

Section 404/NEPA Merger Project Team Meeting
STIP Project No. U-2509
U.S.74 (Independence Boulevard)
From West of Idlewild Road to I-485 (Charlotte Outer Loop) in Mecklenburg County and within
the City of Charlotte and the Town of Matthews

Concurrence Point 3 and 4A
April 8, 2020

NCDOT STIP No. U-2509, F.A. Project
No. NHS-74(70), WBS No. 38965.1.1.

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US 74 (Independence Boulevard) Improvements

From West of Idlewild Road to I-485 (Charlotte Outer Loop) in Charlotte and Matthews

Mecklenburg County, North Carolina

Federal Aid Project No. NHS-74(70)

NCDOT STIP Project No. U-2509

WBS No. 38965.1.1

Purpose of this Meeting

The purpose of this Merger Team meeting is to concur on the Least Environmentally Damaging Practicable Alternative (CP3) and Avoidance and Minimization (CP4A) for the subject project.

Project Description

The North Carolina Department of Transportation (NCDOT) is in the process of planning for improvements and implementing a network of express lanes in southeastern Charlotte and Matthews. Independence Boulevard (U.S. 74) is a multilane, median-divided arterial route that serves as the main gateway to Uptown Charlotte from southeast Mecklenburg County and northwest Union County.

To accommodate anticipated growth, NCDOT is undertaking a series of express lane projects on I-77, I-485, and U.S. 74 (Independence Boulevard). These express lane projects are intended to provide users with a network of reliable travel time options throughout the region, especially during peak travel hours, to help improve traffic capacity.

The project is to be let in two sections, U-2509A and U-2509B. The U-2509A section includes improvements on routes parallel to U.S. 74 to provide better connectivity within the communities and help minimize congestion during construction on U.S. 74. The parallel roads to be connected and extended are Independence Pointe Parkway, Northeast Parkway, Arequipa Drive, and Krefeld Drive. The U-2509B section includes upgrading U.S. 74 to an expressway by replacing all signalized intersections with interchanges and overpasses, widening the existing road to provide additional general purpose lanes, and providing express lanes in the median from west of Idlewild Road to I-485. The project vicinity and location are shown in **Figures 1 and 2**, and the Community Facilities figures are shown in **Figures 3 and 4**, located in the Appendices.

Purpose and Need of Project

The purpose of the project is to provide reliable travel time and improve mobility along the U.S. 74 corridor, provide system sustainability, and maintain and improve connectivity across and along U.S. 74 to, from, and between adjacent communities within the study area.

The need of this project is summarized as follows:

- Existing U.S. 74 does not provide reliable travel time and connectivity for residents, business patrons, and commuters in southeastern Charlotte and Matthews.
- Traffic estimates indicate that U.S. 74 will require additional capacity to achieve a goal of level of service (LOS) D for users by the design year (2040).
- This project is needed to provide reliable travel time, system sustainability, and connect to a system of express lanes planned on U.S. 74 to the northwest, I-485 to the south, and the Monroe Expressway to the southeast.

Project Status, Background, Schedule and Cost

The project is included in the 2020-2029 NCDOT State Transportation Improvement Program (STIP) and will be funded using Federal, State and local funds. The project is to be let to construction in two sections (A and B), with the following schedules (subject to change):

U-209A:	Design-Bid-Build	Begin ROW Acquisitions- 2021	Begin Construction- 2022
U-2509B:	Design-Build	Let- 2023	

[A federal Environmental Assessment \(EA\) for U-2509 was signed by FHWA on January 6, 2020.](#) A Finding of No Significant Impact (FONSI) will be prepared with any updates that have occurred since completion of the EA, including, but not limited to, information from the Design Noise Report, public comments, final anticipated impacts, updated cost estimates (from the Cost Estimate Review to be conducted by FHWA), and results of Merger Concurrence Points 3 and 4A. The final document (FONSI) is anticipated in Summer 2020.

The following projects are located in the vicinity of U-2509:

- I-5507: I-485, I-77 South of Charlotte to US 74 (Independence Boulevard). Add Express Lane in each direction (under construction)
- I-5507: I-485 in Mecklenburg County from I-77 south of Charlotte to US 74 (Independence Boulevard). Add one express lane in each direction.
- I-5718: I-77 in Mecklenburg County from South Carolina State Line to I-277/NC 16 (Brookshire Freeway). Widen existing freeway to ten lanes by constructing managed lanes, reconstruct I-277 interchanges, and install ramp meters.
- I-5405: I-77 in Iredell and Mecklenburg counties from I-277 (Brookshire Freeway) to West Catawba Avenue (Exist 28). Construct High Occupancy Toll (HOT) Lanes and convert existing High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes.
- I-3311: I-277 (Brookshire Freeway) in Charlotte to SR 5544 (West Catawba Avenue – Exit 28). Additional Lanes.
- U-6103: US 74 (Independence Boulevard) in Mecklenburg County from I-277 to West of Idlewild Road. Widen roadway to allow for two-way express lanes.

Merger History

Concurrence Point 1: (Purpose and Need and Study Area Defined) was achieved on March 19, 2015. Information about the existing and projected traffic conditions along the corridor were presented in the meeting package. The study area agreed on includes proposed improvements to existing U.S.74 (Independence Boulevard) and an existing network of parallel roads and their proposed connections. The study area ranges from 500 to approximately 2,000 feet on either side of the existing U.S.74 centerline. The study area also includes an expanded area around the I-485 interchange to evaluate express lane connection alternatives to I-485 and an extension to the southeast along U.S.74 to include access to the proposed Monroe Connector/Bypass toll lanes.

An amendment to CP1 was approved by the merger team on March 21, 2019. The study area was amended because of shifts in the alignment.

Concurrence Point 2: (Detailed Study Alternatives to be Carried Forward) was achieved on May 18, 2016. In addition to the No-Build Alternative, the merger team selected the Detailed Study Alternatives to be carried forward to include:

- Expressway concept with best-fit alignments: Improvements to U.S.74 from west of Idlewild Road to I-485, to include widening and the addition of grade separations and interchanges to bring the facility to the level of an Expressway as well as the addition of Express Lanes in the median. Express lane connections to the proposed I-485 express lane project to the south and the proposed Monroe Bypass/Connector Toll Road will be included, as well as the connection of parallel roads and the construction of an interchange at Sardis Road North.
- Parallel roads being considered:
 - Krefeld Drive Extension (Krefeld Drive to Sardis Road North)
 - Arequipa Drive/Northeast Parkway (Margaret Wallace Road to Sam Newell Road)
 - Krefeld Drive/Independence Pointe Parkway (Crownpoint Executive Drive to Sam Newell Road)
 - Northeast Parkway (Overcash Drive to Matthews-Mint Hill Road)
 - Independence Pointe Parkway Alternatives (Windsor Square Drive to Matthews Township Parkway) – 3 options
 - Independence Pointe Parkway (Matthews Township Parkway to Campus Ridge Road)
- Sardis Road North Interchange Alternatives:
 - Half-Clover
 - City Design

Concurrence Point 2A: (Bridging Decisions and Alignment Review) was achieved during a merger field review meeting on June 20, 2016. The merger team concurred on the recommendations for 14 major drainage structures, as presented in the Preliminary Hydraulics Study for Environmental Impacts prepared in April 2016 and revised based on the field review.

Project Schedule

Environmental Assessment	January 6, 2020
Public Hearing	January 28-29, 2020
FONSI	June 2020
ROW Acquisition	FY 2021 – U-2509A FY 2023 – U-2509B (Design-Build)
Construction	FY 2022 – U-2509A FY 2023 – U-2509B (Design-Build)

The tentative project schedule is shown above. Dates are subject to change.

Cost Estimates

Table 1. Project Cost Estimates

	Right-of-Way ¹	Utilities ¹	Construction ²	Total Cost
Parallel Collector Roads	\$77,255,000	\$8,921,868	\$62,000,000	\$148,176,868
Independence Pointe Parkway – Option 1	\$16,537,500	\$2,225,844	\$14,600,000	\$33,363,344
Independence Pointe Parkway – Option 2	\$22,537,500	\$1,723,133	\$15,000,000	\$39,260,633
Independence Pointe Parkway – Option 3	\$25,537,500	\$1,723,133	\$13,500,000	\$40,760,633
U.S. 74	\$323,552,123	\$36,889,047	\$336,400,000	\$696,843,170
TOTAL				\$878,383,382 to \$885,780,671

Total Cost with IPP Option 1 = \$878,383,382; Total Cost with IPP Option 2 = \$884,280,671; Total Cost with IPP Option 3 = \$885,780,671. ¹ Based on completed estimates from NCDOT-ROW Unit and Utilities Unit on May 22, 2019. ² Based on estimates updated in March 2020 prepared by NCDOT Preliminary Estimates Unit.

Public Involvement

In March 2015, public meetings were held on two consecutive nights – one in the City of Charlotte (attended by 42 residents) and one in the Town of Matthews (attended by 43 residents). NCDOT hosted a local officials’ meeting prior to each night of the 2015 public meeting. In addition, NCDOT intermittently held meetings with local officials from 2014 through 2019 to discuss express lanes, access locations, driveway access, bicycle and pedestrian accommodations to be included in the project, and other topics.

Over a series of three public meetings for I-5507 in 2015, 2018, and 2019, NCDOT representatives provided an overview of the proposed U-2509 project, including preliminary project designs/maps and display boards with visualizations, and included a description of the proposed network of express lanes and resulting connectivity south of uptown Charlotte.

Between 2014 and 2019, NCTA held a series of outreach meetings to provide information to the public on express lanes, including STIP project U-2509. Presentations were made to more than 30 neighborhood groups, Lions Clubs, Rotary Clubs, Kiwanis Clubs, Chambers of Commerce, and similar organizations during that time.

Project information was shared with the public through handouts (in English and Spanish) at each public meeting.

Throughout project development, meetings were held with the Town of Matthews, City of Charlotte, CRTPO, Mecklenburg County, and other local stakeholders to gain input and direction on numerous aspects of the project. These meetings included presentations to the Town of Matthews Board of Commissioners and Charlotte City Council, right-of-way and access meetings, bicycle and pedestrian coordination meetings, a series of six design workshops, coordination with CATS on their light rail extension plans, as well as coordination meetings with local EMS officials and CPCC officials.

NCDOT kept the public informed through its project website, as well as reaching out to those members of the public that contacted NCDOT through phone and mail contacts and the toll-free hotline.

On January 28, 2020, NCDOT hosted a mid-afternoon Local Officials Informational Meeting in the Town of Matthews at CPCC Levine Campus to discuss the project with local stakeholders. This was followed by an early-evening public hearing where the public was invited to view the project maps as well as ask project representatives any questions regarding U-2509; 155 members of the public signed in at the meeting.

On January 29, 2020, NCDOT hosted a second Local Officials Informational Meeting in the City of Charlotte at Ovens Auditorium. A second public hearing followed, with 61 members of the public signing in. NCDOT, NCTA, and VHB had staff on hand at both public hearings to discuss:

- U-2509 (widening and adding express lanes on U.S. 74 from west of Idlewild Road to I-485 and connecting parallel roadways)
- Proposed Section 4(f) *de minimis* impacts
- Right-of-way acquisition and concerns
- Traffic Noise questions/comments: for U-2509 (U.S. 74) Traffic Noise Analysis and I-5507 (I-485) Noise Barriers
- U-6103 (U.S. 74 express lanes project from West of Idlewild Road to I-277)
- Tolling related issues with representatives from NC Quick Pass

In addition to these projects, representatives were on hand to provide information on other planning activities that are taking place in the project area.

- CRTPO projects
- CATS projects
- Independence Boulevard Pedestrian Study

A comment period was open for 30 days following the local officials and public hearing meetings, the Environmental Assessment, and the USACE Public Notice, respectively. The public comments received from all of these are attached in the Appendix to this packet. In addition to the comments from the general public, we received comments from the following; Catawba Nation, State Historical Preservation Office, Town of Matthews, and through the State Clearinghouse.

Through the development of the project from 2014 – 2020, the following are the main general comments and questions received on the project:

1. The bicyclist and pedestrian community and the project's impacts to safety and greenway access
2. Questions about property impacts
3. Questions about access and new traffic patterns
4. Support for the addition of general purpose lanes
5. Express Lanes - most are accepting of them once they understand they have a choice and widening general purpose lanes. A couple have expressed dislike of any tolled lanes or road.
6. Very positive support for including improvements to the parallel roads network

Alternatives Recommended for Detailed Study

Based on the May 18, 2016 Merger meeting, the following alternatives were carried forward for detailed study.

