



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: June 5, 2019
Comment Deadline: July 5, 2019
Corps Action ID Number: SAW-2016-02143

The Wilmington District, Corps of Engineers (Corps) received information from the North Carolina Department of Transportation (NCDOT) regarding a potential future requirement for Department of the Army authorization to discharge dredged or fill material into waters of the United States, associated with the widening of a 2.4 mile long section of SR 1002 (Aviation Parkway) to a multi-lane facility, from NC 54 north to I-40 (STIP Project Number U-5811) in Wake County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>

Applicant: North Carolina Department of Transportation (NCDOT)
Attn: Deanna Riffey
Environmental Program Consultant
1598 Mail Service Center
Raleigh, North Carolina 27699-1548

Authority

The Corps will evaluate this application to compare alternatives that have been carried forward for detailed study pursuant to applicable procedures of the following Statutory Authorities:

- Section 404 of the Clean Water Act (33 U.S.C. 1344)
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

In order to more fully integrate Section 404 permit requirements with the National Environmental Policy Act of 1969, and to give careful consideration to our required public interest review and 404(b)(1) compliance determination, the Corps is soliciting public comment on the merits of this proposal and on the alternatives considered. At the close of this comment period, the District Commander will evaluate and consider the comments received, as well as the expected adverse and beneficial effects of the proposed

road construction, to select the least environmentally damaging practicable alternative (LEDPA). The District Commander is not authorizing construction of the proposed project at this time. A final DA permit may be issued only after our review process is complete, impacts to the aquatic environment have been minimized to the maximum extent practicable, and a compensatory mitigation plan for unavoidable impacts has been approved.

Location

Location Description:

Nearest Town: Cary and Morrisville

Nearest Waterway: Crabtree Creek

River Basin: Neuse (03020201)

Latitude and Longitude: 35.8351 N, -78.8128 W

The proposed project begins in Western Wake County near the town of Cary, at the intersection of Aviation Parkway and NC 54 and extends north east approximately 2.4 miles to the intersection of Aviation Parkway and I-40. The study area boundary for this project encompasses the proposed transportation improvements as shown on attachment/Figure 1.

Existing Site Conditions

The project is located in western Wake County is located within the piedmont region of central North Carolina. Aviation Parkway varies from a two-lane undivided roadway to a five-lane undivided roadway with a center left-turn lane in the PSA (Project service area). Intermittent sidewalks are present along the corridor. The posted speed limit is 45 miles per hour.

Projected traffic volumes are anticipated to exceed the available capacity of Aviation Parkway in the design year (2040). The segment of Aviation Parkway between Dominion Drive and Gateway Centre Boulevard (south) is anticipated to operate at a level of service (LOS) E in the PM peak hour, and the Aviation Parkway/NC 54 intersection is anticipated to operate at a LOS F in the AM and PM peak hours. LOS is a qualitative measure used to describe the operating conditions of a roadway. LOS is generally described in terms of factors such as speed, travel time, freedom to maneuver, traffic interruptions, driver comfort and convenience, and safety. LOS is represented by a letter ranking from "A" to "F," with A representing free flowing conditions and F representing traffic-breakdown conditions.

Land use throughout the PSA is primarily commercial and offices, with new residential areas around the intersection with NC 54. Residential areas generally consist of single family homes on individual parcels or within subdivisions. The project corridor is less than one mile from the Raleigh-Durham International Airport, approximately five miles

southeast of Research Triangle Park, and 11 miles northwest of downtown Raleigh. Town of Morrisville soccer fields and several places of worship are along the corridor.

Water resources in the PSA are part of the Neuse River basin [U.S. Geological Survey (USGS) Hydrologic Unit Code 03020201]. Fourteen streams were identified in the PSA. All streams drain to Crabtree Creek or Lake Crabtree, both of which are included on the North Carolina Division of Water Resources (NCDWR) Final 2016 303(d) list of impaired waters for poor benthic community and a PCB fish tissue advisory. Neither are listed for turbidity or sedimentation.

