

CHAPTER 1 PURPOSE AND NEED

1.1 INTRODUCTION

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), in cooperation with the Colorado Department of Transportation (CDOT), have initiated preparation of an Environmental Impact Statement (EIS) to identify and evaluate multi-modal transportation improvements along approximately 61 miles of the I-25 corridor from the Fort Collins-Wellington area to Denver. The improvements being considered in this Draft EIS will address regional and inter-regional movement of people, goods, and services in the I-25 corridor.

What's In Chapter 1?

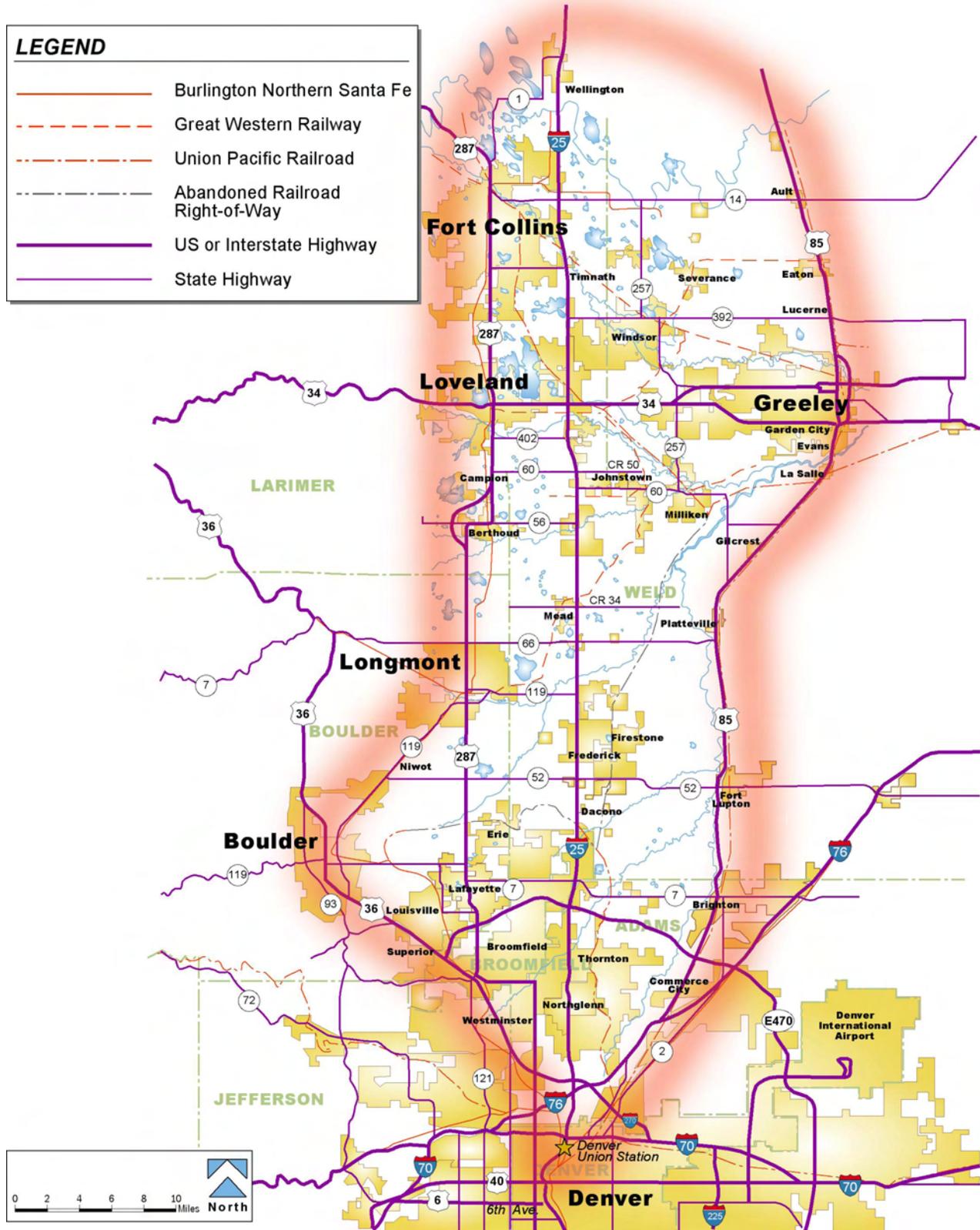
Chapter 1 - Purpose and Need

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1.2 PROJECT LOCATION

The regional study area extends from Wellington at the north end to Denver Union Station on the south, and from US 287 and the Burlington Northern and Santa Fe (BNSF) Railway routes on the west to US 85 and the Union Pacific Railroad (UPRR) routes on the east. The regional study area, depicted in **Figure 1-1**, spans portions of seven counties: Adams, Boulder, Broomfield, Denver, Jefferson, Larimer, and Weld. The regional study area includes 38 incorporated communities and three transportation planning regions (TPRs): the Denver Regional Council of Governments (DRCOG), the North Front Range Metropolitan Planning Organization (NFRMPO), and the Upper Front Range Regional Planning Commission (UFRRPC). Major population centers in the regional study area include Fort Collins, Greeley, Loveland, and the communities in the northern portion of the Denver metropolitan area (Denver Metro Area).

1 Figure 1-1 North I-25 EIS Regional Study Area



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1.3 BACKGROUND AND PROJECT HISTORY

This northern Colorado corridor has become the focus of a substantial portion of statewide growth over the years, with I-25 serving as the primary north-south spine of the transportation system. These growth pressures have resulted in considerable increases in travel demand to the corridor, including both travel between northern Colorado and the Denver Metro Area and travel between communities in northern Colorado. At the same time, this corridor is a major link in the nationwide interstate highway system serving long distance travel, and is a critical element of the Western Transportation Trade Network (WTTN). The WTTN is a system of highway and rail routes through 14 western states; it carries the majority of freight through the western United States. As traffic volumes and safety concerns have increased on I-25 and connecting roadways, awareness of the need to plan for transportation improvements in this corridor has grown.

