



# PUBLIC NOTICE

US Army Corps  
Of Engineers  
Wilmington District

Issue Date: October 15, 2018  
Comment Deadline: November 15, 2018  
Corps Action ID #: SAW-2016-00102  
STIP Project Number U-5518

The Wilmington District, Corps of Engineers (Corps) has received an information submittal from the North Carolina Department of Transportation (NCDOT) regarding a potential future requirement for Department of the Army (DA) authorization to discharge dredged or fill material into waters of the United States associated with the proposed US 70 Improvements (STIP Project Number U-5518) in Wake and Durham Counties, North Carolina.

Specific design alternatives and location information are described below and shown on the attached maps. This Public Notice and attachments are also available on the Wilmington District Web Site at <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

Other information about the project can be found at this NCDOT webpage: <https://www.ncdot.gov/projects/us-70-brier-creek/Pages/default.aspx>.

**Applicant** North Carolina Department of Transportation (NCDOT)  
Project Development Group  
Attn: Mr. Elmo Vance  
Project Delivery Group  
1582 Mail Service Center  
Raleigh, NC 27699-1548

## Authority

The Corps will evaluate this information submittal to compare alternatives that have been carried forward for detailed study pursuant to applicable procedures of Section 404 of the Clean Water Act (33 U.S.C. 1344).

The Federal Highway Administration is funding this project, and is the lead Federal Agency for the purposes of the National Environmental Policy Act of 1969 (NEPA). In order to more fully integrate Section 404 permit requirements with NEPA, 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 being evaluated by NCDOT. 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**

The proposed project corridor includes approximately 2.8 miles of US 70 where it crosses the Durham/Wake County line, in Durham and Wake Counties, North Carolina, and a new location section from TW Alexander Drive, between Page Road and Fellowship Drive, to US 70 southeast of Page Road, and is referred to as the US 70 Improvements Project (see attached maps). Overall project limits for the proposed US 70 improvements start just west of the US 70 (Glenwood Avenue) intersection with Page Road (SR 1973) and terminate at the US 70 (Glenwood Avenue)/I-540 interchange. The project begins at approximate coordinates 35.93, -78.808, and ends at approximate coordinates 35.906, -78.772.

## **Existing Site Conditions**

Wake and Durham Counties are located within the piedmont region of central North Carolina. The Raleigh-Durham-Chapel Hill metropolitan area is one of the fastest growing regions in the country. The project is located in an established and growing suburban area approximately 13 miles northwest of downtown Raleigh, 8 miles southeast of downtown Durham, and within 3 miles of Raleigh-Durham International Airport. The project area is a mix of residential and commercial areas, close to a private golf course, and some undeveloped areas.

Both T.W. Alexander Drive (SR 3067) and I-540 serve as gateways into Research Triangle Park and carry high volumes of commuter traffic during peak hours. East and west of these facilities, traffic volumes on US 70 (Glenwood Avenue) begin to decrease, both now and in the future year.

The project study area is contained within the Neuse River Basin. Water resources in the study area are part of the U.S. Geological Survey (USGS) Hydrologic Unit 03020201). The only named stream in the corridor is Little Brier Creek. There are also numerous unnamed tributaries to Little Brier Creek in the project corridor, and a few tributaries of Brier Creek in the project area west of Fellowship Drive. Depending on the alternative design, current estimated impacts to streams range from 6,268 to 8,227 linear feet. Permanent wetland impacts range from 2.80 to 2.95 acres.

Streams in the project study area are in the Crabtree Creek watershed. Streams in the project study area are classified by the NC DEQ Division of Water Resources as Class B, C, or WS-IV Nutrient Sensitive Waters. The Nutrient Sensitive Waters classification indicates the stream needs additional nutrient management (e.g., fertilizers) because there is excessive vegetative growth downstream in the Neuse River estuary. Two streams within 1.0 mile of the project are listed on the 2016 Final 303(d) List of Impaired Waters for North Carolina. Brier Creek (Assessment Unit [AU] No. 27-33-4) and Little Brier Creek (AU No. 27-33-4-1) are both listed for polychlorinated biphenyls (PCBs).

Wetlands types in the project area include Non-tidal Freshwater Marsh, Headwater Forest, Bottomland Hardwood Forest, Floodplain Pool, and Basin Wetland.

## **Applicant's Stated Purpose**

The primary purposes of the proposed project are to improve traffic flow and operations on US 70 (Glenwood Avenue), and associated intersections and/or interchanges, from west of T.W. Alexander Drive (SR 3067) to just east of I-540, by reducing anticipated travel delays and queue lengths as compared to those anticipated in the future (2040) no-build condition.

