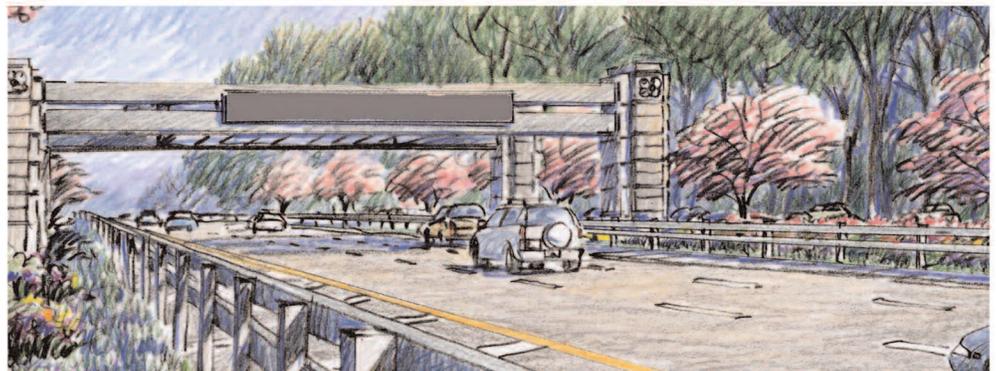
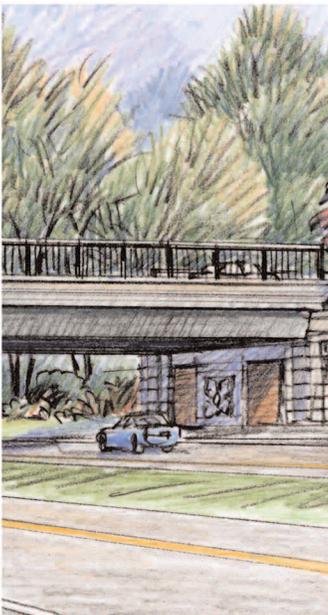


**Roads  
to the  
Future**

INNOVATIVE  
PLANNING & FINANCING  
FOR A BETTER  
NORTH CAROLINA

JANUARY 23, 2008



**Annual Report**  
*to the*  
*Joint Legislative Transportation*  
*Oversight Committee*



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## Annual Report

*to the*

*Joint Legislative Transportation Oversight Committee*

*“Through a unique combination of technological and collaborative innovation, we are working diligently to deliver these transportation solutions years ahead of when they might otherwise have been possible.”*

*– North Carolina Turnpike Authority*



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## Roads to the Future

*A message from David W. Joyner, Executive Director of the North Carolina Turnpike Authority*

Dedicated to being an efficient road-building agency, the North Carolina Turnpike Authority embraced the challenge to deliver certain highly targeted roads to support the state's soaring population and economic growth. Through a unique combination of technological and collaborative innovation, we are working diligently to deliver these transportation solutions years ahead of when they might otherwise have been possible. All the while, working in close cooperation with NCDOT and adhering to strict environmental and design standards, we are maintaining accountability and breaking new ground in project delivery. Illustrations of our success include:

- Groundbreaking progress in the areas of environmental review, aesthetic design, electronic toll collection and project delivery.
- Establishing an open and collaborative process with our local leaders and citizens while maintaining our focus on aggressive schedules in an effort to keep costs down.
- Developing a national “cash vs. cashless” study that will result in the first totally electronic start-up toll road in the United States—the Triangle Expressway. By doing so, we can offer convenient nonstop travel to our customers while saving more than \$60 million in capital costs.

These are just a few examples of the ways we are keeping our commitment to public accountability.

Local support for any new project is our first priority. This focus led the Turnpike Authority Board of Directors to adopt, as one of its first, a policy that all projects must originate as a request for study from local elected officials or commissions. After all, it's our local citizens who will choose to become our customers. Without them, we have no market, no way to repay our debt, and ultimately, no venue for or need to pursue a project. For that reason, we listen closely to and respond to suggestions from local citizens and business leaders, metropolitan planning organizations and local elected officials. In fact, hundreds of interested citizens come out and comment at our frequent local Citizens Workshops. Our dedication to public interest, our openness, outreach, and listening have paid off. Following an initial year of public skepticism about our five projects, we now hear, “Can't you get this road built any sooner?” resounding from citizens throughout our study areas.

Getting projects built sooner is a primary objective. In less than two years, we moved the Triangle Expressway from a study on the shelf to a \$1-billion project that's ready to be built. That's also the case with the Monroe Connector/Bypass, which is scheduled to award construction next year.





We have the momentum. We have public support, and we are diligently working to secure the requisite financing. To move these projects forward, however, we must receive gap funding in the amount of \$20 million annually for the Triangle Expressway and \$15 million annually for the Monroe Connector/Bypass. We are confident that the members of the General Assembly will do all within their power to see that these funds are approved so that these two vital roads can proceed.

The General Assembly created the North Carolina Turnpike Authority as a strategic resource to support North Carolina's growing demand for improved mobility—a resource to be used in limited areas under specific circumstances. We are excited about the opportunity to accelerate some of our state's most needed and significant projects. We have accepted the challenge before us and are anxious to make headway toward improving the process for building some of our state's "Roads to the Future."

## **Tolling and the State Agency Business**

Recognizing that new solutions were needed for North Carolina to regain its reputation for excellent roads, the General Assembly established the Turnpike Authority in 2002. We were charged with developing critical transportation infrastructure through accelerated project delivery and alternate sources of funding. Consistent with findings in the enabling legislation, we utilize a business-model structure for the organization.

The Turnpike Authority staff launched daily operations just over two years ago and is moving rapidly to accomplish its mission to build smart roads faster and more efficiently through innovation in everything from financing to toll collection to engineering.

The task before us presents unique challenges to the Turnpike Authority. We are unusual as a state agency in that we must act and operate like a business while remaining open and accountable to the Legislature and the public.

Like a business, we must:

- Create a product customers will choose to use and pay for and bring that product to market quickly.
- Forecast revenue, borrow capital, assume risk and generate sufficient cash flow to repay our debt.
- Differentiate ourselves from the competition (as required by NC law, there must be a free alternate route available to customers) and effectively market our product to meet our customers' needs.
- Control costs while efficiently maintaining and operating our roads.

As a state agency, we must:

- Follow procedures established for all state agencies.
- Work and cooperate closely with NCDOT to meet or exceed state and federal engineering standards.
- Adhere to strict federal environmental reviews and design guidelines.
- Remain accountable to our Board of Directors, the Joint Legislative Transportation Oversight Committee and the project's local constituency.

### **The Business of Tolling**

*Attracting new businesses and growing our existing economic base both depend on a strong infrastructure. It is becoming more and more expensive to provide new roads and bridges to support commerce and relieve congestion. That is why our state is looking at new ways to finance, maintain and upgrade our infrastructure. It's important to our economy and to our quality of life.*

**– Jim Fain**



While this is a new concept for operating a North Carolina state agency, it is one that has proven effective elsewhere in the country and closer to home—at the local level with numerous endorsements and resolutions supporting tolling as a viable means to accelerate project delivery. Most importantly, it is a concept that is bearing fruit.

## Breaking New Ground – Accomplishments and New Challenges

*Our turnpike legislation is recognized nationally as a model for advancing fair and effective methods of financing new highways in urban areas, thus freeing up funds for other highway needs across the state.*

*– Rep. Jim Crawford, NC House of Representatives*

We have maintained significant momentum on each of our projects. Our first two projects, Triangle Expressway and Monroe Connector/Bypass, are moving rapidly from the study phase to major projects ready to bid for construction.

During the past year, we requested gap funding in the amount of \$20 million annually for the Triangle Expressway. Gap funding represents a key investment by the state that can be leveraged to obtain bond financing.

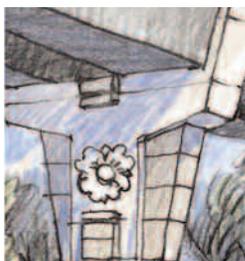
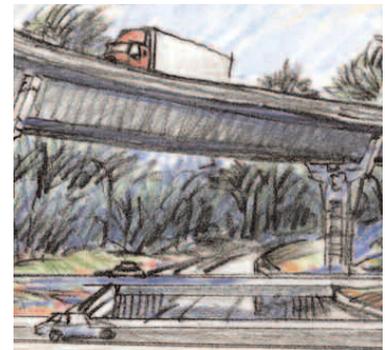
Failure to secure gap funding last year could easily have set back the opening date for Triangle Expressway for a minimum of two years due to a failure to meet air-quality conformity deadlines. However, we worked hard to consider new possibilities for the project’s environmental and engineering work, thereby creating a very aggressive alternative schedule in order to retain our target opening date. In doing so, we saved an estimated \$100 million in additional inflationary costs. Today, we are on the verge of completing the project’s financing and awarding construction contracts for the project later this summer, as soon as gap funding is provided by the General Assembly.

All of our attention was not focused on the Triangle Expressway and the Monroe Connector/Bypass. Other notable major milestones in other projects include:

- Applying the “cashless” model to the I-85 crossing of the Yadkin River Bridge project and completing the resultant objective study of the implications of tolling such a facility.
- Rapidly bringing the Mid-Currituck Bridge project to a Draft Environmental Impact Statement (EIS) stage and beginning the process of selecting a Pre-Development Partner to engage a finance-design-build consortium early in the project development process.

### Key accomplishments for 2007 include:

- Accelerated the environmental study process
- Adopted a design-build process for building state-of-the-art toll facilities
- Completed benchmark “cash vs. cashless” toll model
- Completed statewide transponder penetration rate study
- Pursued subordinated debt financing for funding gap





- Conducting an Environmental Features Field Review with all agency partners and representation of the Gaston Chamber of Commerce on the Garden Parkway project.

## **Putting Local Communities and Our Customers First**

We recognize that the motoring public is our customer. When our facilities open for business, drivers will have a choice—our toll facility or an adjacent, non-tolled alternate road. Thus, we spend considerable time meeting with and listening to our local constituents, our stakeholders and our future customers.

