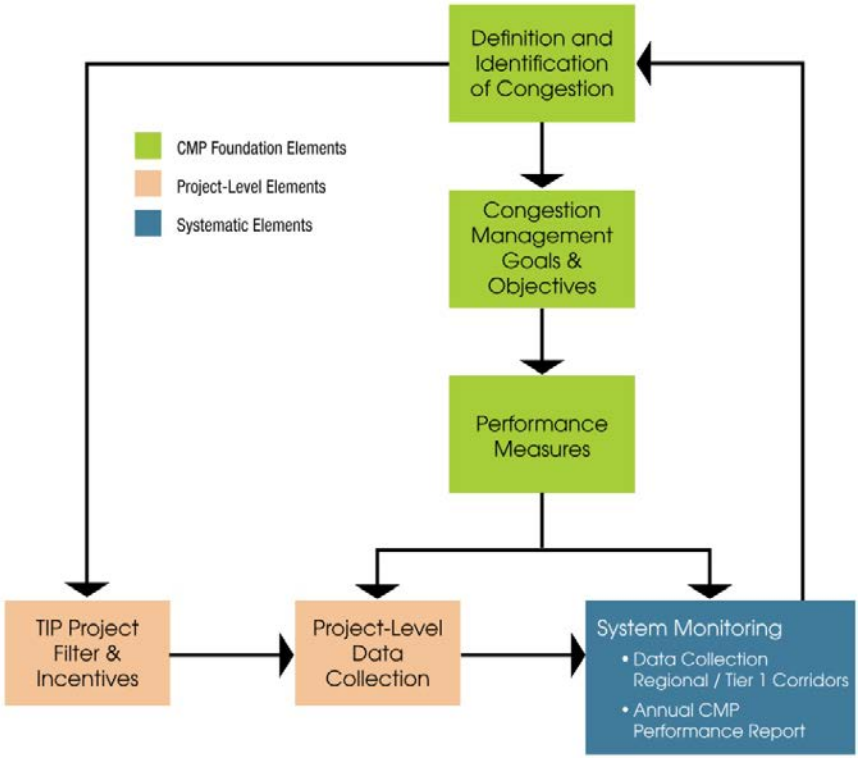


US 34 east of I-25 looking west.

I-25 crossing the Cache la Poudre River.

The beige boxes represent project-level components of the CMP; the CMP serves as both a filter and an incentive in selecting projects for the Transportation Improvement Program (TIP), and all projects that receive funding through the MPO are required to collect before and after data. Finally, the blue colored box represents the systemic component of the CMP; regional and corridor-level data are to be collected on an annual basis to compare the state of the region in terms of congestion levels on a year to year basis. Both the system monitoring and the project-level data collection are documented and analyzed in this Transportation System Performance report.

Figure 2. CMP Structure



DATA COLLECTION

The data collected for this Transportation System Performance Report are primarily centered on the Tier One corridors since they are the focus of the CMP; however, some of the performance measures pertain to the region as a whole, in which case region-wide data have been collected. Much of the data in this report is regularly collected by the Colorado Department of Transportation (CDOT), the NFRMPO, the cities and counties, and the transit providers in the region. To supplement the available data, the MPO conducted travel time surveys in 2011 and 2012, and had automobile occupancy counts recorded along the three Tier One corridors in 2011. Summaries of the data collected and used in this report are provided in the Appendix.

Travel Time Surveys

Travel time surveys were completed for the Tier One corridors. The travel time runs were completed only for the primary facility (i.e., I-25, US 287, and US 34) and not for the parallel routes, with the exception of US 34 Business, as travel conditions on primary facilities can cause travel on parallel facilities to vary. The surveys were completed on Tuesdays, Wednesdays, or Thursdays during January and February 2012 by NFRMPO staff to reflect typical weekday conditions and coincide with the area's transportation model. The survey involved driving the length of each facility within the MPO boundary in each direction and recording the travel time between major intersections along the corridor, using the "floating car" methodology in which the test vehicle passes as many vehicles as pass the test vehicle. Any intersection-related delays (stopped delays) were recorded, including information about the delay length and location. The data collection included four runs in each direction for each facility during the morning and afternoon peak periods and two runs in each direction for each facility during the noon peak period. The results of the runs for each time period were then averaged to determine an average delay along each corridor during each time period. If a major traffic crash or adverse weather occurred, the travel time run was not used.

A stopwatch was used to record the travel time between major intersections along each corridor.

Automobile Occupancy Counts

Automobile occupancy counts were recorded in 2011at two locations on each of the three primary facilities of the Tier One corridors to understand the level of carpooling over time. Each travel lane was video recorded, and the number of persons per vehicle was counted. The counts were recorded during the morning, noon, and afternoon peak periods at these locations:

Video recordings of highway locations were used to count the number of passengers in each passing cars.

- I-25 south of US 34
- I-25 south of SH 14
- US 34 between US 287 and I-25
- US 34 between US 34 Business and US 85
- US 287 south of US 34
- US 287 south of SH 14

SYSTEM PERFORMANCE MEASURES

The 2010 NFRMP CMP outlines a series of performance measures related to recurring and non-recurring congestion to be used to assess the extent of congestion, changes in levels of congestion over time, and to evaluate the effectiveness of congestion reduction and mobility enhancement strategies. The performance measures have been divided into five categories:

- Roadway
- Transportation Demand Management
- Transit
- Bicycle and Pedestrian
- Land Use

Access to alternative travel modes – like transit and bicycling – can help to offset roadway congestion.

Because this is the NFRMPO's second Transportation System Performance report based on a systematic data collection and compilation effort, in many cases the performance measures in the following sections provide only two years of data. *In subsequent Transportation System Performance reports, the measures will continue to be compared over time to understand trends in the transportation system.*

Roadway

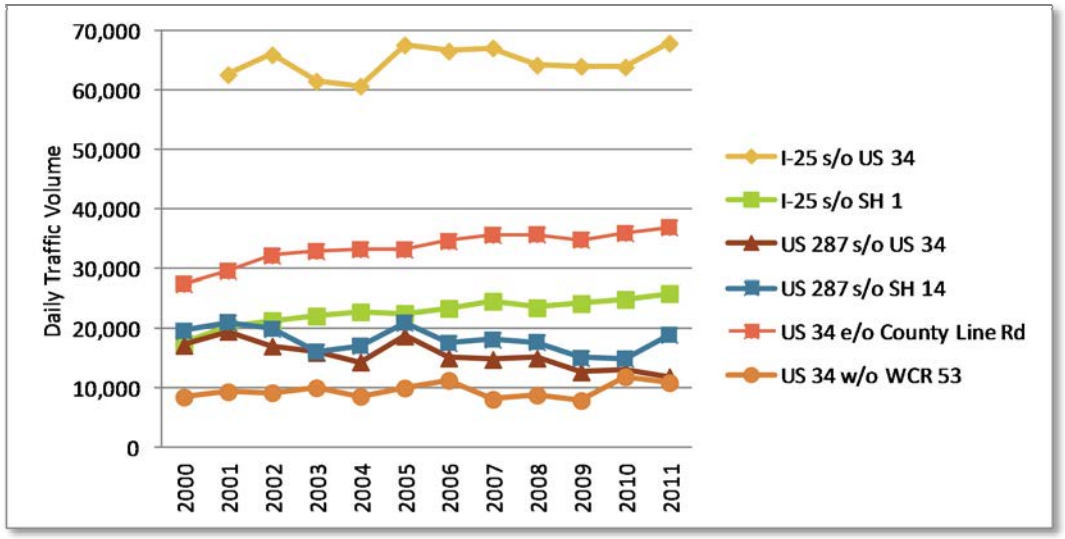
The roadway-based performance measures rely heavily on the daily traffic counts that CDOT maintains in their count database.

Traffic Volumes

The daily traffic volumes on the primary facility of the three Tier One corridors over the past decade are shown on **Figure 3**. From this graph, several observations can be made:

- I-25 south of US 34 carries nearly three times the volume of traffic as I-25 north of Fort Collins (south of SH 1).
- While the traffic on I-25 south of US 34 has fluctuated over the last decade, the 2011 traffic was the highest recorded since 2001, increasing six percent over 2010.
- Of the five count locations, I-25 south of SH 1 has experienced the greatest percentage increase in traffic (about 30 percent since 2001).
- Traffic volumes on US 34 east of County Line Road (in Weld County) have steadily increased over the last decade (over 25 percent since 2001), while volumes on US 34 west of WCR 53 have remained relatively constant with peaks in 2006, 2010, and 2011.
- Traffic volumes at the two count locations on US 287 (south of US 34 in Loveland and south of SH 14 in Fort Collins) have fluctuated, with a general decreasing trend. However, traffic in 2011 on US 287 south of SH 14 increased over 25 percent compared to 2010.

Figure 3. Historical Daily Traffic Volumes



Source: CDOT traffic volume database

Travel Time

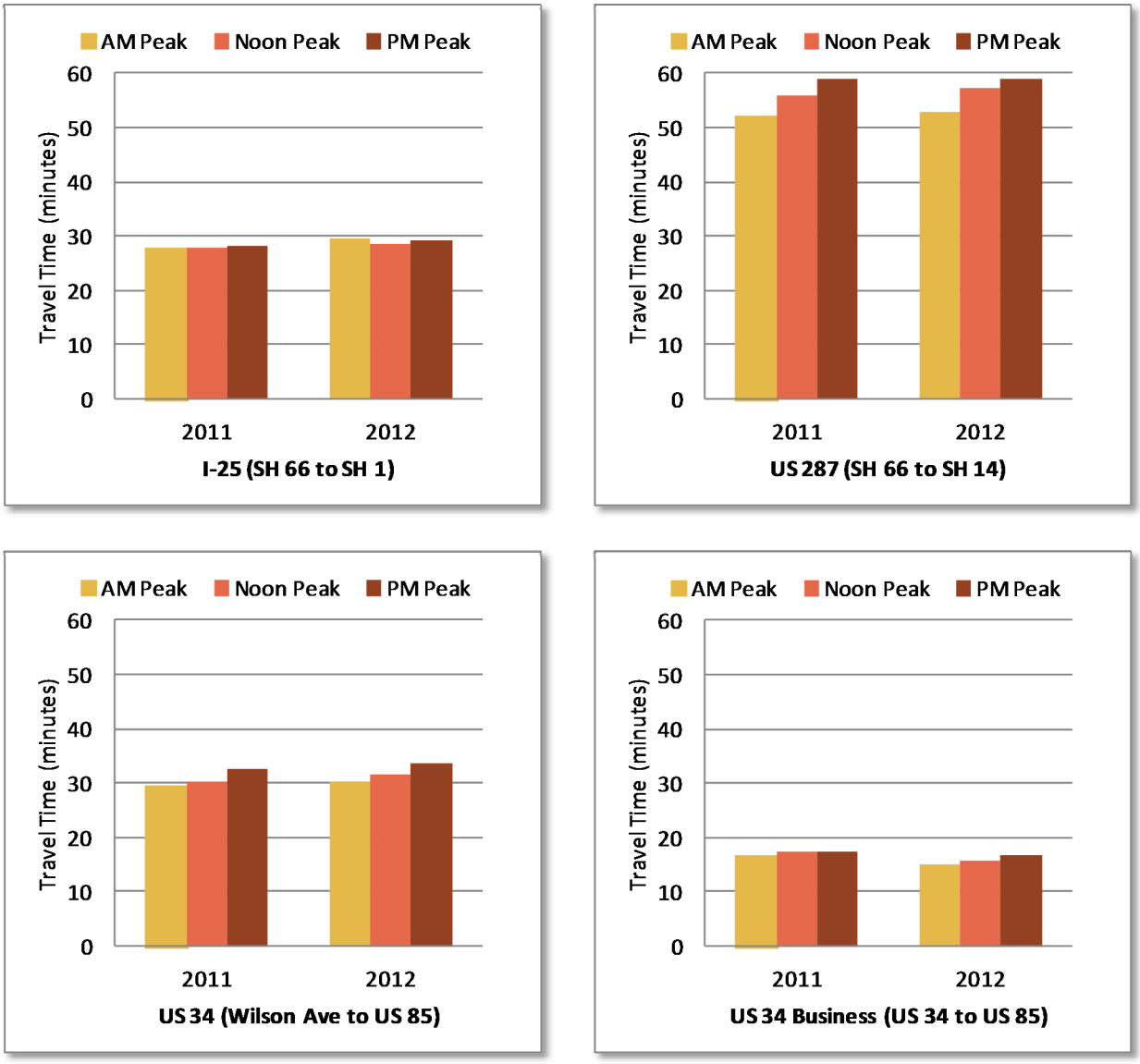
Travel time studies were conducted along the three primary facilities of the Tier One corridors, as described in the Data Collection section of this report, and US 34 Business. Nearly all facilities showed a slight increase in travel time during each time period over 2011. As illustrated on **Figure 4**, average travel time along I-25 from SH 66 on the south end of the MPO to SH 1 on the north end of the MPO was measured to be approximately 29 minutes during all three peak periods of the day. These results show the travel times on I-25 to be consistent (and therefore predictable) during normal weekday conditions (Tuesday – Thursday).

The US 287 travel time survey results show more variability between the different periods of the day. While the average travel time from SH 66 to SH 14 on US 287 is approximately 53 minutes during the AM peak period, the average travel time during the PM peak period is approximately 59 minutes.

The travel times along the US 34 corridor from Wilson Avenue in Loveland to US 85 via the US 34 Bypass also show some variability depending on time of day. While the average travel time is approximately 30 minutes during the AM peak period, the average travel time during the PM peak period is approximately 34 minutes. Travel times along US 34 Business are more consistent, with less than two minutes difference between the three periods of the day.

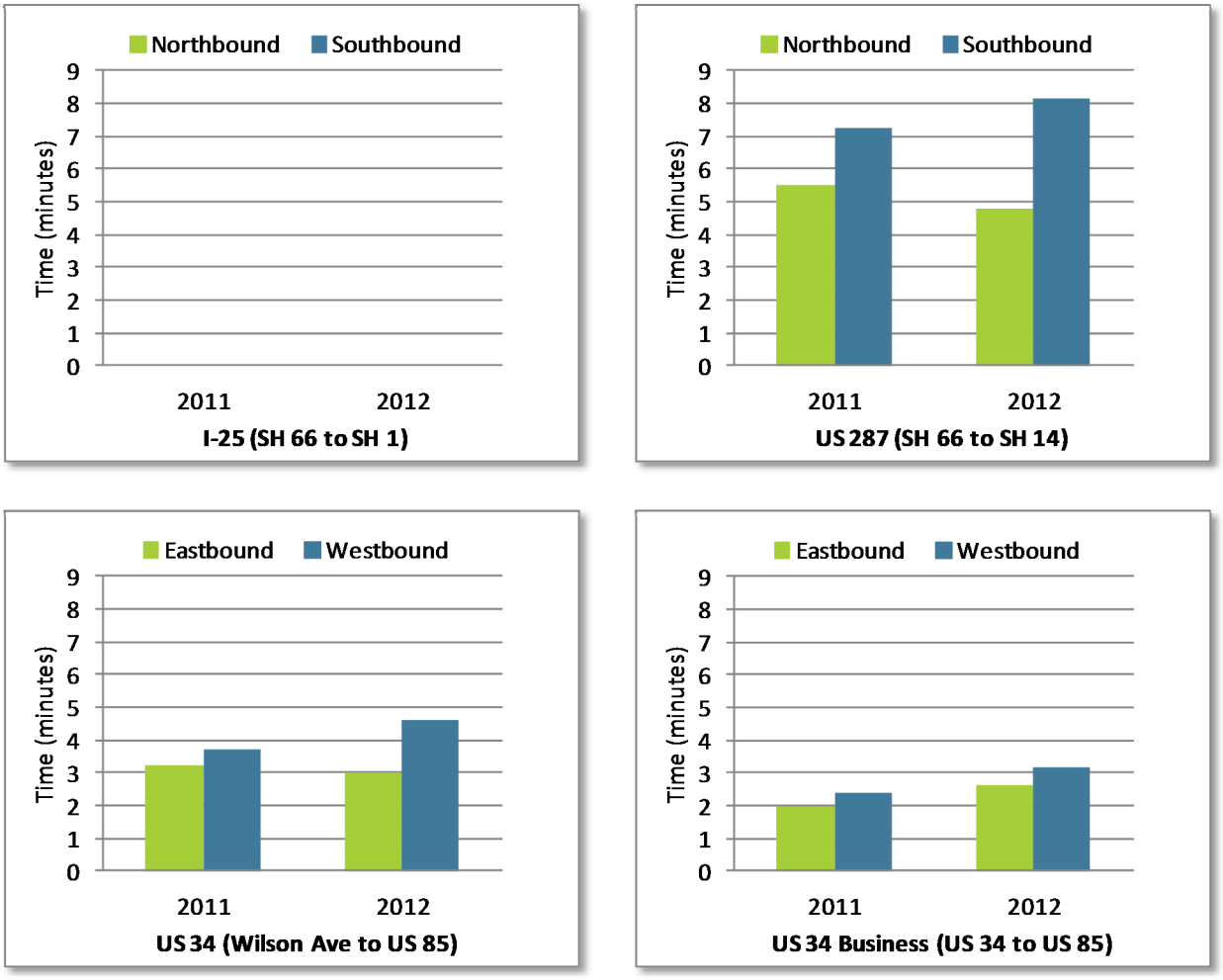
As a part of the travel time surveys completed in early 2012, stopped delay was recorded. Stopped delay typically occurs at the approach to a signalized intersection or in severe congestion along a freeway; it represents the amount of time a driver can expect to be stopped in his vehicle while traveling the length of the corridor. As shown on **Figure 5**, no stopped delay was recorded on I-25. The average total stopped delay of all three time periods along US 287 was higher in the southbound direction, and the stopped delay was higher in the westbound direction on both US 34 and US 34 Business.

Figure 4. Average Travel Time



Source: NFRMPO travel time surveys, 2012

Figure 5. Average Total Stopped Delay



Source: NFRMPO travel time surveys, 2012

Using the travel time data, the actual speeds along the various segments of the three corridors (I-25, US 287, and US 34) and US 34 Business were compared to the posted speed limits. A comparison of the actual travel speeds with the posted speeds by direction of travel during the AM peak period is provided in **Figure 6**. Along I-25, a majority of actual speeds in the morning tend to be within five mph of the posted speed, but more segments are observed to be greater than five mph below the speed limit compared to the previous year. The majority of the US 287 corridor north of Berthoud through Loveland and Fort Collins has travel speeds that are between five and 15 mph slower than the posted speed, but a segment between Loveland and Fort Collins and a segment near Berthoud have travel speeds 15 to 20 mph slower than the speed limit. Along the US 34 corridor, actual speeds are generally within five mph of the posted speeds, with the exception of the segment just west of I-25 and segments through Greeley. Actual speeds along US 34 Business vary throughout the corridor, ranging anywhere from within 5 mph to 20 mph below the speed limit.

