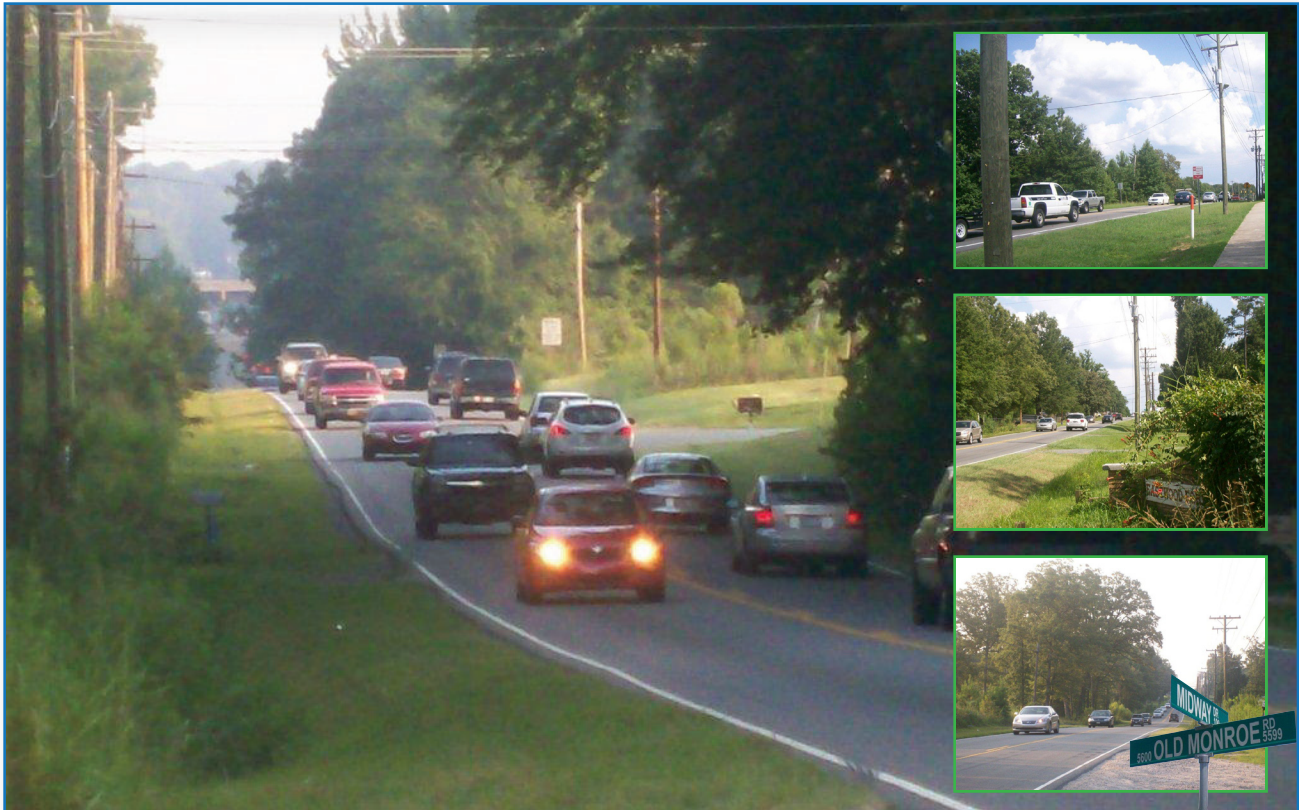


STIP Project No. U-4714

E. John Street/Old Monroe Road Improvements

SR 1009 from Trade Street (SR 3448-SR 3474) in the Town of Matthews in Mecklenburg County to Wesley Chapel Stouts Road (SR 1377) in the Town of Indian Trail in Union County

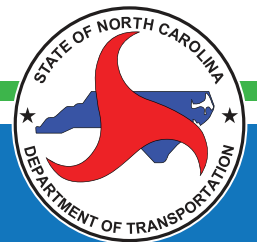


Finding of No Significant Impact

June 2018



U.S. Department
of Transportation
**Federal Highway
Administration**



East John Street-Old Monroe Road (SR 1009) Improvements

From Trade Street (SR 3448-SR 3474) in the Town of Matthews in Mecklenburg County to
Wesley Chapel-Stouts Road (SR 1377) in the Town of Indian Trail in Union County

Federal Aid Project No. STPDA-1009(16)
WBS No. 39078.1. 1
STIP Project No. U-4714

**ADMINISTRATIVE ACTION
Finding of No Significant Impact**

June 2018

Submitted Pursuant to 42 USC 4332(2)(c)

UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
&
NC DEPARTMENT OF TRANSPORTATION

Approved

6/21/2018
Date

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NCDOT – Project Management Unit

6/21/2018
Date

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

East John Street-Old Monroe Road (SR 1009) Improvements

From Trade Street (SR 3448-SR 3474) in the Town of Matthews in Mecklenburg County to Wesley Chapel-Stouts Road (SR 1377) in the Town of Indian Trail in Union County

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Submitted Pursuant to 42 USC 4332(2)(c)

UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
&
NC DEPARTMENT OF TRANSPORTATION

Documentation Prepared by:
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For the North Carolina Department of Transportation

6/21/2018

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NCDOT – Project Management Unit Team B

Project Commitments

This “Green Sheet” lists the project commitments made to minimize, mitigate, or avoid project impacts beyond those necessary to comply with applicable federal and state requirements and regulations.

Item	Resource	Project Commitments
1	Traffic and Transportation	NCDOT Division 10 and the Roadway Design Unit will coordinate U-4714 and I-5507 for costs, scheduling, and construction related to the I-485 bridge widening and associated interchange modifications. NCDOT’s Division 10 Traffic Engineer will coordinate with the communities during final project design to determine posted speed limits and will continue to look for ways to reduce impacts where feasible through final design.
2	Bicycle/Pedestrian	NCDOT Division 10/Project Management Unit/Roadway Design Unit/Division of Bicycle and Pedestrian Transportation will ensure that landscaping and pedestrian and bicycle accommodations will be further coordinated with the communities during final design. The Towns of Matthews, Stallings, and Indian Trail will participate in the cost of new sidewalks and multi-use paths where they do not currently exist. Municipal Agreements will be prepared prior to project construction to formalize their financial obligations in regard to sidewalk and multi-use path construction. NCDOT Division 10/Project Management Unit/Roadway Design Unit/Division of Bicycle and Pedestrian Transportation will coordinate with the Towns of Matthews, Stallings, and Indian Trail regarding the type and location of pedestrian/bicycle crossings at major intersections.
3	Community Resources	NCDOT Division 10/Project Management Unit/Roadway Design Unit will continue to minimize impacts to the extent feasible during final design. NCDOT’s Project Management Unit and Division 10 will coordinate with schools and fire/EMS on any detours during construction. Specifically, appropriate detour routes will be identified for Sun Valley school buses, Stallings Volunteer Fire Station 20 (4616 Old Monroe Road), and Union County MED 51 Base (100 Williams Rescue Road) prior to construction.
4	Relocations and Property Acquisitions	NCDOT Division 10/Project Management Unit/Roadway Design Unit will continue to minimize impacts to the extent feasible during final design. NCDOT’s Right of Way Unit will use three programs to minimize the inconvenience of relocation: Relocation Assistance, Relocation Moving Payments, and Relocation Replacement Housing Payments or Rent Supplement. These programs are in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Comparable replacement housing and business space is available in the Project area for displaced homeowners, tenants, and businesses.
5	Noise	Division 10 and the contractor will be responsible for ensuring that low cost and easily implemented construction noise control measures will be incorporated during construction to the extent practicable.
6	Utilities	NCDOT’s Utilities Unit will coordinate with all utility providers during final design and construction to prevent damage to utility systems and to minimize disruption and degradation of utility service to local customers.
7	Hazardous Materials	NCDOT’s Geoenvironmental Unit will complete further assessments on properties as necessary prior to right of way acquisition.
8	Floodplains and Floodways and Hydrology	NCDOT’s Hydraulics Unit will coordinate with FEMA and local authorities to ensure compliance with applicable floodplain management ordinances. Since this project involves construction on or adjacent to FEMA regulated streams, NCDOT Division 10 shall submit sealed as-built construction plans to NCDOT’s Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Item	Resource	Project Commitments
9	Cultural Resources	<p>NCDOT’s Project Management Unit and NCDOT’s Human Environment Unit will review final plans to ensure the following applicable conditions are met to maintain the No Adverse Effect determinations:</p> <p><u>Reid House</u></p> <ul style="list-style-type: none"> • No construction in right-of-way • No drainage easements • No permanent utility easements • Only replace curb and gutter • Keep existing sidewalk • No tree removal <p><u>Banks H Funderburk Store (a.k.a. Rock Store Bar-B-Q)</u></p> <ul style="list-style-type: none"> • No right-of-way • No permanent drainage easements <p><u>Banks and Carolyn Funderburk House</u></p> <ul style="list-style-type: none"> • No ROW • No easements • Minimize tree removal • No permanent utility easements • No permanent drainage easements
10	Section 4(f)	<p>NCDOT Division 10/Project Management Unit/Roadway Design Unit will ensure that final design and construction within Section A shall avoid any impacts to the Four Mile Creek Greenway entrance on East John Street west of the I-485 interchange.</p>

