

Type III Categorical Exclusion Action Classification Form

STIP Project No.	I-5715
WBS Element	50128.1.FS1
Federal Project No.	NHPP-077-1(220)29

- A. Project Description: NCDOT STIP Project No. I-5715 proposes to improve the existing interchange on I-77 at N.C. 73 (Sam Furr Road) in Huntersville, Mecklenburg County. The Project I-5715 study area overlaps with the study area for Project I-5405 (managed lanes on I-77 from I-277 [Brookshire Freeway] to West Catawba Avenue [Exit 28]). NCDOT and the I-77 Mobility Partners project teams have been coordinating through the planning and design process.

The existing interchange is a traditional diamond interchange with an additional loop from westbound N.C. 73 onto southbound I-77. A split diamond interchange is proposed with two additional bridge crossings over I-77 as shown in **Figures 2A-2E**.

- The northern crossing (**Figure 2B**) will connect the northbound on-ramp and the southbound off-ramp with roundabouts located on either side of the crossing at the intersections with the I-77 ramps. In the northeast quadrant, a fourth leg on the roundabout will connect to Caldwell Creek Drive.
- The southern crossing (**Figure 2C**) will connect the northbound off-ramp and Northcross Drive. In the southeast quadrant, the new off-ramp will split immediately after the exit from I-77, with one road leading directly to N.C. 73 and the other road leading to a roundabout connecting the southern crossing with Rich Hatchet Road and U.S. 21. In the southwest quadrant, the southern crossing will connect to Northcross Drive with a loop.
- The existing N.C. 73 bridges over I-77 are proposed to be widened to accommodate an additional eastbound through lane and an additional westbound lane for the I-77 southbound ramp.
- Sidewalk and bicycle facilities are proposed on N.C. 73 and the new east-west roads, pending a cost-sharing agreement with the Town of Huntersville. These facilities are anticipated to connect with other existing and proposed multi-modal facilities in the towns of Huntersville and Cornelius. The specifics of these facilities are under discussion between NCDOT and the Town.

The northbound I-77 managed lanes transfer area will be shifted south to provide additional distance before the proposed off-ramp to N.C. 73 and the new southern crossing over I-77. This will require repaving and restriping of approximately 1.4 miles of existing pavement on northbound I-77, of which approximately 2,400 feet at the southern end will be widened by up to approximately 8 feet.

The project is currently estimated to cost \$35.1 million to construct based on functional designs. According to the *NCDOT 2018-2027 State Transportation Improvement Program (amended October 2018)*, right of way is anticipated to cost \$1.6 million and project has incurred approximately \$500,000, for a total project cost of \$37.2 million.

These cost estimates are preliminary and subject to change. The project is currently scheduled to begin right of way acquisition in July 2019 and be let for construction in September 2020.

B. Description of Need and Purpose:

Project Need: The existing interchange and adjoining street network currently experience a high level of congestion in peak periods. Since the interchange opened, the area has experienced notable residential, commercial, and retail development. In addition, NC 73 is designated as a NC Strategic Highway, and is one of the few east-west links through this area across the Catawba River.

Purpose: The purpose of this project is to improve mobility and connectivity for local traffic accessing properties adjacent to this interchange. A secondary purpose is to reduce delay and congestion on N.C. 73 through the I-77/N.C. 73 interchange.

C. Categorical Exclusion Action Classification: Type III

D. Proposed Improvements – Not Applicable

E. Special Project Information:

Alternatives Analysis: In April 2010, the *I-77/N.C. 73 Interchange Modification Study (IMS)* was completed by the Town of Huntersville and recommended two alternatives (Alternative 2 and 3) for further study. In July 2014, the *I-77/N.C. 73 Interchange Modification Environmental Review (IMER)* added Alternative 3 South-Modified to consideration. The *IMER* recommendation was to combine the northern Alternative 2 crossing from the *IMS* with the southern Alternative 3-Modified crossing from the *IMER*.

At the Public Meeting held on February 5, 2018, detailed designs for the combined recommended alternative (Alternative 2 North/3-Modified South) were presented. Two options were developed in the northeast quadrant, which included a four-legged roundabout and a five-legged roundabout (see **Figures 3A and 3B**). Following the public meeting, the four-legged roundabout alternative was selected by NCDOT because of direct impacts, access changes, anticipated costs, and input from the community.

Jurisdictional Resources: Six streams (SB, SC, SD, SE, Caldwell Station Creek, and McDowell Creek), five ponds (PA, PB, PC, PD, and PE), and six wetlands (WA, WB, WC, WD, WE, and WF) were identified in the *Natural Resources Technical Report* dated May 2016. Pond PA is an impoundment of jurisdictional stream SD, and the remaining four ponds are isolated man-made features that are sustained by high groundwater levels and stormwater runoff. A Section 404 Nationwide Permit (NWP) 23 and Section 401 Water Quality Certification (WQC) are anticipated for impacts to “Waters of the United States” resulting from impacts to jurisdictional resources.

Impacts to jurisdictional resources were calculated using a 25-foot buffer of the proposed slope stakes. The existing double 10-foot x 8-foot reinforced concrete box

culvert (RCBC) along Caldwell Station Creek is proposed to be extended by approximately 50 feet to the west to accommodate the re-aligned I-77 southbound off-ramp and fill slopes, and 50 feet to the east to accommodate the re-aligned I-77 northbound on-ramp and fill slopes, resulting in approximately 120 feet of impacts to Caldwell Station Creek. Approximately 275 feet of impacts are anticipated to stream SC. Pond PC is located outside of the proposed slope stakes but impacts of less than 0.1 acres were estimated using the 25-foot buffer. No impacts are anticipated on any of the wetlands or the other streams and ponds.

Threatened and Endangered Species: As of June 27, 2018, the US Fish & Wildlife Service (USFWS) lists six federally protected species for Mecklenburg County: Carolina heelsplitter, Michaux's sumac, Schweinitz's sunflower, smooth coneflower, rusty-patched bumble bee, and northern long-eared bat (NLEB).

- Due to the lack of appropriate substrate, recorded occurrences in the study area streams, and observed Carolina heelsplitter or mollusks of any kind, the project has been determined to have "No Effect" on the Carolina heelsplitter.
- Suitable habitat for Michaux's sumac, Schweinitz's sunflower, and smooth coneflower are present within the study area but due to lack of observed individuals and recorded occurrences within one mile of the project, the project was determined to have "No Effect" on these three species.
- A biological conclusion is not required for the rusty-patched bumble bee (RPBB); the USFWS does not, and will not, require surveys for RPBB in North Carolina because USFWS assumes the state is unoccupied by RPBB.
- NCDOT has determined in the attached memo (dated December 4, 2018) that the proposed action does not require separate consultation for the NLEB on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 CFR § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for the NLEB.

