



NC Turnpike Authority

Presentation to the
Joint Legislative Transportation Oversight Committee

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November 4, 2011

Agenda

- **NC Turnpike Authority**
- **Tolling Process**
- **Projects**
- **Toll Operations**
- **National Interoperability**

NC Turnpike Authority

- **Established by General Assembly in 2002**
 - Staffing began in 2005
- **Governed by 9-member Board of Directors**
- **Authorized to build up to 9 projects**
- **Currently developing five projects**
 - Authorized for construction by General Assembly in 2006

Statutory Limitations on Tolling

- **Projects must have free alternate route**
- **No tolls on existing roads**
- **Tolls must be removed once debt is repaid**
- **Projects must be authorized by General Assembly prior to construction**

Turnpike Authority: Business Model

- **Small, highly focused, team-oriented organization**
 - Finance
 - Engineering
 - Operations
 - Marketing

- **Private-sector, results-based approach**
 - Use highly skilled, specialized consultants
 - Draw on other NCDOT resources for efficiency
 - Apply aggressive scheduling strategies

Accomplishments

- **Triangle Expressway opening**
 - Ahead of schedule and under budget
 - Phase I opening December 8, 2011
 - Phase II opening in December 2012
 - First toll project in US designed and financed as all electronic tolling

- **Monroe project ready to finance**
 - Won year-long Federal NEPA lawsuit October 24, 2011
 - Saved contractor's bid - \$98 million under engineer's estimate
 - Will issue remaining bonds and award contract this month
 - All permits are in hand

Accomplishments (continued)

- **Reach commercial close on Mid-Currituck Bridge next month**
 - **NC's first major P3 transportation project**
 - **Issue limited "Notice to Proceed" for final design and right-of-way acquisition next spring**

- **Garden Parkway milestones**
 - **Final Environmental Impact Statement is complete**
 - **Record of Decision anticipated from FHWA any day**
 - **Expect to issue bonds in summer 2012**
 - **Begin construction next year**

The Business of Tolling

- **Step 1: Locals request financial feasibility study**
- **Step 2: Turnpike Authority evaluates**
 - Traffic and Revenue analysis – revenue potential
 - Consulting Engineer's Report – cost
 - Financial analysis – viability

If viable:

- **Step 3: Project authorized by General Assembly**
- **Step 4: Conduct in-depth environmental studies**
- **Step 5: Complete financing, award construction contract**
- **Step 6: Market roadway, sell transponders, collect tolls, repay bonds**

