

# Desire Corridor Streetcar

New Orleans, Louisiana

(November 2002)

## Description

The Regional Transit Authority (RTA) is restoring a 2.9-mile (one-way) traditional streetcar line on North Rampart Street and St. Claude Avenue from Canal Street to Poland Avenue in New Orleans. In the tradition of streetcar operations in New Orleans, the line would loop at Canal Street, be constructed as both single- and double-track, and use exclusive right-of-way in the median of city streets, for about half of the alignment, and run in mixed traffic for the rest of the alignment. The project will serve the Canal Street shopping district, the French Quarter, and the communities of Iberville, Tremé, Faubourg Marigny, St. Roch and Bywater, running parallel to the Mississippi River. Streetcar stops along the Desire Corridor would be roughly every two blocks. Seven major bus transfer points will include construction of canopied center-platforms, with passenger and streetscape amenities; 17 intermediate stops with less elaborate center-platform facilities are also planned. The project will require 19 new vehicles, replicas of the historic Perley Thomas Streetcar, to be assembled upon completion of the Canal Street vehicles assemblage.

The Desire Corridor Streetcar line will connect some of New Orleans' most significant activity and employment areas, including the French Quarter, the CBD, the New Orleans Regional Medical Complex, and Louis Armstrong Park, with some of the city's more economically depressed neighborhoods. The streetcar will replace an existing bus line, thereby providing faster and more frequent transit service in the corridor to the CBD. Nearly half of the transit riders would come from the low-income neighborhoods adjacent to the alignment. The line would also be ridden by tourists and visitors attracted to activities located along North Rampart Street and eventually along St. Claude Avenue (e.g., cultural attractions, entertainment spots, restaurants, hotels, and retail shopping). Restoration of streetcar service is considered key to achieving economic development and neighborhood revitalization in the corridor.

### Summary Description

<b>Proposed Project:</b>	Traditional Streetcar 2.9 Miles, 24 Stops
<b>Total Capital Cost (\$YOE):</b>	\$116.1 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$69.7 Million (60%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$1.8 Million
<b>Ridership Forecast (2025):</b>	14,870 Average Weekday Boardings 2,200 Daily New Riders
<b>Opening Year Ridership Forecast (2006):</b>	14,810 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

The overall project rating of *Not Recommended* is based on the “Low-Medium” project justification rating. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, schedules, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

This project includes a proposed Federal share of 60 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by that change.

## Status

RTA completed a Major Investment Study for the Desire Corridor in September 1999. The Locally Preferred Alternative (LPA) includes a package of transportation system management and enhanced bus improvements in addition to the 2.9-mile streetcar line. The Regional Planning Commission, the New Orleans region’s Metropolitan Planning Organization, endorsed the LPA and incorporated it in the metropolitan transportation plan. The Federal Transit Administration (FTA) approved the initiation of Preliminary Engineering (PE) in August 2000. Publication of the Draft Environmental Impact Statement is anticipated in early 2003.

TEA-21 Section 3030(b)(34) authorizes the “New Orleans -- Desire Streetcar” project for Final Design and Construction. Through FY 2002, Congress has appropriated \$7.16 million in Section 5309 New Starts funds to the project.

## Evaluation

The following criteria have been estimated in conformance with FTA’s *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year’s New Starts Report and when it is ready to advance into Final Design.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Low</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Average Employment Per Station</b>	3,792	
<b>Average Low Income Households Per Station</b>	202	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	0.8	
<b>Environmental Benefits Rating: Medium</b>		
<u><b>Criteria Pollutant Reduced (tons)</b></u>	<u><b>New Start vs. Baseline</b></u>	
<b>Carbon Monoxide (CO)</b>	4	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	0	
<b>Hydrocarbons</b>	0	
<b>Particulate Matter (PM<sub>10</sub>)</b>	1	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	[1,828]	
<u><b>Annual Energy Savings (million) BTU</b></u>	[27,775]	
<b>Cost Effectiveness Rating: Low</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Cost per Transportation System User Benefits (current year dollars/hour)</b>	\$111.91	
<b>Operating Efficiencies Rating: Medium</b>		
	<u><b>Baseline</b></u>	<u><b>New Start</b></u>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.66	\$0.69

[ ] indicate an increase in emissions.

### **Project Justification Rating: Low-Medium**

The *Low-Medium* project justification rating reflects the adequate land use rating and the low cost-effectiveness rating. With the continued improvement in FTA’s project evaluation process, including the introduction of the transportation system user benefit measure, the value of proposed transit projects can be more accurately assessed. Accordingly, FTA intends to put additional emphasis on the cost-effectiveness measure. This year, this project has received a “low” rating for cost-effectiveness, which raises concerns about the merits of the project for Federal funding. FTA strongly encourages sponsors to improve the cost-effectiveness of the project.

Based on 1990 Census data, there are an estimated 4,840 low-income households and 91,010 jobs within a ½-mile radius of project stops. EPA has designated the New Orleans metropolitan area as a “maintenance area” for ozone. The incremental cost per incremental trip is \$20.19.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns** **Rating: Medium**

The *Medium* land use rating reflects good existing densities and pedestrian orientation in the corridor, as well as adoption of a transit-supportive comprehensive land use plan for the city in 1999.

**Existing Conditions:** The Desire Corridor Streetcar serves the New Orleans CBD and adjacent 18th- and 19th-century residential neighborhoods. The CBD contains a high-density mix of employment, hotel, retail, and tourist destinations, with a total of 105,000 jobs. Outside the CBD, the corridor serves a mix of neighborhood commercial uses surrounded by residential neighborhoods. Population densities are relatively high, averaging 8,700 persons per square mile. The entire corridor is laid out on a walkable street grid system, although some areas suffer from blight and a general lack of landscaping and urban design elements. Parking supply in the CBD is fairly restrictive, and most parking in the residential neighborhoods is on-street.

**Future Plans, Policies, and Performance:** The New Orleans Land Use Plan, adopted in 1999, addresses primary issues faced by the city including the need to stabilize population and spur re-investment and redevelopment. It has led to a complete overhaul of the city’s zoning code. The current draft of this code includes neighborhood mixed-use categories applicable to much of the Desire Corridor, and would assist in preserving and enhancing the existing desirable elements of the corridor. Other proposed changes to the zoning code would streamline the development process. The city’s design review authority for large projects and conditional-use projects is an existing tool for ensuring that major new development is transit-supportive; the city has demonstrated its use of this authority. Much of the corridor is eligible for City and State economic development incentives, including tax exemptions or credits for construction, rehabilitation and job creation. The City planning process and its Land Use Plan have also greatly improved public and neighborhood participation. Regional discussions are in progress regarding growth management policies, although net growth forecast for the region in the near future is minimal.

### **Local Financial Commitment** **Rating: Medium**

The *Medium* local financial commitment rating was determined by the *Medium* rating for the capital finance plan and the *Medium* rating for the operating finance plan.

**Proposed Non-Section 5309 New Starts Share of Total Project Costs: 40 %**  
**Rating: Medium**

The project's financial plan comprises Section 5309 New Starts funds and local funding sources.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$ 69.7	60.0 %
<b>Local:</b> RTA Bond Proceeds Right-of-Way Donation	\$ 45.4 \$ 1.0	39.1 % 0.9 %
<b>Total:</b>	<b>\$116.1</b>	100.0 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

**Stability and Reliability of Capital Financing Plan**  
**Rating: Medium**

The *Medium* rating of the capital finance plan is based on the strong commitment of non-Section 5309 New Starts funds for the Desire Corridor Streetcar project and RTA's capital financial condition.

**Agency Capital Financial Condition:** The average age of RTA's fleet is 5.35 years for buses and 66.2 years for streetcars. The latter includes the St. Charles Streetcar line vehicles, built in 1922. These vehicles were recently renovated to meet FTA guidelines. RTA's debt coverage ratio is estimated at above 1.5. Moody's Investor Service gave a rating of Baa3 to a recent lease purchase agreement.

**Capital Cost Estimates and Contingencies:** The Desire Corridor Streetcar project cost estimates and contingencies are reasonable for a project in Preliminary Engineering. The cost estimates include a total contingency of 30 percent – a design contingency of 20 percent plus a construction contingency of ten percent – and an inflation rate of three percent. RTA is negotiating with Norfolk Southern Railroad for an at-grade crossing, which would ensure the project is within total contingency; otherwise, the cost estimate would increase to \$147 million. Tax revenue estimates may not be reasonable, since tax revenues through 2028 are projected to be higher than last year's estimates, in spite of the recent economic downturn. No contingency

plans were submitted, but the agency projects cash balances and debt capacity that are sufficient to cover potential funding shortfalls/cost increases.

**Existing and Committed Funding:** The financial plan reflects a commitment of 75 percent of the non-Section 5309 New Starts funds. These funds are derived from bond proceeds that are backed by the hotel/motel sales tax, a dedicated funding source collected since August 2000.

**New and Proposed Sources:** Planned funding sources account for the remaining 25 percent of the non-Section 5309 New Starts funds. Planned funding sources include additional bond proceeds and a right-of-way donation by the City of New Orleans. The additional bond proceeds are required to cover a recent increase of \$10.4 million in project cost. The capital plan assumes that the RTA could issue more bonds given its current financial condition.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating for the operating finance plan is based on the full commitment of operating funds for the project. The operating cash flow projects balanced operating costs and expenditures through the 30-year horizon, and cash balances that are available to cover at least three months of operating expenditures.

**Agency Operating Financial Condition:** RTA uses a simple cost model to determine its annual operating costs, based on cost per vehicle hour and application of a 2.5 inflation factor. Historical data shows balanced operating costs and expenditures. Cash balances are available to cover potential funding shortfalls or operating cost increases. Cash balances are equivalent to more than 25 percent the annual operating costs, except for FY 2002 and 2003. In addition, the debt coverage ratio is above 1.5, with few exceptions. RTA's planned replacement of bus service with streetcar service in corridors with high demand and/or historic characteristics is expected to significantly reduce systemwide operating costs.

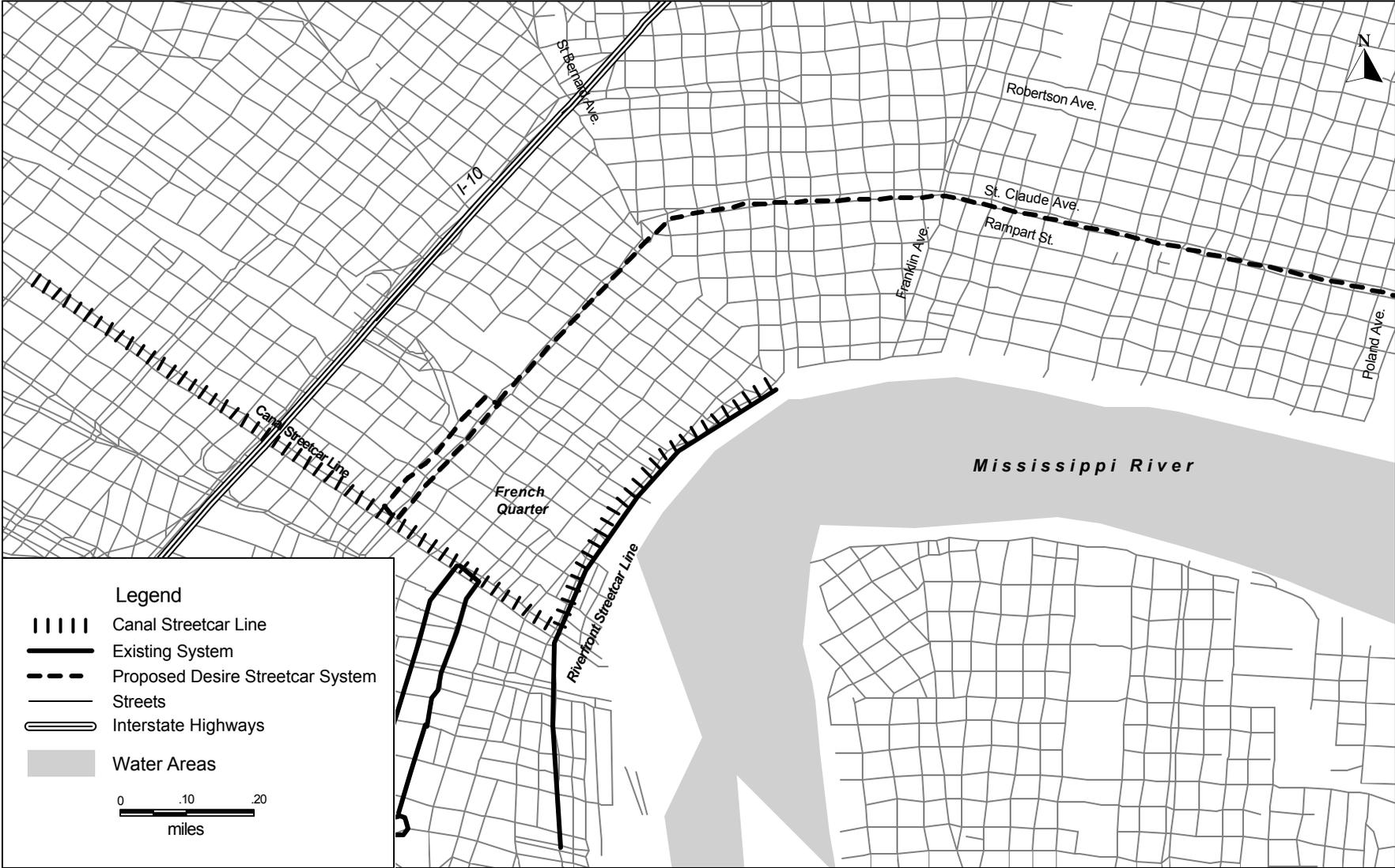
**Operating Cost Estimates and Contingencies:** The annual operating cost estimate for the project is \$1.8 million, representing less than one percent of RTA's system operations, and is reasonable.

**Existing and Committed Funding:** All funding sources are committed and come from existing sources. Operating revenues include systemwide fares, sales tax levies dedicated to operations, Section 5307 Preventive Maintenance funds, and transit related revenues, i.e., advertising, charter services, state and local subsidies, and gain on assets.

**New and Proposed Funding Sources:** No new funding sources are proposed.

# Desire Corridor Streetcar

New Orleans, Louisiana



Federal Transit Administration, 2002



**Norfolk LRT**  
**Norfolk, Virginia**  
 (November 2002)

**Description**

The Transportation District Commission of Hampton Roads (HRT) proposes an eight-mile light rail transit (LRT) system running from the Eastern Virginia Medical Center through downtown Norfolk to the Newtown Road area near the city line. This project would serve as the initial segment of a Hampton Roads regional LRT system. This segment evolved from the failure of a 1999 Virginia Beach referendum to support the advancement of a planned 18-mile LRT project extending between the cities of Norfolk and Virginia Beach. The project alignment generally follows an active Norfolk Southern railroad right-of-way, and extends westward through downtown to the Eastern Virginia Medical Center and northward on the eastern end to the Barry Robinson Center near Koger Office Park and the Sentera Leigh Memorial Hospital. The project is intended to provide transportation system support to the increased local development and an alternative river crossing in the city.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Light Rail Transit 8 Miles, 11 Stations
<b>Total Capital Cost (\$YOE):</b>	\$222 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$111 Million (50%)
<b>Annual Operating Cost (2021 \$YOE):</b>	\$15.4 Million
<b>Ridership Forecast (2021):</b>	8,900 Average Weekday Boardings 4,100 Daily New Riders
<b>Opening Year Ridership Forecast:</b>	N/A
<b>FY 2004 Finance Rating:</b>	<b>Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Low-Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

The *Not Recommended* overall project rating is based on the less than adequate project justification although the project presents acceptable financial criteria at this time. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedule, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

HRT completed a Major Investment Study (MIS) to evaluate transportation improvements in the corridor extending from Virginia Beach to Downtown Norfolk in 1995. The Hampton Roads

District Planning Commission, the Metropolitan Planning Organization, approved the selection of an 18.3-mile LRT segment from Virginia Beach to Downtown Norfolk in January 1997. FTA approved the project to enter Preliminary Engineering (PE) in April 1997 and a Draft Environmental Impact Statement (DEIS) was completed in April 1999. Although the City of Virginia Beach rejected a referendum of support for the proposed bi-city project in November 1999, HRT completed a Final EIS in March 2000. Subsequently, the HRT Board and the City of Norfolk requested HRT to identify a LRT segment based on the original alignment that would effectively and efficiently support the City's plans for the future. HRT has undertaken a Supplemental EIS examining several alignment options for a LRT system that lies entirely within the jurisdictional boundaries of the City of Norfolk. FTA approved the refined project to initiate Preliminary Engineering in October 2002. HRT has anticipated LRT start-up in early 2007.

TEA-21 Section 3030(a)(58) authorizes the Norfolk-Virginia Beach Corridor for Final Design and Construction. Through FY 2002, Congress has appropriated \$10.91 million in Section 5309 New Starts funds to this project.

## **Evaluation**

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts Report and when it is ready to advance into Final Design.

<b>Project Justification Qualitative Criteria</b>		
<b>Mobility Improvements Rating: Low-Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
Average Employment Per Station	6,552	
Average Low Income Households Per Station	170	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	1.9	
<b>Environmental Benefits Rating: Medium</b>		
<b><u>Criteria Pollutant Reduced</u></b> (tons)	<b><u>New Start vs. Baseline</u></b>	
Carbon Monoxide (CO)	60	
Nitrogen Oxide (NO <sub>x</sub> )	10	
Hydrocarbons	6	
Particulate Matter (PM <sub>10</sub> )	N/A	
Carbon Dioxide (CO <sub>2</sub> )	3, 193,717	
<b><u>Annual Energy Savings</u></b> (million) BTU	98,876	
<b>Cost Effectiveness Rating: Low</b>		
	<b><u>New Start vs. Baseline</u></b>	
Cost per Transportation System User Benefit (current year dollars/hour)	\$ 46.92	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
System Operating Cost Per Passenger Mile (current year dollars)	\$0.89	\$0.83

[ ] indicate an increase in emissions.

## **Project Justification Rating: Low-Medium**

The *Low-Medium* project justification rating reflects the adequacy of transit supportive land use and the weak cost-effectiveness of the Norfolk LRT project. With the continued improvement in FTA's project evaluation process, including the introduction of the transportation system user benefit measure, the value of proposed transit projects can be more accurately assessed.

Accordingly, FTA intends to put additional emphasis on the cost-effectiveness measure. This year, this project has received a "low" rating for cost-effectiveness, which raises concerns about the merits of the project for Federal funding. FTA strongly encourages the sponsor to improve the cost-effectiveness of the project.

Based on 1990 Census data, there are an estimated 1,870 low income households and 72,077 jobs within a ½-mile radius of Norfolk LRT station areas. EPA has designated the Hampton Roads area as an “attainment area” for transportation related pollutants. The project’s incremental cost per new rider is \$22.82.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns** **Rating: Medium**

The *Medium* land use rating reflects the aggressive redevelopment efforts of the City to create a mixed-use, pedestrian-scaled environment despite relatively low CBD and corridor population and employment densities.

**Existing Conditions:** Total employment and population in station areas are relatively low; CBD employment is 36,000 and population density averages 4,300 persons per square mile. Most stations will serve neighborhoods comprised of both multi-family and single-family pedestrian-accessible housing within a ½-mile radius at typical densities of 10 to 12 units per acre. The Norfolk CBD is small but relatively dense and pedestrian accessible. Streetscape initiatives have recently been undertaken in conjunction with redevelopment projects in transit station areas. Parking supply is somewhat limited in the core area, but not for the CBD as a whole. Other high trip generators include the Eastern Virginia Medical Center, Norfolk State University (6,600 students), MacArthur Center shopping mall, the Harbor Park minor league baseball stadium, and Tidewater Community College (1,500 students). Commercial development at the easternmost stations on the alignment is auto-oriented in nature.

**Future Plans, Policies, and Performance:** The City of Norfolk has undertaken some significant activities that are supportive of transit-oriented development and urban redevelopment. Norfolk has recently revised zoning in station areas and other areas of downtown to facilitate higher-intensity commercial, residential, and/or mixed-use development. A number of multi-family, urban residential developments are proposed adjacent to the CBD in the waterfront area. The MacArthur Center shopping mall is an example of a recent downtown redevelopment project that has been successfully integrated with the pedestrian streetscape. Two major neighborhood revitalization projects are underway in station areas east of the CBD. On a regional scale, relatively restrictive land conservation and growth limitation policies are in effect in a number of jurisdictions, and these policies have been noted as a barrier to suburban growth in some areas.

### **Local Financial Commitment**

#### **Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium* ratings for both the capital and operating financial plans.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%**

#### **Rating: Medium**

The HRT financial plan for the Norfolk LRT comprises Section 5309 New Starts funds, and State and local funds.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$ 111.0	50.0 %
<b>State:</b> Commonwealth Transportation Trust Fund	\$ 55.5	25.0 %
<b>Local:</b> City of Norfolk	\$ 55.5	25.0 %
<b>Total:</b>	<b>\$ 222.0</b>	100.0 %
<b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.		

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Medium**

The *Medium* rating is based on the commitment of non-Section 5309 New Starts funds for the Norfolk LRT project and HRT's capital finance condition. The HRT capital plan reflects that all project funding is planned from existing revenue sources of the State and the City. The City has committed to provide local assistance through debt financing, for which it has adequate capacity. Balanced capital cash flows are projected.

**Agency Capital Financial Condition:** The City of Norfolk has high bond ratings (AAA from Fitch and Aaa from Standard and Poor's) for the bond series maturing after July 2011. Bonds maturing before July 2011 have received AA and A1 ratings from Fitch and S&P, respectively. The City's debt capacity is estimated at over \$300 million. The average age of the HRT bus fleet is nine years.

**Capital Cost Estimate and Contingencies:** The capital cost estimate includes an average contingency of 21.6 percent, and an annual inflation rate assumed at three percent. The City of Norfolk is prepared to issue additional bonds in the event of funding shortfalls/cost increases.

**Existing and Committed Funding:** The financial plan proposes that the Commonwealth of Virginia will provide 50 percent of the non-Section 5309 New Starts funding through Virginia DOT's Transportation Trust Fund, an existing source. The General Assembly is expected to consider this budget recommendation during the 2003 Legislative Session, which convenes in January. The financial plan proposes that the City of Norfolk will provide the remaining share of the non-Section 5309 New Starts funding through debt financing. The City will incorporate this

funding into the five year Capital Improvement Program budget upon approval of State funding. Hence, both State and local funding sources are considered as planned at this time.

**New and Proposed Sources:** No new sources of funding are proposed.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating is based on the commitment of HRT serviced cities to fund agency operations according to a cost allocation agreement. Hence, Norfolk LRT operating assistance will be provided by the City of Norfolk, which is expected to result in an incremental increase in the City's total HRT subsidy.

**Agency Operating Financial Condition:** HRT has a history of balanced budgets and will not operate at a deficit. Historically, HRT has attained the necessary funding from federal, state and local sources. HRT serviced cities assume responsibility for funding agency operations. HRT's current operating ratio is 1.54. While the local, state, and federal funding assumptions are reasonable, the assumed annual increases in farebox revenues – exceeding a 50 percent recovery ratio by FY 2022 – is optimistic, however, in light of recent trends and the current 30 percent farebox recovery ratio.

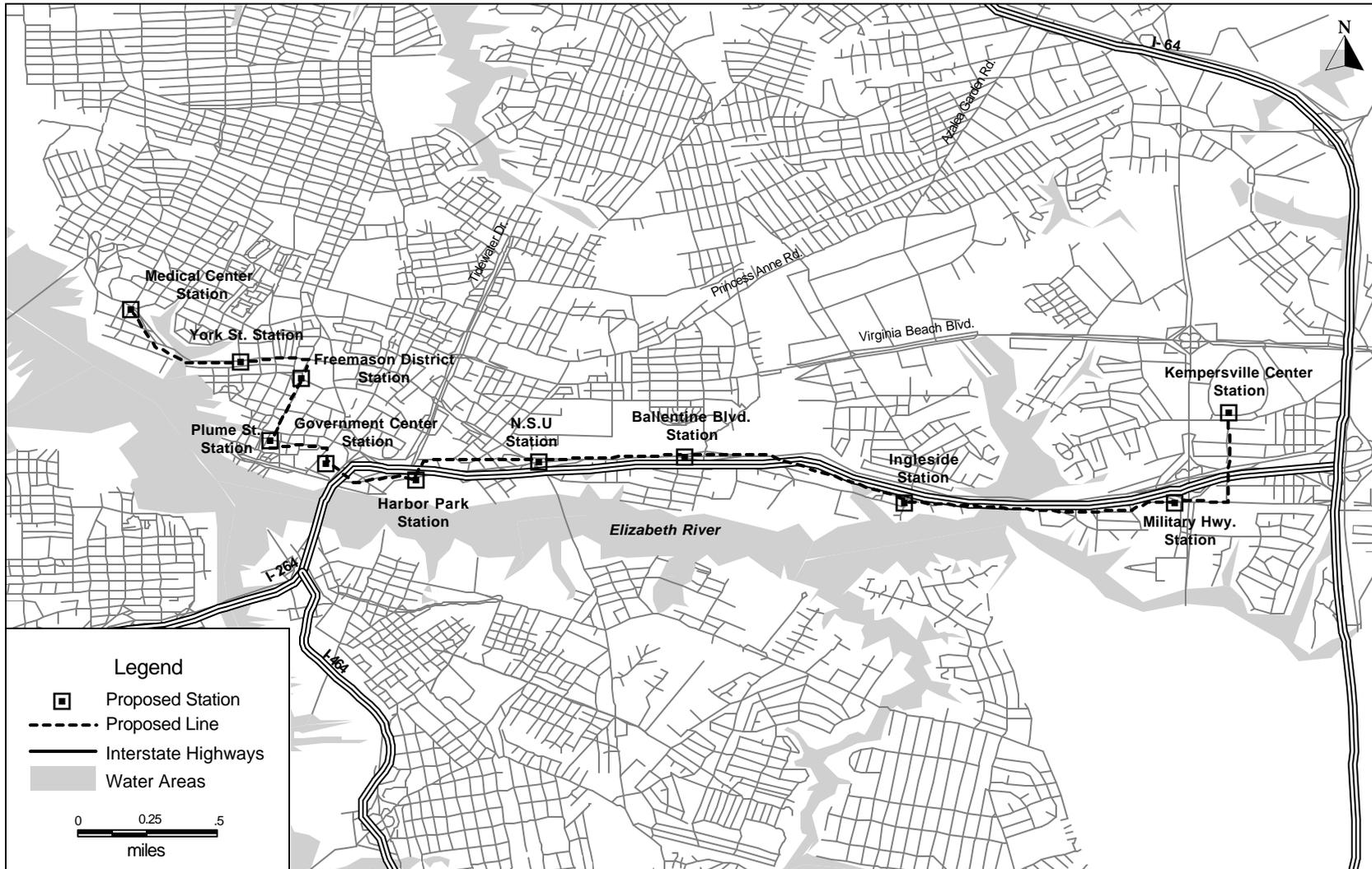
**Operating Cost Estimates and Contingencies:** Norfolk LRT operating costs are projected at 12 percent of the systemwide operating costs. Operating costs are projected to increase by 14.5 percent in FY 2008 and by 4.9 percent in FY 2009, which correspond to the opening year and the first year of full operation, respectively. Annual operating costs are projected to increase at an average of three percent in remaining years. The City of Norfolk is obligated to pay for any operating deficit attributed to the start-up of LRT operation. Contingencies for addressing revenue shortfalls and/or cost increases include reducing service levels.

**Existing and Committed Funding:** All operating sources are committed and come from existing sources, and include Federal, state and local assistance. State and local funds are derived from annual allocations and formula programs, which are expected to increase for the project. The projected growth in the federal, state and local funding is reasonable. The assumed growth in farebox revenues is optimistic in light of the recent trends in fare revenues.

**New and Proposed Funding Sources:** No new funding sources are proposed.

# Norfolk LRT

## Norfolk, Virginia





# Centerline LRT Project

## Orange County, California

(November 2002)

### Description

The Orange County Transportation Authority (OCTA) is undertaking Preliminary Engineering on an 18.7-mile rail corridor in central Orange County between Santa Ana and Irvine. The proposed project will connect major activity centers within the corridor, including downtown Santa Ana (and the county government center), John Wayne Airport, University of California at Irvine, and several hospitals and regional shopping, employment, cultural, and entertainment centers. Additionally, the proposed project would serve a major intermodal center in Santa Ana that will provide connections to Metrolink commuter trains, local bus routes and Amtrak.

In response to input from citizens and local elected officials, OCTA has revised the project since its FY 2002 New Starts review. The proposed project alignment has shortened from 18.9 miles to 17.9 miles. In October of 2002, OCTA requested to shorten the alignment to 11.9 miles, from the transit center in Santa Ana to the University of California at Irvine. This profile is based upon the 17.9-mile project.

