

Financing, Building, and Operating

# Tomorrow's Roads *Today*

2008 Annual Report to the Joint Legislative Transportation Oversight Committee



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# THE TURNPIKE AUTHORITY BOARD OF DIRECTORS



**Lyndo Tippett** is Secretary of the North Carolina Department of Transportation. Previously he served as a member of the North Carolina Board of Transportation (BOT) for eight years. While on the BOT, he served as Chairman of the Audit and Contract Committee. Mr. Tippett has been a partner with the accounting firm Tippett, Padrick, Bryan, Merritt and Raynor, CPAs since 1976. Prior to that, he was Vice-President and CEO of Bybon, Inc., a company with retail, manufacturing, farming and real estate operations. Secretary Tippett serves as the Chairman of the Authority's Board.



**Lanny Wilson** serves as a member of the North Carolina Board of Transportation and is currently chair of the Board's Motor Vehicles, Access Management, and Transportation Improvement Program committees. He serves as Chair of the Wilmington Metropolitan Planning Organization and is a member of the 21st Century Transportation Committee. He previously served for four years on the North Carolina Real Estate Commission. Mr. Wilson was former General Counsel and Vice President of Boney Wilson & Sons, Inc. and is currently involved in several family-owned and operated businesses. Mr. Wilson is Vice Chairman of the Authority's Board and was appointed by Senator Basnight.

**Robert L. Spencer, Jr.** is Senior Vice President in Commercial Banking for RBC Centura in Charlotte. He has worked for almost 30 years in corporate and commercial banking roles as well as commercial risk management. Mr. Spencer was appointed to the Authority's Board by Senator Basnight.



**Perry R. Safran** is an attorney with Safran Law Offices in Raleigh. Mr. Safran is a member of state and federal law groups and a licensed general contractor. He is currently vice-chairman of the Centennial Authority of the RBC Center and is a former member of the City Council for the City of Raleigh. Mr. Safran serves as the Authority's Secretary/Treasurer and was appointed by Governor Easley.

**William C. Lackey, Jr.** has been engaged in the real estate business for twenty-five years. He served as Vice President of Sales for John Wieland Homes and Neighborhoods, Charlotte region and worked for The Allen Tate Company for over 18 years, with twelve years as Senior Vice President. He served for seven years on the North Carolina Real Estate Commission and currently serves on the North Carolina Housing Finance Agency Board of Directors. Mr. Lackey was appointed to the Authority's Board by Speaker Black.



**Robert D. Teer, Jr.** is president of Teer Associates, a Durham-based real estate development, construction and property management/leasing company. Mr. Teer also serves on the Board of the Raleigh-Durham Airport Authority. Mr. Teer was appointed to the Authority's Board by Governor Easley.

**Anthony Fox** is a partner in the law firm Parker Poe Adams & Bernstein LLP, in Charlotte. Mr. Fox is a former board member for the North Carolina Association of Municipal Attorneys and is active in the North Carolina State Bar where he served as a member on its Board of Continuing Legal Education. He currently is serving a four-year term on the North Carolina Banking Commission. Mr. Fox was appointed to the Authority's Board by Governor Easley.



**Sang J. Hamilton, Sr.** currently serves as a member of the Winton Democratic Precinct Committee, the C.S. Brown Cultural Center & Museum, Twelve Sportsmen's Club, the Newport News Shipyard Commuter's Club, and the Eastern NC Civic Group. Mr. Hamilton has served as a member of the North Carolina Real Estate Commission and was appointed to the Authority's Board by Governor Easley.

**E. David Redwine** has been an independent insurance broker in his family-owned business, Coastal Insurance, for over 35 years. Mr. Redwine was elected to the North Carolina House of Representatives in 1984 and served 10 terms. He was Chairman of the House Appropriations Committee during his tenure. He was elected to the Board of Trustees of East Carolina University in 2003. Mr. Redwine was appointed to the Authority's Board by Speaker Hackney.



2008 has been an extraordinary year for the Turnpike Authority. Much has been accomplished to achieve our mission and advance our projects. Most notable is the General Assembly's approval of \$99 million in gap funds. This support provides not only the leverage needed to complete the financing of our first four projects, it sends a powerful signal to the financial markets, the credit rating agencies, the transportation industry, and the citizens of North Carolina that the state is serious about identifying alternative means of financing and building vital highways even in this difficult economic climate.

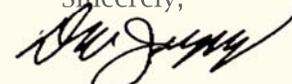
Our first project, the Triangle Expressway, has cleared all the financial, environmental and engineering hurdles on schedule and is virtually ready to go. Construction bids are in at \$62 million below the engineer's estimates. A federal TIFIA loan has been approved for more than \$400 million. The Local Government Commission has given the go-ahead to issue over \$600 million in Capital Appreciation and Current Interest Bonds. But as fate would have it, we have been met with an unforeseen economic hurricane. It has hit the credit markets with an unimaginable force that demands we remain in port until interest rates return to reasonable levels. Nevertheless, I am optimistic that brighter days lie ahead, and as soon as the clouds over the financial markets clear, we are prepared to set sail with the bond offerings needed to construct this highway.



I also am pleased to report that our other projects, the Monroe Connector/Bypass, the Mid-Currituck Bridge, the Garden Parkway and the Cape Fear Skyway remain on schedule and on budget.

We have adopted a strict business-styled approach to meet the challenge of delivering our projects on time. For more than three years, our focus has been developing processes that expedite project delivery, establish new design efficiencies, and uncover more creative means of project finance. To that end, we have incorporated the use of "concept to completion" planning and design processes, adopted SAFETEA-LU's Section 6002 environmental review procedures, developed the framework for the state's first transportation public-private partnership, incorporated preliminary project bidding schedules, designed the first all electronic toll collection system by a startup agency in the US, and formed an international tolling organization to streamline interoperability of toll collection among other states throughout the US and North America.

We are proud of our accomplishments this year. Our staff and our board have been tirelessly focused and dedicated. The General Assembly has done its part. It's now up to us make these projects a reality. We have three facilities scheduled to come on line over the next eighteen months. The environmental reviews must be completed and the financing must be approved. Not only must we assure the public that we can deliver these projects, we must demonstrate that they will be operated and maintained at standards which exceed motorists' expectations or they will never become our customers. Unquestionably, next year will be our most challenging.

Sincerely,  
  
David W. Joyner

# PROJECT SNAPSHOTS:

## On Schedule and On Budget

	Triangle Expressway	Monroe Connector/Bypass	Mid-Currituck Bridge	Garden Parkway (Phase 1)	Cape Fear Skyway
<b>Schedule</b>					
Recommended Route	Complete	Q1 2009	Q2 2009	Q1 2009	Q4 2011
Final Route	Complete	Q2 2010	Q1 2010	Q4 2010	Q4 2013
Close on Bonds	Q1 2009	Q2 2010	Q2 2010 (1)	Q1 2011	Q4 2013
Begin Construction	Q1 2009	Q2 2010	Q2 2010	Q1 2011	Q4 2013
Open to Traffic	2010-2011	2013	2013	2014	2017
<b>Finance Estimates (in millions)</b>					
Project Cost Estimate	\$967.5	\$755.9	\$659.2	\$910.7	\$971.5
Senior Bonds	\$636.9	\$500.5	\$466.0	\$554.6	\$515.6
TIFIA	\$413.0	\$298.5	\$230.0	\$368.3	\$341.0
Annual Gap	\$25.0	\$24.0	\$15.0	\$35.0	\$45.0 (2)

(1) Execute concession agreement (2) Gap funding for Cape Fear Skyway has not been allocated

Note: The Turnpike Authority continually updates financing estimates for all projects until financing has been secured. Inflationary pressures, fluctuating capital costs, changing revenue estimates, and fluidity in the municipal bond markets are just a handful of the challenges faced when projecting the financing costs of projects over a 40-year period.

### TRIANGLE EXPRESSWAY

The Turnpike Authority is ready to begin construction on the Triangle Expressway. Design-build price proposals have been conditionally accepted and the environmental work is complete. Several commitments of the Plan of Finance have been obtained. All that remains is the bond issuance expected in first quarter of 2009. The Authority is ready to issue bonds and begin construction as soon as the financial markets allow bonds to be sold. *See page 14 for more information.*

### MONROE CONNECTOR/BYPASS

The Turnpike Authority is poised to release its first environmental document, along with its recommended route, for the Monroe Connector/Bypass in the first quarter of 2009. The Authority continues on a record pace for completing the necessary environmental studies to prepare this project for construction. *See page 18 for more information.*

### MID-CURRITUCK BRIDGE

Close to selecting a pre-development partner, the Turnpike Authority is maintaining an aggressive schedule for delivering the Mid-Currituck Bridge project. The required environmental studies are progressing and the project remains on budget on and on schedule. *See page 24 for more information.*

### GARDEN PARKWAY

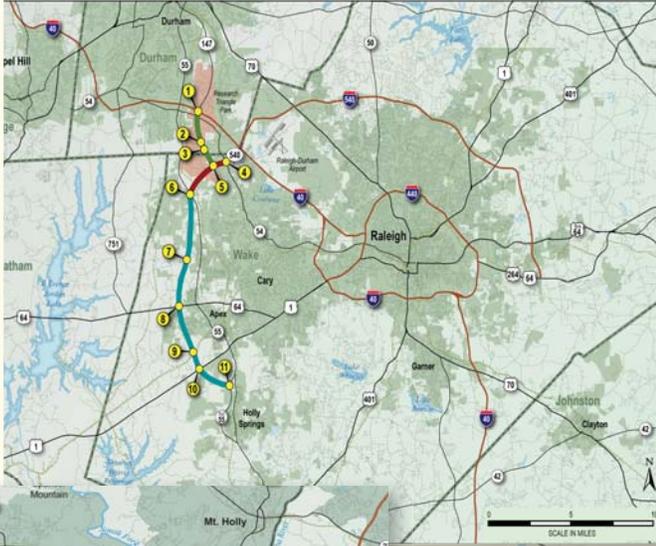
The first environmental document on the Garden Parkway is nearly complete and will be released in the first quarter of 2009. Along with this document, the Turnpike Authority will announce its recommended route. While the Authority is performing planning and environmental studies for the entire 21.5 mile roadway, it is on schedule and on budget to start construction on the first 15-mile phase of the project in early 2011. *See page 20 for more information.*

### CAPE FEAR SKYWAY

A recent change in the local metropolitan planning organization's long-range transportation plan has led the Turnpike Authority to reevaluate the Cape Fear Skyway's completion schedule. Several traffic, design and environmental studies are underway. The Skyway is the only legislatively approved turnpike project that has not received gap funding. *See page 28 for more information.*

# TURNPIKE AUTHORITY PROJECTS

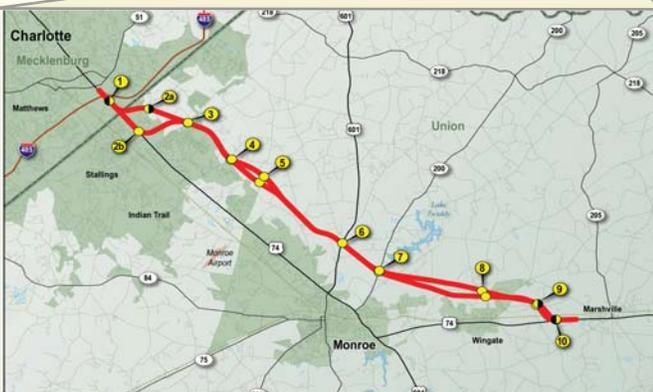
TRIANGLE EXPRESSWAY



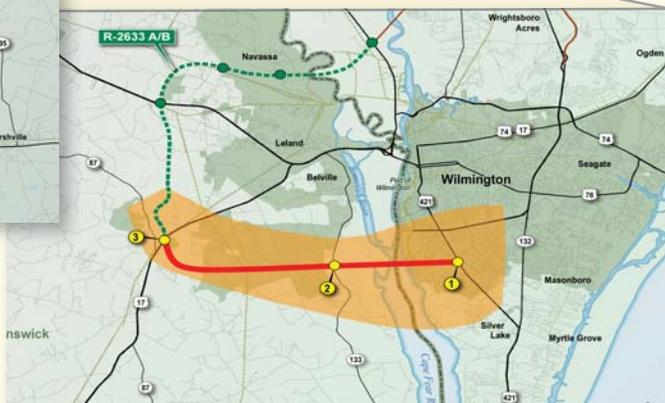
GARDEN PARKWAY



MID-CURRITUCK BRIDGE



MONROE CONNECTOR/BYPASS



CAPE FEAR SKYWAY

# MILESTONES IN 2008

The Turnpike Authority has moved rapidly to accomplish its mission to advance construction of certain strategic highways as efficiently as possible utilizing innovative financing and engineering, advanced toll collection technologies, and expedited environmental reviews.