Toll Project Financing

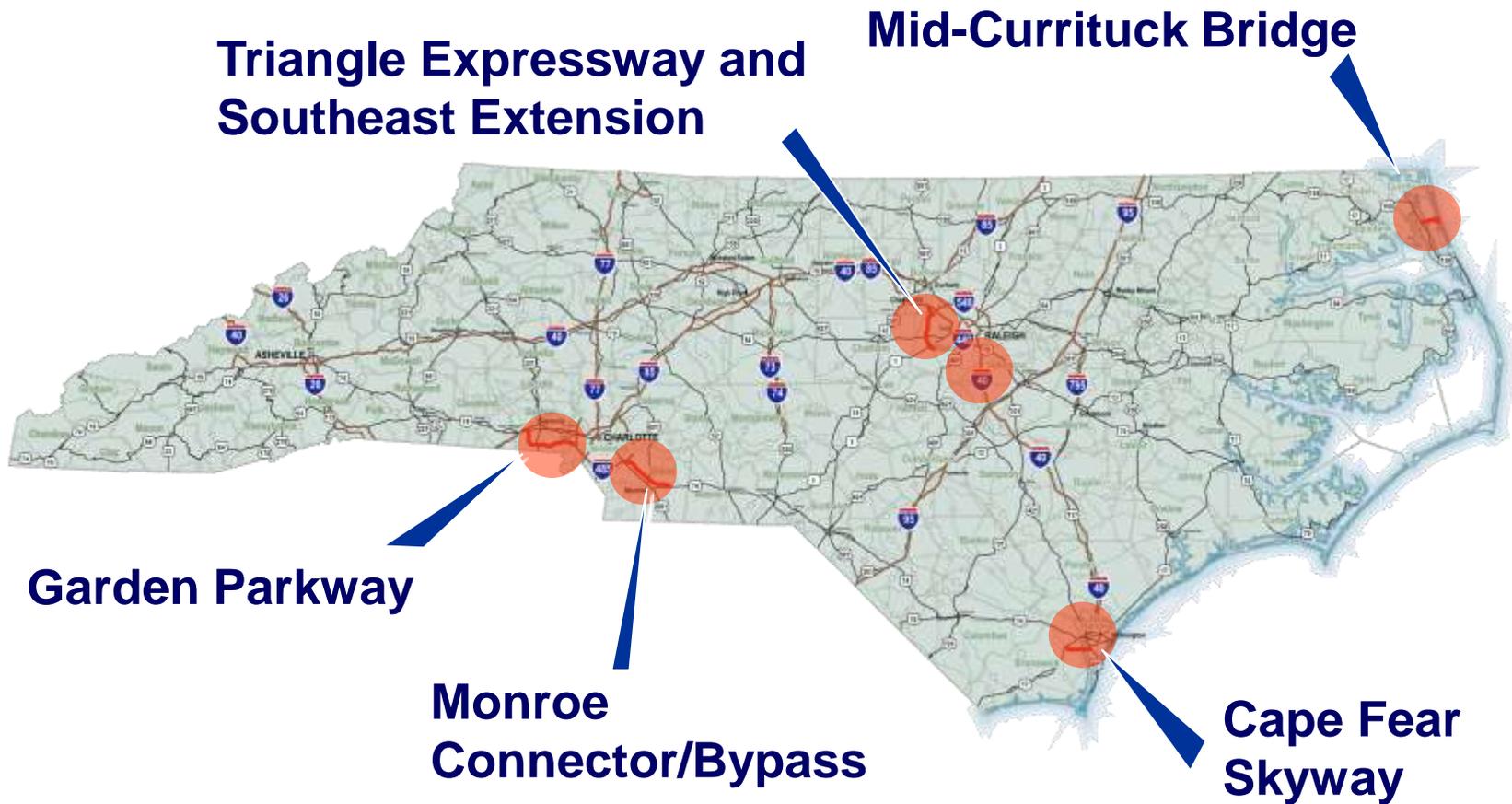
- **Tolls rarely cover full project cost**
 - *Almost always a “gap”*
- **Proportionately small % gap funds can deliver large, expensive projects**
 - **Triangle Expressway - \$25 million annual gap supplemented \$1 billion financing**
- **Toll projects save decades of annual contributions from Transportation Improvement Program (TIP) and decades of maintenance costs**

