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# ENVIRONMENTAL JUSTICE TECHNICAL REPORT

FOR THE

I-25 (US 36 to 104<sup>th</sup> Avenue)  
Environmental Assessment

*Prepared for:*



Colorado Department of Transportation  
Region 1  
2829 W. Howard Place  
Denver, CO 80204

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## List of Acronyms and Abbreviations

ACS	American Community Survey
BG	Block Group
CDOT	Colorado Department of Transportation
FHWA	Federal Highway Administration
HHS	Health and Human Services
HUD	Housing and Urban Development
I-25	Interstate Highway 25
MBO	Minority Business Office
NEPA	National Environmental Policy Act
RTD	Regional Transportation District
US 36	U.S. Highway 36
USDOT	United States Department of Transportation



## 1.0 Project Description

An environmental justice evaluation was completed for the Interstate 25 (I-25) North, United States Highway 36 (US 36) to 104<sup>th</sup> Avenue project.. Colorado Department of Transportation (CDOT), in cooperation with the Federal Highway Administration (FHWA), is preparing a template Environmental Assessment for the I-25 North, US 36 to 104<sup>th</sup> Avenue project. The Regional Transportation District (RTD) is a cooperating agency.

The I-25 North, US 36 to 104<sup>th</sup> Avenue project includes improvements to relieve congestion and improve safety on I-25 from US 36 to 104<sup>th</sup> Avenue in Adams County and the City of Thornton, Colorado (**Figure 1** and **Figure 2**). The project will provide improvements to an approximately 4-mile segment of I-25 between US 36 and 104<sup>th</sup> Avenue. The current cross-section of I-25 between US 36 and 104<sup>th</sup> Avenue generally includes three general-purpose lanes and one Express Lane along the inside shoulder with an auxiliary lane between 84th Avenue and Thornton Parkway. The inside shoulder varies in size between 2 and 12 feet, and the outside shoulder varies between 10 and 12 feet. There is a 2-foot inside shoulder and a 2-foot buffer between the Express Lane and the nearest general-purpose lane.

Proposed improvements associated with this project are as follows:

- ▶ Adding a fourth general-purpose lane in each direction from 84<sup>th</sup> Avenue to Thornton Parkway with the northbound general-purpose lane extending to 104<sup>th</sup> Avenue,
- ▶ Constructing continuous acceleration and deceleration lanes between the I-25/84<sup>th</sup> Avenue interchange, and the I-25/Thornton Parkway interchange,
- ▶ Widening the inside and outside shoulder to a consistent 12-foot width,
- ▶ Accommodating a proposed median transit station and pedestrian bridge for the Thornton Park-n-Ride just south of 88<sup>th</sup> Avenue, and
- ▶ Replacing the 88<sup>th</sup> Avenue bridge.

The proposed typical section on I-25 will consist of four 12-ft general-purpose lanes, a 12-ft Express Lane along the inside travelled way, and a 12-ft outside auxiliary lane between each interchange. Additionally, the inside and outside shoulders will be widened to 12 feet and the Express Lane buffer will be widened to 4 feet, and a two-foot barrier will separate the northbound and southbound lanes of I-25. Surrounding the median station will be a 2-foot concrete barrier separating the Express Lanes from the bus station and bus lanes.

