

# ROUTE 7 WIDENING

— FAIRFAX COUNTY —  
SOCIOECONOMIC AND LAND USE  
TECHNICAL REPORT

NOVEMBER 2017



# **Route 7 Corridor Improvements**

## **Reston Avenue to Jarrett Valley Drive**

### **Socioeconomic and Land Use Technical Report**

Fairfax County, Virginia

Project Number: 0007-029-128, B610, C502, P102, R202; UPC 52328

Federal Project Number: DEMO-5A01(439)

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## List of Acronyms

AASHTO	American Association of State Highway Transportation Officials
ACS	American Community Survey
BEA	Bureau of Economic Analysis
CBC	Community Business Center
CEQ	Council on Environmental Quality
Census	U.S. Census Bureau
CLRP	Constrained Long Range Plan
EA	Environmental Assessment
EJ	Environmental Justice
EO	Executive Order
FCDOT	Fairfax County Department of Transportation
FCPA	Fairfax County Park Authority
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
FY	Fiscal Year
GIS	Geographic Information Systems
HHS	Health and Human Services
LMI	Labor Market Information
MWCOG	Metropolitan Washington Council of Governments
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
OMB	Office of Management and Budget
SYIP	Six Year Improvement Plan
TAZ	Transportation Analysis Zone
TIP	Transportation Improvement Plan
TSA	Transit Station Area
UPC	Universal Project Code
USDOT	United States Department of Transportation
VDOT	Virginia Department of Transportation

## 1.0 INTRODUCTION

### 1.1 Project Description

The Virginia Department of Transportation (VDOT), in coordination with the Federal Highway Administration (FHWA), is evaluating improvements along a seven mile section of Leesburg Pike (Route 7) between Reston Avenue and Jarrett Valley Drive in Fairfax County, Virginia (herein referenced as “the study area”). The purpose of these improvements under consideration is to increase capacity, as well as address safety and deficiencies in access management. Pursuant to the National Environmental Policy Act of 1969, as amended, (NEPA) and in accordance with FHWA regulations, an Environmental Assessment (EA) has been prepared to analyze and document the potential social, economic and environmental effects associated with the transportation improvements being considered. As part of the EA, VDOT is evaluating the environmental consequences of the No-Build Alternative and one Build Alternative.

To support the analysis in the EA, this Socioeconomic and Land Use Technical Report has been prepared to document the following:

- **Section 1** provides an overview of the study, purpose and need of the project, and alternatives;
- **Section 2** describes the social characteristics of the study area, discusses environmental justice (EJ), identifies the minority and/or low-income block groups within the study area, and evaluates the potential for impacts to these areas;
- **Section 3** describes the economic characteristics of the study area, and assesses potential impacts to these areas;
- **Section 4** describes the land use and planned development within the study area and evaluates the potential for impacts; and
- **Section 5** identifies community facilities (including recreation resources) within the study area and evaluates the potential for impacts.

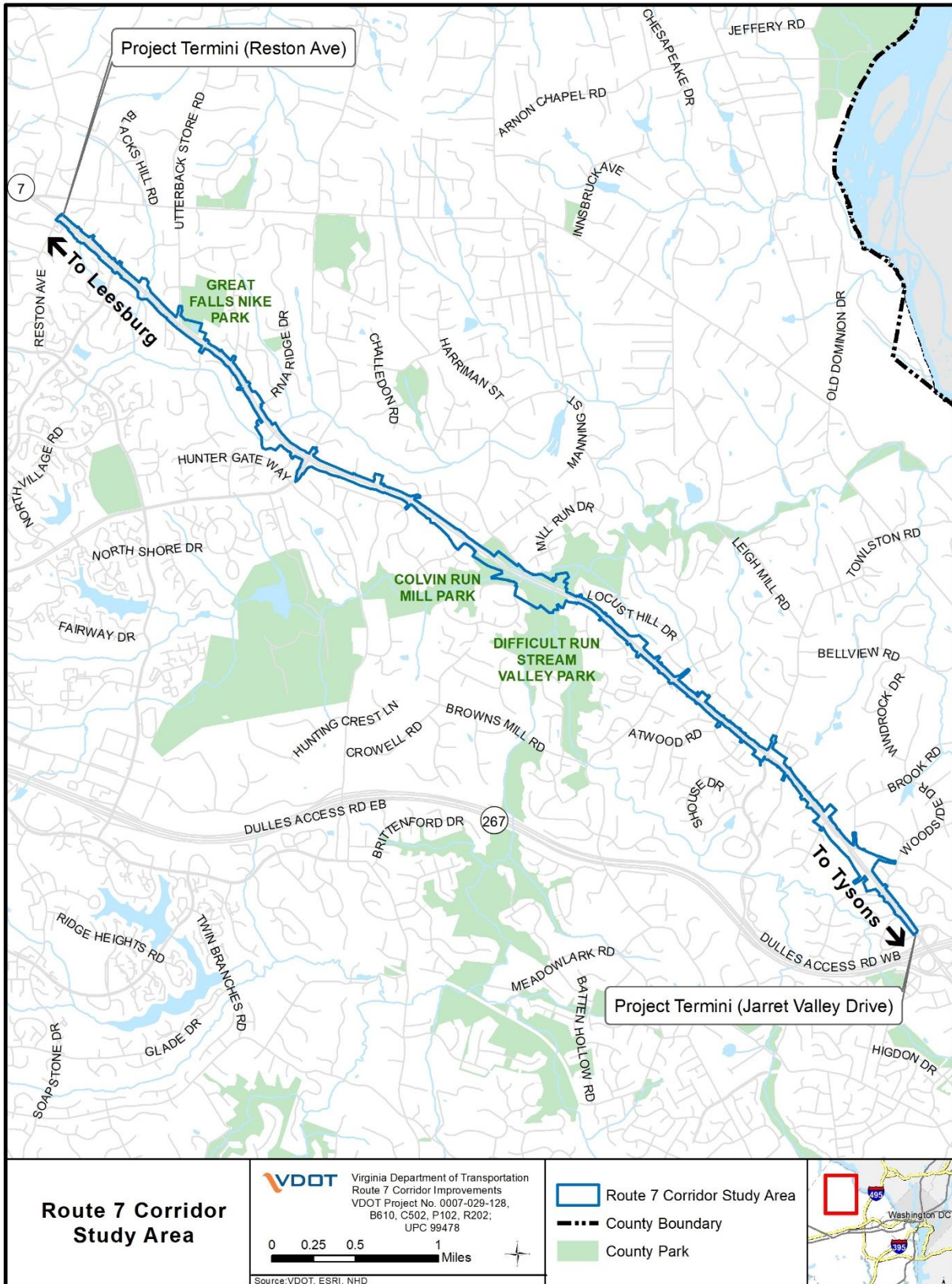
The proposed roadway improvements would provide an additional lane in each direction and would widen to the inside median where possible. A raised median, multi-purpose trail and intersection improvements are also proposed. A bridge replacement is proposed for the Difficult Run stream crossing with the wider typical section. The study area is bounded by Reston Avenue to the west and Dulles Toll Road to the east (see **Figure 1-1**).

### 1.2 Project History

The widening of the Route 7 corridor from four to six lanes west of Tysons Corner to the Fairfax County line has been contemplated in Fairfax County’s Comprehensive Plan since 1975. The Fairfax County Parkway (Route 286) interchange at Route 7 was completed in 1999 and included the widening of Route 7 between the Loudoun and Fairfax County line to Rolling Holly Drive. In 2016, a one-mile section of Route 7 was widened between Rolling Holly Drive and Reston Avenue. Currently VDOT is widening Route 7 for a half of a mile between Jarrett Valley Drive and Tyco Road, which includes the replacement of the bridge deck over Dulles Airport Access Highway and Toll Road (Route 267) with construction expected to be completed in Spring 2018.



Figure 1-1: Study Area



Currently, the widening of this section of Route 7 from four to six lanes is included in Fairfax County's Comprehensive Plan 2013 Edition (as amended) for Transportation (Fairfax County, 2017c). The County's interest in improving safety and capacity along Route 7 is also documented in the County's *Third Four Year Transportation Program (FY2013-FY2016)* and the *FY2015-FY2020 Transportation Project Priorities (TPP)* (Fairfax County 2014b and 2014c). This project has long been a part of the Metropolitan Washington Council of Governments (MWCOC) (the Region's Metropolitan Planning Organization) *Constrained Long Range Plan (CLRP)* and the *Transportation Improvement Plan (TIP)* (MWCOC, 2016b and 2016c). In addition to being included in this regional plan, the Northern Virginia Transportation Authority's regional transportation plan entitled *TransAction 2040* designates the Dulles/VA 7 corridor as their top corridor for improvements (NVTA, 2012). This project is also included in VDOT's *2025 State Highway Plan* (VDOT, 2005). This plan is included as part of the *2035 Virginia Surface Transportation Plan Update* (VDRPT, 2013).

### 1.3 Purpose and Need

The purpose and need for the proposed improvements is to:

- Address capacity deficiencies resulting from existing and future traffic demand.
- Address access management deficiencies.

### 1.4 Alternatives

#### 1.4.1 No Build Alternative

The No Build Alternative would retain the existing Route 7 roadway and associated intersections/interchanges in their present configuration, and allow for routine maintenance and safety upgrades. This alternative assumes no major improvements to the Route 7 corridor with the exception of previously committed projects, including projects currently programmed and funded in VDOT Fiscal Year (FY) 2018-2023 Six-Year Improvement Program (SYIP), the MWCOC for the National Capital Region CLRP 2016, and Fairfax County Department of Transportation (FCDOT) Capital Projects. As these other projects are independent of the proposed action, they are not fully evaluated in this EA.