Sardis Road North Interchange Alternatives

Two Sardis Road North Interchange options were carried throughout the preliminary design process.

Sardis Road North – City Design

This interchange alternative would have a quadrant loop road between Sardis Road North and US 74 in the northwest quadrant of the interchange, allowing for entrance/exit to/from US 74 westbound. For eastbound travel along US 74, Ardis Court would be a right-in only from US 74, and Crownpoint Executive Drive would be a right-out only connection to US 74. The quadrant loop and right-in, right-out movements would have functioned together as an interchange. Based upon analysis by NCDOT's Congestion Management Section (December 2018), it was agreed during the March 21, 2019 Merger update meeting that this option could not be the LEDPA because it would not operate at an acceptable Level of Service and thus would not meet the purpose and need of the project. It was agreed this alternative would be addressed in the environmental document, but not shown to the public for comment.

Sardis Road North – Partial Cloverleaf

This interchange alternative would have entrance and exit ramps between Sardis Road North and US 74 in the northeast and southeast quadrants of the interchange. In addition, Ardis Court would be a right-in right-out access at US 74, and Crownpoint Executive Drive would be closed with a cul-de-sac and no longer connected to US 74. Because this option became the only option in December 2018, it is discussed in the EA as part of the Build Alternative.



City Design Option for Sardis Road North Interchange



Partial Cloverleaf Option for Sardis Road North Interchange

Independence Pointe Parkway Alternatives

The three Independence Pointe Parkway Options near NC 51 (Matthews Township Parkway) are described below.

Independence Pointe Parkway – Option 1

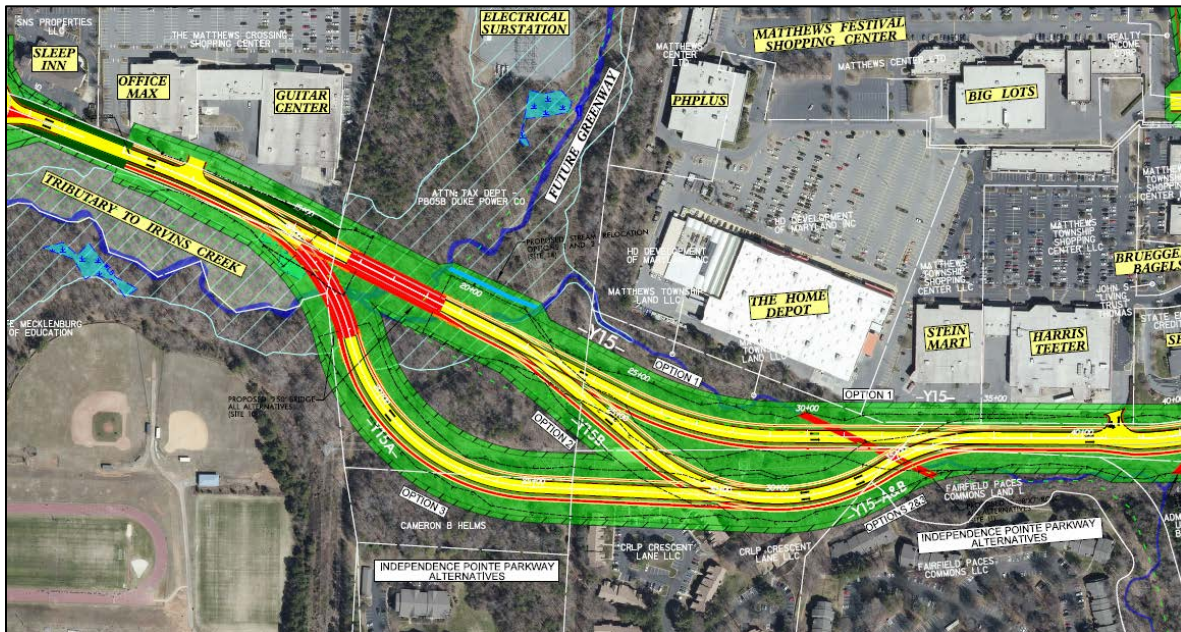
Option 1 would connect the existing sections of Independence Pointe Parkway from Windsor Square Drive to NC 51 in a relatively straight line, following behind the existing development at Matthews Festival Shopping Center currently fronting US 74. It would include a 425-foot bridge over Irvins Creek Tributary 1 and impact approximately 856 feet of streams, bridge 436 feet of streams and result in 280 feet of stream relocation. There are no residential or business relocations with this option. Duke Energy has evaluated the alternatives and prefers this option due to crossing under a transmission line only once. Duke Energy also noted that asset impacts are minimal for Option 1 as compared to the other options.

Independence Pointe Parkway – Option 2

Option 2 would connect the existing sections of Independence Point Parkway similarly to Option 1, but slightly curving away from the back of Home Depot and then tying back to Option 1 just east of Irvins Creek Tributary 1. It would include a 425-foot bridge over Irvins Creek Tributary 1 and impact approximately 683 feet of streams, bridge 436 feet of streams and result in 232 feet of stream relocation). Two nearby apartment buildings would be impacted, with a total of 24 relocatees, Duke Energy's evaluation indicated this was their "least preferred" option and "has been ruled out completely," as it would require some work in the floodplain which would complicate and minimize their relocation options.

Independence Pointe Parkway – Option 3

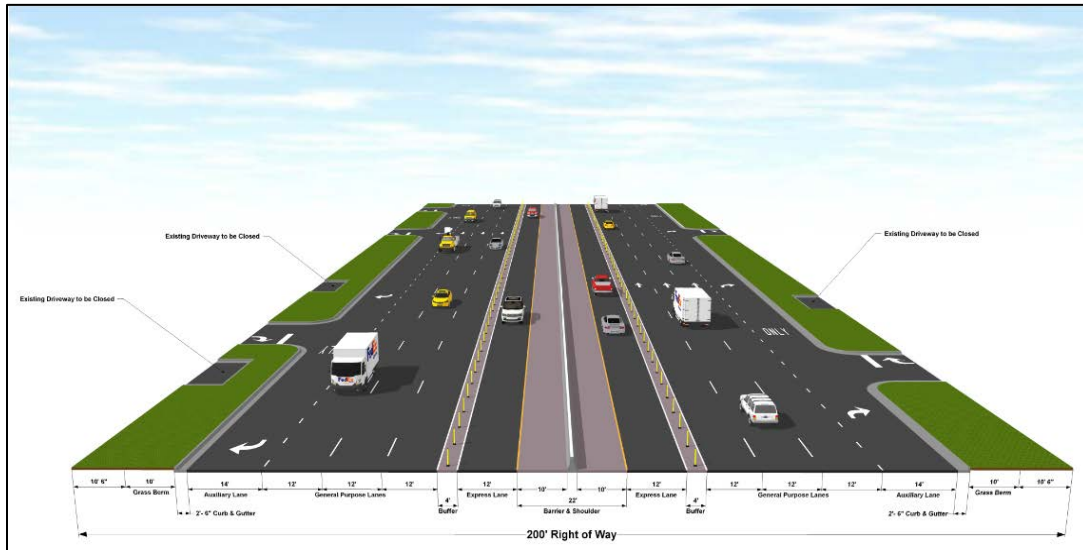
Option 3 is the southern-most alignment, pulling away from Option 1 at the same location as Option 2 but staying south until it ties back into existing Independence Point Parkway on the western end. It would include a 350-foot bridge over Irvins Creek Tributary 1 and impact approximately 683 feet of streams, bridge 131 feet of stream and result in 232 feet of stream relocation). Three nearby apartment buildings with a total of 36 relocatees would be acquired. Duke Energy’s evaluation reported: (1) this option compounds upon the structure replacement required for Option 1 with an additional transmission line crossing to the northwest, (2) structure changeouts would be required on both 100kV transmission lines rather than the singular line, and (3) this option also requires the purchase of the adjacent apartments to have clear ROW, which is not preferred.



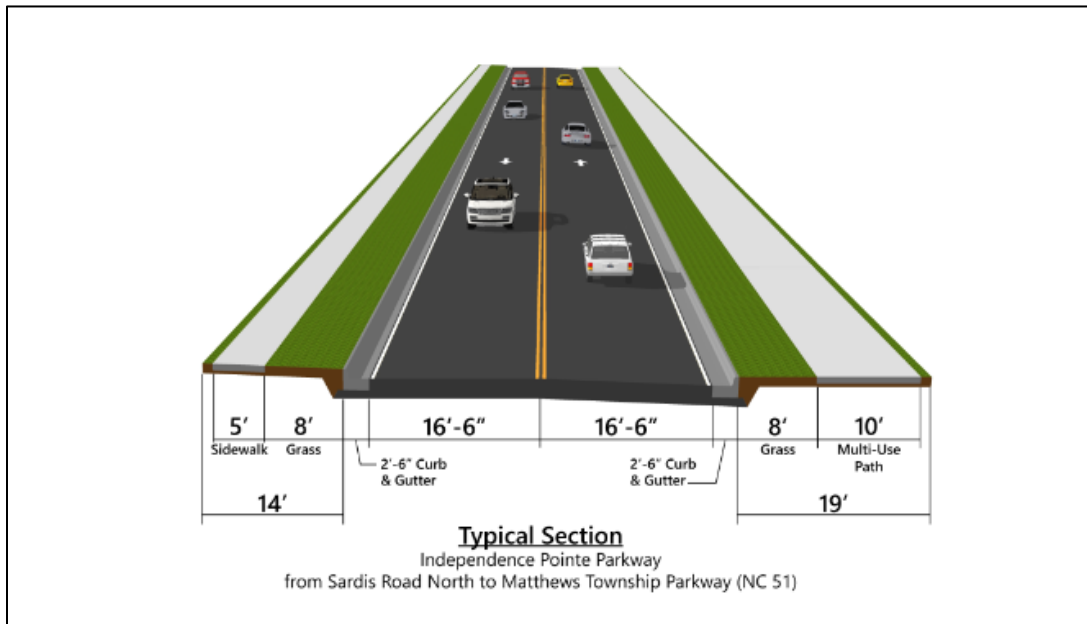
Three Alternatives for Independence Pointe Parkway

Typical Sections

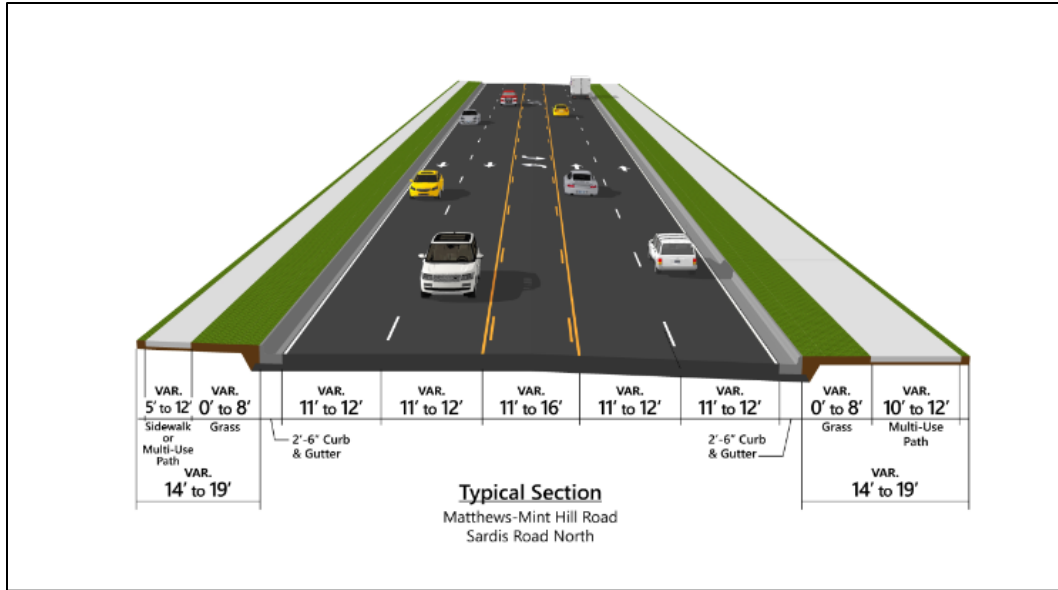
There are several typical sections being used for the U. S. 74 mainline and the various parallel roads and cross streets. A sample of the proposed typical sections are shown below, including the Independence Boulevard mainline, Independence Pointe Parkway (where 3 alternative alignments are being considered near NC 51), Matthews-Mint Hill Road, and Sardis Road North.