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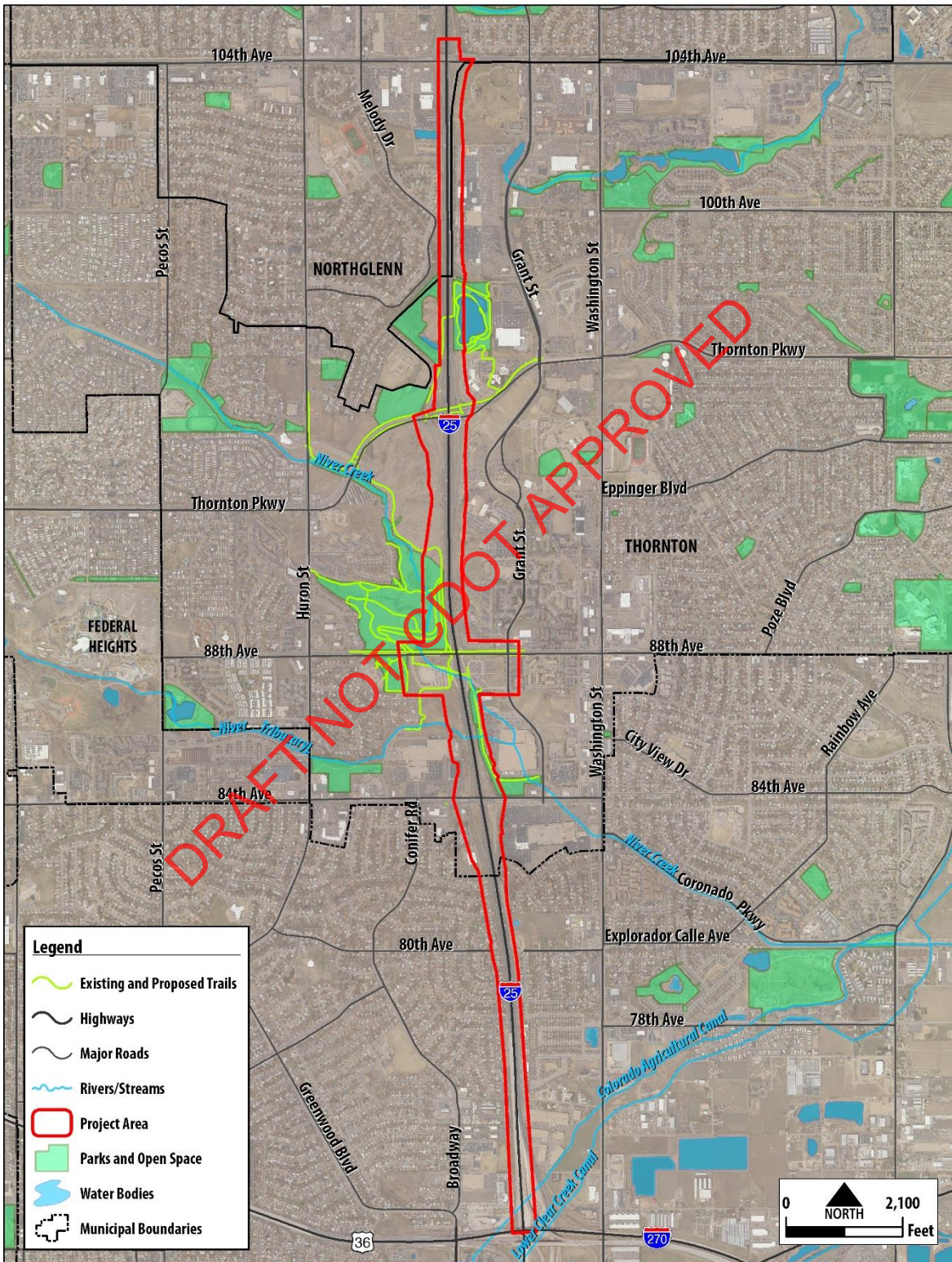
Figure 1. Project Vicinity



Source: FHU, 2019



Figure 2. Project Area



Source: FHU, 2019



## 2.0 Environmental Justice

Environmental justice refers to social equity in sharing the benefits and burdens of specific projects or programs. This analysis followed the FHWA policy regarding environmental justice (FHWA Order 6640.23A) and the U.S. Department of Transportation's (USDOT) *Guidance on Environmental Justice and NEPA* (USDOT, 2011), as identified in the *CDOT National Environmental Policy Act (NEPA) Manual* (2017).

Developing an understanding of the demographic character of an area is important in assessing both potential impacts and possible benefits of the project to the local community, including any identified minority and/or low-income populations. The study area for this report is defined as the Census block groups (BGs) adjacent to the study area (**Figure 3**). Many Census BGs within the study area are large and extend well beyond the constraints of the project and, thus, provide a broader characterization of the communities that the project may affect.

## 3.0 Existing Conditions

### 3.1 Minority Populations

This discussion of minority populations is based on information from the US Census American Community Survey (ACS) 2012-2016. Minority populations are composed of ethnic and/or racial minorities. As defined by FHWA Order 6640.23, a minority is a person who is Black, Hispanic, Asian American, or American Indian or Alaskan Native. It is important to note that Hispanic or Latino

heritage is not listed as a race category in the Census data: a person of Hispanic or Latino origin can identify with any racial group.

