

CENTRAL BROWARD EAST-WEST TRANSIT STUDY

Environmental Justice Technical Memorandum



July 2012



JACOBS

CENTRAL BROWARD



TRANSIT STUDY

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1.0 Overview

1.1 Purpose

Environmental Justice principles were applied to the early planning efforts to identify low-income and minority populations within the Central Broward East-West Transit Analysis Study area in accordance with Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” signed by President Clinton on February 11, 1994. The federal commitment to Environmental Justice was reaffirmed with a May 2, 2012 Department of Transportation (DOT) Updated Environmental Justice Order 5610.2(a) and FTA Circular 4703.1 issued July 17, 2012 entitled “Environmental Justice Policy Guidance for Federal Transit Administration Recipients” Effective August 15, 2012. These regulations, in conjunction with Title VI of the Civil Rights Act of 1964, direct Federal agencies and recipients of federal funds to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority or low-income populations to the greatest extent practicable and permitted by law. Adverse impacts may also include “denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations”. This concept of Environmental Justice (EJ) as a public policy goal requires not only consideration of potentially disproportionate impacts, but also participation by these special populations in decision making concerning the project and its development. It also prevents the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

1.2 Methodology

Based on existing guidance from the Council on Environmental Quality (CEQ) and the U.S. Environmental Protection Agency (EPA) a “minority population may be present where either (a) the minority population of the affected area exceeds 50 percent or (b) if the minority population percentage in the affected area is ‘meaningfully greater’ than the minority population percentage in the general population or other appropriate unit of geographic analysis”¹. The updated FTA Circular 4703.1 requires that reasonable efforts be made to “identify the presence of *distinct* minority and/or low-income communities residing both within, and in close proximity to the proposed project or activity and to identify those minority and/or low-income groups who use or are dependent upon the natural resources that could be potentially affected by the proposed action.” The DOT Order 5610.2 defines minority as a person who is Black, Hispanic, Asian American, American Indian and Alaskan Native, including those persons of two or more races. The recent Order also defines low-income as a person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

For the purposes of this study, populations and households were analyzed within one quarter-mile of the proposed alignment locations, and the area of comparison used was Broward County. All data was taken from the U.S. Census Bureau and the American Community Survey (ACS), and reflects population counts from 2010. The smallest U.S. Census geographic designation for which information was available for each data category was used for the spatial analysis. Minority and elderly data was analyzed at the Census Block level, low-income data was analyzed at the Census Block Group level,

¹ CEQ Environmental Justice: Guidance under the National Environmental Policy Act, December 1997.

and transit-dependent data was analyzed at the Census Tract level. See Exhibit 1 for the summary table showing the study area socioeconomic statistics.

Identification of distinct minority and/or low-income communities is the first step in the EJ analysis. The next step is the determination of whether EJ populations would be subjected to disproportionate high and adverse human health or environmental effects of a public transportation project, policy, or activity. It should be noted that population size alone does not determine whether EJ populations are affected disproportionately. The comparative impact (adverse and beneficial) of an action on EJ populations and non-EJ populations is the determining factor. At this preliminary stage of review, the full extent of potential impacts is not yet known. The purpose of this analysis is to determine where potential concerns exist for further analysis in the next environmental impacts assessment prior to project development.

Identification of a distinct minority population group as being an EJ population was determined for this analysis when a U.S. Census Block population group exhibits a minority percentage that is greater than 50 percent. Minority populations in Broward County represent 56 percent of the population. The use of a 50 percent threshold was applied in determining whether distinct populations are present.

Similarly, low-income population groups were determined to be EJ populations where the concentration of the population within a Census Block Group represents as much or more than the Broward County low-income population average of 13 percent of the total population. The lowest level of detail for ACS reporting of low-income populations is at the Census Block Group. The Central Broward Study area as a whole is 15 percent low-income; however, the concentration of populations varies by municipality at different locations along the alternative alignments. The cities of Lauderhill, Fort Lauderdale, and Dania Beach all have average low-income populations above the countywide average.

The definition of low-income in the May 2012 DOT Order represents a change in methodology since this EJ assessment was begun in late 2011. For purposes of this report, the thresholds defined for low-income are retained to be at or above the reference geographical population of Broward County as the more conservative approach. In the National Environmental Policy Act (NEPA) assessment, low-income populations for the EJ assessment will be defined by U.S. Census Block Group (the most detailed level of information) where the median household income is at or below the most recent Department of Health and Human Services (DHHS) poverty guidelines. Population groups would then be adjusted for inflation using factors published by the Bureau of Labor Statistics.

