

U.S. Route 15 (Whites Ferry Road to the Maryland State Line)
Application for BUILD 2018 Planning Grant



Submitted by:

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Prepared for:

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- Attachment 1 Route 15 Project Next Steps
- Attachment 2 Letters of Support for Route 15 Project





SECTION 1: PROJECT DESCRIPTION

SECTION 1.1: PROJECT DESCRIPTION



Designated in 1926, U.S. Route 15 is a 792-mile United States highway stretching between Walterboro, South Carolina and Painted Post, New York. U.S. Route 15 passes through the states of South Carolina, North Carolina, Virginia, Maryland, Pennsylvania and New York.

Within the State of Virginia, U.S. Route 15 is a significant north-south transportation corridor passing through central portions of the state. U.S. Route 15 provides an important transportation alternative to the heavily congested Interstate 95 corridor to the east and Interstate 81 to the west. Along the 254-mile border of Virginia and Maryland, U.S. Route 15 provides one of only six road connections between the states over the Potomac River, and the first one west of the American Legion Bridge on I-495.

Located in Loudoun County, Virginia, the 10-mile stretch of U.S. Route 15 (See Figure 1-1) between Leesburg, Virginia and the Point of Rocks bridge across the Potomac River at the Virginia/Maryland state line is a two-lane rural undivided highway with substandard shoulders. Within this corridor, U.S. Route 15 passes through the historic Village of Lucketts. This stretch of U.S. Route 15 has been the subject of numerous studies since 1998. These studies have been conducted in response to growing traffic volumes and safety concerns. These concerns stem from the sheer volume of traffic that has increased as the region grows. This corridor is the next crossing of the Potomac River to the west of the American Legion Bridge which is the I-495 Washington Beltway crossing of the Potomac River. Unfortunately, this rural road has become the western “bypass” crossing of the Potomac River, carrying increasing regional and national traffic volumes, beyond what was envisioned for this facility.

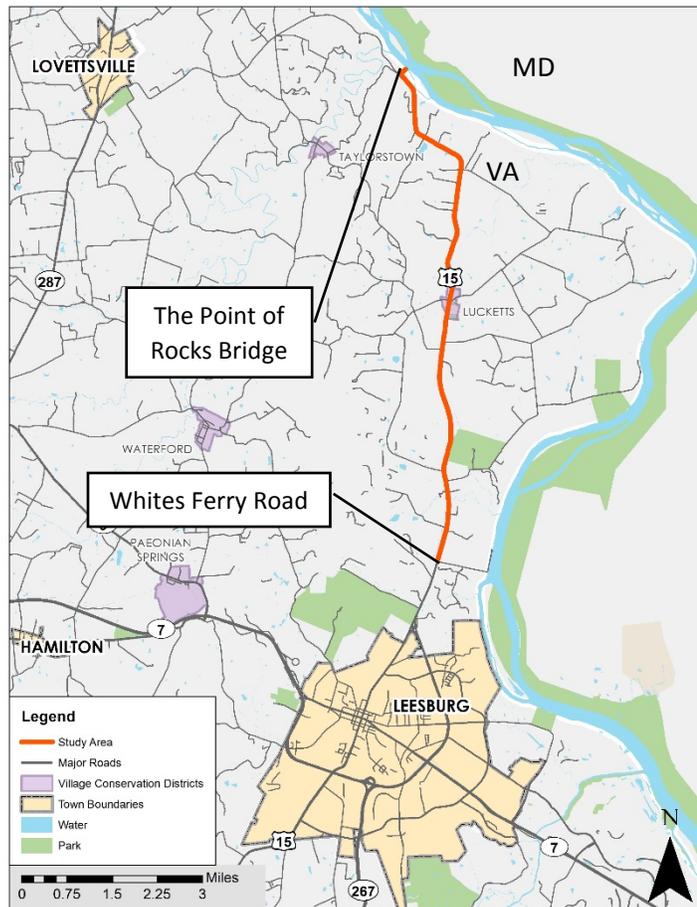
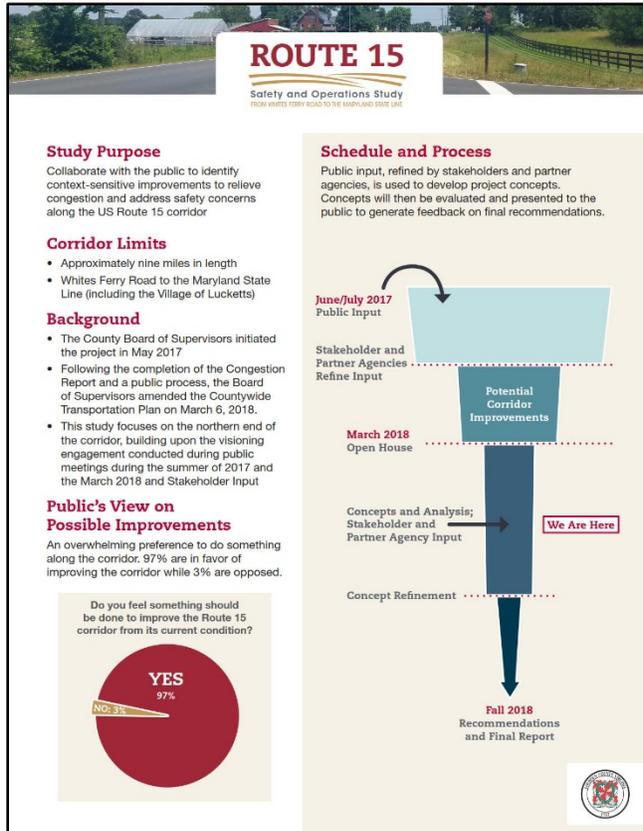


Figure 1-1 – U.S. Route 15 Corridor Study Area





In the past three years, Loudoun County has taken the lead role in studying this corridor and developing a plan of comprehensive transportation improvements intended to address these serious concerns. The most recent study is the “Route 15 Safety and Operations Study”.



The Route 15 Safety and Operations Study has identified the challenges associated with the ten-mile segment of Route 15 between the Town of Leesburg and the Maryland State line and developed a vision for the improved roadway. Working with a broad spectrum of project stakeholders, Loudoun County has held several public meetings beginning in mid-2017 to engage the citizens of the County. During these meetings, Loudoun County staff has shared existing condition information related to Route 15, provided a forum for citizens to voice their concerns and obtained citizen input regarding potential long-term transportation solutions as shown in Figure 1-2 on the left. The Route 15 Safety and Operations Study is funded utilizing local funding only and is slated to be completed in October 2018.

Figure 1-2 – Route 15 Safety and Operations Study: Public Meeting Board on the Route 15 Project Process

To date, working closely as a team, Loudoun County and project stakeholders have developed a vision for the Corridor that has been adopted by stakeholders. The Vision states that the Route 15 corridor improvements from Leesburg to Maryland will:

- 1. Emphasize safety and congestion relief,**
- 2. Provide local access and mobility for community and through traffic, and**
- 3. Highlight Loudoun’s natural beauty and maintain the historic rural character of the corridor**





With the completion of the Route 15 Safety and Operations Study, Loudoun County will have identified and vetted several design alternatives (See Figure 1-3) designed to specifically address the capacity and safety concerns associated with this portion of U.S. Route 15. It is anticipated that the Loudoun County Board of Supervisors will vote to accept the results and recommendations resulting from the Route 15 Safety and Operations Study during its November 2018 Board Meeting. Once approved, Loudoun County will be in position to commence the National Environmental Policy Act (NEPA) environmental clearance necessary to move this important project towards final design including preliminary engineering to evaluate the alternatives.

The preliminary engineering/NEPA phase is the subject of the FY 2018 BUILD Planning Grant application. Loudoun County has significant experience in successfully completing preliminary engineering and obtaining NEPA clearance for large complex projects and has already developed an outline of the scope of work to be completed as part of this project phase. The following outline provides a detailed breakdown of the discrete planning and engineering activities to be funded through an FY 2018 BUILD Transportation Planning Grant.

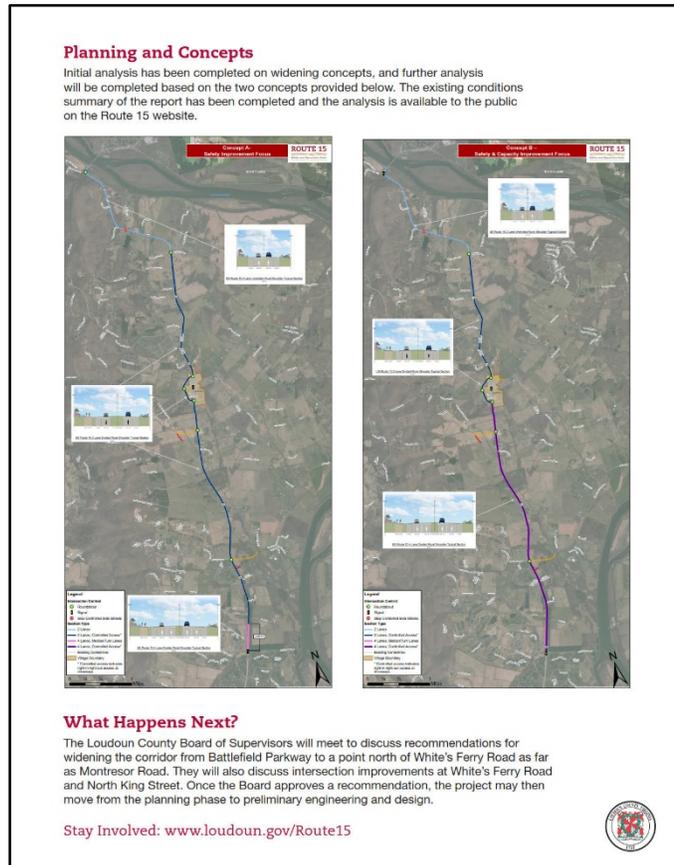


Figure 1-3 – U.S. Route 15 Planning Level Concepts based upon Public Input and Engineering Study

I. Scoping Phase

- a. Conduct an Initial Scoping Meeting
 - i. Identify Delivery Method (Design-Bid-Build, Design-Build, Public/Private Partnership)
 - ii. Stakeholder Identification and Outreach
- b. Prepare Virginia Department of Transportation Early Project Notification (EQ-429)
- c. Data Collection (Traffic, R/W Data, Aerial Imagery)
- d. Initiate Environmental Review Process/NEPA Process
- e. Referral Agency Review (DGIF, DCR, DEQ, USFWS, and DHR)
- f. Identify Typical Section(s)
- g. Establish Preliminary Alignment, Grade, Connections and Limits of Disturbance
- h. Prepare Concurrent Route Survey, including collection of data on:
 - i. Topography
 - ii. Property Research
 - iii. Geotechnical (including Pre-Soils Report)
 - iv. Subsurface Utility Identification
 - v. Initial Noise Abatement Assessment
 - vi. Wetland/Stream Screening
 - vii. Hazardous Materials Screening
- i. Hydraulic Analysis





- j. Develop Preliminary Field Inspection (PFI) Plans
- k. Develop Project Estimate and Schedule
- l. Permit Determination

II. Finalize Scope of Work and PFI Meeting

III. Preliminary Design Phase

- a. Concurrent Design and Environmental Analysis
 - i. Roadway
 - ii. Structure and Bridge
 - iii. Traffic Control Devices, Intelligent Transportation Systems (ITS), and Lighting
 - iv. Landscape and Aesthetics
 - v. Stream/Wetland Coordination
 - vi. Cultural/Historic Resources
 - vii. Hazardous Material Assessment
- b. Initiate Section 106 (Historic Resources)
- c. Referral Agency Coordination and Meetings
- d. Publish Draft NEPA Document
- e. Preliminary Utility Field Inspection
- f. Right-of-Way Assessment/Easements (including utilities)
- g. Constructability, Work Zone Safety and Mobility Review
- h. Value Engineering Review

IV. Public Outreach/Public Hearing

- a. Stakeholder Meetings
- b. Public Hearing
- c. Plan Design Changes from Public Hearing and Value Engineering Input

V. Design Approval (by Commonwealth Transportation Board and FHWA)

SECTION 1.2: TRANSPORTATION CHALLENGES ADDRESSED

Route 15 serves as a regional commuter route, and within the study area, provides access to numerous large retail shopping centers, small rural businesses, residences, schools, parks, and healthcare facilities. Within the Town of Leesburg, Route 15 is a four-lane, divided principal arterial with a posted speed limit of 45 miles per hour but transitions into a two-lane undivided roadway approximately 1,000 feet north of the intersection with Battlefield Parkway until its intersection with Route 15 Business (King Street). North of the King Street intersection, Route 15 has a raised median until just north of its intersection with Raspberry Drive/Whites Ferry Road where it transitions to an undivided cross-section. Within the Village of Lucketts, the posted speed changes to 35 mph and there is a school speed zone of 25 mph during weekdays around 7:50 a.m., when school starts, and around 2:35 p.m. when school lets out. North of Lucketts, Route 15 crosses the Potomac River into Maryland.