Origin of First Five Projects

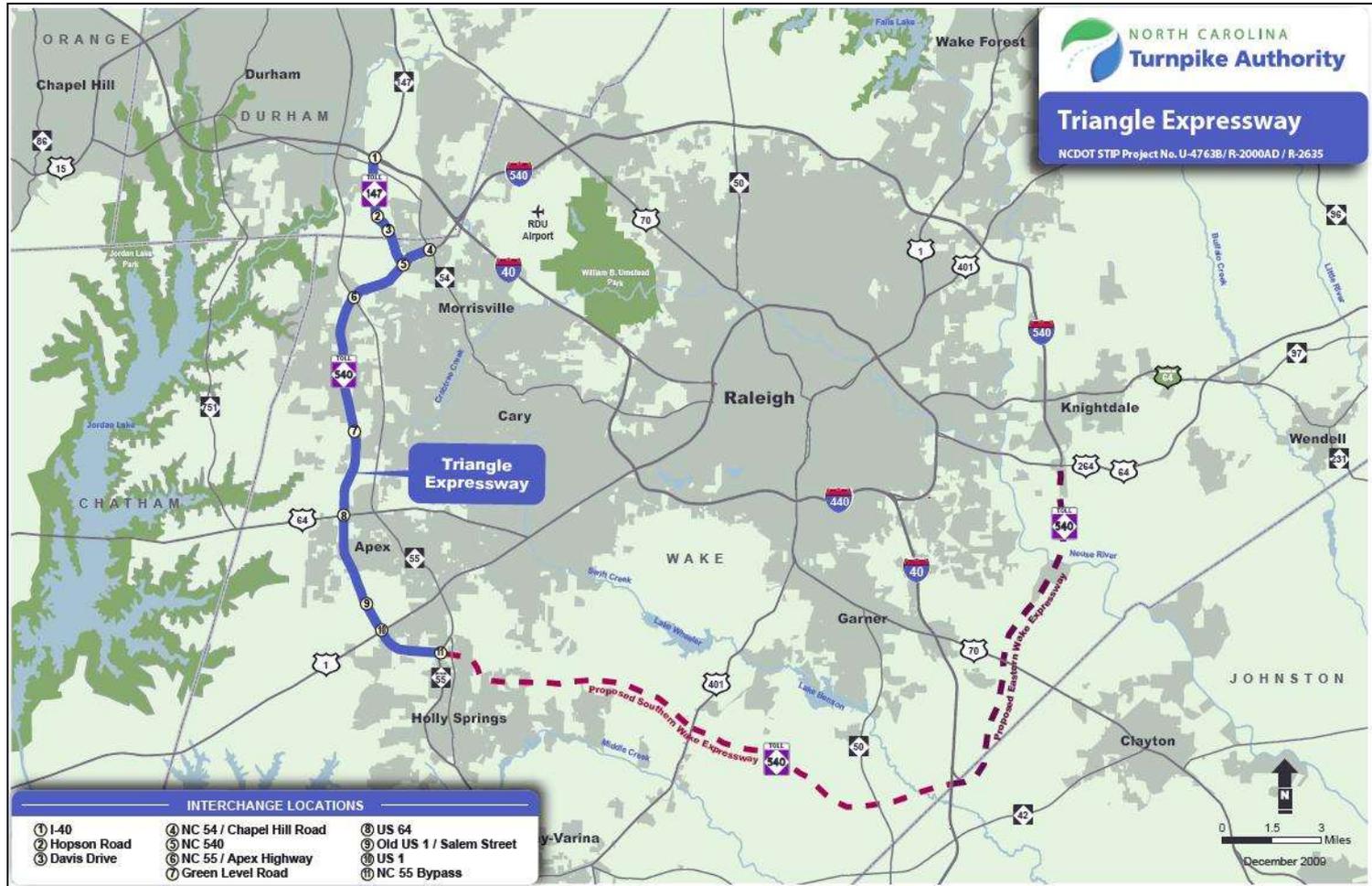
All projects have similar characteristics:

- **Highest priorities among local planning organizations**
- **Large, expensive mega-projects (\$500M+)**
- **Difficult to fund with traditional resources**
- **Authorized by General Assembly (2006)**
- **No new projects have been added**

Projects



Triangle Expressway



Triangle Expressway Overview

Gap fund appropriation	\$25 million
Cost	\$1 billion
Length	19 miles
Construction began	August 2009
Phase I open	December 2011
Phase II open	December 2012

Triangle Expressway Construction Overview

- **Phase I – Triangle Parkway**
 - 90% complete
 - Remaining: final paving, striping, guardrail, bridge completion, signs

- **Phase II – Western Wake Freeway**
 - 70% complete
 - 21 of 34 bridges complete
 - 35% of concrete pavement placed
 - May open portion in August 2012

