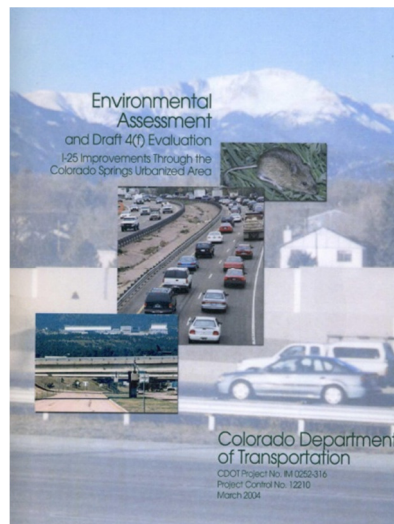




## **RE-EVALUATION, Mileposts 149 to 161**

### **Interstate 25 Improvements through the Colorado Springs Area Environmental Assessment**



## **TRANSPORTATION RESOURCES TECHNICAL MEMO**

February 2012

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CDOT Region 2

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## **Introduction**

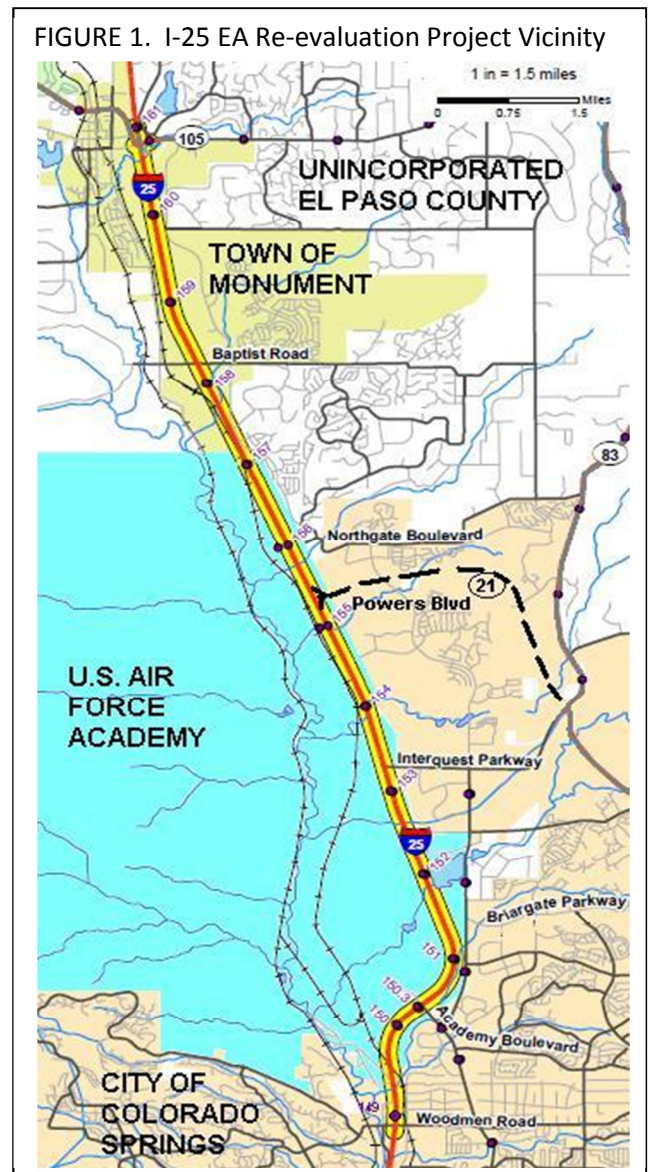
The Colorado Department of Transportation (CDOT) has prepared this technical memorandum to update findings on air quality described in the original 2004 I-25 Environmental Assessment (EA) with regard to the portion of the Proposed Action between Woodmen Road (Exit 149) in Colorado Springs and State Highway 105 in Monument (Exit 161). The proposed action is to relieve existing traffic congestion and address project future congestion on I-25 within the Colorado Springs urbanized area.