Figure 1-4 – Loudoun County Agritourism Sign





Figure 1-5 – Map Depicting the Journey Through Hallowed Ground Corridor

U.S. Route 15 is also part of the Journey Through Hallowed Ground, a corridor from Gettysburg, PA to Monticello in Charlottesville, VA (see Figure 1-5 on the left). The corridor was designated as a National Scenic Byway in 2009 and is lined with presidential homes, civil war battlefields, and historic “Main Street” communities. It is a primary touring route from which visitors can explore a scenic and historically rich landscape. The Journey Through Hallowed Ground Partnership formed to ensure that the roadway receives respect and intentional planning as well as promote the conservation and enhancement of the corridor’s scenic, historic,

archaeological, cultural, natural, and recreational resources. This is a transportation challenge as significant consideration of the historic and rural route needs to be considered in all aspects of planning and design. Considering the transportation element of the roadway, the Byway designation aims to promote transportation systems that employ context-sensitive design and protect efficient, safe, and enjoyable travel through the corridor for all modes of travel and types of users, all while maintaining character-defining features. The evaluation intends to abide by Virginia Department of Transportation (VDOT) standards and Journey Through Hallowed Ground design elements to stay within the character of the historic roadway.

Based on a recent report completed by Loudoun County entitled “Route 15 Safety and Operations Study” dated February 2018, the recommended improvements to Route 15 will address several transportation challenges as discussed below.

Transportation Challenge #1 – Travel Time

The challenge associated with travel time is the effect it has on the use and reliability of the roadway. Excessive travel time creates a spreading of traffic to the surrounding local residential roads to avoid Route 15. Based on discussions with local residential communities, there is a significant amount of cut-through traffic by commuters to avoid Route 15 during the peak travel periods. Without improvements to Route 15, travel times are projected to increase in conjunction with increased traffic, exacerbating the issue of cut through traffic on surrounding local residential roads. Improvements to Route 15 will provide a more reliable roadway and reduce the amount of “cut through” traffic in nearby residential communities. Travel time data utilized in the following paragraphs was collected on September 2017 during the AM and PM peak periods. The AM data was collected from 6:00 a.m. to 9:00 a.m. and the PM data was collected from 3:30 p.m. to 6:30 p.m.





Based on information collected, the northbound average travel time was 15.3 minutes, which translates to a cumulative average speed of approximately 44 mph (see Figure 1-6). In the southbound direction, the average travel time was 28.3 minutes, which translates to a cumulative average speed of approximately 24 mph (see Figure 1-7 below). The southbound travel time is longer than that of the northbound direction due to the heavier commuter traffic and associated congestion throughout the corridor, especially at the intersections of Route 15 with Lucketts Road/Stumptown Road, with Montresor Road, and with Whites Ferry Road/Raspberry Drive.

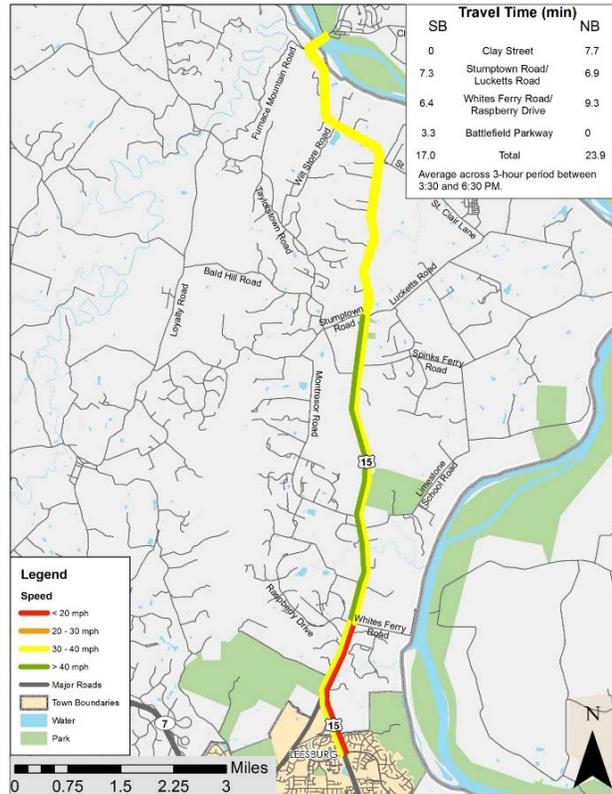
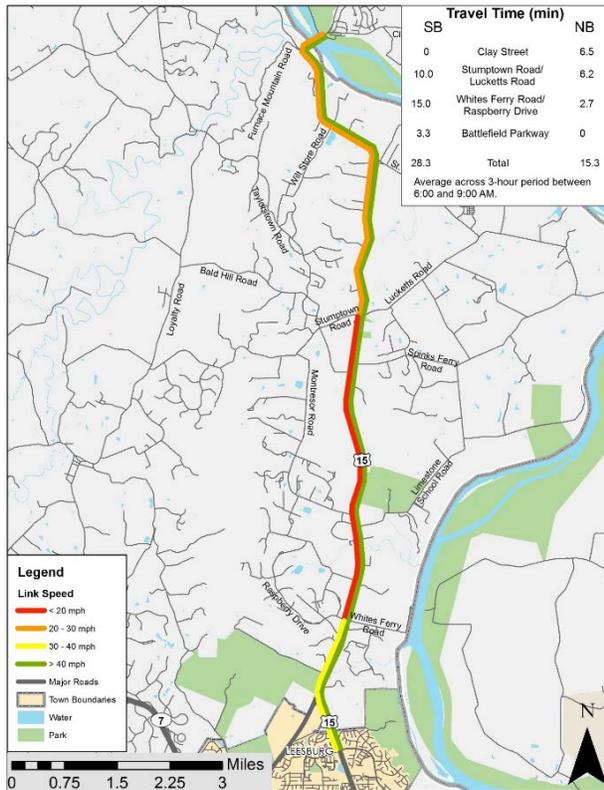


Figure 1-6 – AM Peak Period Travel Time & Speed Map Figure 1-7 – PM Peak Period Travel Time & Speed Map

Transportation Challenge #2 - Queuing

The challenge created by queuing and congestion on Route 15 is that it creates safety concerns on the corridor and negatively impacts business and residential access. Emergency vehicle access along the corridor is also negatively impacted per discussions with Loudoun County Fire and Rescue. Response times during the peak queuing periods result in longer response times. Based on the recommendations from the “Safety and Operations Study” the improvements to be evaluated utilizing this BUILD grant will analyze the installation of shoulders and widening of the roadway which will provide adequate room for emergency vehicle access along with reduced vehicle queues on Route 15. Queue observations were collected on September 14, 2017 during the AM and PM peak periods, at known locations of significant queuing. The three observation locations were as follows:

- Route 15 at Lucketts Road
- Route 15 at Whites Ferry Road
- Route 15 at Clay Street





In the AM peak period, there was notable southbound queuing at the Route 15 and Lucketts Road/Stumptown Road signalized intersection, reaching over 7,000 feet around 7:50 a.m. This pattern of southbound queuing continues as vehicles travel south through the network to Montresor Road. At this intersection, it was observed that vehicles alternate turns with eastbound traffic from Montresor Road, resulting in southbound queues of almost 5,000 feet around 8:30 a.m., and 9,900 feet by 8:50 a.m. This queue also stems from southbound spillback at the intersection of Route 15 at Whites Ferry Road/Raspberry Drive, which was observed in the Route 15 Congestion Report (see Figure 1-8).

In the PM peak period, significant queuing is observed in the northbound direction. As noted in the Congestion Report, significant queuing occurs at the merge of Route 15 with King Street, and at Whites Ferry Road, when the northbound approach is stopped at the red signal. As vehicles travel north beyond Whites Ferry Road, queues occur again at the Route 15 and Lucketts Road traffic signal, resulting in a maximum observed queue of over 4,500 feet at 6:25 p.m. Beyond this signal, the next queue begins over the Maryland border, at the intersection of Route 15 and Clay Street. This northbound queue reached over 4,100 feet around 5:05 pm, which extends across the Potomac River bridge, around the curve at Lovettsville Road for another 2,000 feet to the next horizontal curve on Route 15 (see Figure 1-9 on the right).