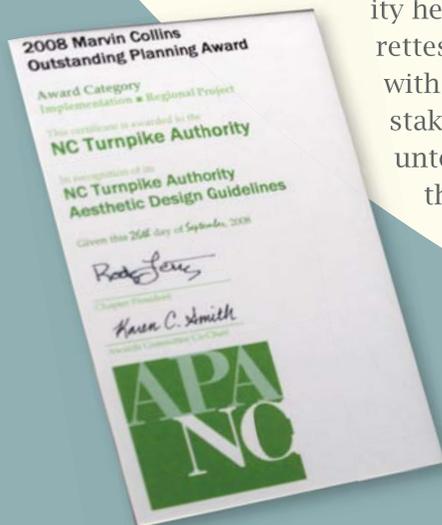
2008 was a hallmark year for the Authority in which it...



**Received \$99 million in gap funding** from the General Assembly to complete the financing plan on four turnpike projects including the Triangle Expressway, the Monroe Connector/Bypass, the Mid-Currituck Bridge, and the Garden Parkway.

**Advanced North Carolina's first modern turnpike project**, the Triangle Expressway, with approval of a federal TIFIA loan, an investment-grade credit rating, and two design-build proposals that were \$62 million below the engineer's estimates.

**Received the 2008 Marvin Collins Outstanding Planning Award** from the North Carolina Chapter of the American Planning Association for unique aesthetic design guidelines. The Authority held a series of charrettes in conjunction with a team of local stakeholders who volunteered to oversee this process.



**Pursued the state's first public-private partnership** on a highway project. The Turnpike Authority is in the final stages of selecting a pre-development partner to work with the Authority to design, build, finance, operate and maintain the Mid-Currituck Bridge.

**Founded the Alliance for Toll Interoperability**, a coalition of more than 30 turnpike authorities, including agencies from Canada and Mexico, to establish uniform, seamless, and interoperable processes that facilitate toll collections from customers in different states.

**Conducted a video tolling technology demonstration**, a first-of-its-kind, attended by manufacturers from all over the world. Knowledge gained from this event will ensure that the Turnpike Authority will employ the latest and most advanced video imaging capabilities available today.

**Advanced project delivery** by utilizing the innovative, "coordination-based" environmental review process, an opportunity established under SAFETEA-LU, Section 6002.

LEADING THE CHANGE

With gas tax revenues declining and construction costs skyrocketing, it is no surprise states across the country are turning to toll revenue for financing new transportation infrastructure. At least 35 states are now planning, building, or operating major highway projects financed with tolls.

Toll-backed securities allow bonds and other private investments to underwrite transportation infrastructure years sooner than would otherwise be possible. As with the gas tax, toll financing is supported through user fees. The difference is that it requires no new taxes while freeing existing transportation resources to be used for other projects. In North Carolina, for example, tolling will remove nearly \$4 billion in projects from the state's transportation balance sheet while providing motorists with a travel choice they would not otherwise have for decades.

Meanwhile, innovative toll collection technologies are offering motorists the use of new state-of-the-art highways with increased efficiencies and improved driving experiences. The industry is entering a renaissance of highway delivery, and North Carolina is helping lead the change.

Wake leaders approve toll road

Leg of I-540 to link RTP, Holly Springs

By BRUCE SICELOFF  
STAFF WRITER

A Wake area planning board gave its final blessing Wednesday to a planned 18.6-mile toll road from Research Triangle Park to Holly Springs, which could start serving commuters and other paying customers by 2011.

The Capital Area Metropolitan Planning Organization also began planning to widen a four-mile Interstate 40 bottleneck in West Raleigh, also by 2011.

Apex Mayor Keith Weatherly cast the only vote against an N.C. Turnpike Authority plan to build the state's first modern toll road through western Wake and RTP. He said the CAMPO board should not approve the proposal until financial details are ironed out.

Citing a negative vote Tuesday by the Apex Town Council, he said it was unfair for the state to collect tolls on part of the I-540 Outer Loop in western Wake after building its northern section toll-free.

"I consider the Outer Loop one project," Weatherly said. "It's a flawed concept to toll only a portion of a project. But I'm not against tolls — I think the concept of user fees is a good one."

Raleigh Mayor Charles Meeker said Wake County has been short-changed in state spending priorities. Raleigh spends \$10 million in city property taxes each year on road improvements that should be state-funded, he said.

But Meeker and other CAMPO board members said residents cannot hope to see the western Wake road built in the next 25 years unless

less tolls are used. All drivers in the area stand to benefit, because the toll road will ease congestion on existing roads, he said.

"They can ride the toll road and pay tolls if they want to, or else they can ride N.C. 55 and have less traffic than they would otherwise have," Meeker said.

The turnpike authority voted Wednesday to call the new 18.6-mile road the Triangle Expressway. It combines an old plan to extend N.C. 147 south through the center of RTP with a section of the Outer Loop from RTP south to Holly Springs.

The two are linked by a short section of I-540, now under construction, to be opened for toll-free traffic by late June. When the rest of the Triangle Expressway is built and starts operation in 2010 and 2011, the state also will start collecting tolls on the I-540 segment that opens next month.

Turnpike officials said that, without CAMPO's approval, they would have been forced by federal regulations to delay plans for the Triangle Expressway by at least two years. If the General Assembly approves a request for \$18 million per year to cover an expected gap between toll revenue and overall costs, the expressway project could start construction in early 2008.

David Joyner, the turnpike authority director, said the state agency would work with CAMPO and local boards in other parts of the state to help ease public concerns about toll roads.

"It's not easy for the locals to understand why they have to be the first ones, they have to pay tolls and others do not," Joyner told turnpike board members. "But it's part of our job. It's part of the pain we have to get through."

Also Wednesday, the CAMPO board proposed to start work in late 2008 on a \$36 million plan to widen I-40 from four to six lanes on a four-mile stretch between Wade Avenue and Cary. Wake officials are hopeful that the I-40 upgrades will be ratified late this year when the state Board of Transportation updates its plans.

Staff writer Bruce Sicehoff  
can be reached at 829-4527 or

Toll links would speed growth in south Wake

NW Wake toll road gets House nod

Turnpikes would get us moving again  
Toll roads take cashless route

They'll be watching you, but it can save you time

Triangle toll road closer to turning dirt

# LEADING THE CHANGE: ELECTRONIC TOLL COLLECTION

All electronic toll collection (ETC) is the process of collecting tolls without the use of toll booths or gates or otherwise stopping to pay a toll. Gone are the traditional toll plazas where drivers toss coins into a bucket. Instead, customers are identified while traveling at highway speeds through free-flow “toll zones.” To pay their toll, customers can use transponders which are radio-frequency tags that users affix to their windshield and are read from overhead gantries. Customers who choose not to use a transponder are detected at toll zones, and an image of their license plate is captured. These customers pay their tolls by establishing a pre-paid video account or receive a bill in the mail.

## **To conveniently pay their toll customers can:**

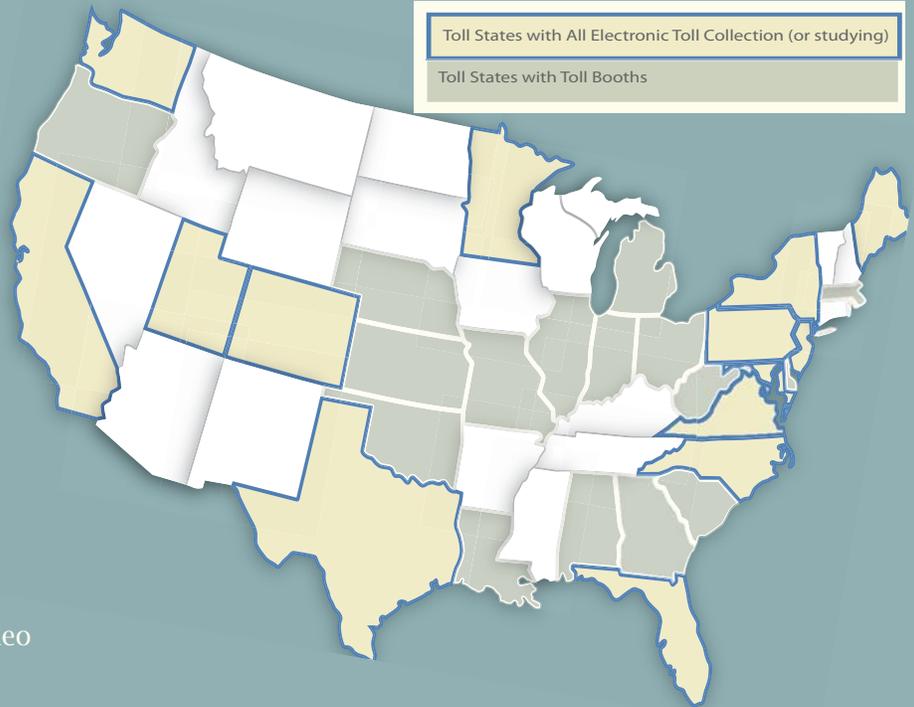
- *Set up pre-paid accounts that can be established and maintained using cash, check, or credit card.*
- *Receive bills in the mail.*
- *Visit the Turnpike Authority’s customer service center, retail outlets, kiosks, or walk-up or drive-up facilities.*

While offering a safer roadway, ETC reduces congestion typically found at outdated barrier-style toll plazas by allowing more vehicles to be processed at the toll collection zones. These systems can also be reconfigured to implement other congestion-mitigation techniques such as variable pricing, a system that charges different toll rates based on the time of day or level of congestion.

## **Delivering Customers to Their Destination Faster**

- *400 cars can pass through a manned toll booth per hour.*
- *2,200 cars can pass through an all electronic toll lane per hour.*

Technology related to the electronic collection of tolls has made significant strides in recent years. In May, the Turnpike Authority held a demonstration of video tolling technology and invited manufacturers from around the world to North Carolina to exhibit the latest



in camera and optical character recognition equipment. Representatives from other turnpike agencies came to watch this first-of-its-kind demonstration.

The demonstrations took place on the Old Reedy Creek Road Bridge which spans Interstate 40, allowing the Turnpike Authority to examine results in real-time and using live traffic. Findings from the “Video Shootout” were incorporated in the Authority’s toll collection system RFP’s issued in October.

In July, the General Assembly enacted toll enforcement legislation allowing the Turnpike Authority to be the first startup agency to use ETC in the US. Other agencies have since joined the Turnpike Authority in adopting electronic tolling with plans to remove toll booths and convert facilities to ETC.



## THE ISSUE: STOPPING TO PAY TOLLS

The biggest complaint among toll road users is having to stop to pay their toll. In 2007, the Turnpike Authority conducted an internationally published study on the costs and benefits of all electronic toll collection, meaning no toll booths and no stopping to pay a toll.



## OUR SOLUTION:

The Turnpike Authority decided that the Triangle Expressway would be an all electronic toll facility.

The decision to pursue all electronic tolling saved an estimated \$60 million dollars in construction and right-of-way costs for the Triangle Expressway as well as long-term savings in operations and maintenance.

## LEADING THE CHANGE: INTER-AGENCY TOLL COLLECTION

The advent of electronic toll collection and the improved efficiency of violation enforcement highlighted the need for timely and accurate sharing of toll account information among states.

