

**US 6/Wadsworth**



**Environmental  
Assessment**

# Environmental Justice Technical Memorandum

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**CH2MHILL**



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# Acronyms and Abbreviations

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AMI	average median income
CDBG	Community Development Block Grant
CDOT	Colorado Department of Transportation
dBA	decibel (A-weighted scale)
DOT	Department of Transportation
E.O. 12898	Executive Order 12898
EA	Environmental Assessment
FHWA	Federal Highway Administration
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
MBO	Minority Business Office
MSA	Metropolitan Statistical Areas

# Environmental Justice

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## Introduction

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:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations (FHWA, 2000).

This technical memorandum, prepared in support of the US 6 and Wadsworth Boulevard Environmental Assessment (EA), provides a review of existing conditions for environmental justice, describes the methodology used to identify minority and low-income populations in and adjacent to the study area, and evaluates the potential for impacts as a result of the proposed project.

The area evaluated for environmental justice extends beyond the project study area to include the communities adjacent to the proposed project. This area is bounded by 1st and Colfax Avenues from south to north and by Garrison and Pierce Streets from west to east (**Exhibit 1**). Four neighborhoods surround the US 6/Wadsworth Blvd. interchange: Eiber, Molholm/Two Creeks, North Alameda, and Creighton. The study area was extended farther west than east to evaluate the potential for mitigation in neighborhoods currently experiencing noise impacts west of the interchange.

## 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 issued (CDOT) *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>.

## Initial Identification of Minority and Low-Income Populations

### Minority Populations

Minority populations were initially identified using Census 2000 data at the block level. 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. Blocks with a higher percentage of minorities than the city or county average are evaluated for disproportionately high and adverse effects and selected for specialized outreach.

In Lakewood, 21 percent of the population is considered minority.<sup>1</sup> Of the 241 blocks in the area evaluated for environmental justice, 81 contain minority populations above Lakewood’s average (approximately 33 percent of the study area). These are shown by location in **Exhibit 1**.

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<sup>1</sup> The project team considered whether City or County thresholds would be most appropriate for this analysis. Because Jefferson County is so large and diverse, Lakewood reflects the demographics of the study area more accurately. The project team, therefore, selected Lakewood as the appropriate measure for identifying minority populations.

## Minority-Owned Businesses

The Colorado Minority Business Office (MBO) maintains a listing of minority-owned business enterprises that register with the office in Colorado. The state database identified two minority-owned businesses within the area evaluated for environmental justice. Services provided by these businesses include real estate lending and video rental. Only one of these businesses is located near the proposed improvements, in the 400 block of Wadsworth Blvd.

A business survey was distributed to a sampling of businesses along US 6 and Wadsworth Blvd. to better understand business operations in the corridor.<sup>2</sup> The survey contained questions about business demographics and provided opportunities for additional involvement. None of the businesses surveyed indicated that it is minority-owned, has any particular connection to a minority community, or provides employment, goods, and/or services uniquely important to a minority population group.

In addition to the early business surveys, the project team contacted every commercial property owner with the potential to be directly affected by the US 6 and Wadsworth project improvements. Of the 114 properties affected, the team was able to talk directly with nearly two-thirds of the affected property owners, including approximately 12 who also own the business operating on the property. None of these businesses identified itself as a minority owned business or raised any issues specific to disadvantaged businesses at these meetings.

## Low-Income Populations

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.

The median family income in the Denver-Aurora MSA is \$71,800. In Lakewood, the average household size is 2.32 persons. The income limits for 30 percent of average median income (AMI) for a household size of 2.32 is \$18,368. Because census income statistics are divided

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<sup>2</sup> The project team sought to interview a representative number, type, and distribution of businesses operating along Wadsworth Blvd., including around the interchange. The businesses were categorized by general business types, such as automotive, restaurant, lodging, and medical. Fourteen businesses were interviewed by the project team. This number represents approximately 25 percent of the businesses in each category.

into increments of \$5,000, the income threshold of \$20,000 is used. In Lakewood, 13 percent of households fall below the \$20,000 threshold.<sup>3</sup>

For purposes of privacy, the census block group is the most detailed level of data that displays income information. Ten block groups containing more than 5,806 households encompass the area evaluated for environmental justice. As shown in **Exhibit 1**, six of these contain a higher percentage of low-income households than Lakewood.