Summary Description	
<b>Proposed Project:</b>	Light Rail Transit 17.9 Miles, 22 Stations
<b>Total Capital Cost (\$YOE):</b>	\$2.11 Billion
<b>Section 5309 New Starts Share (\$YOE):</b>	\$1.05 Billion (50%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$14.6 Million
<b>Ridership Forecast (2025):</b>	42,400 Average Weekday Boardings 37,000 Daily New Riders
<b>Opening Year Ridership Forecast (2011):</b>	29,200 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Not Rated</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Rated</b>

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at \$6.56 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. The *Not Rated* overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be**

**updated annually to reflect new information, changing conditions, schedules and refined financing plans.**

## Status

OCTA completed a Major Investment Study (MIS) for the corridor in June 1997. The MIS led to the selection of a rail/bus project consisting of a 28-mile rail corridor and a 49 percent increase in bus service. The project is included in the financially constrained long range transportation plan and the Transportation Improvement Program.

In February 1998, FTA approved entry into the Preliminary Engineering (PE)/Draft Environmental Impact Statement (DEIS) phase of project development. The OCTA board selected the 18.7-mile Minimum Operating Segment (MOS) in October of 2001. The proposed project alignment has shortened from 17.9 miles to 14.9. In October 2002, OCTA requested to shorten the alignment to 11.9 miles, from the transit center in Santa Ana to the University of California at Irvine. OCTA plans to complete the NEPA process and receive a Record of Decision in summer of 2004 and begin construction in 2005. TEA-21 Section 3030(a)(59) authorizes the Fullerton-Irvine Corridor for Final Design and construction. Through FY 2002, Congress has appropriated \$7.45 million in Section 5309 New Starts funds.

## Evaluation

FTA has not rated the project's justification criteria. The project will be reevaluated when it is ready to advance to Final Design, and for next year's *Annual Report on New Starts*.

## Project Justification

### **Rating: Not Rated**

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at \$6.65 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. The overall project rating of *Not Rated* is based upon issues with the rapidly changing project and additional analysis needed to develop project justification criteria consistent with FTA guidelines. The region is currently undertaking an update to its regional travel demand model to account for the proposed expansion of the regional bus network, accommodate changes in the project scope, and produce higher quality transit ridership forecasts. Based on 1990 Census data, there are an estimated 9,340 low-income households within a ½-mile radius of the stations, representing 30 percent of all households located within ½-mile of the corridor. There are an estimated 125,780 jobs within ½-mile of the stations, representing 62 percent of employment in the corridor. Orange County lies within the South Coast Air Basin and is currently classified as an "extreme non-attainment area" for ozone, a "serious non-attainment area" for carbon monoxide and for PM-10, and a "non-attainment area" for NOx.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Not Rated</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	5,717	
<b>Average Low Income Households Per Station</b>	425	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	Not Yet Available	
<b>Environmental Benefits Rating: N/A</b>		
<b><u>Criteria Pollutants Reduced</u> (tons)</b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	N/A	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	N/A	
<b>Hydrocarbons</b>	N/A	
<b>Particulate Matter (PM<sub>10</sub>)</b>	N/A	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	N/A	
<b><u>Annual Energy Savings</u> (million BTU)</b>	N/A	
<b>Cost Effectiveness Rating: Not Rated</b>		
	<b><u>New Starts vs. Baseline</u></b>	
<b>Transportation System User Benefit (current year dollars/hour)</b>	Not Rated	
<b>Operating Efficiencies Rating: Not Rated</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	N/A	N/A

[ ] indicate an increase in emissions.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: Medium**

The *Medium* rating reflects the varied densities and transit-supportive conditions found along the 17.9-mile corridor, but acknowledges the proactive role of OCTA in encouraging transit-oriented planning by local jurisdictions.

**Existing Conditions:** The proposed 17.9-mile Locally Preferred Alternative serves three jurisdictions – Santa Ana, Costa Mesa, and Irvine. In Santa Ana, the proposed alignment runs along an arterial street fronted by strip commercial development and surrounded by primarily single-family neighborhoods with some multi-family developments. In Costa Mesa, development is a mix of mid-rise office, shopping plaza, and multi-family residential. In Irvine, two major employment centers are served, as well as planned residential developments at a range

of densities. Other high trip generators include the John Wayne Airport and the University of California at Irvine. As of 2000, a total of 99,000 jobs were located within ½-mile of proposed stations, and residential densities were moderate, averaging 7,400 persons per square mile. Pedestrian accessibility is good in Santa Ana and other portions of the corridor, but limited in other areas.

**Future Plans, Policies and Performance:** OCTA has been working with corridor communities to develop station area planning and design guidelines and has executed cooperative agreements with all jurisdictions in the corridor to conduct station area planning. OCTA has also developed tools to assist in station area planning efforts including transit-supportive development guidelines, a joint development strategy, station area land use profiles, station area parking guidelines, and an implementation plan. In addition, OCTA has conducted public education and outreach on transit-oriented land use planning, and is investigating joint development opportunities. The communities along the corridor have relatively dense residential zoning (15 to 30 units per acre and higher) in place in most station areas. Allowable commercial densities are relatively high in the two Irvine employment centers, but commercial floor area ratios (FARs) are less than 1.0 in the remainder of the corridor. Good examples of transit-supportive design are located in downtown Santa Ana, where mixed-use redevelopment and pedestrian oriented design improvements have recently been completed.

## **Local Financial Commitment**

### **Rating: Medium-High**

The rating of *Medium-High* for local financial commitment is because of the *Medium-High* rating for the Capital Operating Plan and the *Medium-High* rating of the Operating Financial Plan.

## **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%**

### **Rating: Medium**

OCTA plans to use Section 5309 New Starts funds, FHWA Flexible Funding, State Transportation Improvement Program funds, State Highway funds, and local funds from Measure M, a County transportation sales tax.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$1,055.4	50.0%
FHWA Flexible Funds	\$521.9	25.0%
<b>State:</b>		
STIP	\$234.3	12.4%
Proposition 116	\$120.0	6.4%
<b>Local:</b>		
Measure M	\$179.2	9.5%
<b>Total:</b>	<b>\$2,110.7</b>	<b>100.0 %</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and not DOT or FTA assumptions. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Medium-High**

The Centerline Rail Corridor has received a *Medium-High* capital plan rating because 100 percent of proposed local funding for the project is committed from existing sources. OCTA has demonstrated its ability to finance large projects.

**Agency Capital Financial Condition:** OCTA is in sound financial condition. The agency has sufficient capital resources from a ½-percent sales tax (Measure M) to finance a wide range of capital improvements. OCTA carries a very high bond rating: Aa2/AA/AA by Moody's, Standard and Poor's, and Fitch, respectively.

**Capital Cost Estimate and Contingencies:** OCTA has incorporated cost contingencies into its financial plan. The contingencies appear adequate to cover cost overruns for design and construction, rights-of-way, and vehicle cost. An additional project reserve of ten percent exists and is applied to the total costs, including contingencies.

**Existing and Committed Funding:** The OCTA Board of Directors has committed \$179 million in Measure M funds and sufficient CMAQ and State Transit Improvement Program (STIP) funding to finance the non-Section 5309 New Starts share of capital costs.

**New and Proposed Sources:** All of the proposed Non-Section 5309 share of project costs are from existing funding sources.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium-High**

The *Medium-High* operating plan rating reflects the existing dedicated revenue stream for operating the Centerline Rail Corridor.

**Agency Operating Financial Condition:** OCTA is in sound operating financial condition. Measure M and other existing revenues provide the agency with sufficient resources to operate its existing bus system.

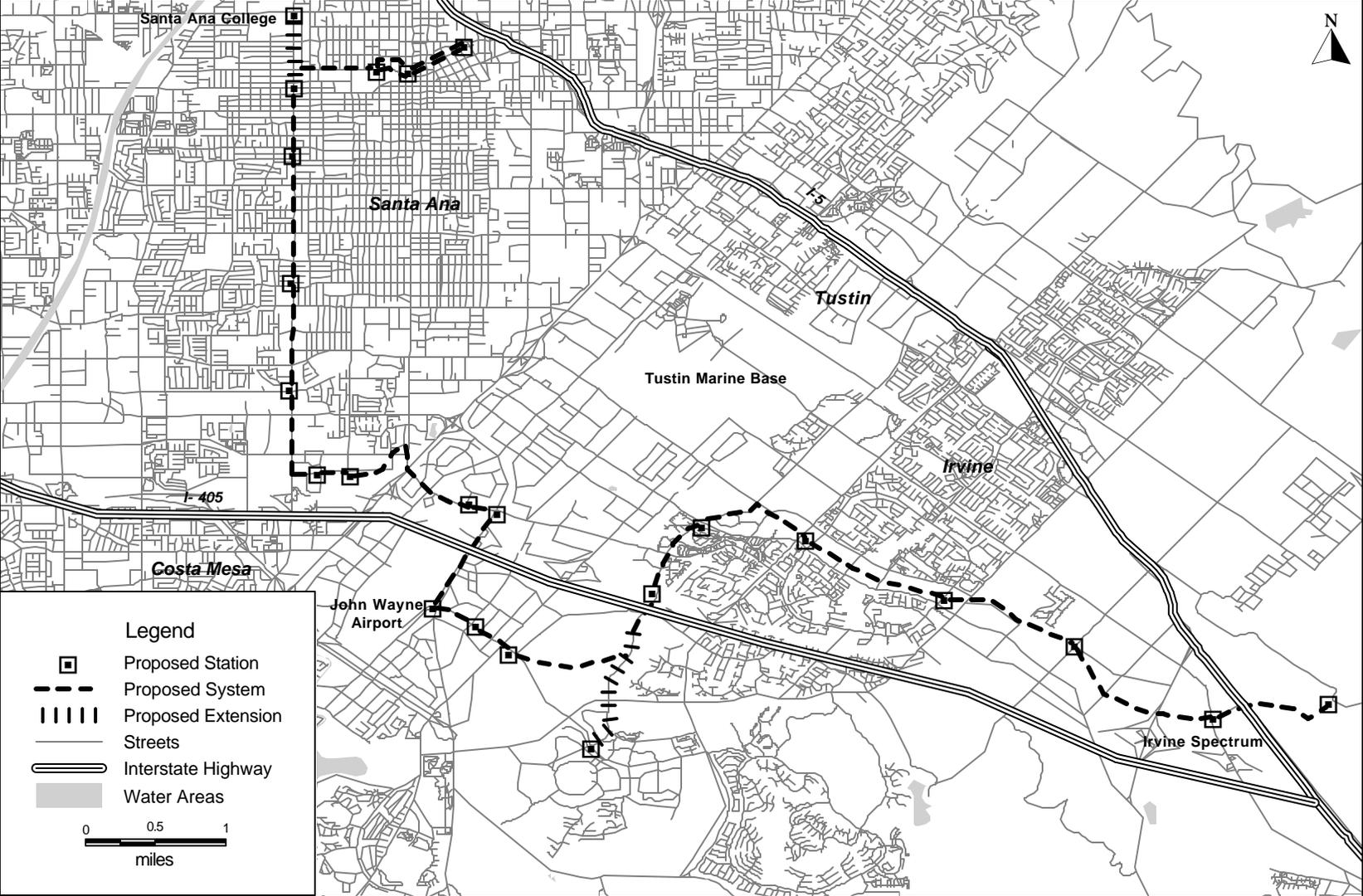
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs are estimated at \$38.7 million. These estimates appear reasonable given the proposed size of the system. OCTA uses conservative growth forecasts.

**Existing and Committed Funding:** OCTA proposes that operation of the completed Rail Corridor would be funded from Measure M funds, farebox revenues, and CMAQ funds for the first three years of operation. These resources are expected to yield sufficient funds to operate the completed 17.9-mile system through 2011, when the current round of Measure M sales tax is scheduled to end. If the Measure M initiative is not renewed, the project would experience a declining, but still positive, operating cash balance from 2012 through 2028.

**New and Proposed Funding Sources:** No new sources of funding are proposed.

# Centerline LRT

## Orange County, California



Federal Transit Administration, 2002



# Schuylkill Valley MetroRail

## Philadelphia – Reading, Pennsylvania

(November 2002)

### Description

The Southeastern Pennsylvania Transportation Authority (SEPTA) and the Berks Area Reading Transportation Authority (BARTA) propose to develop the Schuylkill Valley MetroRail (SVM) project extending northwest from Philadelphia approximately 74 miles to Reading. The alignment of the proposed rail project, a hybrid of light and commuter rail services, would generally parallel the Schuylkill River along existing SEPTA and Norfolk Southern railroad right-of-way. The SVM corridor is comprised of 52 municipalities in four counties, including the smaller cities of Norristown, Pottstown and Phoenixville; suburban centers at King of Prussia and Great Valley; and regional activity centers and attractions such as Center City Philadelphia, King of Prussia Mall, Valley Forge National Park and the Reading Outlet Stores Mall. The project would access all mass transportation lines in the corridor including connections to: SEPTA's light rail lines, Subway Rapid Transit lines, the Norristown High Speed Line, and all its Regional Rail lines; Amtrak and New Jersey Transit trains; Port Authority Transit Corporation High Speed line to New Jersey; SEPTA, BARTA, Pottstown and New Jersey Transit local, suburban, long distance and feeder bus routes; and Greyhound and other intercity bus services.

The SVM project proposes to utilize an innovative technology consisting of conventional commuter rail car design modified to permit operation by a single person. Key features include service at subway/light rail system levels of frequency, off-train fare collection, and high performance rolling stock (i.e., with high acceleration and braking rates). MetroRail would operate on shared track with regional rail, Amtrak and freight trains, and would use Philadelphia's Center City Tunnel. SEPTA is also examining a possible linkage to the proposed Cross County Metro project between King of Prussia and Norristown.

<b>Summary Description</b>	
<b>Proposed Project:</b>	MetroRail (hybrid light and commuter rail) 74 Miles, 34 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1.8 Billion
<b>Section 5309 New Starts Share (\$YOE):</b>	\$1.5 Billion (80%)
<b>Annual Operating Cost (2020 \$YOE):</b>	\$65.9 Million
<b>Ridership Forecast (2020):</b>	47,800 Average Weekday Boardings 27,400 Daily New Riders
<b>Opening Year Ridership Forecast (2010):</b>	41,200 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Low</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

The SVM project would directly serve the newer growth centers in the corridor and provide a transportation alternative to the two principal highways, Schuylkill Expressway (I-76) and US Route 422 Expressway, serving this rapidly developing area of southeastern Pennsylvania. The SVM project would also serve as the catalyst to spark economic development in older towns in the rail corridor and help to focus growth in a more sustainable fashion.

This overall project rating of *Not Recommended* based on the “Low financial rating resulting from a Section 5309 New Starts funding share of 80 percent. This project has received a rating of *Not Recommended* based on the Federal New Starts share requirement in effect during fiscal year 2003. The Conference Report accompanying the FY 2002 Department of Transportation Appropriations Act directs that, as of October 1, 2002, no new Full Funding Grant Agreement may be executed with a Federal New Starts share greater than 60 percent. The project’s “low” share rating and summary financial rating reflect this Congressional direction. In addition, the Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by this change.

The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedule, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

SEPTA and BARTA completed a Major Investment Study/Draft Environmental Impact Study (MIS/DEIS), for which MetroRail was adopted as the Locally Preferred Alternative. The project is included in the financially constrained long range plans of both the Delaware Valley Regional Planning Commission and the Berks County Planning Commission, the two responsible MPOs. FTA approved the project into Preliminary Engineering (PE) in January 2002. The DEIS was published in December 2001, and notes FTA’s concern with the continued proposed level of Section 5309 New Starts funding. Initiation of the Final EIS is expected in spring 2003. SEPTA is providing technical oversight of project development. MetroRail service is scheduled to open in 2010.

TEA-21 Section 3030(a)(61) authorizes the “Philadelphia – Schuylkill Valley Metro” for Final Design and construction. Through FY 2002, Congress has appropriated \$25.72 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA’s *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year’s New Starts Report and when it is ready to advance into Final Design.

<b>Project Justification Qualitative Criteria</b>		
<b>Mobility Improvements Rating: Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	11,213	
<b>Average Low Income Households Per Station</b>	824	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	0.6	
<b>Environmental Benefits Rating: High</b>		
<b><u>Criteria Pollutant Reduced</u> (tons)</b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	869	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	146	
<b>Hydrocarbons</b>	102	
<b>Particulate Matter (PM<sub>10</sub>)</b>	11	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	65,260	
<b><u>Annual Energy Savings</u> (million) BTU</b>	818,140	
<b>Cost Effectiveness Rating: Low-Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost per Transportation System User Benefit (current year dollars/hour)</b>	\$23.78	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.27	\$0.26

[ ] indicate an increase in emissions.

## **Project Justification**

### **Rating: Medium**

The *Medium* project justification rating reflects strong transit-supportive land use throughout the corridor and the weak cost-effectiveness of the project. Based on 1990 Census data, there are an estimated 28,031 low income households and 381,240 jobs within a ½-mile radius of station areas of the Schuylkill Valley MetroRail. EPA currently designates the Philadelphia-Wilmington-Trenton, PA-NJ-DE-MD area as a “severe non-attainment area” for ozone. The incremental cost per incremental trip for the project is \$17.42.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium-High**

The *Medium-High* land use rating reflects strong existing land use and transit-supportive policies in the corridor. The region’s growth management policies have worked well in creating transit-

supportive communities throughout the corridor. Development is continuing in the corridor at a steady pace; many of the proposed developments provide a transit-supportive mix of residential, office and commercial space.

**Existing Conditions:** The Schuylkill Valley MetroRail (SVM) study area includes Center City Philadelphia and contains major concentrations of office employment, two of the largest universities in the City of Philadelphia, the University of Pennsylvania Hospital, Allegheny University Hospital, and the University Science Center. The 30<sup>th</sup> Street Station serves as an intermodal connection point between Amtrak and New Jersey Transit trains, and the SEPTA Regional Rail system lines. Employment densities within the corridor are approximately 103 employees per acre (1,939 jobs per square mile), whereas the density of the employment within ½-mile of the stations throughout the corridor is approximately 15,866 jobs per square mile. Residential development ranges from high-rise projects to traditional low-rise neighborhoods. Center City Philadelphia has residential densities of almost 17,900 people per square mile. The average population density throughout the corridor is approximately 7,600 people per square mile.

**Future Plans, Policies and Performance:** The Commonwealth of Pennsylvania and the Delaware Valley Regional Planning Commission have transportation and growth management policies that focus development in existing and emerging centers and corridors and maintain existing rural areas. The Commonwealth’s Municipal Planning Code provides for the creation of “Locally Designated Growth Areas” as part of their comprehensive plans. The Schuylkill Valley MetroRail corridor is the subject of a Transportation and Community and System Preservation (TCSP) Pilot Program that includes a regional Location Efficient Mortgage (LEM) product, a regional TOD advocacy and educational support campaign; and a prototype corridor case study to prepare five station area plans.

Land use policies and market demands throughout the corridor have fostered numerous recent development projects. The region and corridor are expected to continue to grow substantially over the next 20 years. Key areas in the corridor that are expected to contain a large percentage of the growth include Center City, which continues to experience a strong upward trend in office and housing, with a 93 percent office occupancy rate and an even higher residential occupancy rate; Conshohocken, which has numerous developments under construction and more planned; the King of Prussia area; as well as several of the suburban townships such as Limerick and Upper Providence which are successfully attracting biotech and pharmaceutical industries. Recently, over 550,000 square feet of office space has been built in Conshohocken along the Schuylkill Valley Corridor.

### **Local Financial Commitment**

#### **Rating: Low**

The *Low* rating is based on the proposed share of New Starts funding exceeding acceptable levels.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 20 %**

#### **Rating: Low**

The SVM financial plan includes Section 5309 New Starts funding, and State and local funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$1,465.4	80.0 %
<b>State:</b> Act 26 Appropriations	\$ 305.3	16.7 %
<b>Local:</b> Infrastructure Safety Renewal Program	\$ 61.1	3.3 %
<b>Total:</b>	<b>\$1,831.7</b>	100.0 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating reflects the incomplete capital financing plan, especially the omission of the proposed Cross County Metro project and discrepancies in identifying State allocations between the two projects.

**Agency Capital Financial Condition:** The financial plan for the Schuylkill Valley MetroRail project does not include historical financial data for use in assessing the current financial condition of the Southeastern Pennsylvania Transportation Authority (SEPTA). The average age of the bus fleet is nine years. The plan does not include information regarding the rating of prior outstanding debt included in the plan.

**Capital Cost Estimate and Contingencies:** The Schuylkill Valley MetroRail Project capital cost estimate includes a 20 percent contingency, which is low for a project still in the early planning stage. An inflation factor of three percent was applied to the estimated year of expenditure costs for the different cost categories. The plan does not mention if unit costs were obtained from similar recent construction projects.

**Existing and Committed Funding:** All non-New Starts capital funding sources are committed. Non-New Starts sources include revenues from Act 26 of 1991 (Public Transportation Assistance Fund, PTAF) and from the Infrastructure Safety Renewal Program.

**New and Proposed Sources:** No new sources of funding are planned for this project.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating for the operating financial plan is based on the stability of projected revenue sources to be used to support the existing transit services operated by SEPTA. The proposed plan assumes that the State will continue to provide financial support to public transportation services and expects a continuous increase in financial assistance.

**Agency Operating Financial Condition:** The operating plan is incomplete and does not include historical data or an audited financial statement.

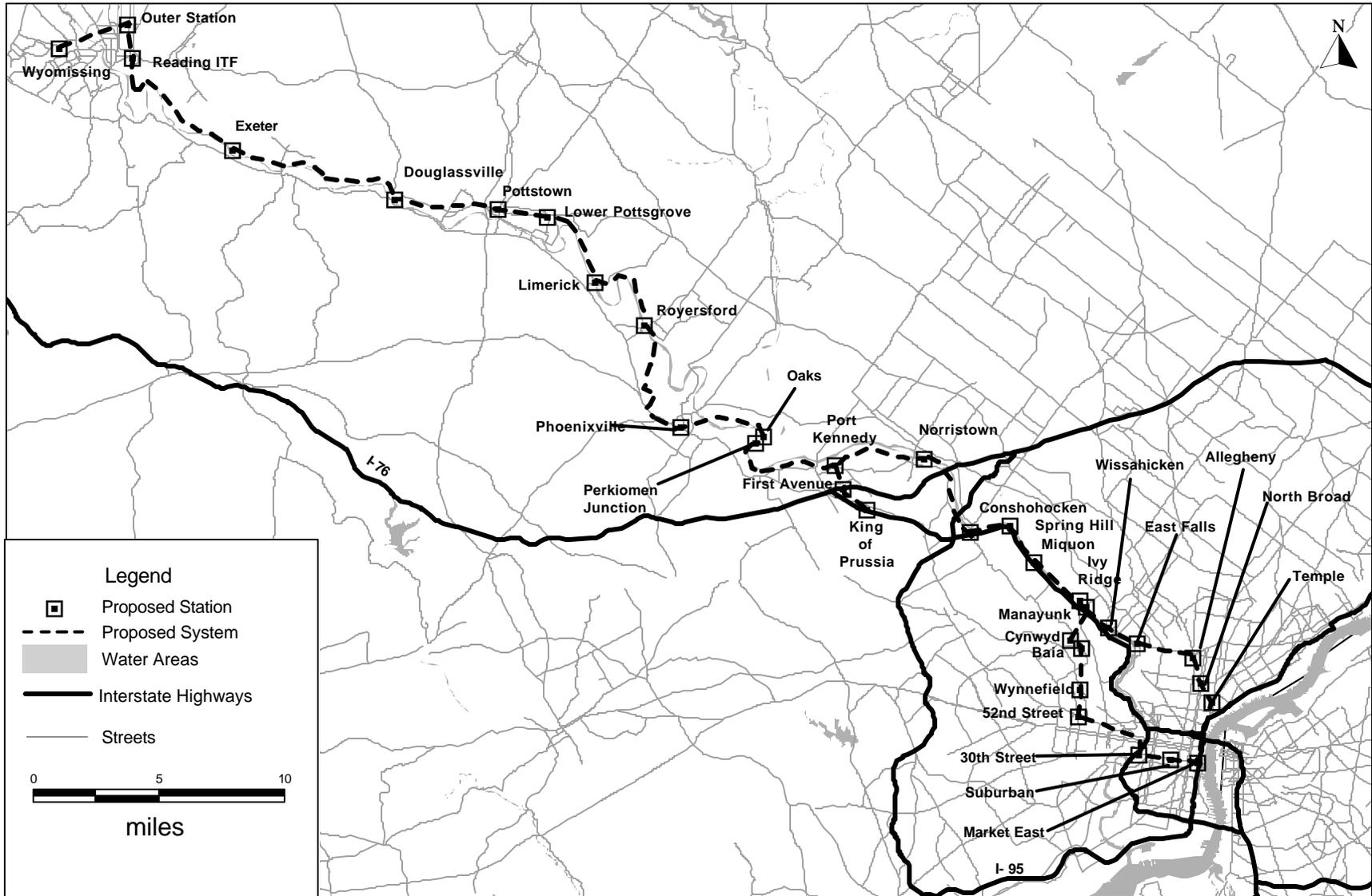
**Operating Cost Estimates and Contingencies:** Operating and maintenance cost estimates for the Schuylkill Valley MetroRail project were developed using historical cost data from similar transit services operated by SEPTA and from a 1997 report on experience in Dallas. The operating plan suggests that any gap between revenues and expenditures will be covered with a supplemental operating subsidy, proposed as increases of existing state and local funding sources.

**Existing and Committed Funding:** Operating and maintenance funds are derived from existing state and local assistance, systemwide fares, and other income. No evidence of funding commitments to the project was provided.

**New and Proposed Funding Sources:** New funding sources include the Schuylkill Valley MetroRail operating subsidy and other new allocations.

# Schuylkill Valley MetroRail

## Philadelphia-Reading, Pennsylvania





# Central Phoenix/East Valley Corridor

Phoenix, Arizona  
(November 2002)

## Description

The Regional Public Transportation Authority (RPTA) is proposing to implement a 25-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. As a first step, the RPTA is undertaking Preliminary Engineering on a 20-mile segment from the Chris-Town Mall area, through downtown Phoenix and downtown Tempe, to Mesa. The proposed project would have 27 stations and serve major activity centers including downtown Phoenix, the Sky Harbor Airport, Papago Park Center and downtown Tempe. The Phoenix metropolitan area is one of the fastest growing areas in the United States, and the proposed project would provide a transit alternative to congested roads and also serve as a focal point for new development along the Central Avenue corridor and areas east of the Central Business District including the Sky Harbor Airport, and Tempe and Mesa.

Summary Description	
<b>Proposed Project:</b>	Light Rail Transit 20 Miles, 27 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1.18 Billion
<b>Section 5309 New Starts Share (\$YOE):</b>	\$591.7 Million (50%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$42.5 Million
<b>Ridership Forecast (2025):</b>	47,670 Average Weekday Boardings 26,300 Daily New Riders
<b>Opening Year Ridership Forecast (2006):</b>	26,700 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Highly Recommended</b>

The Central Phoenix/East Valley Corridor is rated *Highly Recommended* based upon the project's cost effectiveness, good transit supportive land use, and the high level of local financial commitment of capital and operating funds for the project. The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of November 2002. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, schedule and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, schedules, changing conditions, and refined financing plans.**

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Medium</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Average Employment Per Station</b>	5,399	
<b>Average Low Income Households Per Station</b>	162	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	3.3	
<b>Environmental Benefits Rating: High</b>		
<u><b>Criteria Pollutants Reduced (tons)</b></u>	<u><b>New Start vs. Baseline</b></u>	
<b>Carbon Monoxide (CO)</b>	635	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	111	
<b>Hydrocarbons</b>	97	
<b>Particulate Matter (PM<sub>10</sub>)</b>	3	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	63,370	
<u><b>Annual Energy Savings (million) BTU</b></u>	8,232,300	
<b>Cost Effectiveness Rating: Medium-High</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Transportation System User Benefit (current year dollars/hour)</b>	\$12.40	
<b>Operating Efficiencies Rating: Medium</b>		
	<u><b>Baseline</b></u>	<u><b>New Start</b></u>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$.70	\$.66

[ ] Indicate an increase in emissions

## Status

The RPTA completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the spring of 1998. In September 1998, FTA granted permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase on a 13-mile segment of the corridor. FTA subsequently approved Preliminary Engineering on 20.3 miles of the proposed system. The Maricopa Association of Governments (MAG) (local metropolitan planning organization) adopted the CP/EV Corridor as a fixed-guideway corridor and included the CP/EV LRT project in the long range transportation plan and the current Regional Transportation Improvement Plan (TIP). On March 14, 2000, the City of Phoenix voters passed a sales tax referendum that increased the local sales tax rate by 0.4 percent, all of which will be dedicated to transit development. The RPTA plans to complete the NEPA process and receive a Record of Decision in early 2003, undertake Final Design in 2003, and begin construction in 2004.

Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for Final Design and construction. Through FY 2002, Congress has appropriated \$33.67 million for the project.

## **Evaluation**

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts report and when it is ready to advance into Final Design.