There are no designated anadromous fish waters, Primary Nursery Areas (PNA), or trout waters present in the project study area. There are no designated High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the project study area. There are no waters listed on the North Carolina 2010 Final 303(d) list of impaired waters due to excessive sedimentation and turbidity within 1.0 mile downstream of the project study area. No waters within the project study area have been identified by the North Carolina Wildlife Resource Commission (NCWRC) as trout waters; therefore, no moratoria are anticipated for the proposed project. The National Marine Fisheries Service (NMFS) has not identified any streams within the project study area as an Essential Fish Habitat. There are no streams within the project study area determined by the USACE as Navigable Waters under Section 10 of the Rivers and Harbors Act.

A field verification for NCDOT's delineation was performed on November 3, 2016. To date, no jurisdictional determination has been issued.

Applicant's Stated Purpose

Need for the Project:

- Existing and projected roadway capacity deficiencies: One segment on Aviation Parkway is anticipated to operate at LOS E, and one intersection is anticipated to operate at LOS F by 2040, the design year.
- Mobility: With the adjacent planned projects, the Aviation Parkway/Morrisville-Carpenter Road corridor will be a four-lane median divided road from Davis Drive to NC 54 (west of the U-5811 corridor), and from I-40 to Brier Creek (east of the U-5811 corridor).

The current (2015) No-Build traffic volumes on existing Aviation Parkway range from 15,600 to 20,200 vehicles per day (vpd), at the project beginning, to 29,600 to 35,100 vpd at the project ending terminus. By the Design Year 2040, the No-Build traffic volumes along Aviation Parkway are expected to range from 16,400 to 21,800 vpd, at the beginning of the project, to 30,300 to 41,800 vpd at its terminus.

Based on 2040 No Build traffic forecast volumes, the segment of Aviation Parkway between Dominion Drive and Gateway Centre Boulevard (south) is anticipated to operate

at level of service (LOS) E in the PM peak hour, and the Aviation Parkway/NC 54 intersection is anticipated to operate at LOS F in the AM and PM peak hours. The segment of Aviation Parkway between Dominion Drive and Gateway Centre Boulevard currently operates at LOS E in the PM peak hour, and the Aviation Parkway/NC 54 intersection operates at LOS D and F in the AM and PM peak hours respectively. These projected deficiencies would cause substantial travel delay, increase the potential for accidents and contribute to the inefficient operation of motor vehicles.

Purpose of the Project:

The purpose of the proposed improvements to Aviation Parkway, from I-40 in Cary to NC 54 in Morrisville, is to reduce congestion in order to improve the level of service in the design year peak hours along the corridor and at signalized intersections. A secondary benefit of this project is to improve east-west mobility through Morrisville and to I-40 and I-540/NC 540.

Project Description

The NCDOT proposes to widen and upgrade approximately 2.4 miles of SR 1002 (Aviation Parkway) to a four-lane median-divided roadway with curb and gutter, including bicycle and pedestrian accommodations from NC 54 (Chapel Hill Road) in Morrisville to I-40 in Cary.

The Build Alternatives under consideration for U-5811 consist of 2 widening alternatives, and two new-location intersection alternatives at the Aviation Parkway and NC 54 intersection (Options A and B).

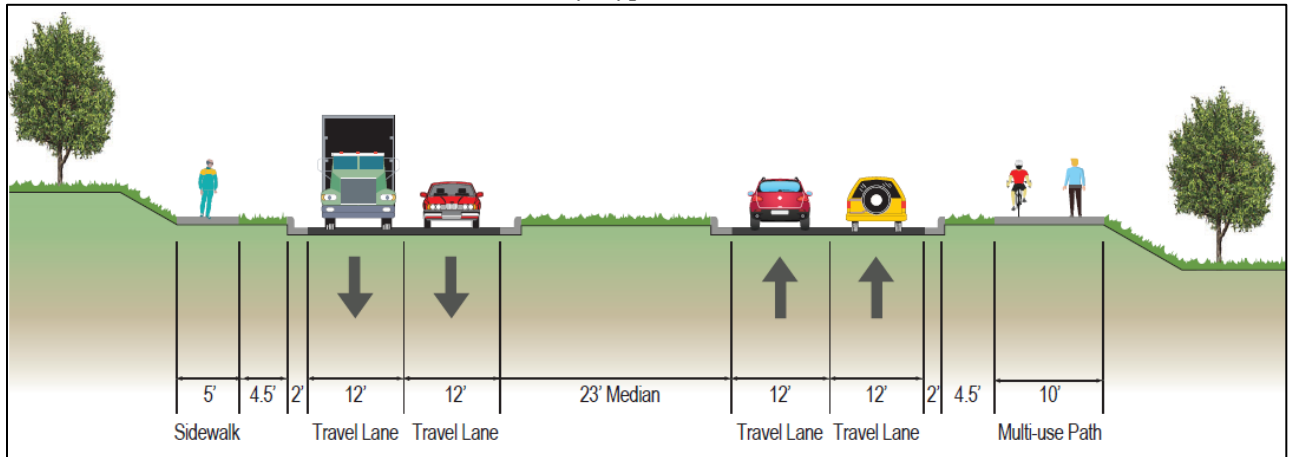
Detailed Study Alternatives (DSA)