The I-25 EA originally evaluated impacts for the widening of I-25 between South Academy Boulevard (Exit 135) and SH 105, together with reconstruction of various I-25 interchanges within this corridor. Page 2-10 of the EA stated that, “Consistent with projected traffic demand in the I-25 corridor, the conceptual phasing for the Proposed Action calls for:

- (1) initially six-laning through central Colorado Springs, then
- (2) six-laning in northern El Paso County, and finally
- (3) adding HOV [High-Occupancy Vehicle] lanes through central Colorado Springs and widening to six lanes south to South Academy Boulevard.”

The first of these conceptual phases was undertaken in central Colorado Springs, completed in 2007. The so-called COSMIX project resulted in 12 miles of six-lane freeway, between South Circle Drive (Exit 138) and North Academy Boulevard (Exit 150). It included major reconstruction at several interchanges, notably not including the Cimarron Street interchange (Exit 141) or the Fillmore Street interchange (Exit 145). Additional funding will be needed to complete Phase 1.

For the year 2012, CDOT has received funding to begin the second phase, meaning to widen I-25 to six lanes in northern El Paso County, within the area shown in Figure 1. The EA calls for eventually widening I-25 all the way to SH105. Total funding for this project is yet to be determined. Currently enough is available to widen I-25 from Woodmen Rd to Interquest (Exit 153). Nevertheless, to be prepared for possible additional funding being available to complete the widening to SH 105 with this project or available in the near future, CDOT’s current EA re-evaluation effort is covering all Phase 2 improvements. Therefore, the study area for this re-evaluation extends northward all the way to Monument.