## **Project Justification**

### **Rating: Medium-High**

The *Medium-High* project justification rating reflects the good cost-effectiveness and efforts to encourage transit-supportive development in the proposed corridor. Based on 1990 Census data, there are an estimated 4,370 low-income households within a ½-mile radius of the stations, representing 15 percent of all households located within ½-mile of the stations. There are an estimated 145,700 jobs within ½-mile of the stations, representing 23 percent of employment in the station areas. The Phoenix Metropolitan region is a “serious non-attainment area” for ozone, carbon monoxide, and particulates (PM<sub>10</sub>). The incremental cost per incremental trip is \$12.39.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium**

The *Medium* land use rating reflects the generally low- to medium-densities along the corridor, the number of significant trip generators, and local efforts to encourage transit-oriented development.

**Existing Conditions:** The proposed alignment is characterized by predominantly low density residential, commercial, and industrial uses with two higher density nodes in downtown Phoenix and downtown Tempe. The corridor serves several high trip generators, including the 20,000 seat America West Arena; the Phoenix Civic Plaza/Convention Center; the 50,000 seat Bank One Ballpark; Sky Harbor International Airport; 75,000 seat Sun Devil Stadium; and the campus of Arizona State University (ASU; 42,000 students), and the Apache Boulevard Redevelopment Area in Tempe east of ASU, which boast the highest residential density in the State. The corridor also contains several of the largest employment centers in the region and 12 percent of metropolitan area employment. Downtown Phoenix and the City of Tempe have instituted strong parking policies, such as the removal of minimum parking requirements for new office and retail development in the CBD.

**Future Plans, Policies and Performance:** Local jurisdictions and agencies have made some progress in examining and implementing transit supportive plans and policies in the corridor. The Maricopa Association of Governments has produced Pedestrian Area Policies and Design Guidelines to guide member city planning and design efforts. Several small area plans have been revised to accommodate higher intensity, mixed use development. RPTA is working with transit and planning departments of affected cities to develop a TOD model ordinance. Several

significant new developments are being planned along the corridor, including the seven million square foot Rio Salado development. While there is progress with new housing development in downtown Phoenix, plans to support higher intensities of housing in other portions of the alignment are limited.

**Local Financial Commitment**

**Rating: Medium-High**

The rating of *Medium-High* for local financial commitment is because of the *Medium-High* rating for the Capital Operating Plan and the *Medium-High* rating of the Operating Financial Plan.

**Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%**

**Rating: Medium**

The financial plan for the Central Phoenix/East Valley LRT MOS includes Section 5309 New Start funds, FHWA Flexible Funding, and funding contributions from the City of Phoenix, the City of Tempe, and the City of Mesa.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$591.7	50.0 %
FHWA Flexible Funds	\$19.1	1.6 %
<b>Local:</b>		
City of Phoenix	\$379.1	32.0 %
City of Tempe	\$165.1	14.0 %
City of Mesa	\$28.4	2.4 %
<b>Total:</b>	<b>\$1,183.5</b>	<b>100 %</b>

NOTE: Funding proposal reflects assumptions made by project sponsors, and not DOT or FTA assumptions. Total may not add due to rounding.

**Stability and Reliability of Capital Financing Plan**

**Rating: Medium-High**

The *Medium-High* rating reflects the availability of Phoenix and Tempe dedicated transit sales tax revenues to finance the construction and operation of the proposed LRT system and the existing regional transit system. The dedicated transit sales tax revenues and bonds backed by these sales tax revenues will fund 46 percent of the projects capital costs.

**Agency Capital Financial Condition:** The RPTA is in good financial condition. The existing bus fleet is relatively young (6.45 years) and the cities issuing bonds on behalf of the CP/EV

LRT project have good bond ratings from Standard and Poor's, Fitch, and Moody's. On March 14, 2000, the City of Phoenix voters passed a sales tax referendum that increased the local sales tax rate by 0.4 percent, all of which will be dedicated to transit development. Tempe has had a dedicated transit sales tax of 0.5 percent since 1996.

**Capital Cost Estimates and Contingencies:** The total capital cost increased by \$2.92 million from FY 2003. The cost estimate appears to be sound and to include sufficient contingencies in the estimated cost. Additionally, the RPTA estimates a future balance in every year as well as unexpended sales tax revenues for all years expect 2003-2005, which may be used to back additional bond issues to fund any capital or operating shortfalls.

**Existing and Committed Funding:** The Cities of Phoenix, Tempe, and Mesa each have committed funds for the local match from existing, stable sources of funding. The City of Phoenix has a 0.4 percent transit dedicated sales tax and will use these sales tax revenues to issue bonds to finance its share of the project costs. The City of Tempe receives funding from a 0.5 percent transit dedicated sales tax, and the city will use these sales tax revenues to issue bonds to finance its share of the LRT project costs. The City of Mesa has included the proposed project in its Capital Improvements Program.

**New and Proposed Sources:** No new sources of funding are proposed.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium-High**

The *Medium-High* rating reflects the availability of a dedicated source of revenue to finance the construction and operation of the proposed system and the existing regional transit system.

**Agency Operating Financial Condition:** The current and recent historic cash flows reveal that between 20 and 30 percent of operating expenses have been covered by fare revenues. There have been no recent cutbacks or reductions in service; in fact, the vehicle revenue miles have been increasing since 1996. Additionally, the RPTA has a cash balance present at the end of each year for unexpected expenses or shortfalls.

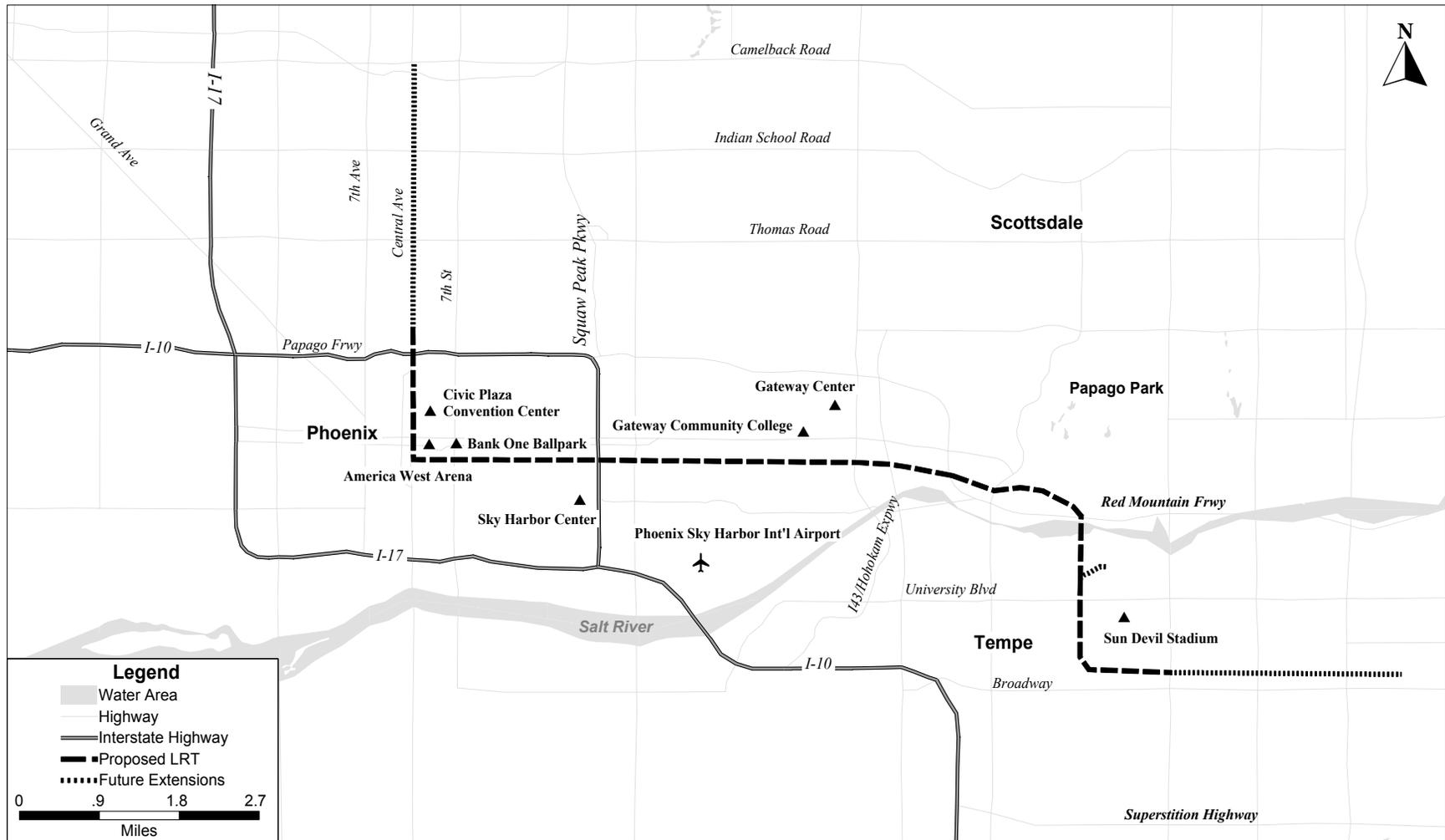
**Operating Cost Estimates and Contingencies:** Annual operating costs for the proposed project are estimated at \$15 million when the system is scheduled to open in 2006, and well increase to \$42.5 million in 2025. Cost estimates and escalation factors are reasonable.

**Existing and Committed Funding:** The operating costs not covered by the CP/EV LRT fare revenues will be met with existing, stable sources of local funding including Phoenix and Tempe dedicated transit sales tax revenues and general funds from the City of Mesa. The City of Mesa general funds are considered planned at this point because Mesa has been actively involved in the planning of the CP/EV LRT but has not formally committed the funds through a referendum or appropriation process.

**New and Proposed Funding Sources:** No new sources of funding are proposed.

# Central Phoenix/East Valley Corridor

Phoenix, Arizona



# North Shore Connector LRT

## Pittsburgh, Pennsylvania

(November 2002)

### Description

The Port Authority of Allegheny County (PAAC) proposes to construct a 1.6-mile Light Rail Transit (LRT) system extension connecting the Golden Triangle and the North Shore wholly within downtown Pittsburgh. The project would extend existing LRT service from the Gateway Center LRT Station in the Golden Triangle to the vicinity of the West End Bridge on the North Shore via a tunnel below the Allegheny River. On the North Shore, the project would be a mix of at-grade and elevated alignment. The project would also include a Convention Center Connection, linking the existing Steel Plaza LRT Station and the Convention Center.

The major goals of the project are to: improve transportation access to and within the North Shore of downtown Pittsburgh; support existing and proposed development on the North Shore; and deliver efficient and equitable transit service into established neighborhoods. To achieve these goals, the North Shore Connector LRT is intended to improve connectivity between downtown area attractions and hotels located in the North Shore, Cultural District, and Strip District areas. The new transit service would enhance accessibility to major sports, cultural and civic facilities, improve the linkage between North Shore fringe parking and employment centers in the Golden Triangle, facilitate downtown pedestrian activity, and improve reverse commuting opportunities.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Light Rail 1.6 Miles, 3 New and 1 Modified Station
<b>Total Capital Cost (\$YOE):</b>	\$389.9 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$233.9 Million (60 %)
<b>Annual Operating Cost (2015 \$YOE):</b>	\$6.5 Million
<b>Ridership Forecast (2015):</b>	13,200 Average Weekday Boardings 6,500 Daily New Riders
<b>Opening Year Ridership Forecast (2007):</b>	7400 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Low-Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

The *Not Recommended* overall project rating is based on the project's "Low-Medium" finance rating. The overall project rating applies to this *Annual New Starts Report* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedule, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

This project includes a proposed Federal share of 60 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by that change.

## Status

The Alternatives Analysis completed by PAAC in early 1999 concluded that a multi-modal package of transportation improvements be carried forward for further analysis during project environmental review. The project is included in the 2000 Southwestern Pennsylvania Commission (SPC) long range transportation plan, as well as the 2003-2006 SPC Transportation Improvement Program for design and construction. The “Gateway LRT Alternative” was selected as the Locally Preferred Alternative for the North Shore Connector LRT project in August 2000 by PAAC. FTA granted approval to initiate Preliminary Engineering in January 2001. The Final Environmental Impact Statement (FEIS) was published in April 2002 and FTA issued the Record of Decision in July 2002. Revenue service is planned to begin in 2007.

TEA-21 Section 3030(a)(97) authorizes the “Pittsburgh North Shore – Central Business District Corridor” for Final Design and Construction. Through FY 2002, Congress has appropriated \$23.67 million in Section 5309 New Starts funds to the project.

## Evaluation

The following criteria have been estimated in conformance with FTA’s *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year’s New Starts Report and when it is ready to advance into Final Design.

## Project Justification

### **Rating: Medium**

The *Medium* project justification rating reflects the relatively strong land use rating and the project’s low cost-effectiveness. With the continued improvement in FTA’s project evaluation process, including the introduction of the transportation system user benefit measure, the value of proposed transit projects can be more accurately assessed. Accordingly, FTA intends to put additional emphasis on the cost-effectiveness measure. This year, this project has received a “low” rating for cost-effectiveness, which raises concerns about the merits of the project for Federal funding. FTA strongly encourages the sponsor to improve the cost-effectiveness of the project.

Based on 1990 Census data, there are an estimated 1,350 low-income households and 24,757 jobs within a ½-mile radius of project station areas. EPA rates the Pittsburgh metropolitan area as a “moderate maintenance area” for ozone and a “non-attainment area” for carbon monoxide. The incremental cost per incremental trip value for the project is \$14.70.

<b>Project Justification Qualitative Criteria</b>		
<b>Mobility Improvements Rating: Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	6,552	
<b>Average Low Income Households Per Station</b>	449	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	15.6	
<b>Environmental Benefits Rating: Medium-High</b>		
<b><u>Criteria Pollutant Reduced</u> (tons)</b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	33	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	5	
<b>Hydrocarbons</b>	8	
<b>Particulate Matter (PM<sub>10</sub>)</b>	0	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	13,160	
<b><u>Annual Energy Savings</u> (million) BTU</b>	22,960	
<b>Cost Effectiveness Rating: Low</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost Per Transportation System User Benefit (current year dollars/hour)</b>	\$ 37.79	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.46	\$0.46

[ ] indicate an increase in emissions.

## **Transit-Supportive Existing Land Use and Future Patterns**

### **Rating: Medium-High**

The *Medium-High* rating reflects the high densities of employment and retail shopping in the Golden Triangle Area of the Pittsburgh CBD supported by recent and ongoing new development, as well as current efforts to create higher densities of activity with new development now taking place in the North Shore area. This development is taking place under the new Pittsburgh zoning regulations that require substantially improved pedestrian and handicapped access. Due to the coordinated efforts of the Port Authority, Southwestern Pennsylvania Commission, Allegheny County, municipalities, and the Commonwealth of Pennsylvania, densities continue to increase in the station areas along the transit lines in the South, East, and West corridors radiating out from the Pittsburgh CBD.

**Existing Conditions:** The proposed Connector links the redeveloping North Shore area with the Golden Triangle across the Allegheny River and is an extension of the South Corridor LRT line. Much of the activity in the South Corridor is focused along the LRT line. By connections in the CBD, the new line links the North Shore to the major bus-transit East and West Corridors as well. The CBD, especially the Golden Triangle area, continues to be the major mixed-use office commercial center of the region. The Golden Triangle generates a high density of both work and shopping trips. It also contains hotels, restaurants, and entertainment that generate additional trips. The opening there this past year of the expanded David Lawrence Convention Center enhanced the area's prominence. Two new major sports facilities, Heinz Field and PNC Park, opened in the North Shore area this past year. The east end of the North Shore contains offices adapted from industrial uses. It also contains new medium-to-high residential use. Adjacent to this area is mixed office and commercial land use, including the new Alcoa world headquarters and the Warhol museum. There is scattered office and light industrial use adjacent to this area. The western portion of the area is under redevelopment from mixed commercial-industrial and CBD parking to other uses.

**Future Plans, Policies, and Performance:** Current and planned redevelopment in the areas served by the North Shore Connector increases the economic activity and the trip ends there. Golden Triangle station areas are the locations of much of the growth. North Shore station areas will also realize much new development. The total value of recent and planned new development projects in the area served by the project is \$1.3 billion. Pittsburgh zoning policy requires excellent pedestrian access to transit, sidewalks, and buildings and compliance with ADA standards. Policies in Pittsburgh, other municipalities, and Allegheny County encourage higher density development along the LRT and busway lines, especially in the station areas. More opportunities remain, however, for focusing development in the station areas, to make development more transit-supportive.

## **Local Financial Commitment**

### **Rating: Low-Medium**

The *Low-Medium* local financial commitment rating was determined by the *Low-Medium* ratings for both the capital and operating financing plans.

## **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 40 %**

### **Rating: Medium**

The project financial plan includes Section 5309 New Starts funding, other Federal funding, and State and local sources.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$ 233.9	60.0 %
Section 5307 Urban Area Formula	\$ 2.6	0.7 %
CMAQ	\$ 75.3	19.3 %
<b>State:</b>		
Annual Capital Appropriations	\$ 65.0	16.7 %
<b>Local:</b>		
Allegheny County Appropriations	\$ 13.0	3.3 %
<b>Total:</b>	<b>\$ 389.9</b>	<b>100.0 %</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating is based on concerns with PAAC's ability to maintain financial capacity for its existing system and planned improvements. Viability of the capital financial plan is dependent on obtaining an increase in the State's annual capital assistance to PAAC. This cap is currently set at \$30 million annually but must increase to \$60 million annually to fund all PAAC projects currently proposed for development, including the North Shore Connector.

**Agency Capital Financial Condition:** While PAAC is currently experiencing financial challenges with respect to its operating budget, the agency's capital budget has not been similarly impacted by the same events (i.e., declines in ridership and operating subsidies). The average age of PAAC's transit fleet is roughly 6.5 years for bus and 17.5 years for light rail; the average age for the inclined plane system is 130 years (based on 2000 NTD data).

**Capital Cost Estimates and Contingencies:** The \$390 million project capital cost estimate is based on conceptual designs developed for the DEIS, with PE activities completed to date in support of this estimate. This implies a cost of about \$260 million per mile, which appears reasonable given that the proposed alignment includes both elevated and subway segments. However, given that roughly two-thirds of the alignment is below grade, the possibility for cost increases remains. The project capital costs include an assumption of three percent annual inflation that is reasonable but not conservative.

**Existing and Committed Funding:** All proposed funding sources currently exist, although the level of funding is uncertain. At present, approximately ten percent of the \$155.8 million in proposed non-Section 5309 funds can be considered firmly committed to the project. This includes \$2.6 million in Section 5307 funds already expended for the DEIS and a portion of the \$13 million in County Capital Assistance dedicated to local matches. Federal CMAQ funds have not been programmed by the SPC, and it is unclear how much of available State assistance has been committed to the project.

**New and Proposed Sources:** Although the proposed state assistance fund exists, an increase from \$30 million to \$60 million in the current cap on PAAC's annual State Capital Grant allocation is required. Action by the State Legislature is required, but no schedule is available.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating is based on PAAC's current deficit situation, the first in nearly 20 years, and the impacts of assumed strategies for its resolution. PAAC is proposing to cover the operating subsidy for the North Shore Connector using surpluses on the agency's existing transit operations. While PAAC has typically experienced small operating surpluses in recent years, the agency's current \$5.3 million operating deficit emphasizes the risks of this operating financial plan.

**Agency Operating Financial Condition:** PAAC has recently implemented measures to address a \$5.3 million operating deficit resulting from significant declines in system ridership and lower than anticipated operating assistance from the State. These actions include an increase in passenger fares, employee layoffs and wage freezes and service cuts. Employees have been cautioned that further measures may be required next year. Further system reductions may be required.

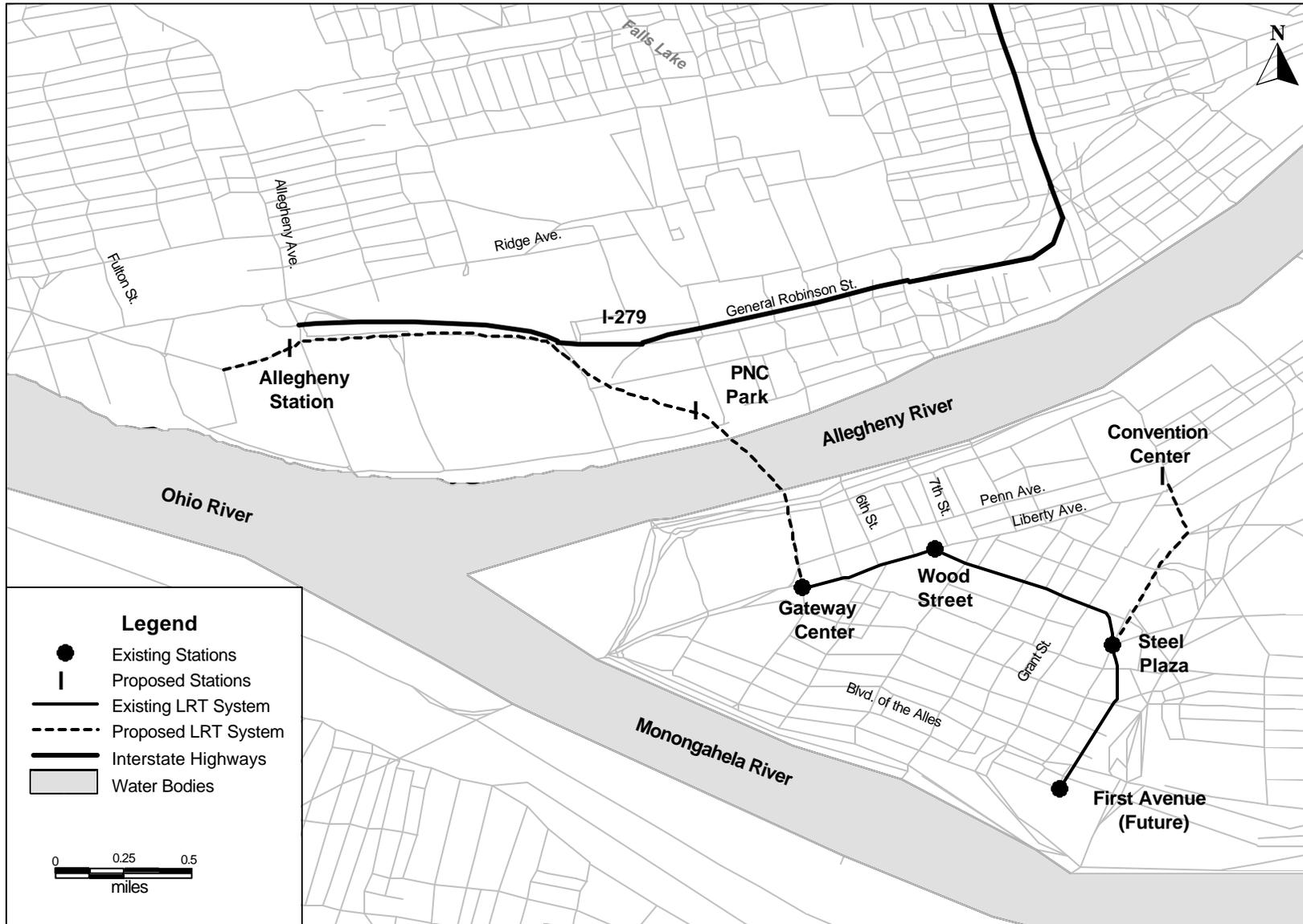
**Operating Cost Estimates and Contingencies:** Operating cost estimates for the North Shore Connector Project are reasonable and in line with recent cost experience for PAAC's existing LRT service. Costs are projected to increase at an annual rate of three percent, which is also reasonable but not conservative. North Shore Connector farebox receipts are projected to grow at roughly 8.5 percent annually, including a 4.6 percent for ridership and a 3.7 percent increase in average fare. These rates appear optimistic. Ridership on PAAC's existing LRT system declined over the past year and was flat over the period 1996 – 1999. Similarly, while average fares increased in 2000, they remained essentially flat over the period 1996 – 1999.

**Existing and Committed Funding:** As noted above, PAAC intends to subsidize operations for the North Shore Connector using surpluses from the agency's existing operations. While surplus operating funds can be considered committed to this use, the concern lies with those years (such as the current time period) when PAAC operates in a deficit position.

**New and Proposed Funding Sources:** No new funding sources are proposed for this project.

# North Shore Connector LRT

## Pittsburgh, Pennsylvania





# Phase I Regional Rail Project

## Raleigh, North Carolina

(November 2002)

### Description

The Phase I Regional Rail project is the first segment of a three-phase regional transit plan for linking the three counties -- Wake, Durham, and Orange -- in the Triangle Region of North Carolina. In Phase I, the Triangle Transit Authority (TTA) intends to initiate regional rail service from Durham to downtown Raleigh and from downtown Raleigh to North Raleigh. TTA proposes to use Diesel Multiple Unit (DMU) rail vehicles to serve the 16 stations proposed for Phase I of the project.

TTA has proposed that the Phase I Regional Rail project will use the existing North Carolina Railroad and CSX rail corridors to connect Duke University, downtown Durham, Research Triangle Park, Raleigh-Durham International Airport, Morrisville, Cary, North Carolina State University, downtown Raleigh, and North Raleigh.

The Regional Rail project will provide a new transportation alternative for one of the region's most congested travel corridors between Raleigh, Research Triangle Park, and Durham. It is projected to generate significant travel-time savings for most of the major activity centers. For example, trips between downtown Durham and Research Triangle Park in the forecast year (2025) will be 36 minutes faster compared to using bus service.

Summary Description	
<b>Proposed Project:</b>	Phase I Regional Rail 35.2 Miles, 16 Stations
<b>Total Capital Cost (\$YOE):</b>	\$832.2 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$447.0 Million (54%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$38.9 Million
<b>Ridership Forecast (2025):</b>	36,200 Average Weekday Boardings 15,400 Daily New Riders
<b>Opening Year Ridership Forecast (2008):</b>	14,000 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating of *Recommended* is based upon the quality of the financial plan and local efforts to adopt transit supportive land use policies and encourage transit-oriented development. The overall project rating applies to this *Annual Report on New Starts* and **reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through project development, the estimates of cost, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by that change.

## Status

In 1995, TTA completed the Triangle Fixed Guideway Study. The Authority's Board of Trustees has adopted the study's recommendations to put into place a regional rail system, and resolutions of support have been received from all major units of local government, chambers of commerce, universities, and major employers in the Triangle area.

In January 1998, FTA approved TTA to initiate Preliminary Engineering and the preparation of a Draft Environmental Impact Statement (DEIS). The DEIS was released in May 2001. Selection of the Locally Preferred Alternative occurred in November 2001 through January 2002, after consideration of the comments received on the DEIS. The LPA includes the following elements: 1) construction of a primarily double track system although the first phase of the project will include only a single track with sections that will be double tracked for passing purposes; 2) phased construction with the first segment between Ninth Street in Durham and the Government Center in downtown Raleigh opening in 2007 and the second segment from Government Center to Spring Forest Road in North Raleigh as well as the extension west to Duke Medical Center opening in 2011; and 3) initial service frequency of 15 minutes during peak periods/30 minutes during off-peak periods changing to ten minutes during peak periods/20 minutes during off-peak periods by 2015. TTA anticipates completion of the Final EIS and a Record of Decision early in January 2003.

TEA-21 Section 3030 (a) (68) authorizes the project for Final Design and construction. Through FY 2002, Congress has appropriated \$50.55 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. N/A indicates that data are not available for a specific measure. The project will be reevaluated when it is ready to advance to Final Design, and for next year's *Annual Report on New Starts*.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Low-Medium</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Average Employment Per Station</b>	5,878	
<b>Average Low Income Households Per Station</b>	83	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	1.4	
<b>Environmental Benefits Rating: Medium</b>		
<u><b>Criteria Pollutant Reduced (tons)</b></u>	<u><b>New Start vs. Baseline</b></u>	
<b>Carbon Monoxide (CO)</b>	117	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	[38]	
<b>Hydrocarbons</b>	8	
<b>Particulate Matter (PM<sub>10</sub>)</b>	12	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	[2,261]	
<u><b>Annual Energy Savings (million)</b></u>		
<b>BTU</b>	[26,510]	
<b>Cost Effectiveness Rating: Medium</b>		
	<u><b>New Start vs. Baseline</b></u>	
<b>Cost Per Transportation System User Benefit (current year dollars/hour)</b>	\$14.59	
<b>Operating Efficiencies Rating: Medium</b>		
	<u><b>Baseline</b></u>	<u><b>New Start</b></u>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.19	\$0.25

[ ] indicate an increase in emissions.

## **Project Justification**

### **Rating: Medium**

The *Medium* project justification rating primarily reflects the positive efforts of TTA and local jurisdictions to promote transit-supportive development within the corridor and the average cost effectiveness. Based on 1990 Census data, there are an estimated 1,330 low-income households within a ½-mile radius of the proposed project, roughly 11 percent of total households within ½-mile of the proposed stations. There are approximately 94,051 jobs within ½-mile of the proposed stations. The Raleigh-Durham Metropolitan Area is designated as a “moderate maintenance area” for ozone and a “moderate maintenance area” for carbon monoxide. The Raleigh Regional Rail project has an incremental cost per incremental trip value of \$13.99.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium**

The *Medium* land use rating reflects the generally low densities and poor pedestrian accessibility along the corridor, but acknowledges the positive efforts of TTA and local jurisdictions to promote transit-supportive development within the corridor.