Several widening options were considered along Aviation Parkway with some eliminated during the NEPA/Section 404 Merger Process. The following widening options currently under consideration are as follows:

Typical Section

The Build Alternative typical section on Aviation Parkway includes four 12-foot lanes with curb and gutter, a 23-foot median, a 5-foot sidewalk on the west side of the roadway, and a 10-foot multi-use path on the east side of the roadway. This typical section is applied for a 1.4-mile section from east of NC 54 to west of Lake Crabtree.

Aviation Parkway Typical Section



The typical section was modified across the NC 54/Railroad intersection and across Lake Crabtree, as described below.

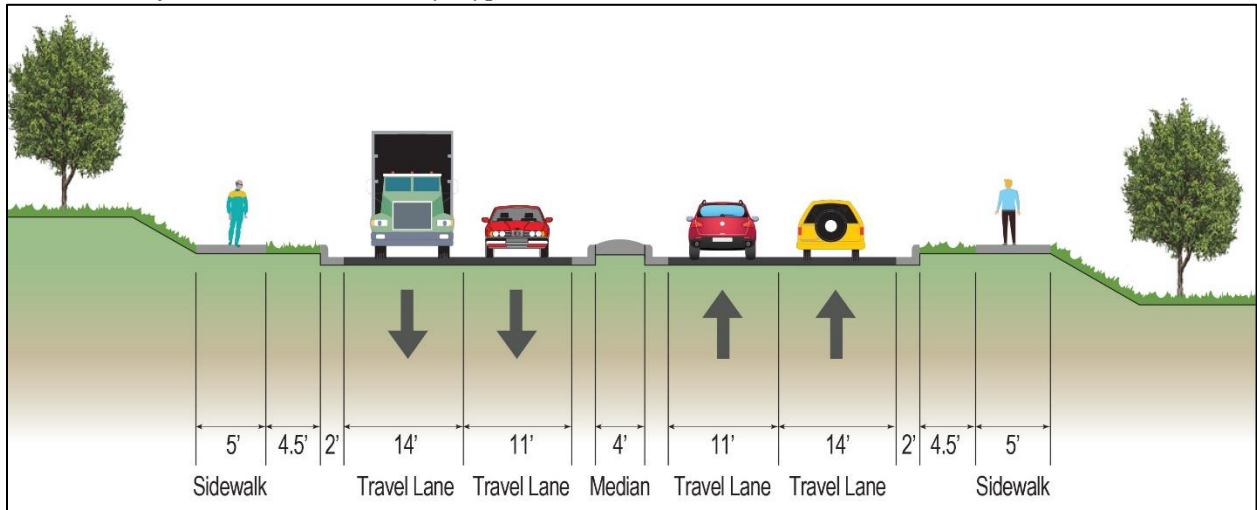
NC 54/Railroad Intersection

Due to the proximity of the railroad, NCDOT proposes to shift NC 54 approximately 20 feet to the east at the Aviation Parkway crossing to create a greater distance between the road and railroad. The typical section along Aviation Parkway across this intersection includes 14-foot outside travel lanes, 11-foot inside lanes, and a 5-foot sidewalk on each side of the road. This typical section is included for approximately 0.2 miles and matches the typical section included in the adjacent Morrisville-Carpenter Road widening project. In addition, trucks will be restricted from turning right across the railroad, the existing southbound right-turn slip lane will be removed, and all left turns will be restricted at the NC 54/Aviation Parkway intersection, instead redirected to a quadrant left loop. Two loop options were evaluated:

- Option A proposes to convert the existing intersection into a quadrant left intersection with the loop in the northeast quadrant of the intersection.
- Option B proposes to convert the existing intersection to a quadrant left intersection with the loop in the southeast quadrant of the intersection.