Figure 6. AM Peak Period Travel Speeds

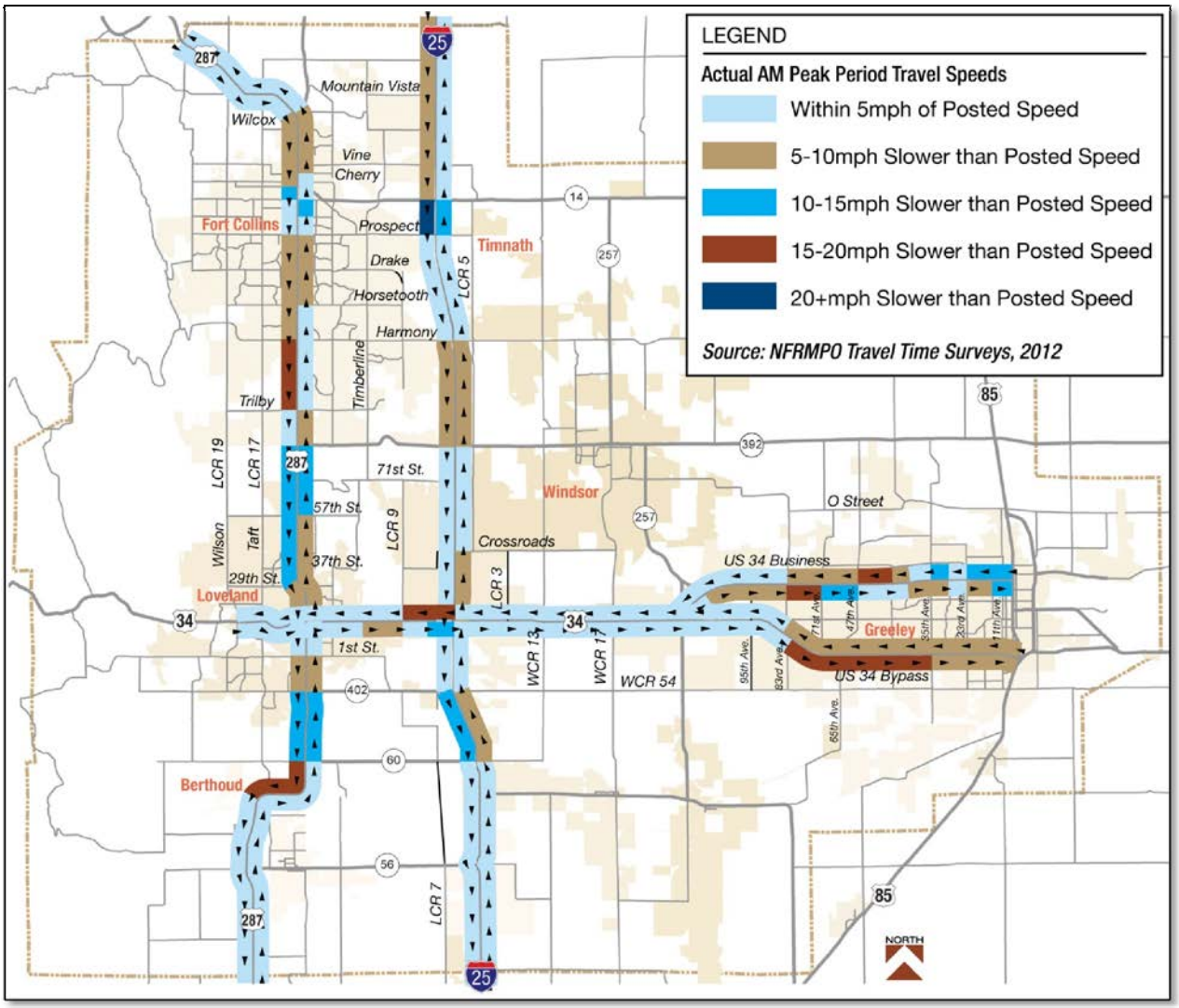
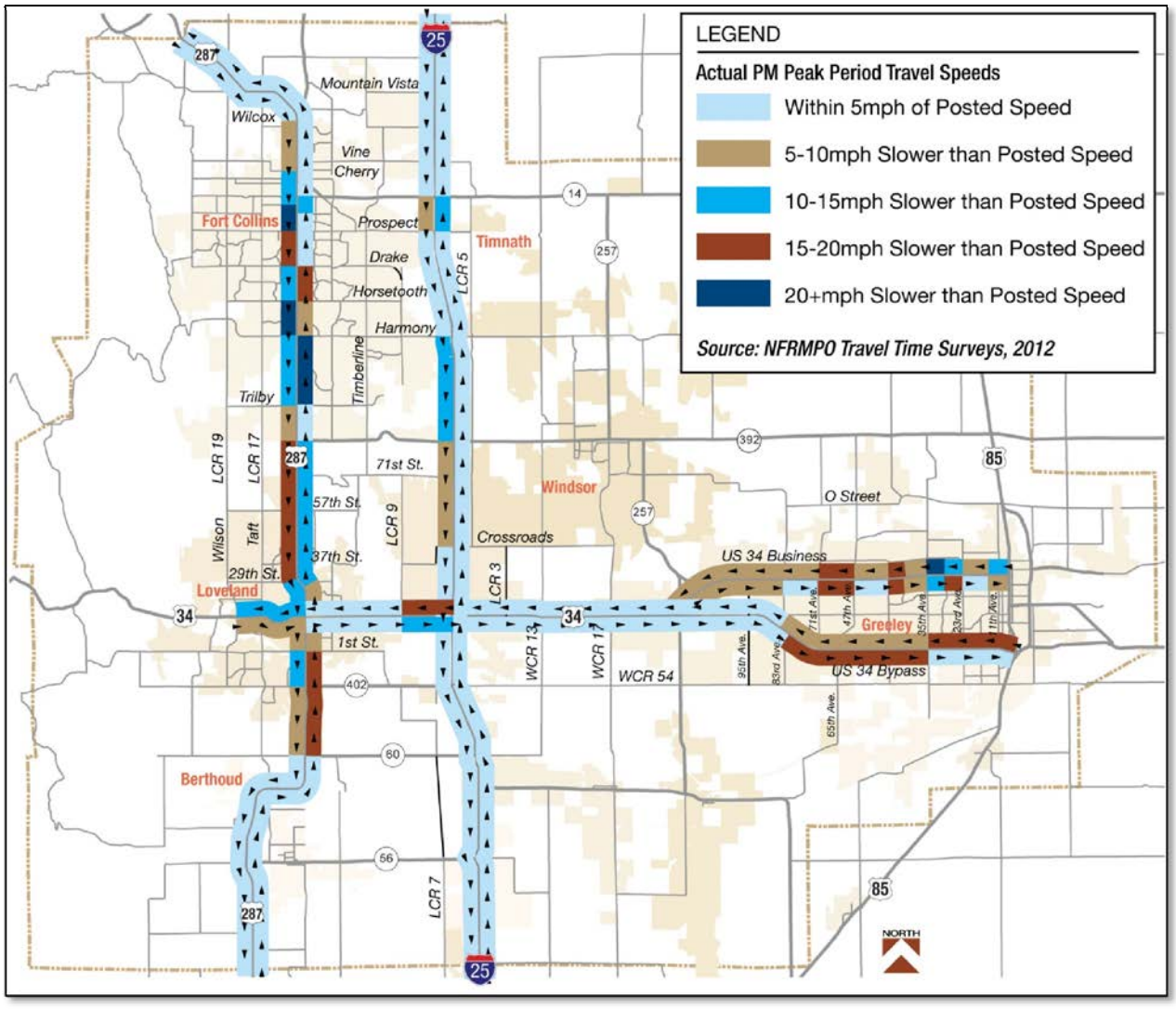


Figure 7 provides a comparison of the actual speeds during the PM peak periods with the posted speeds. The segments along the three corridors and US 34 Business that operate slower than the posted speeds tend to be the same as during the AM peak period. But overall, I-25 operates at higher speeds, US 287 and US 34 Business operate at slower speeds, and US 34 operates at about the same speeds during the PM peak period compared to the AM peak period. Actual travel speeds remained relatively consistent for I-25 and US 34 compared to last year, while US 287 shows more variability in travel speeds between Berthoud and the northern edge of Fort Collins.

Figure 7. PM Peak Period Travel Speeds



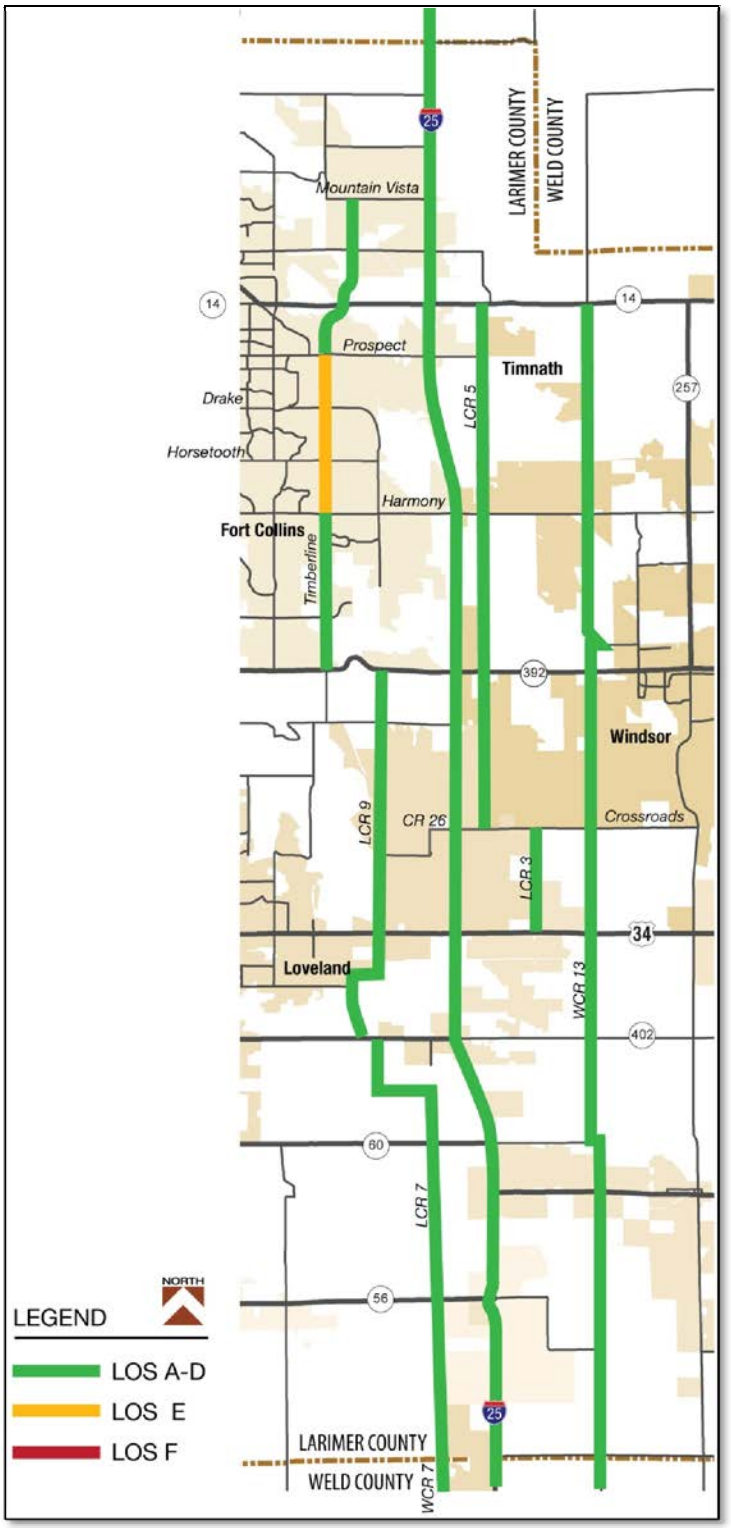
Levels of Service

A system wide measure which is a good indicator of the impacts of growth on transportation is level of service (LOS), a qualitative measure which describes operating conditions, or traffic flow rates. LOS A represents a free flow condition, and LOS F represents a breakdown of traffic flow with excessive congestion and delay. Existing daily levels of service have been calculated on all Tier One corridors based on the daily traffic volumes and planning level roadway capacities. Congestion, as defined in the Congestion Management Process, is LOS E or F, with E nearing capacity and F over capacity.

This LOS analysis is based on the most current daily traffic counts (2011 for all state highways and between 2005 – 2010 for non-state highways) and does not explicitly account for intersection operations or peak period delays. However, it does provide a straightforward means of comparing the daily volumes on various segments of the Tier One corridors to the capacities of those facilities, and will serve as a comparison of the daily LOS over time. The LOS ranges on the I-25, US 287, and US 34 corridors are depicted on **Figures 8, 9, and 10**, respectively. No changes in LOS were observed along the I-25 and US 34 corridors compared to 2010, while a small segment on US 287 south of SH 14 improved due to lower daily volumes.

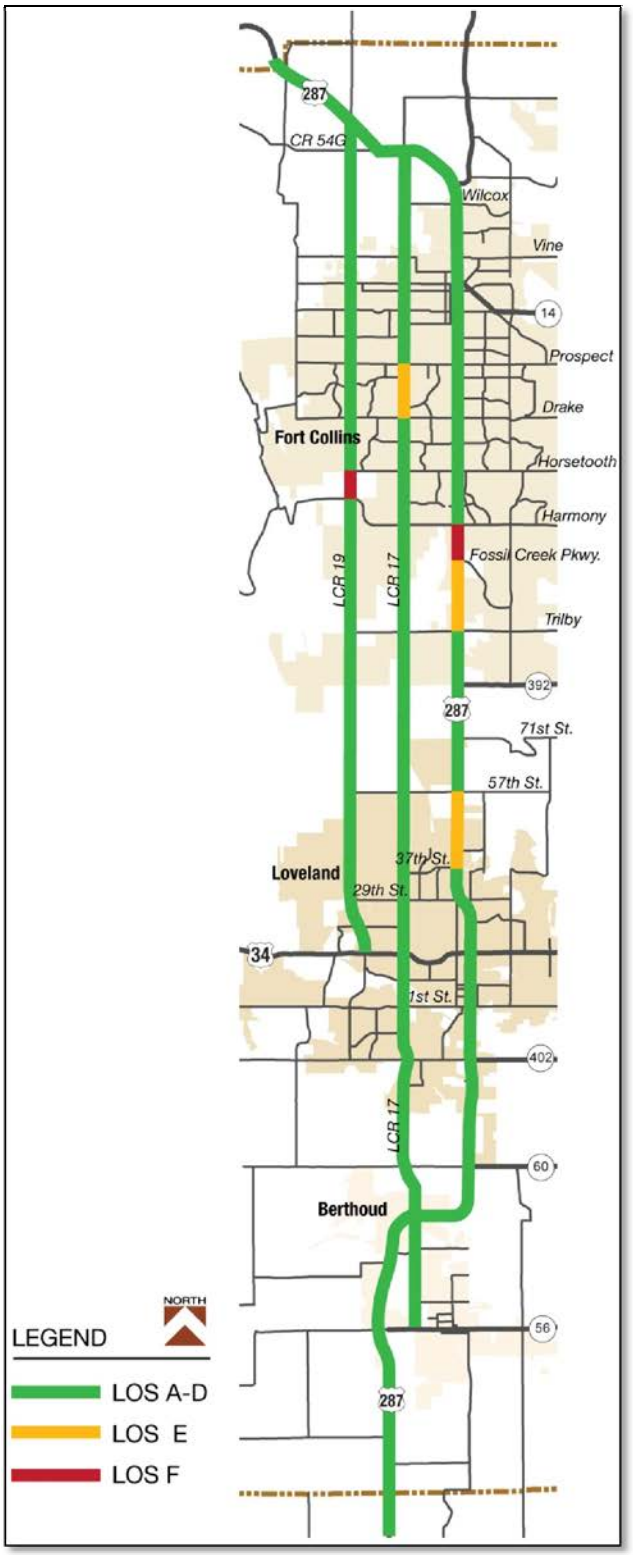
Southbound I-25 approaching the SH 392 interchange in Windsor.

Figure 8. I-25 Corridor Levels of Service (Daily)



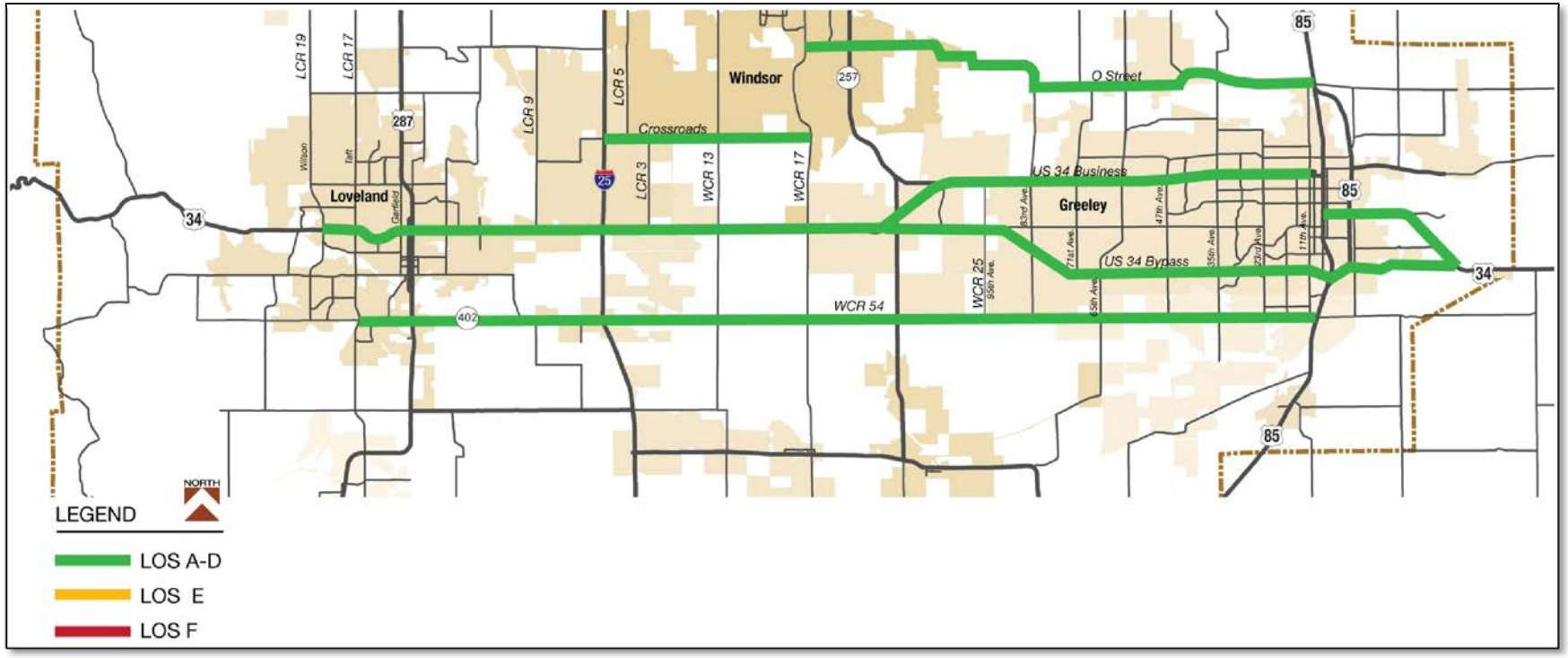
Source: CDOT traffic volume database (2011), planning level capacities

Figure 9. US 287 Corridor Levels of Service (Daily)



Source: CDOT traffic volume database (2011), planning level capacities

Figure 10. US 34 Corridor Levels of Service (Daily)



Source: CDOT traffic volume database (2011), planning level capacities

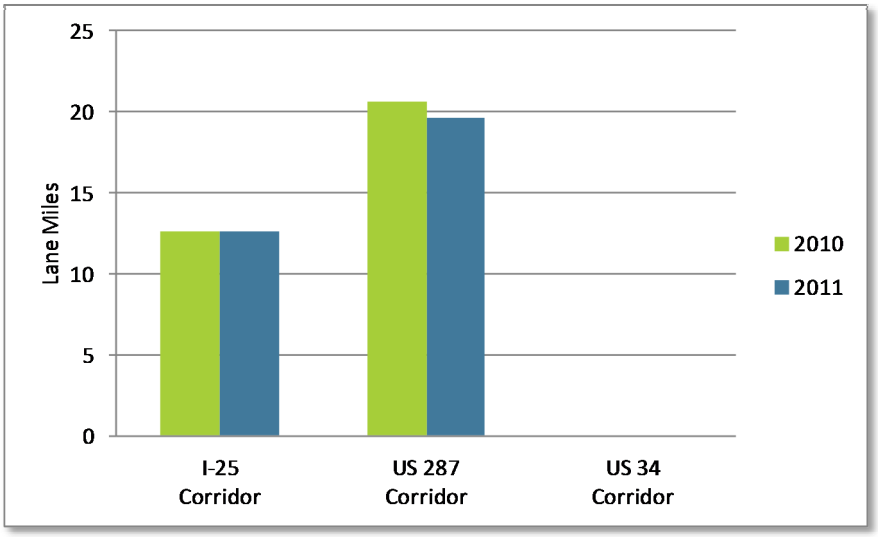
Lane Miles of Congestion

The number of congested roadway lane miles (LOS E or F) on a daily basis for each of the three Tier One corridors is shown on **Figure 11** for 2010 and 2011. The congested lane miles correspond to the yellow (LOS E) and red (LOS F) segments depicted on **Figures 8 through 10**.