**Existing Conditions:** Existing land uses adjacent to the proposed rail stations vary and include low to medium-density residential, industrial, and office development as well as undeveloped or underutilized land. Major trip generators in the corridor include Duke University, North Carolina Central University, North Carolina State University, Research Triangle Park (RTP), the Raleigh Central Business District, and the State Fairgrounds. Many of these activity centers will rely largely on feeder bus services to access the proposed system. The corridor currently contains 44 percent of the region's population and 62 percent of its employment. The downtown and RTP stations are predominantly surrounded by employment while others have a mixture of uses. The only sparsely developed land along the corridor is just north and south of RTP, which has single-family and light industrial land uses.

**Future Plans, Policies and Performance:** TTA developed a conceptual plan for station areas, entitled "Station Area Development Guidelines," and distributed it among the various municipalities to encourage mixed and concentrated land use, adequate access and parking, and pedestrian-oriented station area environments at proposed station sites. The City of Durham adopted an interim overlay district for transit station areas that includes transit-supportive design requirements and development densities, as well as restrictions on uses incompatible with transit. In addition, Durham amended the zoning ordinance to allow for increased residential densities in transit station areas. The Town of Cary adopted the Town Center Area Plan in August 2001, which encourages pedestrian friendly development and completed downtown design guidelines in April 2002. The City of Raleigh completed Urban Design Guidelines for Mixed-Use Neighborhood and Village Centers and began work to update the downtown area plan to address areas surrounding the two downtown stations.

The Triangle Metro Center Station in Research Triangle Park has become the first new, major transit oriented development project in the rail corridor. The Research Triangle Foundation has partnered with a local developer to plan a high density, mixed-use development that will become TTA's regional transportation hub. A number of other station area development proposals are also in the works including renovation of the America Tobacco warehouses near the downtown Durham station into a 16-acre mixed-use complex and a 330-unit residential project across the street from the 9<sup>th</sup> Street/Duke East station.

## **Local Financial Commitment**

### **Rating: Medium**

The *Medium* local financial commitment rating was determined by the *Medium* rating for the operating financial plan.

**Proposed Non-Section 5309 New Starts Share of Total Project Costs: 46%****Rating: Medium**

TTA plans to use Section 5309 New Starts funds, CMAQ funds, State funds from the recently established North Carolina Transit Trust Fund, local rental car tax revenues, and financing methods including cross border leases and bonds backed by the rental car tax revenues to construct the proposed project.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 – New Starts	\$447.0	53.7 %
CMAQ	\$14.0	1.7 %
<b>State:</b>		
State Appropriation	\$194.0	23.3 %
<b>Local:</b>		
Rental Car Tax	\$36.6	4.4 %
Bonds and Leases	\$126.9	15.2 %
Interest Earnings	\$13.7	1.6 %
<b>Total:</b>	<b>\$832.2</b>	<b>100.0 %</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

**Stability and Reliability of Capital Financing Plan****Rating: Medium-High**

The *Medium-High* rating reflects the thoroughness of the capital plan including extensive sensitivity testing, the high degree of commitment of capital funds at this stage of the planning process, and the current capital condition of the agency.

**Agency Capital Financial Condition:** TTA's capital financial condition is healthy, with strong cash and investment reserves. TTA receives funding from dedicated sources including rental car taxes and vehicle registration fees. TTA's bus fleet has an average age of 2.4 years.

**Capital Cost Estimates and Contingencies:** Capital cost estimates have increased since last year's submission from \$754.8 million to \$832.2 million. The cost estimates and contingency allowances are reasonable for a project in the Preliminary Engineering stage of project development.

**Existing and Committed Funding:** Local capital funding is proposed to be generated from TTA's dedicated five percent tax on rental vehicles, which will also be used to support project operations. Although this has been a stable and reliable source of funding historically, it is particularly susceptible to economic downturns and reductions in air travel. Overall,

approximately 17 percent of non-Section 5309 New Starts funds are committed to the project including the local tax revenues, interest earnings on these revenues, and CMAQ funding.

**New and Proposed Sources:** NCDOT has submitted a letter indicating its intent to execute a State Full Funding Grant Agreement for the project. Funding from the State will come from the recently created North Carolina Transit Trust Fund. State funding accounts for 50.4 percent of the non-Section 5309 New Starts share for the project. Other new sources of funding proposed are cross border leases and the issuance of bonds backed by the rental car tax revenues. Combined, these sources account for 15.2 percent of the non-Section 5309 New Starts share.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating acknowledges the project's dedicated operating revenue stream and well presented operating plan. It also reflects the uncertainty inherent in such a large increase in system operating expenses over the current system, in addition to the uncertainty in rental car tax revenues following the reduction in air travel over the last year and the suspension of operations by Midway Airlines at the Raleigh-Durham airport, which had been one of its hubs. Lastly, the rating reflects the very optimistic farebox revenue assumptions included in the projections.

**Agency Operating Financial Condition:** In recent years, TTA has experienced a balanced operating budget, a low but increasing farebox recovery rate, and increasing ridership and operating costs. The current overall operating condition of the agency is good.

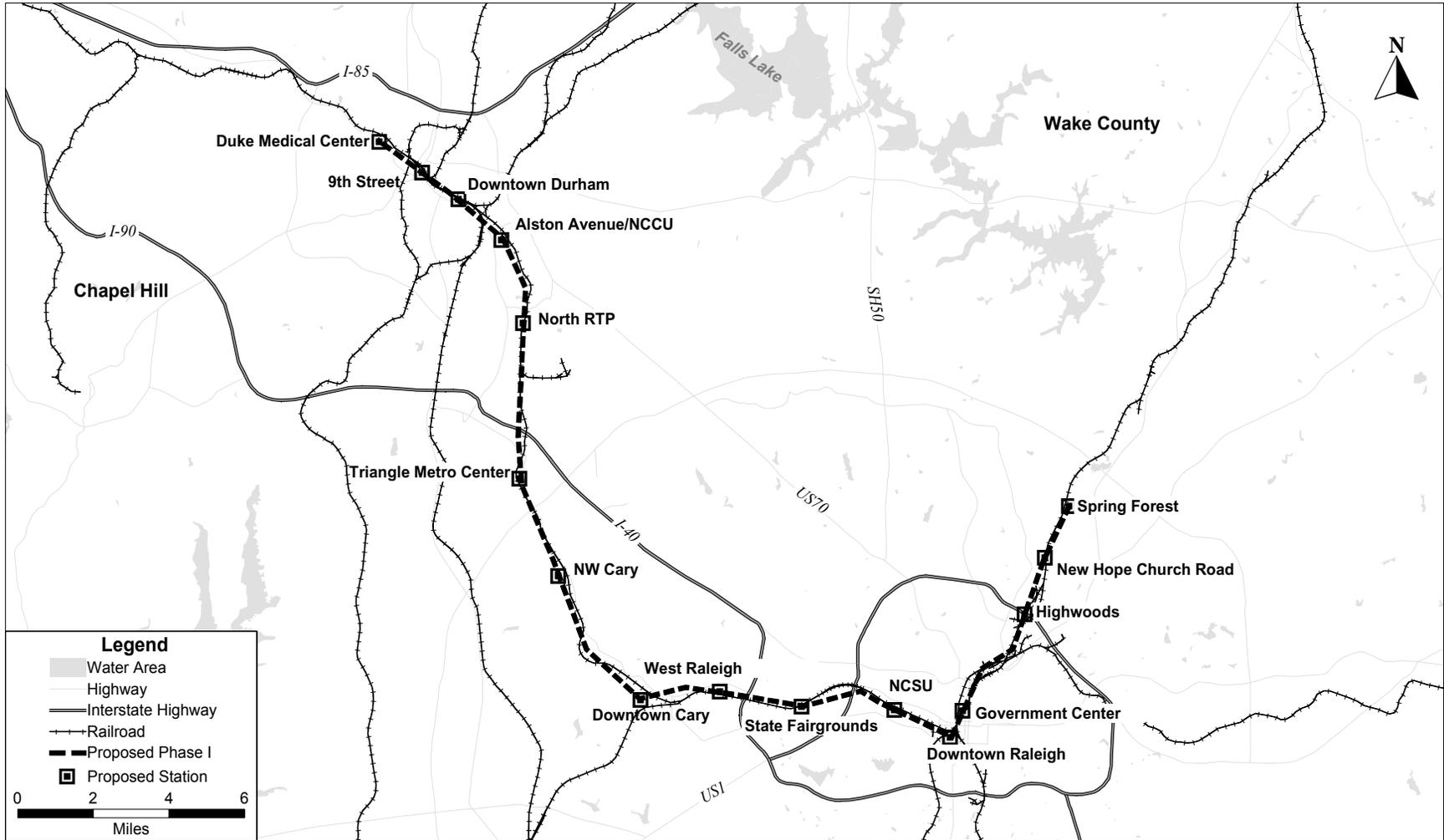
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs for the regional rail project appear to be reasonable and are based on a cost model that examines both fixed and variable operating costs from similar systems. Projected cash balances are equivalent to a minimum of 25 percent (three months) of operating expenditures.

**Existing and Committed Funding:** Operating and maintenance expenses are proposed to be funded with fare revenues, revenues generated from TTA's dedicated vehicle registration fee and rental vehicle tax, interest earnings, FTA Section 5307 formula funds and state funds. All of these are existing sources of funds. All except for the Section 5307 formula funds and state funding are considered committed. Almost 75 percent of the operating funds are committed.

**New and Proposed Funding Sources:** No new sources of funding are proposed.

# Phase I Regional Rail Project

Raleigh, North Carolina





# Mid-Coast Corridor

## San Diego, California

(November 2002)

### Description

The Metropolitan Transit Development Board (MTDB) is proposing to implement a 3.4-mile, three station Mid-Coast Corridor extension from the Old Town Transit Center to Balboa Avenue. The proposed light rail extension is intended to provide an alternative to congested conditions on Interstate 5 by extending light rail service north from downtown San Diego to Balboa Avenue and the University City area. Interstate 5 is the primary road corridor to access Downtown San Diego from the north and is heavily congested during peak hour travel periods. The proposed project will improve transit access from the dense residential areas north of Downtown and provide a connection to the Coaster commuter rail system and broaden the accessibility to the regional light rail, bus, and commuter rail system. This is the first phase of a proposed 10.7-mile, nine-station light rail transit (LRT) line that would extend light rail service to the vicinity of the University of California at San Diego and the growing University City and Carmel Valley areas.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Light Rail Transit 3.4 Miles, 3 Stations
<b>Total Capital Cost (\$YOE):</b>	\$134.2 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$65.8 Million (49%)
<b>Annual Operating Cost (2015 \$YOE):</b>	\$3.7 Million
<b>Ridership Forecast (2015):</b>	12,100 Average Weekday Boardings 9,860 Daily New Riders
<b>Opening Year Ridership Forecast (2008):</b>	3,000 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Not Rated</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Rated</b>

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at \$4.68 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. The overall project rating applies to this Annual New Starts Report **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules, and refined financing plans.**

## Status

A Draft Environmental Impact Study (EIS) for the Mid Coast Corridor was completed in February 1995. The Mid Coast Locally Preferred Alternative was selected in October 1995 and included in the regional long range transportation plan in 1996. FTA approved the MTDB's request to enter Preliminary Engineering (PE) for the 3.4-mile initial phase of the LRT extension in September 1996 and for improvements to the Sorrento Valley and Nobel Drive Coaster commuter rail stations in May 1997. The Sorrento Valley Coaster station received a Finding of No Significant Impact (FONSI) in September 1999. A Record of Decision on the project was issued in August of 2001. The MTDB's Mission Valley East LRT Extension remains the agency's priority. It is the intent of the MTDB to complete the Mission Valley East project prior to constructing the Mid-Coast Extension.

TEA-21 Section 3030(a)(75) authorizes the Mid Coast Corridor for Final Design and construction. Through FY 2002, Congress has appropriated \$12.32 million in Section 5309 New Starts funds to the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts report and when it is ready to advance into Final Design.

## Project Justification

### **Rating: Not Rated**

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at \$4.68 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved.

Based on 1998 data, there are an estimated 260 low-income households within a ½-mile radius of the proposed three LRT stations, or roughly eight percent of total households within ½-mile radius of proposed stations. There are an estimated 6,800 employees within ½-mile of the proposed stations, which is 45 percent of the employment in the corridor. The San Diego region is a "serious non-attainment area" for ozone. The incremental cost per incremental trip of the Mid Coast Corridor project is \$4.10.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Not Rated</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	2,270	
<b>Average Low Income Households Per Station</b>	90	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	Not Rated	
<b>Environmental Benefits Rating: High</b>		
<b><u>Criteria Pollutants Reduced (tons)</u></b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	100	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	9	
<b>Hydrocarbons</b>	13	
<b>Particulate Matter (PM<sub>10</sub>)</b>	1	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	11,180	
<b><u>Annual Energy Savings (million) BTU</u></b>	143,750	
<b>Cost Effectiveness Rating: Not Rated</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost per Transportation System User Benefit (current year dollars/hour)</b>	Not Rated	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.26	\$0.26

[ ] indicate an increase in emissions.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: Medium**

The *Medium* land use rating reflects the marginally transit supportive development that currently exists in the Mid Coast corridor, but acknowledges the proactive land use planning efforts of the MTDB and the City of San Diego.

**Existing Conditions:** The corridor runs parallel to Interstate 5 in northwest San Diego. The area on the east side of the corridor is dominated by single-family homes with some low- to medium-density commercial, multi-family, and industrial development. The pedestrian environment is characterized by a grid street pattern in residential areas. The corridor is bordered on the west by the recreational facilities of Mission Bay and some commercial development. Significant trip generators along the Mid-Coast corridor extension include the mixed-use Mission City and Rio Vista developments. The LRT connection with the Nobel Drive Coaster commuter rail station

will serve the University City suburban activity center, including University Town Centre, which is the fourth largest shopping area in the MTDB service area. Significant population and employment growth is forecasted for this area. Parking is generally constrained throughout the corridor. Current zoning along the corridor is moderately supportive of transit.

**Future Plans, Policies and Performance:** The City of San Diego has implemented extensive measures to encourage higher-density, mixed use development around rail stations, including the development and adoption of *Transit-Oriented Development Design Guidelines* to address redevelopment strategies, street and circulation systems, bicycle and pedestrian systems, transit stop site location and design, and parking supply. The City also participates in a number of programs which provide incentives for improving pedestrian and transit access. The MTDB has been very active in fostering transit-oriented development and has recently adopted a memorandum of understanding that enhances coordination between the MTDB and other local government agencies, and establishes a process for allocating some MTDB funding to jurisdictions based on their adoption of transit-friendly design standards. SANDAG, the area's metropolitan planning organization, provides funding to member jurisdictions to plan for and implement growth management and sustainability strategies. Efforts to change zoning are progressing with the introduction of special parking zones and Urban Village and Transit Area overlay zones throughout the city. Station area plans along the Mid Coast Corridor are under development, and are being coordinated with the North (San Diego) Bay Revitalization program and redevelopment plans for a shopping center at the proposed Claremont Drive station.

## **Local Financial Commitment**

### **Rating: Medium-High**

The rating of *Medium-High* for local financial commitment determined by the *Medium-High* rating for the Capital Operating Plan and the *Medium-High* rating of the Operating Financial Plan.

## **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 51%**

### **Rating: Medium-High**

The MTDB plans to use Section 5309 New Starts funds and TransNet local dedicated sales tax revenues for the project.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$65.8	49.0%
Section 5307 Formula	\$0.5	0.4%
<b>State:</b>		
Transit Capital Improvement	\$0.5	0.4%
<b>Local:</b>		
Transnet Sales Tax	\$67.4	50.2%
<b>Total:</b>	<b>\$134.2</b>	<b>100.0%</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and not DOT or FTA assumptions. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Medium-High**

The *Medium-High* rating reflects the sound financial condition of the MTDB and the agency's strong dedicated revenue sources. For the Mid-Coast Corridor project, MTDB is relying on the local dedicated TransNet sales tax to support almost 100 percent of the non-federal share of funding. MTDB has provided sensitivity analysis indicating an ability to provide funds for the Mid-Coast project under a variety of circumstances.

**Agency Capital Financial Condition:** MTDB projects sustained year-end cash balances in its capital program over the next 20 years. In most years, these balances are sufficient to pay 100 percent of the non-federal share of the projected costs of the Mid-Coast project. The average age of MTDB's forty-foot bus fleet is currently 5.75 years and has declined from previous years as a result of recent bus purchases. The average age of light rail vehicles is 12.9 years.

**Capital Cost Estimates and Contingencies:** There have been minor adjustments in the estimated costs for the Mid-Coast project. These costs are considered reasonable given the project size and alignment.

**Existing and Committed Funding:** All non-New Starts funding for the project is committed. MTDB's dedicated ½-cent TransNet sales tax revenue is considered a stable and reliable source, although the tax sunsets in 2008 and will have to be reauthorized to continue. The San Diego LRT extension program has been structured such that the Mission Valley East LRT project and the Mid-Coast Corridor are built sequentially and will not compete with each other for New Starts funding. Both projects also depend on local TransNet funding for a portion of their construction costs and the MTDB acknowledges that it must reassess TransNet's revenue projections before the Mid-Coast Corridor advances into Final Design.

**New and Proposed Sources:** No new sources of funding are proposed.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium-High**

MTDB currently forecasts balanced operating budgets in its 20-year operating cash flow projection. The Mid-Coast Corridor project represents only 1.1 percent of total projected bus and rail operating cost.

**Agency Operating Financial Condition:** In recent years, MTDB has experienced zero operating balances, moderate cost increases, and increasing ridership. MTDB has sufficient funding to cover unexpected operating costs. MTDB plans to increase the level of federal formula funds contributed toward preventive maintenance, in some years up to the federal maximum allowable. MTDB currently projects limited annual year-end surpluses in its 20-year forecast.

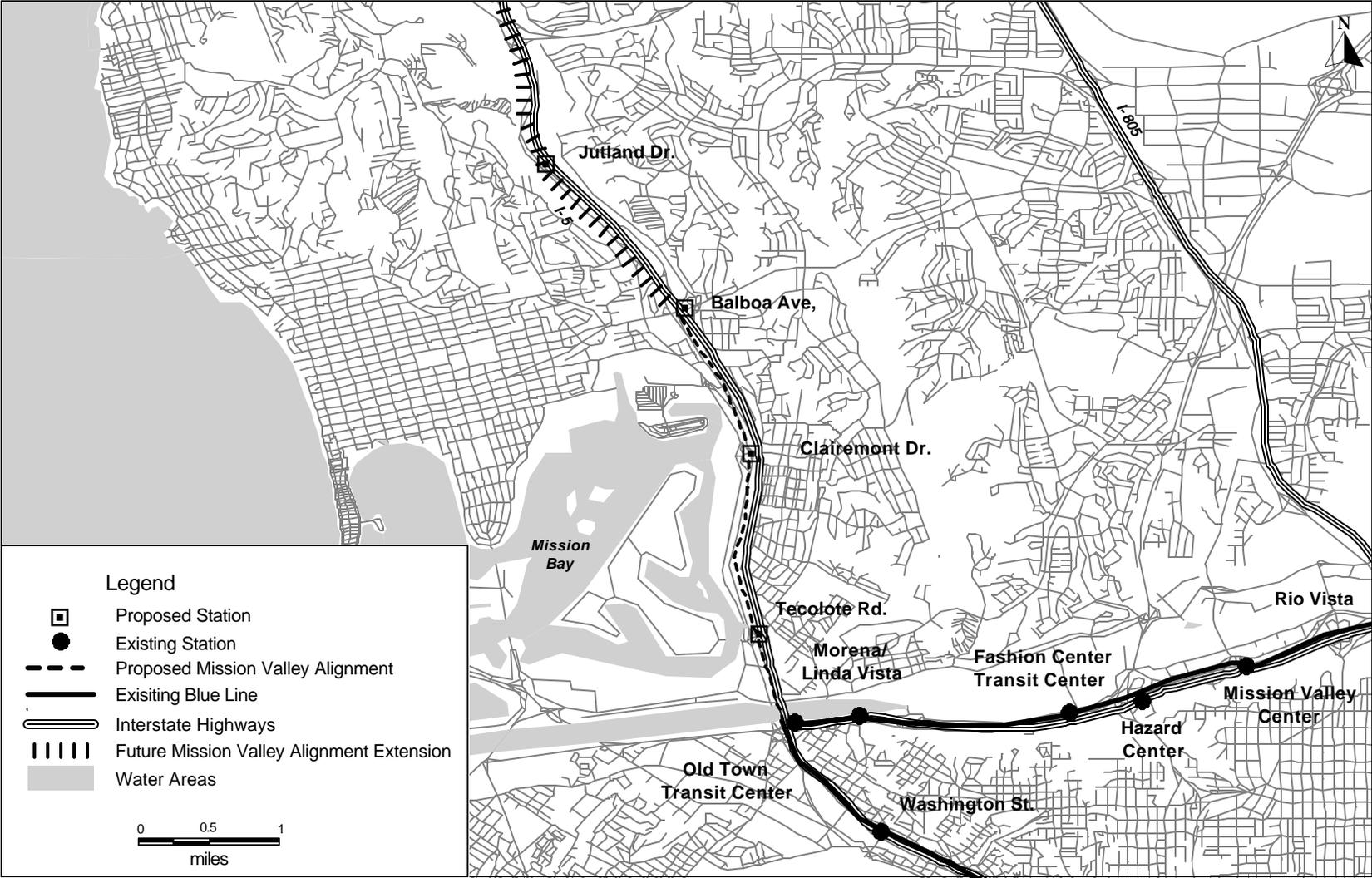
**Operating Cost Estimates and Contingencies:** Annual operating costs for the project are estimated at \$1.9 million in 2015 (YOE dollars). The proposed extension would increase the system-wide operating budget by one percent. The projected operating plan includes bi-annual fare increases in line with inflation per MTD Board policy, continued annual ridership growth at approximately two percent per year in line with historic averages and SANDAG 2020 forecasts of transit ridership, and an increased use of federal formula funds for preventive maintenance.

**Existing and Committed Funding:** The proposed start-up date for the Mid-Coast Corridor Phase one is estimated to be in 2008. This coincides with the date that the TransNet dedicated funding source will sunset, and this source is proposed to contribute eight percent of system operating costs through 2008, at which point the source is terminated. Other sources of operating funding proposed are farebox revenues and CMAQ funds, and only farebox revenues are committed to the project.

**New and Proposed Funding Sources:** No new sources of funding are proposed.

# Mid-Coast Corridor

## San Diego, California



Federal Transit Administration, 2002



# New Central Subway Project

## San Francisco, California

(November 2002)

### Description

The San Francisco Municipal Transportation Agency (MUNI) is planning a 1.7-mile light rail transit (LRT) line extension to an LRT line under construction in the heavily transit-dependent Third Street corridor in eastern San Francisco. The New Central Subway (NCS) Light Rail Project is intended to provide increased transportation capacity in a corridor undergoing re-development and new economic activity and to facilitate economic development opportunities along the corridor. The proposed project also will provide rail service to the densest areas of San Francisco, the financial district and Chinatown. Currently, there is no high capacity rail transit service in Chinatown or the Union Square area. The New Central Subway project would extend the 5.4-mile Third Street Light Rail Project, currently under construction, between the Market Street Subway and the Bayshore CalTrain Station.

<b>Summary Description</b>	
<b>Proposed Project:</b>	MUNI New Central Subway Light Rail 1.7 miles, 4 Stations
<b>Total Capital Cost (\$YOE):</b>	\$763.8 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$531.7 Million (70%)
<b>Annual Operating Cost (2012 \$YOE):</b>	\$15.5 Million
<b>Ridership Forecast (2015):</b>	59,750 Average Weekday Boardings 17,500 Daily New Riders
<b>Opening Year Ridership Forecast (2004):</b>	39,400 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Low</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Not Yet Available</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

This project has received an overall *Not Recommended* based upon the *Low* Finance Rating. This is because the New Starts share is greater than 60 percent. The project was rated *Not Yet Available* for project justification because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. The project sponsor did not have sufficient time to implement the new measure. FTA continues to work with the project sponsor to develop this measure. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is completed. Although the project has received a *Not Recommended* rating, it is important to note the New Starts rating represents a snapshot of the project at the current time. FTA approved this project into preliminary engineering in July 2002 and will continue to work with the project sponsor. Additionally, the Conference Report accompanying the FY 2002 Department of Transportation Appropriations Act directs that, as of October 1, 2002, no new Full Funding Grant Agreement may be executed with a Federal New Starts share greater than 60 percent. The project's "low" share rating and summary financial rating reflect

this Congressional direction. In addition, the Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by this change. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In October 1996, FTA authorized the initiation of Preliminary Engineering and the preparation of a Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) on the Third Street corridor. In November 1997, MUNI began Preliminary Engineering for Third Street light rail alignment as well as the Metro East Maintenance Facility. In June 1998, the new San Francisco Public Transportation Commission (SFPTC), which governed MUNI, designated both the Third Street and New Central Subway light rail projects as the Locally Preferred Alternative. MUNI is constructing the Phase I project using local, State, and non-New Starts funding. In December of 2001, the Metropolitan Transportation Commission adopted the New Central Subway project into the region's financially constrained long range plan as a priority for future FTA funding. FTA approved the New Central Subway project to advance into Preliminary Engineering in July of 2002.

TEA-21 Section 3030(a)(79) authorizes the San Francisco Bayshore Corridor for Final Design and construction. Through FY 2002, no Section 5309 New Starts funds have been appropriated for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated when it is ready to advance to Final Design and for next year's *Annual Report on New Starts*.

<b>Mobility Improvements Rating: Not Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	1,010	
<b>Average Low Income Households Per Station</b>	66,900	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	Not Yet Available	
<b>Environmental Benefits Rating: Medium-High</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b><u>Criteria Pollutants Reduced (tons)</u></b>		
<b>Carbon Monoxide (CO)</b>	0.67	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	8.90	
<b>Hydrocarbons</b>	3.22	
<b>Particulate Matter (PM<sub>10</sub>)</b>	0.08	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	429.2	
<b><u>Annual Energy Savings (millions)</u></b>		
<b>BTU</b>	4,078.9	
<b>Cost Effectiveness Rating: Not Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost Per Transportation System User Benefit (current year dollars/hour)</b>	Not Yet Available	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.73	\$0.69

[ ] indicate an increase in emissions.

## **Project Justification**

### **Rating: Not Yet Available**

This project has not received a “Not Yet Available” Project Justification rating because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. This project entered Preliminary Engineering in late 2002, and did not have sufficient time to implement the new measure. FTA continues to work with the project sponsor to develop the measure for cost effectiveness. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is complete. The New Central Subway would serve approximately 59,750 average weekday boardings and carry 17,500 daily new riders in 2015. Based on 2000 Census data, there are an estimated 4,029 low-income households within a ½-mile radius of this corridor, representing 14 percent of all households located within ½-mile of the corridor. There are an estimated 267,769 employees within ½-mile of the transit

station areas. The San Francisco Area is designated by the U.S. Environmental Protection Agency (EPA) as a “moderate maintenance area” for carbon monoxide, a “non-attainment area” for ozone, and an “attainment area” for nitrogen oxides and particulate matter. The incremental cost per incremental trip is \$16.07.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns** **Rating: High**

The *High* rating reflects the urban character of the corridor and the successful efforts of local agencies in encouraging transit supportive development.

**Existing Conditions:** The New Central Subway project serves a very dense regional CBD (over 220,000 jobs in a 1.25-square mile area) and high-density (14 to 29 units per acre) urban residential neighborhoods with integrated commercial uses. The proposed project will also serve some industrial areas, several of which are being developed for various residential, commercial, and entertainment uses. A new major league baseball stadium opened in Spring 2000 near the southern terminus of the 3<sup>rd</sup> Street Phase I. Neighborhoods throughout the corridor are pedestrian-scaled and walkable. Parking is extremely limited in the CBD and throughout the Chinatown and the Market Street area. Existing zoning regulations are supportive of moderate- to high-density, transit-oriented development throughout the corridor.

**Future Plans Policies and Performance:** San Francisco’s *General Plan* has long encouraged higher-density transit- and pedestrian-oriented development. The city is currently preparing detailed plans for redevelopment areas of the corridor, including specific plans for the Mission Bay and Bayview - Hunters Point communities. The city has prepared a set of Urban Design Guidelines for redevelopment areas of the corridor that will include specific land use and improvement proposals, design guidelines, and proposed zoning changes. Plans for the South Bayshore of Bayview Hunters Point and for the Central Waterfront are producing zoning-change packages that will soon be enacted. The Mission Bay Citizens Advisory Committee, in conjunction with city staff and consultants, developed a Mission Bay Design Guidelines document. The San Francisco Redevelopment Agency (SFRA) has special powers to facilitate development, including land acquisition, land assembly, and tax increment financing. While there are no enforceable growth management policies in place, attracting development to the Third Street corridor that might otherwise locate in more suburban, auto-oriented locations will help to contain sprawl. MUNI has designated Third Street as a “Main Street” for specific communities along the corridor, with pedestrian-oriented enhancements provided to give special identity to neighborhood centers. One of the primary goals of the Third Street LRT project is to serve as a catalyst for the redevelopment of economically disadvantaged neighborhoods, including the Bayview/Hunters Point community. Concurrently with the light rail planning process, the SFRA is working with residents to produce a Revitalization Concept Plan to serve as the framework for the physical and economic redevelopment of the community.

