



**NORTH CAROLINA**  
Department of Transportation

# NCDOT Update

Chad Kimes, PE – Division Engineer, Division 3

May 2, 2022



## Today's Topics

- STIP Update
- Project Updates
- Future Project Planning
- NCDOT Division 3 Contacts
- Discussion



## **STIP Update**

# What is the STIP?

- ❖ The STIP is NCDOT 's 10 Year Program = State Transportation Improvement Program
- ❖ Projects include improvements to:
  - ❖ Highways
  - ❖ Bike/Ped Facilities
  - ❖ Ferry Systems
  - ❖ Aviation
  - ❖ Public Transit
  - ❖ Rail



NCDOT 2020-2029 Current STIP

September 2021

## Revenue Background

# Infrastructure and Investments Jobs Act (IIJA) Overview

## Impact to NCDOT

—

- ❖ IIJA funds will help NCDOT delay fewer projects impacted by increasing material, right-of-way and labor costs.
- ❖ This federal investment will help offset some of these cost increases and support NCDOT's efforts to build resilient infrastructure and enhance all modes of transportation.
- ❖ It's too early to tell how the funding will impact specific projects.
- ❖ As required by law, NCDOT uses a transparent, systematic and data-driven process for prioritizing transportation projects.
- ❖ NCDOT is committed to partnering with local communities and planning organizations to find and deliver solutions that reflect the needs of each community.

# Infrastructure and Investments Jobs Act (IIJA) Overview

- ❖ At least \$410 million in new funding each year for next five years for highways, bridges, and transit. Increases highway funding by 21% and transit funding by 30%.
- ❖ Highways: \$1.5 billion increase for highways over five years. Projects will improve safety and mobility. Includes new carbon reduction and protect program (resiliency).
- ❖ Bridges: \$457 million over five years (~\$90 million a year) for bridge replacement and repairs. Seeks to repair and replace bridges in poor condition.
- ❖ Electric Vehicle Charging: \$109 million over five years
- ❖ Appalachian Development Hwy System: \$83 million over five years

P6.0 Funding Availability

Before IJJA – Committed Projects Only

| Statewide Mobility |                    | Regional Impact          |                   | Division Needs     |                          |                   |                    |
|--------------------|--------------------|--------------------------|-------------------|--------------------|--------------------------|-------------------|--------------------|
| Available Funding  | Programming Status | Region                   | Available Funding | Programming Status | Division                 | Available Funding | Programming Status |
| \$8.7B             | \$4.70B Over       | A (D1 & D4)              | \$542.0M          | \$325.8M Over      | 1                        | \$466M            | \$188.2M Over      |
|                    |                    | B (D2 & D3)              | \$787.1M          | \$525.9M Over      | 2                        | \$466M            | \$266.9M Over      |
|                    |                    | C (D5 & D6)              | \$1.44B           | \$627.6M Over      | 3                        | \$466M            | \$33.9M Over       |
|                    |                    | D (D7 & D9)              | \$1.08B           | \$635.9M Over      | 4                        | \$466M            | \$88.6M Under      |
|                    |                    | E (D8 & D10)             | \$1.35B           | \$1.05B Over       | 5                        | \$466M            | \$281.0M Over      |
|                    |                    | F (D11 & D12)            | \$721.7M          | \$578.5M Over      | 6                        | \$466M            | \$71.8M Over       |
|                    |                    | G (D13 & D14)            | \$560.8M          | \$1.07B Over       | 7                        | \$466M            | \$42.1M Over       |
|                    |                    | REG Total: \$ 4.81B Over |                   |                    | 8                        | \$466M            | \$177.1M Over      |
|                    |                    |                          |                   |                    | 9                        | \$466M            | \$65.5M Over       |
|                    |                    |                          |                   |                    | 10                       | \$466M            | \$146.7M Over      |
|                    |                    |                          |                   |                    | 11                       | \$466M            | \$94.5M Over       |
|                    |                    |                          |                   |                    | 12                       | \$466M            | \$253.2M Over      |
|                    |                    |                          |                   |                    | 13                       | \$466M            | \$368.9M Over      |
|                    |                    |                          |                   |                    | 14                       | \$466M            | \$181.6M Over      |
|                    |                    |                          |                   |                    | DIV Total: \$ 2.18B Over |                   |                    |

Available funding based on 2024-2033 timeframe

Total Overprogramming = \$ 11.69B

As of October 19, 2021. Available Funding reflects accounting for 3% inflation. Programming Status Amounts are compared to 100% of budget.

Available funding based on 2024-2033 timeframe

Total Overprogramming = \$ 11.69B

As of October 19, 2021. Available Funding reflects accounting for 3% inflation. Programming Status Amounts are compared to 100% of budget.


P6.0 Funding Availability

After IIJA – Committed Projects Only

Statewide Mobility

| Available Funding | Programming Status |
|-------------------|--------------------|
| \$10.6B           | \$3.36B Over       |

Regional Impact

| Region  | Available Funding | Programming Status |
|---|-------------------|--------------------|
| A (D1 & D4)   | \$647.5M          | \$383.2M Over      |
|  B (D2 & D3) | \$919.2M          | \$428.6M Over      |
| C (D5 & D6)   | \$1.78B           | \$297.1M Over      |
| D (D7 & D9)   | \$1.33B           | \$596.7M Over      |
| E (D8 & D10)  | \$1.67B           | \$756.5M Over      |
| F (D11 & D12)   | \$881.0M          | \$455.7M Over      |
| G (D13 & D14)   | \$676.1M          | \$982.2M Over      |

REG Total: \$ 3.9B Over

Division Needs

| Division  | Available Funding | Programming Status |
|---|-------------------|--------------------|
| 1   | \$569.7M          | \$129.5M Over      |
| 2   | \$569.7M          | \$190.3M Over      |
|  3 | \$569.7M          | \$18.7M Under      |
| 4   | \$569.7M          | \$223.2M Under     |
| 5   | \$569.7M          | \$172.4M Over      |
| 6   | \$569.7M          | \$87.4M Under      |
| 7   | \$569.7M          | \$65.4M Under      |
| 8   | \$569.7M          | \$85.3M Over       |
| 9   | \$569.7M          | \$31.6M Under      |
| 10  | \$569.7M          | \$68.8M Over       |
| 11  | \$569.7M          | \$102.4M Under     |
| 12  | \$569.7M          | \$234.0M Over      |
| 13  | \$569.7M          | \$325.7M Over      |
| 14  | \$569.7M          | \$88.2M Over       |

