



North Carolina Turnpike Authority

Presentation to
Rowan County
Transportation Summit

January 30, 2008

Background

- ◆ NCTA was asked to look at the Yadkin River Bridge as a toll project.
- ◆ NCTA completed the studies necessary for a financial analysis in 2007
- ◆ Identified non-financial issues for consideration

Decision Point...

- ◆ NCTA is presenting the facts and issues as noted in the study
- ◆ Decision is the responsibility of
 - Local leaders
 - General Assembly
 - FHWA & Others
 - Not NCTA

Today's Agenda

- ◆ The Project
- ◆ Project Economics
 - Traffic & Revenue
 - Project Costs
- ◆ Other Non-Economic Issues
- ◆ Decision Timing

The Project

◆ Length: 6.8 miles

- Bridge <1 mile
- I-85 about 6 miles

◆ I-85 Bridge Improvements

- Construct 2 new parallel structures over the Yadkin River -- south of existing bridge
- Total 8 lanes
- Once completed remove existing bridge

The Project

◆ I-85 Improvements

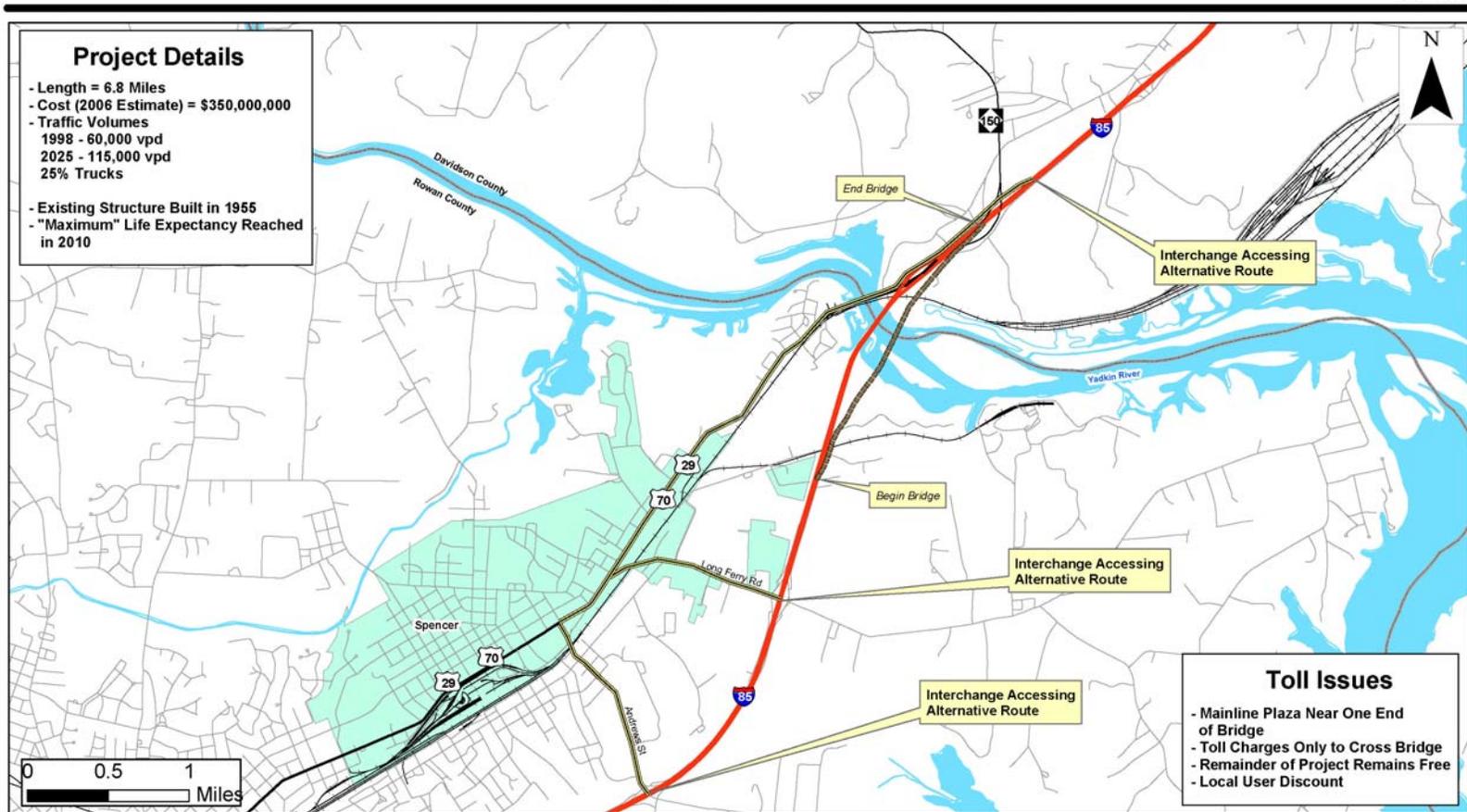
- Widen to 4 lanes each direction
- Total 8 lanes

