

Project Information

Project Name:	RTE 639 - LADYSMITH ROAD - WIDENING	Federal Project#:	
Project Number:	0639-016-623, P101	Project Type:	Construction
UPC:	106670	Charge Number:	
Route Number:	639	Route Type:	Secondary
Project Limit--From:	0.1 miles West of Int Route 1	To:	0.95 Mi. E of Int Route 1
Additional Project Description:	<p>This project will widen Route 639, Ladysmith Road from two (2) to four (4) lanes from the west end of the bridge on Route 639 over I-95 at Exit 110 westward to its intersection with U.S. Route 1; a project length of approximately 0.85 miles. The project will include the installation of traffic signals at relocated Green Road and Center Drive. It will also provide for the modification of the existing signal at the intersection of Route 1 and Route 639. Dual left turns in both directions will be constructed at each new signalized intersection. Additional through and turn lanes will be provided at the Routes 1/639 intersection. A variable width raised median is to be constructed along project limits from just west of the Interstate ramps to Route 1. Right in/right out only access will be provided at key locations. The project will include pedestrian accommodations on both sides of Route 639.</p>		
Purpose And Need:	<p>The project would address safety and provide more efficient access from I-95 to Route 1 by providing better intersection design, increased roadway capacity, reduced traffic queuing and enhance roadway operations by addressing access management issues.</p>		
District:	City/County:	Residency:	
Fredericksburg	Caroline	Fredericksburg	

Date CE level document approved by VA Division FHWA: 10/13/2017

FHWA Contact: Frost, Mack

Project in STIP: Yes

In Long Range Plan? N/A-Outside MPO Area

CE Category 23 CFR 771.117: d

Description of Category: Additional actions which meet the criteria for a CE in the CEQ regulations (40 CFR §1508.4) and paragraph (a) of this section may be designated as CEs only after Administration approval unless otherwise authorized under an executed agreement pursuant to paragraph (g) of this section. The applicant shall submit documentation which demonstrates that the specific conditions or criteria for these CEs are satisfied and that significant environmental effects will not result.

Logical Termini and Independent Utility: Yes

Next Phase of Funding Available? Yes

Comments: The project is consistent with regional transportation plans and studies that Caroline County participated in and is included in the county comprehensive plan update.

Typical Section: The proposed typical section includes 13' wide left and 14' wide right travel lanes in both directions; divided by a variable width raised median. Each side will include 2.5' curb and gutter. The inside lanes will be shared car/bicycle use. Each side will have 5' sidewalks with a variable width buffer strip.

Structures: The project will require the replacement, with extension, of the existing culvert (Federal Structure ID 17926; State Structure ID 1033).

NATURAL RESOURCES

Are Waters of the U.S. present? Yes

Linear Feet of Impact: Approximately 1548

Federal Threatened or Endangered Species:

Yellow Lance (Elliption lanceolata)-Federal:FP-Not Present

Indiana Bat (Myotis sodalis)-Federal:FE-Present with no impact

Northern Long-Eared Bat (Myotis septentrionalis)-Federal:FT-Present with no impact

100 Year Floodplain: Not Present

Regulatory Floodway Zone: Not Present

Public Water Supplies: Present with no impact

Are any tidal waters/wetlands present? No

Tidal Wetlands: Not Present

Tidal Acres of Impact: 0

Tidal Wetland Type: None

Are any Non-Tidal Wetlands Present? Yes

Non Tidal Acres of Impact: 0.25

Non Tidal Wetland Type: Forested

Total Wetland Acres of Impacts: 0.25

Are water quality permits required? Yes

Natural Resource Comments: Approximately 1548 linear feet of two unnamed tributaries to the South River will be impacted by this project.

The preliminary permit determination for this project is that it will require SPGP-1 and DEQ WP-3 permits.

Section 7 coordination for the Indiana Bat and the Northern Long-Eared Bat was performed per the November 28, 2016 Programmatic Biological Assessment for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat. A time of year restriction on tree clearing for the Indiana Bat and the Northern Long-Eared Bat will be applied from April 15 through September 15 of any given year.

AGRICULTURAL/OPEN SPACE

Open Space Easements: Not Present

Agricultural/Forestal Districts: Not Present

Source: Project Definition Form

Agricultural/Open Space Comments: There are no Open Space Easements or Agricultural/Forestal Districts impacted by this project.