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1 Type of Action

This document is a Federal Highway Administration (FHWA) Administrative Action, Finding of No Significant Impact (FONSI). The North Carolina Department of Transportation (NCDOT) and FHWA have determined that this project will not have any significant impact on the human or natural environment. This FONSI is based on the Environmental Assessment (EA), prepared for the project and signed by FHWA and NCDOT in July of 2016, and public and stakeholder involvement that have occurred since the EA was approved. The EA was independently evaluated by FHWA and determined to adequately and accurately disclose the environmental issues and impacts of the proposed project. The EA, together with the information contained in this FONSI, provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. This FONSI completes the process required under NEPA. The FHWA can now authorize NCDOT to continue into final design, right-of-way acquisition, and construction phases of the project.

2 Description of Proposed Action

2.1 General Project Description

NCDOT proposes to widen 6.5 miles of the existing two-lane East John Street-Old Monroe Road (SR 1009) to a multi-lane facility from Trade Street (SR 3448-SR 3474) in the Town of Matthews in Mecklenburg County through the Town of Stallings, to Wesley Chapel-Stouts Road (SR 1377) in the Town of Indian Trail in Union County. The existing two-lane roadway provides a parallel route to US 74 and connects to the regional roadway network at the John Street interchange with I-485. The existing roadway is heavily traveled and experiences congestion and delays. The existing roadway west of South Trade Street is four (4) lanes, and this project would join the two sections with a consistent 4-lane cross-section. **Figure 1** shows the project location.

The project is included in NCDOT's current federally-approved 2018-2027 State Transportation Improvement Program (STIP) (August 2017) and is divided into three sections:

- Section A – Trade Street to west of Morningside Meadow Lane (excluding I-485 Interchange)
- Section AB – I-485 Interchange
- Section B – West of Morningside Meadow Lane to east of Wesley Chapel-Stouts Road

The project is included in the Charlotte Regional Transportation Planning Organization's (CRTPO), (formerly Mecklenburg-Union Metropolitan Planning Organization) 2045 Metropolitan Transportation Plan (MTP) (April 2018). Plans to widen East John Street-Old Monroe Road (SR 1009) to four (4) lanes are also included in multiple adopted plans for Matthews, Stallings, and Indian Trail (referred to collectively in this document as the Towns).

2.2 Project Purpose and Need

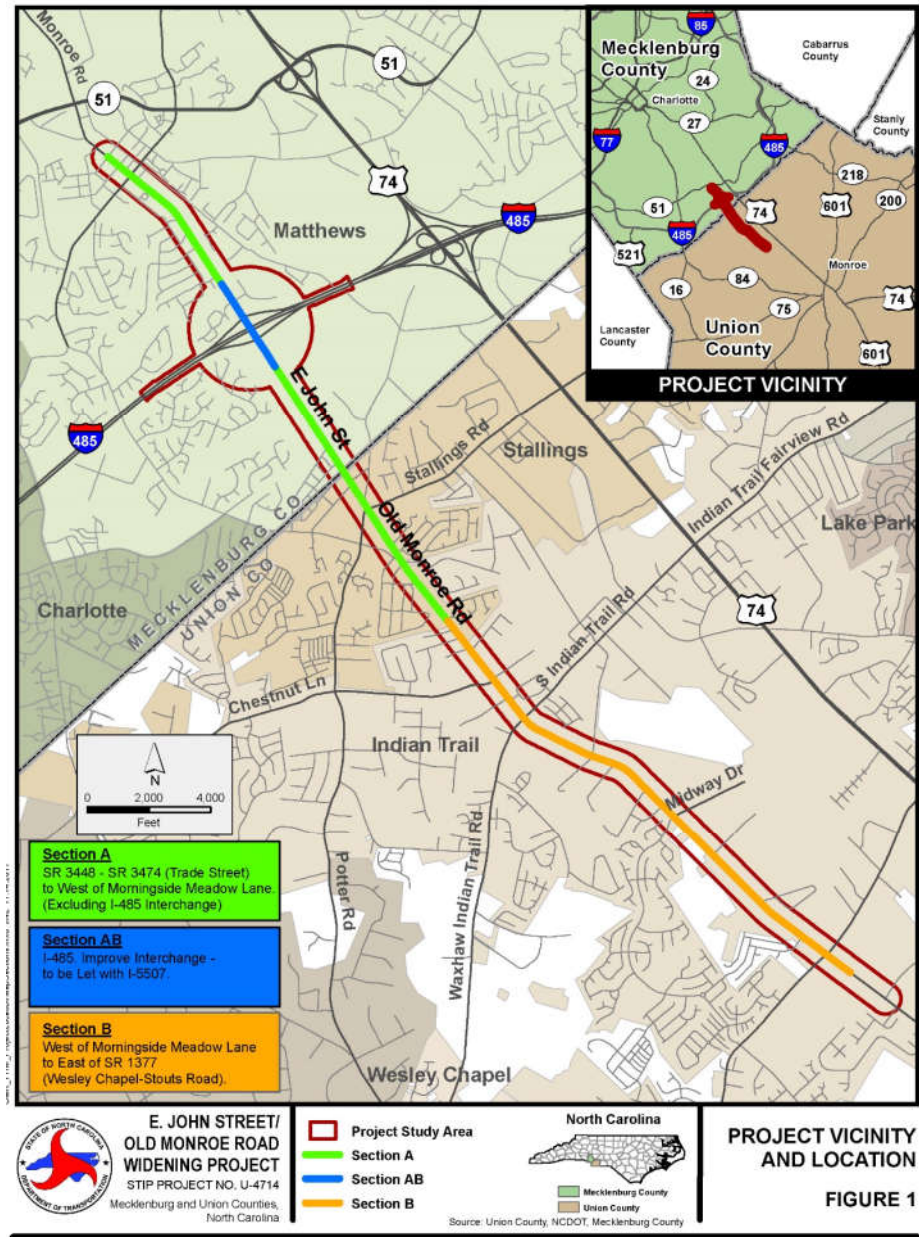
As shown in **Figure 1**, the project is located approximately 12 miles southeast of Uptown Charlotte in a rapidly growing area that traverses three municipalities (Matthews, Stallings, and Indian Trail) in two counties (Mecklenburg and Union). The East John Street-Old Monroe Road corridor is important for commuters in southeast Mecklenburg County and northwest Union County. Residents who live in the

subdivisions along the corridor use these roadways to travel to work and activity centers, generating high volumes of traffic particularly during the weekday peak hours. More retail and commercial market activity has followed the area's growth and the project corridor is also used to access retail, services, and destinations/activity centers within and surrounding the project study area.

The volume of traffic on the existing roadway approaches or exceeds the acceptable level of service (LOS) for a two-lane undivided arterial. LOS considered acceptable is when traffic is flowing (LOS A-D). Nearly half of the intersections along the roadway currently operate at an unacceptable LOS (E or F) during peak hours where they are at or above capacity. The combination of high volumes of traffic, lack of left turn or right turn lanes at many of the intersections, and numerous direct driveway connections, create congested conditions along the corridor. Vehicles must stop or slow down in the single travel lane to make their desired turn, affecting the LOS. During peak periods, turning vehicles, especially left-turning vehicles, can create backups along the corridor and substantially slow the average travel speeds.

Traffic volumes are predicted to increase in the future and worsen traffic conditions along the corridor.

In addition, crash data analysis indicates that nearly half of the analysis area is above the critical crash rate, and there are crash issues along the corridor. A review of crash data from 2008 to 2013 details the 990 crashes reported along the roadway (between Wesley Chapel Stouts Road and Trade Street) and



reveals that nearly 60% were rear end, left turn and angle crashes. In addition, one pedestrian and three bicycle crashes were also reported during this period along the corridor.