◆ Free Bridge

- Rebuild southern bridge - 2-lanes free
- Convert northern to pedestrian bridge

◆ Open Road Tolling (Cashless)

Project Map



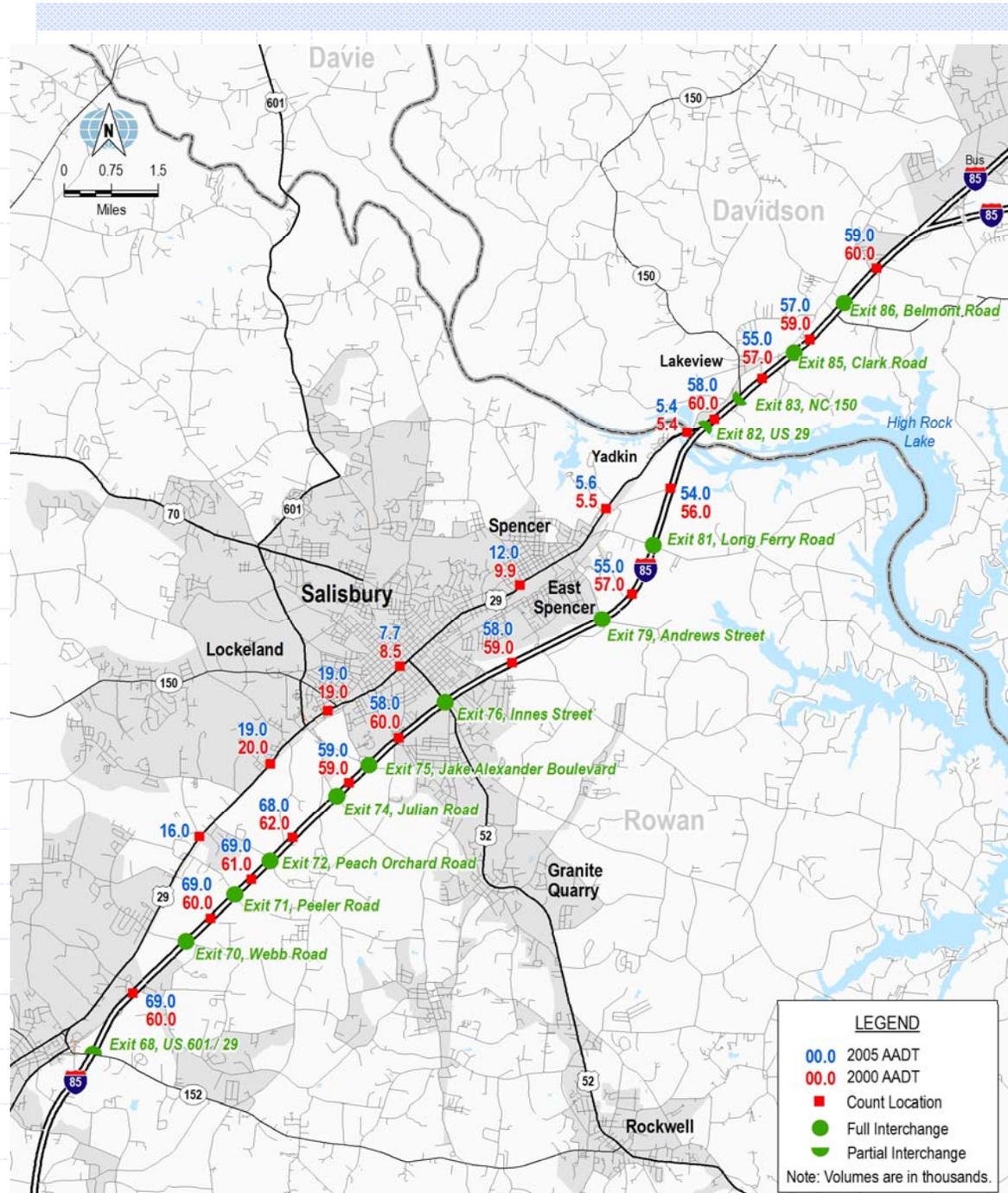
Traffic & Revenue

- ◆ Key to understanding project economics and users
- ◆ Prepared by Wilbur Smith Associates

Estimated Daily Traffic Without Tolls

<u>Year</u>	<u>Cars</u>	<u>Trucks</u>	<u>Total</u>
2013	54,100	15,500	69,600
2015	56,800	16,300	73,100
2020	64,300	18,400	82,700
2025	72,800	20,800	93,600
2030	82,300	23,600	105,900

Average Daily Traffic



Decision: How to collect tolls

CASH OPTION

- ◆ 6-7 lanes toll plazas each direction
- ◆ Traffic stops to pay
- ◆ Capital costs
- ◆ Operating cost
- ◆ Safety

CASHLESS OPTION

- ◆ No toll plazas
- ◆ No stopping
- ◆ Reduced capital & operating cost
- ◆ Increased uncollectable tolls
- ◆ Direction for NC & Industry

Estimate Tolling Impact

- ◆ Toll System
- ◆ Toll Rates
- ◆ Revenue Generated
- ◆ Financial Analysis
- ◆ Traffic Diversion
 - Local
 - In-State – non-local
 - Out-of-State

Toll Rate Assumptions

Year	Passenger Vehicle/ Light Truck			Heavy Truck		
	ETC	Reg. Video	Unreg. Video	ETC	Reg. Video	Unreg. Video
2013	\$1.00	\$2.00	\$4.00	\$3.00	\$6.00	\$12.00
2015	1.00	2.00	4.00	3.00	6.00	12.00
2020	1.25	2.50	5.00	3.75	7.50	15.00
2025	1.50	3.00	6.00	4.50	9.00	18.00
2030	1.75	3.50	7.00	5.25	10.50	21.00

