SECTION 6-2-3
ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994), directs federal agencies 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 populations and low-income populations to the maximum extent practicable and permitted by law.

The construction of the existing I-81 viaduct was completed by the end of the 1960s, prior to the implementation of NEPA, and resulted in the acquisition of residential and commercial properties as well as relocation of the residents and businesses within its alignment through the center of Syracuse. Since then, I-81 has been a prominent feature in the Central Study Area and has influenced social and economic conditions.

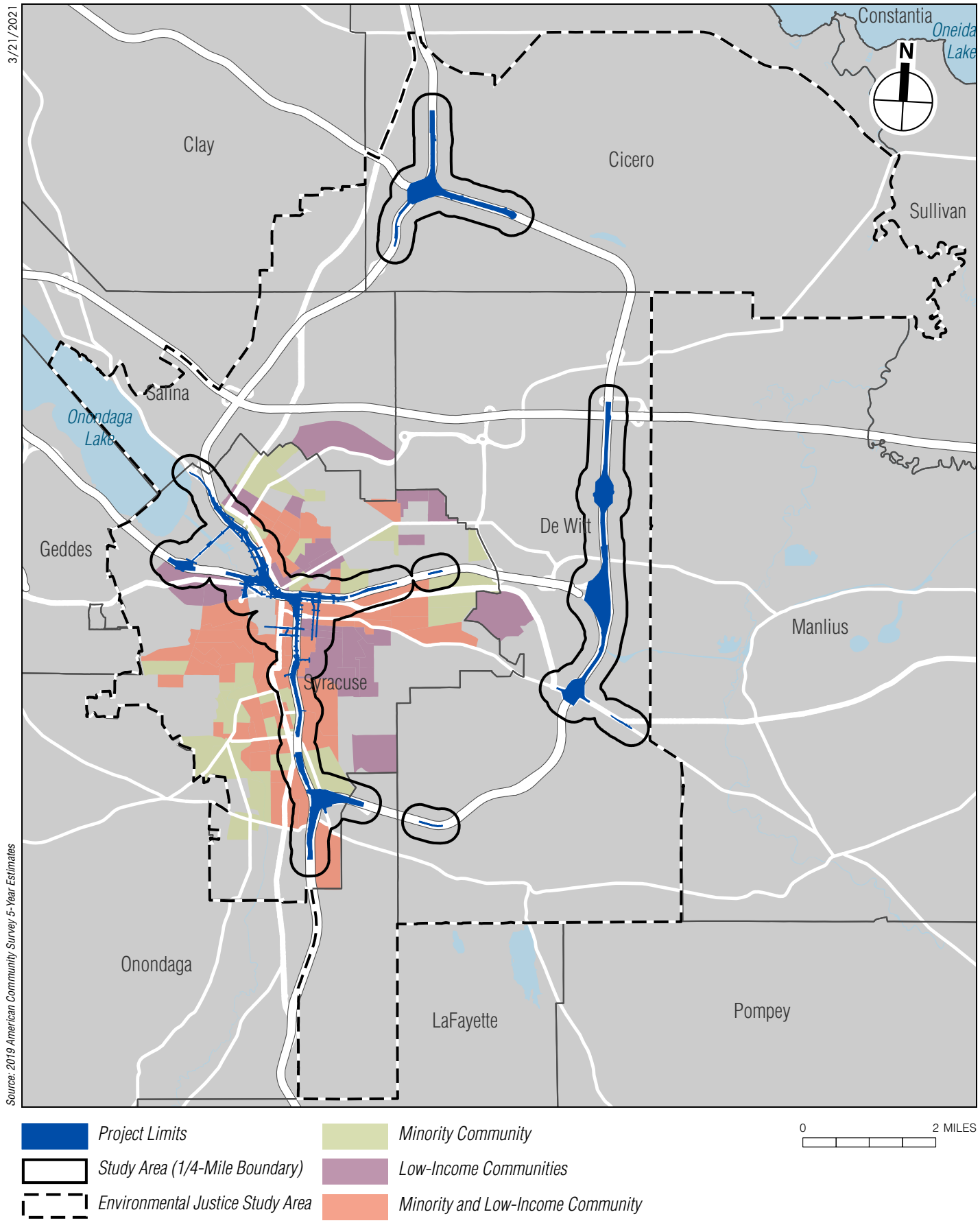
In accordance with the 2011 FHWA *Guidance on Environmental Justice and NEPA* and other pertinent guidance (referenced below), this section provides an assessment of potential effects to low-income and/or minority (environmental justice) populations from the implementation of the project alternatives and identifies whether these populations would experience disproportionately high and adverse effects because of the Project.

6-2-3.1 STUDY AREA AND METHODOLOGY

The study area used for the assessment includes all census tracts that are within or intersect the Project Area. It also includes the areas that could be affected by changes in traffic patterns resulting from the project alternatives. Therefore, the "Environmental Justice Study Area" extends well beyond the Project Area (see **Figure 6-2-3-1**).

After defining the Environmental Justice Study Area, the assessment of the potential for disproportionately high and adverse effects to environmental justice populations followed these steps (consistent with the 2011 FHWA *Guidance on Environmental Justice and NEPA,* referenced below):

1. Identify existing minority and low-income (environmental justice) populations within the study area;
2. Determine whether the build alternatives would result in adverse effects on the identified environmental justice populations;
3. Consider mitigation for any adverse effects (required under NEPA for all adverse effects regardless of the type of population affected);
4. If effects would remain adverse after mitigation is considered, identify whether those effects would be predominately borne by the environmental justice populations or are appreciably more severe or greater in magnitude on the environmental justice populations than the adverse effect suffered by the non-minority or non-low-income populations (i.e., disproportionately high and adverse effects); and



Environmental Justice Communities
in the Environmental Justice Study Area

I-81 Viaduct Project

Figure 6-2-3-1

5. If disproportionately high and adverse effects on environmental justice populations are anticipated, evaluate whether there is a further practicable mitigation measure or practicable alternative that would avoid or reduce the disproportionately high and adverse effects.

Providing meaningful opportunities for participation in the Project by environmental justice populations is important to understanding their perspectives and views related to the Project. Public outreach efforts to and comments received from environmental justice populations are summarized in **Section 6-2-3.4**.

The assessment was based on guidance from the following Federal documents:

- Council on Environmental Quality (CEQ*), Environmental Justice Guidance under the National Environmental Policy Act* (December 1997);
- United States Department of Transportation (USDOT) Order 5610.2c, *Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (May 2021);
- USDOT, *Environmental Justice Strategy* (November 2016);
- FHWA Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (June 2012);
- FHWA, *Guidance on Environmental Justice and NEPA* (December 2011);
- FHWA *Environmental Reference Guide* (April 1, 2015);
- United States Environmental Protection Agency (USEPA), *Promising Practices for EJ Methodologies in NEPA Reviews* (March 2016); and
- USEPA, *Environmental Justice 2020 Action Agenda,* October 2016.

6-2-3.2 EXISTING CONDITIONS

Demographic data from the most recent American Community Survey (ACS) 2015-2019 Five-Year Estimates were collected at the census block group and census tract levels within the Environmental Justice Study Area. For comparison purposes, data for the City of Syracuse and New York State were also obtained.

- *Minority Populations*: The USDOT and FHWA orders define minorities as those who identify as Black or African American, Hispanic, Asian American, American Indian/Alaskan Native, and Native Hawaiian or Pacific Islander. The assessment for this Project also includes persons who identified themselves as being "some other race" in the 2019 Five-Year Census as minority populations. Following the CEQ *Environmental Justice Guidance Under the National Environmental Policy Act*, minority populations are identified where either: 1) the minority population of the affected area exceeds 50 percent of the total population, or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. For this assessment, the first criterion was used.

- *Low-Income Populations*: According to the USDOT order, low-income population means any readily identifiable group of low-income persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers) who would be similarly affected by a proposed USDOT program, policy, or activity. FHWA's *Guidance on Environmental Justice and NEPA* states that FHWA uses the U.S. Department of Health and Human Services (HHS) "poverty" guidelines, which are derived from the U.S. Census Bureau's poverty thresholds, to identify low-income populations. Poverty thresholds are updated each year by the U.S. Census Bureau and are used mainly for statistical purpose (for instance, preparing estimates of the number of Americans in poverty each year). Therefore, the poverty thresholds, which are incorporated in the ACS data, were used to identify low-income populations.

  The income level to define poverty status for a household depends on the number of adults and children in a household. There is a lower dollar threshold to define poverty status for a smaller household (i.e., household of one) and a higher dollar threshold to define the poverty status for a larger household (i.e., household of nine or more). The poverty threshold ranges from $12,261 for a single-person household to $56,895 for a household of nine or more based on 2019 ACS data. Using this information, the U.S Census Bureau identifies the percentage of households in an area that are below or above the national poverty threshold.

  For this assessment, census block groups with a greater proportion of residents living below the poverty levels than the City of Syracuse (31.0 percent), as a whole, were considered low-income populations.

Furthermore, in accordance with FHWA guidance, NYSDOT identified whether additional clusters of minority and low-income populations are in the Environmental Justice Study Area even if they are within census block groups that do not meet the minority and low-income criteria noted above.

The total population within the Environmental Justice Study Area is 208,842 (see **Table 6-2-3-1**). In 2019, the minority percentages in New York State and the City of Syracuse were approximately 44.4 percent and 49.9 percent, respectively. In 2019, the minority percentage within the Environmental Justice Study Area was approximately 38.8 percent (see **Table 6-2-3-1**). Of the 186 census block groups in the Environmental Justice Study Area, 69 block groups had minority populations that exceeded 50 percent of the total population (see **Table 6-2-3-2**).

While the percentage of American Indian populations in the Environmental Justice Study Area is less than one percent, as shown in **Table 6-2-3-1**, there is a historical presence of these populations in Onondaga County. Therefore, FHWA has consulted with the Onondaga Nation and Tuscarora Nation on potential cultural resources of importance to these populations in accordance with Section 106 of the National Historic Preservation Act (see **Section 6-4-1, Historic and Cultural Resources**).

As shown in **Table 6-2-3-1**, in 2019, the percentage of individuals living below the poverty level, as defined by HHS, in New York State was approximately 14.1 percent, as compared to 31.0 percent in the City of Syracuse. Of the 186 block groups in the Environmental Justice Study Area, 66 had over 31.0 percent of the population living below the poverty level, and thus, are considered low-income populations for this assessment (see **Table 6-2-3-2**). **Figure 6-2-3-1** shows the low-income populations in the Environmental Justice Study Area.

Table 6-2-3-1
Race, Ethnicity, and Income Characteristics by Percentage for Populations in the Environmental Justice Study Area, City of Syracuse, and New York State

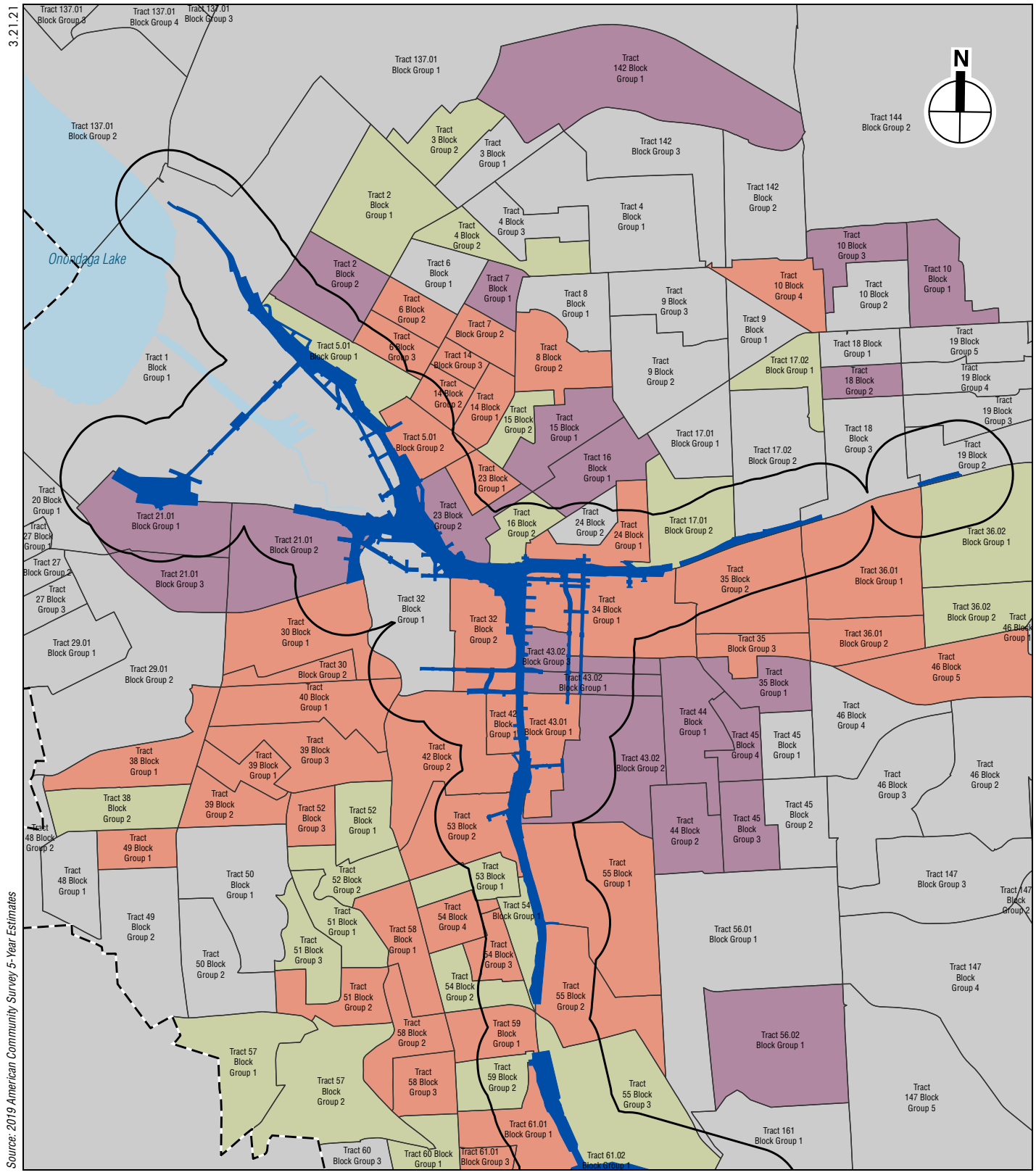
Geographic Area		Study Area	City of Syracuse	New York State
Population		208,842	142,874	19,572,319
Race and Ethnicity (Percent)	White	61.3%	50.0%	55.6%
	Black	20.8%	28.5%	14.3%
	American Indian	0.7%	0.9%	0.2%
	Asian	5.6%	6.5%	8.4%
	Other	0.3%	0.3%	0.5%
	Two or More Races	3.9%	4.3%	2.0%
	Hispanic	7.5%	9.4%	19.0%
	Minority	38.8%	49.9%	44.4%
Economic Profile	Median Household Income	$45,984	$38,276	$68,486
	Percentage Below Poverty Level	24.1%	31.0%	14.1%

Notes: An ethnic group can include members of different racial categories.
Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates.

Ninety-one (91) census block groups out of the 186 census block groups within the Environmental Justice Study Area are considered environmental justice populations based on the thresholds described above. Forty-four (44) of these 91 census block groups exceed both the minority population threshold of 50 percent and low-income population threshold of 31.0 percent. Twenty-five (25) exceed the minority population threshold but do not exceed the low-income population threshold. The remaining 22 block groups exceed the low-income population threshold but do not exceed the minority population threshold.

As shown in **Figures 6-2-3-1**, **6-2-3-2**, and **6-2-3-3**, environmental justice populations (i.e., minority and/or low-income populations) are present in the Central and I-481 South Study Areas. There are no identified environmental justice populations in the I-481 East or I-481 North Study Areas. Within the Central Study Area, environmental justice populations reside in immediate proximity to the existing interstate highways (I-81 and I-690). The identified environmental justice populations reside in the Southside, the far western and far eastern sections of Downtown, the western portion of University Hill, Near Eastside, Prospect Hill, and Hawley-Green. Within the I-481 South Study Area, environmental justice populations reside near the existing I-81 and I-481 interchange.

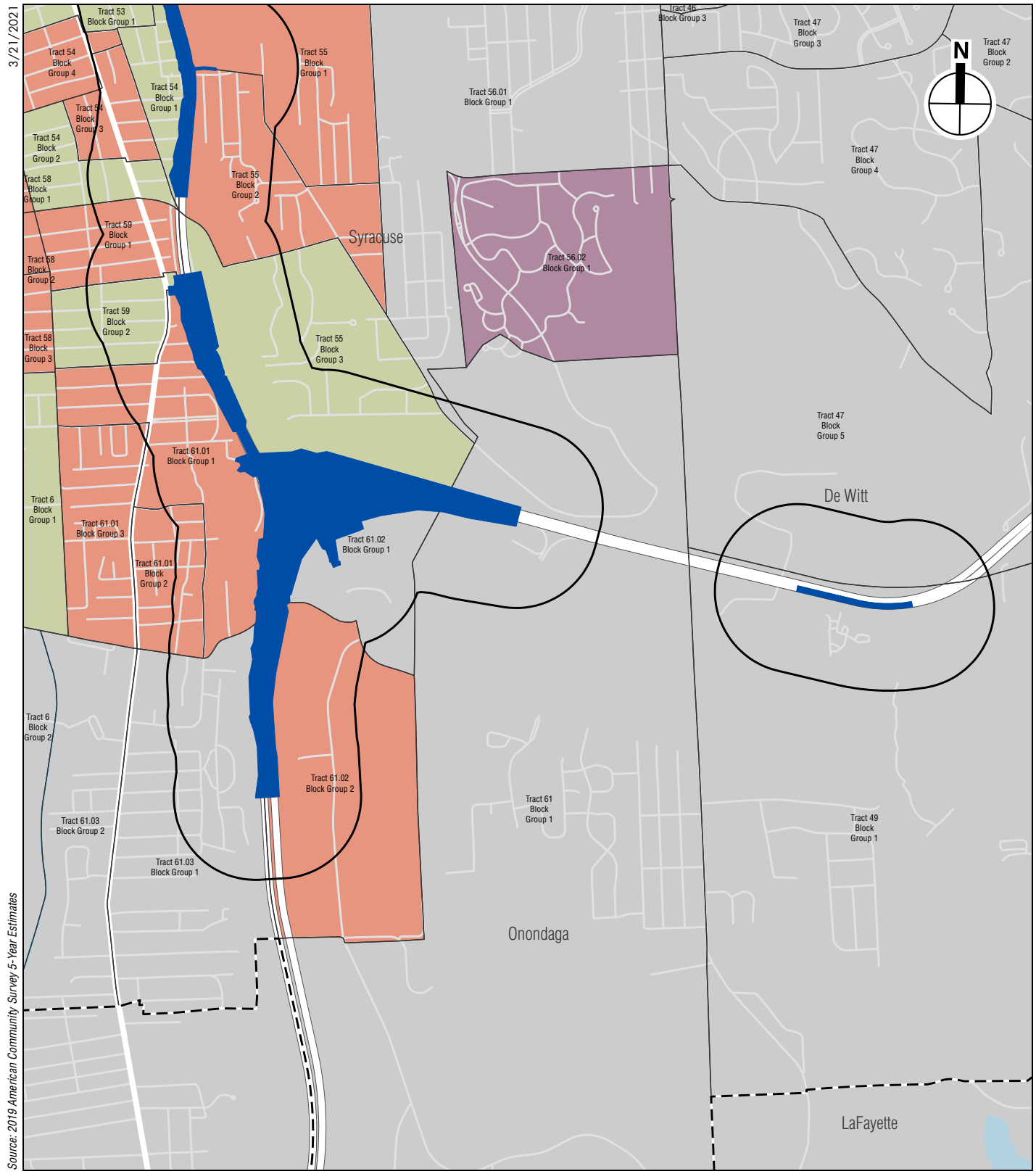
As shown on **Figures 6-2-3-2** and **6-2-3-3**, most of the Central Study Area and I-481 South Study Area comprise environmental justice populations. As noted above, areas within the Environmental Justice Study Area that may not exceed the thresholds described above but have notable concentrations (or clusters) of minority and low-income populations were also identified, as shown on **Figures 6-2-3-4** and **6-2-3-5**. As shown, areas of relatively higher minority populations are primarily adjacent to areas identified as environmental justice areas, and the analyses and mitigation measures discussed in this section of the FDR/FEIS address potential effects in these areas. As shown on **Figure 6-2-3-5**, an area with a notable low-income population is located southwest of the northern I-81/I-481 interchange; however, this area is over ½ mile from the project limits and would not experience adverse effects from the Project.