A desktop-GIS assessment of the project study area, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, for the bald eagle species was performed in March 2015 using 2014 color aerials. Lake Norman, which is a large man-made lake, is within one mile of the project study area. However, the project study area is heavily developed and nesting habitat for the bald eagle is not present within the study area due to the small size of the canopy trees. Due to the disturbed nature of the study area and small size of the trees observed within the study area, a survey of the project study area and the area within 660 feet of the project limits was not conducted. Additionally, a review of the NCNHP database, updated October 2015, revealed no known occurrences of this species within 1.0 mile of the project study area. Due to the lack of habitat, known occurrences, and the minimal impact anticipated for this project, it has been determined that this project will not affect the bald eagle species.

Floodplain Management: Construction of the I-77 northbound on-ramp and southbound off-ramp will occur within the floodway of Caldwell Station Creek. This proposed construction is anticipated to require a Conditional Letter of Map Revision (CLOMR) due to the anticipated extension of the existing culverts and addition of fill in the floodway. Based on a review of the effective flood map there do not appear to be any insurable structures in the floodplain within the areas of anticipated base flood elevation

(BFE) increases. If required, the CLOMR will be submitted to the Charlotte-Mecklenburg Storm Water Services (CMSWS) for review and approval. The re-striping of the I-77 northbound lanes will occur over the crossing of FEMA regulated stream Torrence Creek Tributary 1. Due to the nature of the proposed construction activity over this crossing, no impacts or FEMA coordination are anticipated to be required.

Cultural Resources: NCDOT concluded in March 2017 that an archaeological survey is not required. No sites listed on the National Register of Historic Places or determined eligible for the National Register, or Local Landmark sites were identified in the study area. No historic properties will be affected by this project.

GeoEnvironmental: The NCDOT GeoEnvironmental Unit completed an initial review of potential hazardous material sites within the study area in April 2015. This report identified three Underground Storage Tank (UST) facilities, one auto repair center, and two dry cleaners within the study area. The sites which have potential for impacts are detailed in **Table 1** and shown on **Figure 2B**. Field verification of the hazardous waste sites and identification of unknown sites was recommended.

The Geotechnical Unit/GeoEnvironmental Section will further assess the affected properties for hazardous materials based on 25% designs (Phase I assessment) and make right-of-way acquisition recommendations accordingly prior to right-of-way authorization.

Table 1: Potentially Hazardous Material Contaminated Sites with Potential for Impacts

Map ID	Type	Property Name	UST Facility ID	Anticipated Type of Impact	Comments
3	UST	Sams Mart #19	00-0-0000034650	Petroleum contaminated soil	Three current USTs
4	Auto Repair	Tuffy Auto Service Center	N/A	Petroleum contaminated soil	Auto & Tire Service Carpet & Rug Superstore also located at this address
6	UST	Circle K #2705102	00-0-0000035140	Petroleum contaminated soil	Two current USTs GW Incident #27697

Air Quality: The project is in Mecklenburg County, which is within the Charlotte maintenance area for the prior 1997 8-hour ozone standard and the 2008 8-hour ozone standard as defined by the EPA. This area was designated moderate nonattainment under the 1997 8-hour ozone standard on June 15, 2004 and due to improved air quality in the region was re-designated maintenance on January 2, 2014. This area was also designated marginal nonattainment under the 2008 8-hour ozone standard on July 20, 2012 and due to improved air quality in the region was re-designated maintenance on August 27, 2015. Section 176(c) of the CAAA requires that transportation plans, programs, and projects conform to the intent of the state air quality implementation plan (SIP). The current SIP does not contain any transportation control measures for Mecklenburg County. The Charlotte Region Transportation Planning Organization 2045 Metropolitan Transportation Plan (MTP) and the 2018-2027 Transportation Improvement Program (TIP) conform to the intent of the SIP. The USDOT made a conformity determination on the MTP on December 3, 2018 and the TIP on December 3, 2018. The current conformity determination is consistent with the

final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project's design concept or scope, as used in the conformity analyses.

Traffic Noise: The source of this traffic noise information is the STIP I-5715 Traffic Noise Report, Proposed I-77/NC73 Interchange Improvements, Mecklenburg County (Kimley-Horn, January 2019).

A traffic noise evaluation was performed that preliminarily identified 1 noise barrier meeting feasible and reasonable criteria found in the NCDOT Traffic Noise Policy. A more detailed analysis will be completed during project final design. Noise barriers found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors. Conversely, noise barriers that were not considered feasible and reasonable may meet the established criteria and be recommended for construction. This evaluation was conducted in accordance with the highway traffic noise requirements of Title 23 CFR Part 772.

In accordance with NCDOT Traffic Noise Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion (CE).

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in **Table 2** below. **The table** includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels.

*Table 2: Predicted Traffic Noise Impacts by Alternative**

Alternative	Traffic Noise Impacts			
	Residential (NAC B)	Places of Worship/Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Build	29	2	2	33

*Per TNM 2.5 and in accordance with 23 CFR Part 772

A noise barrier evaluation was conducted for this project utilizing the Traffic Noise Model (TNM 2.5) software developed by the FHWA. Table 3 summarizes the results of the evaluation.

Table 3: Preliminary Noise Barrier Evaluation Results

NSA	Noise Barrier Location	Length / Height ³ (feet)	Square Footage	Number of Benefited Receptors	Square Feet per Benefited Receptor / Allowable Square Feet per Benefited Receptor	Preliminarily Feasible and Reasonable (“Likely”) for Construction ¹
NSA 1	NW 1 – Along I-77 SB off ramp	840 / 13.7	11,508	31	371 / 1,500	Yes
NSA 6	NW 6 – Along I-77 NB off ramp	1,190 / 10.0	11,900	2	5,950 ² / 1,500	No

¹ The likelihood for barrier construction is preliminary and subject to change, pending completion of final design and the public involvement process.

² Barrier is not reasonable due to the quantity per benefited receptor exceeding the allowable quantity per benefited receptor.

³ Average wall height. Actual wall height at any given location may be higher or lower.

Relocations: One business relocation (Quality Inn) is anticipated with the proposed project to accommodate the roundabout in the northeast quadrant.

Neighborhood and Business Impacts: The project is not anticipated to have an overall negative impact on the business nodes. The proposed design will modify direct access to several individual businesses in the northeast quadrant. However, it will provide additional routes for drivers to/from all four quadrants, providing options that more directly access the business areas to/from I-77. No impacts are anticipated on neighborhoods or community cohesion.

