May 7, 2008

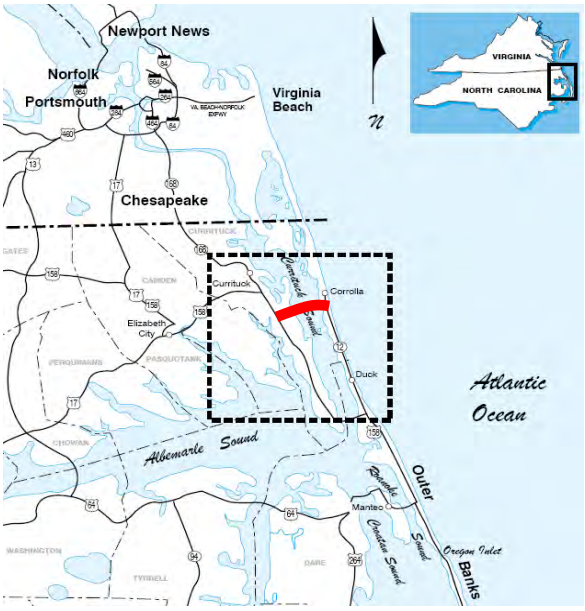
Mid-Currituck Bridge Project

Project Description and Purpose

The proposed project includes improvements in the Currituck Sound area between US 158 near Barco and NC 12 near Corolla in Currituck County. The project includes construction of a 7-mile bridge over Maple Swamp and Currituck Sound, an interchange and toll collection facilities at US 158 on the Currituck County mainland, and an intersection with NC 12. In addition, improvements on NC 12 south of the bridge terminus for a distance of 2 to 4 miles, as well as improvements on US 158 for emergency evacuation, may be required.

The purposes of the proposed action are to:

- improve traffic flow on the project area's thoroughfares (NC 12 and US 158);
- reduce travel time between the Currituck County mainland and the Currituck County Outer Banks;
- reduce hurricane clearance time for residents and visitors who use NC 168 and US 158 during a coastal evacuation; and
- improve system efficiency and fulfill State transportation planning goals by providing a new transportation link between the Currituck County mainland and the Currituck County Outer Banks.



The project is included in the current State Transportation Improvement Program, and is a component of both the North Carolina Strategic Highway Corridor System and the North Carolina Intrastate System.

Planning Studies

NCDOT Studies

On July 6, 1995, the Federal Highway Administration (FHWA) published a Notice of Intent to prepare an environmental impact statement (EIS) for the Mid-Currituck Bridge project in Currituck County, North Carolina. The FHWA, in cooperation with the North Carolina Department of Transportation (NCDOT), issued a Draft Environmental Impact Statement (DEIS) on the project in January 1998. FHWA and NCDOT held public hearings and provided a comment period on the DEIS, which resulted in the project development process being paused so that issues raised could be considered.

The project was reactivated by NCDOT in 2000 with an expanded study area and scope to address agency and public comments and more comprehensively evaluate transportation needs and improvements for the Currituck Sound area. FHWA and NCDOT expanded the study to include conceptual alternatives that involve improvements to existing NC 12 and US 158, in addition to alternatives that involve constructing a Mid-Currituck Bridge.

Progress was made with respect to drafting a statement of purpose and need for the expanded project, preparing traffic forecasts and analyses, and completing a Statewide Hurricane Evacuation Study (2005) to substantiate the need for the project.

Project Transitions to NCTA

In 2002, the North Carolina General Assembly passed legislation creating the North Carolina Turnpike Authority (NCTA). The legislation authorized NCTA to construct, operate and maintain toll roads and bridges in North Carolina [House Bill (H.B.) 644 (2002); N.C. Gen. Stat. § 136-89.180 et seq.]. In 2005, the Legislature amended NCTA's enabling legislation to include a provision authorizing NCTA to design, construct, operate, and maintain "a bridge of more than two miles in length going from the mainland to a peninsula bordering the State of Virginia" [H.B. 253 (2005); N.C. Gen. Stat. § 136-89.183(a)(2)]. The 2005 legislation further directed NCTA to "contract with a single private firm to design, obtain all necessary permits for, and construct the toll bridge described in N.C. Gen. Stat. § 136-89.183(a)(2), a bridge of more than two miles in length going from the mainland to a peninsula bordering the State of Virginia, in order to provide accelerated, efficient and cost-effective completion of the project" [H.B. 253 (2005); N.C. Gen. Stat. § 136-89.183A(a)].

The project was officially adopted by NCTA as a candidate toll project in 2006, and NCTA began work on the environmental studies, continuing with the direction established by FHWA and NCDOT. In addition, a Preliminary Traffic and Revenue Study was completed in January 2007.