### **Other Factors**

The proposed project will service the highest density urban center on the West Coast. It will provide high capacity rail service to an area in which there are very limited alternatives to increase transportation capacity.

## Local Financial Commitment

### **Rating: Low**

The rating of *Low* for local financial commitment is determined by the *Low* rating for the Section 5309 New Starts funding share.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 70%**

### **Rating: Low**

The financial plan for the New Central Subway Project includes Section 5309 New Starts funds, California State Transportation Improvement Program funds, State Traffic Congestion Relief Plan funds, and Proposition B Sales Tax funds.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$531.6	69.6 %
<b>State:</b> Transportation Improvement Program Traffic Congestion Relief Plan Funds	\$92.2 \$14.0	12.1 % 1.8 %
<b>Local:</b> Proposition B Sales Tax Funds	\$125.9	16.5 %
<b>Total:</b>	<b>\$763.8</b>	100 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## Stability and Reliability of Capital Financing Plan

### **Rating: Medium**

The *Medium* rating reflects the strength of the financial plan and the high level of local capital funding committed and budgeted to the New Central Subway project from existing funding sources at this early stage of project development. However, it is likely that the capital cost estimate will be refined and may increase as the project progresses in the planning and project development process.

**Agency Capital Financial Condition:** MUNI receives funding from two primary sources of funding, Proposition B and Proposition E, which provide dedicated funding for capital replacement and operations. There are substantial demands for capital improvements throughout the MUNI bus and rail system, however existing dedicated sources of funds are programmed to meet anticipated demands. The City and County of San Francisco has a very high bond rating

(AAA by Standard and Poor's) and the San Francisco County Transportation Authority is authorized by the State issue revenue bonds based upon Proposition B revenues. The Proposition B revenues will expire in 2009, during construction, and to continue must be re-authorized by a two-thirds vote. The average age of the bus fleet is 12.9 years, which indicates that re-capitalization of the existing fleet has lagged.

**Capital Cost Estimate and Contingencies:** The capital cost estimates are based upon planning and environmental analysis, and will be refined as the project progresses through the planning and project development process.

**Existing and Committed Funding:** Approximately \$214 million (93 percent) of the non-federal share of \$232.2 million is committed toward the project. This is a high level of committed funds for a project in the early Preliminary Engineering stage of project development. However, additional funding will need to be identified and committed to reduce the non-New Starts share to 50 percent.

**New and Proposed Sources:** All of the proposed capital funds are proposed from existing sources of funding. No new sources of funding are proposed.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating reflects the City of San Francisco's increasing financial support for operation of the MUNI system.

**Agency Operating Financial Condition:** Since July 1, 2000, the Municipal Transportation Agency has been operating with new and more reliable sources of funding, including Proposition E City parking revenues. MUNI has long-term experience operating an urban rail system.

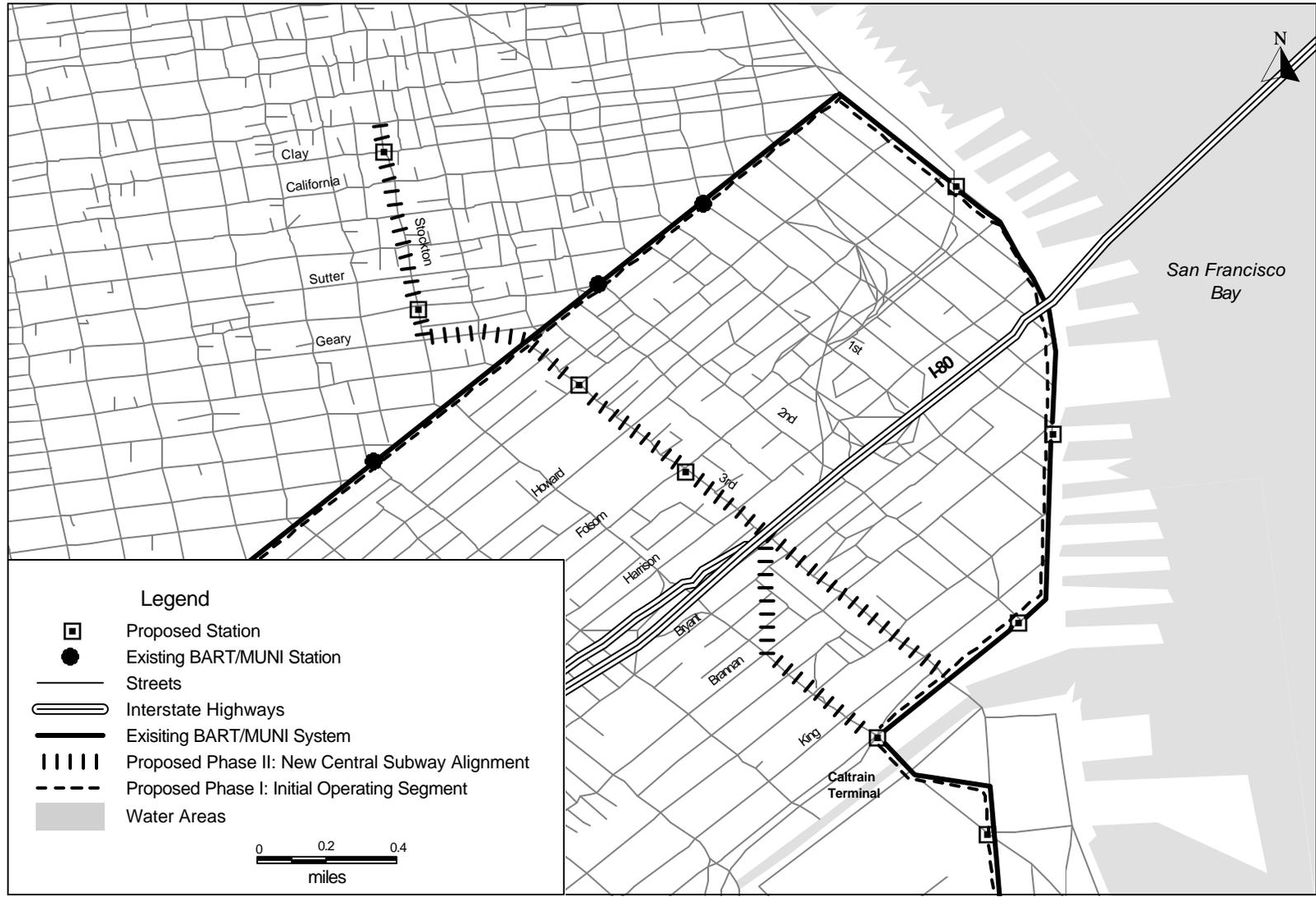
**Operating Cost Estimates and Contingencies:** Implementation of the New Central Subway would result in a net increase of \$15.5 million to systemwide operating costs. This increase represents a two percent increase in MUNI's systemwide operating budget.

**Existing and Committed Funding:** MUNI projects a 33 percent farebox recovery for the New Central Subway. The current (2000) farebox recovery rate is 26 percent. Local legislation passed in November 1999 (Proposition E) ensures that operating cost increases associated with current and expanded MUNI services will be met by a baseline budget adjustment (resulting in increased annual appropriations) from the San Francisco General Fund. Proposition E also transfers the administration of the City's Parking and Traffic to a Municipal Transportation Agency, which includes MUNI. These revenues are also available to fund MUNI system operations.

**New and Proposed Funding Sources:** No new sources of operating funding are being proposed by MUNI.

# New Central Subway Project

## San Francisco, California





# Tren Urbano Minillas Extension

San Juan, Puerto Rico

(November 2002)

## Description

The Puerto Rico Department of Transportation and Public Works (PRDTPW), through its Highway and Transportation Authority (PRHTA), is proposing an extension of its heavy rail rapid transit system, known as Tren Urbano Phase I (currently under construction). The proposed investment would extend Tren Urbano Phase I approximately one mile under Ponce de Leon Avenue from its current terminus at Sagrado Corazon to the Minillas area of Santurce. Santurce is home to government offices of the Commonwealth, the Luis A. Ferre Fine Arts Centers, four major hospitals, and is one of the main commercial and residential districts on the Island.

Summary Description	
<b>Proposed Project:</b>	Tren Urbano Minillas Extension 1 Mile, 2 Stations
<b>Total Capital Cost (\$YOE):</b>	\$561.5 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$449.2 Million (80%)
<b>Annual Operating Cost (2010 \$YOE):</b>	\$3.0 Million
<b>Ridership Forecast (2010):</b>	14,430 Average Weekday Boardings 9,300 Daily New Riders
<b>Opening Year Ridership Forecast:</b>	N/A
<b>FY 2004 Finance Rating:</b>	Low
<b>FY 2004 Project Justification Rating:</b>	Not Submitted
<b>FY 2004 Overall Project Rating:</b>	Not Recommended

The overall project rating of *Not Recommended* is based upon the Low financial rating resulting from a Section 5309 New Starts funding share of 80 percent. PHRTA provided only a partial submittal this year, which precluded the rating and evaluation of the project justification criteria. This project has received a rating of *Not Recommended* based on the Federal New Starts share requirement in effect during fiscal year 2003. The Conference Report accompanying the FY 2002 Department of Transportation Appropriations Act directs that, as of October 1, 2002, no new Full Funding Grant Agreement may be executed with a Federal New Starts share greater than 60 percent. The project's "low" share rating and summary financial rating reflect this Congressional direction. In addition, the Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY2004. Future ratings of this project would be affected by this change.

The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of **November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through project development, the estimates of cost, benefits, schedule and impacts are refined.

**The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In 1993, the Federal Transit Administration (FTA) selected Tren Urbano as one of the Turnkey Demonstration Projects under the Intermodal Surface Transportation Efficiency Act (ISTEA). A Full Funding Grant Agreement (FFGA) was signed in March 1996 for the Phase I 10.7-mile (17.2-kilometer) section of Tren Urbano. Phase I is currently under construction. The Minillas Extension has been included in previous planning studies as part of the rail system planned for metropolitan San Juan and has been included in the regional Land Use and Transportation Plan since 1982.

In May 1997, a Memorandum of Understanding (MOU) was signed by FTA and PRHTA stating that the planning process undertaken for the Minillas Extension satisfied the requirements of a Major Investment Study. Further, PRHTA was authorized to proceed with development of a Draft Environmental Impact Statement for the extension of Tren Urbano Phase I to Minillas. In August 1997, a Notice of Intent to prepare a Draft Supplemental Environmental Impact Statement (DSEIS) was published in the *Federal Register*. The DSEIS was published in July 1998, and identified the subway alignment beneath Ponce de Leon Avenue as the preferred extension alternative. The Supplemental Final EIS, which examined in more detail the impacts of the Ponce de Leon extension, was completed in September 1999. A Record of Decision was signed in September 2000.

TEA-21 Section 3030(a)(82) authorized the San Juan Tren Urbano Extension to Minillas for Final Design and construction. Through FY 2002, Congress has not appropriated any funds for the Minillas Extension.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. N/A indicates that data are not available for a specific measure. The project will be reevaluated when it is ready to advance to Final Design, and for next year's *Annual Report on New Starts*.

## Project Justification

PHRTA provided only a partial submittal this year, which precluded the rating and evaluation of the project justification criteria.

## Other Factors

**Turnkey Construction:** Tren Urbano Phase I is one of the FTA designated Turnkey Demonstration Projects. Phase I is being constructed and will be operated under a turnkey procurement which has expedited the implementation of the project. The Minillas Extension would also employ turnkey procurement.

## Local Financial Commitment

### **Rating: Low**

The rating of *Low* for local financial was determined by the *Low* rating for the Section 5309 New Starts funding share.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 20%**

### **Rating: Low**

The financing plan for the Minillas Extension is interrelated with funding for Phase I and the Commonwealth's highway program, and relies upon a combination of bond receipts, tax revenues, and legislative appropriations.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$449.2	80.0%
<b>Local:</b> PRHTA funding	\$112.3	20.0%
<b>Total:</b>	<b>\$561.5</b>	100.0%

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## Stability and Reliability of Capital Financing Plan

### **Rating: Low-Medium**

The *Low-Medium* rating reflects the lack of detailed project cost estimates, including contingencies, for the Minillas Extension.

**Agency Capital Financial Condition:** As the transportation department for Puerto Rico, the PRHTA is responsible for the transportation system throughout the Commonwealth and receives revenue from both a dedicated fuels tax and the toll road system it administers. The capital condition of the agency is good, with a relatively young bus fleet (less than six years old on average) and bond ratings of Baa1 from Moody's and A from Standard & Poor's.

**Capital Cost Estimates and Contingencies:** Detailed capital cost estimates for the Minillas Extension have not been provided and no contingencies have been identified. Capital costs for Tren Urbano Phase I changed significantly during project development and construction, which raises additional concerns about the cost estimates for the Minillas Extension.

**Existing and Committed Funding:** The proposed non-Section 5309 share of project costs is \$112.3 million, or 20 percent of the total capital costs. Local funding will be generated from bond issuances. Funds to repay the bonds are committed to the project and are from the

following revenue sources: a \$0.16 per gallon gasoline tax; gross receipts from an annual per motor vehicle license fee, of which \$15 per vehicle is dedicated to PRHTA; all existing toll facility revenues; and investment earnings on deposits resulting from the issuance of bonds. If necessary, the Secretary of Transportation has the authority to focus all available capital financial resources to the Tren Urbano Minillas Extension and can generate additional revenues by increasing tolls on existing toll roads.

**New and Proposed Sources:** No new funding sources are proposed.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating reflects the lack of specific operating revenue projections and lack of a historical basis to project costs because the agency has not operated a heavy rail system.

**Agency Operating Financial Condition:** The PRHTA receives revenues from toll roads and dedicated fuels taxes. The Tren Urbano System, when constructed, is anticipated to carry heavy daily passenger loads and may provide an operating revenue surplus. Operating revenues for the Minillas Extension were not specifically projected within the PHRTA financial plan.

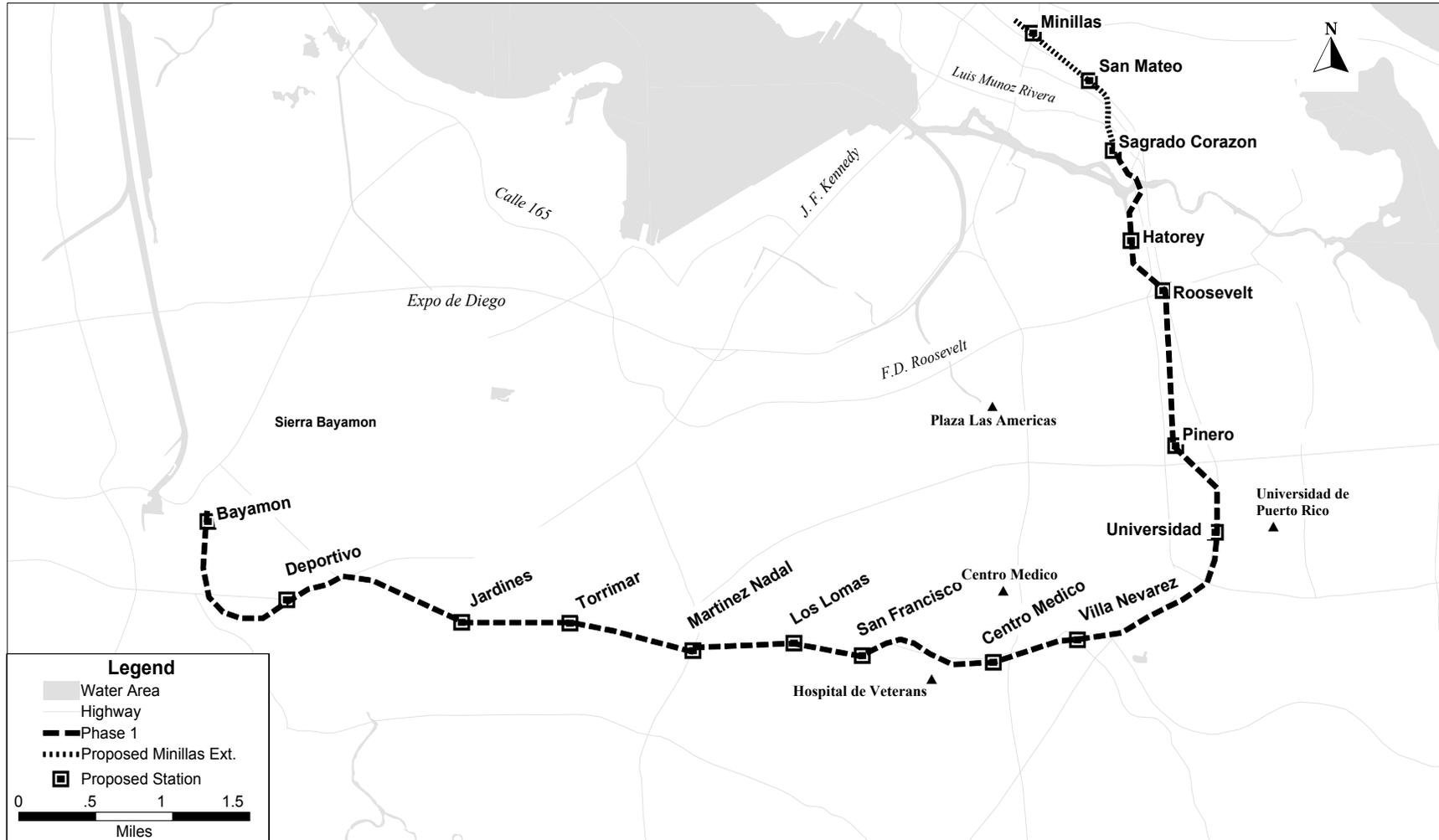
**Operating Cost Estimates and Contingencies:** Operating and maintenance costs for the Minillas Extension were estimated by taking the existing operating contract for Phase I of the Project and projecting the incremental operating cost of one additional route mile and two stations.

**Existing and Committed Funding:** Funding for operating and maintenance are committed to the project as part of the Design-Build contract. Operating and maintenance costs will be covered by already existing dedicated funding sources.

**New and Proposed Funding Sources:** No new revenue sources are proposed to fund project operation.

# Tren Urbano Minillas Extension

San Juan, Puerto Rico





# Silicon Valley Rapid Transit Corridor

San Jose, California

(November 2002)

## Description

The Santa Clara Valley Transportation Authority (SCVTA) is proposing to implement a 16.3-mile Heavy Rail line from the proposed Bay Area Rapid Transit (BART) Warm Springs station to Downtown San Jose and to the Norman Y. Mineta International Airport. The proposed system would serve the rapidly growing heart of Santa Clara County and Silicon Valley and would connect the SCVTA's light rail and bus system to the BART system, increasing transit access to a large area of Santa Clara and Alameda counties as well as San Francisco. Silicon Valley is one of the fastest growing areas in the United States in job growth and thus, has surpassed housing availability. Therefore, large numbers of commuters must travel to jobs in San Jose from Alameda and Contra Costa counties, which creates congested traffic conditions on I-680 and I-880. The proposed BART extension to San Jose would provide the Silicon Valley commuters a high quality transit alternative to driving on the heavily congested roadways and increase connectivity to San Francisco, Oakland, and other areas served by the existing 95-mile BART system.

Summary Description	
<b>Proposed Project:</b>	Heavy Rail Transit Line 16.3 miles, 7 Stations
<b>Total Capital Cost (\$YOE):</b>	\$4.77 Billion
<b>Section 5309 New Starts Share (\$YOE):</b>	\$973.0 Million (20%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$100.1 Million
<b>Ridership Forecast (2025):</b>	87,000 Average Weekday Boardings 38,600 Daily New Riders
<b>Opening Year Ridership Forecast:</b>	N/A
<b>FY 2004 Finance Rating:</b>	Medium
<b>FY 2004 Project Justification Rating:</b>	Not Yet Available
<b>FY 2004 Overall Project Rating:</b>	Not Yet Available

The project rating is *Not Yet Available* because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. This project entered Preliminary Engineering in late 2002, and did not have sufficient time to implement the new measure. FTA continues to work with the project sponsor to develop this measure. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is complete. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedule, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules and refined financing plans.**

## Status

The SCVTA conducted a Major Investment Study to consider potential transportation options in the corridor beginning in March 2001. The Major Investment Study considered 11 alternatives including bus, commuter rail, light rail, and heavy rail alternatives. In November 2001, based upon the findings of the MIS, the VTA and BART Board of Directors adopted the heavy rail extension as the Locally Preferred Alternative. The Metropolitan Transportation Commission (MTC) adopted the Locally Preferred Alternative into the region's financially constrained long range plan in December 2001. FTA approved the SCVTA's request to initiate Preliminary Engineering in September 2002.

TEA-21 Section 3030(a)(74) authorized the San Francisco Bay Shore corridor for Final Design and construction. Through FY2002, no Section 5309 New Starts funds have been appropriated for the proposed project by Congress.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. FTA has evaluated this project as being in Preliminary Engineering. The project will be reevaluated when it is ready to advance to Final Design and for next year's *Annual Report on New Starts*.

## Project Justification

### **Rating: Not Yet Available**

The project rating is *Not Yet Available* because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. This project entered Preliminary Engineering in late 2002, and did not have sufficient time to implement the new measure. FTA continues to work with the project sponsor to develop the measure for cost effectiveness. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is completed.

Based on 2000 Census data, there are an estimated 4,000 low-income households within a ½-mile radius of the proposed stations, representing nine percent of all households located within ½-mile of the stations. There are an estimated 48,500 employees within ½-mile of the transit station areas. The San Francisco-Oakland-San Jose area is classified as a "non-attainment" area for ozone, and "attainment" area for carbon monoxide, particulate matter and nitrogen oxides. The Silicon Valley Rapid Transit Corridor has an incremental cost-per incremental trip value of \$26.40.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Not Yet Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	6,918	
<b>Average Low Income Households Per Station</b>	575	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	Not Yet Available	
<b>Environmental Benefits Rating: Medium-High</b>		
<b><u>Criteria Pollutants Reduced</u> (tons)</b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	260	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	60	
<b>Hydrocarbons</b>	220	
<b>Particulate Matter (PM<sub>10</sub>)</b>	11	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	28,700	
<b><u>Annual Energy Savings</u> (million BTU)</b>	342,960	
<b>Cost Effectiveness Rating: Not Yet Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost Per Transportation System User Benefit (current year dollars/hour)</b>	Not Yet Available	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.24	\$0.22

[ ] indicate an increase in emissions.

### **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: Medium-High**

The *Medium-High* rating reflects the urban character of the corridor, the large number of major trip generators served, and the generally transit-supportive zoning in areas served by the proposed project.

**Existing Conditions:** The Silicon Valley Rapid Transit Corridor study area includes a variety of land uses including high density residential, commercial and office uses in downtown San Jose, the San Jose Arena, the Compaq Center, the Great Mall of the Bay Area regional shopping mall, and several large scale corporate campus areas, the Norman Y. Mineta San Jose International Airport, the Santa Clara University, and San Jose State University. The corridor has dense concentrations of population and employment. There are 46,000 persons (8,300 persons per square mile) within ½-mile of the station areas. Employment in the proposed station areas, with 52,000 employees (9,500 per square mile) is also very dense. Much of the corridor is auto-

oriented, however, major shopping areas in downtown San Jose and Milpitas are pedestrian-oriented. Many of the existing industrial areas are re-developing into residential and commercial land uses to keep up with increasing demand. While the Great Mall of the Bay Area, the San Jose Flea Market, and many of the corporate campus areas of the corridor have free parking, there is limited parking availability in downtown San Jose and near the universities along the alignment.

**Future Plans, Policies and Performance:** The County of Santa Clara, the City of San Jose, the City of Milpitas, and the City of Santa Clara each have comprehensive plans that support high density, transit oriented development, support pedestrian accessibility, and promote transit supportive development at proposed station areas. There are Transit Oriented Development Overlay Zones in the Milpitas Midtown Specific plan, the City of San Jose General Plan has a designation for Transit Corridor Residential Development within transit station areas and the City of Santa Clara plan identifies mixed use and high-density land use patterns within ½-mile of transit station areas. In addition the Metropolitan Transportation Commission (MTC) promotes a Transportation for Livable Communities program to improve pedestrian accessibility and streetscape environments. The population and employment in the corridor through 2025 is expected to increase by 20 and 35 percent, respectively, with approximately 330,000 people and 308,000 employees in the project corridor by 2025.

## Local Financial Commitment

### **Rating: Medium**

The rating of *Medium* is because of the Medium rating for the Capital Financial Plan and the *Medium* rating of the Operating Financial Plan.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 20%**

### **Rating: High**

The SCVTA plans to use Section 5309 New Starts funds, State funding sources, and Measure A dedicated sales tax funds to construct the proposed project.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$973.0	20.4%
<b>State:</b> Traffic Congestion Relief	\$649.0	13.6%
<b>Local:</b> Measure A	\$3,149.8	66.0%
<b>Total:</b>	<b>\$4,771.8</b>	100.0 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, not DOT or FTA. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Medium**

The *Medium* rating reflects the high level of local capital funding committed to the proposed project, tempered by the potential for cost increases as Preliminary Engineering is completed and Final Design is underway, particularly for the 7.4-mile tunnel portion of the project.

**Agency Capital Financial Condition:** The capital financial condition of the SCVTA is good. However the Silicon Valley area is not generating the level of revenues from sales taxes as previously forecasted, thus, the level of capital funding available may leave little room for cost increases. The SCVTA received ratings of AA from Fitch, AA3 from Moody's, and AA from Standard and Poor's for its May, 2001 bond issue. The average age of SCVTA's bus fleet is 6.5 years.

**Capital Cost Estimates and Contingencies:** The capital cost estimate includes a 20 percent contingency which is low for this stage of project development.

**Existing and Committed Capital Funding:** In November 2000, voters in Santa Clara County passed Measure A, which is a 0.5 percent sales tax designated specifically to undertake the proposed Silicon Valley Rapid Transit corridor project as well as improved bus, commuter rail, and light rail services. In July 2000, the State Transportation Congestion Relief Program was created, and \$649 million was committed toward the project. While the program is new, the underlying revenue sources already exist and do not require voter approval. These funds are considered committed, but have a six-year sunset provision. All local and State capital funding sources are existing and committed towards the project.

**New and Proposed Capital Funding Sources:** In July 2000, the State Transportation Congestion Relief Program was created, and \$649 million was committed toward the project.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium**

The *Medium* rating reflects the SCVTA operating plan, as reported by the SCVTA in July of 2002. FTA is concerned about the agency's optimistic revenue assumptions in the twenty-year operating plan. The SCVTA needs an additional source of operating funds to address a shortfall in system operating funds.

**Agency Operating Financial Condition:** The SCVTA was in good operating condition through the end of 2000. However, since that time, operating revenues have been flat or declining. Additionally, operating costs have increased due to new system extensions and increased labor costs. Thus, operating deficits are forecast unless the SCVTA identifies a new source of operating funds.

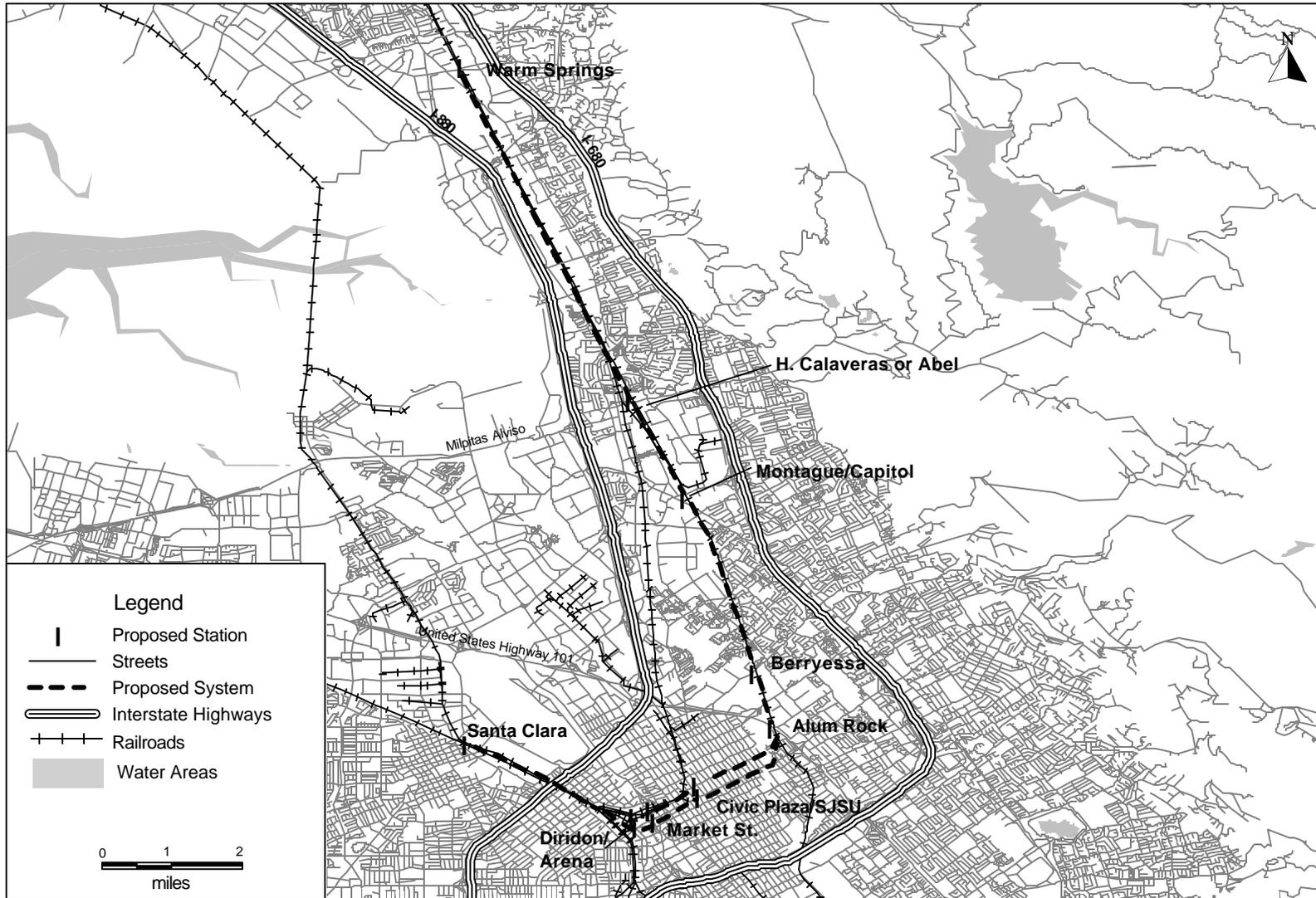
**Operating Cost Estimates and Contingencies:** The operating and maintenance cost estimates appear reasonable, based on an analysis of forecasted growth in cost per revenue hour compared to the period from 1991 through 2001. The anticipated annual operating cost of \$100 million for the proposed project will place a burden on the already limited operating revenue sources.