Environmental Justice Communities in the Central Study Area

I-81 Viaduct Project

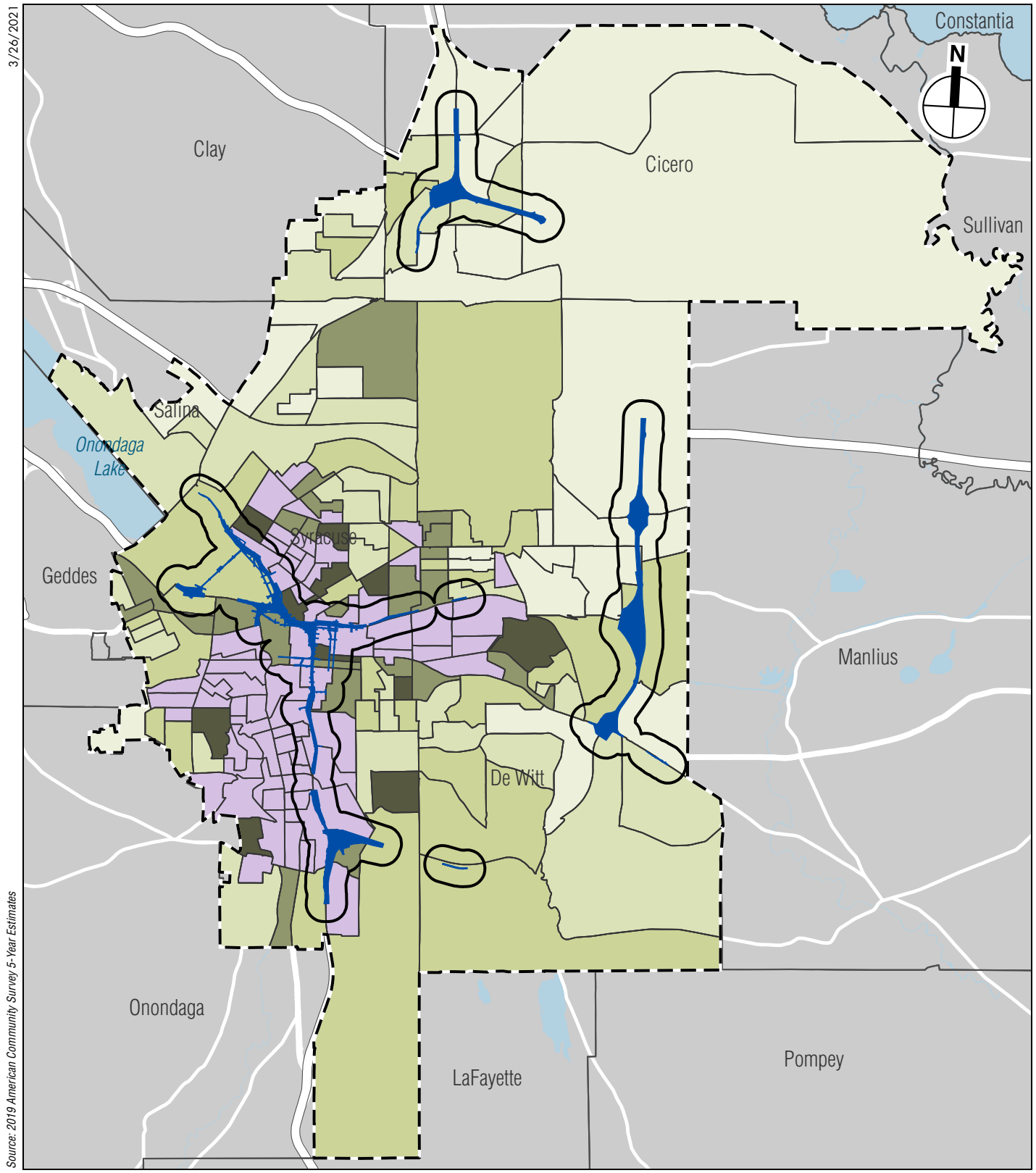
Figure 6-2-3-2



Environmental Justice Communities in the I-481 South Study Area

I-81 Viaduct Project

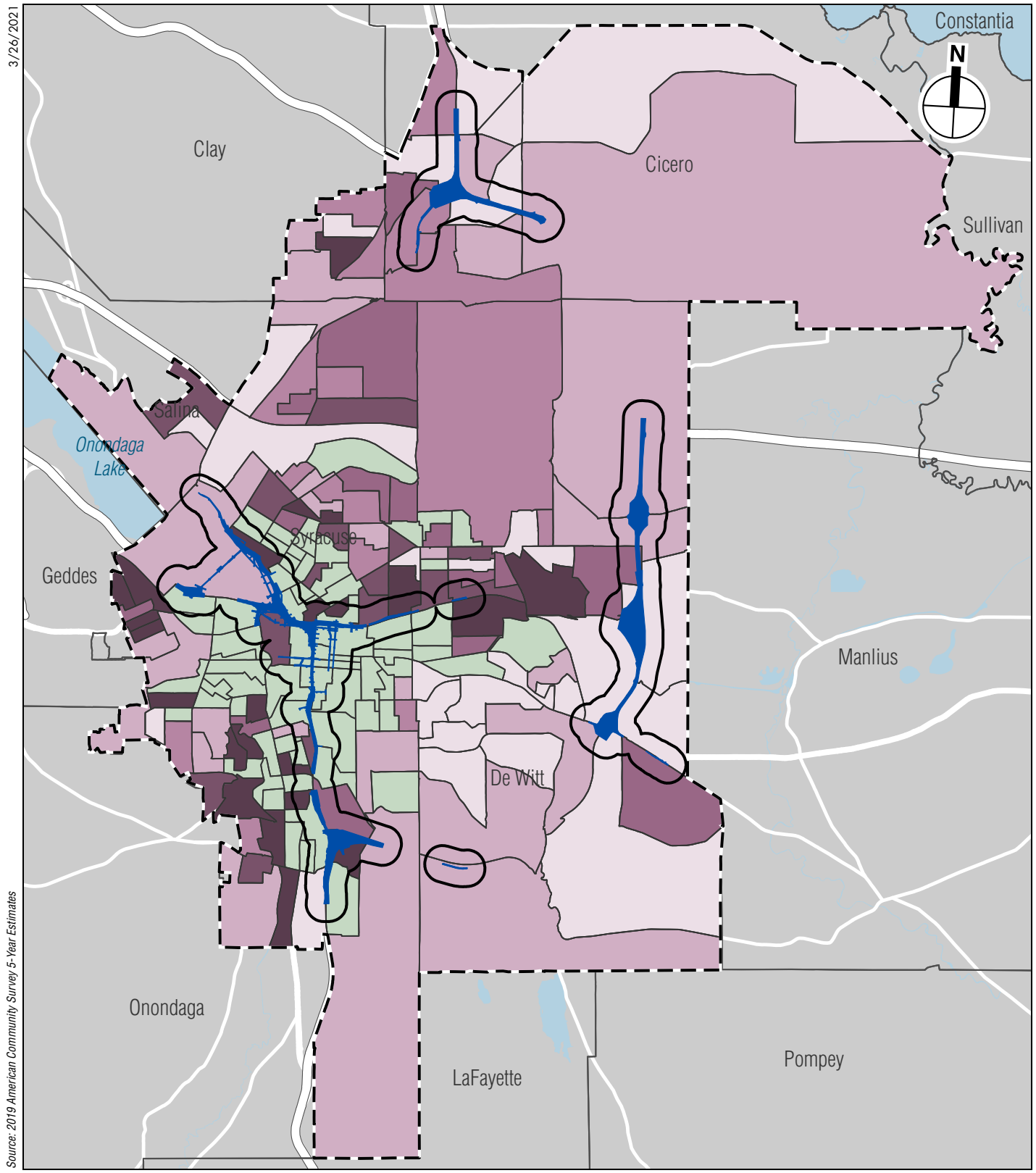
Figure 6-2-3-3



Minority Populations in the Environmental Justice Study Area

I-81 Viaduct Project

Figure 6-2-3-4



Low-Income Populations in the Environmental Justice Study Area

I-81 Viaduct Project

Figure 6-2-3-5

Table 6-2-3-2
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
1	1	740	560	75.7%	107	14.5%	27	3.6%	10	1.4%	36	4.9%	24.3%	7.3%
2	**1**	2,047	812	39.7%	526	25.7%	246	12.0%	174	8.5%	289	14.1%	**60.3%**	21.7%
2	**2**	1,434	823	57.4%	473	33.0%	0	0.0%	20	1.4%	118	8.2%	42.6%	**35.7%**
3	1	699	480	68.7%	52	7.4%	0	0.0%	30	4.3%	137	19.6%	31.3%	5.2%
3	**2**	758	289	38.1%	284	37.5%	135	17.8%	31	4.1%	19	2.5%	**61.9%**	10.4%
4	1	1,326	1,107	83.5%	124	9.4%	0	0.0%	5	0.4%	90	6.8%	16.5%	12.3%
4	**2**	1,578	588	37.3%	647	41.0%	100	6.3%	90	5.7%	153	9.7%	**62.7%**	26.3%
4	3	1,235	792	64.1%	27	2.2%	161	13.0%	9	0.7%	246	19.9%	35.9%	9.7%
5.01	**1**	1,363	432	31.7%	429	31.5%	150	11.0%	173	12.7%	179	13.1%	**68.3%**	25.1%
5.01	**2**	1,045	291	27.8%	84	8.0%	511	48.9%	28	2.7%	131	12.5%	**72.2%**	**39.7%**
6	1	1,296	833	64.3%	137	10.6%	148	11.4%	34	2.6%	144	11.1%	35.7%	17.3%
6	**2**	1,079	464	43.0%	325	30.1%	216	20.0%	0	0.0%	74	6.9%	**57.0%**	**34.9%**
6	**3**	758	112	14.8%	361	47.6%	144	19.0%	138	18.2%	3	0.4%	**85.2%**	**40.0%**
7	**1**	803	485	60.4%	108	13.4%	110	13.7%	30	3.7%	70	8.7%	39.6%	**43.2%**
7	**2**	818	260	31.8%	115	14.1%	305	37.3%	63	7.7%	75	9.2%	**68.2%**	**32.3%**
8	1	1,576	836	53.0%	204	12.9%	31	2.0%	117	7.4%	388	24.6%	47.0%	22.4%
8	**2**	1,433	369	25.8%	739	51.6%	240	16.7%	16	1.1%	69	4.8%	**74.2%**	**50.1%**
9	1	927	714	77.0%	69	7.4%	68	7.3%	26	2.8%	50	5.4%	23.0%	23.7%
9	2	907	761	83.9%	103	11.4%	0	0.0%	43	4.7%	0	0.0%	16.1%	13.7%
9	3	1,351	1,086	80.4%	110	8.1%	53	3.9%	33	2.4%	69	5.1%	19.6%	7.7%
10	**1**	693	536	77.3%	84	12.1%	0	0.0%	3	0.4%	70	10.1%	22.7%	**32.3%**
10	2	1,322	799	60.4%	347	26.2%	0	0.0%	163	12.3%	13	1.0%	39.6%	19.7%
10	**3**	1,491	1,004	67.3%	487	32.7%	0	0.0%	0	0.0%	0	0.0%	32.7%	**48.9%**
10	**4**	627	301	48.0%	157	25.0%	0	0.0%	83	13.2%	86	13.7%	**52.0%**	**44.7%**
14	**1**	977	218	22.3%	329	33.7%	248	25.4%	182	18.6%	0	0.0%	**77.7%**	**51.9%**
14	**2**	1,524	269	17.7%	922	60.5%	268	17.6%	0	0.0%	65	4.3%	**82.3%**	**46.6%**
14	**3**	598	170	28.4%	9	1.5%	381	63.7%	18	3.0%	20	3.3%	**71.6%**	**55.4%**
15	**1**	1,443	725	50.2%	210	14.6%	275	19.1%	159	11.0%	74	5.1%	49.8%	**34.4%**

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
15	**2**	1,334	535	40.1%	214	16.0%	330	24.7%	75	5.6%	180	13.5%	**59.9%**	24.8%
16	**1**	1,917	1,345	70.2%	336	17.5%	29	1.5%	93	4.9%	114	5.9%	29.8%	**34.4%**
16	**2**	1,532	746	48.7%	471	30.7%	121	7.9%	53	3.5%	141	9.2%	**51.3%**	28.7%
17.01	1	1,307	715	54.7%	213	16.3%	6	0.5%	373	28.5%	0	0.0%	45.3%	24.4%
17.01	**2**	882	427	48.4%	158	17.9%	37	4.2%	182	20.6%	78	8.8%	**51.6%**	23.3%
17.02	**1**	844	382	45.3%	415	49.2%	23	2.7%	0	0.0%	24	2.8%	**54.7%**	0.0%
17.02	2	1,771	1,081	61.0%	202	11.4%	83	4.7%	166	9.4%	239	13.5%	39.0%	28.7%
18	1	761	513	67.4%	214	28.1%	0	0.0%	11	1.4%	23	3.0%	32.6%	9.9%
18	**2**	590	425	72.0%	33	5.6%	0	0.0%	66	11.2%	66	11.2%	28.0%	**32.7%**
18	3	1,697	1,113	65.6%	107	6.3%	139	8.2%	169	10.0%	169	10.0%	34.4%	21.9%
19	**1**	794	365	46.0%	213	26.8%	32	4.0%	116	14.6%	68	8.6%	**54.0%**	15.9%
19	2	635	534	84.1%	23	3.6%	0	0.0%	71	11.2%	7	1.1%	15.9%	24.1%
19	3	1,105	859	77.7%	133	12.0%	34	3.1%	44	4.0%	35	3.2%	22.3%	16.1%
19	4	973	962	98.9%	11	1.1%	0	0.0%	0	0.0%	0	0.0%	1.1%	1.9%
19	5	563	508	90.2%	1	0.2%	10	1.8%	29	5.2%	15	2.7%	9.8%	20.1%
20	1	787	525	66.7%	139	17.7%	76	9.7%	37	4.7%	10	1.3%	33.3%	27.8%
20	2	1,214	977	80.5%	96	7.9%	15	1.2%	0	0.0%	126	10.4%	19.5%	25.2%
21.01	**1**	276	199	72.1%	34	12.3%	41	14.9%	0	0.0%	2	0.7%	27.9%	**33.3%**
21.01	**2**	689	465	67.5%	89	12.9%	0	0.0%	45	6.5%	90	13.1%	32.5%	**31.2%**
21.01	**3**	1,581	1,092	69.1%	152	9.6%	0	0.0%	149	9.4%	188	11.9%	30.9%	**61.5%**
23	**1**	627	172	27.4%	275	43.9%	50	8.0%	49	7.8%	81	12.9%	**72.6%**	**46.6%**
23	**2**	882	449	50.9%	138	15.6%	145	16.4%	130	14.7%	20	2.3%	49.1%	**54.8%**
24	**1**	1,251	455	36.4%	265	21.2%	94	7.5%	197	15.7%	240	19.2%	**63.6%**	**49.6%**
24	2	775	487	62.8%	107	13.8%	9	1.2%	25	3.2%	147	19.0%	37.2%	29.8%
27	1	613	401	65.4%	141	23.0%	5	0.8%	50	8.2%	16	2.6%	34.6%	18.3%
27	2	669	472	70.6%	63	9.4%	0	0.0%	25	3.7%	109	16.3%	29.4%	29.9%
27	3	584	481	82.4%	2	0.3%	0	0.0%	67	11.5%	34	5.8%	17.6%	25.9%
29.01	1	1,659	1,404	84.6%	152	9.2%	10	0.6%	53	3.2%	40	2.4%	15.4%	7.0%

