MEMORANDUM

To: Council Members
From: Staff
Date: September 17, 2010 Council Meeting
Subject: High Speed Rail Update

Introduction

The 1964 Olympics heralded a new focus on speed, with Japan’s introduction of its 130 mph bullet train (since increased to 185 mph). The following year, Congress enacted the High Speed Ground Transportation Act to encourage higher speed passenger rail in the US. However, this act met with limited success. High speed rail (HSR) services continued to develop across Europe and later China; however, the focus of the US transportation network remained heavily dominated by automobile and airline interests. By 1980, Congress adopted the Passenger Railroad Rebuilding Act, which led to the 1984 funding of high-speed rail corridor studies in several states, including Florida.

Background

Florida’s HSR focus actually dates back to 1976, when the state first studied a potential corridor between Daytona Beach and St. Petersburg. The state adopted the HSR Transportation Commission Act in 1984, which created the first HSR commission. By 1986, the state completed a HSR report that identified a preferred route of Tampa-Orlando-Miami. After reviewing proposals from several firms, the state began negotiations with a private firm for the service. However, no respective projects were ultimately developed.

The US DOT began designating HSR corridors in 1991. By 1992, Florida’s Tampa/Orlando/Miami corridor was federally-designated, and the state adopted a new HSR Act, which transferred the state’s HSR planning responsibilities to FDOT. Ridership and corridor studies were completed by 1994, with FDOT reviewing proposals in 1995. A private firm (Florida Overland Express) was selected in 1996; however, the project was terminated in 1999. Amtrak and FDOT developed an Intercity Vision Plan in 2000, with the Legislature authorizing a new feasibility study that year. Florida voters also approved a constitutional amendment in November 2000, directing the Legislature to develop a high speed ground transportation system by 2003, but this amendment was later repealed in 2004. The Legislature followed the electorate in 2001 with the adoption of the HSR Authority Act, creating the HSR Authority to oversee planning and engineering of the state system. By 2002, the HSR Authority identified potential alignments, which generally paralleled the interstate system, along with projected costs and ridership for the St. Petersburg/Tampa/Orlando corridor as well as the Orlando/Miami corridor,
initiating the Project Development and Environment Study for what would become the Tampa/Orlando HSR corridor. The HSR Authority also issued a Design, Build, Operate, Maintain and Finance Request for Proposals, ultimately commencing negotiations with one of the four respondents (Flour Bombardier). Despite the constitutional repeal in 2004, the authority remained in place, with work continuing on the environmental and preliminary engineering documents for the Tampa-Orlando HSR corridor. In 1995, the HSR Authority recommended Florida continue pursuing the Tampa-Orlando HSR segment; however, without project funding, progress slowed until the late 2000s.

At the Federal level, the Federal Railroad Administration adopted the High-Speed Rail Strategic Plan in April 2009, which describes the Vision for High Speed Rail in America. This Plan defines four types of passenger rail service, including three types of “high speed rail” (with speeds generally between 90 and 150 mph) and “conventional rail” (with speeds of 79 – 90 mph, similar to Amtrak’s traditional service). The Federal HSR Strategic Plan highlights the Federal mandate to develop an efficient, high-speed passenger rail network, with an initial $11.5 billion in federal funding over a three-year period. Ten corridors were identified, all of which were previously designated as high-speed rail corridors, as well as the Northeast Corridor, which carries Amtrak’s Acela 150-mph express service (see Figure 1). A High Speed/Intercity Passenger Rail program was created within the Federal Railroad Administration to administer project funding, beginning with $8 billion for eligible projects in 2009.

![FIGURE 1: The US DOT map above illustrates the ten federally-designated high speed rail corridors, including Florida long-standing HSR corridor (Tampa/Orlando/ Miami) corridor, as well as the Northeast Corridor, where Amtrak operates its 150-mph Acela service. (SOURCE: http://www.fra.dot.gov/Pages/618.shtml)](http://www.fra.dot.gov/Pages/618.shtml)
FLORIDA HIGH SPEED RAIL PROJECT DETAILS

Florida’s HSR project is separated into two phases:

- **Phase 1 (Tampa/Orlando):** This is an 84-mile segment from downtown Tampa to the Orlando International Airport. Five stations are envisioned along the corridor, and the service is expected to operate at 168 mph, enabling an estimated trip time of 55 minutes. FDOT estimates the cost to build this segment to be $2.7 billion, with revenue service beginning in 2015. The project will be built in the median of Interstate 4, where FDOT has preserved a 44-foot envelope for this project. Right of way was preserved in the 1990s, with bridges built higher and wider to accommodate future high speed trains. Other portions of the project outside the I-4 corridor will primarily follow existing public rights of way. FDOT concept sketches of the typical corridor and stations are illustrated in Figures 2, 3, and 4.

