

# U.S. 287 at Lamar: Environmental Justice

PREPARED FOR: CDOT Region 2

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## 1.0 Introduction

Environmental justice refers to ensuring social equity in bearing the burdens of adverse environmental impacts. Some racial or ethnic minorities and low-income residents historically have experienced a disproportionate share of adverse affects resulting from major federal actions, such as the construction of new roadways. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, was issued in 1994 to address this issue. The Executive Order prevents federal policies and actions from creating disproportionately high and adverse health and environmental impacts to minority and low-income populations.

### 1.1 Definitions and Thresholds

The definition for minority populations and low-income populations is contained in both Executive Order 12898 and Title VI of the Civil Rights Act of 1964, as well as the final *US DOT Order 5610.2 on Environmental Justice in the Federal Register* on April 15, 1997. The definition provided is any readily identifiable group of minority or low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers) who would be affected by a proposed federal program, policy or activity.

*Minorities* constitute races and ethnic groups, and include these U.S. Census Bureau-identified groups: Black/African Americans, American Indian/Alaskan Natives, Asians, Native Hawaiian/Pacific Islanders, and Hispanics or Latino (for simplicity, generally referred to as Hispanics in this document). In the 2000 Census, Hispanics for the first time are treated by the Census Bureau as an ethnic group distinct from racial groups; for example, a person could be Hispanic and White or Hispanic and Asian. Minorities in this analysis are identified as persons who are Hispanic or not White.

*Low-Income* persons are individuals with incomes at or below the Department of Health and Human Services or Census Bureau poverty threshold for 1999.

The Council on Environmental Quality guidance states that "(T)he selection of the appropriate unit of geographical analysis may be a governing body's jurisdiction, a neighborhood, a census tract, or other similar unit that is chosen so as not to artificially dilute or inflate the affected minority population." The guidance further adds that "minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the population percentage of the affected area is meaningfully

greater than the minority population percentage in the general population or other appropriate unit of geographical analysis.”

This Technical Memorandum discusses issues related to environmental justice that may arise from the construction and operation of the proposed U.S. 287 at Lamar project. This document describes existing conditions, and identifies potential impacts of the Proposed Action.

## 1.2 Proposed Action

The Proposed Action will relocate U.S. 287 and U.S. 50 from Main Street to a new alignment approximately one mile east of Lamar, Colorado, as shown in Figure 1. The Proposed Action consists of new mainline, ultimately four lanes wide, three new interchanges, and provisions for two future local access points along the route. In addition, the new alignment includes a new crossing of the Arkansas River. The three interchange locations are at the southern terminus, the northern portion and east of Lamar at a point along the alignment where it crosses U.S. 50.

At the southern terminus, located just north of County Road CC, the proposed interchange is a grade-separated trumpet configuration with Main Street, providing a free-flow movement into downtown Lamar. A 1.2-mile segment of existing U.S. 287 will be reconfigured to serve as a frontage road providing local access.

A local access point to serve the Prowers County Medical Center will be provided at Lake Road approximately three miles north of the southern interchange. (The proposed action includes constructing an at-grade intersection, with connecting roads to be built by others in the future.) A grade-separated crossing (no access) is proposed over existing Parmenter Street. An extension of Parmenter Street to the east will be constructed to provide access back to U.S. 50.