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
29.01	2	1,212	963	79.5%	193	15.9%	0	0.0%	0	0.0%	56	4.6%	20.5%	9.7%
30	**1**	889	85	9.6%	197	22.2%	0	0.0%	71	8.0%	536	60.3%	**90.4%**	**57.0%**
30	**2**	816	94	11.5%	294	36.0%	0	0.0%	43	5.3%	385	47.2%	**88.5%**	**55.4%**
32	1	1,437	874	60.8%	263	18.3%	120	8.4%	85	5.9%	95	6.6%	39.2%	24.8%
32	**2**	1,861	896	48.1%	516	27.7%	260	14.0%	128	6.9%	61	3.3%	**51.9%**	**52.9%**
34	**1**	1,393	534	38.3%	532	38.2%	152	10.9%	70	5.0%	105	7.5%	**61.7%**	**49.6%**
35	**1**	1,076	710	66.0%	152	14.1%	103	9.6%	74	6.9%	37	3.4%	34.0%	**37.0%**
35	**2**	538	51	9.5%	370	68.8%	38	7.1%	16	3.0%	63	11.7%	**90.5%**	**60.6%**
35	**3**	823	237	28.8%	371	45.1%	26	3.2%	17	2.1%	172	20.9%	**71.2%**	**56.1%**
36.01	**1**	1154	173	15.0%	520	45.1%	33	2.9%	88	7.6%	340	29.5%	**85.0%**	**32.6%**
36.01	**2**	1,358	308	22.7%	895	65.9%	0	0.0%	86	6.3%	69	5.1%	**77.3%**	**39.7%**
36.02	**1**	1,091	486	44.5%	426	39.0%	32	2.9%	32	2.9%	115	10.5%	**55.5%**	26.8%
36.02	**2**	1,153	383	33.2%	646	56.0%	42	3.6%	61	5.3%	21	1.8%	**66.8%**	15.5%
38	**1**	1181	222	18.8%	528	44.7%	0	0.0%	163	13.8%	268	22.7%	**81.2%**	**48.9%**
38	**2**	1,120	427	38.1%	254	22.7%	0	0.0%	12	1.1%	427	38.1%	**61.9%**	30.7%
39	**1**	423	77	18.2%	253	59.8%	39	9.2%	54	12.8%	0	0.0%	**81.8%**	**40.4%**
39	**2**	823	211	25.6%	392	47.6%	0	0.0%	23	2.8%	197	23.9%	**74.4%**	**36.3%**
39	**3**	1,791	337	18.8%	1,089	60.8%	7	0.4%	33	1.8%	325	18.1%	**81.2%**	**59.3%**
40	**1**	1,387	366	26.4%	474	34.2%	10	0.7%	148	10.7%	389	28.0%	**73.6%**	**56.5%**
42	**1**	984	13	1.3%	732	74.4%	0	0.0%	78	7.9%	161	16.4%	**98.7%**	**67.9%**
42	**2**	1,261	124	9.8%	860	68.2%	5	0.4%	50	4.0%	222	17.6%	**90.2%**	**63.3%**
43.01	**1**	1,502	638	42.5%	430	28.6%	202	13.4%	87	5.8%	145	9.7%	**57.5%**	**79.0%**
43.02	**1**	366	229	62.6%	27	7.4%	82	22.4%	7	1.9%	21	5.7%	37.4%	**84.1%**
43.02	**2**	5,686	3,476	61.1%	425	7.5%	1,031	18.1%	185	3.3%	569	10.0%	38.9%	**95.8%**
43.02	**3**	786	435	55.3%	121	15.4%	109	13.9%	13	1.7%	108	13.7%	44.7%	**67.5%**
44	**1**	457	322	70.5%	63	13.8%	15	3.3%	7	1.5%	50	10.9%	29.5%	**75.4%**
44	**2**	1,236	965	78.1%	103	8.3%	89	7.2%	39	3.2%	40	3.2%	21.9%	**62.6%**
45	1	767	444	57.9%	231	30.1%	20	2.6%	35	4.6%	37	4.8%	42.1%	5.6%

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
45	2	1,502	1,155	76.9%	112	7.5%	32	2.1%	75	5.0%	128	8.5%	23.1%	13.5%
45	**3**	1,048	882	84.2%	144	13.7%	0	0.0%	0	0.0%	22	2.1%	15.8%	**44.5%**
45	**4**	750	619	82.5%	51	6.8%	32	4.3%	40	5.3%	8	1.1%	17.5%	**53.1%**
46	1	1,216	846	69.6%	278	22.9%	38	3.1%	17	1.4%	37	3.0%	30.4%	4.6%
46	2	1,131	880	77.8%	224	19.8%	0	0.0%	12	1.1%	15	1.3%	22.2%	2.2%
46	3	932	810	86.9%	56	6.0%	14	1.5%	14	1.5%	38	4.1%	13.1%	0.3%
46	4	802	547	68.2%	61	7.6%	82	10.2%	41	5.1%	71	8.9%	31.8%	3.0%
46	**5**	537	262	48.8%	143	26.6%	0	0.0%	0	0.0%	132	24.6%	**51.2%**	**32.9%**
48	1	748	536	71.7%	153	20.5%	59	7.9%	0	0.0%	0	0.0%	28.3%	1.0%
48	2	793	722	91.0%	39	4.9%	0	0.0%	26	3.3%	6	0.8%	9.0%	9.8%
49	**1**	807	302	37.4%	351	43.5%	26	3.2%	38	4.7%	90	11.2%	**62.6%**	**37.9%**
49	2	537	394	73.4%	119	22.2%	0	0.0%	13	2.4%	11	2.0%	26.6%	14.5%
50	1	1,039	589	56.7%	281	27.0%	20	1.9%	47	4.5%	102	9.8%	43.3%	6.5%
50	2	1,283	1,110	86.5%	85	6.6%	16	1.2%	36	2.8%	36	2.8%	13.5%	6.4%
51	**1**	591	39	6.6%	386	65.3%	0	0.0%	0	0.0%	166	28.1%	**93.4%**	28.4%
51	**2**	813	101	12.4%	574	70.6%	0	0.0%	18	2.2%	120	14.8%	**87.6%**	**37.4%**
51	**3**	853	121	14.2%	556	65.2%	0	0.0%	0	0.0%	176	20.6%	**85.8%**	26.0%
52	**1**	488	83	17.0%	338	69.3%	0	0.0%	17	3.5%	50	10.2%	**83.0%**	28.7%
52	**2**	602	84	14.0%	496	82.4%	0	0.0%	22	3.7%	0	0.0%	**86.0%**	18.8%
52	**3**	980	127	13.0%	654	66.7%	0	0.0%	101	10.3%	98	10.0%	**87.0%**	**44.0%**
53	**1**	562	6	1.1%	481	85.6%	0	0.0%	36	6.4%	39	6.9%	**98.9%**	9.1%
53	**2**	1,368	129	9.4%	1,055	77.1%	0	0.0%	35	2.6%	149	10.9%	**90.6%**	**70.4%**
54	**1**	499	29	5.8%	436	87.4%	0	0.0%	16	3.2%	18	3.6%	**94.2%**	23.7%
54	**2**	551	24	4.4%	494	89.7%	0	0.0%	0	0.0%	33	6.0%	**95.6%**	30.7%
54	**3**	576	79	13.7%	394	68.4%	0	0.0%	7	1.2%	96	16.7%	**86.3%**	**52.6%**
54	**4**	750	88	11.7%	570	76.0%	0	0.0%	92	12.3%	0	0.0%	**88.3%**	**34.7%**
55	**1**	673	218	32.4%	261	38.8%	100	14.9%	70	10.4%	24	3.6%	**67.6%**	**41.0%**
55	**2**	1,862	811	43.6%	884	47.5%	0	0.0%	88	4.7%	79	4.2%	**56.4%**	**45.1%**

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
55	**3**	1,028	413	40.2%	220	21.4%	151	14.7%	167	16.2%	77	7.5%	**59.8%**	19.9%
56.01	1	1,599	1,284	80.3%	82	5.1%	93	5.8%	28	1.8%	112	7.0%	19.7%	7.5%
56.02	**1**	3,950	2,215	56.1%	543	13.7%	672	17.0%	168	4.3%	352	8.9%	43.9%	**72.7%**
57	**1**	815	367	45.0%	301	36.9%	0	0.0%	106	13.0%	41	5.0%	**55.0%**	25.0%
57	**2**	986	264	26.8%	588	59.6%	0	0.0%	24	2.4%	110	11.2%	**73.2%**	27.4%
58	**1**	753	135	17.9%	560	74.4%	6	0.8%	23	3.1%	29	3.9%	**82.1%**	**35.5%**
58	**2**	395	67	17.0%	239	60.5%	0	0.0%	12	3.0%	77	19.5%	**83.0%**	**49.9%**
58	**3**	834	79	9.5%	441	52.9%	0	0.0%	73	8.8%	241	28.9%	**90.5%**	**53.7%**
59	**1**	864	152	17.6%	586	67.8%	0	0.0%	80	9.3%	46	5.3%	**82.4%**	**31.8%**
59	**2**	727	154	21.2%	412	56.7%	0	0.0%	28	3.9%	133	18.3%	**78.8%**	26.7%
60	**1**	367	151	41.1%	87	23.7%	78	21.3%	51	13.9%	0	0.0%	**58.9%**	25.6%
60	2	796	674	84.7%	111	13.9%	10	1.3%	0	0.0%	1	0.1%	15.3%	8.4%
60	3	1,394	727	52.2%	540	38.7%	0	0.0%	113	8.1%	14	1.0%	47.8%	10.7%
60	**4**	1,020	462	45.3%	473	46.4%	24	2.4%	61	6.0%	0	0.0%	**54.7%**	20.7%
61.01	**1**	1,780	878	49.3%	753	42.3%	0	0.0%	67	3.8%	82	4.6%	**50.7%**	**39.8%**
61.01	**2**	864	224	25.9%	273	31.6%	14	1.6%	202	23.4%	151	17.5%	**74.1%**	**41.1%**
61.01	**3**	1,206	343	28.4%	737	61.1%	0	0.0%	87	7.2%	39	3.2%	**71.6%**	**42.2%**
61.02	1	776	482	62.1%	203	26.2%	13	1.7%	45	5.8%	33	4.3%	37.9%	30.2%
61.02	**2**	1,066	512	48.0%	118	11.1%	289	27.1%	126	11.8%	21	2.0%	**52.0%**	**33.3%**
61.03	1	1,923	1,498	77.9%	208	10.8%	25	1.3%	48	2.5%	144	7.5%	22.1%	3.0%
61.03	2	707	494	69.9%	213	30.1%	0	0.0%	0	0.0%	0	0.0%	30.1%	30.4%
103.01	2	815	785	96.3%	0	0.0%	0	0.0%	0	0.0%	30	3.7%	3.7%	14.5%
103.01	3	1,863	1,725	92.6%	33	1.8%	76	4.1%	0	0.0%	29	1.6%	7.4%	2.3%
103.01	4	753	728	96.7%	0	0.0%	0	0.0%	25	3.3%	0	0.0%	3.3%	2.0%
104	1	1,614	1,568	97.1%	3	0.2%	43	2.7%	0	0.0%	0	0.0%	2.9%	7.3%
104	2	2,458	2,306	93.8%	32	1.3%	120	4.9%	0	0.0%	0	0.0%	6.2%	4.4%
105	1	1,230	1,193	97.0%	19	1.5%	2	0.2%	11	0.9%	5	0.4%	3.0%	6.5%
105	2	1,290	1,122	87.0%	93	7.2%	0	0.0%	5	0.4%	70	5.4%	13.0%	1.7%

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
106	1	979	897	91.6%	33	3.4%	3	0.3%	18	1.8%	28	2.9%	8.4%	5.9%
106	2	1,187	1,083	91.2%	13	1.1%	49	4.1%	6	0.5%	36	3.0%	8.8%	11.2%
107	1	712	567	79.6%	58	8.1%	0	0.0%	87	12.2%	0	0.0%	20.4%	19.7%
107	2	1,239	1,086	87.7%	0	0.0%	18	1.5%	109	8.8%	26	2.1%	12.3%	10.4%
108	1	1,166	881	75.6%	173	14.8%	0	0.0%	0	0.0%	112	9.6%	24.4%	28.6%
108	2	598	596	99.7%	0	0.0%	0	0.0%	0	0.0%	2	0.3%	0.3%	14.6%
108	3	1,013	899	88.7%	0	0.0%	0	0.0%	114	11.3%	0	0.0%	11.3%	3.1%
108	4	2,039	1,874	91.9%	0	0.0%	0	0.0%	149	7.3%	16	0.8%	8.1%	13.3%
109	1	1,105	1,039	94.0%	52	4.7%	0	0.0%	14	1.3%	0	0.0%	6.0%	6.7%
109	2	1,279	1,109	86.7%	41	3.2%	129	10.1%	0	0.0%	0	0.0%	13.3%	8.7%
137.01	1	855	769	89.9%	0	0.0%	0	0.0%	31	3.6%	55	6.4%	10.1%	0.0%
137.01	2	1,973	1,664	84.3%	119	6.0%	0	0.0%	190	9.6%	0	0.0%	15.7%	8.9%
137.01	3	863	824	95.5%	0	0.0%	0	0.0%	39	4.5%	0	0.0%	4.5%	20.5%
137.01	4	1,117	977	87.5%	108	9.7%	0	0.0%	18	1.6%	14	1.3%	12.5%	3.7%
138	1	1,198	1,116	93.2%	55	4.6%	0	0.0%	0	0.0%	27	2.3%	6.8%	6.5%
138	2	867	829	95.6%	4	0.5%	0	0.0%	34	3.9%	0	0.0%	4.4%	3.1%
139	1	1,294	1,166	90.1%	9	0.7%	12	0.9%	55	4.3%	52	4.0%	9.9%	12.4%
139	2	1,300	872	67.1%	0	0.0%	9	0.7%	36	2.8%	383	29.5%	32.9%	15.2%
140	1	1,809	1,555	86.0%	72	4.0%	0	0.0%	118	6.5%	64	3.5%	14.0%	23.2%
140	2	469	465	99.1%	0	0.0%	0	0.0%	4	0.9%	0	0.0%	0.9%	17.5%
140	3	1,151	982	85.3%	23	2.0%	59	5.1%	0	0.0%	87	7.6%	14.7%	12.8%
142	**1**	922	695	75.4%	21	2.3%	0	0.0%	175	19.0%	31	3.4%	24.6%	**32.9%**
142	2	1,168	918	78.6%	80	6.8%	27	2.3%	0	0.0%	143	12.2%	21.4%	19.0%
142	3	1,716	1,447	84.3%	46	2.7%	137	8.0%	31	1.8%	55	3.2%	15.7%	16.1%
143	1	1,213	1,120	92.3%	30	2.5%	9	0.7%	29	2.4%	25	2.1%	7.7%	20.0%
143	2	730	696	95.3%	0	0.0%	0	0.0%	10	1.4%	24	3.3%	4.7%	26.7%
143	3	1,012	980	96.8%	21	2.1%	0	0.0%	0	0.0%	11	1.1%	3.2%	2.0%

Table 6-2-3-2 (cont'd)
Environmental Justice Study Area - Race and Ethnicity and Poverty

Census Tract	Block Group	Total Population	Race and Ethnicity										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
144	1	757	744	98.3%	4	0.5%	0	0.0%	9	1.2%	0	0.0%	1.7%	10.2%
144	2	601	429	71.4%	45	7.5%	111	18.5%	16	2.7%	0	0.0%	28.6%	14.3%
144	3	999	733	73.4%	122	12.2%	13	1.3%	101	10.1%	30	3.0%	26.6%	3.0%
145	1	2,267	2,081	91.8%	39	1.7%	87	3.8%	43	1.9%	17	0.7%	8.2%	7.1%
145	2	1,382	1,256	90.9%	3	0.2%	30	2.2%	73	5.3%	20	1.4%	9.1%	5.1%
146	**1**	2,534	1,329	52.4%	516	20.4%	209	8.2%	97	3.8%	383	15.1%	47.6%	**35.0%**
146	2	688	525	76.3%	30	4.4%	84	12.2%	0	0.0%	49	7.1%	23.7%	6.7%
146	3	643	493	76.7%	0	0.0%	0	0.0%	124	19.3%	26	4.0%	23.3%	0.0%
146	4	898	770	85.7%	91	10.1%	29	3.2%	0	0.0%	8	0.9%	14.3%	3.2%
147	1	1,044	998	95.6%	6	0.6%	0	0.0%	0	0.0%	40	3.8%	4.4%	6.6%
147	2	1,397	1,154	82.6%	0	0.0%	114	8.2%	129	9.2%	0	0.0%	17.4%	0.0%
147	3	840	712	84.8%	10	1.2%	81	9.6%	0	0.0%	37	4.4%	15.2%	2.5%
147	4	1,331	1,006	75.6%	21	1.6%	270	20.3%	28	2.1%	6	0.5%	24.4%	0.5%
147	5	1,440	1,129	78.4%	50	3.5%	203	14.1%	58	4.0%	0	0.0%	21.6%	5.3%
148	1	568	539	94.9%	7	1.2%	0	0.0%	0	0.0%	22	3.9%	5.1%	3.4%
148	2	1,605	1,388	86.5%	1	0.1%	97	6.0%	86	5.4%	33	2.1%	13.5%	18.7%
148	3	990	880	88.9%	21	2.1%	29	2.9%	4	0.4%	56	5.7%	11.1%	2.2%
149	1	2,330	1,715	73.6%	407	17.5%	19	0.8%	79	3.4%	110	4.7%	26.4%	7.1%
161	1	2,657	2,092	78.7%	156	5.9%	284	10.7%	77	2.9%	48	1.8%	21.3%	6.3%

Notes:
Bold/shading indicates an environmental justice population.
The racial and ethnic categories provided are further defined as: White (White alone, not Hispanic or Latino); Black (Black or African American alone, not Hispanic or Latino); Asian (Asian alone, not Hispanic or Latino); Other (American Indian and Alaska Native alone, not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone, not Hispanic or Latino; Some other race alone, not Hispanic or Latino; Two or more races, not Hispanic or Latino); Hispanic (Hispanic or Latino; persons of Hispanic origin may be of any race).
Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates.

Unhoused/homeless populations were considered when identifying the low-income (environmental justice) populations within the Environmental Justice Study Area. However, no known unique and discrete populations (e.g., homeless encampments) were identified in the study area; thus, unhoused/homeless populations were not determined to be environmental justice populations with respect to this assessment.

6-2-3.3 POTENTIAL EFFECTS

As per FHWA Order 6640.23A, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population.

The five steps below (as described in **Section 6-2-3.1**) were followed to assess the potential for disproportionately high and adverse effects to environmental justice populations.

6-2-3.3.1 STEP 1: IDENTIFY EXISTING MINORITY AND LOW-INCOME (ENVIRONMENTAL JUSTICE) POPULATIONS WITHIN THE STUDY AREA.

As stated in **Section 6-2-3.2**, 91 of the 186 census block groups within the Environmental Justice Study Area are identified as environmental justice populations.