## 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 study area. For these reasons, demographic data for Jefferson County public schools, interviews with school principals, and information provided by Lakewood’s Housing Authority were also considered.

### Jefferson County Public School Demographics

The project team identified the public schools that serve students residing in the study area (**Exhibit 2**).<sup>4</sup> Elementary school boundaries generally coincide with the neighborhood boundaries; elementary school demographics, therefore, provide the most relevant information about the neighborhoods in the study area. The middle school and high school boundaries encompass larger areas; therefore, demographic information from these schools is less helpful in analyzing demographics in the study area. It must be noted that the demographic information for elementary schools is from the 2005-2006 school year, while census data are from the year 2000.

EXHIBIT 2  
Neighborhood Schools

Neighborhood	Elementary School	Middle School	High School
Eiber	Eiber Elementary	Creighton Middle	Lakewood High
Molholm/Two Creeks	Molholm Elementary	Creighton Middle and Wheat Ridge Middle <sup>1</sup>	Lakewood High and Jefferson High <sup>1</sup>
North Alameda	Stein Elementary	O’Connell Middle	Alameda High
Creighton	South Lakewood Elementary	Creighton Middle	Lakewood High

<sup>1</sup>School boundary outside of project study area.  
Source: Jefferson County Public Schools, 2007.

<sup>3</sup> The project team considered whether City or County thresholds would be most appropriate for this analysis. Because Lakewood more accurately reflects the demographics of the study area, the project team selected Lakewood as the appropriate measure for identifying low-income populations.

<sup>4</sup> The Jefferson County Open School, located at the intersection of Wadsworth Blvd. and 10th Avenue, is a public school open to all residents of Jefferson County, serving grades kindergarten through 12. Because the school serves students throughout Jefferson County, its demographics are not indicative of demographics within the study area.



## Jefferson County Public School Minority and Low-Income Measures

### Minority Student Populations

Jefferson County public schools serving the study area comply with U.S. Department of Education standards for collecting and reporting racial and ethnic data. The standards have five minimum categories for race, which are American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. In addition, there are two categories for data on ethnicity: "Hispanic or Latino" and "Not Hispanic or Latino." These race and ethnic categories are set forth to accurately measure the race and ethnicity for the general population of students.

### Low-Income Student Populations

Jefferson County public schools serving the study area participate in the National School Lunch Program, which provides free or reduced lunches to students. This program is administered by the U.S. Department of Agriculture and follows federal income eligibility guidelines to determine student eligibility. School officials compare the household size and the total household income of student applicants to the program Income Eligibility Guidelines, which are based on the household size and income levels prescribed annually by the Secretary of Agriculture.

## Jefferson County Public School Demographics Results

The project team examined the data from local elementary schools to determine the percentage of students that are minority and/or participate in the National School Lunch Program, as shown in **Exhibit 3**.

EXHIBIT 3  
Public Elementary School Demographics

Statistic	Eiber	Molholm	Stein	South Lakewood
% Minority	61.0%	73.3%	82.8%	30.5%
% Eligible for free lunch	66.0%	80.5%	73.6%	24.7%
% Eligible for free and reduced lunch	72.5%	90.4%	81.4%	31.6%

Source: Jefferson County Public Schools, 2007.

Student minority populations ranged from 30.5 to 82.8 percent. Census data report similar percentages of minorities (between 0 and 86 percent) in the area evaluated for environmental justice. The percentages of elementary school students eligible for free or reduced lunches ranged from 31.6 to 90.4 percent. By comparison, census and HUD data report lower percentages of low-income households (between 0 and 40 percent) in the area evaluated for environmental justice.

