



# **Environmental Justice Technical Memorandum**

## **US 24 West**

CDOT Project No. NH 0242-040

Project Control No. 187824

**Colorado Department of Transportation**

February 2010

# US 24 West Environmental Assessment: Environmental Justice

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## 1.0 Introduction

The Colorado Department of Transportation (CDOT) is conducting an Environmental Assessment (EA) for changes to a 4-mile portion of US 24 between Interstate 25 and Manitou Springs. This technical memorandum, prepared in support of the US 24 West Environmental Assessment (EA), provides a review of existing conditions for environmental justice; describes the methodology used to identify minority and low-income populations; and evaluates the potential for impacts as a result of the No Action Alternative and the Proposed Action described in Sections 2.0 and 3.0.

Environmental justice is the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies. There are three fundamental environmental justice principles:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations;
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations (FHWA, 1998).

## 2.0 No Action Alternative

The No Action Alternative consists of existing transportation facilities and committed transportation projects that would occur regardless of whether the Proposed Action is constructed. The No Action Alternative would not make any improvements to the existing condition beyond those already planned and funded. The projects listed below are shown in existing adopted transportation plans and are locally funded projects.

- **8th Street Intersection Improvements.** Lengthens turn lanes and acceleration and deceleration lanes on US 24, and widens 8th Street north and south of US 24.
- **8th Street Bridge Replacement.** Replaces the existing four-lane bridge structure over Fountain Creek at 8th Street.

- **21st Street Roadway Improvements.** Includes the widening of 21st Street south of US 24 to four 12-foot travel lanes with dedicated turn lanes, extended acceleration lane, and curb and gutter. Geometric improvements to the US 24/21st Street Intersection will also be constructed.
- **21st Street Bridge Replacement.** Replaces the existing four-lane bridge structure over Fountain Creek.
- **25th Street Bridge Replacement.** Replaces the existing two-lane bridge structure over Fountain Creek at 25th Street.
- **Midland Trail Extension.** Extends Midland Trail between 21st Street and Manitou Avenue to connect with Manitou Springs' Creekside Trail.

Under the No Action Alternative, improvements to intelligent transportation systems (for example, variable message signs) would be implemented as part of the congestion management program. Existing bus routes and service would continue as they are today, and bike and pedestrian facilities would only be extended or improved as local funds and grants allow.

### 3.0 Proposed Action

The Proposed Action would provide additional capacity on US 24 by building additional travel lanes, two new interchanges, and one new overpass. The Proposed Action includes rebuilding several cross-streets, replaces bridges over Fountain Creek, and includes modifications to Fountain Creek's channel at each bridge crossing. Sidewalks would be built at all intersections and interchanges. The Proposed Action would also accommodate a park and ride facility and two future local access points along the route, which would be built by others. The Proposed Action is illustrated in Exhibit 1.

