



NC Tolling

Joint Legislative Transportation Appropriations Committee

Jim Trogdon, Chief Deputy Secretary of Operations

February 2013



Agenda

Tolling Vision

Turnpike Authority – Project Overviews

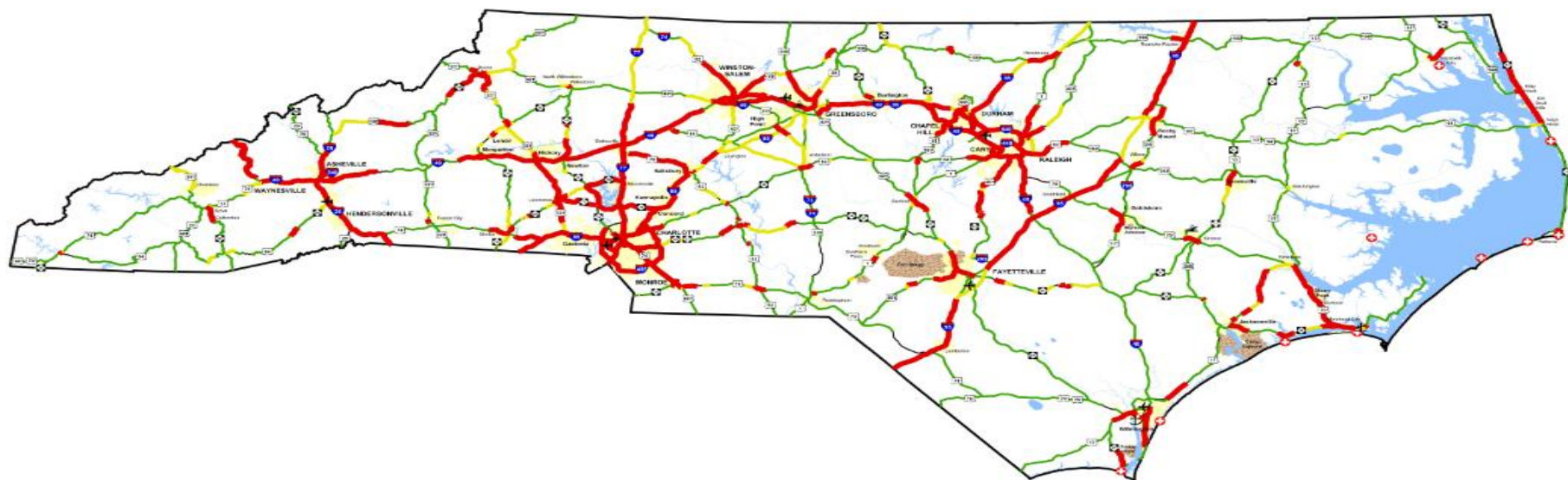
P3 Highway Projects (I-77 & Mid-Currituck)

Other Tolling Options (Express Lanes & I-95)

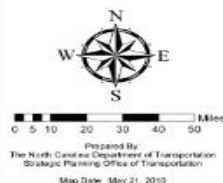
What Makes a Viable Toll or P3 Project



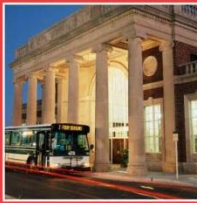
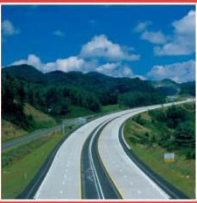
2035 Estimated Congestion



Strategic Highway Corridors 2035 Estimated Congestion

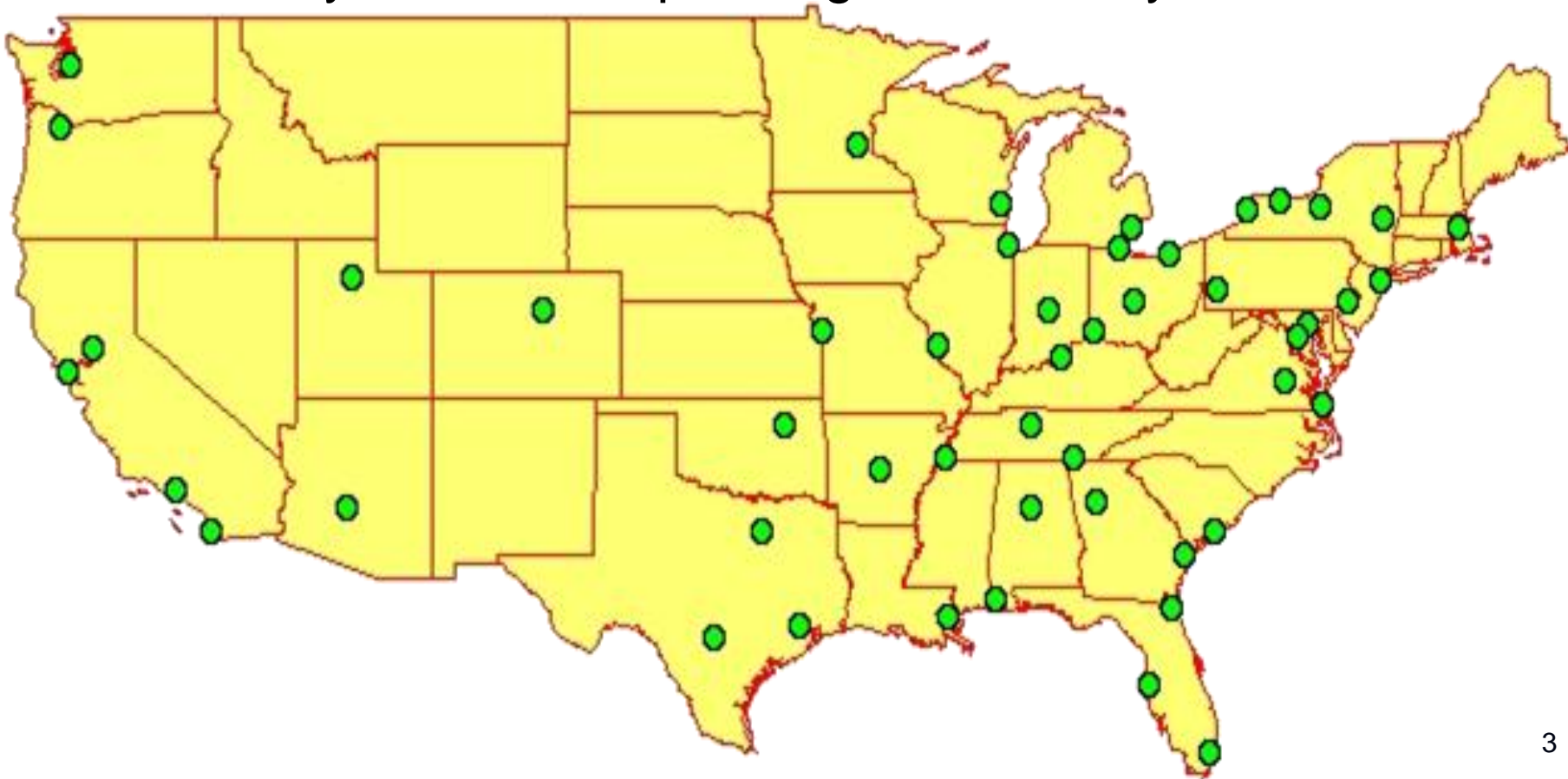


- Legend**
- Little or No Congestion
 - Moderate Congestion
 - Severe Congestion
 - ⚓ State Port
 - ✈ Major Airport
 - 🚚 Intermodal Connector
 - 🚢 Coast Guard Station
 - 🏠 Major Military Base
 - 💧 Water Features



US Logistics Survey

No NC city ranked in top 50 logistics friendly cities





CONNECTIVITY



1970



2012



MOBILITY



1970 to Present



?