6-2-3.3.2 STEP 2: DETERMINE WHETHER THE PROJECT WOULD RESULT IN ADVERSE EFFECTS ON THE IDENTIFIED ENVIRONMENTAL JUSTICE POPULATIONS.

The Project alternatives were evaluated to determine whether each would result in adverse effects on identified environmental justice populations. This section describes the potential for adverse effects on environmental justice populations related to neighborhood character; transportation; land acquisition, displacement, and relocation; parks and recreational resources; visual and aesthetic considerations; air quality; traffic noise; and construction effects. The detailed technical assessments for these topics, including the methodologies that were used, the affected environment for each topic, and the direct, indirect, and cumulative effects that would result from implementation of each alternative, are described in the respective sections of this FDR/FEIS. This section presents the conclusions of those assessments as they pertain to potential adverse effects on environmental justice populations.

NO BUILD ALTERNATIVE

The No Build Alternative would maintain the highway in its existing configuration with routine maintenance and ongoing repairs. The No Build Alternative would not change I-81 or roadways within the project limits and would not change existing conditions for environmental justice populations.

The No Build Alternative would continue to divide communities east and west of the I-81 viaduct and would continue to hinder access between Downtown and neighborhoods north of I-690. The viaduct would remain a prominent feature in the Central Study Area and would continue to influence social and economic conditions in the Project Area.

VIADUCT ALTERNATIVE

Neighborhood Character

As discussed in **Section 6-2-1, Neighborhood Character**, the Viaduct Alternative would not substantially alter land uses or community cohesion in the Environmental Justice Study Area as compared to the No Build Alternative, since the existing viaduct would be replaced with a new viaduct. While there would be improvements to the roadways beneath the viaduct as well as the pedestrian and bicycle facilities, the viaduct would continue to be a prominent feature of the Central Study Area and could be perceived as a division between neighborhoods. The Viaduct Alternative would remove some structures, such as the New York Central Railroad Passenger & Freight Station complex at 400 Burnet Avenue and the Britton Block at 319-325 North Salina Street, that currently serve as buffers between the existing highway and residential uses. It would also displace some businesses and residents near the I-81 and I-690 interchange, including environmental justice populations (see the discussion of Land Acquisition, Displacement, and Relocation below).

The Viaduct Alternative would result in approximately 5.4 miles of new or reconstructed sidewalks, 2.1 miles of new or reconstructed shared use (bicycle and pedestrian) paths, 0.2 miles of new cycle track (a separate track for bicyclists only), and 0.2 miles of new or reconstructed shared vehicle and bicycle lanes. The rebuilt streets would be designed in compliance with New York State Complete Streets requirements.[1] Efforts would be made to create a distinctive identity through design that provides elements of a unified appearance and measures to improve safety. Special pavements, planting areas, medians, pedestrian refuge areas, site furnishings, and green infrastructure would be considered. Local street improvements would include pedestrian and bicycle safety and connectivity enhancements in the study area, such as:

- Distinctive pavement markings, materials, and/or color to define space for bicyclists and pedestrians and promote driver awareness;
- Signals to facilitate pedestrian crossings while encouraging bicycle use;
- Bollards and traffic islands to provide protection and safe refuge for pedestrians; and
- "Bump-outs," or extensions, of the sidewalk corners, to narrow the roadway crossing distance for pedestrians.

Newly created bicycle facilities along Almond Street would connect to existing bicycle facilities at Water Street and East Genesee Street (Connective Corridor) and allow future connections to bicycle facilities at Burnet Avenue, Burt Street, and MLK, Jr. East, as identified in the Syracuse Bicycle Plan.[2]

NYSDOT would continue to coordinate with Centro regarding potential street improvements that include transit amenities to enhance transit accessibility and support Centro's transit initiatives such as bus stops and shelters, bus turnouts, and layover and turnaround places.

[1] The Complete Streets Act (Chapter 398, Laws of New York, August 2011) requires state, county, and local agencies to consider all roadway users in the development of transportation projects (i.e., the inclusion of sidewalks, bicycle lanes, crosswalks, signage).

[2] City of Syracuse. Syracuse Bicycle Plan 2040, A Component of the Syracuse Comprehensive Plan. November 2012.

Overall, the Viaduct Alternative would not result in adverse effects on neighborhood character for environmental justice populations as compared to the No Build Alternative; however, the Viaduct Alternative would lack substantial neighborhood character benefits.

Transportation

As discussed in **Chapter 5, Transportation and Engineering Considerations**, some freeway (I-81 and I-690) segments, weaving segments and ramps, and non-freeway intersections would experience operating conditions at Level of Service (LOS) E or F during AM and/or PM peak periods for the years 2026 and 2056 under the Viaduct Alternative. LOS ratings range from A (no congestion on the road) to F (roadways that are over capacity). However, existing operational conditions and operational conditions predicted under the No Build Alternative are far worse than those predicted under the Viaduct Alternative. The implementation of the Viaduct Alternative would substantially improve operational conditions throughout the Project Area as compared to the No Build Alternative. Pedestrian and bicycle improvements would be implemented in the Central Study Area within environmental justice areas (see **Chapter 3, Alternatives** and **Chapter 5, Transportation and Engineering Considerations** for further details, as well as **Figure 6-4-2-2** for proposed bicycle facilities in the Central Study Area). The Viaduct Alternative would not result in permanent effects to existing transit (bus) services or routes, and NYSDOT has and will continue to coordinate with Centro on transit amenities such as bus turn-around lanes. As such, the Viaduct Alternative would not result in adverse effects on environmental justice populations with respect to transportation.

Land Acquisition, Displacement, and Relocation

As discussed in **Section 6-3-1, Land Acquisition, Displacement, and Relocation**, the Viaduct Alternative would result in the displacement of 24 buildings within the Central Study Area. As shown in **Table 6-2-3-3**, one building is vacant, and the remaining 23 contain commercial businesses; manufacturing and distribution facilities; office buildings with an estimated 555 combined employees; storage facilities; and residential units with an estimated 95 dwelling units (in mixed use buildings). Of these displacements, the 95 dwelling units (within one property) and 20 occupied commercial properties, with a total of 422 employees, are located within environmental justice areas.

Throughout the design and environmental review processes, efforts have been made to refine the Viaduct Alternative to avoid and/or minimize displacements. As presented in **Chapter 3, Alternatives**, several viaduct replacement options were considered early in the scoping process and subsequently dismissed because they required substantially greater property acquisitions and displacements. The development of the Viaduct Alternative reflects an iterative and collaborative effort to minimize property acquisitions to the extent practicable while addressing the Project needs and meeting the Project purpose and objectives.

The displacements would be undertaken pursuant to the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 and the New York State Eminent Domain Procedure Law (EDPL), which protect the rights of property owners and tenants. Based on a review of real estate listings in the Project Area conducted as part of NYSDOT's Conceptual Stage Relocation Plan (see **Appendix D-1**), adequate housing and commercial space exists within the Central Study Area such that the displaced residents and businesses could relocate in close proximity (i.e., within a few blocks) to their existing locations.

Table 6-2-3-3
Viaduct Alternative Building Acquisitions in Environmental Justice Areas

Address	Commercial Occupants (Tenants except where noted as owner)	Employees	Dwelling Unit
915 North State Street	Storage	-	-
909 North State Street	Storage	-	-
901 North State Street	Avalon Document Services	59	-
117 Butternut Street	Veteran's Fastener Supply (owner)	7	-
329 North Salina Street	Syracuse Behavioral Health; D'Arcangilo & Co., LLP; FairHealth	41	-
319-25 North Salina Street	Vacant storefront; Apple Nails, African Braiding Hair Salon, Your Creation; Easy Convenience	30	26
400 Burnet Avenue	L&G Machining; Zausmer-Frisch; 4 Storage Areas	26	-
500 Renwick Avenue	Syracuse Housing Authority Garage	13	-
309 S. McBride Street (601 E Genesee Street)	S.U. Falk College of Sport and Human Dynamics; S.U. Falk College Couple and Family Therapy Center; St. Joseph's Hospital Children and Youth Outpatient Clinic (Behavioral Health Services); McMahon-Ryan Child Advocacy Center	48	-
600 East Genesee Street	Presidential Plaza Medical Office Building (14 Tenants)	133	-
500 East Erie Boulevard	Smith Restaurant Supply Building	-	38
421 East Water Street	M&T Bank	3	-
110 South McBride Street	Storage Center	-	-
521-527 East Washington Street	Quality Family Dental	10	-
511-19 East Washington Street	Central New York Eye and Tissue Bank (owner)	7	-
110 Almond Street	Dunkin' Donuts	15	-
603 E Fayette Street	Storage and Surface Parking	-	-
212 Herald Place	CNY Neurodiagnostics; The Pressroom Pub	30	27
123-29 East Willow Street	Residential	-	4
126-34 North Warren Street	Vacant	-	-
TOTALS		**422**	**95**

Sources: Onondaga Department of Finance (2017 Assessment and Market Value), City of Syracuse, Manta.com, CSRR (October 2020).

NYSDOT would provide assistance to residents to identify alternative sites where they could relocate. Regarding residential displacements, during the relocation process, the availability of replacement housing in the area would be compared with the housing needs of the displaced households. Measures to resolve special relocation needs would be implemented, if needed. A relocation survey could be conducted to obtain more information on special relocation needs and considerations, such as effects on the elderly, large families, and persons with disabilities when applicable, or any special relocation advisory services that could be necessary from the displacing agency and other social services agencies and organizations. Other special relocation needs could include transportation for displaced occupants to inspect housing to which they are referred, counseling related to the availability and eligibility requirements of government assisted housing programs, technical help to persons applying for such assistance, and/or an ambulance to transfer persons who are physically disabled.

The businesses that would be displaced include medical and therapy facilities, social service offices, and small retail establishments. NYSDOT would assist commercial property owners and tenants in identifying alternative sites where they could relocate. For those who currently utilize the displaced

businesses, based on review of land use maps and other data sources, additional similar services are available within one mile or less. Regarding relocation of the businesses, based on market research, there are available commercial properties (retail and office properties), either for sale or for rent, within a few blocks of the original building locations that could potentially accommodate the displaced businesses. Given this proximity, pedestrian, vehicular, and transit accessibility would be similar to existing conditions. Measures to facilitate relocation of residents and businesses are further discussed in **Section 6-3-1**.

As such, the Viaduct Alternative would not result in adverse effects on environmental justice populations with respect to land acquisition, displacement, and relocation.

Parks and Recreational Resources

As discussed in **Section 6-4-2, Parklands and Recreational Resources**, potential effects to 43 park facilities, many of which are located in environmental justice areas, were assessed. The Viaduct Alternative would not result in permanent adverse effects to parkland. Temporary construction-related impacts to parkland (specifically, to Wilson Park) are discussed below under Construction Effects.

Visual and Aesthetic Considerations

As discussed in **Section 6-4-3, Visual Resources and Aesthetic Considerations**, the Viaduct Alternative would result in both adverse and beneficial visual effects. The replacement viaduct would be built higher than the existing viaduct and thus would be more visible from the surrounding area.

Thirty-two (32) viewpoints were selected for the visual impact assessment, and 26 of these are located in environmental justice areas. Of these 26 viewpoints, 11 would result in no change (i.e., neutral effect) in visual quality; five would result in a minor beneficial effect; and 10 would result in a minor adverse effect (out of 13 overall viewpoints with minor adverse effects). The minor adverse visual effects within environmental justice areas are associated with increased massing of viaduct infrastructure from transportation infrastructure at the I-81/I-690 interchange or increased width of the I-81 transportation footprint, the removal of vegetation that would increase visibility of the viaduct, and the construction of new noise barriers. These adverse effects result from the location, proximity, and size or scale of the proposed infrastructure relative to potential viewers.

Therefore, without mitigation (such as landscaping, street tree plantings, and context-sensitive design solutions for the viaduct), minor adverse effects on environmental justice populations related to visual effects could occur. **Section 6-2-3.3.3** discusses mitigation measures for adverse effects.

Air Quality

As discussed in **Section 6-4-4, Air Quality**, particulate matter ($PM_{2.5}$ and PM_{10}) microscale analyses were conducted to evaluate the potential air quality effects of the Viaduct Alternative related to traffic operations after construction of the Project (e.g., "operational effects"). Three sites were selected for analysis: Crouse Avenue and Burnet Avenue to Crouse Avenue and Erie Boulevard; West Street and West Genesee Street; and Almond Street and Harrison Street. Each of the three sites is located within an environmental justice area. The predicted PM_{10} and $PM_{2.5}$ concentrations at each of these sites were below the applicable USEPA National Ambient Air Quality Standards (NAAQS). Therefore, adverse effects related to PM_{10} and $PM_{2.5}$ concentrations are not anticipated. As shown in **Table 6-2-3-4**,

depending on the analysis site, PM_{10} and $PM_{2.5}$ concentrations and associated emissions of pollutants would increase on some roadway segments when compared with the No Build Alternative. However, there would also be areas where travel speeds improve where traffic signal or changes in lane geometry would improve travel speeds and traffic operations. Consequently, vehicle emissions are projected to decrease on these segments and would offset segments with increased emissions within the region. Construction-related air quality effects are discussed below under Construction Effects.

Table 6-2-3-4

Viaduct Alternative—$PM_{2.5}$ and PM_{10} Maximum Concentrations at Analysis Sites ($\mu g/m^3$)

Analysis Site	Pollutant	Averaging Period	Background Concentration	No Build Total Concentration	Viaduct Alternative Total Concentration	Percent Change	NAAQS
Site 1: Crouse Avenue and Burnet Avenue to Crouse Avenue and Erie Boulevard	PM_{10}	24-Hour	33.0	43.0	40.5	-5.9%	150
	$PM_{2.5}$	24-Hour	13.5	14.5	14.4	-1.1%	35
		Annual	5.6	5.9	5.9	0.0%	12
Site 2: N. West Street and W. Genesee Street	PM_{10}	24-Hour	33.0	42.7	42.0	-1.6%	150
	$PM_{2.5}$	24-Hour	13.5	14.8	14.9	1.1%	35
		Annual	5.6	6.3	6.0	-4.2%	12
Site 3: Almond Street and Harrison Street	PM_{10}	24-Hour	33.0	82.7	92.4	11.8%	150
	$PM_{2.5}$	24-Hour	13.5	16.7	17.6	5.1%	35
		Annual	5.6	6.6	7.3	10.3%	12

Notes:

PM_{10} background concentration was based on 2016-2018 data at the Rochester 2 monitoring station. $PM_{2.5}$ background concentrations for 24-hour and annual $PM_{2.5}$ were based on 2016-2018 data at the East Syracuse monitoring station.

Concentrations are based on the projected roadway conditions in the 2026 analysis year as a reasonable representative for the estimated time of completion.

Traffic Noise

As discussed in **Section 6-4-6, Noise**, the Viaduct Alternative would result in traffic noise impacts at 675 of the 2,817 receiver sites included in the traffic noise analysis. The impacts would generally occur proximate to I-81, I-690, and I-481, including at receivers within environmental justice areas.

Although these receivers are considered "impacted" as defined in NYSDOT Noise Policy, the noise level increases at 644 of the 675 impacted receivers would be less than 3 dB(A) as compared to existing conditions. According to FHWA's *Highway Traffic Noise: Analysis and Abatement Guidance*, studies have shown that a noise level increase of 3 dB(A) or less is barely perceptible to the human ear. Thus, the noise impact under the Viaduct Alternative at these receivers is not determined to be adverse.

Without abatement and compared to the existing conditions, the noise level increase at 31 of the impacted receivers would be perceptible, and 27 of these 31 receivers are located within environmental justice areas where there would be Project-related changes in physical alignment and traffic. **Section 6-2-3.3.3** discusses measures to abate traffic noise impacts.

Construction Effects

The Viaduct Alternative would result in temporary construction-related effects for a duration of approximately seven years (see **Chapter 4, Construction Means and Methods**). These effects, such as demolition and construction noise, dust, emissions, and vibration, would occur temporarily in areas adjacent to the construction activities. While the overall duration of construction is seven years, construction activities would be completed in stages, such that no resource or location would be affected for the entire duration of construction. Construction activities in an area, such as along Almond Street, would vary in intensity, ranging from demolition and reconstruction of the viaduct to pavement resurfacing and landscaping. As discussed in **Chapter 5, Transportation and Engineering Considerations**, public access, commercial access, and access to mass transit would be maintained at all times during construction. Temporary effects on traffic would occur during construction and would require the use of detours and temporary easements. Temporary effects on parklands are also anticipated, as discussed further below.

As discussed in **Section 6-4-6, Noise**, construction noise was modeled at five representative sites within or proximate to environmental justice populations in the Central Study Area. The modeling showed that, for a reasonable worst-case condition, the five sites could experience adverse construction noise effects unless abatement measures are implemented.

An air quality analysis for construction activity was conducted for the Viaduct Alternative (see **Section 6-4-4, Air Quality**). The MLK, Jr. East area, which is within an environmental justice area, was selected as a representative location for the analysis. Both emissions from on-site construction equipment and emissions from construction-related traffic diversions were included in the analysis. While construction activities would temporarily generate emissions from equipment and fugitive dust from ground disturbance, the maximum predicted air quality concentrations ($PM_{2.5}$ and PM_{10}) would be lower than the applicable USEPA National Ambient Air Quality Standards.

As discussed in **Chapter 5, Transportation and Engineering Considerations**, temporary lane, road, and intersection closures and associated rerouting of traffic, public transit, pedestrians, and bicycles would occur during construction. Residents, commuters, and visitors would experience temporary disruptions resulting from detours. Delays associated with increased traffic volume could occur in areas where existing I-81 and/or I-690 traffic was diverted due to construction work. Temporary displacement of parking could also occur during construction. Temporary closures and associated detours could affect access and increase travel times to businesses, residences, places of worship, and/or schools during construction; however, as noted above, public access, commercial access, and access to mass transit would be maintained at all times during construction. During construction, NYSDOT would implement a Traffic Management Plan that would detail measures to address site access and to address temporary changes in traffic patterns, pedestrian and bicycle facilities, and transit service. Some bus service could be delayed near construction zones, but the Traffic Management Plan could include transit enhancements such as increased bus service or new or modified routes to minimize inconvenience for bus customers, and the Contractor would be directed to maintain safe access to bus stops or relocate bus stops in close proximity to their existing location if a safe route is infeasible (see **Table 4-7** for additional information). As part of its outreach plan approved by NYSDOT, the Contractor would communicate temporary transportation changes to the public through means such as an outreach center that would be established for the construction period and through public messaging such as the use of Intelligent Transportation Systems (ITS) that would

include electronic signs with alerts. Temporary easements could be required, but additional acquisitions for construction are not anticipated.