Recognizing this need, the Turnpike Authority created the Alliance for Toll Interoperability (ATI), [www.tollinterop.org](http://www.tollinterop.org). ATI was created to promote, research, and implement the seamless collection of tolls from out-of-state motorists. This process will allow existing and new agencies to better utilize today's technologies to operate their facilities while minimizing revenue loss due to unavailable or inaccurate vehicle identification. The availability and transference of this information among states is critical to cost effective, successful toll collection and lower toll rates.



### The Alliance for Toll Interoperability:

- Includes more than 30 participating agencies from throughout the US, Mexico, and Canada.
- Is chaired by the Turnpike Authority's Chief Operations Officer, Jim Eden; Authority's Chief Financial Officer, Grady Rankin, serves as Treasurer.
- Shares funding among participating agencies.
- Will allow agencies to collect tolls more efficiently from out-of-state drivers.
- Will allow Turnpike Authority customers to use their account information on toll facilities in other states.
- Will release its first standard, a video toll information standard, in the first quarter of 2009.



In May 2008, the Turnpike Authority held the "Video Shootout" over I-40 to test cutting-edge camera and license plate recognition technologies.



1800's



Early 1900's



20th Century

## LEADING THE CHANGE: THE EVOLVING BUSINESS OF TOLLING

It is increasingly clear that motor fuel taxes are unable to sustain the level of revenue needed to maintain and expand North Carolina's highway system. Increasing fuel efficiency, declining vehicle miles traveled (VMT), and the introduction of alternative fuel vehicles continue to erode the value of the gas tax as a revenue source.

- **The National Surface Transportation Policy and Revenue Study Commission suggests the gas tax will only be sufficient until 2025.**
- **The National Surface Transportation Infrastructure Financing Commission is considering the expansion of user fees, such as VMT fees and tolling, to replace or supplement gas taxes.**

As interoperability among states becomes a priority and technology advances, the toll industry will see further innovation. Toll agencies in the US and abroad are already experimenting with these changes, and the Turnpike Authority is monitoring developments.

- **Germany and Switzerland have successfully implemented tolling for commercial trucks on major roadways using global positioning system (GPS) on-board units. This free-flow system uses no toll booths and has allowed the implementation of flexible trip pricing based on distance traveled, time of day, and vehicle emission levels.**
- **Interest in and the use of city-wide congestion pricing, which has been deployed in London, Stockholm, and Singapore, is growing.**
- **Ground-breaking traffic management technologies that provide customers real-time traffic information, including up-to-date incident and delay reports, weather alerts and expected trip arrival times are now in use.**

The Turnpike Authority is committed to playing a leadership role in the future of improved toll collection alternatives. These improvements and efficiencies are vital to ensuring that toll operations most effectively provide the revenue needed to serve the citizens of this state.



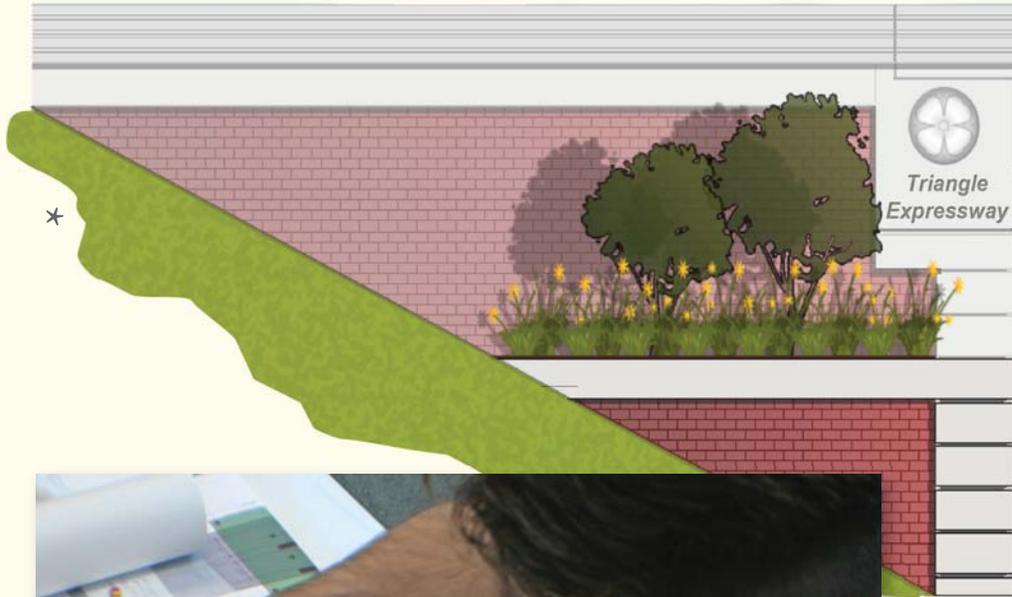
Today



Tomorrow



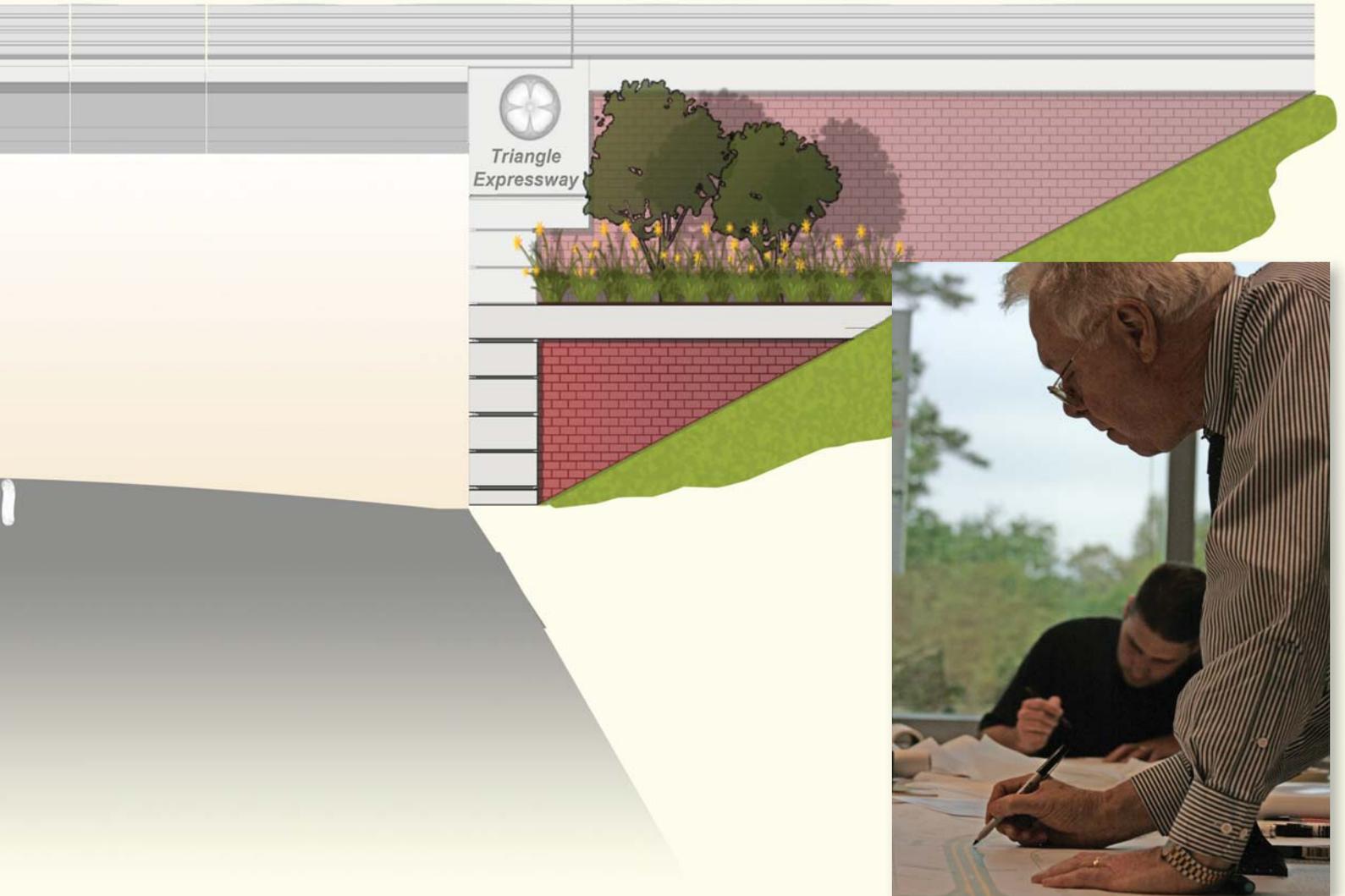
NORTH CAROLINA  
**Turnpike Authority**  
 Welcomes You



\*Renderings provided by Raleigh-Durham Roadbuilders

# CREATING THE STATE'S FIRST TOLL ROAD PROGRAM:

A Look at the Turnpike Authority's Work and Progress in 2008



# A LOOK AT THE STATE'S FIRST MODERN TOLL ROAD

## TRIANGLE EXPRESSWAY

The Triangle Expressway, in Wake and Durham counties, became an official turnpike project in October 2005. Because of the North Carolina Department of Transportation's progress on environmental and engineering studies, the Triangle Expressway will be the Turnpike Authority's first project to open to traffic. The Authority understands the importance of advancing this project responsibly but quickly.

### THE NEED FOR A NEW DESIGN-BUILD PROCESS

- *The Turnpike Authority modified a design-build construction process developed by NCDOT to meet the special needs of a toll-financed road. This modified process allows for the quality-based selection of teams who are best suited for applying engineering core efficiencies and other unique needs of each project.*
- *The Authority recently approved Conditional Notices of Award to design-build teams for the Triangle Parkway and Western Wake Freeway. Both of the selected teams submitted the lowest prices and received the highest technical scores for their respective projects.*
- *As a result, the prevailing proposals were nearly \$62 million below the engineer's estimates due to innovations this design-build process allowed teams to employ.*



The most dynamic challenge before the Turnpike Authority is to find and secure alternative financing. With no credit history, no assets, and no current revenue stream, the challenge has been daunting. To build the Triangle Expressway, the Authority needs approximately \$1 billion in new financing.

### FINANCING THE TRIANGLE EXPRESSWAY

- *In July, the Turnpike Authority received a commitment of \$25 million in gap funding from the General Assembly.*
- *In July, the General Assembly enacted toll enforcement legislation critical to obtaining an investment-grade credit rating and private financing.*
- *The Authority anticipates investment-grade credit ratings from all three credit rating agencies.*
- *In October, the Authority received approval on Triangle Expressway's TIFIA loan application that will provide the project more than \$400 million in federal low interest financing.*
- *The Local Government Commission gave its approval to move forward with the Authority's financing plan for the Triangle Expressway in October.*

As the Triangle Expressway nears construction, the Turnpike Authority has to attract drivers to North Carolina's first modern toll road from the non-tolled roads they currently use. Offering congestion-free travel and significant time savings, the Authority must help potential customers recognize they have an attractive choice.

## ATTRACTING CUSTOMERS

- *The Turnpike Authority developed an aesthetic design process in concert with local stakeholders to give every project a unique North Carolina look and feel.*
- *The Triangle Expressway was designed as an electronic toll collection facility, eliminating the need for drivers to stop to pay tolls while saving an estimated \$60 million dollars in construction and right-of-way costs, as well as long-term savings in operations and maintenance costs.*
- *In October, the Authority received the 2008 Marvin Collins Outstanding Planning Award from the North Carolina Chapter of the American Planning Association for the design guidelines developed for the Triangle Expressway project.*

The Triangle Expressway's success, as the Turnpike Authority's first project, is critical to the state's entire tolling program, and the Authority is committed to keeping the project on schedule and offering the community a desirable transportation alternative.