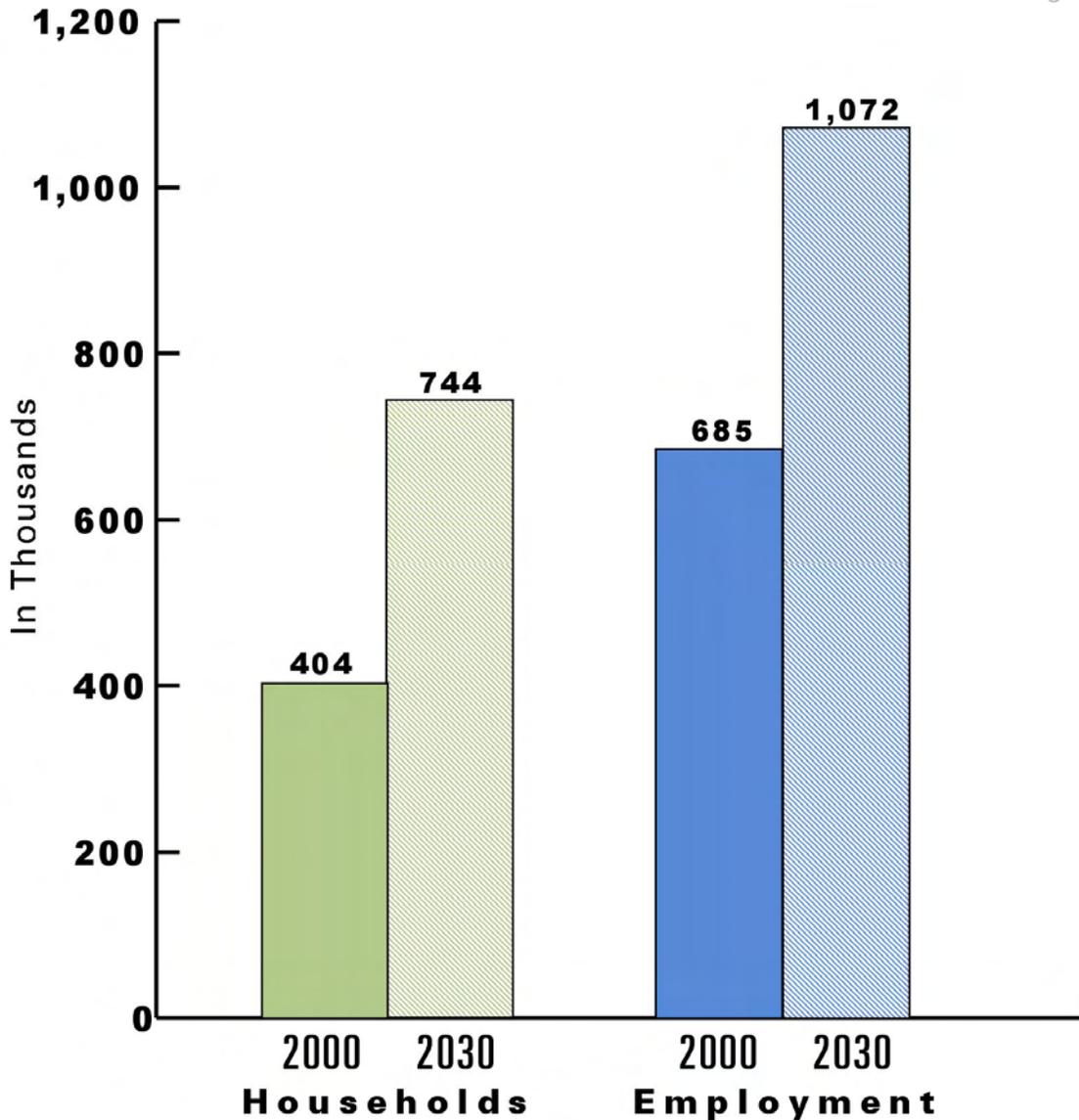
Illustrating the growth in the North I-25 corridor, **Figure 1-2** compares year 2000 households and employment to projected year 2030 future households and employment in the regional study area. Projections show an increase of 84 percent in households, while projections for employment show an increase of more than 56 percent over the year 2000 levels. This growth will result in increases in travel demand throughout the regional study area.

Providing transportation systems that operate safely, efficiently, and allow travelers to conveniently access shopping, recreational activities, work, and community services, as well as providing for efficient movement of freight, are important to maintain an economically viable region.

In 1993, CDOT initiated a feasibility study, with a subsequent 1995 Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), for improvements to enhance the capacity and safety of I-25 between State Highway (SH) 7 and SH 66. This supported the decision making process for improvements on I-25, which have either just been completed (between SH 7 and SH 52) or are under construction (between SH 52 and SH 66). Subsequently, CDOT, in conjunction with regional planning groups (North Front Range Transportation and Air Quality Planning Council, UFRRPC, and DRCOG), undertook a major investment study called the *North Front Range Transportation Alternatives Feasibility Study (TAFS)*, to evaluate an extensive range of alternative highway improvements, bus transit alternatives, passenger-rail alternatives, and travel demand management programs for the corridor from SH 7 to SH 14. This study, published in March 2000, recommended a Vision Plan that included as major components an inter-regional bus service, combination general purpose/high occupancy vehicle (HOV) lanes, and passenger rail service.

In more recent years, a number of studies have been conducted by communities or groups of communities to establish planning guidelines for growth in segments of this corridor. These plans have addressed both land use and transportation issues. The initiation of this North I-25 EIS represents the next step in evaluating and planning for implementation of improvements in this corridor.

1 Figure 1-2 Year 2000 and 2030 Households and Employment in the Regional Study
2 Area



Source: Household and employment study area projections provided by NFRMPO and DRCOG in 2004.

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55 1.4 PROJECT PURPOSE

56 The purpose of the project is to meet long-term travel needs between the Denver Metro Area
57 and the rapidly growing population centers along the I-25 corridor north to the Fort Collins-
58 Wellington area. To meet long-term travel needs, the project must improve safety, mobility and
59 accessibility, and provide modal alternatives and interrelationships.

1.5 NEED FOR THE ACTION

The need for the project can be summarized in the following four categories:

- ▶ Increased frequency and severity of crashes
- ▶ Increasing traffic congestion leading to mobility and accessibility problems
- ▶ Aging and functionally obsolete infrastructure
- ▶ Lack of modal alternatives

The project needs relate differently to highway and transit components of the solutions. Highway alternatives were evaluated in addressing all four of these needs. Transit alternatives were evaluated in addressing two of the needs: increasing traffic congestion leading to mobility and accessibility problems, and lack of modal alternatives.

Specific measures were developed for each of the needs in order to provide a means for evaluating the effectiveness of each alternative. These measures and results of the evaluation are included in **Chapter 2 Alternatives**.

1.5.1 Highway Safety Concerns

Over the last decade, the number of crashes along I-25 has increased, and a number of locations on I-25 currently experience worse than expected safety performance when compared to other four-lane and six-lane interstate facilities in Colorado with similar traffic volumes. This, in part, can be attributed to congestion and the fact that portions of I-25 do not meet current design standards.

There is a need to reduce crashes on the portions of I-25 that have worse than average safety performance, as described in **Section 1.5.1.1**.

1.5.1.1 CRASH DATA

In 1991, 331 crashes were reported along I-25 between SH 7 and Wellington. By 2001, this number had more than tripled to 1,130 crashes. The largest increases in the number of crashes occurred on I-25 between SH 7 and SH 52 (the section improved in 2005) and between SH 66 and SH 56. In 1991, injury and/or fatal crashes accounted for 144 of the reported crashes along I-25 between SH 7 and Wellington. By 2001, the number of injury and/or fatal crashes had increased to 351.

Level of service of safety (LOSS) is a qualitative measure that characterizes safety of a roadway segment in reference to its expected performance (Kononov and Allery, 2004). Locations that are considered to be LOSS I and LOSS II operate more safely than other facilities of a similar size and with similar traffic volumes throughout the state. Locations identified as LOSS III and LOSS IV represent sections with a less than average safety performance when compared to similar facilities statewide. Sections of I-25 that fall into the LOSS IV category are considered to have a “high potential for crash reduction,” and were reviewed in more detail.

As shown in **Table 1-1**, six locations in the regional study area along I-25 are considered to have a high potential for crash reduction and over half operate worse than other comparable

- 1 facilities. When injury and fatality crashes are separated from crashes resulting only in
- 2 property damage, I-25 between SH 14 and Mountain Vista Road also falls into the high
- 3 potential for crash reduction category.

4 **Table 1-1 I-25 Level of Service of Safety**

Location on I-25	LOSS I Low potential for crash reduction	LOSS II Better than expected safety performance	LOSS III Less than expected safety performance	LOSS IV High potential for crash reduction
US 36 – 84th Ave.		•		
84th Ave. – Thornton Pkwy		•		
Thornton Pkwy – 112th Ave.		•		
112th Ave. – 136th Ave.		•		
136th Ave. – SH 7			•	
SH 7 – County Road (CR) 8				•
CR 8 – SH 52				•
SH 52 – SH 119				•
SH 119 – SH 66			•	
SH 66 – CR 34			•	
CR 34 – SH 56				•
SH 56 – SH 60				•
SH 60 – SH 402			•	
SH 402 – US 34			•	
US 34 – Crossroads				•
Crossroads – SH 392		•		
SH 392 – Harmony		•		
Harmony – Prospect			•	
Prospect – SH 14			•	
SH 14 – Mtn. Vista			•	
Mtn. Vista – SH 1			•	

↑
Average Safety
Performance

 = Portion of I-25 recently reconstructed and widened to six lanes.