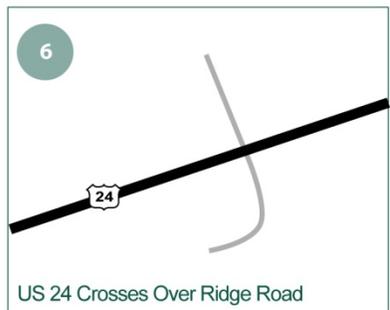
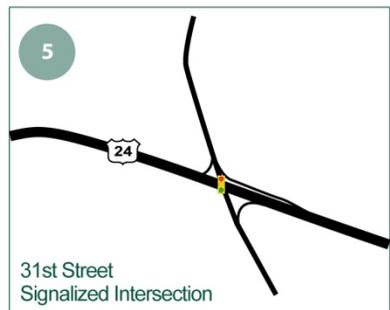
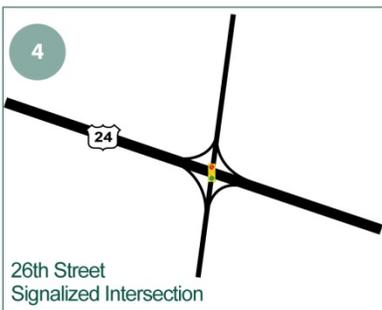
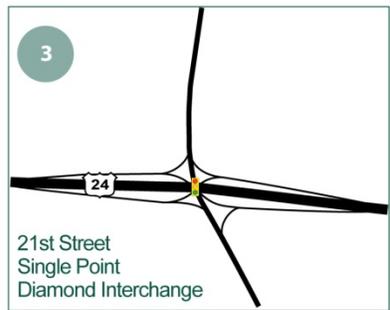
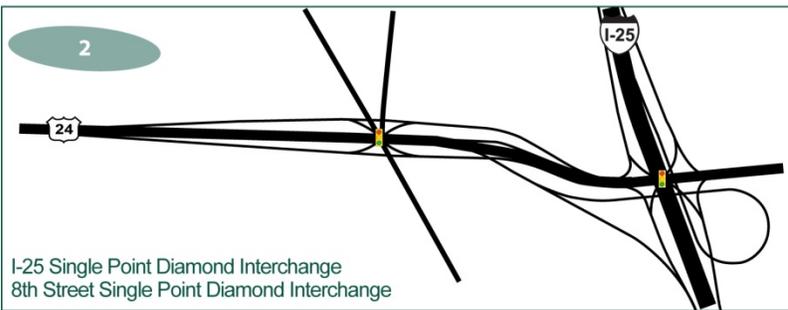
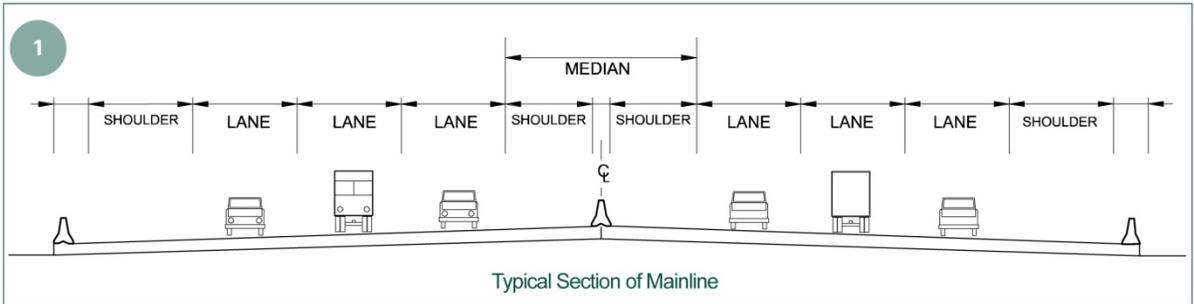
A single point diamond interchange is proposed at the Cimarron Interchange. This interchange design differs from what was originally presented in the *I-25 Improvements through the Colorado Springs Urbanized Area EA* (CDOT, 2004). Since the I-25 EA was approved, new opportunities have been identified to improve existing and future traffic operations, making this improved design now feasible.

US 24 in the project area would be built to have eight through-lanes, four in each direction, east of 8th Street, and six through-lanes, three in each direction, from 8th Street to a point west of 31st Street. New interchanges are proposed at 8th and 21st Streets.

Intersection upgrades are proposed at 26th Street. The intersection of US 24 and 31st Street would be widened, as would the intersection with Colorado Avenue to the north. South of US 24, 31st Street would be rebuilt to align with the highway intersection.

At the west end of the corridor, an overpass would be built to carry US 24 over Ridge Road. Ridge Road would be widened between High Street and Colorado Avenue. The west end of the Proposed Action is approximately 1,800 feet west of the Ridge Road overpass where the overpass connects to the existing highway. Because there is not an existing or future congestion problem between Ridge Road and Manitou Avenue, no changes are proposed west of Ridge Road.

EXHIBIT 1  
Proposed Action



Accommodations would be made for the following features that will be built by others in the future:

- At 15th Street an overpass would be constructed to carry 15th Street over US 24 and Fountain Creek, and connect to the street network of Old Colorado City and Gold Hill Mesa. This overpass would include ramps on the east side to connect to the 8th Street intersection. Between the ramps and Colorado Avenue, 15th Street would be reconstructed to provide pedestrian features such as sidewalks.
- At Ridge Road ramps that provide direct access to US 24 would be constructed to convert the overpass to a tight diamond interchange.
- At 31st Street a park and ride facility would be constructed in the northeast quadrant of the intersection, with access from Colorado Avenue.