Public Perception of Tolling

Public Opinion on Toll Roads Has Shifted

When asked “Free Road vs. Toll Road,”
they answer Free Road.

When asked “Toll Road vs. No Road,”
they answer Toll Road.

Key to Public Acceptability

Credibility of the argument that funding
is not available from other sources.

Understanding that use of tolls will bring the project
much sooner than waiting for funding from other sources.

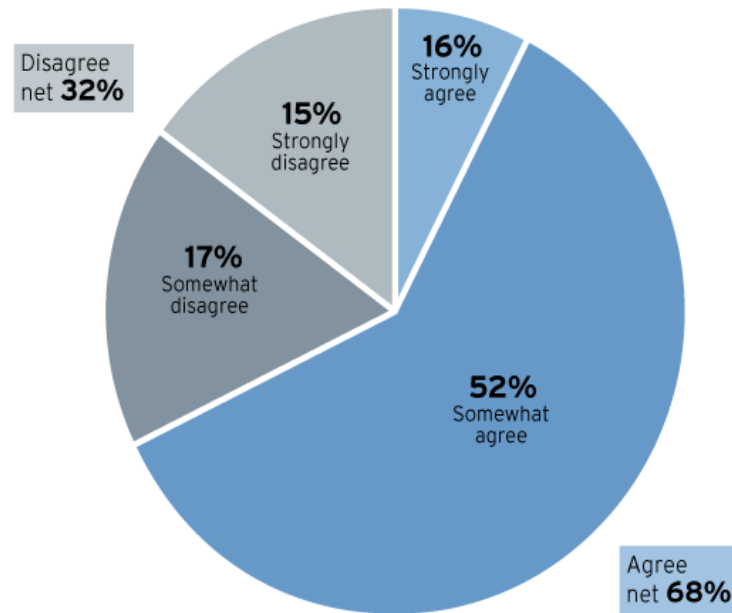


Public Perception of Tolling

TIME SAVINGS RAISES TOLLING'S APPEAL

More than six in 10 Americans would be willing to pay a higher toll fare if it saves them time.

Q. How strongly do you agree or disagree with the following statement: I would be willing to pay a higher toll fare if it saved me travel time.





Tolling in North Carolina

Out with the old....

- No toll booths.



In with the new...

- All electronic tolling.





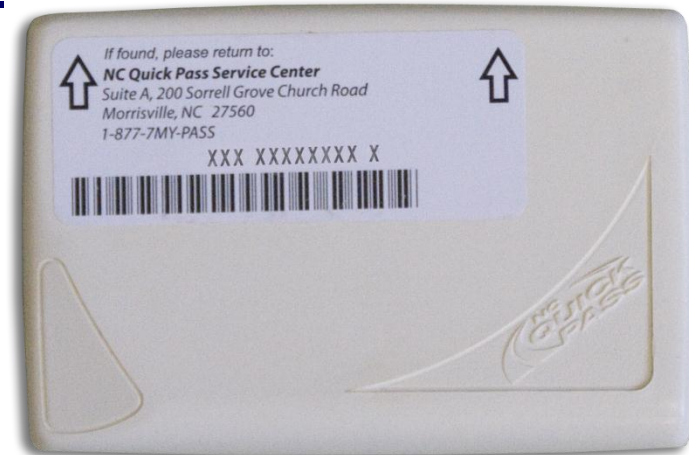
Transponder-based Tolling

Purchase transponder:

- \$5 sticker tag
- \$20 hard case – interoperable with EZ pass

Set up account - \$20 minimum.

Account debited as used.





Triangle Expressway Toll Gantries





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.





What Interoperability Means

Different technologies in different states:

- NC Quick Pass.
- EZ-Pass – Northeast (24 agencies in 14 states).
- SunPass – Florida.
- TxTag – Texas.

Until January, no interoperability across technologies.

No inter-state violation enforcement.

NC working to establish interoperability across the nation.



Agenda

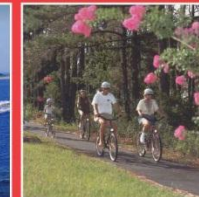
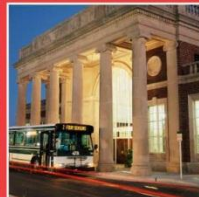
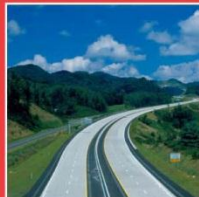
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Other Tolling Options (Hot Lanes & I-95)