DIV Total: \$ 765.5M Over

Available funding based on 2024-2033 timeframe

Total Overprogramming = \$ 8.0255 B

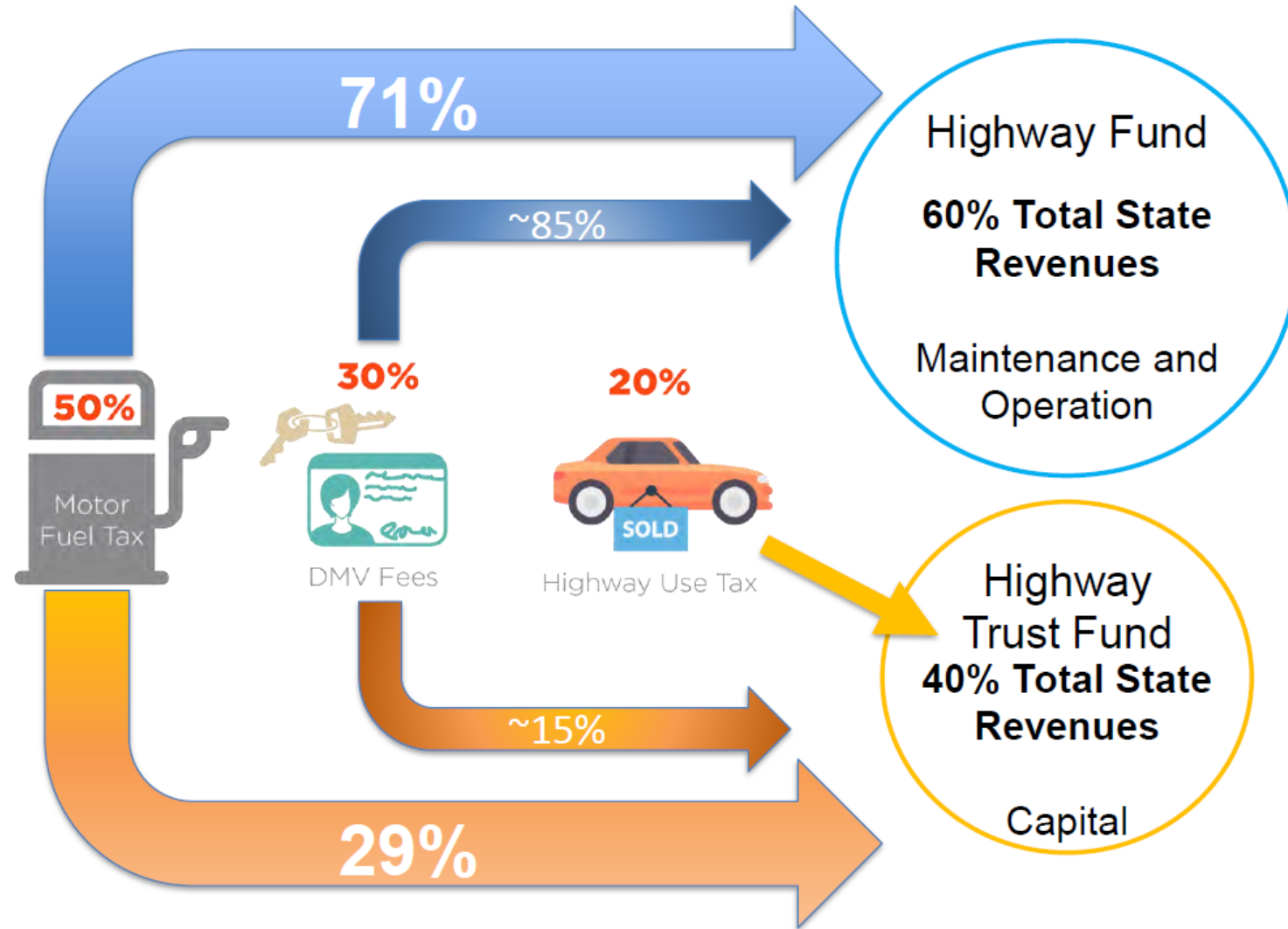
As of January 25, 2022. Available Funding reflects accounting for 3% inflation. Programming Status Amounts are compared to 100% of budget.

## Previous Project Holds

- ❖ Projects being put on hold beginning in August 2019 were due to NCDOT's efforts to restore our cash balances
  - ❖ Storms
  - ❖ Map Act
  - ❖ Reduced Revenues from Covid
- ❖ Today's Cash Balance is Strong!
  - ❖ Currently = \$ 2.4B
  - ❖ Target = ~\$650M
- ❖ Current P6.0 Suspension is due to rising construction costs NOT cash balances

# Sources

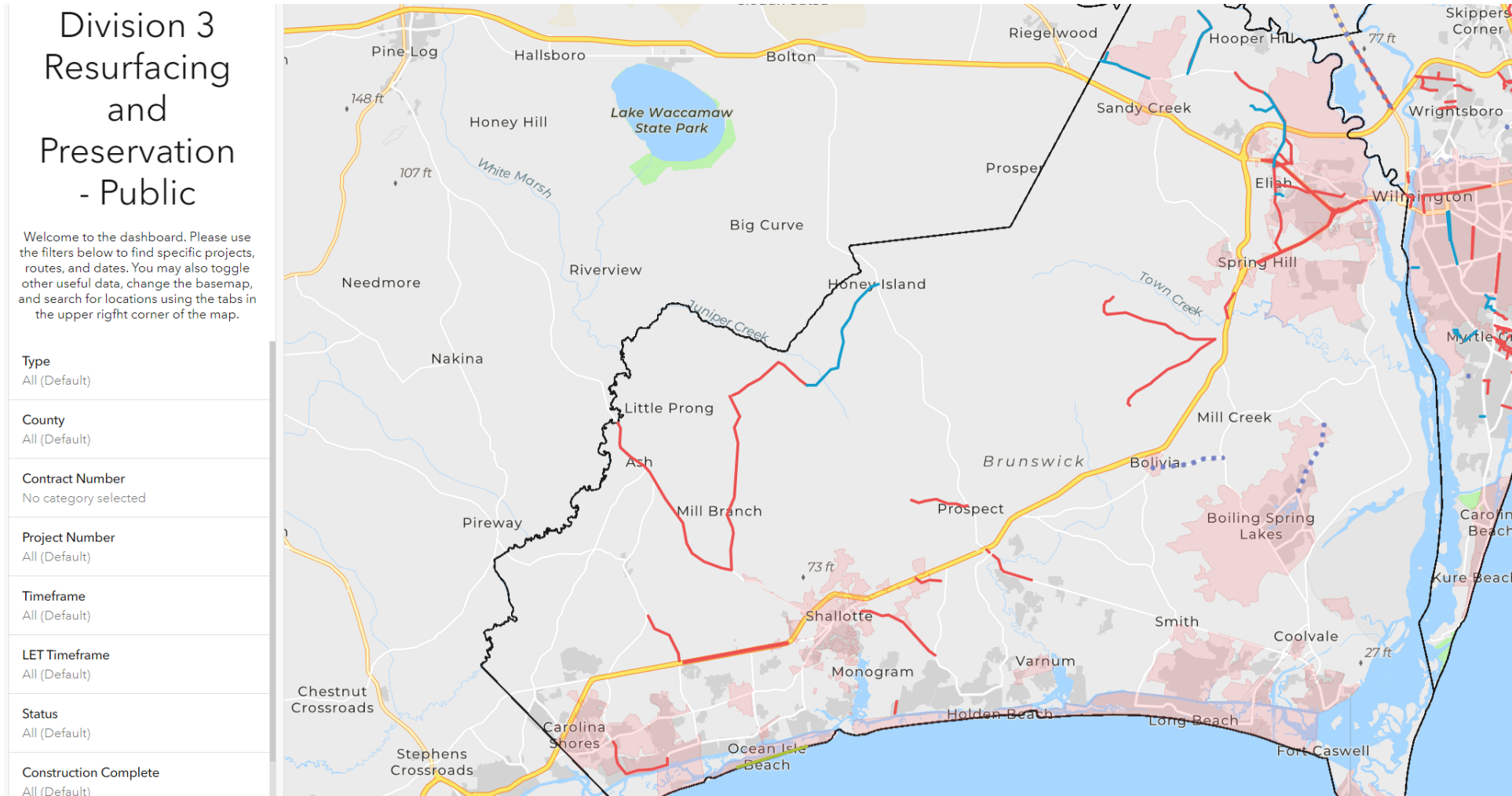
# Funds



~\$5B Operating Budget

## **Resurfacing Update**

# Resurfacing NC 130, NC 179 Business & Various Secondary Routes; Contract executed: March 2022; Est Completion April 2023



