



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

May 7, 2018

**Meeting Summary**

STIP Project U-5768, NC 49 from John Kirk Drive to I-485; Widening of Existing Roadway and Relocation of Back Creek Church Road; Charlotte, Mecklenburg County

November 16, 2017 – 3:00 P.M to 5:00 P.M.

*Meeting Purpose: To reach concurrence on Concurrence Point 1 – Purpose and Need and Study Area Defined and Concurrence Point 2 – Design Options for Detailed Study*

Meeting Attendees

Crystal Amschler*	USACE	<a href="mailto:crystal.a.amschler@usace.army.mil">crystal.a.amschler@usace.army.mil</a>
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Bryan Key	NCDOT-CPM	<a href="mailto:bckey@ncdot.gov">bckey@ncdot.gov</a>
Jim Harris	NCDOT – Rail Division	<a href="mailto:jbharris@ncdot.gov">jbharris@ncdot.gov</a>
Kumar Trivedi	NCDOT – Engineering & Safety	<a href="mailto:katrivedi@ncdot.gov">katrivedi@ncdot.gov</a>
Simone Robinson	NCDOT – Human Environment	<a href="mailto:strobinson1@ncdot.gov">strobinson1@ncdot.gov</a>
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Adam Archual	HNTB	<a href="mailto:aarchual@hntb.com">aarchual@hntb.com</a>

\*Attended via phone

NCDOT opened the meeting. USACE made opening remarks concerning recent correspondence with NCDOT that had resulted in new information being added to the Merger meeting materials. The new information primarily addressed other design options to maintain access from Back Creek Church Road (BCCR) to NC 49. USACE/NCDOT pre-meeting discussions also included the appropriate limits of construction along BCCR south of NC 49.

The following summarizes the discussions during and decisions reached at the meeting. Action items and post-meeting notes are denoted in **bold text**.

#### Concurrence Point 1 Discussion

- Existing Features:
  - o NCWRC asked for clarification regarding the path and status of the Back Creek Greenway. HNTB and CDOT responded that the greenway is a long-term Mecklenburg County goal that is currently unfunded. The greenway would roughly parallel Back Creek through the study area, reaching to near I-485 on its east extent. *Note that the Mecklenburg County Parks and Recreation Greenway Plan Update (2008) listed the Back Creek Greenway in their 10-Year Action Plan.*
  - o Several parties spoke to the dangerous condition at the existing BCCR at-grade railroad crossing near NC 49, including SHPO, NCDOT-Division 10, and NCDOT-Rail Division. NCDOT noted the dangerously short throat on BCCR between the track and the traffic signal at NC 49. NCDOT-Rail Division is not in favor of leaving the crossing open and has worked for more than 20 years to close this crossing. Norfolk Southern (NS) strongly supports closing the crossing.
- Purpose and Need
  - o NCDOT presented the following preliminary purpose and need statement:

*The needs to be addressed by this project include:*

- *N.C. 49 is currently operating at or close to congested levels.*
- *From February 2000 through March 2016, there were six highway vehicle/train crashes at the NCR/NS at-grade rail crossing on Back Creek Church Road just south of NC 49. Current typical train traffic as reported by Norfolk Southern is 38 trains per day, and train volumes are expected to double in the future, as this crossing is located within the proposed NCDOT Southeast High Speed Rail corridor.*
- *With the proposed closing of the S.R. 2827 (Back Creek Church Road) railroad crossing at NCR/NS, the existing network connectivity between the Rocky River area to the south and N.C. 49 would be lost.*
- *Traffic volumes and lack of accommodations along N.C. 49 limit bicycle and pedestrian activity along regionally important multi-modal transportation routes. CDOT, UNCC, and University City Partners have cited the need to accommodate pedestrians and bicycles in any proposed improvement.*

NCDOT presented the following preliminary purpose statement

*The purposes of the proposed project are to reduce traffic congestion, improve traffic flow, and enhance traffic operations on N.C. 49 with the goal of achieving an overall Level of Service (LOS) D for intersections along the project corridor in the design year (2040), improve safety and enhance train and vehicle operations, and maintain network connectivity. A secondary purpose is to safely accommodate multi-modal uses of the corridor.*