The lane miles of congestion are based on daily traffic volumes and planning-level capacities and do not explicitly account for intersection operations or peak period delays. The measure provides a straightforward means of comparing the congestion along the corridors (and over time) at a planning level.

Peak Hour congestion on US 34 Business through

Figure 11. Lane Miles of Congestion (LOS E or F)



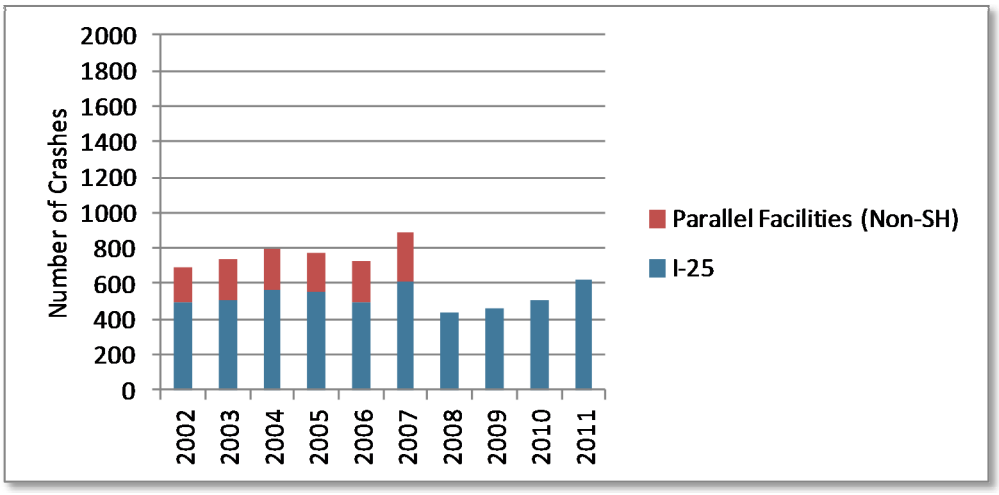
Source: CDOT traffic volume database (2011), planning level capacities
**No segments of US 34 had an LOS of E or F, resulting in no lane miles of congestion on the corridor.*

Number of Crashes

The number of crashes is a surrogate measure for non-recurring congestion; crashes along a corridor result in unexpected delays and unreliable travel times. Crash data for the Tier One corridors, including the parallel facilities, were obtained from CDOT's crash database. Although data as recent as 2011 are available for the state highway system, the off-system (non-state highways) crash database lags behind, and the most recent full year of data available is 2007. CDOT's data post processing for off-highway system crashes typically lags three to four years behind the state highway system crash database. **Figures 12, 13, and 14** show the annual number of crashes (as a surrogate for frequency of non-recurring congestion) on the I-25, US 287, and US 34 corridors, respectively for the time period from 2002 through 2011. The three graphs each use the same scale on the vertical axis to provide a visual comparison between the three corridors.

Crashes on I-25 within the MPO boundary have increased approximately 25 percent since 2002, with a higher rate of increase (45 percent) on the parallel facilities over the six years of available data. Crashes on I-25 were steadily increasing since 2002 until a substantial decrease in 2008, but have again been steadily growing since to a 10-year high in 2011.

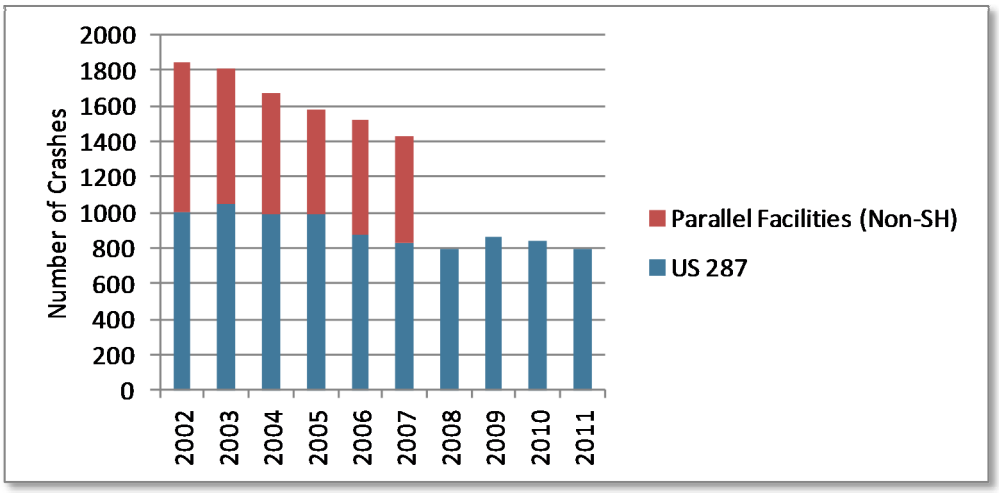
Figure 12. I-25 Corridor Crashes



Source: CDOT crash database

The number of crashes on US 287 has generally decreased since 2002, with approximately 20 percent fewer crashes in 2011 than in 2002. The number of crashes on the parallel facilities (LCR 17 and LCR 19) has decreased steadily over the six years of available data, with approximately 30 percent fewer crashes in 2007 compared to 2002.

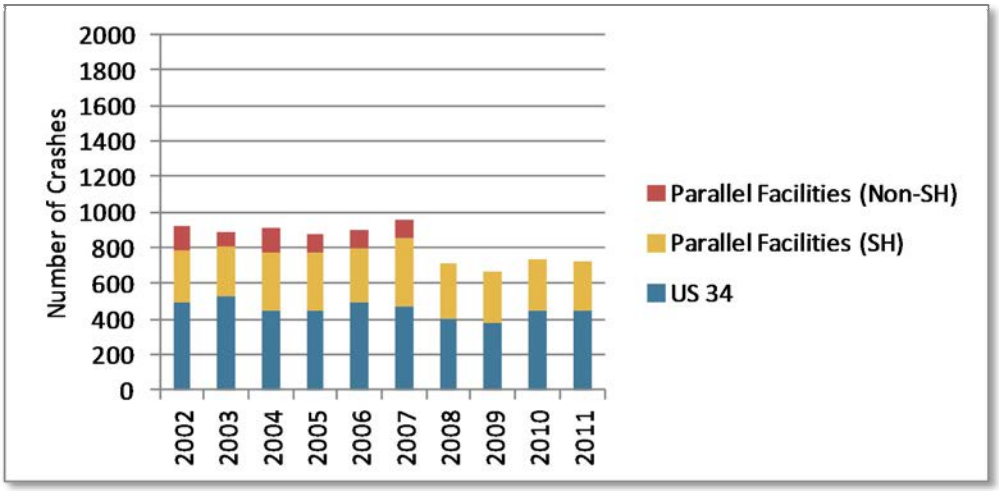
Figure 13. US 287 Corridor Crashes



Source: CDOT crash database

The number of crashes on US 34 and its parallel facilities have been relatively consistent from year to year over the past decade, with a slow decrease over that timeframe. US 34 and other state highways (US 34 Business and SH 402) have experienced an approximate eight percent decrease since 2002, while non-state facilities (O Street and WCR 54) have experienced a greater decrease in crashes of over 20 percent between 2002 and 2007.

Figure 14. US 34 Corridor Crashes



Source: CDOT crash database

Transportation Demand Management

Transportation Demand Management (TDM) includes actions that improve the efficiency of the transportation system by altering the demand (e.g., traveler behavior) rather than increasing the supply (e.g., roadway capacity). The NFRMPO, the MPO's member governments, and employers based in the region offer various TDM programs aimed at reducing single occupancy vehicle trips, encouraging off-peak travel, and reducing trip time or length. Ultimately, TDM programs can reduce congestion on the transportation system. *Future CMP Annual Transportation System Performance Reports will include TDM Employer survey results.*

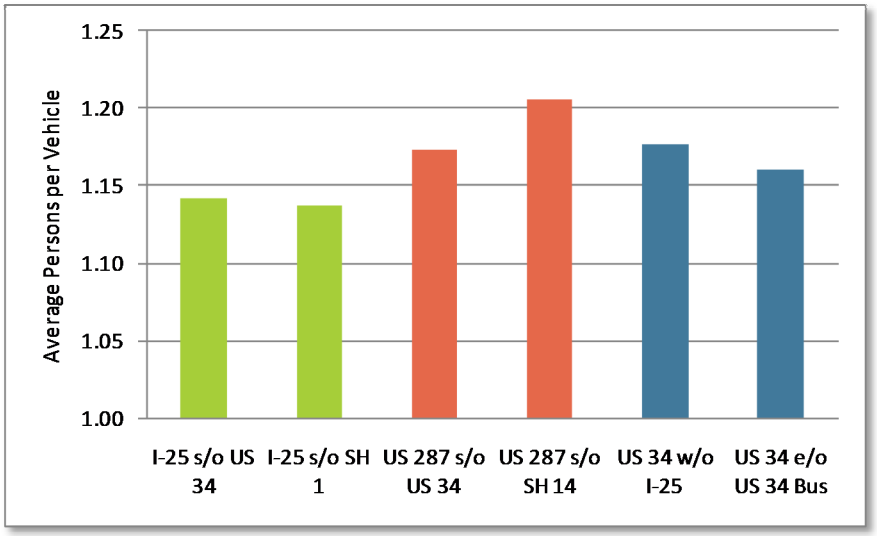
Ridesharing

As described in the Data Collection section, automobile occupancy counts were recorded at two locations along the three primary facilities of the Tier One corridors in 2011. The average number of persons per vehicle at each location is shown in **Figure 15**. These numbers represent an average occupancy during the AM, noon, and PM peak periods. At the count locations on I-25, nearly 88 percent of the vehicles were single occupancy vehicles (SOV), with 12 percent of the vehicles having one or more passengers. The SOV rate was approximately 84 percent at the US 287 count locations and 85 percent at the US 34 count locations.

Vehicles parked at the park-and-ride lot at I-25 and SH 402 in Loveland.

The *2010 Front Range Travel Counts: NFRMPO Household Survey* reports a region-wide ratio of SOV to shared ride trips (by automobile) to be approximately 3:1 for all trips. This ratio indicates a higher rate of ridesharing than the occupancy counts on the Tier One corridors, likely because people tend to travel together (i.e., share a ride) at a higher rate during off-peak times for non-commuting trip purposes.

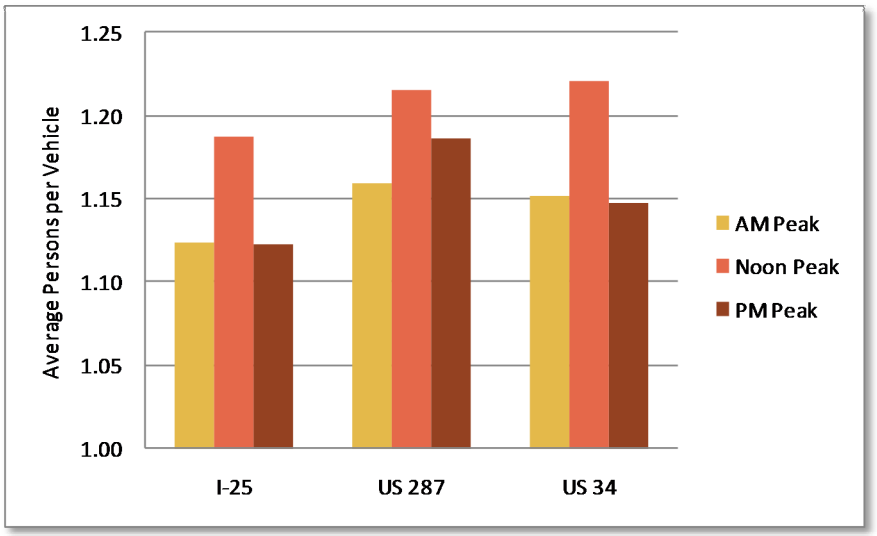
Figure 15. Average Auto Occupancy during Peak Periods



Source: Automobile Occupancy Counts, 2011

Figure 16 shows the automobile occupancy count results by time of day. As would be expected, the noon peak has a higher occupancy rate than the AM and PM peak periods due to a greater number of non-home based work trips such as work groups carpooling to lunch destinations.

Figure 16. Average Auto Occupancy by Time of Day

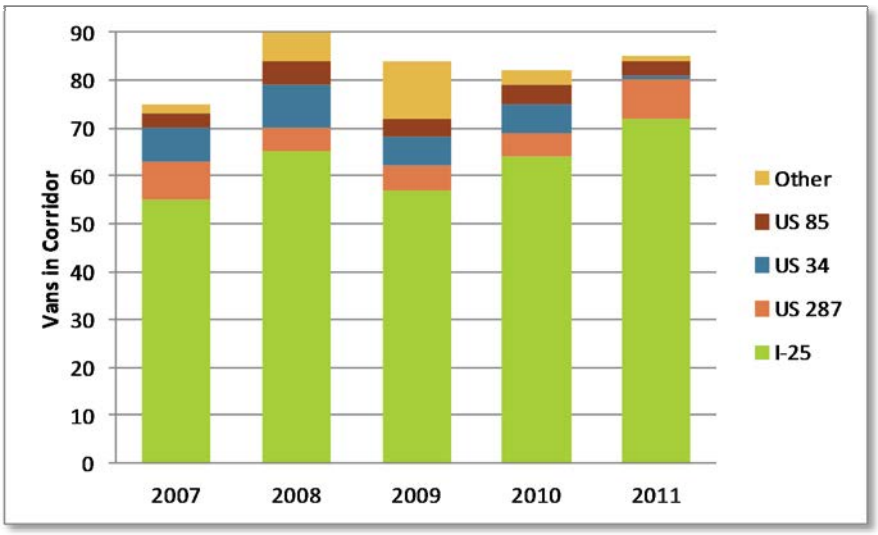


Source: Automobile Occupancy Counts, 2011

Vanpool Ridership

One of the NFRMPO's TDM programs is the VanGo™ vanpooling program, which includes 85 vans that travel to various destinations within the region and between the NFRMPO and Denver region. At the end of 2011, there were 476 riders participating in the VanGo™ program, resulting in an estimated savings of over a million vehicle-miles of travel per month. As shown on **Figure 17**, the I-25 corridor carries the highest number of VanGo™ vans. The number of vans in the program has steadily increased since the program's inception in 2004, with a notable peak in 2008.

Figure 17. VanGo™ Routes



Source: NFRMPO VanGo™ program

SmartTrips™

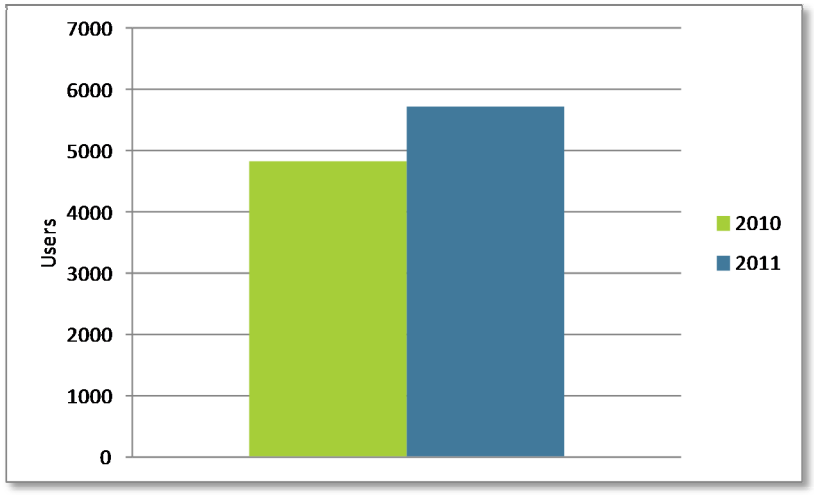
SmartTrips™ is a web-based tool developed and managed by the NFRMPO to help travelers find alternatives to driving alone. The service provides users with incentives and necessary tools to develop their trips via bike, transit, carpool, vanpool (VanGo™), and/or walking. Usage statistics and benefits of SmartTrips™ are available in **Table 1**, and the increase in users from 2010 to 2011 is available in **Figure 18**.

Table 1. 2011 SmartTrips™ Statistics

Element	Measurement
Average commute distance	43.2 miles
Carbon dioxide reduction	129,211 lbs.
Total number of commutes logged	3,415
Total miles saved	137,259
Total user savings	$28,824

Source: NFRMPO SmartTrip™ website

Figure 18. Growth in SmartTrips™ Users



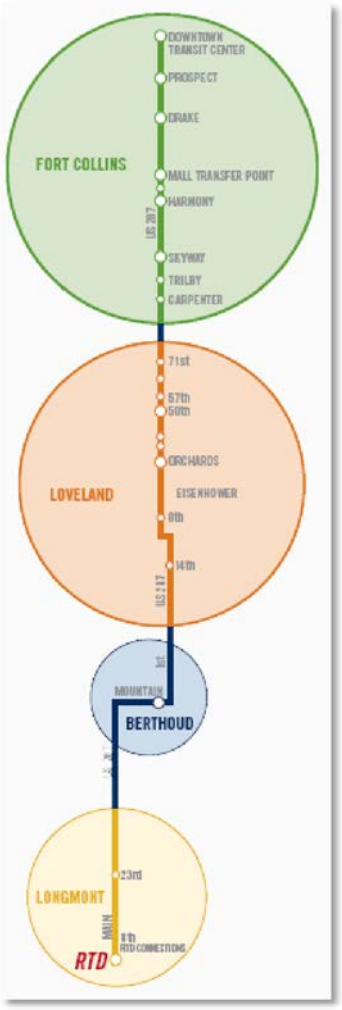
Source: NFRMPO SmartTrip™ website

Transit

There are currently three transit providers that operate publically-funded, fixed-route service in the NFR region. Transfort, the largest of the three transit providers, is operated by the City of Fort Collins. Greeley-Evans Transit (GET) is operated by the City of Greeley, and City of Loveland Transit (COLT) is operated by Loveland's Public Works Department. Additionally, there are two demand-responsive services in the region: Berthoud Area Transportation Services (BATS) and Senior Alternatives in Transportation (SAINT).