The project will address the need to improve US 70 (Glenwood Avenue) from west of T.W. Alexander Drive (SR 3067) to east of I-540, which is demonstrated by existing traffic congestion, anticipated future traffic congestion, poor operating conditions, and a higher than average number of vehicle crashes..

## **Project Description**

NCDOT proposes to improve construct roadway improvements in this portion of the US 70 corridor, to include road widening, new interchanges and/or grade-separations, a new location roadway providing a new T.W. Alexander Drive connection to US 70, and other road improvements to relieve congestion, and improve traffic flow and operations. The three alternatives being considered include new interchanges at the TW Alexander Drive/US 70 intersection, the existing TW Alexander Drive/US 70 intersection, and the Brier Creek Parkway/US 70 intersection. Two of the alternatives include a grade-separation at the existing T.W. Alexander Drive/US 70 intersection. All alternatives include a corridor upgrade of US 70 from west of existing T.W. Alexander Drive to I-540, and two alternatives extend the upgrade to Page Road.

US 70 provides access to the residential communities, businesses, and shopping centers located in the Brier Creek area. In addition, US 70 is classified as a principal arterial and serves as a regional east-west route between Raleigh and Durham, and provides access from Raleigh and Durham to Raleigh-Durham International Airport (RDU) and Research Triangle Park (RTP) via I-540.

## **Detailed Study Alternatives**

Three alternatives are being recommended for detailed study: Alternative 1, Alternative 2, and Alternative 2 Revised, shown on attached Figures 2a, 2b, and 2c, respectively. Alternatives 1 and 2 were presented to the public in April 2017. Alternative 2 Revised was developed after the April 2017 public meeting based upon feedback from the public and updated traffic analyses. A description of each alternative is below and shown on the available design drawings.

### **Alternative 1**

This alternative would replace US 70's existing at-grade intersections at T.W. Alexander Drive and at Brier Creek Parkway, with new interchanges in the existing locations. Alternative 1 would construct a Single-Point Urban Interchange (SPUI) at Brier Creek Parkway and a limited access directional interchange at T.W. Alexander Drive. In addition, this Alternative would require the use of braided ramps between the two new interchanges due to the short distance between them. Braided ramps occur when one highway on- or off-ramp crosses over another on- or off-ramp to that highway.

### **Alternative 2**

Alternative 2 was developed to eliminate the need for braided ramps between the two new interchanges. Like Alternative 1, this alternative would construct a SPUI at Brier Creek Parkway. However, to create additional space between the interchanges, Alternative 2 would construct a new interchange west of the existing US 70 and T.W. Alexander Drive intersection and provide a new connection from T.W. Alexander Drive to US 70. The existing T.W. Alexander Drive intersection with US 70 would then be grade separated (T.W. Alexander bridging over US 70) with no access to or from US 70.

### **Alternative 2 Revised**

Alternative 2 Revised was developed to provide additional access to T.W. Alexander Drive. As in Alternative 2, a SPUI would be constructed at Brier Creek Parkway and a new interchange would be constructed west of the existing US 70 and T.W. Alexander Drive intersection. In Alternative 2 Revised, a ramp would be added from eastbound US 70 to the existing T.W. Alexander Drive and a loop would be added from southbound T.W. Alexander to eastbound US 70. Corners Parkway would be utilized as a quadrant roadway and right-in/right-out access would be provided with necessary deceleration and acceleration lanes on US 70. Through coordination with the Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC), the Capital Area Metropolitan Planning Organization (CAMPO), the City of Raleigh, and the City of Durham, the interchange at the relocated T.W. Alexander interchange was revised to a Diverging Diamond Interchange (DDI) to accommodate the proposed future connection to the Northern Durham Parkway. It was determined this alternative would reduce some of the complexity shown in the other two alternatives,

especially with regard to the amount of signing and access changes from US 70 to T.W. Alexander Drive. The ramp and loop connecting US 70 and T.W. Alexander Drive would provide increased connectivity and mobility to the developments around T.W Alexander, as well as reduce traffic and congestion at the US 70 interchange with Brier Creek Parkway. Alternative 2 Revised reduces the severity of weaving traffic along US 70 between Aviation Parkway Extension and Brier Creek Parkway.

For construction, right of way, and utilities, the project is estimated to cost a total of \$90.2 million.

Delineated Section 404 stream, wetland, and pond features within the impact areas for all three alternatives are shown on Figures 3a through 3g, which can be downloaded at <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

Estimated impacts to streams, wetlands and ponds for each alternative, based on the current level of design, are shown in Table 1, below.