The primary purpose of the project is to improve existing and projected traffic flow and operational efficiency on this section of East John Street-Old Monroe Road. Heavy traffic occurs daily along East John Street-Old Monroe Road through the project study area, and capacity deficiencies result in frequent congestion and delays. The proposed project would address the need to increase capacity for vehicles and enhance mobility.

The proposed project also would enhance mobility for pedestrians and bicyclists along the corridor as they are not adequately served on the existing roadway. Another desirable outcome for this project is to enhance the overall travel safety in the project study area.

2.3 Project Costs

The project cost in the STIP is \$87.5 million, which includes \$1 million as prior year expenditures, \$48 million for right-of-way acquisition, and \$38.5 million for construction. A utility estimate, which was completed in August 2015, concluded the cost for utilities to be \$10.3 million. Since then, the design in Matthews from Trade Street in downtown Matthews to I-485 has changed to reduce the footprint and lessen impacts. Cost estimates will be updated during final design, and it is believed that these design changes will reduce the construction and right-of-way costs.

2.4 Project Schedule

The current schedule for constructing U-4714 includes design and permitting activities from 2017 through 2019. Right-of-way acquisitions and utility relocations would begin in 2019. Construction would begin in 2021 with an expected project completion date in 2024. Section AB (I-485 Interchange) is being included in the I-5507 (I-485 Express Lanes project) design build contract.

3 Alternatives

3.1 Alternatives Process

A multi-step process was used in developing and evaluating alternatives. The public, local government representatives, and state and federal environmental resource and regulatory agencies had integral roles in developing the project alternative options over a four-year period. Options were screened for their ability to meet the project's purpose and need, public/agency opinion, and any issues that would render an alternative unreasonable or infeasible. Alternatives were compared and evaluated on factors such as future traffic operation conditions, potential for community resources impacts, and public/agency opinion. A complete description of the alternatives considered, screening process, and comparisons can be found in Chapter 2 of the EA.

3.2 Alternatives Considered

3.2.1 Initial Options

Initial options considered included the No-Build option, Transportation Management options, improving the Existing Roadway option, and building a New Location Roadway option. The No-Build Alternative was determined to be inconsistent with local plans and the purpose and need for the project. The Transportation Management options (including Travel Demand Management, Transportation System Management and Mass Transit/Multi Modal) would not result in notable capacity increases or improvement in traffic flow along the project corridor and would not improve mobility for pedestrians and bicyclists. As a result, the No-Build Alternative and Transportation Management options were both eliminated because they did not fully meet the project purpose and need. The New Location Alternative concept would involve construction in a new location within an urbanized, densely developed area and would result in substantial impacts to the built environment. As a result, the New Location Alternative was also eliminated from further study.

3.2.2 Preliminary Alternatives

NCDOT collaborated with the public and town representatives to develop various options for improving existing East John Street-Old Monroe Road. The collaborative process included a three-day design charrette early in the alternatives development stage (August of 2013), a public meeting (January of 2014), multiple small group/neighborhood meetings, and ongoing quarterly municipal meetings. The roadway and intersection options developed in collaboration with the public and municipal representatives comprised several design elements including typical sections, roadway alignment/location, intersections types, and the I-485/East John Street interchange.

Several 4-lane and 6-lane variations were assessed along with several types of intersection configurations. Multiple coordination meetings were held with the Towns of Matthews, Stallings, and Indian Trail to discuss the preferences that were gathered during the charrette on how the road should look and function. The four-lane undivided typical section and the five-lane typical section were eliminated because they were not consistent with local plans for a median-divided facility, and they would not improve operations and safety and commensurate with other construction alternatives under consideration. In addition, the six-lane divided section, while substantially improving traffic operations, resulted in more impacts than the other concepts under consideration. As a result, a “best-fit” roadway alignment was developed based on a four-lane median divided typical section.

Throughout the alternatives process, coordination efforts included additional requests to evaluate other options. The municipalities expressed various concerns (specifically with the use of a non-traditional intersection) and asked NCDOT to consider these in the alternatives development for the project. The Superstreet configuration design was examined because it provides multiple benefits including: increased safety, time savings, increased capacity and efficiency and improved traffic flow. The corridor intersects with five major roadways and is planned to connect with several future roadway extensions. Due to high existing and projected through-traffic volumes and turning movement volumes at the major intersections, NCDOT evaluated both traditional intersection types (e.g. full movement) and other concepts, including the Superstreet and a variation of the Superstreet, known as a Michigan Left.

Multiple factors were considered in determining which options to advance for further comparison for the Improve Existing Roadway option. The three preliminary alternatives developed for local and public input, comparison of potential impacts, and detailed traffic operations included:

Preliminary Alternative 1 (4-Lane Divided Roadway) – a four-lane median divided roadway and a combination of intersection types, including full movement, leftover (allows left from primary street to side street, but no left from side street to primary street), and right-in/right-out intersections with U-turn locations.

Preliminary Alternative 2 (6-Lane Divided Roadway) – a six-lane median divided roadway and a combination of intersection types, including full movement, leftover, and right-in/right-out intersections with U-turn locations. While there was opposition to the six-lane concept early on during the charrette process, it was examined for comparison of impacts to the 4-lane designs.

Preliminary Alternative 3 (4-Lane Superstreet) – the typical section between intersections would generally match that of Alternative 1 (the 4-Lane Divided Roadway), but redirects side-street left-turns and through traffic at some intersections. This option would also include a combination of some full movement, leftover, and right-in/right-out intersections with U-turn locations. In a Superstreet configuration, all side-street traffic makes a right turn, then uses a nearby U-turn location to proceed to their desired destination. The Superstreet intersection would allow eastbound and westbound East John Street-Old Monroe Road to operate independently, allowing for better signal coordination compared to conventional intersections.

3.3 Preferred Alternative Studied in the EA

Following the January 2014 public meeting, NCDOT conducted additional analysis, including a review of traffic forecasts and operations for each of the preliminary alternatives as well as extensive investigation of intersection options. See Section 2.4.3 of the EA for additional details on the traffic analysis.

Analysis determined that Preliminary Alternative 2 (6-Lane Divided Highway) would address needed capacity but would result in greater impacts over the 4-lane alternative and is not consistent with local plans. As a result, Preliminary Alternative 2 (6-Lane Divided Highway) was eliminated from further study. Preliminary Alternative 1 (4-Lane Divided Roadway) and Preliminary Alternative 3 (4-Lane Superstreet) would each have similar impacts to surrounding resources; however, Preliminary Alternative 3 (4-Lane Superstreet) comparatively provides better overall projected traffic operations than Preliminary Alternative 1 (4-Lane Divided Roadway). While both 4-lane alternatives would provide substantial improvements; Preliminary Alternative 3 (4-Lane Superstreet) would result in the best operations overall by allowing better progression along the corridor and improved safety. As a result, the Project Team selected Preliminary Alternative 3 (4-Lane Superstreet) as the Preferred Alternative for further detailed study and evaluation in the EA.

The Preferred Alternative described in the EA consisted of a four-lane cross section along the length of the mainline; with variations in the right-of-way width to accommodate intersection improvements and U-turn locations. The design recognized the need for varying configurations at each intersection and minimized impacts to community, natural, and other cultural resources where possible. For the mainline overall, the proposed right-of-way width was approximately 104 feet to 111 feet. At U-turn

locations, the right-of-way is widened to 240 feet to provide extra width for turning vehicles. A detailed description of the Preferred Alternative can be found in Section 3.0 Of the EA. The EA was approved by FHWA and NCDOT in July of 2016, and a Public Hearing was held on October 11, 2016. See Section 5.3.2 for additional details on the Public Hearing.

3.4 Design Revisions to the Preferred Alternative

Many of the concerns raised at the Public Hearing were about the Superstreet design concept; specifically, within the Town of Matthews. Following the Public Hearing, NCDOT prepared a brochure for distribution to further explain the benefits of the Superstreet design entitled East John Street Widening – Things You Should Know (see Section 5.3.4 for additional details).

A Post Hearing Meeting was held in February of 2017 at NCDOT in Raleigh to review and discuss comments received at the Public Hearing and during the comment period for the EA. The Post Hearing Review Minutes from February 7, 2017 STIP Project U-4714 – East John Street-Old Monroe Road Improvements Mecklenburg County and Union County (September 2017) can be reviewed at NCDOT’s Project Management Unit at the Century Center (1000 Birch Ridge Dr. Raleigh, NC 27610). After a review of comments from the Public Hearing and discussions with citizens and local government officials throughout the project development process, there was evidence of general support for the widening project. However, with so many concerns raised regarding the impacts from the Superstreet design from both citizens and the Town of Matthews, NCDOT decided to modify the design within the Matthews section (from Trade Street to I-485) to reduce the footprint of the project and minimize impacts. See Section 5.3.3 for additional details on comments received at the Public Hearing and on the EA.