FARMLAND

NRCS Form CPA-106 Attached? No

NRCS Form CPA-106 not attached because:

Land already in Urban use.

Alternatives Analysis Required? No

Source: Caroline County Zoning Map

Farmland Comments: The area along this section of the corridor is zoned as Community, General and Regional Business use.

INVASIVE SPECIES

Invasive Species in the project area? Unknown

There is potential for invasive species to become established along the limits of disturbance of the project during and following construction. Section 244.02(c) of VDOT's Road and Bridge Specifications (2016) includes provisions intended to control noxious weeds (which includes non-native and invasive species).

While rights-of-ways are at risk from invasive species colonization from adjacent properties, implementing the above provisions would reduce or minimize potential for introduction, proliferation, and spread of invasive species. Additionally, the implementation of best management practices for erosion/sediment control and abatement of pollutant loading would minimize indirect impacts to adjoining communities and habitat by reducing excess nutrient loads that could encourage invasive species proliferation.

Invasive Species Comments: DCR provided the following comments regarding invasive species:

Many invasive plant species are adapted to take advantage of soil disturbances and poor soil conditions. These adaptations are part of what enable certain species to be invasive. Non-native invasive plants are found through Virginia. Therefore, the potential exists for some VDOT projects to further the establishment of invasive species. To minimize the potential for invasive species infestation, projects should be conducted to minimize the area of disturbance, and disturbed sites should be revegetated with desirable species at the earliest opportunity following disturbance. Equally as important, species used for revegetation should not include the highly invasive species that have traditionally been used for revegetating disturbed sites. We recommend VDOT avoid using crown vetch, tall fescue, and autumn olive if at all possible.

AIR QUALITY

Air Quality Status and Regional Conformity

Jurisdiction Description: This project lies in an area that is currently in attainment with all of the National Ambient Air Quality Standards (NAAQS). The following VDEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130, Open Burning restrictions; and 9 VAC 5-50, Article 1, Fugitive Dust precautions.

Carbon Monoxide

CO Microscale Analysis Required for NEPA? No

- ✓ The proposed project meets the criteria specified in the current FHWA-VDOT "Programmatic Agreement for Project Level Air Quality Analyses for Carbon Monoxide" and therefore a project-specific analysis for CO is not required.

The worst case intersection within the project corridor is at Route 1 and Ladysmith Road. This intersection configuration falls under the types of projects listed in Table 2 of the PA, i.e., a 6 lane rural intersection for all approaches with an approach speed of 35 mph. The modeled CO concentrations for this type of project excluding the background concentrations is 8.4 ppm for the one-hour and using a persistence factor of .77, an eight-hour concentration of 6.5 ppm. When the background concentrations of 1.5 ppm and 1.1 ppm are included, the one-hour and eight-hour concentrations increase to 9.9 ppm and 7.6 ppm, respectively. These predicted values are well below the one-hour and eight-hour CO NAAQS of 35 ppm and 9 ppm, respectively. This configuration would give a much worst-case scenario than that of the proposed intersection improvements that include no more than two approach lanes in each direction with left and right turn lanes and an approach speed of 45 mph.

Particulate Matter

This project is located in: A PM2.5 Attainment Area

PM Hotspot Analysis Required? No

The final rule that establishes the transportation conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts in Fine Particulate Matter (PM2.5) nonattainment and maintenance areas was published on March 10, 2006. This project is located in a PM2.5 attainment area and therefore no further discussion of PM2.5 is necessary.

Mobile Source Air Toxics

This project requires: No further discussion of MSAT

- ✓ The project qualifies for a categorical exclusion under 23 CFR 771.117.

This project is excluded from further analysis following FHWA's Interim Guidance Update on MSAT Analysis in NEPA dated October 18, 2016 for projects qualifying as a categorical exclusion under 23 CFR 771.117

NOISE

Noise Scoping Decision: Type I - Noise study required

Barriers Under Consideration? No

Noise Comments: A Preliminary Noise Analysis was performed for this project. This analysis was completed in accordance with The State Noise Abatement Policy. The proposed project is predicted to create future noise impacts, however noise abatement is not considered feasible and noise barriers are not recommended for construction at this time. In addition, there are no highway traffic noise-related public controversies or substantial construction noise impacts associated with this project. Therefore a detailed quantitative noise analysis is not required. See the attached Preliminary Noise Analysis.