As described in Chapter 4 of the EA, the Proposed Action also includes various mitigations such as the construction of a greenway and the extension of some trails. The Proposed Action is illustrated in Exhibit 1.

## 4.0 Methodology

### Regulatory Background

Environmental justice was first articulated as a national policy in 1994 when President Clinton signed Executive Order 12898 (E.O. 12898), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. E.O. 12898 required federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations in the United States. The purpose of E.O. 12898 is to ensure that federally assisted projects do not have disproportionately high and adverse human health or environmental effects on minority or low-income populations. For those projects that do, E.O. 12898 requires actions to avoid, minimize, or mitigate such effects.

E.O. 12898 was enacted to reinforce Title VI of the Civil Rights Act of 1964, which states, “No person in the United States shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

Subsequent orders at the federal level, including U.S. Department of Transportation (DOT) Order 5610.2, *Order to Address Environmental Justice in Minority Populations and Low-Income Populations* (DOT, 1997), and Federal Highway Administration (FHWA) Order 6640.23, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (FHWA, 1998), have further defined the obligations outlined in E.O. 12898.

On May 27, 2005, the Colorado Department of Transportation (CDOT) issued *CDOT’s Title VI and Environmental Justice Guidelines for NEPA Projects (Rev. 3)* to assist in interpreting environmental justice mandates. The guidance outlines the process for environmental justice analysis, including data collection, public involvement, impact analysis, and mitigation requirements. The analysis that follows was prepared in accordance with this and all other applicable guidance for addressing environmental justice. For additional information on environmental justice mandates and CDOT guidance, refer to CDOT’s

*National Environmental Policy Act Manual* (CDOT, 2007), available on the Web at <http://www.dot.state.co.us/environmental/Manual/NepaManual.asp>.

## Identification of Minority Populations

The study area for this analysis extends approximately 1,000 feet north and south of US 24 to include the area that could be affected by the No Action and Proposed Action Alternatives. The dimensions vary because demographic characteristics were identified using Census 2000 data at the block level for blocks adjacent to US 24.

Minority populations comprise ethnic and/or racial minorities. As defined in FHWA Order 6640.23, a minority is a person who is Black, Hispanic, Asian American, American Indian, or Alaskan Native. It is important to note that census data do not list Hispanic as a racial category. Instead, Hispanic or Latino heritage is considered an ethnicity; a person of Hispanic or Latino origin can identify with any racial group. To avoid double counting, the total White, Non-Hispanic population of a geographic area is subtracted from the total population to generate the total minority population. The percentage of minorities in each census block is then compared to the percentage of minorities in the appropriate city or county.

In Colorado Springs, 25 percent of the population is considered minority.<sup>1</sup> Any census blocks where more than 25 percent of the population is considered minority were evaluated for environmental justice and selected for specialized outreach.

## Identification of Low-Income Populations

The study area for this analysis extends approximately 1,000 feet north and south of US 24 to include the area that could be affected by the No Action and Proposed Action Alternatives. The dimensions vary because demographic characteristics were identified using Census 2000 data at the block level for blocks adjacent to US 24.

FHWA Order 6640.23 defines low-income as “a household income at or below the Department of Health and Human Services (HHS) poverty guidelines.” A different threshold (e.g., U.S. Census Bureau poverty threshold or U.S. Department of Housing and Urban Development [HUD] Community Development Block Grant [CDBG] income thresholds) may be used as long as it is not selectively implemented and is inclusive of all persons at or below the HHS poverty guidelines.

CDOT’s recommended approach in determining low-income populations is to derive the low-income threshold from a combination of census average household size data and the income thresholds set annually by HUD for the distribution and allocations of CDBG funds.

HUD thresholds are developed for counties (or in some cases Metropolitan Statistical Areas [MSA]) by household size up to an eight-person household. The thresholds are based upon household income as a percentage of median household income (in this case, 30 percent of the median family income). These thresholds are then adjusted to reflect the average household size of the city or county where the project is located.