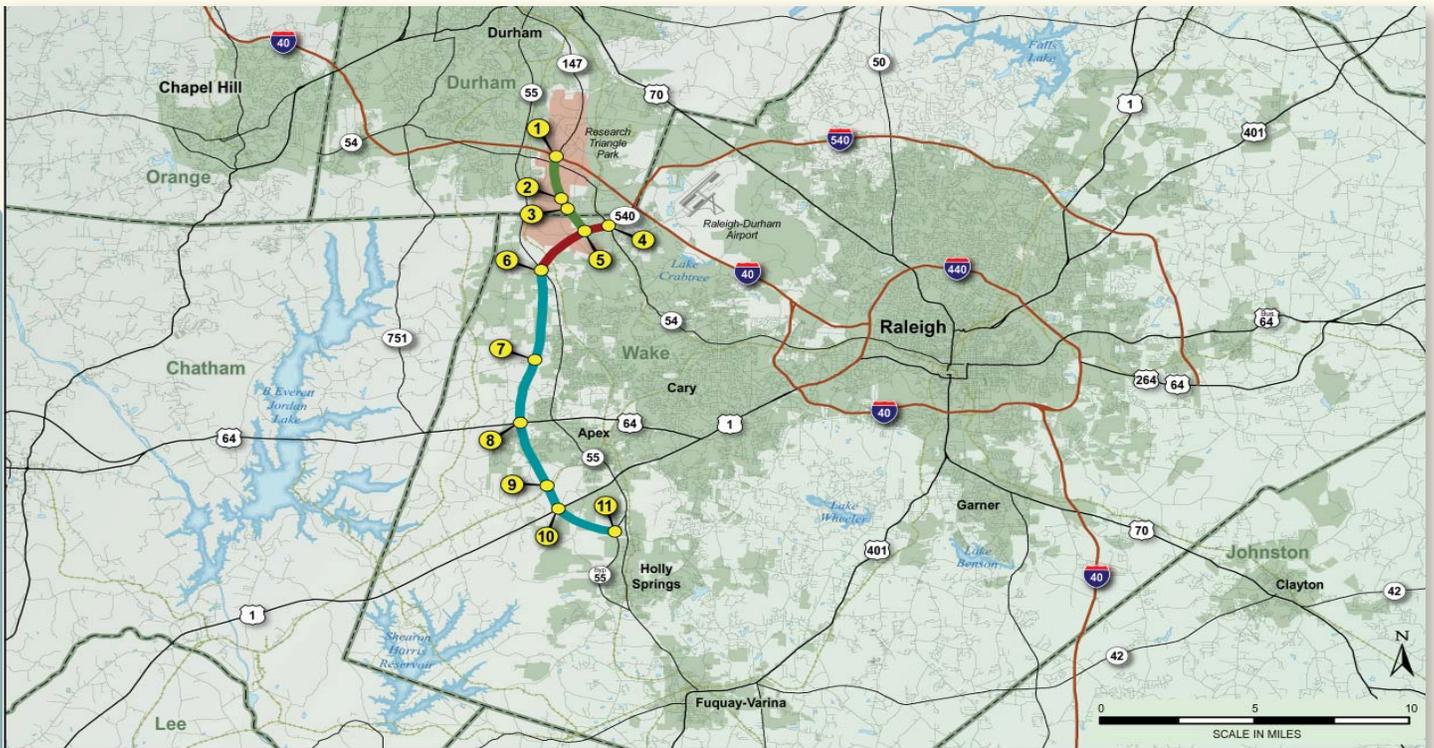


# TRIANGLE EXPRESSWAY

## PROJECT DESCRIPTION

The Triangle Expressway, in Wake and Durham counties, is a new-location roadway from the NC 55 Bypass near Holly Springs to I-40 at NC 147. This toll road system is approximately 18.8 miles in length and is comprised of three projects: Western Wake Freeway, Triangle Parkway, and existing NC 540 between NC 55 and NC 54.

## PROJECT TIMELINE



<p><b>STIP No. U-4763B/R-2000AD/R-2635</b></p> 	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li><span style="color: yellow;">●</span> Proposed Interchange</li> <li><span style="color: green;">—</span> Triangle Parkway (U-4763B)</li> <li><span style="color: red;">—</span> Northern Wake Expressway (R-2000AD)</li> <li><span style="color: blue;">—</span> Wake Western Freeway (R-2635)</li> </ul>	<p><b>INTERCHANGE LOCATIONS</b></p> <ol style="list-style-type: none"> <li>1. I-40/Triangle Expressway</li> <li>2. Hopson Road/Triangle Expressway</li> <li>3. Davis Drive/Triangle Expressway</li> <li>4. NC 54/Triangle Expressway</li> <li>5. NC 540/Triangle Expressway</li> </ol>	<ol style="list-style-type: none"> <li>6. NC 55/Triangle Expressway</li> <li>7. Green Level Road/Triangle Expressway</li> <li>8. US 64/Triangle Expressway</li> <li>9. Old US 1/Triangle Expressway</li> <li>10. US 1/Triangle Expressway</li> <li>11. NC 55 Bypass/Triangle Expressway</li> </ol>
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## PLAN OF FINANCE

Sources (in millions)		Uses (in millions)	
Senior Bonds	\$ 372.4	Net Construction Deposit	\$ 636.9
Appreciation Bonds	\$ 259.4	TIFIA Construction Deposit	\$ 245.0
Premium/(Discount)	\$ 5.1	Interest Fund Deposit	
		Net Capitalized	\$ 40.0
Total Bond Proceeds	\$ 636.9	TIFIA	\$ 25.1
		I-540-P Construction and donated right-of-way	\$ 159.0
NCDOT/RTP Contribution	\$ 159.0	Debt Service Reserve Fund	\$ 63.1
TIFIA Loan	\$ 413.0	Underwriter's Discount	\$ 3.5
		Other Costs of Issuance	\$ 2.1
Total Sources	\$1,209.0	Bond Insurance	34.0
			--
		Total Uses	\$1,209.0

### 2008 PROJECT MILESTONES

#### Triangle Parkway Section

- The Environmental Assessment was approved in February.
- Permit applications for the Section 404 Permit and Section 401 Water Quality Certification were submitted in March.
- A Local Officials Meeting and Public Hearing were held in March.
- A Finding of No Significant Impact was approved in July.
- The Turnpike Authority Board of Directors approved a Conditional Notice of Award to the S.T. Wooten Design-Build Team in August.
- The Section 401 Water Quality Certification was received in November.

#### Western Wake Freeway Section

- The Section 401 Water Quality Certification from the North Carolina Department of Environment and Natural Resources - Division of Water Quality was received in March.
- The Section 404 Permit from the US Army Corps of Engineers was received in April.
- The Turnpike Authority Board of Directors approved a Conditional Notice of Award to the Raleigh-Durham Roadbuilders Design-Build Team (a joint venture of Archer Western Contractors, Ltd. and Granite Construction Company) in August.

#### NC 540 Section

- The Categorical Exclusion for installation of tolling equipment was approved in July.

### PLANS FOR 2009

- *Current interest and capital appreciation bonds are expected to be sold in the first quarter of 2009.*
- *Construction contracts will be executed following the sale of bonds, allowing construction to begin in the first quarter of 2009.*
- *Contracts will be awarded for the toll collection system, tag and reader system, traffic management system, and roadway maintenance by the end of 2009.*
- *Testing of the toll collection system will begin using live traffic on NC 540 in the fourth quarter of 2009.*

# ACCELERATING PROJECT DELIVERY AND ACCOUNTABILITY THROUGH COMMUNITY SUPPORT

## MONROE CONNECTOR/BYPASS AND GARDEN PARKWAY

Declining gas tax revenues, soaring construction costs, and the state's exploding population make it critical that the Turnpike Authority move transportation projects from concept to construction as efficiently and expeditiously as possible. While the Authority adheres to strict environmental and design standards, it also recognizes the overwhelming need to engage the local communities that will ultimately choose to be Turnpike Authority customers.



As with all projects, the Turnpike Authority has been tireless in its efforts to work with the communities surrounding the Monroe Connector/Bypass in Union and Mecklenburg counties as well as those surrounding the Garden Parkway in Gaston and Mecklenburg counties. These two projects are prime examples of the Authority's commitment to being open, transparent and accountable to the public.

**In working with communities on the Monroe Connector/Bypass and Garden Parkway in 2008, the Turnpike Authority:**

- **Held six public input sessions, three on each project, to give residents and local stakeholders an update on the projects and an opportunity to ask questions and make comments.**
- **Conducted a local officials meeting to keep local leaders informed and to seek their counsel.**
- **Presented at seven city council meetings.**
- **Attended at least 22 local planning meetings.**
- **Attended seven community events.**



The Turnpike Authority welcomes the general public to its board meetings.



The Turnpike Authority has many partners in the decision-making process.

While working closely with local elected leaders and the public, the Turnpike Authority’s engineering team is also utilizing the innovative, “coordination-based” environmental review process, an opportunity afforded in SAF-E TEA-LU Section 6002. This new process brings all of the federal and state resource and regulatory environmental agencies together, allowing the Authority to address their concerns while project development continues. By dealing with issues early in the process, the Authority is moving environmental reviews and studies more efficiently and expeditiously without compromising the environmental integrity of the projects.

Thousands of people have attended Turnpike Authority public input events for the Monroe Connector/Bypass and the Garden Parkway this year alone. With them have come thousands of comments that have been reviewed and considered. It is this openness and public involvement that will ensure the Turnpike Authority meets its responsibilities to local communities and the state.

### EXPEDITED SECTION 6002 ENVIRONMENTAL REVIEW

1st Year	Develop Purpose and Need Define Study Area Develop Preliminary Alternatives
2nd Year	Perform Detailed Field Surveys Prepare Engineering Designs Conduct Environmental Analyses
3rd Year	Prepare Draft Environmental Impact Statement Hold Public Hearings Review Comments Select Preferred Alternative
4th Year	Prepare Final Environmental Impact Statement Issue Record of Decision Continue Public Involvement

#### ***Faster Project Delivery***

*Rather than taking six to ten years, it will have taken the Turnpike Authority just two years to produce the Draft Environmental Impact Statement and release its recommended route for the Monroe Connector/Bypass.*

