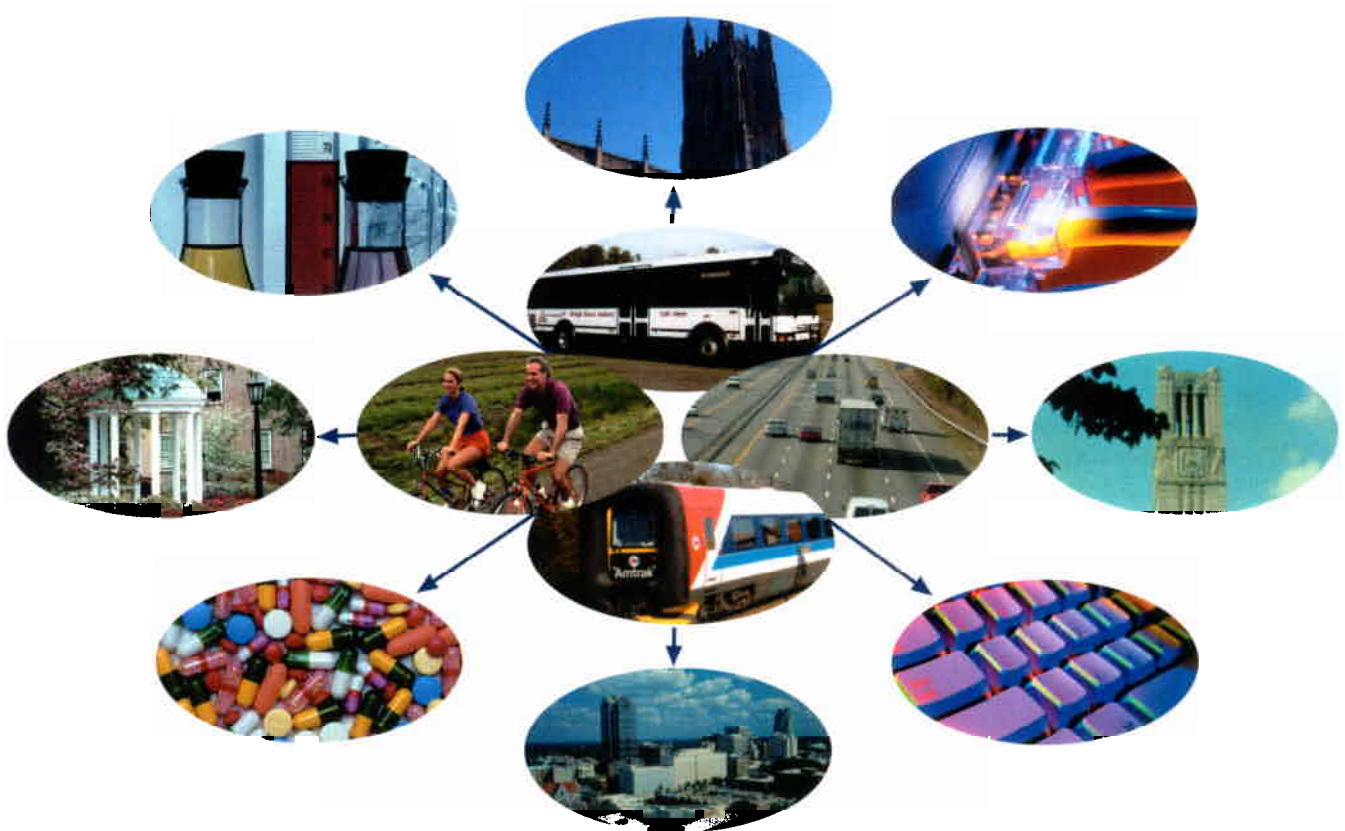


REGIONAL TRANSPORTATION STRATEGY

*For the Research
Triangle Region of North Carolina*



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For the Research
Triangle Region of North Carolina



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We have a duty. As mayors, we serve on the federally required Metropolitan Planning Organizations in our region. Thus we are keenly aware of many needed transportation improvements that are deferred, or not considered, because we cannot program roads, bikeways or transit projects if they have no funding. We have a duty to share this information, and its implications, with our fellow citizens.