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<sup>1</sup> The project team considered whether City or County thresholds would be most appropriate for this analysis. Because Colorado Springs more accurately reflects the demographics of the study area, the project team selected the City as the appropriate measure for identifying minority and low-income populations.

The median family income in the Colorado Springs MSA in 2008 was \$68,000. In Colorado Springs, the average household size is 2.5 persons. The income limits for 30 percent of average median income (AMI) for a household size of 2.5 is \$17,325. Because census income statistics are divided into increments of \$5,000, the income threshold of \$20,000 is used. In Colorado Springs, 17 percent of households fall below the \$20,000 threshold<sup>1</sup>. (See footnote 1 on page 5.) For purposes of privacy, the census block group is the most detailed level of data that displays income information. Any census block group where more than 17 percent of households fall below the \$20,000 threshold was evaluated for environmental justice and selected for specialized outreach.

## Additional Data Sources

While census data are widely accepted as the best source of data for defining and identifying minority and low-income populations, they are limited by the intervals in which the data are updated (every 10 years). In addition, census data alone are too broad to accurately represent the social and economic makeup of the households within the project area. For these reasons the following efforts were made to supplement census findings:

- The project team met with potentially affected businesses to identify minority-owned businesses, minority employment, and businesses providing services uniquely important to minority or low-income communities.
- Data searches were conducted at the Office of Economic Development and International Trade, Minority Business Office website to identify any minority-owned businesses in the project area.
- The Colorado Springs Housing Authority was contacted to identify Section 8 housing in the project area.
- Recent home sales prices were evaluated on Trulia.com. This data was used to compare median home sales prices in the project area to the greater community.
- Demographic data from local schools (race and ethnicity, eligibility for free/reduced price lunch) was evaluated and compared to countywide statistics.
- The project team conducted field visits to evaluate the condition of the housing stock and identify services that may indicate the presence of minority or low-income communities (e.g., ethnic grocery, goodwill organizations).

In addition to these efforts the project team conducted specialized outreach to minority and low-income residents in the project area. These efforts are detailed in the **Public Involvement Chapter** of the EA.

## Impact Analysis

The environmental justice analysis evaluates the No Action and Proposed Action Alternatives presented in the EA to determine whether there is a potential for disproportionately high and adverse impacts to minority or low-income populations when compared to populations that are not minority or not low-income in the project area. A disproportionate impact is defined by FHWA as an adverse affect that:

1. Is predominantly borne by a minority and/or low-income population, or

2. Is suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority/non-low-income population.

Supporting technical documentation and other analyses prepared in conjunction with the EA were reviewed to determine whether the Proposed Action would have any adverse impacts on all segments of the population, including minority and low-income population groups. If no adverse impacts were expected for a resource, then no further environmental justice analysis has been undertaken with regard to that particular resource. If, however, adverse effects were identified for a resource, additional environmental justice analysis was done and is described below in “**Section 6.0 Impacts and Mitigation.**” Impacts to natural resources (for examples, flora and fauna, geology and soils, wetlands) have been assumed not to have any direct or indirect effects on human populations.

## 5.0 Existing Conditions

### Minority Populations

Census and other data sources do not indicate that the project area contains higher than average concentrations of minorities when compared to the city as a whole. Of the 343 blocks within 0.25 mile of the proposed improvements, 57 (17 percent) contain higher than average concentrations of minority populations. Only six of these blocks are immediately adjacent to US 24. Census blocks with higher than average concentrations of minorities are scattered north and south of the corridor and are shown by location in Exhibit 2.