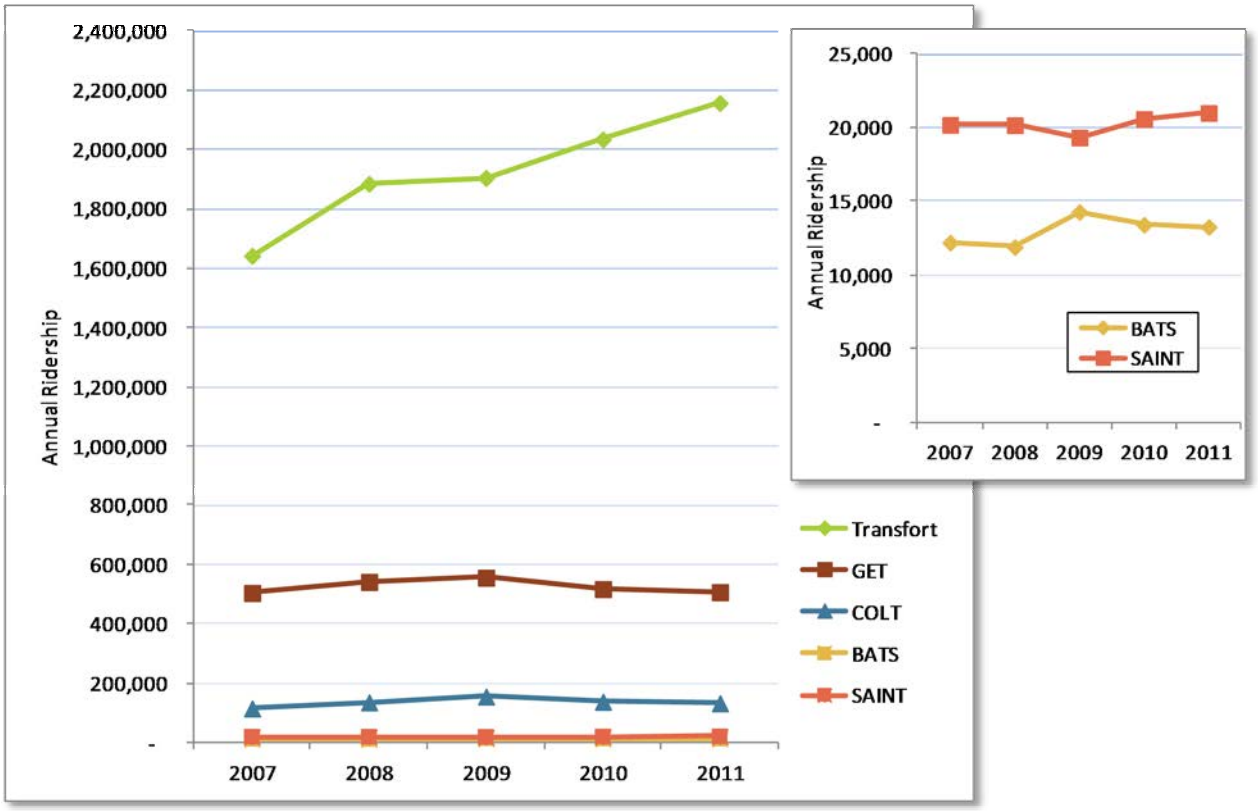
Transit Ridership

The number of passengers on a transit system over the course of a year is a common performance measure used to assess the productivity of a transit service. The annual ridership over the past four years for the three fixed-route transit services and the two demand responsive services in the region is provided on **Figure 19**. Between 2007 and 2009, the three fixed-route systems each experienced a steady growth in ridership. The GET and COLT systems both have experienced a slow decline in ridership since, while Transfort continued to grow in ridership in 2011. Approximately 2/3 of the ridership growth that Transfort experienced in 2010 was a result of the initiation of FLEX regional service which is operated by Transfort and extends between Fort Collins and Longmont by way of Loveland and Berthoud. BATS has maintained ridership in the range of 12,000 – 14,000 per year during this time period, while SAINT serves approximately 20,000 – 21,000 riders per year and recorded its highest ridership over the past five years in 2011.



FLEX regional bus service (source: FLEX website)

Figure 19. Annual Transit Ridership

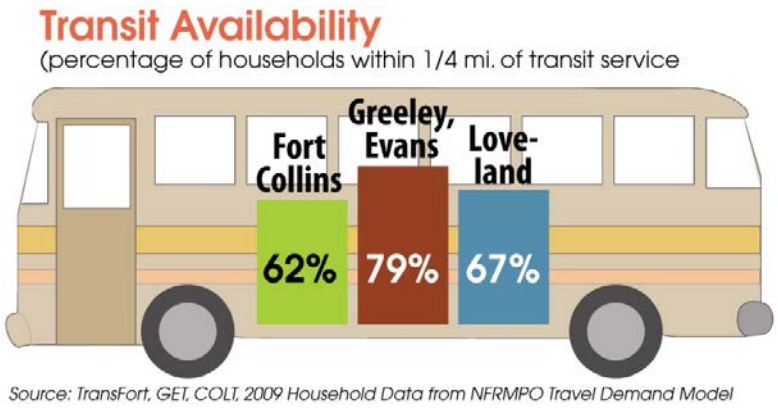


Source: Transfort, GET, COLT, BATS, SAINT

Access to Transit

A quarter of a mile is the typical distance a person is willing to walk to get to transit service. Using the NFRMPO's base year 2009 travel demand model land use data, it is estimated that 49 percent of the MPO's population and 62 percent of the MPO's jobs are within a quarter mile of the region's three fixed-route transit services (including the FLEX regional route operated by Transfort). **Figure 20** provides the transit availability by community, with the coverage representing the percent of households within ¼ mile of transit service. Greeley-Evans Transit has the highest coverage with 79%, followed by Loveland and Fort Collins with 67% and 62%, respectively.

Figure 20. Access to Transit by Community



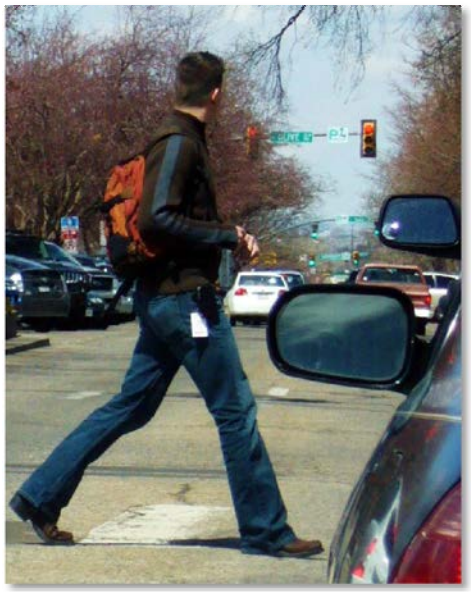
Source: TransFort, GET, COLT, 2009 Household Data from NFRMPO Travel Demand Model

Likewise, twelve percent of the MPO's population is within a three mile radius of the region's park and rides, all of which are located along the I-25 corridor. Three miles is the typical catchment area for park and ride facilities. Although these park and ride facilities are currently used only for carpooling, they may become stops for regional transit service in the future.

Bicycle and Pedestrian

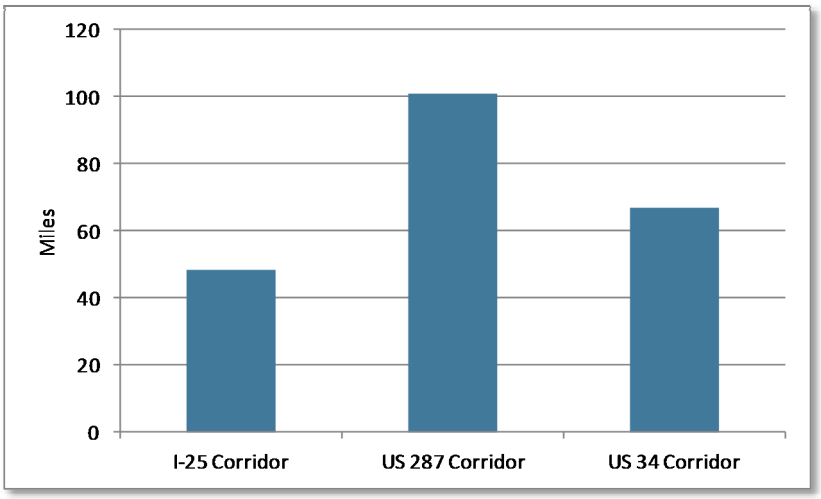
Bicycle and Pedestrian Facilities

The availability of bicycle and pedestrian facilities provides an indication of the extent to which travelers are encouraged to choose an alternative mode of travel within the Tier One Corridors. Bicycle facilities maps from each of the member agencies were overlaid on the Tier One corridor maps, and the miles of bicycle facilities within ¼ mile of the Tier One corridors (including parallel roadway facilities) as of 2012 are shown in **Figure 21**. Bicycle facilities include multi-use paths, bike lanes, and designated bike routes. *Existing bicycle facilities mapping has recently been updated as part of the ongoing NFR Regional Bike Plan. This information will continue to be updated with newly collected data from the NFR Regional Bike Plan when it is available. Region-wide data on pedestrian facilities are not available at this time.*



A pedestrian crossing US 287 in Fort Collins.

Figure 21. Miles of Bicycle Facilities within ¼ Mile Buffer of Tier One Corridors



Source: NFRMPO Bicycle Facilities GIS database

Bicycle and Pedestrian Volumes

CDOT has recently initiated a statewide bicycle and pedestrian count program, in which the NFRMPO will participate. The locations of the bicycle and pedestrian counts in the region are to be determined, and count data will be summarized in subsequent CMP Annual Transportation System Performance Reports. The NFRMPO will identify an optimal bicycle and pedestrian count location map in the NFRMPO Regional Bike Plan in 2012.

Land Use

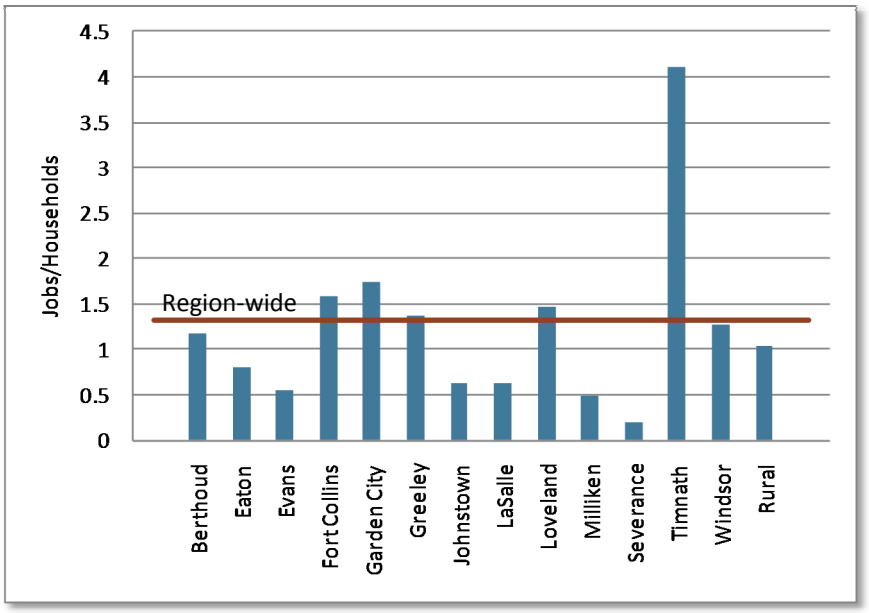
Land use patterns and densities play a significant role in the demands on the transportation system. For this Transportation System Performance Report, two performance measures are used to measure (and compare over time) the efficiency of the region's land use as is relates to the demand for travel.

Jobs/Housing Balance

The availability of different land uses within a community or subarea can affect the way people travel. A balance of jobs and housing reduces the need for long distance (out of town or out of region) travel and ultimately can contribute to reduced levels of congestion. A general target standard for a jobs/housing ratio is 1.5, which implies a balance based on an average number of workers per household of approximately 1.5. (Source: *Jobs Housing Balance*, APA Planning Advisory Service Report Number 516, November 2003)

Figure 22 displays the ratio of jobs to households for each of the 13 municipalities in the NFRMPO; the rural category represents those areas which are unincorporated. The employment and household data are from the 2009 base year model. Region-wide, the jobs/housing ratio is estimated to be 1.33. The three major cities (Fort Collins, Greeley and Loveland) have higher average jobs/housing ratios, which are generally in line with the target standard of 1.5. Most of the smaller communities have significantly fewer job opportunities in comparison to the number of households. There are two notable exceptions shown in Figure 22: Timnath and Garden City both have jobs/housing ratios which are higher than the region-wide average. Timnath's over 4:1 ratio is a result of the recent substantial commercial development near I-25 and Harmony Road. Region-wide, the average distance for work-related trips is 8.5 miles (source: *2010 Front Range Travel Counts: NFRMPO Household Survey*).

Figure 22. Jobs/Housing Ratios

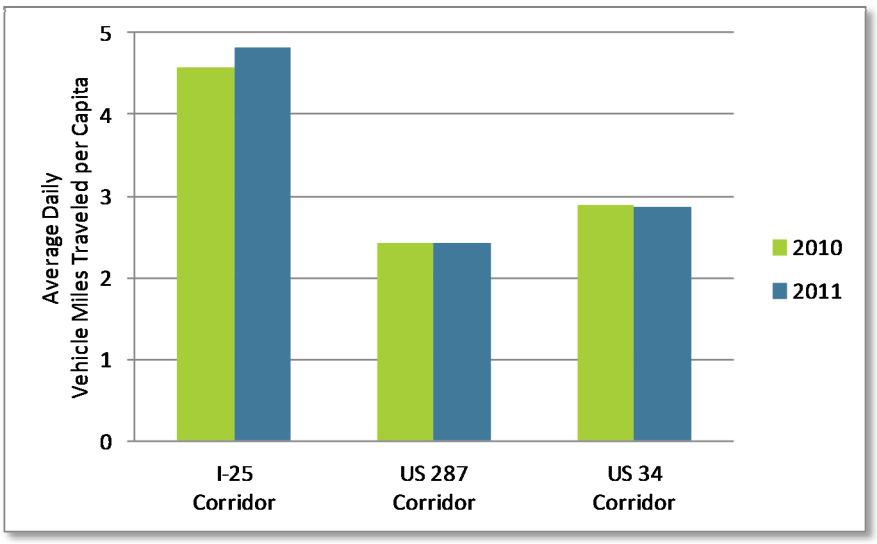


Source: NFRMPO travel demand model, base year 2009

VMT per Capita

On average, a person living in the NFRMPO travels nearly 4.8 miles on the I-25 corridor, 2.4 miles on the US 287 corridor, and 2.9 miles on the US 34 corridor on a daily basis. These numbers, as shown on **Figure 23**, are calculated by dividing the total vehicle-miles of travel (VMT) on each Tier One corridor (including the parallel facilities) by the region's 2009 population. Vehicle-miles of travel per capita on the I-25 corridor increased from 2010 to 2011 while remaining approximately the same on the US 287 and US 34 corridors.

Figure 23. Average Daily Vehicle-Miles Traveled per Capita



Source: CDOT traffic volume database (2011), 2009 population from NFRMPO travel demand model

PROGRAMMED AND IMPLEMENTED PROJECTS

CMP Role in Project Selection

The NFRMPO's CMP serves an important role in the selection of projects for the Transportation Improvement Program (TIP). Federal regulations specify that all reasonable congestion management strategies must be evaluated and deemed ineffective or infeasible prior to considering a roadway capacity increase as a congestion management approach. Since the MPO's CMP is focused on the Tier One corridors, this requirement only applies to projects on the I-25, US 287, and US 34 corridors.

In support of the CMP, all projects (regardless of the corridor Tier) vying for federal or state funding through the NFRMPO must:

- Identify the primary objective(s) of the project
- Identify performance measures to assess how well the project meets its intended objective(s)
- Commit to before and after data collection in support of the stated performance measures.

These requirements were implemented in the FY12-15 call for projects. No data are currently available for the projects selected for funding, as data are not received until projects have been completed. *In future Transportation System Performance reports, the project-level data collection and performance measures will be documented in this section.*

Programmed Projects

The projects listed in **Table 2** have been selected by the NFRMPO Planning Council for FY12-15 funding. All projects listed have met CMP conformity based on the requirements documented in the *2010 NFRMPO Congestion Management Process*. The parameters of the CMP as approved by the NFRMPO Planning Council are outlined in the 2035 Regional Transportation Plan Update.

Table 2. Programmed Projects for FY12-15

Project Title	Sponsor	Funding Awarded	Regionally Significant Corridor	CMP Strategy[1]	Advertisement or Notice to Proceed Date
Tier One Corridor Projects					
Larimer CR 30 & LCR 11	Larimer County	STP-Metro	I-25	Geometric improvements	Planned Ad Date: 5/1/2013
Larimer 17 (Shields): Vine to Willox	Larimer County	STP-Metro	US 287	Geometric improvements	Planned Ad Date: 1/1/2014
US 287 (College): Conifer to Willox	Fort Collins	STP-Metro Enhancement	US 287	Access control	Planned Ad Date: 3/2013 Planned Ad Date: 3/2013
Shields St & Vine Dr (Ft Collins)	Fort Collins	STP-Metro	US 287	Geometric improvements	Planned Ad Date: 8/2014
Poudre River Trailhead at Larimer 17	Larimer County	Enhancement	US 287	Bike/ped amenities	Planned Ad Date: 1/1/2014
Transfort CNG Buses (Fort Collins)	Fort Collins	CMAQ	US 287 (and others)	Transit fleet	
Ft Collins Traffic Signal Sys Software	Fort Collins	CMAQ	US 287 (and others)	Coordinated signal system	Planned Ad Date: 2/2012
FLEX Operations (Year 3)	Loveland	CMAQ	US 287	Transit service expansion	
FLEX New Sunday Service	Loveland	CMAQ	US 287	Transit service expansion	Planned Ad Date: 6/2013
US 34 (10th St): 35th to 23rd (Greeley)	Greeley	STP-Metro	US 34	Access Control	Planned Ad Date: 2/1/2013
Madison Tr at Greeley-Loveland Canal	Loveland	Enhancement	US 34	Bike/ped network	Planned Ad Date: 11/1/2012
Greeley Fiber Optic Communication	Greeley	CMAQ	US 34 (and others)	Coordinated signal system	Planned Ad Date: 10/1/2012
Tier Two and Three Corridor Projects					
US 85 Access Cntrl at 37th St (Evans)	Evans	STP-Metro	US 85	Access control	Planned Ad Date: 2/2013
US 85 Access Cntrl at 31st St (Evans)	Evans	STP-Metro	US 85	Access control	Planned Ad Date: 2/2015
SH 14 (Mulberry St) Ped Br Reloc	Fort Collins	Enhancement	SH 14	Bike/ped network	Planned Ad Date: 8/2012
Sheep Draw Tr: C St & 59th (Greeley)	Greeley	Enhancement	Two Rivers Parkway	Bike/ped network	Planned Ad Date: 4/1/2014
Non-Corridor Specific Projects					
Weld Natural Gas Equipment & Vehicles	Weld County	CMAQ	N/A	Transit and other fleet	Planned Ad Date: 4/1/2012[2]

[1] *The parameters of the CMP as approved by the NFRMPO Planning Council are outlined in the 2035 Regional Transportation Plan Update*

[2] *New Advertisement date for each fiscal year. Date noted is for FY12.*

Implemented Projects

Many important transportation improvement projects which affect the transportation system's performance were implemented in 2011. The projects listed below have been completed in 2011 within the NFRMPO.

- Obtained Record of Decision for the North I-25 Final Environmental Impact Statement
- I-25 pavement replacement north of SH 392 to complete gap areas
- I-25 pavement replacement north of WCR 34 to complete gap areas
- Installed traffic signal on SH 14 east of I-25
- Intersection safety improvements at US 287 & Horsetooth Road and US 287 and Drake Road
- Installed turn lanes on SH 392 at WCR 35

The North I-25 Final EIS was completed in August 2011.