Triangle Expressway



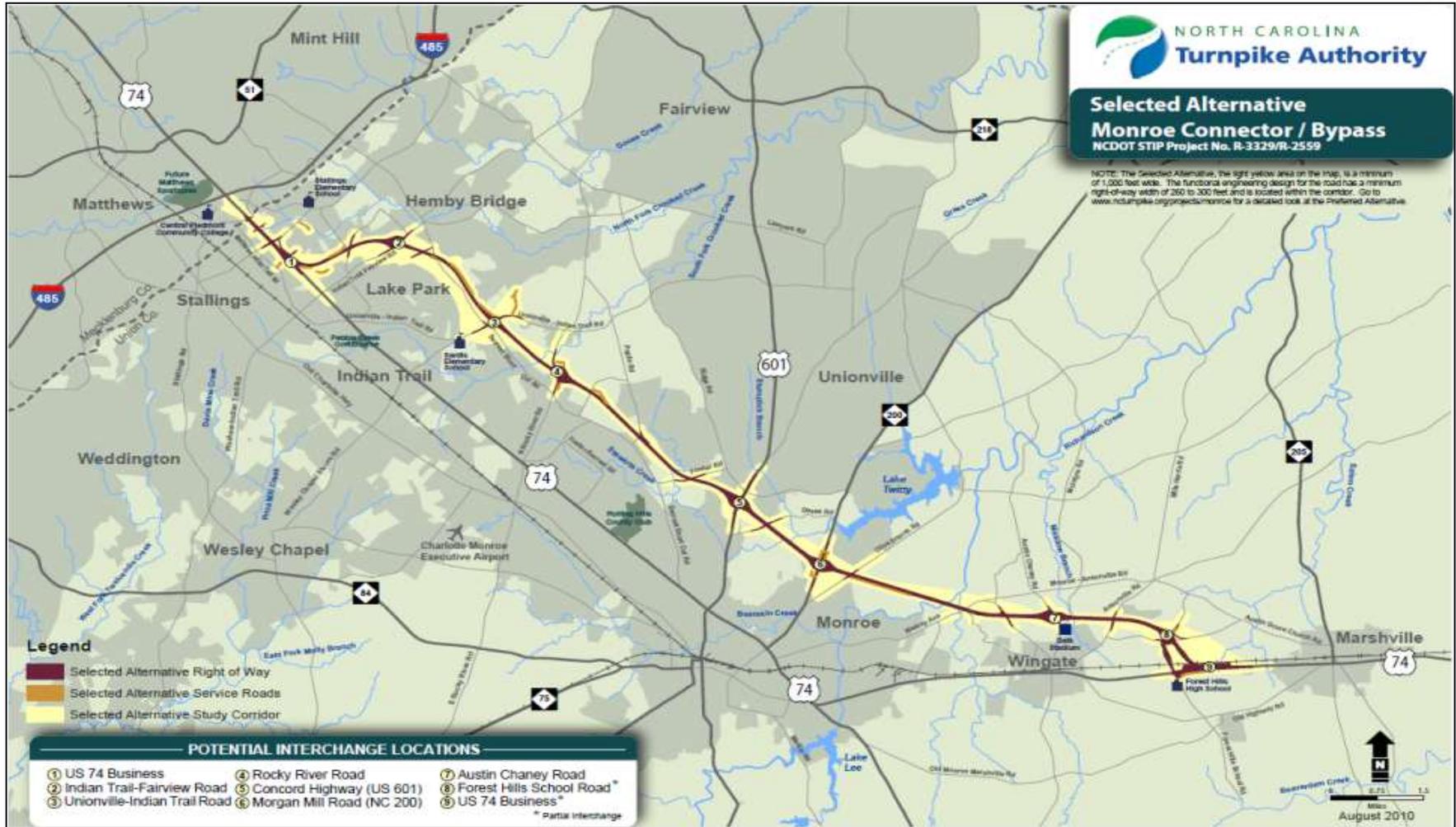
Triangle Expressway: Aesthetic Design



Triangle Expressway: Aesthetic Design



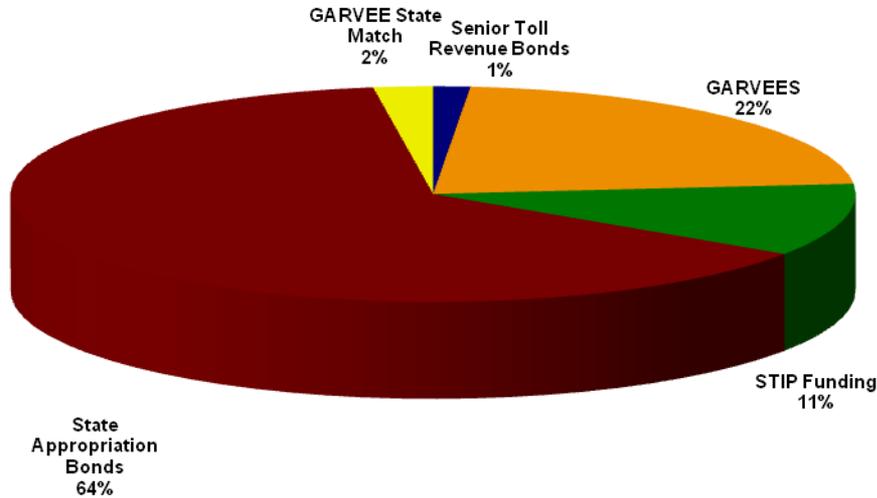
Monroe Connector/Bypass



Monroe Overview

Gap fund appropriation	\$24 million
Cost	\$725 million
Length	20 miles
Sell bonds	Nov. 17, 2011
Award design-build contract	November 2011
Construction begins	Summer 2012
Open to traffic	December 2015