Although not considered EJ populations, transit-dependent and elderly populations were also identified due to the fact that members of these two socioeconomic groups would benefit greatly from transit services. Minority and low-income persons may also be elderly or transit dependent and that information is useful in determining the importance of transit benefits in weighing burdens and benefits of the project. A person was considered transit-dependent if he or she did not own a vehicle; and was considered elderly if he or she was sixty-five years old or older.

Additional analysis will be conducted following the selection of the Locally Preferred Alternative (LPA) in the Fall of 2012. The NEPA process will include a full EJ assessment to include identification of an area of potential impact for direct, indirect and cumulative adverse impacts and benefits; analysis

of benefits and burdens; determination as to the distribution of mitigation measures; and evaluation of any remaining adverse and significant impacts after mitigation and the distribution among EJ and non-EJ populations. Outreach to EJ populations has been an integral part of the LPA selection process and was a significant factor in the definition of alternatives for this project. The continued engagement of EJ populations will be considered in defining the public engagement methods for the NEPA assessment for the selected LPA to ensure that these protected populations are involved in the next phase of project development and the decision-making process.

Exhibit 1: Socioeconomic Summary Table

Focus Area	Total	Minority		Low-Income		Transit Dependent*		Elderly	
		Total	%	Total	%	Total	%	Total	%
SR7/Broward Boulevard Alternative Quarter-Mile Alignment Corridor	68,051	37,618	54%	18,575	16%	2,965	4%	7,583	13%
Griffin Road Alternative Quarter-Mile Alignment Corridor	71,712	32,940	42%	17,651	17%	2,745	4%	7,793	12%
Broward County	1,748,066	987,249	56%	227,629	13%	24,730	3%	249,424	14%
Central Broward Study Area	560,091	316,821	52%	76,419	15%	10,544	4%	17,174	13%
The City of Sunrise	84,439	53,423	63%	8,572	10%	714	2%	12,809	15%
The Town of Davie	91,992	39,780	43%	10,481	12%	1,153	3%	9,773	11%
The City of Plantation	84,955	39,356	46%	6,826	8%	698	2%	11,438	13%
The City of Lauderdale	66,887	57,739	86%	15,553	23%	1,850	6%	8,637	13%
The City of Dania Beach	29,639	14,059	47%	4,038	14%	369	2%	4,380	15%
The City of Fort Lauderdale	165,521	78,618	47%	29,927	18%	4,413	6%	25,334	15%
<i>Data Source</i>		<i>Census 2010</i>		<i>ACS 2010</i>		<i>ACS 2010</i>		<i>Census 2010</i>	
<i>Level of Detail</i>		<i>Census Blocks</i>		<i>Census Block Groups</i>		<i>Census Tracts</i>		<i>Census Blocks</i>	

* Based on the percentage of workers over the age of 16 in households.

2.0 Build Alternatives

The following socioeconomic data is presented based on the two proposed Build Alternatives. Due to the fact that these alternatives share common roadway segments on both the eastern and western end of the corridor, only the central segments that are different will be described as being separate to avoid redundancy. Both alternatives would span the entire east-west extent of the of the study area, running from Sawgrass Mills in the west to a terminus at one of two Tri-Rail stations in the east.