- USACE requested that the format of the proposed purpose statement be changed to include screening criteria in bullets.
- USACE requested that “network connectivity” be changed to specifically address BCCR connection to NC 49.
- NCDOT and HNTB revised the purpose statement during the meeting to read:

*The primary purposes of the proposed project are to reduce traffic congestion, improve traffic flow, and enhance traffic operations on N.C. 49. Another purpose is to improve safety and enhance train and vehicle operations.*

*The screening criteria for this are:*

- *Achieve an overall Level of Service (LOS) D for intersections along the project corridor in the design year (2040).*
- *Maintain connectivity from N.C. 49 to Back Creek Church Road.*
- *Safely accommodate multi-modal uses of the corridor.*

- The Merger Team acknowledged that the separation of train and vehicle traffic is an important component of the project.
  - The Merger Team reached verbal agreement on Purpose and Need.
  - **Update 11-17-17: USACE noted in a follow-up e-mail that the statement as revised during the meeting may be too specific and asked that it be changed to “maintain connectivity within the existing road network.” The CP1 concurrence form has been revised accordingly (see attached supplemental information).**
- Study Area
- NCWRC requested a slight expansion of the proposed study area to the west to allow for a potential reduction in stream impacts along Back Creek, as related to the proposed realignment of BCCR. **Post meeting note: The study area has been expanded, per this request (see attached, Figure 1).**

- Discussion of the study area was postponed until later in the meeting, after a discussion of alternatives to be carried forward (see additional discussion below).

### Concurrence Point 2 Discussion

- It was noted the PowerPoint presentation included additional information, regarding other CP2 alternatives for the proposed realignment of BCCR, based on USACE/NCDOT discussions that had taken place before the meeting. That information was not provided in the Merger packet and therefore was new information for the team to consider. **Post meeting note: NCDOT sent the presentation to meeting invitees and attendees on 11-17-17.**
- NCDOT presented the following CP2 alternatives in the meeting (please refer to “Slide 31,” attached):
  - **No-Build Alternative**
  - **Build Alternative A:** *Best-fit widening along NC 49, relocation of S.R. 2827 (Back Creek Church Road) to NC 49 at S.R. 2833 (Mallard Creek Church Road), traffic flow and connectivity improvements to S.R. 2939 (Old Concord Road) and Thomas Combs Drive. A grade separation will be evaluated for N.C. 49 over S.R. 2833 (Mallard Creek Church Road)/Relocated Back Creek Church Road.*
  - **Additional Build Alternatives:** *NCDOT also presented two alternatives considered during feasibility studies for the proposed Eastern Circumferential Road (ECR). These alternatives included an improve existing alternative for BCCR (the “blue” option, and an alternative that provided an alternative connection to BCCR to the west (“orange” option).*
- USACE requested that additional written documentation be provided for the blue and orange options for to the proposed realignment of BCCR. It may be possible that these design options are screened out at CP 2; however, it was agreed that more supporting information is required to demonstrate whether these alternatives:
  - 1) meet the Purpose and Need
  - 2) are practicable
  - 3) are potentially the least environmentally damaging practicable alternative.
- NCWRC asked for clarification regarding the status of the ECR. CDOT replied that the project is active and is intended to serve as an alternate, or complementary, route to I-485, that they and NCDOT are currently pursuing segments of the project as funding becomes available, and that CDOT is currently constructing improvements to a section of BCCR south of John Russell Road (approximately 1 mile south of the proposed U-5768 study area).