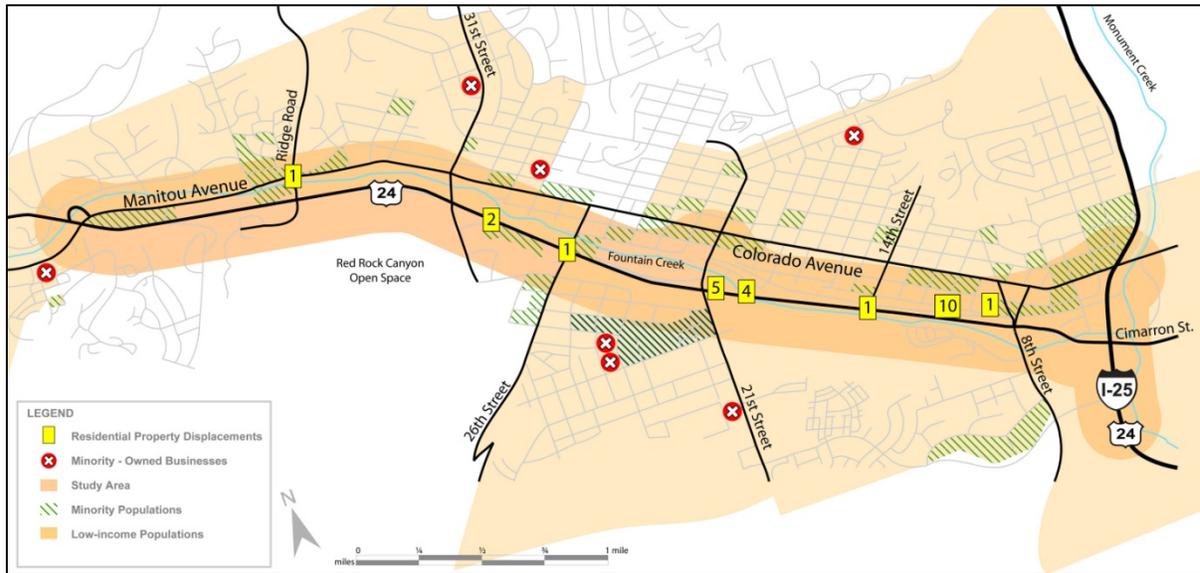
Midland Elementary School is located within a census block that contains 225 people, 61 of which (27 percent) consider themselves minorities. The school reports that approximately 32 percent of its student population is minority. Although this percentage is slightly higher than what is reported in this area by the 2000 Census, it is not a big enough difference to bring the census data into question. None of the other data sources evaluated indicated that the project area contains minority populations and there were no requests for translation services or specialized meetings throughout the public involvement process.

As shown in Exhibit 2, seven businesses in the vicinity of the proposed project are registered with the Office of Economic Development and International Trade, Minority Business Office. As described in Section 6.0 below, none of these would be directly affected by the Proposed Action.

### Low-Income Populations

Census and other data sources indicate that the project area contains higher than average concentrations of low-income households when compared to the city as a whole. Of the 21 census block groups adjacent to US 24, 17 (81 percent) contain higher than average concentrations of low-income households. The census block groups adjacent to US 24 are large and extend north and south more than 0.25 mile from US 24. As a result, many of the households identified through census data may be outside of the area of influence for the project. Census block groups with higher than average concentrations of low-income households are shown by location in Exhibit 2.

**EXHIBIT 2**  
Minority and Low-Income Populations



**Sources:** US Census 2000; US Department of Housing and Urban Development, 2008; Office of Economic Development and International Trade, Minority Business Office, 2008

The Colorado Springs Housing Authority identified more than 700 Section 8 properties within the city. It is reasonable to assume that a portion of these are located within the project area but, because of concerns relating to privacy and technical effort, they were unable to tell us the exact number and location.

The majority of the project area is located within the 80904 zip code in Colorado Springs. According to information obtained from Trulia.com, the median sales price for homes within the 80904 zip code was \$225,000 between July and September 2008. By comparison, the median sales price for homes between West Colorado Avenue and US 24 was \$149,000. Lower home values within the project area support census findings.

Demographic data for Midland Elementary School (2110 Broadway Street) also support census findings. More than half of the students in attendance (56.3 percent) are eligible for free or reduced price lunches. While students attend a variety of schools within Colorado and Manitou Springs, Midland Elementary School is the only school within the project area that reports information for free and reduced price lunches and thus best represents the demographics of households in the project area.

A Salvation Army located along W. Colorado Avenue may provide services and employment to low-income residents.