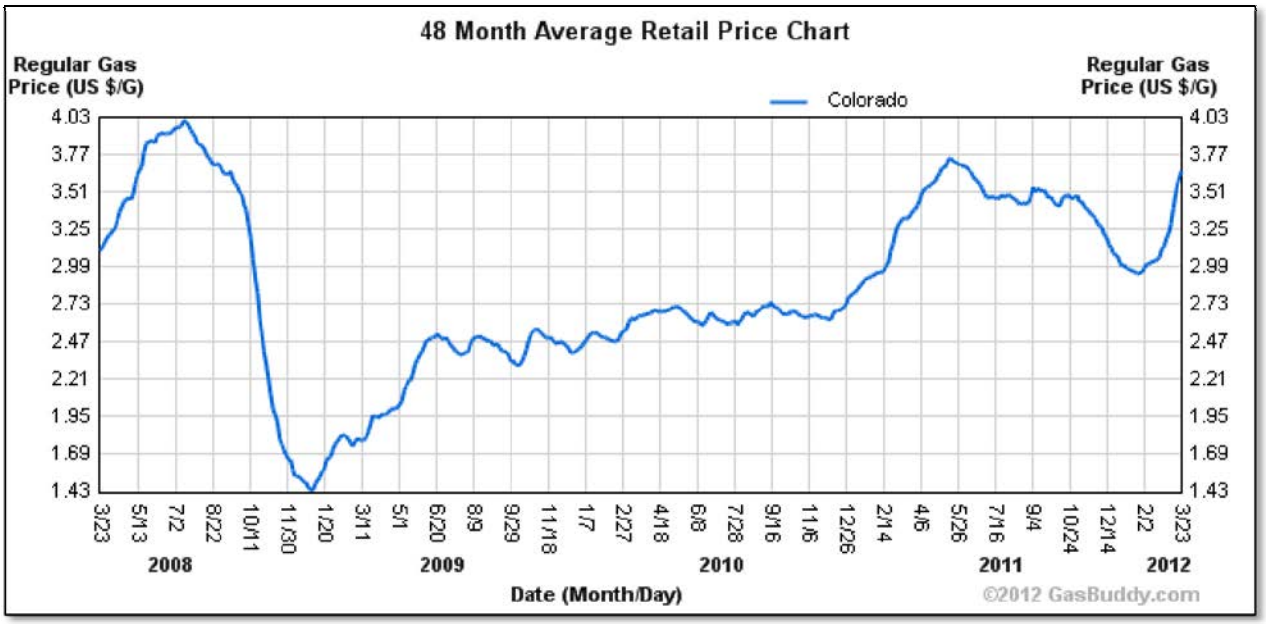
EXTERNAL INFLUENCES

There are many factors that affect the way people travel in the North Front Range region. The following sections present historical trends in several factors that affect travel behavior and the ability of the region to address congestion. The NFRMPO has no influence over these external influences.

Gas Prices

The cost of travel plays a significant role in the behavior of the traveling public. When gas prices rise, people are much more willing to use alternative transportation modes such as transit, carpooling/vanpooling or bicycling/walking. Average gas prices in Colorado over the last four years are presented in **Figure 24**.

Figure 24. 4-Year Historical Gas Prices in Colorado

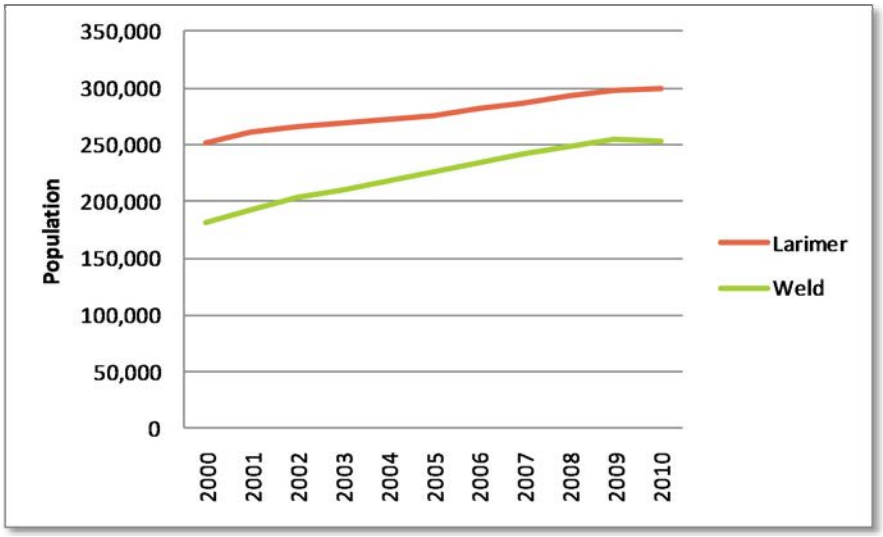


Source: GasBuddy.com

Population and Unemployment Rate

The population in Larimer and Weld Counties has steadily increased over the last decade. Larimer County has experienced a 19 percent increase, while Weld County's population has increased by nearly 40 percent. The Larimer County and Weld County population totals (including portions of the counties outside of the NFRMPO) over the last decade are presented in **Figure 25**.

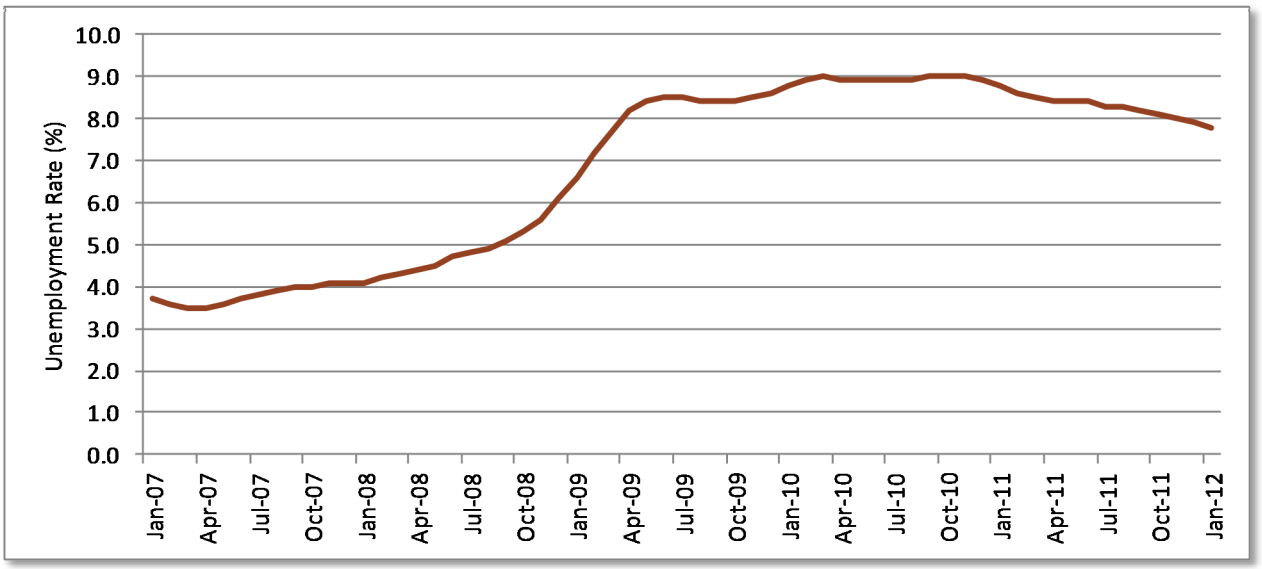
Figure 25. Population Growth



Source: Colorado State Demographer

The unemployment rate in Colorado has more than doubled in the last five years. The unemployment rate in 2007 and early 2008 was in the range of four percent; after the decline in the economy in late 2008, the unemployment rate quickly climbed to the eight and a half to nine percent range for most of 2009 and all of 2010. Starting in 2011, the unemployment rate has slowly been decreasing, with the last reported rate at just below eight percent in January 2012. Unemployment rates in Colorado over the last five years are presented in **Figure 26**.

Figure 26. Colorado Unemployment Rates (2007 – January 2012)

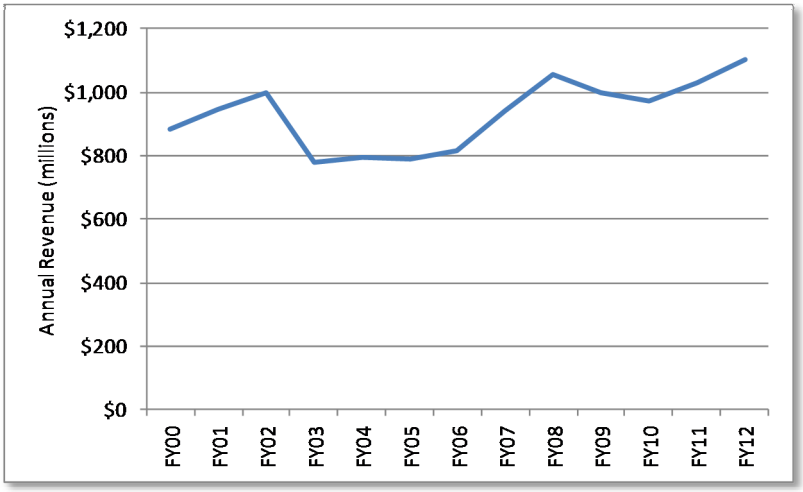


Source: Bureau of Labor Statistics

Transportation Funding and Gas Tax

The lack of adequate funding to address transportation needs is a concern not only in the NFRMPO, but throughout Colorado and the rest of the country. CDOT's total annual revenues over the time period from 2000 through 2012 are shown on **Figure 27**. According to the *Colorado Department of Transportation Budget for Fiscal Year 2011-2012, t*he state of Colorado relies heavily on the motor fuel tax as the main source of transportation related revenue. In addition to the motor fuel tax, CDOT funding sources include motor vehicle registrations and other fees, the Funding Advancement for Surface Transportation and Economic Recovery (FASTER), the Colorado General Assembly General Fund, Gaming Funds, and Capital Construction Funds. In general, the *CDOT Budget* concludes that "transportation revenues have in the past decade demonstrated significant volatility due to fluctuations in receipt from these various revenue sources," and "have not kept pace with inflationary increases experienced by the construction sector of the economy which have averaged about 6% per year over the past decade."

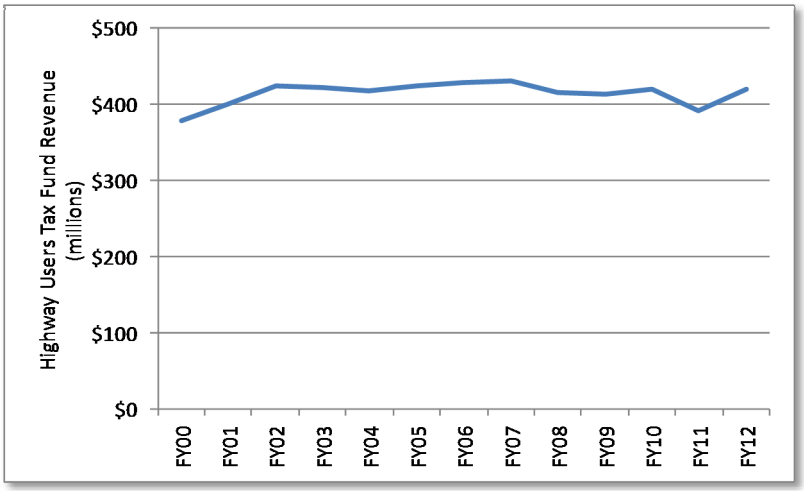
Figure 27. CDOT Annual Revenue



Source: CDOT Budget Allocation Summaries, 2000 – 2011, CDOT Budget for Fiscal Year 2011-12

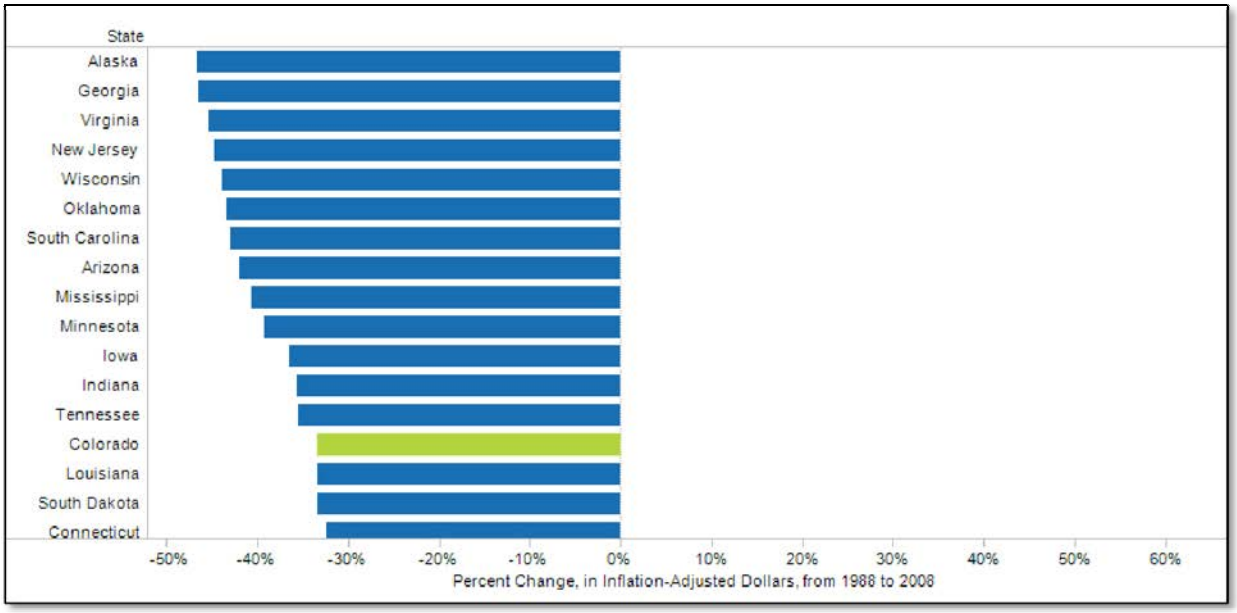
The motor fuel tax is a significant portion of the statewide transportation budget, see **Figure 28**, representing approximately 40-50 percent of the overall budget. The motor fuel tax is a fixed per-gallon excise tax, meaning that the revenue collected depends on the number of gallons sold not on the sales price. The motor fuel tax does not include any factor which reflects inflation and therefore the gas tax has remained constant since the early 1990's when the gas tax was last increased. The chart depicted on **Figure 29** shows that in Colorado, motor fuel taxes collected in 2008 were worth 33 percent less than in 1988, when accounting for inflation.

Figure 28. CDOT Highway Users Tax Fund Revenue



Source: CDOT Budget Allocation Summaries, 2000 – 2011, CDOT Budget for Fiscal Year 2011-12

Figure 29. Percent Change in State Motor Fuel Taxes on Gasoline

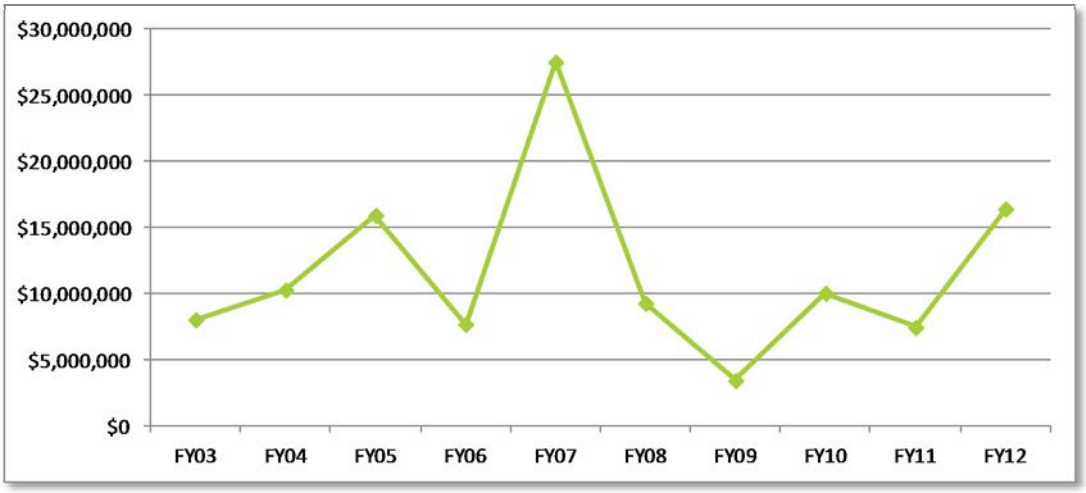


Source: Gas tax rates down in most states over time, Remapping Debate, November 10, 2010 http://www.remappingdebate.org/map-data-tool/gas-tax-rates-down-most-states-over-time

Additionally, despite past increases in vehicle miles traveled, the increasing fuel efficiency of motor vehicles and alternatively fueled vehicles have led to a decline in the rate of growth of motor fuel tax collections. The recent spike in fuel prices has resulted in a national trend of decreased vehicle miles traveled and a trend for consumers to purchase even more fuel efficient vehicles. As a result, the motor fuel excise tax has become an even less reliable source for sustained transportation funding than in the past, despite its continued importance as a source of funding for CDOT.

Figure 30 provides a summary of the federal and state funding (including Regional Priorities Program, STP-Metro, CMAQ, Transportation Enhancement) that has been distributed to the NFRMPO member governments for transportation improvement projects through the MPO. The large spike in FY07 was a result of Regional Priorities Program funding for the US 34 Business project through Greeley. A downward trend in funding is noticeable subsequent to FY07.