**Table 1** and **Figure 4** present population data and race percentages for the Census Tract BGs within the study area, Adams County, and the State of Colorado. The study area intersects Adams County, Thornton, and Northglenn. In 2016, the population of Adams County was 479,977 (US Census Bureau, 2016).

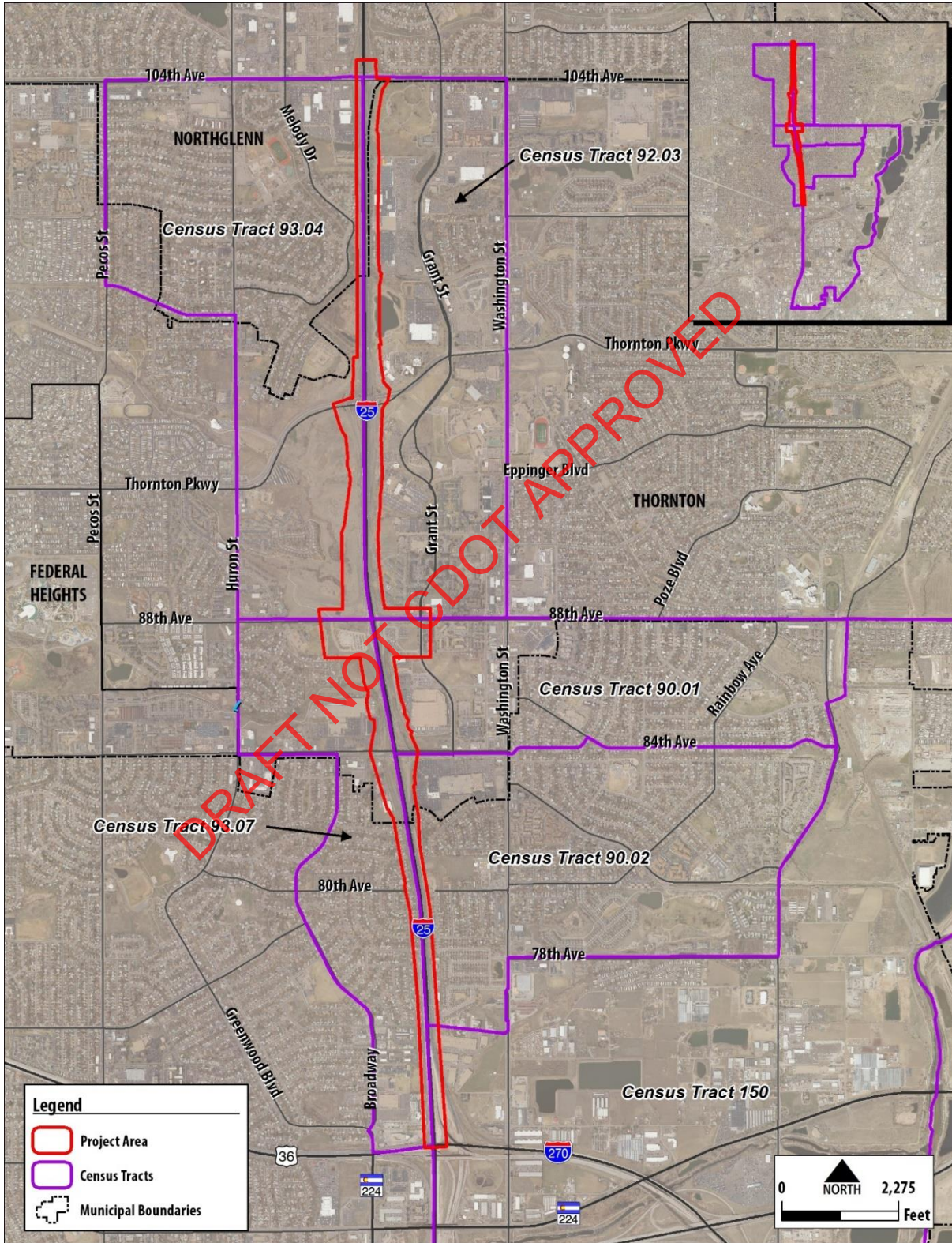
According to the Interagency Working Group on Environmental Justice (established by Executive Order 12898), a "Non-Hispanic/Latino White" percentage of less than 50 percent implies a minority population of greater than 50 percent, which indicates there is a "Minority Population" (CEQ Order 129898, 1997). Census Tract 90.01, BG 2; Census Tract 90.02, BG 4; Census Tract 92.03, BG 2; and Census Tract 93.04, BG 3 fall below the "Non-Hispanic/Latino White" percentage of Adams County. Census Tract 93.07, BG 2 has the lowest minority population percent at 29.11 percent. Based on the BG data from the 2016 Census Bureau ACS 5-year population estimates for 2012-2016, most BGs had similar, or greater minority populations, as compared to Adams County.