RIGHT OF WAY AND RELOCATIONS

Residential Relocations: Yes **Number of Residential Relocations:** 3

Commercial Relocations: Yes **Number of Commercial Relocations:** 1

Non-Profit Relocations: No

Right of Way required? Yes

Fee Simple: 6.59

Temporary Easement: 2.048

Permanent Easement: 0.698

Utility Easement: 0

Amount of Right of Way Acreage: 9.336

Septic Systems or Wells: Present with no impact **Hazardous Materials:** Present with no impact

Source: VDOT Project Manager, VDOT ROW Plan Sheet 1C

ROW and Relocations Comments: The project impacts approximately 26 parcels with the probable acquisition of 3 residences and 1 business. There is no scarcity of residential, office and business space available presently and/or proposed to be provided in the near future for business and residential relocations. The acquisition of property and the relocation of residents, businesses, farms, and non-profit organizations, as applicable, will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Phase I and Phase II hazardous materials investigations indicate that minor levels petroleum contaminated soil were detected at 4 sites along the corridor. While a special provision for the management of petroleum contaminated soil will be required, the proposed project activities should not represent a threat to the environment or public health. (See attached HazMat Report)

CUMULATIVE AND INDIRECT IMPACTS

Present or reasonably foreseeable future projects (highway and non-highway) in the area: Yes

Impact same resources as the proposed highway project (i.e. cumulative impacts): Yes

Indirect (Secondary) impacts: Yes

Source: VDOT Project Manager, Fredericksburg Documents Staff, VDOT Six Year Implementation Program, Caroline County Comprehensive Plan

Cumulative and Indirect Impacts Comments: Indirect Impacts: The most common indirect effects associated with highway projects have to do with induced development, that is, development and the impacts of such development that would not otherwise occur if the project were not constructed. The entire corridor area is zoned commercial development and is targeted for development in the future land use planning.

Though there are temporary and permanent right-of-way requirements with fee simple acquisitions of three residences and one business, VDOT's Environmental Justice Analysis indicates that no direct impact to EJ populations would occur.

Potential indirect effects to wetlands, streams, water quality, floodplains, wildlife habitat, and threatened or endangered species could result from temporary construction impacts and increased stormwater runoff due to increases in impervious surface area. However, potential indirect effects to these resources would be minor, as VDOT would adhere to the local, state, and federal regulations governing construction impacts in these areas and use of standard ESC and SWM measures and their associated required monitoring protocols.

This project is consistent with local comprehensive planning regarding land use goals in the surrounding area and the project would be expected to improve overall mobility and connectivity among surrounding land uses and transportation facilities having minimal indirect effects on community cohesion. Therefore, no substantial indirect effects are expected from the construction of this project.

Cumulative Impacts: there will be impact to a total approximately 1548 linear feet to two small unnamed tributaries to the South River; impact to approximately 10,500 sq. feet of forested wetlands; increased storm water runoff from impervious areas leading to alter stream flows and water chemistry, increased nutrient inputs, and losses of in-stream habitat, all offset to the extent practical by implementation of stormwater management measures and temporary and permanent erosion and sediment control measures in accordance with state law and local ordinances. There may be future minor impacts to the South River associated with three future bridge replacement projects over the South River at Route 1, Route 633 and Route 743.

Despite the changes in the project area that have occurred over time due to human settlement in the surrounding area, the intensity of the incremental impacts of the project is considered small when viewed in the context of impacts from other past, present, and reasonably foreseeable future actions and would not rise to a level that would cause significant cumulative impacts.

PUBLIC INVOLVEMENT

Substantial Controversy on Environmental Grounds: No

Source: Caroline County Board of Supervisors

Public Hearing: Yes **Type of Hearing:** Design Public Hearing

Other Public Involvement Activities: No

Public Involvement Comments: A Design Public Hearing will be held on April 18, 2018, from 5 to 7 p.m. at the Lewis and Clark Elementary School.

COORDINATION

State Agencies:

Department of Environmental Quality
Department of Conservation and Recreation
Department of Game and Inland Fisheries
Department of Health
Department of Historic Resources
Virginia Outdoors Foundation

Federal Agencies:

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

Local Entity:

Caroline County Administrator
Caroline Superintendent of Schools
Caroline County Health Department
Caroline County Board Of Supervisors

Other Coordination Entities:

This project meets the criteria for a Categorical Exclusion pursuant to 40 CFR 1508.4 and 23 CFR 771.117 and will not result in significant impacts to the human or natural environment.