As a small agency with limited resources, our project development process is truly “grassroots” in nature. Our policy requires that all projects must originate as a request for study from local elected officials or commissions. Last year, we worked diligently to establish and maintain two-way communication with our stakeholders and citizens. Our process is to *provide* information about our projects and *receive* comments we can use to help improve our projects and refine our policies. During the past year, we:

- Worked closely with local planning organizations and city and county agencies to solicit their input on the purpose and need and possible alignments of the projects.
- Provided dozens of briefings throughout the state to locally interested agencies, organizations, stakeholders and interest groups.
- Organized Citizens Workshops and open houses in our project areas providing local elected officials, small business owners, environmental leaders and hundreds of citizens with numerous opportunities to ask questions and comment on the projects.
- Used the internet, briefings, newsletters and open houses to provide a steady stream of up-to-date information about the purpose, need and status of our projects and encouraged comments and feedback from the public.
- Demonstrated the value we place on being customer-driven. When Monroe citizens voiced concerns about two possible routes under consideration for the Monroe Connector/Bypass, we developed new alternative routes in response to their concerns.
- Provided public comment opportunities quarterly at our Board meetings and took advantage of opportunities to speak at public events.

## **Time Is Money – How The Turnpike Authority Manages Both**

Very early in the environmental review process, and against the advice of many, we took the bold step to publicly announce projected opening dates for each of our projects. And today, we continue to work hard to keep those dates solid.

We are involved in a very complex technical process, and we are keenly aware that costs and schedules are essential to our success. Moreover, we recognize that these dates are critical elements that must be systematically and routinely managed to ensure that our timelines and the associated costs remain on target. As a result, last year we began developing a “concept-to-completion” critical path schedule for each project that breaks the project development process into its many finite parts.

- These schedules include all critical project elements—engineering, finance and operations.



- Schedules are “cost-loaded” so that each step of the process has associated costs tied to it to ensure overall cost control. This helps ensure that projects can be brought rapidly to completion with assured schedules.
- Schedules and cost estimates are kept current as new information becomes available.
- We conduct periodic “all-hands” meetings to ensure the schedules and costs for engineering, finance and operations are coordinated and remain complementary.
- Our “concept-to-completion” scheduling process ensures that as additional information is available, timelines and cost estimates are honed to maintain projected opening dates and cost controls.

Utilizing the “concept-to-completion” process, we were able to make adjustments allowing us to keep opening dates on target as work estimates changed. We believe this process will allow us to keep our commitment to our local partners and customers to deliver these long-awaited projects on time and on budget.



## 2008 Legislative Priorities

We will request the General Assembly address two critical items this spring:

- Gap funding that will allow us to break ground on critical projects.
- Toll enforcement legislation that will allow us to efficiently and effectively collect unpaid tolls.

### Gap Funding

Securing gap funding for all Turnpike Authority projects is our highest legislative priority. We are working closely with members of the 21st Century Transportation Committee, the Joint Legislative Transportation Oversight Committee, the House and Senate Transportation Committees and respective chamber leaders, members of the administration and NCDOT to identify potential sources for these critical funds during the 2008 legislative session.

If gap funding is not approved for the Triangle Expressway and the Monroe Connector/Bypass, the Air-Quality Conformity approval for the Triangle Parkway section could be delayed two years. A two-year delay in the project could add \$200 million to the funding gap (at 10% per year inflation) and increase the annual gap supplement to about \$35 million per year. (The project borrowing capacity is estimated largely on revenue which would probably not change during a project delay.) A one-year delay for the Monroe Connector/Bypass will likely increase project costs by \$50 million and increase the annual gap by \$5 million, bringing the total gap to \$20 million.

### Legislative Priorities for 2008:

- Gap Funding
- Toll Violation Enforcement



## Estimated Financing Gaps (\$million)

	<u>Cost</u>	<u>Total Gap</u>	<u>Annual Gap</u>	<u>Bonds as Pct of Cost</u>
Triangle Expressway (a)	\$967.6	\$316.7	\$20.0	67%
Monroe Connector/Bypass (b)	\$579.5	\$180.0	\$15.0	69%
Mid-Currituck Bridge	\$459.6	\$198.9	\$15.6	57%
Cape Fear Skyway	\$971.5	\$439.0	\$39.0	55%
Garden Parkway Scenario A	\$409.8	\$187.8	\$12.5	54%
Garden Parkway Scenario B	\$765.4	\$418.1	\$26.0	45%
Garden Parkway Scenario C	\$1,255.2	\$834.5	\$54.0	34%
<b>Total w/ Garden Scenario A</b>	<b>\$3,388.0</b>	<b>\$1,322.4</b>	<b>\$102.1</b>	61%
Yadkin River Bridge (c)	\$478.8	\$35.7	\$2.0	
<b>TOTAL w/ Garden Scenario A</b>	<b>\$3,866.8</b>	<b>\$1,358.1</b>	<b>\$104.1</b>	
TOTAL w/ Garden Scenario B	\$4,222.4	\$1,588.4	\$117.6	
TOTAL w/ Garden Scenario C	\$4,712.2	\$2,004.8	\$145.6	

(a) Excludes cost of NC540 at \$108 million

(b) Estimates awaiting PFM analysis

(c) Includes \$87.1 million of capital for cash collection

We believe that funding total gaps for these toll projects with state funds is a creative and economically astute financing strategy. This approach can deliver \$4.7 billion in major new highways for the citizens of North Carolina with a one-time outlay of only \$1.5 billion.

(Note: In January 2007, the North Carolina Turnpike Authority conducted sketch-level traffic and revenue, and financial feasibility studies for the I-74 project in Brunswick County as requested by local transportation leaders and elected officials. This project, however, has not been approved as a North Carolina Turnpike Authority project at this time. Further evaluation is on hold until the section leading to the Supply, NC area is scheduled for further design.)

The gap financing for the Triangle Expressway (\$20 million annually) and the Monroe Connector/Bypass (\$15 million annually) are the most critical needs in 2008. We are ready to start purchasing right-of-way and award a construction contract on the Triangle Expressway immediately upon receipt of these funds, with the Monroe Connector/Bypass close behind.

As envisioned by the enabling legislation, these projects will be delivered far sooner than would be possible with traditional highway TIP funding and will avoid the rapidly escalating construction and right-of-way costs currently experienced by delayed projects. For example, we estimate that we can complete the Triangle Expressway approximately 30 years earlier than NCDOT could deliver the project using traditional TIP and loop funds. Moreover, we will pay maintenance costs for the life of the project, saving NCDOT hundreds of millions of dollars.



Additionally, all toll projects have a dedicated revenue stream that should enhancements to the projects be necessary due to increased traffic volumes, the funding mechanism already in place provides the income needed for the enhancements.

## Toll Enforcement Legislation

The Turnpike Authority Board of Directors voted unanimously to build its first project, the Triangle Expressway, using a toll collection method commonly referred to as “open road” or all-electronic tolling. Electronic tolling allows vehicles equipped with a small electronic device called a “transponder” to use toll facilities at highway speeds without slowing down or stopping to pay the toll. Among customers, electronic tolling has proven to be very easy, convenient and popular. Visitors and infrequent users, as well as those who choose not to use a transponder, can still use the facility through a video-based system that captures their license plate number using high-tech digital cameras and bills them for their trip.

We are working closely with the Department of Motor Vehicles to establish a shared database to assist us in collecting tolls derived from video tolling. The video tolling system will allow infrequent customers to contact the service center in advance of driving through a toll collection point to register the vehicle’s license plate, and the toll will be paid through their registered account. In addition, we envision a system where an unregistered user can also contact the service center up to 48 hours after using a toll facility to pay the toll without a violation penalty.

In some cases, a user may be unwilling to pay the toll or register their vehicle’s license plate, and yet may continue to use the facility. Paying customers see this behavior as very unfair. Strict toll enforcement legislation is essential not only to support the repayment of our debt but also to ensure equitable treatment for all of our customers. It is a requirement of the rating agencies that strict toll enforcement statutes be in place prior to the sale of revenue bonds to assure the bond markets that all potential revenue will be vigorously pursued. It cannot be overstated as to the critical nature of this legislation.



## Gap Funding for Other Projects

While much of the focus in this report is on the Triangle Expressway and Monroe Connector/Bypass, we are moving forward rapidly with the three other approved projects. Gap funding for these projects is no less essential than funding for the Triangle Expressway and the Monroe Connector/Bypass—the funds are simply needed on a different schedule. It is our position that the request for funding should not be made until near the time that the funds are needed. Therefore, we anticipate requesting gap funding for these projects in the 2009 session of the General Assembly.

### Mid-Currituck Bridge

The Mid-Currituck Bridge is planned as a Public Private Partnership (PPP). With this in mind, we are working to select a pre-development partner that will work alongside our NEPA team to conduct preliminary engineering and assess economic viability as a PPP. We believe that this approach will deliver the project more rapidly and more efficiently



than the traditional approach. (See Project and Schedule Information on page 26-28.)

### **Cape Fear Skyway**

The Cape Fear Skyway is progressing through environmental and pre-construction with a planned let date of November 2009, assuming gap funds are available. Financing work, specifically the Investment Grade Traffic and Revenue Study, is scheduled to begin in September 2008. (See Project and Schedule Information on pages 24-25.)

### **Garden Parkway**

The Garden Parkway, running from I-85 west of Gastonia to I-485/NC 160 in Mecklenburg County, is also progressing through environmental and pre-construction with a planned let date of December 2010. Financing work, including the Investment Grade Traffic and Revenue Study, will begin about 15 months before planned construction. (See Project and Schedule Information on page 17-19.)

### **Yadkin River Bridge**

As required by legislation adopted in 2007, we completed a “sketch level” engineering, operations, and financial feasibility study for replacement of the I-85 bridge over the Yadkin River. From a financial standpoint, this analysis indicated the project is feasible utilizing either a cash or a “cashless” scenario. Although from an operational standpoint, the project would function much better with electronic toll collection due to potential traffic backups and costs of cash collection toll facilities, which would require more than \$87 million in additional construction costs. The study estimated that the project would essentially be self-supporting with little if any gap funding required.

While the cashless scenario would function much better from an engineering and operational standpoint, it would create significant issues with a “non-toll savvy” population. Given the high number of infrequent users who are unfamiliar with Open Road Toll collection, ensuring payment by all motorists from both in state and out-of-state is an area of concern. Another concern is the potential for high levels of violations from occasional users traveling from distant areas of the state who are unlikely to purchase a transponder or register their license plates when they use the facility only a few times a year. As such, a great deal of effort and expense will be required to collect delinquent tolls. With regard to out-of-state violators, toll collections will be even more difficult due to the lack of reciprocity with other states.