As discussed in **Section 6-4-2, Parklands and Recreational Resources**, a 20-foot (0.12-acre) section of Wilson Park that includes a basketball court and lawn area would be inaccessible to the public for two years during construction. This area would serve as a safety buffer between the accessible portion of the park and the construction area. Wilson Park is located in an environmental justice area.

Due to their age, the viaduct and other structures that would be demolished as part of the Viaduct Alternative may contain lead-based paint (LBP). The Onondaga County Health Department has identified elevated levels of lead in more than 10 percent of children in Syracuse overall, and in greater than 30 percent of children in some census block groups within the Central Study Area, which includes environmental justice populations.[3] As detailed in **Section 6-4-9, Asbestos and Lead** of this FDR/FEIS, each structure slated for demolition would be tested to identify special lead handling and containment requirements to ensure the safety of the workers and the surrounding public during the performance of the work. Testing would likely include some form of in the field non-destructive screening (x-ray fluorescence or similar technology) that has been accepted by USEPA and commonly identified in support of Housing and Urban Development projects.

Structures would be removed with the majority of paint still intact and sent out for metals recycling. The paint waste that was captured by the containment or protection system would be considered and managed as a hazardous waste if the waste stream fail the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure analysis for lead. Otherwise, the materials would be managed as non-hazardous industrial waste requiring disposal at a municipal landfill.

As discussed in **Table 4-7** of **Chapter 4, Construction Means and Methods** of this FDR/FEIS, the Contractor would be required to prepare a Lead Exposure Control Plan (LECP) that includes practices and measures to be implemented to ensure the safety and health of employees who could be exposed to lead during construction work. By extension, this plan would be developed to protect the public. The LECP would be consistent with the OSHA Lead Standard (29 CFR 1926.62) and would address all the requirements of that standard. A copy of this LECP would be maintained in all NYSDOT field offices administering contracts that include Class A, Class B or Environmental Ground/Waterway Protection work for paint removal work associated with lead-coated structural steel. With these measures in place, there would be no LBP exposure to the public from the Viaduct Alternative, and the removal of existing LBP would provide a benefit to the community.

In addition, in response to comments received during the development of the EIS regarding potential public exposure to LBP during construction activities, NYSDOT would implement a LBP public education program prior to the demolition of the existing I-81 viaduct and adjacent structures. NYSDOT would develop the program during final design, in coordination with the Onondaga County Health Department. Potential activities could include the development of educational materials on household protocols to prevent the spread of contaminated dust into homes and holding a community session/meeting focused on demolition and ways to protect residents from lead dust during construction. As described in **Section 4.5.2**, public outreach during construction would include the establishment of a telephone number for the public to use to ask questions/provide

[3] http://www.ongov.net/health/lead/data.html

input during construction; implementation of a communication schedule and procedures for providing construction status updates and other construction-related information to the public; and development and maintenance of a website to advise the public on construction activities.

The purpose of the Project is to address structural deficiencies and non-standard highway features while creating an improved transportation corridor through the City of Syracuse that meets the transportation needs and provides the infrastructure to support long-range transportation planning efforts. Ninety-one (91) of the 186 census blocks within the Environmental Justice Study Area are considered environmental justice areas, most of which are concentrated along the existing I-81 and I-690 corridors within the Central Study Area. Short-term construction-related effects to environmental justice populations are unavoidable, and without mitigation or abatement, adverse effects on environmental justice populations related to construction activities could occur. **Section 6-2-3.3.3** discusses mitigation measures for adverse effects.

Conclusion

In conclusion, without mitigation or abatement (discussed in the next step of this assessment), adverse effects on environmental justice populations related to visual effects, traffic noise, and construction could occur under the Viaduct Alternative. **Section 6-2-3.3.3** discusses mitigation measures for these effects.

COMMUNITY GRID ALTERNATIVE

Neighborhood Character

As discussed in **Section 6-2-1**, Neighborhood Character, the Community Grid Alternative would benefit land uses and community cohesion in the Environmental Justice Study Area as compared to the No Build Alternative since the existing I-81 viaduct, a perceived barrier, would be removed from the railway bridge near Renwick Avenue to I-690. The Community Grid Alternative would address deficiencies in the vehicular, pedestrian, and bicycle networks and enhance connectivity. The removal of highway infrastructure and reduction in the transportation footprint, along with related transportation and urban design improvements, would help reconnect neighborhoods on both sides of I-81 and I-690.

The Community Grid Alternative would remove four buildings that house commercial or other non-residential uses (see the discussion of **Land Acquisition, Displacement, and Relocation** below); there would be no residential displacements under this alternative. The buildings that would be removed contain five businesses (a drive-thru restaurant, a furniture business, an automotive business, a Syracuse Housing Authority garage, and a storage facility), which together employ 35 people, including environmental justice populations. The Community Grid Alternative would not result in the acquisition of grocery stores or similar local retail uses; therefore, there would be no change in food access in the Central Study Area. The structures to be acquired are not concentrated within a single neighborhood, nor do they provide a community service specific to a neighborhood or its population. Since these properties are not concentrated in a small area and the services they provide could be sought nearby, their acquisition and demolition would not constitute a considerable change to the neighborhoods in the Central Study Area.

Although the Community Grid Alternative would acquire property for its implementation, these acquisitions would not meaningfully alter the balance of land uses in the study area, nor would they have an adverse effect on surrounding land uses. The land area to be acquired for the transportation right-of-way would not substantially reduce or increase the physical size of neighborhoods surrounding the existing viaduct.

Upon the completion of construction, NYSDOT would dispose of potential surplus transportation right-of-way in the Central Study Area in accordance with Federal and State law. In total, implementation of the Community Grid Alternative could result in 10 to 12.5 acres of surplus transportation right-of-way, depending on how much land would be needed to accommodate the highway, sidewalk, shared use (bicycle and pedestrian) path, and other transportation features. NYSDOT would determine the size and location of the parcels once construction is complete. The potential surplus transportation right-of-way would consist of several sites near Almond Street and Erie Boulevard where the I-81 and I-690 ramps would be removed; a parcel north of Erie Boulevard between McBride and Catherine Streets where the eastbound I-690 ramp from McBride Street would be removed; a parcel north of Butternut Street between BL 81 and State Street where the existing northbound I-81 entrance ramp from Butternut Street would be removed; a parcel south of Court Street between BL 81 and Sunset Avenue where the existing northbound I-81 ramp to Sunset Avenue would be removed and relocated to Bear Street; and two parcels near MLK, Jr. East where the alignment of BL 81 shifts eastward. The parcels on Almond Street would range from 0.75 to 1.5 acres; those on Erie Boulevard would range from 0.3 to 0.5 acres; the parcel north of Butternut Street would be 1 to 1.5 acres; the parcel south of Court Street would be 0.75 to 1 acre; the parcel north of MLK, Jr. East would be 3 to 3.5 acres; and the parcel south of MLK, Jr. East and east of Leon Street would be 1 to 1.3 acres. There could also be additional surplus right-of-way where MLK, Jr. East would be removed between the rear driveway of Dr. King Elementary School and BL 81. The Community Grid Alternative would also result in a total of 2 to 2.5 acres consisting of numerous land strips that would be too small for development but could be of use to adjacent property owners. NYSDOT would identify the specific boundaries and acreages of the surplus parcels during construction, and NYSDOT's Property Evaluation Review Group would determine the next steps to dispose of the right-of-way once it concludes that the land is no longer needed for transportation purposes.

NYSDOT would form a land use working group consisting of representatives from the city, the city's school district, economic development and economic opportunity organizations, the business community, environmental justice communities, neighborhood residents, and other organizations and stakeholders as appropriate to provide input to NYSDOT in establishing a framework for the non-transportation use of each potential surplus parcel. Further details about the formation of and participation in this working group would be presented during continued Project public involvement activities. Any new use or development would be subject to the City of Syracuse's zoning ordinance and its Land Use and Development Plan 2040, which is currently being updated by the ReZone Syracuse project. Through the ReZone Syracuse process, the City has and continues to solicit community input.

The Community Grid Alternative would redistribute traffic in many parts of the Central Study Area (see the "Transportation" section below); improve connections between Downtown/Southside and Near Eastside/University Hill; potentially provide development opportunities on land currently in the viaduct right-of-way; and create new access points from I-690 (e.g., South Crouse and Irving Avenues).

These changes would be consistent with most current planning and policy initiatives. In particular, these changes would further the redevelopment goals of ReZone Syracuse, which promotes pedestrian-friendly and transit-supportive development.

Pedestrian and bicycle facilities would be added at several locations in the Central Study Area, including along Almond Street, which would be reconstructed. In total, the alternative would result in approximately 12.5 miles of new or reconstructed sidewalks, 2.0 miles of new or reconstructed shared use (bicycle and pedestrian) paths, one mile of new cycle track (a separate track for bicyclists only), and 1.7 miles of new or reconstructed shared vehicle and bicycle lanes. Rebuilt streets would be designed in compliance with New York State Complete Streets requirements.[4] Efforts would be made to create a distinctive identity through design that provides elements of a unified appearance and measures to improve safety. Special pavements, planting areas, medians, pedestrian refuge areas, site furnishings, and green infrastructure would be considered. Local street improvements would include pedestrian and bicycle safety and connectivity enhancements in the study area.

New bicycle facilities along Almond Street, Crouse Avenue, State Street, Clinton Street, and other local streets would connect to existing and planned bicycle facilities such as those at Water Street and East Genesee Street (Connective Corridor) and allow future connections to bicycle facilities at Burnet Avenue, Burt Street, MLK, Jr. East, and other local streets as identified in the Syracuse Bicycle Plan.

NYSDOT would continue to coordinate with Centro regarding potential street improvements to enhance transit accessibility and support Centro's transit initiatives.

Overall, the implementation of the Community Grid Alternative would result in substantial benefits on neighborhood character for environmental justice populations as compared to the No Build Alternative.

Transportation

With the removal of the existing I-81 viaduct under the Community Grid Alternative, traffic would be redistributed on the new BL 81/Almond Street and other local streets in the Central Study Area. Most of this traffic is, and would continue to be, destined for locations within the City of Syracuse; however, instead of funneling traffic to the limited number of I-81 exit ramps that exist today, the Community Grid Alternative would create more direct routes between the new BL 81 and I-690 to serve local traffic more efficiently. As discussed in **Chapter 5, Transportation and Engineering Considerations** and shown on **Table 5-49** and **Figures 5-30 and 5-31** of that chapter, there would be some modest increases in traffic volumes on some local streets and some modest decreases in traffic volumes on other local streets. While these streets are largely within environmental justice areas, street improvements would be included with the Community Grid Alternative (e.g., converting Crouse Avenue from one-way to two-way; see **Figure 3-25** in **Chapter 3, Alternatives**), where needed, such that there would not be a notable degradation in level of service (LOS) on these streets compared with conditions under the No Build Alternative.

[4] The Complete Streets Act (Chapter 398, Laws of New York, August 2011) requires state, county, and local agencies to consider all roadway users in the development of transportation projects, such as the inclusion of sidewalks, bicycle lanes, crosswalks, and signage.

As discussed in **Chapter 5, Transportation and Engineering Considerations**, some freeway segments and ramp merge areas and non-freeway intersections would experience operating conditions at Level of Service (LOS) E or F during AM and/or PM peak periods for the years 2026 and 2056 under the Community Grid Alternative (see **Table 5-50**). LOS ratings range from A (no congestion on the road) to F (roadways are over capacity). However, existing operational conditions and operational conditions predicted under the No Build Alternative are far worse than those predicted under the Community Grid Alternative. The implementation of the Community Grid Alternative would substantially improve operational conditions throughout the Project Area as compared to the No Build Alternative. Substantial pedestrian and bicycle improvements would be implemented in the Central Study Area within environmental justice areas (see **Chapter 3, Alternatives** and **Chapter 5, Transportation and Engineering Considerations** for further details, as well as **Figure 6-4-2-2** for proposed bicycle facilities in the Central Study Area). The Community Grid Alternative would not result in permanent effects to existing transit (bus) services or routes, and NYSDOT has and will continue to coordinate with Centro on transit amenities such as bus turn-around lanes. As such, the Community Grid Alternative would not result in adverse effects on environmental justice populations with respect to transportation.

Land Acquisition and Displacement

As discussed in **Section 6-3-1, Land Acquisition, Displacement, and Relocation**, the Community Grid Alternative would result in the displacement of four commercial buildings, situated on four commercial properties. Of the four buildings, one is vacant and used as storage and three are occupied, representing a total of four active businesses with 35 total employees. The four businesses that would be displaced are a furniture shop, an automotive repair facility, a fast food restaurant, and an office and maintenance garage used by the Syracuse Housing Authority, all of which are located in environmental justice areas. No residents would be displaced as part of the Community Grid Alternative.

Throughout the design and environmental review processes, efforts have been made to refine the Community Grid Alternative to avoid and/or minimize displacements. The development of the Community Grid Alternative reflects an iterative and collaborative effort to minimize property acquisitions to the extent practicable while addressing the Project needs and meeting the purpose and objectives.

The commercial displacements would be undertaken pursuant to the Uniform Act and EDPL, which protect the rights of property owners and tenants. Adequate commercial space exists within the general project vicinity such that the displaced businesses could relocate in close proximity to their existing locations. NYSDOT would assist commercial property owners and tenants in identifying alternative sites where they could relocate.

For those who currently utilize the displaced businesses, based on review of land use maps and other available data sources, alternative retail, fast food, and automotive repair facilities are available within one mile or less of the displaced businesses. Regarding relocation of the businesses, based on market research, there are available commercial properties (retail and office properties) within approximately ¼ mile of the original business location, either for sale or for rent, that could potentially accommodate the displaced businesses. The Syracuse Housing Authority told NYSDOT that they would relocate

the facility nearby the current location. Measures to facilitate relocation of businesses are further discussed in **Section 6-3-1, Land Acquisition, Displacement, and Relocation**.

As such, the Community Grid Alternative would not result in adverse effects on environmental justice populations with respect to land acquisition, displacement, and relocation.

Parks and Recreational Resources

As discussed in **Section 6-4-2, Parklands and Recreational Resources**, and in **Chapter 7, Section 4(f) Evaluation**, potential effects to 43 park facilities, many of which are located in environmental justice areas, were assessed. The Community Grid Alternative would not result in permanent adverse effects to parkland. Temporary construction-related effects to parkland (specifically, to Wilson Park) are discussed below under Construction Effects.

Visual and Aesthetic Considerations

As discussed in **Section 6-4-3, Visual Resources and Aesthetic Considerations**, the Community Grid Alternative would result in both adverse and beneficial visual effects. Thirty-two (32) viewpoints were selected for the visual impact assessment, of which 26 are located in environmental justice areas. Of these 26 viewpoints located within the environmental justice areas, three would result in no change (i.e., neutral effect) in visual quality, seven would result in a minor beneficial effect; 12 would result in a beneficial effect; and four would result in a minor adverse effect (out of six overall viewpoints with minor adverse effects). The minor adverse effects would be due to the obstruction of views or removal of mature vegetation to install noise barriers and/or to accommodate the realignment of streets.

Therefore, without mitigation (such as landscaping, street tree plantings, and context-sensitive design solutions), minor adverse effects on environmental justice populations related to visual effects could occur. **Section 6-2-3.3.3** discusses mitigation measures for adverse effects.

Air Quality

As discussed in **Section 6-4-4, Air Quality**, particulate matter (PM_{10} and $PM_{2.5}$) microscale analyses were conducted to evaluate the potential air quality effects of the Community Grid Alternative related to traffic operations after construction of the Project (e.g., "operational effects"). Four sites were selected for analysis: Crouse Avenue and Burnet Avenue to Crouse Avenue and Erie Boulevard; West Street and West Genesee Street; Almond Street and Harrison Street; and State Street and Erie Boulevard. Each of these sites is located within an environmental justice area. The predicted PM_{10} and $PM_{2.5}$ concentrations at each of these sites were below the applicable USEPA National Ambient Air Quality Standards. Therefore, adverse effects related to PM_{10} and $PM_{2.5}$ concentrations are not anticipated. As shown in **Table 6-2-3-5**, depending on the analysis site, PM_{10} and $PM_{2.5}$ concentrations and associated emissions of pollutants would increase on some roadway segments when compared with the No Build Alternative. However, there would also be areas where travel speeds improve where traffic signal or changes in lane geometry would improve travel speeds and traffic operations. Consequently, vehicle emissions are projected to decrease on these segments and would offset segments with increased emissions within the region. Construction-related air quality effects are discussed below under Construction Effects.

Table 6-2-3-5

Community Grid Alternative—$PM_{2.5}$ and PM_{10} Maximum Concentrations at Analysis Sites ($\mu g/m^3$)

Analysis Site	Pollutant	Averaging Period	Background Concentration	No Build Alternative Total Concentration	Community Grid Alternative Total Concentration	Percent Change	NAAQS
Site 1: Crouse Avenue and Burnet Avenue to Crouse Avenue and Erie Boulevard	PM_{10}	24-Hour	33.0	43.0	44.7	3.9%	150
	$PM_{2.5}$	24-Hour	13.5	14.5	15.3	5.1%	35
		Annual	5.6	5.9	6.2	4.5%	12
Site 2: N. West Street and W. Genesee Street	PM_{10}	24-Hour	33.0	42.7	45.5	6.6%	150
	$PM_{2.5}$	24-Hour	13.5	14.8	15.4	4.5%	35
		Annual	5.6	6.3	6.1	-2.1%	12
Site 3: Almond Street and Harrison Street	PM_{10}	24-Hour	33.0	82.7	58.6	-29.1%	150
	$PM_{2.5}$	24-Hour	13.5	16.7	14.6	-12.6%	35
		Annual	5.6	6.6	6.0	-9.3%	12
Site 4: State Street and Erie Boulevard	PM_{10}	24-Hour	33.0	46.0	46.4	0.8%	150
	$PM_{2.5}$	24-Hour	13.5	15.5	15.2	-2.2%	35
		Annual	5.6	6.2	6.1	-1.1%	12

Notes:

PM_{10} background concentration was based on 2016-2018 data at the Rochester 2 monitoring station. $PM_{2.5}$ background concentrations for 24-hour and annual $PM_{2.5}$ were based on 2016-2018 data at the East Syracuse monitoring station.

Concentrations are based on the projected roadway conditions in the 2026 analysis year as a reasonable representative for the estimated time of completion.