- **Post meeting notes on the ECR and projects that will improve BCCR in the vicinity of the proposed project (see Figure 2, enclosed):**
  - o The following projects are included in the CRTPO 2045 Metropolitan Transportation Plan (MTP):
    1. CRTPO MTP ID No. 3074. Rosemallow Road to Rocky River Road; provide a median divided, 4-lane facility with bike lanes, part on new location, 1.8 miles; Horizon year 2035, not currently funded.
    2. The City of Charlotte will widen BCCR to 3 lanes from Rocky River Road to Scott Creek Church Road, currently funded for construction.
    3. NCDOT project W-5601BK will improve Rocky River Road from Hood Road to BCCR. The project will add turn lanes and install traffic signals at each intersection. The right of way acquisition process for this project is underway, and construction is scheduled to begin in late 2018 or early 2019.
    4. The CRTPO MTP includes six additional ECR segments from Rocky River Road to US 74 in Matthews (ID Nos. 3082, 3090, 3099, 3105, 3112, and 3122). None of these projects are currently funded.
- NCWRC requested that design options for relocated BCCR that reduce stream impacts be examined, specifically in the area of a couple tributaries to Back Creek.
  - o NCDOT responded that the proposed BCCR alignment (yellow option) as shown should be considered a “starting point” and that avoidance and minimization measures will be identified and implemented as design proceeds.
- USACE stated that they do not want to be “married” to an alignment and asked if, instead, the yellow option could be presented as a corridor?
  - o NCDOT responded that BCCR realignment could be presented as a corridor, with the understanding that avoidance and minimization measures will be pursued.
    - It was agreed all CP2 alternatives would be shown as corridors rather than alignments.
    - **Post-meeting note: each of the CP2 alternatives is shown as a 200-foot corridor in Figure 1, which is included in the attached supplemental information.**
- USACE requested that the orange option be revised to tie to existing BCCR, rather than tying into John Russell Road.
  - o CDOT requested that the orange option tie to existing BCCR north of the BCCR widening project that is currently under construction by CDOT (see

attached BCCR/ECR graphic). **Post-meeting note: The orange option has been adjusted to tie to existing BCCR south of Timber Ridge Road, to avoid impacts to the retention pond north of Back Creek, and to reduce impacts to residential neighborhoods (see Figure 1 in attached supplemental information).**

- During the meeting, a new possible option (“purple” option) was discussed. The purple option would utilize more of the existing BCCR alignment than the yellow option. This option utilizes extreme horizontal geometry north of Back Creek that would require superelevated curves (i.e., banking). The City of Charlotte has stated that this corridor needs to provide safe accommodations for pedestrians and cyclists and that their policy is to avoid superelevated curves for facilities with multiuse paths. If flatter curves are used to avoid superelevation, it is likely that this option would either (1) encroach onto Back Creek resulting in greater stream impacts than currently anticipated or (2) encroach onto residential properties to the north. This option would also bisect the County-owned parcel that is planned for development as a park
- During the meeting, the Merger Team asked if it would be possible to construct a grade separation tunnel BCCR under NC 49 and the NCRR crossing. This possibility was discussed in the P-5208 Environmental Assessment (EA). The EA examined and dismissed two alternatives to grade-separate BCCR over and under NCRR/NS due to topographical constraints, access requirements, and potential impacts to nearby residential and business properties.
- It was suggested that a “crossover” alternative for the realignment of BCCR be considered that would follow the yellow option north of Back Creek and the orange alternative south of Back Creek. **Post-meeting note: A new option (red option) has been developed for this concept (see Figure 1 in the attached supplemental information).**
- At the request of the Merger Team, it was agreed **NCDOT will prepare a memorandum, to be distributed with the meeting summary, containing the requested information (see attached supplemental documentation). The Merger Team will review the materials and determine if sufficient information has been provided to allow any of the BCCR realignment alternatives to be removed from further consideration before proceeding with detailed studies.**
- Once the Merger Team has the opportunity to evaluate the additional information and review the revised CP2 form, a decision will be made as to which CP2 alternatives will be carried forward.
- It was noted the alternatives to be removed from further consideration will be addressed (briefly) in the NCDOT SEPA document(s).
- The proposed typical sections for NC 49 and relocated BCCR were displayed, but were only briefly discussed. Both typical sections propose a four-lane divided typical section with bike and pedestrian accommodations.