This report shares our disturbing insight into the depth of the transportation challenges we face. Thanks to the fundraising efforts of the Greater Raleigh Chamber of Commerce, major support from Cisco Systems, GlaxoSmithKline, IBM, Nortel Networks, Research Triangle Foundation and many other donors (a complete list appears on page 8), we commissioned this comprehensive look at regional transportation needs. This report rests on publicly adopted plans and the professional judgment of our region's transportation planners.

These pages present a stark message. With current funding, we can program almost \$8 billion in improvements by 2025. Even with that large investment, we can expect longer peak congestion periods, longer and less predictable travel times, and worsening air quality. Our study identifies another \$10 billion in unmet needs, if we desire an acceptable level of mobility over the next 25 years. It suggests a "multi-modal" approach, including highway, transit, bikeway and pedestrian improvements.

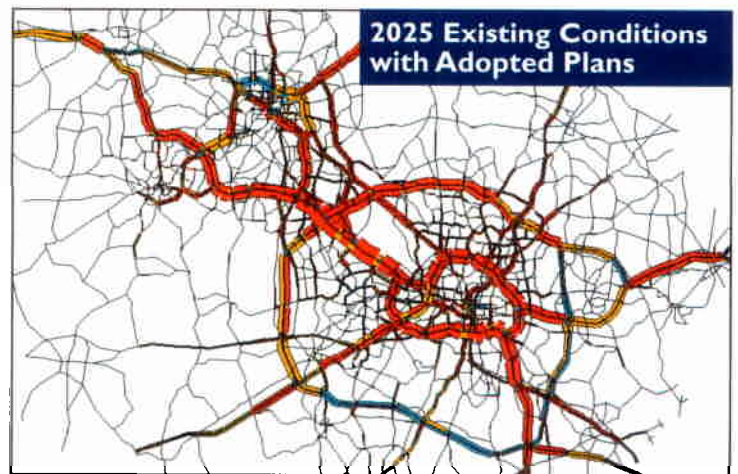
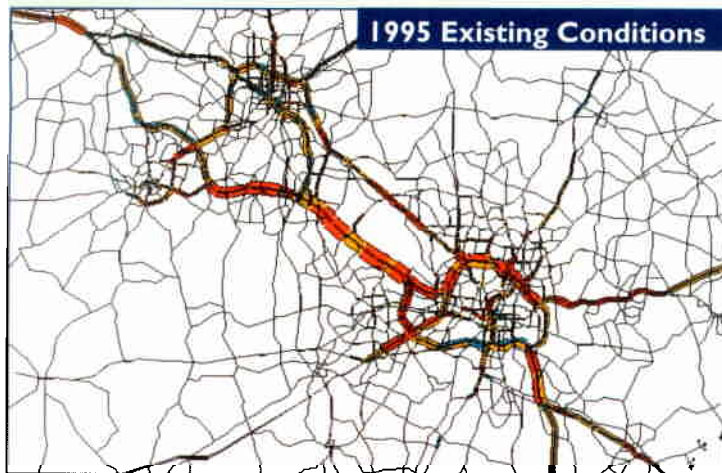
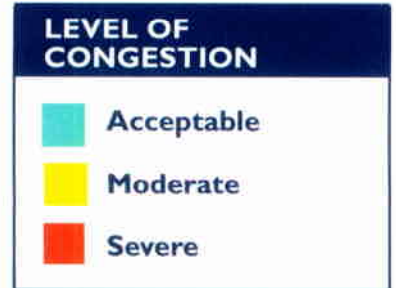
Who is responsible? We all are. Federal government is clearly responsible for supporting roads that carry interstate commerce and travel, and for paying half of the major transit investments the Triangle needs. To sustain the Research Triangle Park, North Carolina's premier economic engine and a generator of substantial public revenue, state government must increase transportation funding. Our local economies, through local government, must provide additional, focused investment by our communities to ensure livability. Finally, we suggest an expanded role for the private sector as an investor in transportation systems.

What is at stake? Air quality, and the health of our citizens. Mobility, the freedom to get from place to place in a reasonable time. The regional economic prosperity that has enabled continuing job opportunities and good public education. And our quality of life, the sum of all these things. This is no easy challenge. No one gets a "pass". The four of us ask this of our fellow Triangle residents: Pause to understand the scope of this problem, and work with your elected officials to fashion the serious responses necessary. We ALL have that duty.

We thank you for reading this report. We look forward to working with citizens, the Governor, members of the N.C. General Assembly, our fellow local elected officials, NCDOT, and Triangle business leaders to fund and build a safe and efficient transportation system for our region.