Traffic Noise

As discussed in **Section 6-4-6, Noise**, the traffic noise analysis for the Community Grid Alternative identified traffic noise impacts at 557 of the 2,817 receiver sites included in the analysis. The impacts would generally occur proximate to I-81, I-690, and I-481, including at receivers within environmental justice areas.

Although these receivers are considered "impacted" as defined in NYSDOT Noise Policy, the noise level increases at 536 of the 557 receivers would be less than 3 dB(A) as compared to existing conditions. According to FHWA's *Highway Traffic Noise: Analysis and Abatement Guidance*, studies have shown that a noise level increase of 3 dB(A) or less is barely perceptible to the human ear. Thus, the noise impact under the Community Grid Alternative at these receivers is not determined to be adverse.

Without abatement and compared to the existing conditions, the noise level increase at 21 of the impacted receivers would be perceptible, and 19 of these 21 receivers are in environmental justice areas. **Section 6-2-3.3.3** discusses abatement measures for traffic noise impacts.

Construction Effects

The Community Grid Alternative would result in temporary construction-related effects for a duration of approximately six years (see **Chapter 4, Construction Means and Methods**). These effects, such as demolition and construction noise, dust, emissions, and vibration, would occur temporarily in areas adjacent to the construction activities. While the overall duration of construction is six years, construction activities would be completed in stages, such that no resource or location would be affected for the entire duration of construction. Construction activities in an area, such as along Almond Street, would vary in intensity, ranging from demolition of the viaduct to pavement resurfacing and landscaping. As discussed in **Chapter 5, Transportation and Engineering Considerations**, public access, commercial access, and access to mass transit would be maintained at all times during construction. Temporary effects to traffic would occur during construction and would require the use of detours and temporary easements. Temporary effects to parklands are also anticipated, as discussed further below.

As discussed in **Section 6-4-6, Noise**, construction noise was modeled at seven representative sites. Six of these sites are within or near environmental justice areas, including five within the Central Study Area and one in the I-481 South Study Area near the I-81/I-481 south interchange. The modeling showed that, for a reasonable worst-case condition, the five sites in the Central Study Area could experience adverse construction noise effects unless abatement measures are implemented. The site near the I-81/I-481 south interchange (Interchange 16A) would not experience a substantial increase in noise during construction.

As discussed in **Section 6-4-4, Air Quality,** an air quality analysis for construction activity was conducted for the Community Grid Alternative. The Martin Luther King, Jr. East area, which is within an environmental justice area, was selected as a representative location for the analysis. Both emissions from on-site construction equipment and emissions from construction-related traffic diversions were included in the analysis. While construction activities would temporarily generate emissions from equipment and fugitive dust from ground disturbance, the maximum predicted air quality concentrations ($PM_{2.5}$ and PM_{10}) would be lower than the applicable USEPA National Ambient Air Quality Standards.

As discussed in **Chapter 5, Transportation and Engineering Considerations**, temporary lane, road, and intersection closures and associated rerouting of traffic, public transit, pedestrians, and bicycles would occur during construction. Residents, commuters, and visitors would experience temporary disruptions resulting from detours. Delays associated with increased traffic volume could occur in areas where existing I-81 and/or I-690 traffic was diverted due to construction work. Temporary displacement of parking could also occur during construction. Temporary closures and associated detours could affect access to businesses, residences, places of worship, and/or schools during construction; however, as noted above, public access, commercial access, and access to mass transit would be maintained at all times during construction. During construction, NYSDOT would implement a Traffic Management Plan that would detail measures to address site access and to address temporary changes in traffic patterns, pedestrian and bicycle facilities, and transit service. Some bus service could be delayed near construction zones, but the Traffic Management Plan could include transit enhancements such as increased bus service or routes, and the Contractor would be directed to maintain safe access to bus stops or relocate bus stops in close proximity to their existing location if a safe route was infeasible (see **Table 4-7** for additional information). As part of its outreach plan

approved by NYSDOT, the Contractor would communicate temporary transportation changes to the public through means such as an outreach center that would be established for the construction period and through public messaging such as the use of Intelligent Transportation Systems (ITS) that would include electronic signs with alerts. Temporary easements could be required, but additional acquisitions for construction are not anticipated.

As discussed in **Section 6-4-2, Parklands and Recreational Resources**, a 20-foot (0.12-acre) portion of Wilson Park that includes a basketball court and lawn area would be inaccessible to the public for less than one year during construction. This area would serve as a safety buffer between the accessible portion of the park and the construction area. Wilson Park is located in an environmental justice area.

Due to their age, the viaduct and other structures that would be demolished as part of the Community Grid Alternative may contain LBP. The Onondaga County Health Department has identified elevated levels of lead in more than 10 percent of children in Syracuse overall, and in greater than 30 percent of children in some census block groups within the Central Study Area, which includes environmental justice populations.[5] As detailed in **Section 6-4-9, Asbestos and Lead** of this FDR/FEIS, each structure slated for demolition would be tested to identify special lead handling and containment requirements to ensure the safety of the workers and the surrounding public during the performance of the work. Testing would likely include some form of in the field non-destructive screening (x-ray fluorescence or similar technology) that has been accepted by USEPA and commonly identified in support of Housing and Urban Development projects.

Structures would be removed with the majority of paint still intact and sent out for metals recycling. The paint waste that was captured by the containment or protection system would be considered and managed as a hazardous waste if the waste stream fail the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure analysis for lead. Otherwise, the materials would be managed as non-hazardous industrial waste requiring disposal at a municipal landfill.

As discussed in **Table 4-7** of **Chapter 4, Construction Means and Methods** of this FDR/FEIS, the Contractor would be required to prepare a Lead Exposure Control Plan (LECP) that includes practices and measures to be implemented to ensure the safety and health of employees who could be exposed to lead during construction work. By extension, this plan would be developed to protect the public. The LECP would be consistent with the OSHA Lead Standard (29 CFR 1926.62) and would address all the requirements of that standard. A copy of this LECP would be maintained in all NYSDOT field offices administering contracts that include Class A, Class B or Environmental Ground/Waterway Protection work for paint removal work associated with lead-coated structural steel. With these measures in place, there would be no LBP exposure to the public from the Community Grid Alternative, and removal of existing LBP would provide a benefit to the community.

In addition, in response to comments received during the development of the EIS regarding potential public exposure to LBP during construction activities, NYSDOT would implement a LBP public education program prior to the demolition of the existing I-81 viaduct and adjacent structures. NYSDOT would develop the program during final design, in coordination with the Onondaga County Health Department. Potential activities could include the development of

[5] http://www.ongov.net/health/lead/data.html

educational materials on household protocols to prevent the spread of contaminated dust into homes and holding a community session/meeting focused on demolition and ways to protect residents from lead dust during construction. As described in **Section 4.5.2**, public outreach during construction would include the establishment of a telephone number for the public to use to ask questions/provide input during construction; implementation of a communication schedule and procedures for providing construction status updates and other construction-related information to the public; and development and maintenance of a website to advise the public on construction activities.

The purpose of the Project is to address structural deficiencies and non-standard highway features while creating an improved transportation corridor through the City of Syracuse that meets the transportation needs and provides the infrastructure to support long-range transportation planning efforts. Ninety-one (91) of the 186 census blocks within the Environmental Justice Study Area are considered environmental justice areas, most of which are concentrated along the existing I-81 and I-690 corridors within the Central Study Area. Short-term construction-related effects to environmental justice populations are unavoidable, and without mitigation or abatement, adverse effects on environmental justice populations related to construction activities could occur. **Section 6-2-3.3.3** discusses mitigation measures for adverse effects.

Conclusion

In conclusion, without mitigation or abatement (discussed in the next step of this assessment), adverse effects on environmental justice populations related to visual effects, traffic noise, and construction effects could occur under the Community Grid Alternative. **Section 6-2-3.3.3** discusses mitigation measures for these effects.

6-2-3.3.3 STEP 3: CONSIDER MITIGATION FOR ANY ADVERSE EFFECTS (REQUIRED UNDER NEPA FOR ALL ADVERSE EFFECTS REGARDLESS OF THE TYPE OF POPULATION AFFECTED).

As determined under Step 2 of this assessment, without mitigation or abatement, both the Viaduct Alternative and Community Grid Alternative could result in adverse effects on environmental justice populations related to visual effects, traffic noise, and construction effects. Commitments to avoid, minimize, or otherwise mitigate these effects under each alternative are discussed below. The commitments to avoid, minimize, or otherwise mitigate construction effects were developed consistent with standard NYSDOT best management practices for construction. Other commitments and mitigation measures were developed specifically for this Project based on the types of effects anticipated and in consideration of the affected communities and facilities.

VIADUCT ALTERNATIVE

Visual and Aesthetic Considerations

As described in **Section 6-4-3, Visual Resources and Aesthetic Considerations**, NYSDOT would employ measures to mitigate adverse visual effects associated with the Viaduct Alternative, including, but not limited to, the following: replacement landscaping; streetscape enhancements (e.g., sidewalks, specialty pavements and aesthetic treatments for walkways, site furnishings) along Almond Street, portions of West Street and Erie Boulevard, and portions of connecting streets; potential screening of limited views through the enhancement of streetscapes with additional street trees; variation in the

style and form of support structures; surface treatments (e.g., use of native stone materials for concrete columns, abutments, and support structures); and strategic placement of plantings to soften the appearance of constructed elements. NYSDOT would coordinate with the City of Syracuse and appropriate stakeholders on landscaping, street tree planting, and context sensitive design solutions in the Central Study Area. Where noise barriers are proposed, NYSDOT would consider aesthetic treatments, such as materials, color, and landscaping, during final design. In those instances where minor adverse visual effects would occur in environmental justice areas, those effects would be minimized by use of the aesthetic treatments described above; however, some effects would not be able to be mitigated given the location, proximity, and size or scale of the proposed infrastructure. Factors contributing to adverse visual effects for the Viaduct Alternative that cannot be avoided or minimized with mitigation measures include the introduction of infrastructure where it does not currently exist, the obstruction of current views because of new infrastructure, increased scale (height, mass) of proposed infrastructure (relative to existing conditions), shadowing effects, and the removal of buildings.

Traffic Noise

To provide traffic noise abatement, the Noise Study evaluated the feasibility and reasonableness of each of the following potential abatement measures:

- Traffic management measures, such as traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations;
- Alteration of horizontal and vertical alignments (i.e., changes to geometry and height of a roadway);
- Construction of noise barriers;
- Acquisition of real property to serve as a buffer zone; and
- Noise insulation of publicly owned school buildings.

The results of the Noise Study indicated that the only potentially feasible and reasonable method of noise abatement for this Project would be through noise barriers. NYSDOT evaluated noise barriers in those locations that were identified as impacted. Noise barriers must be both feasible and reasonable, as defined in the NYSDOT Noise Policy, to be recommended for construction. Fifteen (15) noise barriers were determined to be both feasible and reasonable (see **Section 6-4-6, Noise**).

Without abatement, the noise level increase at 27 impacted receivers in environmental justice areas would be perceptible. Three of these 27 receivers would benefit from the proposed noise barriers.

For a barrier to provide effective noise reduction, it must be continuous and designed to an elevation high enough to shield the receiver from the noise source. Noise barrier locations were chosen for study if there was a potential that noise barriers could be considered both feasible and reasonable. Noise barriers were not considered feasible along the local streets in much of the Central Study Area of the Project since openings for driveways would need to be provided for the residences and businesses, which would negate the effectiveness of the noise barrier. Therefore, noise barriers are not reasonable at several locations within the Central Study Area under the Viaduct Alternative, and at

locations where barriers are not being proposed, the increases in noise levels would not be abated. Thus, the perceptible noise level increases at the remaining 24 impacted receivers within environmental justice areas would not be abated.

Construction Effects

Chapter 4, Construction Means and Methods, describes the anticipated construction staging for the Viaduct Alternative. It is anticipated that the Viaduct Alternative would be constructed in three contracts, with a total construction duration of approximately seven years. Typical measures in construction contracts to avoid or minimize temporary effects during construction would be implemented.

As stated in **Section 6-4-4, Air Quality**, construction work would be planned and executed in a manner that would minimize air emissions. Air quality control measures would include:

- Use of Ultra Low-Sulfur Diesel (ULSD) fuel in construction equipment;
- Use construction equipment that meets Tier 4 emissions standards, where appropriate and to the extent practicable;
- Provisions limiting idle time for diesel-powered equipment to three consecutive minutes for delivery and dump trucks and all other diesel-powered equipment, with certain exceptions;
- Positioning stationary equipment exhausts to minimize exposure to sensitive receptors;
- Proactive and corrective measures for dust control, which would be developed prior to the onset of construction;
- Restrictions on burning of any material on the contract site; and
- Protection techniques and/or systems when performing drilling, cutting, or similar operations that impact air quality.

An outdoor ambient air quality monitoring program would be implemented during construction of the Project and would be overseen by NYSDOT. The program would identify the locations and durations of air quality monitoring and protocols to address any exceedances of National Ambient Air Quality Standards (NAAQS) should they be observed. The program would consist of real-time particulate monitoring at a number of locations within the local community. Locations and durations would be determined in consideration of land uses, non-Project sources of emissions, and construction phasing. One monitor would be located outdoors in the vicinity of Dr. King Elementary School while construction would be occurring near the school. Locations for other program monitors would be determined during final design.

Background particulate monitoring would be conducted as part of the program to establish and routinely verify baseline levels. During construction, real-time particulate matter data would be collected at an established interval (for example, measurements every 10 seconds and logged in 15-minute periods) and time-weighted over 24 hours for comparison to the NAAQS. These standards are designed to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly, with an adequate margin of safety. If the data show that air quality levels are approaching a concern level (to be established during final design) that could result in an exceedance of the 24-hour NAAQS, then operational and/or mechanical deficiencies would be identified and corrected. If the data result in any particulate air quality levels that exceed the 24-hour NAAQS, then

the applicable construction activities would be suspended until the deficiencies are identified and corrected.

As described in **Table 4-7 of Chapter 4, Construction Means and Methods**, measures that would be implemented during construction to abate construction noise would include:

- Construction noise monitoring;
- Time-of-day restrictions for noisy activities;
- Temporary barriers to shield noise;
- Requirements for vehicles and equipment to reduce noise;
- Restrictions on impact and drilling equipment where reasonable; and
- Designated truck routes.

A noise and vibration monitoring program would be implemented throughout construction to facilitate enforcement of noise abatement measures. In the construction zone between MLK, Jr. East and Harrison Street, the Contractor would be directed to use saw cutting methods and prohibit impact hammers during the demolition of existing structures when reasonable, and to use drilled foundations on all bridge piers and other support structures and prohibit pile driving methods.

Measures to minimize or otherwise mitigate construction effects are listed in **Table 4-7**. Further discussion is provided in **Chapter 4, Construction Means and Methods**, **Section 6-4-4, Air Quality**, and **Section 6-4-6, Noise**.

During construction activities, NYSDOT would implement an LBP public education program prior to the demolition of the existing I-81 viaduct and adjacent structures. NYSDOT would develop the program during final design, in coordination with the Onondaga County Health Department. Potential activities could include the development of educational materials on household protocols to prevent the spread of contaminated dust into homes and holding a community session/meeting focused on demolition and ways to protect residents from lead dust during construction. As described in **Section 4.5.2**, public outreach during construction would include the establishment of a telephone number for the public to use to ask questions/provide input during construction; implementation of a communication schedule and procedures for providing construction status updates and other construction-related information to the public; and development and maintenance of a website to advise the public on construction activities.

As described in **Table 4-7**, to minimize potential adverse transportation effects during construction, a Traffic Management Plan would be developed that would include measures to minimize effects related to temporary lane, road, and intersection closures and the associated rerouting of traffic. These include local street improvements along anticipated detour routes prior to viaduct demolition and construction activities, measures to address traffic incidents, and off-peak lane closures on I-81. Designated truck routes would be identified, and delivery of materials would predominantly be performed utilizing city streets and specified work zone access routes, which would be scheduled outside of peak travel (commuter and school trips) periods, to the extent practical. Since a substantial portion of the construction would take place in environmental justice areas and reasonable detour routes are also located in these communities, some truck routes would need to be located through environmental justice areas to provide access to the construction zone. A maintenance and protection

of traffic plan would be in place to direct construction vehicles away from residential streets, to the extent practical. Bus routes and additional vehicles would be added to existing routes, and detours affecting public bus routes would be coordinated with Centro to minimize disruption to its customers. Commuter parking and shuttle strategies, as well as strategies to reduce the number and duration of road closures, would be developed. In addition, while sidewalks and bicycles facilities could require temporary closures, safe pedestrian and bicycle accommodations and detours would be maintained at all times. Construction zone pedestrian access would be maintained in accordance with the Accessibility Guidelines for Pedestrian Facilities in the Public Right of Way. NYSDOT would continue to coordinate with the Syracuse City School District during construction. During final design, NYSDOT would consider implementing additional construction restrictions within the construction zone near Dr. King Elementary School, such as time and/or seasonal restrictions where appropriate.

A 20-foot (0.12-acre) wide section at the eastern edge of Wilson Park would be closed for two years during construction to serve as a safety buffer. The area would be fenced off from the rest of the park, and signage would advise the public that the area is inaccessible to park users. NYSDOT would construct a new basketball court to the west of the existing courts and install other park features, such as a regraded and reseeded playing field; a new splash pad; new bleachers and benches; new shade trees; new drinking fountains; replacement of the perimeter fence and pedestrian gates along Almond Street; and other park improvements, as agreed upon with the local officials with jurisdiction over the park. The new basketball court would be in place before the eastern portion of the park was closed to ensure that two courts are always available (with three courts ultimately available after construction). Upon completion of construction, areas that were inaccessible during construction would be refurbished and the park would be fully returned to recreational use (see **Section 6-4-2, Parklands and Recreational Resources**).

NYSDOT would require that the Contractor, in consultation with NYSDOT and FHWA, prepare a communication and public outreach plan (see **Chapter 4, "Construction Means and Methods,"** for more information). During construction of the Project, a centrally located, on-site project outreach center would be established to accommodate drop-in visitors who have questions, comments, and/or concerns about ongoing and upcoming construction activities. The center would be staffed by at least one full-time person and open during standard work hours (i.e., 9 AM to 5 PM) or as needed. The office would be accessible to the public via transit and would be Americans with Disabilities Act (ADA)-compliant. In addition, NYSDOT would conduct community open houses periodically during the construction period to proactively disseminate construction information and receive comments regarding construction from the community; establish a phone and email hotline to accept comments regarding construction operations; and develop an app and/or social media platform to communicate construction status, detours, closures, and other relevant construction information. Furthermore, scheduled construction status updates would be provided and coordination meetings with public and private entities, including, but not limited to, city agencies, police/fire departments, hospitals, universities, schools, libraries, houses of worship, large employers, transit providers, and trucking and freight services, would be held. A specific communication schedule and procedures for coordinating with media (e.g., local radio stations, local television stations, local newspapers) to disseminate construction-related information would be developed. In addition, a community liaison would be designated to provide open communication during construction of the Project.

