

S Summary

The U.S. Highway 50 (U.S. 50) Tier 1 Environmental Impact Statement (EIS) is a 150-mile broad-scale transportation study from approximately the city of Pueblo, Colorado, to the vicinity of the Colorado-Kansas state line (see Figure S-1). The corridor traverses four counties and 10 municipalities (identified in Figure S-1), providing local and regional connections for the distribution of people, goods, and services through and beyond the Lower Arkansas Valley. The Federal Highway Administration (FHWA) and the Colorado Department of Transportation (CDOT) have identified the need to improve safety and mobility on this highway.

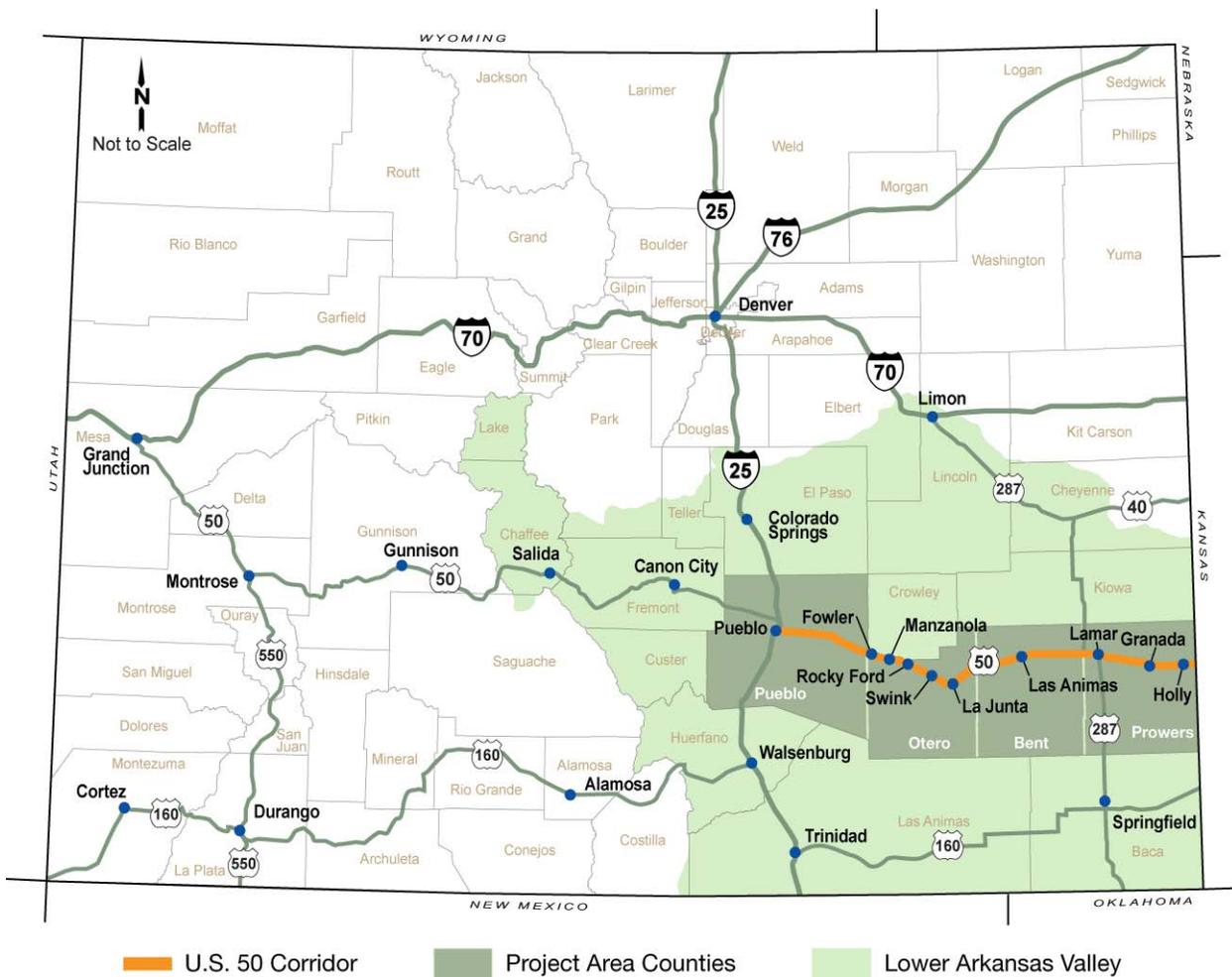


Figure S-1. U.S. 50 Corridor Through the Lower Arkansas Valley

This document has been prepared to comply with the National Environmental Policy Act (NEPA), which is required because of the likelihood that this project would use federal funds and/or require federal approvals for future right-of-way acquisition and highway improvements along the corridor. A tiered NEPA approach for U.S. 50 was selected for a number of reasons. First, past trends and uncertainty over the amount and timing of future federal and state funding suggests that a corridor-wide, 150-mile improvement to U.S. 50 could not be implemented as a single project. Second, a tiered approach would provide an understanding of the long-term consequences of corridor-wide improvements. This understanding could not be developed by looking at projects individually.

The objective of this Tier 1 EIS effort is to provide decisions that CDOT and the communities along the corridor can use to plan and program future improvements within the project area. Tiering the NEPA decision-making process will allow input from all involved agencies and the public to shape these transportation planning decisions. This will provide a level of predictability for CDOT and the communities to ensure that certain location decisions will not be revisited later in the process.