## 6.0 Impacts and Mitigation

### Impacts of No Action Alternative

The No Action Alternative is likely to require additional right-of-way and could result in the relocation of minority or low-income residents. These projects were not designed when this technical memorandum was prepared, and the ways in which impacts would be distributed are not yet known.

The transportation projects included in the No Action Alternative are limited in scope and would not address congestion on US 24. Adverse effects to minority and low-income populations could arise as a result of this unmet transportation need. These effects would include those that are typically caused by traffic congestion and impaired mobility, including longer travel times, neighborhood cut-through traffic, deteriorating safety conditions, an increase in localized air pollution and noise, and lengthened emergency response times. Traffic congestion likely would worsen on local streets as drivers seek alternatives to US 24, which could affect the timeliness of transit routes serving the area. Pedestrian and bike safety would not be improved, as sidewalks would remain disconnected and highway crossing opportunities limited. It is likely that these effects would be predominantly borne by low-income populations, since the majority of the corridor is considered low-income.

The No Action Alternative does not include drainage improvements. Properties adjacent to US 24 (most in low-income areas) would continue to be subject to 100-year flooding from Fountain Creek.

### Impacts of Proposed Action Alternative

The Proposed Action would result in adverse impacts to resources that could also affect minority or low-income populations. These impacts are associated with property displacement, highway noise, the acquisition of parks and cultural properties, and community impacts during construction. The ways in which these impacts affect minority and low-income populations are examined below.

The Proposed Action would require the relocation of 25 residences and 78 businesses. However, no community or social resources would be required for the roadway improvements. Of the residential relocations, one is located in a census block with a higher-than-average percentage of minorities; 23 are located in census block groups with higher-than-average percentages of low-income households; and one is considered both minority and low-income. It is important to note that 14 of the residential relocations reported are from apartment complexes that do not appear to be fully occupied. None of the business relocations are known to be owned by minorities or provide services or employment of special importance to minority or low-income persons.

Displaced businesses and residences would be offered compensation in accordance with the *Uniform Relocation Assistance and Real Property Acquisitions Policies Act* of 1970. CDOT has several programs to assist renters and home owners with the inconvenience of relocation, including monetary compensation for the fair market value for the property, relocation assistance, moving assistance, and relocation replacement housing payments or rent supplements. In December 2008, 82 comparable residential replacement properties were

identified within 10 miles of the project area. Income range and any special needs are factored into the identification of suitable replacement properties. Discussion of potential impacts to social cohesion and neighborhoods is found in the *Socioeconomic Technical Memorandum*.

Locations where predicted noise levels equal or exceed CDOT's Noise Abatement Criteria (66 decibel [A-weighted scale] [dBA] for residences) are considered "impacted" by noise, as are locations where future noise levels are predicted to exceed existing noise levels by 10 dBA or more. Impact is predicted to occur at 30 residences, eight of which are located in areas with higher than average concentrations of minority residents and/or low-income households. Mitigation (noise walls) would reduce noise levels below 66 dBA at seven of the eight impacted residences. (Refer to the *Noise Technical Memorandum* for details.)

The Proposed Action would require property from Midland Trail, 21st Street Pocket Park, Vermijo Park, and Foothills Trail. Mitigation proposed for these impacts is designed to enhance the City's network of parks and recreation resources. For example, CDOT will fund a Master Plan for Vermijo Park during final design to identify site layouts that will increase the function and visibility of the park and allow the baseball field to be relocated on site. The Prospector Sculpture at 21st Street Pocket Park is valuable to the community and will be relocated to serve as a gateway feature. New connections to the Midland Trail would be provided at Vermijo, Blunt, and Cucharras Parks, and the trail would be re-aligned to the north between 8th and 11th Streets and paved to City requirements. Refer to the *Parks Technical Memorandum* for details.

The Proposed Action would result in temporary impacts to the overall community (including minority and low-income residents) from increased dust, dirt, noise, traffic, and access disruptions during the construction process. These impacts would be short term and would be mitigated with best management practices for construction.