THE CHALLENGE...

Sustained economic success has fueled substantial growth and prosperity in the Research Triangle Region. Good mobility is one of the factors that has helped make this region so attractive. But success creates new challenges. Between 1995 and 2025, population is expected to increase by more than 110%. Based on existing transportation plans, vehicle-miles of travel (VMT) will grow more than 140%, while highway capacity will expand by only 50%. The two figures below graphically illustrate both new highway facilities (such as the Western Wake Expressway, the Knightdale Bypass, and the Northern Durham Parkway) and dramatic growth in traffic volumes (represented by bandwidths) from 1995 to 2025.



The adopted Long-Range Transportation Plans for the Capital Area and Durham-Chapel Hill-Carrboro Metropolitan Planning Organizations identify highway and transit projects through the year 2025. Analysis of these plans and other studies confirms several key observations:

- Increased capacity is needed for all modes of travel.
- Congestion on freeways and other major routes will still exist during peak periods.
- There are practical limits to the widening of freeways.
- Surface street networks must be enhanced.
- Transit operating on its own right-of-way can provide needed capacity and competitive travel times.
- Policies to reduce travel demand (including different land use patterns) are needed.
- Air quality will be threatened.

Future Vision

In order to maintain our economic competitiveness while preserving our environment, we must shift our emphasis from moving cars to moving people.

We must:

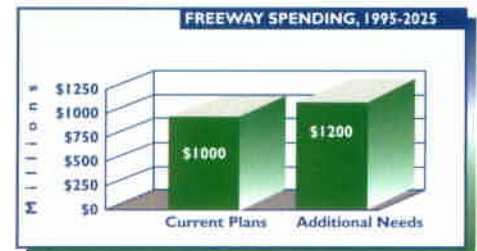
- Minimize travel time and improve reliability
- Maximize efficiency and preserve infrastructure
- Reduce automobile travel during peak periods
- Enhance surface street capacity and connectivity
- Provide safe, convenient options to highway travel
- Invest in long-term capacity
- Decrease tailpipe emissions
- Provide a framework for less auto-dependent land use

LONG-RANGE STRATEGIES

With our population doubling, the way our region develops must change if we are to make the most effective use of our road, transit, pedestrian, and other infrastructure systems. While changes in land use are a critical part of meeting this challenge, they cannot entirely eliminate the need for new transportation facilities. The following additional transportation improvements have been identified as part of the Regional Strategy. These projects reflect a balanced strategy for achieving a future characterized by convenient mobility choices, continued economic competitiveness, and enhanced quality-of-life.

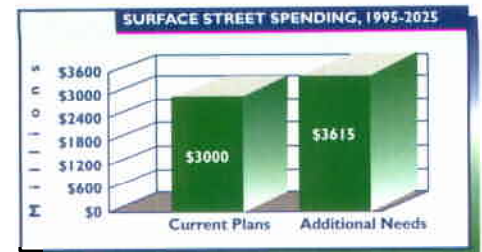
FREEWAYS

Relatively minor freeway improvements are needed, with no widening beyond the maximum number of lanes identified in adopted Long Range Transportation Plans. Widening projects eliminate bottlenecks on I-40, I-85, US 15-501, and US 147. US 1 is upgraded to a freeway north of I-540, and US 147 is extended south to I-540 (Triangle Parkway). Also included is ramp metering, and Intelligent Transportation System (ITS) projects providing incident detection, traveler information, and alternative routing.



SURFACE STREETS

Creating an efficient, interconnected street network helps keep short-distance local trips off freeways by providing a variety of alternative routes. This network also supplies critical freeway access, and offers opportunities to improve the speed and reliability of bus service. Finally, by incorporating continuous bicycle and sidewalk features, travel by non-motorized modes is promoted. Projects include intersection improvements, computerized signal systems, new and widened roads, and pedestrian/bicycle enhancements.



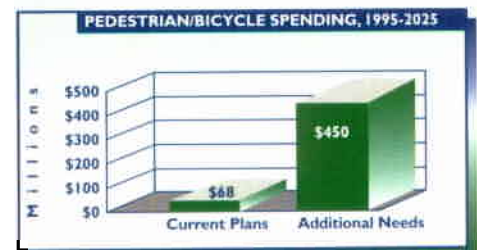
MANAGED LANES

High Occupancy Vehicle (HOV) lanes, or carpool lanes, are the most familiar example of this type facility. They can offer faster, more reliable trip times, and have greater person-carrying capacity than regular lanes. Buses can also use these lanes, forming the backbone of a regional rapid transit system. HOV lanes support Travel Demand Management (TDM) efforts, and can be combined with variable tolls for single-occupant vehicles (SOV). Forty-eight miles of managed lanes are proposed on I-40 and I-540.