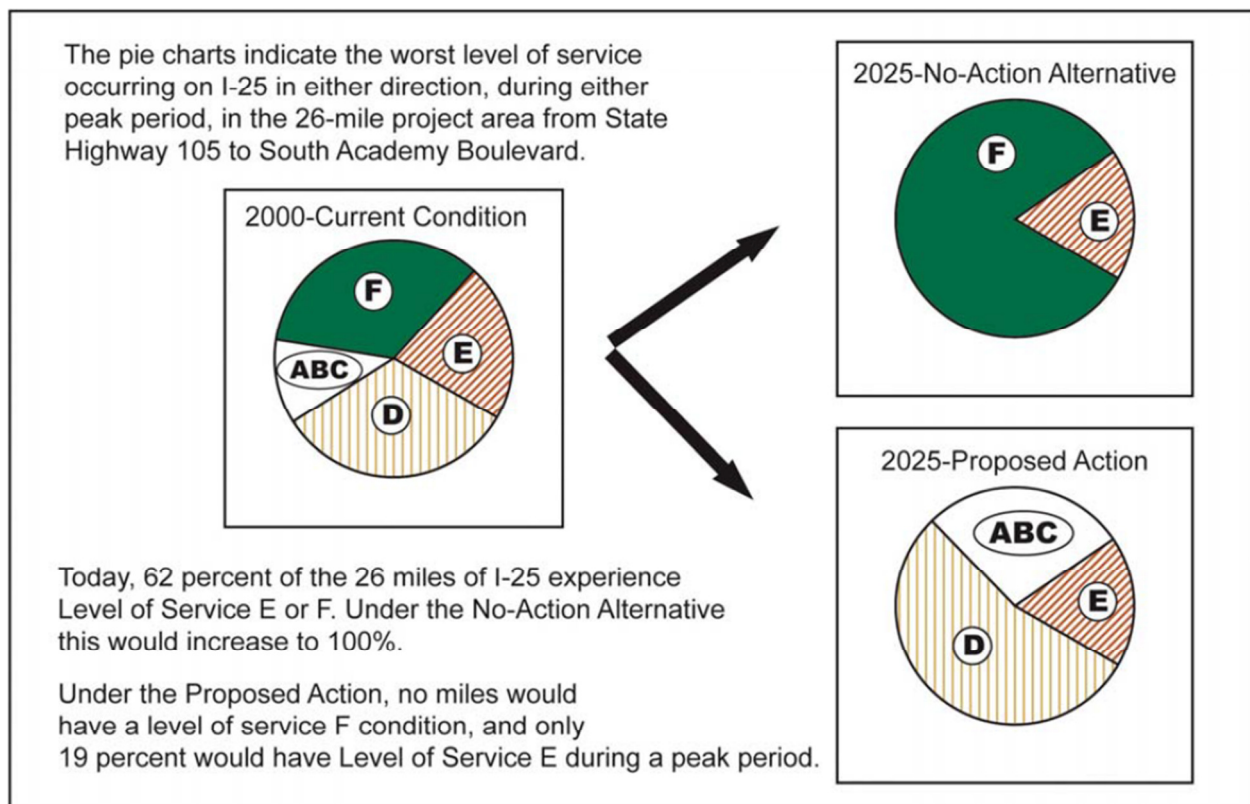


The I-25 EA included a new connection with Powers Boulevard (now State Highway 21), following SH 21 eastward to just past the Powers Boulevard/Voyager Boulevard interchange. The design and analysis of this connection in the I-25 EA superseded what was proposed earlier in the North Powers Boulevard EA that was approved in 1999. The current EA re-evaluation also includes this portion of Powers Boulevard from I-25 to just east of Voyager Parkway.

**Summary of the 2004 EA Transportation Resource Impacts and Mitigation**

The I-25 EA reported that four-lane I-25, opened in 1960, had reached its capacity by the year 2000 after intervening growth had increased the region’s population by 100,000 additional residents each decade. This rate of growth was projected to continue into the future, to 2025, adding an additional 250,000 residents. Thus it was projected that I-25 congestion would expand to include more miles of freeway and more hours of the day. The Proposed Action would widen I-25 in phases, eventually to 8 lanes (four each direction) through central Colorado Springs and to six lanes in northern El Paso County. Figure 2, below, from the EA, indicates the existing and projected I-25 congestion conditions as foreseen at that time.

FIGURE 2. “Percentage of I-25 Miles Experiencing Traffic Congested Levels of Service During Any Peak Period” [from the 2004 I-25 EA]



As recommended in the EA, the third phase of the Proposed Action would add the seventh and eighth lanes through central Colorado Springs, reserved for use by High Occupancy Vehicles (HOVs) during peak periods. This would represent the region’s first and only planned application of HOV lanes. It would succeed if used by at least 800 vehicles per hour, thus carrying at least 1,600 people.

## **Changes to the Project that Would Affect Transportation Resources**

Based on the current design, CDOT has not proposed to change the project in any way that would affect transportation resources differently from what was described in the EA.

## **Changes in Analysis Data, Analysis Methods or Applicable Regulations**

Several changes in applicable data and regulations related to transportation resources have occurred since the EA was prepared. These are discussed below.

Federal transportation legislation: SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Public Law 109-59) was signed into law by President George W. Bush on August 10, 2005. This was the funding and authorization bill that governs United States federal surface transportation spending. Technically, this law expired as of September 30, 2009. Congress has renewed its funding formulas several times since its expiration date. Congress is expected to begin working on a replacement bill for the next six-year period during its 2012 session. Highway project planning and funding procedures applicable to the I-25 Proposed Action will be governed by FHWA regulations pursuant to SAFETEA-LU or its successor.

Regional transportation plan (RTP): The I-25 EA was prepared when the current, adopted transportation plan for the Pikes Peak region was Destination 2025, for which the long-range planning horizon was the year 2025. Since then, the Pikes Peak Area Council of Governments (PPACG) has updated its regional plan several times. The 2030 RTP was adopted in October 2004; the Moving Forward 2035 RTP was adopted in 2008; and most recently, the 2035 Moving Forward Update was adopted in January 2012. The RTP identifies the region's transportation needs and funding priorities. Each of these plans has included full funding for the I-25 Proposed Action and has identified it as a high priority project.