### **Off-Setting Benefits**

The Proposed Action would benefit minority and low-income residents, as well as the overall community by reducing congestion and mobility. Less traffic congestion would allow for improved emergency response times. Sidewalks would be provided along 21st, 26th, and 31st Streets and Ridge Road. Sidewalks would be detached where space permits to more safely accommodate pedestrians, improving access to community facilities for neighborhoods located in the vicinity of US 24. Several of the existing, at-grade intersections would be re-designed with a grade separation between US 24 and local streets to provide for easier pedestrian and bicycle movement across the highway.

Three existing bus routes occur in the study area, #3 #4, and #16 routes, providing access between Old Colorado City and Colorado Springs. Improvements to US 24 would lessen traffic congestion on the highway and would encourage regional traffic to travel on US 24. By removing through-traffic from local streets, this would facilitate the timely transfer between bus routes. This, in combination with construction of sidewalk at all intersection and interchanges, would promote better multimodal connections for transit dependent residents.

Drainage improvements included in the Proposed Action Alternative would remove an estimated 95 private properties from the 100-year floodplain, many of which are located in

areas considered low-income. Aesthetic Guidelines being developed for this project would provide continuity in the corridor thus benefiting the overall community. Noise walls are predicted to benefit 213 residences overall, providing a noise reduction for both minority/low-income and non-minority/non-low-income populations.

## **Avoidance and Minimization**

Throughout the design of the Proposed Action, efforts have been made to avoid and minimize impacts to minority and low-income populations. Alternatives that widened US 24 to the south near 8th Street were not carried forward in the analysis because they would have required the acquisition of all the residences in the A-1 Mobile Home Park, a low-income community. The project team also evaluated design options that would avoid impacts to residences north of 21st Street along Sheldon Avenue. Although the analysis showed that the Proposed Action could be constructed without taking five of the 10 residences in this area, the resulting impacts were considered more severe than relocation. To accommodate the Proposed Action without relocations, the alley serving four of the affected properties would be closed, several sheds would be removed, and a retaining wall would be installed in the backyard up against the dwellings. In addition, surrounding properties would all be acquired for the Proposed Action, leaving these residences in isolation.

## **Conclusion**

The No Action Alternative would not address congestion on US 24. Because the majority of the corridor is considered low-income, impacts resulting from this unmet transportation need (impaired mobility, longer travel times, neighborhood cut-through traffic, deteriorating safety conditions, an increase in localized air pollution and noise, and lengthened emergency response times) would be predominantly borne by low-income populations.

The Proposed Action would require the acquisition of residential property. Because the majority of the corridor is considered low-income, these impacts would be predominantly borne by low-income populations. It is important to consider that property acquisition and relocation is not automatically considered adverse by the affected household. Some of the residential properties that need to be acquired for the Proposed Action are currently located in high traffic areas or are in disrepair. In these instances, relocation may be desirable. CDOT's programs to assist renters and home owners with the inconvenience of relocation would provide monetary compensation for the fair market value for the property, relocation assistance, moving assistance, and relocation replacement housing payments or rent supplements.

The community as a whole would not be adversely affected by the Proposed Action. Residents, following implementation of the Proposed Action, would benefit from reducing congestion, improving mobility, constructing sidewalks, removing properties from the floodplain, creating visual continuity for the corridor, and reducing noise levels.

All other impacts are either distributed across the community (business acquisitions, temporary construction-related impacts) or would be mitigated so as not to uniquely affect minority and/or low-income populations (acquisition of parkland, noise levels).

## Mitigation of Proposed Action

Mitigation has already been factored in to the analysis of potential impacts to minority and low-income populations. No additional mitigation measures are required. Detailed mitigation measures addressing business displacement and residential relocations, noise, and parks resources are discussed within each respective technical memorandum.

## 7.0 References

Colorado Department of Transportation (CDOT), 2005. *CDOT's Title VI and Environmental Justice Guidelines for NEPA Projects*.

Colorado Department of Transportation (CDOT), 2007. *National Environmental Policy Act Manual*. <http://www.dot.state.co.us/environmental/Manual/NepaManual.asp>.

Colorado Office of Economic Development and International Trade, 2008. Minority Business Office Small Business Database. <http://www.colorado.gov/cs/Satellite/OEDIT/OEDIT/1162927366289> Downloaded from the web December 2008.

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