The school demographic data show that the elementary schools serving the Molholm/Two Creeks and North Alameda neighborhoods have the highest percentages of minorities and low-income students. Census and HUD data report lower percentages of minorities (between 0 and 57 percent) and low-income households (between 0 and 40 percent) within the portion of these neighborhoods that fall within the area evaluated for environmental justice.

Part of this difference can be explained by differing definitions of low income by the National School Lunch Program and HUD. To provide an even comparison, data from the census, HUD, and the National School Lunch Program were evaluated for the year 2000. For school year 1999-2000, the National School Lunch Program set eligibility for free lunch at an annual income of \$25,155, and reduced lunch at an annual income of \$35,798. Using these numbers, the percentages of households in census block groups in and around the study area that would qualify for free or reduced lunches ranged from 2.1 to 48.5 percent. These numbers are still lower than elementary school demographic data.

Another reason for this difference is that many of the households included in the demographic data provided by schools live outside of the area evaluated for environmental justice. School boundaries are larger than census blocks and block groups. Concentrations of minority and low-income households that reside outside of the area of analysis could make it appear that there are higher populations of minority and low-income households near the US 6 and Wadsworth Blvd. project.

### **Interviews with Jefferson County Public Schools**

The project team conducted a series of interviews with school principals in the study area to gain a better understanding of neighborhood characteristics. School principals provided updated information on minority and low-income student populations, based on their definition of low-income, and explained where these populations reside within the school service boundary.

#### **South Lakewood Elementary School**

The portion of the Creighton neighborhood that is within the area of analysis is served by South Lakewood Elementary School. The school is located on 1st Avenue southwest of the US 6/Wadsworth Blvd. interchange. The school principal noted that low-income and minority populations reside primarily in the western portion of the school's service area, west of Union Boulevard, outside the area evaluated for environmental justice. There are several apartment complexes in this area that house a large number of these students.

The immediate neighborhood surrounding the school consists of higher-income families with school-age children. The income level drops with residents who reside west of Union Boulevard. The principal also noted that one-third of the student population is choice enrolled, and most of these students come from the Stein, Molholm, and Eiber elementary school districts.

The information gathered during the interview supports the census findings, which show higher income and lower minority percentages in the Creighton neighborhood. The primary contribution to the minority and low-income percentages at South Lakewood seems to be students who reside west of Union Boulevard, or who choice enroll in the school from the surrounding North Alameda, Eiber, and Molholm/Two Creeks neighborhoods.

#### **Eiber Elementary School**

The portion of the Eiber neighborhood that is within the area of analysis is served by Eiber Elementary School. The school is located northwest of the US 6/Wadsworth Blvd. interchange, and its service boundary extends west to Simms Street. The principal stated that the school service boundary contains mixed income levels; there are newer homes, with ostensibly higher incomes; a large number of apartments, with ostensibly lower incomes; a

large retirement community; and patio homes that primarily serve an older population. The principal noted that the school has a large and growing Hispanic population.

The principal stated that there are a large number of motels located along Colfax Avenue, near the project area, that house some homeless families with students enrolled in Eiber Elementary. There were 38 homeless families with children attending Eiber Elementary in 2006, which represented approximately 10 percent of the total school population.

The information gathered during the interview indicates that minority and low-income populations could be greater than what is reported by census data. The most recent school data, from the 2005-2006 school year, show minority enrollment at 61 percent. According to census data, only four of the 105 census blocks in the Eiber neighborhood exceed 50 percent. School data show 72.5 percent of children eligible for free or reduced lunches. Using the National School Lunch Program income eligibility guidelines for the 1999-2000 school year, only 28 percent of households in the Eiber neighborhood would have qualified for free or reduced lunches, according to the household income data from the Census 2000.