NCDOT worked with staff from the Town of Matthews on the modifications to the project design within the section under their jurisdiction and continues to work with the local municipalities regarding design of the proposed project as it progresses toward final design. Revisions made following the Public Hearing to the project footprint within the Matthews section (from Trade Street to I-485) include:

- Reduction in median width (from 23 feet to 8 feet)
- Reduction in travel lane width (from 12 feet to 11 feet)
- Centered Widening
- Removal of planting strip on the south side
- Removal of three U-turn bulb-outs (east of Park Square Place, Kent Drive, and Council Place)
- Addition of two full movement traffic signals (Charles Buckley Way and Greylock Ridge Road)
- Removal of U-turn at Trade Street/John Street
- Addition of U-turn and left turn near BB&T (110 E John Street)
- Addition of left turn (westbound) at Park Square Place

3.5 Selected Alternative

The 4-lane Superstreet design best balances needs, impacts, and costs compared to the other preliminary alternatives studied while providing the best overall traffic operations and improved safety along the roadway. Based on analysis and including data gathered and presented in the EA and comments received during the public review period, the 4-lane Superstreet, with design modifications

through the Matthews section, is the Selected Alternative as it best fulfills the project purpose and need and is consistent with adopted plans. Figures showing the design of the Selected Alternative can be found in **Appendix A**.

The proposed design speed for the preliminary design of East John Street-Old Monroe Road is 50 mph. The posted speed limit along East John Street-Old Monroe Road is 45 mph. The Town of Stallings requested to maintain the 35-mph speed limit. NCDOT will coordinate with the towns during final design to determine posted speed limits and will continue to look for ways to reduce impacts where feasible through final design.

4 Summary of Environmental Effects

4.1 Updates to the Environmental Assessment

This chapter identifies updates, additions, and revisions to the *East John Street-Old Monroe Road (SR 1009) Improvements Environmental Assessment* (July 2016) since its distribution.

4.1.1 Errata

Section 4.4.5 (Protected Species), Table 4-9: Federally Protected Species for Mecklenburg and Union County of the EA identified the Biological Conclusion for the Northern long-eared bat as “May Affect”. NCDOT determined that the proposed action does not require separate consultation on the grounds that the action is consistent with the Final 4(d) rule under Section 7 of the Endangered Species Act for the Northern long-eared bat. The correct determination has been revised in the following table:

Table 1: Correction to Table 4-9 of the EA: Federally Protected Species for Mecklenburg County and Union County

Species		Federal Status	Habitat Present	Biological Conclusion
Scientific Name	Common Name			
<u>Lasmigona decorata</u>	Carolina heelsplitter ^{M, U}	E	No	No Effect
<u>Rhus michauxii</u>	Michaux’s sumac ^{M, U}	E	Yes	No Effect
<u>Helianthus schweinitzii</u>	Schweinitz’s sunflower ^{M, U}	E	Yes	No Effect
<u>Myotis septentrionalis</u>	Northern long-eared bat ^M	T	Yes	Consistent*
<u>Echinacea laevigata</u>	Smooth coneflower ^M	E	Yes	No Effect

E - Endangered

T - Threatened

M - Listed for Mecklenburg County

U - Listed for Union County

*Consistent with Final Section 7 4(d) rule

4.1.2 Additional Traffic Analysis (EA Chapter 2)

Following the Matthews Area Project Update Meeting on July 31, 2017, the Town of Matthews submitted a letter to NCDOT requesting additional traffic analysis to include the US 74 Improvement Project (U-2509) and the McKee Road Extension Project (U-4713A) in the East John Street-Old Monroe

Road (U-4714) widening project forecasts. Consideration for U-2509 and U-4713A were not included in the original 2035 traffic forecasts as they were not funded nor included in the STIP at the time of the EA traffic analysis.

NCDOT responded by letter in September of 2017, stating they would update the traffic forecast and analysis for the East John Street-Old Monroe Road (U-4714) widening project to include all roadway projects in the Matthews area funded at this time. Following the completion of the updated traffic forecast and analysis, NCDOT sent the Town of Matthews a letter in June 2018 summarizing the results and provided them copies of the forecast and analysis. Copies of correspondence letters with the Town of Matthews are in **Appendix B**.

NCDOT completed the updated traffic forecast for the study area network in (U-4714/U-4713A) Traffic Forecast Report (RS&H, February 2018), which is included in **Appendix C**. The forecast includes all fiscally constrained projects documented in the *Charlotte Regional Transportation Planning Organization (CRTPO) 2040 Metropolitan Transportation Plan (MTP)* and NCDOT's *2018-2027 State Transportation Improvement Program* (August 2017) projects funded for construction.

The update traffic forecast shows little difference in the traffic volumes between 2035 and 2040. The projected volumes (for both 2035 and 2040) exceed the typical maximum average annual daily traffic (AADT) for an acceptable level of service (LOS) for a two-lane undivided arterial roadway (that includes exclusive left turn lanes) in an urbanized area (about 17,000 AADT according to the *2012 Quality/Level of Service Handbook*, Table 1, FDOT). The AADT projected for 2040 continues to exceed the threshold for an acceptable LOS and is too high for this two-lane roadway to handle. The updated traffic forecast verifies the need for the roadway widening project.

As a result of the updated forecast, the traffic operation analysis was revised to compare Alternative 1 (4-Lane Divided) and Alternative 3 (4-Lane Superstreet) and documented in the *Addendum to the Traffic Operations Technical Memorandum* (Atkins, June 2018). This document is incorporated by reference and can be reviewed at NCDOT's Project Management Unit at the Century Center (1000 Birch Ridge Dr. Raleigh, NC 27610). Several of the figures and tables from the memorandum are included in **Appendix D**. Figure D-1 of **Appendix D** shows a comparison between the Year 2035 and Year 2040 traffic volumes. Figure D-2 of **Appendix D** shows the 2040 traffic operations analysis and LOS for a 4-Lane Divided and 4-Lane Superstreet options. As shown in Figure D-1, the traffic volumes increased in some sections and decreased in others. Similar trends are also seen on the side streets.

Revised analysis based on updated traffic forecasts determined that both alternatives are expected to operate at comparative levels for the forecasted 2040 traffic volume. Most of the intersections are expected to operate at overall LOS D or better during peak hours. The remaining intersections that would operate at LOS E or F are not considered unacceptable because they are yield- or stop-controlled with critical movement volumes less than 100 vehicles per hour or a queue length of less than 250 feet. Some side streets and individual movements are expected to operate better under the Superstreet design. The updated traffic analysis also determined that Alternative 1 (4-Lane Divided) would likely require geometric improvements in some locations that could require additional widening of the roadway for turn lanes; potentially resulting in additional right-of-way acquisition and increased

property impacts over Alternative 3 (4-Lane Superstreet). The Superstreet design also has added benefits that are not typically accounted for in the traffic operations analysis. These benefits include:

- Increased Safety - The Superstreet intersection reduces the number of conflict points at an intersection, providing safety and operational benefits by reducing the number of signal phases and conflicting volumes at a single location. By reducing the number of conflict points, Superstreet intersections provide a safer operating condition for motorists and pedestrians alike.
- Better Pedestrian/Bike Accommodation - Superstreets provide better accommodation for pedestrians and bikes at intersections. Superstreets provide median refuge for pedestrians and bikes, thereby promoting safer crossing. Also, in a Superstreet configuration, bikes/pedestrians have a fewer number of conflict points with vehicles.
- Signal Progression - The Superstreet alternative also provides improved progression along the corridor since the left turn phases are eliminated.
- Robustness in Meeting Future Demand - The study area corridor under the Superstreet configuration will have additional capacity that would be lacking in a traditional intersection. Because of this additional capacity, the Superstreet may be able to accommodate unexpected developments and changes in traffic pattern in the future compared to traditional intersections.

Because of these benefits listed above, the revised traffic operations analysis recommends the 4-Lane Superstreet as the Preferred Alternative. With a change in traffic volumes, both up and down, the Superstreet remains the optimum choice for meeting purpose and need by providing improved operation efficiency and safety along the corridor. Refer to *Addendum to the Traffic Operations Technical Memorandum* (Atkins, June 2018) for additional details on the updated analysis.