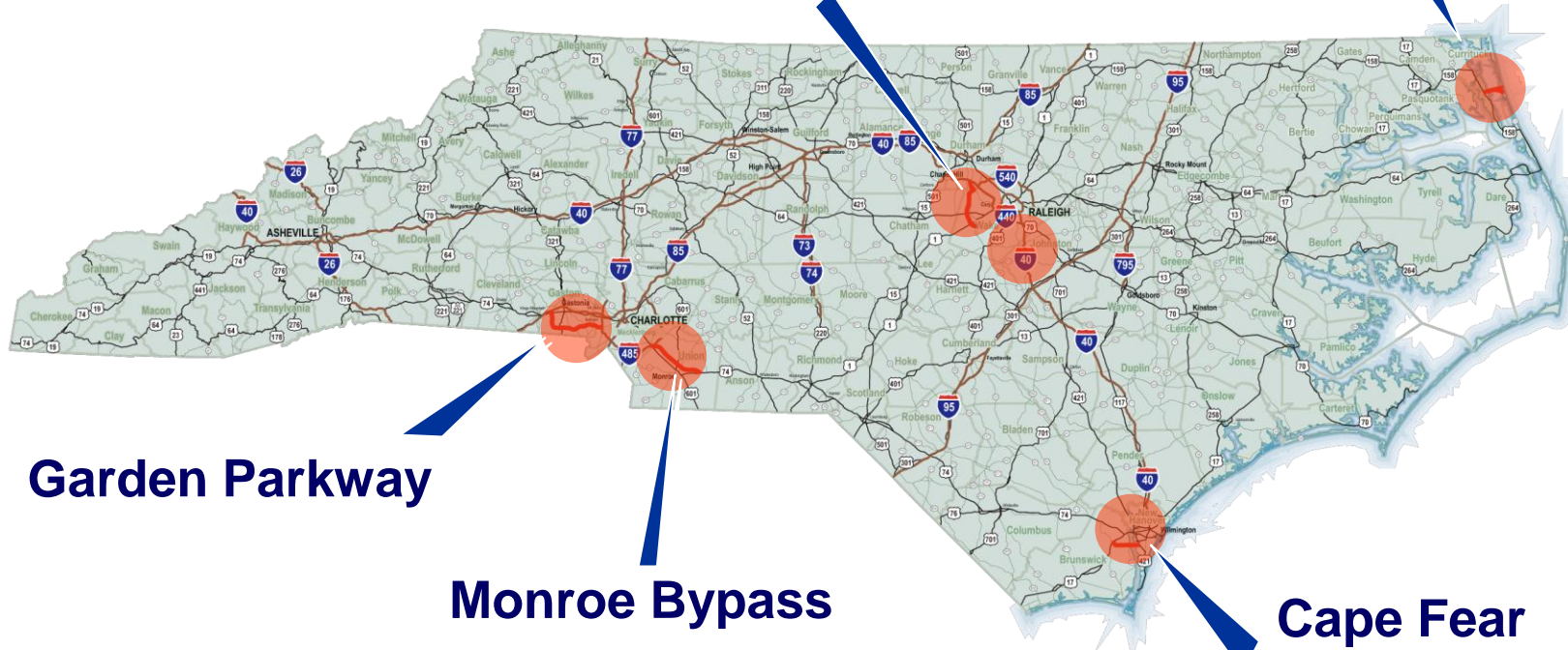
What Makes a Viable Toll or P3 Project



Turnpike Authority Projects

**Triangle Expressway and
Southeast Extension**

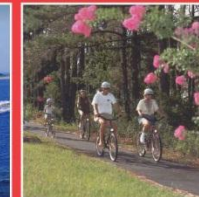
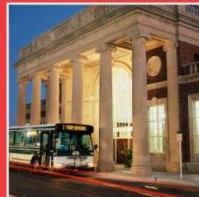
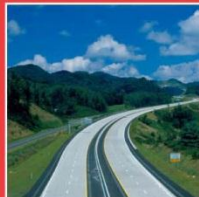
Mid-Currituck Bridge



Garden Parkway

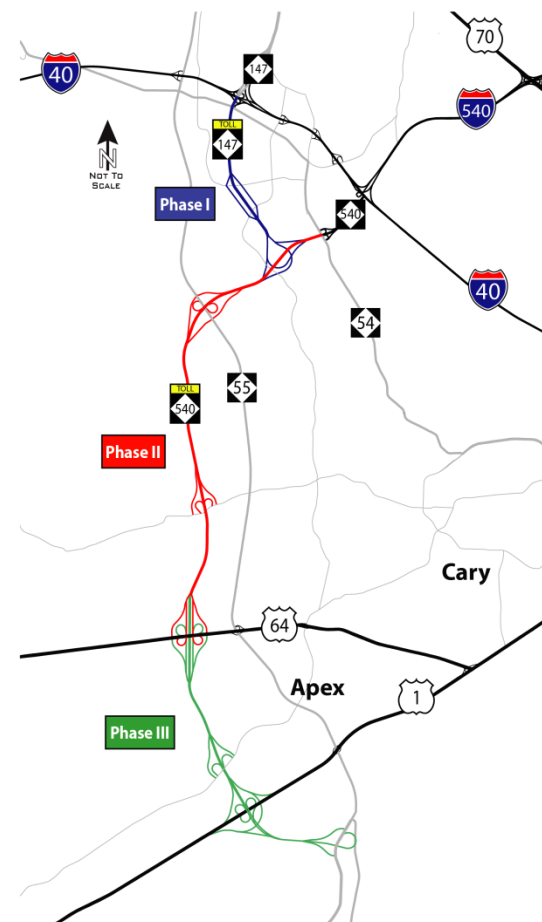
Monroe Bypass

**Cape Fear
Skyway**



Triangle Expressway

Length:	18.8 miles
Cost:	\$1 billion
Gap funding:	\$25m/annual
Groundbreaking:	8/12/2009
Phase I open:	12/8/2011
Phase II open:	8/1/2012
Phase III open:	12/31/2012





Leading in All Electronic Toll Collection

One of first projects in US planned and built utilizing all electronic tolling.

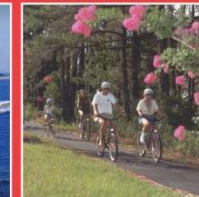
Transponder sales far exceeding forecasts.

- Targeted to sell 2,500 by June 2012.
- 60,000 sold to date.

Three ways to pay:

- NC Quick Pass.
- Bill By Mail.
- EZ-Pass account.







Triangle Expressway Southeast Extension

Preliminary Cost: \$1.5 billion.

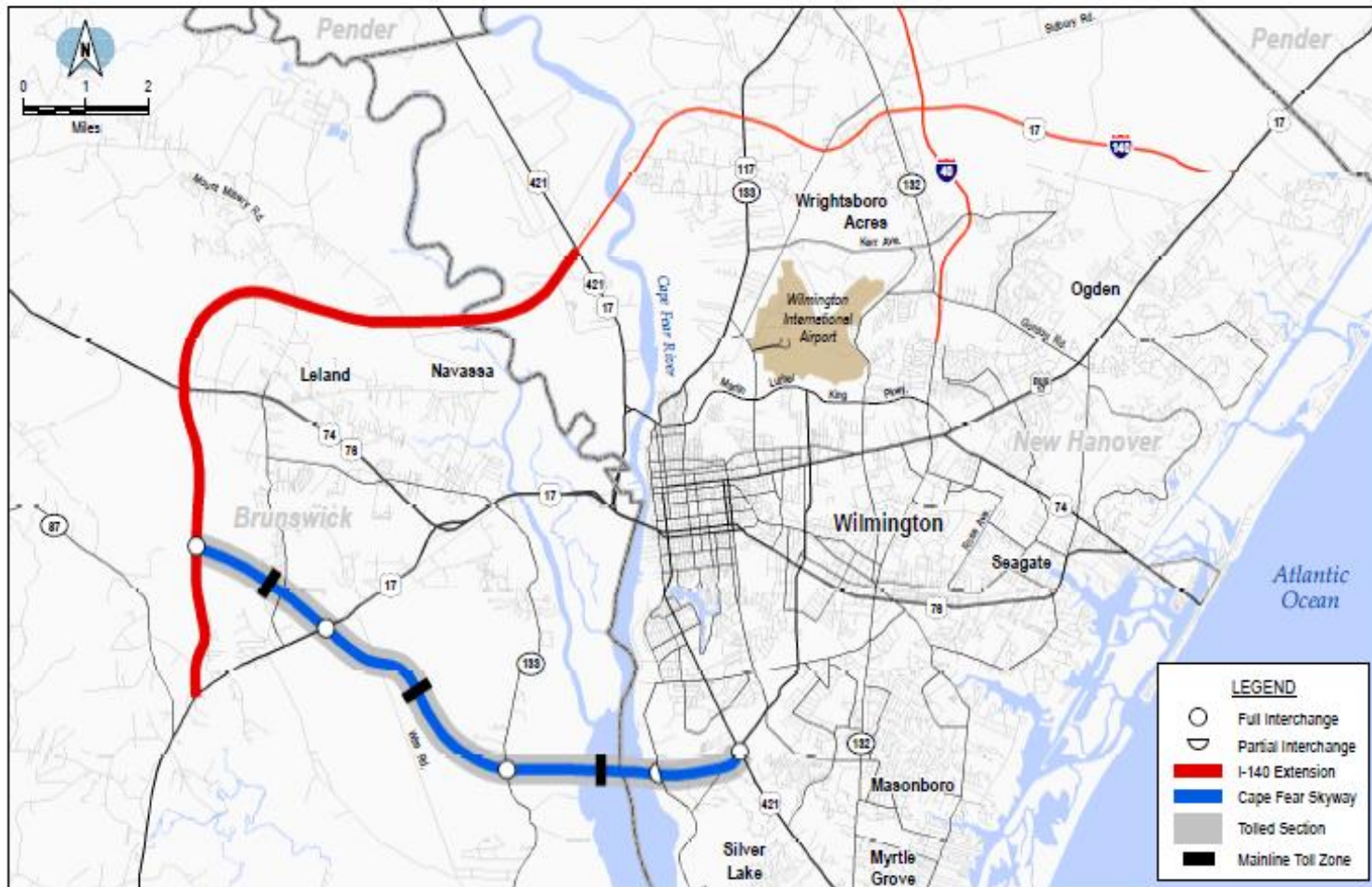
Length: Approximately 30 miles.