**Existing and Committed Funding:** The SCVTA's ability to operate and maintain the existing transit system, as well as the proposed project, is dependent upon the availability of new revenues. At this time, sufficient operating revenues are not committed to project. Thus, SCVTA is seeking political support for a new local tax that will be essential for both continued operations and to support the project's operations and maintenance cost.

**New and Proposed Operating Funding Sources:** The SCVTA is considering a number of new operating revenue sources including a share of revenues from a regional gas tax that the Bay Area's Metropolitan Transportation Commission is authorized to place on the ballot (\$25 million to \$45 million for SCVTA) and other potential sources of funding. However, additional legislative authority is required before these funding sources may be used.

# Silicon Valley Rapid Transit Corridor

## Santa Clara County, California





# **Airport Link**

## **Seattle, Washington**

(November 2002)

### **Description**

Sound Transit (Central Puget Sound Regional Transit Authority) is planning a 24-mile Central *Link* light rail transit (LRT) line running north to south from Northgate, through downtown Seattle and Southeast Seattle to the cities of Tukwila and SeaTac, Washington. The proposed Seattle *Link* project includes 21 (including two deferred) stations and four (one deferred) park-and-ride lots (approximately 2,100 new spaces). The system would operate on existing and new right-of-way (ROW), including the existing 1.3-mile Downtown Seattle Transit Tunnel (DSTT).

Sound Transit plans to phase construction of the entire system. The first phase, designated as the Initial Segment, constitutes 14 miles of the 24-mile LRT and will extend from Convention Place to South 154<sup>th</sup> Station. Two additional phases, known as Airport Link and North Link, will complete the 24-mile LRT line.

The approximately three-mile Airport Link will run from the South 154th Station in the City of Tukwila south to the South 200th Station in the City of SeaTac. It will link Sound Transit's 14-mile initial segment of Link light rail (MOS-1) serving downtown Seattle, the south downtown industrial area and sports stadiums, the south Seattle communities of Beacon Hill and Rainier Valley, and the city of Tukwila with Sea-Tac International Airport and the City of SeaTac. Sound Transit is evaluating several alternative alignments for completing Airport Link. This will complete the southern-most piece of an approximately 24-mile light rail system. This project is being coordinated in partnership with the Port of Seattle and City of SeaTac.

The *Link* LRT system is one element of Sound Transit's voter-approved ten year \$3.9 billion (\$1995) Sound Move regional transit plan, which also includes the implementation of a 1.6-mile LRT line in downtown Tacoma; an 82-mile Sounder commuter rail system operating between Lakewood and Everett; 19 new regional express bus routes; and 45 major capital projects including 14 High Occupancy Vehicle (HOV) direct access ramps (providing access to over 100 miles of existing HOV lanes), 14 new park-and-ride facilities, nine transit centers, and other service improvements.

This project has not been rated because the grantee did not submit project information for the New Starts criteria. Sound Transit is evaluating several alternatives for extending the Central Link light rail Initial Segment north from downtown to Northgate.

### **Status**

The Sound Transit Board adopted the Sound Move regional transit plan in May 1996. Voters approved \$3.9 billion in local funding for implementation of the plan in November 1996. A Major Investment Study of *Sound Move*'s services was completed in March 1997. *Sound Move* is included in the Puget Sound Regional Council's (the area's MPO) Transportation Plan and Regional Transportation Improvement Program.

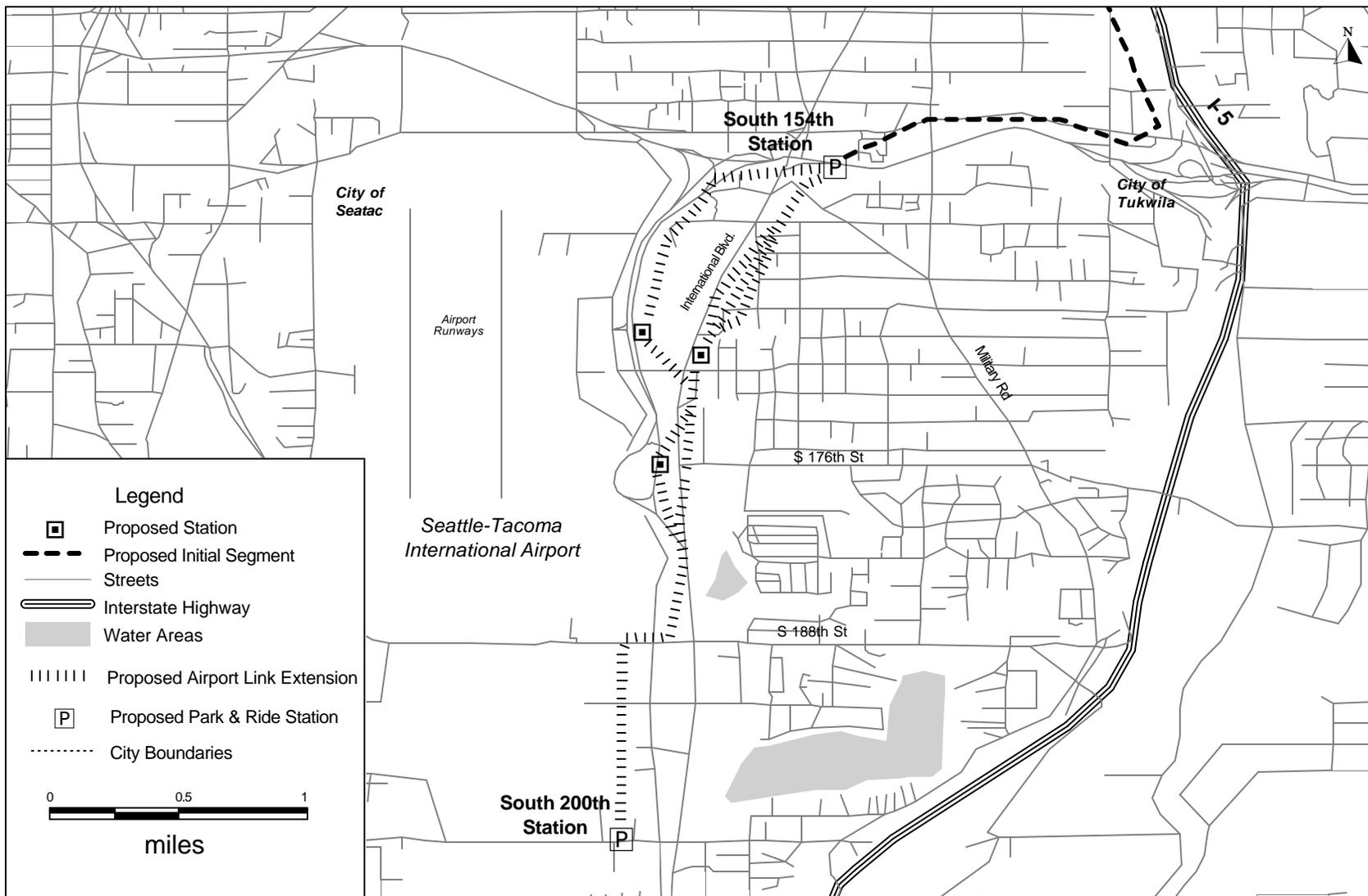
FTA approved the initiation of Preliminary Engineering on the *Link* LRT in July 1997. A Draft Environmental Impact Statement (EIS) was published in December 1998. The Final EIS was completed in November 1999. FTA issued a Record of Decision in January 2000. The Sound Transit Board formally adopted a 7.2-mile initial MOS for Federal participation in November 1999. The MOS extended from NE 45<sup>th</sup> Street at the University of Washington to the maintenance base at South Lander Street in the industrial area south of downtown Seattle. Approximately 4.5 miles of this was new tunnel under Capitol Hill, Portage Bay, and the University of Washington. FTA has approved the Airport Link segment for Preliminary Engineering and portions of the segment for Final Design. Sound Transit is preparing a Supplemental Environmental Impact Statement.

After Congress and the U.S. Department of Transportation (USDOT), Office of Inspector General (OIG) raised significant questions about project costs, the Sound Transit Board directed staff to re-examine the entire project. Staff had to determine if a portion of the 20-mile LPA could be identified as a new initial segment, or if MOS-1 could be redefined to reduce risks and better to meet budget limitations. During this re-examination, the Board maintained its commitment to build the entire alignment. In November 2001, the Sound Transit Board formally adopted the current Initial Segment from Convention Place to South 154<sup>th</sup> Station as the new MOS.

TEA-21 Section 3030(a)(85) authorizes the Seattle Sound Move Corridor (Link and Sounder), of which *Link* is one element, for Final Design and construction. Through FY 2002, Congress has appropriated \$90.97 million for the *Link* LRT. This amount includes the FY 2002 appropriation of \$49.53 million, which FTA has suspended based on recommendations from the USDOT Office of Inspector General. These funds will not be awarded until satisfactory resolution of the issues raised by the OIG and Congress.

# Airport Link

## Seattle, Washington





# **North Link**

## **Seattle, Washington**

(November 2002)

### **Description**

Sound Transit (Central Puget Sound Regional Transit Authority) is planning a 24-mile Central *Link* light rail transit (LRT) line running north to south from Northgate, through downtown Seattle and Southeast Seattle to the cities of Tukwila and SeaTac, Washington. Link proposes 21 (including two deferred) stations and four (one deferred) park-and-ride lots (approximately 2,100 new spaces). The system would operate on existing and new right-of-way (ROW), including the existing 1.3-mile Downtown Seattle Transit Tunnel (DSTT).

Sound Transit plans to phase construction of the entire system. The first phase has been designated the Initial Segment. It constitutes 14 miles of the 24-mile LRT and will extend from Convention Place to South 154<sup>th</sup> Station. Two additional phases, known as North Link and Airport Link, will complete the 24-mile LRT line.

For the approximately eight-mile North Link segment, Sound Transit is evaluating alternatives for extending the Central Link light rail Initial Segment north from downtown Seattle to Northgate. The North Link Extension will serve the dense urban neighborhoods and employment centers of central Seattle, the University District, Roosevelt, and Northgate. The proposed corridor is highly congested, transit-supportive, and includes several of the central Puget Sound region's most densely populated urban and employment centers.

The *Link* LRT system is one element of Sound Transit's voter-approved ten year \$3.9 billion (\$1995) Sound Move regional transit plan, which also includes the implementation of a 1.6-mile LRT line in downtown Tacoma; an 82-mile Sounder commuter rail system operating between Lakewood and Everett; 19 new regional express bus routes; and 45 major capital projects including 14 High Occupancy Vehicle (HOV) direct access ramps (providing access to over 100 miles of existing HOV lanes), 14 new park-and-ride facilities, nine transit centers, and other service improvements.

This project has not been rated because the grantee did not submit project information for the New Starts criteria. Sound Transit is evaluating several alternatives for extending the Central Link light rail Initial Segment north from downtown to Northgate.

### **Status**

The Sound Transit Board adopted the Sound Move regional transit plan in May 1996. Voters approved \$3.9 billion in local funding for implementation of the plan in November 1996. A Major Investment Study of *Sound Move's* services was completed in March 1997. *Sound Move* is included in the Puget Sound Regional Council's (the area's MPO) long range transportation plan and Regional Transportation Improvement Program.

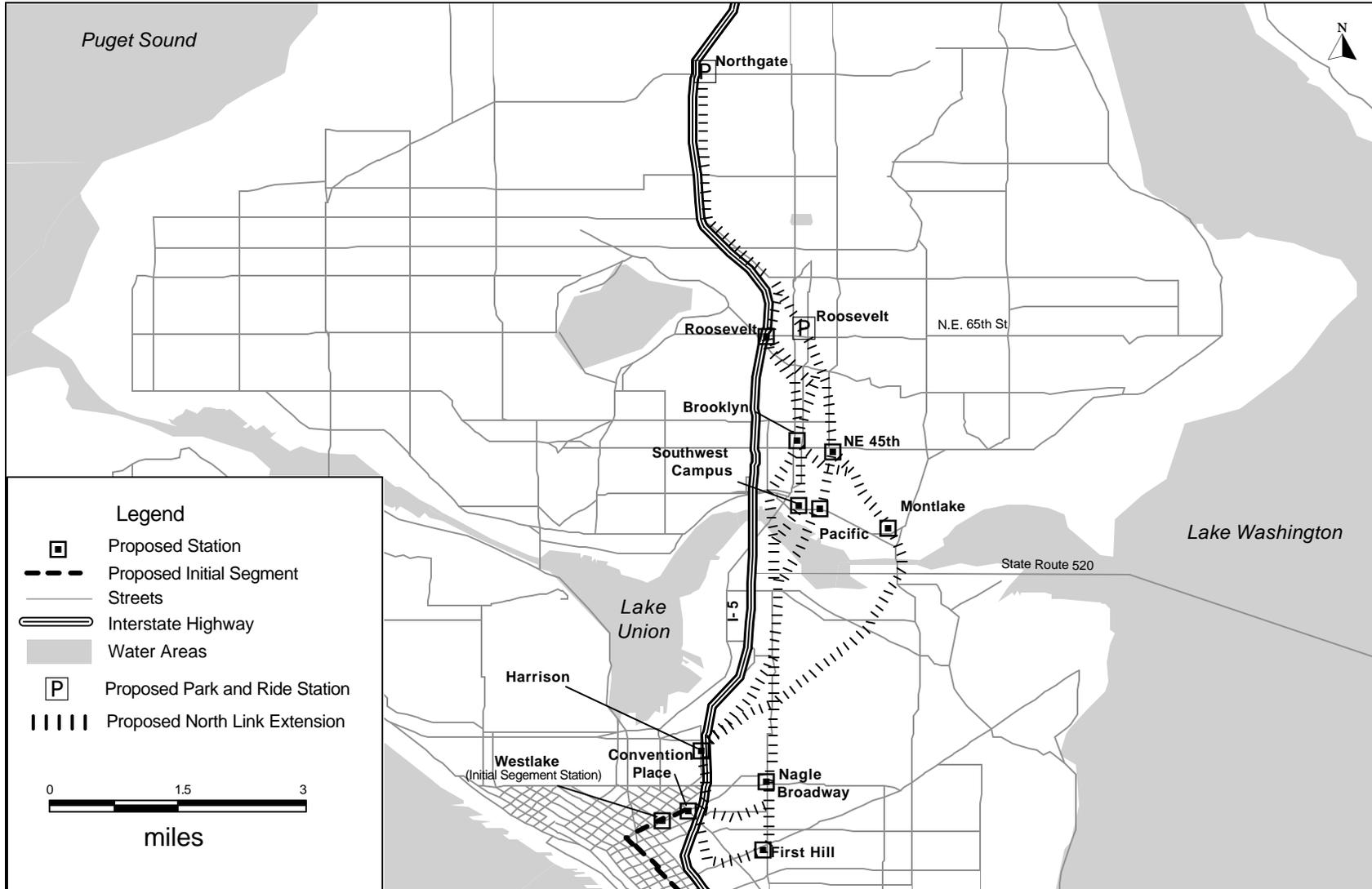
FTA approved the initiation of Preliminary Engineering on the *Link* LRT in July 1997. A Draft Environmental Impact Statement (EIS) was published in December 1998. The Final EIS was completed in November 1999. FTA issued a Record of Decision in January 2000. The Sound Transit Board formally adopted a 7.2-mile initial MOS for Federal participation in November 1999. The MOS ran from NE 45<sup>th</sup> Street at the University of Washington to the maintenance base at South Lander Street in the industrial area south of downtown Seattle. Approximately 4.5 miles of this was new tunnel under Capitol Hill, Portage Bay, and the University of Washington. FTA has approved the North Link segment for Preliminary Engineering and portions of the segment for Final Design. Sound Transit will prepare a supplemental environmental impact statement, and develop Preliminary Engineering and design to support further analysis of alternatives to build North Link.

After Congress and the U.S. Department of Transportation (USDOT), Office of Inspector General (OIG) raised significant questions about project costs, the Sound Transit Board directed staff to re-examine the entire project. Staff had to determine if a portion of the 20-mile LPA could be identified as a new initial segment, or if MOS-1 could be redefined to reduce risks and better to meet budget limitations. During this re-examination, the Board maintained its commitment to build the entire alignment. In November 2001, the Sound Transit Board formally adopted the current Initial Segment from Convention Place to South 154<sup>th</sup> Station as the new MOS.

TEA-21 Section 3030(a)(85) authorizes the Seattle Sound Move Corridor (Link and Sounder), of which *Link* is one element, for Final Design and construction. Through FY 2002, Congress has appropriated \$90.97 million for the *Link* LRT. This amount includes the FY 2002 appropriation of \$49.53 million, which FTA has suspended based on recommendations from the USDOT Office of Inspector General. These funds will not be awarded until satisfactory resolution of the issues raised by the OIG and Congress.

# North Link

## Seattle, Washington





# Everett-to-Seattle Commuter Rail

Seattle, Washington

(November 2002)

## Description

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to implement peak-period commuter rail service in the 35-mile corridor linking Everett and Seattle, Washington. The service would be part of the 82-mile *Sounder* commuter rail corridor serving 14 stations between Lakewood and Everett, Washington. Service from Tacoma to Seattle began in September 2000. The Everett-Seattle commuter rail segment would include three multimodal stations that provide connections to a variety of transportation services, including local and express bus service, the Washington State ferry system (connecting cities on the east and west sides of Puget Sound), the proposed *Link* light rail system, and Amtrak. Twelve trains per day will serve up to six stations.

The project is estimated to cost \$104 million in escalated dollars, with a proposed Section 5309 New Starts share of \$24.9 million. Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

Summary Description	
<b>Proposed Project:</b>	Everett-to-Seattle Commuter Rail 35 Miles, 6 Stations
<b>Total Capital Cost (\$YOE):</b>	\$104 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.9 Million (24%)
<b>Annual Operating Cost:</b>	N/A
<b>Ridership Forecast:</b>	5,300 Average Weekday Boardings

## Status

The Draft Environmental Impact Statement (DEIS) for this project was issued in June 1999. Following extensive public outreach and ongoing coordination with tribes and Federal, State, and local agencies, the Locally Preferred Alternative was selected. The Final EIS was published in November 1999 and the Record of Decision was signed in February 2000. Sound Transit will be seeking FTA authorization to enter Final Design for this project in 2002.

TEA-21 Section 3030(a)(85) authorizes the "Sound Move Corridor" for Final Design and construction. Through FY 2002, Congress has appropriated \$79.32 million to the 82-mile *Sounder* commuter rail system.

**Local Financial Commitment**

**Proposed Non-Section 5309 New Starts Share of Total Project Costs: 76%**

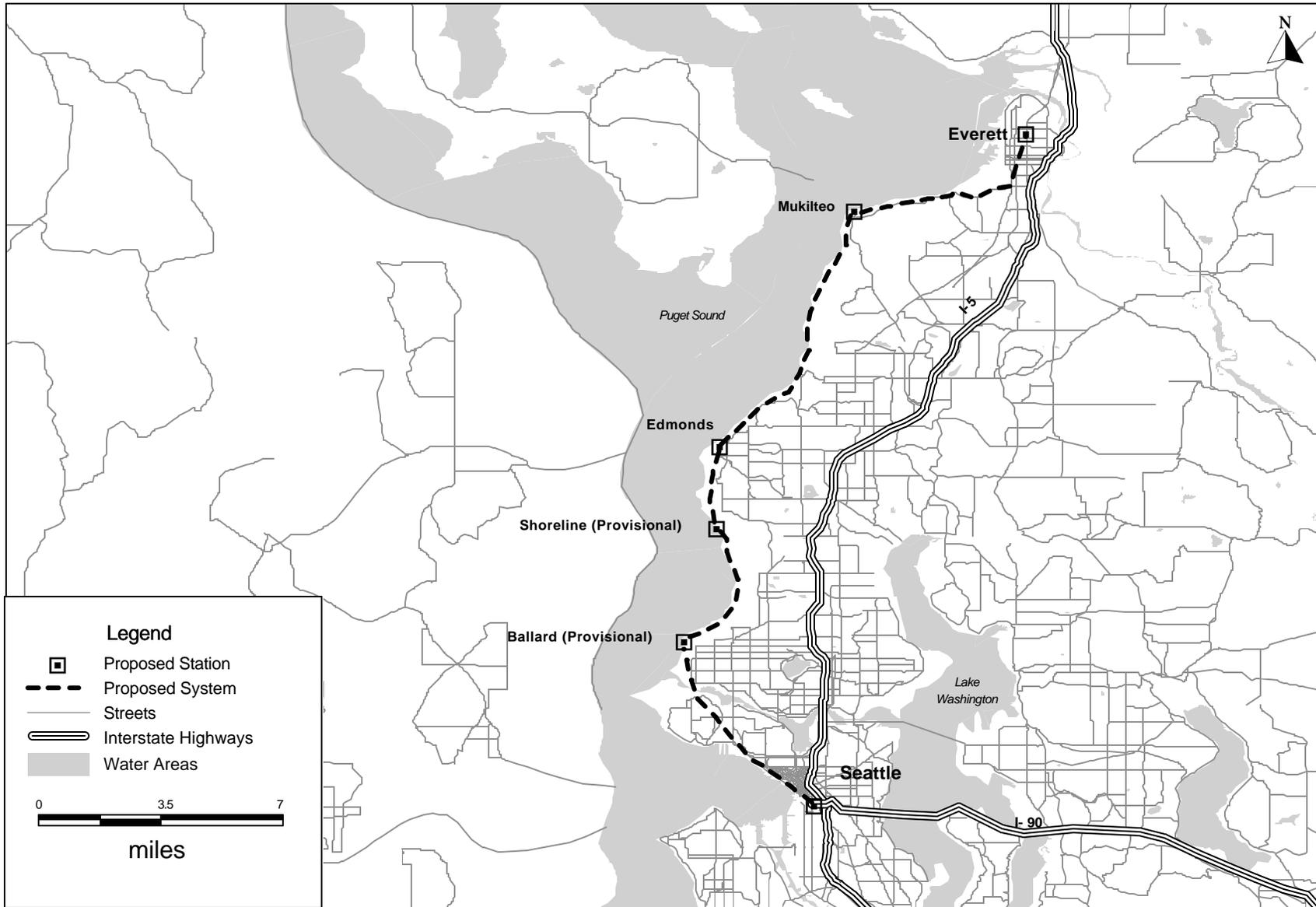
The project’s financial plan includes Section 5309 New Starts funding and local funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$24.9	23.9%
<b>Local:</b>	\$79.1	76.1%
<b>Total:</b>	<b>\$104.0</b>	100.0%

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

# Everett-to-Seattle Commuter Rail

## Seattle, Washington





# Lakewood-to-Tacoma Commuter Rail

Tacoma, Washington  
(November 2002)

## Description

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to implement peak-hour commuter rail service for an eight-mile segment linking Tacoma and Lakewood, Washington. The service will be part of the overall 82-mile *Sounder* commuter rail corridor serving 14 stations from Lakewood, through the downtowns of Tacoma and Seattle, and terminating in Everett, Washington. Service from Tacoma to Seattle began in September 2000. Sound Transit proposes to run eighteen trains per day (including reverse commute service) to the cities along the alignment, including Lakewood, South Tacoma, and Tacoma, connecting to stations in Puyallup, Sumner, Auburn, Kent, Tukwila, and Seattle. Two trains will run from Lakewood to Everett.

The project is estimated to cost \$86.0 million in escalated dollars, with a proposed Section 5309 New Starts share of \$24.9 million. Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

<b>Summary Description</b>	
<b>Proposed Project:</b>	Lakewood-to-Tacoma Commuter Rail 8 Miles, 3 Stations
<b>Total Capital Cost (\$YOE):</b>	\$86.0 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.9 Million (29%)
<b>Annual Operating Cost:</b>	N/A
<b>Ridership Forecast:</b>	2,800 Average Weekday Boardings

## Status

Lakewood-to-Tacoma commuter rail service is scheduled to begin operations in 2004. The Final EIS was published in May 2000 and the Record of Decision was signed in June 2000. Sound Transit will be seeking Final Design authorization for this project in 2002.

TEA-21 Section 3030(a)(85) authorizes the "Sound Move Corridor" for Final Design and construction. Through FY 2002, Congress has appropriated \$79.32 million to the 82-mile *Sounder* commuter rail system.

## Local Financial Commitment

### Proposed Non-Section 5309 New Starts Share of Total Project Costs: 71%

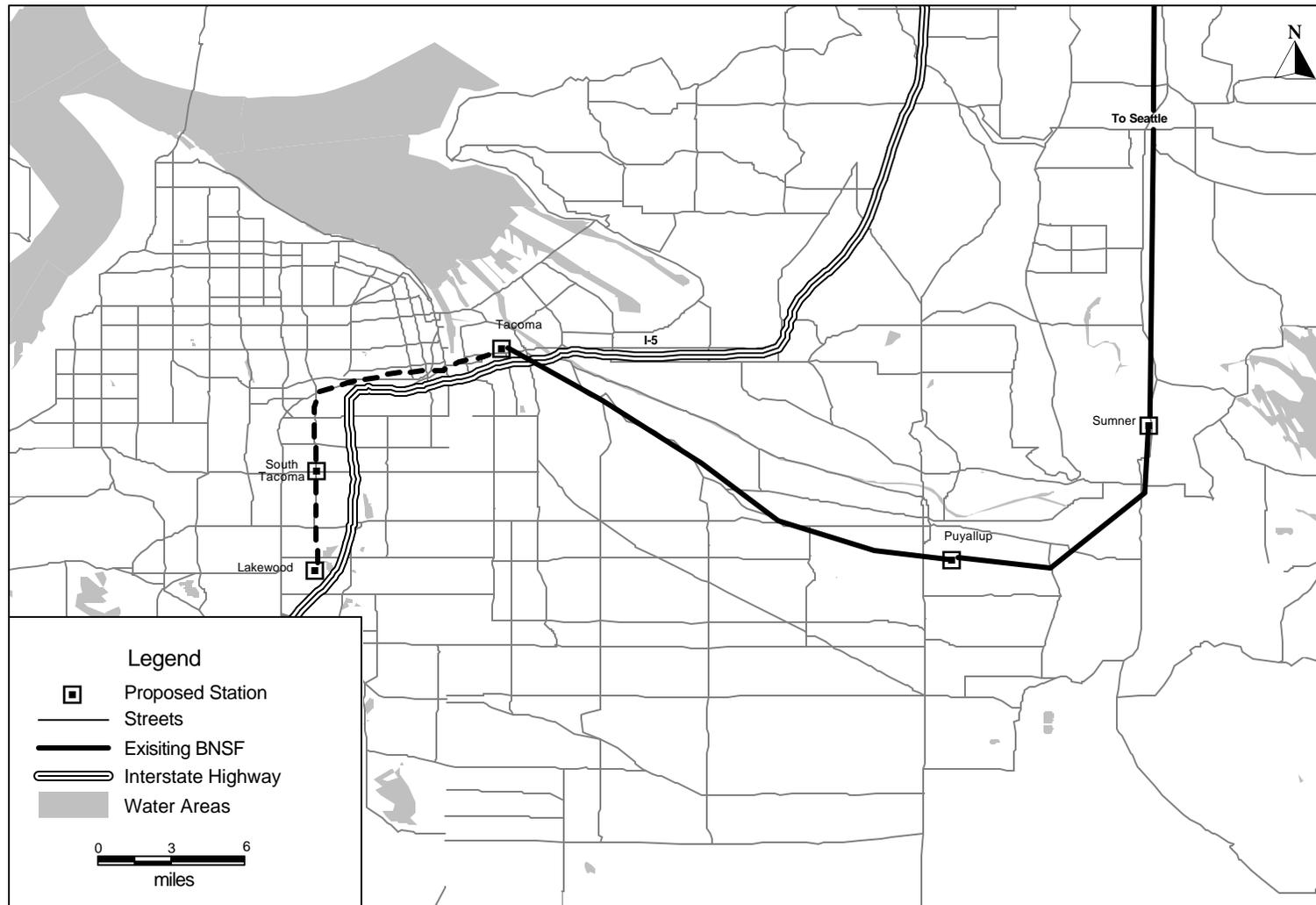
The project's financial plan includes Section 5309 New Starts funding and local funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$24.9	29.0%
<b>Local:</b>	\$61.1	71.0%
<b>Total:</b>	<b>\$86.0</b>	100.0%

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

# Lakewood-to-Tacoma Commuter Rail

## Tacoma, Washington





# Silver Spring Intermodal Transit Center

## Silver Spring, Maryland

(November 2002)

### Description

The Maryland Transit Administration (MTA) has proposed development of the Silver Spring Intermodal Transit Center (ITC), located in suburban Washington, DC, as an improvement of the Maryland Commuter Rail (MARC) system. The Silver Spring ITC will relocate the Silver Spring MARC Station to the current Silver Spring Metrorail station site. The transit center would allow convenient passenger transfers between several modes of travel, including commuter rail, heavy rail, commuter and local bus service, taxi, bicycle, auto, and walk-access at this major transit hub for lower Montgomery County, Maryland. The ITC will also accommodate the MTA proposed Georgetown Branch Trolley planned to operate between Silver Spring and Bethesda. The Intermodal Transit Center will more efficiently meet existing and future transit needs of this area.