Two hypotheses may explain the differences in data. One hypothesis is that a larger percentage of the minority population and/or households with lower incomes have school-age children in the Eiber neighborhood. A second hypothesis is that the minority population in the neighborhood is growing at a higher rate than the non-minority population, and the census data from 2000 no longer provide an accurate picture of neighborhood demographics. Both of these hypotheses, working in concert, could help to explain the higher percentages of minority and low-income students reported by the school.

Because the Eiber neighborhood is much larger than the census geography used in the environmental justice analysis, it is more likely that many of the households included in the demographic data provided by schools live outside of the area evaluated for environmental justice. Concentrations of minority and low-income households that reside outside of the area of analysis could make it appear that there are higher populations of minority and low-income households near US 6 and Wadsworth Blvd. The motels located along Colfax Avenue that house some homeless families with students enrolled in Eiber Elementary would not be directly affected by the US 6 and Wadsworth Blvd. project.

### **Molholm Elementary School**

The portion of the Molholm/Two Creeks neighborhood that is within the area of analysis is served by Molholm Elementary School. The school is located on 9th Avenue and Pierce Street, northeast of the US 6/Wadsworth Blvd. interchange. The 2007 student enrollment included an 80 percent minority student population. The school service area contains pockets of low-income apartment housing near 12th Avenue and Wadsworth Blvd., several apartment complexes located east of Pierce Street, and multiple-family duplex units located on 14th Avenue near Wadsworth Blvd. The school principal noted that one-third of the Molholm student enrollment consists of second-language learners who speak Spanish.

The information gathered during the interview indicates that minority and low-income populations could be greater than what is reported by census data. The most recent school data, from the 2005-2006 school year, show minority enrollment at 73.3 percent. According to census data, only two of the 65 census blocks in the Molholm/Two Creeks neighborhood exceed 50 percent. School data show 90.4 percent of children eligible for free or reduced

lunches. Using the National School Lunch Program income eligibility guidelines for the 1999-2000 school year, 36 percent of households in the Molholm/Two Creeks neighborhood would have qualified for free or reduced lunches, according to the household income data from the Census 2000.

Similar hypotheses as those discussed in relation to Eiber Elementary may explain the differences in data: perhaps a larger percentage of the minority population and/or households with lower incomes have school-age children in the Molholm/Two Creeks neighborhood; and perhaps the minority population in the neighborhood is growing at a higher rate than the non-minority population, and census data from 2000 no longer provide an accurate picture of neighborhood demographics. Both of these hypotheses, working in concert, could help to explain the higher percentages of minority and low-income students reported by the school.

Because the Molholm/Two Creeks neighborhood is much larger than the census geography used in the environmental justice analysis, it is more likely that many of the households included in the demographic data provided by schools live outside of the area evaluated for environmental justice. Interviews with the school principal indicate that low-income households are concentrated in apartment complexes and low-income housing more than 0.75 mile north of the interchange. Concentrations of minority and low-income households that reside outside of the area of analysis could make it appear that there are higher populations of minority and low-income households near US 6 and Wadsworth Blvd.

### **Stein Elementary School**

The project team requested an interview with the principal of Stein Elementary School. The principal declined to meet with the project team, and no additional information was gathered regarding student demographics. The hypotheses presented in relation to Eiber and Molholm elementary schools may be valid in relation to Stein Elementary as well.

## **Public and Section 8 Housing Programs**

The City of Lakewood's Housing Authority administers the Public Housing Program and the Section 8 Housing Program for Jefferson County. The project team contacted both programs to further identify low-income populations within the study area. Each program reported the number of housing units located within the project area.

### **Public Housing Program Measures**

The Public Housing Program owns and manages 159 public housing units in the City of Lakewood. The program rents these subsidized units to eligible low-income families who pay rent according to their income, which is 30 percent of adjusted income toward rent and utilities. The remaining rent due is then subsidized by HUD.