Source: NCDOT ArcGIS

<https://ncdot.maps.arcgis.com/apps/dashboards/d967e1f18d1c41aca2f260fb630a4c64>

# Bridges

## Replacements

**B-4439 Bridge 100 over Muddy Branch on SR 1342**

**(Anticipated Let date 5/26/22)**

**B-5996 Bridge 126 over Cawcaw Swamp on SR 1300**

**(Anticipated Let date 6/16/22)**

**B-5629 Bridge 40 over Mills Creek on SR 1515**

**(Anticipated Let date 1/19/2023)**

**BR-0160 Bridge 15 over the Calabash River on NC 179 Business**

**(Anticipated Let date 7/18/2023)**

# BR-0 139 - NC 133 Bridges

LET January 2023

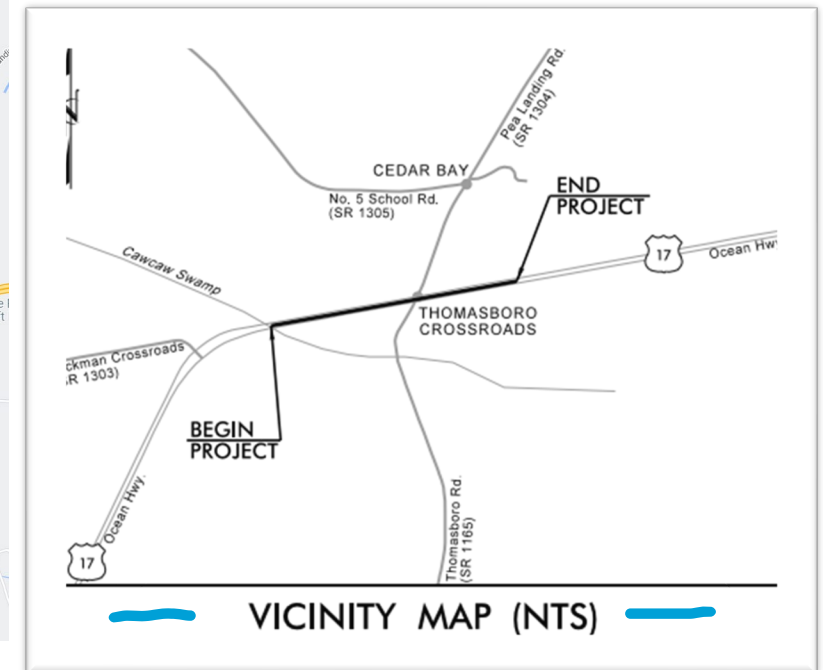
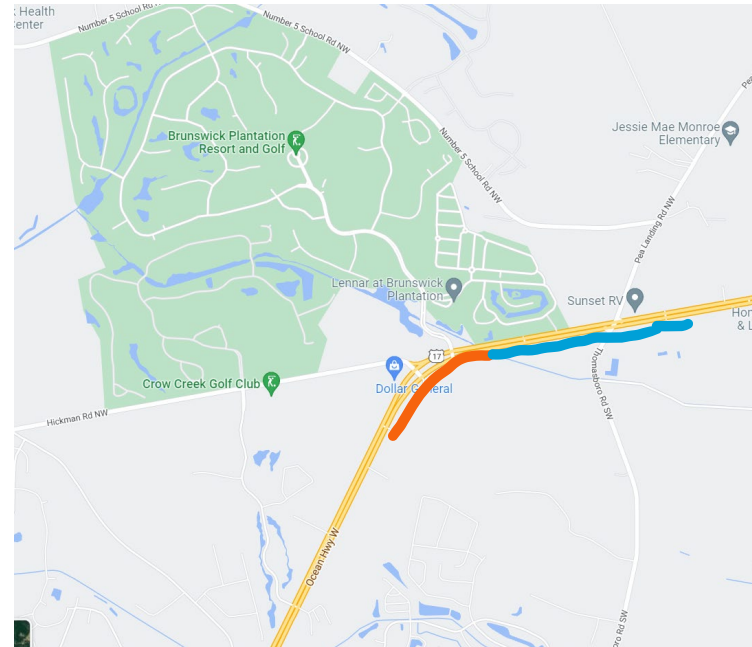
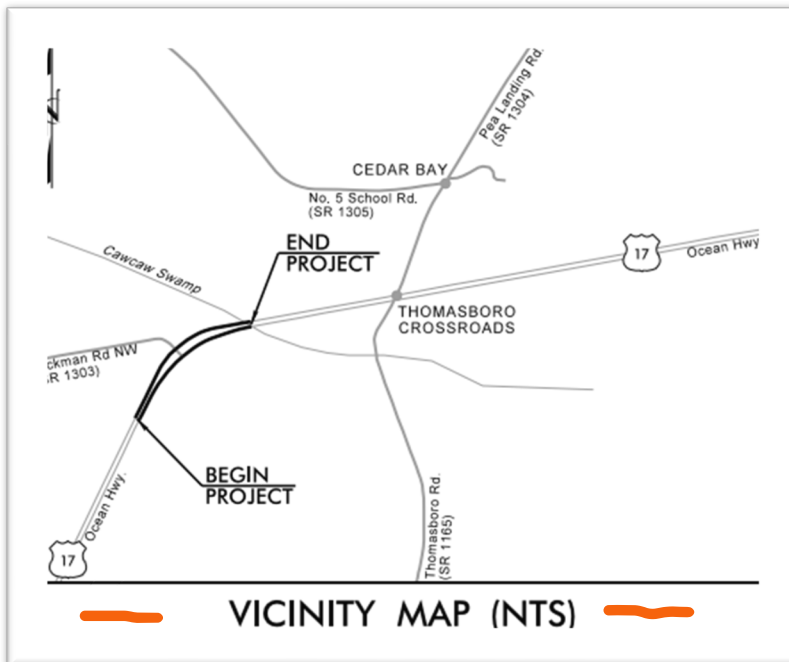


## **Active Construction**

**Safety Project – W-5601GA and W-5703H: Intersection Improvements**  
**Anticipated completion date: December 2023**

**Widening Project – R-5021: 2 lane to 4 lane corridor;**  
**Anticipated completion date: March 2027**

- **Safety Project – W-5601GA and W-5703H – Intersection Improvements**  
**US 17 at SR 1165 (Thomasboro Road)/SR 1304 (Pea Landing Road),**  
**US 17 at SR 1303 Hickman Road NW**  
**Started construction in April**  
**Estimated completion date Dec 2023**



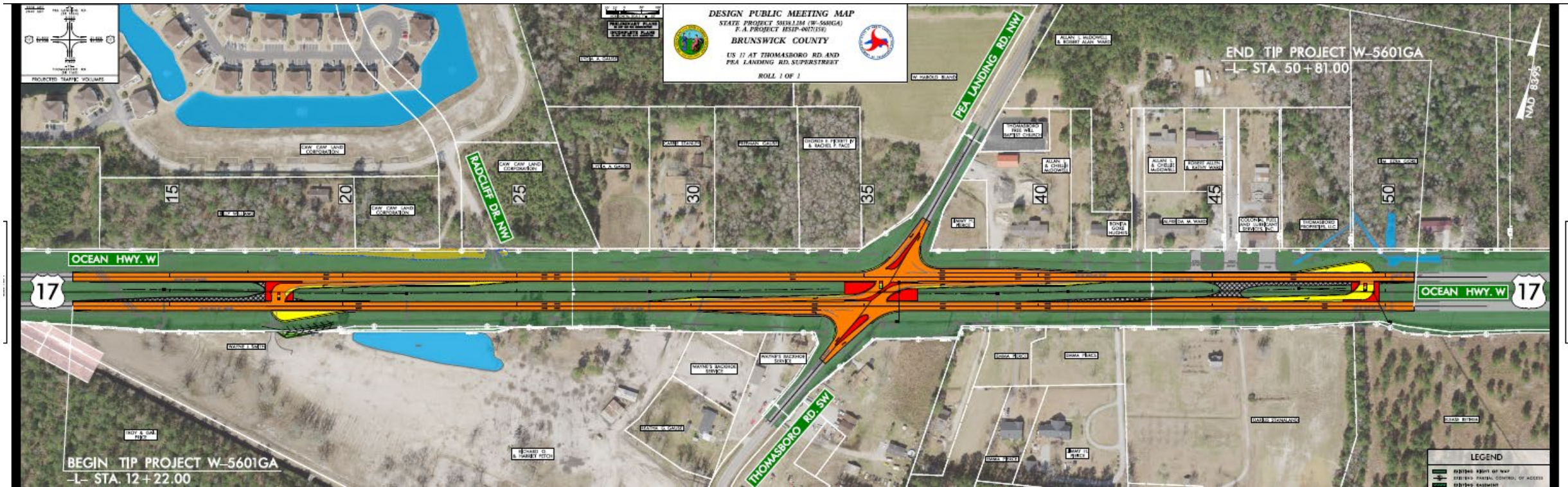
# W-5703H – US 17 at Hickman Rd and S W Middleton Ave

Estimated Completion Dec 2023



# W-560 1GA – US 17 at Thomasboro Rd/Pea Landing Rd

Estimated Completion Dec 2023



# R-5021 – Construction Plan

Phased Construction  
Estimated completion March 2027 !