Current Status

FHWA and NCTA have established a statement of purpose and need for the project and evaluated a range of conceptual alternatives in the Currituck Sound study area. This analysis has included alternatives that improve existing roadways (NC 12 and US 158) without building a new bridge, as well as alternatives that involve building a new Mid-Currituck Bridge in combination with improving existing roads. This analysis also has included a range of non-highway improvement alternatives, including the no-build alternative, a ferry system across Currituck Sound, expanding transit service, shifting rental unit start times, transportation demand management (TDM), and transportation systems management (TSM). In addition, NCTA considered a range of alternatives for the proposed bridge crossing, including (1) whether to construct a two-lane, three-lane, or four-lane bridge, and (2) various configurations for the bridge's connections to existing roads; and (3) a range of potential corridors for the bridge.

Consistent with Section 6002 of SAFETEA-LU, FHWA and NCTA have involved federal and state regulatory and resource agencies in defining the purpose and need and identifying and studying conceptual alternatives for the project through monthly coordination meetings. In addition, FHWA and NCTA solicited public comment on the statement of purpose and need and alternatives screening process via a series of citizens informational workshops in February 2008. Reports documenting the needs for the project, the evaluation of conceptual alternatives, and the alternatives screening process have also been made available for agency and public review and comment.

Based on analysis completed and comments received, FHWA and NCTA are recommending that only alternatives including the construction of a Mid-Currituck Bridge in combination with minimal improvements to existing roadways be studied in detail in the DEIS. The DEIS is on schedule for signature and distribution in August 2008.

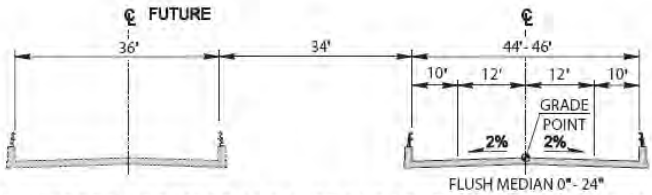
Project Elements

Two detailed study alternatives have been recommended for evaluation in the DEIS. Both alternatives include a two-lane Mid-Currituck Bridge, improvements to NC 12 just south of the bridge terminus, and improvements to US 158 to reduce hurricane evacuation clearance times. The Statewide Hurricane Evacuation Study is a critical element of the project development.

FHWA and NCTA intend to recommend a preferred bridge corridor in the DEIS.

Mid-Currituck Bridge

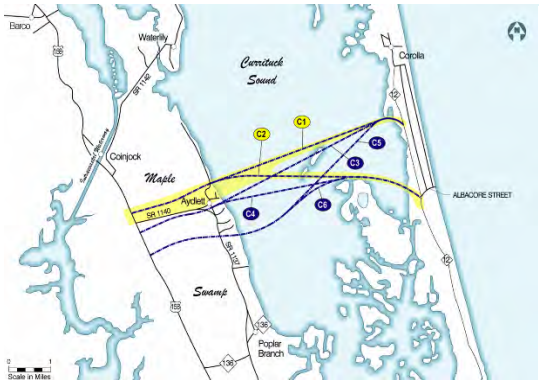
The detailed study alternatives include a two-lane bridge across Currituck Sound. The decision to evaluate a two-lane bridge, rather than a four-lane or a three-lane bridge, was based on traffic forecasts, travel time, safety, and cost.



MID-CURRITUCK BRIDGE AND APPROACH BRIDGE TYPICAL SECTION

An interchange with US 158 is assumed with the Mid-Currituck Bridge. NCTA has selected a compressed Y interchange configuration for detailed study because it would affect the least area of wetlands, provide a high capacity to move traffic, and be the least expensive of several interchange concepts considered.

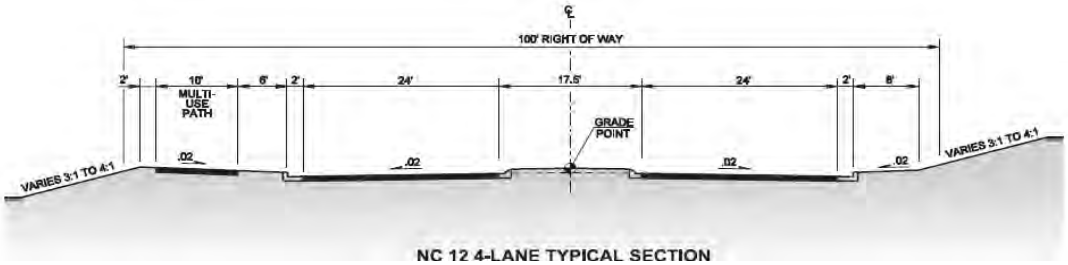
The current plans accommodate both Open Road Tolling (ORT) and cash options for toll collection. Currently, four lanes are assumed for toll collection in each direction of travel, all on the mainland near US 158. Each would consist of one lane with solely electronic toll collection where drivers would not need to stop to pay a toll and three lanes with both manual cash toll collection (by an attendant) and electronic toll collection. While the current designs indicate cash lanes, NCTA is considering an exclusive ORT collection option.



Two alternative bridge alignments will be evaluated in the DEIS, Corridors C1 and C2. On the mainland, C1 and C2 share a single approach corridor, which parallels an existing power line easement north of Aydlett Road (SR 1140); on the Outer Banks, C1 and C2 have different termini – C1 is in the Albacore Street area, and C2 is approximately 2 miles north of Albacore Street.