2.1 Western Common Segment

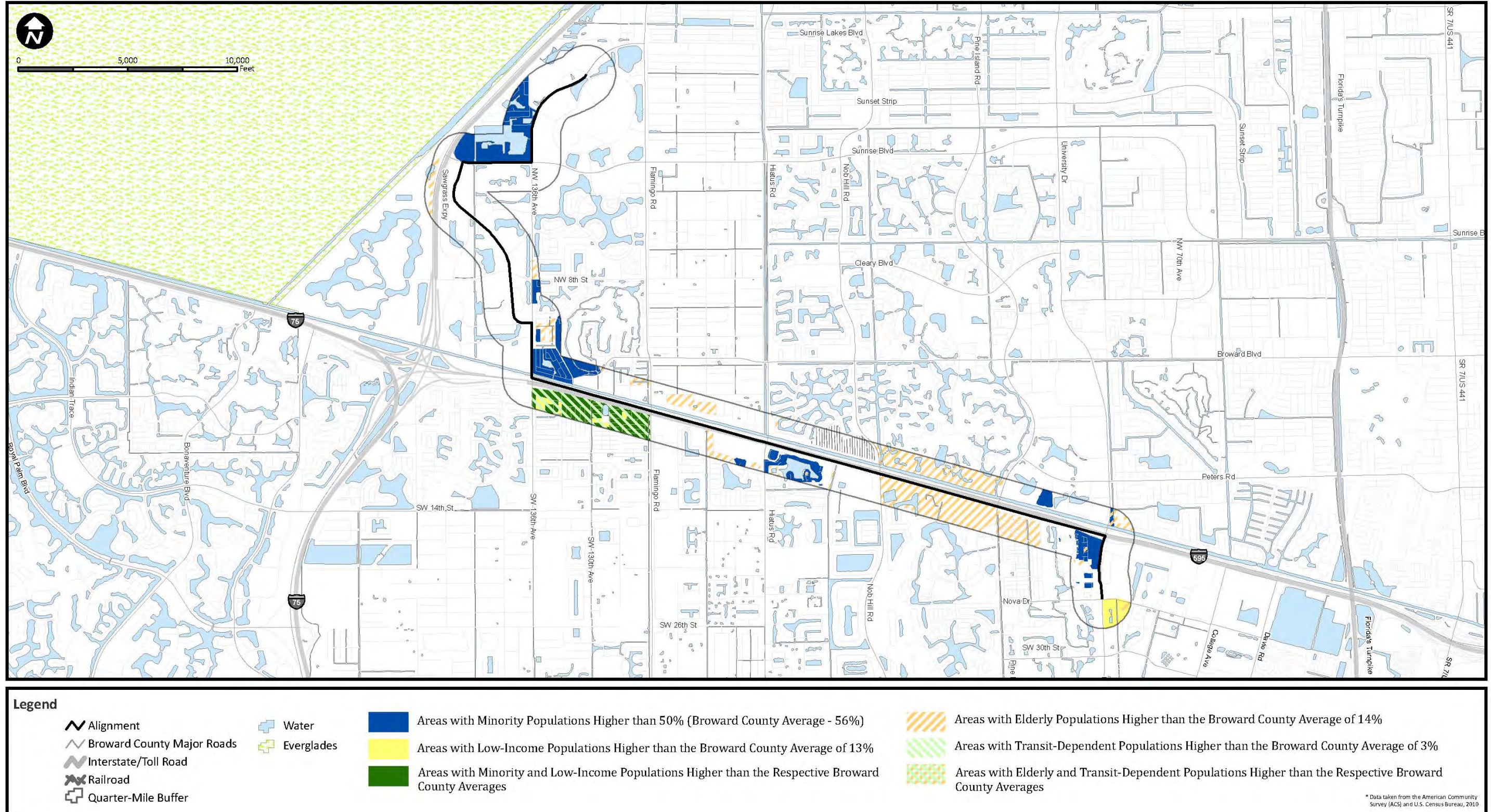
With the presence of the commercial areas of Sawgrass Mills Mall, the BB&T Center (formerly the Bank Atlantic Center), and the Sawgrass Corporate Business Park on the far western end of this segment, most of the population living within one quarter-mile of the proposed alignment is located along the I-595 corridor between 136th Avenue and University Drive. EJ populations along this segment are located in three major areas: north of the Sawgrass Corporate Business Park; along both sides of I-595, roughly between 136th Ave and Flamingo Road; and along the northern portion of University Drive. Exhibit 2 shows the relevant U. S. Census data for the Western Segment, along with that of surrounding areas for purposes of comparison. Exhibit 3 illustrates the location of EJ populations within the segment.

Exhibit 2: Socioeconomic Data for the Western Segment

Focus Area	Total	Minority		Low-Income		Transit Dependent*		Elderly	
		Total	%	Total	%	Total	%	Total	%
Quarter-Mile Alignment Corridor	25,952	11,398	44%	4,678	9%	703	2%	3,335	13%
Broward County	1,748,066	987,249	56%	227,629	13%	24,730	3%	249,424	14%
Central Broward Study Area	560,091	316,821	52%	76,419	15%	10,544	4%	17,174	13%
The City of Sunrise	84,439	53,423	63%	8,572	10%	714	2%	12,809	15%
The Town of Davie	91,992	39,780	43%	10,481	12%	1,153	3%	9,773	11%
The City of Plantation	84,955	39,356	46%	6,826	8%	698	2%	11,438	13%
<i>Data Source</i>		<i>Census 2010</i>		<i>ACS 2010</i>		<i>ACS 2010</i>		<i>Census 2010</i>	
<i>Level of Detail</i>		<i>Census Blocks</i>		<i>Census Block Groups</i>		<i>Census Tracts</i>		<i>Census Blocks</i>	

* Based on the percentage of workers over the age of 16 in households.