#### 1.4.2 Build Alternative

The proposed project would provide an additional lane on each side of the existing roadway for a total of six 11-foot lanes with curb and gutter divided with a 16-foot raised median. Turn lane lengths would also be improved to meet the full American Association of State Highway Transportation Officials (AASHTO) requirements for deceleration and storage to eliminate backups into through lanes. Unsignalized median crossovers not meeting signal warrants would either be closed or converted to median left turn lanes.

In addition, the following improvements are proposed for the corridor:

- There are a number of substandard vertical curves that do not meet the required lengths for stopping sight distance and the roadway's design speed; substandard vertical curves would be corrected to meet the required design speeds;



- Intersection sight distance at the Trap Road/Route 7 intersection is substandard; the Build Alternative would configure the intersection to a right in/right out from the existing full access intersection to prohibit unsafe traffic movements;
- The Utterback Store Road intersection with Route 7 would be reconfigured to eliminate the existing severe skew;
- The project would replace the existing bridge over Difficult Run with a new structure to eliminate flooding issues experienced with the existing structure;
- 10-foot wide shared use paths would be provided along the westbound and eastbound lanes creating a continuous pedestrian route for the entire corridor; and,
- Protected signalized pedestrian movements would be provided at all signalized intersections.

## 2.0 SOCIAL CHARACTERISTICS

The social characteristics within the study area analyzed were determined through an evaluation of population, housing occupancies, and environmental justice. A review of the characteristics and the results of the analysis are shown below.

### 2.1 Methodology

Population, race and ethnicity, and housing occupancy data were gathered from the U.S. Census Bureau (Census). The Census collects and reports data for jurisdictions, as well as for several geographical units that are subsets of the jurisdictional total (i.e. Census tract, block group, and block). Delineated by the Census, Census block groups are groupings of Census blocks that are bounded by visible features, such as streets, roads, streams, and railroad tracks, or by nonvisible boundaries such as selected property lines and city or county limits. To provide for regional comparisons, Census data are collected and presented at the following levels: state, city/county, and Census block group. In order to determine the demographic makeup and population size of the study area, a map of the study area was placed over a Census block group map using geographic information systems (GIS) software. A manual review identified those block groups that are partially located within the study area boundary. Although only a portion of each block group is located within the study area, the full information for each identified Census block group was included in the study area analysis.

Data from the Census 2011-2015 American Community Survey (ACS) 5-Year Estimates was used for this analysis. ACS data is a sampling of the population, as opposed to the decennial Census which makes every effort to capture every person. The use of sampling makes small area census data less precise. However, the ACS data sources are more temporally accurate, are the most comprehensive published data sources, and are relied on by VDOT and FHWA for comprehensive analyses. For the purposes of this report, 2011-2015 ACS 5-Year Estimates Census data were used wherever possible, as opposed to 2010 decennial counts, as this data more closely represents the existing population within the study area given the change in demographics since 2010. Supplementary demographic information was obtained from the Virginia Employment Commission – Virginia Labor Market Information (LMI), *Community Profiles*, which was last updated in June 2017. Additionally, information was gathered from local comprehensive plans and reports and secondary mapping (e.g., GIS data provided by localities, Google Map, Google Earth, and aerial photography).

In order to determine the environmental justice communities in the study, various legislation was consulted. Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Title VI states that, “no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal assistance.”

The FHWA Title VI Program is broader than the Title VI statute and encompasses other nondiscrimination statutes and authorities, including:

- Section 162 (a) of the *Federal-Aid Highway Act of 1973* (23 USC §324) providing protection against gender-based discrimination;
- The Age Discrimination Act of 1975 prohibiting discrimination on the basis of age;
- Section 504 of the *Rehabilitation Act of 1973/Americans with Disabilities Act of 1990* providing disabled individuals equal opportunities to participate in and have access to federal programs, benefits, and services;
- Executive Order 13166 – *Improving Access to Services for Persons with Limited English Proficiency* (2000) requiring federal agencies to identify any need for services to those with limited understanding of the English language; and
- Executive Order 12898 – *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (1994) to ensure federal programs do not result in disproportionately high and adverse environmental or health impacts to these populations.

Executive Order (EO) 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” seeks to minimize disproportionate impacts of federal programs on minority populations and low-income populations. The following steps were included in this study process to address potential EJ consequences:

- Make active efforts to identify minority and low-income populations and include them in the transportation planning process;
- Provide for their participation and community representation in the process;
- Consider all reasonably foreseeable direct, indirect, and cumulative effects on minority and low-income populations;
- Compare the impacts to minority and low-income populations to those of non-minority and non-low-income populations to determine 1) whether minority and low-income populations share equally in the benefits of the transportation project and 2) whether disproportionately high and adverse effects to minority or low-income populations would occur with the transportation project; and
- To the extent practicable, avoid, minimize, and mitigate adverse effects to minority and low-income populations.

Consistent with Title VI, FHWA and VDOT are committed to ensuring that no person is excluded from, denied the benefits of, or discriminated against in their programs and activities on the basis of race, color, or national origin. To that end and in support of this study, an EJ analysis has been prepared in accordance with the definitions, methodologies, and guidance provided in Executive Order 12898; the Council on

Environmental Quality (CEQ) *Environmental Justice Guidance Under the National Environmental Policy Act (NEPA)* (1997); U.S. Department of Transportation (USDOT) Order 5610.2(a) *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (2012 revision); FHWA EJ Order 6640.23A *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (2012); FHWA memorandum *Guidance on Environmental Justice and NEPA* (2011); the FHWA *Environmental Justice Reference Guide* (2015); and FHWA Technical Advisory T6640.8A: *Guidance for Preparing and Processing Environmental and Section 4(f) Documents*. The strategies developed under EO 12898 and the USDOT/FHWA policies on EJ take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal transportation projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law, while ensuring EJ communities are proactively provided meaningful opportunities for public participation in project development and decision-making.

## 2.2 Existing Conditions

### 2.2.1 Population

**Table 2-1** provides population data from the 2011-2015 ACS 5-Year Census for the study area. The eleven Census block groups that intersect the study area each constitute less than 0.3 percent of Fairfax County's total population. The total study area population of 21,554 residents is less than two percent of Fairfax County's total population of 1,128,722 residents (see **Table 2-1**).

**Table 2-1: Population within the Study Area**

Block Group	Population Total	Fairfax County	Percent of Fairfax County's Total Population
4601.00-1	1,187	1,128,722	0.1%
4601.00-2	1,936		0.2%
4601.00-3	1,507		0.1%
4803.00-1	2,841		0.3%
4803.00-3	3,183		0.3%
4804.01-1	1,744		0.2%
4804.01-2	2,525		0.2%
4805.01-1	863		0.1%
4819.00-3	1,677		0.1%
4820.01-2	3,007		0.3%
4820.01-3	1,084		0.1%
<b>Total</b>	<b>21,554</b>		<b>1.9%</b>

Source: U.S. Census Bureau, ACS 2011-2015, Population Totals.

**Table 2-2** illustrates population trends for both Fairfax County and Virginia from 1980 to 2015. Census block group population data is not available for 1980 and 1990. Over 35 years, Fairfax County has seen a much larger percent change (89.1 percent) in total population than the state of Virginia (54.4 percent).

**Table 2-2: Population Trends for Fairfax County and Virginia**

Area	1980	1990	2000	2010	2015	Total Population Change	Total Percent Change
Fairfax County	596,901	818,584	969,749	1,081,726	1,128,722	531,821	89.1%
Virginia	5,346,818	6,187,358	7,078,515	8,001,024	8,256,630	2,909,812	54.4%

Source: U.S. Census Bureau, Census 1980-2010 and ACS 2011-2015, Population Totals.

**Table 2-3** presents the breakdown of age group population in the study area, Fairfax County, and Virginia. Persons between the ages of 45 and 59 comprise the largest percentage of the study area population with approximately 6,000 residents, representing approximately 28.4 percent of the study area population. The Fairfax County and Virginia state average are about 22.0 and 21.0 percent, respectively. Similarly, the percentage of persons under the age of 18 in the study area is higher than in Fairfax County and Virginia, with 26.9 percent as compared to 24.0 and 22.6 percent. The study area also has a higher composition of persons between the ages of 60 to 64 and persons ages 65 and over, at 7.3 percent and 15.7 percent, as compared to Fairfax County percentages at 5.7 percent and 11.1 percent, and Virginia percentages at 5.8 percent and 13.3 percent, respectively. Conversely, the study area has a much lower percentage of persons between the ages 18 to 24 and 25 to 34, at 5.6 percent and 4.6 percent, as compared to 8.1 and 14.3 percent for Fairfax County and 10.0 percent and 14.0 percent for Virginia.

**Table 2-3: Population by Age within the Study Area**

Locality	Under 18	18-24	25-34	35-44	45-59	60-64	65 and Over	Total
Study Area	5,796	1,200	989	2,515	6,114	1,564	3,376	21,554
Percentage of Total Study Area Population	26.9%	5.6%	4.6%	11.7%	28.4%	7.3%	15.7%	100%
Fairfax County	271,014	91,206	161,963	166,731	248,579	64,442	124,787	1,128,722
Percentage of Fairfax County Population	24.0%	8.1%	14.3%	14.8%	22.0%	5.7%	11.1%	100%
Virginia	1,864,668	825,589	1,154,074	1,095,010	1,736,518	479,110	1,101,661	8,256,630
Percentage of Total Virginia Population	22.6%	10.0%	14.0%	13.3%	21.0%	5.8%	13.3%	100%

Source: U.S. Census Bureau, ACS 2011-2015; Sex by Age.

## 2.2.2 Housing

**Table 2-4** presents housing data for the study area, Fairfax County, and Virginia. The study area block groups have an average of 2.2 percent vacant housing units, which is lower than Fairfax County and Virginia's percent vacant housing units at 4.3 and 10.5 percent, respectively. Within the study area block groups, the percentage of owner occupied housing (94.5 percent) is much higher than the percentages within

Fairfax County and Virginia (67.7 and 66.2 percent, respectively). The average median home value within the study area, \$956,364, is much higher than the average median value within Fairfax County at \$501,200 and Virginia at \$245,000.