 = Portion of I-25 under construction to widen to six lanes.

NOTE: A median barrier to reduce the potential for crossover, head-on crashes was installed from SH 7 to US 34 in 2004 since these crash data were recorded.

Source: CDOT crash records, January 2000 – December 2002. This is the most recent data set available prior to sections of I-25 being under construction.
CDOT Safety Performance Functions Intersection Diagnostics, April 2004.

Table 1-2 lists the locations identified as having high potential for crash reduction and identifies the types of crashes that are higher than what is anticipated. As shown, a preliminary assessment indicates that a number of the locations exceed the anticipated number of rear-end crashes, crashes involving the guardrail, and crashes involving other objects.

On many facilities, rear-end crashes are a result of congestion, while crashes involving other objects are a result of debris, or other objects in the travel way. A more thorough diagnostic analysis was conducted to identify the cause of crashes and to then recommend mitigation measures. The safety analysis included the following:

- ▶ Review CDOT database of crashes compiled through Highway Patrol reports
- ▶ Perform statistical analysis in areas with a high-crash concentration to identify any abnormal crash patterns (i.e., identify trends)
- ▶ Review accident reports to obtain additional information on the accident experience
- ▶ Identify possible causes for areas of high-accident concentration/above-normal accident experience, focusing on statistically problematic accident types
- ▶ Identify possible roadway improvement options to help minimize specific accident types/improve overall accident experience

The recommendations for mitigation measures were folded into the alternatives described in **Chapter 2** of this EIS.

It is anticipated that safety will improve between SH 7 and SH 52, where I-25 was recently widened to six lanes and updated to current design standards. Rear-end crashes and crashes involving the guardrail will likely be reduced as a result of this improvement. In addition, a median barrier was installed in 2004 between SH 7 and US 34, reducing the potential for crossover head-on crashes.

Table 1-2 Preliminary Assessment of Locations on North I-25 with High Potential for Crash Reduction by Crash Type

Location	Rear-end	Sideswipe same direction	Guardrail	Involving other object	Head-on*	Other non-collision**
SH 7 - CR 8	√		√		√	√
CR 8 - SH 52	√			√		
SH 52 - SH 119	√		√	√		√
CR 34 - SH 56	√		√	√		√
SH 56 - SH 60	√	√	√	√		
US 34 - Crossroads			√	√		√
SH 14 – Mtn. Vista	√			√	√	

√ = Types of crashes that exceed the number anticipated.

* A median barrier, reducing the potential for crossover head-on crashes, was installed from SH 7 to US 34 in 2004 since these crash data were recorded.

** These include incidents creating a hazardous road condition but that did not involve a crash (e.g., losing cargo on road, losing wheel, engine or brake fire, or broken down or stopped vehicle in travel lane).

Source: CDOT crash records, January 2000 – December 2002. This is the most recent data set available prior to sections of I-25 being under construction.
CDOT Safety Performance Functions Intersection Diagnostics, April 2004.

1 **1.5.1.2 I-25 ROADWAY DEFICIENCIES**

2 Roadway characteristics were evaluated along I-25, and comparisons were made to the
3 current American Association of State Highway and Transportation Officials (AASHTO, 2004)
4 and CDOT (CDOT, 2006) standards. This assessment included shoulder widths, stopping
5 sight distance, horizontal alignment, and vertical alignment. The existing 10-foot outside
6 shoulder width is substandard along the entire I-25 corridor from SH 66 to SH 1. Current
7 standards require a 12-foot outside shoulder width, which is important to provide continuous,
8 safe refuge for stopped vehicles and emergency use. The stopping sight distance is deficient
9 at numerous locations between SH 66 and SH 1 based on a design speed of 80 miles per
10 hour (mph). I-25 has a maximum posted speed limit of 75 mph and a design speed of 5-10
11 mph in excess of the maximum posted speed limit, which is a standard design practice.
12 Deficiencies in the horizontal alignment include curves that are too sharp and inadequate
13 transitions coming into or out of curves. Horizontal deficiencies in the I-25 corridor exist
14 between Weld County Road (WCR) 34 and Larimer County Road (LCR) 26 and between
15 SH 392 and Harmony Road.

16 In 2005, I-25 between SH 7 and SH 52 was improved and widened to six lanes. Design
17 deficiencies on I-25 between SH 7 and SH 52 were assumed to be corrected with these
18 improvements.

19 **1.5.2 Highway and Transit Mobility and Accessibility**

20 Population and employment growth are causing increasing traffic congestion, limiting
21 mobility and accessibility within the regional study area. This situation is expected to
22 continue to worsen, and there is a need for transportation improvements to address
23 year 2030 transportation demand, which balances mobility and accessibility along the I-
24 25 corridor. There is also a need to plan transportation improvements in such a manner
25 as to not preclude improvements which may be needed after year 2030.

26 Within the regional study area, residential and commercial growth is occurring at a very high
27 rate, which contributes to and will continue to contribute to increasing traffic volumes.
28 Despite the fact that a large portion of the corridor remains in agricultural use, new
29 development is springing up at a rapid pace. Recent projections by NFRMPO indicate that
30 households and employment in their planning area (which extends outside the regional study
31 area) are expected to increase by 80 to 90 percent from year 2000 levels by the year 2030.
32 This indicates that the high rate of growth is expected to continue over an extended period of
33 time.

34 Development is occurring or being planned for without the benefit of a coordinated, overall
35 long-term strategy. Land use and development patterns in the I-25 corridor are literally
36 evolving on a daily basis. A significant number of new commercial developments have been
37 recently developed or are planned, including a 700,000-square-foot regional mall (Centerra),
38 a new regional hospital, and other regional retail and employment centers. In addition, south
39 of the SH 7/E-470 area, there are a number of recently completed or planned major
40 developments located along the I-25 corridor in Broomfield, Thornton, Westminster, and
41 unincorporated areas. At this time, there are no common development standards in place to
42 ensure right-of-way preservation to accommodate future transportation needs along the I-25
43 corridor.

1 Without improvements, by year 2030, 75 percent of I-25 is projected to be congested
2 and to operate over capacity during the peak periods of travel. **Figure 1-3** illustrates
3 year 2002 and 2030 daily traffic volumes along I-25. As shown, in year 2030 the
4 demand along I-25 is expected to exceed capacity everywhere except the very
5 northern segment. In addition, congestion on the arterial network that connects the
6 residential and employment centers in northern Colorado to I-25 is expected to
7 substantially increase by year 2030. This situation is illustrated on **Figure 1-3**. In the
8 year 2030 (the second illustration), the top red line shows demand on I-25 while the
9 pink bands below this show the capacity on I-25. The differential between demand and
10 capacity would typically show up as congestion on I-25 and on the adjacent arterial
11 roadways.