Exhibit 3: Environmental Justice Populations within the Western Segment



2.2 Central Griffin Road Segment

The residential land uses along this segment are fairly contiguous throughout, especially along the south side of Griffin Road and west side of University Drive. The two main unpopulated areas are near the South Florida Education Center (SFEC) and the Griffin Road Tri-Rail Station. There are also a few large vacant, industrial, and agricultural areas on the north side of Griffin Road that do not have residential populations. EJ populations along this segment are mainly located south of Nova Drive between College Avenue and University Drive, along University Drive south of 30th Street, along Davie Road south of 36th Street, south of Griffin Road between SR 7 and 35th Avenue, and north of Griffin Road from University Drive to Anglers Avenue/Ravenswood Road. Exhibit 4 shows the relevant U.S. Census data for the Central Griffin Road Segment, along with that of surrounding areas for the purposes of comparison. Exhibit 5 shows the location of EJ populations within the segment.

Exhibit 4: Socioeconomic Data for the Central Griffin Road Segment

Focus Area	Total	Minority		Low-Income		Transit Dependent*		Elderly	
		Total	%	Total	%	Total	%	Total	%
Quarter-Mile Alignment Corridor: One-Way Loop Option	30,642	13,882	45%	7,538	17%	508	2%	2,890	9%
Quarter-Mile Alignment Corridor: University/Griffin Option	25,349	10,893	43%	6,632	16%	508	2%	2,463	10%
Quarter-Mile Alignment Corridor: Nova/Davie Option	24,820	11,552	47%	6,298	17%	508	2%	2,355	9%
Broward County	1,748,066	987,249	56%	227,629	13%	24,730	3%	249,424	14%
Central Broward Study Area	560,091	316,821	52%	76,419	15%	10,544	4%	17,174	13%
The Town of Davie	91,992	39,780	43%	10,481	12%	1,153	3%	9,773	11%
The City of Dania Beach	29,639	14,059	47%	4,038	14%	369	2%	4,380	15%
<i>Data Source</i>		<i>Census 2010</i>		<i>ACS 2010</i>		<i>ACS 2010</i>		<i>Census 2010</i>	
<i>Level of Detail</i>		<i>Census Blocks</i>		<i>Census Block Groups</i>		<i>Census Tracts</i>		<i>Census Blocks</i>	

* Based on the percentage of workers over the age of 16 in households.

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Exhibit 5: Environmental Justice Populations within the Central Griffin Road Segment



Legend	
Alignment	Water
Broward County Major Roads	Areas with Minority Populations Higher than 50% (Broward County Average - 56%)
Interstate/Toll Road	Areas with Low-Income Populations Higher than the Broward County Average of 13%
Railroad	Areas with Minority and Low-Income Populations Higher than the Respective Broward County Averages
Quarter-Mile Buffer	Areas with Elderly Populations Higher than the Broward County Average of 14%
	Areas with Transit-Dependent Populations Higher than the Broward County Average of 3%
	Areas with Elderly and Transit-Dependent Populations Higher than the Respective Broward County Averages

* Data taken from the American Community Survey (ACS) and U.S. Census Bureau, 2010

2.3 Central SR 7/Broward Boulevard Segment

The majority of the residential areas along this segment is located north of I-595 on both sides of SR 7 and Broward Boulevard. Noticeable areas containing no residential population are located on Nova Drive and Davie Road between College Avenue and I-595, near the junction of I-595 and SR 7, and along Broward Boulevard between 31st Avenue and I-595. This segment contains a large amount of EJ populations. They are located south of Nova Drive, between University Drive and College Avenue; on the west side of SR 7 between I-595 and Broward Boulevard; on the east side of SR 7 between 17th Street and Broward Boulevard; and on both sides of Broward Boulevard between SR 7 and I-95. Exhibit 6 shows the relevant U.S. Census data for this segment, along with that of surrounding areas for the purposes of comparison. Exhibit 7 shows the location of EJ populations within the segment.

