

Southeast High-Speed Rail Corridor Study

Briefing Paper – June 2004

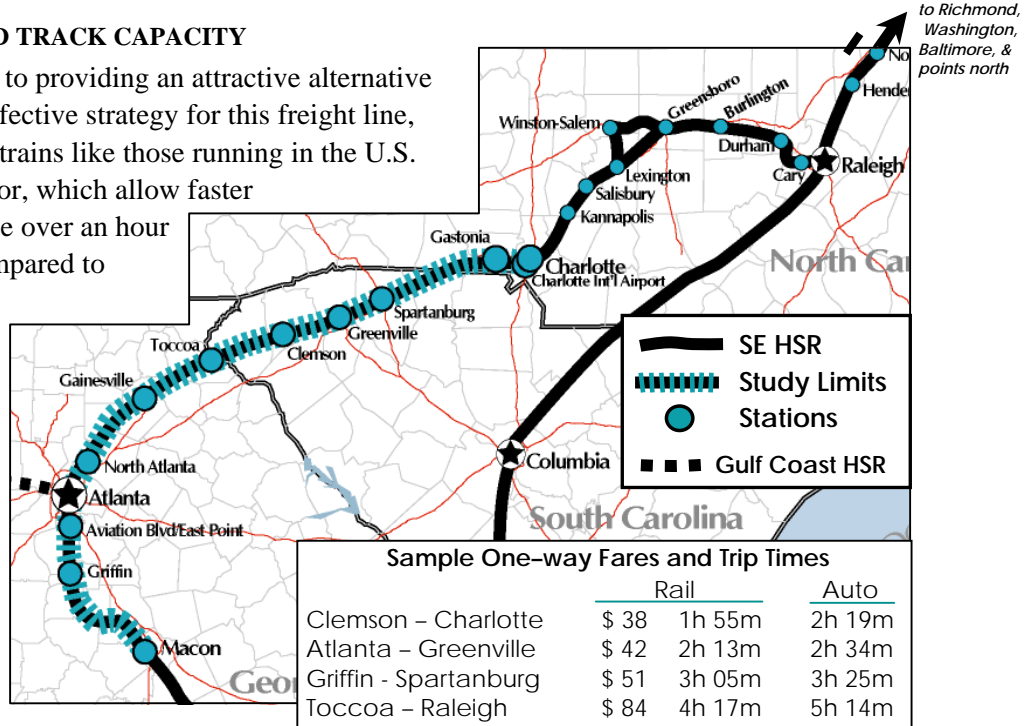
The Southeast High-Speed Rail (SEHSR) Corridor is one of eleven national high-speed corridors. Virginia and North Carolina are already improving rail freight lines in the SEHSR corridor between Washington DC and Charlotte. This study examined the potential for improving another 366 miles of Norfolk Southern freight line between Charlotte, Spartanburg, Greenville, Atlanta, and Macon, and operating 2-6 daily high-speed trains, connecting with trains to points farther north (see map). The South Carolina, North Carolina, and Georgia Departments of Transportation, and the US DOT's Federal Railroad Administration funded this study.

INCREASING TRAIN SPEEDS AND TRACK CAPACITY

Faster passenger trains are the key to providing an attractive alternative to driving or air. The most cost-effective strategy for this freight line, with many curves, is to use tilting trains like those running in the U.S. Northwest or the Northeast Corridor, which allow faster speed through curves, and will save over an hour between Atlanta and Charlotte compared to Amtrak's *Southern Crescent*.

Top train speeds of 79, 90, and 110 mph were evaluated. At 79 mph, improvements would include additional track space, upgraded track and signaling, improved at-grade road crossing protections, and refurbished stations and maintenance facilities.

With improved tracks and signalling to allow 90 mph speeds, added track capacity, and 28 miles of sharper curves relocated, another 40 minutes could be cut from the Charlotte – Atlanta trip. Top speeds of 110 mph could be reached with \$735 million more capital; however only a few minutes would be saved, with \$1 million in new revenue and 28,000 more riders.



CONCLUSIONS AND NEXT STEPS

- The SEHSR corridor has very good market potential for high-speed rail service.
- The Norfolk Southern alignment is best for top speeds of 79 mph to 90 mph. Higher speeds and ridership would require significant new alignment between major cities.
- No new at-grade road crossings should be allowed on the line, and crossings should be consolidated.

- The States and Norfolk Southern should evaluate precise capacity needs for additional trains.
- Detailed ridership forecasting models should be developed to locate stations and quantify HSR benefits.
- Programmatic environmental and service/capacity studies should be started along with extensive public outreach.
- Service could start within 5 years, if funding sources are developed.

	79 MPH 2 TRAINS	90 MPH 4 TRAINS	90 MPH 6 TRAINS
RIDERS / YEAR	378,000	721,000	902,000
REVENUE / YR	\$ 14	\$ 26	\$ 33
OPERATING NEED / YR	\$ 5	\$ 12	\$ 24
CAPITAL COST	\$ 171	\$ 1,139	\$ 1,356

(2003\$\$ in millions, year 2025 operations)