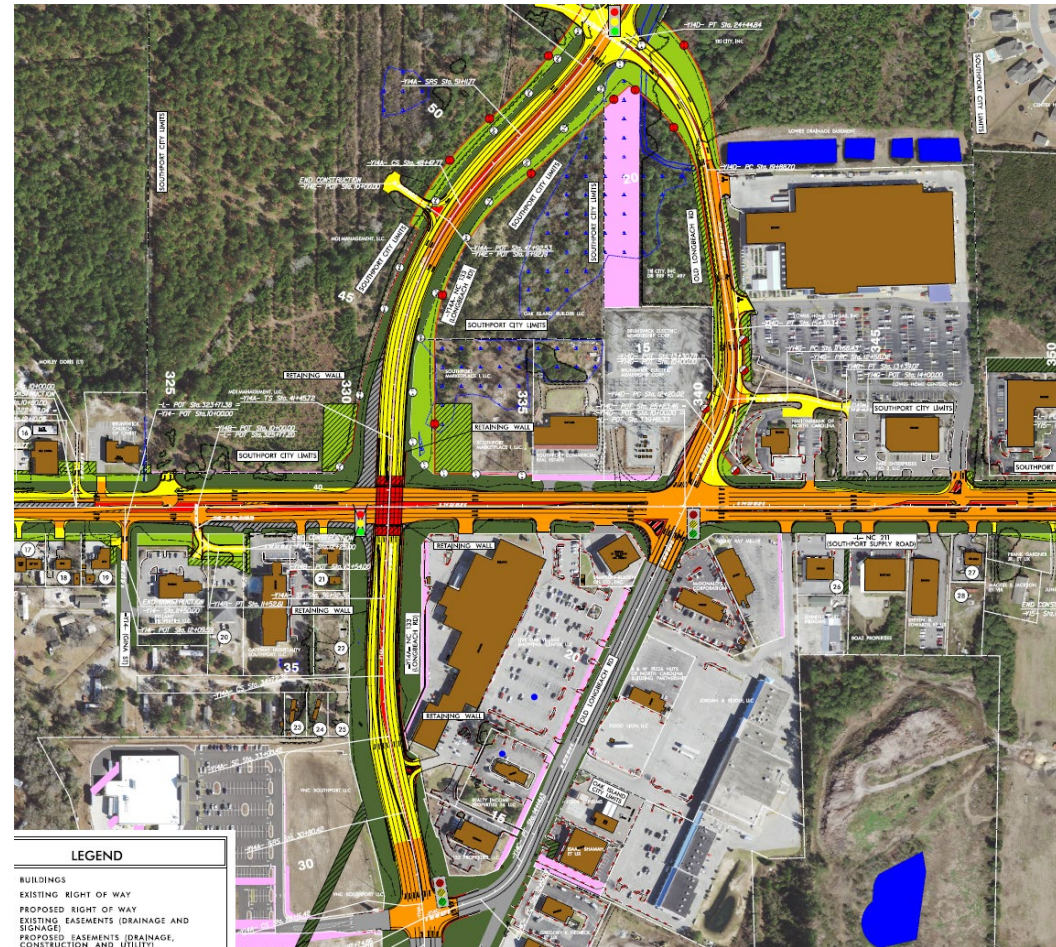


NC 906/Midway Rd to NC 87 – Awarded! - \$217M



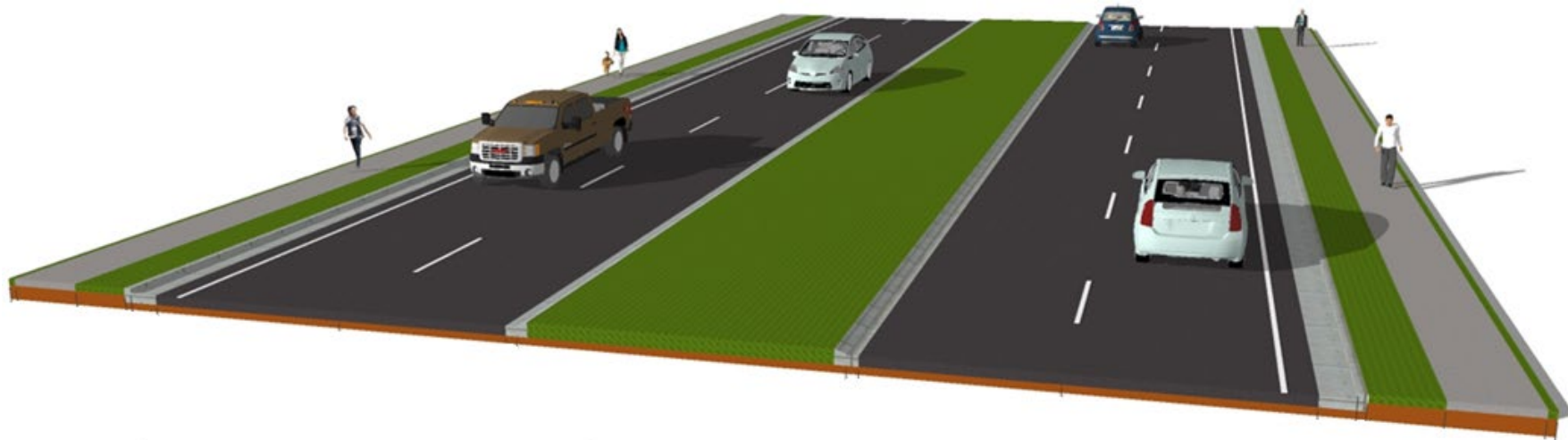
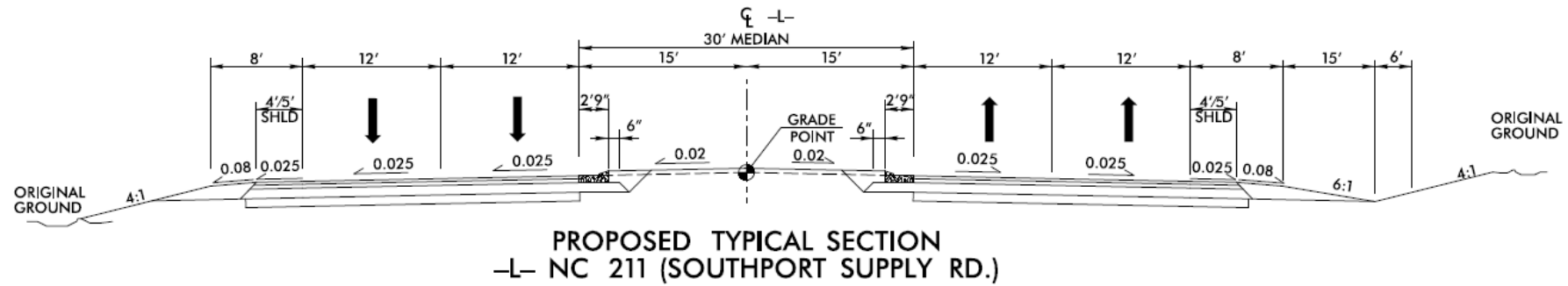
# R-5021 – NC 211 Widening