Tier 2 NEPA studies would provide detailed environmental review and analysis of project specific preliminary design. These studies would be covered by separate NEPA documents that would individually analyze each section of independent utility along the corridor.

S.1 U.S. 50 CORRIDOR CHARACTERISTICS

U.S. 50 is the only major east-west highway connecting from state line to state line south of Interstate 70 and north of U.S. 160 (see Figure S-2). The posted speed limit within established cities and towns ranges from 25 miles per hour (mph) to 45 mph, while the majority of rural segments are posted at 65 mph. The highway is predominantly asphalt, although there are also sections of concrete. With the exception of locations in a few communities, U.S. 50 is not illuminated. Figure S-2 is an example view of the U.S. 50 corridor.



Figure S-2. U.S. 50 West of Hasty, Colorado

U.S. 50 is part of the National Network, which was authorized by the Surface Transportation Assistance Act (STAA) of 1982 (P.L. 97-424) and specified in the U.S. Code of Federal Regulations (23 CFR 658) to require states to allow freight trucks on the Interstate System and portions of the Federal-aid Primary

System. Under Colorado state law, STAA-dimensional commercial vehicles may legally operate on all highways that were designated as a federal-aid primary highway prior to June 1, 1991.

The stretch of U.S. 50 examined in this document is primarily two-lane highway, interspersed with four sections with four travel lanes (see Figure S-3).

CDOT's existing right of way through towns generally varies from 60 feet wide to 80 feet wide. This typically is not wide enough to provide a roadway that meets current American Association of State Highway and Transportation Officials (AASHTO) safety standards.

The largest community along this corridor is the City of Pueblo, with a population of slightly more than 105,000 (2010 Census). The other communities range in population from about 400 (Manzanola; see Figure S-4) to almost 7,800 (Lamar) (2010 Census). With the exception of Pueblo, growth in the Lower Arkansas Valley has lagged behind most other areas of the state. From 2000 to 2010, the combined population of the four counties increased approximately 8 percent, which is half the rate of growth experienced by the state over the same time period (approximately

17 percent). Between 2000 and 2010, the combined population of the nine communities east of Pueblo (along the U.S. 50 corridor) decreased overall by 10 percent from 28,350 people in 2000 to 25,474 people in 2010.



Figure S-3. Four-Lane Section East of Rocky Ford



Figure S-4. Downtown Manzanola

The Lower Arkansas Valley is largely rural and heavily dependent on an agricultural economy (see Figure S-5). Currently, ranches and farms use approximately 3.5 million acres, or about 80 percent of the land that comprises the four counties of Pueblo, Otero, Bent, and Prowers (Agricultural Census 2007b). Most businesses in these four counties directly or indirectly support agriculture.



Figure S-5. Feedlot along U.S. 50

About 95 percent of the employers have fewer than 50 workers, and most of these small businesses provide a wide variety of services for individuals, business and government establishments, and other organizations, as defined by the Colorado Economic and Demographic Information System (CEDIS) (CEDIS 2006). Because most communities in the Lower Arkansas Valley are small, key services are available only in the larger regional centers; therefore, many residents drive to Pueblo, La Junta, or Lamar for employment, major medical care, shopping, and higher education.

S.2 PURPOSE AND NEED

The purpose for undertaking transportation improvements in the U.S. 50 corridor from approximately Pueblo, Colorado, to the vicinity of the Colorado-Kansas state line is to improve *safety* and *mobility* for local, regional, and long-distance users of U.S. 50 for present and future travel demand. This will be accomplished by balancing the mobility and access needs of these users and also providing the flexibility to meet future travel demands.

The need for improvements on U.S. 50 results from the combined effects of multiple safety and mobility issues. These issues are both directly and indirectly influenced by the differing needs of the road users and by highway deficiencies, outdated roadway geometrics, access issues (the ability to enter, exit, or cross U.S. 50), numerous speed reduction zones, and lack of passing opportunities.

S.2.1 Safety Issues

Traffic volumes usually drive the need for improvements along a highway. However, the need for improvements along U.S. 50 is a combination of user conflicts and roadway deficiencies. Factors that contribute to safety issues along the corridor include inadequate clear zones, frequent changes in design characteristics, and limited passing opportunities.

U.S. 50 has inadequate clear zones, meaning that obstructions or fixed objects and hazards along the side of the highway could be hit by vehicles that veer off the road. Common fixed-object hazards along U.S. 50 include utility poles (see Figure S-6), structures, buildings, bridge walls, and deep ditches. Collisions with fixed objects comprise 22 percent of total accidents along the corridor.



Figure S-6. Example of Inadequate Clear Zone along U.S. 50

U.S. 50 also has inconsistent roadway design, which includes frequent changes in roadway widths, posted speed limits, number of through-lanes, and shoulder and median widths. This is an issue because drivers expect roadways to be fairly consistent in design over a given distance. Furthermore, within the 150-mile corridor, 96 miles are two lanes and 55 of those miles do not provide passing opportunities. This reduces average speeds along the corridor and becomes a safety issue, since there is a greater potential for head-on collisions when faster vehicles attempt to pass slower vehicles.