Environmental Justice: While Census data does not indicate a notable presence of populations meeting the criteria for Environmental Justice or protected by Title VI and related statutes within the area surrounding the project, minority and low-income communities were observed in the Rich Hatchet neighborhood during the field visit and were noted by local planners. A small group meeting was held with members of this neighborhood on February 6, 2018. No concerns about the project have been received from the neighborhood at this time.

While minority and low-income populations are present in the area surrounding the project, no notably adverse community impacts are anticipated with this project; thus, impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community. No disparate impacts are anticipated under Title VI and related statutes.

Multimodal Accommodations: Sidewalk and bicycle facilities are currently proposed along N.C. 73 and the northern and southern crossing, pending a cost-share agreement between NCDOT and the Town of Huntersville. The proposed facilities were developed in coordination with local planners from the Towns of Cornelius and Huntersville, and provide a connection between McDowell Creek Greenway and the future Caldwell Station Creek Greenway.

Indirect and Cumulative Effects: The project may alter travel patterns, reduce travel time, and affect access to properties in the area. Due to the potential transportation impact-causing activities, this project may influence nearby land uses or stimulate growth. Therefore, a detailed indirect effects study was completed (November 2018), but a Land Use Scenario Assessment was not warranted. The population in the study area is projected to grow by approximately 1.3% per year through 2037. Employment is projected to grow 1.6% per year through 2024. Projected development, primarily infill and redevelopment, is anticipated to continue regardless of this project except in the southwest quadrant, where development may be stronger with reconfiguration of the interchange. Growth management public policies are in place to protect existing resources, and notable environmental features are protected by state and local regulations.

Cumulative effects are possible as a result of Projects I-5715, I-5714 (I-77/Gilead Road Interchange), and the proposed I-77/Westmoreland Road Interchange, as documented in the *I-5714/I-5715/Westmoreland Road Interchange Cumulative Effects Study (January 2017)*. Streams, wetlands, and natural habitats are anticipated to experience cumulative effects from the proposed projects. No impacts to cultural resources are anticipated, no disproportionate and adverse effects on minority or low-income populations are expected, and water quality and natural resources are heavily protected by local and statewide plans. Potential negative effects on community resources are possible. NCDOT project teams for the adjacent projects will continue to coordinate in an effort to reduce cumulative effects on community resources.

Public Involvement: A public meeting and local official's meeting for the project were held on February 5, 2018 at Meadowlake Church in Huntersville, NC. The public meeting was held in conjunction with Projects U-5765/R-5721 which propose the widening of N.C. 73 west of the I-77 interchange. A total of 266 people attended the joint public meeting. Written comments were received from the Town of Cornelius and six members of the community. Feedback received from the public and local officials was generally in support of the project.

F. Project Impact Criteria Checklists:

<u>Type III Actions</u>		Yes	No
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Type III Actions (continued)</u>		Yes	No
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Are there other issues that arose during the project development process that effected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

1. NCDOT has determined in the attached memo (dated December 4, 2018) that the proposed action does not require separate consultation for the NLEB on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 CFR § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for the NLEB.

7. It was concluded that potential cumulative effects on streams, wetlands, natural habitats, and community resources are possible. Many of the projects (generally those west of I-77) are within a water supply watershed. The projects will impact streams and wetlands, many of which are protected by Catawba River Basin buffer rules. Cumulatively, effects on water quality are anticipated to be minor due to the relatively limited number of streams and wetlands crossed and the state and local protection of those resources.

The project may alter travel patterns, reduce travel time, affect access to properties in the area. Due to the potential transportation impact-causing activities, this project may influence nearby land uses or stimulate growth. An *Indirect Effects Report* was completed (November 2018), but a Land Use Scenario was not warranted.

15. The NCDOT GeoEnvironmental Unit completed an initial review of potential hazardous material sites within the study area in April 2015. Based on the current design, potential impacts are anticipated to two sites with Underground Storage Tank (UST) facilities and one auto repair center. A Phase I assessment will be completed prior to right-of-way acquisition, and a copy of the 100% design plans shall be provided to the NC Division of Waste Management.

16. Construction of the I-77 northbound on-ramp and southbound off-ramp will occur within the floodway of Caldwell Station Creek. This proposed construction is anticipated to require a Conditional Letter of Map Revision (CLOMR) due to the anticipated extension of the existing culverts and addition of fill in the floodway. Based on a review of the effective flood map there do not appear to be any insurable structures in the floodplain within the areas of anticipated BFE increases. If required, the CLOMR will be submitted to the Charlotte-Mecklenburg Storm Water Services (CMSWS) for review and approval.

28. A traffic noise evaluation was performed that preliminarily identified 1 noise barrier meeting feasible and reasonable criteria found in the NCDOT Traffic Noise Policy. A more detailed analysis will be completed during project final design. Noise barriers found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors. Conversely, noise barriers that were not considered feasible and reasonable may meet the established criteria and be recommended for construction. This evaluation was conducted in accordance with the highway traffic noise requirements of Title 23 CFR Part 772.

H. Project Commitments

**Mecklenburg County
Proposed Improvements to the I-77 Interchange at N.C. 73 (Sam Furr Road)
Federal Project No. NHPP-077-1(220)29
WBS No. 50128.1.FS1
TIP No. I-5715**

NCDOT Hydraulic Unit

A Conditional Letter of Map Revision (CLOMR) is anticipated to be required for construction within the floodway of Caldwell Station Creek. If required, the CLOMR will be submitted to the Charlotte-Mecklenburg Storm Water Services (CMSWS) for review and approval.

NCDOT Geotechnical Unit/GeoEnvironmental Section

The Geotechnical Unit/GeoEnvironmental Section will further assess the affected properties for hazardous materials (Phase I assessment) and make right-of-way acquisition recommendations accordingly prior to right-of-way authorization. Should hazardous substance sites be discovered during construction activities, measures to minimize and/or mitigate potential impacts would be implemented.

NCDOT Traffic Noise and Air Quality Group

A more detailed analysis will be completed during project final design. Noise barriers found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors. Conversely, noise barriers that were not considered feasible and reasonable may meet the established criteria and be recommended for construction.

I. Categorical Exclusion Approval

STIP Project No.	<u>I-5715</u>
WBS Element	<u>50128.1.FS1</u>
Federal Project No.	<u>NHPP-077-1(220)29</u>

Prepared By:

1/23/2019

Date

DocuSigned by:

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 Teresa Gresham, P.E.
 Kimley-Horn and Associates, Inc.