Figure 30. Federal and State Funding Distributed through NFRMPO to Member Governments



Source: NFRMPO Investment Flyers (total for all communities)

APPENDIX

Historical Traffic Count Data (source: CDOT Database)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Notes
I-25 s/o US 34		62700	66048	61623	60776	67707	66672	67200	64300	64100	64000	68000	combined NB and SB Average ATR Data
I-25 s/o SH 1	17640	20269	21457	22200	22916	22630	23492	24700	23600	24300	25000	26000	combined NB and SB Average ATR Data
US 287 s/o US 34	17265	19624	17148	16081	14472	18834	15145	14900	15100	12800	13000	12000	average of available daily count data
US 287 s/o SH 14	19664	21133	20000	16167	17160	21049	17625	18200	17800	15100	15000	19000	average of available daily count data
US 34 e/o County Line Rd	27527	29676	32236	32983	33287	33261	34657	35700	35800	34900	36000	37000	combined EB and WB Average ATR Data
US 34 w/o WCR 53	8574	9471	9317	10140	8700	10101	11389	8200	8900	8000	12000	11000	average of available daily count data

I-25 ADT and Volume-Capacity (source: CDOT database)

Segment	I-25 Length	WCR 7 ADT	Notes	No. Lanes	Capacity	V/C	VMT	LCR 9 ADT	Notes	No. Lanes	Capacity	V/C	VMT
SH 66 to CR34	2.069	575	From North	2	16000	0.04	1190						
CR 34 to SH 56	5.024	575	CDOT 2009	2	16000	0.04	2889						
SH 56 to SH 60 E	2.02	575	From South	2	16000	0.04	1161						
SH 60 E to SH 60 W	1.955	575	From South	2	16000	0.04	1124						
SH 60 W to SH 402	1.056	575	From South	2	16000	0.04	607						
SH 402 to US 34	2.033							3260	CDOT 2009	2	16000	0.20	6628
US 34 to CR 26 (Crossroads Blvd)	2.004							3260	From North	2	16000	0.20	6533
CR 26 (Crossroads Blvd) to SH 392	2.989							3260	CDOT 2009	2	16000	0.20	9744
SH 392 to SH 68 (Harmony Rd)	3.016												
SH 68 (Harmony Rd) to Prospect Rd	3.161												
Prospect Rd to SH 14 (Mulberry St)	0.895												
SH 14 (Mulberry St) to Mountain Vista Dr	2.003												
Mountain Vista Dr to SH 1	6.511												

Timberline Rd ADT	Notes	No. Lanes	Capacity	V/C	VMT	I-25 ADT	Notes	No. Lanes	Capacity	V/C	VMT
						71000	CDOT 2011	4	90000	0.79	146899
						64000	CDOT 2011	4	90000	0.71	321536
						64000	CDOT 2011	4	90000	0.71	129280
						67000	CDOT 2011	4	90000	0.74	130985
						62000	CDOT 2011	4	90000	0.69	65472
						68000	CDOT 2011	4	90000	0.76	138244
						69000	CDOT 2011	4	90000	0.77	138276
6070	CDOT 2009	2	16000	0.38	18143	68000	CDOT 2011	4	90000	0.76	203252
16800	CDOT 2009	4	32000	0.53	50669	62000	CDOT 2011	4	90000	0.69	186992
29730	CDOT 2009	4	32000	0.93	93977	49000	CDOT 2011	4	90000	0.54	154889
7190	From North	2	16000	0.45	6435	52000	CDOT 2011	4	90000	0.58	46540
7190	CDOT 2009	2	16000	0.45	14402	30000	CDOT 2011	4	90000	0.33	60090
						26000	CDOT 2011	4	90000	0.29	169286

LCR 5 ADT	Notes	No. Lanes	Capacity	V/C	VMT	WCR 13 ADT	Notes	No. Lanes	Capacity	V/C	VMT
						1900	From North	2	16000	0.12	3931
						1900	CDOT 2009	2	16000	0.12	9546
						1950	CDOT 2008	2	16000	0.12	3939
						1950	From South	2	16000	0.12	3812
						1950	From South	2	16000	0.12	2059
						1950	From South	2	16000	0.12	3964
7500	From North	2	16000	0.47	15030	4050	From North	2	16000	0.25	8116
7500	CDOT 2009	2	16000	0.47	22417	4050	CDOT 2005	2	16000	0.25	12105
4120	CDOT 2009	2	16000	0.26	12426	4050	From South	2	16000	0.25	12215
2788	CDOT 2008	2	16000	0.17	8813	4050	From South	2	16000	0.25	12802
1490	CDOT 2006	2	16000	0.09	1334	4050	From South	2	16000	0.25	3625

US 287 ADT and Volume-Capacity (source: CDOT database)

Segment	US 287 Length	LCR 19 ADT	Notes	No. Lanes	Capacity	V/C	VMT	US 287 ADT	Notes	No. Lanes	Capacity	V/C	VMT	LCR 17 ADT	Notes	No. Lanes	Capacity	V/C	VMT
SH 66 to SH 60	4.661							20000	CDOT 2011	4	32000	0.63	93220	2930	CDOT 2008	2	16000	0.18	13657
SH 60 to SH 402	2.005							17000	CDOT 2011	4	32000	0.53	34085	2930	From South	4	32000	0.09	5875
SH 402 to US 287 Split	0.585							22000	CDOT 2011	4	32000	0.69	12870	19680	From North	4	32000	0.62	11513
US 287 Split to 1st St	0.425							10000	CDOT 2011	4	32000	0.31	4250	19680	From North	4	32000	0.62	8364
1st St to 4th St	0.262							12000	CDOT 2011	4	32000	0.38	3144	19680	CDOT 2009	4	32000	0.62	5156
4th St to 6th St	0.146							9900	CDOT 2011	4	32000	0.31	1445	21530	From North	4	32000	0.67	3143
6th St to 7th St	0.261							15000	CDOT 2011	4	32000	0.47	3915	21530	From North	4	32000	0.67	5619
7th St to US 34	0.346							12000	CDOT 2011	4	32000	0.38	4152	21530	CDOT 2009	4	32000	0.67	7449
US 34 to 287 Split	0.259	19303	CDOT 2008	4	32000	0.60	4999	15000	CDOT 2011	4	32000	0.47	3885	4080	CDOT 2009	4	32000	0.13	1057
287 Split to Buchannan Ave Split	0.329	19303	From South	4	32000	0.60	6351	14000	CDOT 2011	4	32000	0.44	4606	12890	From North	4	32000	0.40	4241
Buchannan Ave Split to 29th St	0.472	19303	From South	4	32000	0.60	9111	23000	CDOT 2011	4	32000	0.72	10856	12890	From North	4	32000	0.40	6084
29th St to Garfield Ave	0.114	7920	CDOT 2008	4	32000	0.25	903	25000	CDOT 2011	4	32000	0.78	2850	12890	From North	4	32000	0.40	1469
Garfield Ave to 37th St	0.523	7920	From South	4	32000	0.25	4142	28000	CDOT 2011	4	32000	0.88	14644	12890	From North	4	32000	0.40	6741
37th St to 57th St	1.397	7920	From South	4	32000	0.25	11064	29000	CDOT 2011	4	32000	0.91	40513	12890	From North	4	32000	0.40	18007
57th St to SH 392	1.981	7920	From South	2	16000	0.50	15690	27000	CDOT 2011	4	32000	0.84	53487	12890	From North	2	16000	0.81	25535
SH 392 to Trilby Rd	1.053	7920	From South	2	16000	0.50	8340	27000	CDOT 2011	4	32000	0.84	28431	12890	CDOT 2009	2	16000	0.81	13573
Trilby Rd to Fossil Creek Pkwy	1.361	7920	From South	2	16000	0.50	10779	31000	CDOT 2011	4	32000	0.97	42191	12890	From South	2	16000	0.81	17543
Fossil Creek Pkwy to SH 68 (Harmony Rd)	0.625	11660	CDOT 2009	2	16000	0.73	7288	35000	CDOT 2011	4	32000	1.09	21875	12890	From South	2	16000	0.81	8056
SH 68 (Harmony Rd) to Boardwalk Dr	0.642	19350	CDOT 2008	2	16000	1.21	12423	33000	CDOT 2011	6	48000	0.69	21186	24510	From North	4	32000	0.77	15735
Boardwalk Dr to Horsetooth Rd	0.378	19350	From South	2	16000	1.21	7314	38000	CDOT 2011	6	48000	0.79	14364	24510	From North	4	32000	0.77	9265
Horsetooth Dr to Drake Rd	1.007	19350	From South	4	32000	0.60	19485	36000	CDOT 2011	6	48000	0.75	36252	24510	CDOT 2009	4	32000	0.77	24682
Drake Rd to Prospect Rd	1.018	20950	CDOT 2008	4	32000	0.65	21327	42000	CDOT 2011	6	48000	0.88	42756	30290	CDOT 2008	4	32000	0.95	30835
Prospect Rd to Elizabeth St	0.505	21350	CDOT 2008	4	32000	0.67	10782	35000	CDOT 2011	6	48000	0.73	17675	24050	CDOT 2008	4	32000	0.75	12145
Elizabeth St to Laurel St	0.265	15660	From North	4	32000	0.49	4150	32000	CDOT 2011	6	48000	0.67	8480	19500	From North	4	32000	0.61	5168
Laurel St to Mulberry St	0.236	15660	CDOT 2008	4	32000	0.49	3696	28000	CDOT 2011	4	32000	0.88	6608	19500	CDOT 2008	4	32000	0.61	4602
Mulberry St to Mountain Ave	0.392	9740	CDOT 2008	4	32000	0.30	3818	24000	CDOT 2011	4	32000	0.75	9408	14080	CDOT 2009	4	32000	0.44	5519
Mountain Ave to LaPorte Ave	0.136	9740	From South	4	32000	0.30	1325	19000	CDOT 2011	4	32000	0.59	2584	14080	From South	4	32000	0.44	1915
LaPorte Ave to SH 14 (Jefferson Ave)	0.128	7000	CDOT 2009	2	16000	0.44	896	19000	CDOT 2011	4	32000	0.59	2432	7750	From North	2	16000	0.48	992
SH 14 (Jefferson Ave) to Vine Dr	0.376	7000	From South	2	16000	0.44	2632	28000	CDOT 2011	4	32000	0.88	10528	7750	From North	2	16000	0.48	2914
Vine Dr to Conifer St	0.47	7000	From South	2	16000	0.44	3290	25000	CDOT 2011	4	32000	0.78	11750	7750	From North	2	16000	0.48	3643
Conifer St to Willox Ln	0.54	7000	From South	2	16000	0.44	3780	20000	CDOT 2011	4	32000	0.63	10800	7750	CDOT 2008	2	16000	0.48	4185
Willox Ln to SH 1	0.375	7000	From South	2	16000	0.44	2625	20000	CDOT 2011	4	32000	0.63	7500	7750	From South	2	16000	0.48	2906
SH 1 to CR 17	1.04	7000	From South	2	16000	0.44	7280	13000	CDOT 2011	2	16000	0.81	13520	4530	CDOT 2008	2	16000	0.28	4711
CR 17 to CR 54G Junction	0.679	7000	From South	2	16000	0.44	4753	14000	CDOT 2011	2	16000	0.88	9506						
CR 54 G Junction to CR 21	1.999							9000	CDOT 2011	2	16000	0.56	17991						
CR 21 to CR 54G Junction	2.642							6500	CDOT 2011	2	16000	0.41	17173						
CR 54G Junction to SH 14	0.861							6400	CDOT 2011	2	16000	0.40	5510						

US 34 ADT and Volume-Capacity (source: CDOT database)

Segment	US 34 Length	Crossroads/O St ADT	Notes	No. Lanes	Capacity	V/C	VMT	US 34 Bus ADT	Notes	No. Lanes	Capacity	V/C	VMT
Wilson Ave to Taft Ave	0.332												
Taft Ave to Colorado Ave	0.381												
Colorado Ave to Garfield Ave	1.104												
Garfield Ave to SH 287 (Cleveland Ave)	0.163												
SH 287 (Cleveland Ave) to SH 287 (Lincoln Ave)	0.085												
SH 287 (Lincoln Ave) to Madison Ave	0.754												
Madison Ave to Boise Ave	0.296												
Boise Ave to CR 9	1.749												
CR 9 to I-25	1.219												
I-25 to Centerra Pkwy	0.223	11460	From East	2	16000	0.72	2556						
Centerra Pkwy to Countyline Rd	2.586	11460	CDOT 2005	2	16000	0.72	29636						
County Line Rd to US 34 Business	3.64	11460	From West	2	16000	0.72	41714						
US 34 Business to SH 257	0.328	5520	From East	2	16000	0.35	1811	14000	CDOT 2011	4	32000	0.44	4592
SH 257 to 95th Ave	1.972	5520	CDOT 2008	2	16000	0.35	10885	17000	CDOT 2011	4	32000	0.53	33524
95th Ave to 71st Ave	2.324	2070	CDOT 2010	2	16000	0.13	4811	16000	CDOT 2011	4	32000	0.50	37184
71st Ave to 65th Ave	0.512	2450	CDOT 2009	2	16000	0.15	1254	16000	CDOT 2011	4	32000	0.50	8192
65th Ave to 47th Ave	1.5	2450	From West	2	16000	0.15	3675	28000	CDOT 2011	4	32000	0.88	42000
47th Ave to 35th Ave	1.122	5390	From East	2	16000	0.34	6048	25000	CDOT 2011	4	32000	0.78	28050
35th Ave to 23rd Ave	0.999	5390	CDOT 2009	2	16000	0.34	5385	26000	CDOT 2011	4	32000	0.81	25974
23rd Ave to 11th Ave	1	5390	From West	2	16000	0.34	5390	10000	CDOT 2011	3	24000	0.42	10000
11th Ave to US 85 S	0.473	1260	CDOT 2009	2	16000	0.08	596	12000	CDOT 2011	4	32000	0.38	5676
US 85 S to US 85 N	0.43							3600	CDOT 2011	2	16000	0.23	1548
US 85 N to CR 45	2.069							3400	CDOT 2011	2	16000	0.21	7035
CR 45 to US 34 Business	0.206							2000	CDOT 2011	2	16000	0.13	412

US 34 ADT	Notes	No. Lanes	Capacity	V/C	VMT	SH 402/CR 54 ADT	Notes	No. Lanes	Capacity	V/C	VMT
22000	CDOT 2011	4	60000	0.37	7304						
27000	CDOT 2011	4	60000	0.45	10287	14000	From East	4	32000	0.44	5334
28000	CDOT 2011	4	60000	0.47	30912	14000	From East	4	32000	0.44	15456
26000	CDOT 2011	4	60000	0.43	4238	14000	From East	4	32000	0.44	2282
32000	CDOT 2011	6	90000	0.36	2720	14000	CDOT 2009	4	32000	0.44	1190
33000	CDOT 2011	6	90000	0.37	24882	14000	CDOT 2009	2	16000	0.88	10556
39000	CDOT 2011	6	90000	0.43	11544	14000	CDOT 2009	2	16000	0.88	4144
41000	CDOT 2011	6	90000	0.46	71709	14000	CDOT 2009	2	16000	0.88	24486
40000	CDOT 2011	4	60000	0.67	48760	12000	CDOT 2009	2	16000	0.75	14628
39000	CDOT 2011	4	60000	0.65	8697	7200	CDOT 2008	2	16000	0.45	1606
47000	CDOT 2011	4	60000	0.78	121542	7200	CDOT 2008	2	16000	0.45	18619
37000	CDOT 2011	4	60000	0.62	134680	3730	CDOT 2008	2	16000	0.23	13577
27000	CDOT 2011	4	60000	0.45	8856	3520	CDOT 2009	2	16000	0.22	1155
26000	CDOT 2011	4	60000	0.43	51272	3520	From West	2	16000	0.22	6941
28000	CDOT 2011	4	60000	0.47	65072	8470	From East	2	16000	0.53	19684
28000	CDOT 2011	4	60000	0.47	14336	8470	From East	2	16000	0.53	4337
31000	CDOT 2011	4	60000	0.52	46500	8470	CDOT 2008	2	16000	0.53	12705
31000	CDOT 2011	4	60000	0.52	34782	10090	CDOT 2009	2	16000	0.63	11321
35000	CDOT 2011	4	60000	0.58	34965	4910	CDOT 2008	4	32000	0.15	4905
34000	CDOT 2011	4	60000	0.57	34000	14470	From East	4	32000	0.45	14470
30000	CDOT 2011	4	60000	0.50	14190	14470	CDOT 2007	4	32000	0.45	6844
32000	CDOT 2011	4	60000	0.53	13760						
13000	CDOT 2011	4	60000	0.22	26897						
12000	CDOT 2011	4	60000	0.20	2472						

I-25 Corridor (source: travel time runs completed January-February 2012)

2012	Average Travel Time (sec)						Average		
Segment	I-25 NB AM	I-25 NB Noon	I-25 NB PM	I-25 SB AM	I-25 SB Noon	I-25 SB PM	I-25 AM	I-25 Noon	I-25 PM
SH 66 to SH 56	355.5	347.5	355	357	347.5	357.25	356.25	347.50	356.13
SH 56 to SH 60 E	99.75	102	102	100.25	100	100.25	100.00	101.00	101.13
SH 60 E to SH 60 W	98.5	98	98.5	92.25	97.5	99.75	95.38	97.75	99.13
SH 60 W to SH 402	54.5	53.5	52.5	59	53.5	54	56.75	53.50	53.25
SH 402 to US 34	103.25	99.5	100.5	101.5	99	103	102.38	99.25	101.75
US 34 to Crossroads	104	101	104	99.5	98.5	101.25	101.75	99.75	102.63
Crossroads to SH 392	151.25	152.5	151.75	152.5	150.5	155.5	151.88	151.50	153.63
SH 392 to Harmony	158.25	148	151.75	156	155	172.75	157.13	151.50	162.25
Harmony to Prospect	152.5	148	151	146.25	149	150.75	149.38	148.50	150.88
Prospect to Mulberry	50.25	48.5	50.75	50.5	50	49.25	50.38	49.25	50.00
Mulberry to Wellington	426	421	425.5	461.75	411	407.25	443.88	416.00	416.38
Total (converted to min)	29.23	28.66	29.05	29.61	28.53	29.18	29.42	28.59	29.12

US 287 Corridor (source: travel time runs completed January-February 2012)

2012	Average Travel Time (sec)						Average		
Segment	US 287 NB AM	US 287 NB Noon	US 287 NB PM	US 287 SB AM	US 287 SB Noon	US 287 SB PM	US 287 AM	US 287 Noon	US 287 PM
SH 66 to CR 2	230	234.5	245	260.25	286	290.5	245.13	260.25	267.75
CR 2 to SH 56	184	183.5	174.75	172.5	174	171	178.25	178.75	172.88
SH 56 to CR 17	143.75	153.5	159	135.75	148.5	171.75	139.75	151.00	165.38
CR 17 to 42nd	124.75	121.5	127.75	165.25	120	131.25	145.00	120.75	129.50
42nd to 14th	151.5	160	163	140.75	134	129.5	146.13	147.00	146.25
14th to 1st	104.25	132.5	137.25	106.25	105	115.5	105.25	118.75	126.38
1st to US 34	141.5	155	179.5	135.75	212.5	152.75	138.63	183.75	166.13
US 34 to 29th	131	126.5	129.75	140	101.5	168	135.50	114.00	148.88
29th to 57th	179.5	178.5	204.5	225.25	211.5	258.75	202.38	195.00	231.63
57th to Carpenter	161	141.5	172.25	160.5	164.5	200.25	160.75	153.00	186.25
Carpenter to Trilby	76.5	75.5	74.25	74	66	74.75	75.25	70.75	74.50
Trilby to Harmony	132.25	143	230	195	145	165.75	163.63	144.00	197.88
Harmony to Horsetooth	93.75	107	121	109	118.5	197.25	101.38	112.75	159.13
Horsetooth to Drake	110.75	150.5	152.5	111.25	125	142	111.00	137.75	147.25
Drake to Prospect	124	174.5	106.75	110.5	156.5	163.25	117.25	165.50	135.00
Prospect to Elizabeth	50	52.5	54.5	63.25	99	135.75	56.63	75.75	95.13
Elizabeth to Mulberry	104.5	113	103.5	58	100	86.25	81.25	106.50	94.88
Mulberry to LaPorte	72	113	119.75	128.75	175	161.5	100.38	144.00	140.63
LaPorte to Cherry	22.75	55.5	38.25	50.25	110	49.25	36.50	82.75	43.75
Cherry to Vine	33	43	29.25	37.25	51	33.5	35.13	47.00	31.38
Vine to Willox	117	97.5	98.5	105	172	105.5	111.00	134.75	102.00
Willox to Highway 1	42.25	32	34	38	32	47.5	40.13	32.00	40.75
Highway 1 to CR 54G	163.75	183	153	206.5	222.5	199	185.13	202.75	176.00
CR 54G to Highway 14	350.25	347	343.25	369.75	371.5	377.75	360.00	359.25	360.50
Total (converted to min)	50.73	54.57	55.85	54.98	60.03	62.14	52.86	57.30	59.00

US 34 Corridor (source: travel time runs completed January-February 2012)

2012	Average Travel Time (sec)						Average		
Segment	US 34 EB AM	US 34 EB Noon	US 34 EB PM	US 34 WB AM	US 34 WB Noon	US 34 WB PM	US 34 AM	US 34 Noon	US 34 PM
Wilson to Taft	87	98	85.75	82.25	79	103.5	84.63	88.50	94.63
Taft to US 287 S	147.75	127.5	166.75	181.75	184.5	170	164.75	156.00	168.38
US 287 S to US 287 N	18.25	25.5	18.5	8.25	7.5	7.75	13.25	16.50	13.13
US 287 N to Madison	77.5	81	122.75	83.25	84	81.75	80.38	82.50	102.25
Madison to Denver	64.25	92.5	69.75	105.75	107.5	118.25	85.00	100.00	94.00
Denver to CR 9	98.5	90	92.75	111.5	119	112.25	105.00	104.50	102.50
CR 9 to CR 7	70.75	87	83.25	79	76.5	105.5	74.88	81.75	94.38
CR 7 to I-25	36.5	38.5	38	64.75	70.5	66.5	50.63	54.50	52.25
I-25 to CR 17	202.75	166.5	223	174	229	198.75	188.38	197.75	210.88
CR 17 to CR 12	112	117.5	141.75	116.5	123.5	119.5	114.25	120.50	130.63
CR 12 to 34 Bus	68.25	69.5	73.25	74.25	99.5	82.75	71.25	84.50	78.00
34 Bus to SH 257	47.25	46.5	47.5	56.5	45.5	46.5	51.88	46.00	47.00
SH 257 to 83rd	177.25	176	176.5	178	176	178.25	177.63	176.00	177.38
83rd to 65th	126	139.5	159.25	103.75	110	104.75	114.88	124.75	132.00
65th to 47th	112	115.5	127	106.75	119.5	139.75	109.38	117.50	133.38
47th to 35th	81.25	84	98.25	85.5	120	96.25	83.38	102.00	97.25
35th to 17th	75.25	76	75.75	151.25	147	215	113.25	111.50	145.38
17th to 11th	41.75	39	52.25	41.75	42.5	46.75	41.75	40.75	49.50
11th to US 85	83.5	84	87.5	81	84.5	98.5	82.25	84.25	93.00
Total (converted to min)	28.80	29.23	32.33	31.43	33.76	34.87	30.11	31.50	33.60