Monroe Plan of Finance



Credit	Rating	Final Maturity
GARVEEs	AA	12 years
Appropriation	AA	30 years

Aggregate TIC: 3.864%

Sources of Funds (in \$000s)

STIP	77,000
Appropriation Bonds	
2010 October	- 233,920
2011 November	- 213,600
	447,520
Senior Toll bonds	10,000
GARVEE	156,000
GARVEE STATE Match	16,048
OIP/OID	18,795
	<u>725,363</u>

Uses of Funds (in \$000s)

Construction	671,469
Capitalized Interest	44,791
Debt Service Reserve Fund	4,304
Underwriter's Discount	3,612
Other Costs	1,187
	<u>725,363</u>

Monroe Connector/Bypass Design



Mid-Currituck Bridge



Mid-Currituck Bridge Overview

Gap fund appropriation	\$28 million
Cost	\$665 million
Length	7 miles
Commercial close	December 2011
Record of Decision	March 2012
Financial close	August 2012
Construction begins	Spring 2013
Open to traffic	December 2016

Mid-Currituck Bridge Rendering



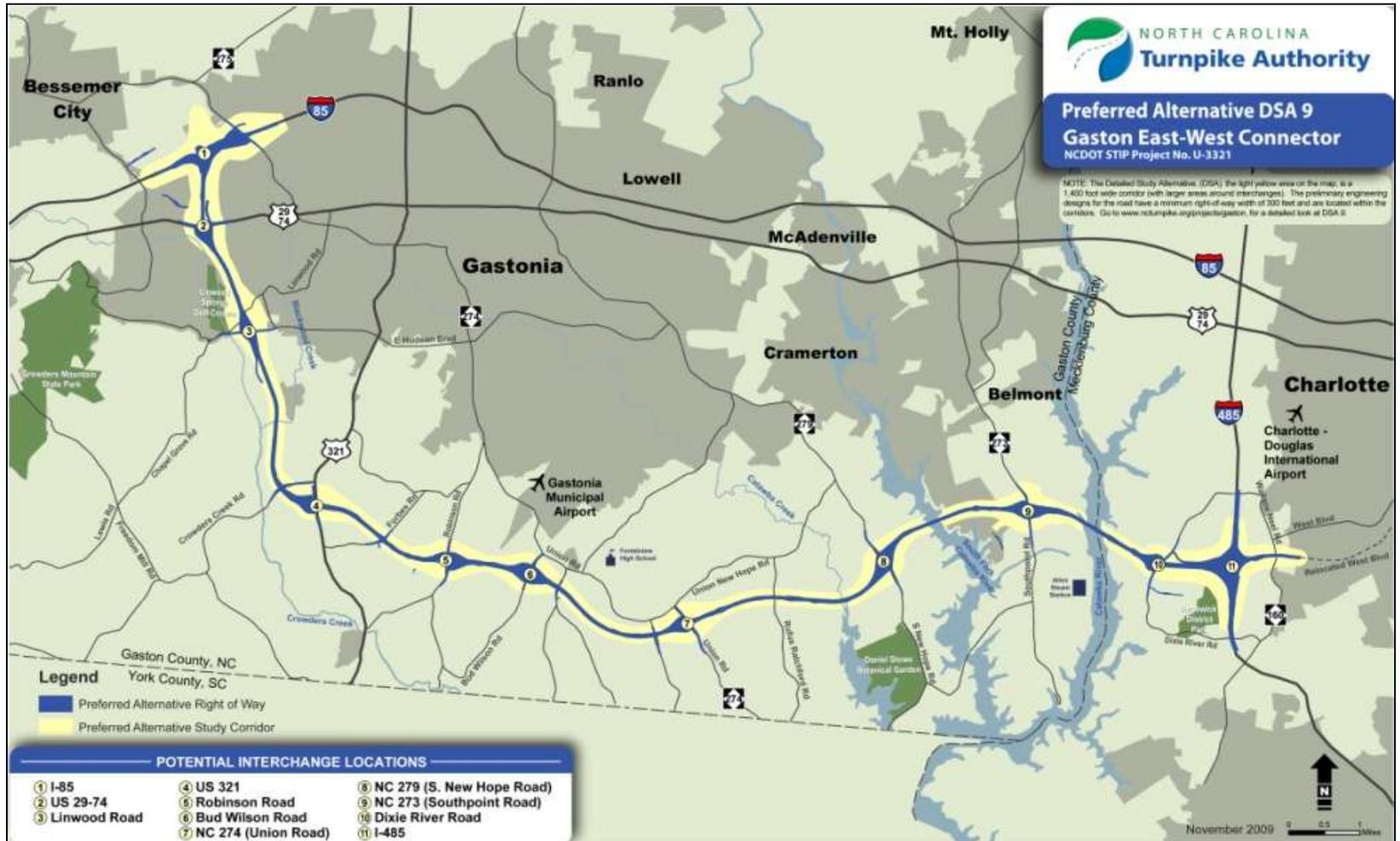
Benefits of Public-Private Partnership

- **Risk transfer:**
 - **Toll revenue shortfall**
 - **Construction overruns**
 - **Operations costs**
 - **Maintenance costs**