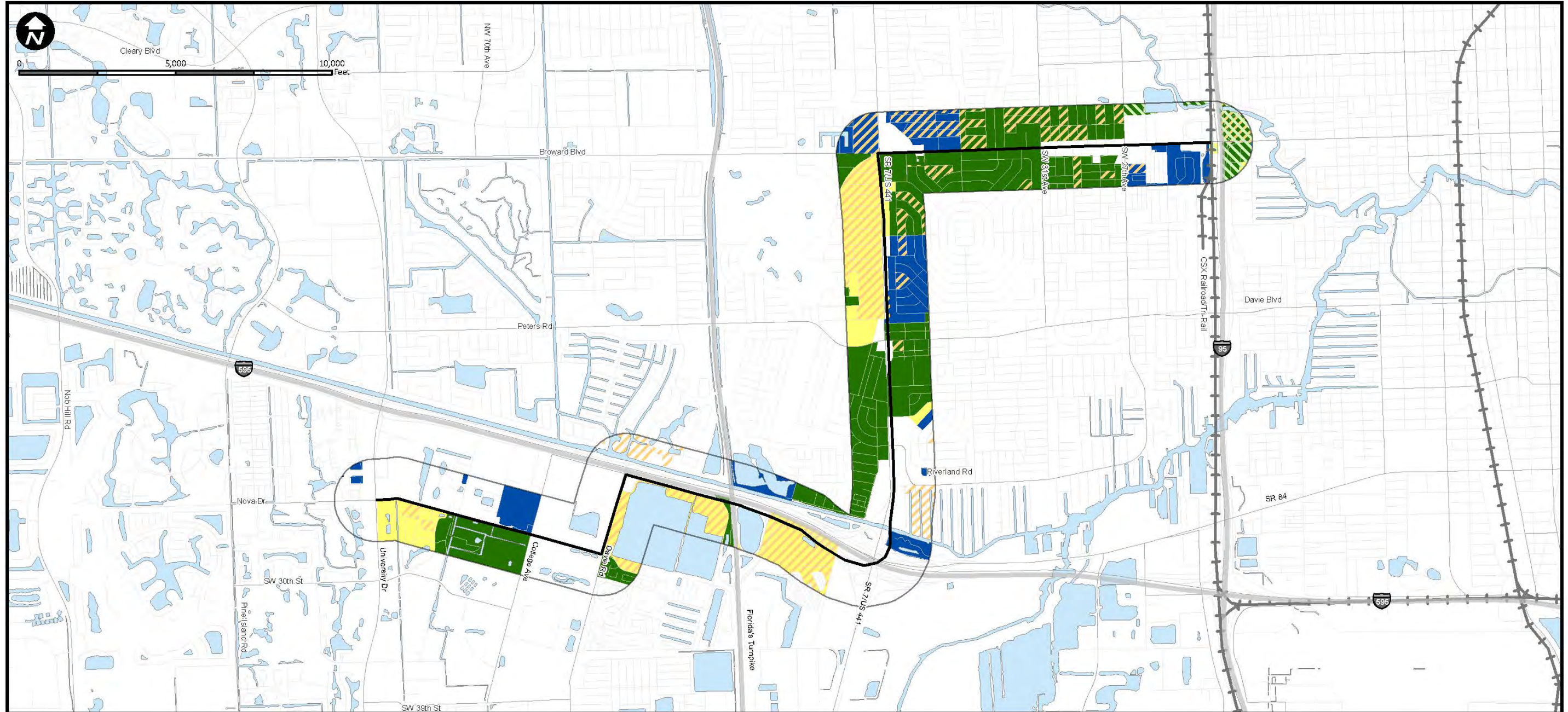
Exhibit 6: Socioeconomic Data for the Central SR 7/Broward Boulevard Segment

Focus Area	Total	Minority		Low-Income		Transit Dependent*		Elderly	
		Total	%	Total	%	Total	%	Total	%
Quarter-Mile Alignment Corridor	27,784	19,381	70%	9,658	17%	872	2%	2,733	10%
Broward County	1,748,066	987,249	56%	227,629	13%	24,730	3%	249,424	14%
Central Broward Study Area	560,091	316,821	52%	76,419	15%	10,544	4%	17,174	13%
The Town of Davie	91,992	39,780	43%	10,481	12%	1,153	3%	9,773	11%
The City of Plantation	84,955	39,356	46%	6,826	8%	698	2%	11,438	13%
The City of Lauderdale	66,887	57,739	86%	15,553	23%	1,850	6%	8,637	13%
The City of Fort Lauderdale	165,521	78,618	47%	29,927	18%	4,413	6%	25,334	15%
<i>Data Source</i>		<i>Census 2010</i>		<i>ACS 2010</i>		<i>ACS 2010</i>		<i>Census 2010</i>	
<i>Level of Detail</i>		<i>Census Blocks</i>		<i>Census Block Groups</i>		<i>Census Tracts</i>		<i>Census Blocks</i>	

* Based on the percentage of workers over the age of 16 in households.