State of Registration

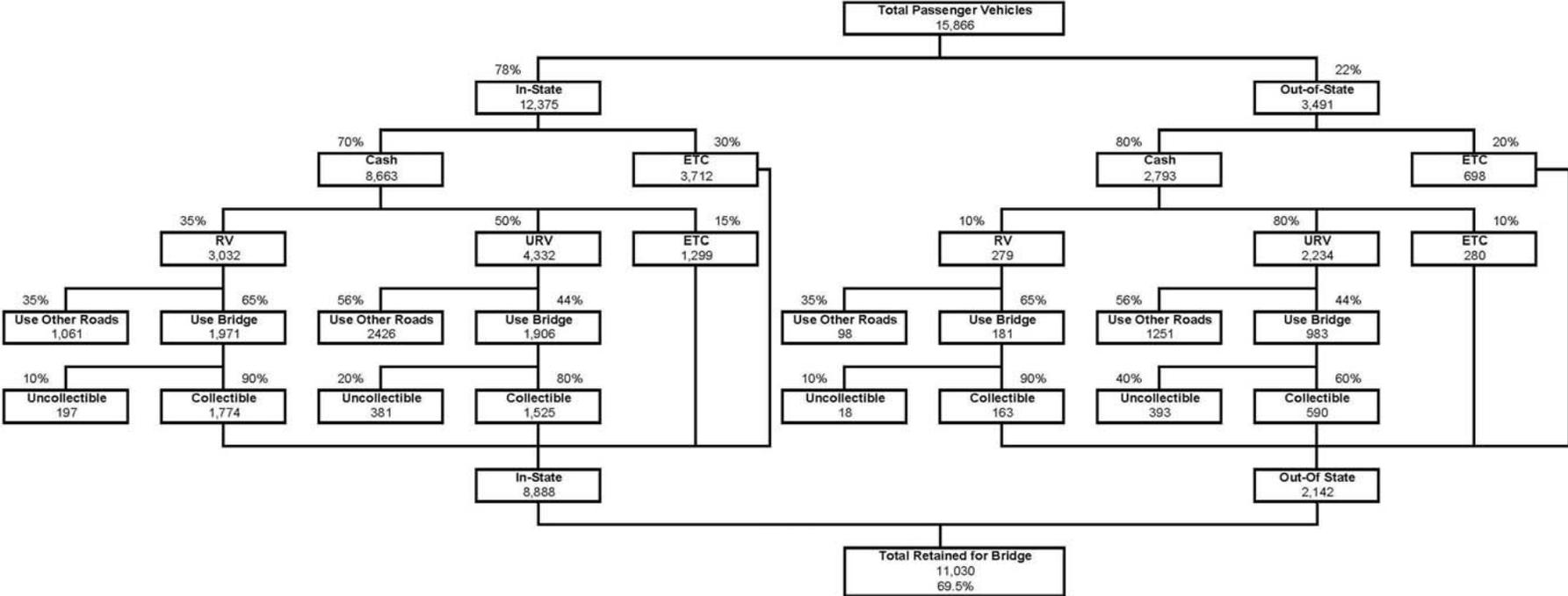
(Estimated based on accident data)

<u>Registration</u>	<u>Passenger</u>	<u>Heavy Truck</u>
In-State	78%	64%
Out-Of-State	22%	36%
Total	100%	100%

So...What does this mean?

- ◆ Will they pay a toll or try to find a non-toll alternate route?
- ◆ How will they pay?
 - Transponder
 - Registered video
 - Unregistered video

Customer Decision Tree



ETC Electronic Toll Collection
 RV Registered Video Tolling
 URV Unregistered Video Tolling

Forecast Ann. Traffic & Revenue

WSA Forecast (000)

Cashless System

<u>Year</u>	<u>Traffic</u>	<u>Revenue</u>
2013	14,291	\$32,694
2015	16,422	35,490
2020	19,435	50,419
2025	23,141	68,165
2030	27,186	90,962