Independence Boulevard Typical Section



Independence Pointe Parkway (Alternatives) Typical Section



Matthews-Mint Hill Road and Sardis Road North Typical Section

Environmental Consequences

Parks, Recreation Facilities, and Conservation Easements

There are numerous recreational resources within the project vicinity that are potential Section 4(f) properties. McAlpine Creek Park is part of the Charlotte-Mecklenburg parks system and located just west of Independence Boulevard near Village Lake Drive. The park 114 acres and includes soccer fields, trails, a lake, play structures, the McAlpine Creek Greenway, and the Campbell Creek Greenway. According to local planners, a portion of a very popular 5K running course in McAlpine Creek Park is located along the McAlpine Creek and Campbell Creek Greenways.

The Mecklenburg County Regional Sports Complex is located near the Independence Boulevard/I-485 interchange. This partially constructed sports complex is under development and includes several soccer fields to tournament standards and associated parking, lighting, restrooms, greenway trails, and a playground.

Two future parks will be located within the project vicinity – Independence Pointe Neighborhood Park, currently in the planning stages, and a currently undeveloped park property near Central Piedmont Community College.

Several greenways and greenway extensions are also planned within the vicinity, including the Irvins Creek Greenway Corridor, the Matthews Sports Complex Collector, and the Four Mile Creek Greenway extension.

All Section 4(f) property impacts are proposed *de minimis* impacts. NCDOT has worked (and is continuing to work) with FHWA and Mecklenburg County to minimize and mitigate the *de minimis* impacts to these properties.

Major Utility Crossings

Utilities are present from various providers within the vicinity of the project. Power distribution and transmission is provided by Duke Energy, and there are overhead utility lines and power poles along the project corridor, as well as a substation located between U.S. 74 and the proposed Independence Pointe Parkway extension just west of the Matthews Festival Shopping Center. In this area there are numerous transmission towers and distribution poles. Coordination with Duke Energy continues, as they are presently evaluating potential impacts and relocations of towers associated with the three options for extending Independence Pointe Parkway near NC 51. Water and sewer are provided by Charlotte Water to the City of Charlotte and the Town of Matthews. Natural gas is provided by Piedmont. Telecommunications are provided by multiple companies, and a fiber optic network/ITS is maintained by NCDOT.

The project team held coordination meetings with Duke Energy in April and May 2019 to discuss alternatives and mitigation measures for the three Independence Pointe Parkway extension alternatives. Each of these alternatives would require moving and/or raising existing transmission towers. Duke Energy has conducted a study of the three alternatives and their impacts, plan for relocations and rehabilitation, and their costs. They have indicated Option 1 as their preference.

An additional 15 feet was included with the proposed right-of-way along each corridor of the project (U.S.74 as well as all cross streets and collector roads) to accommodate potential utility relocations.

GeoEnvironmental

A GeoEnvironmental Planning Report for U-2509 was prepared in 2017, which documents sites of concern within the project study area that are or may be contaminated. Sites of concern may include but are not limited to underground storage tanks (USTs), dry cleaners, industry, hazardous waste, regulated landfills and unregulated dumpsites. One hundred and eleven sites of concern were identified in the proposed study area. This includes:

- Ninety-two sites with petroleum-related UST concerns for which low monetary and scheduling impacts are expected
- Nine sites with dry cleaning facilities for which moderate monetary and scheduling impacts can be anticipated
- Ten industrial sites where low to high monetary and scheduling impacts are expected
 - Three of these sites are anticipated to compromise a single superfund site, Academy Steel Drum
 - High GeoEnvironmental impacts are anticipated due to worst case property impacts. Further investigation is required after final designs and before acquisition recommendations are issued for a superfund site

The project is likely to impact three sites of concern along the project corridor at either U.S.74, cross streets, or in the ramps and loops associated with interchanges. All three sites are USTs and are illustrated in **Figure 5 in the appendix**. The Academy Steel Drum parcels are avoided in the current design. The proposed Independence Pointe Parkway alignment is not anticipated to cut below the existing grade, in order to minimize the potential for encountering contaminated materials.

Archaeological Resources

In 2015, the SHPO recommended no archaeological investigation because there are no known archaeological sites in the proposed study area. The SHPO deemed it highly unlikely, based on knowledge of the area, that any archaeological resources eligible for the NRHP would be affected by the

project. In 2017, the study area was expanded to encompass new design alterations in the northwest and southeast. The SHPO determined that the additional areas would not require systematic, intensive archaeological survey because of the disturbance from existing development and sloped and/or eroded soils. Accordingly, the project is not anticipated to adversely impact archaeological resources.

Historic Architecture Resources

In 2015, the SHPO recommended conducting an architectural survey for the area of potential effect (APE). The subsequent 2016 architectural investigation recorded 104 resources. Of the resources evaluated, three were recommended for further evaluation. NCDOT later concluded that those three resources were ineligible for listing on the NRHP. SHPO concurred with these findings in February 2017.

Later in 2017, the APE was expanded to encompass new design alterations in the northwest and southeast. NCDOT Historic Architecture determined, and SHPO confirmed, that no resources within the expanded study area are listed on or eligible for the NRHP. The project is not anticipated to adversely impact historic resources and is in compliance with Section 106 and General Statutes for historic architecture resources.

Natural Resources

NCDOT completed a Natural Resources Technical Report (NRTR) for the project from November 2015 through January 2016, in June and September of 2017 and an updated species investigation in September 2018.

The US Fish and Wildlife Service (USFWS) lists six federally protected species for Mecklenburg County and three federally protected species for Union County. As of March 6, 2020, the latest USFWS list of federally protected species is dated February 19, 2020. A brief description of each species’ habitat requirements follows, along with the Biological Conclusion rendered based on the survey results of the study area.

Table 2. Federally Protected Species

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion	County
<i>Lasmigona decorata</i>	Carolina heelsplitter	E	No	No Effect	Both
<i>Rhus michauxii</i>	Michaux’s sumac	E	Yes	No Effect	Both
<i>Echinacea laevigata</i>	Smooth coneflower	E	Yes	No Effect	Mecklenburg
<i>Helianthus schweinitzii</i>	Schweinitz’s sunflower	E	Yes	No Effect	Both
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	*	*	Mecklenburg
<i>Bombus affinis</i>	Rusty-patched bumble bee	E	**	N/A	Mecklenburg

T: Threatened, E: Endangered; *May Affect, Likely to Adversely Affect- NLEB is exempt due to consistency with 4(d) rule.

**The USFWS does not and will not require surveys for rusty-patched bumble bee in North Carolina because USFWS assumes the state is unoccupied by the rusty-patched bumble bee.

The project is anticipated to impact jurisdictional streams and wetlands. Table 3 below summarizes the jurisdictional resource impacts for the parallel collector roads, each Independence Pointe Parkway Option, and U.S.74 (including Y-lines, ramps, and loops). Please refer to Table 5 for a comparison of the full project and impacts (and costs) for each IPP alternative.

Table 3. Potential Jurisdictional Resource Impacts

Jurisdictional Resource	Impacts from Refined Designs (Current) ¹				
	Parallel Collector Roads	Independence Pointe Parkway Extension ² Alternatives			U.S.74, -Y-Lines, and Ramps
		Option 1	Option 2	Option 3	
Streams (ft.)	1,831	856	683	683	2010
Bridged Streams (ft.) ³	703	436	436	131	388
Relocated Streams (ft.)	0	280	232	232	0
Wetlands (ac.)	1.41	0.22	0.19	0.22	1.29

¹Calculated with slope stakes limits plus 25-foot buffer. No pond impacts are anticipated. ² Windsor Square Drive to NC 51.

³ Bridged Streams are not included in the Stream Impacts. Bridged streams include bridge width plus 25 feet on each side for anticipated bank stabilization.

Environmental Justice

An Environmental Justice analysis was completed for this project. Both minority and low-income populations that meet the Environmental Justice criteria were identified in the project vicinity. Notably adverse community impacts are anticipated with this project, but appear to affect all populations equally; 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.

Constructability Review

In November 2019, the NCDOT Value Management Unit conducted a constructability field review. Included in the meeting were the NCDOT Division Construction Engineer, Area Construction Engineer, and Regional Bridge Construction Engineer, three contractors, and members of the project team. The February 2020 Value Engineering Study shows that all three alternatives for Independence Pointe Parkway near NC 51 are constructible. However, the study noted that the introduction of the reverse curve geometry with Options 2 and 3 may make the road difficult to navigate. Additional concern was voiced at the meeting, but not included in the Value Management Study, that the structure on Option 3 is located within the limits of reversed curves requiring transitioning super elevation for the entire length of the structure. This is a constructability issue easily avoided with Options 1 and 2. The recommendation was to avoid this geometry by constructing Option 1.

Concurrence Point 3 – Least Environmentally Damaging Practicable Alternative

The detailed study alternatives are described on pages 6-8 above.

Sardis Road North Interchange

As part of the initial best fit design, NCDOT developed three options for the Sardis Road North Interchange. These three options (Diamond Interchange, Partial Cloverleaf, and City Design) were presented to the Merger team on May 18, 2016. The diamond interchange was eliminated from consideration at that meeting because of the extensive stream and wetland impacts. The Partial Cloverleaf and City Design options were included by the Merger team as the detailed study alternatives to be carried forward. In collaboration with the Merger team during the March 21, 2019 Merger update meeting, the City Design Interchange was eliminated from further consideration because it would not meet traffic demand at an acceptable level of service and, thus, would not meet the purpose and need of the project. Therefore, the Partial Cloverleaf design for the Sardis Road North Interchange became the only option for the Build Alternative.

Independence Pointe Parkway

Table 4 below summarizes the impacts associated with the three Independence Pointe Parkway Extension alternatives. Although Option 1 has the greatest stream impact, it has the same amount of wetland impacts as Option 3 (both impact 0.03 more acres than Option 2), and it has no residential relocations, as opposed to 24 and 36 relocations in Option 2 and 3, respectively.

Table 5 below provides a comparison of the full project costs and impacts for each of the three Independence Pointe Parkway alternatives.

USACE has been involved with the project team and alternative development throughout the Merger Process and has been made aware of the alternatives that are being evaluated, as well as the impacts associated with each. Even where a practicable alternative exists that would have less adverse impact on the aquatic ecosystem, the Section 404(b)(1) Guidelines allow it to be rejected if it would have significant adverse environmental consequences. This allows for consideration of evidence of damages to other ecosystems in deciding whether there is a 'better' alternative. As there are only minor differences in natural environmental impacts among the three Independence Pointe Parkway alternatives, the damage to the human environment must be considered. The residential relocations associated with Options 2 and 3 would result in a more environmentally damaging option to the human environment as compared to Option 1 impacts. Applicable Best Management Practices for construction of culverts and bridges over surface waters will be used to control storm water runoff, sedimentation, and erosion.

Table 4. Comparison of Costs and Impacts by Alternative

Feature	Impacts from Refined Designs (Current)				
	Parallel Collector Roads	U-2509A Independence Pointe Parkway Extension ¹ Alternatives			U-2509B
		Option 1	Option 2	Option 3	U.S.74, Y-Lines, Ramps & Loops
Human Environment					
Residential Relocations ²	4	0	24	36	5
Business Relocations ²	8	0	0	0	94
Section 4(f) ³	<i>De minimis</i> (4)	<i>De minimis</i> (1)	<i>De minimis</i> (1)	<i>De minimis</i> (1)	<i>De minimis</i> (4)
Places of Worship	0	0	0	0	7 ⁴
Natural Environment					
Streams (linear ft.)	1,831	856	683	683	2010
Bridged Streams (linear ft.) ⁵	703	436	436	131	388
Relocated Streams (linear ft.)	0	280	232	232	0
Wetland Impacts (ac.) ⁶	1.41	0.22	0.19	0.22	1.29
Cost					
Right-of-Way	\$77,255,000	\$16,537,500	\$22,537,500	\$25,537,500	\$323,552,123
Utilities	\$8,921,868	\$2,225,844	\$1,723,133	\$1,723,133	\$36,889,047
Construction	\$62,000,000	\$14,600,000	\$15,000,000	\$13,500,000	\$336,400,000
Total Cost	\$148,176,868	\$33,363,344	\$39,260,633	\$40,760,633	\$696,843,170

¹Windsor Square Drive to NC 51. ²Relocations were calculated based on proposed right-of-way. ³Based on impacts to public lands/parks, FHWA is proposing *de minimis* impacts to the number of resources in parentheses. ⁴The 7 churches operate in rental office space. ⁵Bridged Streams are not included in the Stream Impacts. Bridged streams include bridge width plus 25 feet on each side for anticipated bank stabilization. ⁶Calculated with slope stake limits plus 25-foot buffer.