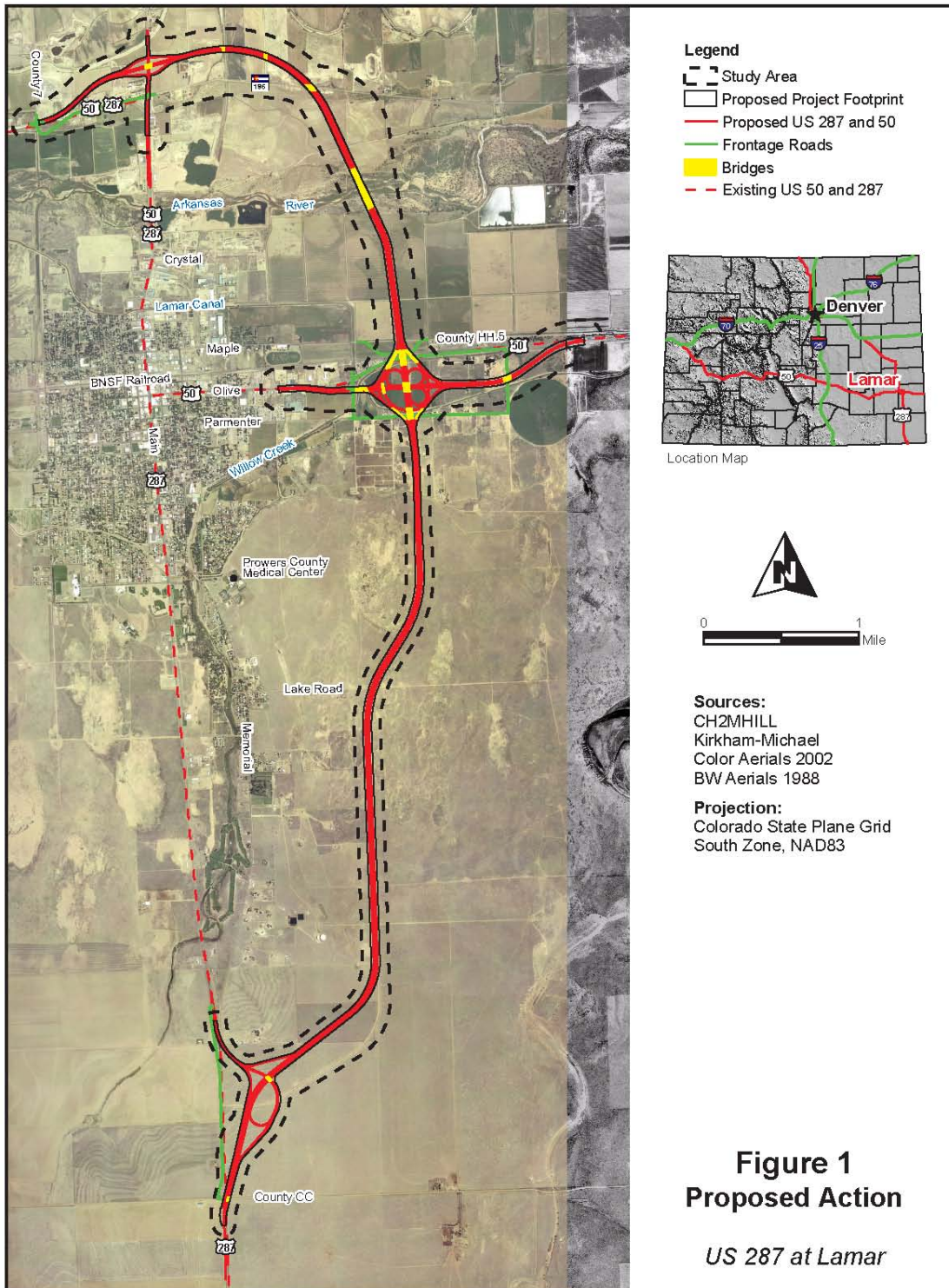
The east interchange with U.S. 50 consists of a grade-separated wide diamond with future directional loop ramps to be added when traffic volumes warrant. The mainline will cross the UPRR and County Road HH.50 at a grade-separated crossing (no access) just north of the existing U.S. 50. To facilitate this interchange configuration a 1.8-mile segment of U.S. 50 will be realigned about 1,000 feet south of its present location.

A second local access point to U.S. 287 will be provided approximately one mile north of the U.S. 50 interchange. This connection will allow the City and/or County to construct an extension of existing Crystal Street east to connect with relocated U.S. 287/U.S. 50. (The proposed action includes constructing an at-grade intersection, with connecting roads to be built by others in the future.)

The mainline will cross the Arkansas River approximately 1.4 miles downstream of the existing U.S. 287/U.S. 50 bridge. The proposed bridge is a 1,400-foot-long multi-span structure to provide adequate flood capacity and wildlife movement along the riparian corridor. A grade-separated crossing (no access) is proposed over existing SH 196 just north of the new Arkansas River bridge.