S.2.2 Mobility Issues

U.S. 50 serves motorists making long-distance, regional, and local trips. This requires the roadway to accommodate users with different, sometimes conflicting, needs including personal, commercial, and agricultural uses. The conflicts between pedestrians, cars, trucks, tractors, and other industrial vehicles often result in mobility issues. These issues are especially evident on the in-town and two-lane sections of U.S. 50, where the ability to separate users is the most constrained. As shown in Figure S-7, passenger vehicles and long-distance trucking conflict with slow-moving agricultural equipment. This has been identified during public meetings as a concern for all users.



Figure S-7. Tractor on U.S. 50 in Rocky Ford

Additionally, speed reduction zones through communities along the corridor, as well as traffic signals in these communities, limit travel speeds along the corridor. The speed reduction zones result in a mobility problem that adversely affects users of U.S. 50 in the Lower Arkansas Valley. While speed reduction zones provide a necessary benefit to local users, they are a hindrance to long-distance passenger vehicles



and trucks who value a relatively high, consistent travel speed, and regional users, who travel the corridor often and bear the highest accumulated cost of chronic travel delays.

S.2.3 Access Issues

There are hundreds of access points along U.S. 50. This factor increases the risk of crashes, since motorists have numerous opportunities to enter, exit, or cross the highway, thus increasing the potential for conflicts with through-traffic. The observed total crash rates for U.S. 50 through the larger cities of Rocky Ford, Las Animas, and Lamar were above comparable statewide averages (CDOT 2003c). The majority of the crashes in these locations (68 percent) were attributed to intersection- or driveway-related conflicts.

S.2.4 Flexibility to Accommodate Future Needs

The safety and mobility issues and the user conflicts on U.S. 50 are expected to be compounded by increased travel demands in the future. While the overall population of the corridor east of Pueblo has not increased since 1960, traffic on this portion of U.S. 50 nevertheless has experienced modest growth (CDOT 2007a). Looking to the future, Colorado's *2040 Statewide Transportation Plan* indicates that vehicle miles of travel (VMT) in Colorado are expected to double by 2040 (CDOT 2015). Colorado's population has been growing rapidly and is expected to continue to do so. Even with minimal population growth in the Lower Arkansas Valley, the expected addition of nearly three million new residents in the state by 2040 (CDOT 2015) will likely increase traffic on the U.S. 50 corridor, because goods are transported along this corridor to reach Interstate 25 (I-25) and travel on to more urban areas.

Current safety and mobility issues of the U.S. 50 corridor are expected to worsen in the future. The existing road is not meeting the needs of its users today, so it would not accommodate future changes in travel demand.

S.3 PROJECT AREA

The project area for the Tier 1 EIS has been defined as one to four miles wide surrounding the existing U.S. 50 facility and extending from Pueblo, Colorado, at I-25 to the Colorado-Kansas state line (see Figure S-8). This area was used to adequately assess highway needs, as well as to assess existing conditions along the U.S. 50 corridor.



Figure S-8. U.S. 50 Project Area

The city of Lamar, Colorado, is excluded from the project area, as shown in Figure S-8. This area was studied under the separate *U.S. 287 at Lamar Reliever Route Environmental Assessment*, completed in August of 2013; the Finding of No Significant Impact (FONSI) for the project was signed in November 2014. More information on the U.S. 287 at Lamar Reliever Route Project, the Environmental Assessment (EA), and FONSI can be found online at <http://www.coloradodot.info/projects/us287lamar>.

S.4 ALTERNATIVES CONSIDERED

The alternatives development process involved the public, communities along the U.S. 50 corridor in the Lower Arkansas Valley, and various state and federal agencies. It included consideration of a number of different potential transportation solutions that were screened using criteria related to the project purpose and need. The remaining solutions formed the range of reasonable alternatives that were retained for additional evaluation and consideration.

The alternatives development process followed four steps, shown in Figure S-9, to arrive at the range of reasonable alternatives that were fully evaluated in this EIS. Two of the following steps focused on what type of transportation action is needed, while the other two focused on where the corridor would be located.

Step 1: Regional corridor location. Where would transportation improvements be made at a regional level?

Step 2: Transportation mode. What type(s) of transportation improvements would meet the needs of the corridor (highway, rail, and so on)?

Step 3: Facility type. What type of facility—two-lane highway, four-lane expressway, etc.—would meet the needs of the corridor?

Step 4: Through town or around town. Would transportation improvements be made through communities along the corridor or around them?

This process included extensive public and agency involvement through public meetings, project committees, and working groups. The alternatives resulting from this process, the Build Alternatives, were carried forward in this document for subsequent comparison to a no-build alternative.

S.4.1 No-Build Alternative

In accordance with NEPA, a no-build alternative is included in an EIS to provide a basis for comparison with any build alternative(s). For U.S. 50, the No-Build Alternative includes ongoing maintenance of pavement and bridges on the existing U.S. 50 alignment. It also reflects, and does not preclude, ongoing or planned minor safety improvements, provision of passing-lane sections, routine pavement overlays, bridge replacements, and repair of any weather- or crash-related damage.

S.4.2 Build Alternatives

The Build Alternatives consist of constructing a four-lane expressway on or near the existing U.S. 50 from I-25 in Pueblo, Colorado, to approximately one mile east of Holly, Colorado. The Build Alternatives are not final roadway alignments. Each alternative is a corridor approximately 1,000 feet wide within which the 250-foot roadway alignment (or footprint) is needed to accommodate a four-lane expressway will be located. More specific roadway alignments will be identified during Tier 2 studies. Within this 1,000-foot-wide corridor, it may be possible to avoid resources during Tier 2 studies. In addition, portions of the existing highway that go through communities will remain in place to serve local needs even though they will no longer be U.S. 50.