Prepared For:

NCDOT Project Management Unit

Reviewed By:

1/24/2019

Date


DocuSigned by:

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 Laura Sutton, P.E., Team Lead
 Project Management Unit
 North Carolina Department of Transportation

NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.

1/25/2019

Date

DocuSigned by:

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 Derrick Weaver, P.E., Unit Head
 Environmental Policy Unit
 North Carolina Department of Transportation

FHWA Approval:

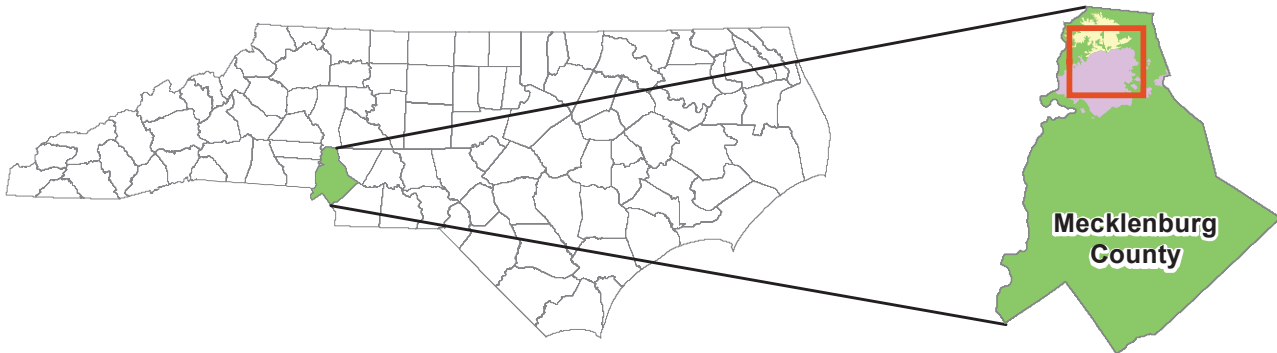
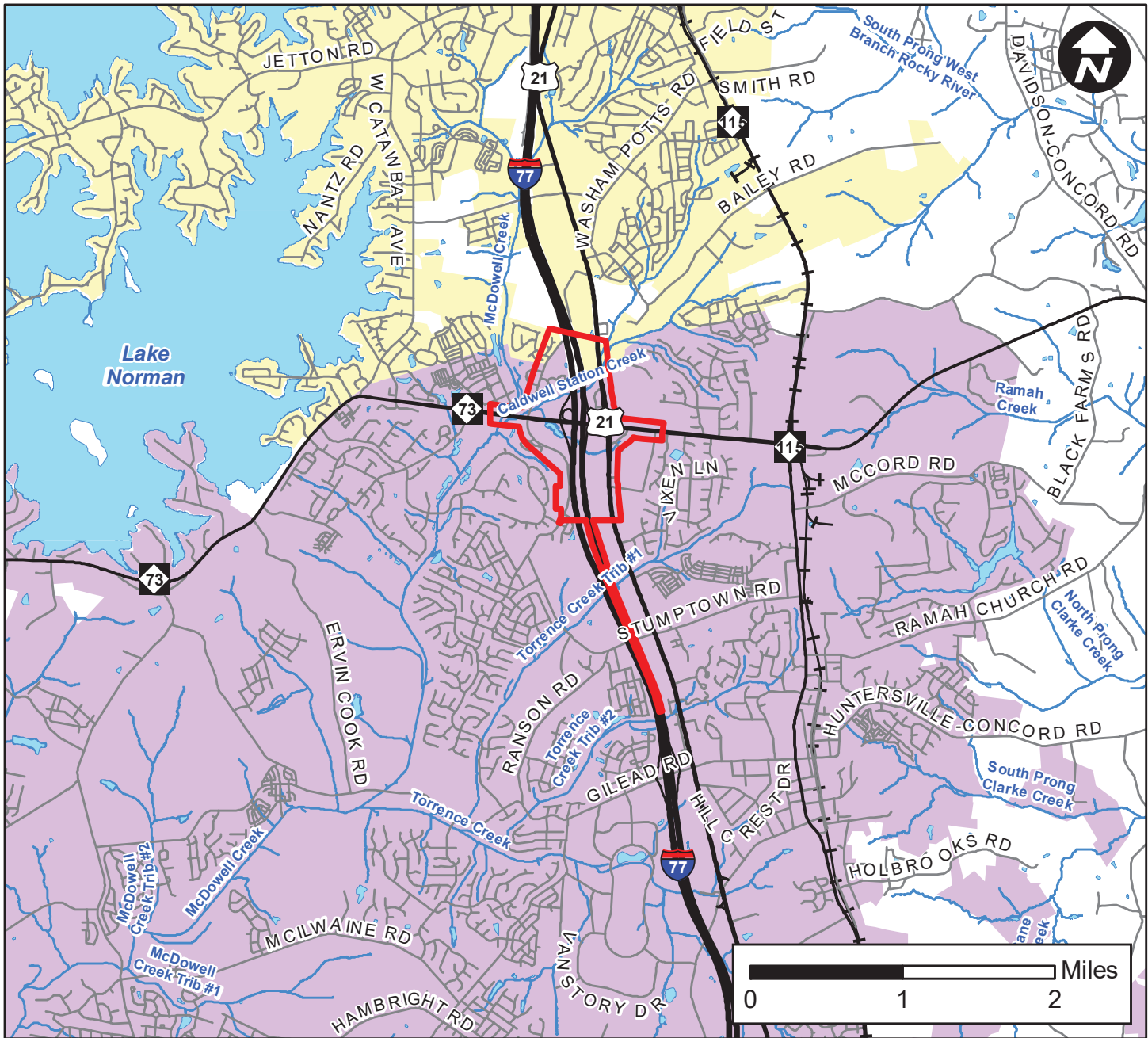
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Date