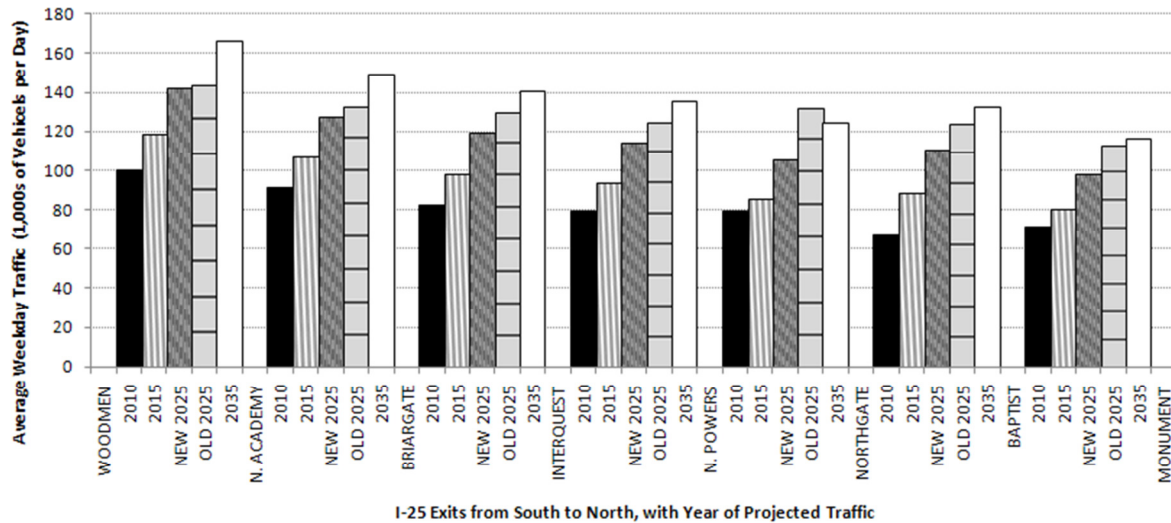
Latest transportation planning assumptions: Each iteration of a Regional Transportation Plan (see above) or a short-term regional Transportation Improvement Program is based on the latest available transportation planning assumptions, including but not limited to existing and projected population, land use, existing transportation facilities and services. All of these assumptions are incorporated into PPACG's regional transportation model. The current model, called VISUM, and current model input assumptions are all different than what was used for preparation of the I-25 EA that was approved by CDOT and FHWA in 2004.

For the EA re-evaluation, updated I-25 traffic volumes were developed. These are shown in Figure 3. The columns shaded black represent 2010 traffic count data available online at CDOT's website. The 2015 and 2035 columns were developed based on the PPACG model runs provided in 2012, for the *2035 Moving Forward Update*, which includes the I-25 Proposed Action. The new 2025 volumes represent interpolation of the 2015 and 2035 projections.

Comparing the new 2025 interpolated projections to the old 2025 projections from the 2025 EA, it can be seen that the new 2025 projections are slightly lower, which is consistent with the above discussion about PPACG now forecasting less regional VMT than it did in the prior regional plan. The highest projected volumes in the figure are the projections for 2035, reflecting ten years of additional regional growth beyond what was considered in PPACG's *Destination 2025* RTP.



FIGURE 3. Existing and Projected Traffic on I-25 in the Re-evaluation Area



Major capacity improvements called the COSMIX project (Colorado Springs Metropolitan Interstate Expansion) were completed in 2007. Widening I-25 to six lanes through central Colorado Springs has greatly relieved congestion in this area. However, during the evening peak period, there is now a very clear bottleneck where the three northbound lanes narrow down to two. Not only is the two-lane northbound section of I-25 congested, but this congestion backs up traffic into the three-lane section that was provided by COSMIX.