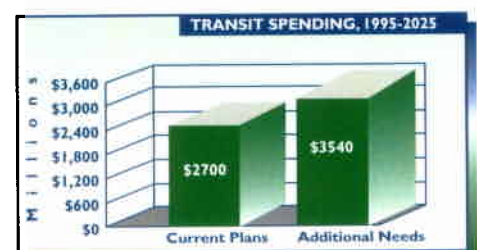
PEDESTRIAN & BICYCLE FACILITIES

Safe, convenient sidewalks and trails offer alternatives that can help reduce automobile traffic on congested streets. More importantly, these facilities are essential to an effective transit system, providing access at either end of a transit trip. In addition to building nearly 500 miles of "missing links" and new, off-street facilities, pedestrian and bicycle treatments are also included in new roadway projects.



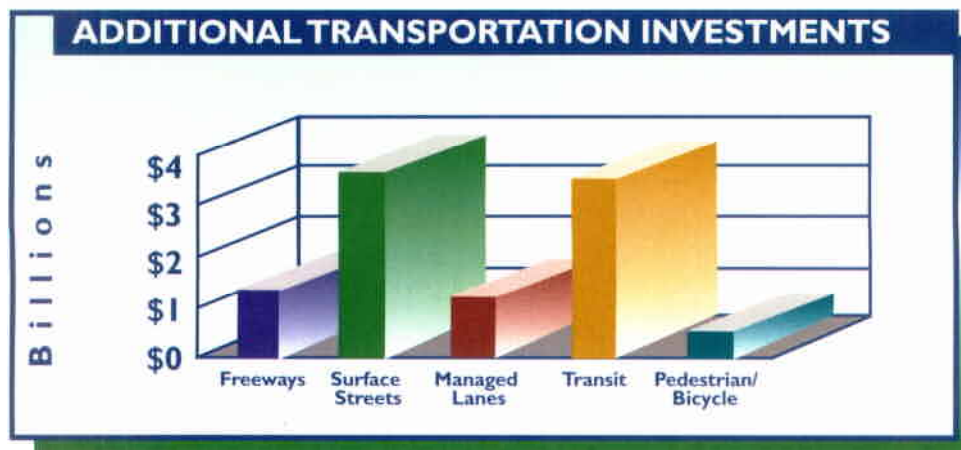
TRANSIT

Both regional and local transit services are expanded. Either rail or bus service operating on a dedicated guideway can ensure faster, more reliable travel times, along with generous long-term capacity. Such investment can also support alternative land use choices and policies designed to reduce auto dependency. Rail service to RDU airport and Garner/Clayton is included, along with rapid bus/busway corridors along I-40, I-540, and US 70. Other corridors with longer-term potential are identified.



INVESTMENT BY MODE

As urban regions grow and mature, the distribution of transportation investments shifts. In recent years, the bulk of the Triangle Region's transportation spending has been for construction and expansion of its highway infrastructure, with much of that dedicated to freeways. In the future, a larger portion of funding must be dedicated to maintaining this infrastructure, and to completing the local surface street network. Increasing urbanization also makes transit, pedestrian, and bicycle investments both more necessary and more cost-effective. The Triangle Region's current transportation plans reflect this shift of investments by mode, as do the plans of other growing, economically competitive metropolitan regions. The transportation strategy proposed for the Research Triangle Region maintains this course, emphasizing access and mobility through a balanced, integrated, multi-modal transportation system.



TOTAL INVESTMENT

The package of capital improvements and transportation services described above represents a total additional investment of approximately \$10.1 billion. This figure includes operating and maintenance costs for all modes. Fully funded and implemented, the adopted Long-Range Transportation Plans plus the Regional Strategy combine to total a \$17.8 billion investment in transportation infrastructure, operations, and maintenance by the year 2025.

On a per capita basis this level of investment is comparable with the needs identified by other large, rapidly growing metropolitan areas. Furthermore, the actual implementation horizon may extend beyond 25 years. Even so, such a massive program will clearly require tough choices among needs and priorities.