Table 5. Comparison of Full Project Costs and Impacts

Feature	U-2509 A&B with Independence Pointe Parkway Extension¹ Option 1	U-2509 A&B with Independence Pointe Parkway Extension¹ Option 2	U-2509 A&B with Independence Pointe Parkway Extension¹ Option 3
Human Environment			
Residential Relocations ²	9	33	45
Business Relocations	102	102	102
Section 4(f) ³	<i>De minimis</i> (9)	<i>De minimis</i> (9)	<i>De minimis</i> (9)
Places of Worship	7 ⁴	7 ⁴	7 ⁴
Natural Environment			
Streams (linear ft.)	4,702	4,529	4,529
Bridged Streams (linear ft.) ⁵	1,527	1,527	1,222
Relocated Streams (linear ft.)	280	232	232
Wetland Impacts (ac.) ⁶	2.92	2.89	2.92
Cost			
Right-of-Way	\$417,344,623	\$423,344,623	\$426,344,623
Utilities	\$48,036,759	\$47,534,048	\$47,534,048
Construction	\$413,000,000	\$413,400,000	\$411,900,000
Total Cost	\$878,381,382	\$884,278,671	\$885,778,671

¹Windsor Square Drive to NC 51. ²Relocations were calculated based on proposed right-of-way. ³Based on impacts to public lands/parks, FHWA is proposing *de minimis* impacts to the number of resources in parentheses. ⁴The 7 churches operate in rental office space. ⁵Bridged Streams are not included in the Stream Impacts. Bridged streams include bridge width plus 25 feet on each side for anticipated bank stabilization. ⁶Calculated with slope stake limits plus 25-foot buffer.

NCDOT Recommended Preferred Alternative

Independence Pointe Parkway

Based on NCDOT's evaluation, Option 1 has the following:

- Option 1 has no residential relocations (as opposed to 24 relocations with Option 2 and 36 relocations with Option 3).
- Option 1 has the same amount of wetland impacts (0.22 acre) as Option 3 and only 0.03 acres more than Option 2 (0.19 acre).
- Stream impacts from Option 1 (856 LF) are only 173 LF more than Options 2 and 3 (683 LF).
- The relocated stream impact for Option 1 (280 LF) is only 48 LF more than Options 2 and 3 (232 LF).
- The total cost for Option 1 is \$5.9 Million lower than Option 2 and \$7.4 Million lower than Option 3.

Duke Energy has evaluated the three alternatives against the resulting impacts to their transmission lines and easements, including transmission line and tower relocations, additional towers, raising of the lines, and their resulting impacts and costs. Their comments are noted below.

- **Option 1: This option is most preferred.** This proposed road route only crosses under our transmission line once. Though there may be some Asset Protection concern with the roadway's proximity to one of the existing structures (pending final plans and survey), it is minimal compared to the other two options. Based upon preliminary plans and the amount of proposed fill, there would be approximately 6-8 structures that would need to be changed out.
- **Option 2: This option is least preferred.** Option 2 would require some construction in the floodplain which would complicate and minimize our relocation options, so it has been ruled out completely. This also requires the purchase of the adjacent apartments in order to have clear R/W, which is not preferred.
- **Option 3: This option is second choice.** Option 3 compounds upon the structure replacements required for Option 1 with an additional transmission line crossing to the northwest. This means structure changeouts would be required on both 100kV transmission lines rather than the singular line. This also requires the purchase of the adjacent apartments in order to have clear R/W, which is not preferred.
- **Feasibility of wholesale relocation: This is not feasible.** A wholesale relocation was assessed, but due to various factors, this option is not seen as Real estate costs would be high, Duke Transmission Asset Protection would have to make excessive compromises on requirements for clear rights-of-way, and project duration would be several years long. In summary, more issues would be created with this option than finding a solution to relocate in the existing R/W.
- These assumptions are based upon the preliminary plans and are not final.

In summary, Option 1 would result in slightly greater stream impacts than Options 2 and 3 but would have the least impact on the human environment. It would have the lowest cost and is preferred by Duke Energy, based on their independent analysis. For these reasons, NCDOT is recommending Option 1 as the Preferred Alternative.

NCDOT will continue to do everything reasonable to reduce impacts throughout the project. To the extent practicable, natural channel design techniques for the stabilization of the UT to Irvin's Creek will be considered during the final design phase of the project. These could include step pools with large rock

structures or other techniques as much as possible to help stabilize the streams. If any other avoidance and minimization efforts are made, they will be presented in the Concurrence Point 4B meeting.

Concurrence Point 4A – Avoidance and Minimization

NCDOT has avoided and minimized impacts throughout the development of this project. NCDOT will also investigate potential on-site stream and wetland mitigation opportunities for the Build Alternative. If on-site mitigation is not feasible, mitigation will be provided by North Carolina Division of Environmental Quality Division of Mitigation Services (NCDMS) or through the use of private mitigation banks.

Avoidance strategies used throughout the project are listed below:

- Retaining walls were added at numerous locations along U.S. 74 and along some parallel roads and cross streets to avoid and minimize impacts to natural and human resources, such as streams, and wetlands, and taking residences, businesses and related parking.
- A retaining wall was added along the planned extension of Independence Pointe Parkway from Matthews-Mint Hill to Campus Ridge Road through the Mecklenburg County Regional Sportsplex to avoid greater impacts to the soccer fields. (Note: because this road extension is part of Mecklenburg County's plan, it is a *de minimis* impact.)
- Potential UST sites have been avoided during design by use of retaining walls.
- The Academy Steel Drum parcels are avoided in the current design.
- Bridges have been used to cross streams and wetlands, and some extended from what was originally anticipated to further minimize impacts to streams, wetlands, and floodplains.
- Along the Independence Pointe Parkway alternatives, the proposed bridge over Irvins Creek Tributary 1 was extended from 250 feet (agreed to at the CP2A Merger Meeting) to 425 feet (with Options 1 and 2) and 350 feet with Option 3. These extensions were made during refined designs once final surveys were provided. The longer bridge helps to avoid further impacts to this area, as well as provide additional space under the bridge for a planned greenway. Table 6 below shows impacts to streams and wetlands based on the preliminary design, as reflected in the Environmental Assessment. Tables 7, 8 and 9 show the minimization of some impact to streams and wetlands based on final surveys and refined designs.

Table 6. Stream and Wetland Impacts with Preliminary Design¹

Feature	Impacts (as shown in EA)		
	U-2509A		
	Independence Pointe Parkway Extension ² Alternatives		
	Option 1	Option 2	Option 3
Streams (linear ft.)	991	951	656
Bridged Streams (linear ft.) ³	176	176	128
Relocated Streams (linear ft.)	249	249	0
Wetland Impacts (ac.) ⁴	0.12	0.12	0.19
Bridge Lengths (linear ft.)	250	250	250

¹With Lidar mapping and bridge lengths from the preliminary hydraulics report; as shown on the Public Hearing maps. ²Windsor Square Drive to NC 51. ³Bridged Streams are not included in the Stream Impacts. Bridged streams include bridge width plus 25 feet on each side for anticipated bank stabilization. ⁴Calculated with slope stake limits plus 25-foot buffer.

Table 7. Stream and Wetland Impacts with Refined Preliminary Design¹

Feature	Impacts					
	U-2509A					
	Independence Pointe Parkway Extension ² Alternatives					
	Option 1		Option 2		Option 3	
	Slope Stakes	Retaining Walls	Slope Stakes	Retaining Walls	Slope Stakes	Retaining Walls
Streams (linear ft.)	1231	856	823	683	823	683
Bridged Streams (linear ft.) ³	436		436		131	
Relocated Streams (linear ft.)	530	280	270	232	270	232
Wetland Impacts (ac.) ⁴	0.22		0.19		0.22	
Bridge Lengths (linear ft.)	425		425		350	

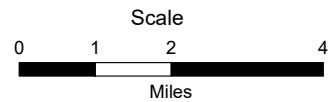
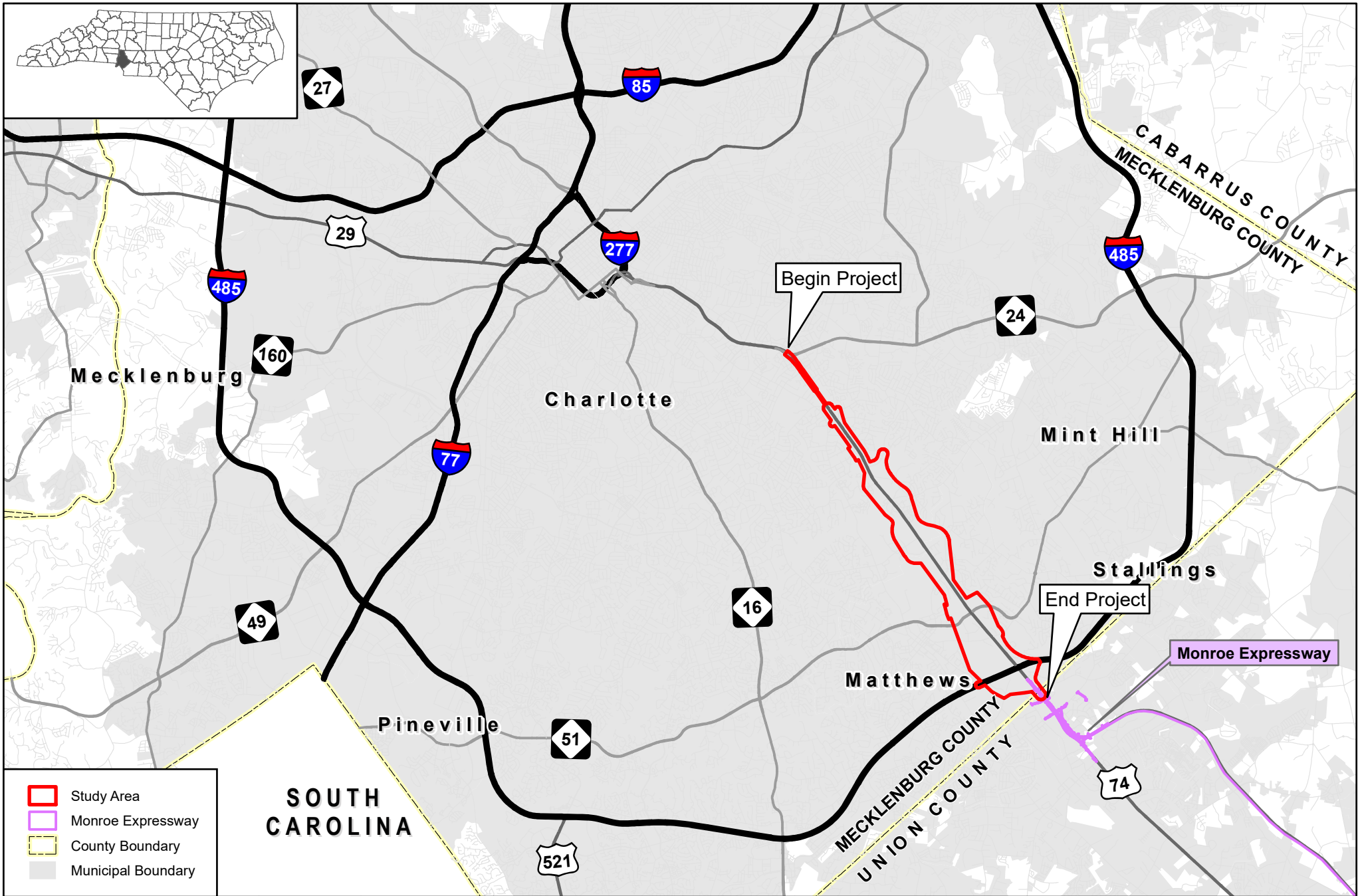
¹Designs refined based on Duke Energy encroachment guidelines, final surveys, and additional hydraulic field reviews. ²Windsor Square Drive to NC 51. ³Bridged Streams are not included in the Stream Impacts. Bridged streams include bridge width plus 25 feet on each side for anticipated bank stabilization. ⁴Calculated with slope stake limits plus 25-foot buffer.