I-25 Interchanges: A table in the I-25 EA reported the chronology of I-25 interchange construction. This table has been updated as reflected in Table 1.

TABLE 1. Chronology of I-25 Interchange Projects

Exit	Interchange	Year Built	Year Added	Year Rebuilt	2012 Comments
161	SH105 (Monument)	1959		2004	
158	Baptist	1963		2007	Baptist Rd Rural Transp. Authority
156	North Gate	1959			Part of the I-25 Proposed Action
155	Future Powers Blvd.	N/A	N/A		Part of the I-25 Proposed Action
153	Interquest		2000		
151	Briargate		1987		
150	N. Academy	1958		1997	
149	Woodmen	1960		2003	
148B	Corporate Center		1983		Eliminated as part of COSMIX project, 2007
148A	N. Nevada	1959		2007	COSMIX improvement
147	Garden of the Gods	1959		1988	
146	Fillmore	1959			Part of the I-25 Proposed Action
144	Fontanero	1959		1999	
143	Uintah	1959		1999	
142	Bijou	1959		2007	COSMIX improvement
141	Cimarron	1959			New design proposed by US24 EA
140	S. Nevada/Tejon	1959		2003	
139	MLK/US 24 Bypass		1990		
138	S. Circle	1959		2000	
135	S. Academy		1971		

Since the EA was completed in 2004, several interchanges have been reconstructed, as part of the COSMIX project (I-25 Proposed Action, Phase 1) and Baptist Road improvements. The table provides a useful understanding of the age of the I-25 interchanges. The oldest interchanges generally are likely to have aging structures and were not designed according to modern standards. As a general rule of thumb, it can be assumed that the “design life” for an interchange is about 50 years. Currently, the oldest remaining interchanges on I-25 through Colorado Springs are at Northgate (Exit 156), Fillmore (Exit 146) and Cimarron (Exit 141).

Regional public transportation/PPRTA/Mountain Metro Transit: The I-25 EA was approved in 2004. In November of that year, the Pikes Peak Rural Transportation Authority (PPRTA) was established by the voters of unincorporated El Paso County, the Cities of Colorado Springs and Manitou Springs, and the Town of Green Mountain Falls. The citizens gave the PPRTA the authority to levy a one-cent sales and use tax to be used for three elements: 55% for specific capital projects; 35% for maintenance projects; and 10% for metro transit improvements. This was the first time the region had a dedicated revenue source for transit, giving rise to optimism that the regional public transportation system could be expanded. In fact, Springs Transit changed its name to Mountain Metro Transit and did provide expanded service for several years. However, most of these gains were wiped out as the national economic slowdown and recession led to major budget cuts by the end of the decade. The PPRTA sales tax raises roughly \$60 million annually (thus, \$6 million for transit), but will expire in 2014. Plans are underway to take a proposed tax extension to a public vote prior to 2014.

FREX bus service between Colorado Springs and Denver: The only public transit buses using I-25 in northern El Paso County are those of the Front Range Express interregional service between Colorado Springs and Denver. The service began in October 2004, initially funded by grants designed to reduce pollution and highway congestion. FREX grew to a fleet of 19 buses but due to the economic downturn, nine of them were sold off to help pay to keep the service in operation. The current fares range from \$11 each way for a single ticket to just over \$8 each way with a discounted 40-ride ticket purchase. As of March 2012, the service offers 16 trips each direction (northbound and southbound). During peak periods, this equates to four buses using I-25, two in each direction.

Park and Ride Lots: Future use of I-25 by carpools and buses would be supported by the availability of convenient park-and-ride lots. Since the time that the I-25 EA was approved in 2004, existing park-and-ride lots have been expanded at Monument (Exit 161) and Woodmen Road (Exit 149, new lot opening in 2012), and new lots were constructed at Nevada/Tejon (Exit 140) and in Fountain (Exit 128). Current regional plans call for adding a new park-and-ride lot at Northgate Road (Exit 156) in the future.