While cash collection options would reduce the toll collection/violation issue, it would add to travel time, increase capital costs and significantly affect driver safety. Moreover, cash lanes requiring stopping to pay a toll would likely generate negative public reaction and have adverse environmental and air quality impacts.

Additionally, Wilbur Smith Associates, the engineers who conducted the traffic and revenue study for the Yadkin River Bridge project, expressed concerns that nearly 20% of the 16,000 heavy trucks that travel this route daily might choose to avoid the toll by diverting through the small town of Spencer. While this issue can be tempered with creative toll structures and limited weight capacities on the free



alternative route, traffic diversion would be an unavoidable issue.

Prior to moving this project forward for further study as a toll facility, a special exemption from the General Assembly will be required since current law prohibits placing tolls on an existing road. The project must also receive legislative approval as a new toll project. As an interstate highway, federal approval will be required as well, although special allowances are in place that would allow this to occur for an emergency bridge replacement.

If authorized to reconstruct the bridge, the project will be approximately 6.5 miles long, including the bridge itself and would cost approximately \$391 million to build. Construction will take approximately three and one-half years to complete.

Due to air-quality conformity considerations, the project cannot go to construction prior to May 2009. Some efforts will need to be undertaken to update the current NEPA document for the project but these could be complete prior to May 2009. A “toll/no-toll” decision must be made by mid-2008 to ensure that the air-quality conformity process can adequately capture traffic-related issues in a toll or non-toll scenario. (See more Project Information on page 29.)



## Organizational Development

*If North Carolina is to remain economically healthy and competitive in a global marketplace, we must now embrace new ways to fund and build the highways for our future.*

*– Rep. Nelson Cole, NC House of Representatives*

The Turnpike Authority is directed by a Board of Directors and Executive Director, and the agency’s work is done by professional teams comprised of Turnpike Authority staff, NCDOT and consultant staff. This arrangement provides us with management oversight while assuring that necessary expertise is available when needed to keep projects moving. The agency’s work is carried out by three core teams:

- Engineering
- Operations
- Finance

### Engineering Team

The engineering team is currently comprised of a Chief Engineer, a Director of Construction, a NEPA (environmental) staff engineer and an administrative assistant. We plan to add additional professionals in 2008. Last year, the engineering team:

- Adapted the design-build process developed at NCDOT to meet the requirements of a privately financed toll road. This included adapting both the contract request for proposal procedures and the right-of-way purchase procedures to meet the specific needs of our projects.
- Utilized the innovative, “coordination-based” environmental review process outlined in FHWA’s SAFETEA-LU, Section 6002, to move projects more efficiently and expeditiously through the environmental approval process.



- Upon authorization by the Turnpike Authority Board, advertised for design-build teams to submit qualifications to bid on the sections of the Triangle Expressway.
- Received summaries of qualifications from four teams for the Western Wake portion of the project and three teams for the Triangle Parkway portion.

The engineering team began a review of proposers' qualifications in early 2008 and is evaluating which teams will be asked to submit technical proposals at a later date. The design-build process allows for a quality-based selection of teams that are suited for the unique needs of the projects. In addition, a cost component is part of the selection and ensures that the teams selected truly provide a "best value." The teams that have requested to be considered are among the industry leaders in the design-build process and have strong track records for completing projects on time with a focus on quality.

## Operations Team

The operations team is currently staffed by the Chief Operating Officer, an assistant and an IT specialist. Additional support is provided by consultants from leading industry firms. During 2008, we plan to add three professionals to this team.

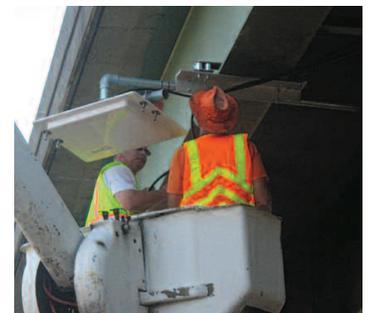
The operations team is responsible for all tolling operations, as well as facility and road maintenance from project opening through the life of each project. This work, which begins well before project opening, includes transponder and technology evaluation, system integration oversight, service center implementation and marketing.

In 2007, the operations team successfully undertook two major studies: Open Road Tolling and Transponder Market Penetration.

**Open Road Tolling Study** – This study, conducted by the Turnpike Authority, evaluated the costs and benefits of operating the Triangle Expressway as a "cashless" toll facility.

The results of the study led our Board to decide to build the Triangle Expressway as an open road toll facility. The Board's decision represents an historic milestone. While toll agencies around the country are converting their cash-based systems and constructing new facilities as electronic-only, we will be the first start-up agency in the United States to open a toll road without tollbooths.

**Market Penetration Study** – North Carolina is geographically situated between two competing electronic toll collection systems: Mark IV predominantly provides the toll technology for E-ZPass<sup>sm</sup>, a technology used by toll authorities in 13 states throughout the northeast and TransCore, which provides toll equipment to states such as Georgia (Cruise Card), Florida (SunPass<sup>®</sup>), Texas (TxTag) and Oklahoma (PIKEPASS<sup>™</sup>). Because there is significant north-south travel through the state and many new residents from states with major toll facilities, we conducted a market penetration study to determine the incidence of transponder ownership in the state. The study, involving the two major East Coast transponder vendors,





revealed that a considerable number of vehicles traveling on roads near our projects already have transponders. The final tag and reader technology selected later this year will be implemented in all tolling projects in North Carolina.

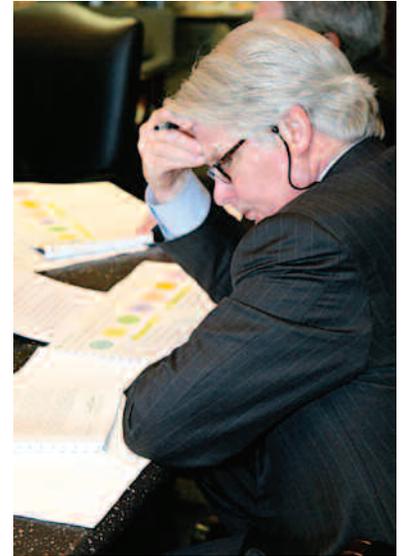
## Finance Team

*We must be diligent in our effort to find alternative sources of revenue and ways to finance critical transportation infrastructure. Transportation and good roads are essential to our economic well-being and our state's quality of life.*

*– Sen. Clark Jenkins, North Carolina Senate.*

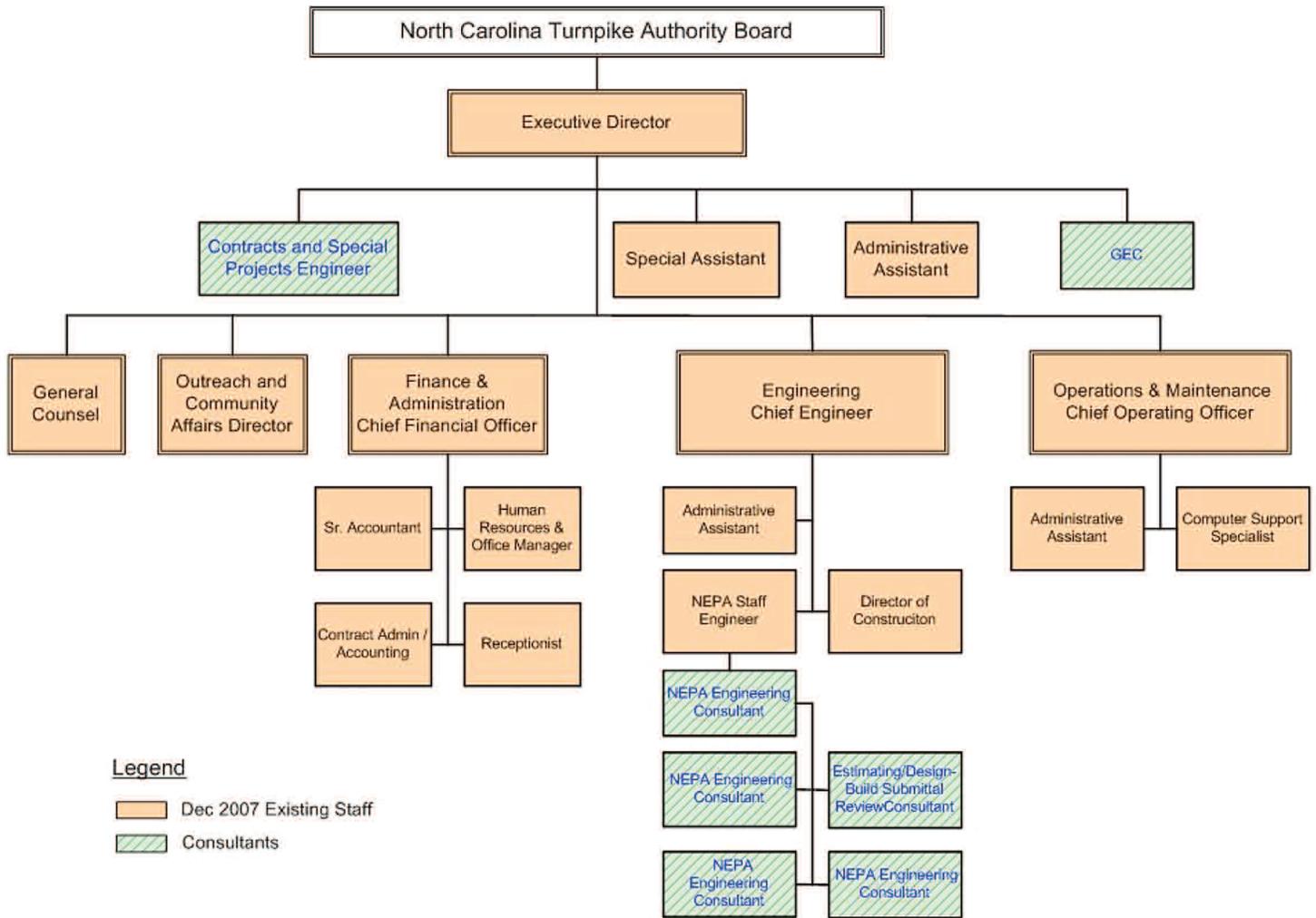
The finance team works with our financial advisors to develop the plan of finance and execute the sale of bonds and other financial vehicles to fund each project. This includes working with the state's transportation leadership to develop financial support for projects. We are constantly seeking new and innovative opportunities to ensure our financing plans are the best possible.