Project Cost

Prepared by HNTB

◆ Capital Cost \$391 Million

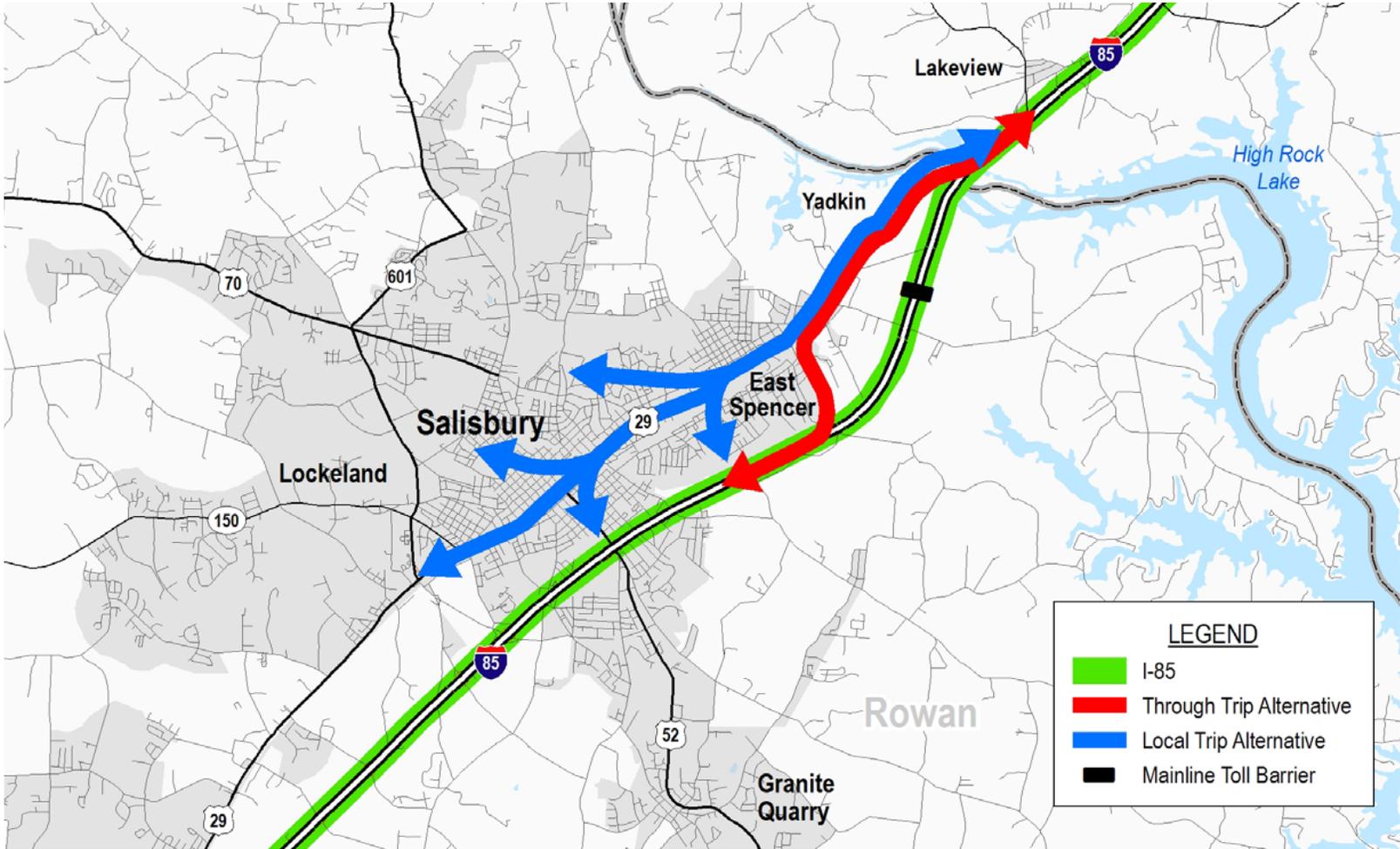
◆ Operating, Maintenance &
Rehabilitation cost paid by toll revenue

Financial Analysis

- ◆ Excellent financial results
- ◆ Small or no gap

Other Considerations

Alternate Routes



Traffic Diversion (2020)