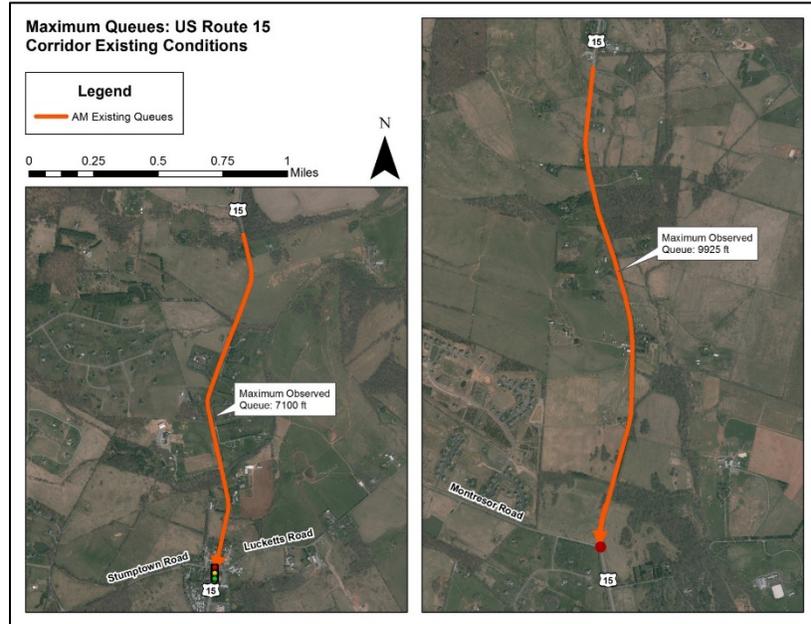


Figure 1-8 – AM Peak Hour Existing Condition Queue Lengths

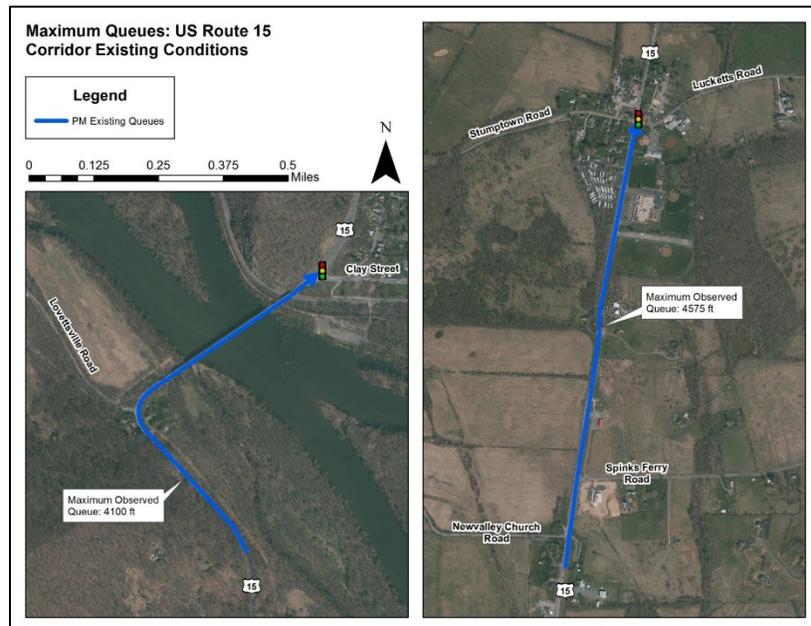


Figure 1-9 – PM Peak Hour Existing Condition Queue Lengths





Transportation Challenge #3 – Level of Service

The challenges related to poor levels of service are linked to the same challenges as travel times and queuing. Poor levels of service are indicative of long queues creating backups and congestion; in some cases almost two miles from the intersection as shown in Figure 1-8. The performance of the existing intersection control and lane configuration cannot handle the existing traffic volume moving through the network. The improvements to be studied with this BUILD Planning Grant will build upon the “Safety and Operations Study” recommendations for intersection improvements throughout the corridor which will begin to address many of these level of service issues. Existing AM and PM peak hour conditions were evaluated using VISSIM 9 traffic modeling software. VISSIM is a microscopic, time-step, and driver behavior based simulation model that uses the driver behavior model for each vehicle in the system. VISSIM was selected to model the oversaturated conditions on US Route 15, merge and weave sections, and study intersections.

Simulation delay and maximum queue length were reported from VISSIM for intersection operational conditions in the study area. Significant stretches to Route 15 as well as two intersections were found to operate at a level of service of F. Figure 1-10 to the right summarizes the results of the VISSIM model.

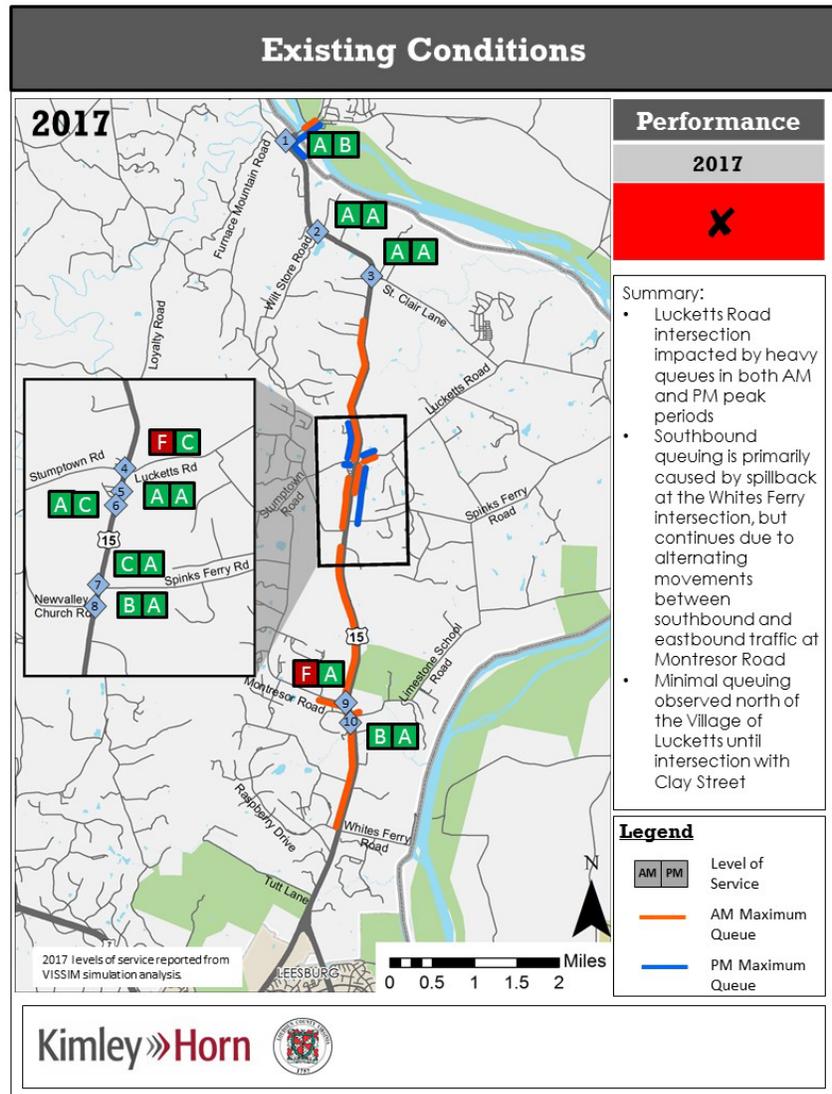


Figure 1-10 – Existing Conditions Level of Service at Route 15 Study Intersections





Transportation Challenge #4 – Safety

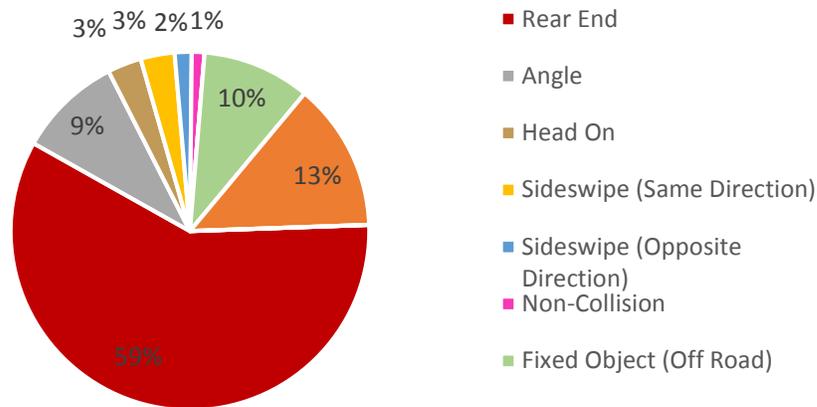
Safety was listed as the primary concern by the public and prompted the need for the “Congestion Report¹” and “Safety and Operations Study²” on Route 15 north of Leesburg. The primary concerns are due to the lack of safety from the existing roadway cross section which lacks adequate shoulders, two-way undivided traffic flow, heavy vehicular volume, and over 120 access points to businesses and driveways along the corridor. In many locations along the corridor, the intersection and driveway access locations do not meet the existing spacing standards set forth by VDOT, thus creating unsafe turning movements on and off of Route 15. The improvements to the corridor will address access to the roadway by limiting it to key intersection locations, widening shoulders, and providing a median to separate oncoming traffic from potential conflict. Crash data for Route 15 from Battlefield Parkway to the Maryland State line (milepost 231.15 to 241.95) was used to evaluate historical corridor safety and identify crash patterns. Crash data was obtained from VDOT for the latest available five years of crash data, as well as, the available 2017 crash data (January 1, 2012 to June 30, 2017).

Over the 5.5-year period for which crash data was collected, there were a total of 531 crashes on Route 15 in the study corridor. There were 396 Property Damage Only (PDO) crashes, 131 injury crashes, and four fatalities as shown in Table 1 below. Of the injury crashes, 16 were categorized as Type A or severely injured. Police reports (FR-300s) were collected for the severe Type A injury and fatal crashes.

Table 1: Route 15 Crash Year Summary

Year	2012	2013	2014	2015	2016	2017*	Total
Fatality	1	0	0	1	0	2	4
Injury	20	17	29	23	28	14	131
PDO	51	69	66	83	90	37	396
Total	72	86	95	107	118	53	531

Note: 2017 crash data was only available through June 30, 2017



¹ <https://lfportal.loudoun.gov/LFPortalInternet/0/doc/218963/Electronic.aspx>

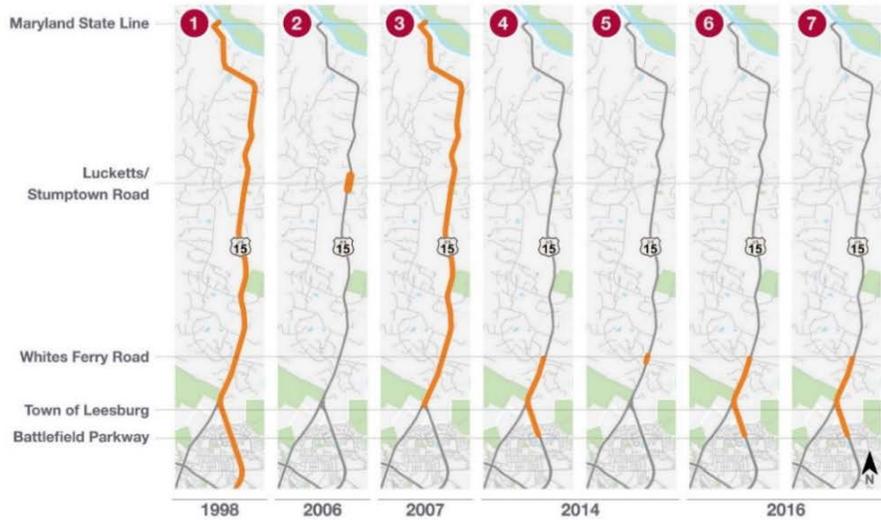
² <https://www.loudoun.gov/ArchiveCenter/ViewFile/Item/7805>





SECTION 1.3: PROJECT HISTORY

Route 15 north of Leesburg has been a major point of study in Loudoun County to address ongoing safety concerns in the corridor. The previous studies have led to the latest “Safety and Operations Study” which shows a majority of the public opinion that “something needs to be done to improve the corridor³” (97% of the public voted yes). The timeline below in Figure 1-11 provides a summary of the history of studies completed along the Route 15 corridor:



US Route 15 Summary of Previous Studies and Implementation Status

Study	Recommendations	Implemented
1 1998 Route 15 Safety Study – North Segment VDOT	Provide a paved shoulder	Yes
	Remove fixed objects within the clear-zone	Mostly
	Install left-turn lanes	Yes
	Spot improvements (e.g., improve signage, add right-turn lane, etc.)	Yes
	Truck pull-out location	Yes
2 2006 US Route 15 Roadway Safety Improvements – Village of Lucketts Loudoun County	Splitter islands safety improvements	No
	School turn lane improvements	No
	Intersection improvements	No
	Intersection improvements with 662 Extension	No
3 2007 Route 15 Safety Assessment VDOT	0.02 mi. north Rt 655 Whites Ferry Rd to 0.27 mi. south Rt 662 Lucketts Rd	Yes <i>(note: no right-turn lane at Limestone School Road)</i>
	Lucketts: 0.28 mi. south to 0.19 mi. north Lucketts Rd <i>(Recommendations from 2006 County project)</i>	No
	Lucketts to Maryland state line	Guardrail only
4 2014 Route 15 By-Pass Operational Study Town of Leesburg	Battlefield Parkway to Whites Ferry Road intersection improvements	No
5 2014 US Route 15 at Whites Ferry Road/Raspberry Drive Town of Leesburg	Study concluded neither a single- or two-lane roundabout will provide congestion relief	No
6 2016 US 15 Congestion Relief Analysis – North of Leesburg VDOT	Study recommended two alternatives: - Alternative 4A (dual-lane roundabout at Whites Ferry Rd) - Alternative 6 (widen Route 15 from Battlefield Parkway past Whites Ferry Road)	No
7 2016 Battlefield Parkway/Leesburg Bypass Congestion Relief Analysis Town of Leesburg	Study concluded that the intersection congestion cannot be mitigated unless Route 15 capacity is increased through the Whites Ferry Road intersection	No

Figure 1-11 – U.S. Route 15 Summary of Existing Studies

³ <https://www.loudoun.gov/ArchiveCenter/ViewFile/Item/7722>





SECTION 2: PROJECT LOCATION

SECTION 2.1: ABOUT LOUDOUN COUNTY



Figure 2-1 – Loudoun County Location Map

Loudoun County is located in the Washington Metropolitan Area of the Commonwealth of Virginia, 25 miles northwest of Washington D.C. as depicted in red in Figure 2-1 on the left. It encompasses a 520-square mile area that is bordered by the Blue Ridge Mountains on the west and the Potomac River on the northeast. Loudoun County has evolved from a collection of rural villages to a world renowned suburban community 25 miles from the nation’s capital, known for its high-quality neighborhoods, excellent

schools, and growing technology business sector. In the early days, Loudoun was primarily an agricultural community with dairy farms located along the Washington and Old Dominion (W&OD) Railroad that served Washington, DC customers. The closing of the railroad and opening of Dulles International Airport in the early 1960’s marked an important shift in Loudoun County’s history, spurring development and prosperity.

The County has a long history of strong community support for maintaining the quality of life and community character offered in Loudoun. County actions have been driven by policy directions included in the County’s Comprehensive Plan (the Plan) founded on the principles of smart and managed growth. For decades, the County has supported the protection of its rural and agricultural areas to the west, and focused development in suburban areas to the east. The County has accommodated growth near existing infrastructure to support development in a fiscally sound manner, and in close proximity to Dulles International Airport and Washington, DC where the market forces are strongest for new residential and employment development. The established policy areas as shown in Figure 2-2 on the right.

The Plan has resulted in some of the most highly valued residential communities in the

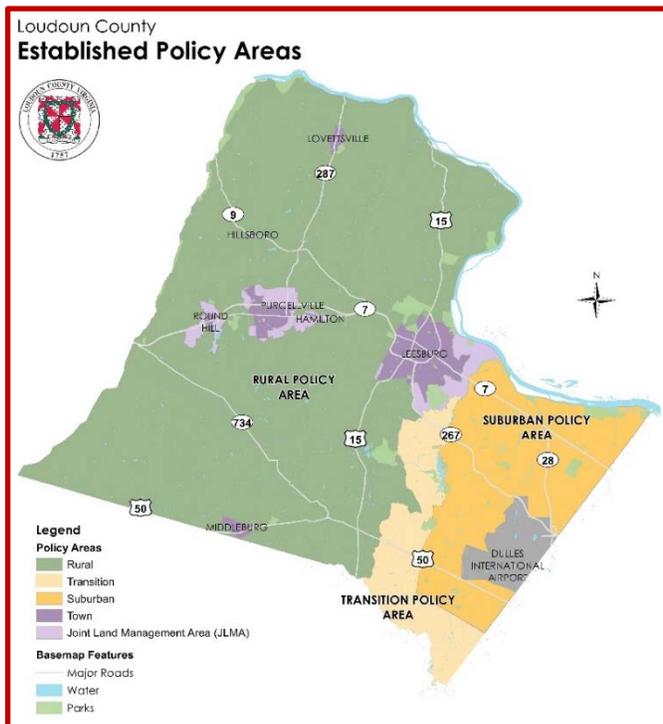


Figure 2-2 – Loudoun County Established Policy Areas Map





region. The Plan encourages new business development in designated areas to provide job opportunities to residents and reduce the tax burden on County citizens with business and commercial generated revenue.

SECTION 2.2: U.S. ROUTE 15 IMPORTANCE TO LOUDOUN COUNTY

U.S. Route 15 plays an integral role in the transportation network developed in support of Loudoun County’s Comprehensive Plan and the regional traffic flows within the Commonwealth of Virginia generally shown in Figure 2-3. Within Loudoun County, U.S. Route 15 is a primary north-south route, connecting Loudoun County to Prince William County to the south and connecting both Loudoun County and the balance of the State of Virginia to the State of Maryland via the Point of Rocks Bridge to the north.

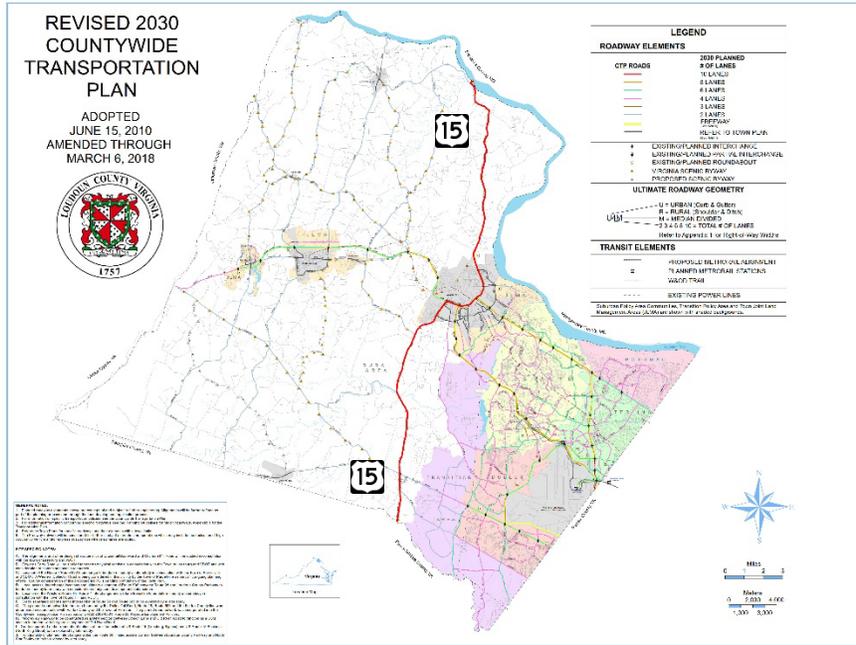


Figure 2-3 – Loudoun County 2030 Countywide Transportation Plan

Identified in the Loudoun County Countywide Transportation Plan, U.S. Route 15 provides primary connection to the Town of Leesburg, the County Seat of Loudoun County, to the balance of the County. U.S. Route 15 also passes through the Village of Lucketts. Between the Town of Leesburg and the Maryland State line, U.S. Route 15 serves as a major commuter route and provides access to the rural tourism area of Loudoun County. U.S. Route 15 supports local agricultural practices and businesses as well as local and regional through traffic. The rural nature of the roadway is one that the public has strongly expressed a need to be maintained while recognizing safety and congestion relief improvements need to be made along the roadway.





SECTION 2.3: VIRGINIA CONNECTION TO MARYLAND

With the Potomac River forming the boundary of Virginia and Maryland, only six roadway connections exist between the two states across the river. Each connection is vitally important to the inter-state travel between the two states. In 2017 U.S. Route 15 carried approximately 20,500 vehicles per day across the Potomac River between Virginia and Maryland. The bridge is depicted in Figure 2-4 on the right. As compared to 2007 VDOT AADT data at the same location U.S. Route 15 carried approximately 18,000 vehicles per day, an increase of 2,500 vehicles per day at the state border.



Figure 2-4 – The US Route 15 at the Point of Rocks Bridge over the Potomac River

Within the State of Virginia, U.S. Route 15 allows traffic from Maryland to access employment areas in the Northern Virginia suburbs surrounding Washington D.C. U.S. Route 15 connects to State Route 7 providing access to the dense employment areas of Reston and Tysons Corner. There is a significant directional flow of traffic. Due to the growing jobs available in the Dulles corridor, there is a significant southbound flow of traffic in the morning from Maryland to Virginia jobs and northbound in the evening for Maryland residents to return home. U.S. Route 15 connects to State Route 267 providing access to Dulles International Airport and its surrounding employment areas. U.S. Route 15 also connects to Interstate 66 providing access into Washington D.C.

Within the State of Maryland, U.S Route 15 connects to Interstate 70 in Frederick, Maryland allowing traffic from Virginia to access all western Maryland and eastern West Virginia. Continuing north, U.S. Route 15 provides Virginia traffic access to points further north in Pennsylvania and western New York.





Table 2 – U.S. Route 15 Cost Estimate for P.E. and NEPA Compliance

Project Component	Cost Estimate
Project Management	\$50,000
Project Meetings	\$60,000
Existing Conditions Survey	\$175,000
Geotechnical Investigation	\$90,000
Subsurface Utility Identification	\$55,000
Environmental Investigations	\$110,000
Develop Concept Plans	\$85,000
Develop Project Estimate & Schedule	\$35,000
Preliminary Roadway Plans	\$150,000
Hydraulic Analysis	\$85,000
Traffic Control Device Design	\$110,000
Landscape Design	\$75,000
Stream/Wetland Coordination	\$75,000
Cultural/Historic Resources	\$70,000
Hazardous Material Assessment	\$45,000
Section 106 Coordination	\$65,000
Publish Draft NEPA Document	\$130,000
Preliminary Utility Field Inspection	\$25,000
Right-of-Way Assessment	\$65,000
Value Engineering	\$50,000
Stakeholder Meetings	\$250,000
Public Hearing	\$50,000
Plan Design Changes from Public Hearing & VE Input	\$95,000
Total Estimated Project Cost	\$2,000,000

SECTION 3.3: FUNDING SOURCES

The Loudoun County Board of Supervisors places a high priority on the careful planning of its transportation network. In support of the planning of U.S. Route 15 improvements, the Board has already expended \$993,054 in developing the “Route 15 Safety and Operations Study” to allow this project to move into the preliminary engineering and NEPA compliance phase.

As referenced in Section 3.2, the total cost of the preliminary engineering and NEPA compliance is \$2,000,000. As reflected in the Loudoun County adopted FY2019 Capital Improvement Budget which can be found [here](#), the Loudoun County Board of Supervisors has dedicated \$4,250,000 in fiscal year 2019 to hire consulting services from private firms to help deliver projects. As growth in Loudoun County results in multiple project needs, Loudoun County is prepared to expend an additional \$1,000,000 to advance this critical project. Loudoun County is requesting consideration for \$1,000,000 match in federal BUILD grant funds to complete funding for this project. Table 3 below provides a summary of funding for this project.