### **Conclusion**

The condition of transportation resources in the Pikes Peak Region remains largely consistent with the information that was presented in the I-25 EA. I-25 remains the backbone of the region’s roadway network. Current projections for future I-25 traffic validate the needs previously identified.

The EA reported that I-25 congestion relief was needed immediately through central Colorado Springs, and this need was addressed with COSMIX improvements as part of Phase 1 of the I-25 Proposed Action, except that the needed reconstruction of the Fillmore and Cimarron interchanges has not yet occurred.

The EA reported that widening would be needed soon in northern El Paso County. In the eight years since the EA was approved, that need has now been realized. Phase 2 improvements are clearly needed at this time.

The EA's recommended third phase of the Proposed Action, needed by 2025, includes additional widening through central Colorado Springs, with the added lanes reserved for High Occupancy Vehicles during peak periods. The HOV lanes were recommended for 12 miles between the Martin Luther King/US 24 Bypass (Exit 139) and Briargate Parkway (Exit 151). There appears to be no reason to accelerate Phase 3 of the I-25 Proposed Action at this time.

TABLE 2. Summary of Previously and Currently Identified Impacts and Mitigation

EA 2004 – No-Action Alternative	EA 2004 – Impacts of Proposed Action	EA 2004 – Mitigation	2012 – What Has Changed	Re-evaluation 2012 – No Action	Re-evaluation 2012 – Impacts of Proposed Action	Re-evaluation 2012 – Mitigation
<p>Increased congestion would increase travel times from today's (circa 2000 to 2003) 35-minute peak commute to 56 minutes in 2025.</p> <p>Level of Service E or F would last for 10 hours per day in 2025 as compared to today's 4 hours of poor service in 2000 to 2003.</p>	<p>The extent and duration of congested conditions on I-25 would be reduced.</p> <p>There would be only isolated segments of Level of Service E and no segments of Level of Service F over the 26-mile I-25 highway.</p>	<p>No mitigation necessary.</p>	<p>Traffic flow on I-25 through central Colorado Springs has improved greatly as the result of the COSMIX project widening to six lanes between South Circle Drive (Exit 138) and Woodmen Road (Exit 149). Today (2012), due to regional growth, congestion routinely occurs between Woodmen Road and SH 105 in Monument (Exit 161).</p>	<p>Future traffic flow on I-25 would continue to deteriorate with continued regional growth and development. They would not reach the congestion level described in the EA because the first phase of the Proposed Action has been built.</p>	<p>No change to impacts identified in the EA.</p> <p>Remaining phases of the Proposed Action would have beneficial impacts on traffic flow.</p>	<p>No mitigation necessary. The impact of the Proposed Action on congestion would be beneficial.</p>
<p>Today (2000 to 2003), 16 of the 26 miles of I-25 in the study area have peak period congestion. In 2025, this would increase to 26 miles.</p>	<p>Buses and carpools using the Bus/ High Occupancy Vehicle lane would experience a speed advantage and travel time savings of up to one minute per mile traveled in the special lanes.</p>	<p>No mitigation necessary.</p>	<p>Regional transit services have been scaled back due to tight municipal budgets.</p>	<p>No HOV lanes are planned in the region under the No-Action Alternative.</p>	<p>No change to impacts identified in the EA.</p> <p>HOV lanes are still planned as part of the final, third phase of the Proposed Action, not now as CDOT begins Phase 2.</p>	<p>No mitigation necessary.</p>
<p>Buses and carpools would continue to operate in mixed, congested traffic. Use of alternatives to single occupant commuting could increase in response to increased congestion.</p>	<p>Roadway construction activities would necessitate periodic shifting of traffic lanes and ramps, affect traffic and access, and would cause temporary traffic disruption at varying times and locations throughout the project.</p>	<p>The existing number of lanes will be maintained during construction. Construction phasing will be done to minimize the number of times that traffic must be diverted to other lanes. CDOT will provide the public with advance notice of any detours or closures.</p> <p>When lane closures are unavoidable, they will occur only at night or during off-peak hours, and not during planned special events.</p>	<p>No change in CDOT's approach to maintaining traffic during construction.</p>	<p>The No-Action Alternative would not result in construction-related traffic disruption, apart from routine maintenance operations.</p>	<p>No change to impacts identified in the EA.</p>	<p>No change to the mitigation previously identified in the EA.</p>