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Exhibit 7: Environmental Justice Populations within the Central SR 7/Broward Boulevard Segment



Legend			
Alignment	Water	Areas with Minority Populations Higher than 50% (Broward County Average - 56%)	Areas with Elderly Populations Higher than the Broward County Average of 14%
Broward County Major Roads	Areas with Low-Income Populations Higher than the Broward County Average of 13%	Areas with Minority and Low-Income Populations Higher than the Respective Broward County Averages	Areas with Transit-Dependent Populations Higher than the Broward County Average of 3%
Interstate/Toll Road			Areas with Elderly and Transit-Dependent Populations Higher than the Respective Broward County Averages
Railroad			
Quarter-Mile Buffer			

* Data taken from the American Community Survey (ACS) and U.S. Census Bureau, 2010

2.4 Eastern Common Segment

The residential populations along this segment are much more sparsely located, due mainly to the presence of office and commercial land uses in the northern section (downtown Fort Lauderdale), industrial land uses in the central portion of the segment, and vacant land uses along with the Airport in the southern section. The majority of the residential land use is along 4th Street and Andrews Avenue roughly between SR 84 and downtown, and also along Broward Boulevard between I-95 and downtown. There are also many residential areas on the south side of Griffin Road between US 1 and I-95. EJ populations along this segment are found on both sides of Broward Boulevard between I-95 and 7th Avenue, west of the FEC rail tracks between SR 84 and the New River, on the east side of Andrews Avenue between 17th Street and SR 84, and sporadically between 17th Street and the New River on the east side of Andrews Avenue. Exhibit 8 shows the relevant U.S. Census data for the Eastern Common Segment, along with that of surrounding areas for the purposes of comparison. Exhibit 9 shows the location of EJ populations within the segment.

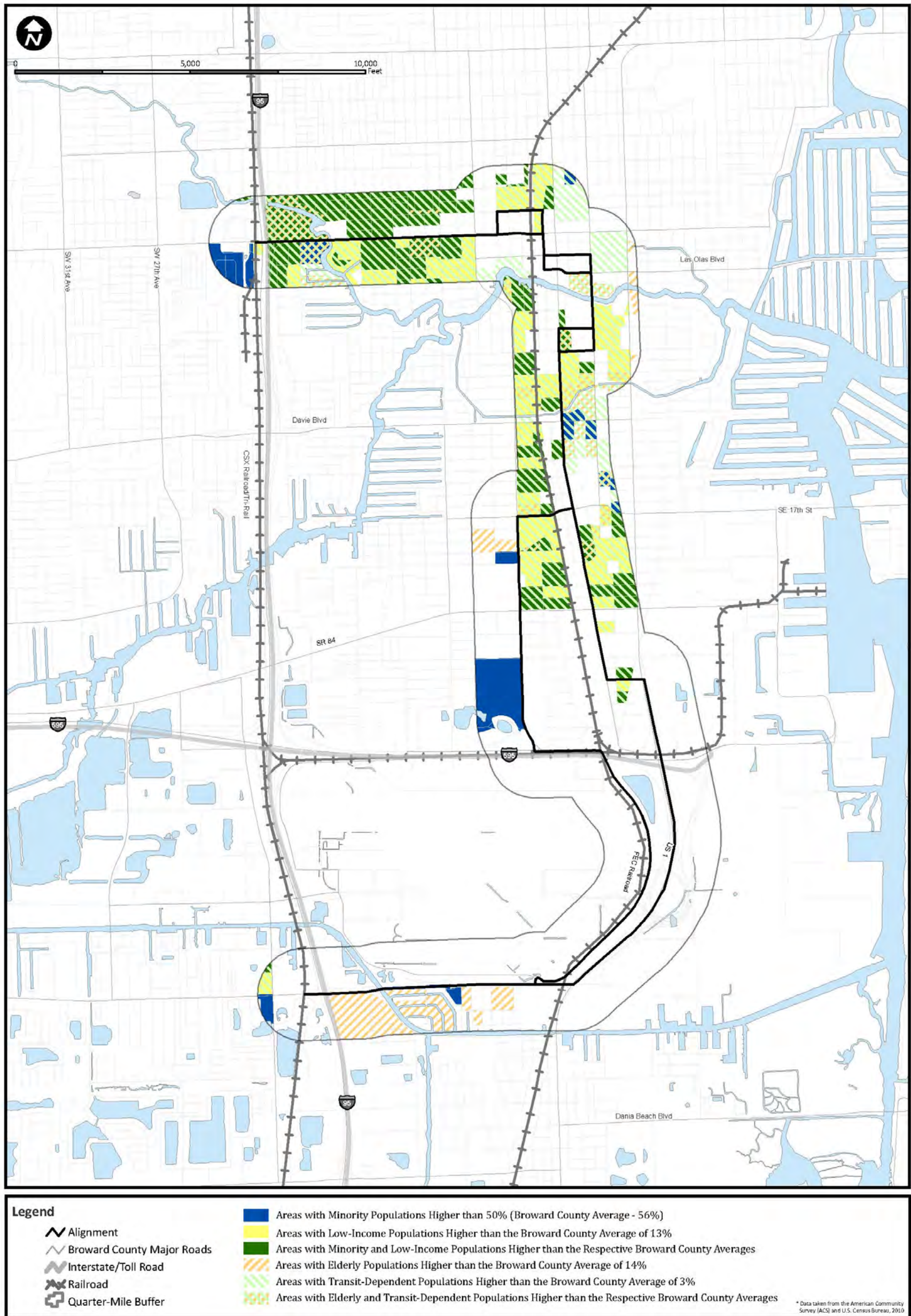
Exhibit 8: Socioeconomic Data for the Eastern Common Segment