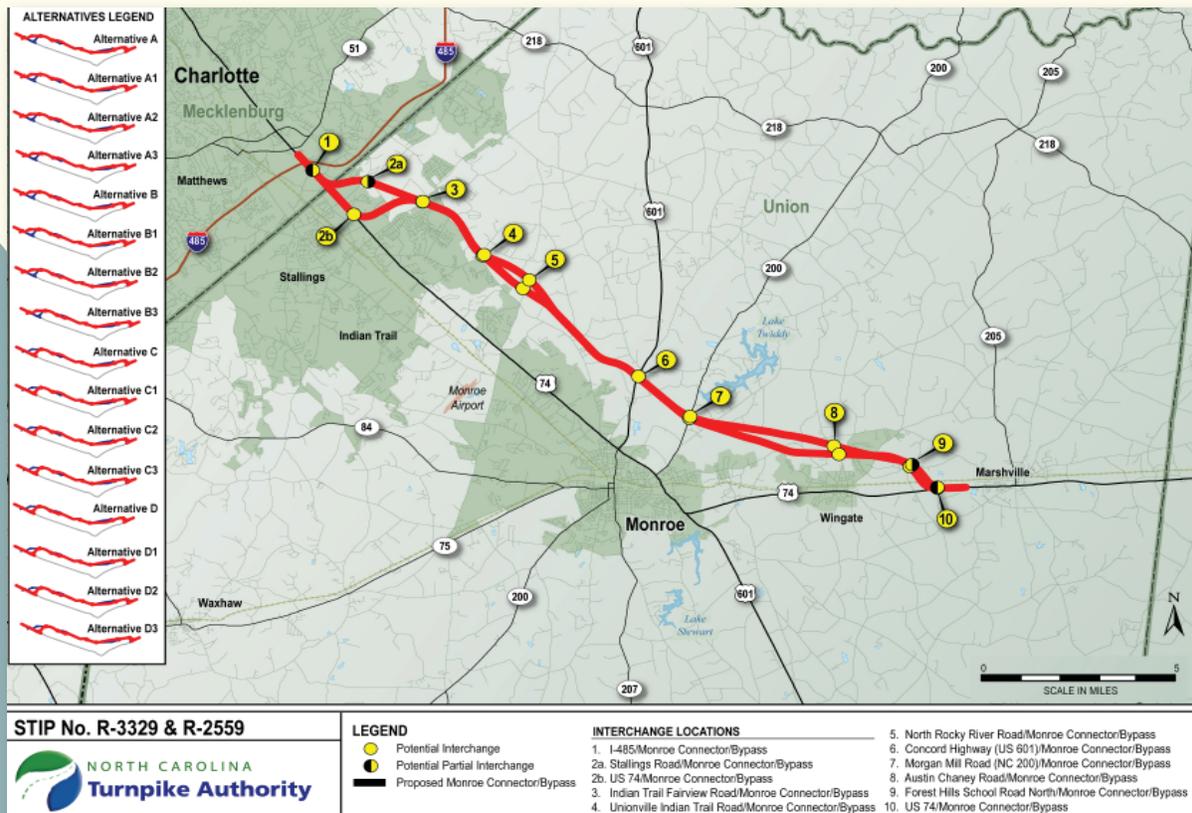
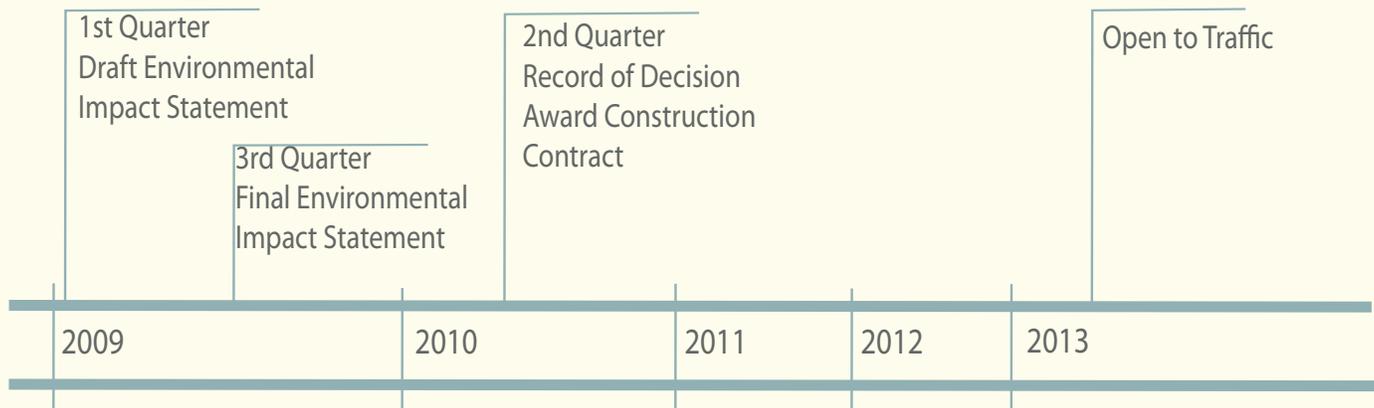


# MONROE CONNECTOR/BYPASS

## PROJECT DESCRIPTION

The Monroe Connector/Bypass combines two projects previously analyzed by NCDOT and encompasses a 21.1 mile corridor from US 74 near I-485 in Mecklenburg County to US 74 between the towns of Wingate and Marshville in Union County. At the request of the Mecklenburg-Union Metropolitan Planning Organization and the NCDOT Board Members representing the area, the Turnpike Authority is studying the Monroe Connector and the Monroe Bypass as a single contiguous toll project.

## PROJECT TIMELINE



### Finance Estimates (in millions)

Project Cost Estimate	\$755.9
Senior Bonds	\$500.5
TIFIA	\$298.5
Annual Gap	\$ 24.0

*Due to high levels of uncertainty in the world financial markets, the Plan of Finance for this project is being reevaluated, including updated traffic and revenue forecasts, capital cost estimates, and financing cost estimates.*

### 2008 PROJECT MILESTONES

- A \$24 million annual appropriation by the General Assembly was approved in July to begin July 1, 2009, to supplement toll revenues.
- Functional design plans are complete.
- Studies for 16 detailed study alternatives are complete.
- Three public open houses were held in September to give the public an opportunity to view the latest project designs and information.
- The Draft Environmental Impact Statement has been drafted and is under final review.



### PLANS FOR 2009

- *The Turnpike Authority's recommended alternative will be indicated in the Draft Environmental Impact Statement in the first quarter of 2009.*
- *Public Hearings will be held in the first quarter of 2009.*
- *The Final Environmental Impact Statement will be issued in the third quarter of 2009.*
- *The tolling plan, including placement of the toll gantries, will be finalized in the fourth quarter of 2009.*
- *An investment-grade Traffic and Revenue Study will be completed in the fourth quarter of 2009.*
- *A federal TIFIA loan application will be completed and submitted in the fourth quarter of 2009.*

# GARDEN PARKWAY

## PROJECT DESCRIPTION

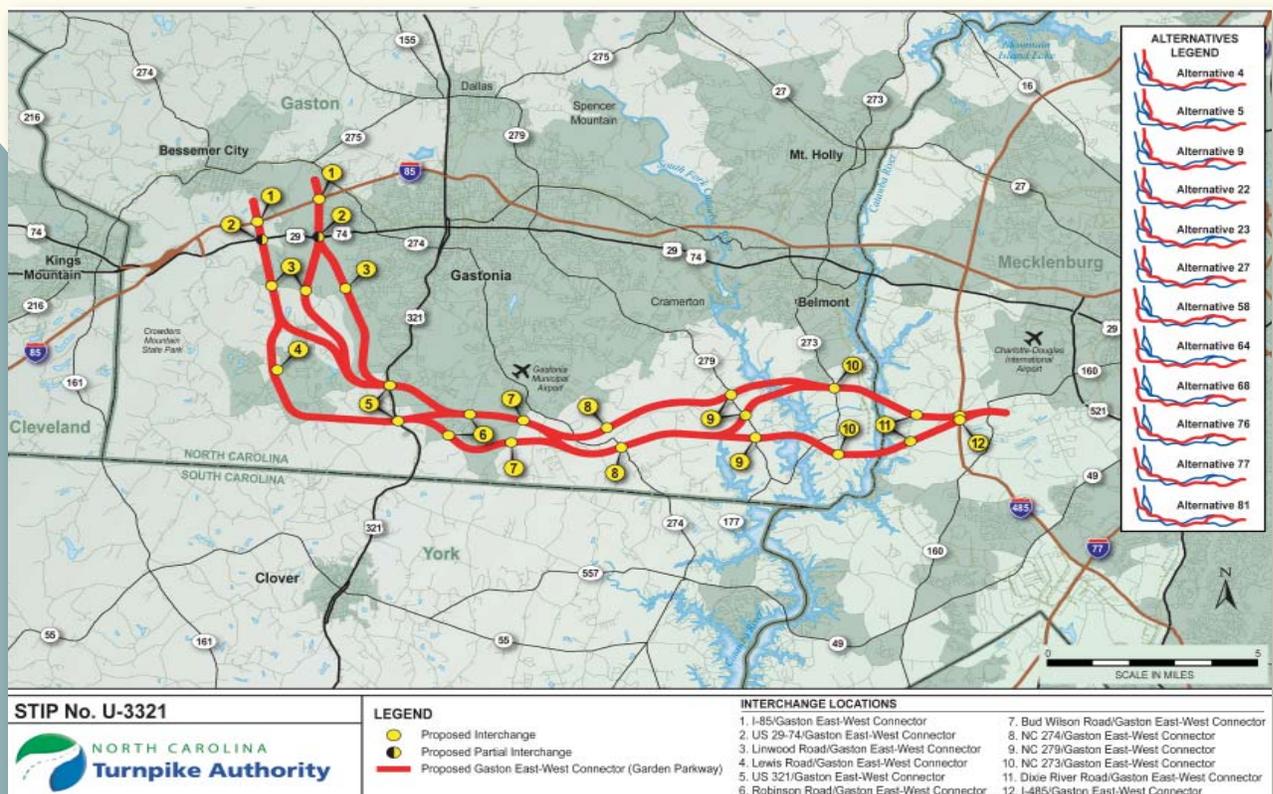
The Garden Parkway, also known as the Gaston East-West Connector, is a new roadway from I-85 west of Gastonia to I-485/NC 160 in Mecklenburg County. The total project is approximately 21.5 miles long.

Due to the magnitude of this project, the results of the preliminary Traffic and Revenue Study and the financial analysis, it was determined that building the project in phases should be considered.

In July, the General Assembly allocated gap funding for the project. The expectation is that the gap funding allocated for the project is sufficient to build the project at least from I-485/NC 160 in Mecklenburg County west to US 321, a distance of approximately 15 miles.

The Turnpike Authority continues to conduct the required environmental and engineering studies for the entire project and will continue to pursue funding to implement the entire project.

## PROJECT TIMELINE



## Finance Estimates (in millions)

Total Project Cost	\$1,255.0
I-485 to US 321	
Project Cost Estimate	\$ 910.7
Senior Bonds	\$ 554.6
TIFIA	\$ 368.3
Annual Gap	\$ 35.0

*Due to high levels of uncertainty in the world financial markets, the Plan of Finance for this project is being reevaluated, including updated traffic and revenue forecasts, capital cost estimates, and financing cost estimates.*

## 2008 PROJECT MILESTONES

- A \$35 million annual appropriation by the General Assembly was approved in July to begin July 1, 2010, to supplement toll revenues.
- Earlier this year, four of the 16 detailed study alternatives were eliminated from further study. The Turnpike Authority continues to study 12 possible routes for the project.
- In August, a Local Officials Meeting and three Citizens Informational Workshops were held to give officials and local stakeholders, including residents, an update on the project and an opportunity to ask questions and make comments on the project. More than 1,000 people attended these meetings.
- The Draft Environmental Impact Statement has been drafted and is under final review.



## PLANS FOR 2009

- *The Turnpike Authority's recommended alternative will be indicated in the Draft Environmental Impact Statement in the first quarter of 2009.*
- *Public Hearings will be held in the second quarter of 2009.*
- *The tolling plan, including placement of the toll gantries, will be finalized in the fourth quarter of 2009.*
- *An investment-grade Traffic and Revenue Study will be completed in the third quarter of 2010.*
- *The project's financial close is expected in the first quarter of 2011.*

# LEVERAGING PRIVATE DOLLARS TO FINANCE PUBLIC ROADS

## MID-CURRITUCK BRIDGE



**Finding** and securing alternative funding sources is what separates turnpike projects from traditional highway development. Leveraging revenue generated by user paid tolls allows the Turnpike Authority to borrow the resources necessary to deliver new projects with minimal public resources while avoiding inflationary pressures that cause projects to double in cost in just a matter of years.

The Mid-Currituck Bridge project, being developed by the Turnpike Authority, takes this alternative funding concept to an entirely different level. The Authority is pursuing this project as the state's first public-private partnership for a highway project.

Public-private partnerships (P3's) are formal collaborations between public agencies and private concessionaires that capture the efficiencies of private sector participation while maintaining public accountability to develop new infrastructure. These partnerships can be an effective way to deliver much needed infrastructure while minimizing costs and risks to the public.

### ***The Benefits of P3's***

- *Generate new sources of capital*
- *Accelerate project completion to achieve cost savings*
- *Improve quality using innovative techniques*
- *Share risks between public agencies and the private sector*

Earlier this year, the Authority hosted an international industry forum for investors, contractors, designers, and toll operators interested in partnering with the Turnpike Authority to design, build, finance, operate, and maintain the Mid-Currituck Bridge project as a joint public-private partnership venture.

In November, the Turnpike Authority accepted proposals from short-listed teams to enter into a Pre-Development Agreement and is now in the final stages of the selection process. Once selected, this pre-development partner will work and invest with the Authority to advance the Mid-Currituck project.