The Silver Spring Intermodal Transit Center is one of four MARC system improvements being undertaken by MTA. The project is estimated to cost \$33.3 million in escalated dollars, with a proposed Section 5309 New Starts share of \$16.0 million. Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail Improvement
<b>Total Capital Cost (\$YOE):</b>	\$ 33.3 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$ 16.0 Million (48%)
<b>Annual Operating Cost:</b>	N/A

### Status

The Silver Spring ITC is currently in Preliminary Engineering. Although an Environmental Assessment of the project was completed, FTA has determined that an Environmental Impact Statement is warranted, which is in progress.

TEA-21 Section 3030(a)(41) authorizes the "MARC – Commuter Rail Improvements" for Final Design and Construction. Through FY 2002, Congress has appropriated \$12.6 million in Section 5309 New Starts funds for this effort.

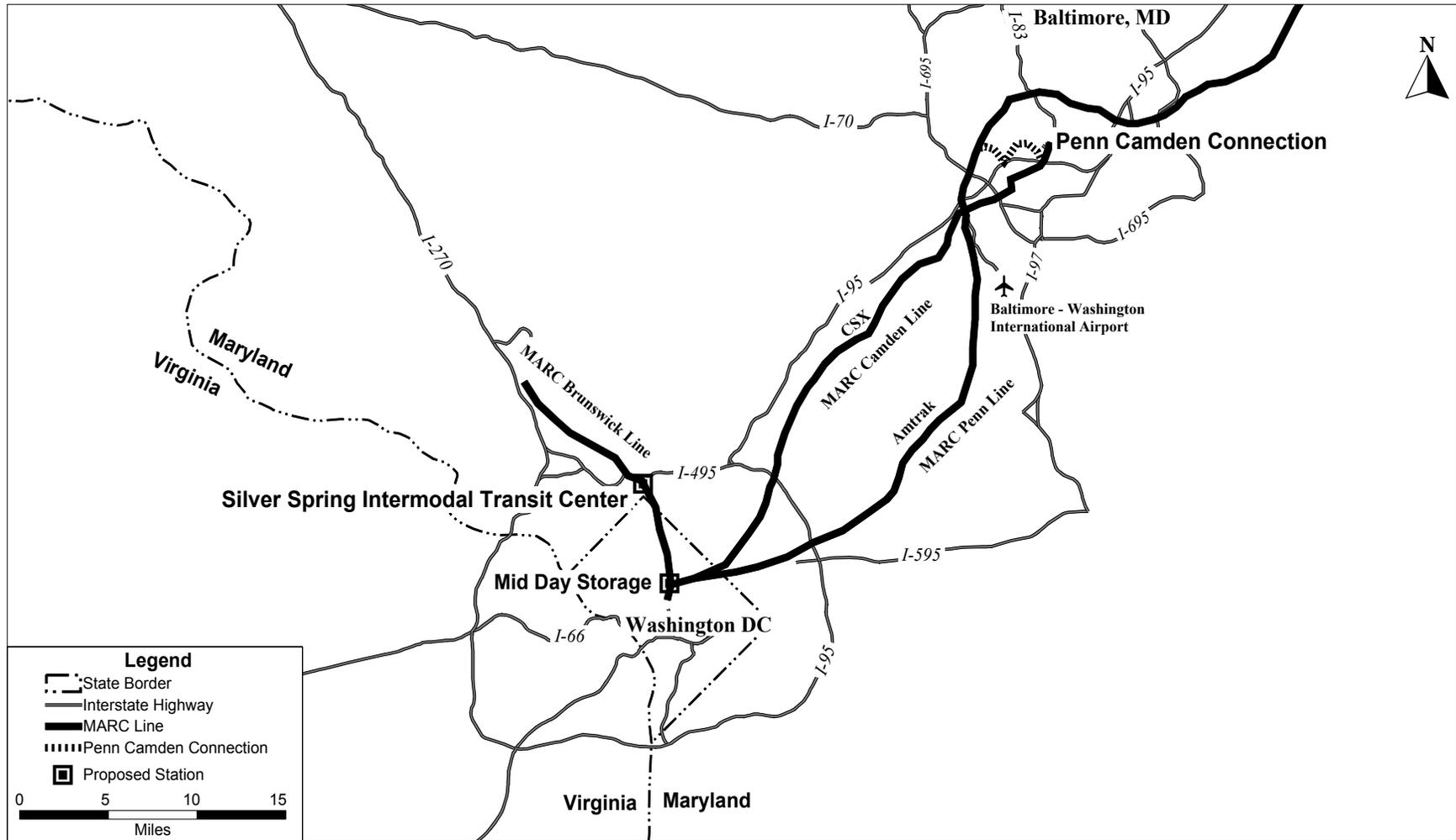
**Locally Proposed Financial Plan**

<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (Smillion)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$16.0	48.0 %
<b>State:</b> Transportation Trust Fund	\$17.3	52.0 %
<b>Total:</b>	<b>\$ 33.3</b>	100.0 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions.  
Total may not add due to rounding.

# Silver Spring Intermodal Transit Center

Silver Spring, Maryland





# Stamford Urban Transitway and Intermodal Transportation Center Improvements

## Stamford, Connecticut

(November 2002)

### Description

The City of Stamford, in coordination with the Connecticut Department of Transportation (ConnDOT), and the Southwestern Regional Planning Agency, is proposing to design and construct a one-mile Urban Transitway. This will consist of a bus lane, shared with high occupancy vehicles that will provide a direct link from Interstate 95 to the Stamford Intermodal Transportation Center (SITC). The Urban Transitway project will include changes to the bus routes serving the SITC, improved pedestrian access, and the implementation of intelligent transportation systems (ITS). The SITC serves as a major transfer point for local bus and employer shuttle service and provides access to existing Amtrak and Metro-North rail service in the Northeast corridor. Currently, Metro-North operates 190 daily trains that stop at the SITC and approximately 2,500 riders use the service in the peak hours to commute from Stamford to New York City, while 1,500 riders travel inbound to employment opportunities in Stamford. To accommodate additional commuter capacity at the SITC, the City is expanding rail platform capacity and constructing a 1,200-space parking facility.

Summary Description	
<b>Proposed Project:</b>	One-Mile Access Road (including bus and HOV lanes) and Parking Facility
<b>Total Capital Cost (\$2000):</b>	\$24.0 million (43.8 million including the parking facility)
<b>Section 5309 New Starts Share (\$2000):</b>	\$18.0 million (75%)
<b>Annual Operating Cost:</b>	N/A
<b>Ridership Forecast (2005):</b>	17,200 avg. weekday boardings 1,200 daily new riders

The total capital cost for the proposed Urban Transitway is reported in this profile as \$24.0 million (year 2000 dollars), with a proposed Section 5309 New Starts share of \$18.0 million based on information submitted by the City of Stamford. Based on FTA's Project Management Oversight (PMO) reports, the agency is aware that costs are increasing to an estimated \$43.8 million, although it is not clear what the revised Section 5309 New Starts share will be. To date, the City of Stamford has not submitted updated cost estimates. Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

The project includes a proposed Federal share of 75 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by that change.

## Status

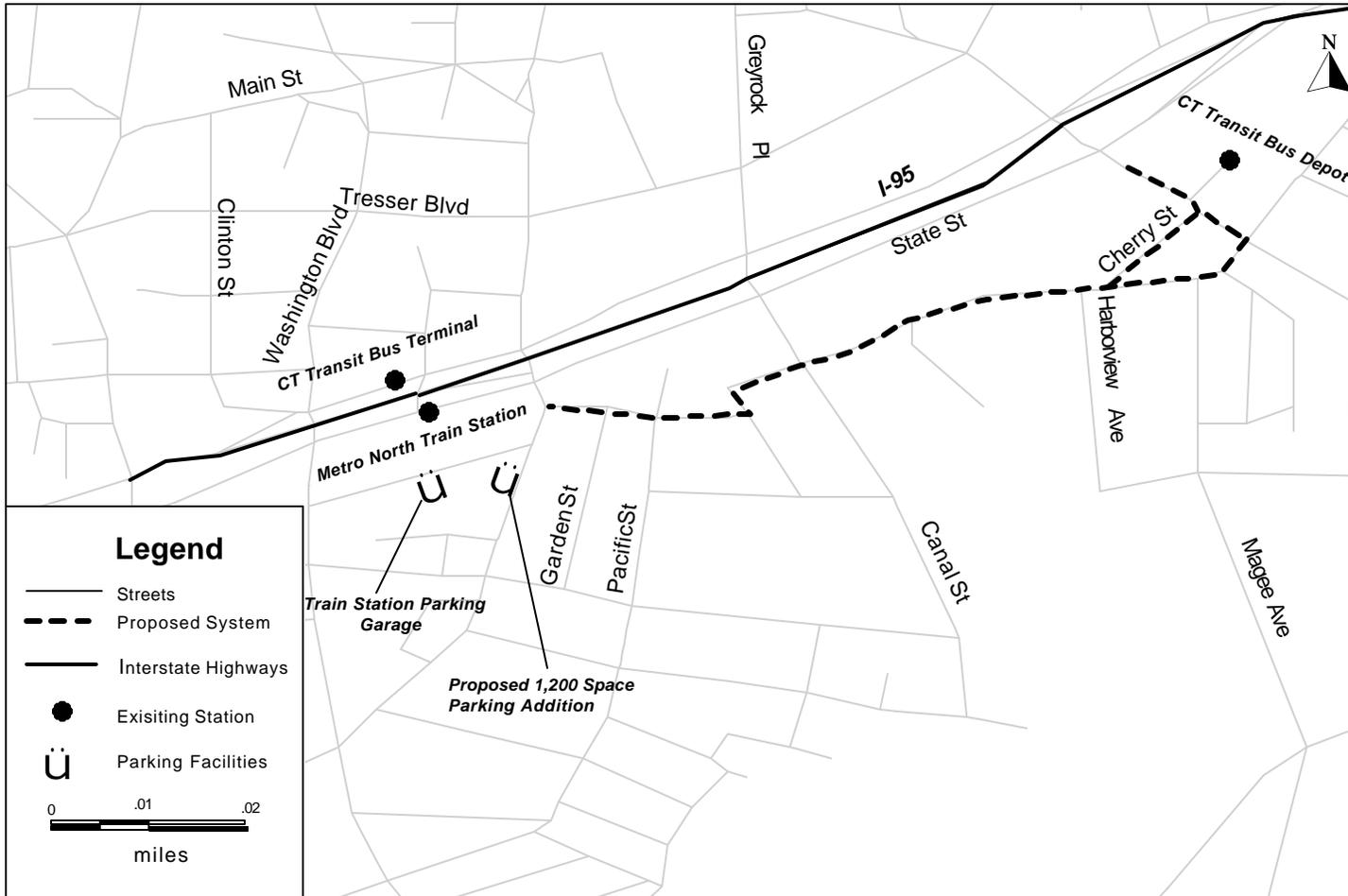
The Stamford Urban Transitway is the preferred alternative resulting from a series of studies that evaluated alternatives to improve accessibility to the Stamford Intermodal Transportation Center. FTA approved the City of Stamford's request to initiate Preliminary Engineering on the Urban Transitway project in February 2000. The City of Stamford is currently undertaking the environmental review phase for the proposed project and will be completed by Winter 2003.

Section 3030(c)(1)(A)(ix) of TEA-21 authorizes the Stamford "Fixed Guideway Connector" for Final Design and construction. Through FY 2002, Congress has appropriated \$14.85 million in Section 5309 New Starts funds for this project.

<b>Locally Proposed Financial Plan</b>		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$millions)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$18.0	75.0%
EPA Brownfields Pilot Program	\$0.2	0.8%
<b>Local:</b>		
City of Stamford Bonds	\$5.8	24.2%
<b>Total:</b>	<b>\$24.0</b>	100.0%

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

# Urban Transitway and Intermodal Transportation Center Improvements Stamford, Connecticut





# Tampa Bay Regional Rail System

Tampa, Florida

(November 2002)

## Description

The Hillsborough Area Regional Transit Authority (HART), in cooperation with the Hillsborough County Metropolitan Planning Organization (MPO), the City of Tampa, and the Florida Department of Transportation, is proposing to implement the Tampa Bay Regional Rail System. The proposed project is a light rail transit (LRT) system in three corridors: the 13.4-mile Northeast Corridor, the 1.5-mile Southwest Corridor, and the 5.2-mile West Corridor. The capital cost includes the purchase of 34 light rail vehicles and construction of 26 stations with a total of 3,250 park and ride spaces.

The project is one component of a proposed regionwide Locally Preferred Strategy for implementing a package of multimodal transportation investments. The regionwide Locally Preferred Strategy would eventually extend fixed guideway service beyond Hillsborough County to a portion of Polk County, linking the cities of Tampa, Lakeland, and Plant City and creating a 71-mile Regional Rail System.

The Tampa Bay Regional Rail System will improve access to several major activity centers in the area including the University of South Florida, Downtown Tampa, and the Westshore/Airport area.

Summary Description	
<b>Proposed Project:</b>	Tampa Bay Regional Rail System 20.1 Miles, 26 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1.46 Billion
<b>Section 5309 New Starts Share (\$YOE):</b>	\$727.7 Million (50%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$53.3 Million
<b>Ridership Forecast (2025):</b>	38,230 Average Weekday Boardings 21,980 Daily New Riders
<b>Opening Year Ridership Forecast (2020):</b>	38,227 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Low-Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Not Yet Available</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Recommended</b>

The project is ***Not Recommended*** due to the lack of financial commitments to the project and the heavy reliance of the financial plan on passage of a local sales tax referendum that is not expected to occur until at least 2004. The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of November 2002. Project evaluation is an ongoing process. As New Starts projects proceed through project development, the estimates of cost, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

A Major Investment Study (MIS) to address alternatives for enhancing mobility throughout Tampa, Hillsborough County, Lakeland, and Polk County was completed in April 1998, with the selection by local stakeholders of a multimodal Locally Preferred Strategy, including a 71-mile Regional Rail System. The MIS also identified 28.5 miles of rail investment in the Northeast, Southwest, and West Corridors to be included in a regional “Early Action Plan” minimum operable segment. The Year 2020 Long-Range Transportation Plan, which incorporates both the Early Action Plan and Locally Preferred Strategy, was formally adopted by the Hillsborough County MPO Board in November 1998. FTA approved initiation of Preliminary Engineering for the three corridors in the Early Action Plan in January 1999.

In July 2001, HART released the Draft Environmental Impact Statement (DEIS). Based on comments received on the DEIS, the HART Board formally adopted a revised Locally Preferred Alternative for fixed guideway in the three corridors in October 2001. The new Locally Preferred Alternative is the 20.1-mile, 26 station LRT system, which is a change in vehicle technology from the previous Locally Preferred Alternative that utilized Diesel Multiple Units (DMUs). HART anticipates completion of the Final EIS and a Record of Decision in late 2002/early 2003. A public referendum to establish a local funding mechanism to cover the local share of capital and operating costs for the project is anticipated for November 2004.

TEA-21 Section 3030(a)(89) authorized the Tampa Regional Rail System for Final Design and construction. Through FY 2002, Congress has appropriated \$5.94 million in Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. N/A indicates that data are not available for a specific measure. The project will be reevaluated when it is ready to advance to Final Design, and for next year's *Annual Report on New Starts*.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Not Rated</b>		
	<b><u>New Start vs. Baseline</u></b>	
Average Employment Per Station	7,355	
Average Low Income Households Per Station	280	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	Not Rated	
<b>Environmental Benefits Rating: Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b><u>Criteria Pollutant Reduced</u></b> (tons)		
Carbon Monoxide (CO)	238	
Nitrogen Oxide (NO <sub>x</sub> )	42	
Hydrocarbons	30	
Particulate Matter (PM <sub>10</sub> )	0	
Carbon Dioxide (CO <sub>2</sub> )	5,200	
<b><u>Annual Energy Savings</u></b> (million) BTU	48,459	
<b>Cost Effectiveness Rating: Not Rated</b>		
	<b><u>New Start vs. Baseline</u></b>	
Cost Per Transportation System User Benefit (current year dollars/hour)	Not Rated	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
System Operating Cost per Passenger Mile (current year dollars)	\$0.63	\$0.58

[ ] indicate an increase in emissions.

## Project Justification

### **Rating: Not Yet Available**

The project justification rating is *Not Yet Available* because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. The project sponsor is currently working to correct errors in the travel demand forecasting model. The model will be recalibrated and new information submitted. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is complete.

Based on the 1990 Census data, there are an estimated 7,278 low-income households within ½-mile radius of the proposed stations, or roughly 29 percent of the total households within ½-mile of the proposed stations. There are an estimated 191,226 jobs located within ½-mile of the proposed stations. The Tampa-St. Petersburg-Clearwater Metropolitan Area is designated as a

“marginal maintenance area” for ozone. The Tampa Bay Regional Rail project has an incremental cost per incremental trip value of \$6.76.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium**

Land use in the project corridor currently is not highly transit-supportive, but future growth, coupled with regional growth management policies and effective planning within station areas, has the potential to create land use patterns that are significantly more transit-oriented. Reaching this potential will depend upon the successful implementation of regional and corridor policies through zoning, financial incentives, and measures to restrict parking supplies.

**Existing Conditions:** Population totals and densities are low in the project corridor, while employment totals and densities are somewhat higher, but still relatively low compared to most areas with LRT systems. Parking is plentiful throughout the corridor and only a few station areas can be considered moderately transit-supportive in terms of densities or the character of development. A number of significant activity generators, including the University of South Florida, University of Tampa, Downtown Tampa, Ybor City, and the Westshore district are located in the project corridor.

**Future Plans, Policies and Performance:** The high rates of regional population and economic growth experienced over the last several decades are expected to continue in the future. The Urban Growth Boundary and other policies included in the Comprehensive Plans for the City of Tampa and Hillsborough County are projected to channel a significant share of regional growth into Downtown Tampa and other areas that would be served by the project. Transit-supportive policies have yet to be implemented through zoning or such means as the creation of overlay districts in station areas, although the City offers incentives for mixed use, higher-density development. Community-based station area planning has been initiated.

The project sponsor has worked with the City and State on the development of conceptual transit-supportive land use plans for a number of station areas. This interagency working group also is considering potential implementation tools, including regulations, zoning waivers, fee incentives, tax increment financing, property tax abatement, and tax credits.

## **Local Financial Commitment**

### **Rating: Low-Medium**

The *Low-Medium* local financial commitment rating was determined by the *Low-Medium* rating for the capital financing plan and the *Low-Medium* rating for the operating finance plan.

## **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 50%**

### **Rating: Medium**

HARTline will use Section 5309 New Starts funds, State funds, and local funds from the proposed dedicated sales tax to construct the project.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$727.7	50.0%
<b>State:</b> FDOT TMA Funds FDOT "Other Arterial" funds FDOT Intermodal Funds Florida Public Transportation Office Discretionary funds	\$64.1 \$134.4 \$25.4 \$11.6	4.4% 9.2% 1.7% 0.8%
<b>Local:</b> Local Sales Tax	\$492.2	33.8%
<b>Total:</b>	<b>\$1,455.5</b>	<b>100.0 %</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## **Stability and Reliability of Capital Financing Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating reflects the large number of new funding sources proposed for the project and the lack of committed funding. Although HARTline provided a detailed, well-structured financial plan, it is completely reliant on passage of a dedicated sales tax referendum that is not proposed to be placed on the ballot until November 2004.

**Agency Capital Financial Condition:** HARTline's financial condition is average. The average age of the bus fleet is 9.5 years. According to the financial plan submitted by HARTline, maintenance and administration buildings are old and in need of comprehensive rehabilitation.

**Capital Cost Estimates and Contingencies:** The capital cost estimate includes a 25 percent project contingency for each cost component, which is considered reasonable for a project in Preliminary Engineering.

**Existing and Committed Funding:** None of the non-Section 5309 New Starts funding is existing or committed to the project at this time.

**New and Proposed Sources:** All State and local funding sources proposed by HARTline are new sources. State sources include Florida DOT Transportation Management Association Funds, arterial funds and intermodal funds, as well as Florida Public Transportation funds.

Local funding is assumed to come from a dedicated sales tax, which is not proposed to be placed on the ballot until November 2004.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Low-Medium**

The *Low-Medium* rating reflects the significant uncertainty regarding the proposed dedicated local sales tax and the reliance on this source for funding of operations.

**Agency Operating Financial Condition:** HARTline's current operating budget totals \$31.5 million. HARTline currently receives operating funding from an ad valorem property tax collected from all Hillsborough County property owners at a rate of 0.5 mill (a mill is equal to \$1.00 of tax for each \$1,000 of assessment). In recent years, tax revenues have been insufficient to cover HARTline's operating expenses. Consequently, service reductions have been necessary in order to satisfy the balanced budget requirements of the Florida Constitution.

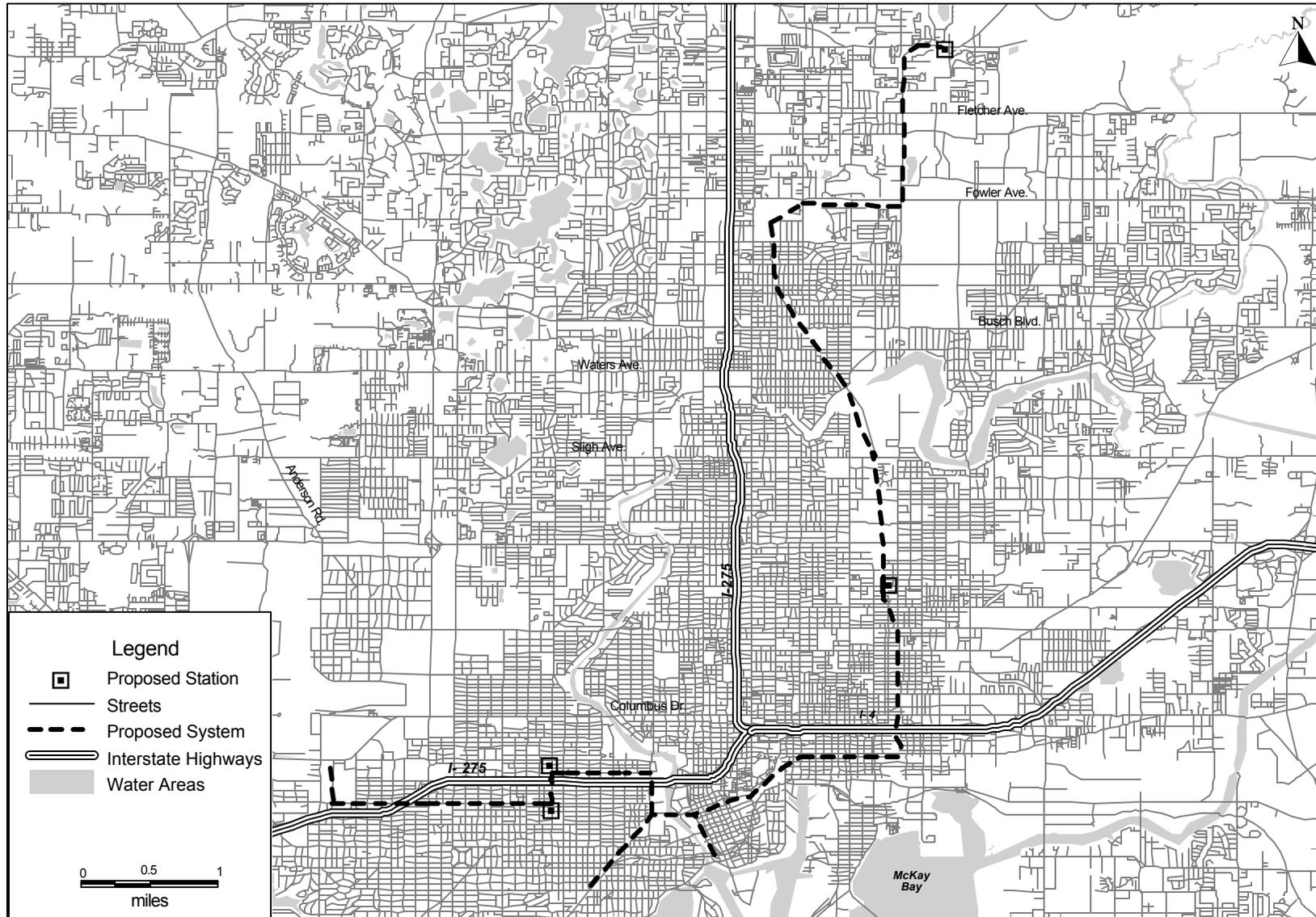
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance expenses for the proposed LRT are projected to be \$53.3 million in forecast year 2025 (escalated dollars). This estimate is based on a moderately conservative methodology that examined recent actual experiences of nine peer systems.

**Existing and Committed Funding:** Other than farebox revenues, the proposed dedicated local sales tax will provide the only source of revenue for operations and maintenance of the proposed LRT. Farebox revenues are assumed to provide 43 percent of annual operating and maintenance funds, while the local sales tax is assumed to provide the remaining 57 percent.

**New and Proposed Funding Sources:** Local operating and maintenance funding is assumed to come from a new dedicated local sales tax, which is not proposed to be placed on the ballot until November 2004.

# Tampa Bay Regional Rail

## Tampa, Florida





# Dulles Corridor Bus Rapid Transit

## Washington, DC Metropolitan Area

(November 2002)

### Description

The Virginia Department of Rail and Public Transportation (VDRPT), in cooperation with the Washington Metropolitan Area Transit Authority (WMATA), proposes to implement a 23.5-mile bus rapid transit (BRT) system as an interim step to rail in the Dulles Corridor located in Northern Virginia. The Dulles Corridor, a rapidly growing suburban area west of Washington, DC, contains major regional employment and residential centers, including Tysons Corner, Reston Town Center, Washington Dulles International Airport, the Town of Herndon, the proposed Smithsonian Air and Space Museum Annex, and new commercial and residential development in eastern Loudoun County.

The BRT project is proposed as the intermediate phase of the Dulles Corridor Rapid Transit project, which will phase implementation of rapid transit technologies throughout the corridor. BRT service will operate in the medians of the Dulles Airport Access Road and the Dulles Greenway from the Metrorail Orange Line in Fairfax County to Route 722 in Loudoun County. The proposed BRT system includes construction of at least three transit stations within the median of the Dulles Airport Access Road and additional stations at major park-and-ride lots within the corridor and Tysons Corner. BRT service is scheduled for operation in 2006.

Rapid transit in the Dulles Corridor would provide a direct connection to the existing Metrorail system and provide reverse-commute service to the increasing number of employment centers located there.

Summary Description	
<b>Proposed Project:</b>	Bus Rapid Transit 23.5 Miles, 7 Stations
<b>Total Capital Cost (\$YOE):</b>	\$357.1 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$214.3 Million (60%)
<b>Annual Operating Cost (2025 \$YOE):</b>	\$55 Million
<b>Ridership Forecast (2025):</b>	26,900 Average Weekday Boardings 11,400 Daily New Riders
<b>Opening Year Ridership Forecast (2006):</b>	17,100 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Recommended</b>

The *Recommended* rating is based on the project's acceptable finance plan and justification. The overall project rating applies to this *Annual Report on New Starts* and reflects conditions as of **November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedule, and impacts are refined. **The**

**FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

The project includes a proposed Federal share of 60 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by this change.