Table 3 – Funding Sources for the U.S. Route 15 Planning Project

Type of Funding	Source	Amount
		FY 2019
Local Tax Funding	Local Tax Funding and Local Tax Funding - Roads	\$1,000,000 (50%)
BUILD Funding	U.S. DOT	\$1,000,000 (50%)
Total Funding by Fiscal Year		\$2,000,000 (100%)





SECTION 3.4: PROJECT FUNDING RESTRICTIONS

There are no restrictions to the use of identified project funding for this project. The Loudoun County Board of Supervisors has made this project a priority and is prepared to begin the preliminary engineering and NEPA compliance phase of this project upon award of BUILD funds.

SECTION 4: MERIT CRITERIA

Safety and capacity improvements to U.S. Route 15 will facilitate coordination and connectivity within the County’s emerging surface transportation system; support long-standing principles, policies, and plans for growing smarter and greener in the County; and contribute to making Loudoun County more enjoyable for all of its residents. The U.S. Route 15 project aligns well with the eight selection criteria within the BUILD program and qualities within each criterion as detailed in the subsequent section.

SECTION 4.1: SAFETY

A primary reason for the study of U.S. Route 15 is the frequency and severity of crashes that occur along the stretch of U.S. Route 15 between the Town of Leesburg and the Maryland State line. The U.S. Route 15 project will provide recommended improvements specifically designed to reduce crashes and increase driver and pedestrian safety. As shown in Figure 4-1 to the right, U.S. Route 15 is currently a two-lane, undivided roadway with narrow shoulders. The high volume of traffic utilizing U.S. Route 15, existing sub-standard roadway geometrics and high roadway speeds combine to present an unacceptable level of risk along this primary regional roadway.



Figure 4-1 – Intersection of U.S. Route 15 at Lovettsville Road Traveling Southbound

Based on the recommended improvements from the “Route 15 Safety and Operations Study” the resulting U.S. Route 15 improvements will focus on increasing motorist and pedestrian safety throughout the project corridor through a reduction in crash frequency. As detailed in the “Route 15 Safety and Operations Study”, and per Table 4 below, 531 crashes were reported between January 2012 and June 2017.

Table 4 - Route 15 Crash Summary by Year

Year	2012	2013	2014	2015	2016	2017*	Total
Fatality	1	0	0	1	0	2	4
Injury	20	17	29	23	28	14	131
PDO	51	69	66	83	90	37	396
Total	72	86	95	107	118	53	531

Note: 2017 crash data was only available through June 30, 2017

During this period, crash frequency has increased on an annual basis by approximately 10%. The figures below (Figures 4-2 to 4-4) depict the crash severity along the Route 15 corridor from The Point of Rocks Bridge to Battlefield Parkway.





Four of the 531 crashes recorded along this stretch of U.S. Route 15 resulted in a fatality. One fatality happened on December 25, 2012 about 0.10 miles south of Black Walnut Lane during daylight. The vehicle was weaving between the northbound and southbound lanes multiple times. Due to the lack of a median and adequate shoulders the driver ran off road, hit a utility pole, resulting in one fatality.

A second fatality occurred on November 25, 2015 approximately 100 feet north of Selma Lane during a clear night, on a road segment with **no road lighting present**. A vehicle traveling northbound veered to the southbound lane, striking the second vehicle. The vehicle at fault ran off road hitting a fence on the side of the road, resulting in one fatality.

The third fatality happened on January 3, 2017 about 500 feet south of Newvalley Church Road during a rainy night, on a road segment with **no road lighting present**. The vehicle at fault was traveling southbound on US 15 when he fell asleep and crossed over to the northbound traffic lane. This was a head-on collision that resulted in a serious injury and a fatality.

The fourth fatality happened on March 22, 2017 about 400 feet north of Rocky Meadow Lane during a clear night, on a road segment with **no road lighting present**. The vehicle crossed over to the northbound traffic lane due to the lack of a median causing a head-on collision that resulted in a fatality for the vehicle with no improper action.

The following figures detail both the location and type of crash recorded along this stretch of U.S. Route 15 between 2012 and 2017.

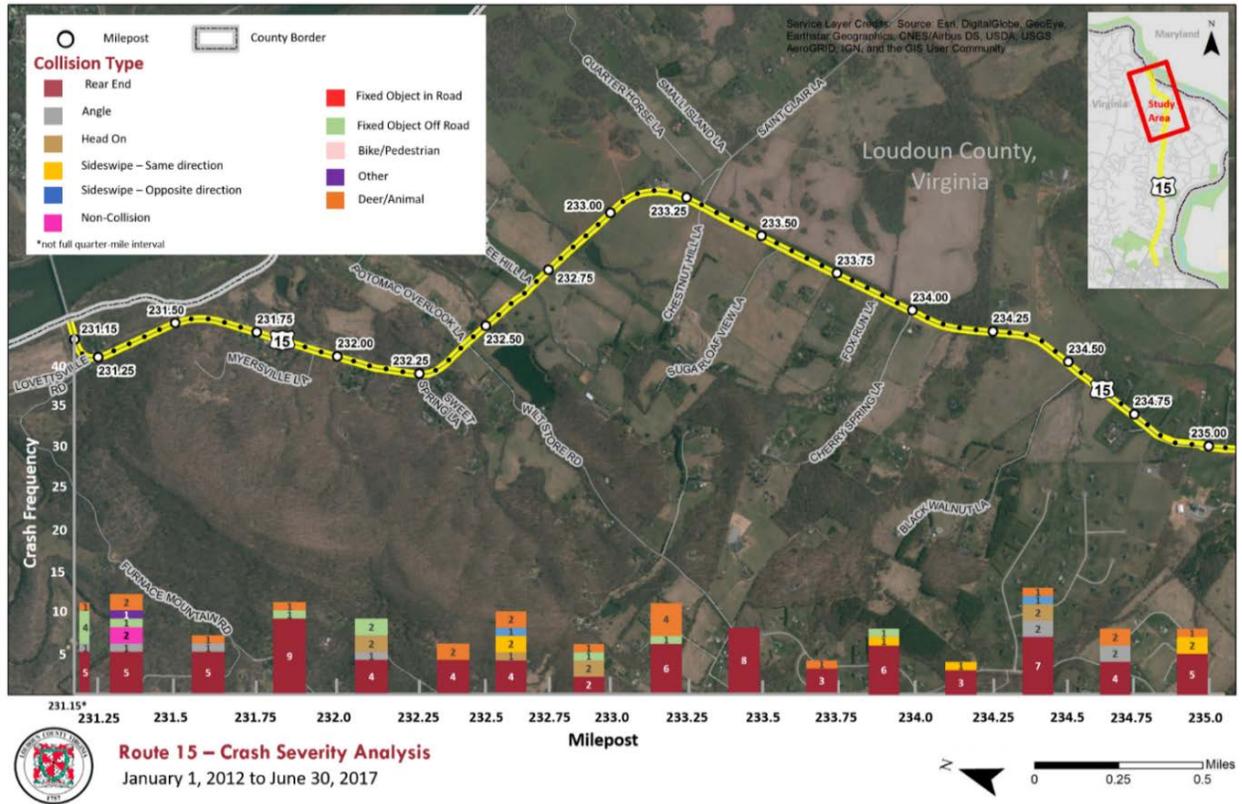


Figure 4-2 - Route 15 Crash Severity Map: Maryland State Line to the Village of Lucketts



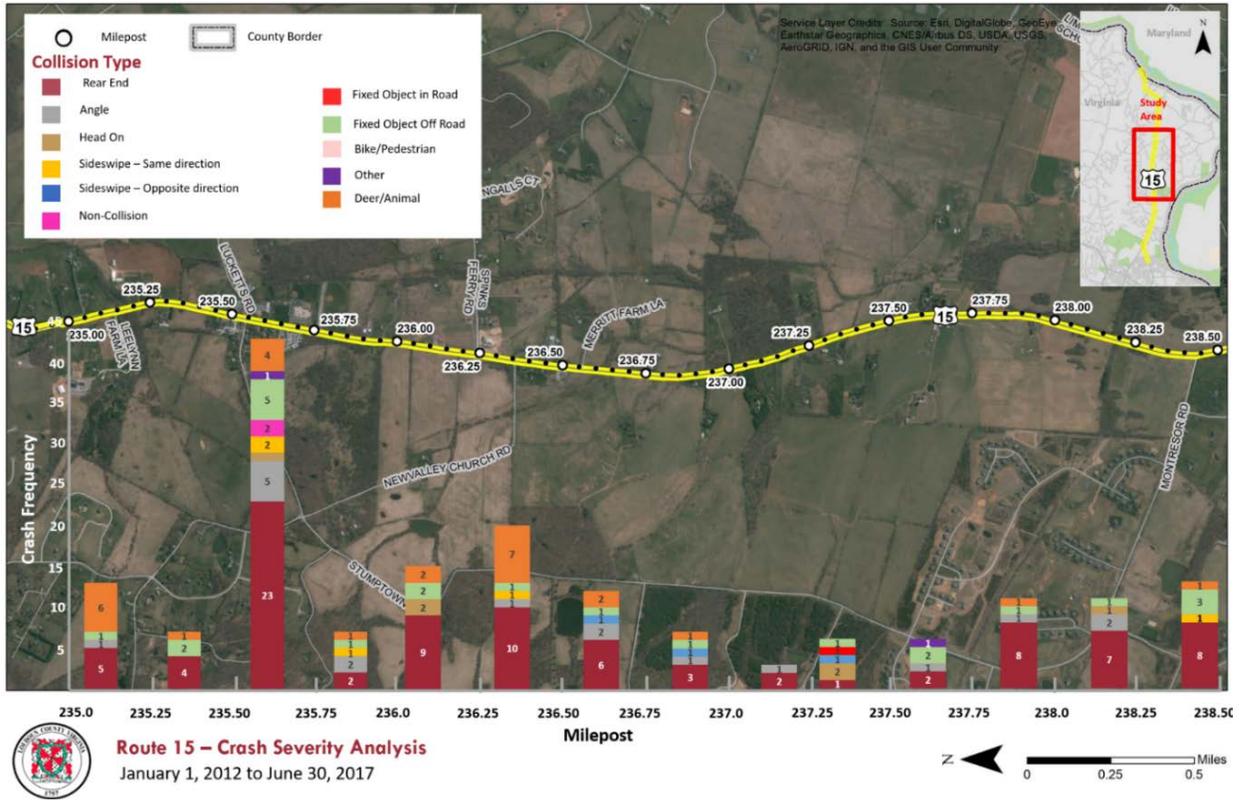


Figure 4-3 – Route 15 Crash Severity Map: The Village of Lucketts to Montresor Road