### ***With a P3 partner on the Mid-Currituck Bridge, the Turnpike Authority can:***

- *Share project delivery costs.*
- *Create innovative engineering concepts and accelerate financial assessments.*
- *Maintain an aggressive delivery schedule.*
- *Incorporate community sensitive designs and construction features.*

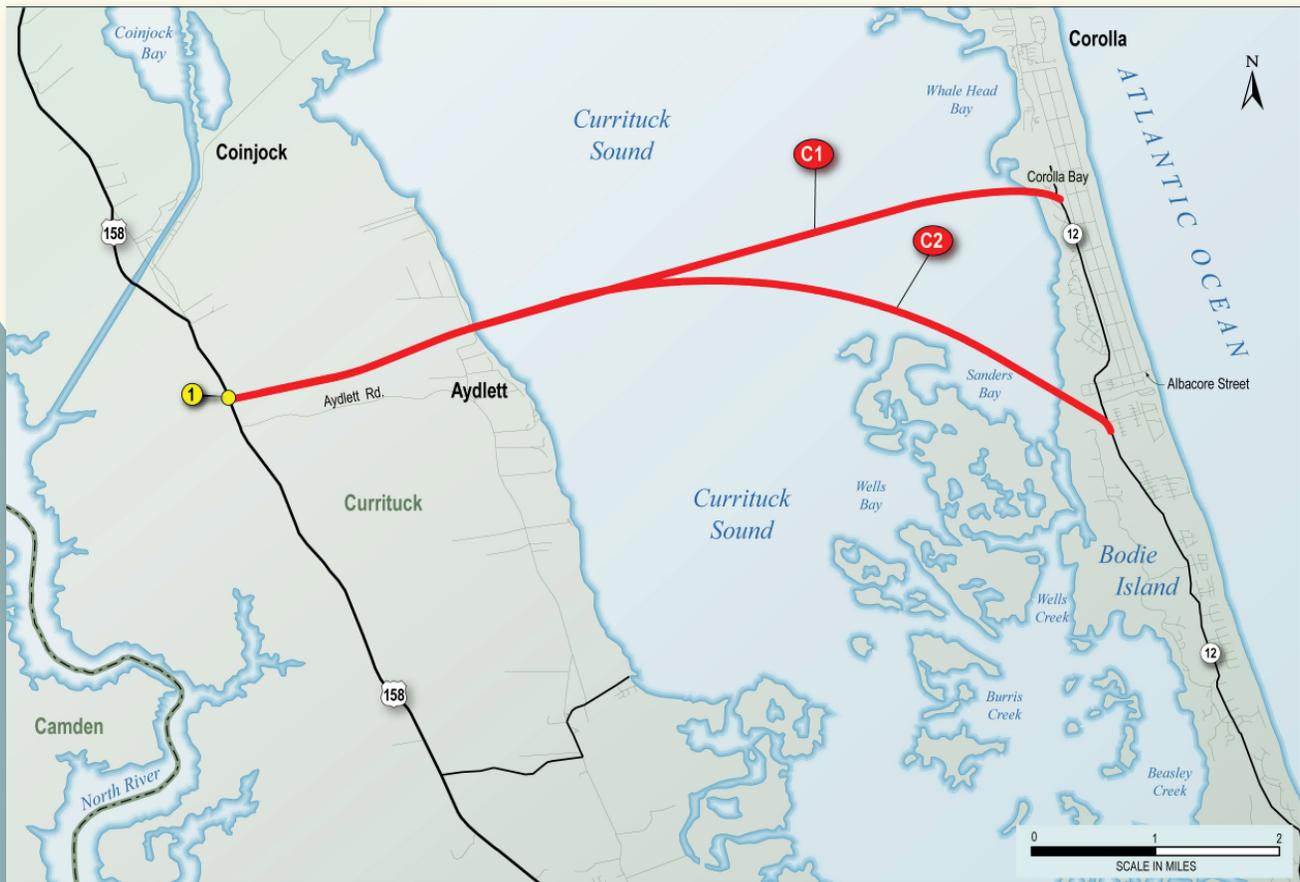
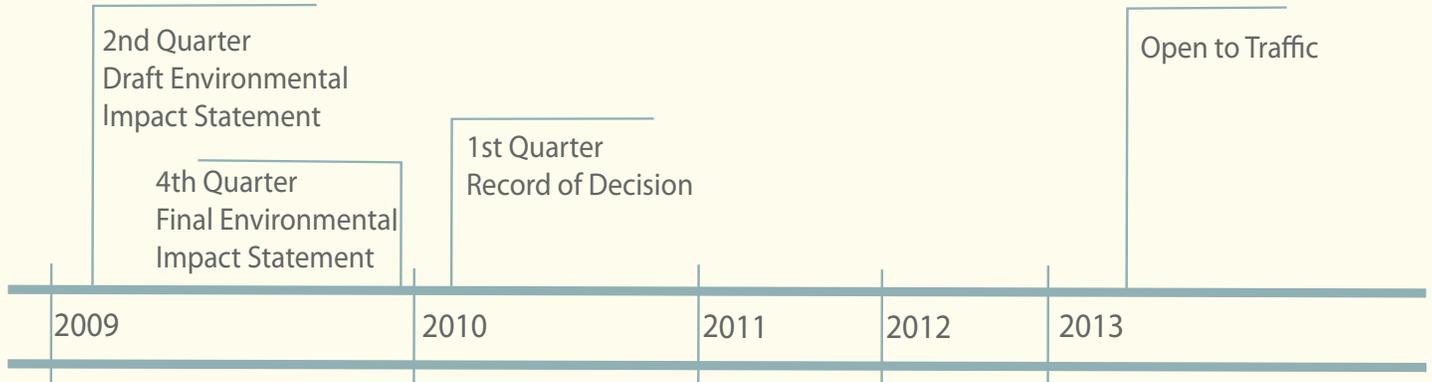
This partnership represents an exciting opportunity for North Carolina. By sharing the work and investment involved with building large-scale projects like the Mid-Currituck Bridge the Turnpike Authority can demonstrate new transportation delivery techniques faster and at a lower cost to the state.

# 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 on structure, spanning the Currituck Sound and Maple Swamp. Based on the projected traffic volumes through year 2035, the Turnpike Authority has decided to plan, design and construct the project as a two-lane bridge.

## PROJECT TIMELINE



<p><b>STIP No. R-2576</b></p> 	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li><span style="color: yellow;">●</span> Proposed Interchange</li> <li><span style="color: red;">—</span> Proposed Mid-Currituck Bridge</li> </ul> <p><b>INTERCHANGE LOCATION</b></p> <ul style="list-style-type: none"> <li>1. US 158/Mid-Currituck Bridge</li> </ul>
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### Finance Estimates (in millions)

Project Cost Estimate	\$659.2
Senior Bonds	\$466.0
TIFIA	\$230.0
Annual Gap	\$ 15.0

*Due to high levels of uncertainty in the world financial markets, the Plan of Finance for this project is being reevaluated, including updated traffic and revenue forecasts, capital cost estimates, and financing cost estimates.*

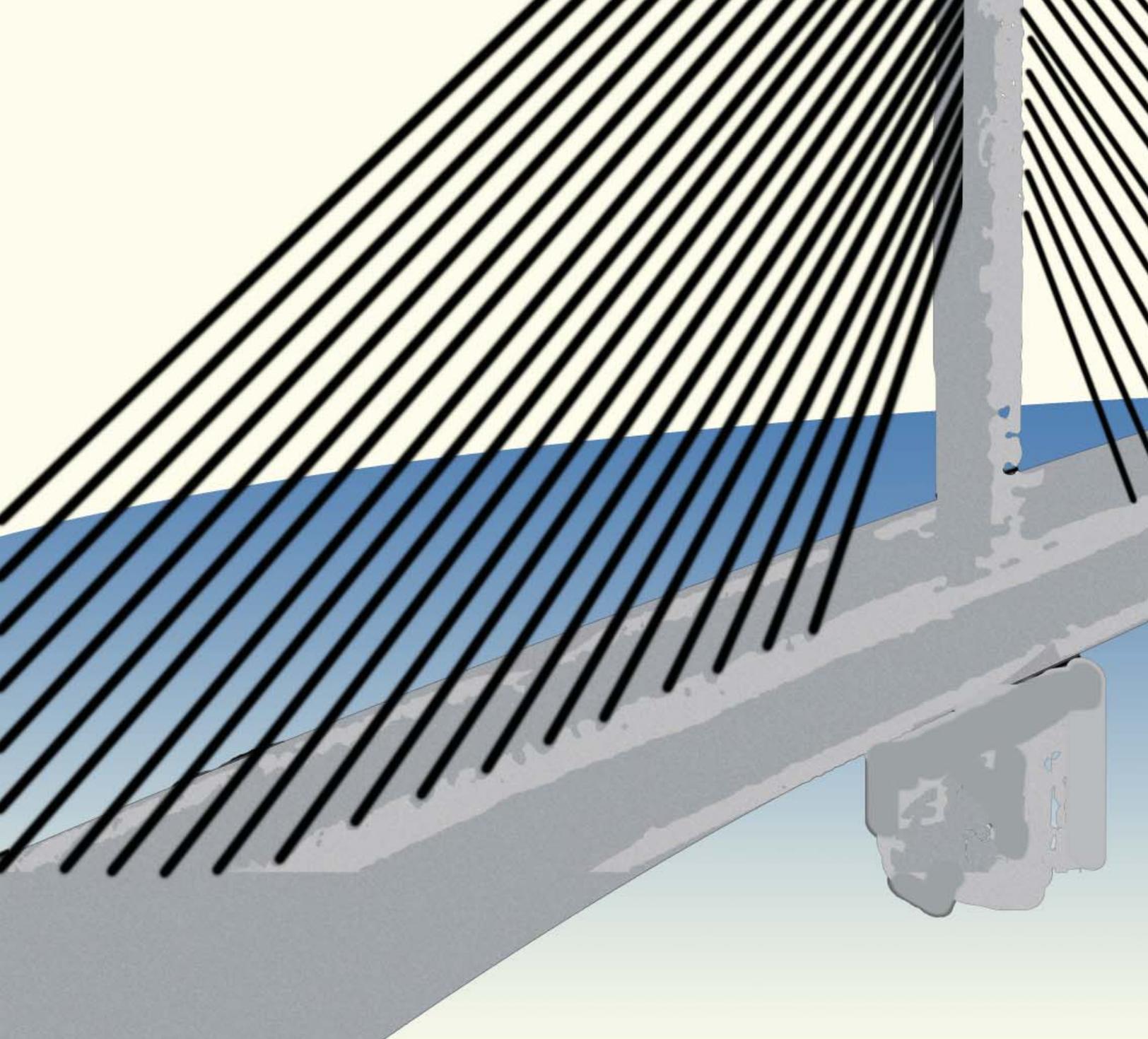


### 2008 PROJECT MILESTONES

- A \$15 million annual appropriation by the General Assembly was approved in July to begin July 1, 2009, to supplement toll revenues.
- In February, the Turnpike Authority conducted a Local Officials Meeting and three Citizens Informational Workshops in the project area.
- The Draft Purpose and Need Statement and the Draft Alternatives Screening Report were completed in April. The alternatives report documents the alternatives that were considered and identified the detailed study alternatives the Turnpike Authority recommended for additional study. These reports were made available for public review and comment in April. The report was made available at several local government offices and is posted on the Turnpike Authority's website.