Along the northern portion of the alignment a grade-separated diamond interchange is proposed with SH 196. The realignment of U.S. 287 will reconnect with the existing highway

FIGURE 1 Proposed Action for U.S. 287 at Lamar



at County Road 7 just west of the Port of Entry station. The existing east/west portion of U.S. 287/U.S. 50 south of the realignment will be reconfigured to serve as a frontage road to maintain access to existing businesses along U.S. 287/U.S. 50. This new frontage road will be extended west approximately 600 feet and connect to County Road 7 with an improved at-grade intersection.

The existing high-speed curve of U.S. 287/U.S. 50, known locally as the “KLMR curve” for the radio station near the west tangent of the curve, will be removed. The existing U.S. 287/U.S. 50 route north of the Arkansas River bridge will be designated as Main Street, and will consist of a four-lane section north to the proposed interchange at SH 196.

### 1.3 Study Area

For the environmental justice analysis of U.S. 287 at Lamar, the Study Area is Census Tracts 1 and 4, in which the Proposed Action predominantly is located, as shown in Figure 2. Although the Proposed Action continues south into Census Tract 5 this tract is excluded from the Study Area because

- no relocations or full acquisitions will occur in Tract 5,
- no one lives near the Proposed Action in Tract 5,
- a small proportion of the Proposed Action is located in Tract 5—about 4 percent of centerline length of the Proposed Action, or less than one-half mile, and
- including Census Tract 5 would add information about 1,400 people (which is 50 percent of the combined population of Tracts 1 and 4) not affected by the Proposed Action and thus influence the characteristics of the area in which the vast majority of the Proposed Action is located and nearly all potential impacts will occur.

The geographic area against which the Study Area is compared is Prowers County; the population of the Study Area in 2000 was 2,812, or 19 percent of the county’s residents.

## 2.0 Methodology

This analysis was conducted by visiting neighborhoods throughout the Study Area, meeting with residents and business owners/managers affected by the Proposed Action, and evaluating secondary data. Data on minority and low-income populations were obtained from numerous sources, including those listed below.

- **General public outreach activities.** Information about potential project impacts and relocations were obtained through five public meetings and open houses held in Lamar throughout the study duration. The meetings were advertised in advance with newsletters and in local media, and were held during evening hours in the Community Building and a local church. The newspaper advertisements and invitations included information about the meetings in Spanish.
- **Meetings with property owners.** The consultant team met with business owners along the corridor to request permission to enter properties to assess potential environmental impacts from the proposed action. The findings are detailed in the Technical Memorandum *Summary of Right of Way Impacts for the U.S. 287 at Lamar Project* (Kirkham Michael Consulting Engineers, 2003).

- **2000 Census Data.** Data collected from the 2000 Census included the number and distribution of NonWhite and Hispanic minority residents and the number and distribution of residents with incomes below poverty levels by census tract. The poverty thresholds used were those set by the Department of Health and Human Services. This information was collected from various tables, including data tables SF-1 and SF-3 at the agency's websites [www.census.gov](http://www.census.gov), and [www.census.gov/hhes/poverty/threshld/thresh99.html](http://www.census.gov/hhes/poverty/threshld/thresh99.html).
- **1997 Economic Census.** Reports from the 1997 Economic Census contain information on minority owned businesses. Detailed information pertaining to minority-owned businesses in the City of Lamar and Prowers County are not provided, however, presumably due to confidentiality restrictions given the small size of the community and county. The information on Lamar is available on the agency's website [www.census.gov/epcd/mwb97/co/CO43110.html](http://www.census.gov/epcd/mwb97/co/CO43110.html).

This information was evaluated to determine potential impacts to minority and low-income populations. Data also were used to identify and analyze alternatives and measures to avoid, minimize, and mitigate impacts. For the environmental justice analysis of U.S. 287 at Lamar, the Study Area in which the Proposed Action is located (2000 Census Tracts 1 and 4) is compared to Prowers County.