- When the General Assembly adjourned without reconciling the differences in the gap funding propositions that passed each house by wide margins in 2007, we considered offering the Triangle Expressway as a Public Private Partnership (PPP). However, because this project was not well-suited for a traditional PPP, we decided, instead, to consider private subordinated debt to fund the gap—a novel financial approach not currently used in the U.S. tolling industry. While the use of subordinated debt is still being evaluated, this approach may prove beneficial to our future financing plans.
- We are considering a PPP for the development of the Mid-Currituck Bridge. As noted previously, our Board has authorized the implementation of a Preliminary Development Agreement (PDA), which we expect will minimize cost and keep the project on an aggressive schedule. Based on experience seen in other states, a pre-development partner allows design and construction elements to be more effectively evaluated and coordinated between the two parties throughout the environmental and preliminary design process. By identifying a partner early in the project life, we expect to maintain an aggressive delivery schedule.
- We engaged UBS and Bank of America who have teamed to serve as Senior Underwriter, as well as Bode, Call & Stroupe, L.L.P. as Underwriter's Counsel. We also selected Ernst & Young to develop accounting and control processes.





## NCTA Organization Chart

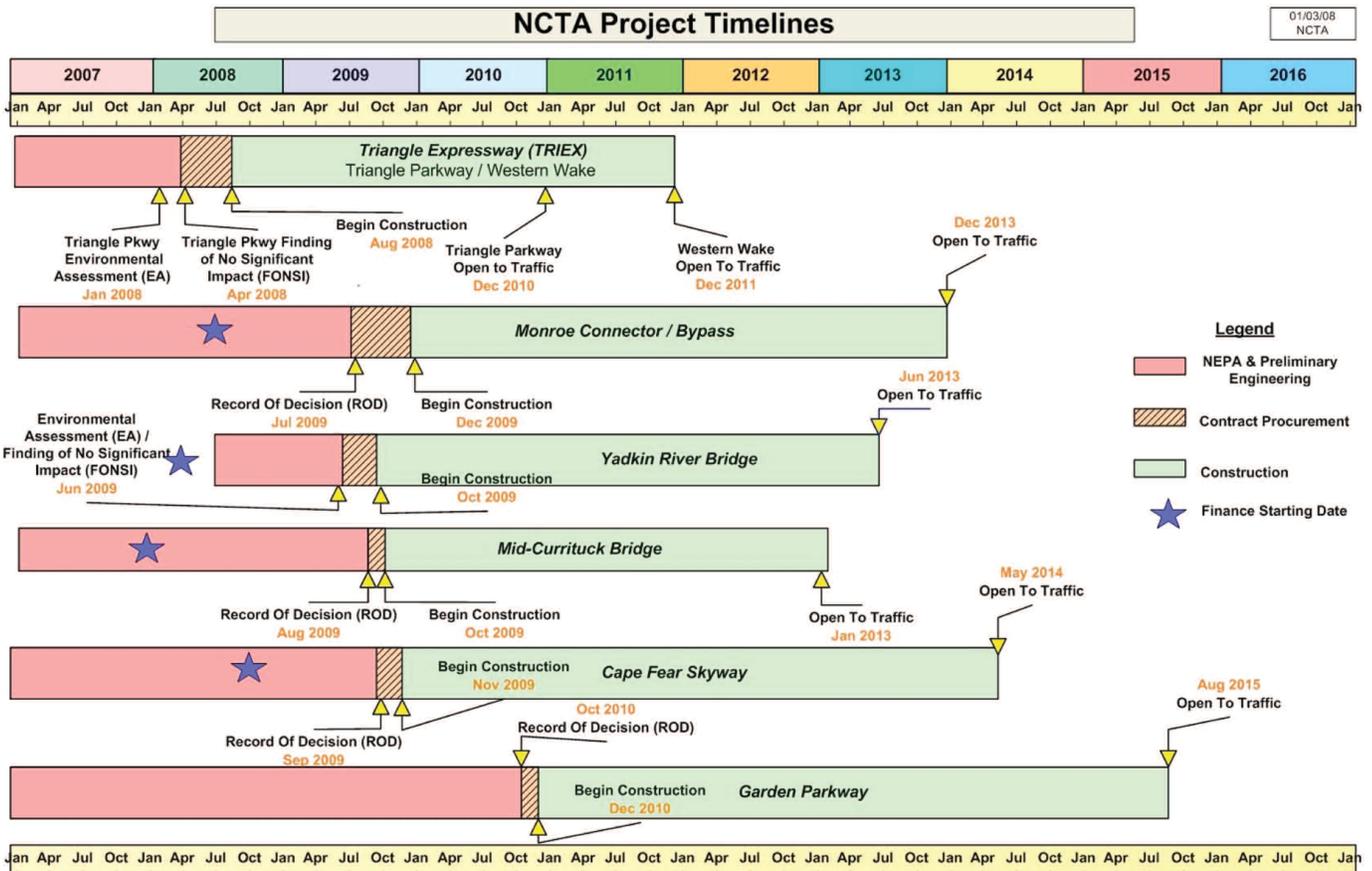


### Turnpike Authority Board Changes

In 2007, William C. Lackey, Jr. of Cornelius and E. David Redwine of Ocean Isle were appointed to the Board.



The combined Project Timelines, as illustrated below, give a broad overview of all of our current projects. In-depth descriptions of the project timelines are outlined in the project pages.





## **Current NCTA Projects**

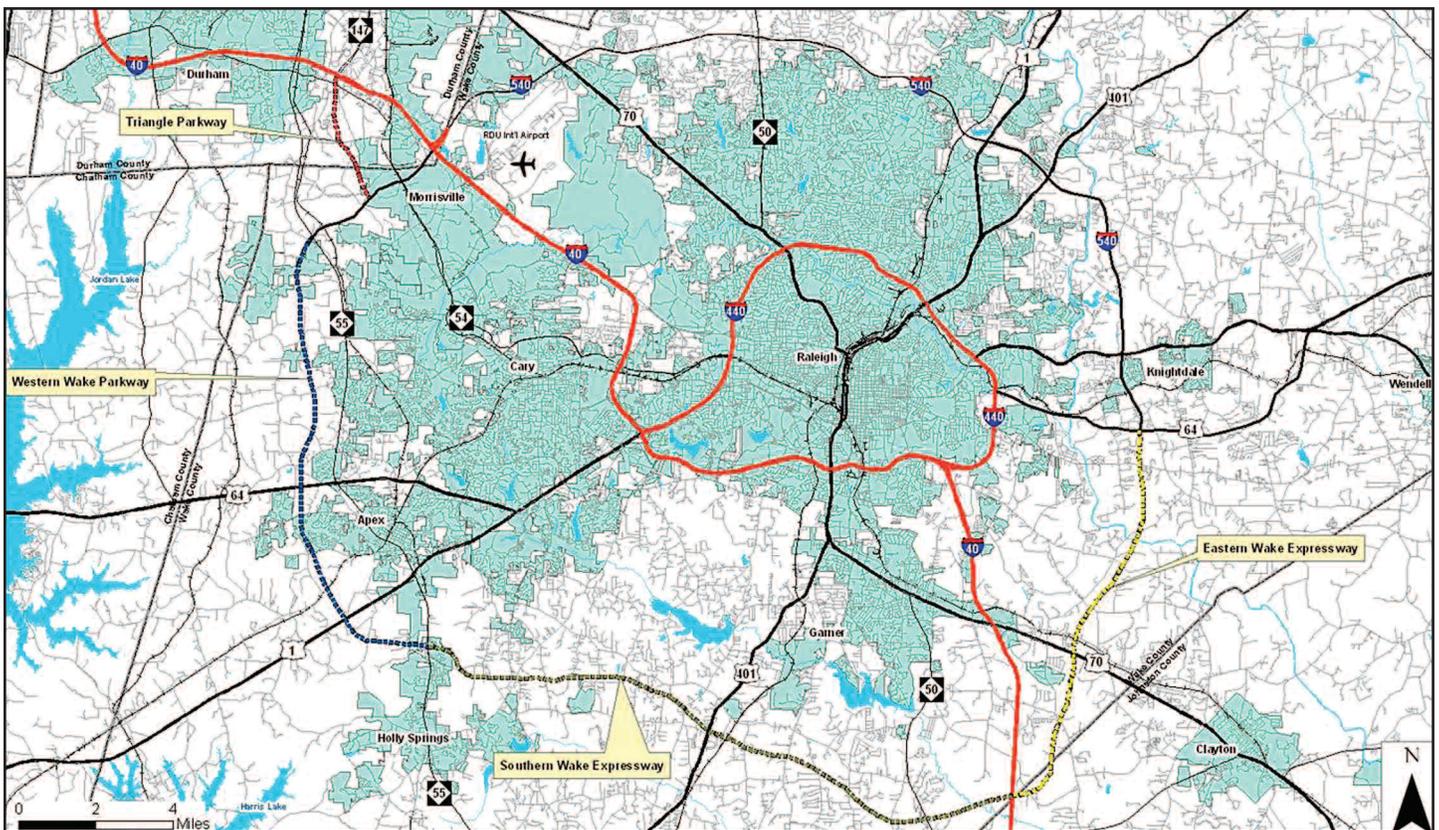




## Triangle Expressway

### Project Description

- The 18.8-mile Triangle Expressway is comprised of three components:
  - Triangle Parkway, extending from NC 147 at I-40 south to the interchange with NC 540.
  - Western Wake Parkway, extending from NC 55 near Research Triangle Park south to the NC 55 Bypass near Holly Springs.
  - The portion of NC 540 extending from NC 54 to NC 55. (In August 2006, the General Assembly approved tolling this section of the Outer Wake Expressway when the rest of the Triangle Expressway opens as a toll facility. Including this section in the expressway system allows the Triangle Parkway and the Western Wake Parkway to function as a contiguous toll facility.)
- The Triangle Expressway will eventually connect with the planned Southern and Eastern Wake Expressways. This will complete the Outer Wake Expressway.
- The Triangle Expressway will be built as an “open road” toll facility. There will be no stopping on the roadway to pay tolls.