Concurrence Point 1 Follow-Up Discussion (Study Area)

- Following the above CP 2 discussions, CP1 (study area) discussions resumed.
- Whether to expand the study area to include the orange option was briefly discussed.
  - o NCDOT stated a preference to not incorporate the orange option into the study area at this time and to defer a decision on the study area until concurrence has been reached on the alternatives to be carried forward for detailed study.
  - o The study area (CP1) will be reassessed for adequacy after CP2 concurrence is reached.
- Logical Termini.
  - o During the USACE/NCDOT discussions that took place before the Merger meeting, USACE requested that NCDOT provide information to show that improvements to existing BCCR are not needed south of the location where realigned BCCR will tie into existing BCCR in order to provide an appropriate level of service at the NC49/BCCR/Mallard Creek Church Road intersection.
  - o USACE briefly noted during the meeting that additional information will be needed to confirm that the limits of construction along BCCR south of NC 49 going southward towards Rocky River Road are appropriate. **(See attached supplemental information.)**

**Post-Meeting Notes:**

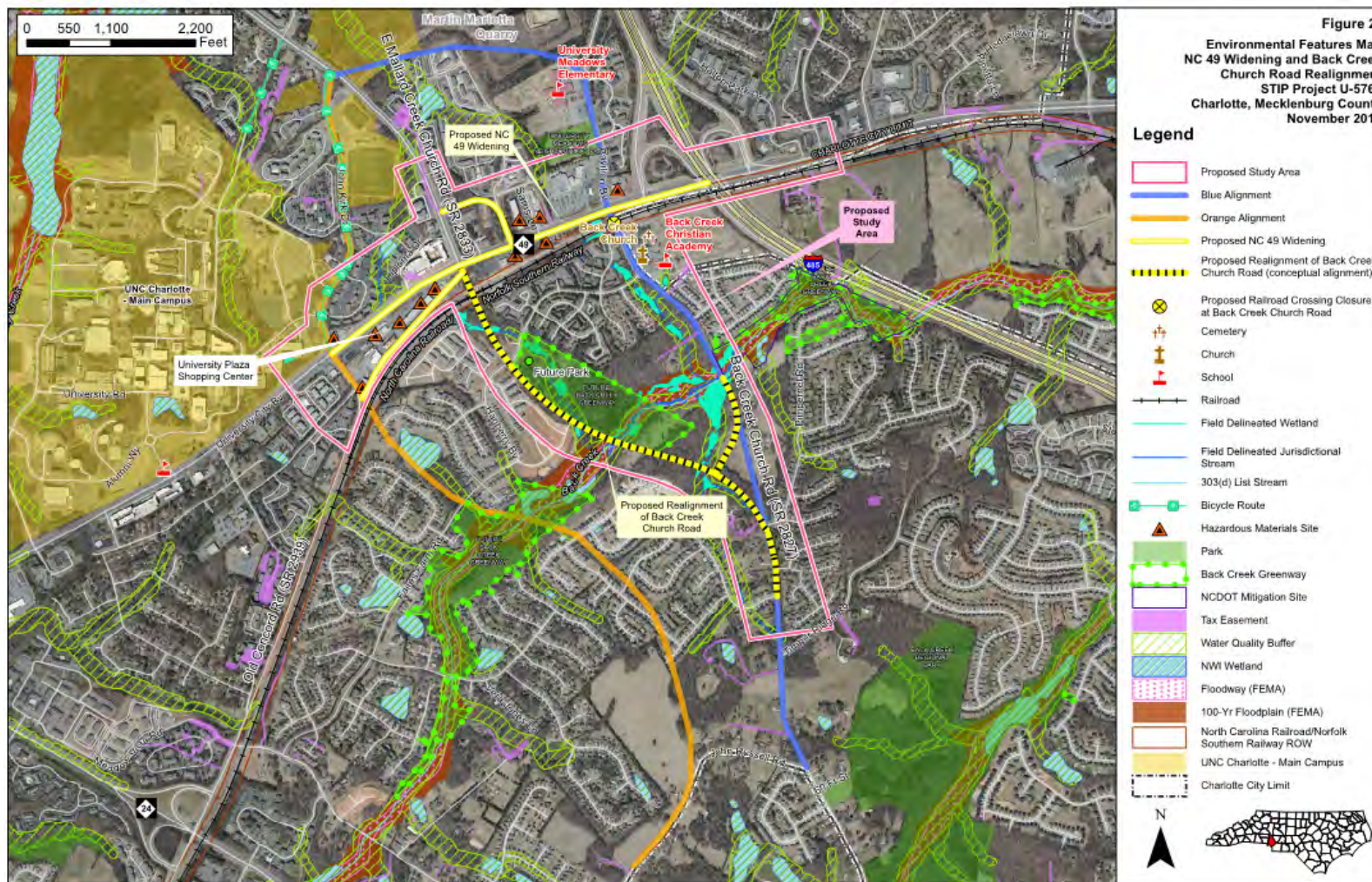
**As requested during the meeting, and as noted above, additional information regarding the alternatives to be carried forward for detailed study (CP2) for the proposed relocation of BCCR has been prepared and is attached to this memo. In addition, the proposed purpose and need statement and study area (CP1) have been revised, and the revised CP1 concurrence form is included in the attached supplemental information. The proposed CP2 concurrence form (alternatives to be carried forward for detailed study) is also included in that information.**

