



Loudoun County

VIRGINIA

WHERE TRADITION MEETS INNOVATION

Environmental Studies Document

Route 50 & Trailhead Drive Roundabout

County Project No. CRCP-2019-0010

Federal No. TC-050-9(001)

Loudoun County

September 13, 2022

The Loudoun County Department of Transportation and Capital Infrastructure (DTCI) is proposing to improve vehicle safety and movements on a portion of the Route 50 corridor at its intersection with Trailhead Drive/Lenah Farm Lane in Loudoun County, VA (Figure 1). The Route 50 and Trailhead Drive Roundabout project calls for constructing a roundabout at this intersection to improve traffic operations. Due to high speed approaches and heavy volumes, combined with frequent turning movements and substandard roadway geometrics, the US Route 50 and Trailhead Drive intersection experiences extensive delays and a high volume of crashes. The proposed roundabout will include two westbound lanes to provide for the high volume left turning and through/right turning traffic, along with a northbound approach from Trailhead Drive that will include a bypass lane to eastbound Route 50. The roundabout will be constructed as a hybrid roundabout, with provisions for future expansion, and will include stormwater management, drainage improvements and roadway lighting.

The purpose of the proposed project is to implement traffic calming measures, improve traffic movements, and provide an alternative north/south route for traffic currently using Route 15. The project would construct a roundabout at the intersection of Route 50 and Trailhead/Lenah Lane and improve turning movements. Providing these improvements will improve safety and reduce delays in the corridor. The proposed project is financed by proffers, General Obligation Bonds and Local Tax funding.

Background

The Virginia Department of Transportation (VDOT) initiated study in 1999 to assess traffic calming measures for implementation along a 24-mile corridor of US Route 50, from Paris (Fauquier County) eastward to Lenah (Loudoun County). The project was funded by a \$13.8M federal demonstration grant with the Commonwealth Transportation Board providing the required 20% of matching state funds. When federal funding is involved, the National Environmental Policy Act (NEPA) is required. NEPA is a procedural statute that requires federal agencies to evaluate potential impacts on social, economic and environmental impacts from a proposed project. Pursuant to 23 CFR 771.129, this Environmental Studies document was prepared to evaluate any changes to the current concept design, the affected environment or to applicable environmental laws/regulations that might have on the validity to the approved CEs.



Figure 1 – Location Map

The Federal Highway Administration (FHWA), the lead federal agency, approved the project as a Categorical Exclusion (CE) level documentation under their NEPA implementing regulations (23 CFR 771) on October 23, 2001. VDOT prepared the CE and FHWA approved the NEPA document on August 21, 2002. Traffic calming options in the FHWA-approved CE include raised crosswalks, pedestrian walkways, raised intersections with bump-outs, small roundabouts, rural splitter islands, differentiated pavement types, stabilized grass shoulders and landscaping in the communities of Lenah, Aldie, Upperville, Paris and the Town of Middleburg and the intervening segments of US Route 50. Following FHWA's approval of the CE, VDOT began implementing the traffic calming measures in a series of break-out projects. Breakout traffic calming projects in the Villages of Aldie, Upperville and Paris, the Town of Middleburg and the roundabouts at Gilberts Corner have now been completed. However, the traffic calming measures for the Village of Lenah were never constructed.

In 2020, Loudoun County made the decision to be the sole source of funding for the Route 50 and Trailhead Drive Roundabout Project. Since federal funds were used for the construction of roundabouts at Gilberts Corner in 2006, the proposed Route 50 and Trailhead Drive Roundabout Project [*Project*] is irrevocably federalized and subject to NEPA, regardless of its local funding.

By regulation, VDOT is responsible for overseeing compliance with NEPA on behalf of FHWA. Loudoun County is responsible for performing all necessary environmental investigations and for preparing all necessary documentation demonstrating compliance with NEPA and with other applicable local, state, and federal laws and regulations. Pursuant to 23 CFR 771.129, this Environmental Studies document was prepared to evaluate any changes to the current concept design, the affected environment or to applicable environmental laws/regulations that might have on the validity to the approved CEs.

Environmental Review

Logical Termini and Independent Utility

The proposed ***Project*** continues to meet the three general principles outlined in FHWA's regulation (23 CFR 771.111(f)):

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope
- Have independent utility or independent significance
- Not restrict consideration of alternative for other reasonably and foreseeable transportation improvements

The following environmental resources were evaluated for new impacts under current environmental laws and regulations to determine there have been no changes since the approval of the CE:

- ***Section 4(f) of the U.S. Department of Transportation Act***
- ***Section 6(f) of the Land and Water Conservation Fund***
- ***Floodplains***
- ***Environmental Justice and Title IV***
- ***Right-of-Way***
- ***Section 7(a) of the Wild and Scenic Rivers Act***
- ***Highway Traffic and Construction Noise Regulations***
- ***Farmland Protection Policy Act for Highway Projects***

The following environmental resources were evaluated and updated (or added) for this Environmental Studies document:

Waters and Wetlands

A Waters of the U.S. (WOUS) and wetland delineation was conducted and did not identify WOUS or wetlands within the proposed ***Project*** area; a Preliminary Jurisdictional Determination (PJD) request was submitted to the U.S. Army Corps of Engineers on February 23, 2022. The ***Project*** would not impact jurisdictional features and a water quality permit under Section 404 or 401 of the Clean Water Act (CWA) would not be required. The proposed ***Project*** is anticipated to exceed

1 acre of land disturbance, therefore, would require a VPDES Construction General Permit (CGP) under Section 402 of the CWA.