NC 906/Midway Rd to NC 87 – Awarded! - \$217M



# R-5021 - Typical Sections

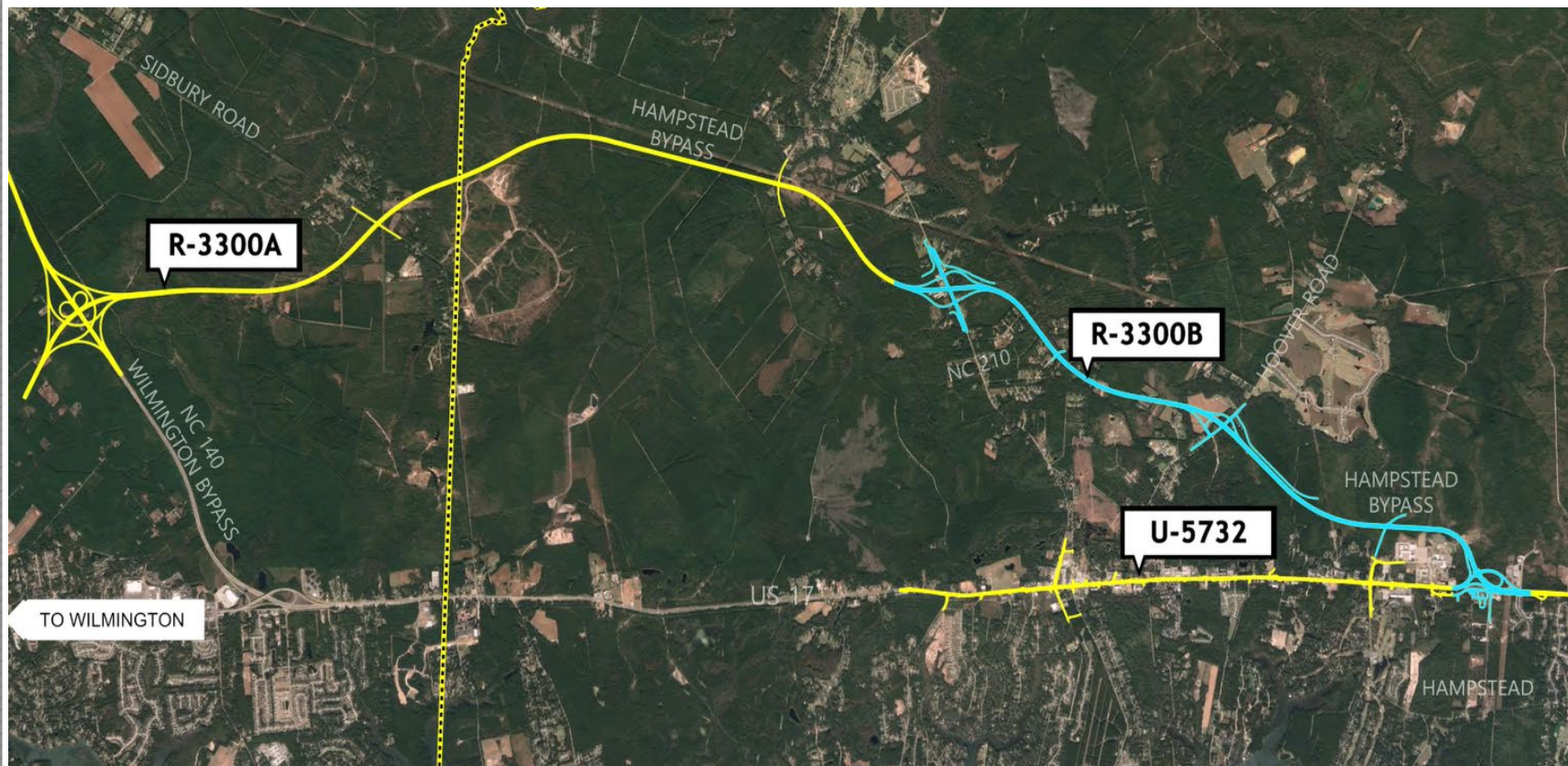
Near Southport - Walmart to NC 87



## **Regional Project Highlights**

**R-3300B – Hampstead Bypass**

# Hampstead Bypass



Ribbon Cutting March 2022 **R-3300B – Awarded! - ~\$185M**  
Fall 2026 **R-3300A**

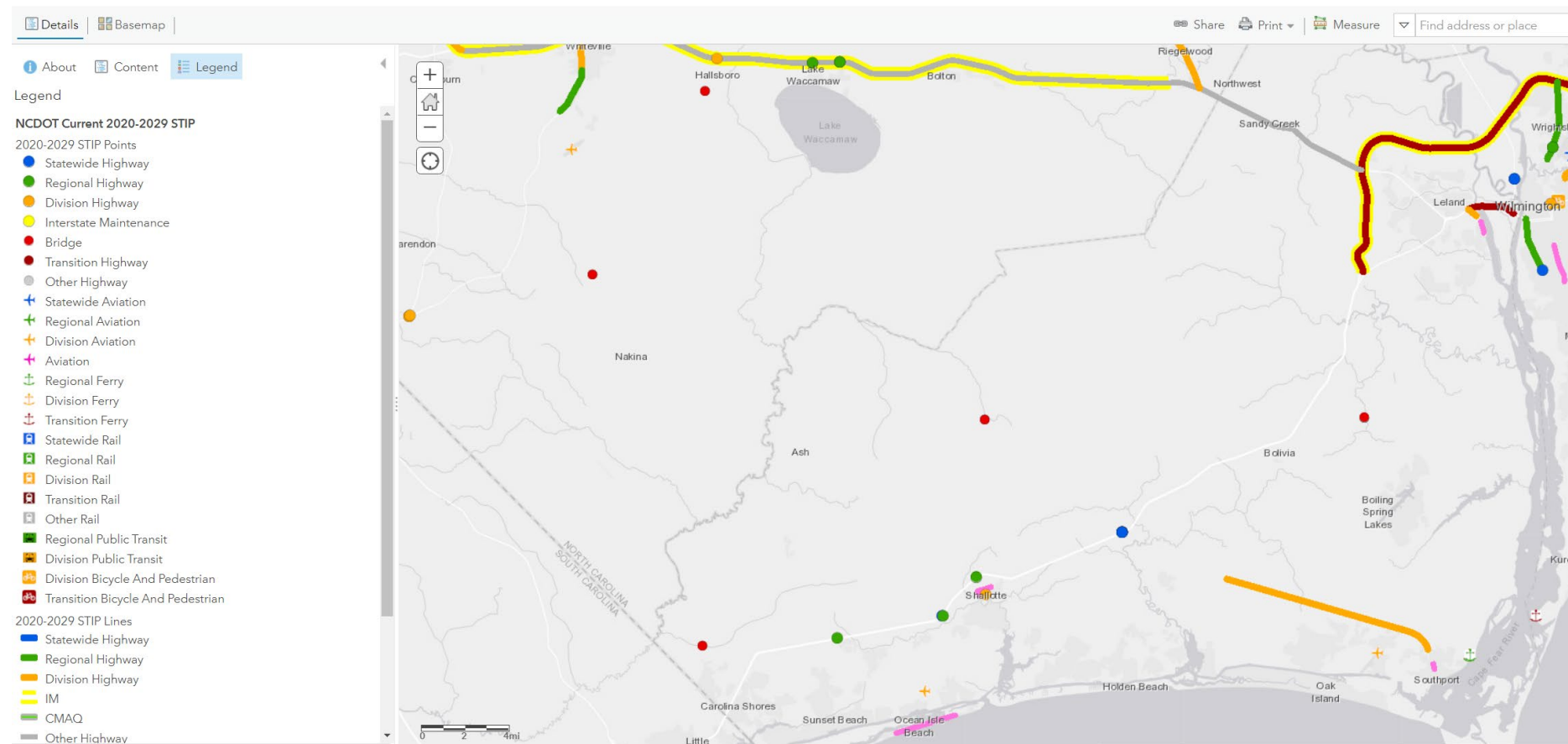
# For all projects in the STIP...

Interactive web map found here:

<https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=c02f4f828974670ad01bb83be91b18c>