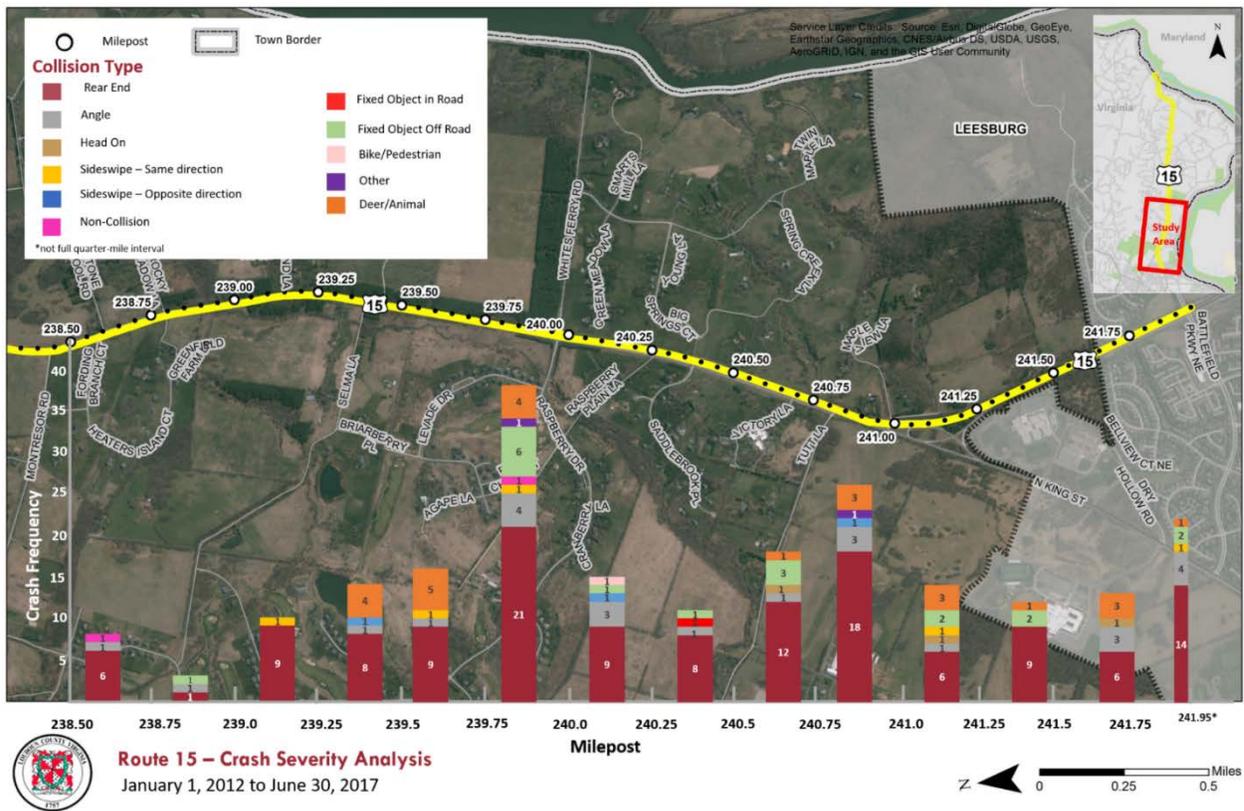
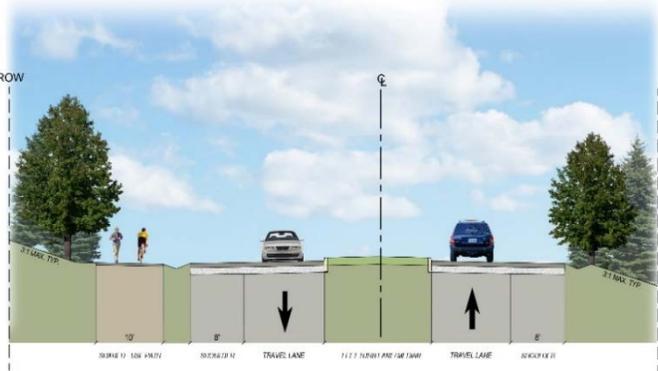


Figure 4-4 – Route 15 Crash Severity Map: Montresor Road to Battlefield Parkway





The data provided above in Figures 4-2 to 4-4 has been utilized by Loudoun County to develop conceptual improvement plans to specifically address the safety of U.S. Route 15. In areas where capacity improvements may not be made, Loudoun County could consider the use of a raised median to separate northbound and southbound traffic per Figure 4-5 to the right. In locations where angle crashes and rear-end collisions are most prevalent, Through the “Route 15 Safety and Operations Study” Loudoun County plans to install roundabouts to calm traffic and improve the speed consistency within the corridor. In the vicinity of the Village of Lucketts, a by-pass is being studied to eliminate heavy traffic back-ups through the village and improve pedestrian use within the village. In other locations, shoulder widening, improved lighting and intelligent transportation systems will be utilized to enhance motorist and non-motorist safety.



US Route 15 2 Lane Divided Rural Shoulder Typical Section

N.T.S.

Figure 4-5 – U.S. Route 15 Potential Typical Section with a Raised Median

SECTION 4.2: ECONOMIC COMPETITIVENESS

Of the five criteria utilized to determine the economic competitiveness of the proposed project, the improvements to U.S. Route 15 will offer the following concrete benefits:

Decrease Transportation Costs and Improve Access: Improvements to U.S. Route 15 will result in decreased transportation costs and improve access to not only points in Loudoun County but to the entire region comprised of Virginia and Maryland. Decreased transportation costs will come primarily in the form of travel time savings resulting from the improvements recommended in the study. The recommended improvements will also set forth to improve access utilizing safer intersection control and providing more reliable access to businesses and homes along the corridor and within the region.

Improve Long-Term Efficiency, Reliability or Costs in the Movement of Workers or Goods: U.S. Route 15 provides a primary commuter route for the residents of Maryland traveling to employment areas in Northern Virginia. Southbound AM peak hour volumes are 892 vehicles per hour while northbound PM peak hour volumes are 1,004 vehicles per hour. With average daily volumes at the Virginia/Maryland border of 20,500 vehicles per day, improvements to U.S. Route 15 will substantially improve both the efficiency and reliability of a major commuter route serving both the State of Virginia and Maryland.





U.S. Route 15 not only serves commuters, but also serves heavy commercial traffic. Based on traffic counts taken as part of the “Route 15 Safety and Operations Study”, heavy commercial vehicles comprised between 2.5% and 8.5% of traffic on U.S. Route 15 during peak hour travel. Improvements to U.S. Route 15 will improve the reliability of movement of goods along this corridor with direct benefits to the economies of both Virginia and Maryland.

Increase the Economic Productivity of Land, Capital, or Labor: The portion of U.S. Route 15 between the Town of Leesburg and the Maryland state line is located in the heart of Loudoun County’s growing rural agritourism economy. Agritourism is an economic driver in Loudoun County, an area that has some of the best soil in the state and has managed to conserve its farmland.

According to the Loudoun County Department of Economic Development, approximately 51 percent of farmed-based tourism in northern Virginia’s ten counties is in Loudoun County. More than 1 million visitors contribute to Loudoun’s agritourism most of them from outside of Loudoun County. Collectively, agritourism visitors add approximately \$383 million into Loudoun County’s rural economy.

Loudoun’s agritourism economy is comprised largely of wineries, breweries, orchards and farms. These small businesses are almost completely dependent on visitors from points around the Washington D.C. metropolitan region. A map of the wineries and vineyards are depicted in Figure 4-6 above. As U.S. Route 15 is the primary means of connecting many of these small businesses to the rest of the region, the success of many of these businesses is highly dependent on the ability of U.S. Route 15 to accommodate these visitors safely.

Result in Long-Term Job Creation and other Economic Opportunities: With improvements to U.S. Route 15, economic development centered around agritourism in Loudoun County will bring with it high-paying jobs and other economic opportunities to the citizens of Loudoun County.

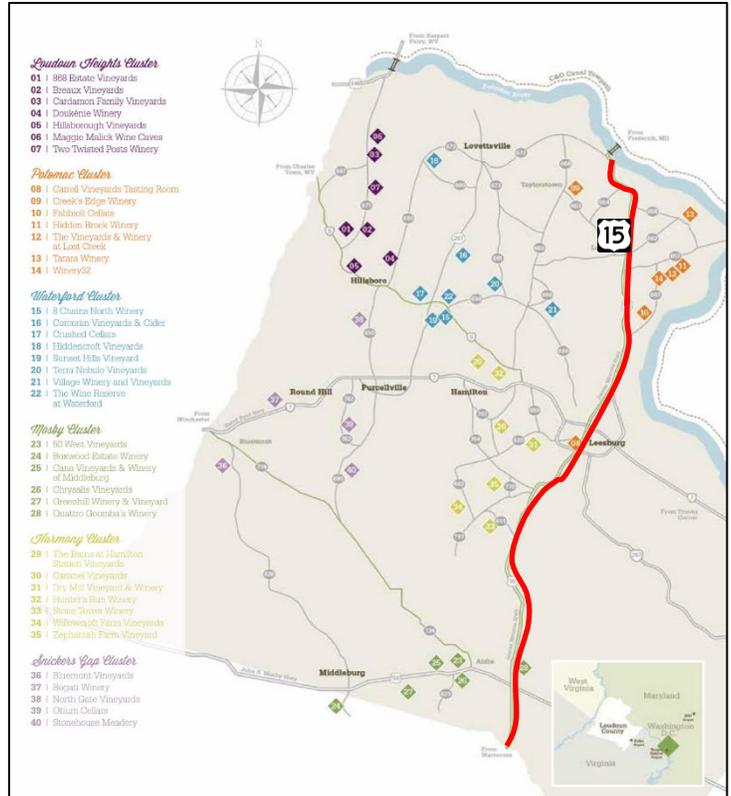


Figure 4-6 - Loudoun County Map Depicting Vineyards within the County





Help the United States Compete in a Global Economy by Facilitating Efficient and Reliable Freight Movement: Improvements to U.S. Route 15 will strengthen inter-state travel between the states of Virginia and Maryland. A graphic of trucks utilizing Route 15 are shown in Figure 4-7. With approximately 365,000 heavy commercial vehicles passing between Virginia and Maryland annually on U.S. Route 15, improvements to the corridor will result in more efficient and reliable freight movement between the two states.



Figure 4-7 - Truck Traffic on U.S. Route 15

SECTION 4.3: QUALITY OF LIFE

Improvements to U.S. Route 15 will help make the County more sustainable and livable for all of its residents, workers, and visitors by providing choices to address their transportation needs. Specific benefits the project that will offer people in terms of quality of life include:

Freedom of Transportation Choices: Improvements to U.S. Route 15 is critical to transportation choices in the Washington D.C. metropolitan region. With only six roadway connections between Virginia and Maryland along its 254-mile border, ensuring the viability of each roadway connection is of utmost importance. U.S. Route 15 not only provides access between the States of Virginia and Maryland but is also the primary transportation option for a large swath of Loudoun County’s rural population.

Access to the rural economy of Loudoun County: Improvements to U.S. Route 15 will provide improved access to the rural portions of Loudoun County. The western portion of Loudoun County is a rural area supported in large part by small farms and wineries that are supported through the regional tourism economy. This roadway improves the primary route by which the population of Northern Virginia as a whole can enjoy this unique rural experience. Figure 4-9 to the right depicts the historic Village of Lucketts and local shops which attract regional tourism to the area.



Figure 4-9 – The Historic Village of Lucketts at the Intersection of Lucketts Road and U.S. Route 15

Expand Access to Essential Services for Rural Communities:

U.S Route 15 provides, in many cases, the only route by which residents of rural Loudoun County can access essential services including health care, commerce and other daily needs. Improvements to U.S. Route 15 will expand this access by alleviating the significant congestion facing these residents on a daily basis. The recommended improvements from the “Route 15 Safety and Operations Study” also call for widened shoulders which improve safety for farm vehicles to maneuver on the roadway and better access for turning movements in and out of driveways.