**Table 1 Estimated stream, wetland, and pond impacts for Alternatives**

<b>Alternative</b>	<b>Estimated Stream Impacts (lf)</b>	<b>Estimated Wetland Impacts (acres)</b>	<b>Estimated Pond Impacts (acre)</b>
<b>1</b>	6,268	2.80	0.01
<b>2</b>	7,659	2.11	0.6
<b>2 Revised</b>	8,227	2.95	0.01

**Cultural Resources**

The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

**Endangered Species**

Table 2 below shows the federally listed threatened and endangered species listed for Wake and Durham Counties by the US Fish and Wildlife Service and effect determinations made by the NCDOT for this project.

**Table 2: Federally Protected Species listed for Wake and Durham Counties**

<b>Scientific Name</b>	<b>Common Name</b>	<b>County</b>	<b>Federal Status</b>	<b>Habitat Present</b>	<b>Biological Conclusion</b>
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	Wake	Endangered	Unknown	No Effect
<i>Elliptio lanceolata</i>	Yellow lance	Wake	Threatened	No	No Effect
<i>Echinacea laevigata</i>	Smooth coneflower	Durham	Endangered	Yes	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	Wake	Endangered	Yes	No Effect
<i>Notropis mekistocholas</i>	Cape Fear shiner	Wake	Endangered	No	No Effect
<i>Rhus michauxii</i>	Michaux's Sumac	Durham and Wake	Endangered	Yes	No Effect
<i>Myotis Septentrionalis</i>	Northern long-eared bat	Durham and Wake	Endangered	N/A	MALAA (See below)

The project area is within the range of the endangered Northern Long-Eared Bat. The US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with FHWA, USACE, and NCDOT for the northern long-eared bat in eastern North Carolina (which includes Wake County). The PBO went into effect in 2016 and covers all NCDOT projects and activities in NCDOT Divisions 1 to 8. The programmatic determination for the bat is “May Affect, Likely to Adversely Affect”. The PBO involves a research and tracking program to establish conclusive information concerning the existence of the northern long-eared bat in the eastern part of North Carolina. The PBO also requires that upon completion of clearing activities for each project with federal funds, NCDOT will report on the estimated acres of clearing to the US Fish and Wildlife Service.

## **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.

## **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. Discussion of avoidance and minimization is detailed below:

### **Avoidance**

Avoidance mitigation examines all appropriate and practicable possibilities of averting impacts to waters of the United States. According to a 1990 MOA between the EPA and the USACE (EPA 1990), in determining “appropriate and practicable” measures to offset unavoidable impacts, such measures should be appropriate to the scope and degree of those impacts and practicable in terms of cost, existing technology, and logistics in light of overall project purposes. Impacts to streams are expected due to the nature of the project. Not all sediment can be prevented from entering waters of the United States.

### **Minimization**

Minimization includes the examination of appropriate and practicable steps to reduce adverse impacts to streams and wetlands. General steps that should be implemented during the final design stage to minimize impacts by the proposed project include:

- Minimizing “in-stream” activities;
- Strictly enforcing the sedimentation and erosion control measures recommended in NCDOT’s BMPs for the protection of streams and wetlands;
- Decreasing the footprint of the proposed project through the reduction of right-of-way widths and steepening of fill slopes where possible;
- Utilizing natural stream channel design principles when relocating streams;
- Elimination of alternatives that would result in higher stream and/or wetland impacts, when similar alternatives would perform the same function with fewer impacts.

As work on US 70 will involve widening the existing roadway, multiple opportunities will occur to minimize the lengths of culvert extensions and fill slopes. Efforts will be made to decrease impacts to surface waters.

### Compensatory Mitigation

Compensatory mitigation is meant to replace, on at least a one-to-one basis, the lost functions and values of natural streams and wetlands affected by development activities. NCDOT will investigate potential on-site stream and wetland mitigation opportunities once a preferred alternative has been chosen. If on-site mitigation is not feasible, mitigation will be provided by NCDENR Division of Mitigation Services (DMS).

### 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 a Corps of Engineers 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 is holding public meetings for this project and a related project, STIP U-5720, as follows:

Tuesday, October 30, 2018  
Open House Public Meeting  
4-7 p.m.  
Venue:  
Embassy Suites Hotel  
8001 Arco Corporate Drive, Raleigh

Thursday, November 1, 2018  
Open House Public Meeting  
4-7 p.m.  
Venue:  
Grove Park Chapel  
605 Sherron Road, Durham

NCDOT representatives will be available between 4:00 p.m. and 7:00 p.m. at each meeting, to answer questions and receive comments concerning the proposed project. The opportunity to submit written comments or questions will also be provided. The public may attend at any time during the above mentioned hours. A Corps representative will attend each public meeting.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, November 15, 2018. Written comments should be submitted to Mr. Eric Alsmeyer, US Army Corps of Engineers, Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587, telephone (919) 554-4884, extension 23. Written comments can also be submitted by email to [eric.c.alsmeyer@usace.army.mil](mailto:eric.c.alsmeyer@usace.army.mil).