Since completion of the updated traffic forecast in February of 2018, the MTP has been updated again. CRTPO adopted the 2045 MTP in April of 2018, two months after the completion of the updated traffic forecast. The recent adoption of the 2045 MTP would not significantly change the results of the updated traffic forecast and analysis as there is not a significant change in traffic volumes between the 2040 MTP and the 2045 MTP.

4.1.3 Land Use (EA Section 4.1.1)

The *Town of Stallings Land Use Plan* (March of 2007) has been updated since completion of the EA. The town adopted its *Stallings for the Next 25 Years: Comprehensive Land Use Plan* on November 27, 2017. The updated plan accounts for the proposed widening project and Superstreet design and recognizes that the widening would improve traffic flow, reduce travel delays, and allow for more vehicles to travel in the area while accommodating bicyclists and pedestrians. However, it states that the project would also have a significant impact on the Town Center area and recommends a context sensitive strategy to reduce the impacts of the project in this area.

4.1.4 Relocations (EA Section 4.1.5)

The relocation study conducted for the preliminary design in the EA estimated 45 total residential displacements (20 residential owners and 25 tenants). However, with the revised design reducing the footprint of the project within the Matthews area, it is estimated that approximately 24 residential displacements (nine residential owners and 15 tenants) would be required. This is 21 fewer residential relocations than the previous design. A total of 13 business displacements (one business owner and 12

tenants) would still occur with the revised design. This analysis is based on review of the design layout and parcel locations. A formal relocation study has not been updated for the Selected Alternative (revised design), these estimates are approximate. NCDOT will continue to work to reduce impacts and relocations, where possible, through final design.

4.1.5 Noise Analysis (EA Section 4.2.1)

The *Traffic Noise Analysis: East John Street-Old Monroe Road (SR 1009) Improvements from Trade Street (SR 3448-SR 3474) to Wesley Chapel-Stouts Road (SR 1377) (STIP Project U-4714) Mecklenburg and Union Counties* (January 2016), prepared for the EA, identified 96 noise impacted receptors. However, since the completion of the EA, NCDOT revised their Traffic Noise Policy on October 6, 2016. NCDOT's Traffic Noise and Air Quality Group reviewed the project for compliance with the updated NCDOT Traffic Noise Policy (see **Appendix E** for this memorandum). The new analysis identified a total of 100 receptors with an additional three substantial increase impacts to residences and one newly identified impact to the Four Mile Creek Greenway. The four additional impacted receptors are as follows:

- Receptor #407, 5916 Old Monroe Road (residence), Substantial Increase of +10 dBA
- Receptor #709, 3933 Old Monroe Road (residence), Substantial Increase of +10 dBA
- Receptor #799, 632 Picketts Circle (residence), Substantial Increase of +10 dBA
- Four Mile Creek Greenway, South of East John Street, between Red Porch Lane and Council Drive, West of I-485. The greenway was modeled with the first receptor located at the right-of-way line and at 100-foot increments along the trail. Only the first receptor, which is closest to the roadway, is impacted at 68 dBA Leq. See Section 4.1.8 regarding determination of Section 4(f) resource impacts.

The project corridor also was evaluated for non-residential, potential noise-sensitive land uses that could possibly need to be represented by a grid of receptor points, or equivalent receptors (ERs), that have ER values based on the usage of that area. Within the project corridor, five churches, two daycare facilities, one school and one park were identified and evaluated. It was determined that additional modeling of these land uses was not required because they were either not impacted by the project or are being acquired for right-of-way.

Abatement (including noise walls) is considered to be infeasible for the additional impacted receptors due to non-control of access along SR 1009. No additional noise analysis will be performed for this project unless warranted by changes in the project's design concept or scope, consideration of additional alternatives occurs, or there are substantial changes to the design year traffic volume forecasts.

4.1.6 Air Quality Analysis (EA Section 4.2.2)

The EA (approved July 2016) demonstrated attainment status and transportation conformity with the state air quality implementation plan (SIP) citing a USDOT conformity determination made October 1, 2015, on the Charlotte Regional Transportation Planning Organization (CRTPO) *2014 Metropolitan Transportation Plan (MTP)* and the *2016-2025 Transportation Improvement Program (TIP)*. USDOT made a (more recent) conformity determination (on the 2045 MTP and 2018-2022 TIP) on April 2, 2018. As a result, the following conformity determination language applies to the project:

The project is located in Mecklenburg and Union Counties, which are within the Charlotte maintenance area for the 2008 ozone (O₃) standard as defined by the EPA. This area was designated as marginal nonattainment under the 2008 eight-hour ozone standard on July 20, 2012, and due to improved air quality in the region was re-designated as a maintenance area on August 27, 2015. Section 176(c) of the CAAA requires that transportation plans, programs, and projects conform to the intent of the state air quality implementation plan (SIP). The current SIP does not contain any transportation control measures for Mecklenburg and Union Counties. The *Charlotte Region Transportation Planning Organization 2045 Metropolitan Transportation Plan* (MTP) and the *2018 - 2022 Transportation Improvement Program* (TIP) conform to the intent of the SIP. The USDOT made a conformity determination on the MTP and TIP on April 2, 2018. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project's design concept or scope, as used in the conformity analyses.

The EA also provided air quality analysis under the *Interim Guidance Update on Mobile Source Air Toxics Analysis in NEPA Documents* (December 2012). Under the 2012 guidance, the project fell under Category (2) because it is intended to improve the operations of the highway, and neither the 2035 (or more recent 2040) Design Year traffic is projected to meet or exceed the 140,000 to 150,000 AADT criterion.

Since the EA was approved in July of 2016, FHWA updated the guidance in the *Updated Interim Guidance on Mobile Source Air Toxics Analysis in NEPA Documents* (October 2016). The purpose of the October 2016 update was to provide guidance on when and how to analyze Mobile Source Air Toxics (MSAT) as part of the NEPA review for proposed highway projects. The new guidance incorporates new analysis using MOVES2014 (the latest emissions model) as opposed to the previous version (MOVES2010).

MOVES2014 is a major revision to MOVES 2010 with improved modeling that includes new data, emissions standards, and new functional improvements. Under the new model, FHWA estimates that even if vehicle miles traveled (VMT) increases by 45 percent from 2010 to 2050, a combined reduction of 91 percent in the total annual emissions for the priority MSAT is projected for the same time period. The MOVES2010 model projected an 83 percent reduction in total annual emissions with 102 percent VMT increase.

The updated guidance does not change the original analysis for the project. Under the new 2016 guidance, the project would still meet the requirements for Category (2) consideration with qualitative analysis as it has a low potential for MSAT effects and does not exceed the AADT criterion.

Revised language for qualitative MSAT analysis:

Table 2 in the *Air Quality Analysis* (January 2016) shows the estimated VMT along the corridor under the Build and No-Build Alternative. The VMT for the Build (Selected) Alternative is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Selected Alternative along the corridor, along with a corresponding decrease in MSAT emissions along the parallel

routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to the Environmental Protection Agency's (EPA) MOVES2014 model, emissions of all of the priority MSAT decrease as speed increases. Also, emissions will likely be lower than present levels in the design year because of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes included in the project will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, there may be localized areas where ambient concentrations of MSAT could be higher under the Selected Alternative than the No Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the widened roadway section along East John Street/Old Monroe Road. However, the magnitude and the duration of these potential increases compared to the No-Build Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a roadway is widened, the localized level of MSAT emissions for the Selected Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

4.1.7 Cultural Resources (EA Section 4.3.1)

After the EA, additional surveys and examination of historic properties were needed. A commitment in the EA required additional studies on a property at 4800 Old Monroe Road, which was identified as a resource that warranted intensive-level investigation. The project area also was expanded to the east of the John Street/Trade Street intersection due to design revisions in the Town of Matthews.

Additional research into the history and architecture of the Walter A. and Margaret F. Hemby House (UN1174) located at 4800 Old Monroe Road determined that the Hemby House is not eligible for listing in the National Register of Historic Places (NRHP). A Historic Structures Survey Report – Addendum was submitted to the North Carolina Department of Natural and Cultural Resources State Historic Preservation Office (SHPO) on September 15, 2016. SHPO concurred with the finding of the Hemby House not being eligible in a letter dated October 27, 2016 (see **Appendix F**).