SECTION 4.4: ENVIRONMENTAL PROTECTION

Improvements to U.S. Route 15 will help make the County more sustainable and livable for all of its residents, workers, and visitors by providing choices to address their transportation needs. Specific benefits the project that will offer people benefits in terms of environmental protection include:

Reduce Energy Use and Air or Water Pollution through Congestion Mitigation Strategies: By relieving the significant congestion currently experienced in this portion of Loudoun County, improvements to U.S. Route 15 will improve the overall gas mileage experienced by drivers utilizing the improved roadway. Improved gas mileage will directly result in reduced air pollution resulting from idling vehicles.

Adverse Environmental Impact Avoidance: Improvements to U.S. Route 15 will employ some of the newest and most efficient stormwater controls being utilized across the country. These controls will likely include groundwater recharge facilities, storm water management ponds with wetland forebays and stormwater filters. It is expected that as a result of the implementation of these controls, improvements to U.S. Route 15 will result in no net increase of surface runoff.



Figure 4-8 - Catoclin Rural Historic District Signing in the Village of Lucketts

SECTION 4.5: STATE OF GOOD REPAIR

The study of U.S. Route 15 will look for solutions to improve the condition and resilience of the existing transportation network serving Loudoun County residents. Specific means by which this project achieves this goal includes:

Consistency with transportation maintenance plans: The proposed U.S. Route 15 project will be designed and constructed in accordance with Virginia Department of Transportation (VDOT) standards. Alternative intersection and context sensitive design as detailed by VDOT will be utilized for the evaluation of the roadway to determine the best fit solutions within the corridor. By designing and constructing this project to meet these stringent requirements, the new roadway will be accepted into the State’s Secondary Road system and be maintained by VDOT throughout its operational life.

Potential Threat to Future Transportation Network: Without improvements to U.S. Route 15, crash frequency is projected to continue to increase at an unacceptable rate. Motorists will become more and more dependent on U.S. Route 15 for access between Virginia and Maryland as volumes on heavily travelled Interstate 495 between the two states continue to grow at rates exceeding 3% per year. Increased crashes and substandard roadway geometrics will continue to contribute to increasing delays and resulting in even longer periods of unacceptable levels of service currently being provided by the roadway. U.S. Route 15 will always serve as only one of six connections between the States of Virginia and Maryland and the first crossing west of the I-495 American Legion Bridge. If improvements are not made, commerce between the two states will ultimately





be negatively impacted.

Appropriate capitalization: The proposed U.S. Route 15 project enjoys the strong support of Loudoun County residents. With 97% of respondents indicating that improvements are critical on U.S. Route 15, the Loudoun County Board of Supervisors has made improving U.S. Route 15 a high priority. Loudoun County already allocates two cents of the tax rate each year (currently \$13.6 million per year) toward transportation projects to reduce congestion in the county. The county also utilizes proffered contributions, in the form of cash, land, or constructed improvements, that are donated by developers as part of rezoning application approvals. Another strategy, debt financing, allows the county to spread the cost of projects out over the life of the investment.

As of July 1, 2015, more than one billion dollars is allocated for active transportation projects in the County the most money at any one time in the County’s history. Loudoun County aims to leverage all available federal, state, and regional resources to maximize the positive impact of local contributions toward the timely delivery of road and transit improvements in the county.

As previously mentioned, the Board has already authorized the expenditure of almost one million dollars (\$1,000,000) to get to this point. Loudoun County has both the political will and financial means to improve U.S. Route 15. By meeting Virginia Department of Transportation standards, VDOT will accept the upgraded facility into its system for maintenance.

Sustainable Source of Revenue for Operations and Maintenance: The Virginia Department of Transportation is responsible for the operation and maintenance of most public roadways in the State of Virginia except in towns and counties where the local jurisdiction has assumed responsibility. The design of U.S. Route 15 improvements will be performed in accordance with Virginia Department of Transportation (VDOT) standards. By designing and constructing this project to meet these stringent requirements, the improved roadway will be accepted into the State’s Secondary Road system and be maintained by VDOT throughout its operational life.

Plan to Maintain Transportation Infrastructure: As discussed previously, the Virginia Department of Transportation has maintenance responsibility for all roadways in the State of Virginia. As VDOT currently maintains U.S. Route 15, no change in maintenance responsibility will occur as a result of the improvements to U.S. Route 15.

SECTION 4.6: INNOVATION

Loudoun County is a leader in transportation innovation. As part of the proposed U.S. Route 15 improvements, the County will incorporate both design innovations and project delivery innovations to improve the project’s overall performance. All innovations on the project will be looked at in a context sensitive aspect to remain in character with the rural bucolic nature of the roadway and to stay within the Journey Through Hallowed Ground guidance.

Design Innovations: As part of ongoing efforts to implement its Intelligent Transportation System (ITS), Loudoun County will install a new portion of duct bank in which fiber optic communications will continue to be advanced across the County. Loudoun County will utilize this fiber optic system to install cameras at traffic signals to monitor traffic flows. In addition, Loudoun





County is in the process of identifying locations for installation of variable message signs to advise motorists of anticipated travel times to points both within and outside of Loudoun County. One such location being considered is the interchange of U.S. Route 15 and State Route 7 in Leesburg, Virginia.

At the June 21, 2018 Loudoun County Board of Supervisors Business Meeting, the Board adopted a Broadband Strategic Plan for Loudoun County. The Plan provides goals and actions that work collectively to seek expansion and further improve broadband services for the County, and more specifically, rural Loudoun. Since 2006, the County has continued to make incremental advances with respect to broadband in the rural areas of Loudoun County. The Plan provides suitable goals and objectives including identifying past, current and future work efforts toward implementing this overall strategy. The County will continue to explore the creation of a Loudoun County “open trench” policy, based upon Federal, State and other local governmental legislation; for installation of empty conduit in key transportation corridors and core commercial areas whenever roads are opened to cost effectively extend fiber optic networks.

From an environmental perspective, Loudoun County continues to utilize some of the most cutting-edge stormwater controls available in the United States. As mentioned earlier, the design of the U.S. Route 15 improvements will implement groundwater recharge facilities and wetland forebays to eliminate increases in stormwater surface runoff from this project.

Project Delivery Innovations: Loudoun County has recently begun utilizing a design-build delivery method for its larger transportation projects. The Route 772 Transit Connector Bridge project is the latest in a successful partnership with a design-build team to deliver a project under budget and ahead of schedule. While a final decision on the delivery method will depend on the timing of project funding, the County continues to strive to find ways to deliver projects in the most efficient manner.

SECTION 4.7: PARTNERSHIP

Loudoun County is the proposed FY 2018 BUILD Planning Grant recipient for this critical project. The project will be administered by the Loudoun County Department of Transportation and Capital Infrastructure. The County’s primary partner in this endeavor will be the Virginia Department of Transportation (VDOT). VDOT will be responsible for reviewing the completed design plans and accepting the completed roadway into its State Secondary Road System for maintenance.



NVTA - The Authority is responsible for long range transportation project planning, prioritization and funding for regional transportation projects in Northern Virginia. The NVTA’s policies and priorities are guided by two overarching goals: reduce congestion and move the greatest number of people in the most cost-effective manner. These two goals are combined with performance-based criteria such as the ability to improve travel times, reduce delays, connect regional activity centers, and improve safety and air quality. The Authority works toward regional consensus when setting regional transportation policies and priorities for transportation projects. The Authority is also charged with developing and updating the long range regional transportation plan for Northern Virginia,





currently TransAction 2040. NVTA has already committed to help fund the improvements to the portion of U.S. Route 15 from Battlefield Parkway to Montresor Road.



The Virginia Department of Transportation is responsible for the maintenance of virtually all public roads within the State of Virginia from subdivision streets to interstate highways. Upon completion of a road construction project, VDOT works with the party responsible for the construction of the road to accept the road into its maintenance program.

This project enjoys wide support from the region’s elected officials. To date meetings have been held with the following agencies:

- | | |
|--|--|
| 1. VDOT | 8. Bike Loudoun |
| 2. The Town of Leesburg | 9. Morven Park |
| 3. NVTA | 10. Loudoun County Parks and Recreation Department |
| 4. Frederick County (Maryland) Transportation Department | 11. Loudoun County Public Schools |
| 5. Maryland State Highway Administration | 12. Loudoun County Sheriff’s Office |
| 6. Northern Virginia Regional Park Authority | 13. Loudoun County Fire and Rescue |
| 7. The Journey Through Hallowed Ground | 14. Virginia State Police |

In support of this project, Loudoun County has conducted multiple public meetings to ensure private citizens have a voice in the planning of this important project. To date, Loudoun County has led five separate public meetings to discuss the challenges associated with U.S. Route 15 and potential solutions. A picture from the Public Meeting held at the Lucketts Community Center is pictured in Figure 4-10 to the right.



Figure 4-10 – Public Meeting for the Route 15 Safety and Operations Study at the Lucketts Community Center

Through a careful surveying of interested citizens, Loudoun County has been able to develop a comprehensive sense of the desires of the private citizens that utilized U.S. Route 15 on a daily basis. Loudoun County places a high priority on citizen engagement regarding proposed projects and is proud of the participation of its citizens.

Letters of support for this project are included as **Attachment 2**.

SECTION 4.8: NON-FEDERAL REVENUE FOR FUTURE TRANSPORTATION INFRASTRUCTURE INVESTMENTS

Loudoun County History of Commitment to Transportation Funding

For the last eight years the Board of Supervisors has identified transportation improvements as one of the most significant strategic goals for the County. As a reflection of the Board’s commitment to this strategic goal a policy to designate \$0.02 per \$100 of assessed value of local real estate property





taxes was established in FY 2012 to meet the challenges of funding a growing transportation network. Building on this effort, the Board of Supervisors embarked on a robust transportation component of the County’s Capital Improvement Program (CIP), which as of 2018 has grown to a level such that transportation comprises over 50% of all CIP funding. Loudoun’s CIP is now one of the largest transportation programs administered by a local government in the United States. In 2013 the Virginia General Assembly approved new funding through HB 2313 providing funds specific to localities and for projects within the region.

Funding Sources:

The planning, design, construction, operation and maintenance of a multi-modal transportation system are completely dependent upon the availability of adequate funding. The funding of transportation infrastructure requires significant expenditure of capital, typically beyond the resources of local government. Traditionally, the County has depended on State and Federal funds for the design and construction of transportation projects, augmented by private sector contributions, known as proffers. Accordingly, the County places an emphasis on setting priorities through annual project review and development of a Six Year CIP which provides guidelines and direction for funding of the Program.

Local Funding Sources:

General Obligation Bonds, Lease Financing and Revenue Bonds

Many of Loudoun’s transportation projects have been financed by the sale of bonds, including general obligation bonds issued by the County or lease revenue bonds through the Loudoun County Economic Development Authority (EDA). The County’s use of bonds to fund capital projects is subject to the Board’s fiscal and debt policies. The use of general obligation bonds is also subject to a voter referendum.

Local Tax Funding / Local Tax Funding for Roads

The Board has adopted a policy to fund a minimum of ten percent of the CIP using cash. Additionally, as mentioned above, the Board has designated \$0.02 per \$100 of assessed value of local real estate property for transportation programs. HB 2313 (2013 Session of the General Assembly), which provided funding to the NVTA, requires local jurisdictions to contribute, from their local funds, a level of funding equal to or exceeding the 30% formula distribution from the NVTA (“Maintenance of Effort”).