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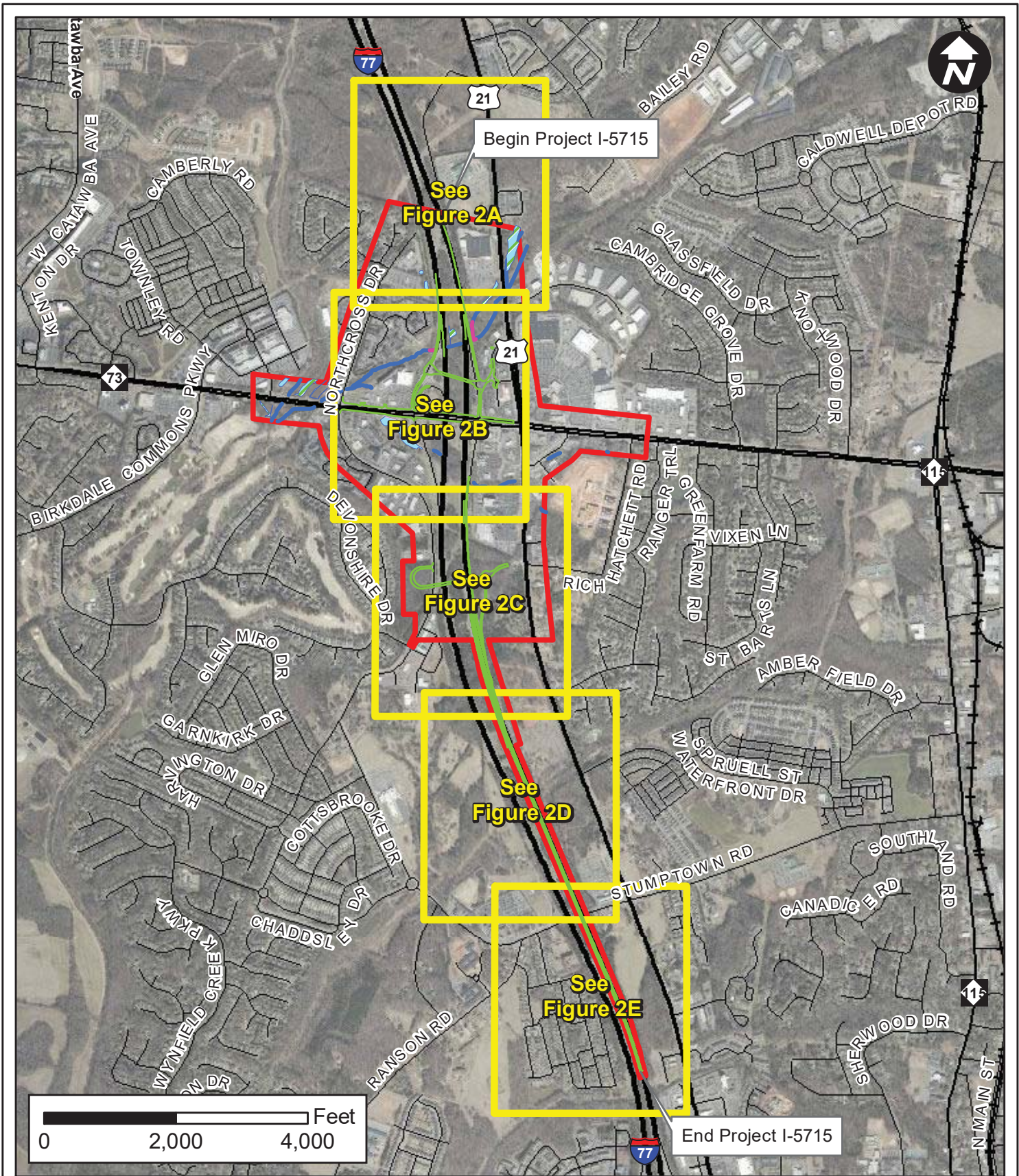
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 John F. Sullivan, III, PE, Division Administrator
 Federal Highway Administration



- I-5715 Study Area
- Town of Cornelius
- Town of Huntersville
- Body of Water
- Streams

Figure 1
Vicinity Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County



Begin Project I-5715

See Figure 2A

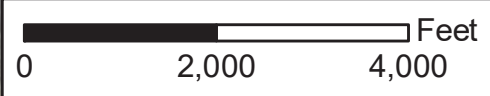
See Figure 2B

See Figure 2C

See Figure 2D

See Figure 2E

End Project I-5715



- I-5715 Corridor
- Delineated Streams
- Delineated Wetlands
- Ponds
- I-5715 Study Area
- Figures 2A-2E Extents