## Project Costs

### Triangle Expressway Estimated Project Costs (\$million)

Cost Component	Triangle Parkway	Western Wake	Total Cost
Construction	\$109.8	\$470.7	\$580.5
540P Tolling	9.2		9.2
Stipends	0.2	0.4	0.6
Right-of-Way	27.8	236.1	263.9
Utility Relocation	5.5	17.9	23.4
Administration	1.4	4.5	5.9
Permits & Mitigation	2.3	3.2	5.5
Engineering & Design	6.8	26.6	33.4
Construction Support	10.7	34.5	45.2
Total for Project	\$173.7	\$793.9	\$967.6
Cost of NC-540			108.7
Total (including NC-540)			\$1,076.3

### Triangle Expressway Financing Gap (\$million)

<i>Cost of project</i>	\$967.6
<i>Less borrowed funds</i>	- 650.9
<i>Total gap</i>	\$316.7
<i>Annual gap</i>	\$15

## 2007 Project Milestones

### Local Government Coordination and Public Involvement

- A Local Officials Meeting and Citizens Informational Workshop were held on February 8, 2007 for the Western Wake project.
- In May 2007, the Capital Area Metropolitan Planning Organization and the Durham Chapel Hill Carrboro MPO passed the final endorsements needed by local officials to implement the project as a toll facility.

### Environmental Studies

- A reevaluation of the Environmental Impact Statement (EIS) for Western Wake Parkway was prepared to account for the change in the project scope for the project being implemented as a toll road and to account for changes in the affected environment since the EIS was approved in 2004. This report was completed and approved by NCTA, and the FHWA on September 7, 2007. Since the Annual Report for 2006, the Federal Highway Administration determined a revised Record of Decision (ROD) will not be needed.
- Permit applications to the U.S. Army Corps of Engineers for the Individual Permit for Section 404 of



the Clean Water Act and to the North Carolina Department of Environment and Natural Resources for the Section 401 Water Quality Certification were submitted on August 27, 2007. The U.S. Army Corps of Engineers issued a public notice on September 14, 2007, which ended on October 15, 2007. We anticipate receiving these permits the first quarter of 2008.

## Plans for 2008

### Local Government Coordination and Public Involvement

- A Local Officials Meeting and Design Public Hearing are anticipated to be held in March 2008 for the Triangle Parkway project.

### Environmental Studies

- An Environmental Assessment (EA) is being prepared for the Triangle Parkway and is expected to be approved in January 2008. Following the EA, a Finding of No Significant Impact (FONSI) is anticipated to be approved in April 2008.
- We plan to submit applications for the Section 404 permit and Section 401 certification for the Triangle Parkway in early 2008. We anticipate receiving these permits by May 2008.

## Project Timeline

Environmental Documents Complete	May 2008
Environmental Permits Received	May 2008
Open Construction Bids	June 2008
Award Construction Contracts	August 2008
<i>Open to Traffic</i>	
Triangle Parkway	2010
Western Wake Parkway	2011



## Garden Parkway

### Project Description

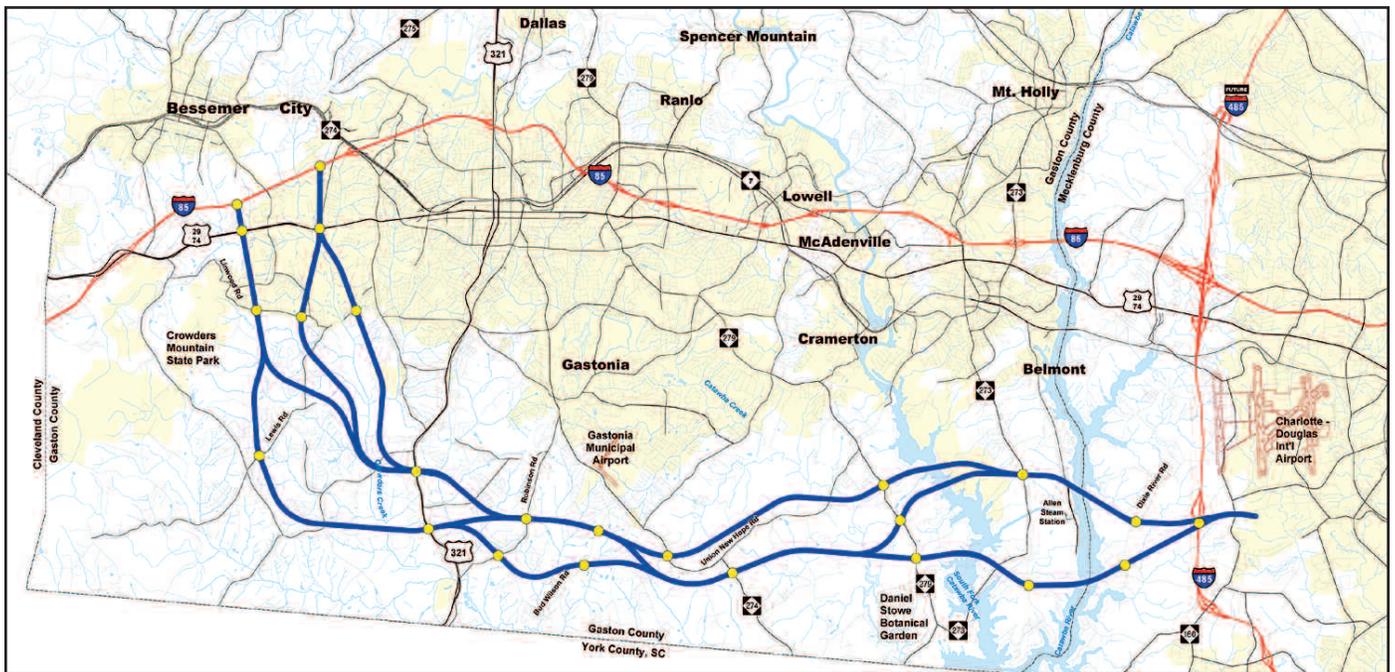
The Garden Parkway is a new roadway from I-85 west of Gastonia to I-485/NC 160 in Mecklenburg County, a distance of approximately 21.5 miles. Major bridges over the Catawba and South Fork Rivers are included in the project cost estimates.

As discussed in the Annual Report for 2006 and Mid-Year Report for 2007, the magnitude of the project, the preliminary traffic and revenue studies and financial analyses revealed the need to assess building the project in phases. Therefore, three scenarios (A, B and C) were established and the financial viability of each scenario was assessed.

- Scenario A extends approximately 5.7 miles from I-485/NC 160 near Charlotte Douglas International Airport west to NC 279. This includes construction of bridges across the Catawba and South Fork Rivers. These bridges will be widened in the future to accommodate the future extension of the project.
- Scenario B includes Scenario A, plus an additional 8.4 miles between NC 279 west to US 321, for a total length of approximately 14.1 miles.
- Scenario C is the complete project and is approximately 21.5 miles from I-485 near Charlotte Douglas International Airport to I-85.

By offering three scenarios, the NC General Assembly can decide the funding level and the scenario to be built.

In a resolution passed in March 2007, the Gaston Urban Area MPO requested that the project name be changed from Gaston East-West Connector to “Garden Parkway” in local and state documents. An adjacent project (TIP R-2608), also locally called the Garden Parkway, is being renamed “US 321 Bypass.” NCTA is awaiting this change to be reflected in the NCDOT STIP before completing the adoption of the name “Garden Parkway” for this project.





## Project Costs

The following table shows the project cost by scenario. Note that Scenario B includes Scenario A and its associated costs. Scenario C includes both Scenarios A and B and their associated costs.

### Garden Parkway Estimated Project Costs (\$million)

Cost Component	Scenario A	Scenario B	Scenario C
Construction	\$ 272.6	\$ 499.3	\$ 831.8
Right-of-Way	84.4	161.5	261.7
Other	52.7	104.6	161.7
Total by Scenario	<u>\$ 409.7</u>	<u>\$ 765.4</u>	<u>\$1,255.2</u>

### Garden Parkway Financing Gap (\$million)

	Scenario A	Scenario B	Scenario C
Total Gap	\$ 187.7	\$ 418.1	\$ 834.5
Annual Gap	\$ 12.5	\$ 26.0	\$ 54.0

## 2007 Project Milestones

### Local Government Coordination and Public Involvement

- David Joyner briefed the Gaston Chamber of Commerce on May 23, 2007 on the project status, schedule and accomplishments.
- A small group meeting was held on Saturday, November 17, 2007 with approximately 25 residents of the Garrison Road area to discuss the project and answer questions from the public. William Current, Sr. (NC House District 109) and Joe Carpenter (Gaston County Commissioner) were also in attendance.

### Environmental Studies

- Field surveys to identify natural resources and historic, architectural, and archaeological resources within the corridors for the detailed study alternatives are complete. Wetland and stream field surveys have been completed for approximately 14,000 acres for the detailed study alternative corridors. Agency coordination regarding these surveys is complete. A report detailing the natural environment features—a Natural Resources Technical Report—is complete. A field tour visiting numerous wetland and stream sites was held on December 17 and 18, 2007. Many state and federal environmental regulatory and resource agencies were in attendance. The senior vice-president of the Gaston Chamber attended as well. Historic and archaeological resource studies have been completed. There are approximately 19 properties identified to be potentially eligible for the National Register of Historic Places. Coordination with the State Historic Preservation Office is underway regarding these studies.
- Results from the geotechnical investigation of the fly ash basin at the Allen Steam Station revealed substantial concerns with a segment (segment “K1D”) under consideration for the proposed project and NCTA has recommended eliminating this segment from consideration. The elimination of this segment results in the number of detailed study alternatives being reduced from 16 to 12 alternatives.
- PBS&J, the consulting firm under contract to NCTA to conduct the NEPA studies, completed preliminary designs for the detailed study alternatives. Efforts to avoid and minimize impacts to the natural and human environment were part of this design effort.



- This project was initiated by NCDOT in 2002 and is following the Merger '01 environmental review process. NCDOT achieved Concurrence Point 1 (Purpose and Need) and Concurrence Point 2 (Detailed Study Alternatives) prior to transferring the project to NCTA.
- After reviewing the financial projections for the Garden Parkway, NCTA developed three scenarios for purposes of financial feasibility, as discussed in the project description above. However, the environmental impact studies in compliance with NEPA regulations are proceeding for the entire project. Conducting NEPA for the entire project allows NCTA to complete the environmental compliance process and identify a preferred corridor for the entire project, bringing any uncertainties to resolution regarding the route the facility will take. Additionally, NCTA will be able to file a corridor protection map for the entire project and thus protect potential future rights-of-way from development. This approach benefits the community and the state by allowing NCTA to construct one section of the project at a time, yet preserve the location of future sections.
- This is one of the first NCTA projects planned exclusively for electronic toll collection. Users of this facility will not have to stop or slow down to pay a toll. This benefit will provide superior service to NCTA customers. This decision also minimizes impacts to the environment because the footprint of the project will not be expanded to accommodate cash collection at toll plazas.