**Table 2-4: Study Area Housing Data**

Locality	Total Housing Units	Total Occupied Housing Units	Percent Occupied	Number Vacant	Percent Vacant	Owner Occupied	Percent of Owner Occupied	Median Value of Owner-Occupied Units <sup>1</sup>	Renter Occupied	Percent of Renter Occupied
Study Area	7,159	6,999	97.8%	160	2.2%	6,616	94.5%	\$956,364	383	5.5%
Fairfax County	409,963	392,355	95.7%	17,608	4.3%	265,693	67.7%	\$501,200	126,662	32.3%
Virginia	3,423,291	3,062,783	89.5%	360,508	10.5%	2,027,005	66.2%	\$245,000	1,035,778	33.8%

<sup>1</sup> Averaged across block groups within study area. The study area total was calculated by using the weighted average.

Source: U.S. Census Bureau, ACS 2011-2015, Tenure and Housing Units and Vacancy Status.

## 2.2.3 Environmental Justice

### 2.2.3.1 Minority Populations

According to FHWA Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and for the purposes of this Technical Report, minority populations are comprised of members of the following population groups:

- **Black or African American:** a person having origins in any of the black racial groups of Africa;
- **Hispanic or Latino:** a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- **Asian American:** a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
- **American Indian or Alaskan Native:** a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- **Native Hawaiian or Other Pacific Islander:** a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Furthermore, FHWA 6640.23A provides the following definition of a minority population:

- **Minority Population:** any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

In accordance with the terms of CEQ guidance, *Environmental Justice Guidance under the National Environmental Policy Act (1997)*, an area is identified as containing a minority population where either (a) the minority population of the affected area exceeds 50 percent of total population; or (b) 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 geographical analysis. The CEQ guidance does not define the specific percentage that should be used for determining if the minority or low-income population is “meaningfully greater” than the average in the surrounding locality. For the purposes of this Technical Report, the minority and/or Hispanic/Latino populations for each Census block group was found to be “meaningfully greater” than the surrounding Census block groups if the value(s) were greater than Fairfax County’s (31.3 percent minority), plus an additional 10 percent of that value (3.1 percent). This establishes a “meaningfully greater” threshold of 34.4 percent. Using the same calculations, the threshold would be 17.7 percent (16.1 percent plus 1.6 percent) for Hispanic/Latino populations. This methodology for establishing a “meaningfully greater” threshold is consistent with that of other similar VDOT studies, developed in coordination with FHWA and with review from other applicable federal agencies.

To perform an EJ analysis, Census data were collected on the racial and ethnic composition for each of the eleven Census block groups partially within the study area. Data from 2011-2015 ACS 5-Year Estimate, *Hispanic or Latino Origin by Race*, were used for the purposes of identifying minority populations within the study area.

As defined by the 2011-2015 ACS Census, minority populations consist of all but the non-Hispanic white population and Hispanic or Latino Alone or with Another Race, as the data often overlaps. Hispanic or Latino Alone or with Another Race allows for individuals to identify as another race in addition to Hispanic or Latino meaning that some individuals are counted twice. In order to prevent the overlap of data, and for the purposes of this technical report, Hispanic or Latino Alone or with Another Race is considered a separate category. Minority populations consist of all but the non-Hispanic White population. In Virginia, minority populations comprise approximately 28.0 percent of the total population. Within the study area, minority populations account for 25.7 percent of the population (refer to **Table 2-5**).

**Table 2-5** provides a summary of racial and minority characteristics by block group within the study area compared to the State of Virginia and Fairfax County. White is the largest racial group and Asian is the second largest racial group for the study area (70.3 percent and 20.0 percent, respectively). The category “Hispanic or Latino Alone or with Another Race” within the study area, consists of 860 residents.

As described above, the “meaningfully greater” threshold for minority population is 34.4 percent and for Hispanic/Latino populations is 17.7 percent. Census block groups that exceed either threshold are highlighted in yellow in **Table 2-5** and are shown on **Figure 2-1**. No Census block groups have Hispanic/Latino populations exceeding the 17.7 percent threshold. Of the eleven Census block groups within the study area, two Census block groups have minority populations greater than the 34.4 percent threshold – Census tract 4601.00, block group 3 at 49.2 percent, and Census tract 4804.01, block group 1 at 43.4 percent.

### **2.2.3.2 Low-Income Population**

In accordance with the terms of FHWA 6640.23 and USDOT Order 5610.2(a), low-income persons include any persons whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines (FHWA, 2012). Furthermore, FHWA Order 6640.23 defines low-income populations as follows:

Figure 2-1: Environmental Justice Block Groups

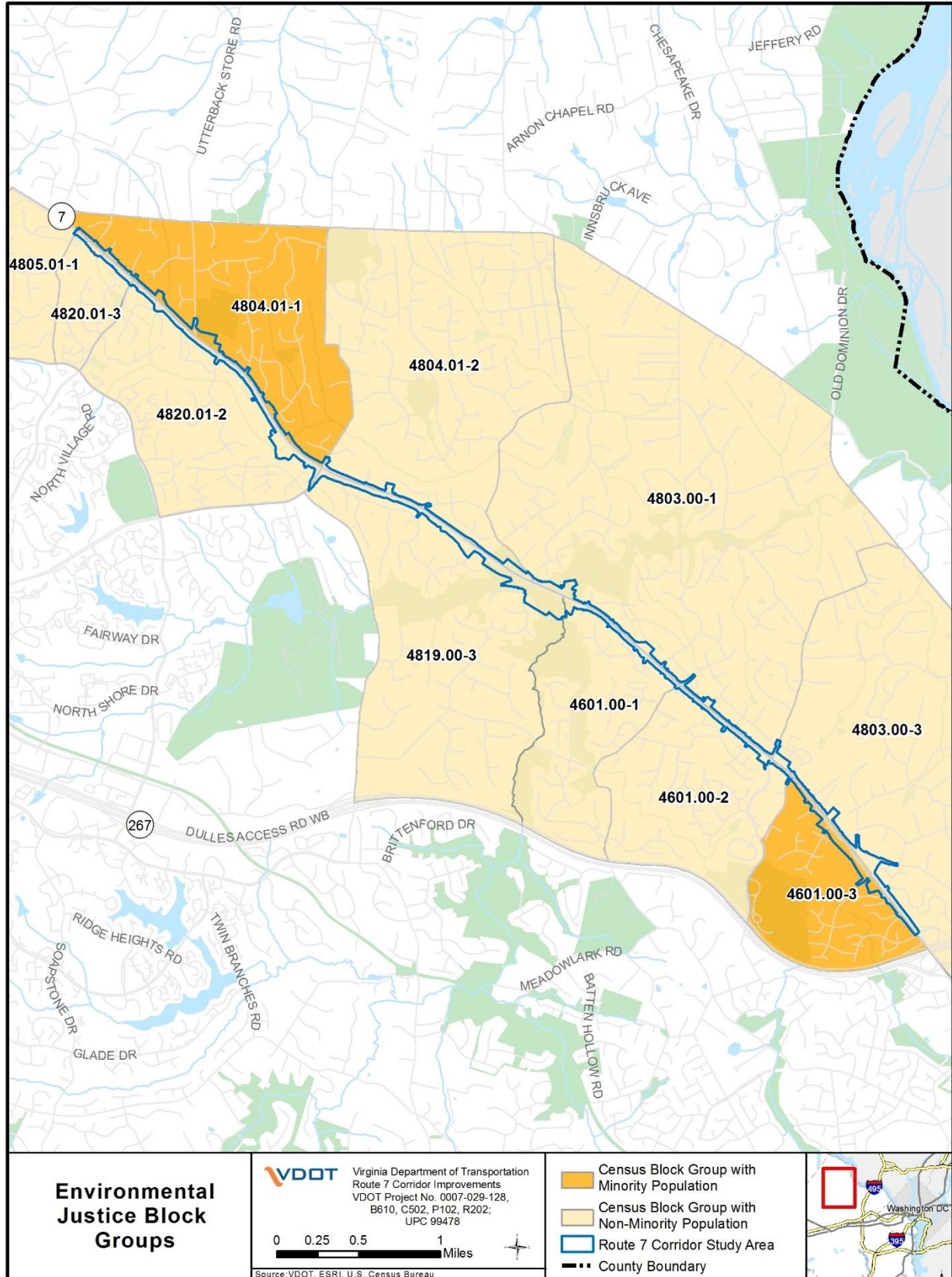


Table 2-5: Study Area Racial and Ethnic Characteristics by Locality

Locality	Total Population	White <sup>1</sup>		Black or African American <sup>1</sup>		American Indian and Alaska Native <sup>1</sup>		Asian <sup>1</sup>		Native Hawaiian and Other Pacific Islander <sup>1</sup>		Some Other Race <sup>1</sup>		Two or More Races <sup>1</sup>		Total Block Group Minority Population		Hispanic or Latino-White <sup>2</sup>		Hispanic or Latino – Other Races <sup>2</sup>		Total Block Group Hispanic / Latino Population <sup>3</sup>	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
4601.00-1	1,187	797	67.1%	20	1.7%	0	0.0%	194	16.3%	0	0.0%	0	0.0%	50	4.2%	264	22.2%	126	10.6%	0	0.0%	126	10.6%
4601.00-2	1,936	1,527	78.9%	26	1.3%	0	0.0%	340	17.6%	0	0.0%	0	0.0%	21	1.1%	387	20.0%	22	1.1%	0	0.0%	22	1.1%
4601.00-3	1,507	690	45.8%	31	2.1%	0	0.0%	560	37.2%	0	0.0%	51	3.4%	100	6.6%	742	49.2%	75	5.0%	0	0.0%	75	5.0%
4803.00-1	2,841	2,388	84.1%	25	0.9%	0	0.0%	243	8.6%	0	0.0%	30	1.1%	27	1.0%	325	11.4%	101	3.6%	27	1.0%	128	4.5%
4803.00-3	3,183	2,039	64.1%	19	0.6%	0	0.0%	919	28.9%	0	0.0%	0	0.0%	122	3.8%	1,060	33.3%	84	2.6%	0	0.0%	84	2.6%
4804.01-1	1,744	851	48.8%	94	5.4%	0	0.0%	565	32.4%	0	0.0%	23	1.3%	75	4.3%	757	43.4%	136	7.8%	0	0.0%	136	7.8%
4804.01-2	2,525	1,951	77.3%	0	0.0%	0	0.0%	443	17.5%	0	0.0%	0	0.0%	51	2.0%	494	19.6%	53	2.1%	27	1.1%	80	3.2%
4805.01-1	863	613	71.0%	0	0.0%	0	0.0%	208	24.1%	0	0.0%	0	0.0%	0	0.0%	208	24.1%	22	2.5%	0	0.0%	22	2.5%
4819.00-3	1,677	1,296	77.3%	0	0.0%	0	0.0%	221	13.2%	0	0.0%	0	0.0%	102	6.1%	323	19.3%	29	1.7%	29	1.7%	58	3.5%
4820.01-2	3,007	2,034	67.6%	191	6.4%	0	0.0%	636	21.2%	0	0.0%	18	0.6%	41	1.4%	886	29.5%	65	2.2%	22	0.7%	87	2.9%
4820.01-3	1,084	966	89.1%	0	0.0%	0	0.0%	10	0.9%	0	0.0%	0	0.0%	86	7.9%	96	8.9%	22	2.0%	0	0.0%	22	2.0%
Study Area	21,554	15,152	70.3%	406	1.9%	0	0.0%	4,339	20.1%	0	0.0%	122	0.6%	675	3.1%	5,542	25.7%	755	3.5%	105	0.5%	860	4.0%
Fairfax County	1,128,722	593,856	52.6%	102,194	9.1%	1,461	0.1%	206,641	18.3%	632	0.1%	3,176	0.3%	38,861	3.4%	352,965	31.3%	116,159	10.3%	65,742	5.8%	181,901	16.1%
Virginia	8,256,630	5,237,848	63.4%	1,560,316	18.9%	17,015	0.2%	489,610	5.9%	4,967	0.1%	18,053	0.2%	219,665	2.7%	2,309,626	28.0%	457,299	5.5%	251,857	3.1%	709,156	8.6%

1 Regardless of Hispanic/Latino designation

2 The U.S. Census Bureau defines Hispanic or Latino as a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race. Because Hispanic or Latino may be any race, data may overlap for other race categories and percentages were not calculated.

3 Total minority and/or Hispanic/Latino is the sum of all non-White races plus Hispanic or Latino – White.

Source: U.S. Census Bureau, 2011-2015 ACS 5-Year Estimates, Hispanic or Latino by Race.

- **Low-Income Population:** 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 or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

The poverty threshold is determined by the U.S. Census Bureau and is updated annually. The poverty threshold varies according to the size of the family living at each residence and the ages of the family members. **Table 2-6** illustrates the average household size for each Census block group within the study area, as well as Fairfax County and Virginia. The average household size of the Census block groups within the study area range between 2.65 and 3.63 family members. To be conservative, a family of four was used as the poverty threshold for identifying Census block groups with a low median household income within the study area.

**Table 2-6: Average Household Size**

Locality	Average Household Size
4601.00-1	2.98
4601.00-2	3.09
4601.00-3	3.63
4803.00-1	3.15
4803.00-3	3.05
4804.01-1	3.22
4804.01-2	2.96
4805.01-1	3.14
4819.00-3	2.65
4820.01-2	3.13
4820.01-3	3.09
Fairfax County	2.85
Virginia	2.62

Source: U.S. Census Bureau, 2011-2015 ACS 5-Year Estimate: Average Household Size.

The HHS 2015 Poverty Guidelines of the 48 Contiguous States and the District of Columbia identifies the poverty threshold as \$24,250 for a family of four (see **Table 2-7**). While the 2017 HHS poverty threshold data is available, the 2015 dataset is the appropriate data set for a comparison with the Census's 2011-2015 ACS 5-Year Estimates.

**Table 2-7: 2015 Poverty Guidelines for the Contiguous States and the District of Columbia**

Persons in Family/Household	Poverty Guideline
1	\$11,770
2	\$15,930
3	\$20,090
4	\$24,250
5	\$28,410
6	\$32,570
7	\$36,730
8	\$40,890

Source: HHS, 2015 Poverty Guidelines for the 48 Contiguous States and the District of Columbia.



Data from 2011-2015 ACS 5-Year Estimates, *Median Household Income in the Past 12 Months (in 2015 Inflation-Adjusted Dollars)* were used to generate median household income data for each of the Census block groups within the study area, listed in **Table 2-8**. As illustrated in **Table 2-8**, none of the Census block groups within the study area have a median household income below the \$24,250 threshold. Thus, no low-income populations have been identified within the project study area and no further assessment of impacts to low-income populations is required.

**Table 2-8: Median Household Income**

Locality	Median Household Income
4601.00-1	\$228,750
4601.00-2	\$207,813
4601.00-3	\$162,891
4803.00-1	\$250,000+
4803.00-3	\$233,462
4804.01-1	\$188,152
4804.01-2	\$250,000+
4805.01-1	\$206,250
4819.00-3	\$204,464
4820.01-2	\$225,781
4820.01-3	\$174,375
Fairfax County	\$112,552
Virginia	\$65,015

Source: U.S. Census Bureau, 2011-2015 ACS 5-Year Estimate Median Income in the Past 12 Months (in 2015 Inflation-Adjusted Dollars).

## 2.3 Environmental Consequences

The Build Alternative would provide additional traffic capacity and enhance safety along an existing corridor. As such, this project would not divide or segment existing communities or interfere with community cohesion. Once complete, this project is not anticipated to create induced growth or infill development beyond what was anticipated without the project. Since the Build Alternative is not anticipated to cause any additional infill development, which would cause fluctuations in the population, the Build Alternative is not anticipated to directly affect population or housing characteristics of the study area or surrounding vicinity. Since the Build Alternative would not impact population or housing characteristics of the study area, no mitigation measures are proposed.

One residential building will be displaced by the project. The Stage I Relocation Assistance Report identified the property owner as belonging to a minority group. The displaced persons would receive all benefits that they are eligible for under the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (as amended, 1987). Additionally, the Build Alternative would require temporary and permanent acquisition along the corridor from properties belonging to both minority populations and non-minority populations. However, since the Build Alternative would be on an existing alignment, property impacts have been minimized in comparison to a new alignment.

The addition of lanes, added facilities for cyclists and pedestrians, and intersection and other improvements along Route 7 would enhance roadway safety, provide additional travel choices, and provide additional travel capacity, providing benefits to all populations, including minority populations. Project-related



beneficial and adverse effects would be fairly distributed among both minority populations and non-minority populations. Therefore, the Build Alternative would not cause disproportionately high and adverse effects to minority populations. Consequently, no mitigation measures are proposed.

Construction of the Build Alternative would provide temporary local employment opportunities and support existing local businesses around the corridor (e.g., gas stations and restaurants).

## 3.0 ECONOMIC CHARACTERISTICS

### 3.1 Methodology

Employment trends were provided by the U.S. Bureau of Economic Analysis (BEA) and reflect total full- and part-time employment from 2001 to 2015 for Fairfax County and Virginia. Data from the 2011-2015 ACS 5-Year Estimates, *Means of Transportation to Work*, was used to identify the level and direction of commuter travel for journey to work for the study area, Fairfax County, and Virginia (Census, 2015d). The Virginia Employment Commission – Virginia LMI, *Community Profiles*, last updated in June 2017, provided travel to work trends for Fairfax County and top employment industries and largest employer data for Fairfax County and Virginia (Virginia Employment Commission, 2017a and 2017b). Additional employment information was obtained from the MWCOG for the study area and Fairfax County. The MWCOG and supporting jurisdictions and planning agencies produce Cooperative Forecasts containing employment, population, and household projections by Transportation Analysis Zones (TAZ) in the Washington region. A series of forecasts constitutes a “Round”; Round 9.0 covers the time period from 2015 to 2045 (MWCOG, 2016a). Data from the 2011-2015 ACS 5-Year Estimates, *Median Income in the Past 12 Months (in 2015 Inflation-Adjusted Dollars)*, *Average Household Size*, and *Poverty Status in the Past 12 Months* was used to identify the level of income, the average household size, and the poverty status for the study area, Fairfax County and Virginia (Census, 2015a, 2015e and 2015f). Calculations were then run on each data set, as appropriate, to determine the totals and percentages for each category.

### 3.2 Existing Conditions

#### 3.2.1 Employment

**Table 3-1** compares locality level employment data from the BEA between Fairfax County and Virginia. Between 2001 and 2015, Fairfax County had a slightly higher increase in employment (17 percent) than that of Virginia (15 percent).

**Table 3-1: BEA Locality Employment Trends**

Locality	2001	2010	2015	Total Employment Change 2001-2015	Total Percent Change 2001-2015
Fairfax County	748,369	826,400	875,953	127,584	17%
Virginia	4,417,378	4,747,510	5,059,067	641,689	15%

Source: U.S. Bureau of Economic Analysis, 2016, *Regional Economic Accounts*.