Figure 2: Design Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County



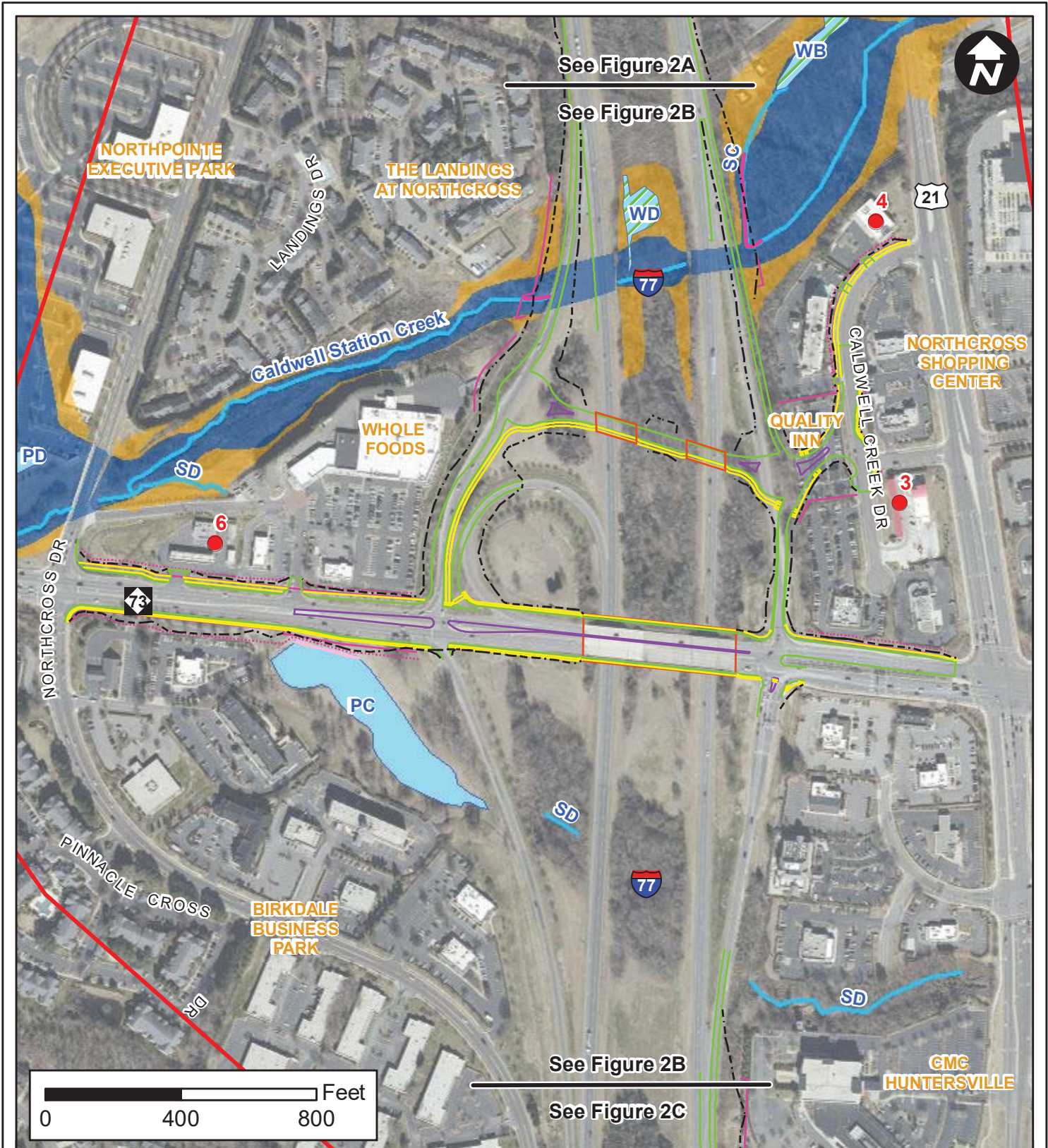
See Figure 2A

See Figure 2B

- Proposed Edge of Travel
- Proposed Slope Stakes
- Delineated Streams
- I-5715 Study Area
- Delineated Wetlands
- Delineated Ponds
- 100 Year Floodplain
- Floodway
- Parcel Boundary

Figure 2A: Design Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County

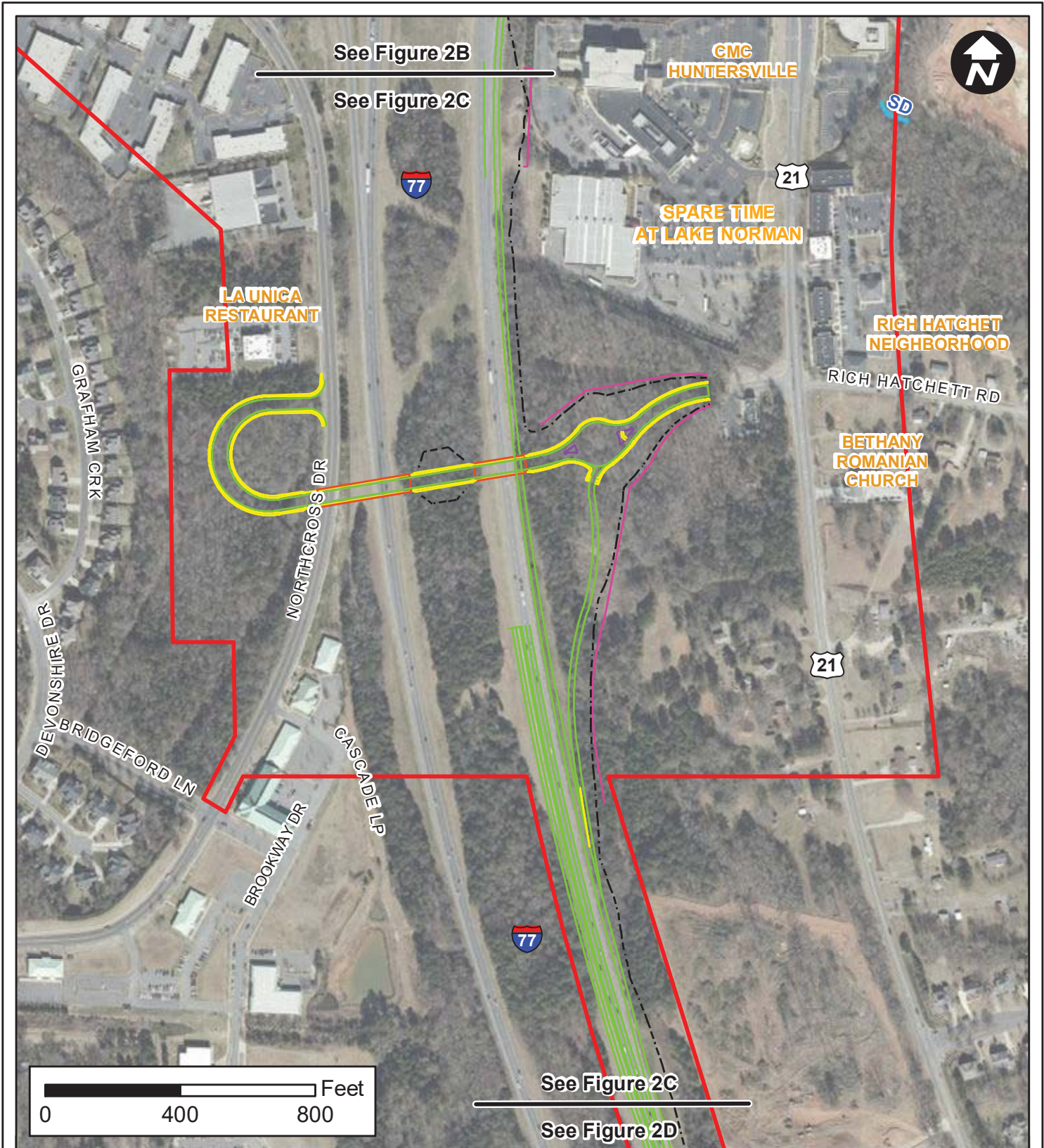




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|-----------------------------|-----------------------------------|-------------------------------------|
| — Proposed Sidewalk | Proposed Temporary Easement | ■ Delineated Ponds |
| — Proposed Roadway Bridge | — Proposed Right of Way | ■ Pond Impacts |
| — Proposed Edge of Travel | — Delineated Streams | ■ 100 Year Floodplain |
| — Proposed Concrete Island | — Stream Impacts | ■ Floodway |
| - - - Proposed Slope Stakes | □ I-5715 Study Area | ■ Parcel Boundary |
| | ■ Delineated Wetlands | ● Potential Hazardous Material Site |