## Plans for 2008

### Local Government Coordination and Public Involvement

- Citizens Informational Workshops will be held, most likely in the second quarter of 2008 to give residents an update on the project and to receive comments and answer questions from the public.

### Environmental Studies

- Over the next several months, information from the completed environmental and historic surveys will be used to further refine and potentially eliminate some of the detailed study alternatives now under consideration.
- The project development, environmental review and engineering studies will continue during 2008. These studies will include community impact analyses and air and noise studies, along with indirect and cumulative impacts evaluations. Coordination with resource and regulatory agencies will continue.
- We will also complete the Draft Environmental Impact Statement and circulate the document within NCTA, NCDOT and FHWA leading up to its scheduled approval in January 2009.

## Project Timeline

Issue Draft Environmental Impact Statement	January 2009
Issue Final Environmental Impact Statement	May 2010
Issue Record of Decision	October 2010
Award construction contract	December 2010



# Monroe Connector/Bypass

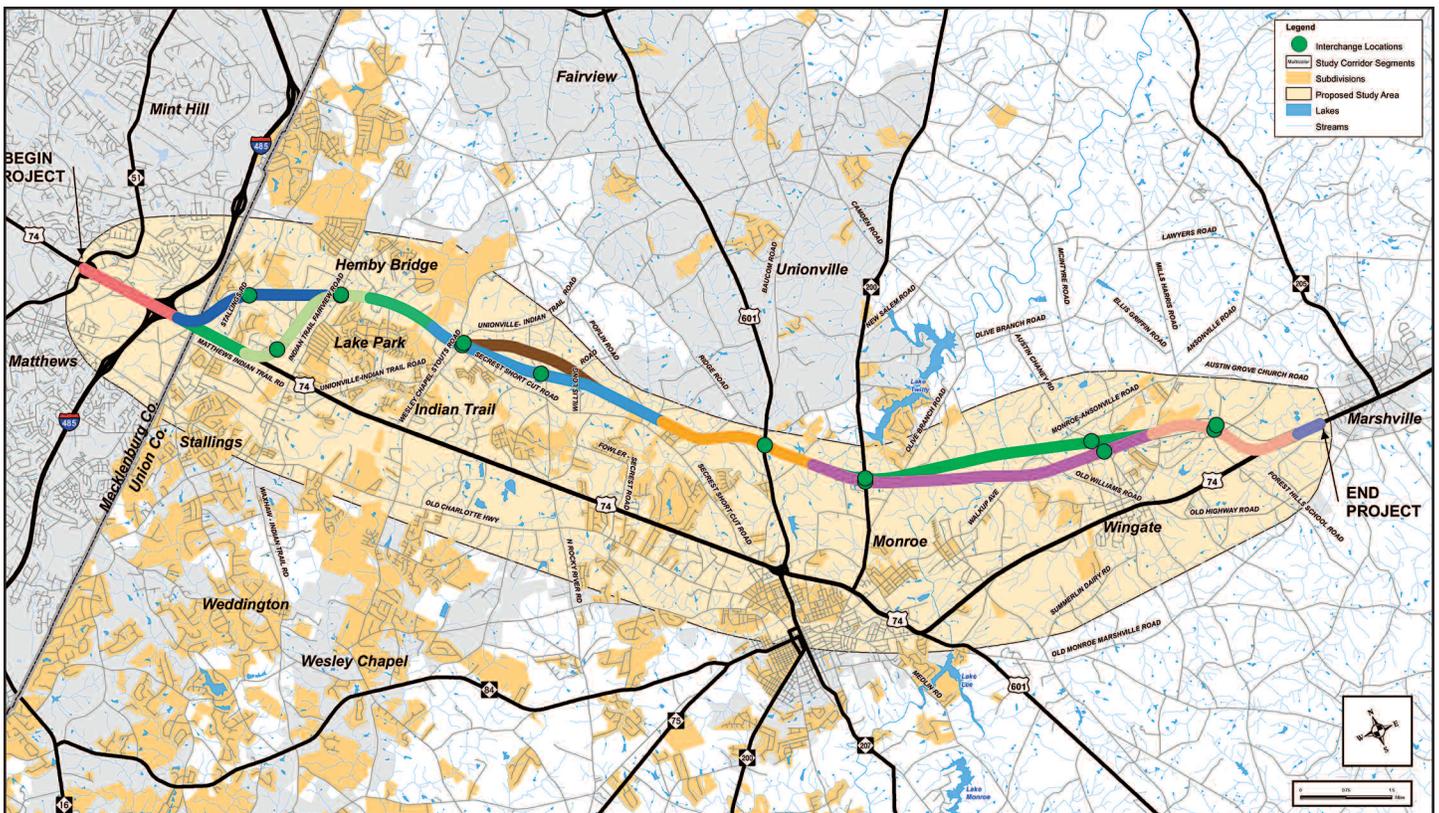
## Project Description

This project is a combination of two projects previously analyzed by NCDOT and encompasses a 21.1-mile corridor from I-485 near Matthews in Mecklenburg County to US 74 west of Marshville in Union County.

At the request of the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) and NCDOT Board members from the area, NCTA has undertaken the NEPA work on the Monroe Connector and the Monroe Bypass as a single project. At the onset of the NCTA studies, MUMPO was still considering whether to build the project as a single toll project or to build the Connector section as a toll project and the Bypass section as a non-toll project. In September 2007, MUMPO decided to implement the entire project as a toll facility.

NCTA analyzed the two projects separately as well as combined for financial feasibility. Two scenarios were analyzed in the studies:

- Scenario 1 assumes both the Monroe Connector and the Monroe Bypass are toll facilities.
- Scenario 2 assumes the Monroe Connector is a toll facility and the Monroe Bypass is a toll-free facility.





## Projected Costs

The following table shows the project costs for the Monroe Connector, the Monroe Bypass and the combined project.

### Monroe Connector/Bypass Estimated Project Costs (\$million)

Cost Component	Cost
Construction	\$469.8
Right-of-Way	40.9
Utility Relocation	7.0
Permits and Mitigation	6.5
Engineering and Design	29.0
Inspection and Testing	26.3
Total	\$579.5

### Monroe Connector/Bypass Financing Gap (\$million)

Cost of project	\$579.5
Less borrowed funds	- 399.5
Total gap	\$180.0
Annual gap	\$ 15.0

This current estimate includes capital costs increase of \$26.3 million and the gap may increase by a like amount. The financial analysis is currently in process.

## 2007 Project Milestones

### Local Government Coordination and Public Involvement

- Representatives of NCTA attended the MUMPO Technical Coordination Committee meeting on April 5, 2007 and presented the results of the preliminary financial analysis. The analysis looked at two scenarios—Scenario 1 is Connector & Bypass both tolled; Scenario 2 is Connector toll and Bypass non-toll. NCTA also attended the MUMPO Transportation Advisory Committee meeting on May 16, 2007 to present this information. NCTA requested that MUMPO make a determination on which scenario to move forward with in the summer of 2007. The decision has implications on the preliminary engineering/environmental study schedule, as well as on construction schedules and funding strategies for the project. In September 2007, MUMPO endorsed tolling the entire facility.
- NCTA participated in monthly MUMPO TCC meetings and MUMPO meetings in May, July, September and November 2007.
- Citizens Informational Workshops were held June 25 and 26, 2007 to present information and get public feedback on the combined project study, including the project study area, preliminary purpose and need statement, and preliminary alternatives. MUMPO also used these workshops as an opportunity to get public feedback regarding the toll aspect of the project to facilitate its decision on whether or not to toll the Bypass section of the project. Approximately 400 people attended the series of workshops.



- A Local Officials meeting was held in the morning before the June 25 workshop. Over 40 local officials and local government staff attended this meeting.
- A substantial amount of public involvement took place in 2007. The following is a list of meetings that NCTA attended to discuss the project, solicit input from the public and answer questions regarding the project.

- Local Officials Scoping meeting – February 9, 2007
- Local Planners meeting – May 24, 2007
- Small Group meeting with the Fairhaven subdivision – August 2, 2007
- Union County Commissioners meeting – August 20, 2007
- Meeting with Lennar Homes (builders of Fairhaven subdivision) – August 21, 2007
- Monroe City Council meeting – August 21, 2007
- MUMPO TCC working group meeting – September 6, 2007
- Small Group meeting with the Bonterra subdivision – September 6, 2007
- Indian Trail Town Council meeting – September 11, 2007
- Rocky River Rural Planning Organization meeting – September 20, 2007
- Union County Planning Board Steering Committee meeting – November 20, 2007
- Monroe City Council meeting – November 20, 2007
- Stallings Town Council community meeting – December 13, 2007

## **Environmental Studies**

- A notice of intent indicating that NCTA would prepare an Environmental Impact Statement for the Monroe Connector/Bypass project was published in the Federal Register in January 2007.
- A draft Statement of Purpose and Need was prepared in early 2007 to demonstrate the transportation needs of the study area. This report serves as the foundation for evaluating what alternatives to study in detail for the project.
- NCTA completed the Draft Alternatives Development and Analysis Report in November 2007. The report presents a three-step screening of these alternatives and culminates with NCTA's recommendation to study 16 of these alternatives in detail. Additional design work and human and natural environment data collection and assessments will be conducted for these 16 detailed study alternatives. This report was made available for public and agency comments. Approximately 25,000 newsletters were distributed to the public to notify them that the report is available for public comment on NCTA's website.
- This is one of the first NCTA projects planned exclusively for electronic toll collection. Therefore, users of this facility will not have to stop or slow down to pay a toll. This benefit will provide a superior service to NCTA's customers using the facility. This decision also minimizes impacts to the environment because the footprint of the project will not be expanded to accommodate cash collection at toll plazas.



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## Plans for 2008

### Environmental Studies

- In early 2008, the NCTA plans to reach resolution with state and federal environmental regulatory and resource agencies on the alternatives to study in detail. Following the final selection of the detailed study alternatives, NCTA will complete functional designs for each alternative. Wetland and stream delineations will be completed and used in the development of the functional designs to avoid and minimize impacts to these resources.