Regional Funding Sources:

Northern Virginia Transportation Authority (NVTA) Funding

In 2013, the General Assembly passed HB 2313, creating a dedicated revenue source for funding transportation projects through the Northern Virginia Transportation Authority (NVTA). Thirty percent of the funds, referred to as local funds, are distributed to the qualifying jurisdictions using a formula based method. The remaining seventy percent funds are available to qualifying jurisdictions on a competitive basis to implement regional transportation projects. To date, Loudoun County (including the Town of Leesburg) has been awarded over a half billion dollars.





Northern Virginia Transportation Commission (NVTC) Transform I-66 Funding

In January 2016, the NVTC and the Commonwealth Transportation Board (CTB) signed a 40-year memorandum of agreement (MOA) allowing NVTC to use a portion of the toll revenues from the I-66 inside the Beltway project) to fund multimodal projects in Northern Virginia. The MOA assigns VDOT, on behalf of the CTB, to control and manage tolling on I-66. Toll revenues will be used and distributed to support the tolling operations and tolling maintenance of the facility, and to fund components selected by NVTC and approved by the CTB for the project, designed to specifically attain the Improvement Goals stated in the MOA. The CTB delegates to NVTC the authority to select and administer the implementation of the components to be funded from the portion of the toll revenues of the facility as provided in the MOA. Park and ride lots, bike share stations, express bus service and high-tech transit information screens are among the types of projects eligible for funding. The funding can be used for both capital and operating costs of the facilities.

VDOT Revenue Sharing Program Funding

The Revenue Sharing Program is a dollar-for dollar cash match to provide additional funding for use by a county, city, or town to construct, maintain, or improve the highway systems within that locality, and for eligible additions in certain counties. Locality funds are matched with state funds with statutory limitations on the amount of state funds authorized per locality. The program is administered by VDOT in cooperation with participating localities under the authority of the Code of Virginia § 33.2-357. An annual allocation of funds for this program is designated by the CTB. Projects may be constructed by VDOT or by the locality under an agreement with VDOT.

Private Sector Funding Sources:

The Public-Private Transportation Act of 1995 (PPTA)

The PPTA is the legislative framework enabling the Commonwealth of Virginia, qualifying local governments and certain other political entities to enter into agreements authorizing private entities to acquire, construct, improve, maintain, and/or operate qualifying transportation facilities. Loudoun County, in coordination with the CTB, accepted a proposal filed under the PPTA that funded limited access improvements to Route 28, including five interchanges and several sections of the Route 28 parallel roads. The Board also used the PPTA to enter into an agreement with a private developer to design, construct and operate the North Commuter Parking Garage at the Ashburn Metrorail Station.

Special Tax Districts

Route 28 was improved to a six-lane divided road through the use funds from a “transportation service district” authorized by the Code of Virginia. The Route 28 Highway Transportation Improvement District (HTID) was established by resolutions of the Loudoun and Fairfax County Boards of Supervisors in 1987. The Route 28 HTID demonstrates that a public-private partnership can construct a major road improvement using this funding technique. The District approach allows a major road improvement to be built before development occurs, avoiding congestion and maintaining good levels of service in the corridor.





Community Development Authorities (CDA)

The County may consider petitions for Community Development Authorities (CDAs) from the owners of at least 51% of the land area or assessed value of a given tract. CDAs are defined as “a public body politic and corporate and political subdivision of the Commonwealth” by the Virginia Code, and have the power to “finance, fund, plan, establish, construct or reconstruct, enlarge, extend, equip, operate and maintain” infrastructure improvements. These improvements may include “roads, bridges, parking facilities, curbs, gutters, sidewalks, traffic signals, stormwater management and retention systems, gas and electric lines and street lights.” CDAs are empowered to raise funds through revenue bonds, special taxes, and special assessments on adjoining properties.

Private-Sector Toll Road Construction

The 14-mile extension of the Dulles Greenway constructed by the Toll Road Corporation of Virginia, a private corporation, opened to traffic in September 1995. The financing for the project was secured by the private sector with rights-of-way obtained through private sector negotiations and transactions or private-sector proffers from land-development applications. Once the financing and permits were obtained for this project and construction commenced, construction proceeded very rapidly under private-sector management.

SECTION 5: PROJECT READINESS

The County has taken steady action toward delivery of its road network in the face of high growth pressures. Based on the planning efforts of the County supported by its residents and the region’s transportation agencies, this project is ready to move forward quickly, and is technically and financially feasible. As shown in the project schedule funds received from the BUILD grant will be obligated as early as December 2018 with the preliminary engineering and NEPA compliance complete by November 2020.

SECTION 5.1: TECHNICAL FEASIBILITY

Loudoun County has developed a concise scope of work associated with the preliminary engineering and NEPA compliance activities associated with the U.S. Route 15 improvements. The figure below provides an overview of both the scope of work and schedule associated with this work. The referenced scope of work in Figure 5-1 has been developed based on Loudoun County’s significant experience in conducting preliminary engineering and NEPA compliance activities for large complex projects.





SECTION 5.2: PROJECT SCHEDULE

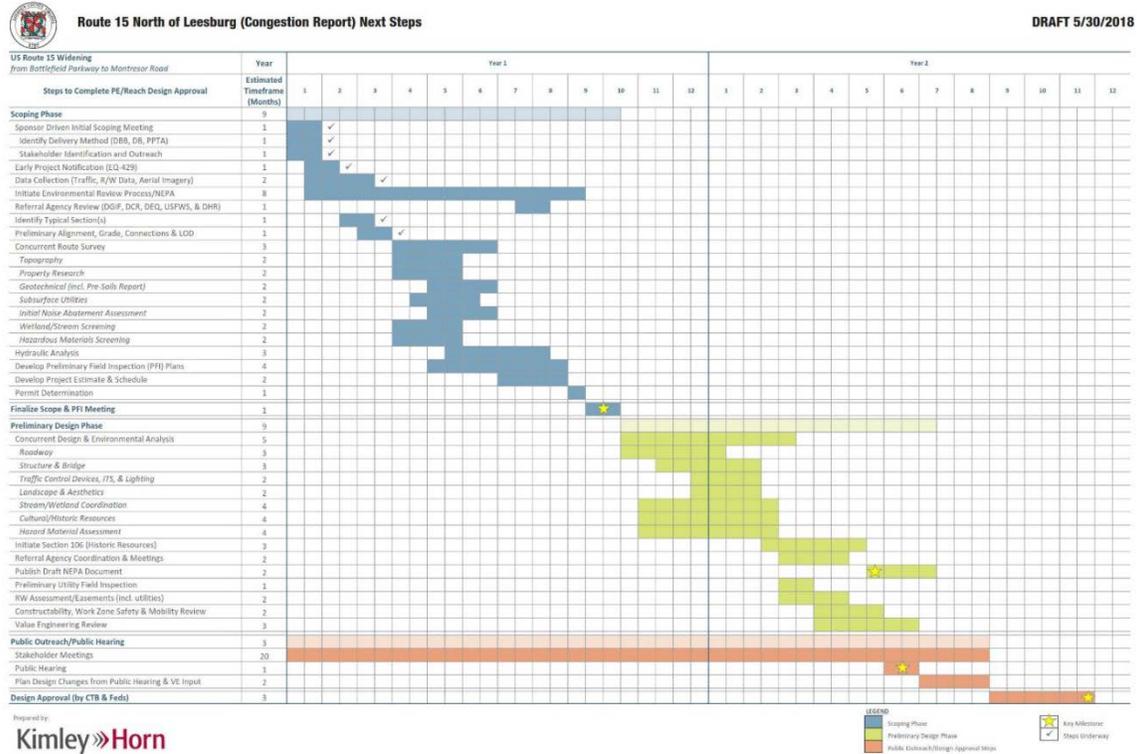


Figure 5-1 – Schedule for the Completion of the NEPA Compliance Activities and Preliminary Engineering

A detailed project schedule that includes all major project milestones is included as part of the discussion of technical feasibility in Figure 5-1 above. The schedule includes elements of; start, completion, environmental reviews and approvals related to preliminary engineering and NEPA compliance. With an assumed start date of June 2019, the schedule shows all necessary preliminary engineering and NEPA compliance activities completing in June 2021. It is anticipated that the project will move forward quickly upon receipt of the BUILD funds. The funds will be spent steadily and expeditiously once the Planning begins.

SECTION 5.3: REQUIRED APPROVALS

Loudoun County and VDOT have a long history of building roads in the County. In the end this will be a VDOT road and the County works alongside VDOT on required approvals needed to facilitate road development. For environmental approvals, the County anticipates working with VDOT and the Federal Highway Administration (FHWA) on NEPA approvals. It is one of the top critical links to be built and has the full support of the Loudoun County Board of Supervisors.

It is anticipated under NEPA requirements that the County will assess air quality conformity, land use and zoning impact, historic resources, including Section 106 and Section 4(f), noise, hazardous materials, minority and low-income communities, public parks and recreation facilities, wetlands and water resources, water quality, FEMA floodplains, hydric soils, ecologically sensitive areas, threatened and endangered species, invasive species and farmland. The County anticipates that the proposed road will meet the NEPA criteria for a Categorical Exclusion under 23 CFR. Based





upon previous NEPA work in the region, concluding the NEPA document will occur well-within the required timeframe.

As part of the approval process it is anticipated that the County will cooperatively work with Federal, State and County agencies on the following approvals:

- Wetlands and floodplain permits
- Construction plan, including bridge approvals
- Traffic engineering approvals for traffic signals
- Right-of-way plats and deeds

The County will follow the VDOT approved process as shown in the flow chart linked below: http://www.extranet.vdot.state.va.us/locdes/electronic_pubs/Project_Development_Process/Project%20Development%20Process.pdf.

Legislative approval of this project is demonstrated by its placement on Loudoun County’s Countywide Transportation Plan (currently from Battlefield Parkway to Montresor Road) and its submission to the Commonwealth for priority state funding through the Virginia Smart Scale funding process. The proposed project is consistent with the long-range transportation adopted by the County Board of Supervisors in 2010 via the following link <https://www.loudoun.gov/DocumentCenter/Home/View/70765>

The U.S. Route 15 project supports the County’s long-standing policy, plans, and investments that encourage growth where it is most efficiently served in Loudoun. U.S. Route 15 is a key component of the County’s Long-range Transportation Plan necessary to connect the most populous communities and together create economic development opportunities to the Washington D.C. region.

SECTION 5.4: ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

The primary risk associated with this project is the potential public dissatisfaction with the proposed scope of the project. To mitigate this risk, Loudoun County will hold additional public meetings to engage private citizens to gain consensus around a project alternative. Through working closely with the public, Loudoun County has an established track record of gaining public support for its many transportation projects.

SECTION 6: BENEFIT COST ANALYSIS

As the Route 15 Preliminary Engineering and NEPA Compliance project is the subject of this FY 2018 BUILD Planning Grant application, a full benefit cost analysis (BCA) cannot be fully completed. Loudoun County has reviewed the elements of the BCA. This project provides definitive benefits under all eight of the primary selection criteria of the BUILD program: safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and non-Federal revenue for future transportation infrastructure investments. Primary benefits to be realized as part of this project are centered on safety, economic competitiveness and quality of life. Specifically, benefits realized by this project is centered on regional travel time savings that would result from the ultimate construction of this project as well a reduction in accidents on U.S. Route 15.