- Project designs include bridges over streams and wetlands to avoid impacts in the following locations:
 - Bridging on Margaret Wallace Road over Campbell Creek
 - Bridging on proposed Arequipa Drive over Irvins Creek and tributary
 - Bridging on proposed Krefeld Drive over Irvins Creek
 - Replace culvert on Existing Sam Newell Road with a 90-foot bridge
 - Widen existing bridge on US 74 over McAlpine Creek
 - Bridging on Independence Pointe Parkway over tributary of Irvins Creek (3 Options)
- Along Sam Newell Road, south of Independence Pointe Parkway, there is an existing culvert. During CP2A, the Merger Team agreed that if NCDOT could not terminate the road improvements prior to the site, an 80-foot bridge would be needed. During the refined design planning stage, the bridge included was 90 feet to meet hydraulic needs.
- An existing bridge along Margaret Wallace Road over Campbell Creek is being replaced by a longer bridge, which will be a benefit hydraulically as well as provide space for an existing greenway to cross Margaret Wallace Road under the bridge instead of at-grade as it does today.

Minimization strategies used throughout the project are listed below:

- Right of way impacts were avoided as much as possible by utilizing the existing right of way for U.S. 74 which was between 200 and 210 feet.
- Extensive bicycle and pedestrian infrastructure are being added to the project. This has increased the impact to sensitive resources but providing for improved mobility across all modes of transportation is expected to minimize the need for reliance on single occupant vehicles.
- Potential Hazardous sites have been avoided during design
- Extensive coordination with business and property owners has led to providing more access to enhance new travel patterns. These additions are aimed to minimize the impact to businesses and to help keep businesses viable.
- NCDOT has worked with FHWA and Mecklenburg County to minimize and mitigate the *de minimis* impacts to these properties.

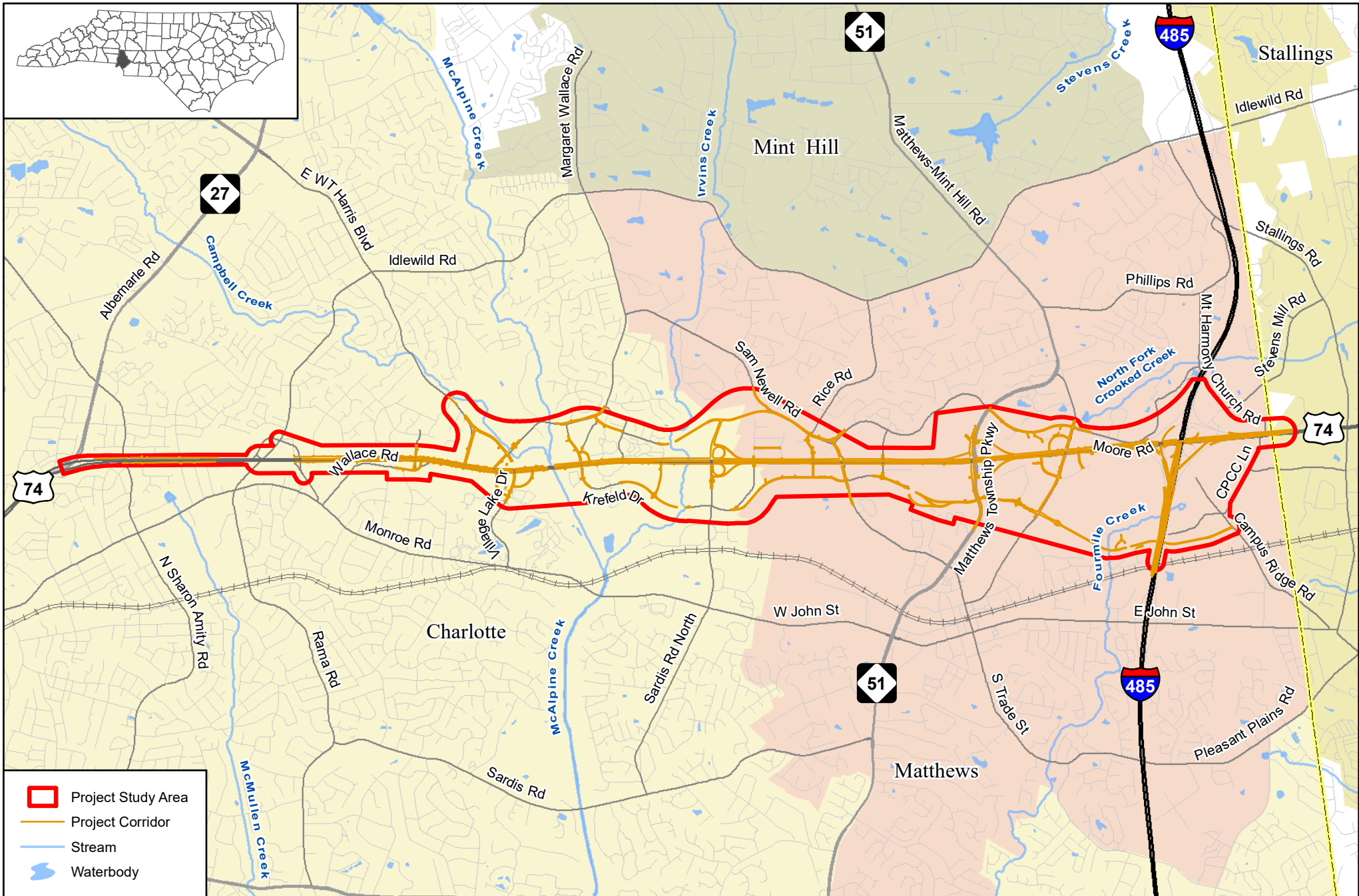
Appendix







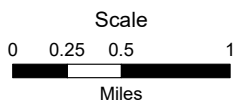
Project Vicinity Map

US 74 (Independence Boulevard) Improvements
 STIP Project U-2509
 Mecklenburg County





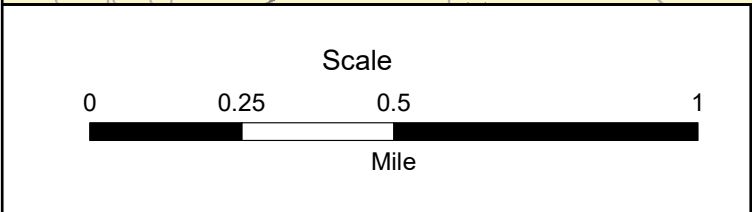
-  Project Study Area
-  Project Corridor
-  Stream
-  Waterbody



Project Location Map

US 74 (Independence Boulevard) Improvements
 STIP Project U-2509
 Mecklenburg County



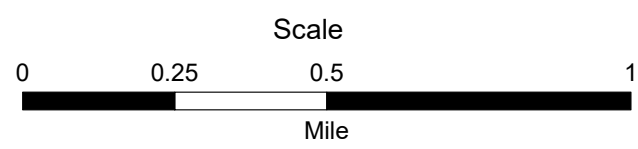
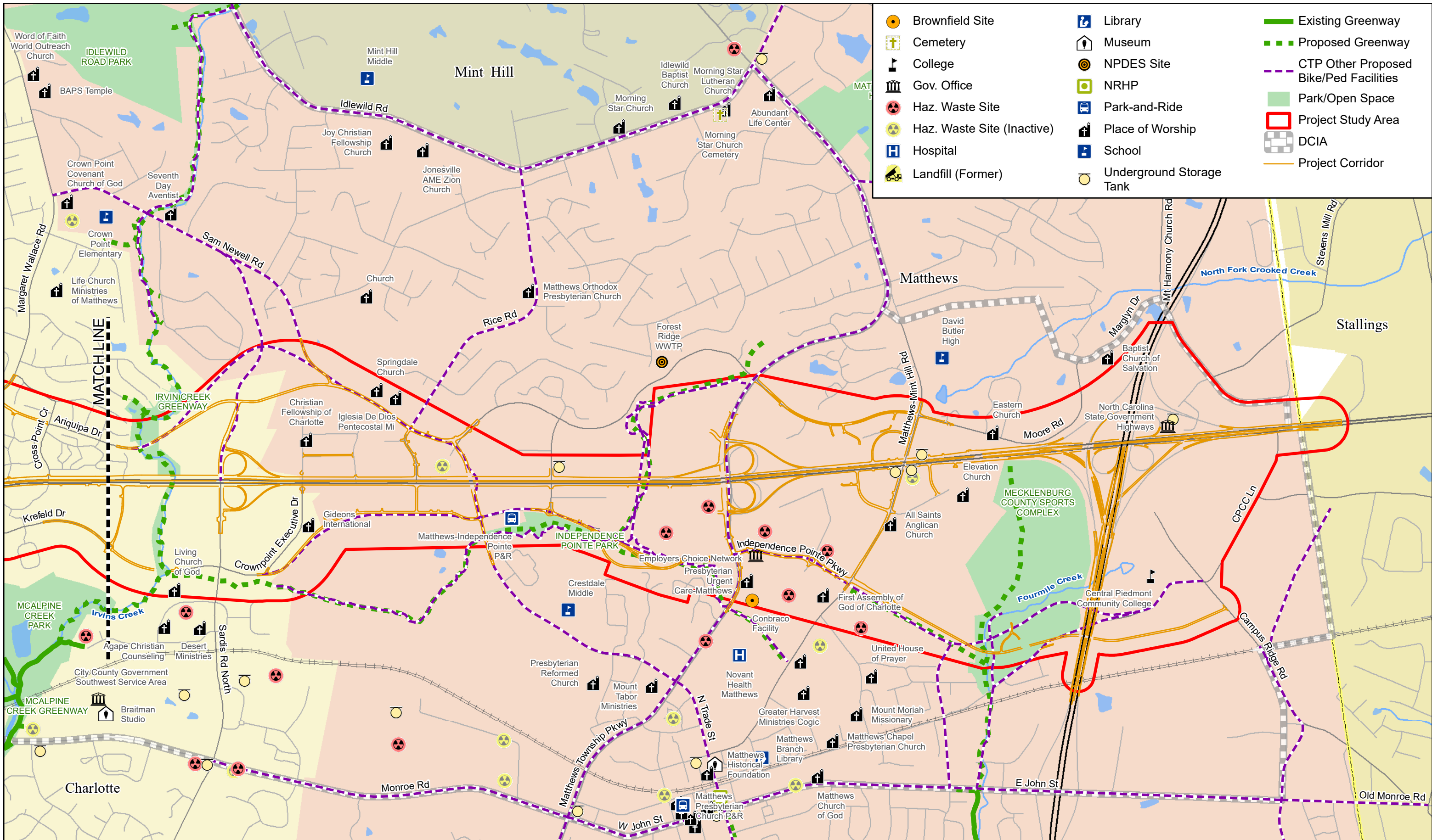