### Project Timeline

Since the Annual Report for 2006, a project timeline has been developed. This is an aggressive and optimistic schedule; NCTA is making every effort to meet this schedule considering the amount of studies completed previously by NCDOT.

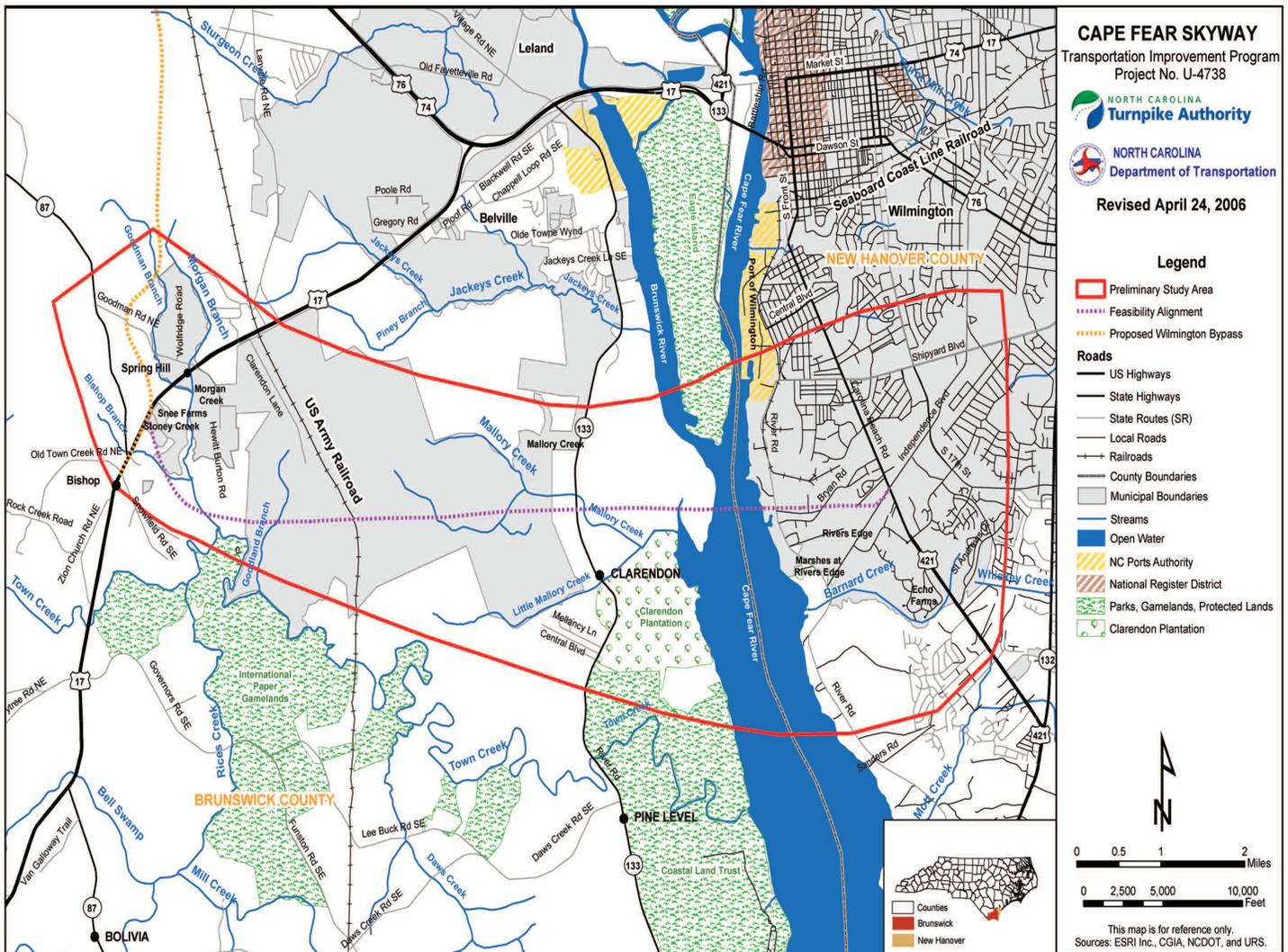
Issue Draft Environmental Impact Statement	July 2008
Issue Final Environmental Impact Statement	May 2009
Issue Record of Decision	July 2009
Award Construction Contract	December 2009



# Cape Fear Skyway

## Project Description

The Cape Fear Skyway is a new roadway facility from the US 17 Bypass to US 421 near Wilmington, including a bridge over the Cape Fear River. The project is located in Brunswick and New Hanover Counties and is approximately 9.5 miles long.





## Project Costs

### Cape Fear Skyway Estimated Project Costs (\$million)

Cost Component	<u>Cost</u>
Construction	\$665.9
Right-of-Way	196.7
Other	<u>108.9</u>
Total	\$971.5

### Cape Fear Skyway Financing Gap (\$million)

Cost of project	\$971.5
Less borrowed funds	<u>- 532.5</u>
Total gap	\$439.0
Annual gap	\$ 39.0

## 2007 Project Milestones

### Environmental Studies

- The development of the Purpose and Need Statement and preliminary alternatives is progressing now that the Preliminary Traffic and Revenue study and financial analysis has been completed.

## Plans for 2008

### Local Government Coordination and Public Involvement

- Conduct public workshops and local officials meeting soliciting public comments on the Statement of Purpose and Need and preliminary alternatives

### Environmental Studies

- Develop project coordination plan in compliance with Section 6002 of SAFETEA-LU
- Prepare Statement of Purpose and Need
- Develop and analyze preliminary alternative routes
- Determine detailed study alternatives
- Prepare preliminary design for detailed study alternatives
- Conduct environmental studies for detailed study alternatives
- Update right-of-way cost estimate
- Identify potential interchange locations
- Meet with U.S. Coast Guard
- Outline plan for agency coordination
- Continue public involvement and agency coordination efforts

## Project Timeline

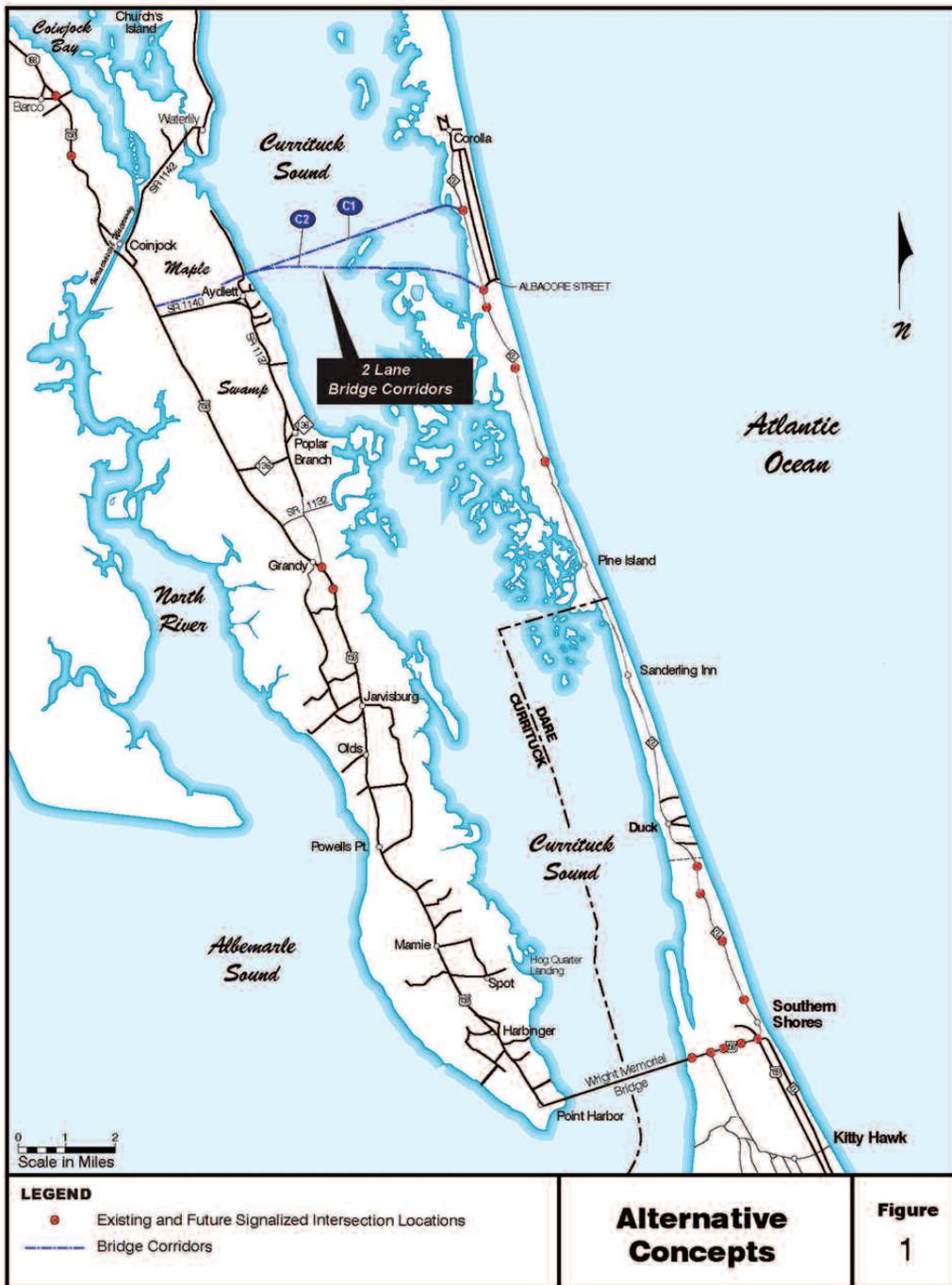
Issue Draft Environmental Impact Statement	December 2008
Issue Draft Environmental Impact Statement	June 2009
Issue Record of Decision	September 2009
Award construction contract	November 2009



# Mid-Currituck Bridge

## Project Description

The Mid-Currituck Bridge project is a new facility, approximately 7 miles in length, from US 158 on the Currituck County mainland to NC 12 on the Currituck County outer banks. The majority of the project will be one structure, including bridging the Currituck Sound and Maple Swamp.