US 34 Business Corridor (source: travel time runs completed January-February 2012)

2012	Average Travel Time (sec)						Average		
Segment	US 34 Business EB AM	US 34 Business EB Noon	US 34 Business EB PM	US 34 Business WB AM	US 34 Business WB Noon	US 34 Business WB PM	US 34 Business AM	US 34 Business Noon	US 34 Business PM
US 34 to 257	55.75	53.5	52.75	53	52	50.5	54.38	52.75	51.63
257 to Promontory	43.75	43.5	48	42.75	41.5	45	43.25	42.50	46.50
Promontory to 83rd	142.5	132.5	142.25	133.25	135.5	140.25	137.88	134.00	141.25
83rd to 71st	81.5	56	59.75	65.5	63.5	67.75	73.50	59.75	63.75
71st to 69th	23.75	15	30.5	29.25	36	17	26.50	25.50	23.75
69th to Fire Station	10.5	10	11.75	10	9.5	16.75	10.25	9.75	14.25
Fire Station to 59th	50.5	57	71.75	43.75	41	42.75	47.13	49.00	57.25
59th to 54th	23.75	20	28	19	17	75.5	21.38	18.50	51.75
54th to 47th	93.75	69	86.5	65.75	58	63	79.75	63.50	74.75
47th to Walmart	24.25	27	26	43	78	27	33.63	52.50	26.50
Walmart to 43rd	14	17	15.25	32.5	16	24.5	23.25	16.50	19.88
43rd to 39th	15	15	22.25	15.5	17.5	20.75	15.25	16.25	21.50
39th to 37th	24.25	22.5	25	25.5	34	29.25	24.88	28.25	27.13
37th to 35th	55	110.5	42.5	30.25	29.5	47	42.63	70.00	44.75
35th to 28th	58	57	74.25	64.75	66.5	155.25	61.38	61.75	114.75
28th to 24th	20.75	18.5	48.75	20.5	62.5	19	20.63	40.50	33.88
24th to 23rd	44.25	61	56.75	40.5	71.5	40.5	42.38	66.25	48.63
23rd to 14th	86.25	84.5	83	118.25	99.5	99	102.25	92.00	91.00
14th to 11th	45	51	38.75	47.5	50.5	50.75	46.25	50.75	44.75
11th to 10th	40	44.5	26.5	49.75	50.5	30.25	44.88	47.50	28.38
10th to 9th	24.25	25.5	42.75	28.75	39	55	26.50	32.25	48.88
9th to US 85	26.5	26	25.5	25.5	25	32.75	26.00	25.50	29.13
Total (converted to min)	15.21	15.34	16.06	15.01	16.33	17.19	15.11	15.83	16.63

Average Peak Period Travel Time (2012)
(source: travel time runs completed January-February 2012)

2012	Average (in minutes)		
Segment	AM Peak	Noon Peak	PM Peak
I-25			
(SH 66 to SH 1)	29.42	28.59	29.12
US 287			
(SH 66 to SH 14)	52.86	57.30	59.00
US 34			
(Wilson Ave to US 85)	30.11	31.50	33.60
US 34 Business			
(US 34 to US 85)	15.11	15.83	16.63

Average Peak Period Travel Time (2011)
(source: travel time runs completed March-May 2011)

2011	Average (in minutes)		
Segment	AM Peak	Noon Peak	PM Peak
I-25			
(SH 66 to SH 1)	27.93	27.99	28.28
US 287			
(SH 66 to SH 14)	52.09	56.03	59.07
US 34			
(Wilson Ave to US 85)	29.65	30.20	32.76
US 34 Business			
(US 34 to US 85)			

I-25 Corridor Average Peak Period Travel Time (2011 vs. 2012)

I-25	Average (in minutes)		
Year	AM Peak	Noon Peak	PM Peak
2011	27.93	27.99	28.28
2012	29.42	28.59	29.12

US 34 Corridor Average Peak Period Travel Time (2011 vs. 2012)

US 34	Average (in minutes)		
Year	AM Peak	Noon Peak	PM Peak
2011	29.65	30.20	32.76
2012	30.11	31.50	33.60

US 287 Corridor Average Peak Period Travel Time (2011 vs. 2012)

US 287	Average (in minutes)		
Year	AM Peak	Noon Peak	PM Peak
2011	52.09	56.03	59.07
2012	52.86	57.30	59.00

US 34 Business Corridor Average Peak Period Travel Time (2011 vs. 2012)

US 34 Business	Average (in minutes)		
Year	AM Peak	Noon Peak	PM Peak
2011	16.63	17.55	17.48
2012	15.11	15.83	16.63

Intersection Delay (source: travel time runs completed January-February 2012)

2012								
Corridor	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
I-25	0	0	0	0.00	0	0	0	0.00
US 287	188	304	372	4.80	361	496	606	8.13
US 34	131	143	265	2.99	203	298	331	4.62
US 34 Business	159	170	148	2.65	136	206	229	3.17

Intersection Delay (source: travel time runs completed March-May 2011)

2011								
Corridor	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
I-25	0	0	0	0.00	0	0	0	0.00
US 287	219	380	393	5.51	302	361	642	7.25
US 34	169	166	243	3.21	175	191	304	3.72
US 34 Business	109	128	119	1.98	137	143	148	2.38

I-25 Corridor Intersection Delay (2011 vs. 2012)

Year	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
2011	0	0	0	0.00	0	0	0	0.00
2012	0	0	0	0.00	0	0	0	0.00

US 287 Corridor Intersection Delay (2011 vs. 2012)

Year	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
2011	219	380	393	5.51	302	361	642	7.25
2012	188	304	372	4.80	361	496	606	8.13

US 34 Corridor Intersection Delay (2011 vs. 2012)

Year	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
2011	169	166	243	3.21	175	191	304	3.72
2012	131	143	265	2.99	203	298	331	4.62

US 34 Business Corridor Intersection Delay (2011 vs. 2012)

Year	Northbound/Eastbound Runs			NB/EB Average	Southbound/Westbound Runs			SB/WB Average
2011	109	128	119	1.98	137	143	148	2.38
2012	159	170	148	2.65	136	206	229	3.17

Safety Analysis

I-25 Corridor Accidents by Year (source: CDOT database)

Year	I-25	Parallel Facilities (Non-SH)	Total
2002	500	194	694
2003	511	227	738
2004	561	230	791
2005	553	224	777
2006	495	236	731
2007	611	281	892
2008	433		433
2009	456		456
2010	510		510
2011	626		626

US 287 Corridor Accidents by Year (source: CDOT database)

Year	US 287	Parallel Facilities (Non-SH)	Total
2002	996	843	1839
2003	1049	759	1808
2004	991	683	1674
2005	985	590	1575
2006	870	646	1516
2007	826	602	1428
2008	798		798
2009	867		867
2010	839		839
2011	792		792

US 34 Corridor Accidents by Year (source: CDOT database)

Year	US 34	Parallel Facilities (Non-SH)	Parallel Facilities (SH)	All Parallel Facilities	Total
2002	496	132	291	423	919
2003	524	84	284	368	892
2004	454	137	321	458	912
2005	453	108	318	426	879
2006	493	100	306	406	899
2007	474	104	380	484	958
2008	407		307	307	714
2009	385		278	278	663
2010	454		283	283	737
2011	454		267	267	721

Auto Occupancy (source: counts taken April 2011)

	Northbound/Eastbound (vehicles)												Southbound/Westbound (vehicles)											
	AM Peak (ppl/veh)				Noon Peak (ppl/veh)				PM Peak (ppl/veh)				AM Peak (ppl/veh)				Noon Peak (ppl/veh)				PM Peak (ppl/veh)			
Location	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
I-25 s/o US 34	2063	209	31	18	1378	227	18	5	2197	206	25	18	2006	210	29	12	1464	263	17	8	2163	215	23	8
I-25 s/o SH 1	1387	122	21	3	923	151	12	6	1477	145	15	3	1365	119	7	3	878	224	7	6	1349	166	11	5
US 287 s/o US 34	686	86	14	1	866	188	13	4	806	148	4	7	829	109	11	2	742	131	8	1	875	131	20	3
US 287 s/o SH 14	503	78	10	3	462	95	9	13	667	96	8	9	649	119	6	1	698	139	18	9	720	152	16	1
US 34 w/o I-25	1024	94	6	8	880	177	9	3	1390	111	5	10	729	164	9	3	869	262	16	12	1376	280	12	2
US 34 e/o US 34 Bus	956	113	11	1	536	104	10	2	680	89	9	3	950	143	15	3	626	129	6	0	556	84	7	1

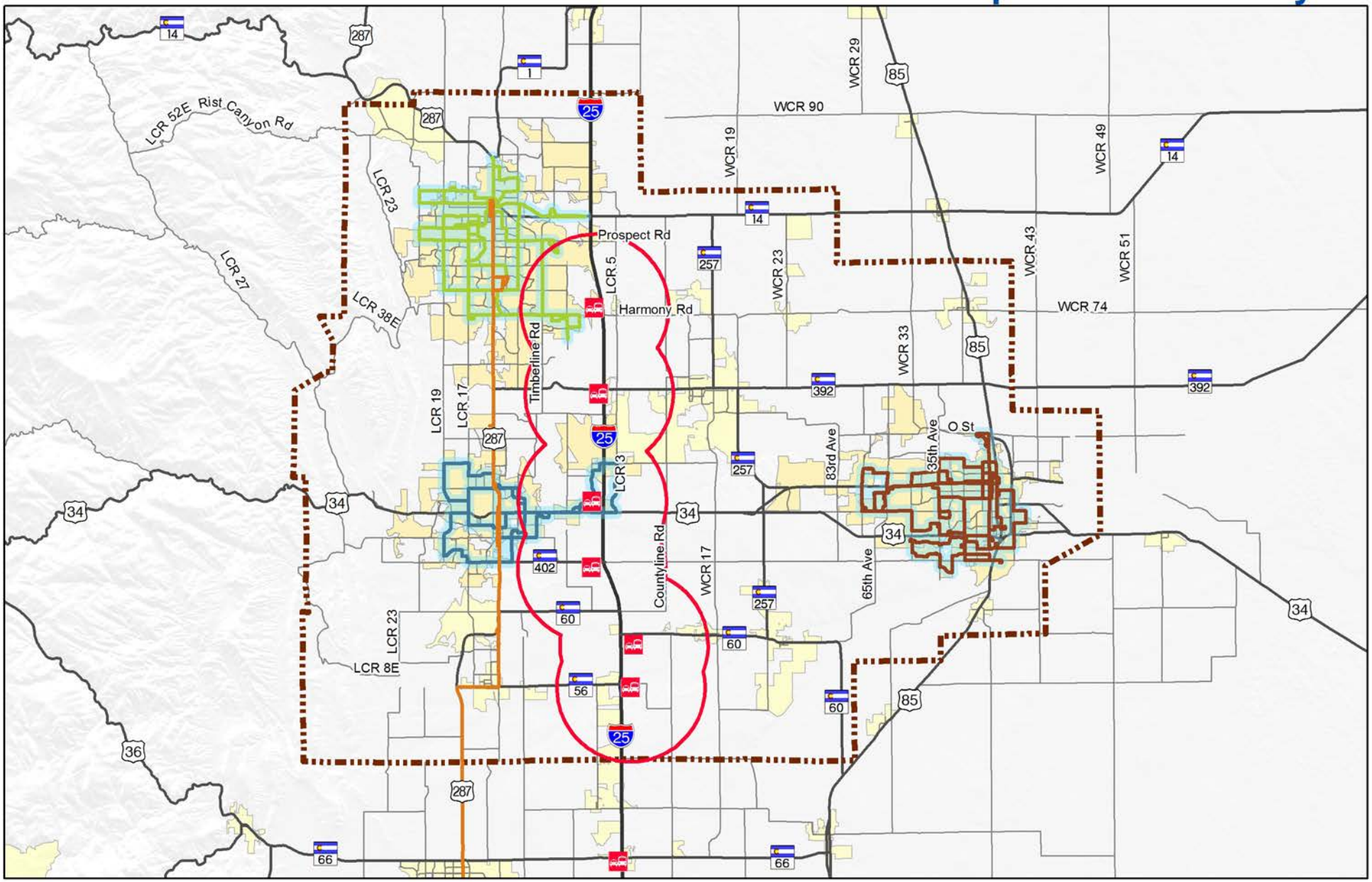
Summary Van Data (source: VanGo)

	Year				
Corridor	2007	2008	2009	2010	2011
I-25	55	65	57	64	72
US 287	8	5	5	5	8
US 34	7	9	6	6	1
US 85	3	5	4	4	3
Other	2	7	12	3	1
Total	75	91	84	82	85

Transit Ridership

Provider	2007	2008	2009	2010	2011
Transfort	1,641,407	1,884,197	1,904,229	2,034,195	2,156,775
GET	504,487	541,770	556,065	517,582	507,271
COLT	115,895	136,255	155,695	138,284	133,355
BATS	12,189	11,885	14,273	13,397	13,254
SAINT	20,186	20,165	19,327	20,586	21,000
TOTAL	2,294,164	2,594,272	2,649,589	2,724,044	2,831,655

Transit Route & RTD park-N-Ride Analysis



Legend

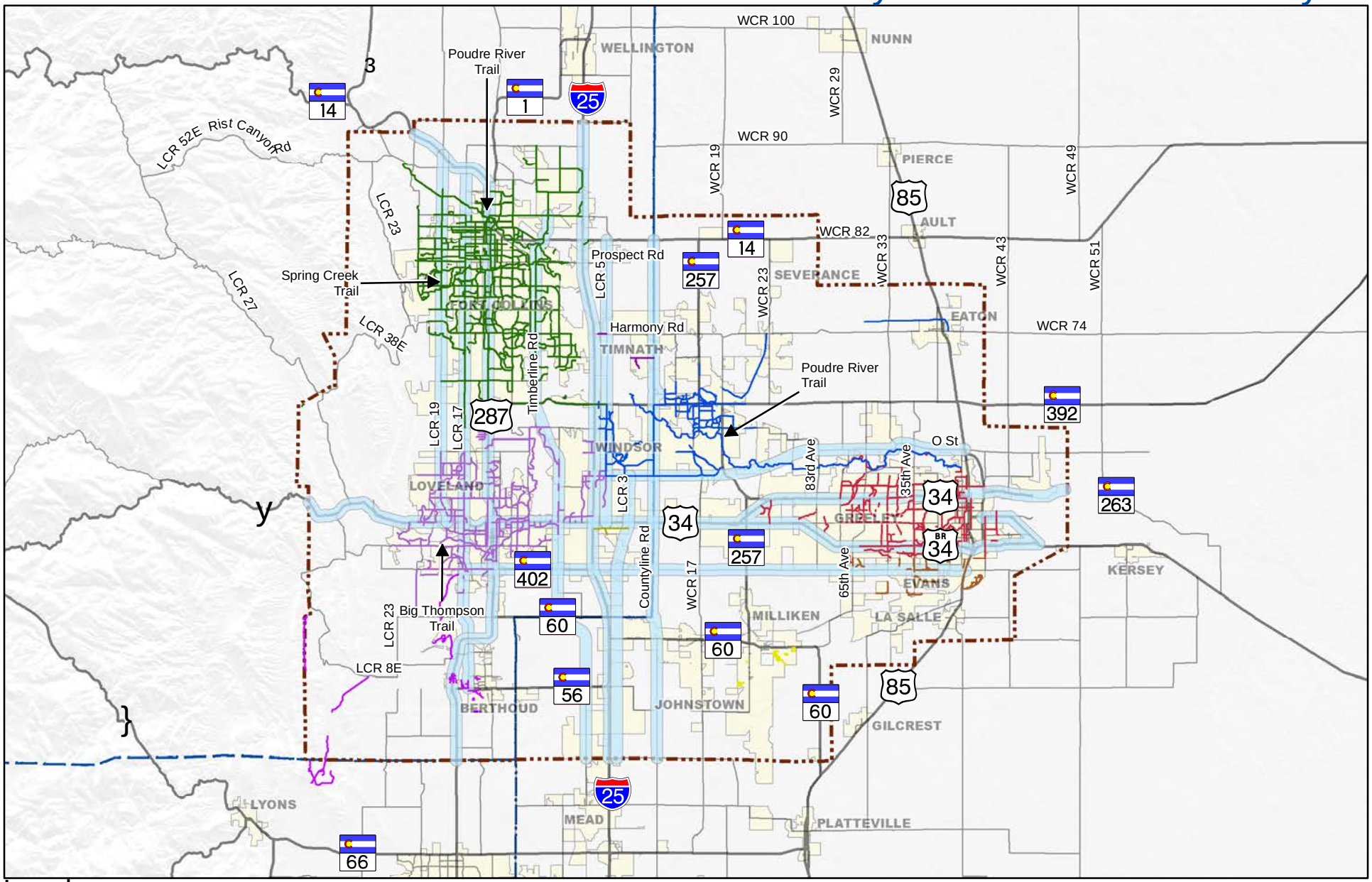
- park-N-Ride
- 3 Mile Buffer of park-N-Ride
- Ft Collins Bus Routes
- FLEX
- Loveland Bus Routes
- Greeley Evans Bus Routes
- Quarter Mile Buffer of Bus Routes

N

0 5 10

Miles

Bicycle Routes & Trails Analysis



Legend

- Berthoud
- Evans
- Fort Collins
- Greeley
- Johnstown & Milliken
- Loveland
- Milliken
- Timnath
- Windsor
- **Quarter Mile Buffer of Corridors**

N W E S

0 3 6

Miles

transportation planning process. This section continues to allow NEPA studies to be initiated, even during the Alternative Analysis/corridor study process.

Another concern was that this section permits the elimination of alternatives but does not provide for the selection of a preferred alternative. Additionally, a subsequent comment indicated that this section does not require the consideration of all reasonable alternatives. As is permitted by the Council on Environmental Quality's regulations, a project sponsor can select a preferred alternative at any time in the project development process but the overall environmental analysis cannot be slanted to support the preferred alternative nor does the identification of a preferred alternative eliminate the requirement to study all reasonable alternatives as part of the environmental analysis. The FHWA and the FTA believe that the rule allows for State DOTs, MPOs and public transportation operators who choose to use planning studies as part of the overall project development process to eliminate alternatives as well as select preferred alternatives, as appropriate. Therefore, no change was made to the rule.

These comments also pointed out that the FTA requires alternatives analysis for New Starts project, but no comparable requirement is specified for highway projects. Unlike FTA's formula funded programs, New Starts has a competition based eligibility requirement and, as such, the FTA requires a level of evaluation and analysis to screen the potential myriad requests they receive for limited funds. Traditionally, applicants select proposed highway projects as part of FHWA's formula funded programs. When Congress authorizes a competition-based highway program similar to New Starts, the FHWA has established criteria to evaluate and select projects that are eligible for those funds.