**NCDOT and USACE are still reviewing supplemental information with regards to options to be carried forward for detailed study. Once this review has been completed, NCDOT will provide supplemental information and revised CP1/CP2 forms for Merger Team review.** Please direct any comments or questions to Wilson Stroud, (919-707-6045, [wstroud@ncdot.gov](mailto:wstroud@ncdot.gov)) or Ken Gilland (919-424-0486, [kgilland@hntb.com](mailto:kgilland@hntb.com)).

kg/WS

Attachments: CP2 Alternatives (Slide #31 from 11/16/17 CP1/CP2 Merger Meeting)  
 Figure 1 Revised Study Areas and Possible CP2 Alternatives  
 Figure 2 Nearby BCCR/ECR Projects (NC 49 to Rocky River Road)  
 Supplemental CP1 and CP2 information (includes revised concurrence forms) (to be sent by USACE).

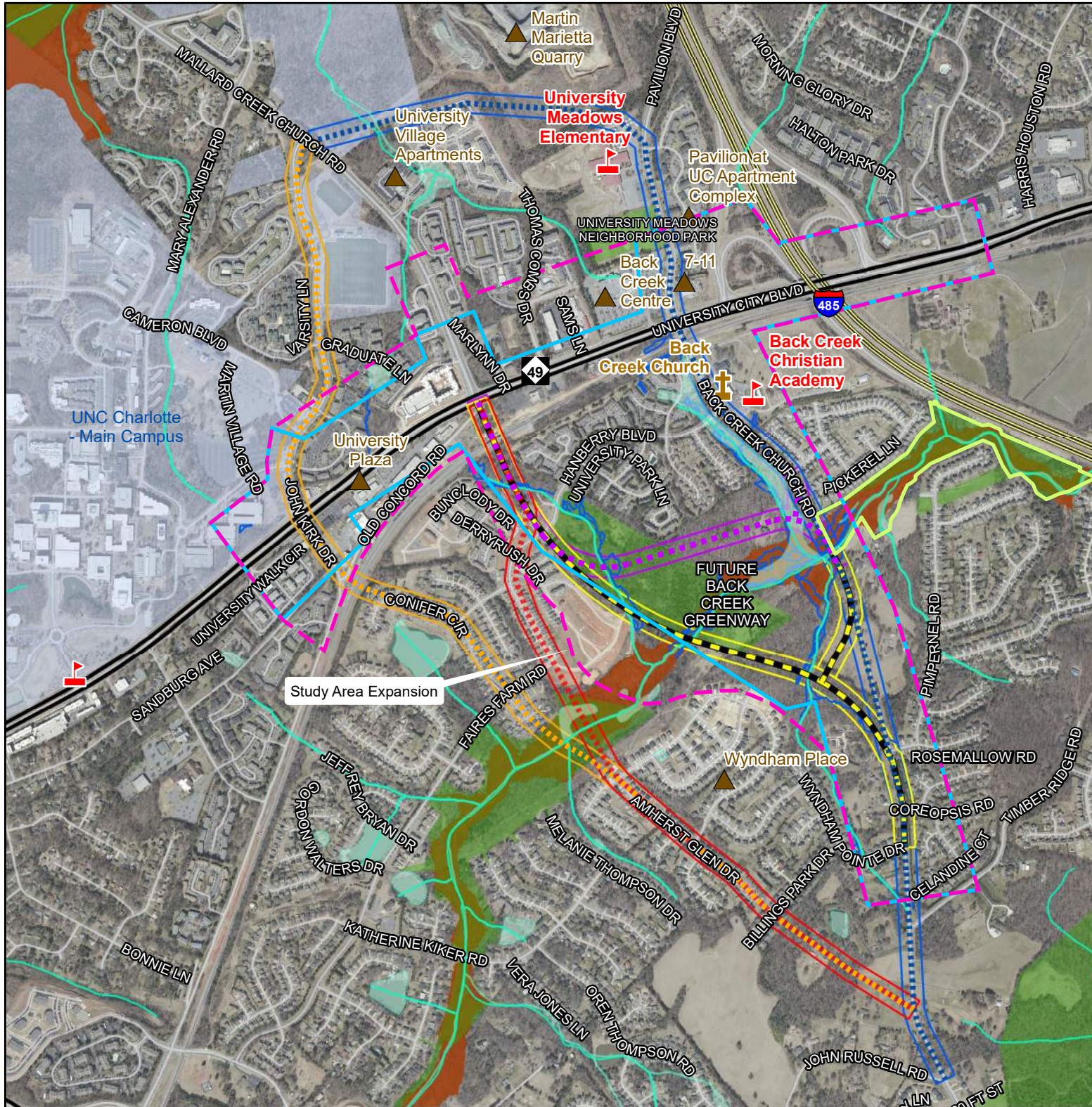
# 1989 ECR Report





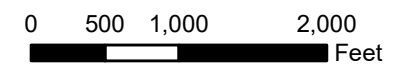
**Figure X - Study Area Revision**

May 2018



**Legend**

- U-5768 Study Area (Original Surveys)
- - - U-5768 Study Area (Proposed Expansion)
- Church
- School
- Other Referenced Place
- Proposed County Park
- UNC Charlotte
- NHD Streams
- NWI Wetlands
- WEX File Features
- 100-Yr Floodplain (FEMA)
- NCDOT Mitigation Site
- Interstate
- NC Route