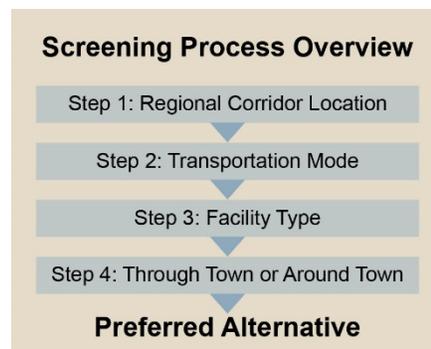


Figure S-9. Screening Approach Used to Develop the Range of Reasonable Alternatives



In general, there is one Build Alternative alignment between each of the communities along the existing U.S. 50 with a north and south around-town Build Alternative at each of the communities. The exception to this is in Pueblo, between Pueblo and Fowler (Fort Reynolds area), and in La Junta. Because U.S. 50 connects to I-25 within Pueblo (the western terminus for the Tier 1 EIS), an around-town corridor location was not developed. Instead, three alternatives are considered: Pueblo Airport North (Alternative 1), Pueblo Existing Alignment (Alternative 2), and Pueblo State Highway (SH) 47 Connection (Alternative 3). In La Junta, four Build Alternatives are considered. One proposes to construct a new roadway alignment to the north and the other three propose alignments to the south of town.

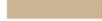
Between communities, there are nine Build Alternatives that generally would remain on the existing U.S. 50 alignment. However, between Pueblo and Fowler, one realignment alternative near Fort Reynolds (known as Alternative 2: Fort Reynolds Realignment) is proposed to minimize impacts to homes in the Fort Reynolds area.

Figure S-10 depicts an overview of the location of the Build Alternatives. The project does not include alternatives in Lamar, as discussed in Chapter 3, Alternatives Considered, because that area was studied in the *U.S. 287 at Lamar Reliever Route Environmental Assessment* (FONSI signed November 10, 2014).

The selection of a preferred alternative in each section of the corridor, together with any other revisions to the Build Alternatives, has been identified in this Tier 1 Draft EIS. At this time, preparation of a joint Tier 1 Final EIS (FEIS)/Record of Decision (ROD) is anticipated.

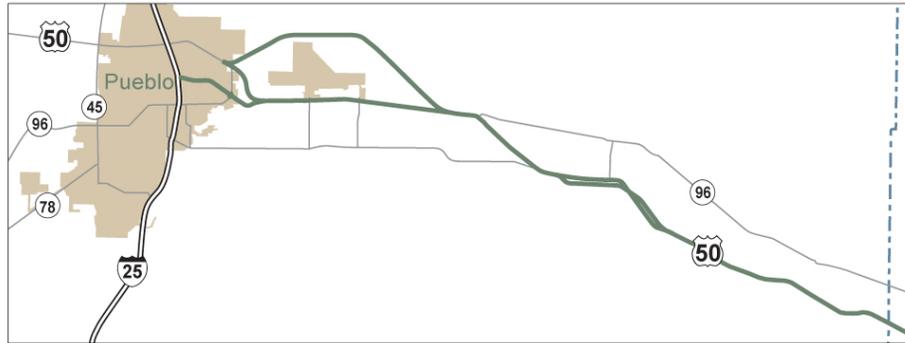


Legend

-  Build Alternatives
-  Existing U.S. 50
-  City / Town
-  County



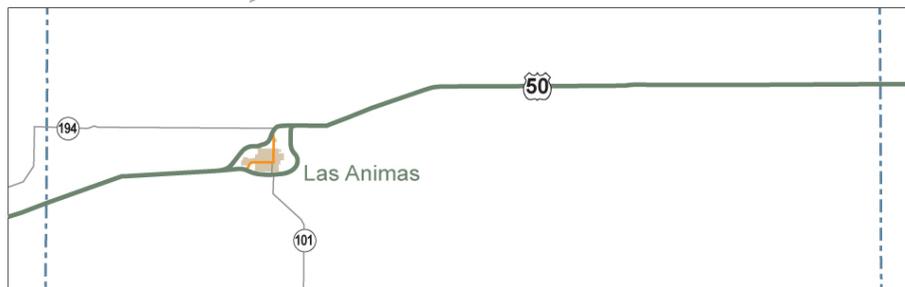
Pueblo County



Otero County



Bent County



Prowers County

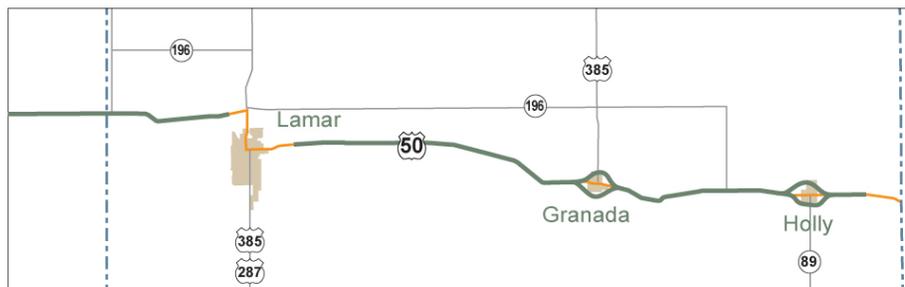


Figure S-10. Location of the U.S. 50 Tier 1 EIS Build Alternatives

S.5 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

A total of 18 resources, or groups of resources, were evaluated in this document. Because some of these resources are interconnected, they have been combined into four categories:

- Rural and Agricultural Environment—agricultural resources
- Natural Environment—wetland and riparian resources, wildlife and habitat, water resources, and geological and paleontological (fossil) resources
- Community and Built Environment—historic resources, archaeological resources, land use, parklands and recreational resources, social and economic conditions, environmental justice, aesthetics and visual resources, air quality issues, and traffic noise
- Other—transportation, hazardous materials, Section 4(f) resources, Section 6(f) resources, energy, global climate change, cumulative impacts, irreversible and irretrievable commitment of resources, and short-term uses versus long-term productivity

Chapter 4, Affected Environment, Environmental Consequences, and Mitigation, compares the effects of the No-Build Alternative and Build Alternatives on each resource listed. It also includes detail on cumulative effects and minimization activities. Section 4(f) resources are addressed separately in Chapter 5, Section 4(f) Evaluation. Chapter 8, Mitigation Strategies, provides additional detail on mitigation.

For this Tier 1 level of analysis, it was impractical to identify and evaluate resources at the same level of detail as a standard (non-tiered) EIS for several reasons. The U.S. 50 project area is 150 miles long and one to four miles wide. This makes field review prohibitively time consuming and expensive. Also, the build-out period for Tier 2 studies is estimated to be decades (not years). As a result, data collected from the field today are not likely to be relevant by the time many Tier 2 studies occur. Because of these factors, existing data were used whenever possible to identify and evaluate resources. When existing data were not available, limited field review was conducted, but at a planning level appropriate for Tier 1. The quantification of the affected environment and analysis of effects is based on the study area, which is 1,000 feet wide centered on the corridor alternatives beginning at I-25 in Pueblo and extending to approximately one mile east of Holly.

Additionally, because the roadway footprint will not be determined until Tier 2 studies, it was not feasible to identify which specific resources would be affected by the Build Alternatives. Therefore, this analysis considered every resource that could possibly be impacted during Tier 2 studies as a resource affected by the Build Alternatives. This resulted in an intentional overestimation of effects to some resources, as shown in Figure S-11. The figure shows how some resources could be avoided, depending on which roadway footprint might be selected. For the purposes of this analysis, all of the resources shown would be considered impacted by a Build Alternative, even though a future footprint chosen in Tier 2 may not affect them all.

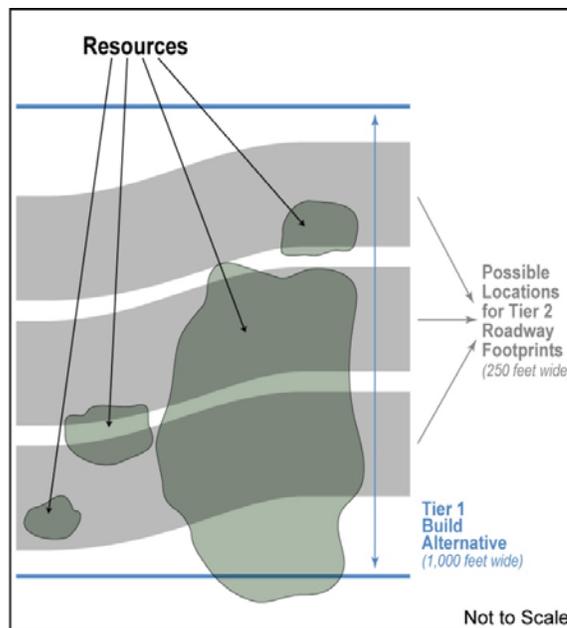


Figure S-11. Overestimation of Effects to Resources by a Build Alternative

While this Tier 1 analysis could not narrow the impacts to specific resources, the document has identified whether the resources could be avoided during Tier 2 studies, as shown in Figure S-12. A resource that crosses through an entire Build Alternative cannot be avoided no matter where the roadway footprint is located; however, some resources only partially cross an alternative. These resources could possibly be avoided by the roadway footprint.

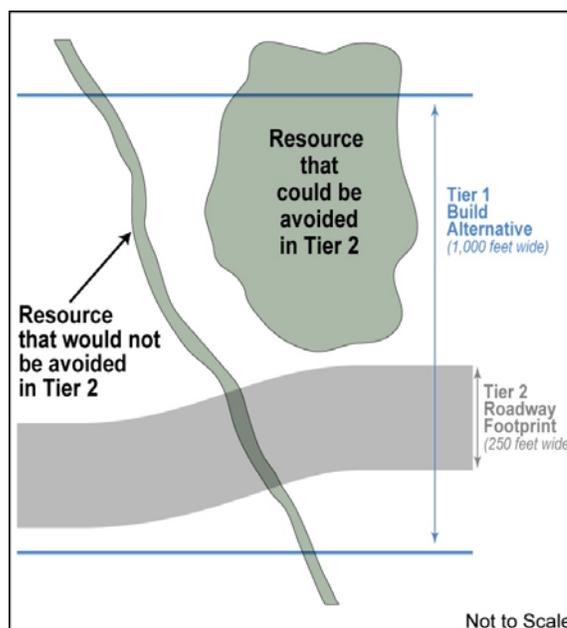


Figure S-12. Resources that Could and Cannot be Avoided by a Build Alternative

Table S-1 summarizes potential effects of the Build Alternatives to resources within the project area. Due to the length of the corridor, the table provides a very cursory summary of potential effects, which may be largely avoided during Tier 2 studies. A range of effects is provided because each section of the project corridor includes at least two Build Alternatives; impacts are dependent upon which Build Alternative would be constructed. Impacts and mitigation measures are discussed in Chapter 4, Affected Environment, Environmental Consequences, and Mitigation.