Home ▾ (1) NCDOT 2020-2029 STIP Map

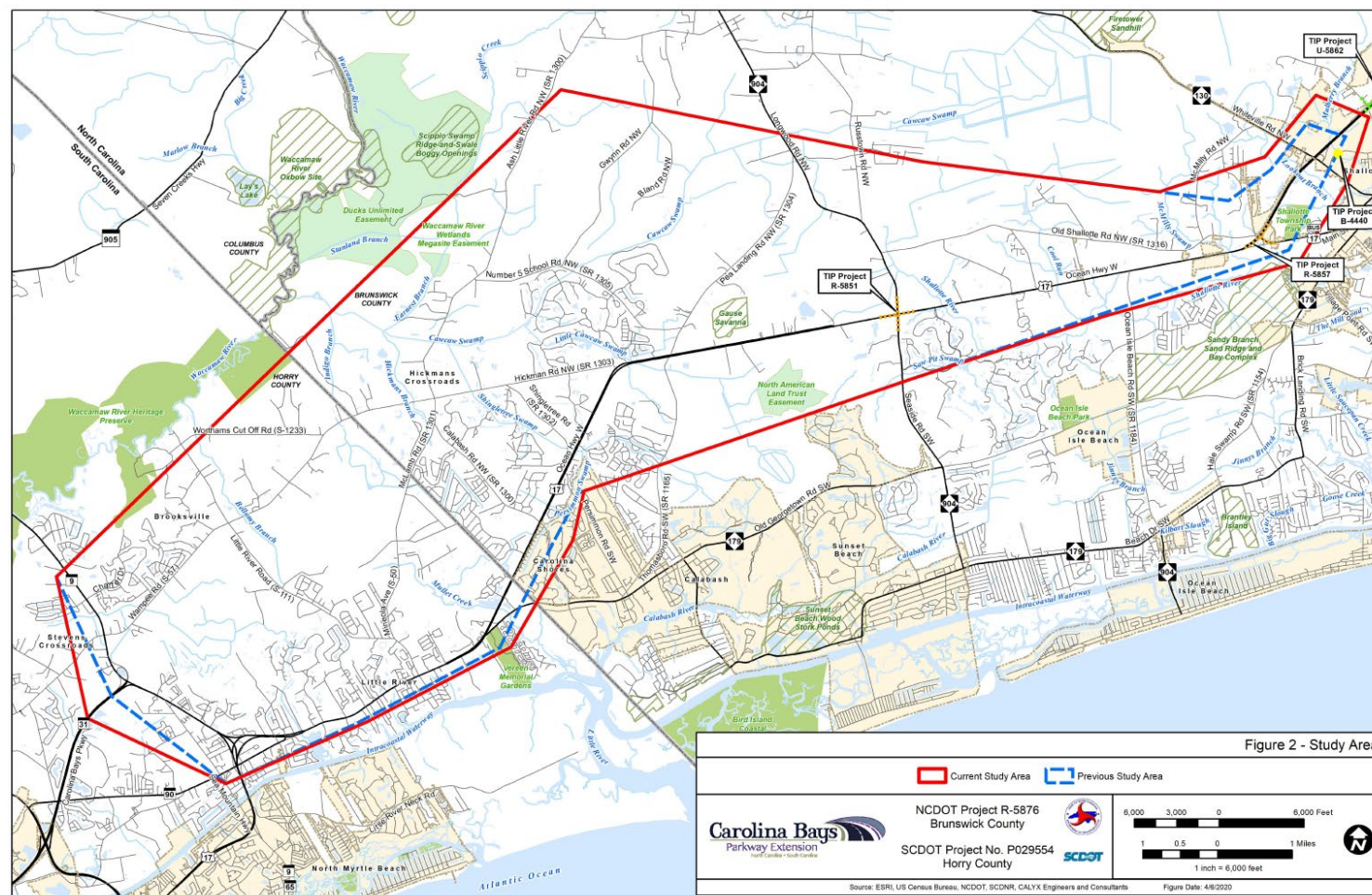
Open in new Map Viewer



## Looking Ahead

**Carolina Bays Parkway  
Cape Fear Memorial Bridge Replacement**

# Future Carolina Bays Parkway

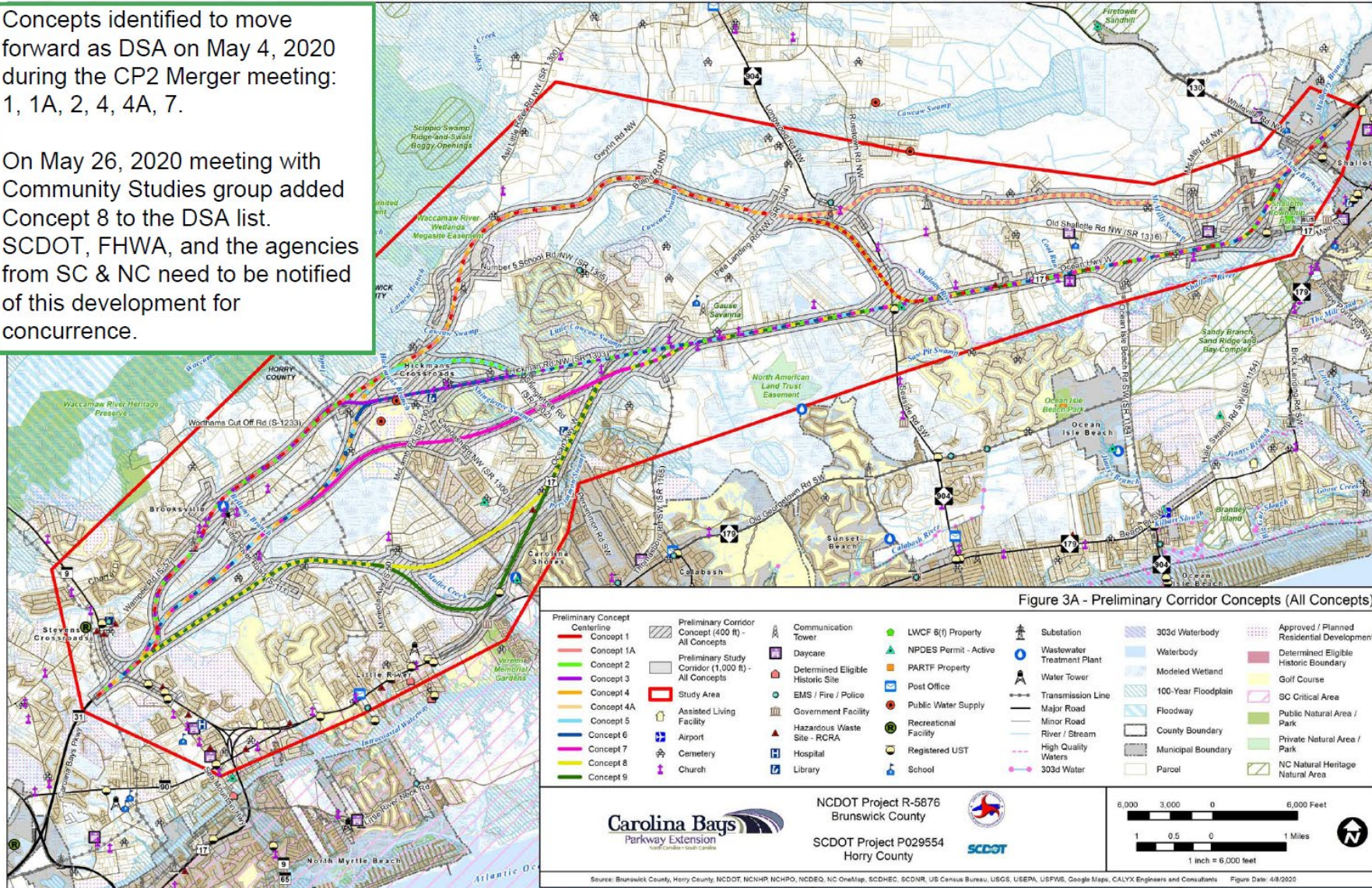


LEDPA – August 2022 | ROD – March 2023  
Extension of S.C. 31 (Carolina Bays Pkwy)

# Corridors for Detailed Study

Concepts identified to move forward as DSA on May 4, 2020 during the CP2 Merger meeting: 1, 1A, 2, 4, 4A, 7.

