

US 321 Calibrating Our National Network to Encourage Commerce and Tourism – 321 CONNECT

PROJECT REQUIREMENTS

As detailed in the technical requirements section of this application, the 321 CONNECT project meets all of the statutory selection requirements for INFRA Large Project funding including:

- Generates regional national and regional economic, mobility and safety benefits. US 321 CONNECT will improve US 321, which is part of the National Highway System and is classified as a North Carolina Strategic Transportation Corridor (Corridor D). Corridor D connects I-85 and I-40 to northwestern North Carolina (the Boone area and points north and west). The facility is an important freight and tourism corridor.
- Is cost effective. As shown by the project benefits/cost ratio, the project's benefits substantially exceed the expenditure of funds. Please refer to the BCA information for greater detail.
- Contributes to all of the Section 150 goals. Please refer to the merit criteria document and the supplemental materials for more information.
 - o Safety: 321 CONNECT will improve safety and reduce fatalities for both vehicles as well as bicyclists and pedestrians.
 - o Infrastructure condition: 321 CONNECT will replace structurally deficient bridges with new structures that fully meet current design standards and are anticipated to require minimal maintenance for the next 50 years. The project will also clear and modernize stormwater Best Management Practices (BMPs) within the project ROW, increasing the resilience of the facility for future flood events.
 - o Congestion reduction: Based on the National Transportation Dashboard Mobility Indicator, the 219 miles of National Highway System roadways in the Hickory Urban Area experienced 1,356 hours of truck delay in 2022. The dashboard estimates that in 2022, the cost of congestion for the Hickory Urban area was over \$21.8 million. It is anticipated that 321 CONNECT will improve level of service for US 321 through the project corridor.
 - o System reliability: 321 CONNECT will provide up-to-date infrastructure and reduce system congestion, allowing the traveling public to have a more reliable transportation network.
 - o Freight movement and environmental stability: 321 CONNECT will construct more sustainable bridges over the Catawba River, install a flood gauge on Frye Creek, and upgrade drainage structures along the US 321 corridor. NCDOT Divisions 11 and 12 encourage the use of recycled asphalt, recycled concrete as aggregate material, and warm mix asphalt as appropriate. As noted in Infrastructure Condition, the project will update drainage infrastructure along the facility, preparing the corridor.

- o Reduced project delivery delays: Funding 321 CONNECT will ensure NCDOT can deliver the U-4700A project as scheduled, as the risk of delay due to escalating materials costs will be mitigated.
- Has completed preliminary engineering and NEPA documentation. The 321 CONNECT project can begin construction within the designated timelines for the INFRA program. The Environmental Assessment for U-4700 was finalized in February 2016 and the FONSI was completed in April 2018. ROW designs were completed in 2018 and included hydraulic and utility design, work zone traffic control, hazardous material site assessments, and geotechnical investigations. ROW acquisition and final designs are complete. Construction costs for the project were updated in February 2026. Construction Let (contract award) for U-4700A is programmed for 2028. State funds will be provided from the Highway Trust fund and federal funding will be provided through National Highway Performance Program funds.

It should also be noted NCDOT has worked extensively with resource agencies to ensure the project can be rapidly permitted. For example, because the northbound bridge over the Catawba River will be maintained and converted to a bicycle pedestrian facility, NCDOT has agreed that the replacement bridges will match the current span dimensions in the river. While this increases the overall cost of the project, it will ensure a consistent pier spacing that will match boater expectations as they cross under the three bridges.

The U-4700 portion of 321 CONNECT has completed environmental documentation and right of way (ROW) designs. The Environmental Assessment was signed on February 25, 2016 and the Finding of No Significant Impact (FONSI) was signed on April 19, 2018. Public involvement activities for the project have included public hearings on July 11 and 12, 2016, as well as public meetings on July 27, 2017 and October 12, 2017. NCDOT has an active project website, which includes materials from the 2017 public meetings and would be updated to include award of funding under INFRA. ROW acquisition for U-4700A is complete.

Project Budget

Current cost estimates for U-4700A are based on 90% design plans and were updated in February 2026. Previously incurred costs for project development, environmental documentation, ROW plans and ROW acquisition are \$75 million. Total remaining costs for the project are \$290,163,223. North Carolina is providing a state match from Highway Trust Fund dollars. The remaining federal match is from National Highway Performance Program funds.

As shown in Table 1, the state share of the construction of U-4700A is 51% , with the federal share of the construction component is 49%, of which 11.0% will be INFRA funds. Cost estimates include a 5% contingency for structures and utilities and a 10% contingency for U-4700A roadway construction.

TABLE 1. 321 CONNECT Future Eligible Costs

Item	State Funds	Other Federal Funds	INFRA Funds	Total Funds
Roadway	\$76,700,184	\$57,215,447	\$16,476,886	\$150,392,517
Structures/Utilities	\$58,841,505	\$43,893,545	\$12,640,449	\$115,375,500
Contingency (5.89%)	\$8,482,812	\$6,346,508	\$1,822,187	\$16,631,983
Total	\$144,024,000	\$107,455,500	\$30,920,000	\$282,400,000
Flood Gauge	\$25,000		\$25,000	\$50,000
Total	\$144,049,500	\$107,455,500	\$30,945,000	\$282,450,000

The complete 2026 construction cost estimate is included in the supplemental materials on the [321 CONNECT website](#).

The following information summarizes the budget for 321 CONNECT:

- Project U-4700A is included in the current NCDOT STIP. ROW purchased to date have utilized GARVEE bond funding. As noted in the Project Budget, contingencies are provided.
- The 321 CONNECT needs INFRA funding for construction of U-4700A to ensure the project can be constructed as currently scheduled. 321 CONNECT would significantly advance the construction timeline of U-4700A. Costs have continually risen for the project based on materials costs as well as site constraints for ROW in Hickory, replacement of a Norfolk Southern railroad bridge over US 321, the costs of the grade separation over the Caldwell County Railroad (CWCY) line just south of the Catawba River, and the need to replace both bridges over the Catawba River. Any advancement of the project will provide the benefits described more quickly and will reduce maintenance needs for the bridges and other parts of the corridor.
- Construction on 321 CONNECT can begin within 18 months of funding obligation. The 321 CONNECT project has completed ROW design and ROW acquisition. Permitting and construction will begin within the scheduled timeline.
- NCDOT has the legal, financial, and technical capability to carry out the project. NCDOT has a long history of successful project delivery. The ROW plans are included in the application as supplemental materials. The financial plan, as discussed in Requirement V, is in place. NEPA documentation is complete and the risks of the project are clearly defined and have been mitigated. NCDOT has successfully delivered many USDOT grant projects and is in the process of finalizing contracts for the I-85 FUTURES and STERLING projects, which were awarded INFRA funds in 2023.

The proposed schedule for the project is shown below, assuming obligation of funds during calendar 2027.

TABLE 2. Project Schedule

MILESTONE	TIMELINE
INFRA Funding Obligated	Month 0
Permitting Complete	Month 6
Letting Complete	Month 12
Construction Initiation	Month 16
Construction Completion	Month 48