Due to project design revisions in the Town of Matthews (see Section 3.4), an examination of historic properties within the expanded project area to the east of the John Street/Trade Street intersection also was completed. Two historic properties were identified: the Matthews Presbyterian Church and the Orr House located at 230 W. John Street. A *Historic Structures Survey Report – Addendum* was submitted to SHPO on May 16, 2017 determining that the properties were not eligible for listing in the NRHP. SHPO

concluded with this determination in a letter dated June 20, 2017. A copy of the letter making this determination is included in **Appendix F**.

4.1.8 Section 4(f) Resources (EA Section 4.3.3)

The EA identified the Four Mile Creek Greenway as a Section 4(f) resource that would not be impacted by the project. As discussed in Section 4.1.5, the updated *NCDOT Traffic Noise Policy* (October 2016) identified one receptor along the greenway that would be impacted. The greenway was modeled with the first receptor located at the right-of-way line and at 100-foot increments along the trail. Only the first receptor, which is closest to the roadway, is impacted at 68 dBA Leq, as it is the closest to the existing roadway.

All project improvements surrounding the greenway are located within existing right-of-way. The proposed alignment for the Preferred Alternative was shifted north in this area to avoid encroachment to the greenway access. In addition, a retaining wall is proposed as an additional measure to avoid physical impacts to the greenway.

The project would not cause a substantial increase in noise levels at this receptor over existing noise levels (3 dBA or less is considered to be barely perceptible). The projected noise level increase attributable to the project would not substantially interfere with the enjoyment and use of the greenway. The increase in noise due to the project's proximity to the 4(f) resource does not cause a substantial impairment to the protected activities, features, or attributes that qualify the property for protection under Section 4(f).

4.2 Impacts from the Selected Alternative

The project is not anticipated to cause significant adverse community, economic, or other environmental impacts. **Table 2** provides a summary of the estimated direct and indirect impacts to the human, physical, cultural and natural environments from the Selected Alternative (revised since the Preferred Alternative presented in the EA). Proposed mitigation is also identified to lessen or avoid impacts associated with the Selected Alternative. This table has been updated since the EA to reflect any additional analysis and changes to the design that have been made to minimize impacts.

Table 2: Summary of Impacts from the Selected Alternative

Resource	Impact	Proposed Mitigation
HUMAN ENVIRONMENT		
Land Uses and Land Use Plans (See EA Section 4.1.1)	Project would change the character of the existing facility, but it would not substantially contribute to changes in land use. Project would not likely influence the intensity of development activities. Land use will continue to be guided by adopted zoning and land use plans. The project is generally consistent with local land use plans.	Not applicable.
Consistency with Transportation Plans (See EA Section 4.1.2)	Project identified in, and generally consistent with, local (Matthews, Stallings, Indian Trail) land use and transportation plans. Only a minor inconsistency between how bicycle accommodations are provided in the preliminary design compared to the local plans.	Not applicable.
Community Resources	Minor property impacts to adjacent resources and change in access to/from the roadway. Minor acquisitions/easements will be required from community resources, but none would be displaced.	Impacts will continue to be minimized to the extent feasible during final design. NCDOT will also coordinate with schools and fire/EMS on any detours during construction. Specifically, appropriate detour routes will be identified for Sun Valley school buses, Stallings Volunteer Fire Station 20 (4616 Old Monroe Road), and Union County MED 51 Base (100 Williams Rescue Road).
Neighborhoods/Community Cohesion (See EA Section 4.1.4)	No permanent negative impacts to community cohesion/stability. Sidewalk and/or multi-use path would improve mobility and connectivity for pedestrians and bicyclists. These improvements could enhance community cohesion by providing more options for interaction.	Not applicable.

Table 2: Summary of Impacts from the Selected Alternative

Resource	Impact	Proposed Mitigation
Relocations and Property Acquisition (See EA Section 4.1.5) and Selected Alternative (revised design)	<p>Preliminary design in the EA estimated 45 total residential displacements (20 residential owners and 25 tenants). The revised design's smaller footprint within the Matthews area reduces estimated displacements to approximately 24 residential displacements (9 residential owners and 15 tenants) which is 21 fewer than the previous design.</p> <p>Business displacements total 13 (1 business owner and 12 tenants). This is the same as shown in the EA.</p> <p>Additional parcels, 17 in total, would necessitate acquisition of parking spaces, which may or may not result in additional business relocation claims. This is the same as shown in the EA.</p>	NCDOT will use three programs to minimize the inconvenience of relocation: Relocation Assistance, Relocation Moving Payments, and Relocation Replacement Housing Payments or Rent Supplement. These programs are in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Comparable replacement housing and business space is available in the Project area for displaced homeowners, tenants, and businesses.
Environmental Justice (See EA Section 4.1.6)	<p>No disproportionately high and adverse impacts to minority and low-income populations.</p> <p>No disparate impacts anticipated under Title VI and related statutes.</p>	Not applicable.
Visual/Aesthetic (See EA Section 4.1.7)	<p>No adverse visual impacts anticipated. Opportunity for landscaped median (and berms) along the corridor would provide a benefit.</p>	Not applicable.
PHYSICAL ENVIRONMENT		
Noise (See EA Section 4.2.1) and East John Street/Old Monroe Road Improvements, Review of TNA for Compliance with the 2016 NCDOT Noise Policy memo	<p>Noise analysis performed as part of the EA identified 96 traffic noise impacts (predicted noise levels that would approach or exceed FHWA noise abatement criteria). However, based on the more recent <i>2016 NCDOT Traffic Noise Policy</i>, there are an additional three substantial increase impacts to residences and one newly identified impact to the Four Mile Creek Greenway for a total of 100 traffic noise impacts.</p> <p>Temporary and localized construction noise impacts would likely occur as a result of construction activities, including earth removal, hauling, grading, and paving.</p>	<p>Noise barriers were determined not reasonable due to the lack of access control along the corridor. This limits the ability to construct a noise barrier long enough to provide adequate noise reduction.</p> <p>For construction noise, low cost and easily implemented construction noise control measures will be incorporated during construction to the extent practicable.</p>
Air Quality (See EA Section 4.2.2)	<p>No air quality impacts are anticipated due to implementation of the Preferred Alternative.</p>	Not applicable.
Farmland (See EA Section 4.2.3)	<p>The entire project study area is recognized by the US Census Bureau (2010 Census) as an urban area.</p>	Not applicable.

Table 2: Summary of Impacts from the Selected Alternative

Resource	Impact	Proposed Mitigation
Utilities (See EA Section 4.2.4)	The project would require gas, water, electric pole, sewer, telephone and cable television relocations.	NCDOT will coordinate with all utility providers during final design and construction to prevent damage to utility systems and to minimize disruption and degradation of utility service to local customers.
Hazardous Materials (See EA Section 4.2.5)	Thirteen sites within the project corridor may contain petroleum USTs. Eight dry cleaners and two car washes (of concern due to potential for oil-water separators in site) are within the project limits. All sites have a low potential for geoenvironmental impacts.	NCDOT's Geoenvironmental Unit will complete further assessments on properties as necessary, prior to right of way acquisition.
Floodplains and Floodways and Hydrology (See EA Section 4.2.7)	Existing culverts will be extended to accommodate the widened roadway. Two locations along the project corridor where the project crosses a stream are located within a FEMA regulated special flood hazard area. Two existing crossings would have to be replaced by a major drainage structure (one of these sites is within the FEMA regulated floodplain). An existing stormwater management pond may be impacted.	NCDOT Hydraulics Unit will coordinate with FEMA and local authorities to ensure compliance with applicable floodplain management ordinances. Since this project involves construction on or adjacent to FEMA regulated streams, NCDOT Division 10 shall submit sealed as-built construction plans to NCDOT's Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Table 2: Summary of Impacts from the Selected Alternative