## 3.0 Current Conditions

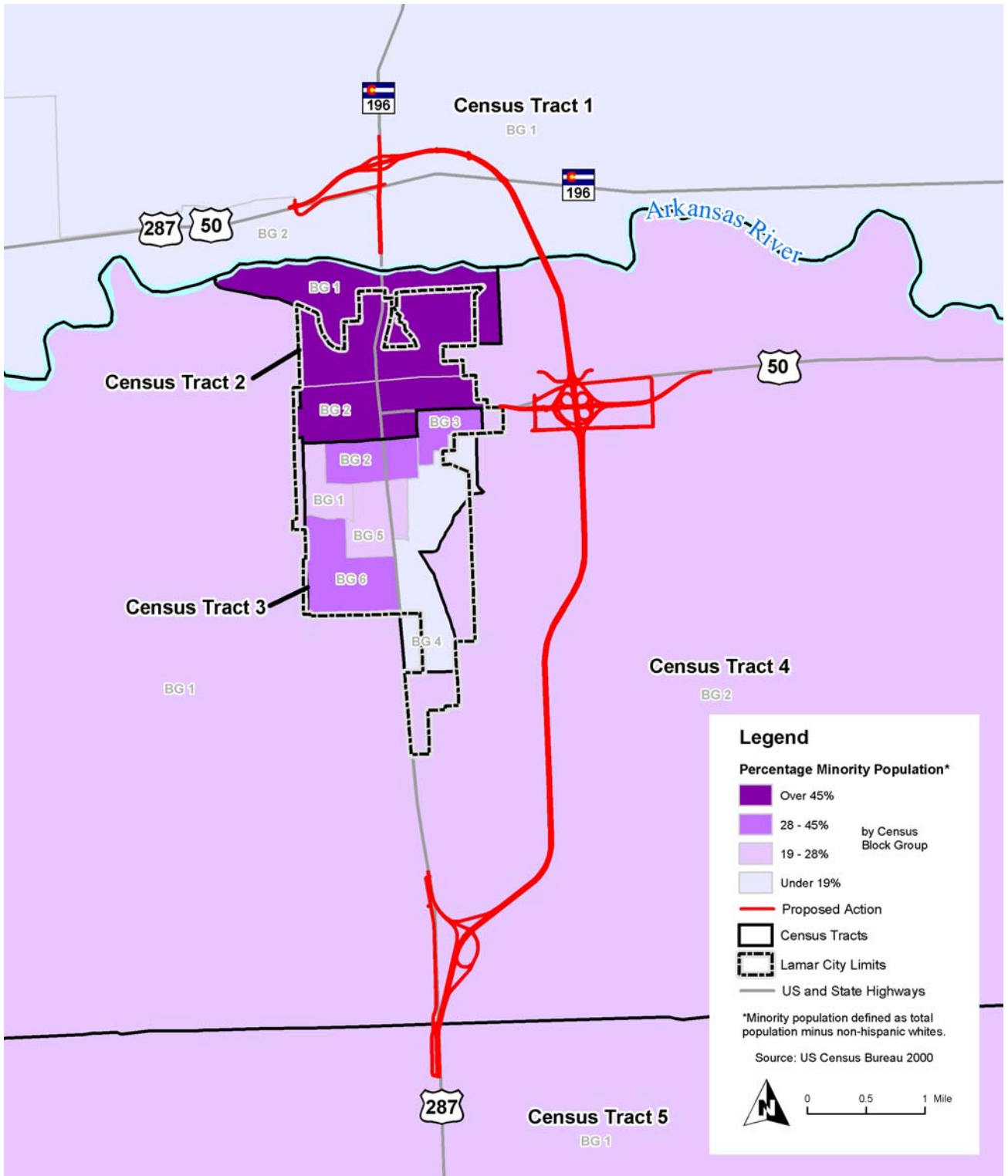
### 3.1 Minority Populations

The population of the Study Area is predominately White (90 percent) and Not Hispanic or Latino (85 percent), as shown in Tables 1 and 2. Fewer than 1 percent of residents are Black, American Indian, or Asian; 9 percent of residents are Other Races, including two or more races. In the Study Area, 16 percent of residents are of minority race or ethnicity (calculated as the difference between 100 percent and the population who are Not Hispanic or Latino and White Alone, see Table 2 footnotes).