Both alternatives operate at a similar LOS and were carried forward for further study. The typical section for the loop roads is a three-lane undivided roadway with 12-foot travel lanes, a left-turn lane, and 5-foot sidewalk on both sides of the road.

Modified Aviation Parkway Typical Section Across NC 54 and the Railroad

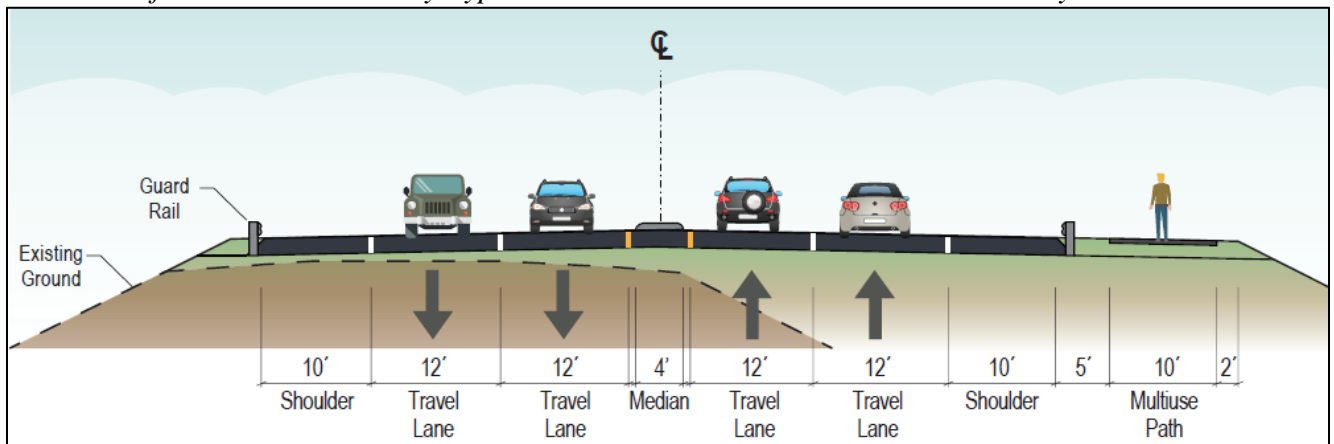


Lake Crabtree Crossing

Lake Crabtree has a PCB fish tissue advisory and is listed on the 2016 Final 303(d) list as a poor benthic community. Additionally, it is a designated flood-control facility – any fill placed in Lake Crabtree will require compensatory flood storage mitigation within the flood pool at the same elevation that was filled.

NCDOT proposes a modified typical section across Lake Crabtree that would minimize the footprint while maintaining consistency with the Town of Cary’s master plan. The proposed typical section includes two 12-foot travel lanes with 10-foot paved shoulders on each side and a 4-foot concrete island for approximately 0.5 miles. Additionally, a five-foot planting strip and a 10-foot multi-use path is proposed on the south side.

Modified Aviation Parkway Typical Section Across Lake Crabtree Causeway



No-Build Alternative

In addition to the Build Alternative (i.e., Detailed Study Alternatives), a No-Build Alternative was also retained as a baseline against which the benefits, costs, and impacts of the Build Alternative could be compared. The No-Build Alternative assumed that the transportation network in the PSA will continue to develop as called for in the 2040 Long Range Transportation Plan (LRTP), but without the subject project included. NCDOT has preliminarily determined that the No-Build Alternative would not meet the project's purposes.

Impacts to waters of the United States for the Detailed Study Alternatives are listed in Table 1. These impact estimates were calculated based on preliminary roadway design slope stake limits plus 25 feet.