Figure 2B: Design Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County

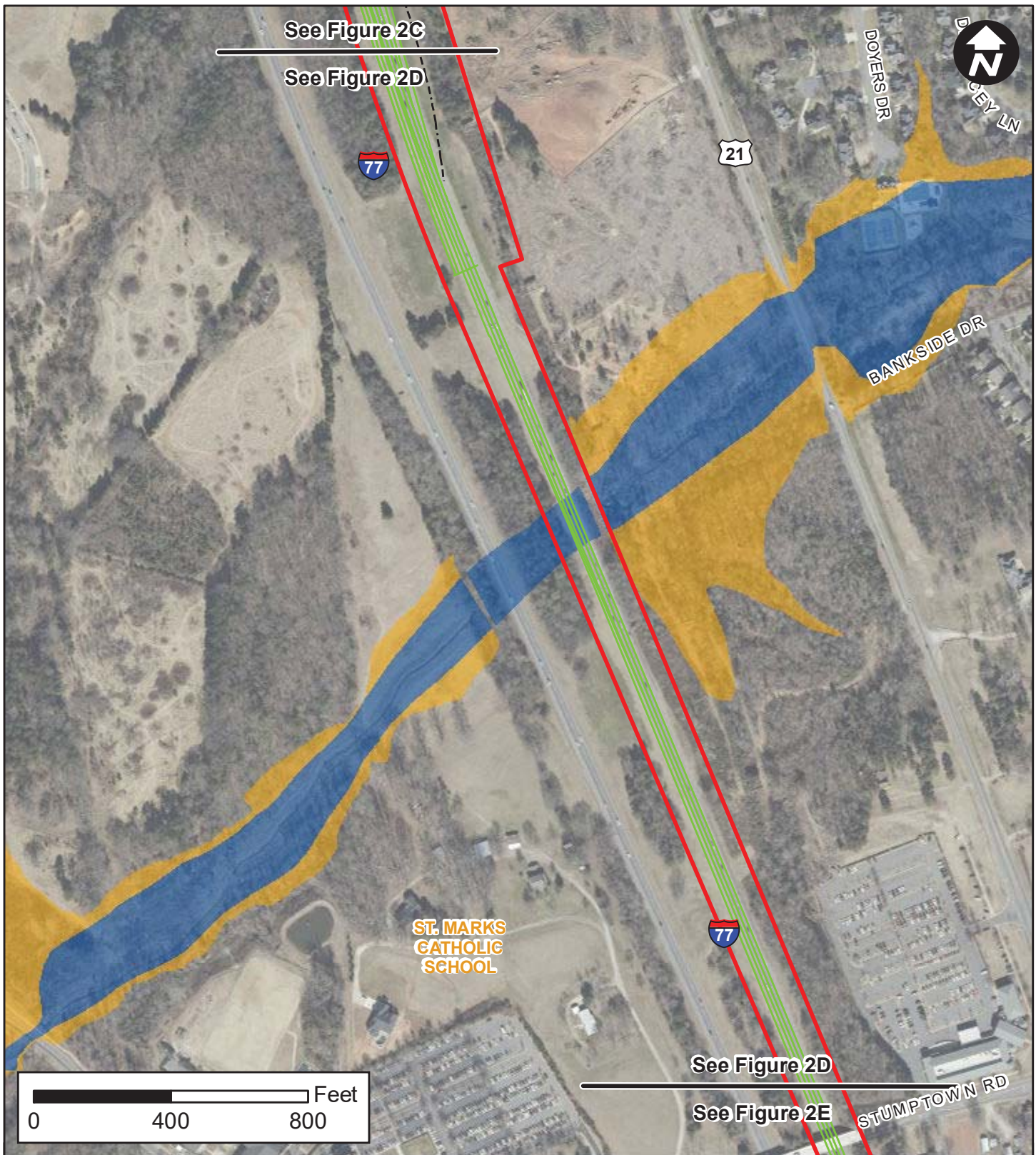




- Proposed Sidewalk
- Proposed Roadway Bridge
- Proposed Edge of Travel
- Proposed Concrete Island
- - - Proposed Slope Stakes
- Proposed Temporary Easement
- Proposed Right of Way
- Delineated Streams
- I-5715 Study Area
- Parcel Boundary

Figure 2C: Design Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County

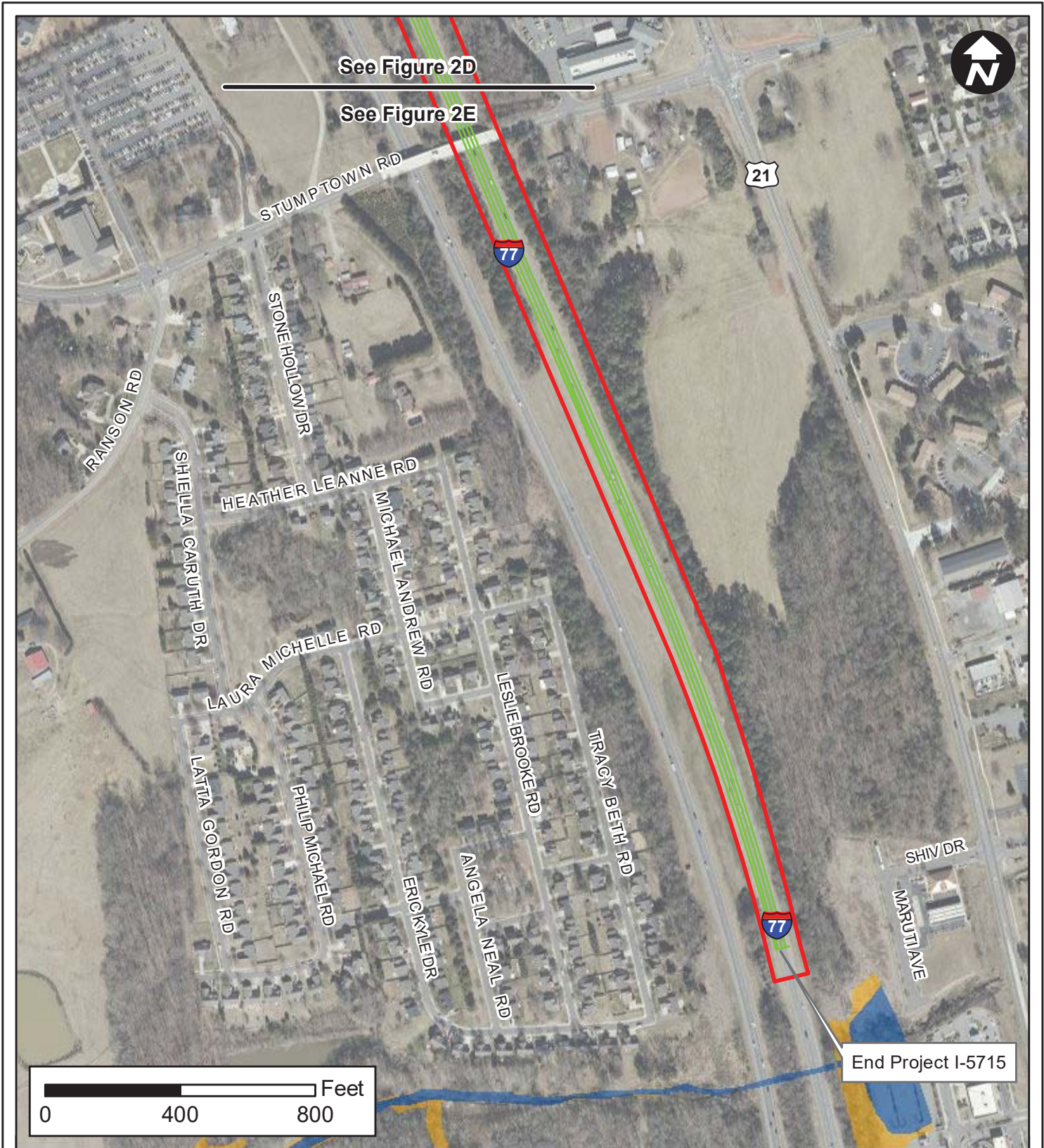




- Proposed Edge of Travel
- Proposed Slope Stakes
- I-5715 Study Area
- 100 Year Floodplain
- Floodway
- Parcel Boundary