Prowers County is more racially and ethnically diverse than the Study Area, though still predominately White (79 percent) and Not Hispanic or Latino (67 percent). American Indians comprise just more than 1 percent of the population, while Blacks and Asians each total less than 0.5 percent of residents. Nearly one in five residents report being of Other Races, including two or more races. In Prowers County 35 percent of residents are of minority race or ethnicity (calculated the remainder of population who are Not Hispanic or Latino and White Alone, see Table 2 footnotes).

The minority population in the Study Area is well below that of the City of Lamar, as shown in Figure 2.

FIGURE 2 Minority Populations in the Study Area



**TABLE 1**  
Minority Race Characteristics for U.S. 287 at Lamar, 2000

Race	Study Area <sup>1</sup>		Prowers County	
	Number of Persons	Percent	Number of Persons	Percent
White	2,520	89.6	11,379	78.6
Black/African American	4	0.1	43	0.3
American Indian/Alaska Native	23	0.8	177	1.2
Asian	12	0.4	54	0.4
Native Hawaiian//Pacific Islander	0	--	4	--
Other Race(s) <sup>2</sup>	253	9.0	2,830	19.5
Total Population	2,812		14,483	

Source: U.S. Census Bureau, 2000

**Footnotes**

<sup>1</sup> Includes Census Tracts 1 and 4

<sup>2</sup> Includes two or more races

**TABLE 2**  
Hispanic Characteristics for U.S. 287 at Lamar, 2000

Ethnicity	Study Area <sup>1</sup>		Prowers County	
	Number of Persons	Percent	Number of Persons	Percent
Total Population	2,812	100.0	14,483	100.0
Hispanic or Latino	415	14.8	4,766	32.9
Not Hispanic or Latino	2,397	85.2	9,717	67.1
White Alone <sup>2</sup>	2,355	83.7	9,427	65.1

Source: U.S. Census Bureau, 2000

**Footnotes**

<sup>1</sup> Includes Census Tracts 1 and 4

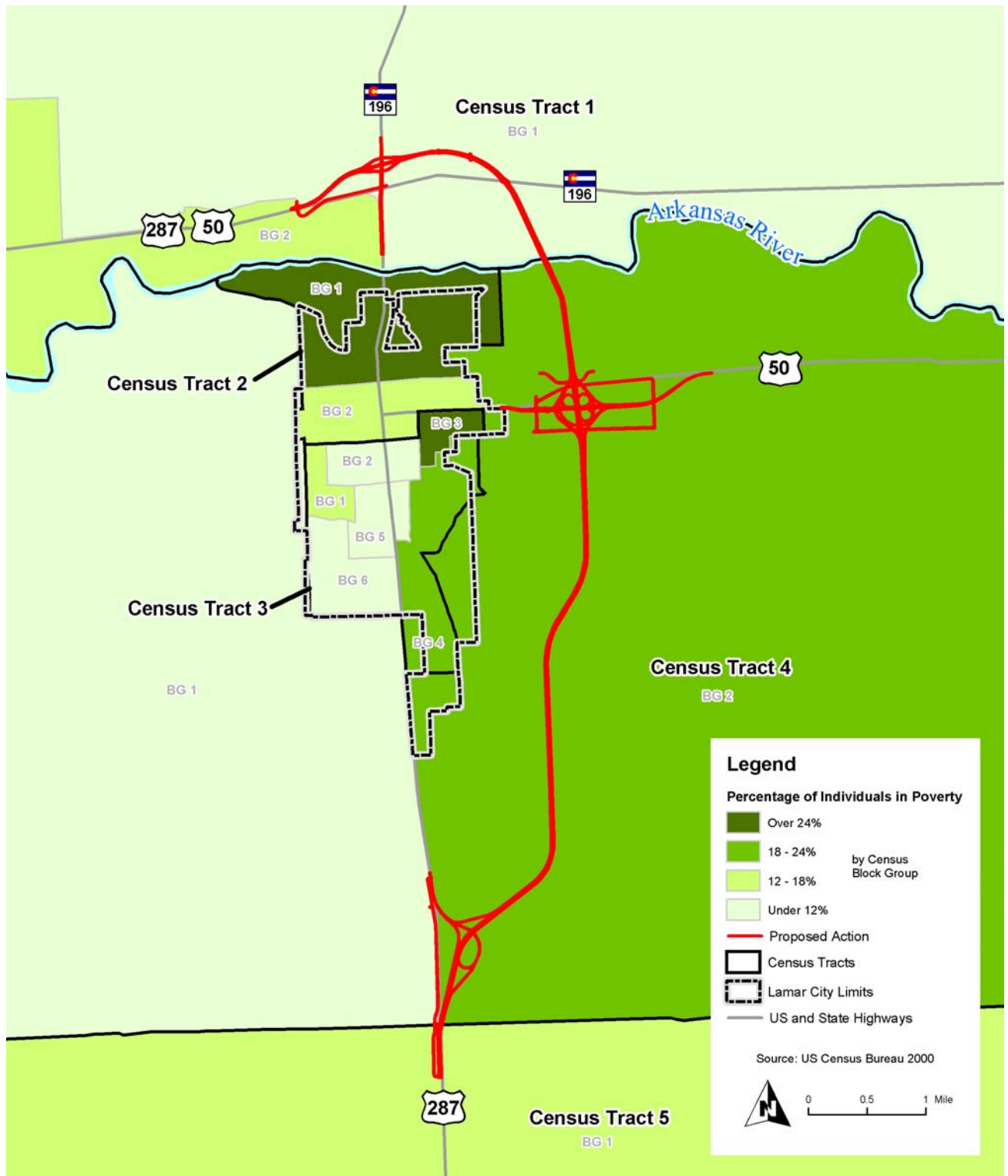
<sup>2</sup> This group, "Not Hispanic or Latino" and "White Alone," are the only nonminorities; the proportion of minority residents can be calculated by subtracting this figure from 100 percent