Table S-1. Summary of Build Alternatives Effects

Category	Resources	Build Alternatives Effects
Rural and Agricultural Environment	Agricultural resources	Affects approximately 2 percent of agricultural land in the project area. May affect up to four feedlots, up to six permanent roadside produce markets, and up to 24 canals and ditches. None of the identified feedlot effects would prevent continued operation.
Natural Environment	Wetland and riparian resources	Affects 587 acres to 713 acres of wetland and riparian resources of the 27,620 acres of wetland and riparian resources in the project area; most have low functionality (Category III or IV).
	Wildlife and habitat	<p>Affects slightly more than 2 percent of the total identified wildlife habitat in the project area, or between 4,287 acres and 4,564 acres, although most of this acreage has been disturbed by human activity.</p> <p>Potential to affect up to 34 special-status species, of which eight are federal-listed threatened, endangered, or candidate species. Widens the roadway at 11 identified wildlife crossings (locations where wildlife frequently crosses the highway), which may increase the potential of animal-vehicle collisions. Future Tier 2 NEPA studies will analyze potential effects on wildlife and habitat in more detail.</p> <p>May remove existing noxious weeds, but also may increase the potential for noxious weed infestation through construction activities.</p>
	Water resources	Where U.S. 50 adds crossings of surface water resources—primarily irrigation canals and ditches—the potential to degrade water quality exists. The increased paved surface also would increase the amount of stormwater runoff, although this is anticipated to be minimal.
	Geological and paleontological (fossil) resources	Potential to affect up to four existing surface mining operations (geological resources). The Build Alternative also has potential to encounter paleontological (fossil) resources within six geologic formations.
Community and Built Environment	Historic resources	Potential to affect 60 to 79 historic or potentially historic resources. Given the number and type of historic resources identified, effects by the Build Alternatives are unlikely to change the overall historic character of the Lower Arkansas Valley or of any community.
	Archaeological resources	Potential to affect nine known archaeological sites; however, there is always potential to encounter previously unknown archaeological sites.
	Land use	Potential to affect up to 13 conservation easements and 10 public properties. Conversion of existing land uses to a transportation use will occur as a result of right-of-way acquisition. Right-of-way acquisition would be required primarily from agricultural lands. No substantial effect on land use within the project area is anticipated.
	Parklands and recreational resources	Potential to affect up to 15 parkland and recreational resources, including Cottonwood Links Golf Course, Las Animas Municipal Golf Course, Karney Ranch State Wildlife Area, John Martin Reservoir State Wildlife Area, John Martin Reservoir State Park, Granada School District recreational facility, Mike Higbee State Wildlife Area, Granada State Wildlife Area, Holly State Wildlife Area, and four existing and two planned trails.



Table S-1. Summary of Build Alternatives Effects (continued)

Category	Resources	Build Alternatives Effects
Community and Built Environment	Social and economic conditions	<p>Potential to positively affect social conditions in the project area overall. Moving traffic from U.S. 50 through a town to a new around-town route would remove long-distance and regional traffic from the main street within towns along U.S. 50, making the road easier to cross, especially for pedestrians. The following effects to local businesses are anticipated:</p> <ul style="list-style-type: none"> • Continuation of existing economic trends despite around-town U.S. 50 routes • Conversion of agricultural land to roadway use, eliminating productive value to economy • Traveler-oriented businesses could be affected by reduction of pass-by traffic • Highway-dependent businesses such as truck stops or gas station convenient stores, would benefit from improved highway conditions and ability to drive faster on new around-town U.S. 50 routes <p>Downtown areas could benefit by restoring commercial districts to their original “Main Street” status with speeds less than 30 mph and pedestrian and bicycle-friendly, safe crossings.</p> <p>In Pueblo, no economic effects are expected because none of the Build Alternatives involve moving U.S. 50 from the existing alignment. For the communities east of Pueblo, the Build Alternatives would move U.S. 50 away from downtown areas where most of the communities’ economic activity takes place; therefore, the Build Alternatives have the potential to negatively affect local businesses.</p>
	Environmental justice	<p>A higher percentage of minority and low-income residents live within the boundaries of the communities along the U.S. 50 corridor when compared to the state of Colorado averages. Specific effects to these communities cannot be identified at this time; however, further analysis will be conducted during Tier 2 studies.</p>
	Aesthetics and visual resources	<p>In areas where drivers’ views from the highway would change, these changes would not alter the character of those views; therefore, no visual resources from U.S. 50 would be affected.</p> <p>Visual resources from surrounding areas would be affected between communities, where the roadway footprint would be widened, and for residents living in areas where around-town routes are eventually selected. These visual resources would be negatively affected by increasing the existing visual intrusion or creating a visual intrusion (the highway) where one does not exist today.</p>
	Air quality issues	<p>No violations of federal pollutant standards are anticipated. Construction-related effects will be analyzed further in Tier 2 studies.</p>
	Traffic noise	<p>Given the modest existing and future traffic volumes, no substantial increase in traffic noise effects is expected. However, moving traffic from U.S. 50 through a town to a new around-town route would change the noise environment. Places that are near existing U.S. 50 would be quieter, while places near the new alignment would be noisier. Impact analysis at specific locations will be analyzed in Tier 2 studies.</p>