Schedule:

- Environmental studies on hold following enactment of S.L. 2011-7 in March 2011.
- NCGA is currently considering removal of study restrictions.



Cape Fear Skyway



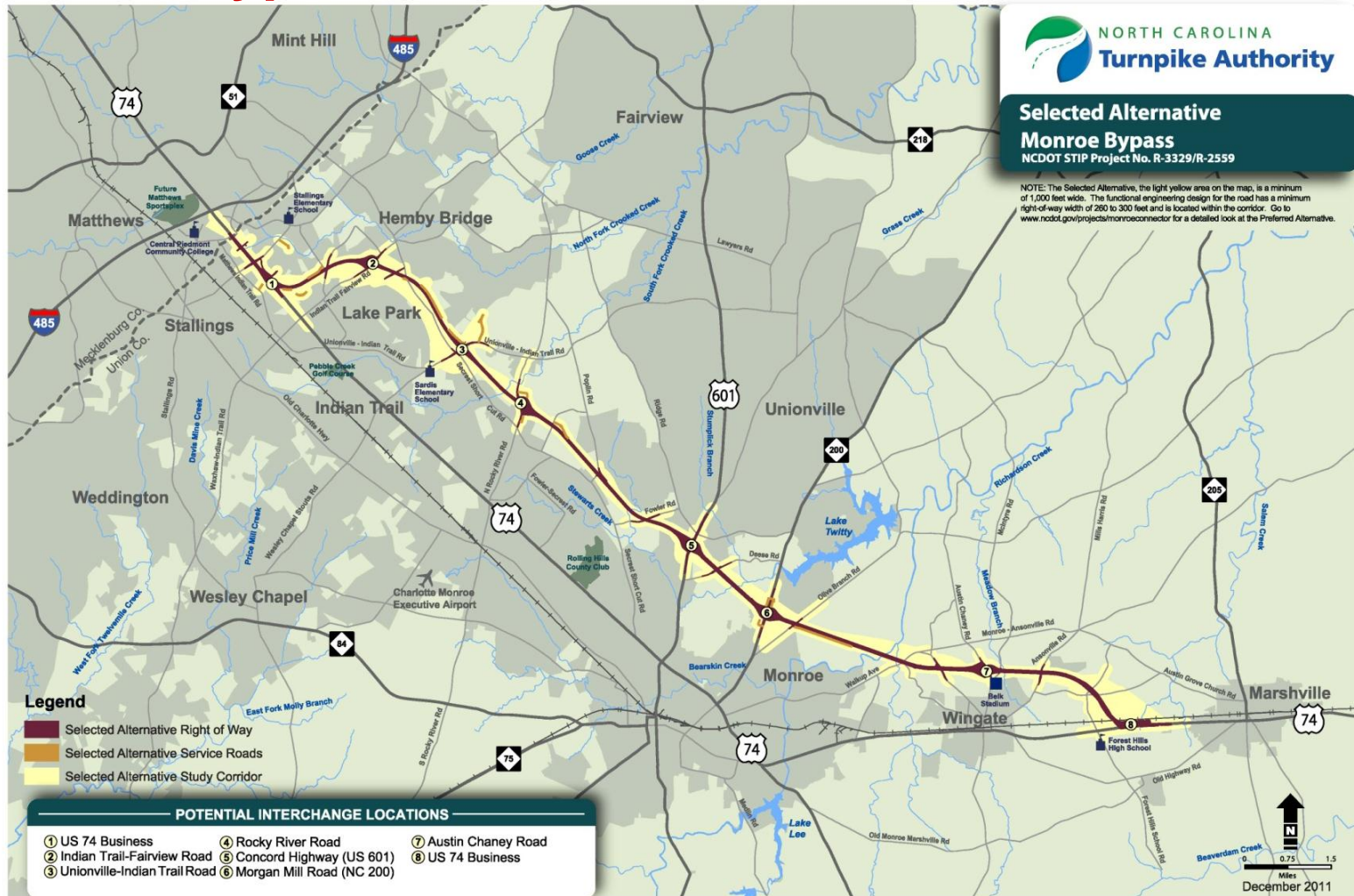


Cape Fear Skyway

Cost:	\$950M - \$1B
Gap fund appropriation:	\$0
Length:	9.5 miles
Draft Environmental Impact Statement:	TBD
Final Environmental Impact Statement:	TBD
Record of Decision:	TBD