- **Private equity contribution – \$100 million +/-**

- **Value engineering**

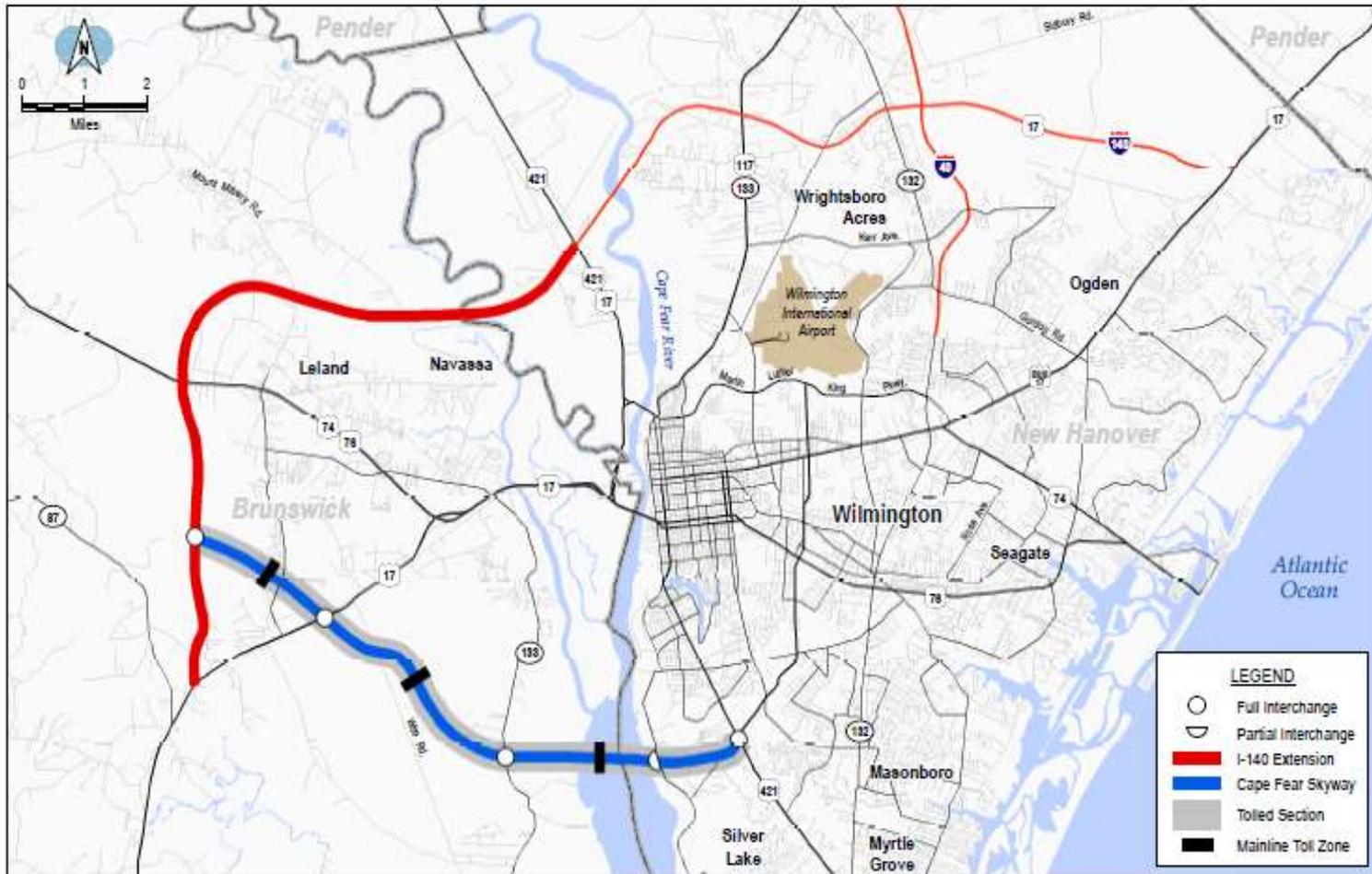
Garden Parkway



Garden Parkway Overview

Gap fund appropriation	\$35 million
Cost	\$900 million
Length	22 miles
Record of Decision	November 2011
Open design-build bids	March 2012
Sell bonds	Summer 2012
Award contracts	Summer 2012
Open to traffic	December 2015

Cape Fear Skyway



Cape Fear Skyway Overview

Gap fund appropriation	- 0 -
Cost	\$950M - \$1B
Length	9.5 miles
Draft EIS	2013
Final EIS	2014
Record of Decision	2015

Most Advanced Toll Technology

Out with the old....

No Toll booths



In with the new...

All Electronic Tolling



2012 Triangle Expressway Toll Rates



To Hopson Road (Exit 2)

TOLL RATES		
		
2 AXLES	\$0.30	\$0.45
3 AXLES	\$0.60	\$0.90
4+ AXLES	\$1.20	\$1.80

I-40 to NC 540 (Exit 5)

TOLL RATES		
		
2 AXLES	\$0.50	\$0.77
3 AXLES	\$1.00	\$1.54
4+ AXLES	\$2.00	\$3.08

Transponder-based Tolling

- Purchase transponder
 - \$5 sticker tag
 - \$20 hard case – *soon interoperable*
- Set up account - \$20 minimum
- Account debited as used



Triangle Expressway Toll Gantries



Toll Gantry Cameras and Readers



What Interoperability Means

- **Different technology in different states**
 - NC Quick Pass
 - EZPass – Northeast (24 agencies in 14 states)
 - SunPass – Florida
 - TxTag – Texas
- **Problem: Most transponders aren't interoperable with other states**
- **No intra-agency violation enforcement**