### PLANS FOR 2009

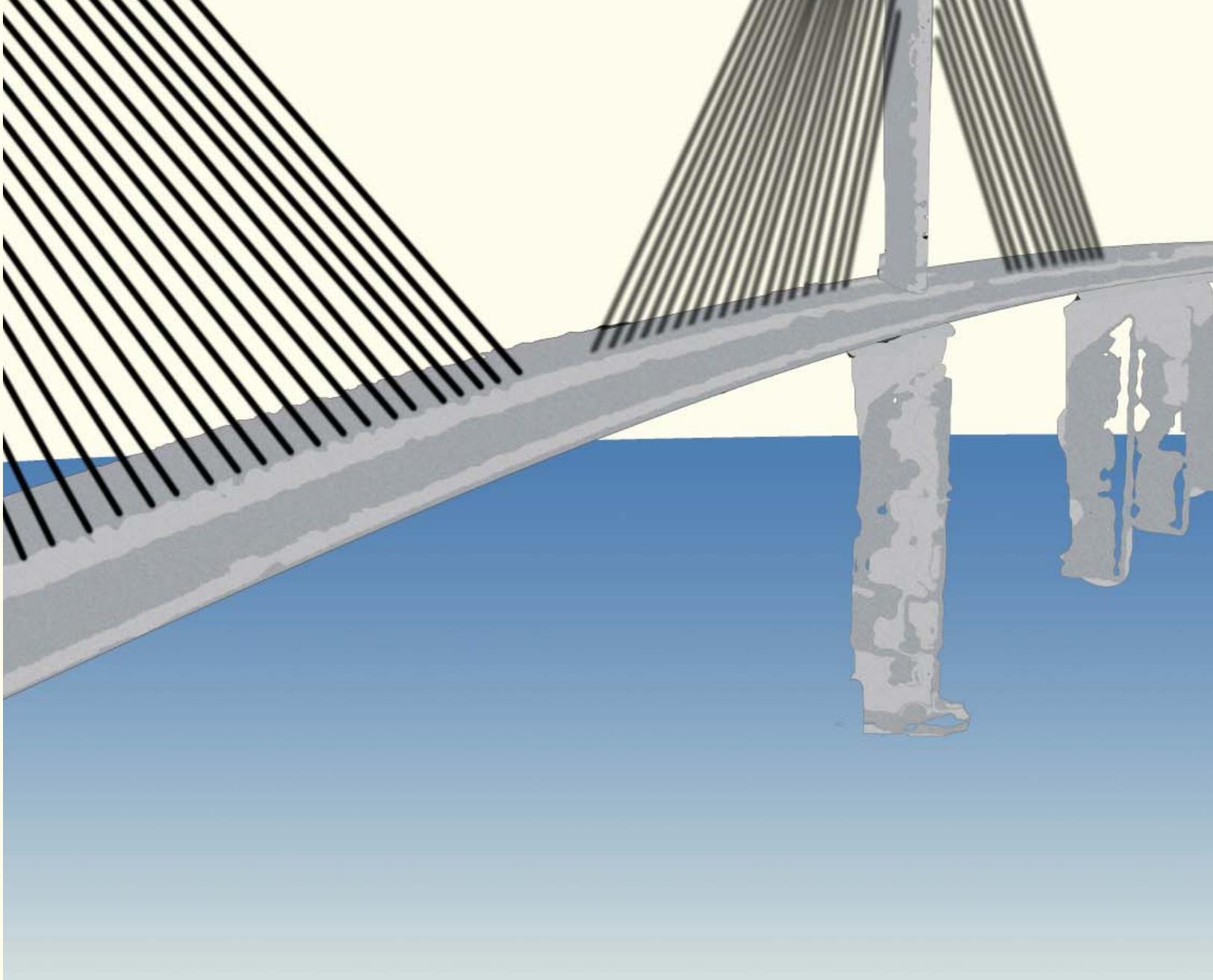
- *A Pre-Development Agreement with a private partner will be finalized and executed in the first quarter of 2009.*
- *The Turnpike Authority's recommended alternative will be indicated in the Draft Environmental Impact Statement in the second quarter of 2009.*
- *Public Hearings will be held in the third quarter of 2009*
- *An investment-grade Traffic and Revenue Study will be completed in conjunction with the private partner.*
- *In the fourth quarter of 2009, the private partner will submit a price proposal to build the project.*
- *A concession agreement between the Turnpike Authority and its private partner will be executed in the first quarter of 2010.*



## TOLL ROADS IN THE BROADER TRANSPORTATION NETWORK

### CAPE FEAR SKYWAY

Over the past decade, the City of Wilmington, once the state's largest city, has undergone a modern renaissance. Its beaches, historic attractions, access to the Port of Wilmington, and general quality of life have contributed to the city's expanded footprint. But with the city's re-awakening, the need for new transportation solutions has never been greater.



The Cape Fear Skyway is an ambitious Turnpike Authority project that will offer residents and businesses congestion-free access to the Wilmington Bypass, I-40, US 17, US 74/76, and the City of Wilmington. Nearly ten miles in length including a new bridge over the Cape Fear River, the Skyway has the potential to be a key link in the area's broader transportation network.

The Port of Wilmington is one of the few southern Atlantic ports with available berths and storage areas for containers and cargo. Recent capital improvements allow the Port to expand available services. With expectations for increased truck traffic associated with the Port's growth, the Turnpike Authority is exploring options for enhanced truck access to and from the Skyway. Enhanced access to the Skyway will improve the Port's connection to other critical roadways like US 74/76, US 17, and I-40 and points west.

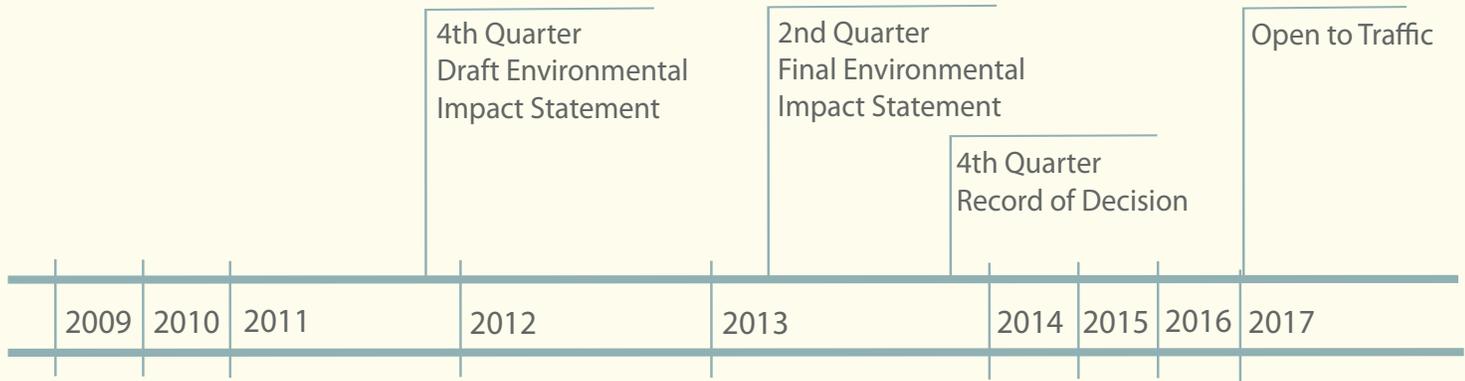
The Turnpike Authority, created as a strategic resource to support alternative financing of a few of the state's major highway projects, is a resource that can only be used in limited circumstances. However, when utilized, Turnpike Authority projects like the Cape Fear Skyway offer new opportunities for integrating transportation infrastructure and the economical vitality of the entire state.

# CAPE FEAR SKYWAY

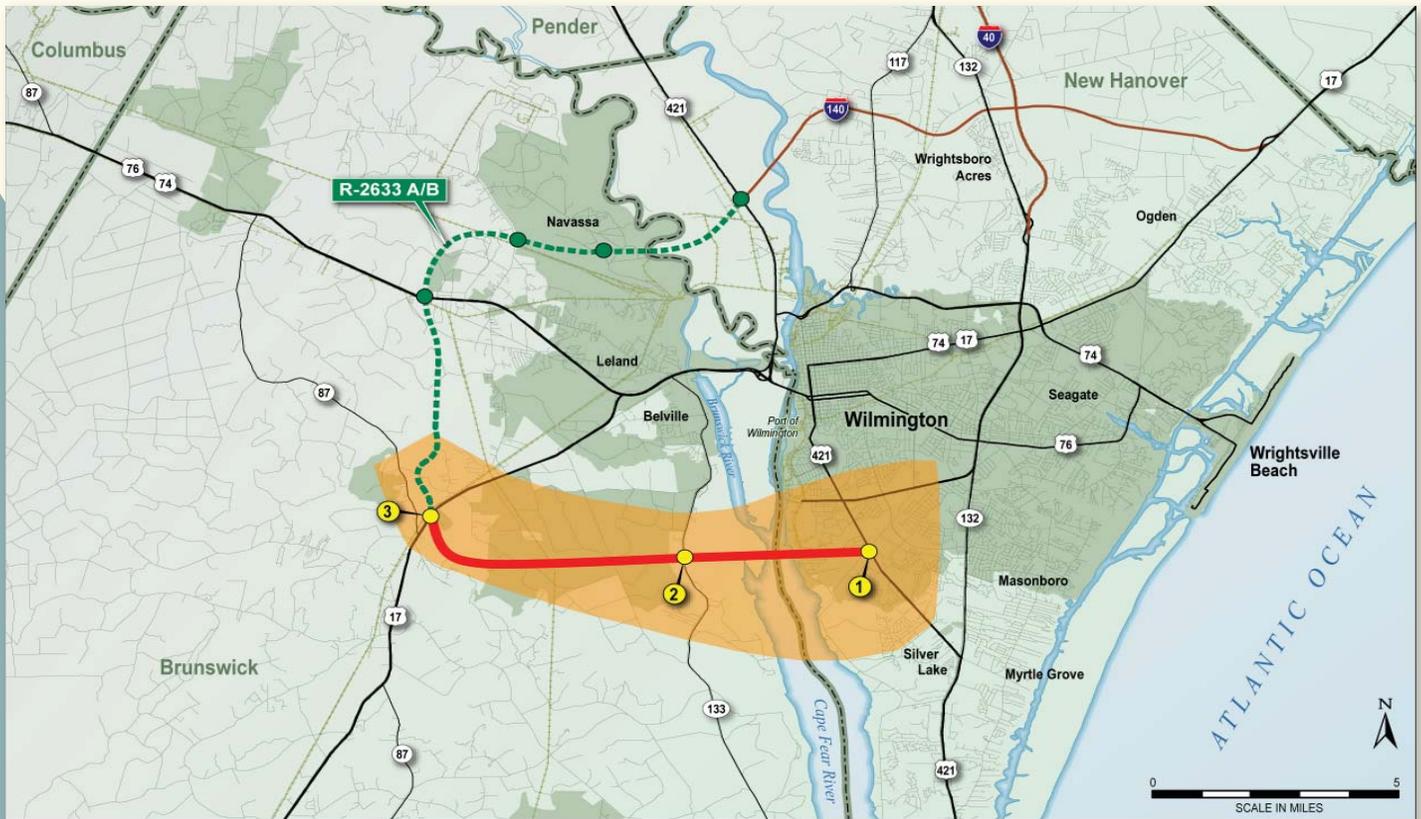
## PROJECT DESCRIPTION

The Cape Fear Skyway is an approximately 9.5 mile new-location roadway 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.

## PROJECT TIMELINE



The project timeline is being reevaluated due to a recent change in the Wilmington Area Metropolitan Planning Organization's Long Range Transportation Plan that created the need to reassess the traffic forecasts for the project.