Monroe Bypass





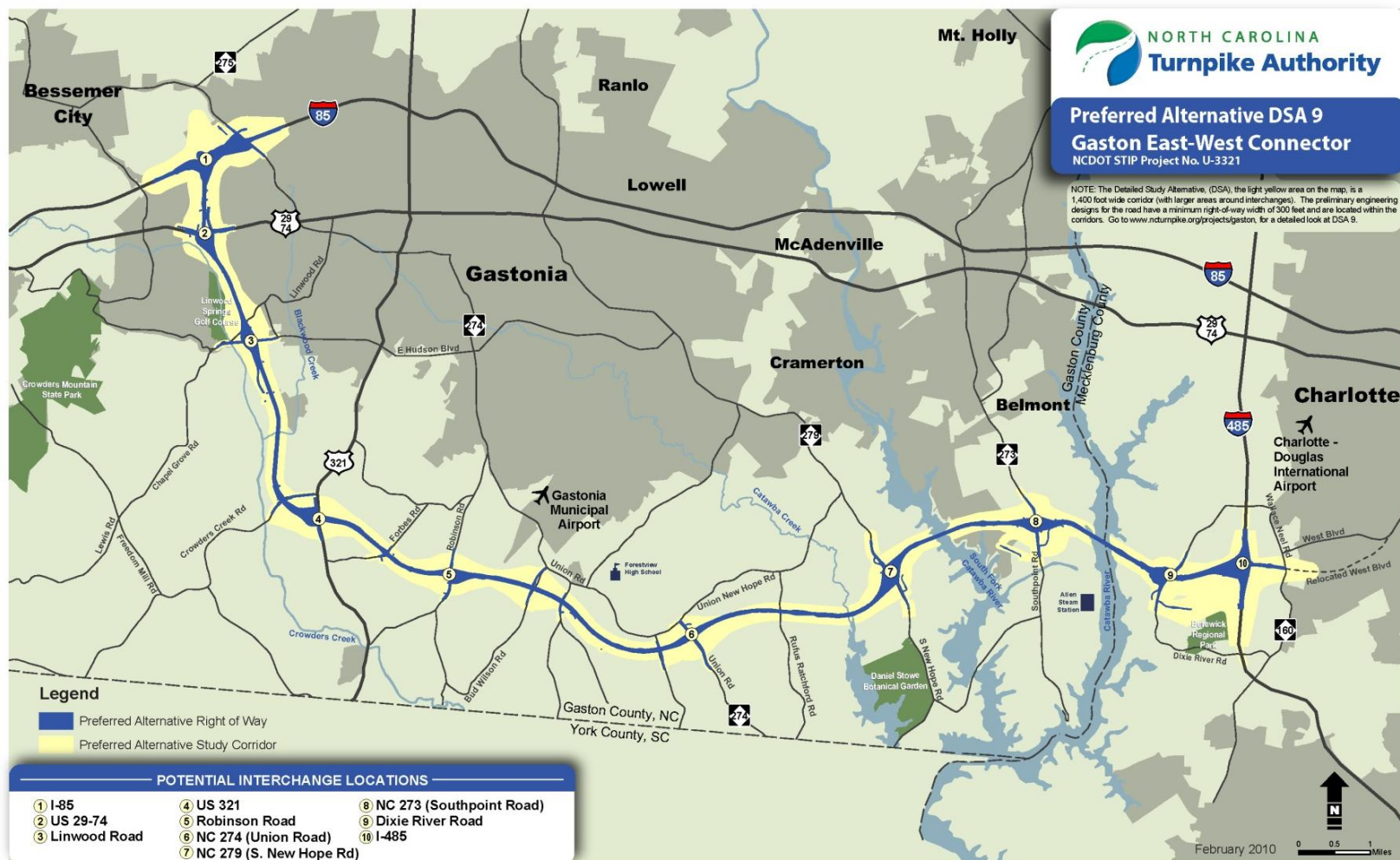
Monroe Bypass

Cost:	\$725 M
Gap fund appropriation:	\$24 M
Length:	20 miles
Sold bonds:	November 2011
Awarded design-build contract:	November 2011
Construction begins:	Fall 2013*
Open to traffic:	Winter 2016*

* Revised schedule; dates assume no further litigation



Garden Parkway





Garden Parkway

Cost:	\$900 M
Gap fund appropriation:	\$35 million
Length:	22 miles
Lawsuit filed:	August 28, 2012
Open design-build bids:	TBD*
Sell bonds:	TBD*
Award contracts:	TBD*
Open to traffic:	TBD*

* Impact of lawsuit on current schedule is being evaluated



Funding Breakdown

Triangle Expressway:

- 63% funded with tolls
- 37% funded with appropriation
- For 30 years

Mid-Currituck:

- 30% funded with tolls
- 70% funded with appropriation
- For 50 years

Cape Fear:

- 15% funded with tolls
- No appropriations (gap money) approved

Monroe

- 25% funded with tolls
- 64% funded with appropriation
- 11% STIP
- For 30 years

Garden

- 25% funded with tolls
- 64% funded with appropriation
- 11% GARVEE or STIP
- For 40 years

Southern Wake

- % project funded with tolls = TBD
- No appropriations (gap money) approved



Funding Breakdown, cont.

I-77

- 65% funded with PAB, TIFIA, Private Equity
- 35% STIP (maximum possible \$170m)
- 50 year concession agreement



Agenda

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P3 Highway Projects (I-77 & Mid-Currituck)

Other Tolling Options (Hot Lanes & I-95)

What Makes a Viable Toll or P3 Project



What Is a Public Private Partnership (P3)?

Contractual arrangement between State and private entity (“concession agreement”).

North Carolina:

- Owns the facility.
- Oversees construction.

Private partner usually:

- Assumes substantial financial, technical, construction and/or operational risks.
- Provides some level of financial investment.
 - Collected tolls pay for maintenance, operation and payments to private investors.



Procurement methods and risk transfer

Typical Allocation of Project Risk	Design	Construction	O&M	Financing	Market / Utilization	Collection
Design Bid Build	○	○	○	○	○	○
Design Build/Maintain	●	●	○	○	○	○
Design Build Operate/Maintain	●	●	●	○	○	○
Design Build Finance Operate (Availability Payment)	●	●	●	●	○	○
Design Build Finance Operate (Shadow User Fee)	●	●	●	●	●	○
Design Build Finance Operate (Real User Fee)	●	●	●	●	●	●



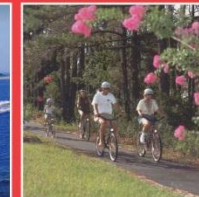
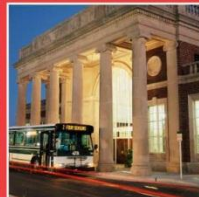
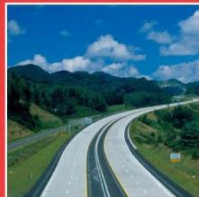
Why Use a P3?

Transfers long-term risks to private sector.

State may be able to leverage developer's equity with lower risk, higher ratings, and lower interest costs.

State can deliver projects years earlier than otherwise possible.

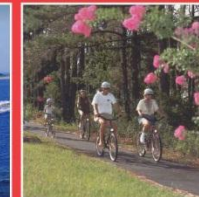
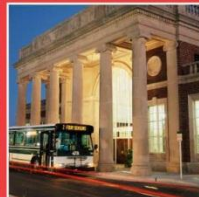
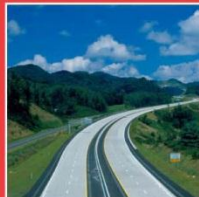
Developer incented to use innovative design, construction, and financing to reduce costs.