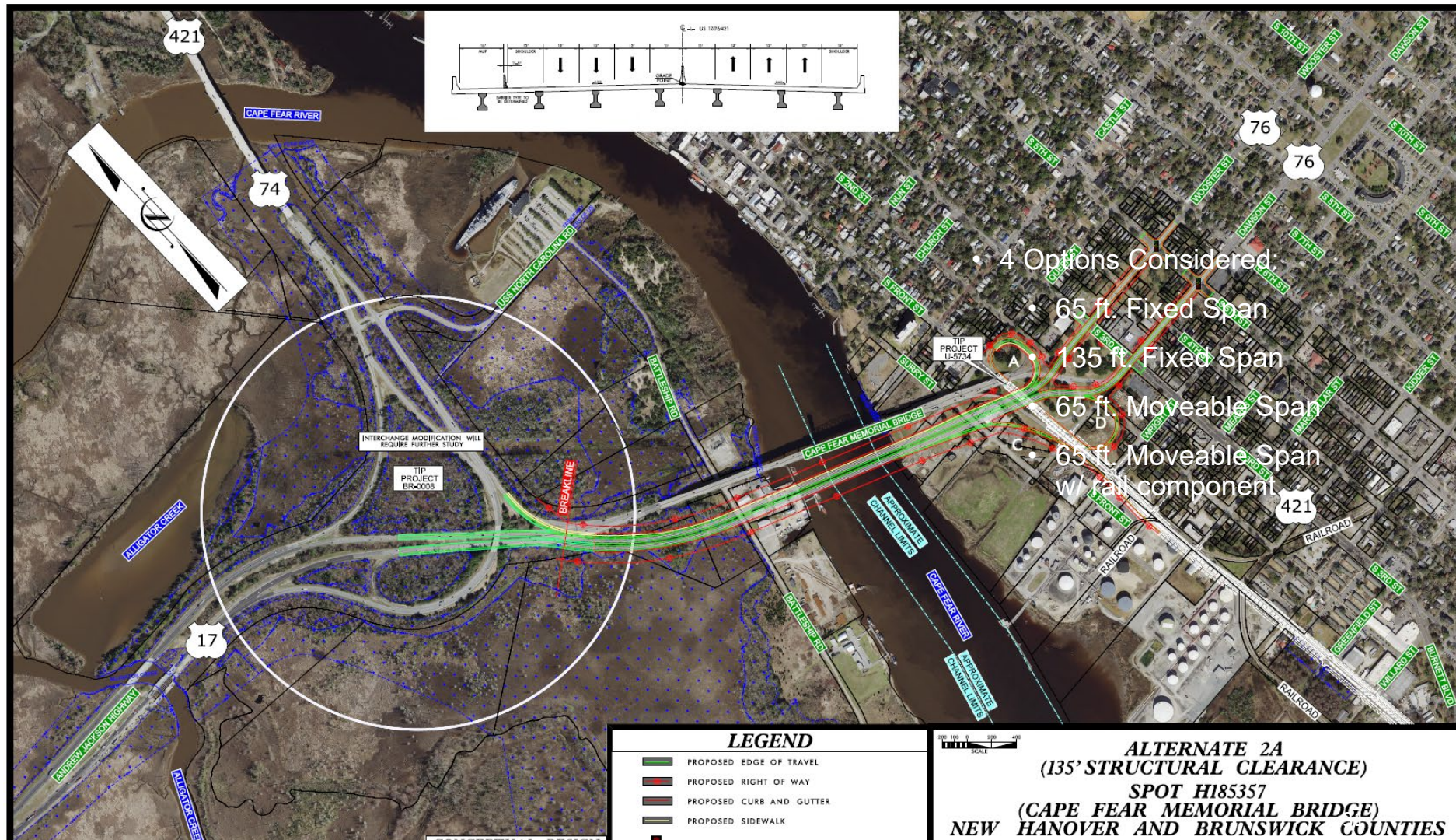
On May 26, 2020 meeting with Community Studies group added Concept 8 to the DSA list. SCDOT, FHWA, and the agencies from SC & NC need to be notified of this development for concurrence.





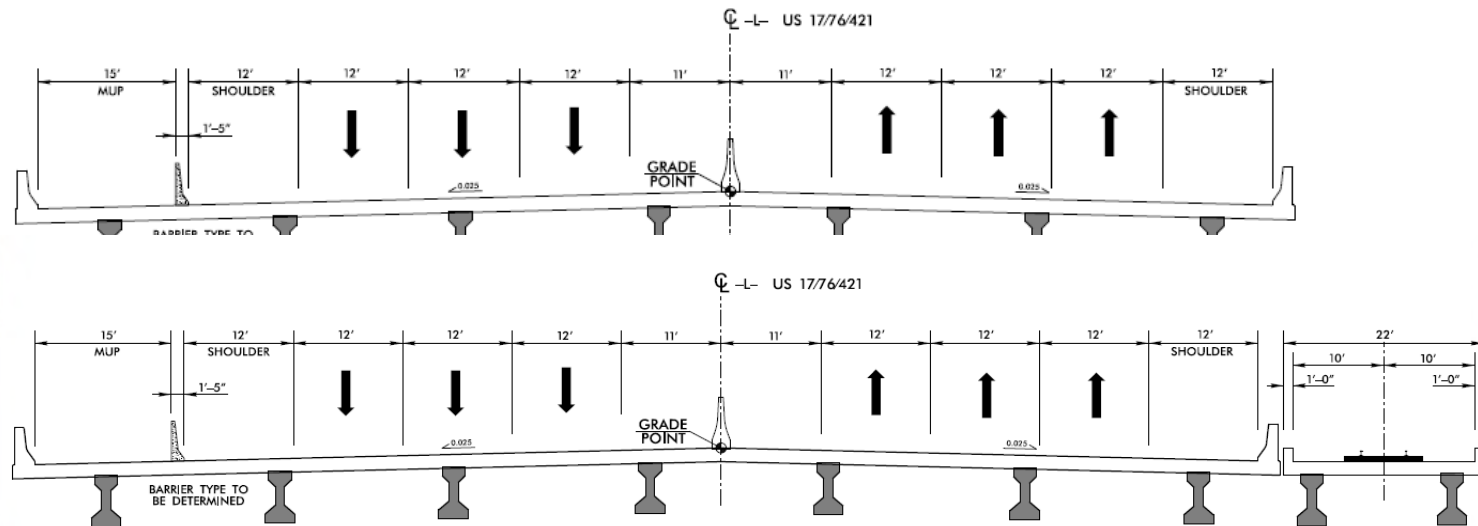
## The Need: Replace Aging Infrastructure

- The Cape Fear Memorial Bridge was Constructed in 1969
  - 51-Year-Old Structure
- Existing structure requires costly routine maintenance
  - Fixed Span – Major Rehabilitation Required every **20 years**
  - Moveable Span – Major Rehabilitation Required every **10 years**
  - The recent major rehabilitation in 2019 cost **~ \$15M**
  - Yearly maintenance costs **\$550k/year**
- Growing Volumes of Traffic
  - Projected **81,900** vehicles per day (2045)



# Feasibility Study Typical Sections

- 6-lane median -divided facility
- 15 ft. wide separated Multi -Use-Path (North Side)
- 12 ft. outside shoulders
- 12 ft. wide travel lanes
- 22 ft. wide median/inside shoulder
- Total Width: 135 ft. - 157 ft. (with rail)  
(current bridge is 54 ft. wide)



## Feasibility Study - Estimated Costs By Option

| Option Number | Design Option   | Construction Costs | Utility Relocation Costs | Right-of-Way Costs | Total Costs |
|---------------|---|--------------------|--------------------------|--------------------|-------------|
| Option 1      | Fixed Span<br>65' Vertical Clearance                              | \$185.1 M          | \$2.0 M                  | \$9.5 M            | \$196.6 M   |
| Option 2      | Fixed Span<br>135' Vertical Clearance                             | \$213.6 M          | \$2.0 M                  | \$30.1 M           | \$245.7 M   |
| Option 3      | Movable Span<br>65' Vertical Clearance                            | \$475.7 M          | \$2.5 M                  | \$9.5 M            | \$487.7 M   |
| Option 4      | Movable Span<br>with Railroad Component<br>65' Vertical Clearance | \$596.7 M          | \$2.5 M                  | \$9.5 M            | \$608.7 M   |

\* Note these are approximate costs from Feasibility Study ... Currently working on updated estimates

**WILMINGTON URBAN AREA METROPOLITAN PLANNING ORGANIZATION  
BOARD**

**RESOLUTION URGING CONSIDERATION OF ALL POSSIBLE OPTIONS INCLUDING TOLLS AND  
PREVIOUS PROPOSALS FOR THE REPLACEMENT OF THE CAPE FEAR MEMORIAL BRIDGE**

**WHEREAS**, the Wilmington Urban Area Metropolitan Planning Organization ("WMPO") provides transportation planning services for the City of Wilmington, Town of Carolina Beach, Town of Kure Beach, Town of Wrightsville Beach, Town of Belville, Town of Leland, Town of Navassa, New Hanover County, Brunswick County, Pender County, Cape Fear Public Transportation Authority, and the North Carolina Board of Transportation; and

**WHEREAS**, the Cape Fear Memorial Bridge was constructed in 1969 and is over a 50 year-old structure; and

**WHEREAS**, the Cape Fear Memorial Bridge currently carries over 60,000 vehicles per day with a 2045 projected volume of 81,900 vehicles per day; and

**WHEREAS**, the North Carolina Department of Transportation (NCDOT) completed a feasibility study in 2020 that evaluated four potential options for the replacement of the Cape Fear Memorial Bridge (65' fixed span, 135' fixed span, 65' movable span, and 65' movable span with rail); and

**WHEREAS**, the replacement of the Cape Fear Memorial Bridge is the Wilmington Urban Area Metropolitan Planning Organization's top unfunded priority; and

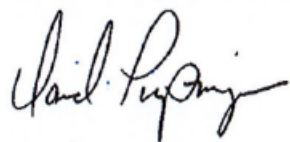
**WHEREAS**, based on NCDOT's programming challenges, the 2020-2029 State Transportation Improvement Program is currently approximately \$12B over programmed; and

**WHEREAS**, under traditional funding mechanisms, it is unlikely that the replacement of the Cape Fear Memorial Bridge will be programmed for funding in the next 10-year State/MPO Transportation Improvement Program cycle; and

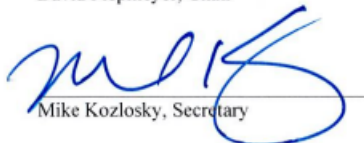
**WHEREAS**, there is a need to explore and consider other potential funding options to fund the replacement of the Cape Fear Memorial Bridge.