STIP No. U-4738



### LEGEND

- Proposed Interchange
- Proposed Cape Fear Skyway
- Proposed Cape Fear Skyway Study Area
- Future Wilmington Bypass

### INTERCHANGE LOCATIONS

1. US 421/Cape Fear Skyway
2. NC 133/Cape Fear Skyway
3. US 17/Cape Fear Skyway

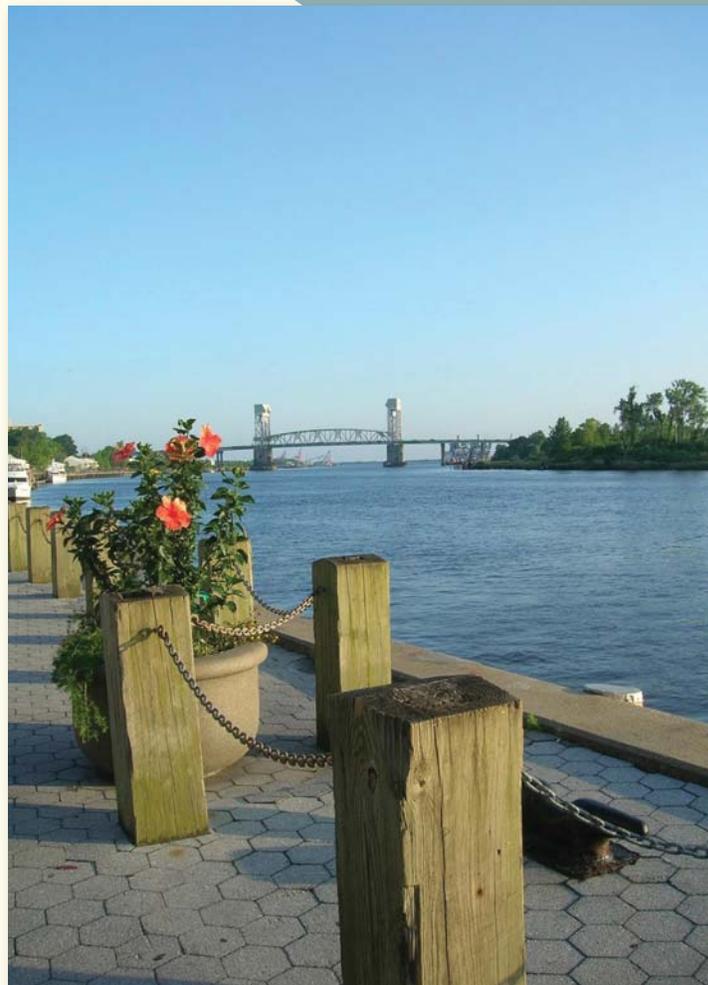
### Finance Estimates (in millions)

Project Cost Estimate	\$971.5
Senior Bonds	\$515.6
TIFIA	\$341.0
Annual Gap	\$ 45.0

*Due to high levels of uncertainty in the world financial markets, the Plan of Finance for this project is being reevaluated, including updated traffic and revenue forecasts, capital cost estimates, and financing cost estimates.*

### 2008 PROJECT MILESTONES

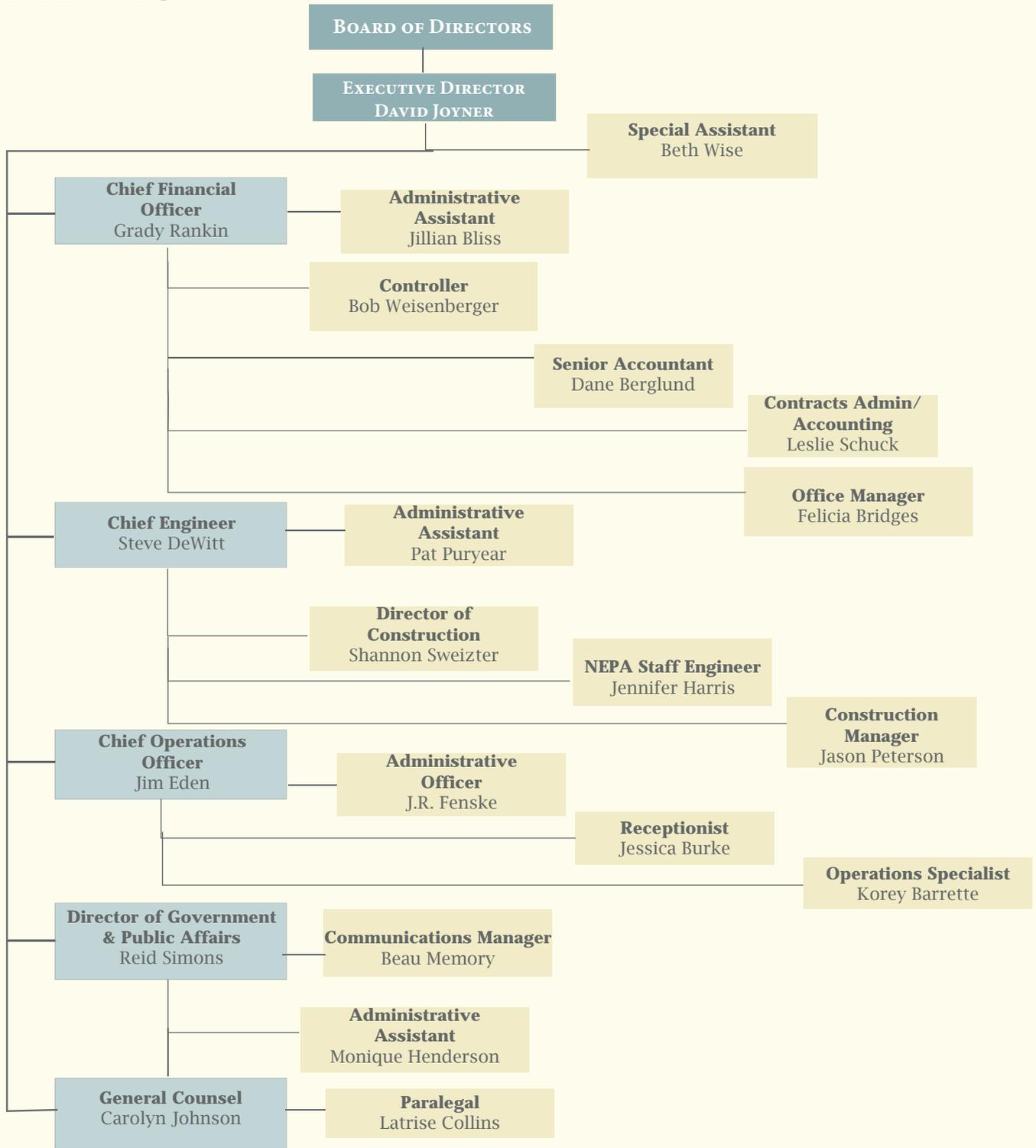
- The Natural Resources Inventory Report for the study area was completed in July.
- The initial traffic forecasts to be used in the early stages of the project study were completed in July.
- A draft Bridge Location and Type Study has been prepared. This study will define assumptions for bridge type and assist in the refinement of project costs.
- In August, a traffic capacity analysis was completed in support of the development of the Purpose and Need Statement.



### PLANS FOR 2009

- In the first quarter of 2009, the Hurricane Evacuation Analysis for existing and 2035 No-Build scenarios will be completed.
- The preliminary Bridge Location and Type Study will be finalized in the first quarter of 2009.
- Review of the Purpose and Need Statement with the necessary environmental and permitting agencies will be coordinated in the second quarter of 2009.
- In the second quarter of 2009, coordination of alternatives development and screening with the Federal Highway Administration and other necessary agencies will begin.
- Citizens Informational Workshops will be held in the 3rd quarter of 2009.

# ORGANIZATION



Turnpike Authority Staff



# BUDGET OVERVIEW

The following table summarizes the Turnpike Authority's annual budgets for FY2007, FY2008, and FY2009, including mid-year budget adjustments for FY2009.

The FY2009 budget amounts have been approved by the Turnpike Authority Board of Directors and the North Carolina Board of Transportation.

## PROJECT TO DATE ACTUALS & COMMITMENTS

	FY07 (M)	FY08 (M)	FY09 (M)	Total Approved APW (M)
<b>Current Projects</b>				
Cape Fear Skyway	\$ 3,506.9	\$ 1,264.6	\$ 3,739.2	\$ 8,510.7
Garden Parkway	\$ 2,630.3	\$ 3,535.6	\$ 4,582.3	\$10,748.2
Mid- Currituck Bridge	\$ 2,824.5	\$ 2,874.7	\$ 6,155.7	\$11,854.9
Monroe Connector/Bypass	\$ 2,255.4	\$ 2,011.3	\$ 7,393.2	\$11,659.9
Triangle Expressway	\$ 8,916.0	\$ 8,652.0	\$ 2,530.6	\$20,098.6
<i>Total</i>	<i>\$20,133.1</i>	<i>\$18,338.2</i>	<i>\$24,401.0</i>	<i>\$62,872.3</i>
<b>Potential New Projects</b>				
Southern & Eastern Wake			\$ 2,119.9	\$ 2,119.9
Yadkin River Bridge		\$ 2,624.6	\$ 2,510.8	\$ 5,135.4
Other Projects	\$ 540.0	\$ 169.2	-	\$ 709.2
<i>Total</i>	<i>\$ 540.0</i>	<i>\$ 2,793.8</i>	<i>\$ 4,630.7</i>	<i>\$ 7,964.5</i>
<i>Project Subtotal</i>	<i>\$20,673.1</i>	<i>\$21,132.0</i>	<i>\$29,031.7</i>	<i>\$70,836.8</i>
NCTA Administrative Budget	\$ 5,500.0	\$ 4,998.5	\$ 5,605.9	\$16,104.4
<i>Total Budgeted APW</i>	<i>\$26,173.1</i>	<i>\$26,130.5</i>	<i>\$34,637.6</i>	<i>\$86,941.2</i>
<i>NCTA Project Development Actuals</i> <i>(Actuals to date + Forecast through 6/09)</i>	-	-	-	<i>\$59,094.1</i>
<i>NCTA Administrative Actuals</i> <i>(Forecast through 6/09)</i>	\$ 3,934.6	\$ 3,623.6	\$ 4,784.9	<i>\$12,343.1</i>

Note: State law specifies that an audit report for the previous year be included with the Turnpike Authority's annual report. The audit report for FY2008 is not yet available, but will be provided to the Joint Legislative Transportation Oversight Committee as soon as the Authority receives it.

# THE CHALLENGES OF 2009

A NOTE FROM DAVID JOYNER

2008 will soon be behind us. And despite the economic downturn, we are excited about even greater challenges in 2009.

- Construction on the Triangle Expressway will be well underway.
- The final alignments for the Monroe Connector/Bypass and the Garden Parkway will be announced.
- Design-build contracts will be advertised for the Monroe Connector/Bypass.
- The financial feasibility of the Mid-Currituck Bridge will be in focus as the Authority negotiates a concession agreement.
- The Southern Wake Freeway will be well into the environmental study process.
- Testing on the Triangle Expressway's toll system will be underway utilizing live traffic.
- The Alliance for Toll Interoperability will have an interoperability demonstration project underway between Oklahoma and Texas.
- RFP's will have been issued and contracts awarded on a toll collection system, a traffic management contractor, and a tag and reader contractor.

In this difficult economic climate, 2009 will undoubtedly bring unforeseen tests. We hope to deal with opportunities and adversities as we have in the past, with openness and a commitment to accountability. It remains our firm belief that our success is dependent on maintaining the confidence of our local and state partners as well as the citizens of our state.

We recognize that tolling is a resource that can only be used in limited circumstances in specific, highly traveled areas. While tolling cannot meet all of North Carolina's transportation needs, the Turnpike Authority is proud of the role it is playing in delivering a handful of strategic and critically important projects.



## 2009 Project Milestones

### 1st Quarter

Triangle Expressway bonds sold  
Monroe Connector/Bypass first environmental document completed  
Garden Parkway first environmental document completed  
Monroe Connector/Bypass recommended route announced  
Garden Parkway recommended route announced  
Triangle Expressway begins construction  
Monroe Connector/Bypass Public Hearings  
Mid-Currituck PDA executed

### 2nd Quarter

Mid-Currituck first environmental document completed  
Mid-Currituck recommended route announced  
Toll Collection System contract awarded  
Garden Parkway Public Hearings  
Tag and reader contract awarded  
Mid-Currituck Public Hearings

### 3rd Quarter

Cape Fear Skyway informational workshops  
Monroe Connector/Bypass final environmental document completed  
Mid-Currituck final environmental document completed

### 4th Quarter

Mid-Currituck price proposals submitted  
Monroe Connector/Bypass Traffic & Revenue Study completed  
Monroe Connector/Bypass TIFIA loan application submitted  
Triangle Expressway toll system testing

*Events in no particular order*





NORTH CAROLINA  
**Turnpike Authority**

5400 Glenwood Avenue, Suite 400  
Raleigh, North Carolina 27612  
(919) 571-3000  
[www.ncturnpike.org](http://www.ncturnpike.org)