### 3.2 Minority Owned Businesses

According to the Colorado Minority Business Office (MBO), there are no minority owned businesses in or near the study area (MBO, 2018). However, the MBO identifies only those businesses that register with the office.



Figure 3. Census Tracts Adjacent to the Study Area



Source: FHU, 2019



**Table 1. Demographics for the Study Area**

Area	Race (Percent)						Ethnicity (Percent)
	Total Population	Non-Hispanic/Latino White <sup>1</sup>	Black/African American <sup>1</sup>	Asian <sup>1</sup>	American Indian/Alaskan Native <sup>1</sup>	Native Hawaiian/Other Pacific Islander <sup>1</sup>	Hispanic/Latino (of any Race) <sup>1,2</sup>
Colorado	5,359,295	84.3	4.1	2.9	0.9	0.1	21.1
Adams County	479,977	82.8	3.2	3.8	1.2	0.1	38.9
<b>Census Block Groups in the Study Area</b>							
Census Tract 90.01, Block Group 2	2,257	73.3	8.4	1.0	0.0	0.0	31.2
Census Tract 90.02, Block Group 4	1,632	63.0	0.0	0.6	0.0	0.0	73.9
Census Tract 92.03, Block Group 2	1,068	74.7	2.5	2.7	2.9	0.0	56.7
Census Tract 93.04, Block Group 3	961	56.8	2.9	15.6	0.0	0.0	46.5
Census Tract 93.04, Block Group 4	1,477	99.0	0.0	0.0	0.0	0.0	31.1
Census Tract 93.07, Block Group 1	2,183	92.3	0.0	1.0	1.8	0.0	59.6
Census Tract 93.07, Block Group 2	1,817	84.9	2.7	0.6	3.9	0.0	66.7
Census Tract 150, Block Group 2	769	90.3	0.0	0.0	0.0	0.0	18.9
<b>Study Area Total</b>	<b>12,164</b>						

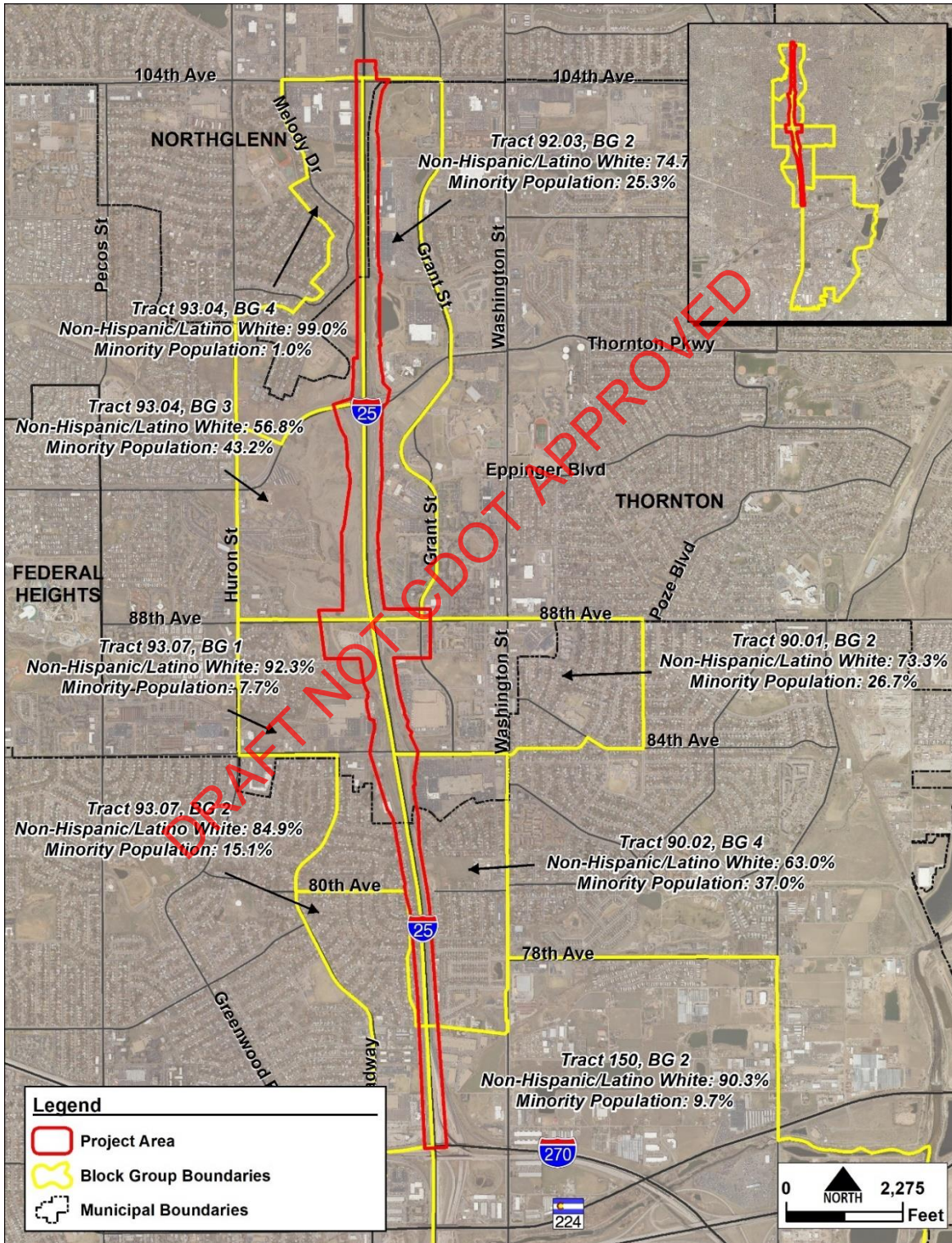
<sup>1</sup>Source: U.S. Census Bureau 2012–2016 ACS 5-Year Estimates