Community Facilities

US 74 (Independence Boulevard) Improvements

STIP Project U-2509
Mecklenburg County

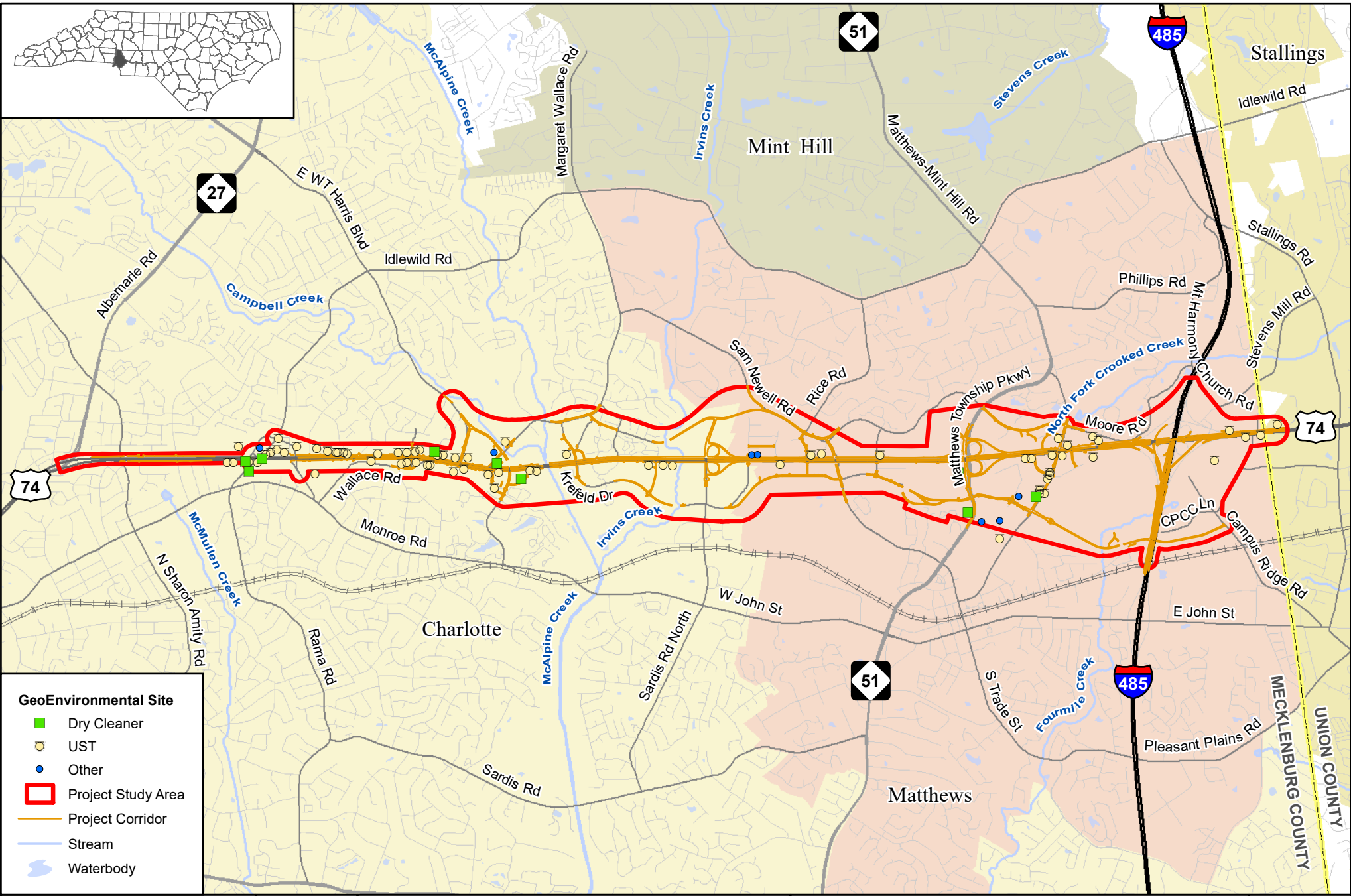




Community
Facilities

US 74 (Independence Boulevard) Improvements
STIP Project U-2509
Mecklenburg County





Potential Hazardous Materials



**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 1
Purpose and Need and Study Area**

TIP Project No.: U-2509

FA Project No.: NHS-74(70)

WBS No.: 38965.1.1

Project Name/Description:

US 74 (Independence Boulevard) Improvements from Conference Drive to I-485 (Charlotte Outer Loop) in Charlotte and Matthews, Mecklenburg County.

A concurrence meeting was held with members of the Merger Team on March 19, 2015 to discuss the Purpose & Need and Study Area of the proposed project. Information about the existing and projected traffic conditions along the corridor was presented in the meeting package. The Project Team has concurred on this date with the Purpose & Need and Study Area as described below.

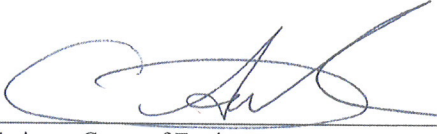
The study area for this project includes proposed improvements to existing US 74 (Independence Boulevard) and an existing network of parallel roads and their proposed connections. The study area ranges from 500 to approximately 2,000 feet on either side of the existing US 74 centerline. The study area also includes an expanded area around the I-485 interchange to evaluate express lanes connection alternatives and an extension to the southeast along US 74 to include connection alternatives to the proposed Monroe Connector/Bypass toll lanes.

The need for this study can be summarized as follows:

- *Existing US 74 does not provide reliable travel time and connectivity for residents, business patrons, and commuters in Southeastern Charlotte and Matthews.*
- *Traffic estimates indicate that US 74 will require additional capacity to achieve a goal of LOS D for users by the design year (2040).*
- *This project is needed to provide reliable travel time, system sustainability, and connect to a system of express lanes planned on US 74 to the northwest, I-485 to the south, and the Monroe Bypass/Connector toll road to the southeast.*

The purpose for the proposed action is as follows:

- *To provide reliable travel time and improve mobility along the US 74 corridor, provide system sustainability, and maintain and improve connectivity across and along US 74 to, from, and between adjacent communities within the study area.*




U.S. Army Corps of Engineers



U.S. Environmental Protection Agency



Federal Highway Administration



U.S. Fish and Wildlife Service

Renee Hedrick-Early 3.20.15

N.C. Department of Cultural Resources Historic Preservation Office

[Signature]

N.C. Department of Environment and Natural Resources -- Division of Water Resources

[Signature]

N.C. Department of Transportation, PDEA Unit

[Signature]

N.C. Wildlife Resources Commission

[Signature] for Bob Cook

Charlotte Regional Transportation Planning Organization

**Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 1 Amendment
Purpose and Need and Study Area**

TIP Project No.: U-2509

FA Project No.: NHS-74(70)


WBS No.: 38965.1.1

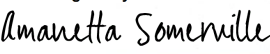
Project Name/Description:


US 74 (Independence Boulevard) Improvements from west of Idlewild Road to I-485 (Charlotte Outer Loop) in Charlotte and Matthews, Mecklenburg County.


A concurrence meeting was held with members of the Merger Team on March 19, 2015 to discuss the Purpose & Need and Study Area of the proposed project. Information about the existing and projected traffic conditions along the corridor was presented in the meeting package. The Project Team concurred on that date with the Purpose & Need and Study Area as described in the signed CP 1 Form.


The study area for this project has been amended because of shifts in alignment. The revised study area attached is accepted by the merger team as of March 21, 2019.

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U.S. Army Corps of Engineers

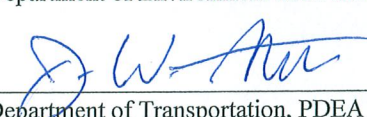
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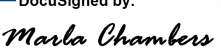

Federal Highway Administration

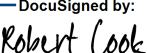

U.S. Fish and Wildlife Service

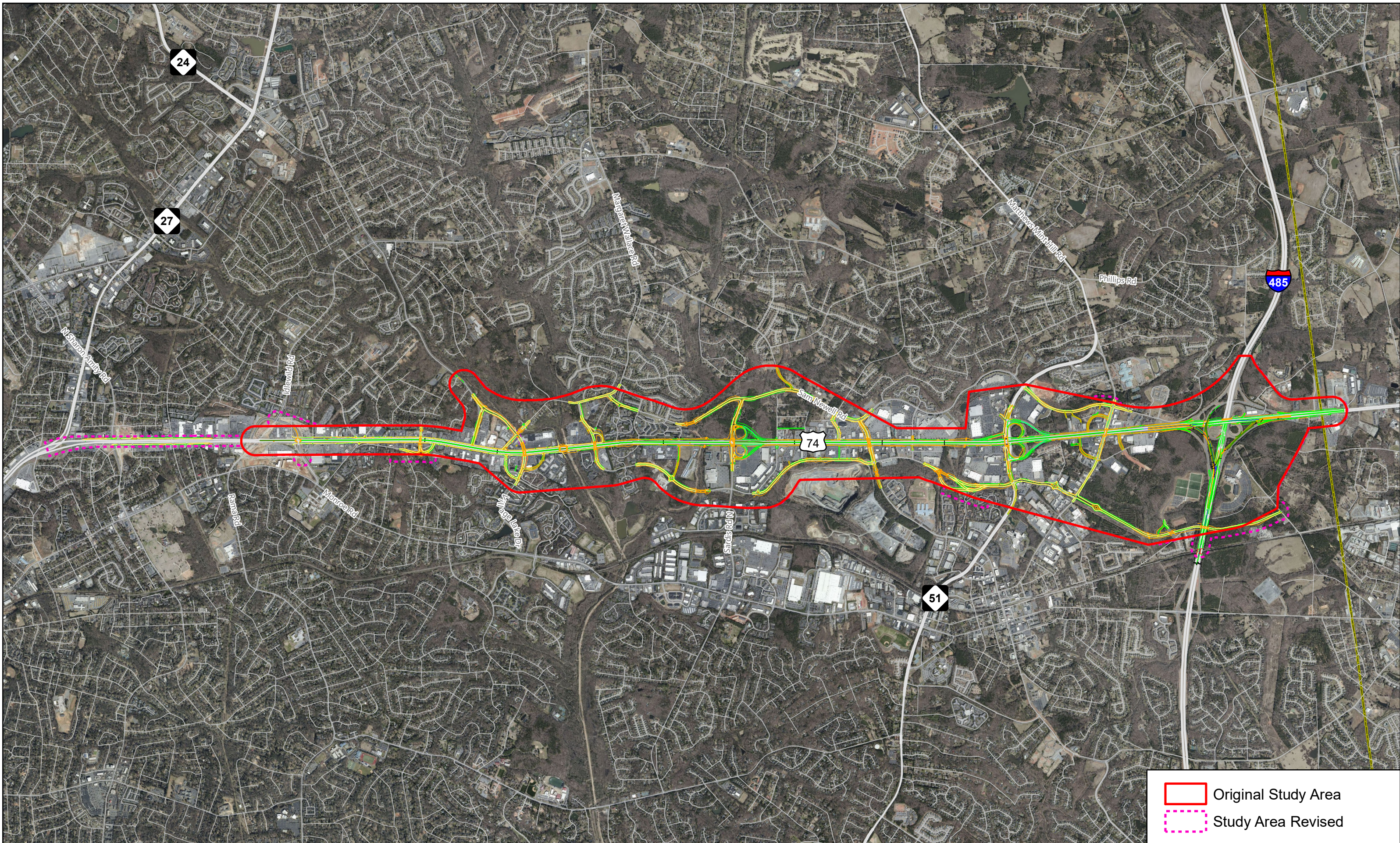
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N.C. Department of Cultural Resources Historic Preservation Office


N.C. Department of Environment and Natural Resources – Division of Water Resources


N.C. Department of Transportation, PDEA Unit

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N.C. Wildlife Resources Commission

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Charlotte Regional Transportation Planning Organization



Original Study Area
Study Area Revised

0 0.25 0.5 1 Miles



Study Area Revision
March 2019

US 74 (Independence Boulevard) Improvements
From West of Idlewild Road to I-485 in Mecklenburg County
U-2509



Section 404/NEPA Merger Project Team Meeting Agreement
Concurrence Point No. 2
Detailed Study Alternatives Carried Forward

TIP Project No.: U-2509

FA Project No.: NHS-74(70)

WBS No.: 38965.1.1

Project Name/Description:

US 74 (Independence Boulevard) Improvements from Conference Drive to I-485 (Charlotte Outer Loop) in Charlotte and Matthews, Mecklenburg County.

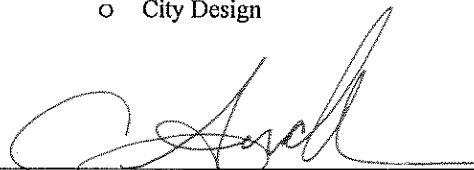
A concurrence meeting was held with members of the Merger Team on May 18, 2016 to discuss Detailed Study Alternatives to be carried forward for the proposed project. In addition to the No-Build Alternative, the Project Team has concurred on this date that the Detailed Study Alternatives to be Carried Forward include:

Expressway Concept

Improvements to US 74 from Conference Drive to I-485, to include widening and the addition of grade separations and interchanges, to bring the facility to the level of an Expressway (with limited segments of freeway) as well as the addition of Express Lanes in the median. Express Lane connections to the proposed I-485 Express Lane project to the south (STIP Project I-5507) and the proposed Monroe Bypass/Connector Toll Road (STIP Projects R-3329 and R-2559) will be included, as well as the connection of parallel roads and the construction of an interchange at Sardis Road North, as described below.

- **Parallel Roads being considered:**
 - Krefeld Drive Extension (Krefeld Drive to Sardis Road North)
 - Arequipa Drive/Northeast Parkway (Margaret Wallace Road to Sam Newell Road)
 - Krefeld Drive/Independence Pointe Parkway (Crownpoint Executive Drive to Sam Newell Road)
 - Northeast Parkway (Overcash Drive to Matthews-Mint Hill Road)
 - Independence Pointe Parkway Alternatives (Windsor Square Drive to Matthews Township Parkway [NC 51])
 - Option 1
 - Option 2
 - Option 3
 - Independence Pointe Parkway (Matthews Township Parkway [NC 51] to Campus Ridge Road)

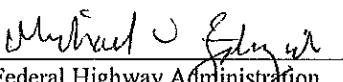
- **Sardis Road North Interchange Alternatives:**
 - Half-Clover
 - City Design


5/25/2016

U.S. Army Corps of Engineers


5-18-16

U.S. Environmental Protection Agency


5-18-16

Federal Highway Administration

Mark L. Zwick 5/27/16
U.S. Fish and Wildlife Service

Renee Bleckhill-Earley 5-23-16
N.C. Department of Natural and Cultural Resources - State Historic Preservation Office

Donna Wood 5/18/16
N.C. Department of Environment and Natural Resources - Division of Water Resources

D.W. Allen 5-18-16
N.C. Department of Transportation, PDEA Unit

Marla Chambers 6/2/2016
N.C. Wildlife Resources Commission

Carl Lane 6/6/2016
Charlotte Regional Transportation Planning Organization

Section 404/NEPA Merger Project Team Meeting Agreement

Concurrence Point No. 2A

Bridging and Alignment Review

TIP Project No.: U-2509

FA Project No.: NHS-74(70)

WBS No.: 38965.1.1

Project Name/Description:

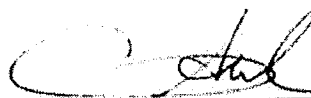
US 74 (Independence Boulevard) Improvements from Conference Drive to I-485 (Charlotte Outer Loop) in Charlotte and Matthews, Mecklenburg County.