Locality level data from the MWCOG TAZs provides a comparison between the TAZs located partially within the study area and Fairfax County TAZ employment trends (see **Table 3-2**). There are 14 TAZs

partially located within the study area boundary – 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1830, 1834, 1889, 1890, 1891, 1892, and 1895 (see **Figure 3-1**). The percent increase in employment for the TAZs located partially within the study area from 2010 to 2015 (three percent) is less than that of Fairfax County (five percent). Employment in Fairfax County grew faster than in the study area and Virginia. The study area has likely seen less employment change compared to Fairfax due to a majority of the study area population occupying owned homes (94.5%) (see **Table 2-5**) and maintaining residency and employment.

**Table 3-2: MWCOG TAZ Locality Employment Trends**

Locality	2010	2015	Total Employment Change 2010-2015	Total Percent Change 2010-2015
TAZs located partially within study area	3,748	3,872	123	3%
Fairfax County	625,764	654,100	28,336	5%

Source: MWCOG Cooperative Forecast-Round 9.0 (MWCOG, 2016a).

Employment within Fairfax County is largely dependent on the Professional, Scientific, and Technical Services industry. According to the Virginia LMI, the Professional, Scientific, and Technical Services industry ranks as the largest industry in Fairfax County with 34.1 percent. The Administrative and Support and Waste Management and Remediation Services industry ranks as the second largest industry, with 11 percent. Unclassified industries and Information industries rank third and fourth within Fairfax County employment. The top employment industries within Fairfax County compared to the State of Virginia are listed below.

#### *Fairfax County*

1. Professional, Scientific, and Technical Services (34.1%)
2. Administrative and Support and Waste Management and Remediation Services (11%)
3. Unclassified (8.5%)
4. Information (6.3%)

#### *Virginia*

1. Administrative and Support and Waste Management and Remediation Services (15.6%)
2. Professional, Scientific, and Technical Services (13.8%)
3. Health Care and Social Assistance (10%)
4. Construction (9%)

As identified within the LMI *Community Profile*, organizations or corporations within the localities employing the largest number of people include:

#### *Fairfax County*

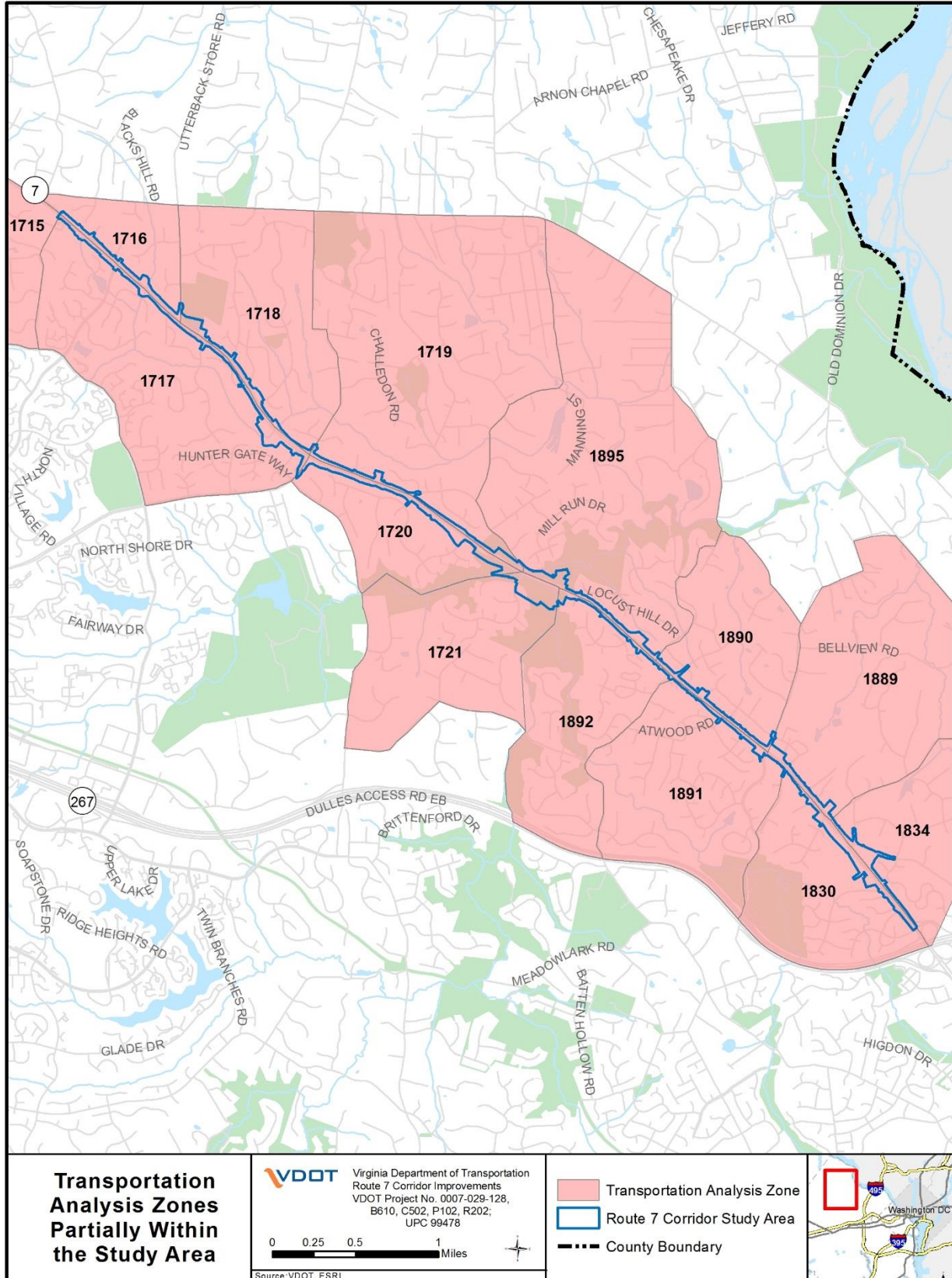
1. Fairfax County Public Schools
2. County of Fairfax
3. Inova Health System

#### *Virginia*

1. U.S. Department of Defense
2. Walmart
3. Fairfax County Public Schools

Fairfax County Public Schools is listed as one of the top three largest employers within both Fairfax County and the Commonwealth of Virginia.

Figure 3-1: Transportation Analysis Zones Partially Within the Study Area



### 3.2.2 Travel to Work

**Table 3-3** compares the percentage of residents within Fairfax County over the age of 18 who work and reside within the County to those who travel out of the County for work. Twenty-seven percent of residents within Fairfax County work and reside within Fairfax County (LMI, 2017a). The District of Columbia is the primary destination that residents commute to (out commute), followed by Arlington County, VA (the location of the Pentagon) and Loudoun County, VA (home to Washington Dulles International Airport and the historic town of Leesburg).

**Table 3-3: Fairfax County Travel to Work Trends**

Residence Locality	Percent who work within County Residence	Out-Commute Destination and Percent <sup>1</sup>
Fairfax County	27.1%	1. District of Columbia (27.5%) 2. Arlington County, VA (14.4%) 3. Loudoun County, VA (10.5%)

<sup>1</sup> The remaining 20 percent of commuters not included in Table 3-2 commute to other localities, including City of Alexandria, Montgomery County, and other areas, as well as residents who telecommute.

Source: LMI, 2017, *Community Profile by county and state*.

Within the vicinity of the study area there are several designated development centers, as designated by Fairfax County, including the Tysons Corner Urban Center, Reston and its associated Transit Station Areas (TSA), and the McLean Community Business Center (CBC) (Fairfax County, 2017b and 2017c) (see **Figure 3-2**).

The methods by which residents within the study area travel to work are identified in **Table 3-4**. The block groups within the study area have just over 10,000 total commuters. Of those, 6.3 percent carpool with two or more persons to work; whereas 73.9 percent commute to work alone. Public transportation is used by 5.5 percent of the study area commuters. The remaining 14.3 percent of commuters in the study area walk, bicycle, use motorcycles, take taxicabs, or work from home, as defined by the Census. Consistent with the study area's higher percent population that commute to work alone, Fairfax County and Virginia both have 9.4 percent of commuters carpooling with two or more persons, and 71.1 and 77.5 percent of persons commuting to work alone. Public transportation is used by 9.8 and 4.6 percent of Fairfax County and Virginia commuters, respectively.