- **Problem being rectified**
 - New technology
 - Intra-state agreements

NC Leading National Interoperability Efforts

- **NC Turnpike Authority formed Alliance for Toll Interoperability in 2008**
 - **Membership: 43 toll agencies**
 - **Members to share license plate and account information**

- **Goals:**
 - **Efficient exchange of license plate data**
 - **Multi-state agreements**
 - **Multi-state enforcement violation legislation**
 - **Result: More revenue, greater efficiency**





Customer Service Center

- **Opened October 11, 2011**
- **Functions:**
 - **Set up accounts and sell transponders**
 - **Serve customers via phone, web, mail and walk-in**
 - **Reconcile accounts and collections**
- **Staffed by local firm - supervised by Turnpike Authority**
- **Expandable to support ferry system, future toll and transit projects**

Why Tolling Is Critical to Transportation Planning

- **Applied strategically, in limited situations, can leverage funds for large, expensive projects**
- **Can expedite major, high-traffic-volume projects of regional significance**
- **Can add financing options that save decades of gas tax funding and operating costs**

Keys to Future of Tolling

- **Public approval**
 - **Support among local MPOs and communities**
 - **The motorist is our customer! Public support is critical**
 - **Transponder sales doubled estimates to date**
 - 1793 sold since October 11th

- **Technological advances make tolling easy and seamless**

Questions?