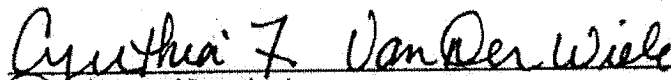
A concurrence meeting was held with members of the Merger Team on June 20, 2016, in conjunction with a field review meeting, to discuss the Bridging Decisions and Alignment Review for the proposed project. The project team has concurred on the recommendations for the following major drainage structures, as presented in the Preliminary Hydraulics Study for Environmental Impacts prepared in April 2016 and revised based on the field review:

U-2509 Mecklenburg County				
Site	Alignment	Stream	Existing Structure Size	Recommended Structure Size
1	East WT Harris Blvd -Y9-	UT to Campbell Creek	1 @ 8' x 6' RCBC	Extend Existing 1 @ 8' x 6' RCBC Downstream end only
2	Margaret Wallace Rd -Y8-	Campbell Creek	4 @ 13' x 9' RCBC	150' Bridge
3	US 74 -L-	McAlpine Creek	4 @ 40' Bridge	225' Bridge
4	Northeast Parkway Extension -Y12-	Irvins Creek	N/A (New Location Alignment)	250' Bridge w/ 72" overflow pipe
5	US 74 -L-	Irvins Creek	1 @ 38' x 18.5' Concrete Arch Bottomless Arch on Footings	Extend existing 1 @ 38' x 18.5' Bottomless Concrete Arch Upstream and Downstream
6	Krefeld Drive Extension -Y10-	Irvins Creek	N/A (New Location Alignment)	300' Bridge
7	US 74 -L-	UT to Irvins Creek Trib 1	1 @ 66" RCP at inlet 1 @ 72" RCP at outlet	Extend existing 1 @ 66" RCP Upstream end only
8	US 74 -L-	Irvins Creek Trib 1	2 @ 8' x 10' RCBC	Extend existing 2 @ 8' x 10' RCBC Upstream and Downstream
9	Sam Newell Rd -Y14-	Irvins Creek Trib 1	1 @ 18' x 7.8' Structural Plate Arch	Terminate Road Improvements prior to site if possible. If not, recommend 80' Bridge
10	Independence Pointe Pkwy Extension -Y15-	Irvins Creek Trib 1	N/A (New Location Alignment)	Alternatives 1 and 2 - 250' Bridge and Realign Stream so no crossing at Site 14; Alternative 3 - 250' Bridge
11	Independence Pointe Pkwy Extension -Y15-	UT to Irvins Creek Trib 1	N/A (New Location Alignment)	2 @ 8' x 7' RCBC Bury inverts 1'
12	Independence Pointe Pkwy Extension -Y15-	UT to Irvins Creek Trib 1	1 @ 16.4' x 8.2' Structural Plate Arch	Extend existing 1 @ 16.4' x 8.2' Structural Plate Arch Downstream end only
13	CPCCL Lane Extension -Y19-	Foumle Creek	N/A (New Location Alignment)	2 @ 8' x 7' RCBC Bury inverts 1' with Equalizer Pipes
14	Independence Pointe Pkwy Extension -Y15-	UT to Irvins Creek Trib 1	N/A (New Location Alignment)	Alternatives 1 and 2 - Realign Stream so only crosses at Site 10; Alternative 3 - no crossing

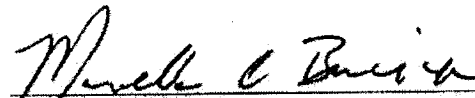
Additionally, the project team has concurred on the review of the preliminary alignment for each Detailed Study Alternative resulting from CP 2, including these adjustments, if necessary:

- NA
- _____
- _____
- _____


 6/20/2016
U.S. Army Corps of Engineers

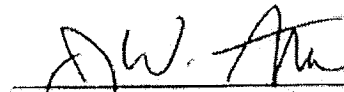
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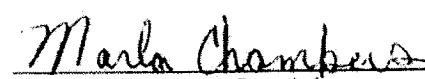
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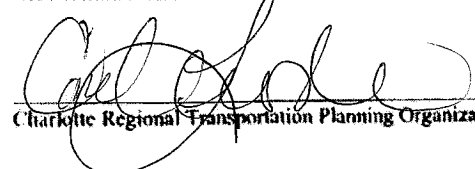
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U.S. Fish and Wildlife Service

 7-5-16
N.C. Department of Natural and Cultural Resources - State Historic Preservation Office

 6/20/16
N.C. Department of Environment and Natural Resources - Division of Water Resources

 6-20-16
N.C. Department of Transportation, PDEA Unit

 6/20/2016
N.C. Wildlife Resources Commission

 7/5/2016
Charlotte Regional Transportation Planning Organization

Commenter	Comment on	Comment
Steven Shepherd	Public Hearing	Economic divestment away from the urban core, i.e., the state is paying too make Charlotte poorer. Re-enforcement of existing racial and economic segregation between the east and west sides of U.S. 74
Steven Shepherd	Section 4f	Relative to everything else, this is fine.
Ronald Cabrera	Public Hearing	Only concern is that neighbors in the affected areas will be notified about these changes.
Phillip Gussman	Public Hearing	Pedestrian Access and safety. Integration with Silver Line. Pedestrian and Bike access across 74.
Gwen Cook	Public Hearing	Excellent job presenting a most difficult and complex project. Most greenways appear to be accommodated. You are to investigate the crossing of future Irvins Creek Greenway under Krefeld Drive and at grade crossing of Irvins Trib and Sam Newell. I will coordinate with Matthews on the letter.
Gwen Cook	Section 4f	A lot of land will be required by Matthews Regional Sportsplex.
Linda Olscamp	Public Hearing	I am absolutely AGAINST toll express lanes. I do like the idea of adding general purpose lanes - However, I do not like the impact on businesses. I do not understand why a road cannot be built alongside Independence that runs parallel to it so its customers can access the business. We have seen it in other communities. When we moved to Charlotte 14 years ago, we heard that previously, Independence had it all for businesses. But in the area that heads uptown, it was a desolate ghost town. We are concerned the same thing will happen to the area from Idlewild to 485, we have little in services on the east side. We will have nothing if those businesses close. NO EXPRESS TOLL LANES!
Kombiz Salehi	Public Hearing	Blocking cross traffic on intersections that cross 74 (Near Walmart and Lidl) are exercises in poor to lousy design. NCDOT staff do not receive wages to make life miserable for the tax payers. These obstacles do not contribute to safety or efficiency.
Kombiz Salehi	Section 4f	Passing the roads is much more time consuming.
Vince Manno	Public Hearing	There are a group of businesses off HWY 74 that will be hard to access in Matthews. One way to help alleviate the issue is the take Claire Drive and extend it to a road behind the Harley Davidson dealership - eventually, the road next to I-HOP is accessible in both directions off HWY 74 - with the changes there will be only 1 access road heading west on HWY 74 and no accessibility heading east on HWY 74 unless you make a left @ Sam Newell.
Joesph F. Jones Jr.	Section 4f	Please insert a greenway under the existing 74 corridor for the greenway (currently under construction)

Commenter	Comment on	Comment
Joseph F. Jones	Public Hearing	<p>The idea of express toll lanes is interesting but I wonder if it really solves many of the traffic problems for the region? I see on the I-77 north design that a few select vehicles can drive faster (usually above the speed limit) but rarely is the number of vehicles reduced on the roadway by alternative means of transport. The busway on 74 seems currently underused, but the design bus never really worked for access on the corridor. What about mass-transit for the corridor to reduce cars?</p>
Joseph F. Jones Jr.	Public Hearing	<p>Briar Creek Greenway: Please insert a walkway under the existing 74 corridor for the greenway (currently under construction)</p>
Wenonah Haire, Catawba Indian Nation	Public Hearing	<p>The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However the Catawba are to be notified if Native American artifacts and/or human remains are located during the ground disturbance phase of this project.</p> <p>If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or email Caitlin.Rogers@catawba.com</p>
Robinson, Bradshaw, and Hinson, P.A.		<p>This firm represents the Mecklenburg County ABC Board (the "ABC Board"), which owns the property at 7212 E. Independence Blvd. (U.S. Hwy. 74), Charlotte, NC 28227 (the "Property").</p> <p>At NCDOT's recent public meeting on STIP Project No. U-2509, the ABC Board learned that the Property will be impacted by transportation improvements that NCDOT proposes to construct in connection with the Project at the intersection of Independence Boulevard and Village Lake Drive.</p> <p>Based on information provided at the meeting, completion of the Project will deprive the Property of reasonable access both to Village Lake Drive and to Independence Boulevard. As a result, if the Project is completed as currently contemplated in NCDOT's plans, the ABC Board believes that the Project will eliminate any value it has in the Property and will result, effectively, in a taking of the entire Property.</p> <p>To that end, the ABC Board would like to engage in discussions with NCDOT about Project design alternatives that will protect its interest in the Property by providing access to Village Lake Drive and Independence Boulevard that is substantially similar to the access that the Property has today. Alternatively, if NCDOT elects to proceed with the Project as currently planned, the ABC Board is prepared to discuss with NCDOT the manner by which it will acquire</p>

Commenter	Comment on	Comment
		<p>the entirety of the Property at its fair market value, as required under applicable condemnation law.</p> <p>We look forward to discussing this matter with you in more detail. This letter is, of course, sent without prejudice to any of the ABC Board’s rights, each of which is expressly reserved.</p>
<p>Amanetta Somerville, U.S. Environmental Protection Agency</p>	<p>EA</p>	<p>Consistent with Section 102(2)(c) of the National Environmental Policy Act (NEPA) and section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) appreciates the opportunity to review the joint Federal Highway Administration (FHWA) and the North Carolina Department of Transportation (NC DOT) Administrative Action Environmental Assessment (EA) for improvements to 6.4 miles of US 74 (Independence Boulevard) from west of Idlewild Road to I-485 (Charlotte Outer Loop) in Charlotte and Matthews in Mecklenburg County, North Carolina. The proposed project will widen and upgrade US 74 with additional general-purpose lanes, auxiliary lanes, express lanes in the median, and the replacement of at-grade intersections with interchanges and overpasses, as well as the extension and connection of six secondary roads along the corridor. The Administrative Action Environmental Assessment (DEA) document identifies two proposed alternatives for consideration. A No-Build Alternative and a Build Alternative with a Best-Fit Widening to US 74 and parallel road connections with a Sardis Road North Interchange with a Partial Cloverleaf design and three alignment options for the connection of Independence Pointe Parkway.</p> <p>The EPA understands that the purpose of the Proposed Action is to provide reliable travel time and improve mobility along the US 74 corridor, provide system sustainability, and maintain and improve connectivity across and along US 74 to, from, and between adjacent communities within Mecklenburg County, North Carolina. Based on the information provided in the Administrative EA, the proposed project will result in moderate adverse impacts to access and mobility within the proposed project community. With the potential relocation of seven places of worship, over 100 business relocations and up to 40 residential relocations, the EPA recommends that the FHWA and the NCDOT continue to keep the local community informed and involved as the project moves forward. Additionally, the EPA notes that the proposed project will likely lead to substantial land-use changes resulting from the increase in roadway capacity, the alteration of existing driveways and cross streets along US</p>