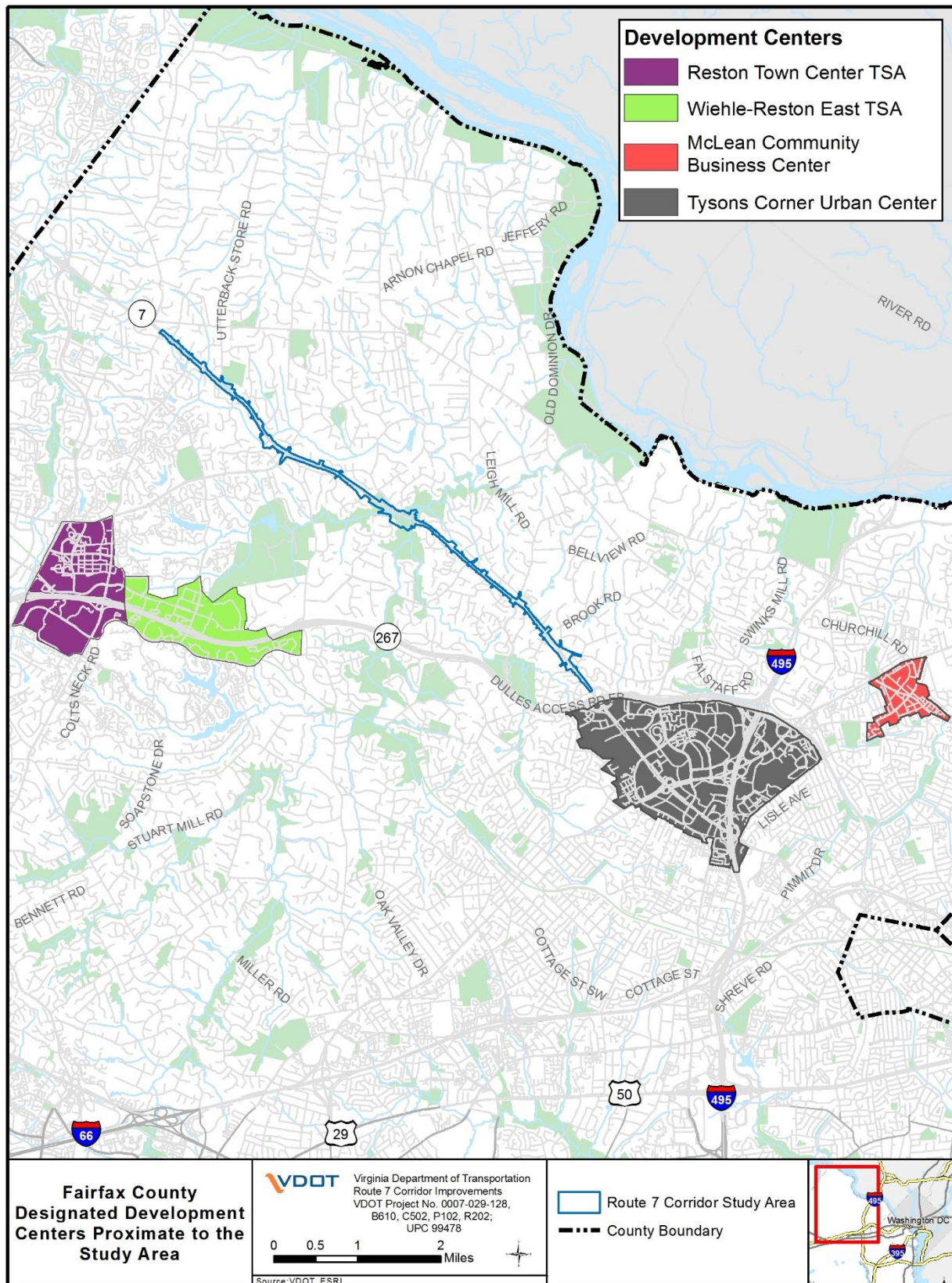
**Table 3-4: Means of Transportation to Work**

Transportation Method	Study Area	Fairfax County	Virginia
Total Commuters within Study Area	10,186	602,824	4,020,679
Total Public Transportation Use	557	58,850	183,183
Total Car / Truck / Van Alone	7,527	432,073	3,117,644
Total Car / Truck / Van Carpool of 2 or More Persons	638	56,625	379,361
Percent of Study Area Population that Commutes by Public Transportation Use	5.5%	9.8%	4.6%
Percent of Study Area Population that Commutes by Car / Truck / Van Alone	73.9%	71.1%	77.5%
Percent of Study Area Population that Commutes by Car / Truck / Van Carpool of 2 or More Persons	6.3%	9.4%	9.4%

Source: U.S. Census Bureau, *Census 2011-2015 ACS 5-Year Estimate, Means of Transportation to Work*.



Figure 3-2: Fairfax County Designated Development Centers Proximate to the Study Area





### 3.2.3 Income

#### 3.2.3.1 Median Household Income

**Table 2-8**, shown above, illustrates the median household income for each Census block group within the study area, as well as Fairfax County and Virginia for comparison. The income levels for the study area Census block groups range from \$162,891 to \$250,000+, all of which are much higher than the median income for all of Fairfax County, \$112,552, and 2.5 to 4 times as high as Virginia’s median household income, \$65,015.

#### 3.2.3.2 Poverty

Following the Office of Management and Budget’s (OMB) Directive 14, the Census uses a set of monetary income thresholds that vary by family size and composition to detect poverty. If a family’s total income is less than the family’s threshold, then that family and every individual within the family, is considered poor. The poverty thresholds do not vary geographically but are updated annually for inflation. The Census determines persons below the poverty level by:

- The income of the householder;
- The age of the householder;
- The number of related individuals within the household (unrelated members such as roommates are excluded); and,
- The number of children within the household.

Poverty guidelines are issued annually in the Federal Register and are a “simplified version of the poverty thresholds that the Census Bureau uses to prepare estimates of the number of the individuals and families in poverty” (HHS, 2015). **Table 3-5** describes the poverty characteristics for the Census block groups within the study area, individually and totaled, as well as for Fairfax County, and Virginia.

**Table 3-5: Poverty Characteristics within the Study Area**

Locality	Persons for Whom Poverty Level is Determined <sup>1</sup>	People Below Poverty Level	Percent of People Below Poverty Level
4601.00-1	337	0	0.0%
4601.00-2	569	0	0.0%
4601.00-3	402	10	2.5%
4803.00-1	792	0	0.0%
4803.00-3	941	0	0.0%
4804.01-1	480	0	0.0%
4804.01-2	783	8	1.0%
4805.01-1	270	8	3.0%
4819.00-3	575	20	3.5%
4820.01-2	864	38	4.4%
4820.01-3	290	0	0.0%
Study Area	6,033	76	1.3%
Fairfax County	280,010	11,135	4.0%
Virginia	2,054,416	168,941	8.2%

<sup>1</sup>U.S. Census poverty status is determined for all people except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old.

Source: U.S. Census Bureau, ACS 2011-2015 5-Year Estimate, Poverty Status in the Past 12 Months.

All of the Census block groups have less than 4.4 percent of the population below the poverty level, compared to 4.0 percent for Fairfax County and 8.2 percent for Virginia. Six out of the eleven block groups have zero percent of people below the poverty level.

### 3.3 Environmental Consequences

Under the Build Alternative, additional traffic capacity and enhanced safety along the corridor would improve regional road network safety and provide for more reliable travel on the corridor, benefitting both residents and those working in the area or traveling through the area to reach employment. Since the Build Alternative would not negatively impact economic characteristics of the study, no mitigation measures are proposed.

Construction of the Build Alternative could provide temporary local employment opportunities and support existing local businesses around the corridor (e.g. gas stations and restaurants).

## 4.0 LAND USE AND PLANNED DEVELOPMENT

### 4.1 Methodology

Existing land use was mapped using GIS data provided by Fairfax County. Neighborhoods were identified from desktop searches and Fairfax County GIS data, where available. Fairfax County's Comprehensive Plan, Transportation Plan Map, and the Concept for Future Development Map were reviewed to gain an understanding of the plans for growth and development surrounding the Route 7 corridor.

### 4.2 Existing Conditions

The study area is in northeastern Fairfax County. The area is well known by the neighborhoods in the vicinity of the study area. Carrington, SMC McLean, Wolf Trap Woods, and Woodside Estates neighborhoods surround Route 7 and occupy the southeastern end of the Route 7 corridor towards Jarrett Valley Drive. Colvin Run Elementary School is located in the Wolf Trap Woods neighborhood. Various Great Falls neighborhoods surround the middle of the study area on the northern side of Route 7 up to Reston Avenue. The southern side of Route 7 on the northwestern end of the study area is lined by Reston, Brandermill-Ascot, Great Falls Crossing, Carper's Farm, and Hunter Mill Estates neighborhoods (see **Figure 4-1**)(Fairfax County, 2017d and Nextdoor, 2017).

The study area is comprised mainly of transportation land use, residential land use, recreation uses, and a portion of a public park and privately owned space. Approximately 35.8 percent (105.54 acres) of the 294.83 acres within the study area is classified as "open land, not forested or developed," which primarily consists of lands directly adjacent to transportation facilities. Approximately 32.2 percent (94.85 acres) of the study area is used for transportation facilities (including the Route 7 roadway and ramps and the local roadways), 15 percent (44.29 acres) of the study area is used for recreation, 11.2 percent (33.3 acres) for residential development, 2.3 percent (6.81 acres) for institutional development, 2.2 percent (6.44 acres) for industrial development, and less than or equal to 0.5 percent for agricultural, utility, commercial and public uses (1.46, 1.14, 0.75, and 0.25 acres, respectively)(see **Table 4-1** and **Figure 4-2**).

Figure 4-1: Neighborhoods within the Study Area

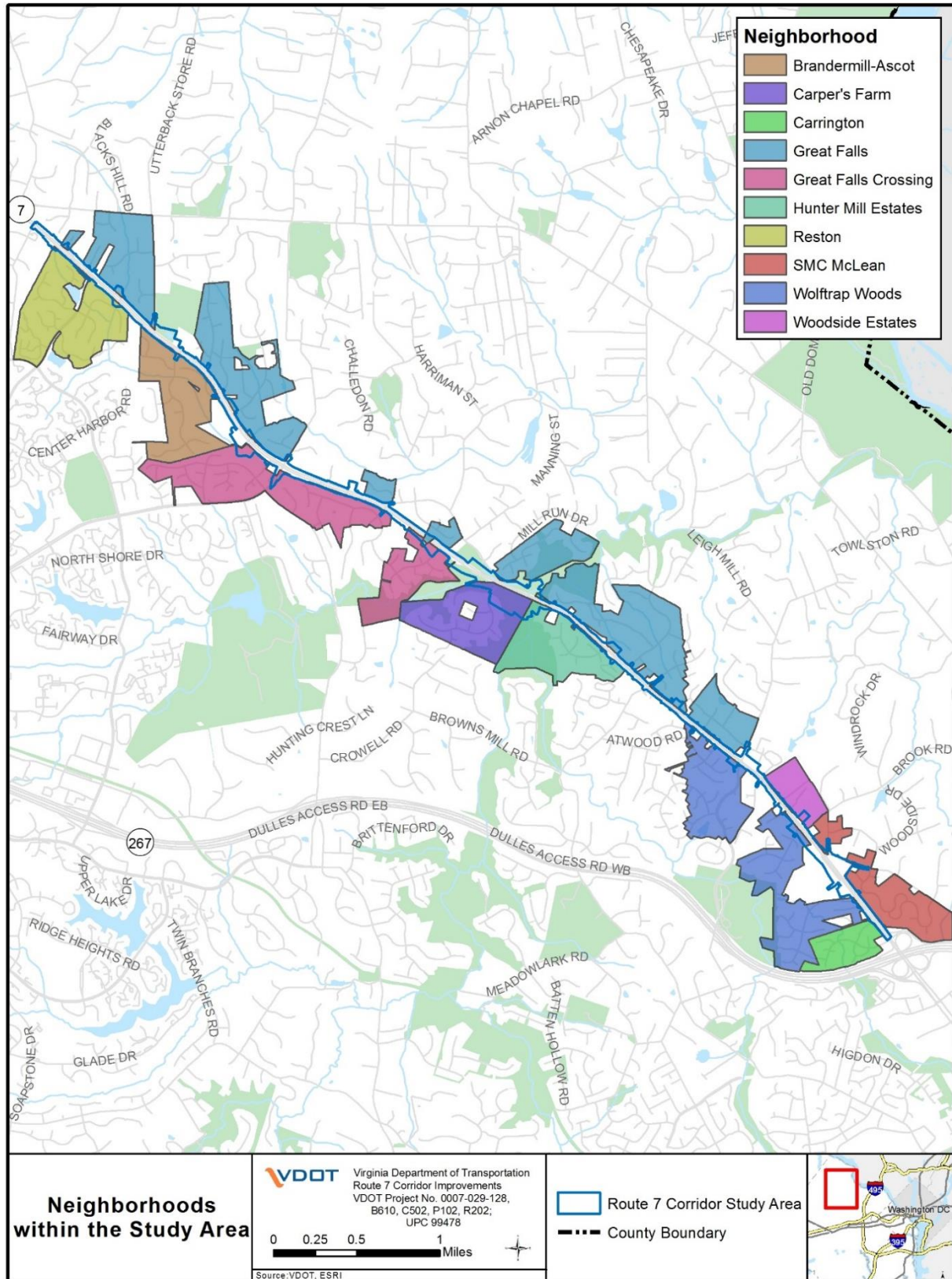
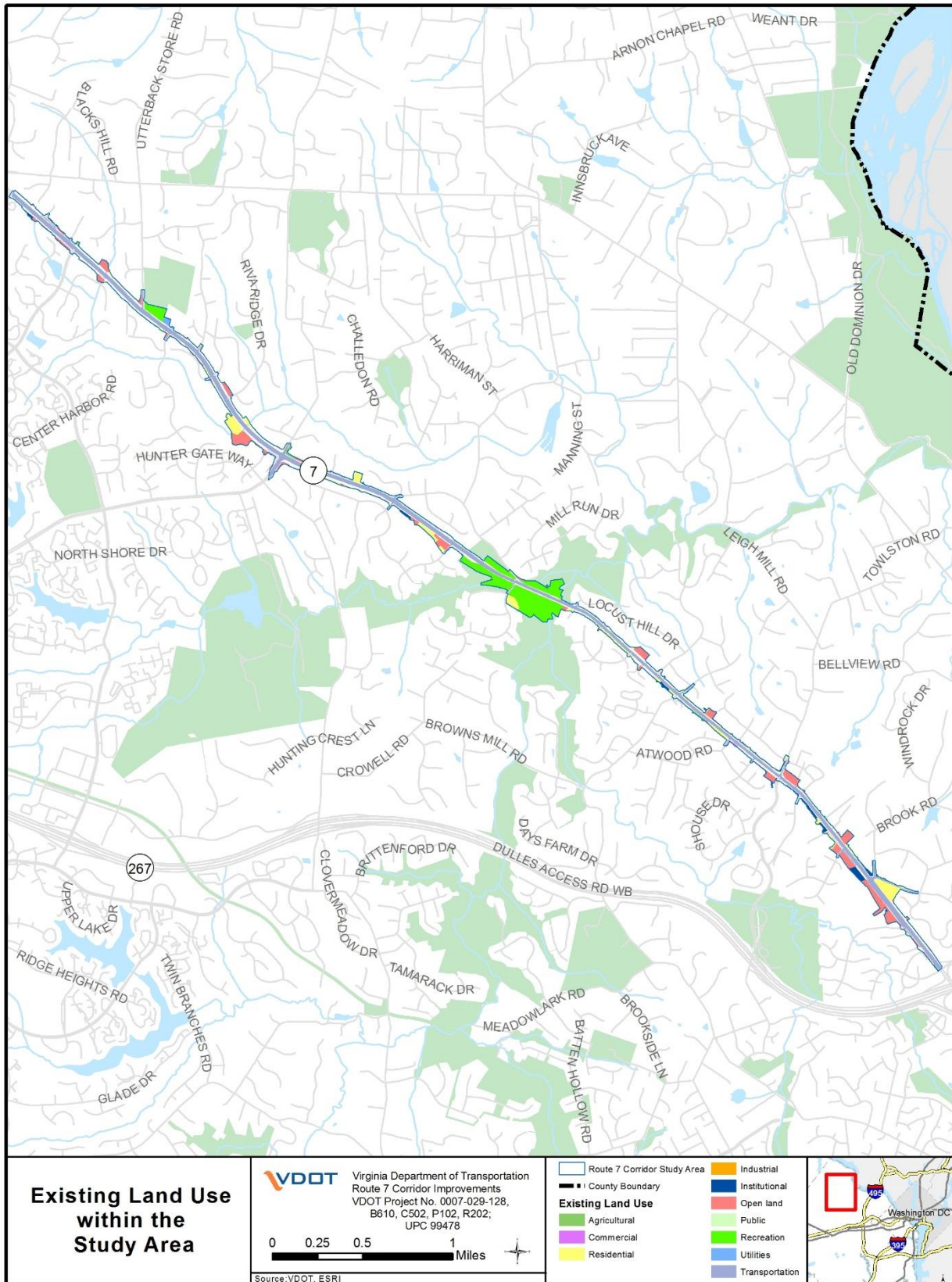




Figure 4-2: Existing Land Use within the Study Area





**Table 4-1: Existing Land Use within the Study Area**

Land Use	Acres within Study Area	Percent of Study Area Covered
Agricultural	1.46	0.5%
Commercial	0.75	0.3%
Industrial, light and heavy	6.44	2.2%
Institutional	6.81	2.3%
Open land, not forested or developed	105.54	35.8%
Public	0.25	0.1%
Recreation	44.29	15%
Residential	33.30	11.2%
Transportation	94.85	32.2%
Utilities	1.14	0.4%
Study Area Total	294.83	100%

Note: Where appropriate, some land use types have been combined to reflect similar types in total.

Source: Fairfax County, VA GIS, accessed July, 2017.

VDOT coordinated with the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) to assess the impacts of the project to farmlands in the potential impact areas (see **Section 4.1: Agency Coordination** in the October 2016 EA). Since the entire study area is located within the Census urbanized area, the study area is not subject to the Farmlands Protection Policy Act (FPPA).

### 4.3 Future Land Use

Plans for the Upper Potomac and McLean Planning District both include maintaining solely residential development along the Route 7 corridor. The plans note that any infill development should be of compatible use, type and intensity to existing uses, typically 1 to 2 units per acre, or clustered development bordered by open space, especially along Route 7 to provide a buffer between residences and the roadway. The Fairfax County Comprehensive plan notes that the County “should have a land use pattern which increases transportation efficiency, encourages transit use, and decreases automobile dependency” and “ensure safety for users of transportation facilities and services and for the general public” (Fairfax County, 2017b). Fairfax County wishes to “concentrate most future development in mixed-use centers, transit station areas and areas of transportation advantage”. Fairfax also notes that due to rapid growth over the past decades, the amount of available vacant land (currently one percent) is diminishing and redevelopment would be more prevalent in the future (Fairfax County, 2017b).

Fairfax County’s Transportation Plan Map and Fairfax County’s Interactive Fairfax County Department of Transportation Capital Projects map depicts the future Route 7 as a six-lane arterial roadway, with minor interchange improvements at the Baron Cameron Ave (VA 606)/Springvale Road (VA 674) interchange (Fairfax County, 2015 and 2017a). Fairfax County’s Concept for Future Development Map depicts the study area region of Fairfax County as having suburban neighborhood and low density residential development. The suburban neighborhood is primarily on both sides of Route 7 on the southeast end of the study area, near Jarrett Valley Drive, and on the southern side of Route 7 at the northern end of the study area, near Reston Avenue (Fairfax County, 2014a). Of the remaining area, low density residential

development is shown. The effects of each alternative on future land use within the study area are discussed below.

#### **4.4 Environmental Consequences**

A stated need for development within Fairfax County is more efficient travel in either the form of better public transportation or improved highway corridors. The Build Alternative would provide additional traffic capacity and improve safety on Route 7 and has potential to directly impact land use immediately adjacent to Route 7, including permanent and temporary right-of-way acquisitions, converting 19.92 acres to transportation use. However, the conversion to transportation use would be relatively small when compared to the existing total acreage per land use class in the study area.

The Build Alternative would require one residential acquisition, as discussed in **Section 2.3**. Relocation assistance in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* of 1970 (as amended, 1987) would be provided. The Build Alternative would not require any commercial displacements. These traffic improvements could aid Fairfax County in future development goals by helping to provide safer and more reliable commute times.

The proposed project is in conformance with the Fairfax County Comprehensive Plan and would support the future growth planned for the Tysons Corner Urban Center, in addition to the McLean CBC. The Build Alternative would have no substantial negative impacts to land use that are not supported by the future comprehensive plans; therefore, no mitigation is proposed.