Resource	Impact	Proposed Mitigation
CULTURAL ENVIRONMENT		
Historic Architectural Resources (See EA Section 4.3.1) And additional SHPO correspondence (Appendix F)	A determination of: No Effect - Matthews Historic District No Effect - Rowland Clay House No Adverse Effect with Conditions - Reid House No Adverse Effect with Conditions - Banks H Funderburk Store (Rock Store BBQ) No Adverse Effect with Conditions - Carolyn Funderburk House Additional studies were completed for historic properties; however, none were eligible for the NRHP. The project was expanded to the east increasing the Area of Potential Effects (APE). No additional historic properties are present within the expanded APE.	During final design, designs will be reviewed to ensure the following applicable conditions are met to maintain the No Adverse Effect determinations: <u>Reid House</u> <ul style="list-style-type: none"> • No construction in right-of-way • No drainage easements • No permanent utility easements • Only replace curb and gutter • Keep existing sidewalk • No tree removal <u>Banks H Funderburk Store (a.k.a. Rock Store Bar-B-Q)</u> <ul style="list-style-type: none"> • No right-of-way • No permanent drainage easements <u>Banks and Carolyn Funderburk House</u> <ul style="list-style-type: none"> • No right-of-way • No easements • Minimize tree removal • No permanent utility easements • No permanent drainage easements
Archaeological Resources (See EA Section 4.3.2)	The Office of State Archaeology determined the project area is unlikely to contain intact and significant archaeological resources.	Not applicable.
Section 4(f) and 6(f)(3) Resources (See EA Section 4.3.3) and East John Street/Old Monroe Road Improvements, Review of TNA for Compliance with the 2016 NCDOT Noise Policy memo	One Section 4(f) resource is in the project study area, Four Mile Creek Greenway. Preliminary design avoids impacts to the greenway. Additional noise analysis conducted after completion of the EA determined that the Greenway is a potential-noise sensitive receptor and that one receptor along the Greenway (closest to the road) would have future noise levels (68 dBA Leq) greater than 66 dBA Leq. However, this impact is not a substantial increase over existing noise levels. The increase in noise due to the project's proximity to the 4(f) resource does not cause a substantial impairment to the protected activities, features, or attributes that qualify the property for protection under Section 4(f).	Noise abatement is not proposed for the minimal noise increase at the Four Mile Creek Greenway.

Table 2: Summary of Impacts from the Selected Alternative

Resource	Impact	Proposed Mitigation
NATURAL ENVIRONMENT		
Biotic Communities and Wildlife (See EA Sections 4.4.1; 4.4.2)	The project area is predominantly comprised of maintained/disturbed habitat. No substantially adverse impacts to wildlife or biotic communities.	Not applicable.
Water Resources and Water Quality (See EA Section 4.4.3)	Project construction activities such as clearing and grubbing, tree removal, in-water construction, and fertilizer and pesticide use during revegetation, could impact surface water quality in the absence of appropriate Best Management Practices (BMPs).	An erosion and sedimentation control plan will be prepared during final design and implemented during construction. The plan will identify appropriate BMPs.
Waters of the US (wetlands, streams, and ponds) (See EA Section 4.4.4)	<ul style="list-style-type: none"> • 1,821 linear feet of stream impacts total at 12 crossings. • 0.38 acre of wetland impacts total from 5 wetlands. • 0.11 acre of one pond. 	<p>A permit from the USACE will be required for impacts to Waters of the US. Regional General Permit 198200031 (effective April 2015) is anticipated to be applicable to the project; however, the USACE will make the final determination of permit type. The permit must be obtained prior to construction.</p> <p>NCDOT will investigate potential on-site stream and wetland mitigation opportunities after approval of the FONSI. If on-site mitigation is not feasible, mitigation will be provided by NCDEQ Division of Mitigation Services.</p>
Protected Species (See EA Section 4.4.5)	NCDOT has determined that the Selected Alternative would have No Effect on the Carolina heelsplitter, Michaux's sumac, Schweinitz's sunflower, and Smooth coneflower. The project is consistent with the 4(d) rule under Section 7 of the Endangered Species Act for the Northern long-eared bat.	Not applicable.

5 Coordination and Comments

The project process included early and continuous coordination amongst NCDOT, the Towns (Indian Trail, Matthews and Stallings), the public, and federal, state, and local agencies. The coordination efforts assisted in determining the scope of analysis and documentation, the alternatives, and the identification of potential impacts and mitigation measures. NCDOT developed a Public Involvement Plan (PIP) for the project in April of 2013 and implemented the plan for use in project decision-making. The PIP was developed to meet the needs of all stakeholders within the project study area and garner collaborative involvement from the general public and multiple jurisdictions. The following sections summarize key components of the overall scoping and public involvement process.

5.1 Scoping and Agency Coordination

At the initiation of the EA process, NCDOT sent a formal request for input on the scope of the project to agencies and officials including federal and state regulatory/resource agencies, local government, planning organizations, and local/elected officials on April 26, 2013. A total of 15 written responses were received from the agencies. Appendix J of the EA contains the Agency project scoping letters and responses. Agencies that provided responses are listed below.

Federal

- US Army Corps of Engineers
- US Environmental Protection Agency

State

- NC Department of Cultural Resources, State Historic Preservation Office
- NC Department of Environment and Natural Resources (NCDENR), Division of Waste Management
- NCDENR, Division of Water Resources, Public Water Supply Section
- NCDENR, Division of Water Quality and Division of Air Quality
- NC Department of Public Safety and Emergency Management
- NCDOT - Transportation Planning Branch
- NC Wildlife Resources Commission

Local

- Mecklenburg County Fire Marshall
- Charlotte Regional Transportation Planning Organization
- Town of Indian Trail
- Town of Matthews
- Town of Stallings
- Union County EMS

5.2 NEPA/404 Merger Process

NCDOT initiated a meeting on July 24, 2013 with the four primary resource agencies to determine if the project should follow the Section 404/NEPA Merger process. It was determined that the project should not be inserted into Merger due to minimal resources in the project area and the anticipation of similar

impacts for all the build alternatives. The US Army Corps of Engineers (USACE), FHWA, NCDENR-Division of Water Resources, and NCDOT agreed that the project would not follow the Section 404/NEPA Merger Process.

5.3 Public Involvement

Due to the location of the project through multiple municipalities, extensive public participation and local coordination were incorporated early in the planning process. NCDOT collaborated with the public as well as the Towns (Indian Trail, Matthews and Stallings), and multiple federal, state, and local agencies over a four-year planning period as part of the process. The collaborative public involvement process included a three-day project planning event (design charrette) in August of 2013; a public meeting in January of 2014; multiple small group meetings and presentations to Home Owner Associations (HOAs) in 2014; and multiple elected official updates and ongoing quarterly municipal meetings from 2012 to 2016. NCDOT also distributed project updates via a newsletter and through NCDOT and local Town websites. Section 5.2 of the EA contains additional details on the public involvement meetings held prior to preparation of the EA.

5.3.1 Circulation of the Environmental Assessment

The EA was completed and approved by NCDOT and FHWA in July of 2016 and made available for review. Copies of the EA were submitted to the State Clearinghouse. The state agencies included in the State Clearinghouse distribution included:

- NCDENR Regional Office
- NC Department of Environmental Health
- NC Department of Parks and Recreation
- NC Natural Heritage Commission
- NC Department of Forestry
- NC Wildlife Resource Commission

The EA was also submitted to the following Federal agencies:

- Environmental Protection Agency
- Army Corps of Engineers

5.3.2 Public Hearing

In accordance with 23 USC 128, NCDOT certifies that Public Hearings for the subject project were held, and the social, economic, and environmental impacts; consistency with local community planning goals and objectives; and comments from individuals have been considered in the selection of the recommended alternative for the project.

Two local official information meetings (LOIM) were held prior to the Public Hearing. The first LOIM was held on September 26, 2016 with the Town of Matthews at the Board Chambers (per the request of Matthews). A second LOIM was held on October 3, 2016 (all municipalities were invited) at the Stallings Civic Building. The purpose of the LOIMs were to provide local and elected officials an opportunity to preview the project information and hearing mapping prior to the Public Hearing.

Following circulation of the EA, the formal Public Hearing was held on October 11, 2016, at Stallings United Methodist Church, 1115 Stallings Road in Matthews. The Public Hearing was advertised via a postcard mailing, press release, local newspaper advertisements, and via municipal websites. The postcard mailing was distributed to 3,027 property owners within the study area. Ads for the Public Hearing ran in local newspapers on the dates listed below.

- Charlotte Observer (September 12th, 18th, 25th, and 28th and October 2nd and 9th)
- Matthews-Mint Hill Weekly (September 15th and 22nd)
- Union County Weekly (September 16th, 23rd, 30th and October 7th)
- Enquirer Journal (September 14th, 18th, 25th and October 5th and 9th)
- Charlotte Post (September 15th, 22nd, 29th and October 5th)

Maps, displays, and a copy of the EA were made available for public review online and at four (4) locations in the project area, including: NCDOT Division 10 Office, Town of Matthews Planning Department, Town of Stallings Planning Department, and the Town of Indian Trail Planning Department.