TABLE 2, continued. Summary of Previously and Currently Identified Impacts and Mitigation

EA 2004 – No-Action Alternative	EA 2004 – Impacts of Proposed Action	EA 2004 – Mitigation	2012 – What Has Changed	Re-evaluation 2012 – No Action	Re-evaluation 2012 – Impacts of Proposed Action	Re-evaluation 2012 – Mitigation
	Existing bus route #18 (Holland Park) may be impacted during construction at the Bijou and Fillmore interchanges.	CDOT will coordinate construction planning with the Transit Services staff with the City of Colorado Springs to ensure that bus service near construction sites is maintained.	<p>Due to system changes, the route that follows Chestnut Street through the Bijou and Fillmore interchanges is now Route #14, not #18.</p> <p>The Bijou Street interchange was reconstructed as part of the COSMIX project, completed in 2007. The Fillmore Street interchange has not yet been reconstructed. Some reconstruction at Fillmore may be undertaken soon by the City of Colorado Springs.</p>	The No-Action Alternative would not affect bus service, but the City's upcoming construction project at Fillmore interchange project may do so.	With the Proposed Action, interchange reconstruction at Fillmore may affect bus service, as was anticipated in the EA.	CDOT will coordinate with the transit provider, now called Mountain Metro Transit, to ensure that bus service near construction sites is maintained at Fillmore Street. (Note: This is not within the northern El Paso County re-evaluation area, but instead part of a future construction phase.)
	Existing transit stop amenities would be replaced and/or moved due to the new configurations of the Bijou and Fillmore interchanges.	Transit stop amenities will be replaced and/or moved to a safer location when needed after consultation with the Transit Services staff with the City of Colorado Springs.	The Bijou Street interchange was reconstructed as part of the COSMIX project, completed in 2007. The Fillmore Street interchange has not yet been reconstructed. Some reconstruction at Fillmore may be undertaken soon by the City of Colorado Springs, focusing on the western side, especially the intersection involving Chestnut Street.	The No-Action Alternative would not affect bus service, but the City's upcoming construction project at Fillmore interchange project may do so.	With the Proposed Action, interchange reconstruction at Fillmore may affect bus service, as was anticipated in the EA.	CDOT will coordinate with the transit provider, now called Mountain Metro Transit, Springs to ensure safe relocation of bus stops during and after Fillmore Street interchange reconstruction. (Note: This is not within the northern El Paso County re-evaluation area, but instead part of a future construction phase.)
	Construction activities in or near local businesses have the potential to result in loss of revenue for affected businesses due to potential access difficulties.	<p>Construction activities and effects will be minimized and mitigated using Best Management Practices.</p> <p>CDOT will maintain business access during construction and provide an extensive communications program with affected businesses to keep them informed of construction schedules.</p>	Most of the business impacts anticipated in the EA have already occurred during the COSMIX project.	No change. The No-Action Alternative would not have any temporary impacts to businesses near I-25.	Any remaining impacts to business access for the Proposed Action are likely to occur in the vicinity of the Fillmore Street interchange (Exit 145).	<p>No change. Construction activities and effects will be minimized and mitigated using Best Management Practices.</p> <p>CDOT will maintain business access during construction and provide an extensive communications program with affected businesses to keep them informed of construction schedules.</p>