Table S-1. Summary of Build Alternatives Effects (continued)

Category	Resources	Build Alternatives Effects
Other	Transportation	Anticipated to benefit overall transportation conditions. Expected to increase mobility for local, regional, and long-distance users. Anticipated to improve safety by increasing passing opportunities, providing adequate clear zones, and controlling access. Improved safety and mobility within towns because regional and long-distance traffic moves to U.S. 50 on the around-town routes.
	Hazardous materials	Potential to encounter up to 162 known hazardous materials sites. U.S. 50 would remain a designated route for transporting hazardous materials. Improving the roadway, as well as re-routing around communities, is expected to improve safety for transport of hazardous cargo along the corridor.
	Section 4(f) resources	Potential Section 4(f) resources include 15 publicly owned parkland and recreational resources, 60 to 79 historic resources, and up to nine archaeological resources that are known to be listed or may be listed on the NRHP. Additional research will be needed during Tier 2 studies to determine the use of Section 4(f) resources.
	Section 6(f) resources	No conversion of Section 6(f) resources was identified.
	Energy	Would result in a 2- to 12-percent increase in energy consumption in 2040, due to vehicles traveling longer distances on U.S. 50 along around-town routes. However, this increase is expected to be minor in the context of existing energy consumption along the corridor.
	Global climate change	Greenhouse gas (GHG) emissions related to the Build Alternative would not result in reasonably foreseeable future adverse impacts on the human environment. GHG emissions increases would be very small.

S.6 IDENTIFICATION OF PREFERRED ALTERNATIVE AND SUMMARY OF IMPACTS

To identify a preferred alternative, the Build Alternatives around communities were further screened. Identification of the Preferred Alternative was largely based on its ability to minimize environmental and social impacts. This evaluation focused on three broad categories that considered effects to the following environment categories:

- Rural and agricultural environment
- Natural environment
- Community and built environment

Criteria to screen around-town Build Alternatives were developed based on comments received from agencies and the public, as well as regulatory requirements. Public workshops also were held in each of the 10 communities along the U.S. 50 corridor to determine what resources were important to the local



economy and quality of life (see Chapter 7, Community Outreach and Agency Involvement, and Appendix C, Public and Agency Involvement).

The result of this analysis generally narrowed down the around-town Build Alternatives to a single preferred alignment, except in Fowler and Swink. Table S-2 summarizes the identified Preferred Alternative that resulted from the additional screening of these alternatives.

Table S-2. Summary of Preferred Alternative

Category	Preferred Alternative Components
Regional Corridor Location	Existing Regional Corridor
Transportation Mode	Highway
Facility Type	Four-Lane Rural Expressway
Build Alternatives	Pueblo—Alternative 2: Pueblo Existing Alignment
	Pueblo to Fowler—Alternative 2: Fort Reynolds Realignment
	Fowler—Alternative 1: Fowler North and Alternative 2: Fowler South
	Fowler to Manzanola Alternative (on or near existing alignment)
	Manzanola—Alternative 2: Manzanola North
	Manzanola to Rocky Ford Alternative (on or near existing alignment)
	Rocky Ford—Alternative 1: Rocky Ford North
	Rocky Ford to Swink Alternative (on or near existing alignment)
	Swink—Alternative 1: Swink North, and Alternative 2: Swink South
	La Junta—Alternative 2: La Junta South
	La Junta to Las Animas Alternative (on or near existing alignment)
	Las Animas—Alternative 1: Las Animas North
	Las Animas to Lamar Alternative (on or near existing alignment)
	Lamar to Granada Alternative (on or near the existing alignment)
	Granada—Alternative 2: Granada South
Granada to Holly Alternative (on or near existing alignment)	
Holly—Alternative 2: Holly South	

Impacts for the Preferred Alternative are summarized in Chapter 6, Identification of Preferred Alternative and Summary of Impacts.

S.7 COMMUNITY OUTREACH AND AGENCY INVOLVEMENT

The U.S. 50 Tier 1 EIS has followed a community and agency involvement process since the project began in September 2004. The 150-mile U.S. 50 corridor contains a large and diverse group of communities, agencies, and other stakeholders. Comments and opinions received from these groups have helped ensure the full range of issues is addressed and substantial issues identified, in accordance with the Notice of Intent (NOI) published in 71 Federal Register (FR) 4958 (January 30, 2006).

The following agreements and associated meetings are described in further detail in Chapter 7, Community Outreach and Agency Involvement:

- **Pre-Scoping Meetings with all the Agencies and Communities.** Presented project goals, including previous planning efforts, issues, and opportunities, during collaborative discussions and listened to agency and/or communities' concerns and internal initiatives that may pertain to the project.
- **Agency Charter Agreement and Community Memorandum of Agreement.** Established clear expectations for the role of the agencies and community representatives in decision making, identified responsibilities of the participating agencies/communities, and described procedures to support the collaborative problem-solving efforts.
- **Formal Agreements with Resource Agencies.** Developed a Tier 1 Programmatic Agreement (PA) (see Appendix C) for Section 106 of the National Historic Preservation Act (NHPA) and a NEPA/Section 404 of the Clean Water Act Merger and Cooperating Agency agreement with the U.S. Army Corps of Engineers (USACE).