NC 12 Improvements

An intersection is assumed between the Mid-Currituck Bridge and NC 12. NC 12 would be widened to four lanes between the bridge terminus and Currituck Clubhouse Drive (a future signalized intersection) to ensure that southbound traffic on NC 12 would not queue back onto the Mid-Currituck Bridge. The length of this widening would be approximately 2 to 4 miles depending on the location of the intersection between the bridge and NC 12. The typical section for these improvements includes four 12-foot lanes with a 17.5-foot median and a 10-foot multi-use path, which will generally fit within the existing 100-foot right of way.



US 158 Improvements

As a result of the Statewide Hurricane Evacuation Study, US 158 was determined to be the road in the project area that would control future hurricane evacuation clearance times. Without improvements to northbound US 158, clearance times would not change even with a Mid-Currituck Bridge. The detailed study alternatives assume the construction of a third northbound lane for emergency use or the use of the existing center turn lane as a third northbound emergency lane on US 158 between the Mid-Currituck Bridge and NC 168, a distance of approximately 5 miles.

The construction of a third westbound lane on US 158 between the Wright Memorial Bridge (located at the south end of the study area) and NC 12 or the use of the existing center turn lane as a third emergency lane in this area would further reduce hurricane evacuation clearance times and is being considered as part of the detailed study alternatives. This segment is approximately 1.5 miles long. NCTA is coordinating with local emergency management personnel to determine the practicability of these options and to further refine the concepts.

Project Considerations

Required Permits

The following permits will be required and must be obtained prior to project construction:

- US Army Corps of Engineers – Clean Water Act Section 404 Individual Permit
- US Coast Guard – Bridge Permit
- NC Division of Water Quality – Clean Water Act Section 401 Water Quality Certification
- NC Division of Coastal Management – Coastal Area Management Act (CAMA) Permit

Project Costs

Current cost estimates for the project are $500M to $600M (April 2008 dollars). This range represents all improvements included in the detailed study alternatives, including a two-lane Mid-Currituck Bridge, widening on NC 12 for up to 4 miles, and accommodations on US 158 in two locations to improve hurricane evacuation clearance times. These costs also include completion of all design, environmental mitigation, right of way acquisition, toll collection facilities, and contract administration activities.

Project NEPA Schedule

NEPA Milestone	Date
Draft Environmental Impact Statement	August 2008
Final Environmental Impact Statement	May 2009
Issue Record of Decision	August 2009

Available Project Information and Documents

The project website will be updated throughout the project development process and additional documents will be posted. The following project documents are currently available on the NCTA website (www.ncturnpike.org/projects/mid_currituck):

- Statement of Purpose and Need (April 2008)
- Alternatives Screening Report (April 2008)
- Presentation to NCTA Board of Directors (March 2008)
- Presentation to Local Elected Officials (February 2008)
- Citizens Informational Workshop Materials, including Presentation Boards, Handout, Comment Sheet, Summary of Comments, and Maps (February 2008)
- Preliminary Traffic and Revenue Study (January 2007)
- NCTA enabling and project related legislation

Traffic Projections

2035 Average Daily Traffic Projections (Vehicles/Day)	
Summer Weekend	**Summer Weekday**
NEPA No Toll – 35,400	NEPA No Toll – 24,500
NEPA with Toll – 22,500	NEPA with Toll – 14,500
T & R with Toll – 20,800	T & R with Toll – 5,400

Project Impacts

Summary of Impacts		
Evaluation Criteria	**No-Build Alternative**	**Build Alternative**
Vehicle Miles Traveled (Total Annual Millions of VMT)	663.9	578.3
Travel Time (2035 Summer Average)	2 hours 34 minutes (Via Wright Memorial Bridge)	1 hour 47 minutes (Via Wright Memorial Bridge) 11 minutes (Via Mid-Currituck Bridge)
Hurricane Evacuation Clearance Time (2035)	36.3 hours	26.6 – 27.4 hours 21.8 – 27.4 hours
Displacements	0	11
Wetlands (filled)	0 acres	13 acres (C1 Corridor) 9 acres (C2 Corridor)

Environmental Considerations	
Currituck Sound	❖ Minimize impacts to submerged aquatic vegetation (SAV) and SAV habitat, which is abundant due to shallow depths in the Sound ❖ Protect water quality by capturing, filtering, and/or treating bridge run-off
Maple Swamp	❖ State-designated Significant Natural Heritage Area
Coastal/non-coastal wetlands	❖ Minimize impacts to wetlands

Design Considerations	
Bridge clearance	❖ Navigation span with 35-foot vertical clearance recommended by US Coast Guard
Bicycle accommodations	❖ Political and public interest in providing accommodations for bicyclists on the bridge ❖ Current design includes 10-foot shoulders and bike-safe railings
Construction method	❖ Shallow depth of Currituck Sound and sensitive environmental resources will influence construction technique
Geotechnical investigations	❖ Unknown at this time what conditions exist as no investigations have been completed
Maintenance of traffic	❖ Maintain traffic flow on existing NC 12 and US 158 throughout construction, particularly during summer weekend peak periods