### **5.0 COMMUNITY FACILITIES**

#### **5.1 Methodology**

Community facilities were identified through a review of data provided by local agencies, mapping sources, and desktop searches. Community facilities and access data was obtained from Fairfax County's GIS to determine if community facilities were located within the vicinity of the study area or had direct access to Route 7. Community facilities located outside of the study area that utilize Route 7 as their main entrance and exit were included for this analysis. Recreational facilities were located and identified through aerial photography and internet resources, Fairfax County recreational resources and parks lists, and Fairfax County's Comprehensive Plan. Additionally, a search was conducted on Google Maps along the corridor to verify facilities or identify additional facilities in the vicinity of the Route 7 corridor or with direct access to Route 7.

#### **5.2 Existing Conditions**

Community and recreational facilities are buildings or places that provide a variety of services to the public. Public community facilities generally provide services for general public benefit, and include public schools, healthcare facilities, emergency services facilities, government services, airports, museums, sports centers, public non-profits, and regional or local parks and trails. Privately-held community facilities also serve as important institutions within the community, and include religious facilities, cemeteries, private non-profits, and private schools.

The study area, and its immediately surrounding area, contains six religious facilities, three parks, three private schools, two fire stations, one non-profit facility, one cemetery, and one facility that serves as a religious facility and a preschool. All parks within the study area are listed as County parks by the Fairfax County Park Authority (FCPA) (Fairfax County, 2017c and 2017d). **Table 5-1** lists and **Figure 5-1** identifies the locations of these community and recreation facilities.

The area south of the study area is served by the Metrorail Silver Line, with existing stations in McLean, Tysons Corner, Greensboro, Spring Hill, and Wiehle-Reston East. Service is anticipated to be extended further west to Loudon County, with a station at Washington Dulles International Airport. Metrobus and locally provided bus service help facilitate access to and from the Silver Line stations, with many bus stops along the Route 7 corridor.

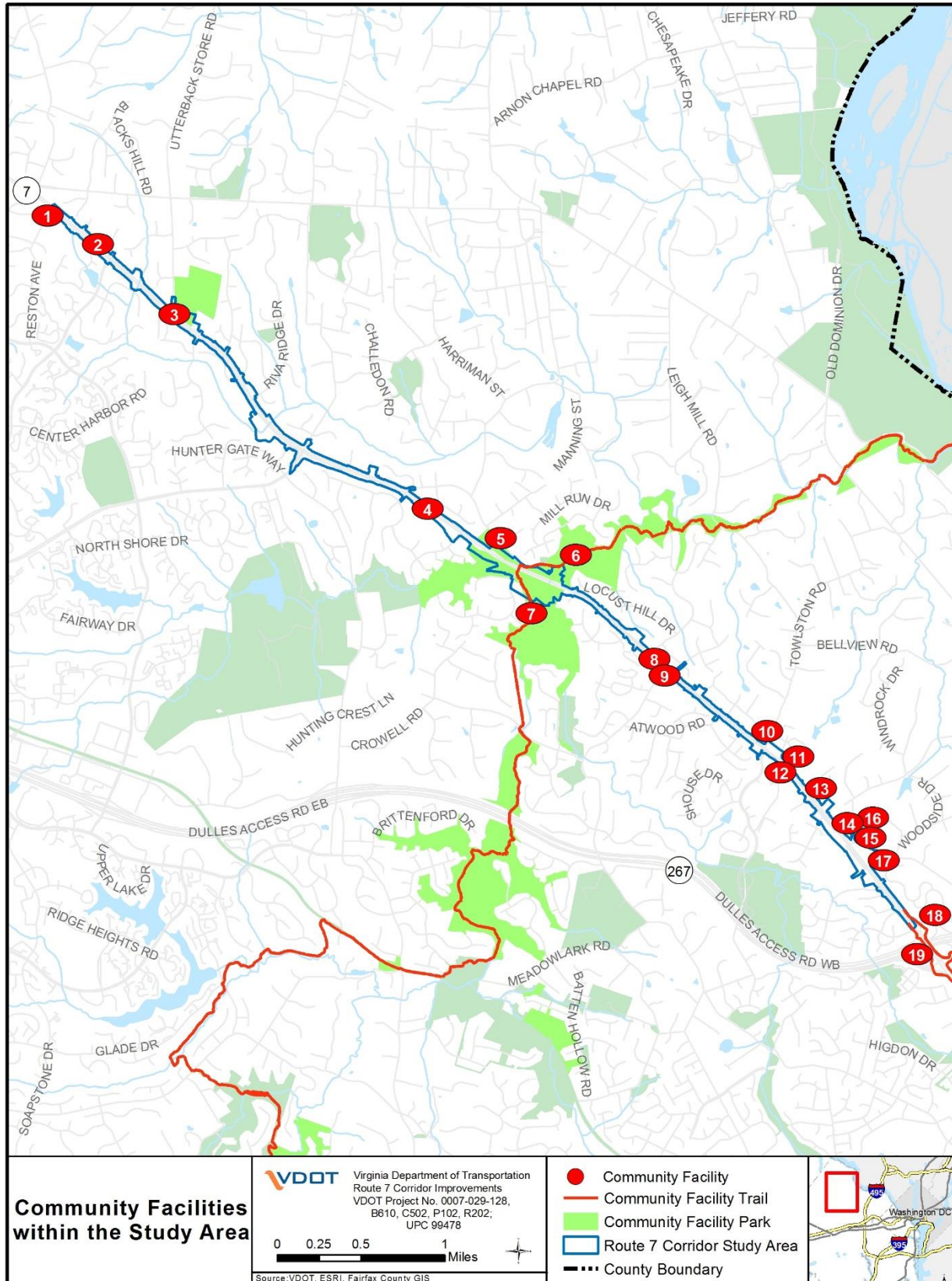
One airport, Washington Dulles International Airport, is located west of the study area and is accessible from the east along a dedicated roadway, the Dulles Airport Connector, and from the north via the Dulles Greenbelt.

**Table 5-1: Community Facilities**

Map ID	Facility Type	Facility
1	Fire Station 39 - North Point	Fire Station
2	MTO Shahmaghsoudi School Of Islamic Sufism	Private School
3	Great Falls Nike Park	County Park
4	Capital Church	Religious Facility
5	Colvin Run Mill Park	County Park
6	Difficult Run Stream Valley Park	County Park
7	Gerry Connolly Fairfax Cross-County Trail through Difficult Run Stream Valley Park	Trail
8	Chesterbrook Academy Preschool	Private School
9	Fire Station 42 - Wolftrap	Fire Station
10	The Eastern Ridge School	Private School
11	St Athanasius Roman Catholic	Religious Facility
12	Andrew Chapel Cemetery Association	Cemetery
13	Bethel Baptist Church	Religious Facility
14	Jill's House	Non-Profit Facility
15	St Thomas Episcopal Church & Mclean Preschool	Religious Facility/School
16	Providence Baptist Church	Religious Facility
17	McLean Bible Church	Religious Facility
18	McLean Islamic Center	Religious Facility
19	Route 7 Bike Trail	Trail

Source: Fairfax County, VA GIS, accessed July, 2017.

Figure 5-1: Community Facilities within the Study Area





### 5.3 Environmental Consequences

The Build Alternative would provide additional traffic capacity and enhance safety along the corridor, which would likely increase reliability for emergency services and safety to the other community facilities. Additionally, the project would improve connectivity of the bicycle network within the area and would provide a new shared use trail, on both sides of the roadway, which supports Fairfax County Department of Transportation's Countywide Bicycle Master Plan. Fairfax County Department of Transportation's Countywide Bicycle Master Plan recommends improvements to the bicycle network within the County and particularly along Route 7, with a shared use path depicted on both sides of the roadway within the study area. The vision of the Master Plan is "meeting the safety, access, and mobility needs of bicyclists today, while encouraging more people to bicycle in the future...making Fairfax County bicycle friendly and bicycle safe" (FCDOT, 2014). In addition, the project would include improvements to the Gerry Connolly Fairfax Cross-County Trail, a shared use trail (pedestrian, bicycle and equestrian) running over Route 7 and through Difficult Run Stream Valley Park.

The Build Alternative would require the taking of right of way and permanent and temporary easements from three parks, as follows:

#### *Colvin Run Mill Park*

- 0.15 acres right of way
- 1.0 acres permanent easement
- 1.15 acres temporary easement

#### *Great Falls Nike Park*

- 0.48 acres right of way
- 0.03 acres permanent easement
- 0.25 acres temporary easement

#### *Difficult Run Stream Valley Park*

- 1.05 acres right of way
- 0.86 acres permanent easement
- 3.78 acres temporary easement

Minimization/mitigation efforts for the minor involvement with FCPA lands have been coordinated with FCPA to obtain final concurrence that the temporary occupancy, permanent easement, and fee taking, is based upon current design information. Concurrence obtained is based on temporary occupancy, permanent easement, and fee taking following the commitment on the part of VDOT to protect the park property, follow the proposed revised mitigation to minimize harm, and follow FCPA's design requirements. Concurrence obtained also assumes impacts to park property would not adversely affect activities, features, and attributes of the park. This concurrence does not constitute an endorsement of the project or conveyance of any temporary or permanent interests in or access to parklands. This concurrence is provided with the understanding that further design information is to be provided to FCPA by VDOT during project development and that further consultation with FCPA would be undertaken by VDOT to ensure, prior to granting of any temporary or permanent property interests, that harm to park property by the proposed project would be minimized and the conditions upon which this concurrence is based have not changed.

FHWA intends to make findings of *de minimis* impact pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966 for the minor involvement with FCPA lands. There are no Section 6(f) properties within the project area.

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ROUTE 7 WIDENING - FAIRFAX COUNTY