Commenter	Comment on	Comment
		<p>74, and the improvement of connectivity among adjacent communities. The EPA recommends that a detailed Land Use Scenario Assessment be included in the Final EA.</p> <p>Thank you for the opportunity to provide comments on this proposed action. Please provide this office one hard copy with one electronic of the Final EA and Finding of No Significant Impact (FNSI), when available. If you have any questions, please feel free to contact me via the information provided below.</p>
Captain Stason Tyrell	Public Hearing	<p>On behalf of the Matthews Police Department, and with great concern for the citizens in our town, we are asking that serious consideration be given to design plans that improve pedestrian safety. We currently have pedestrians that regularly cross Independence Blvd. within the town of Matthews between, and at, signalized intersections. The reality of their desire to find the shortest most direct route to their destination will not end when the intersections are eliminated. This has been proven on a regular basis in Charlotte where recent road development has been completed and they still see pedestrians crossing. Matthews has a much higher concentration of restaurants and retail, along with surrounding apartment complexes (many still under construction and will increase future population), which leads to more pedestrian movement in the area. Our minimum request is a center barrier or fencing that prevents the ability for a pedestrian to cross. Providing alternative passage points would also be beneficial, but experience shows us it will not prevent some from continuing to cross at the most direct location to their destination. I would be happy to speak with anyone on this topic and assist in any way possible to help prevent the future loss of life within our town.</p>
Michael Weeks	Public Hearing	<p>While I would prefer the light rail option from Matthews, this is clearly a viable alternative to the existing traffic conditions. Coming from the Hemby Bridge area to uptown is a 17 mile , 50-55 minute commute. I would love to save 10-15 minutes for a few dollars a day.</p>
Tracy Hamm	Public Hearing	<p>I'm surprised there are no express lane access ramps between U.S. 74 and I-277, similar to the ramps that will be added at 74 and 485. Realizing express lanes are not currently planned for I-277, I still would have thought access ramps would have been added at this critical interchange to provide a seamless expressway-to-interstate connection. Is this an option, even if over the longer term? Otherwise, this interchange will continue to be a bottleneck and inhibit mobility in the central business district. Thank you.</p>

Commenter	Comment on	Comment
Jason Lamb	Public Hearing	<p>This is my location on this map. (Second Chance Financial LP @ 10800 Independence Pointe Pkwy)As it stands I have just enough parking spaces to meet the ADA and Matthews zoning requirements. This is what the road project proposal plans on doing to my front parking lot taking more than half of the spaces including the corner of the building.</p> <p>In response to the drawings viewed at the Jan 28th meeting presented at Levine's Campus I would like to file a formal complaint/request that the proposed traffic circle on the 10800 block of Independence Point Pkwy be redrawn, removed and or discarded. I (Second Chance Financial LP) own the Capital Pointe building who's address is 10800 Independence Pointe Pkwy and my property will be decimated by the proposed traffic circle and the needed easement. This proposed traffic circle will not only destroy the access to the parking lots and property but will remove more than half of the front parking lot (which is my primary lot) and leave me in a zoning violation. This will happen because I will not have enough parking spaces as required by law to suffice the finished square footage of the building itself to meet its zoning classification. The easement shown with the traffic circle also overlaps the corner of the building itself.</p> <p>Based on the information given to me during the meeting it is fair to say that my tenants will be put out of business by the construction, my building will be ruined and the parking will be lost ultimately depreciating the property to a point where it will have no value or future use. The proposed easement encroaches onto the physical structure itself, takes the utilities access to the property, and leaves me with no where to expand or way to recover from the said construction. This is why I am requesting that if the traffic circle remains in place then include in the budget the purchase of my entire property building included since it would no longer comply with Matthews zoning or the ADA requirements for parking.</p>
Anonymous		<p>I was at the meeting at CPCC-Levine Center and at that time looked up Sharon Forest Drive to see what you are planning for our entrance. At that time I talked to a representative and he said they were planning an overpass of some kind. This is not mentioned on the sheet that you passed out by the way.</p> <p>I also let him know that they were planning hundreds of townhomes on the corner of Wallace and 74 that would generate 800+ cars per day from just those townhomes. Now how do you think that is going to affect Sharon Forest</p>

Commenter	Comment on	Comment
		<p>Drive and Briardale Drive? As it is, there are four housing development behind Dorn and Wallace and everyone of them cut through our neighborhood to get to them from Harris Blvd. Some go to City View to get out but there is no left turn there.</p> <p>This is going to create a back up mess. Sharon Forest dead ends into a cul-de-sac one block from Sharon Forest and Briardale Dr. There is only one way to turn left on 74 and that is to go to Wallace and Laura Drive, make a U-turn on Harris if you want to go to Idlewild. Believe me cars will go this way if you shut off driveways along 74. drawing attached</p>
Ralph Messera		Can't be completed soon enough for me. Get it done.
Moe Mohsen Shams	Public Hearing	<p>I own 4800 and 4930 E. Independence Blvd. Your planned bollards and the proposed taking of more property across the front of 4800 E. Independence has caused me to loose a contract to sell the properties. I am a small business man and this is devastating to my family business. I greatly appreciate Mr. Bryan Key discussing the urgency to change the Preliminary Plan showing removing the bollards preventing E. Independence traffic from turning in and removing the taking of additional property and possible front of my building with John Jones my real estate agent. As you will see on the attached map the traffic count has dropped 900 cars over the last 18 years so these drastic damaging plans for a toll lane through a retail district are NOT justified. an HOV lane is reasonable. This is a most urgent matter because my buildings are now and have been vacant for many years due to the lengthy construction that was recently finished. I believe that if you move the toll lane weave just 2,000 feet towards Charlotte, there would be no need to take my land or my neighbors land and there would be no need for bollards preventing East bound Independence traffic from entering our properties. Another solution would be to make the toll lane into an HOV lane which would not need a protected weave. Either of these solutions would save you millions of dollars in costs and not destroy the value of our properties. I immediately requested Randy Goddard of Design Group 3 to setup a meeting so my buyer, myself and Randy could meet with Bryan Key as soon as possible, but Randy says he has not been able to set up this most urgent meeting. Bryan please respond as soon as possible to Randy Goddard at 704-343-0608. If we can meet and resolve these issues quickly I may be able to get my buyer back under contract. Please help me. Mr. Jones has also requested this meeting, time is of the essence.</p>

Commenter	Comment on	Comment
Jack McNeely		<p>Caller is wondering how his property that is 3/4 of a mile away from Independence will be impacted by the 74 Corridor improvements</p>
Town of Matthews	EA	<p>The Purpose and Need statement in the EA states on page 8, “The purpose for the proposed action is to provide reliable travel time and improve mobility along the US 74 corridor, provide system sustainability, and maintain and improve connectivity across and along US 74 to, from, and between adjacent communities within the study area.” The Town believes that “mobility” means being able to reach one’s destination, within all modes, not just motor vehicle. Providing adequate pedestrian connectivity across US 74 is critical. NCDOT is currently conducting a study under Brian Mayhew to evaluate crossings for pedestrians and bicyclists along the whole corridor. Recommendations were not available at the time the EA was completed. However, we expect that NCDOT will incorporate the findings of the study into the U-2509 project. There are several potential greenway connections that need to be funded with the development of this project. Within this document, pages 108-109 state that several greenway improvements need to be provided by “others.” There are no crossing opportunities between Sam Newell Road and Matthews Township Parkway, which is almost a mile-long stretch. This segment of US 74 has a number of origins and destinations on both sides of the roadway and the Purpose and Need will not be met if an additional crossing is not included. The new Pedestrian and Bicycle Policy reiterates connectivity and says cost share for greenways that are within a locally-adopted plan will be at NCDOT’s cost. The Irvins Creek Tributary #1 greenway tunnel is included in the Town’s adopted Pedestrian & Bicycle Composite Plan and should be fully implemented as a part of this project.</p>
Town of Matthews	EA	<p>The Town applauds NCDOT on its efforts to provide network connectivity by providing infrastructure linkages on both Northeast Parkway and Independence Pointe Parkway. This will provide route options for local traffic to avoid having to use US 74. Within the EA, there were three options provided for Independence Pointe Parkway which are described in Figure 3-3H and described on page 36. As of the publication of this document, the final alignment had not been chosen. The Town prefers Option 2. The impacts are more than Option 1 and slightly less than Option 3. The cost is less than Option 1 and roughly the same as Option 3, as indicated in Table 1-3 on page 7. The Town believes that Option 2 provides the much-needed connectivity to the Matthews</p>

Commenter	Comment on	Comment
		Festival Shopping Center. This alignment goes behind the shopping center and creates a rear entrance. This will help alleviate traffic moving through the NC 51/US 74 interchange.
Town of Matthews	EA	The current practice in transportation design is to match the design speed to the desired operating speed and to design speed controls into the roadway design to increase safety for vulnerable users, bicyclists and pedestrians. This practice is supported by NACTO and is in use in the Charlotte region. All of the design speeds listed in Table 4-2, page 49 are five miles faster than posted speeds. a. Additionally, as the project moves forward in establishing Design Criteria, superelevation is not appropriate on local streets and needs to be avoided to the maximum extent practicable. We expect there are no superelevation needs for NCDOT- or Town-maintained streets posted 35 mph or less.
Town of Matthews	EA	The Town would like to state that business accesses that are cut off by Quadrant/Loop Roads need to be accommodated. There are several businesses at the corner of Matthews-Mint Hill Road and US 74 that need to have access drives off of the quadrant roadway. If not, it will cause drivers to have to meander across private property circuitously to gain access to their destination.
Town of Matthews	EA	<p>Cross Street Access Changes, on pages 52-53, highlight how intersections will be reconfigured.</p> <p>a. When the project creates a cul-de-sac adjacent to US 74, it should be moved away from US 74 with a vegetated buffer to help prevent the appearance of connection to US 74 and unwanted pedestrian crossings. Moving the cul-de-sac to the last driveway on the street, and removing the old pavement to US 74, is ideal. The Town wants to encourage pedestrian movement in designated locations, typically where there are sidewalks.</p> <p>b. Pedestrians need to understand where and how to cross this upgraded facility. Upgraded US 74, closer into Charlotte, has pedestrians dangerously crossing because foot traffic was not fully evaluated prior to the project's implementation.</p> <p>c. At Windsor Square Drive, there is currently a lot of pedestrian crossing activity. This is one of the locations where this project is going to reconfigure the intersection as a right-in/right-out intersection. The Town is concerned that foot traffic will continue to cross along Windsor Square Dr unless convenient alternatives are made with the project. Potential solutions are incorporating the Irvins Creek Tributary #1 greenway tunnel as one critical connection into</p>

Commenter	Comment on	Comment
		the project; another is routing CATS bus service to the north side of US 74. We would like to see additional options provided by the project.
Town of Matthews	EA	There are several properties along NC 51 and other roads in the project that will have impacts to Town-required landscaping. In some cases, this landscape is required as a part of its parcel's zoning change. The Town will provide NCDOT and the consultant with a map and a list of parcels that follow under this special circumstance. The Town would like assistance ensuring property owners would be compensated for required landscape buffers. There may be some property owners that may not want to reinstall the landscape; thus, it would fall to the Town to cite them with a Notice of Violations and require the landscaping to be reinstalled.
Town of Matthews	EA	The NC 51 corridor in the vicinity of US 74 is heavily traveled due to the number of large retail centers flanking the interchange. The current design shows keeping all access points on NC 51 in their current configuration. However, the section of NC 51 between Independence Pointe Pkwy and the US 74 ramps, currently extremely congested at all times of the day, can only be expected to get worse. Better congestion management principles need to be applied to this section of roadway. We understand that signal timing is a large factor in congestion. However, we request additional traffic simulation done at this location to consider more thoroughly restricting left turn movements at driveways and additional laneage. This traffic study should be presented to the Town prior to letting the design-build project.
Town of Matthews	EA	The Town will provide a map and a table with additional location-specific comments, including several involving our pedestrian network. The table on page 108 regarding Bicycle and Pedestrian Facilities should be revised using the map. A few changes include continuing bicycle and pedestrian accommodations in new portions of the project, clarifying which side of the street a sidepath should be located, and to fully fund The Irvins Creek Tributary #1 greenway underpass.
Town of Matthews	EA	The requested pedestrian and bicycle accommodations are all included in adopted Town documents such as our Composite Bicycle and Pedestrian Plan, our Town Unified Development Ordinance, and Mecklenburg County Land Development Standards.
Town of Matthews	EA	There are several bus stops on US 74. Once this project is built, the bus stops will have to be relocated to Northeast Parkway and Independence Point Parkway. Riders will have limited choices to cross US 74 on foot, so NCDOT and

Commenter	Comment on	Comment
		Charlotte Area Transit System will have to coordinate access for this user group.
Town of Matthews	EA	It is imperative to the project's success to continue to involve the local municipalities in every project phase. We look forward to timely receipt of project plans and documents for both segments of the project.