### **Section 8 Housing Program Measures**

The Section 8 Housing Program provides rental assistance vouchers to eligible families. Funding for this program is provided by HUD, and the program utilizes privately owned existing housing stock. Families whose income falls within the income guidelines qualify for this program and receive a Housing Choice Voucher for rent for a single-family house or an

apartment. Participants pay approximately 30 to 40 percent of their monthly income on a sliding scale for rent and the Housing Authority pays the balance.

### Public Housing and Section 8 Housing Data Results

The Public Housing program reported two public housing facilities with a total of 17 housing units in the study area. East of the study area, near 2nd Avenue and Pierce Street, two additional public housing units were identified within a one-half mile radius. The Section 8 Housing Program reported approximately 110 Section 8 families renting units within the study area. These data show that there are low-income persons, as defined “low income” for the purposes of these two housing programs, residing in the study area. Public housing facilities are shown by location in **Exhibit 1**.

## Spanish Language Outreach

Specialized outreach efforts were employed to identify and engage Spanish speaking stakeholders in the decision-making process. Spanish speakers, as opposed to other language speakers, were targeted because of the high percentage of Hispanic children identified in the local school demographics.

English and Spanish project fact sheets were placed in the registration packets of six area schools in August 2007 to introduce the study to the public. An informational insert, printed in English and Spanish, was included in the Jefferson High School October 2007 newspaper, which was distributed to 3,000 families located in a geographic area containing identified minority and low-income populations. The insert provided basic project information and gave instructions for joining the mailing list.

Newsletters and the public scoping meeting invitation were mailed in both English- and Spanish-language versions to all addresses on the project mailing list. Newspaper ads and press releases have included telephone numbers for Spanish translation, a Spanish language email account has been established and distributed to stakeholders, and information. Spanish translation has been offered at all public meetings.

No requests for Spanish language translation have occurred during the study, and no noticeable minority or low-income populations have become involved in the study. There are identified minority and low-income populations in the neighborhoods surrounding the project area; however, communications to date with the residents and businesses immediately adjacent to the project area indicate that those who would be most affected by the project do not fall into either category.

## Conclusion

The area of analysis contains three neighborhoods with percentages of minority and low-income populations that exceed the minority and low-income percentages in Lakewood: Eiber, Molholm/Two Creeks, and North Alameda. The schools serving these three neighborhoods also have high numbers of minority students and students eligible for free and reduced lunches through the National School Lunch Program. This is consistent with census data. However, in all four neighborhoods within the area of analysis, data from

elementary schools (2005-2006) show higher percentages of minority and low-income students than census data indicate for the general population. A primary reason for this difference is that many of the households included in the demographic data provided by schools live outside of the area evaluated for environmental justice. Concentrations of minority and low-income households that reside outside of the area of analysis could make it appear that there are higher populations of minority and low-income households near US 6 and Wadsworth Blvd. Because elementary school demographic data support the census analysis, the blocks and block groups shown in **Exhibit 1** will be evaluated for disproportionately high and adverse effects.

The following specialized outreach efforts are recommended to engage minority and low-income stakeholders in the decision-making process for the project, and identify ways in which to reduce potential impacts:

- Provide additional community outreach efforts to involve minority and low-income residents in and near the area to build community involvement, and to generate and maintain community participation.
- Send English- and Spanish-postcard and newsletter mailings to the study area and surrounding communities.
- Place an announcement about the study in utility bill mailings to reach minority and low-income residents.
- Hold workshops at community facilities within minority areas or other locations suggested by the public.
- Visit various minority chambers of commerce and community agencies for additional outreach opportunities.
- Conduct outreach efforts through the elementary schools.
- Conduct interviews with business owners throughout the project area.

## Environmental Consequences

The environmental justice analysis evaluates the No Build and Build 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 study area. A disproportionate impact is defined by FHWA as one that is:

1. Predominantly borne by a minority and/or low-income population, or
2. 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 Build Alternative 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. Impacts to natural resources (i.e., flora and fauna, geology and soils, wetlands) have been assumed not to have any direct or indirect effects on human populations.

### **No Build Alternative**

Impacts associated with the No Build Alternative would be distributed across the community and would not result in disproportionately high and adverse impacts to minority and/or low-income populations. There would be no displacement of minority or low-income residents, businesses, or employees. Impacts from construction would not occur. Traffic congestion would worsen in the study area, hindering access to housing, businesses, community facilities, and the provision of emergency services for minority and low-income populations, as well as for the overall community.

The No Build Alternative does not address transportation problems in the corridor and does not provide mitigation for noise. Benefits associated with noise mitigation would not be received by the overall community, including minority and low-income populations.

### **Build Alternative**

The Build Alternative would require the relocation of 14 residences. Of the 14 residential relocations, three are located in census blocks with a higher-than-average percentage of minorities and one is located in both a minority and low-income census block/block group. An additional seven residences are located in the northeast quadrant of the interchange in a census block group where 24 percent of households are considered low-income. However, because low-income households are concentrated in the northern portion of this block group, these individual households are not considered low-income.

The Build Alternative would require the relocation of 28 businesses. These businesses were not identified as being minority-owned, either by the MBO, through public involvement efforts, or through property owner meetings. There is no evidence to suggest that these businesses have any particular connection to a minority or low-income community or provide employment, goods, and/or services uniquely important to minority or low-income populations.

Noise walls, recommended in all four quadrants of the interchange, would benefit more than 330 residences. The greatest benefit would be to households along US 6 between Carr and Garrison Streets, where there are currently no noise walls. Of the 90 benefited households in this area, 49 are in minority and/or low-income areas. In terms of intensity, noise walls would provide an average noise reduction of between 6 and 8 dBA. With mitigation, noise levels would be lower than they are today.

Adverse effects would occur to four historic properties. These properties are immediately adjacent to the interchange, where neither minority nor low-income populations are present in higher than average numbers. The affected properties include three residences and one business. These properties are located at the southern and western edge of the Green Acres neighborhood; loss of these properties would not impact community cohesion.

The Proposed Action would benefit minority and low-income residents, as well as the overall community, by improving mobility, safety, and access to businesses, residences, and community facilities and services. The frontage road configuration in the northeastern quadrant of the interchange would allow southbound Wadsworth Blvd. traffic to turn onto the frontage road, reducing neighborhood cut-through traffic. Both Highland and Broadview Drives would connect to the frontage road, allowing residents and emergency services easier access to and from Wadsworth Blvd. These features were developed in response to concerns expressed by local residents. An 8-foot multi-use sidewalk would be provided on both sides of Wadsworth Blvd. to accommodate pedestrians and bicyclists. The sidewalk would be detached in most locations between US 6 and 14th Avenue, providing a higher level of safety for minority and low-income residents, as well as the overall community.

As described above, impacts associated with the Build Alternative would not be predominantly borne by minority and/or low-income populations. Nor would they be suffered by the minority and/or low-income population and be appreciably more severe or greater in magnitude than the impacts suffered by the non-minority/non-low-income population. The Build Alternative would benefit minority and low-income populations through the provision of noise walls, bicycle and pedestrian facilities, and improvements in traffic operation. Therefore, the Build Alternative would not result in disproportionately high and adverse impacts to minority or low-income populations.

### **Construction Impacts**

The Build Alternative 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.

## **Mitigation**

No mitigation measures are necessary. Specialized outreach to minority and low-income populations was conducted as part of the public involvement process to gather concerns regarding the project. Specialized outreach activities and the input received throughout the project are described in Section 5.2.3 of the EA, Specialized Outreach to Minority and Low-Income Populations. Concerns expressed by the public were carefully considered by the project team and incorporated into project design whenever feasible.



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