## 3.2 Low-Income Populations

The Study Area is more affluent than Prowers County, as indicated by individuals in poverty and median household income, as shown in Table 3. About 16 percent of residents lived in poverty in 1999, well below the 20 percent level in the County. Median income in the Study Area totaled almost \$38,500, 12 percent above the County-wide median.

The areas with the highest proportion of low-income populations are within the City of Lamar, as shown in Figure 3.

FIGURE 3 Low-Income Populations in the Study Area





**TABLE 3**  
Poverty and Income Characteristics for U.S. 287 at Lamar, 1999

Characteristic	Study Area <sup>1</sup>	Prowers County
Individuals in Poverty	424	2,755
Proportion of Individuals in Poverty <sup>2</sup>	15.7%	19.5%
Average Household Size (persons)	2.77	2.67
Median Household Income	\$38,467	\$34,202
Interpolated Poverty Threshold <sup>3</sup>	\$12,733	\$12,491

Source: U.S. Census Bureau, 2000

**Footnotes**

<sup>1</sup> Includes Census Tracts 1 and 4

<sup>2</sup> Persons for whom poverty status was determined, may vary slightly from percent of total population

<sup>3</sup> Department of Health and Human Services national weighted average poverty threshold in 1999 for a family of three people is \$13,290 and for family of two is \$10,869; interpolated poverty thresholds shown include \$12,733 for a household of 2.77 persons, as in the Study Area, and \$12,491 for a household of 2.67 persons, as in Prowers County.

## 4.0 Impacts of Proposed Action

The Proposed Action requires acquisition of 486 acres. Properties to be acquired include 139 acres in public ownership, 125 acres of which are owned by the County comprising the existing truck bypass, and 347 acres owned privately. Most of the privately owned land (98 percent of 347 acres) is in agricultural use, predominately unimproved dryland range and one feedlot. Private land to be acquired for right of way is summarized in Table 4.