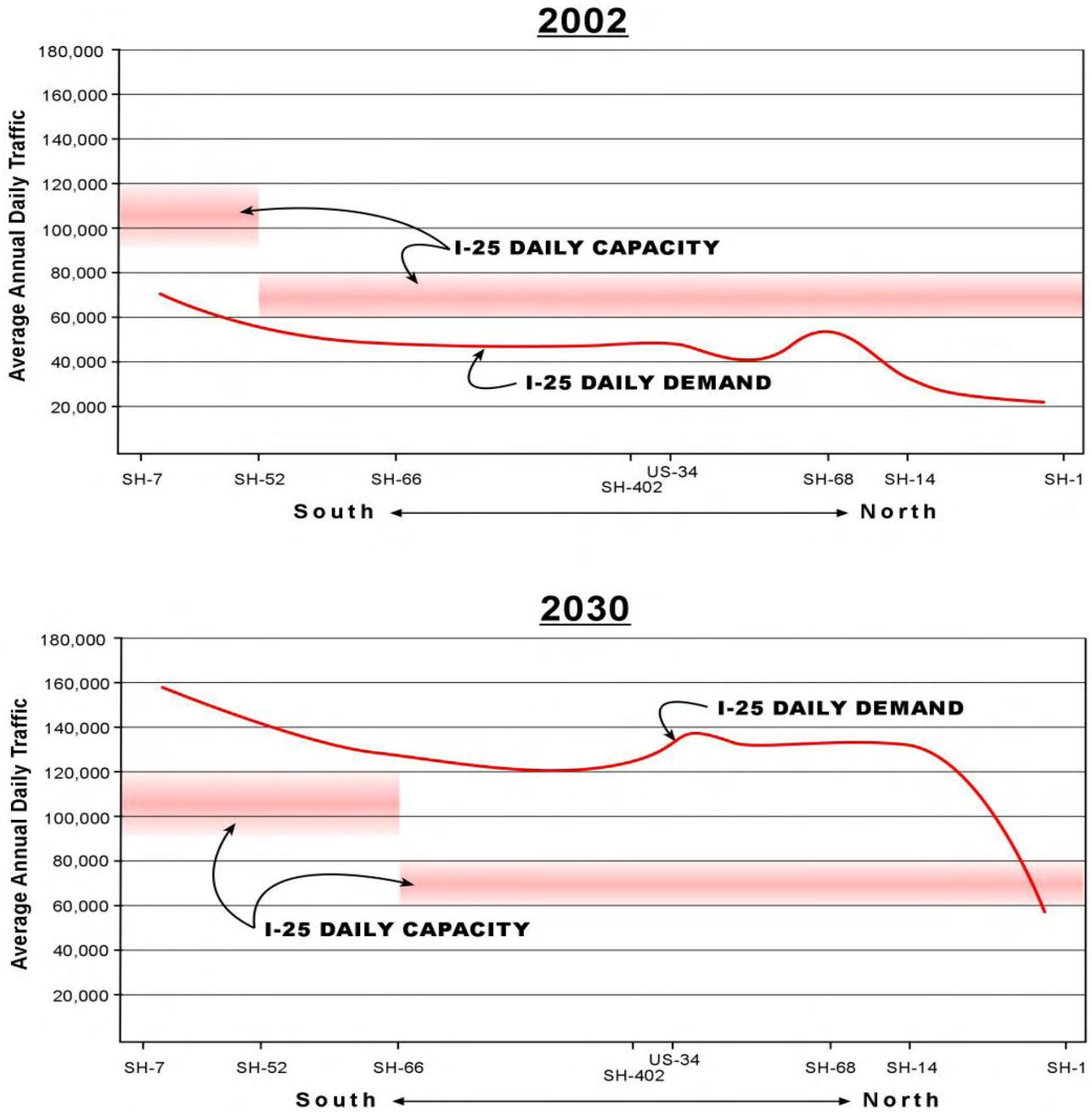
12 With regard to highway accessibility, many of the interchanges along I-25 were built before
13 1966, when travel demand was much lower. Approximately 60 percent of the interchanges
14 between SH 7 and SH 1 are currently considered functionally obsolete. These interchanges
15 were designed to operate in a rural, low-volume environment, and do not have the capacity to
16 safely or efficiently accommodate the higher traffic volumes that they are currently
17 experiencing. The configuration of these interchanges impedes accessibility to and from I-25
18 and restricts capacity east and west between the northern Colorado communities.

19 Regarding freight movement, commodity flow projections made in the *Eastern Colorado*
20 *Mobility Study* (Felsburg, Holt & Ullevig [FHU], 2002) indicate that freight tonnage in and out of
21 Adams, Denver, Larimer, and Weld counties is expected to increase from 96.2 million tons in
22 1998 to 192.3 million tons in 2025. This reflects more than a doubling of commodity movement
23 to/from these four counties alone. Truck volume projections indicate that volumes could
24 increase from approximately 8,000 trucks daily in 2004 to 17,000 trucks daily in year 2030.

25 The anticipated congestion will create slower travel speeds and longer travel times for both
26 freight and personal travel. AM peak hour southbound travel time between SH 1 and 20th
27 Street (Denver) is expected to increase more than 94 percent over the existing travel time.
28 Between SH 1 and 20th Street, the average peak hour speed is expected to be less than
29 31 mph (compared to the maximum posted speed of 75 mph).

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1 Figure 1-3 Current and Future Daily Traffic Volumes and Capacities



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1.5.3 Aging and Obsolete Highway Infrastructure

A number of structures along I-25 are currently structurally deficient or are expected to be so by year 2030. Structurally deficient means that one or more components of the bridge rate poor or worse with regard to structural condition. Segments of pavement on I-25 are reaching the end of the pavement's life expectancy and surface conditions are deteriorating rapidly. Aging infrastructure along I-25 needs to be replaced.

1.5.3.1 STRUCTURES

Seventy-three percent of the structures on I-25 between SH 7 and SH 1 were constructed before 1966, according to CDOT's publication, *Field Log of Structures* (CDOT, 2005b). By the year 2030, it is anticipated that all of these structures will need to be replaced or rehabilitated. Also, the structures located from SH 52 to SH 66 are being replaced as part of the current widening projects adding general purpose lanes to I-25.

The following 11 interchanges and 6 railroad structures, shown on **Table 1-3**, would need to be replaced for the year 2030 design horizon due to deficiencies based on age (built before 1980 and assuming a service life of 50 years) or condition.

Table 1-3 Aging and Obsolete Structures

Interchange Structures		Railroad Structures
WCR 34	LCR 26	GWR - north of WCR 34 (MP 246)
SH 56	SH 392	GWR - north of SH 56 (MP 252)
SH 60	Prospect Rd.	GWR - north of LCR 20E (MP 257)
LCR 16	SH 14	UPRR - north of US 34 (MP 259)
SH 402	SH 1	BNSF – north of SH 68 (MP 267)
US 34		BNSF - north of SH 14 (MP 270)

Notes:

BNSF – Burlington, Northern, and Santa Fe Railway
GWR – Great Western Railway

LCR – Larimer County Road
MP - Milepost

SH – State Highway

UPRR – Union Pacific Railroad

WCR – Weld County Road

According to CDOT's *Field Log of Structures* (CDOT, 2005b), two structures along this stretch of I-25 have a minimum vertical clearance of less than 16.5 feet (the interstate highway standard). The structures are WCR 34 and WCR 38. Damage to these structures due to substandard vertical clearance could occur by the larger commercial vehicles using I-25.

1.5.3.2 PAVEMENT

CDOT data shows approximately 60 percent of the pavement on I-25 between SH 7 and SH 1 is rated as either "fair" (sufficient or adequate) or "poor" (less than adequate) and has a service life of less than 11 years remaining. The worst segment along I-25 is between CR 34 and US 34, which is rated "poor" by CDOT throughout its length. By year 2030, it is anticipated that the pavement along I-25 on the roadway segment between CR 34 and CR 50 would need to be replaced due to deficient conditions.