Copies of these agreements may be found in Appendix C, Public and Agency Involvement, of this document. The open dialogue of the U.S. 50 project has developed new opportunities for agencies, communities, and stakeholders to build partnerships to achieve many of their individual goals and initiatives.

S.8 SECTION 4(F) EVALUATION

Within the project area, Section 4(f) resources include publicly owned parkland and recreational resources and historic properties that are known to be listed on the National Register of Historic Places (NRHP) or may be eligible for listing on the NRHP. Section 4(f) resources in the U.S. 50 project area were identified through a combination of agency coordination, field reconnaissance, and literature reviews.



The Tier 1 evaluation for U.S. 50 is based upon the identification and potential use of likely Section 4(f) resources. The investigation determined that the Build Alternatives would not likely preclude prudent and feasible alternatives in Tier 2 studies that would avoid use of Section 4(f) resources or would preclude actions to minimize harm to these resources. This means that, in future studies of the corridor, possible alignments may still be able to avoid a use of the identified Section 4(f) resources.

Section 4(f) resources that may potentially be used by the Build Alternatives include 15 publicly owned parkland and recreational resources, 60 to 79 historic resources, and nine archaeological resources that are known to be listed or may be listed on the NRHP. During Tier 2 studies, confirmation that these resources are protected under Section 4(f) will be needed and additional design efforts will be required to identify specifically how they would be used. It may be possible in Tier 2 studies to minimize and/or avoid the use of many of these resources.

During the alternatives development process, the use of potential Section 4(f) resources was minimized by eliminating through-town options. This by itself avoided the potential use of more than 200 historic properties that are listed or may be listed on the NRHP, as well as 11 parkland and recreational resources. Additionally, identifying a 1,000-foot-wide alternative in Tier 1 as the general location for a 250-foot-wide roadway footprint provides the opportunity to further avoid and minimize the use of Section 4(f) resources during Tier 2 studies. Tier 2 design efforts also will include conceptual design for the proposed highway improvements, which could provide opportunities to reduce the footprint and the use of Section 4(f) resources on a case-by-case basis.

S.9 MITIGATION STRATEGIES

This document is recommending a new and innovative approach to mitigate for natural resource effects. The Natural Resources Mitigation Strategies Plan (see Appendix E) was developed to guide mitigation activities for natural resource effects that occur as the result of future projects, including effects to wildlife and their habitat, wetlands and riparian areas, and water resources. It outlines a holistic approach to mitigation that prioritizes effective ecological outcomes and coordination with resource agencies and other organizations focused on environmental conservation.

Mitigation strategies for resources related to the built (human) environment were developed based on the potential effects the Build Alternatives could have on each type of resource. These strategies will guide mitigation activities for impacts identified in Tier 2 studies. In addition, mitigation strategies for historic



and archaeological resources were agreed to as part of the *U.S. 50 Tier 1 Section 106 Programmatic Agreement* (see Appendix C).

S.10 ANTICIPATED OUTCOMES OF TIER 1

The objective of the U.S. 50 Tier 1 EIS is to provide decisions that CDOT and the communities along the U.S. 50 corridor can use to design and program future transportation improvements of U.S. 50 in the Lower Arkansas Valley.

As discussed in Chapter 3, Alternatives Considered, the existing regional corridor, the highway mode, and a four-lane expressway facility type were carried forward for further consideration because they would meet the project purpose and need. In addition, the around-town corridors were carried forward for further consideration because they would meet the purpose and need while also minimizing impacts.

Following the Tier 1 NEPA analysis, individual sections throughout the corridor will undertake more detailed Tier 2 NEPA studies. Based on logical termini, each section is independent, useful, and stands on its own merits within the framework of this Tier 1 EIS. Each of these sections is referred to as a “section of independent utility.” Logical termini for improvements would best be located at the around-town and between-town section transition points (totaling 18 sections); however, some of the around-town and between-town sections may have multiple sections of independent utility. Based on the analysis in this document, 23 sections of independent utility were identified.

Funding for construction of the improvements identified during this Tier 1 process is uncertain since CDOT’s funding for highway improvements in this corridor is limited. The current Statewide Transportation Improvement Plan (STIP) (2016–2019) has approximately \$17,500,000 identified for various projects within the U.S. 50 East Corridor from Pueblo to the Kansas state border (CDOT 2015a). There is no guarantee that the funds identified for U.S. 50 East from Pueblo to Kansas will be there in those fiscal years.

The 2040 Statewide Long-Range Transportation Plan includes the U.S. 50 corridor in its Regional Transportation Plans. The Southeast Transportation Planning Region, which contains Otero, Bent, and Prowers counties, three of the four counties along the U.S. 50 project corridor, has identified the U.S. 50 corridor as one of their priority corridors for improvements. Of the funds available to the Southeast Transportation Planning Region over the next 10 years for corridor improvements, the region has identified \$14,000,000 of Regional Priority Program funds to go toward improvements on U.S. 50



(Pueblo Area Council of Governments [PACOG] 2015). When or if dependable and larger funding sources for transportation become available, then improvements identified in the Tier 1 EIS could move into a Tier 2 study for a section of independent utility and, eventually, construction of a portion of the highway.