**NOW THEREFORE**, be it resolved that the Board of the Wilmington Urban Area Metropolitan Planning Organization hereby urges consideration of all possible options including tolls and previous proposals for the replacement of the Cape Fear Memorial Bridge.

**ADOPTED** at a regular meeting of the Wilmington Urban Area Metropolitan Planning Organization's Board on February 23, 2022.



David Piepmeyer, Chair



Mike Kozlosky, Secretary



**RESOLUTION**

**URGING CONSIDERATION OF ALL POSSIBLE OPTIONS TO FUND A REPLACEMENT FOR THE  
CAPE FEAR MEMORIAL BRIDGE**

**Whereas**, the southeastern region of North Carolina is one of the fastest growing regions in the United States; and

**Whereas**, the regional population of Brunswick, New Hanover, and Pender Counties is expected to reach more than 565,000 by 2040 representing a 34% increase; and

**Whereas**, the Wilmington Chamber of Commerce supports the Wilmington MPO's identification of the replacement of the Cape Fear Memorial Bridge as their highest unfunded priority; and

**Whereas**, the Wilmington Chamber of Commerce joined the NC Chamber's Destination 2030 Coalition to encourage the North Carolina Department of Transportation, North Carolina General Assembly, and Governor of North Carolina to explore and implement new funding mechanisms that could raise the funds necessary to accelerate much needed transportation projects; and

**Whereas**, the Cape Fear Memorial Bridge currently sees over 60,000 cars each day and is projected to rise to over 80,000 by 2035; and

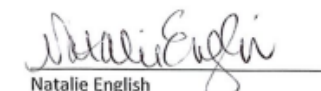
**Whereas**, the Cape Fear Memorial Bridge is the critical connector for employment, shopping, healthcare and recreation for residents in the region.

**Now Therefore, Be It Resolved** that the Public Policy Committee of the Wilmington Chamber of Commerce urges consideration of all possible options to fund a replacement for the Cape Fear Memorial Bridge.

**ADOPTED** by the Public Policy Committee February 22, 2022.



Stephanie Lanier  
Chair, Public Policy Committee



Natalie English  
President and CEO



## Cape Fear Memorial Bridge Replacement

### Overview for NCDOT to Evaluate Project Delivery Options

#### Overview

The Cape Fear Memorial Bridge opened to traffic in Wilmington, North Carolina on October 1, 1969. Now over 50 years later, the bridge is considered to be near the end of its lifespan and insufficient to carry increasing traffic volumes. Annual maintenance costs continue to increase and replacement parts are becoming increasingly difficult to obtain; however, the proposed Cape Fear Memorial Bridge Replacement (the "Project" or the "Bridge") is not currently in the State Transportation Improvement Program (STIP) and does not have any state funding allotted to it.

On February 23, 2022, the Wilmington Urban Area Metropolitan Planning Organization (WMPO) Board passed a resolution urging "consideration of all possible options including tolls and previous proposals to fund a replacement for the Cape Fear Memorial Bridge." Per the request of the WMPO, NCDOT will evaluate options for delivering the Project using a three-pronged approach.

#### Options

##### Traditional Delivery

A traditional design build or design bid build delivery will require the Project to be evaluated and scored through the next round of NCDOT's STIP prioritization. NCDOT updates the STIP approximately every two years to ensure it accurately reflects the department's current financial situation. As part of the traditional delivery analysis, the Department will update the feasibility study, including cost estimates, and provide an indication of where the Project is likely to score in the next round of prioritization. NCDOT will also evaluate the various discretionary grant programs offered by USDOT as well as relevant provisions within the Infrastructure Investment and Jobs Act (IIJA) that was signed into law in November 2021 to determine the feasibility of any such programs and how they may change the funding analysis.

##### Conventional Toll Delivery

A conventional toll delivery will require the Project to be evaluated per NCDOT's Toll Project Development Policy (NC Toll Policy) which was implemented in early 2018 to improve the Department's ability to manage a reliable transportation network, address congestion, leverage limited financial resources, and provide more user choice. Per the guidelines set forth in the Toll Project Feasibility Handbook, there are multiple inputs to the financial feasibility tool that will need to be evaluated. The inputs include, but are not limited to, general project information, traffic characteristics, toll pricing, and project costs. Using traffic and revenue inputs, along with cost information, the financial feasibility tool calculates the ability of a potential toll facility to generate revenue to cover its own costs of operation and assess its ability to fund all or a portion of the capital costs through toll financing.

##### Alternative Delivery

NCDOT will issue a Request for Information (RFI) to solicit innovative solutions to deliver the Project. Innovative solutions may include, but are not limited to, buildability concepts and financial alternatives. Proposals will be screened for viability, including technical, environmental, engineering, legal, and financial considerations; screening analysis will be presented to the WMPO for consideration.

#### Not Under Consideration

NCDOT will only evaluate options that are within the Department's purview and statutory authority, as such the Department will not pursue options such as the following:

- Requests to the N.C. General Assembly for special assistance such as a STIP exemption or special appropriation
- Solicitation of local participation; while the Department encourages local participation, local funds will not be included in any analysis unless specifically identified and requested by the WMPO
- Tolling of alternate routes to fund replacement of the Bridge

Update to WMPO at July Board meeting

-- STATE OF NORTH CAROLINA--  
DEPARTMENT OF TRANSPORTATION  
RALEIGH, N.C.



## REQUEST FOR INFORMATION

### ALTERNATE DELIVERY CONTRACT OPTION

#### Cape Fear Memorial Bridge

##### Due Date:

May 26, 2022 | 4:00 PM Local Time

##### Proposal Delivery Address

Electronic Only  
dstark@ncdot.gov  
Attn: David Stark

**Issue Date: April 25, 2022**

# Contact Us!

- Chad Kimes, PE – Division Engineer, Division 3
  - [ckimes@ncdot.gov](mailto:ckimes@ncdot.gov) | 910-341-2001
  - General inquiries
- Caitlin Marks, PE – Assistant Division Maintenance Engineer/Planning, Division 3
  - [cmmarks@ncdot.gov](mailto:cmmarks@ncdot.gov) | 910-341-2000
  - Maintenance / Planning Inquiries
- Adrienne Cox – Assistant Division Maintenance Engineer/Planning, Division 3
  - [amcox1@ncdot.gov](mailto:amcox1@ncdot.gov) | 910-341-2001
  - Future project planning, funding inquiries
- Ben Hughes, PE – District Engineer, Brunswick and New Hanover
  - [bthughes@ncdot.gov](mailto:bthughes@ncdot.gov) | 910-398 -9100
  - Driveway permits, road additions, Powell funds
- Jessi Leonard, PE – Division Traffic Engineer, Division 3
  - [jleonard6@ncdot.gov](mailto:jleonard6@ncdot.gov) | 910-341-2204
  - Speed limits, crosswalks, traffic signals, signage
- Karen Collette – Brunswick County Maintenance Engineer
  - [kecollete@ncdot.gov](mailto:kecollete@ncdot.gov) | 910-754-6527
  - Maintenance concerns: potholes, drainage, ditches, shoulder drop -offs
- Anthony Law – Division Construction Engineer, Division 3
  - [awlaw@ncdot.gov](mailto:awlaw@ncdot.gov) | 910-341-2000
  - Construction inquiries

# Questions?