1 **1.5.3.3 DRAINAGE**

2 Most of the existing drainage structures along I-25 were built during the 1960s. At that
3 time, the adjacent areas were rural, and flood damage was limited to agricultural land. The
4 sizes of many of these drainage structures were based on limited rainfall data for what was
5 estimated to be a 25- or 50-year storm event. The 100-year storm is now used for drainage
6 design in urbanized areas and for floodplains under the jurisdiction of the Federal
7 Emergency Management Agency (FEMA). Many of the existing drainage structures
8 constrict stormwater flows, cause flooding, and overtopping of the adjacent highways. In
9 order to conform to newer criteria and control flooding, most drainage structures along I-25
10 should be replaced with a larger structure.

11 There are no facilities in place along I-25 to treat runoff from paved areas, except for the
12 newly constructed facilities between SH 52 and SH 119. Prior to 2001, CDOT and many
13 municipalities were not required to treat runoff from paved areas. CDOT now has a
14 municipal separate storm sewer system (MS4) permit from the Colorado Department of
15 Public Health and Environment (CDPHE). This permit requires CDOT to implement a
16 program to reduce the discharge of pollutants by installing permanent facilities.

17 **1.5.4 Highway and Transit Modal Alternatives and**
18 **Interrelationships**

19 Alternative modes of travel are very limited in northern Colorado and between northern
20 Colorado and the Denver Metro Area. In 1999, when the TAFS was being conducted,
21 residents of northern Colorado were asked to complete a transportation survey (Kimley-
22 Horn and Associates, 1999). Results of this survey indicated a strong desire by residents
23 to see regional transit options provided in northern Colorado. As evidenced through public
24 input throughout this project, the results of the 1999 survey remain valid.

25 In addition to a strong desire for transit options, there is a need for public transportation
26 due to the increasing cost of gas, the decreasing supply of energy, and the aging
27 population, which will likely result in more transit dependent individuals. In addition, the
28 increasing unreliability of auto travel points out a need for other transportation mode
29 alternatives.

30 **1.5.4.1 RAIL SERVICE**

31 Participants in the TAFS survey were asked to rate potential transportation solutions such as
32 bus service, highway widening, and rail service. On a scale of one to five with five being the
33 best, "rail service on I-25" received a 3.95, the highest score of all the potential solutions on
34 the survey. In addition, over 50 percent of the written comments received were in support of
35 providing transit service or suggested ways to move away from single-occupant vehicle use.
36 An electronic survey, conducted as part of the same study, found that 61 percent of
37 respondents felt that the best transportation policy option for Coloradans was rail, while only
38 18 percent favored widening I-25.

39 In recent public opinion surveys conducted for NFRMPO (ETC Institute, 2002, 2005),
40 44 percent of respondents stated that they would like to see their tax dollars spent on
41 providing commuter rail service between the northern Colorado communities and Denver.
42 This option rated higher than any other improvement listed on the questionnaire.

1 **1.5.4.2 BUS SERVICE**

2 There is very little intra-regional (such as Loveland to Greeley) and no inter-regional
3 (Fort Collins to Denver) public transit service serving the I-25 corridor. Existing public-transit
4 service in northern Colorado is essentially limited to service within the individual
5 communities. Fort Collins, Greeley, and Loveland each operate fixed-route and demand
6 responsive service in their communities. FoxTrot is an intercity service connecting Loveland
7 and Fort Collins. The Weld County Mini-Bus program provides connections between Weld
8 County communities and Boulder, Fort Collins, Fort Morgan, and Loveland. The Town of
9 Berthoud operates a demand responsive service that operates in the Berthoud Fire District.
10 This service also connects to Longmont and Loveland. The Regional Transportation District
11 (RTD) provides bus service from Longmont to Boulder or Denver or from communities south
12 of SH 66 to Denver. The NFRMPO Household Survey and the Front Range Commuter Bus
13 study both indicate that there is a demand for transit service connecting the North Front
14 Range communities to each other and to the Denver Metro Area.

15 Private bus operators (such as Greyhound) provide limited service connecting northern
16 Colorado to the Denver Metro Area. However, these trips are not scheduled around a typical
17 commuter schedule.

18 **1.5.4.3 VANPOOLS**

19 The NFRMPO operates a vanpool program that provides trips between Greeley, Fort Collins,
20 and Loveland and to the Denver Metro Area. In July 2006, there were 64 vanpool routes in
21 the program. Nearly 50 vans travel between the northern Colorado communities and the
22 Denver Metro Area. Other vans travel within the northern region or from the Denver Metro
23 Area to northern Colorado. Each week, NFRMPO responds to about 50 calls from residents
24 interested in participating in the vanpool program and estimates that there is a demand for
25 150 vans. Almost all of these calls come from people traveling to the Denver Metro Area.
26 The level of interest in this service indicates in part that there is an unmet demand for
27 alternative modes of inter-regional travel in the region.

28 **1.5.4.4 CARPOOLS**

29 The NFRMPO also operates an automated ride matching service on the NFRMPO web site.
30 In the first few months of 2005, interest in ride sharing increased by about 400 percent over
31 demand estimates made toward the end of 2004. Much of this was attributed to the increase
32 in gas prices that occurred during that same period.

33 A number of well-utilized carpool lots are located along I-25. A survey of these lots was
34 conducted for CDOT Region 4 and also for the *Front Range Commuter Bus Study*
35 (TransitPlus and FHU, 2003). Both studies showed that the 250 parking spaces located
36 between SH 60 and SH 392 were approximately 85 percent occupied. The parking lots
37 located along the south end of the corridor are not as well utilized, but demand for all of
38 these lots is expected to increase as population and employment in the area continues to
39 grow.

1.6 RELATIONSHIP TO THE TRANSPORTATION PLANNING PROCESS

A number of communities in the regional study area have developed transportation plans that recommend transportation improvements to accommodate the travel needs of their communities now and in the future. The three transportation planning regions (TPRs) in the regional study area coordinate the efforts of these local communities to create a comprehensive, fiscally-constrained, transportation plan for each region. The NFRMPO coordinates the planning efforts of the urban area including Fort Collins, Greeley, and Loveland. UFRRPC provides the same type of planning coordination efforts for rural portions of Larimer, Morgan, and Weld counties that are not part of NFRMPO. DRCOG coordinates efforts in the Denver Metro Area. **Figure 1-4** illustrates the three TPRs in the regional study area. The Statewide Transportation Plan (CDOT, 2005a) melds the Colorado Transportation Commission policy with the goals and recommendations from each of the state's TPRs. Each document identifies a vision for the area's transportation network and establishes goals and policies for implementation of the transportation vision.

Relevant regional and statewide transportation planning goals and policies are described briefly below.