Given the proximity of the existing I-81 and I-690 corridors to environmental justice populations, short-term construction-related effects to environmental justice populations are unavoidable. Due to the magnitude of the project construction activities, even with the implementation of commitments and measures to avoid, minimize, or otherwise mitigate effects, temporary adverse effects could occur to those environmental justice populations located in close proximity to the construction activities.

COMMUNITY GRID ALTERNATIVE

Visual and Aesthetic Considerations

As described in **Section 6-4-3, Visual Resources and Aesthetic Considerations**, NYSDOT would employ measures to mitigate adverse visual effects associated with the Community Grid Alternative, including, but not limited to, the following: replacement landscaping; streetscape enhancements (e.g., sidewalks, specialty pavements and aesthetic treatments for walkways, site furnishings) along Almond Street, portions of West Street and Erie Boulevard, and portions of connecting streets; potential screening of limited views through the enhancement of streetscapes with additional street trees; variation in the style and form of support structures; surface treatments (e.g., use of native stone materials for concrete columns, abutments, and support structures); and strategic placement of plantings to soften the appearance of constructed elements. NYSDOT would coordinate with the City of Syracuse and appropriate stakeholders on landscaping, street tree planting, and context sensitive design solutions in the Central Study Area. Where noise barriers are proposed, NYSDOT would consider aesthetic treatments, such as materials, color, and landscaping, during final design. The noise barriers included in the Community Grid Alternative would result in minor adverse visual effects in some locations. In those instances where minor adverse visual effects would occur in environmental justice areas, those effects would be minimized by use of the aesthetic treatments described above; however, some effects would not be able to be mitigated given the location and proximity of the proposed infrastructure. These adverse impacts to visual quality are restricted to specific areas where more substantial changes to existing roadways or infrastructure are necessary. Elements of the Community Grid Alternative that could be perceived as adverse changes in the visual environment, such as the obstruction of views or removal of mature vegetation, would be balanced or offset for some viewers by improvements to the visual environment resulting from the improved condition of infrastructure and streetscaping enhancements.

Traffic Noise

To provide traffic noise abatement, the Noise Study evaluated the feasibility and reasonableness for each of the following potential abatement measures:

- Traffic management measures, such as traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations;
- Alteration of horizontal and vertical alignments (i.e., changes to geometry and height of a roadway);
- Construction of noise barriers;
- Acquisition of real property to serve as a buffer zone; and

- Noise insulation of publicly owned school buildings.

The results of the Noise Study indicated that the only potentially feasible and reasonable method of noise abatement for this Project would be through noise barriers. NYSDOT has evaluated noise barriers in those locations that were identified as impacted. Noise barriers must be both reasonable and feasible, as defined in the NYSDOT Noise Policy, to be recommended for construction.

Fifteen (15) noise barriers were determined to be feasible and reasonable under the Community Grid Alternative (see **Section 6-4-6, Noise**). For a barrier to provide effective noise reduction, it must be continuous and designed to an elevation high enough to shield the receiver from the noise source. Noise barrier locations were chosen for study if there was a potential that noise barriers could be considered both feasible and reasonable. Noise barriers were not considered feasible along the local streets in much of the Central Study Area of the Project since openings for driveways would need to be provided for the residences and businesses, which would negate the effectiveness of the noise barrier. Therefore, noise barriers are not reasonable at several locations within the Central Study Area under the Community Grid Alternative.

Without abatement, the noise level increase at 19 impacted receivers in environmental justice areas would be perceptible. Two of these 19 receivers would benefit from the proposed noise barriers. At locations where barriers are not being proposed, the increase in noise levels would not be abated. Thus, the perceptible noise increases at the remaining 17 receivers within environmental justice areas would not be abated.

Construction Effects

Chapter 4, Construction Means and Methods, describes the anticipated construction staging for the Community Grid Alternative. It is anticipated that the Community Grid Alternative would be constructed in three contracts, with a total construction duration of approximately six years. Typical measures in construction contracts to avoid or minimize temporary effects during construction would be implemented.

As stated in **Section 6-4-4, Air Quality**, construction work would be planned and executed in a manner that would minimize air emissions. Air quality control measures would include:

- Use of ULSD fuel in construction equipment;
- Use construction equipment that meets Tier 4 emissions standards, where appropriate and to the extent practicable;
- Provisions limiting idle time for diesel-powered equipment to three consecutive minutes for delivery and dump trucks and all other diesel-powered equipment, with certain exceptions;
- Positioning stationary equipment exhausts to minimize exposure to sensitive receptors;
- Proactive and corrective measures for dust control, which would be developed prior to the onset of construction;
- Restrictions on burning of any material on the contract site; and
- Protection techniques and/or systems when performing drilling, cutting, or similar operations that impact air quality.

An outdoor ambient air quality monitoring program would be implemented during construction of the Project and would be overseen by NYSDOT. The program would identify the locations and durations of air quality monitoring and protocols to address any exceedances of National Ambient Air Quality Standards (NAAQS) should they be observed. The program would consist of real-time particulate monitoring at a number of locations within the local community. Locations and durations would be determined in consideration of land uses, non-Project sources of emissions, and construction phasing. One monitor would be located outdoors in the vicinity of Dr. King Elementary School when construction would be occurring near the school. Locations for other program monitors would be determined during final design.

Background particulate monitoring would be conducted as part of the program to establish and routinely verify baseline levels. During construction, real-time particulate matter data would be collected at an established interval (for example, measurements every 10 seconds and logged in 15-minute periods) and time-weighted over 24 hours for comparison to the NAAQS. These standards are designed to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly, with an adequate margin of safety. If the data show that air quality levels are approaching a concern level (to be established during final design) that could result in an exceedance of the 24-hour NAAQS, then operational and/or mechanical deficiencies would be identified and corrected. If the data result in any particulate air quality levels that exceed the 24-hour NAAQS, then the applicable construction activities would be suspended until the deficiencies are identified and corrected.

As described in **Table 4-7 of Chapter 4, Construction Means and Methods**, measures that would be implemented during construction to abate construction noise would include:

- Time-of-day restrictions for noisy activities;
- Temporary barriers to shield noise;
- Requirements for vehicles and equipment to reduce noise;
- Restrictions on impact and drilling equipment where reasonable; and
- Designated truck routes.

A noise and vibration monitoring program would be implemented throughout construction to facilitate enforcement of noise abatement measures. In addition, in the construction zone between MLK, Jr. East and Harrison Street, the Contractor would be directed to use saw cutting methods and prohibit impact hammers during the demolition of existing structures when reasonable, and to use drilled foundations on all bridge piers and other support structures and prohibit pile driving methods.

Measures to minimize or otherwise mitigate construction effects are listed in **Table 4-7**. Further discussion is provided in **Chapter 4, Construction Means and Methods**, **Section 6-4-4, Air Quality**, and **Section 6-4-6, Noise**.

During construction activities, NYSDOT would implement an LBP public education program prior to the demolition of the existing I-81 viaduct and adjacent structures. NYSDOT would develop the program during final design, in coordination with the Onondaga County Health Department. Potential activities could include the development of educational materials on household protocols to prevent the spread of contaminated dust into homes and holding a community session/meeting focused on

demolition and ways to protect residents from lead dust during construction. As described in **Section 4.5.2**, public outreach during construction would include the establishment of a telephone number for the public to use to ask questions/provide input during construction; implementation of a communication schedule and procedures for providing construction status updates and other construction-related information to the public; and development and maintenance of a website to advise the public on construction activities.

As described in **Table 4-7**, to minimize potential adverse transportation effects during construction, a Traffic Management Plan would be developed that would include measures to minimize effects related to temporary lane, road, and intersection closures and the associated rerouting of traffic. These include local street improvements along anticipated detour routes prior to viaduct demolition and construction activities, measures to address traffic incidents, and off-peak lane closures on I-81. Designated truck routes would be identified, and delivery of materials would predominantly be performed utilizing city streets and specified work zone access routes, which would be scheduled outside of peak travel (commuter and school trips) periods, to the extent practical. Since a substantial portion of the construction would take place in environmental justice areas and reasonable detour routes are also located in these neighborhoods, some truck routes would need to be located through environmental justice areas to provide access to the construction zone. A maintenance and protection of traffic plan would be in place to direct construction vehicles on major arterials and thoroughfares away from residential streets, to the extent practical. Bus routes and additional vehicles would be added to existing routes, and detours affecting public bus routes would be coordinated with Centro to minimize disruption to its customers. Commuter parking and shuttle strategies, as well as strategies to reduce the number and duration of road closures, would be developed. In addition, while sidewalks and bicycles facilities could require temporary closures, safe pedestrian and bicycle accommodations and detours would be maintained at all times. Construction zone pedestrian access would be maintained in accordance with the Accessibility Guidelines for Pedestrian Facilities in the Public Right of Way. NYSDOT would continue to coordinate with the Syracuse City School District during construction. During final design, NYSDOT would consider implementing additional construction restrictions within the construction zone near Dr. King Elementary School, such as time and/or seasonal restrictions where appropriate.

A 20-foot (0.12-acre) wide section at the eastern edge of Wilson Park would be closed to the public for less than one year during construction to serve as a safety buffer between the park and construction zone. This area would be fenced off from the rest of the park, and signage would advise the public that the area is inaccessible to park users. NYSDOT would construct a new basketball court to the west of the existing courts and would install other park features, such as a regraded and reseeded playing field; a new splash pad; new bleachers and benches; new shade trees; new drinking fountains; replacement of perimeter fencing and pedestrian gates along Almond Street; and other park improvements, as agreed upon with the local officials with jurisdiction over the park. The new basketball court would be in place before the easternmost 20-foot portion of the park is closed to ensure that two courts are always available (with three courts ultimately available after construction). Upon completion of construction, areas that were inaccessible during construction would be refurbished and the park would be fully returned to recreational use (see **Section 6-4-2, Parklands and Recreational Resources**).

NYSDOT would require that the Contractor, in consultation with NYSDOT and FHWA, prepare a communication and public outreach plan (see **Chapter 4, Construction Means and Methods**, for more information). During construction of the Project, a centrally located, on-site project outreach center would be established to accommodate drop-in visitors who have questions, comments, and/or concerns about ongoing and upcoming construction activities. The center would be staffed by at least one full-time person and open during standard work hours (i.e., 9 AM to 5 PM) or as needed. The office would be accessible to the public via transit and would be ADA-compliant. In addition, NYSDOT would conduct community open houses periodically during the construction period to proactively disseminate construction information and receive comments regarding construction from the community; establish a phone and email hotline to accept comments regarding construction operations; and develop an app and/or social media platform to communicate construction status, detours, closures, and other relevant construction information. Furthermore, scheduled construction status updates would be provided and coordination meetings with public and private entities, including, but not limited to, city agencies, police/fire departments, hospitals, universities, schools, libraries, houses of worship, large employers, transit providers, and trucking and freight services, would be held. A specific communication schedule and procedures for coordinating with media (e.g., local radio stations, local television stations, local newspapers) to disseminate construction-related information would be developed. In addition, a community liaison would be designated to provide open communication during construction of the Project.

Given the proximity of the existing I-81 and I-690 corridors to environmental justice populations, short-term construction-related effects to environmental justice populations are unavoidable. Due to the magnitude of the project construction activities, even with the implementation of commitments and measures to avoid, minimize, or otherwise mitigate effects, temporary adverse effects could occur to those environmental justice populations located in close proximity to the construction activities.

6-2-3.3.4 STEP 4: IF EFFECTS WOULD REMAIN ADVERSE AFTER MITIGATION IS CONSIDERED, IDENTIFY WHETHER THOSE EFFECTS WOULD BE PREDOMINATELY BORNE BY THE ENVIRONMENTAL JUSTICE POPULATIONS OR ARE APPRECIABLY MORE SEVERE OR GREATER IN MAGNITUDE ON THE ENVIRONMENTAL JUSTICE POPULATIONS THAN THE ADVERSE EFFECT SUFFERED BY THE NON-MINORITY OR NON-LOW-INCOME POPULATIONS (E.G., DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS).

As determined under Step 3 of this assessment, even with the implementation of commitments and measures to avoid, minimize, or otherwise mitigate adverse effects, adverse effects to environmental justice populations are expected related to visual resources, traffic noise, and construction effects. Each alternative is discussed separately below.

VIADUCT ALTERNATIVE

As stated in the discussions of Steps 2 and 3, minor adverse visual effects would occur in environmental justice areas and these adverse effects would be mitigated to the extent practicable. The adverse visual effects would be unavoidable and associated with increased massing of viaduct infrastructure from transportation infrastructure at the I-81/I-690 interchange or increased width of

the I-81 transportation footprint, the removal of vegetation that would increase visibility of the viaduct, and the construction of noise barriers.

The minor adverse visual effects are anticipated at 13 of the 32 viewpoints that were included in the visual impact assessment. Ten (10) of these 13 viewpoints are within environmental justice areas, while three of the 13 viewpoints are within non-environmental justice areas. Moreover, eight of the 32 viewpoints are considered to have beneficial effects (six minor beneficial and two beneficial) with five located within environmental justice areas. Eleven (11) viewpoints within environmental justice areas were considered to have no visual change (i.e. neutral effect). Thus, it was determined that the adverse visual effects would not be predominately borne by or appreciably more severe to the environmental justice populations and the beneficial and adverse effects of the Viaduct Alternative would be fairly distributed within the affected environmental justice and non-environmental justice areas.

As stated in the discussions of Steps 2 and 3, with the implementation of abatement measures, perceptible (i.e., greater than 3 dB(A)) noise level increases would occur at 24 impacted receivers in environmental justice areas. Of these, 10 receivers would experience an increase in noise of 6 to 7 dB(A), and 14 receivers would experience an increase in noise of 4 to 5 dB(A). All of these locations are within the Central Study Area and are adjacent to I-81, North Clinton Avenue, or North Franklin Street.

Given the impracticality of noise abatement in this urban setting and the location of the viaduct and existing roadway network in proximity to environmental justice populations, these noise level increases would be unavoidable, but would not be disproportionately high. While there would be impacted receivers in environmental justice areas where increases in noise would not be abated, the Viaduct Alternative would benefit many other receivers in environmental justice areas. With abatement, noise levels would decrease at 948 of the 2,817 receivers within the study area, and 499 of them are in environmental justice areas. At 248 of the receivers in environmental justice areas, the decrease in noise levels with abatement would be greater than 3 dB(A).

As described in **Chapter 4, Construction Means and Methods**, the areas where construction is necessary under the Viaduct Alternative are also within or adjacent to environmental justice populations. Based on the proximity of the existing I-81 and I-690 corridors to environmental justice populations and the magnitude of construction, potential adverse construction effects would be unavoidable but would not be disproportionately high. The construction activities could not occur elsewhere within the Project Area, and the beneficial and adverse effects of the Viaduct Alternative would be fairly distributed within those areas adjacent to the I-81 and I-690 corridors. Construction activities would be completed in stages, such that no one location would be affected for the entire duration of construction, and construction commitments and mitigation measures would be implemented to the extent practicable.

Thus, it was determined that the adverse effects associated with the Viaduct Alternative would not be predominately borne by or be appreciably more severe to the environmental justice populations and that the beneficial and adverse effects of the Viaduct Alternative would be fairly distributed within the affected environmental justice and non-environmental justice populations.

COMMUNITY GRID ALTERNATIVE

As stated in the discussions of Steps 2 and 3, adverse visual effects would occur in environmental justice areas and these adverse effects would be mitigated to the extent practicable. The adverse visual effects would be unavoidable and due to the obstruction of views or removal of mature vegetation to accommodate the realignment of streets.

The minor adverse visual effects are anticipated at six of the 32 viewpoints that were included in the visual impact assessment. Four of these six viewpoints are within environmental justice areas, and two of these six viewpoints are within non-environmental justice areas. Moreover, 22 of the 32 viewpoints are considered to have beneficial effects (nine minor beneficial and 13 beneficial) with 19 located within environmental justice areas. Four viewpoints were considered to have no visual change (i.e., neutral effect). Thus, it was determined that the adverse visual effects would not be predominately borne by or appreciably more severe to the environmental justice populations and the beneficial and adverse effects of the Community Grid Alternative would be fairly distributed within affected environmental justice and non-environmental justice populations.

As stated in the discussions of Steps 2 and 3, with the implementation of abatement measures, perceptible (i.e., greater than 3 dB(A)) noise level increases would occur at 17 impacted receivers in environmental justice areas. Of these, 7 receivers would experience an increase in noise of 6 to 9 dB(A), and 10 receivers would experience an increase in noise of 4 to 5 dB(A). All of these locations are within the Central Study Area and are adjacent to Clinton Street, South State Street, South Townsend Street, Irving Avenue, or South Crouse Avenue.

Given the impracticality of noise abatement in this urban setting and the location of the existing roadway network in proximity to environmental justice populations, these noise level increases would be unavoidable, but would not be disproportionately high. While there would be impacted receivers in environmental justice areas where increases in noise levels would not be abated, the Community Grid Alternative would benefit many other receivers in environmental justice areas. With abatement, noise levels would decrease at 1,237 of the 2,817 receivers within the study area, and 741 of them are in environmental justice areas. At 270 of the receivers in environmental justice areas, the decrease in noise with abatement would be greater than 3 dB(A).

As described in **Chapter 4, Construction Means and Methods**, the areas where construction is necessary under the Community Grid Alternative are also within or adjacent to environmental justice populations. Based on the proximity of the existing I-81 and I-690 corridors to environmental justice populations and the magnitude of construction, potential adverse construction effects would be unavoidable but would not be disproportionately high. The construction activities could not occur elsewhere within the Project Area, and the beneficial and adverse effects of the Community Grid Alternative would be fairly distributed within those areas adjacent to the I-81 and I-690 corridors. Construction activities would be completed in stages, such that no one location would be affected for the entire duration of construction, and construction commitments and mitigation measures would be implemented to the extent practicable.

Thus, it was determined that the adverse effects associated with the Community Grid Alternative would not be predominately borne by or appreciably more severe to the environmental justice populations and the beneficial and adverse effects of the Community Grid Alternative would be fairly distributed within the affected environmental justice and non-environmental justice populations.