Based on a "pay-as-you-go" program spread evenly over 25 years, the transportation needs identified in the Regional Strategy would require additional annual revenues totaling approximately \$404 million.



FUNDING SOURCES

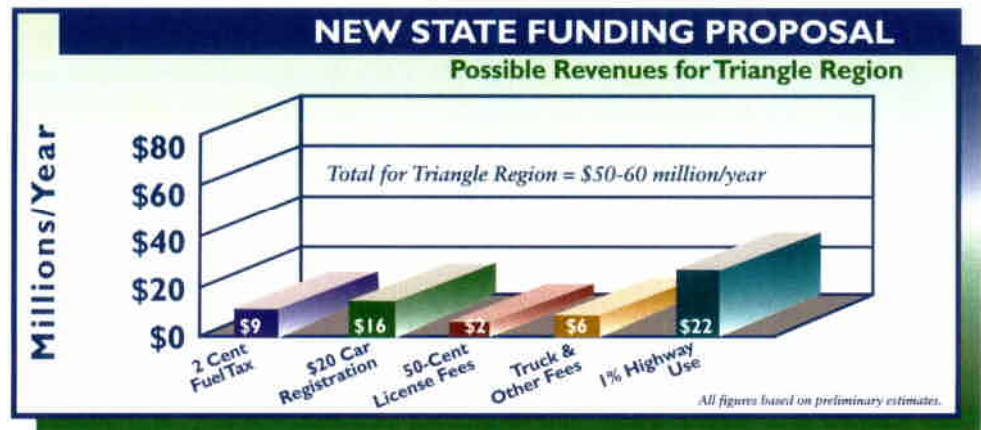
The projects and programs in the Triangle Region's adopted Long-Range Transportation Plans totaling \$7.7 billion are being funded through three basic sources:

1. Federal and state funds cover 85%.
2. Local revenues represent 12%.
3. Private sector contributions make up the remaining 3%.

Although funding proportions and mechanisms may change, a successful transportation improvement program will require coordination and innovation to balance costs and benefits. Each sector must take responsibility for addressing its needs in a regional context, while maintaining the autonomy to do so in the manner most appropriate for its situation.

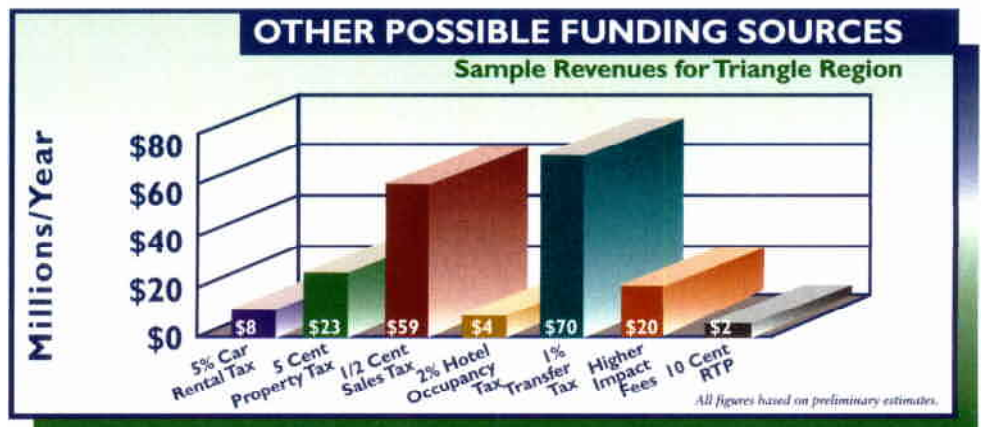
NEW STATE FUNDING

The NC Legislature's Transportation Finance Committee has recently proposed a package of changes to enhance transportation resources. The Finance Committee's recommendations include efficiency improvements and statewide funding mechanisms (local impacts of which are depicted in the chart to the right). Increases to vehicle registration, driver's license, and other fees, combined with a 2-cent fuel tax increase and revisions to the Highway Use Tax, can be expected to raise another \$50 - \$60 million each year for Triangle transportation needs. Nearly half of this funding would go towards road maintenance, with the remainder dedicated to highway construction and transit.



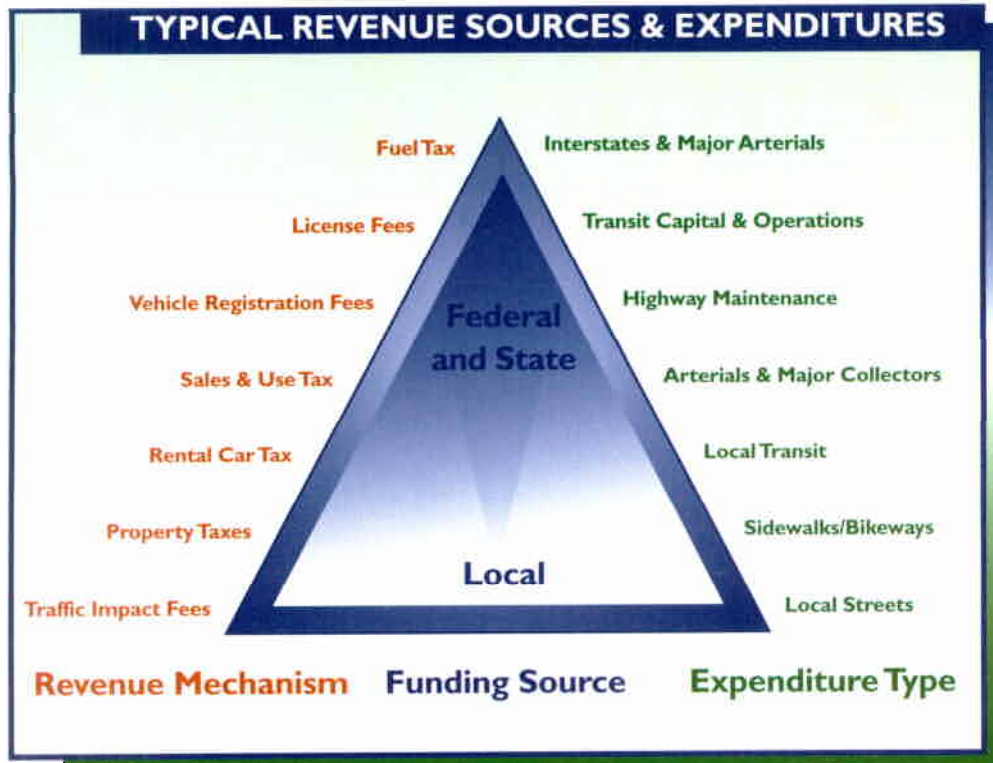
OTHER FUNDING SOURCES

- Matching federal funds could cover up to 50% of the \$4 billion capital cost for proposed regional transit and managed lane projects.
- Some recommendations of the Transportation Finance Committee (fuel tax, vehicle registration fee, etc.) could also be implemented locally, if authorized and desired.
- Other possible revenue sources include payroll, parking, and mileage-based taxes, as well as tolls.
- Typical magnitudes of common funding mechanisms are summarized for the Triangle Region in the chart to the right.



PRIVATE SECTOR FUNDING

Increased private sector participation can also contribute to meeting some of our transportation needs. Impact fees are employed to varying degrees in the Triangle. Some other regions allow overlay or special assessment districts to collect additional revenues for transportation improvements that directly benefit the district. Private sector participation must be encouraged through innovative and equitable policies that recognize our shared dependence on a safe and efficient transportation system, a strong regional economy, and a healthy environment.



Research Triangle Park will continue to play a critical role in shaping the growth of both the region and the State. The Park's economic importance, combined with its special status, requires a unique regional approach for effective transportation planning and implementation. No individual local jurisdiction is able to address the transportation needs of RTP; a coordinated, innovative effort by all stakeholders is needed. A special RTP Service District tax has been used to build multipurpose trails, bus shelters, and other projects. The current 2-cent assessment raises \$360,000 annually. The "Other Possible Funding Sources" chart includes a bar representing nearly \$2 million that could be generated by the maximum allowable levy of \$0.10 per \$100. Research Triangle Foundation has also contributed to major transportation projects in RTP, such as a proposed \$4 million towards the widening of Davis Drive.

Park employers have begun a coordinated SmartCommute program encouraging ridesharing, transit use, telecommuting, flexible work hours, and other measures to lessen demand for travel by automobile. Other approaches being considered for reducing traffic congestion include increasing residential development near the Park.