## Project Costs

### Mid-Currituck Bridge Estimated Project Costs (\$million)

Cost Component	<u>Cost</u>
Construction	\$379.8
Right-of-Way	25.0
Other	<u>54.8</u>
Total	\$459.6

### Mid-Currituck Bridge Financing Gap (\$million)

Cost of project	\$459.6
Less borrowed funds	<u>- 260.7</u>
Total gap	\$198.9
Annual gap	\$ 15.6

## 2007 Project Milestones

### Environmental Studies

- A project coordination plan outlining the environmental review process has been developed with input from the participating and cooperating agencies on the project and accepted by FHWA.
- Based on the projected traffic volumes through year 2035, NCTA has made the decision to plan, design and construct a two-lane bridge. Two-three-and-four lane bridges were previously considered until the traffic forecasts were completed.
- Six bridge corridors were previously considered by NCDOT in the 1998 DEIS. These consisted of three termini on the Currituck County mainland and two termini on the Currituck County outer banks. A field tour visiting the areas of these bridge alternatives was held on July 10, 2007. Many state and federal environmental regulatory and resource agencies were in attendance. Based on comments received during these field visits and the quality of the natural environment (Maple Swamp), two of the three termini on the Currituck County mainland were recommended for elimination. This results in a reduction in the number of bridge alternatives being considered from six to two.
- The alternatives NCTA recommends for detailed study include a Mid-Currituck Bridge as well as:
  - Adding a third northbound lane on US 158 from NC 168 to Aydlett Road (SR 1140) as a hurricane evacuation improvement and,
  - Widening NC 12 to four lanes for two to four miles from south of the intersection with a Mid-Currituck Bridge to Currituck Club Road.
  - A possible third element of the project is adding a third northbound (westbound) lane on US 158 between the Wright Memorial Bridge and NC 12 as an additional hurricane evacuation improvement.



- We continue to work with East Carolina University (ECU) and strive to get the most out of the opportunities from the ECU Earmark and Contract. The Federal Surface Transportation Reauthorization Act (SAFETEA-LU) earmarked \$2 million (\$1.718 million after rescission) for ECU to “perform a study to find the feasibility of constructing a Mid-Currituck Sound Bridge.” The earmark did not identify the specific manner in which ECU would participate in the NEPA project development process for the proposed bridge. Therefore, NCTA held numerous meetings with ECU representatives to develop meaningful ways for ECU to participate. The first work products from ECU are due in January 2008.

## **Plans for 2008**

- A Draft Alternative Study Report is scheduled to be complete in early 2008. This report will document all of the alternatives that were developed for consideration of the project and will culminate with NCTA’s recommendation for detailed study alternatives. Additional design work and human and natural environment data collection and assessments will be conducted for these detailed study alternatives. This report was made available for public and agency comments. The public will be sent a project mailing (newsletter or postcard) to notify them that this report is available for public comment on NCTA’s website.
- Citizens Informational Workshops are anticipated to be scheduled for the first quarter of 2008 to present information and get public feedback on the project study area, statement of purpose and need, and preliminary alternatives.
- The second set of work tasks for ECU will be performed through the end of 2008.

## **Project Timeline**

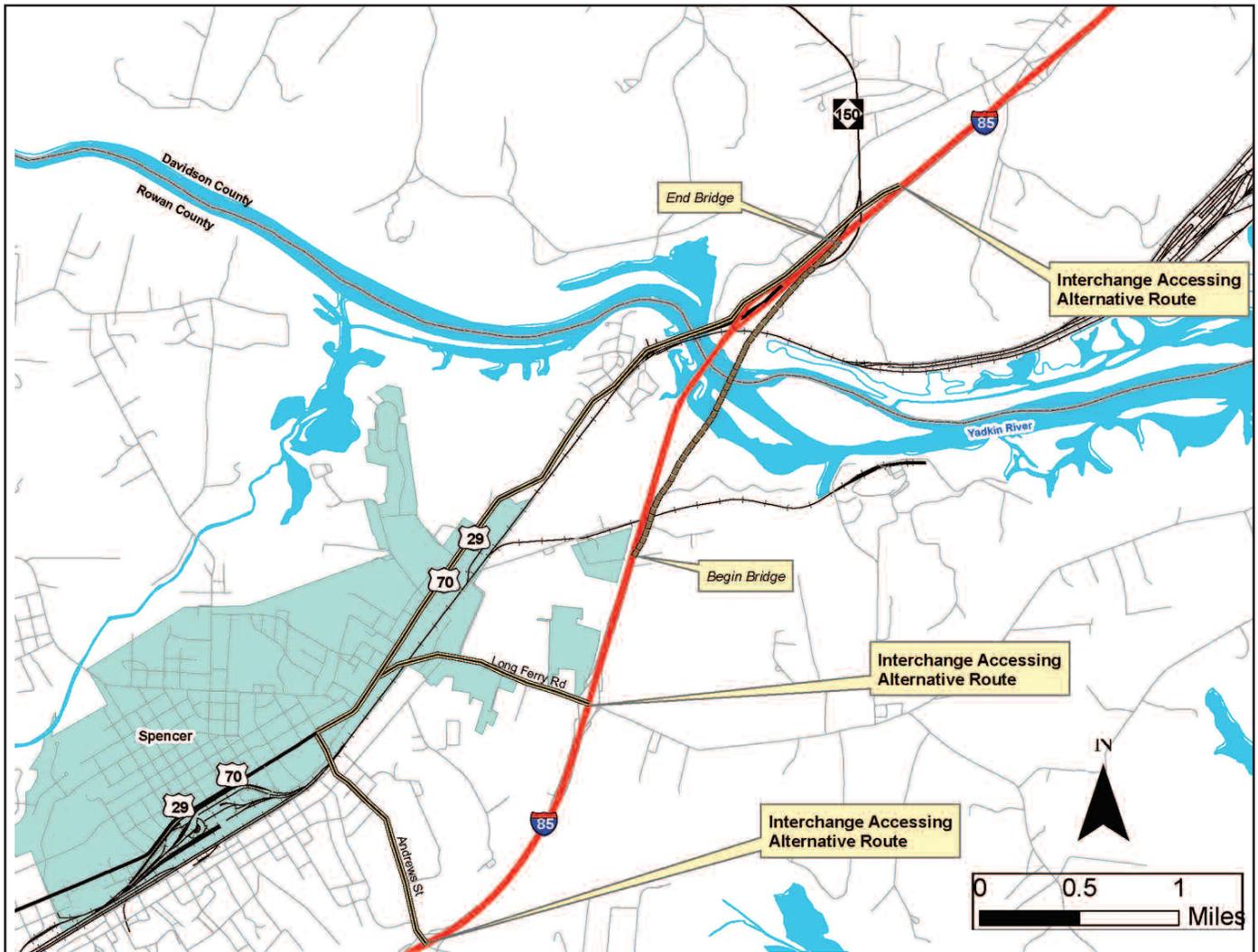
Issue Draft Environmental Impact Statement	July 2008
Issue Final Environmental Impact Statement	May 2009
Issue Record of Decision	August 2009
Award construction contract	October 2009



## Yadkin River Bridge

### Project Description

- This project is a 6.8 mile section of I-85 near Spencer, which includes replacement of the current Yadkin River Bridge structure.
- The present bridge structure was built in 1955 and has a maximum life expectancy through 2010. Due to lack of funding, NCDOT was unable to open construction bids in 2003. We were approached in the Spring of 2006 regarding the possibility of constructing the project as a tolled road.
- If the project is approved, we plan to add two additional lanes in each direction and construct two new parallel structures over the Yadkin River. The project is estimated to cost \$391 million if the project is completed by 2013.
- Approval by FHWA and approval by the Turnpike Authority Board of Directors is required in order for us to officially adopt the Yadkin River Bridge project.





## Appendix A

### NCTA Audit Report

The Annual Report specifies that the Audit Report for the previous year be included. The audit report for FY 2007 is not yet available, but will be sent as soon as it is made available to NCTA.

## Appendix B

### NCTA Annual Budget

The following table summarizes the Annual Budget for FY 2008, including mid-year budget adjustments and the proposed budget for FY 2009.

The FY 2009 budget amounts have been approved by the NCTA Board, but have not yet been approved by the NCDOT Board. NCDOT Board review/approval is scheduled for June 2008.

### NCTA Annual Budgets for FY 2008 & FY 2009

<b>Current Projects</b>	<b>FY 2008 Budget Amount (\$000)</b>	<b>Mid-Year Budget Adjustments</b>	<b>Revised FY 2008 Budget</b>	<b>FY09 Budget Amount (\$000)</b>	<b>FY Change Increase / (Decrease)</b>
Cape Fear Skyway	\$1,264.6		\$1,264.6	\$5,350.4	\$4,085.8
Garden Parkway	3,535.6		3,535.6	4,479.1	943.5
Mid-Currituck Bridge	2,874.7		2,874.7	5,870.6	2,995.9
Monroe Connector/Bypass	2,011.3		2,011.3	6,836.7	4,825.4
Triangle Expressway	8,652.0		8,652.0	1,906.4	(6,745.6)
<b>Total Project Budget</b>	<b>\$18,338.2</b>		<b>\$18,338.2</b>	<b>\$24,443.2</b>	<b>\$6,105.0</b>
<b>Total Admin. Budget</b>	<b>\$6,548.5</b>	<b>(\$1,550.0)</b>	<b>\$4,998.5</b>	<b>\$6,294.2</b>	<b>1,295.7</b>
<b>Total APW with Existing Projects</b>	<b>\$24,886.7</b>	<b>(\$1,550.0)</b>	<b>\$23,336.7</b>	<b>\$30,737.4</b>	<b>\$7,400.7</b>
<b>Potential New Projects</b>					
Southern & Eastern Wake	\$917.1	(\$917.1)	0.0	\$2,619.9	\$2,619.9
Yadkin River Bridge	3,474.6	(\$850.0)	2,624.6	5,010.8	2,386.2
Other Projects	602.3	(\$433.1)	169.2	119.6	(49.6)
<b>Total New Projects</b>	<b>\$4,994.0</b>	<b>(\$2,200.2)</b>	<b>\$2,793.8</b>	<b>\$7,750.3</b>	<b>\$4,956.5</b>
<b>Total APW with New Projects</b>	<b>\$29,880.7</b>	<b>(\$3,750.2)</b>	<b>\$26,130.5</b>	<b>\$38,487.7</b>	<b>\$12,357.2</b>