1.6.1 North Front Range

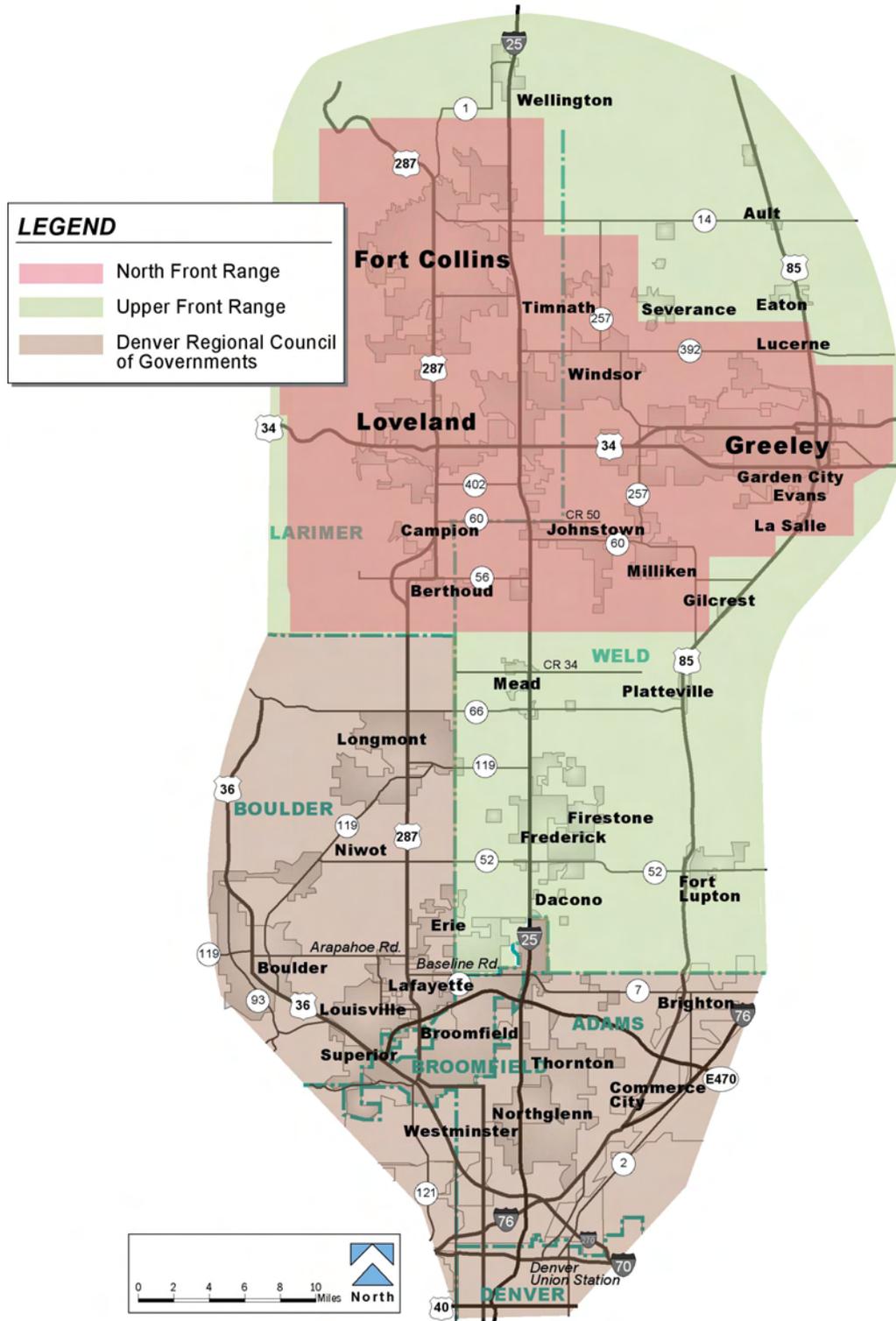
NFRMPO adopted the *North Front Range Year 2030 Regional Transportation Plan (RTP)* in October 2004 (NFRMPO, 2004). The North Front Range RTP's value statement reads: "Recognizing the unique character of the region, we will provide an environmentally, socially, and economically sensitive multi-modal transportation system for all users that protects and enhances the region's quality of life." Other goals identified in the RTP that are relevant to the North I-25 EIS are: provide a safe, balanced multi-modal system; foster regional coordination; minimize congestion; minimize environmental impacts; and provide a positive economic impact. The NFRMPO 2035 RTP identifies the I-25 corridor as one of the top three priority corridors.

1.6.2 Upper Front Range

UFRRPC adopted the *Upper Front Range Year 2030 Regional Transportation Plan* in November 2004 (FHU, 2004). The Upper Front Range RTP's stated goal is: "To provide a multi-modal transportation system that maximizes public input, fosters cooperation, and meets the transportation needs of all travelers in the Upper Front Range." The plan also states that UFRRPC would like to include I-25 in any future strategic funding programs. UFRRPC has adopted a number of policy directives which support passenger rail service and expansion and coordination of bus transit service in the Upper Front Range.

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Figure 1-4 Transportation Planning Region Boundaries



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2 **1.6.3 Denver Area**

3 DRCOG adopted the year *2030 Metro Vision RTP* in January 2005. DRCOG's Metro Vision
4 plan includes plans for three regional transit lines in the regional study area. The three regional
5 transit lines are: (1) the proposed North Metro rail line from downtown Denver to SH 7 east of
6 I-25, (2) the US 36 corridor that would include Bus Rapid Transit (BRT) along US 36, and (3)
7 the Northwest Rail corridor that includes 38 miles of commuter rail between downtown Denver,
8 Longmont, and Boulder. The plan also includes widening I-25 between US 36 and Thornton
9 Parkway with one additional general purpose lane in each direction.

10 **1.6.4 Statewide Plan**

11 The Colorado Transportation Commission adopted the year *2030 Statewide Transportation*
12 *Plan* in February 2005. The report states that the mission of the Transportation Commission is
13 to: "Provide the best multi-modal transportation system for Colorado that most effectively
14 moves people, goods, and information." The mission statement was expanded to include the
15 following: "Enhance the quality of life and the environment of the citizens of Colorado by
16 creating an integrated transportation system that focuses on moving people and goods by
17 offering convenient linkages among modal choices." The plan identifies a corridor vision for
18 I-25 with the following goals:

- 19 ▶ Increase travel reliability and improve mobility
- 20 ▶ Reduce fatalities, injuries, and property-damage-only crash rates
- 21 ▶ Preserve the existing transportation system
- 22 ▶ Accommodate growth in freight transport
- 23 ▶ Optimize the transportation system through intelligent transportation systems (ITS) and
- 24 travel demand management measures

1.7 CONCURRENT CORRIDOR STUDIES

A number of other corridor studies in the regional study area are being conducted simultaneously with the North I-25 EIS, or have been recently completed. Coordination with each of these efforts has been occurring throughout the project. A summary of each of the other corridor studies that occurred or is occurring in the regional study area is provided below. **Figure 1-5** shows the locations of other corridor studies within the regional study area.

1.7.1 US 287 Environmental Assessment

FHWA, in conjunction with CDOT, completed an EA for US 287 north of Fort Collins, beginning at SH 1 and extending two miles northwest. The project addressed mobility and safety issues along this stretch of highway. This EA and FONSI are completed and design is underway.

1.7.2 US 287 Environmental Overview Study

CDOT completed an environmental overview study (EOS) for US 287 from 29th Street in Loveland to Harmony Road in Fort Collins. This study evaluated corridor route location alternatives. The No-Action Alternative was defined as the existing transportation system (including transportation improvements currently under construction) plus committed projects. As part of CDOT's comprehensive transportation planning process that integrates multi-modal transportation, land use, and environmental considerations, this EOS analyzed the need for transportation improvements and identified environmentally sensitive sites along the corridor in order to implement and coordinate a comprehensive transportation network.