Diversion of Traffic Through Spencer

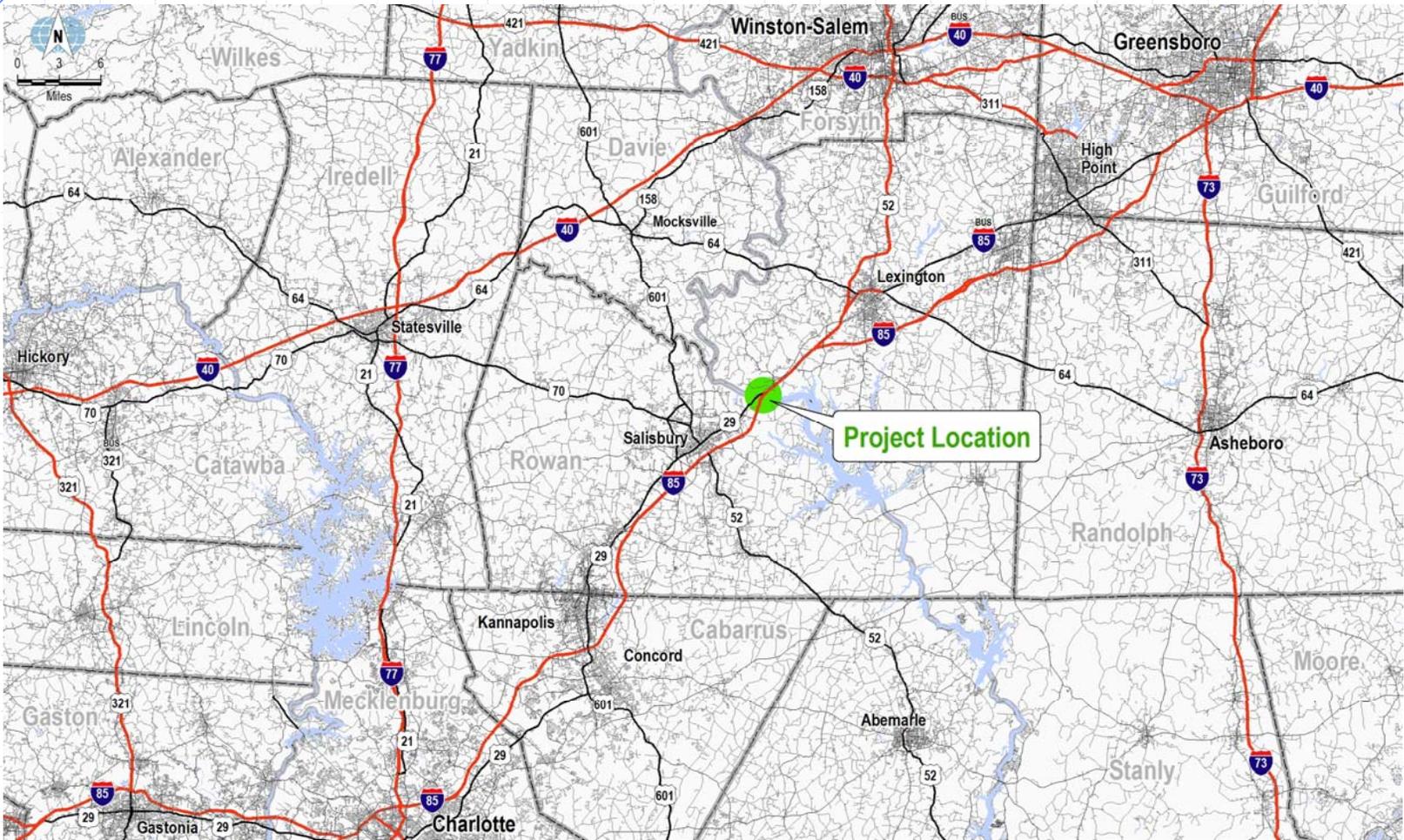
◆ Cars and light trucks (2020 Avg. Daily Volume)

- Without tolling 64,300
- With tolling 53,300 (11,000)

◆ Heavy trucks (2020 Avg. Daily Volume)

- Without tolling 18,400
- With tolling 14,800 (3,600)

Statewide Impact



Reaction of In-State Users

Local users

- ◆ Small part of traffic
- ◆ Easy to divert to non toll route

In-State Transit

- ◆ Large part of users
- ◆ Potential for public resistance
- ◆ No time advantage vs. old route
- ◆ Tolling a road that has always been free

Occasional NC Users

- ◆ Large part of users
 - Not own transponder
- ◆ Reaction to non-registered toll bill?
 - Ignore
 - Reaction to NCTA collection process
- ◆ Reaction of politicians in other areas?

Approval Steps

- ◆ Local Decision
- ◆ Decision by NC General Assembly
 - OK to toll an existing road
 - Assign to NCTA as a toll project
- ◆ Environmental Process
 - Needs decision by Mid-2008

Project Timeline

- ◆ Mid 2008 Decide -- Toll or No Toll
- ◆ June 2009 All Enviro. Clearance
- ◆ Sept. 2009 Let Contract
- ◆ Sept. 2010 Begin construction
- ◆ Open – Approx 3 years – 2012/2013

Questions