<sup>2</sup>People who identify their origin as Hispanic or Latino populations may be of any race.

Note: Percentages will not add up to 100 percent because people who identify their origin as Hispanic or Latino populations may be of any race. “The sum is larger than the total population because people who provided more than one race response are included in the total of each race they reported” (US Census Bureau, 2017).



Figure 4. Percentage of Minority Populations by Census Block Group (BG) within the Study Area



Source: FHU, 2019



### 3.3 Economic Conditions

Low-income, as defined by FHWA *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations Order* 6640.23A (2012) includes “...a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines,” and a low-income population is defined as “any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed FHWA program, policy, or activity.” The median household income for Adams County is \$61,444, which is lower than the Colorado median household income of \$62,520. The 2016 HHS poverty guidelines for a two-person and three-person household in Adams County are \$16,020 and \$20,160, respectively. Analysis assumes that the average household size in Adams County in 2016 was 2.9 people (US Census Bureau, 2016).

As shown in **Table 2**, the median household income estimate for Adams County in 2016 was \$61,444, lower than the estimated state median

household income (\$62,520). The percentage of households below the poverty level in the Census Tracts around the study area ranges from 15.2 percent to 19.3 percent. Every Census Tract in the study area has a greater percentage of households below the poverty level than all of Adams County (**Table 2**).

The low-income threshold for the 2.9 average household size was determined to be \$21,290 based on the extremely low-income limits for Adams County in 2016 (HUD, 2016). Because Census income statistics are divided into increments of \$5,000 for household income, any household (regardless of the number of people) in Adams County with an income of less than \$24,999 was considered low-income in this analysis. Low-income households range from 0 to 37.3 percent in the BGs intersecting the study area. As shown in **Table 3** and on **Figure 5**, four BGs have a greater percentage of low-income households than the percentage of low-income households in Adams County: Census Tract 90.01, BG 2 (37.30 percent), Census Tract 92.03, BG 2 (26.27 percent), Census Tract 93.07, BG 2 (28.55 percent), and Census Tract 150.0, BG 2 (22.93 percent).