Section 106 of the National Historic Preservation Act

The proposed **Project's** potential effect on historic properties was re-coordinated with Virginia Department of Historic Resources (DHR) during the 30-day scoping period which began February 15, 2022. DHR determined in a letter dated March 15, 2022 that “[n]o further identification efforts are warranted. No historic properties will be affected by the Project. Should unidentified historic properties be discovered during the implementation of the Project, please notify DHR.” Per Loudoun County requirements a field reconnaissance to identify any landscape features that may indicate the presence of graves, cemeteries, or burial grounds, as well as to assess the need for additional Phase I surveys within the study area was conducted by Dutton & Associates, LLC. The field survey identified the remnants of the extant Lenah Tollhouse (VDHR# 053-0980) and recommended targeted survey around the former site within the limits of disturbance to be conducted and no additional testing for the remainder of the study area. The findings and a request for an additional effect determination was submitted to DHR on August 18, 2022.

Section 7 of the Endangered Species Act

An update of the U.S. Fish and Wildlife Service’s *Information for Planning and Consultation* (IPaC) online system identified the potential of the Northern Long-eared Bat [NLEB] (*Myotis septentrionalis*), a listed threatened species, to be present in the **Project** area. A review of the Virginia Department of Wildlife Resources’ (DWR) *NLEB Winter Habitat and Roost Trees Application* did not show any hibernacula or roost tree hits within a 2 mile radius of the proposed project. The proposed **Project** anticipates it will require approximately 1 acre of tree clearing. The proposed **Project** is adhere to the tree removal Time of Year Restriction (TOYR) from April 1st to November 14th. The Monarch Butterfly (*Danaus plexippus*) was listed as a Candidate Species on the IPaC, however, due to its candidate listing status, no protections are afforded by the Endangered Species Act and no impacts are anticipated.

Clean Air Act

The proposed **Project** meets the criteria specified in the current FHWA-VDOT “Programmatic Agreement for Project Level Air Quality analysis for Carbon Monoxide” and for streamlining the project-level air quality analysis process; therefor, a project-specific analysis for carbon monoxide is not required. The proposed **Project** is location in a Particulate Matter 2.5 (PM2.5) attainment area and no further local air quality impact analysis for PM2.5 is necessary. The proposed **Project** is also in an Ozone 8-hr maintenance area and shall comply with all applicable local, state, and Federal requirements. All reasonable precautions would be taken to limit the emissions of VOCs and NOx during construction of the **Project**. The proposed **Project** is also excluded from further analysis following FHWA’s Interim Guidance Updated on Mobile Source Air Toxics (MSAT) Analysis in NEPA dated October 18, 2016 for projects qualifying as a Categorical Exclusion under 23 CFR 771.117.

Hazardous Waste and Materials

The potential for hazardous materials and/or contamination within the **Project** area was evaluated and a Phase I Environmental Site Assessment (ESA) will be conducted prior to any property acquisition. A review of the Virginia Department of Environmental Quality Environmental Data Mapper (EDM) identified one closed petroleum release site located adjacent to the project site. The site, Pollution Complaint 19983522 was reported in 1998 and closed in 1997. A registered petroleum tank facilities is located adjacent to the **Project** site; no spills have been reported from this site.

Indirect and Reasonably Foreseeable Impacts

Minor indirect effects from the **Project** are anticipated since the proposed improvements are within the majority of the existing right-of-way and the improvements are intended to improve movements and not increase vehicle volume. Increases to impervious areas will directly increase stormwater runoff that could have minor indirect effects to natural resources in the surrounding area. Increase of stormwater runoff will be mitigated through the implementation of permanent stormwater management structures to treat both water quality and quantity. Indirect effects from sediment transportation during construction would be minor and would be addressed through the implementation of and adherence to erosion and sediment controls and measures. The proposed **Project** is not anticipated to have any foreseeable effects on natural, historic, socioeconomic resources, or induce growth in the area.

Public Outreach

DTCI conducted a virtual Public Information Meeting (PIM) on December 17, 2020 which members of the public were invited to attend and provide questions. Members of the public were also invited to submit comments or questions following the PIM. In total, 22 public written comments were received, of which, 19 supported the roadway project, the remaining three questioned the design and use of a roundabout. DTCI submitted scoping letters on February 15, 2022 to local, state, and federal agencies, which included the U.S. Army Corps of Engineers (USACE), the U.S. Fish and Wildlife (USFWS), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture, NRCS, requesting review and comments on the proposed **Project** within 30 calendar days of receiving the letter. In total, five agencies responded; Loudoun County Public Schools wanted confirmation the roadway would remain open during construction for school bus traffic, which LDTCI confirmed. The other responding agencies included Loudoun County Parks, Recreation and Community Services, VDHR, Virginia Marine Resource Commission (VMRC) and Virginia Outdoor Foundations. No comments were received from any federal agencies. The responses from these agencies included no comments, no additional studies, or no permits would be required; no comments required a response from DTCI.

A 15-day Public Notice will be posted in three locally available newspapers stating this Environmental Studies document is available for public review and comments. Any comments received will be summarized with responses. The Environmental Studies document will be updated, if necessary, for finalization and submission to VDOT for coordination with FHWA to verify the 2002 CE remains valid for this Project.

Findings/Conclusions

The proposed ***Project*** continues to meet 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. In addition, there is no new information or circumstances relevant to environmental concerns and bearings that would result in significant impacts. As such, the original CE approval continues to remain valid for the proposed ***Project***.