- Road
- Purple Option (new)
- Purple Option 200' Buffer
- Orange Option (revised)
- Orange Option 200' Buffer
- Red Option (new)
- Red Option 200' Buffer
- Blue Option
- Blue Option 200' Buffer
- ECR Preferred Option
- ECR Preferred Option 200' Buffer



**Figure 2**

# Back Creek Church Road

(future ECR)



Back Creek Church Road to dead-end at Railroad when Eastern Circumferential Road is connected to Back Creek Church Road

Northern Section | Eastern Circumferential Road  
Funded Project  
STIP Project U-5768 proposes a 4-lane divided facility.

Middle Section | Eastern Circumferential Road /  
Back Creek Church Road  
Unfunded Project  
Included in CRTPO MTP as a horizon year 2035 project; proposes a 4-lane divided facility.

Southern Section | Eastern Circumferential Road  
Unfunded Project  
Included in CRTPO MTP as a horizon year 2035 project; proposes a 4-lane divided facility.



Southern Section | Back Creek Church Road  
2017 | \$4.7 million total Under construction by  
(Funded Project) CDOT; 3-lane facility

Back Creek Church Road and Rocky River Road  
Intersection Improvement Project W-5601BK  
Funded Project  
Scheduled for construction in 2018/2019 by NCDOT

Adapted from materials by:

