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## Seamless Transit in the Triangle

Mayors' Regional Bus Expansion Plan

John Tallmadge  
Director of Commuter Resources  
Triangle Transit Authority

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## The Charge

- Charge came from Mayors Bell and Meeker in November 2006, due in April 2007
- Look at new **regional** corridors
- Look at improving existing **regional** services
- Look at unserved or under-served **local** corridors
- Develop scenarios for \$5 million, \$10 million, and \$15 million in new expenditures
  
- **This is not a TTA plan, this is a plan for all the transit providers working together to improve service.**

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## Developed by Staff

- Participation from staff at DATA, Raleigh, Chapel Hill, Cary, TTA, Clayton, UNC, NCSU, Duke, NCCU, and the two MPOs
- Participants identified corridors, services, and facilities for evaluation
- Participants agreed on evaluation criteria
- Participants prioritized the projects in each funding scenario

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## Built on Recent Outreach

- Key findings from TTA Strategic Investment Plan outreach were fed into plan
  - Routes should have shorter travel times, like the Express buses
  - Bus stops should be more comfortable and have better information about bus services
  - Buses should be reliable and comfortable
  - Buses should be "greener"

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## Evaluation Criteria

- How many people would be able to use this service? (estimating corridor travel market)
- How many people are without a car in the corridor?
- Are the destinations easy to walk to?
- Are there parking constraints or fees at the destination?
- Are destinations served by the route providing financial incentives to ride?
- Is there geographic equity in each scenario?

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## "Big Ideas" in this Plan

- Extend the reach of public transportation
  - New or improved regional express and local services
  - Sunday service
- Improve *quality*, not just quantity
  - 3 "Rapid Ride" corridors
  - Investments to shorten travel times
  - "Greener" fleet of buses
- Create a Regional Park-and-Ride Network
  - Mostly leased spaces in existing private parking lots
  - New facilities planned in US 15-501 Corridor between Chapel Hill and Durham, and at State Farmers' Market

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## Rapid Ride Corridors

- Frequent service
- ¼-½ mile stop spacing
- High-quality bus stop amenities
- Real-time Passenger Information
- Hillsborough St (Raleigh), Fayetteville St (Durham), MLK, Jr Blvd (Chapel Hill)



22: 16Bry-South  
2 min & 6 min

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## Time-Saving Improvements

- Bus Priority at Traffic Signals along US 15-501
- Bus Bypass Shoulder on I-40



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## "Green" Vehicles

- New EPA-standard "clean diesel" buses for regional routes
- Hybrid diesel-electric buses for shorter, in-town routes
- Vanpool vehicles



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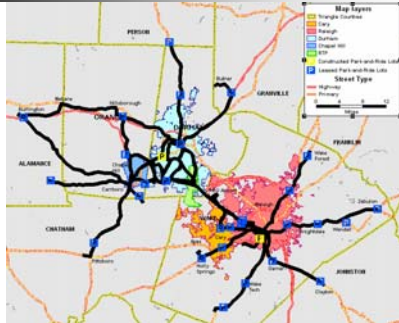
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## Park-and-Ride Network




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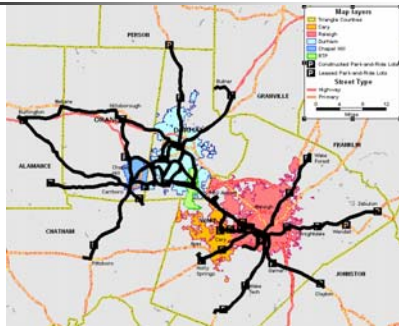
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## \$15 Million Scenario Services




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## \$15 Million Scenario Summary

- New Express service - 5 additional counties; 11 additional towns
- Real-time arrival system, Sunday Regional service, improved frequency on existing Express routes, RDU direct service
- 3 local *Rapid Ride* corridors and 6 new/improved local services
- Support activities expenses of \$900K per year
- Expenses of \$96 million over 7 years
- Revenue from current sources of \$31 million
- Gap = ~\$65 million
  - Contributions from governments outside of 3-County area (assumed 50% of route operating costs) of \$3 million
  - New source needed of \$62 Million or \$8.9 million annually

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## \$5 Million Scenario Summary

- New Express service - 2 additional counties; 5 additional towns
- Real-time arrival system
- 1 local *Rapid Ride* corridor and 2 new local services
- Support activities expenses of \$280K per year
- Expenses of ~\$35 Million over 7 years
- Revenue from current sources of ~\$10.7 Million
- Gap = ~\$24.3 Million
  - Contributions from governments outside of 3-County area (assumed 50% of route operating costs) of \$225,000
  - New source needed of \$24 Million or \$3.4 million annually

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## Revenue Assumptions

- Assumptions from Current Sources
  - Customer Fares (assumed farebox recovery rates for differing service types)
  - Federal Section 5307 formula grant funds (assumed 41-cents per revenue mile)
  - Federal participation in capital projects (assumed 40%)
  - State Maintenance Assistance Program (assumed 2%)
  
- Gap to be funded by new local sources of revenue

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## New Funding Source Options

	\$15 Million	\$10 Million	\$5 Million
Funding Gap – 7-Year Total (Annual)	~\$64 M (\$8.9 M)	~\$48.7 M (\$6.7 M)	~\$24.3 M (\$3.4 M)
3-County Vehicle Registration Fee Increase	\$8	\$6	\$3
3-County Sales Tax Increase	6/100 of a cent	4/100 of a cent	2/100 of a cent
3-County Real-Estate Transfer Tax	7 cents per \$100 (\$140 on a \$200,000 transaction)	5 cents per \$100 (\$100 on a \$200,000 transaction)	3 cents per \$100 (\$60 on a \$200,000 transaction)
3-County Gas Tax Increase	0.6%	0.4%	0.2%

Source: Regional Transportation Alliance estimates, 2006

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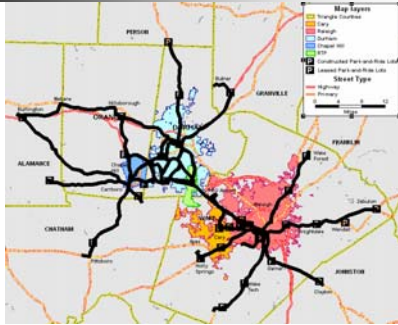
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## \$15 Million Scenario Services



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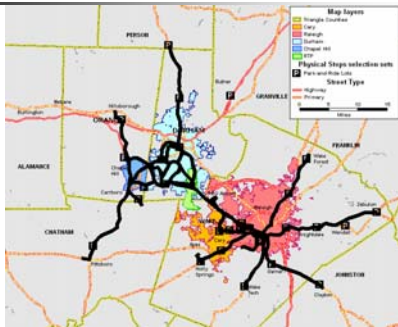
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## \$10 Million Scenario Services



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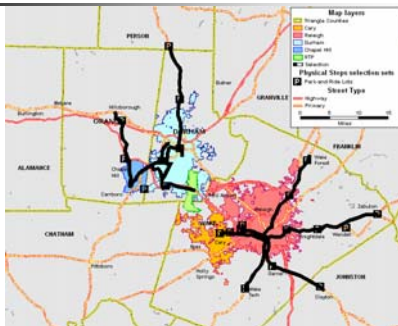
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## \$5 Million Scenario Services



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## Comparison of Scenarios

	\$15 Million	\$10 Million	\$5 Million
Add'l Counties/ Towns Served	5 / 11	3 / 7	2 / 5
Other Regional Improvements	Real-time info, Sunday, Express Frequency, RDU Direct	Real-time info, Sunday, Regional Express (1 route), RDU Direct (1 city)	Real-time info
Local <i>Rapid Ride</i> Corridors	3	3	1
Funding Gap	~\$64 M	~\$48.7 M	~\$24.3 M

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## Other Local Needs

- Raleigh Five Year Transit Plan
  - Currently only in Year 2 of a 5-year plan
- Durham Short-Range Transit Plan
  - Additional expansions identified
- Chapel Hill – UNC enhancements
- C-Tran potential expansion

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## \$15 Million Scenario Details

- Capital Investments
  - Real-time Passenger Information System
  - Park-and-Ride Deck in 15-501 Corridor between Durham and Chapel Hill
  - Park-and-Ride lot near at State Farmer's Market
  - US 15-501 Signal Priority Pilot Project
  - *Rapid Ride* Corridor amenity upgrades - Hillsborough St (Raleigh), Fayetteville St (Durham), and Martin Luther King, Jr. Blvd (Chapel Hill)
  - Bus stop improvements throughout system
  - Bus Bypass Shoulder Pilot Project on I-40
  - Bus Purchases (38 diesel, 22 hybrid diesel-electric)
  - Expansion of vanpool fleet by 30 vehicles

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  - Bus stop improvements throughout system
  - Bus Bypass Shoulder Pilot Project on I-40
  - Bus Purchases (23 diesel, 18 hybrid diesel-electric)
  - Expansion of vanpool fleet by 30 vehicles

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  - Park-and-Ride Deck in 15-501 Corridor between Durham and Chapel Hill
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  - US 15-501 Signal Priority Pilot Project
  - *Rapid Ride* Corridor amenity upgrades - Hillsborough St (Raleigh), Fayetteville St (Durham), and Martin Luther King, Jr. Blvd (Chapel Hill)
  - Bus stop improvements throughout system
  - Bus Bypass Shoulder Pilot Project on I-40
  - Bus Purchases (10 diesel, 9 hybrid diesel-electric)
  - Expansion of vanpool fleet by 20 vehicles

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## \$15 Million Scenario Details

- New Regional Services
  - Clayton-Garner to Raleigh (Year 1)
  - Wake Forest to Raleigh (Year 2)
  - Zebulon-Wendell-Knightdale to Raleigh (Year 2)
  - Durham-Person County line to downtown (Year 2)
  - Sunday service serving Durham/Raleigh/Chapel Hill/RDU (Year 3)
  - Mt. Carmel Church Rd (Chatham Co.) to UNC (Year 3)
  - Pittsboro to UNC (Year 4)
  - Burlington/Graham to UNC (Year 4)
  - Butner-Creedmoor to downtown Durham (Year 4)
  - Mebane/Hillsborough to Duke/Durham (Year 6)
  - Airport Express Services (Durham Year 6, Others Year 7)
  - Old Greensboro Rd (Alamance Co.) to UNC (Year 7)

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## \$10 Million Scenario Details

- **New Regional Services**
  - Clayton-Garner to Raleigh (Year 1)
  - Wake Forest to Raleigh (Year 2)
  - Zebulon-Wendell-Knightdale to Raleigh (Year 3)
  - Durham-Person County line to downtown (Year 3)
  - Sunday service serving Durham/Raleigh/Chapel Hill/RDU (Year 5)
  - Mt. Carmel Church Rd (Chatham Co.) to UNC (Year 4)
  - Pittsboro to UNC (Year 3)
  - Burlington/Graham to UNC (Year 4)
  - Butner-Creedmoor to downtown Durham (Year 4)
  - Mebane/Hillsborough to Duke/Durham (Year 6)
  - **Airport Express Services (Durham Year 7), Others Year 7)**
  - Old Greensboro Rd (Alamance Co.) to UNC (Year 7)

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  - Mebane/Hillsborough to Duke/Durham (Year 6)
  - Airport Express Services (Durham Year 6, Others Year 7)
  - Old Greensboro Rd (Alamance Co.) to UNC (Year 7)

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## \$15 Million Scenario Details

- **Improved Regional Services**
  - Cary to Raleigh mid-day service (Year 1)
  - Hillsborough to UNC (Year 2)
  - Fuquay-Varina to Wake Tech to Raleigh (Year 2)
  - Durham – Chapel Hill via 15-501 service – express and local improvements (Years 2,4)
  - Holly Springs/Apex to NCSU and downtown Raleigh (Year 3)
  - Chapel Hill – Raleigh Express (Year 4)
  - Durham – Raleigh Express (Year 6)

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  - Durham – Chapel Hill via 15-501 service – express and local improvements (Years 2,4)
  - Holly Springs/Apex to NCSU and downtown Raleigh (Year 3)
  - Chapel Hill – Raleigh Express (Year 4)
  - Durham – Raleigh Express (Year 6)

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## \$15 Million Scenario Details

- New / Improved Local Services
  - South Square area to RTP via MLK (Year 2)
  - Southpoint to 15-501 P&R to Duke (Year 3)
  - New Hope Commons – Southpoint – RTP (Year 3)
  - *Rapid Ride* corridor Hillsborough Street (Raleigh) (Year 3)
  - *Rapid Ride* corridor Fayetteville Street (Durham) (Year 3)
  - DATA #6 skip-stop from Downtown to Duke (Year 3)
  - *Rapid Ride* corridor MLK, Jr. Blvd (Chapel Hill) (Year 4)
  - Tryon Road to NCSU and downtown (Year 5)
  - Farrington Rd to UNC (Year 6)

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  - Tryon Road to NCSU and downtown (Year 5)
  - Farrington Rd to UNC (Year 6)

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## \$15 Million Scenario Details

- Support Services
  - Service Implementation Planning (up to \$160K per year)
  - Marketing (2.5% of new annual operating expenses)
  - Transportation Demand Management (\$200K per year)
  - Integration with County Community Transportation Systems (\$250K per year)

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## \$10 Million Scenario Details

- Support Services
  - Service Implementation Planning (\$100K per year)
  - Marketing (2.5% of new annual operating expenses)
  - Transportation Demand Management (\$100K per year)
  - Integration with County Community Transportation Systems (\$175K per year)

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## \$5 Million Scenario Details

- Support Services
  - Service Implementation Planning (\$50K per year)
  - Marketing (2.5% of new annual operating expenses)
  - Transportation Demand Management (\$40K per year)
  - Integration with County Community Transportation Systems (\$100K per year)

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