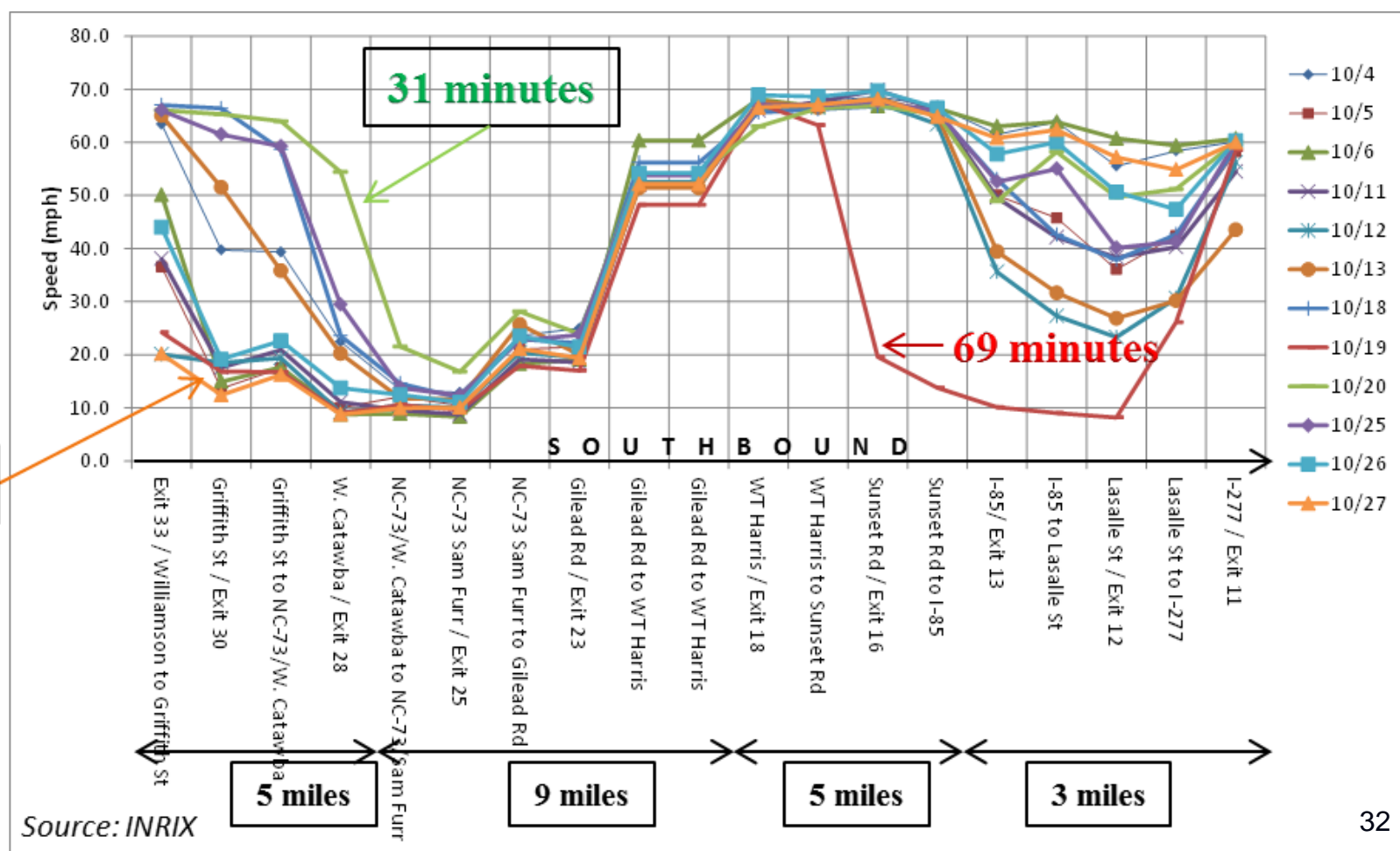
I-77 Express Lanes

- Public Private Partnership opportunity.
- Wide range of travel speeds and commute times.
- Delays of more than 45 minutes on worst travel days.





I-77 Today – Peak Time Congestion

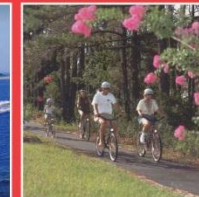
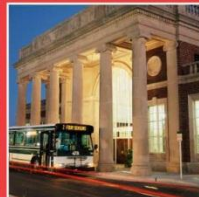
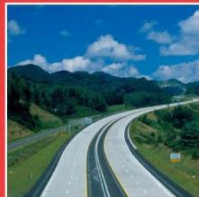




I-77 Express lanes project

Transportation challenges:

- Current users of I-77 are confronted with unpredictable travel times and travel speeds.
- Strong forecast for economic and population growth in the region.
- Further congestion if no capacity enhancements are made.
- Additional general purpose lanes to provide new capacity are not affordable in the near term (without tolling).
- Project scope converts existing HOV to HOT and adds new capacity between uptown Charlotte and Lake Norman.



Mid-Currituck Bridge Project

Size:

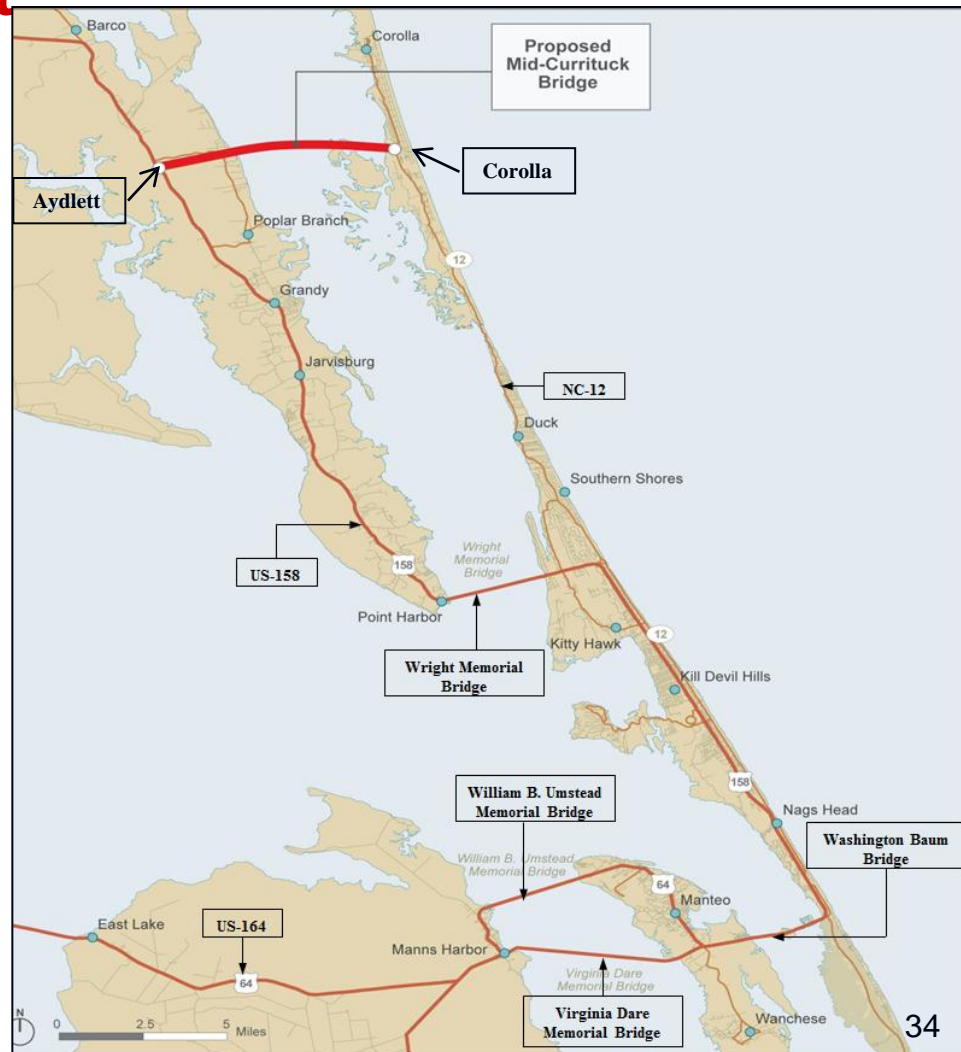
- 7 mile long 2-lane bridge
- Toll plaza on US 158
- Roundabout at NC 12