Focus Area	Total	Minority		Low-Income		Transit Dependent*		Elderly	
		Total	%	Total	%	Total	%	Total	%
Quarter-Mile Alignment Corridor: US 1 Option	18,285	9,373	51%	7,181	22%	1,732	7%	1,797	10%
Quarter-Mile Alignment Corridor: 4 th Avenue Option	18,233	9,269	51%	7,219	19%	1,757	7%	1,823	10%
Broward County	1,748,066	987,249	56%	227,629	13%	24,730	3%	249,424	14%
Central Broward Study Area	560,091	316,821	52%	76,419	15%	10,544	4%	17,174	13%
The City of Dania Beach	29,639	14,059	47%	4,038	14%	369	2%	4,380	15%
The City of Fort Lauderdale	165,521	78,618	47%	29,927	18%	4,413	6%	25,334	15%
<i>Data Source</i>		<i>Census 2010</i>		<i>ACS 2010</i>		<i>ACS 2010</i>		<i>Census 2010</i>	
<i>Level of Detail</i>		<i>Census Blocks</i>		<i>Census Block Groups</i>		<i>Census Tracts</i>		<i>Census Blocks</i>	

* Based on the percentage of workers over the age of 16 in households.

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Exhibit 9: Environmental Justice Populations within the Eastern Common Segment



3.0 Concerns/Impacts on Environmental Justice Populations

As noted earlier, the identification of EJ populations is the first step in the analysis of disproportionate impacts. The next step is the determination as to whether EJ populations would be subjected to disproportionately high and adverse human health or environmental effects as a result of the project. Due to the nature of the project being either Premium Bus or Modern Streetcar running in-street with mixed traffic or in the median, limited impacts would be anticipated. Introduction of an additional vehicle, even if it is a different travel mode for transit, would have minimal effects overall. The potential for added benefits however is high since the added mode will afford improved and in some cases added access where none exists today.

In reviewing the effects of the proposed project, likely adverse effects and benefits are considered by weighing the totality of the circumstances revealed through examination of both adverse and beneficial effects and application of mitigation measures. Given all factors, a benefits and burden analysis is conducted for all alternatives, including the No Build Alternative. Direct, indirect and cumulative impacts would be considered in comparing the totality of significant individual or cumulative adverse effects and benefits of the project on EJ communities versus non-EJ communities. This analysis will be conducted during the NEPA environmental assessment stage once a LPA is selected.