**Table 2. Household Incomes within the Study Area**

Area	Median Household Income (2016 Inflation Adjusted Dollars)	Household Income in 2016 Below Poverty Level (Percent)
Colorado	62,520	12.2
Adams County	61,444	12.9
<b>Census Tracts in the Study Area</b>		
Census Tract 90.01	47,630	19.0
Census Tract 90.02	51,250	17.0
Census Tract 92.03	39,405	19.3
Census Tract 93.04	47,109	16.8
Census Tract 93.07	53,869	15.4
Census Tract 150.0	37,033	15.2

Source: US Census ACS 5-Year Estimates 2012–2016 (DP03).

Note: Includes all households in 2016 with income below the poverty level. The data used in this environmental justice analysis were collected July 2018.

\*All Census Tracts have a higher percentage of households below the poverty level than the percentage of households below the poverty level in Adams County. Additionally, all Census Tracts have a median household income below that of Adams County.



**Table 3. Low-Income Households within the Study Area**

Area	Low-Income Households (Percent) (2016 Inflation Adjusted Dollars)
Colorado	18.1
Adams County	15.8
<b>Census Tracts in the Study Area</b>	
Census Tract 90.01, Block Group 2	37.3
Census Tract 90.02, Block Group 4	0.0
Census Tract 92.03, Block Group 2	26.3
Census Tract 93.04, Block Group 3	13.5
Census Tract 93.04, Block Group 4	12.7
Census Tract 93.07, Block Group 1	6.0
Census Tract 93.07, Block Group 2	28.6
Census Tract 150.0, Block Group 2	22.9

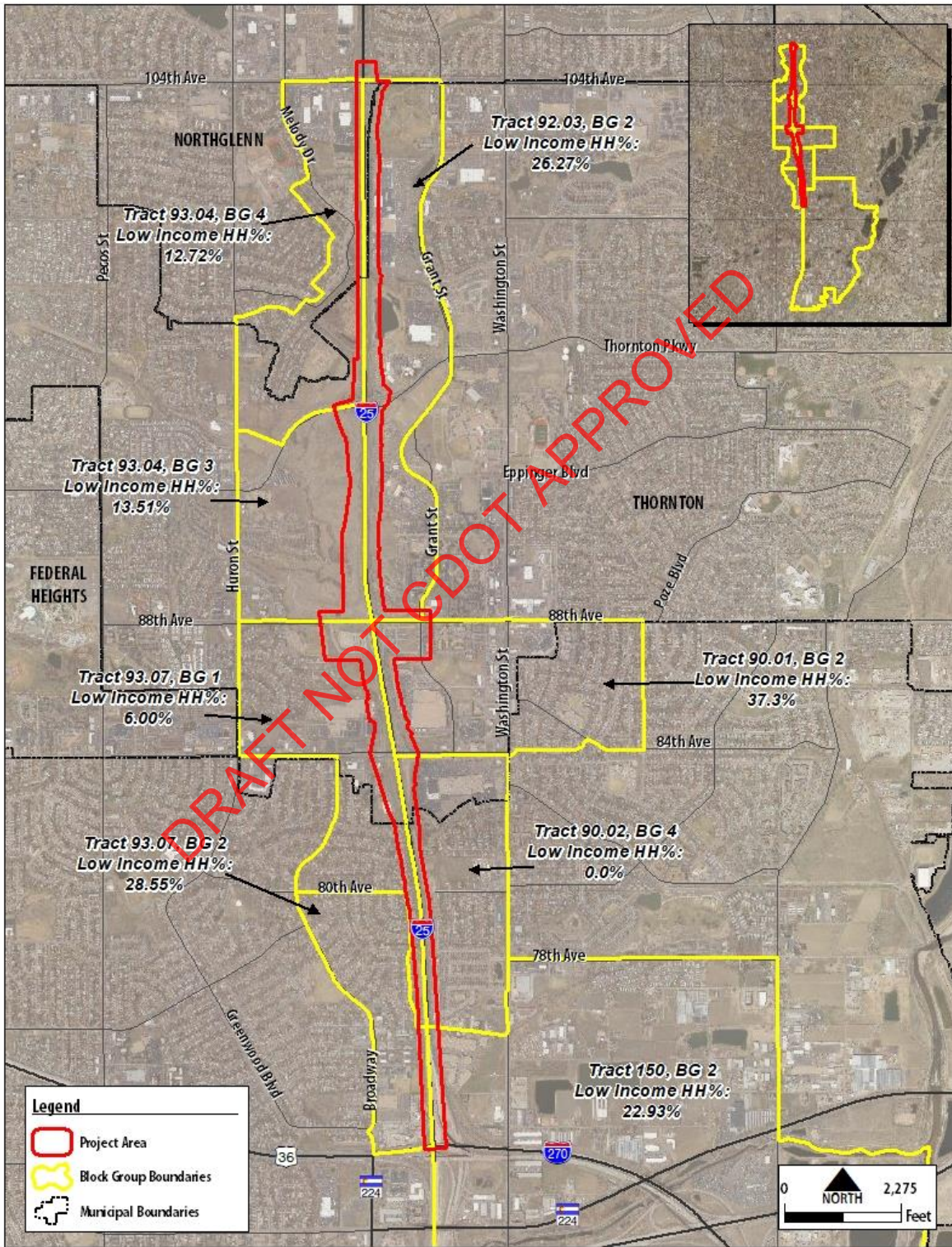
Source: US Census ACS 5-Year Estimates 2012–2016.