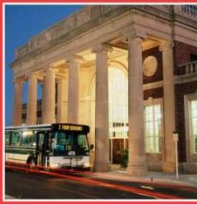
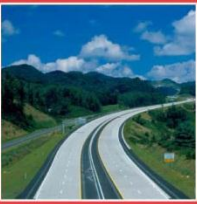
Location:

- Connects Aydlett to Corolla on Outer Banks

Population:

- Aydlett: Permanent 1,478
Seasonal 1,714
- Corolla: Permanent 1,707
Seasonal 25,964





Mid-Currituck Bridge Project

Includes improvements:

- 1.75 miles on US 158.
- 2.1 miles on NC 12.

Provides congestion relief - saves 37 miles and 2+ hours during peak season.

Improves hurricane evacuation time.

Ensures tourism values and enhances mobility in one of State's key economic areas.

Strong local support.





Mid-Currituck Bridge Project

Capital costs - \$550 M:

- Construction.
- Right of way.
- Inspections and testing.
- Mitigation.

Additional costs - \$102 M:

- Construction oversight and insurance.
- Capitalized interest.
- Debt service reserves, financing costs.

Private Equity:

- \$45 M.

Annual gap fund appropriation.

- \$28 M – likely less.



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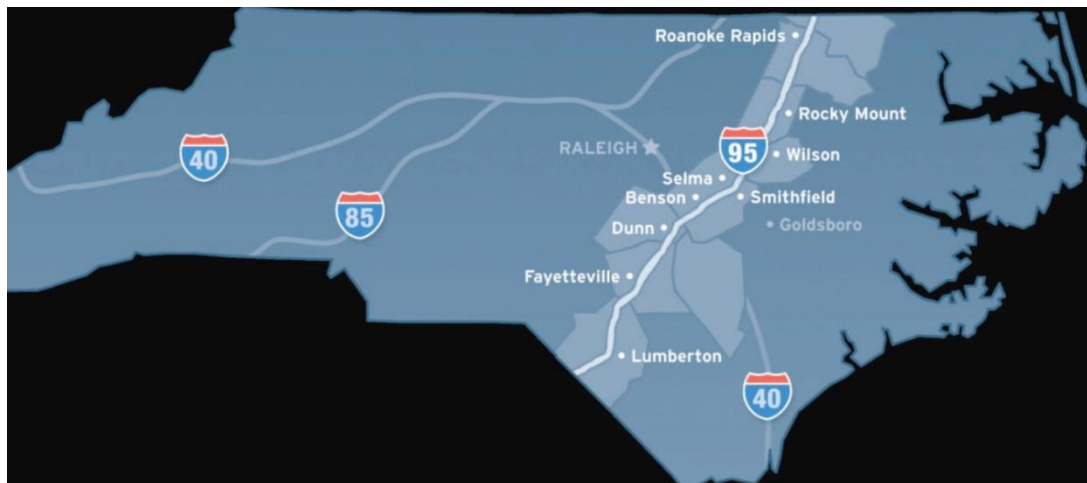
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What Makes a Viable Toll or P3 Project



I-95

- I-95 stretches 182 miles through NC.
- Construction of I-95 in N.C. began in the mid-1950s, with final sections built in 1980.
- Much of the corridor remains a 4-lane divided highway.
- FHWA granted NCDOT a conditional slot for tolling I-95 in the Interstate Reconstruction and Rehabilitation Pilot Program.





I-95 Economic Assessment

Study mandated by law.

Designed to evaluate economic impact to NC residents of:

- Maintaining I-95 at current service level.
- Modernizing I-95 utilizing tolls as funding tool.
- Modernizing I-95 utilizing other funding tools.
 - Examining what those funding options may be

Study schedule:

- The economic assessment kicked off on October 1, 2012.
It will be completed in March 2013.



Other Potential Express Projects

US 74 (U-209 & U-2509):

- I-277 to I-485
- Managed lanes for buses and other users
- Connects to Monroe Bypass

I-485:

- I-77 to Rea Road
- Express lanes
- I-40:
 - Clayton to US 1
- I-540:
 - I-40 to Lessville Rd.





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What Makes a Viable Toll or P3 Project



Why Tolling Is Critical to Transportation Planning

Applied strategically, tolling can leverage funds for large, expensive projects.

Can expedite major, high-traffic-volume projects of regional and economic significance.

Can add financing options that leverage decades of transportation appropriations.



Keys to Future of Tolling

Public approval:

- Support among local MPOs and communities.
- The motorist is our customer! Public support is critical.

Technological advances make tolling easy and seamless.

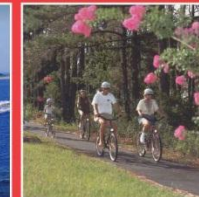
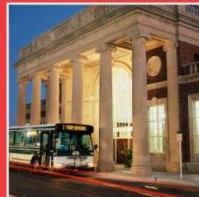
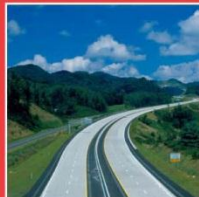


Keys to Future of Tolling, cont.

Data-driven decisions:

- Projects should be prioritized using data-driven process.
- Once prioritized, data-driven analysis can be used to evaluate funding and project development process (DB, D/B/F, etc.).
- Projects that can be sustainably funded with toll revenues and do not require “gap” appropriations are preferable.
- New model for “gap” appropriations, Mobility Fund, Other.

NC Turnpike Future Focus.