**TABLE 4**  
Right of Way Full Acquisitions

Type of Property	Major Acquisitions <sup>1</sup>		Acres <sup>2</sup>	
	Total	Minority Owned	Total	Minority Owned
Commercial	3	0	6.3	0
Residential	1	0	1.7	0
Agricultural	1	0	339.0	0
<b>Total Private Property</b>	<b>5</b>	<b>0</b>	<b>347.0</b>	<b>0</b>

Source: Kirkham Michael Consulting Engineers, 2003

**Footnotes**

<sup>1</sup>Includes complete land acquisition and/or relocations

<sup>2</sup>Total acreage acquired for right of way, included full and partial acquisitions

The area in which the Proposed Action would be constructed is rural and largely unpopulated. Most residences in the Study Area are located near the north or east interchanges in scattered low-density rural tracts that do not constitute neighborhoods. Residences near the east interchange are divided by existing U.S. 50 and the Lamar Canal. None of the business owners or residents near the north interchange are minority or low-income, and there is adequate space to relocate on the remainder one manufactured home

within proposed future right of way (Kirkham Michael Consulting Engineers, 2003). Of more than 30 property owners near the east interchange, three may be minorities (based on surnames); partial acquisition will be required from only one minority property owner. These direct impacts and potential social disruptions do not disproportionately affect minority or low-income populations.

Land uses will transition from present agricultural, residential, and commercial to highway infrastructure, but this impact is not disproportionately concentrated on minority or low-income populations.

Constructing the grade-separated interchanges of the Proposed Action will introduce visual impacts to most of the residents near the north and east interchanges. Of more than 50 property owners near the two interchanges, three may be minorities (based on surnames); this does not constitute a disproportionate impact to minority or low-income populations.

#### 4.1 Benefits of the Proposed Action

The Purpose of the Proposed Action is to enhance safety and environmental conditions in the City of Lamar. The benefits from the Proposed Action include improved safety by removing trucks from Main Street and the attendant reduction in traffic noise and improved air quality. These benefits will accrue to all 8,900 residents of Lamar and particularly to residents along the U.S. 287 and U.S. 50 highway corridors. Comparison between the City of Lamar and the Study Area reveals that the City has

- more than twice the proportion of minority residents,
- 25 percent higher proportion of persons living in poverty, and
- 25 percent lower median household income.

This information, summarized in Table 5, indicates that benefits from the project will be disproportionately realized by minority and low-income residents.

TABLE 5  
Demographic Characteristics for U.S. 287 at Lamar

Characteristic	Study Area <sup>1</sup>	City of Lamar <sup>2</sup>	Prowers County
Proportion of Minority Residents <sup>3</sup>	16.3%	38.9%	34.9%
Proportion of Individuals in Poverty	15.7%	19.7%	19.5%
Median Household Income	\$38,467	\$28,660	\$34,202

Source: U.S. Census Bureau, 2000

##### Footnotes

<sup>1</sup> Includes Census Tracts 1 and 4

<sup>2</sup> Includes most of Census Tracts 2 and 3, and a sliver of Census Tract 4

<sup>3</sup> Includes persons who are "Not Hispanic or Latino" and "White Alone"

#### 4.2 Conclusions

Information provided in this section confirm that the project will not cause disproportionately high and adverse effects on minority and low-income populations because

- potential impacts are not predominately borne by a minority and/or low-income populations, and

- potential impacts to minority and/or low-income population in the Study Area are not appreciably more severe or greater in magnitude than potential impacts to the rest of the population.

## 5.0 References

CH2M HILL, 2003. *U.S. 287 at Lamar: Economic Analysis*. Technical Memorandum to CDOT Region 2. October 6, 2003.

FHWA, 1998. *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Federal Highway Administration, Order 6640.23. December 2, 1998. Downloaded from FHWA website at [www.fhwa.dot.gov/legsregs/directives/orders.htm](http://www.fhwa.dot.gov/legsregs/directives/orders.htm).

Kirkham Michael Consulting Engineers, May 2003. *Summary of Right of Way Impacts for the U.S. 287 at Lamar Project*. Technical Memorandum to CDOT Region 2. September 25, 2003.

U.S. Census Bureau, 2000. Statistics from the year 2000 Decennial Census tables SF-1 and SF-3 for geographies including Prowers County, City of Lamar and Census Tracts downloaded in 2003 from [www.census.gov](http://www.census.gov).

U.S. Census Bureau, 1997. Statistics from the 1997 Economic Census table *Minority- and Women-Owned Businesses, Lamar, CO*, downloaded in 2003 from [www.census.gov/epcd/mwb97/co/CO43110.html](http://www.census.gov/epcd/mwb97/co/CO43110.html).