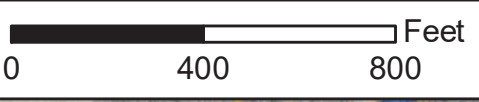
Figure 2D: Design Map
 NCDOT Project No. I-5715
 I-77/NC 73 Interchange Upgrade
 Mecklenburg County





See Figure 2D

See Figure 2E









-  Proposed Edge of Travel
-  Proposed Slope Stakes
-  I-5715 Study Area
-  100 Year Floodplain
-  Floodway
-  Parcel Boundary

Figure 2E: Design Map
NCDOT Project No. I-5715
I-77/NC 73 Interchange Upgrade
Mecklenburg County





Figure 3A: Five-Leg Roundabout Alternative
NCDOT Project No. I-5715
I-77/NC 73 Interchange Upgrade
Mecklenburg County



Figure 3B: Four-Leg Roundabout Alternative
NCDOT Project No. I-5715
I-77/NC 73 Interchange Upgrade
Mecklenburg County



16-09-0033

Soil types present within the APE for this undertaking are many. With little exception, all of the soils are identified as eroded and/or urban. Eroded soils are much less likely to have intact, significant archaeological remains. Urban soils are generally considered to have been terrascaped and graded in association with development. Archaeological sites often have poor integrity or are destroyed during that scale of earthmoving. On small area of moderately sloped soil where Rich Hatchett Road would be extended in the southeastern APE does contain some soil not listed as eroded. The landform is small with steep slopes surrounding it and signs of utility development nearby, and therefore a very low percentage of the APE. Overall, the APE has is eroded, sloped and heavily modified, making the presence of intact, significant resources unlikely.

For these proposed improvements and addition to an existing highway interchange, the project will have a large construction footprint, though most of that has already been heavily modified during original construction. There are no known archaeological sites within or adjacent to the project APE. Soil and landforms here are eroded and sloped with little exception. The potential for encountering archaeological sites that are intact and contain significant cultural deposits are low in both the old and proposed ROW. No archaeological survey is recommended for this undertaking as currently proposed.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This project involves improvements at an existing interchange of two highways and will include reconfiguration of ramps and two new crossings. Most of the work is on existing ROW, though some new ROW will be required for road construction, cut and fill areas and possible easements. Existing disturbances associated with the construction of the original facilities have likely destroyed the potential for archaeological integrity within the current ROW. The surrounding area has been developed with commercial properties, roads and utilities. Soils are noted throughout the APE as being eroded and sloped, and are therefore less likely to preserve archaeological remains in place. There are no known sites within the APE or nearby vicinity, including any NRHP eligible sites. Based current conditions, including the unfavorable quality of the landforms and widespread disturbances, no archaeological survey is recommended. Therefore, this undertaking should be considered compliant with Section 106.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



NCDOT ARCHAEOLOGIST

3/16/2017

Date

16-09-0033



HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	I-5715	County:	Mecklenburg
WBS No.:	50128.1.FS1	Document Type:	MCC
Fed. Aid No:	NHPP-077-1(220)29	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	unknown
<u>Project Description:</u> Upgrade existing I-77 & NC 73 (Sam Furr Rd) interchange to split diamond configuration.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

Date of field visit: February 23, 2017

Description of review activities, results, and conclusions:

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on October 6, 2016. Based on this review there are no NR, DE, LL, or SS in the project area. There is one Study-Listed property in the study area of this project. And Architectural Historian conducted an eligibility evaluation of the Pink Graham House (MK2291) and recommended to the Historic Preservation Office (HPO) that the house is not eligible for National Register listing. In a letter dated April 13, 2017 HPO concurred with our recommendation. No historic properties will be affected by this project.

SUPPORT DOCUMENTATION

- Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**

Shelby Reap
NCDOT Architectural Historian

April 18, 2017
Date



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

April 13, 2017

MEMORANDUM

TO: Shelby Reap
Office of Human Environment
NCDOT Division of Highways

FROM: Renee Gledhill-Earley *Renee Gledhill-Earley*
Environmental Review Coordinator

SUBJECT: Historic Structures Survey Report for Interchange Improvements at I-77 and NC-73,
I-5715, Mecklenburg County, ER 17-0573

Thank you for your March 24, 2017, letter transmitting the above-referenced report. We have reviewed the report and concur that the Pink Graham House (MK2291) is not eligible for listing on the National Register of Historic Places. It does not meet National Register criteria due to a lack of sufficient integrity. The dwelling was once part of a larger farm, but the land has been subdivided, outbuildings lost, and the landscape has been altered.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT, mfurr@ncdot.gov



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

December 4, 2018

TO: Bill Barrett, Environmental Senior Specialist
Environmental Coordination and Permitting Group, EAU

FROM: Melissa Miller, Environmental Program Consultant
Biological Surveys Group, EAU

SUBJECT: Section 7 survey results for the northern long-eared bat (*Myotis septentrionalis*) associated with the I-77/NC 73 (Sam Furr Rd.) interchange improvements at in Mecklenburg County, **TIP No. I-5715**.

The North Carolina Department of Transportation (NCDOT, Division 10) proposes to improve the I-77/NC 73 (Sam Furr Rd.) interchange in Mecklenburg County, TIP No. I-5715.

Northern long-eared bat

The project to improve the interchange at I-77 and NC 73 has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of December 4, 2018, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "probable/potential" in Mecklenburg County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

Location:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated October 2018, **the nearest NLEB hibernacula record is 69 miles north west of the project (EO ID 34299) and no known NLEB roost trees occur within 150 feet of the project area.** EO 34299 represents Linville Siterns site with observations from 2001-2009.

NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernacula entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25 mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

If you need any additional information, please contact Melissa Miller at 919-707-6127.