6-2-3.3.5 STEP 5: IF DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS ON ENVIRONMENTAL JUSTICE POPULATIONS ARE ANTICIPATED, EVALUATE WHETHER THERE IS A FURTHER PRACTICABLE MITIGATION MEASURE OR PRACTICABLE ALTERNATIVE THAT WOULD AVOID OR REDUCE THE DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS.

As documented above, neither the Viaduct Alternative nor the Community Grid Alternative would result in disproportionately high and adverse effects on environmental justice populations. Thus, this step does not apply.

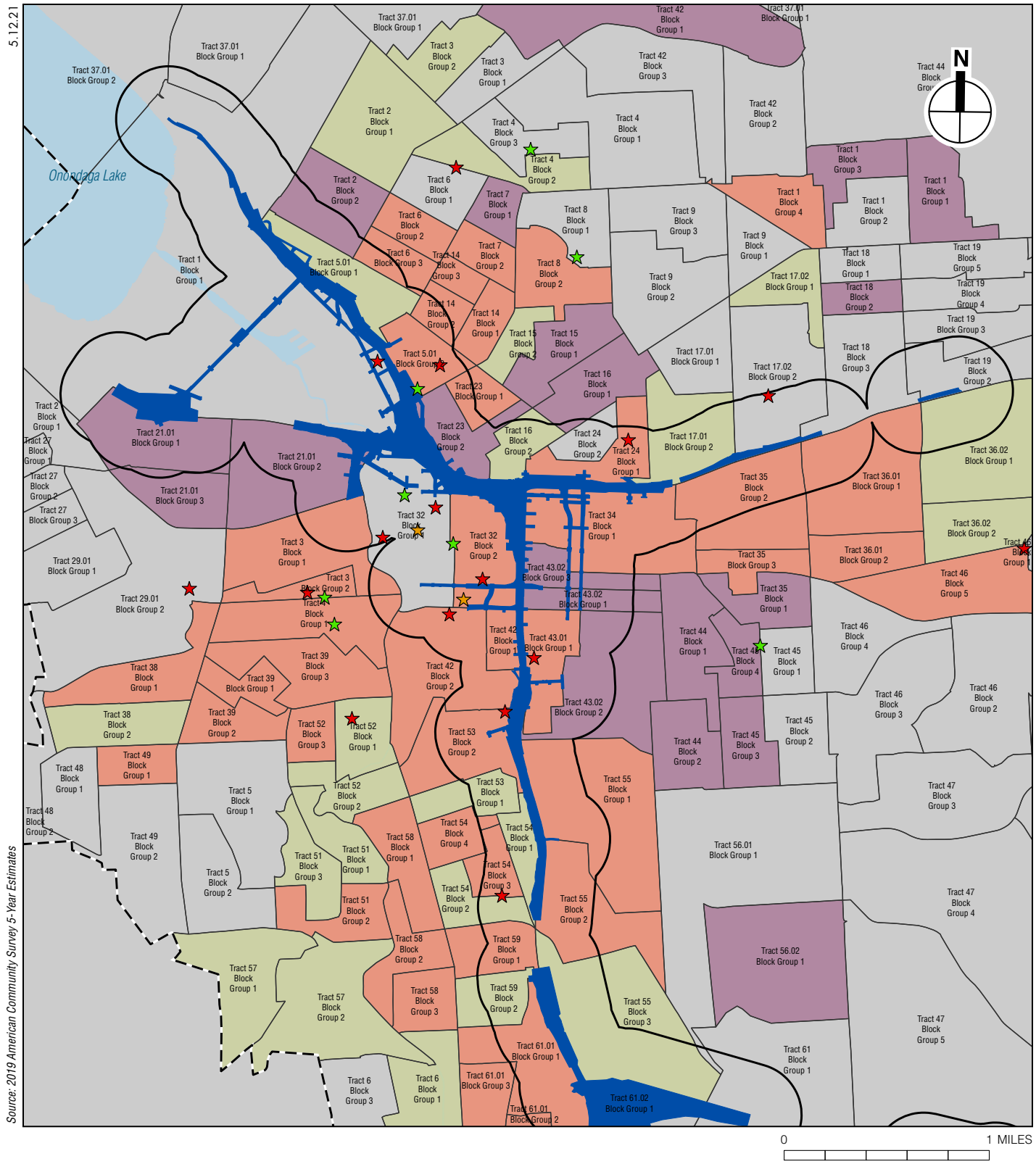
6-2-3.4 PUBLIC OUTREACH TO ENVIRONMENTAL JUSTICE POPULATIONS

As described in **Chapter 9, Agency Coordination and Public Outreach**, an extensive public outreach program has been developed and implemented for the Project that includes large formal public meetings and open houses, small community meetings, a project outreach center in Downtown Syracuse, a project website, a mailing list for interested parties, a project hotline, outreach at local festivals, and several advisory committees. Public meetings have been held in areas accessible by public transit, to the extent practicable, to maximize opportunities for public engagement. Meetings have also been advertised and promoted in a variety of ways, including local media (newspapers and news broadcasts), notices posted throughout the community and in civic organizations, notices on the Project website and social media, and mail and email distributions. Since Spanish is the predominant language for "limited English proficient" (LEP) individuals in the Project Area, Spanish-language interpreters were available at the public meetings. Meeting advertisements also offered attendees an opportunity to request interpretation services for other languages. A "language line" service, which provides on-demand interpretation via telephone for numerous other languages, was available at the scoping meetings and at the open houses.

The public involvement program has included specific efforts to engage the participation of environmental justice populations. Multiple neighborhood meetings have been held in the Southside, Northside, Downtown, Eastside, and Westside in areas identified as low-income or minority neighborhoods, as well as one-on-one meetings with community leaders, institutions, and advocates that work with and residents that live in identified environmental justice areas (see **Appendix M-1** for a list of meetings). Non-traditional methods (e.g., outreach at local festivals) have also been employed to engage the community. Please refer to **Figure 6-2-3-6** for locations of meetings held in environmental justice areas.

During preparation of the DDR/DEIS, comments on the following topics/issues received from entities representing environmental justice interests included:

- Project-related impacts on environmental justice populations (for example, on the needs of Syracuse Housing Authority's populations living in close proximity to the highway);
- The need for transit to be implemented prior to project construction;
- The need to maintain emergency access during construction for fire, medical, and law enforcement to communities along the corridor and ensure that emergency medical access to local hospitals is not affected;



Note: See Table M-1-2 for list of select meeting locations depicted here.

Select Meeting Locations in Central Study Area

Figure 6-2-3-6

- Construction-related impacts, such as effects on air quality and public health, noise and vibration, and dust, and the need to perform construction in the least disruptive manner;
- Construction impacts and future traffic, air quality, and noise impacts on the Dr. King Elementary School and the proximity of the school to the MLK, Jr. East interchange;
- Health issues of populations living in proximity to the existing viaduct and request to prepare a cumulative health analysis;
- Creating a comprehensive construction plan in collaboration with the Syracuse City School District, which would include installing adequate mechanical air ventilation and filtration systems for schools in the footprint of construction, installing soundproof and/or storm windows and adequate wall insulation, creating safe zones for walking and bicycling, and numerous other elements;
- Concern about or opposition to the use of Wilson Park as a staging site; creating protections so that no singular neighborhood has an unacceptable overload of staging sites;
- Effects to residential and commercial properties, including loss of value;
- Relocating residents during construction given noise, dust, vibration, and limited access, including providing substantial lead time prior to relocation, funding for temporary housing, and funding for restoration of housing after temporary vacancy; developing a Relocation Plan to minimize the effects of construction on school-aged children and creating a comprehensive plan for parents who live within walking distance to STEAM @ Dr. King to relocate into comparable housing;
- Employing people within New York State or using local companies and local labor, including minorities and women, for construction; working with the community to prioritize employment opportunities for local residents; incorporating contract requirements for local hiring; convening of stakeholders to negotiate the terms and enforcement of the governing documents related to minority contracting and the hiring of workers on the Project and to assist with the recruitment and training of City residents to work on the Project; establishing a Project Labor Agreement with Community Workforce Agreements that get city residents working on the Project; recruiting and training city residents to prepare them for work on the Project;
- Enhancing the residential community, providing greater pedestrian access through the Southside neighborhood, and affording the opportunity for further housing and economic development for residents;
- Connecting neighborhoods, employment centers, emergency services, and businesses;
- Preserving historic resources;
- Developing a safe and attractive highway corridor, accommodating all transportation modes;
- Reducing the number of "dead zones" within the highway corridor;
- Design of the project alternatives, including but not limited to:
  - Eliminating new ramps at the I-81/I-690 interchange and maintaining the existing Bear Street route for these connections;
  - Maintaining the existing alignment of Butternut Street bridge;
  - Removing from the design the additional proposed lane on northern BL 81;

- Including more entry points to the city from the southern portion of the highway to disperse traffic earlier; and
- Incorporating features of the proposed Community Grid Alternative south of I-690 to areas north of I-690 to address community safety concerns.

As documented throughout the DDR/DEIS and this FDR/FEIS, public input has been considered in the design of the Project alternatives, in the evaluation of environmental effects, and in the development of the Project commitments and mitigation measures. Examples include:

- As a result of the suggestion that the Community Grid alignment pass beneath, rather than over, the New York, Susquehanna and Western Railway in the vicinity of Renwick Street, NYSDOT modified the alignment. NYSDOT developed a new concept that shifted the alignment eastward and passed beneath the railway. In addition, the embankment between Taylor and Monroe Streets, a feature of the over-the-railway concept created by the descent of the highway from a higher grade over the railroad to a lower grade at the street surface, would no longer exist (see **Chapter 3, Alternatives**, for additional details about this concept).
- Some commenters expressed concern about traffic along MLK, Jr., in particular in proximity to the Dr. King Elementary School and suggested alleviating that traffic by diverting it at Colvin Street. Other commenters requested greater access from I-81 to Colvin Street. In response to these comments, NYSDOT modified the Community Grid Alternative to include a northbound exit from I-81 to Colvin Street.
- In response to comments related to construction concerns, NYSDOT held a series of meetings to provide information on its standard construction protocols and procedures as well as potential mitigation measures specifically developed for the Project. As a result of the input received during these meetings, NYSDOT developed commitments to help minimize or mitigate the adverse effects of construction activities, as listed in **Table 4-7** in **Chapter 4, Construction Means and Methods**. These include commitments to conduct outdoor ambient air quality and noise monitoring programs during construction.
- In response to concerns noted above under "Building Impacts," NYSDOT held informational meetings about the property acquisition process and relocation assistance program in June 2016.
- To address transit-related comments, FHWA and NYSDOT modified the Project objectives to add "Maintain access to existing local bus service and enhance transit amenities[6] within the project limits in and near Downtown Syracuse." NYSDOT will continue to coordinate with Centro to explore the incorporation of transit amenities such as bus turn-around areas during final design.
- In response to comments on jobs and the need for training, NYSDOT held several meetings with community leaders, union representatives, and work force advocates and training organizations to devise methods to promote the use of a local work force and develop job training programs. The meetings were in environmental justice areas. As a result of input received at these meetings, training programs are under way and others are being developed to provide both classroom and hands-on training for highway construction related positions. Job-related information has been available at the Project Outreach Center and at numerous public meetings

[6] Transit amenities that may be explored could include bus stops and shelters, bus turnouts, and layover and turnaround places.

and non-traditional outreach efforts. NYSDOT also attends job fairs providing information specific to categories of work anticipated for the Project. NYSDOT was approved for a local hiring program for the Project and is coordinating with state and local agencies to disseminate information and to provide training and educational opportunities to the local populations. **Chapter 9, Agency Coordination and Public Outreach** includes a full description of NYSDOT's efforts to promote local hiring.

In May 2021, NYSDOT held a meeting with the Syracuse Housing Authority and a meeting with the New York Civil Liberties Union and Urban Jobs Task Force to specifically discuss considerations for environmental justice populations. During both meetings, the attendees discussed the current project design, noting changes since publication of the preliminary DDR/DEIS in April 2019 (see **Executive Summary**); the current construction schedule; proposed improvements to Wilson Park (see **Section 6-4-2, Parklands and Recreational Resources**); the process for disposition of surplus transportation right-of-way, including the formation of the land use working group of stakeholders (see **Section 6-2-1, Neighborhood Character**); and contracting and employment opportunities for minority-owned businesses and local populations. The meeting with the Syracuse Housing Authority also included discussion of concerns related to construction impacts to residents near the work zone (see "Construction Effects" under **Section 6-2-3.3.3** for discussion of construction effects and construction commitments and mitigation measures); building acquisitions, such as the acquisition of the Syracuse Housing Authority maintenance garage (see **Section 6-3-1, Land Acquisition, Displacement, and Relocation** for discussion of property acquisition); traffic on the future BL 81 (see **Chapter 5, Transportation and Engineering Considerations** for discussion of traffic on Project roadways); concerns related to potential upward pressure on rents (see **Section 6-3-2, Local and Regional Economies** for discussion of economic effects); and the Syracuse Housing Authority's ongoing master planning effort and potential future plans for Wilson Park. The meeting with the New York Civil Liberties Union and Urban Jobs Task Force also included discussion of engaging the local community and minority contractors in construction of the Project; proximity of the proposed roundabout to the Dr. King Elementary School and related traffic and air quality concerns (see **Chapter 5, Transportation and Engineering Considerations** and **Section 6-4-4, Air Quality** for discussion of traffic on Project roadways and associated effects to air quality); concerns related to potential construction impacts to residents near the work zone (see "Construction Effects" under **Section 6-2-3.3.3** for discussion of construction effects and commitments and mitigation measures); enforcement of air quality mitigation measures during construction; potential impacts to Wilson Park during construction (see **Section 6-4-2, Parklands and Recreational Resources** for discussion of effects to parkland); disposition of surplus transportation right-of-way (see **Section 6-2-1, Neighborhood Character** for discussion of effects to neighborhoods and land uses); upcoming public involvement opportunities; and noise barrier outreach and aesthetics of proposed noise barriers (see **Section 6-4-6, Noise** for discussion of the assessment of noise barriers and associated outreach).

FHWA and NYSDOT received over 8,000 comment submissions on the DDR/DEIS. The public had the opportunity to submit comments through an electronic comment form on the Project website or by email; by U.S. Mail; by written comment form that could be submitted at in-person public hearings and subsequent meetings; by offering formal oral testimony at the virtual or in-person public hearings; by dictating comments to a stenographer at the supplemental public meetings held after the public hearings; and by calling the telephone hotline and leaving a voicemail. FHWA and NYSDOT

have reviewed and considered the comments received and have provided responses to substantive comments in **Appendix M-5**. Several individuals and organizations provided comments related to environmental justice considerations and concerns.

While many commenters identified topics that could affect environmental justice populations, some of the prevalent comment themes related to environmental justice considerations were:

- Construction effects on the Southside and other environmental justice areas;
- Displacement and relocation of minority and low-income residents;
- Local hiring of contractors and construction workers;
- The long-term effects of highway infrastructure on the local community, including social, economic, and health effects;
- Concerns regarding the indirect displacement of low-income or minority populations because of development spurred by the Community Grid Alternative; and
- The location of a roundabout near Dr. King Elementary School as proposed in the DDR/DEIS.

The displacement of residents under the Viaduct Alternative would be undertaken in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act and Eminent Domain Procedures Law; however, construction of the Community Grid Alternative would not require the temporary or permanent displacement of residents. NYSDOT would continue to develop its program for local hiring and commitments for contracting minority-owned businesses. NYSDOT would also develop an outdoor air quality monitoring program during final design, which would include the protocols for overseeing the program.

Chapter 6, Social, Economic, and Environmental Considerations identify the potential effects of the Viaduct and Community Grid Alternatives on populations living near the existing I-81. The assessment of effects is based on FHWA and NYSDOT analysis procedures and impact criteria, and where adverse effects are identified, this FDR/FEIS describes mitigation measures. Some public requests for additional studies or analysis are outside the scope of this FDR/FEIS.

Many commenters expressed concerns about a proposed roundabout east of Dr. King Elementary School included in the Community Grid Alternative as described in the DDR/DEIS. In response to these comments, FHWA and NYSDOT are no longer proposing a roundabout BL 81 at MLK, Jr. East and now propose a roundabout on Almond Street at Van Buren Street. MLK, Jr. East would terminate at the driveway of the Dr. King Elementary School (instead of at Renwick Street as it does today), reducing traffic volumes on MLK, Jr. East as compared to the No Build Alternative and existing conditions. BL 81 would not be signalized at MLK, Jr. East, and there would be no vehicular connection between BL 81 and MLK, Jr. East (see **Figure 3-38**). Pedestrians and bicyclists also would be unable to cross BL 81 at MLK, Jr. East; instead, they would use a new shared use (bicycle and pedestrian) path along the west side of BL 81 to travel between MLK, Jr. East and Burt Street, where a signalized intersection would allow them to cross east-west. The duration of construction in this location would also be reduced. **Chapter 3, Alternatives** includes more information about the refinements to the design of the Community Grid Alternative in this area.

NYSDOT will continue to solicit and consider comments and concerns from environmental justice populations as the Project progresses. Opportunities for ongoing communication would include:

- A land use working group to identify opportunities for surplus right-of-way;
- Stakeholder and community meetings during the final design and construction phases; and
- As described in Chapter 4, Construction Means and Methods (Section 4-5-1), NYSDOT would require that the Contractor prepare a communication and public outreach plan for its approval. NYSDOT would coordinate with FHWA to implement public outreach efforts. At a minimum, the plan would include:
  - Establishment of a centrally located, on-site project office that would accommodate drop-in visitors with any questions, comments, or concerns that they may have about ongoing and upcoming construction activities.
  - Establishment of a telephone number that would be used to call and ask any questions about ongoing and upcoming construction activities, to submit input, or discuss a concern.
  - Development and maintenance of a website to advise stakeholders and the general public of construction activities.
  - Development of a specific communication schedule and procedures for providing construction status updates and other construction-related information to the general public. Procedures that may be used include distribution of flyers at facilities that are regularly frequented by members of the local communities (e.g., houses of worship, entranceways to apartments/community homes, certain local businesses), public notices in local papers, and notification of meetings on public buses. The flyers and public notices would be printed in both English and Spanish, as appropriate.
  - Development of a communication schedule and procedures for providing construction status updates and planned coordination meetings with public and private entities.
  - Development of a communication schedule and procedures for coordinating with media (e.g., radio stations, television stations, newspapers) to disseminate construction- information.

This page is intentionally left blank.