**FIGURE 2:** The Phase 1 (Tampa/Orlando) HSR alignment, illustrated on the map to the left, will provide service from downtown Tampa to Orlando International Airport. Three additional stations are proposed in Lakeland/Polk County, Walt Disney holdings, and the Orange County Convention Center. (SOURCE: FDOT)
Phase 2 (Orlando/Miami): This is a 235-mile segment from Orlando International Airport (OIA) to the Miami Intermodal Center (MIC) at Miami International Airport. The service is expected to operate at speeds of 186 mph. FDOT indicates capital costs to be approximately $10 billion, anticipating 80% Federal funding. If funding is secured without delay, train service is projected to begin in 2018. Two routes are being evaluated in the Orlando/Miami corridor: 1) Interstate 95, which would bring service from OIA to Port Canaveral/Cocoa Beach, Melbourne, Fort Pierce, West Palm Beach, Fort Lauderdale, and the MIC; and 2) the Florida Turnpike, which would bring service south from Orlando into St. Lucie County, Martin, Palm Beach, and Broward counties, and onto the South Florida Rail Corridor (CSXT) into the MIC (see Figure 5).

Figure 3: The computer rendering above depicts a typical condition within Interstate 4 where the HSR alignment would be contained in the center median. (SOURCE: www.wtsp.com, Tampa Bay Ch. 10 News)

Figure 4: Typical Florida HSR station concepts are illustrated in the image above. To achieve planned speeds of 168 mph, all roadway crossings will be grade-separated along the corridor. (SOURCE: http://www.floridahighspeedrail.org)

Figure 5: While the Phase 1 (Tampa / Orlando) HSR alignment has been selected, FDOT will be conducting future analysis to determine a preferred route for the Phase 2 (Orlando / Miami) HSR alignment. As indicated in the above map, both the Florida Turnpike and Interstate 95 are currently identified as alignment alternatives. (SOURCE: FDOT)
FDOT has applied for planning grants from various Federal sources to advance the preliminary environmental and engineering work associated with the Phase 2 HSR service. Specific HSR station locations have not yet been identified or evaluated regarding planning, transportation, economic, or other implications. Council may be requested to assist with the related public outreach, station planning, and other work to support the project.

Discussion

Florida has been considering a high-speed ground transportation system to connect the State's major urban areas for more than 30 years. Currently, the means contemplated for implementing the high-speed system will be a public-private partnership, with the State being a financial participant in system development (FDOT 1995). Precise location of the corridor has not been determined; however, the Miami-Orlando link will traverse the Region either along the Florida Turnpike or Interstate 95. While this is an ambitious proposal for the state, the long-term land use and environmental implications of constructing the system need to be comprehensively evaluated.

As part of its review of the HSR proposals in the mid-1990s, Council transmitted comments regarding HSR and its integration into a comprehensive passenger rail system for the state. Council noted that HSR represents only one part of that system, noting the need to address the immediate mobility needs of the region’s residents as well with conventional rail and other transit forms. Unlike the fairly limited number of stations provided by HSR, conventional rail offers closer station spacing, with dispersed land use and economic benefits, as well as the opportunity to reinforce redevelopment in urban centers. At a minimum, the potential for the high-speed system to disperse the Region’s population further, encourage suburban sprawl, and discourage infill and coastal city redevelopment needs further analysis.

Conclusion

The development of a high-speed rail system through the Region will have the effect of drastically increasing the speed at which our population can move out and away from its urban areas. The integration of high-speed rail into a comprehensive, integrated rail network is a consideration that will be the subject of review by the state’s new Passenger Rail Commission and in the pending Florida 2060 Transportation Plan. It is important to emphasize the need for all modes of transit within the larger system, which when planned comprehensively, can help improve ridership and effectiveness of all modes. While Florida’s HSR system may provide two or three stations within the Treasure Coast Region, conventional rail offers more station development opportunities with a potentially greater dispersion of transit’s land use and economic benefits. The evaluation of HSR must also consider the impacts on and connections to existing urban areas and the full carrying costs of the system upon the land use, transportation, economic, and environmental systems of the Region.

Recommendation

For information only