The Public Hearing began on October 11, 2016 with an open house from 4:00 to 6:30 p.m., followed by a formal presentation at 7 p.m. Project mapping was displayed and NCDOT representatives and project design consultants were available to answer questions and receive comments. Comments were accepted at the hearing verbally or could be submitted on forms at the meeting. The formal presentation included an overview of the alternatives development process, the Preferred Alternative, the state-federal funding relationship, and right of way acquisition and relocation procedures. Based on sign-in sheets, a total of 168 people attended the hearing. Comments were also accepted by email, fax, or mail for a period of 30-days.

5.3.3 Comments Received at the Public Hearing and During the EA Comment Period

The public 30-day comment period on the EA was open through November 11, 2016. During the formal Public Hearing on October 11, 2016, seventeen (17) citizens provided verbal comments and seventeen (17) comment forms were submitted that evening. A total of 70 citizens from the general public, the Town of Matthews, and 11 agencies submitted comments.

Most of the public comments were concerned with the project impacts within the Town of Matthews and the belief that the “urban roadway” design was not consistent with the small-town character of Matthews’ core area. A total of 55 comments expressed concern with impacts to the character of the town. However, 46 comments were in support for the project. Additional comments expressed various concerns including impacts in the Stallings section, relocations, and the Superstreet design concept. A detailed description of the Public Hearing as well as the hearing transcript and comments from the public can be found in **Appendix G** (*East Johns Street/Old Monroe Road Improvements STIP Project No. U-4714 Public Hearing Summary*). A copy of public comments and responses is included in **Appendix H**.

5.3.4 Local Government and Agency Comments

The Town Engineer for the Town of Matthews also submitted a detailed comment letter on November 11, 2016, regarding the proposed design for the project. The letter notified NCDOT that the Town of Matthews had concerns with the proposed roadway widening and had procured a consultant to study the project and offer recommendations on the design within the Matthews section. On March 8, 2017, the Mayor and Board of Commissioners issued a resolution regarding the design of the roadway widening project to formally request that NCDOT redesign the Matthews section to enable the town to retain its small-town character. The resolution contained specific design recommendations for the project within the Matthews section. On March 31, 2017, NCDOT provided a response letter to the Town of Matthews stating that they would work with them to find a best fit solution with context sensitivity. During the spring and summer of 2017, NCDOT worked with the Town of Matthews on the redesign of the widening project. Copies of the comment letter from the Town Engineer, the resolution, and the response from NCDOT can be found in **Appendix I**.

Comments also were received from 11 agencies. Agencies that provided comments on the EA include:

Federal

- US Environmental Protection Agency, Region 4
- US Army Corps of Engineers, Wilmington District

State

- NC State Clearinghouse
- Division of Environmental Assistance and Customer Service
- NC Wildlife Resources Commission
- NC Department of Environment and Natural Resources (NCDENR)
- NCDENR, Division of Water Quality and Division of Air Quality
- NC Department of Natural & Cultural Resource (DNCR), State Historic Preservation Office
- NC DNCR, Division of Parks and Recreation

- NC Department of Public Safety (DPS), Division of Emergency Management, Floodplain Management
- NC DPS, Department of Statewide Planning

Copies of the Agency comments and responses can be found in **Appendix J**.

5.3.5 Additional Project Coordination

East John Street Widening in Matthews – Things You Should Know

After the Public Hearing, numerous comments from Matthews residents were made in opposition to the proposed design, as they perceived there to be an “experimental” design proposed in their downtown area. These concerns were circulated via a flyer following the public hearing by an organized community group called Preserve Matthews who created a Facebook page (titled Smarter Streets Not Superstreets) to provide updates on the project. The website is available at:

<https://www.facebook.com/groups/SmarterStreetDesign/about/>. NCDOT developed a response to this flyer entitled, *East John Street Widening in Matthews – Things You Should Know*. Copies of both fliers are included in the appendix of the Public Hearing Summary (**Appendix G**).

Matthews Area Project Update Meeting (July 31, 2017)

After the Public Hearing, NCDOT worked with engineers from the Town of Matthews to redesign the project within the Matthews section to reduce the project footprint and reduce impacts. Following the project redesign, the Town of Matthews requested an additional public meeting to provide an update on the project changes within their jurisdiction.

The Matthews Area Project Update Meeting was held on Monday, July 31, 2017 from 6:00 to 8:00 p.m. at the Matthews Town Hall. A formal presentation was made, and project mapping was displayed showing the preliminary and revised designs. NCDOT representatives and project design consultants were available to answer questions. The formal presentation included an overview of the project changes, schedule, and next steps. Based on sign-in sheets, a total of 253 attendees were at the meeting. Comment forms were provided at the meeting. Comments were also accepted by email, fax or mail for a period of 15-days.

In total, 95 comments were submitted during this time. Most comments expressed a desire to encourage the use of an alternate route or make improvements to other roadways (like US 74) rather than routing drivers thru downtown Matthews. Many of the comments were concerned with the impacts to the community character within downtown Matthews. Almost half of the comments expressed opposition to the project as designed. Several comments also suggested that additional traffic analysis be conducted to include projects that were not funded at the time of the original studies. Additional details on the meeting can be found in Public Meeting Summary: Matthews Area Project Update Meeting located in **Appendix K**.

Indian Trail Project Update Meeting (September 21, 2017)

Following the Matthews Area Project Update meeting, the Town of Indian Trail also requested a project update meeting. The meeting was requested by the Town of Indian Trail as an additional public forum on the project. The purpose of the meeting was to update the public on the project, including the

revised preliminary designs (changes were primarily within the Town of Matthews) and provide additional information on the design components and benefits of Superstreets. The meeting was held on Thursday, September 21, 2017, from 6:00 to 8:00 p.m. at the First Baptist Church in Indian Trail. A formal presentation was made and project mapping was displayed showing the preliminary and revised designs. NCDOT representatives and project design consultants were available to answer questions. Based on sign-in sheets, there were 111 attendees. Comment forms were provided at the meeting and comments were accepted by email, fax or mail for a period of 30-days.

A total of 22 comments were received. Most of the comments were in opposition to the project as designed. Several of the comments also expressed a concern for project impacts to the character of the area and several design suggestions were made. Additional details on the meeting can be found in *Public Meeting Summary: Indian Trail Area Project Update Meeting* located in **Appendix L**.

Town of Stallings Request for Local Alternative Design Consideration (November 15, 2017)

In a letter dated November 15, 2017 (**Appendix M**), the Stallings Town Council opposed the Superstreet design and requested NCDOT to consider the following changes:

- Section between Friendship Drive and Pleasant Plains Road
- Intersection design at Stallings Road and Potter Road (full movement)
- Stallings Road/Potter Road and Campus Ridge Intersection signal timing

Following the completion of the updated traffic forecast and analysis, NCDOT sent the Town of Stallings a letter in June 2018 summarizing the results and provided them copies of the forecast and analysis. A copy of this letter can also be found in **Appendix M**.

NCDOT will continue to coordinate with local jurisdictions regarding final design and construction of the project and will continue to look for ways to reduce impacts where feasible through final design.

Coordination with the Town of Indian Trail

The Town of Indian Trail has also expressed concern over the design of the project. NCDOT continues to work with the Town of Indian Trail regarding final design of the project and provided a letter to the Town of Stallings in June of 2018 offering to meet with them to discuss design options for the project. The town was also provided formal copies of the revised traffic forecast and analysis for review. A copy of this letter can be found in **Appendix N**.

6 Basis for Finding of No Significant Impact

Based upon a detailed study of the proposed project as documented in the EA, updates in this FONSI, and upon comments received from the public and federal, state, and local agencies, it is the finding of NCDOT and FHWA that this project will not have a significant impact upon the human or natural environment following implementation of identified mitigation measures.

The public and stakeholders were engaged on multiple occasions throughout the planning process for the project. Concerns were raised regarding the outdated traffic forecasts and specific design elements related to the Superstreet concept. Updated traffic forecasts continue to show the need for the

roadway widening, and NCDOT has worked to refine the project design to minimize impacts where feasible.

The project is not controversial from an environmental standpoint. No significant impacts to natural, ecological, cultural, or scenic resources have been identified. In addition, NCDOT will continue to coordinate with local jurisdictions regarding final design and construction of the project and will continue to look for ways to reduce impacts where feasible through final design.

In view of this evaluation, it has been determined a Finding of No Significant Impact (FONSI) is applicable for this project. Therefore, neither an Environmental Impact Statement (EIS) nor further environmental analysis is required.

7 Contact Information

The following persons can be contacted for additional information concerning this document:

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