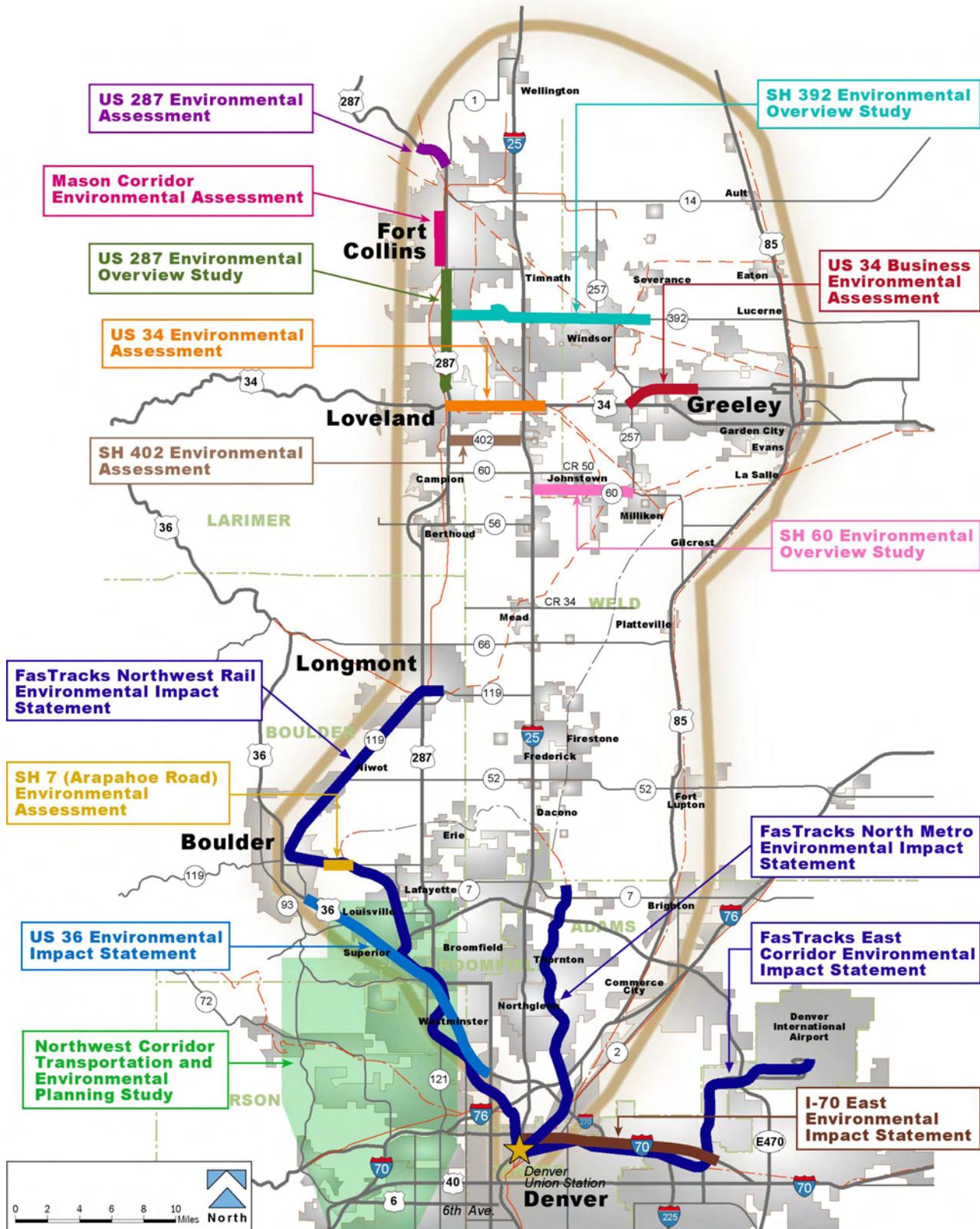
CDOT initiated this study because of development pressure along the corridor. CDOT worked with local agencies, the public, stakeholders, and resource agencies to develop a highway footprint that addresses future improvements that may be financed through local agencies. This EOS is completed and awaiting signatures on the Access Control Plan.

1.7.3 SH 392 Environmental Overview Study

As part of CDOT's comprehensive transportation planning process that integrates multi-modal transportation, land use, and environmental considerations, this EOS analyzed the need for transportation improvements along SH 392 from US 287 to east of Windsor in order to implement and coordinate a comprehensive transportation network.

CDOT initiated this study because of development pressure along the corridor. The purpose for studying SH 392 from US 287 to east of Windsor is to accommodate future growth and development in south Fort Collins and Windsor and ensure mobility given present and predicted future traffic conditions. CDOT is working with the local agencies, the public, stakeholders, and resource agencies to develop a highway footprint that addresses future improvements that may be financed through local agencies. This EOS is completed and awaiting approval on the Access Control Plan.

1 Figure 1-5 Concurrent Corridor Studies



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1.7.4 US 34 Environmental Assessment

FHWA, in conjunction with CDOT, initiated an EA for improvements to US 34 between Garfield Avenue and just east of Larimer CR 3. The EA addresses future mobility, safety, and access. The EA does not address interchange improvements at I-25 and US 34. Planned improvements include multi-modal transportation and widening the highway from four to six lanes. This EA and FONSI are complete.

1.7.5 US 34 Business Environmental Assessment

FHWA, in conjunction with CDOT, initiated an EA for transportation improvements along US 34 Business Route between 71st Avenue and SH 257. The purpose of the project is to alleviate congestion, both current and future; improve safety; improve access; and connect this segment of the highway with four lanes that currently exist on the western and eastern boundary of the project. This EA and FONSI are complete and design is underway.

1.7.6 SH 60 Environmental Overview Study

As part of CDOT's comprehensive transportation planning process that integrates multi-modal transportation, land use, and environmental considerations, this EOS analyzed the need for transportation improvements and identify environmentally sensitive sites along SH 60 between I-25 and SH 257 in order to implement and coordinate a comprehensive transportation network.

CDOT is initiating this study because of development pressure along the corridor. The purpose and need for studying SH 60 from I-25 to SH 257 is to ensure mobility especially given recent annexations by Milliken and Johnstown and the amount and rate of ongoing and planned developments in those areas. CDOT will work with local agencies, the public, stakeholders, and resource agencies to develop a highway footprint that addresses future improvements that may be financed through local agencies. This EOS is complete.

1.7.7 SH 402 Environmental Assessment

FHWA and CDOT conducted an EA and subsequently approved a FONSI for improvements along SH 402 from US 287 to the I-25 interchange. The purpose of the project was to improve travel and safety on SH 402 within the study area. The difficulty experienced by drivers making a left turn to or from SH 402 contributes to this need. As traffic volumes increase, current mobility and safety issues will become worse if improvements are not made to the existing roadway.

1.7.8 SH 7 (Arapahoe Road) Environmental Assessment

The SH 7 EA is evaluating transportation alternatives between Cherryvale Road and 75th Street. This is a major transportation corridor which serves the cities of Boulder, Erie, Lafayette, and Louisville, as well as Boulder County. This corridor has experienced tremendous growth over the last few years and motorists are encountering steadily increasing congestion. FHWA is conducting the EA in cooperation with CDOT and the local agencies.

1.7.9 US 36 Environmental Impact Statement

The US 36 Mobility Partnership is preparing an EIS to identify multi-modal transportation improvements between Denver and Boulder. Bus improvements associated with this EIS are in the FasTracks plan. The EIS study will develop and evaluate highway and BRT alternatives developed in the MIS and consider all other reasonable alternatives, including the No-Action Alternative, to ensure maximum multi-modal capacity for the corridor. The study area is roughly 18 miles of US 36 between I-25 and the Table Mesa park-n-Ride in Boulder. The study area incorporates a number of communities in the northwest metropolitan Denver area, including the cities of Boulder, Broomfield, Denver, Lafayette, Louisville, Superior, and Westminster, as well as unincorporated Boulder County. The Draft EIS was released for public review in August 2007.

1.7.10 Northwest Corridor Transportation and Environmental Planning Study

CDOT is looking at long-range regional transportation needs in the northwest Denver Metro Area. By the year 2030, the Denver Metro Area, including the northwest region, will have an estimated population of approximately 3.2 million people. That is an increase of approximately 900,000 residents. Such growth demonstrates the need for the continuing study of future mobility in and through the region. CDOT's evaluation is being documented in the Northwest Corridor Transportation and Environmental Planning Study.