Note: Includes all low-income households in 2016. Some households that had a higher income than the threshold income are included because they fall within the income range that includes the threshold income level. The data used in this analysis were collected July 2018.

Shaded rows indicate the four block groups with a greater percentage of low-income households than that of Adams County.

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Figure 5. Percentage of Low-Income Families by Census Block Group (BG) within the Study Area



Source: FHU, 2019



## 4.0 Impacts

The environmental justice analysis evaluates each alternative 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 study area.

Construction of the proposed improvements would result in temporary delays and detours that would affect communities intersecting the study area and all other travelers within the study area. During these times, travel within the study area would take longer due to construction delays. There are eight BGs near the study area, but only five have residences near the study area boundaries. This project is not expected to directly affect these residences. The proposed improvements should not negatively affect businesses because businesses

near the project area are outside of right-of-way necessary to accommodate the project. Access to businesses will be maintained during construction should construction activities occur near the businesses.

As noted, the only impacts anticipated are temporary construction impacts that would affect travelers in the area and not just low income and/or minority individuals or communities. Furthermore, these temporary construction impacts would not disproportionately affect low income or minority neighborhoods, residences, or businesses.

Benefits that would occur with the Proposed Action include decreased idling time on I-25 due to decreased traffic, resulting in decreased emissions for businesses and residences in the project area.

Table 4 identifies the impacts associated with the No Action Alternative and the Proposed Action.

**Table 4. Impacts on Social Resources/ Environmental Justice**

Context	No Action Alternative	Proposed Action
<p>The project area is in Adams County. Community facilities, including churches, schools, parks, recreation, and open space, are located within and adjacent to the community study area. Low-income and minority populations are present within the Community Study Area at a percentage greater than the Colorado and Adams County percentages.</p>	<p><b>Permanent Impacts</b> The No Action Alternative would not impact any community facilities within the project area and would not result in disproportionately high or adverse impacts to low-income and/or minority populations.</p>	<p><b>Permanent Impacts</b> Would not displace community facilities or resources and would not result in disproportionately high or adverse impacts on low-income and/or minority populations.</p> <p><b>Temporary Impacts</b> Would cause some delays and detours during construction. During these times, travel within the study area would take longer due to construction delays.</p>



## 5.0 Mitigation

Because all proposed improvements are within the right-of-way, no residences will need to be relocated. The residences do not have direct access to the interstate from within the neighborhoods in the study area. As a result, there will not be a substantial number of detours for those living within the study area. However, mitigating construction detours and delays will require coordination with local communities to provide advance notification of construction delays. Also, way-finding and signage systems will be implemented to mitigate for construction delays and detours.

In addition, there will be no direct impacts to minorities and low-income populations in or near the study area, so the impacts will be distributed proportionally, thus requiring no mitigation of permanent impacts.

Because this project would have no disproportionately high and adverse human health or environmental effects on minority or low-income populations, no permanent mitigation measures are necessary.

**Table 5** identifies temporary impacts and construction mitigation for social resources/environmental justice.

**Table 5. Summary of Impacts and Mitigation Commitments for Social Resources/Environmental Justice**

Impact	Mitigation Commitment	Responsible Branch	Timing/Phase That Mitigation Will Be Implemented
Delays and detours during construction.	Coordinate with the communities adjacent to the project area to provide advance notification of construction delays.	CDOT	Construction
Delays and detours during construction.	Implement a way-finding and signage system to ease travel conditions for motorists.	CDOT	Construction

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