Table 1. Impacts to Jurisdictional Features

	Streams	Wetlands	Open Water
Aviation Parkway Mainline	430 linear feet	1.3 acres	1.5 acres
Option A	280 linear feet	-	0.6 acres
Option B	310 linear feet	-	-

Avoidance, Minimization and Compensatory Mitigation

Through development of the preliminary functional designs within the DSAs, NCDOT has attempted to avoid impacts to streams and wetlands to the greatest practicable extent. This included developing alignments and interchange configurations for the DSAs that avoided these resources as much as possible, while also minimizing impacts to other resources. NCDOT will continue to seek ways to avoid and minimize impacts in further design efforts for the selected Alternative.

The purpose of compensatory mitigation is to offset unavoidable functional losses to the aquatic environment resulting from project impacts to waters of the United States. NCDOT will investigate potential on-site compensatory mitigation opportunities for the selected alternative. If on-site mitigation is not feasible, or a sufficient amount of mitigation is not available on-site, mitigation will be provided by the NC Division of Mitigation Services (NCDMS).

Essential Fish Habitat

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, this Public Notice initiates the Essential Fish Habitat (EFH) consultation requirements. The Corps' initial determination is that the proposed project would not effect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

Cultural Resources

The proposed project is subject to compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and implemented by the Advisory Council on Historic Preservations' Regulations for Compliance with Section 106, codified as 36 CFR Part 800. Section 106 requires federal agencies to take into account of their undertakings (federally-funded, licenses, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council a reasonable opportunity to comments on such undertakings.

Architectural Resources

Pursuant to the requirements of Section 106 of the NHPA, an initial, project field survey, identified 1 resource listed on the National Register of Historic Places (NRHP) within the project study area. These findings were presented to the Historic Preservation Office and reviewed by the HPO on March 12, 2019, and a determination of no adverse effect on the listed property was rendered.

Archaeological Resources

Much of the area of potential effects has been modified by modern development. A Civil War ordinance was identified but is considered an isolated find. In a letter dated October 2, 2018, NCDOT archaeologists determined it to be unlikely that significant, intact archaeological remains would be present and impacted by the project and as such, no survey was required.

Endangered Species

Species with the federal classification of Endangered (E), Threatened (T), or officially Proposed (P) for such listing, are protected under the Endangered Species Act (ESA) of 1973 (16 USC 1531 *et seq.*) as amended.

The U.S. Fish and Wildlife Service (USFWS) lists six federally protected species for Wake County, as shown in Table 2. A brief description of the species' habitat requirements follows, along with the Biological Conclusion rendered based on survey results in the Study Area. Habitat requirements for the species are based on the current best available information from referenced literature and/or USFWS.

Table 2. Federally-listed Threatened and Endangered Species in Wake County

(source – NCDOT December 2016 Natural Resources Technical Report (NRTR) & August 2018 NRTR Addendum)

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Haliaeetus leucocephalus</i>	Bald eagle	BGPA	Yes	No Effect
<i>Notropis mekistocholas</i>	Cape Fear shiner	E	No	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No	No Effect
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	E	Yes	No Effect
<i>Parvaspina steinstansana</i>	Tar River spiny mussel	E	Yes	No Effect
<i>Elliptio lanceolata</i>	Yellow lance	T	Yes	No Effect
<i>Rhus michauxii</i>	Michaux's sumac	E	Yes	No Effect

T – Threatened; E – Endangered; T(S/A) - Threatened due to similarity of appearance
 * Historic record (the species was last observed in the county more than 50 years ago)

Northern Long-eared Bat (NLEB):

Since this project is state-funded, the U.S. Army Corps of Engineers (USACE) will act as the lead agency for issues related to the northern long-eared bat (NLEB).

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with the FHWA, the USACE, and NCDOT for the NLEB in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is “May Affect, Likely to Adversely Affect”. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Wake County, where U-5811 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of

dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to select the least environmentally damaging practicable alternative (LEDPA) for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

NCDOT will hold one Design Public Meeting to update the public on the project studies, to present the design alternatives, and to request public comments on the design alternatives and the project in general. The meeting will be held at the Morrisville Town Hall, located at 100 Town Hall Dr., in Morrisville, Wake County on June 12, 2019, from 4:00 pm to 7:00 pm.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, July 5, 2019. Comments should be submitted to James C. Lastinger, Raleigh Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105 , Wake Forest, North Carolina 27587, at (919) 554-4884 extension 32, or by email to James.C.Lastinger@usace.army.mil.