1.7.11 I-70 East Environmental Impact Statement

The I-70 East EIS is evaluating highway improvements for the I-70 corridor between I-25 and Tower Road. The EIS will decide which transportation projects, if any, will be built to improve safety and mobility, and address congestion in the corridor. The I-70 East EIS includes an extensive community involvement process. It will focus on how proposed improvements would impact the community and the environment. FHWA is conducting the EIS in cooperation with CDOT and the City and County of Denver. This EIS is evaluating additional general purpose lanes and additional tolled lanes.

1.7.12 FasTracks

FasTracks is RTD's 12-year comprehensive plan to build and operate 119 miles of new rail line, to expand and improve bus service, and to add 21,000 new park-n-Ride spaces throughout the Denver Metro Area. FasTracks will cost \$ 6.1 billion to construct and will be funded by a combination of a region-wide sales tax, federal funds, and local and private contributions. The four cent per \$10 purchase sales tax went into effect on January 1, 2005. The project schedule for FasTracks is shown in **Table 1-4**.

1 **Table 1-4 RTD FasTracks Project Schedule**

Year	Corridor Facilities
2013	Union Station West Corridor Light Rail
2014	Northwest Commuter Rail East Corridor Commuter Rail Central Corridor Light Rail Extension
2015	North Metro Corridor Commuter Rail I-225 Corridor Light Rail Gold Line Commuter Rail
2016	Southwest Corridor Light Rail Extension US 36 Corridor BRT Southeast Corridor Light Rail Extension

2 Four of these projects are adjacent to the northern front range communities. These are
3 described in the following sections in more detail.

4 **1.7.13 Northwest Rail Environmental Assessment**

5 This EA is being conducted by RTD (for the U. S. Army Corps of Engineers [USACE]) to
6 evaluate passenger rail alignments from Longmont to Denver. These improvements are in the
7 FasTracks plan. Potential improvements include a 38.1-mile commuter rail line along the
8 existing railroad right-of-way between Denver Union Station in downtown Denver and
9 Longmont (through Boulder). Like the US 36 EIS, the study area incorporates a number of
10 communities in the northwest metropolitan Denver area, including the cities of Boulder,
11 Broomfield, Denver, Lafayette, Louisville, Superior, and Westminster, as well as
12 unincorporated Boulder County.

13 **1.7.14 North Metro Environmental Impact Statement**

14 RTD is conducting an EIS of the 18-mile North Metro corridor that extends from Denver Union
15 Station in downtown Denver north to 160th Avenue (SH 7). The commuter rail line (which is in
16 the FasTracks plan) generally follows the UPRR right-of-way to the east of I-25. The North
17 Metro Corridor greatly expands transit access and service to the north metro area between I-25
18 and I-76. This area is one of the fastest growing areas in the Denver Metro Area and is
19 expected to more than double in population and employment by 2025.

20 **1.7.15 East Corridor Environmental Impact Statement**

21 The East Corridor EIS is evaluating high-capacity, fixed-guideway transit alternatives between
22 downtown Denver and Denver International Airport (DIA). These improvements are in the
23 FasTracks plan. The EIS will identify the benefits and impacts associated with the various
24 alternatives being evaluated in the corridor. The East Corridor EIS includes an extensive
25 community involvement process. FTA is conducting the study in cooperation with RTD, and the
26 City and County of Denver. RTD has submitted the project for consideration for New Starts
27 funding from FTA.

1.7.16 Denver Union Station Environmental Impact Statement

A Final EIS is now being completed to evaluate the transportation recommendations of Phase 1 of the approved Master Plan for Denver Union Station. The Station currently offers RTD light rail service, bus service, and passenger service by AMTRAK. Through implementation of the Master Plan, Denver Union Station will be transformed into a transportation hub serving the needs of residents, tourists, and commuters.

1.7.17 Colorado Rail Relocation Implementation Study

CDOT and the two Class One Railroads operating in Colorado, the BNSF and the UPRR, have been holding discussions regarding the possible relocation of rail infrastructure east, away from the Front Range. These preliminary efforts between CDOT and the railroads is known as the "Colorado Railroad Partnership Project" or alternatively as "Colorado's Safety and Mobility Partnership Project," and provide the backdrop for the current study. The purpose of this public benefits and costs study is to identify public benefits, drawbacks and costs associated with a possible partnership project between CDOT, BNSF, UPRR, and other public entities. This will allow the parties to better assess the type and extent of their potential financial participation. The study's ultimate goal is to investigate whether there are likely to be sufficient benefits for the citizens of Colorado to warrant consideration of the investment of public dollars in the proposed railroad project. The study is in the process of being finalized and, pending CDOT's review and approval, findings and recommendations will be published.

1.7.18 Colorado Tolling Enterprise

The Colorado Tolling Enterprise (CTE) was created by CDOT to finance, build, operate, and maintain toll highways. CTE was made possible by legislation that enables CDOT and the state Transportation Commission to issue bonds for new or additional highway capacity toll projects throughout Colorado. The non-profit CTE provides a mechanism for funding capacity improvements. A recent study by CTE evaluated the feasibility of creating a tolling facility along I-25. Two scenarios were evaluated and found to be potentially feasible. The first includes three general purpose lanes plus two express toll lanes in each direction from 120th to SH 66. From 120th to US 36, I-25 would have three general purpose lanes in each direction and two reversible express toll lanes. The second scenario includes three general purpose lanes in each direction and a two-lane reversible express toll lane facility between SH 7 and US 36. These tolling alternatives were considered in this North I-25 Draft EIS.

1.7.19 Front Range Commuter Rail Study

Front Range Commuter Rail is a Colorado non-profit corporation promoting development of high-speed passenger rail service connecting Wyoming, Colorado, New Mexico, and Utah. In 2007, the Front Range Rail group created an Intergovernmental Agreement Authority called Rocky Mountain Rail Authority (RMRA) to receive the monies from CDOT in order to complete a feasibility study for the Federal Railroad Administration (FRA). The feasibility study is expected to begin in 2008. RMRA membership is made up of the local governments served by the proposed statewide passenger rail system. In addition to the feasibility study, the group is proposing a November 2008 ballot issue to establish a statewide district/authority to fund construction and operation of the proposed rail line.

1.7.20 Mason Corridor Environmental Assessment

This EA is being conducted by the City of Fort Collins (for the FTA) to evaluate bus rapid transit along the Mason Corridor from Cherry Street to Harmony Road in Fort Collins. The Mason Corridor includes a new bicycle and pedestrian trail, as well as a planned bus rapid transit system in a fixed guideway for the majority of the corridor. The corridor is centered along Burlington Northern and Santa Fe Railway property, a few hundred feet west of College Avenue (US 287).

In the fall of 2007, the Mason Corridor project was recommended for 2009 funding in the FTA New Starts report.

1.8 RELATIONSHIP TO NEPA

This EIS has been prepared pursuant to the Council on Environmental Quality (CEQ) regulations implementing NEPA, FHWA, and FTA environmental impact and related procedures (23 Code of Federal Regulations [CFR] 771), FHWA Technical Advisory T6640.8A, and other applicable laws. It details the process through which transportation alternatives have been developed; discloses foreseeable social, economic, and environmental impacts resulting from the project; provides findings for public review; and outlines potential mitigation options. The lead federal agencies, FHWA and FTA, have signature authority on the Record of Decision (ROD). CDOT is preparing this EIS under the guidance of the lead agencies.

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