MEETING THE CHALLENGE

As the Triangle Region grows, a larger proportion of transportation funding may need to come from local and private sector sources. This trend is found throughout growing urban areas, as they strive to remain competitive in the face of extensive demands and constraints on federal and state funding. Increased local and private participation can provide the flexibility to accelerate needed improvements and better reflect local, regional, and statewide priorities. The nature, magnitude, and application of such funds should be local decisions, and any additional local and private sector resources must augment, rather than replace, state and federal contributions. Ideally, state and federal resources should be concentrated on projects of regional, statewide, and national significance, while local and private contributions should go towards needs relevant to the sources of these funds. The quality of our future transportation system depends largely on our willingness and ability to obtain funding for needed improvements at all levels, while preserving an equitable balance among those who pay and those who benefit.

RTS BACKGROUND

The Regional Transportation Strategy is the result of a cooperative effort among the The Greater Raleigh Chamber of Commerce; the Mayors of Raleigh, Cary, Chapel Hill, and Durham; and staff of the Durham-Chapel Hill-Carrboro and Capital Area Metropolitan Planning Organizations (DCHC and CAMPO). The following organizations also provided funding or other resources:

- ABB Power T & D Co. of NC
- Alltel Communications
- Aventis CropScience
- Carolina Power & Light Co.
- Central Carolina Bank & Trust Co.
- Centura Bank, Inc.
- Cisco Systems
- Duke Power Company
- Envirotek, Inc.
- First Citizens Bank
- GlaxoSmithKline, Inc.
- GoodMark Foods, Inc.
- Harris Teeter Super Markets
- Hazen and Sawyer, PC
- Hunter Industries, Inc.
- IBM Corp.
- Invensys Power Systems
- Kilpatrick Stockton LLP
- Longistics
- Nortel Networks
- O'Brien/Atkins Associates
- Pergo, Inc.
- Public Service Company of NC
- Research Triangle Foundation
- Sir Walter Chevrolet Co.
- Square D Co.
- Stantec Corp.
- The Angus Barn, Ltd.
- The Greater Raleigh Chamber of Commerce
- The Herald-Sun
- Toll Brothers
- Triangle Transit Authority
- Triangle United Way
- United Parcel Service
- Waste Industries, Inc.
- York Properties, Inc.
- The News & Observer Publishing Co.

The Regional Transportation Strategy was initiated in August of 2000. A series of monthly steering committee meetings and several work sessions (with staff from DCHC, CAMPO, NCDOT, RTE, TJCOG and TTA) culminated in a regional briefing on November 15, 2000. This briefing identified the magnitude of the region's unmet transportation needs, and summarized costs and potential funding sources. Subsequently, four innovative "decision lab" sessions were conducted with a diverse group of community leaders. These sessions obtained feedback concerning priorities, funding mechanisms, equity issues, and implementation strategies.

The Regional Transportation Strategy recognizes and builds on work performed as part of the following recent or ongoing efforts:

- Capitol Area Metropolitan Planning Organization Long Range Plan
- Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Long Range Plan
- Draft 2000 NC TIP
- I-40 HOV/Congestion Management Study
- TTA Regional Transit Plans
- US 15-501 Major Investment Study
- I-40 widening (NC 147 to I-85) PE Study
- Wake Expressway Studies
- NCDOT ITS Deployment Plan
- Regional Transportation Alliance Action Plan
- RTP Transportation Improvement Plan
- RTP SmartCommute Program
- Durham TDM Plan and Action Strategy
- TJCOG Regional Principles Project
- NC Blue Ribbon Commission on Smart Growth
- NC Legislature's Transportation Finance Committee Recommendations

The findings of the Regional Transportation Strategy should be incorporated into the pending updates of the CAMPO and DCHC Long-Range Transportation Plans. These updates will be able to more fully evaluate details of the proposed strategy, including quantification of individual project and systemwide benefits. Additional information on related plans, programs, and funding can be obtained by contacting the following agencies:

- CAMPO (www.raleigh-nc.org/campo)
- NCDOT (www.dot.state.nc.us)
- City of Durham (www.ci.durham.nc.us)
- Town of Chapel Hill (www.ci.chapel-hill.nc.us)
- Town of Cary (www.townofcary.org)
- City of Raleigh (www.raleigh-nc.org)
- Triangle J Council of Governments (www.tjcog.dst.nc.us)
- TTA (www.ridetta.org)
- Office of State Budget Planning & Management (osbpm.state.nc.us)
- DENR Division of Air Quality (daq.state.nc.us)