It was also noted that § 450.322 (Development and content of the metropolitan transportation plan) requires (in nonattainment and maintenance areas) design concept and scope be identified for projects. This comment raises several issues relative to actual application of the transportation planning process more than the regulation itself. For transportation demand modeling purposes and to meet the requirements of this part, the MPO and/or State DOT uses basic tools (e.g. engineering, capacity, past history, etc.) to identify the design concept and scope of a project, without conducting a formal corridor study. These early decisions are generally made on a broad corridor basis and will be refined as the project advances towards implementation. The commenter appears to favor this section of the rule being mandatory rather than permissive in an attempt to further the state of the practice of planning. Encouragement and incentives for good transportation planning were proffered by the commenter as tools to be used to increase the desirability of conducting corridor studies. The FHWA and the FTA believe Appendix A provides this encouragement and incentives for good transportation planning in identifying ways to utilize planning corridor studies and thereby reduce the amount of repetitive work in the NEPA process. We appreciate the support for the concepts in this section, but, based on all the comments received, find that it is most appropriate for this section to remain voluntary and permissive.

Section 450.320 Congestion Management Process in Transportation Management Areas

The docket included more than 25 documents that contained almost 30 comments on this section with about one-third from State DOTs, one-fifth from national and regional advocacy organizations, half from MPOs and COGs, and the rest from transit operators.

On May 16, 2006, the U.S. Secretary of Transportation announced a national initiative to address congestion related to highway, freight and aviation.[13] The intent of the ''National Strategy to Reduce Congestion on America's Transportation Network'' is to provide a blueprint for Federal, State and local officials to tackle congestion. USDOT encourages the States and MPO(s) to seek Urban Partnership Agreements with a handful of communities willing to demonstrate new congestion relief strategies and encourages states to pass legislation giving the private sector a broader opportunity to invest in transportation. It calls for more widespread deployment of new operational technologies and practices that end traffic tie-ups, designates new interstate ''corridors of the future,'' targets port and border congestion, and expands aviation capacity.

U.S. DOT encourages State DOTs and MPOs to consider and implement strategies, specifically related to highway and transit operations and expansion, freight, transportation pricing, other vehicle-based charges techniques, congestion pricing, electronic toll collection, quick crash removal, etc. The mechanism that the State DOTs and MPOs employ to explore these strategies is within their discretion. The USDOT will focus its resources, funding, staff and technology to cut traffic jams and relieve freight bottlenecks.

A few commenters reiterated that the congestion management process (CMP) should result in multimodal system performance measures and strategies. The FHWA and the FTA note that existing language reflects the multimodal nature of the CMP. Existing language (§ 450.320(a)(2)) specifically allows for the appropriate performance measures for the CMP to be determined cooperatively by the State(s), affected MPO(s), and local officials in consultation with the operators of major modes of transportation in the coverage area.

Most of the comments pointed out that the provisions of § 450.320(e) pertaining to projects that add significant new carrying capacity for Single Occupant Vehicles (SOVs) applies in ''Carbon Monoxide (CO) and Ozone Nonattainment TMAs,'' but does not apply to TMAs in air quality maintenance areas. The FHWA and the FTA agree and have clarified the language in paragraph (e). We also clarified that this provision applies to projects ''to be advanced with Federal funds.''

Several commenters asked for a clarification regarding what CMP requirements apply in air quality maintenance and attainment areas, as opposed to the requirements in air quality nonattainment areas. The CMP requirements for all TMA areas (attainment, maintenance and nonattainment) are identified in § 450.320(a), § 450.320(b), § 450.320(c), and § 450.320(f). Additional CMP requirements that apply only to non-attainment TMA areas (for ozone and carbon monoxide) are identified in § 450.320(d) and § 450.320(e).

Another commenter asked for clarification regarding the exact requirements for a CMP and how the CMP is integrated with the metropolitan transportation plan. As noted above, the specific CMP requirements for all TMAs, regardless of air quality status, are identified in this section. The CMP

[13] Speaking before the National Retail Federation's annual conference on May 16, 2006, in Washington, DC, former U.S. Transportation Secretary Norman Mineta unveiled a new plan to reduce congestion plaguing America's roads, rails and airports. The National Strategy to Reduce Congestion on America's Transportation Network includes a number of initiatives designed to reduce transportation congestion. The transcript of these remarks is available at the following URL: *http://www.dot.gov/affairs/minetasp051606.htm.*

in this section is not described as, nor intended to be, a stand-alone process, but an integral element of the transportation planning process. To reinforce the integration of the CMP and the metropolitan transportation plan, § 450.322(f)(4) requires that the metropolitan transportation plan shall include ''consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for carbon monoxide or ozone.''

One commenter asked for examples of the reasonable travel demand reduction and operational management strategies as required in § 450.320(e). Examples of such strategies include, but are not limited to: Transportation demand management measures such as car and vanpooling, flexible work hours compressed work weeks and telecommuting; Roadway system operational improvements, such as improved traffic signal coordination, pavement markings and intersection improvements, and incident management programs; Public transit system capital and operational improvements; Access management program; New or improved sidewalks and designated bicycle lanes; and Land use policies/regulations to encourage more efficient patterns of commercial or residential development in defined growth areas.

Section 450.322 Development and Content of the Metropolitan Transportation Plan

There were over 160 separate comments on this section, mostly from MPOs and COGs, followed by national and regional advocacy organizations and State DOTs. A number of comments also came from public transportation providers with the remainder coming from local government agencies, the general public or other sources.

Several MPOs and COGs and national and regional advocacy organizations that commented on this section asked for clarification regarding the 20-year planning horizon in paragraph (a). The FHWA and the FTA want to provide MPOs flexibility on how to treat the metropolitan transportation plan at the time of a revision. The actual effective date of a metropolitan transportation plan update may be dependent upon several factors, including the intent of the MPO, the magnitude of the metropolitan transportation plan revision and whether conformity needs to be determined. To specifically indicate in the final rule when a ''revision'' may be considered a full ''update'' could result in limiting flexibility. For more information on this topic, refer to the ''Definitions'' section of this rule.

A small number of MPOs and COGs and national and regional advocacy organizations that commented on this section asked for clarification in paragraph (b) between long-range and short-range strategies. The FHWA and the FTA carried forward the language regarding short and long-range strategies from the October 1993 planning rule. Generally, long-range are those strategies and actions expected to be implemented beyond 10 years.

A small number of national and regional advocacy organizations also commented that the transportation demand referenced in paragraph (b) should be balanced with the environment and other factors. The FHWA and the FTA find that the balance with environmental concerns is adequately raised in other parts of the rule both in this section and in § 450.306 (Scope of the metropolitan transportation planning process).

A small number of MPOs that commented on this section wrote in support of paragraph (c) relating to the cycles for reviews and updates. The FHWA and the FTA note that this paragraph revises and supercedes the April 12, 2005, guidance on ''Plan Horizons'' allowing MPOs to ''revise the metropolitan transportation plan at any time using the procedures in this section without a requirement to extend the horizon year.''

A small number of State DOTs and national and regional advocacy organizations that commented on this section said in regard to paragraph (d) that the proposed language limits consultation between State air quality agencies and MPOs in ozone and carbon monoxide (CO) nonattainment and maintenance areas. Transportation control measures (TCMs) can apply to all pollutants so this section should refer to all types of nonattainment and maintenance areas.

Paragraph (d) addresses the MPO's coordination in the development of the TCMs in a SIP in ozone and CO nonattainment areas, pursuant to 49 U.S.C 5303(i)(3). The FHWA and the FTA are clarifying in the final rule the role of the MPO in the development of SIP TCMs, to be more consistent with the statute. Similar coordination is encouraged in the development of SIP TCMs in ozone and CO maintenance areas, as well as particulate matter and nitrogen dioxide nonattainment and maintenance areas. The FHWA and the FTA had proposed additional language in paragraph (d) that specified that the MPO, State air quality agency and the EPA must concur on the equivalency of any substitute TCM before an existing SIP TCM is replaced under section 176(c)(8) of the Clean Air Act (42 U.S.C. 7506(c)(8)). After consultation with the EPA, this language was deemed unnecessary for the final planning regulations. The EPA has determined that revising the transportation conformity regulations is not necessary to implement the TCM substitution provision in Section 6011(d) of the SAFETEA–LU. The EPA believes that the new Clean Air Act provision contains sufficient detail to allow the provision to be implemented without further regulation. The EPA, the FHWA, and the FTA issued joint guidance on February 14, 2006, that describes how TCM substitutions can occur under the statute.[14]

A small number of State DOTs and a few MPOs and COGs that commented on this section said in regards to paragraph (e) that the requirement for ''agreement'' is too stringent. The FHWA and the FTA find that a ''cooperative'' planning process requires agreement among the major planning partners on what assumptions to adopt and what data and analyses to employ to forecast future travel demand. If a State or transit operator conducts a major planning study within the MPO planning boundaries, it is critical that the assumptions and data used in that planning study be considered valid by other planning partners and be consistent with data the MPO will employ to develop its travel models or otherwise develop growth projections in population, employment, land use, and other key factors that affect future travel demand. Both consultation and agreement on those assumptions/data are crucial to this process. However, the FHWA and the FTA also understand that the proposed text may be considered overly restrictive. We eliminated the phrase ''the transportation plan update process shall include a mechanism for ensuring that * * * agree * * *'' and replaced it with ''the MPO, the State(s), and the public transportation operator(s) shall validate * * *'' The FHWA and the FTA believe that the requirement ''validate data'' provides more flexibility than ''including a mechanism.''

[14] This joint guidance entitled, ''Interim Guidance for Implementing the Transportation Conformity Provisions in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users,'' dated February 14, 2006, is available via the Internet at the following URL: *http://www.fhwa.dot.gov/environment/conformity/sec6011guidmemo.htm.*

improvement program (STIP), § 450.322 (Development and content of the metropolitan transportation plan), and § 450.324 (Development and content of the transportation improvement program). These key features are: (1) Treatment of highway and transit operations and maintenance costs and revenues; (2) use of ''year of expenditure dollars'' in developing cost and revenue estimates; and (3) use of ''cost ranges/cost bands'' in the outer years of the metropolitan transportation plan.

Regarding the treatment of highway and transit operations and maintenance costs and revenues, the FHWA and the FTA realize that the 1993 planning rule and the NPRM interchangeably referred to the transportation system as either ''existing,'' ''total,'' or ''entire.''

Several State DOTs, MPOs and COGs, national and regional advocacy organizations, and others expressed concern and confusion over these terms. Many commenters called into question the statutory authority for the FHWA and the FTA to focus on State and local government investments to operate and maintain the ''system'' as part of fiscal constraint and financial plans supporting transportation plans and programs. However, the statute, as amended by the SAFETEA–LU (23 U.S.C. 134(i)(2)(C) and 49 U.S.C. 5303(i)(2)(C)), requires that the financial element of a metropolitan transportation plan ''demonstrates how the adopted transportation plan can be implemented'' and ''indicates resources from public and private sources'' that can be ''reasonably anticipated to implement the plan.'' A metropolitan transportation plan, as it is developed, must include consideration and recognition of how all the pieces of the regional transportation system will integrate, function and operate, not just those facilities which are or could be funded with Federal resources. To focus solely on the Federally-funded portion of the transportation system could create greater demands on limited Federal resources or jeopardize the value of the Federal investments made within that metropolitan area. Furthermore, outside the transportation planning process, there is a longstanding Federal requirement that States properly maintain, or cause to be maintained, any projects constructed under the Federal-aid Highway Program (23 U.S.C. 116).

Additionally, the FHWA and the FTA believe that the fundamental premise behind the wording in the October 28, 1993 planning rule regarding highway and transit operations and maintenance (58 FR 58040) remains sound.

However, for purposes of clarity and consistency, § 450.216(n), § 450.322(f)(10), and § 450.324(i) have been revised to better describe ''the system'' as Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53). As background, 23 U.S.C. 101(a)(5) defines ''Federal-aid highways'' as ''a highway eligible for assistance other than a highway classified as a local road or rural minor collector.'' Additionally, these sections clarify that the financial plans supporting the metropolitan transportation plan and TIP and the financial information supporting the STIP are to be based on systems-level estimates of costs and revenue sources reasonably expected to be available to adequately operate and maintain Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).

Regarding the use of ''year of expenditure dollars'' in developing cost and revenue estimates, the FHWA and the FTA jointly issued ''Interim FHWA/FTA Guidance on Fiscal Constraint for STIPs, TIPs, and Metropolitan Plans'' on June 30, 2005.[22] This Interim Guidance indicated that financial forecasts (for costs and revenues) to support the metropolitan transportation plan, TIP, and STIP may: (a) Rely on a ''constant dollar'' base year or (b) utilize an inflation rate(s) to reflect ''year expenditure.'' The FHWA and the FTA will be developing and issuing revised guidance on fiscal constraint and financial planning for transportation plans and programs soon after this rule is published. In Appendix B, the FHWA and the FTA proposed to exclusively require the use of ''year of expenditure dollars'' to better reflect the time-based value of money. This is particularly crucial for large-scale projects with construction/implementation dates stretching into the future. Because the transportation planning process serves as the beginning point of the larger ''project continuum'' (i.e., moving from concept through construction, and later operations and maintenance), the FHWA and the FTA strongly believe that early disclosure of revenue and cost estimates reflecting time and inflation provides a truer set of expectations and future ''reality'' to the public. However, most of the State DOTs, a few of the national and regional advocacy organizations and some MPOs and COGs, commented that they should not be required to use ''year of expenditure dollars.''

The FHWA and the FTA considered these comments and included in § 450.216(h), § 450.322(f)(10), and § 450.324(d) that ''year of expenditure dollars'' shall be used ''to the extent practicable.'' While this language expresses the desire of the FHWA and the FTA for revenue and cost estimates to be reflected in ''year of expenditure dollars,'' an opportunity to use ''constant dollars'' has been retained.

Regarding the use of ''cost ranges/cost bands'' in the outer years of the metropolitan transportation plan, the FHWA and the FTA jointly issued ''Interim Guidance on Fiscal Constraint for STIPs, TIPs, and Metropolitan Plans'' on June 30, 2005. The FHWA and the FTA will be developing and issuing revised guidance on fiscal constraint and financial planning for transportation plans and programs soon after this rule is published. The Interim Guidance indicated that for the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands. In the NPRM, the FHWA and the FTA proposed to provide this option to MPOs in developing fiscally-constrained metropolitan transportation plans. We have included this option in this rule because we believe it gives MPOs maximum flexibility to broadly define a large-scale transportation issue or problem to be addressed in the future that does not predispose a NEPA decision, while, at the same time, calling for the definition of a future funding source(s) that encompasses the planning-level ''cost range/cost band.''

23 CFR Part 500

Section 500.109 Congestion Management Systems

Few docket documents specifically referenced this section. However, the docket included more than 25 documents that contained almost 30 comments on § 450.320 (Congestion management process in transportation management areas) which is relevant to this section.

As was mentioned, on May 16, 2006, the U.S. Secretary of Transportation announced a national initiative to address congestion related to highway, freight and aviation. The intent of the ''National Strategy to Reduce Congestion on America's Transportation

[22] This joint guidance, ''Interim FHWA/FTA Guidance on Fiscal Constraint for STIPs, TIPs and Metropolitan Plans,'' dated June 27, 2005, is available via the Internet at the following URL: *http://www.fhwa.dot.gov/planning/fcindex.htm.*

Network'' is to provide a blueprint for Federal, State and local officials to tackle congestion. The States and MPO(s) are encouraged to seek Urban Partnership Agreements with a handful of communities willing to demonstrate new congestion relief strategies and encourages States to pass legislation giving the private sector a broader opportunity to invest in transportation. It calls for more widespread deployment of new operational technologies and practices that end traffic tie ups, designates new interstate ''corridors of the future,'' targets port and border congestion, and expands aviation capacity.

U.S. DOT encourages the State DOTs and MPOs to consider and implement strategies, specifically related to highway and transit operations and expansion, freight, transportation pricing, other vehicle-based charges techniques, etc. The mechanism that the State DOTs and MPOs employ to explore these strategies is within their discretion. The U.S. DOT will focus its resources, funding, staff and technology to cut traffic jams and relieve freight bottlenecks.

A few comments were received reiterating that the CMP should result in multimodal system performance measures and strategies. The FHWA and the FTA note that existing language reflects the multimodal nature of the CMP. Specifically, § 450.320(a)(2) allows for the appropriate performance measures for the CMP to be determined cooperatively by the State(s), affected MPO(s), and local officials in consultation with the operators of major modes of transportation in the coverage area.

Several commenters asked for a clarification with regards to what CMP requirements apply in air quality attainment areas, as opposed to the requirements in air quality nonattainment areas. The CMP requirements for all TMA areas (attainment and nonattainment) are identified in §§ 450.320(a), 450.320(b), 450.320(c), and 450.320(f). Additional CMP requirements that apply only to nonattainment TMA areas (for CO and ozone) are identified in § 450.320(d) and § 450.320(e).

49 CFR Part 613

The NPRM proposed to simplify FTA's cross-reference in 49 CFR Part 613 to 23 CFR Part 450. Because there may be references to the three subparts in 49 CFR Part 613 in various other regulatory and guidance documents, FTA has made technical changes to what was proposed in the NPRM to retain the names of the subparts in this part the same as they were prior to this rule. This will reduce confusion by keeping the names of the subparts the same, but still allowing for the cross-reference simplification and alignment of identical regulatory requirements that FTA had proposed.

Distribution Tables

The NPRM proposed to clarify and revise the regulation's section headings to use plainer language. These changes have been made. For ease of reference, two distribution tables are provided for the current sections and the proposed sections as follows. The first distribution table indicates changes in section numbering and titles. The second provides details within each section.

SECTION TITLE AND NUMBER

Old section	New section
Subpart A	*Subpart A*
450.100 Purpose	450.100 Purpose.
450.102 Applicability	450.102 Applicability.
450.104 Definitions	450.104 Definitions.
Subpart B	*Subpart B*
450.200 Purpose	450.200 Purpose.
450.202 Applicability	450.202 Applicability.
450.204 Definitions	450.204 Definitions.
450.206 Statewide transportation planning process: General requirements.	450.206 Scope of the statewide transportation planning process.
450.208 Statewide transportation planning process: Factors	450.208 Coordination of planning process activities.
450.210 Coordination	450.210 Interested parties, public involvement, and consultation.
	450.212 Transportation planning studies and project development.
450.212 Public involvement	450.214 Development and content of the long-range statewide transportation plan.
450.214 Statewide transportation plan	450.216 Development and content of the statewide transportation improvement program (STIP).
450.216 Statewide transportation	450.218 Self-certifications, Federal improvement program (STIP). findings, and Federal approvals.
450.218 Funding	450.220 Project selection from the STIP.
450.220 Approvals	450.222 Applicability of NEPA to statewide transportation plans and programs.
450.222 Project selection for implementation	450.224 Phase-in of new requirements.
Subpart C	*Subpart C*
450.300 Purpose	450.300 Purpose.
450.302 Applicability	450.302 Applicability.
450.304 Definitions	450.304 Definitions.
450.306 Metropolitan planning organizations: Designation and redesignation.	450.306 Scope of the metropolitan transportation planning process.
450.308 Metropolitan planning organization: Metropolitan planning boundary.	450.308 Funding for transportation planning and unified planning work programs.
450.310 Metropolitan planning organization: planning agreements	450.310 Metropolitan planning organization designation and redesignation.
450.312 Metropolitan transportation planning: Responsibilities, cooperation, and coordination.	450.312 Metropolitan planning area boundaries.
450.314 Metropolitan transportation planning process: Unified planning work programs.	450.314 Metropolitan planning agreements.

FELSBURG
HOLT &
ULLEVIG

engineering paths to transportation solutions

www.fhueng.com

6300 South Syracuse Way, Suite 600 | Centennial, CO 80111 | tel 303.721.1440 | fax 303.721.0832