Summary of NCTA Project ADT Volumes

Project	Segment	Base "Current" Year		Design Year	
		ADT Range	Average ADT	ADT Range	Average ADT
Triangle Parkway	I-40 to NC 540	33,800 - 37,000	35,400	104,200 - 130,000	117,000
Western Wake Freeway	NC 540 to NC 55 Bypass	14,000 - 29,400	24,500	67,400 - 91,200	83,600
Southeast Extension	NC 55 Bypass to I-40	17,600 - 33,300	25,600	47,400 - 71,600	59,400
	I-40 to US 64/US 264	20,900 - 48,600	34,500	45,900 - 91,900	66,200
Garden Parkway	I-485 to US 321	18,400 - 28,300	23,100	33,400 - 69,300	47,700
	US 321 to I-85	13,000 - 20,000	15,900	21,300 - 28,400	24,400
Monroe Connector/Bypass*	US 74 Bypass to US 601	15,600 - 19,500	17,900	41,400 - 51,500	47,800
	US 601 to US 74	8,000 - 11,900	9,000	15,400 - 35,000	23,500
Cape Fear Skyway	US 17 to US 421	12,000 - 17,800	15,200	23,8500 - 41,800	34,100
Mid-Currituck Bridge	Summer Weekday	N/A	7,400	N/A	14,700
	Summer Weekend	N/A	15,000	N/A	22,500
* Monroe Bypass volumes to not include combined segment of I-485 and US 74 Bypass on western end of project.					



Summary

Tolling is an appropriate tool when applied in the right circumstances.

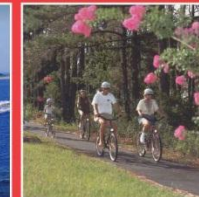
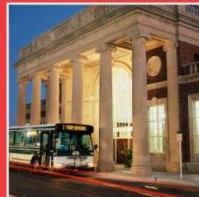
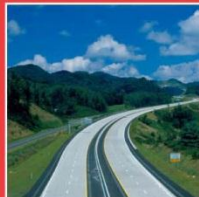
Opportunities exist for a more data-driven utilization of tolling.

All electronic tolling/user fees is preferred over additional taxes to fund transportation construction, operations, and maintenance as a tool to improve travel time and reduce congestion.

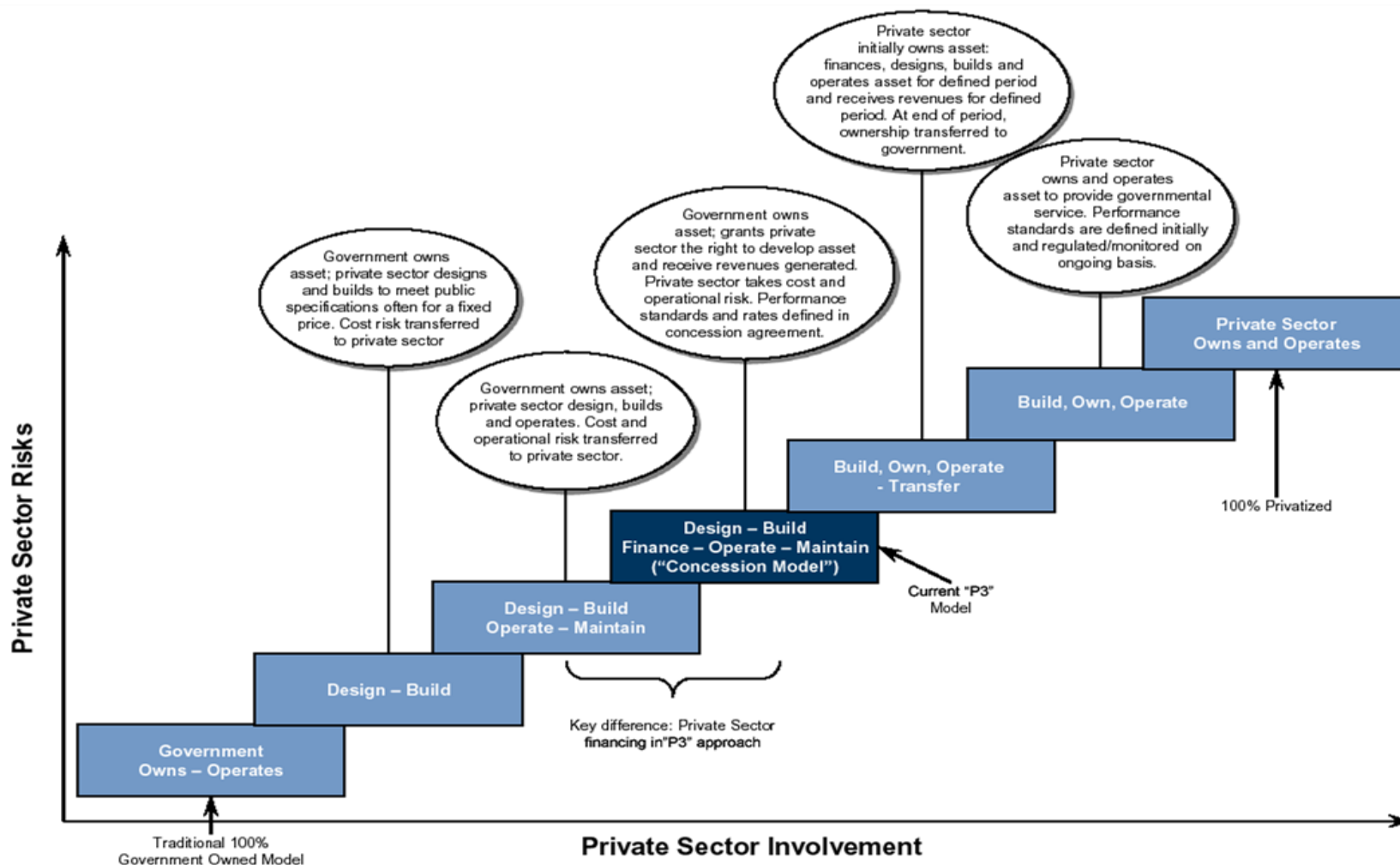
How does tolling fit in the delivery of critical transportation networks?



Questions?



Spectrum of Private Sector Risk and Involvement





Future Strategy

Not Simple Matter of Revenue

Requires a 3 Step Approach

- Improve Transportation Organization & Involve Other Governments to become more efficient and impact focused
- Establish Statewide Prioritization Process and link to Statewide Economic Planning
- Determine Incremental Resources/Revenues to achieve desired outcomes
 - At a minimum, keep pace with state growth and construction inflation
 - Leverage incremental new funding to accelerate projects
 - Open to Best Value Procurement, Multi-State Alignments, PPP Investment and Other Funding Options



Customer Service Center

Opened October 11, 2011

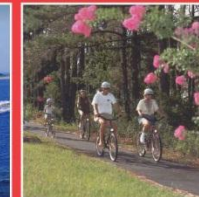
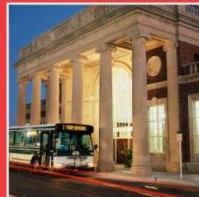
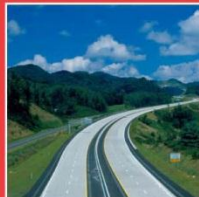


Functions:

- 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



Freight Tonnage by Mode, 2005-2035

With moderate economic growth at about 2.8% CAGR
Freight tonnage will nearly double by 2035

