

R-4045 PURPOSE & NEED REPORT

May 2022

R-4045 is on US 74 between Mooresboro and the new Shelby Bypass. This report is documentation of Needs along that corridor, a Problem Statement, a Purpose Statement and Metrics.

Needs Assessment

Safety

- As per federal highway regulation 23 CFR 625.2, an important goal of the FHWA is to provide the highest practical and feasible level of safety for people and property associated with the Nation's highway transportation systems and to reduce highway hazards and the resulting number and severity of accidents on all the Nation's highways.
- HSIP ([Highway Safety Improvement Maps](#))
- Site Crash History – [NCDOT Connect External Collaboration](#)
- Site Crash Mapping – [NCDOT Connect External Collaboration](#)
- Safety P&N Review Memo – May 2021 – [NCDOT Connect External Collaboration](#)
- Improved safety throughout study area
- Improved driver expectancy

Continuity/Long Term Vision/Planning

- **NC Strategic Highway Corridors**
 - NCDOT Board of Transportation adopted the [North Carolina Strategic Transportation Corridor Policy in March 2015](#) which identified a network of high priority, integrated multimodal transportation corridors comprised of facilities that interconnect statewide and regional transportation-dependent activity centers to enhance economic development in all regions of the state, promote highly reliable and efficient mobility and accessibility, and support good decision-making. US 74 is part of Strategic Transportation Corridor U which had a Master Plan Vision Report finalized in December 2020 recommending a freeway cross section, AASHTO Design Classification of Interstate or Freeway, minimum 4 lanes with median, connections provided only at interchanges, and traffic signals and driveways not allowed (fully controlled-access).
 - Implement Strategic Transportation Corridors policy: Apply the highest practicable access management provisions to promote operational efficiencies and safety, and to enhance the movement of people and freight on primary STC facilities
 - Corridor U - As part of the development of [Corridor U Master Plan Vision Report](#), a [public survey](#) (pg. 4 of 9) was conducted and only 2.6% of 384 respondents disagreed or strongly disagreed with the vision of a freeway (access only at interchanges/ramps, speed limit 55 mph or greater, no traffic signals) for US 74 from I-26 to Gastonia.
 - Freeway design to meet public needs and transportation vision as an STC (Corridor U), including long-term 2040 mobility vision for 61 MPH average travel speed for the entire corridor and 65 MPH average travel speed for this segment.
- **Authority to Establish Controlled-Access Facilities** - [NC General Statute 136-89.50](#) states “the Department of Transportation may designate, establish, abandon, improve, construct, maintain, and regulate controlled-access facilities as a part of the State Highway System, National System of Interstate Highways, and Federal Aid Primary System whenever the Department of Transportation determines that traffic conditions, present or future, justify such controlled-access facilities, or the abandonment thereof.”
- Improve continuity along US 74 corridor
- **Gaston-Cleveland-Lincoln MPO**
 - Meet needs expressed in [GCLMPO MTP](#) of a freeway needing improvement (pg. 7 of 22, 2045 Horizon Year)

- Meet the long-term vision for US 74 as a future interstate corridor [GCLMPO MTP](#) (pg. 7 of 22, 2045 Horizon year)
- **NCDOT 2017 Statewide Freight Plan** – US 74 is a [NCDOT Priority Highway Freight Network](#) (pg. 32 of 104, NC Priority Highway Freight Network Map).
 - Establishes route continuity for freight operations
 - Support federally designated truck route with efficiency of transport logistics
- **National Highway System Route** – US 74 is an [NHS route](#).
- **Last Link** - Following the completion of the Shelby Bypass, this segment of US 74 is the last missing link to connect I-85 to I-26 as a continuous freeway.

Purpose and Needs Statement:

US 74 is currently a 4-lane freeway with a grass median and varying control of access (primarily fully access-controlled). NCDOT and FHWA have functionally classified this portion of US 74 as a Freeway, and NCDOT and their federal/state/regional stakeholders designated it a Strategic Transportation Corridor (Corridor U) for North Carolina. Based upon the NCDOT review of needs in the project vicinity (see memo dated June 2021 and provided to the Merger Team in March 2022), the subject 1.2-mile portion of US 74 does not meet the aforementioned functional classification and is noncompliant with current roadway design requirements. The subject portion of US 74 also does not satisfy the highway network's established long-term vision, and lacks continuity that negatively affect driver expectations and safety. Additionally, NCDOT identified the existing US 74 at-grade intersection at SR 1168 (Academy Street/Lattimore Road) in the 2021 Highway Safety Improvement Program (HSIP) because of the historical pattern of frontal impact crashes, and the relative severity of personal injuries involved in those crashes. **The purpose of the R-4045 project is to provide a consistent facility to meet drivers' expectations for the US 74 corridor (from Kings Mountain to Columbus, NC) by upgrading this portion of US 74 to meet NCDOT freeway standards.**