## **Status**

A Major Investment Study (MIS) for the corridor was completed in 1996, recommending construction of a “Metro-like” rail system as the Locally Preferred Alternative (LPA). The Dulles Corridor Task Force issued the Dulles Corridor MIS Refinement in July 1999, reaffirming development of a rail system but with interim development of a BRT system. The phased BRT/rail system was adopted by the National Capital Region Transportation Planning Board, the Metropolitan Planning Organization (MPO) for the Washington region, and included in its Constrained Long Range Plan (CLRP) in October 1999 with a \$2.2 billion cost estimate.

In March 2000, FTA approved initiation of Preliminary Engineering (PE) for the Dulles Corridor Bus Rapid Transit (BRT) Project. This PE approval is applicable only to the BRT project, although it allows for the necessary engineering effort to support the environmental review process with consideration of other modal alternatives, including rail. The Draft Environmental Impact Statement (DEIS), which examines varied phased implementation actions of the BRT and rail alternatives in the corridor, was published in July 2002. WMATA is currently the grant applicant for the project, at the request of VDRPT, and is providing technical oversight and control of the PE and environmental work on the proposed Dulles Corridor BRT project. As a result of the DEIS, rail only for the full corridor has emerged as a new LPA. Formal actions to endorse this LPA, with a cost estimate of \$3.3 billion (escalated dollars), are scheduled for the WMATA Board and the Virginia Commonwealth Transportation Board in November and December 2002, respectively. The MPO must also update its CLRP to account for the increased cost estimate. Subsequent to these actions, VDRPT will request FTA approval to initiate Preliminary Engineering for the rail project and to cease development of the BRT project.

TEA-21 Section 3030(a)(93) authorizes the “Washington, DC – Dulles Corridor Extension” for Final Design and Construction. Through FY 2002, Congress has appropriated \$115.68 million for this project in Section 5309 New Starts funds.

## **Evaluation**

The following criteria have been estimated in conformance with FTA’s *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The BRT project will be reevaluated for next year’s New Starts Report and when it is ready to advance into Final Design. The rail only alternative, or any other alternative considered as an intermediate phase of the Dulles Corridor Rapid Transit project, will be evaluated when ready for FTA consideration of approval to initiate Preliminary Engineering, and will replace BRT as the New Starts project at that time.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
Average Employment Per Station	9,400	
Average Low Income Households Per Station	25	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	4.4	
<b>Environmental Benefits Rating: High</b>		
<b><u>Criteria Pollutant Reduced (Tons)</u></b>	<b><u>New Start vs. Baseline</u></b>	
Carbon Monoxide (CO)	[778]	
Nitrogen Oxide (NO <sub>x</sub> )	[384]	
Hydrocarbons	[146]	
Particulate Matter (PM <sub>10</sub> )	[14]	
Carbon Dioxide (CO <sub>2</sub> )	[439,582]	
<b><u>Annual Energy Savings (million)</u></b> BTU	5,680,762	
<b>Cost Effectiveness Rating: Medium</b>		
	<b><u>New Start vs. Baseline</u></b>	
Cost Per Transportation System User Benefit (current year dollars/hour)	\$18.45	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
System Operating Cost per Passenger Mile (current year dollars)	\$0.27	\$0.26

[ ] indicate an increase in emissions.

## **Project Justification**

### **Rating: Medium**

The *Medium* project justification rating reflects the BRT project's acceptable cost-effectiveness and the less than desirable transit-supportive land use policies in place. Based on 1990 Census data, there are an estimated 175 low-income households within a ½-mile radius of proposed transit boarding areas, approximately four percent of total households within ½-mile radius of boarding areas. Employment within ½-mile of boarding areas is currently estimated at 65,800 and projected at 82,000 for forecast year 2025. EPA has designated the Washington, DC, metropolitan area as a "serious non-attainment area" for ozone and a "moderate maintenance area" for carbon monoxide. The incremental cost per incremental trip is \$15.23.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium**

The *Medium* land use rating reflects the low to moderate density and automobile orientation of existing land uses in the Dulles Corridor, also recognizing that policies to somewhat improve the transit supportiveness of future development have been adopted.

**Existing Conditions:** The proposed Dulles Corridor Bus Rapid Transit (BRT) will serve several suburban major activity centers including Tysons Corner (18 million sq. ft. of office space and two regional malls), Reston Town Center (a large suburban office park/shopping area surrounded by a large planned residential development), the town of Herndon, Dulles International Airport, the proposed Smithsonian Air and Space Museum Annex, and rapidly growing suburban communities in Loudoun County. However, most of the existing development is auto-oriented and the proposed BRT system will utilize the center of the Dulles Airport Access Road (an eight-lane freeway), making pedestrian access to/from the surrounding land uses difficult. With the exception of Dulles Airport, free parking is available throughout the numerous office parks and shopping centers along the corridor. Year 2000 totals for all BRT boarding (½-mile radius) are estimated at roughly 66,000 jobs and 10,400 residents (1,700 residents per square mile). The proposed busway will also serve the Washington, DC central business district indirectly, via a connection with the Metrorail Orange Line.

**Future Plans, Policies, and Performance:** The population in the corridor is expected to increase from 221,000 in 2000 to 336,000 in 2025, an increase of 53 percent. Employment in the corridor is anticipated to increase from 222,000 in 2000 to 362,000 in 2025, an increase of 64 percent. Generally, high population growth is forecast for the Washington, DC metropolitan area (35 percent between 2000 and 2025) and the study area is expected to capture a significant share of that growth. As of 2001, Fairfax and Loudoun Counties have revised their comprehensive plans to support moderate increases in density in transit station areas. These plans allow moderate floor area ratios (FARs) typically of 0.7 to 1.25. Allowable FARs are contingent upon having a mix of uses, including specified percentages of office, retail, and residential, and also may be raised once rail transit is present. Some transit-supportive design requirements are included. Additionally, WMATA has a strong track record of encouraging joint development at Metrorail stations throughout the Washington, DC region. Loudoun County has down-zoned some rural areas to encourage agricultural uses and discourage suburban style development.

## **Local Financial Commitment**

### **Rating: Medium**

The *Medium* local financial commitment rating was determined by the *Medium* rating for the capital financing plan and the *Medium* rating for the operating financing plan.

**Proposed Non-Section 5309 New Starts Share of Total Project Costs: 40 %****Rating: Medium**

The financial plan for the Dulles Corridor BRT comprises Section 5309 New Starts other Federal funds, State and local funds.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding</u></b> <b><u>(\$ million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$ 214.3	60.0%
Section 5309 Bus Discretionary	\$ 1.0	0.3%
<b>State:</b>		
Commonwealth Priority Transportation Fund	\$ 70.4	19.7%
<b>Local:</b>		
Fairfax County General Obligation Bonds	\$ 55.7	15.6%
Loudoun County BPOL Bonds	\$ 8.5	2.4%
Loudoun County Public Transportation Fund	\$ 2.2	0.6%
Metropolitan Washington Airports Authority Passenger Facility Charges	\$ 5.0	1.4%
<b>Total:</b>	<b>\$357.1</b>	<b>100.0%</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

**Stability and Reliability of Capital Financing Plan****Rating: Medium**

The *Medium* rating is based on the sound financial condition of project sponsors and commitment of the majority of local project funding. The Commonwealth of Virginia is the principal financial sponsor of the Dulles Corridor Rapid Transit Project, with local funding participation by Fairfax and Loudoun Counties and the Metropolitan Washington Airports Authority (MWAA). State funding was created under the Virginia Transportation Act of 2000 and is already committed. Plans to secure the commitment of remaining funds entail significant challenges.

**Agency Capital Financial Condition:** The operator of the service has not been formally designated, but is assumed to be the Washington Metropolitan Area Transit Authority

(WMATA), which is funded by participating jurisdictions. The bond rating for the Commonwealth of Virginia is Aaa from Moody's Investor Service and AA from Standard & Poor's Corporation and Fitch, Inc. Fairfax County's general obligation bonds are rated AAA by both Standard & Poor's and Moody's. Loudoun County's notes are rated AA1 by Moody's and AA+ by both Standard & Poor's and Fitch. Project construction would follow the financial model used to develop the Metrorail system to date, with local jurisdictions funding capital and operating expenses.

**Capital Cost Estimates and Contingencies:** Capital cost estimates have been generated through a detailed estimating process based on General Plan engineering documents completed in late 2001, and incorporate a three percent annual inflation rate. Financing costs assume the need for short-term financing to meet the WMATA requirement that 100 percent of project funding be available for obligation prior to awarding construction contracts. Financing costs of \$8 million are estimated for a line of credit over a 4-year construction period, reflecting recent WMATA construction experience. The 9.6 percent overall contingency incorporated in the cost estimate is considered low for a project at this stage of development.

**Existing and Committed Funding:** Funding from the Commonwealth Priority Transportation Fund is budgeted through the programming of \$75 million for the project in a Six Year Program approved by the Commonwealth Transportation Board. Loudoun County funds have been included in the six-year Capital Improvement Fund approved by the Loudoun County Board of Supervisors and can also be considered budgeted. Proposed funding from Fairfax County and MWAA are not committed. MWAA funding would be borrowed against future revenues to be collected from Passenger Facility Charges after 2016, because all revenues projected to be collected before 2016 are committed to other projects, and requires approval by the Federal Aviation Administration. Loudoun County does not currently participate in funding the WMATA system.

**New and Proposed Sources:** Fairfax Counting funding requires voter approval of general obligation bonding. All other funding sources exist although the major capital investment represents a new use of MWAA and Loudoun County funds.

## **Stability and Reliability of Operating Finance Plan**

### **Rating: Medium-High**

The *Medium-High* rating reflects the strong current operating condition of WMATA, including a relatively high farebox recovery rate, the relatively small impact of project operating costs on the WMATA budget, and conservative projections of future WMATA operating financial conditions.

**Agency Operating Financial Condition:** The financial condition of WMATA's current operation is strong, as reflected in part by its relatively high systemwide farebox recovery rate of 53.8 percent. Additional funding requirements for system operating subsidies are allocated among WMATA Compact member jurisdictions according to formula allocations of the affected jurisdictions. WMATA reports a very high operating ratio of 5.5, and reserves of \$286.7 million as of the end of FY 2001. Fairfax and Loudoun Counties report operating ratios of 2.9 and 3.0, respectively.

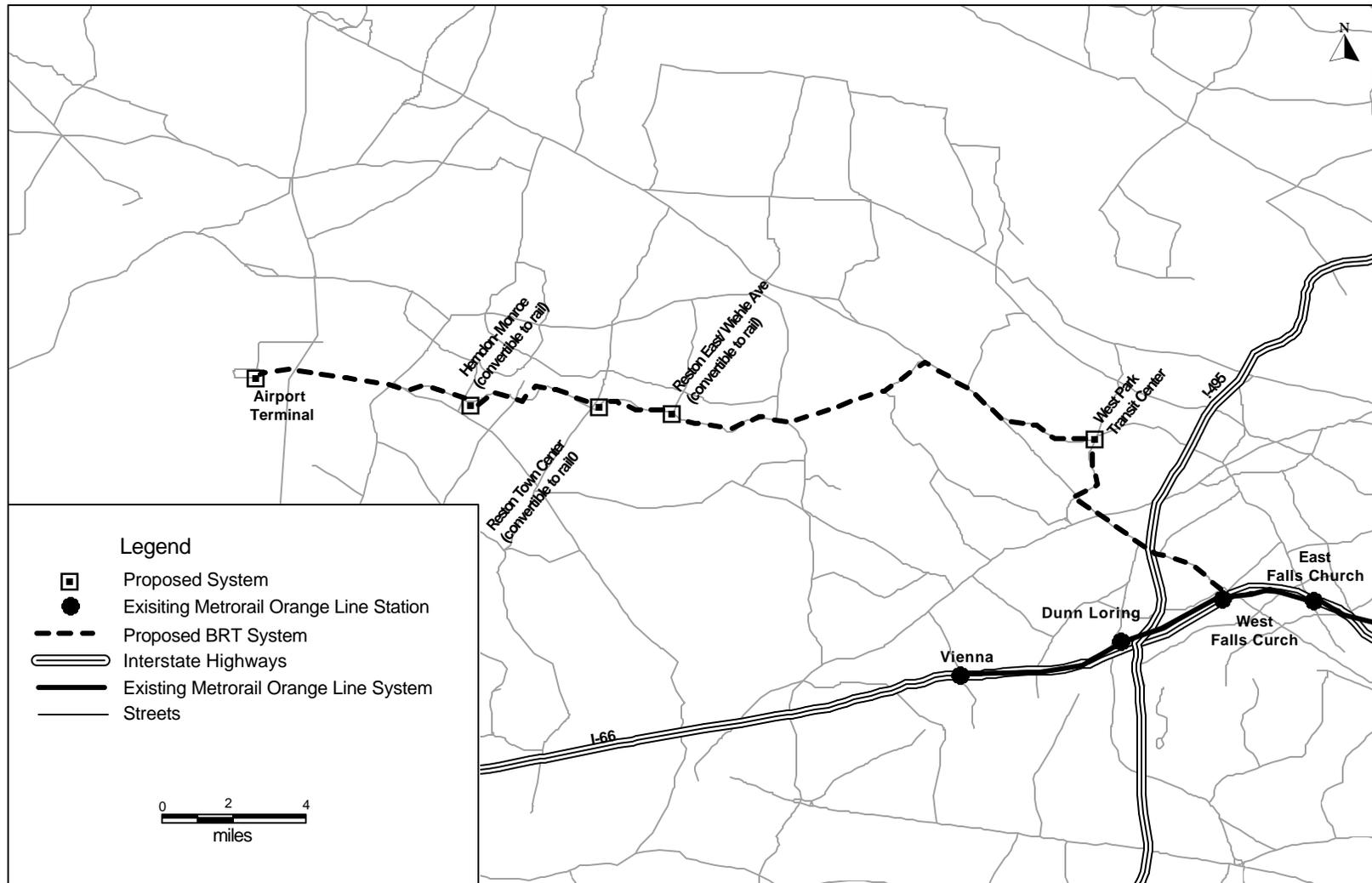
**Operating Cost Estimates and Contingencies:** Estimated operating and maintenance costs in the opening year of service, assumed to be 2006, total \$21.3 million. Project farebox revenues are forecast to meet 78 percent of project operating costs in 2006, with WMATA compact jurisdictions providing the remaining 22 percent. Over the entire time period from 2006-2025, farebox revenues are forecast to account for approximately 53 percent of required funding. Metrorail operating and maintenance costs are assumed to increase 3.5 percent per year in the short term and at a slightly higher rate in the longer term. The project fare structure is comparable to Metrorail rather than Metrobus. A Metrorail fare increase is assumed in FY 2004, followed by an increase at one-third the rate of inflation every three years thereafter. Metrobus and other system fares are projected to increase three percent annually, at the rate of inflation, while operating costs for these services are projected to rise at twice the rate of inflation. Estimating substantially higher rates of increase in costs than revenues results in overall financial estimates that should be conservative, allowing a substantial margin of error for higher than expected costs and revenue shortfalls.

**Existing and Committed Funding:** The only committed source of operating funds is passenger fares, but WMATA Compact jurisdictions have a solid track record of contributing the shares of operating funding determined through funding formulas. In addition, the relatively low levels of subsidy needed for project operations represent a minor burden on member jurisdictions. The proposed operating funding strategy, therefore, is reasonable and funding sources can be considered reliable. Loudoun County does not currently participate in funding the WMATA system.

**New and Proposed Funding Sources:** Proposed sources of operating funds exist, although the project represents a new use of Loudoun County funds.

# Dulles Corridor Bus Rapid Transit

## Washington, D.C. Metropolitan Area



# MARC Mid-Day Storage Facility

Washington, DC  
(November 2002)

## Description

The Maryland Transit Administration (MTA) has proposed construction of a Mid-Day Storage Facility as an improvement for the Maryland Commuter Rail (MARC) system. The proposed Mid-Day Storage Facility would be used for daytime equipment layover, minor repair, daily servicing and inspections of commuter rail train sets within the Amtrak Yard at Washington, DC's Union Station. (Platforms that had been used to store these trains at Union Station are no longer available due to the introduction of high-speed Amtrak service.) MTA will lease the five-acre site owned by Amtrak.

The new facility will be used to store up to seven trainsets that service MARC's Frederick and Penn Lines, as well as for coach and pantographs inspections, and daily servicing. Local storage will preclude the operating expense of sending trains back to Baltimore for mid-day storage.

The Mid-Day Storage Facility is one of four MARC system improvements being undertaken by MTA. The project is estimated to cost \$26.6 million in escalated dollars, with a proposed Section 5309 New Starts share of \$9.9 million. Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail Improvement
<b>Total Capital Cost (\$YOE):</b>	\$ 26.6 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$ 9.9 Million (37%)
<b>Annual Operating Cost:</b>	N/A

## Status

FTA issued a Categorical Exclusion in November 1999. The project is currently in Preliminary Engineering.

TEA-21 Section 3030(a)(41) authorizes the "MARC – Commuter Rail Improvements" for Final Design and Construction. Through FY 2002, Congress has appropriated \$9.9 million in Section 5309 New Starts funds, the entire Federal share, for this effort.

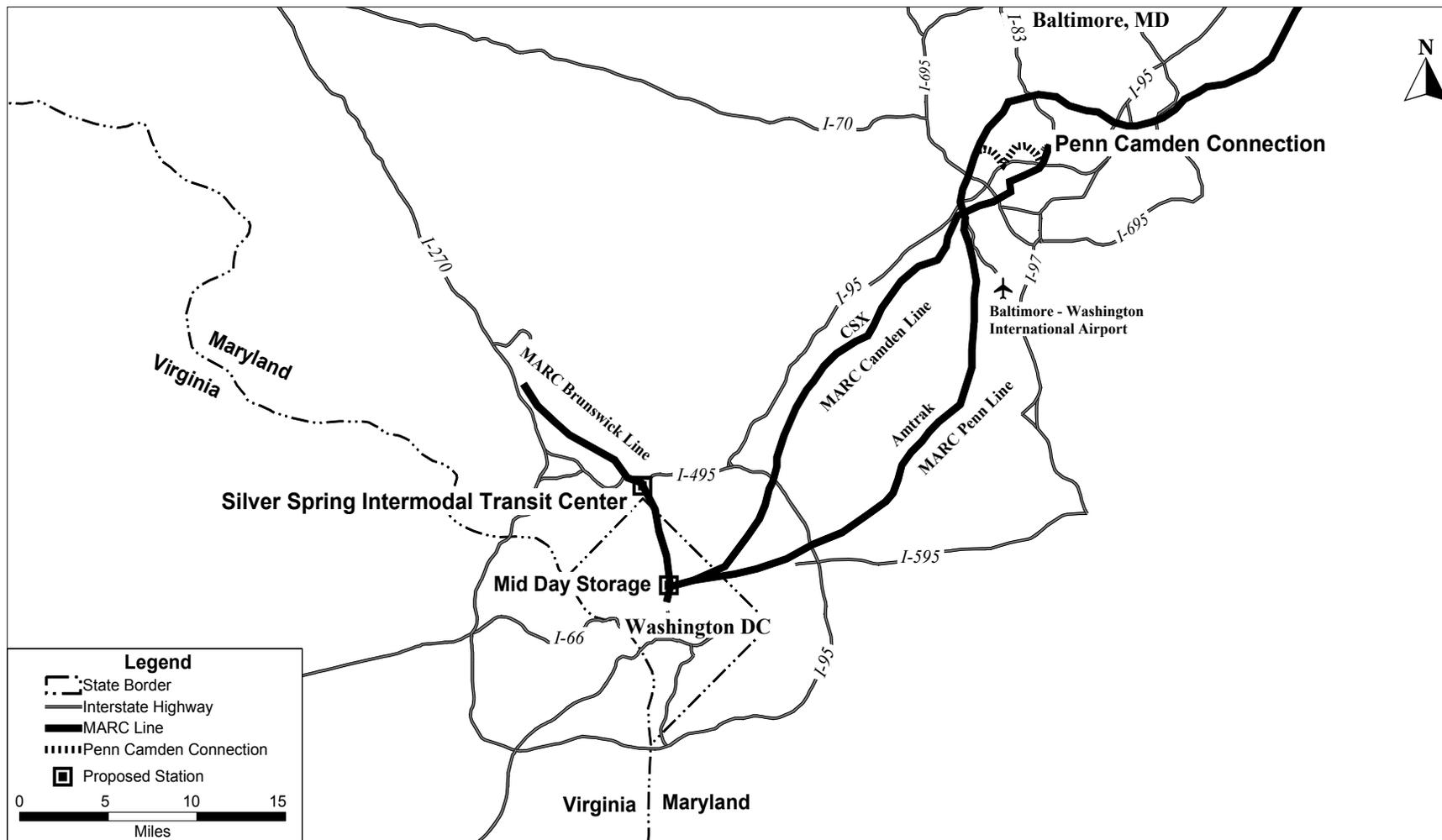
**Locally Proposed Financial Plan**

<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$9.9	37.2 %
<b>State:</b> Transportation Trust Fund	\$16.7	62.8 %
<b>Total:</b>	<b>\$26.6</b>	100.0 %

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions.  
Total may not add due to rounding.

# MARC Mid-Day Storage Facility

Washington, D.C.





# Wilsonville-Beaverton Commuter Rail

Washington County, Oregon  
(November 2002)

## Description

Washington County, Oregon, in conjunction with the Oregon Department of Transportation (ODOT), Tri-County Metropolitan Transportation District of Oregon (TriMet), Portland Metro (Metro), Clackamas County, and the cities of Wilsonville, Tualatin, Tigard and Beaverton, are proposing to design and construct a 14.7-mile commuter rail line in the Wilsonville-Beaverton Corridor. The proposed project would operate along portions of existing Union-Pacific railroad tracks and connect to Metro's existing Westside light rail system at the Beaverton Transit Center (BTC). As part of the proposed project, approximately 2,000 feet of new railroad trackage will be constructed at the northern terminus of the alignment near the BTC. The proposed project also includes the purchase of eight passenger rail cars, the construction of vehicle maintenance and dispatch facilities and multiple capital improvements. The proposed commuter rail project is estimated to have 4,650 average weekday boardings.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail 14.7 Miles, 5 Stations
<b>Total Capital Cost (\$YOE):</b>	\$120 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$72 Million (60%)
<b>Annual Operating Cost (2022 \$YOE):</b>	\$4.1 Million
<b>Ridership Forecast (2020):</b>	4,650 Average Weekday Boardings 2,600 Daily New Riders
<b>Opening Year Ridership Forecast (2005):</b>	2,410 Average Weekday Boardings
<b>FY 2004 Finance Rating:</b>	<b>Medium</b>
<b>FY 2004 Project Justification Rating:</b>	<b>Not Yet Available</b>
<b>FY 2004 Overall Project Rating:</b>	<b>Not Yet Available</b>

The Wilsonville-Beaverton Corridor extends from the City of Wilsonville northwest to Beaverton, Oregon. The northern portion of the corridor is owned by the Union-Pacific railroad, while the southern portion is owned by ODOT. The corridor will connect the two cities with several outlying jurisdictions. Five commuter rail stations are planned along the alignment. All proposed stations, with the exception of the BTC station, will have park-and-ride facilities.

Washington County seeks to develop a more diverse and balanced transportation system, specifically by providing another transit option for commuters in the Wilsonville-to-Beaverton corridor. The project will better link regional centers, town centers and employment areas and to capitalize on the public investment in the existing light rail system.

The project rating is *Not Yet Available* because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. In spring 2002, the project changed from exempt to non-exempt status because of a higher proposed New Starts funding amount and share. FTA continues to work with the project sponsor to develop this measure. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is complete.

The overall project rating applies to this *Annual Report on New Starts* and **reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions and refined financing plans.**

The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY2004. Future ratings of this project would be affected by that change.

## Status

In May 1997, Phase I of the *Washington County Interurban Rail Feasibility Study* was completed. The study determined that there were no technical, regulatory or legal issues that would prevent the implementation of a commuter rail line in the Wilsonville-Beaverton Corridor. Phase I resulted in the Oregon Legislature's approval to fund the initiation of a Phase II study to determine if the use of existing Union-Pacific freight railroad trackage offered a transportation solution significant enough to warrant the required capital and operating cost investments. Phase II was commissioned by interested jurisdictions located in the eastern portion of Washington County and was completed in April 1999. In June 2000, the Washington County Board of Commissioners unanimously adopted commuter rail as the Locally Preferred Alternative (LPA) for the corridor. The affected local governments also passed resolutions adopting the LPA. The project is also supported by the Joint Policy Advisory Committee on Transportation (JPACT) as one of its regional transportation priorities for seeking Federal funding in 2000.

The project was adopted into the long range transportation plan in June 1999. FTA approved Washington County's request to enter Preliminary Engineering on the project in July 2000. In July 2000, FTA authorized publication of the Draft Environmental Assessment (EA). In August 2000, the Metro Council adopted the financially constrained regional transportation plan, which includes the Wilsonville-Beaverton commuter rail project. TriMet will operate the commuter rail.

The Wilsonville-Beaverton commuter rail project was not authorized in TEA-21, however, the authorization was amended in the FY2002 appropriations to include the Wilsonville-Beaverton Commuter Rail. Through FY2002, Congress has appropriated \$11.0 million in Section 5309 New Starts funds to the project.

TriMet has submitted a request to enter Final Design. FTA is reviewing the request and will complete its evaluation after it receives the Transportation System User Benefit measure.

<b>Project Justification Quantitative Criteria</b>		
<b>Mobility Improvements Rating: Not Yet Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Average Employment Per Station</b>	7,234	
<b>Average Low Income Households Per Station</b>	62	
<b>Transportation System User Benefit Per Project Passenger Mile (Minutes)</b>	Not Yet Available	
<b>Environmental Benefits Rating: Medium</b>		
<b><u>Criteria Pollutant Reduced</u> (tons)</b>	<b><u>New Start vs. Baseline</u></b>	
<b>Carbon Monoxide (CO)</b>	84	
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	8	
<b>Hydrocarbons</b>	10	
<b>Particulate Matter (PM<sub>10</sub>)</b>	Not Yet Available	
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	2,966	
<b><u>Annual Energy Savings</u> (million BTU)</b>	38,553	
<b>Cost Effectiveness Rating: Not Yet Available</b>		
	<b><u>New Start vs. Baseline</u></b>	
<b>Cost per Transportation System User Benefit (current year dollars/hour)</b>	Not Yet Available	
<b>Operating Efficiencies Rating: Medium</b>		
	<b><u>Baseline</u></b>	<b><u>New Start</u></b>
<b>System Operating Cost per Passenger Mile (current year dollars)</b>	\$0.44	\$0.44

[ ] indicates an increase in emissions.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. FTA is reviewing the proposed use of the TSM alternative as the New Starts baseline for evaluation and rating purposes. The project will be evaluated for next year's *Annual Report on New Starts*.

## **Project Justification**

### **Rating: Not Yet Available**

The project justification rating is *Not Yet Available* because the transportation system user benefit measure used for cost effectiveness and mobility improvements was not submitted. Consequently, project justification could not be rated. In spring 2002, the project changed from exempt to non-exempt status because of a higher proposed New Starts funding amount and share. FTA continues to work with the project sponsor to develop the measure for cost effectiveness. FTA will rate the project and make that information available to Congress and other interested parties when the analysis is complete.

Based on 1990 Census data, there are an estimated 310 low-income households within a ½-mile radius of the proposed stations, representing 7.2 percent of all households located within ½-mile of the stations. There are an estimated 36,168 jobs within a ½-mile radius of the proposed stations. The Portland region is classified as a “maintenance area” for carbon monoxide and ozone. The project has an incremental cost-per incremental trip value of \$15.77.

## **Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns**

### **Rating: Medium-High**

The *Medium-High* rating reflects the relatively low station area population densities and employment served by the proposed transit project, but acknowledges the strong growth management and transit-supportive planning activities that have been undertaken in the Portland metropolitan region.

**Existing Conditions:** The project uses a portion of an active freight rail line between Wilsonville and Beaverton that traverses areas of low- to moderate-density commercial, industrial, and residential development in Washington County. Existing pedestrian-oriented character is good for a suburban rail line since three of the five stations are in older downtown areas with a mix of uses. Outside of these areas, though, development is more typical of suburban areas, with segregated residential, commercial, and industrial uses. Total employment and population served are relatively small (28,000 jobs and 11,000 residents, with an average residential density of 2,700 persons per square mile in station areas). Off-street parking is plentiful. At the Beaverton Transit Center, the project links with Metro’s existing light rail line to connect its riders with Hillsboro, downtown Portland, Gresham, and, with an additional transfer, the Portland International Airport.

**Future Plans Policies and Performance:** Oregon in general, and the Portland metropolitan region in particular, have a long history of planning ahead to manage the effects of growth and to protect open space from rapid, low-density development. Numerous enforceable state, regional, and local plans and policies strongly emphasize corridor and station area development and transit-friendly or pedestrian-oriented design. Beaverton, Tigard, Tualatin, and Wilsonville are within the Portland metropolitan urban growth boundary. As such they fall under the jurisdiction of Metro, whose primary mission is growth management. The *Region 2040 Growth Concept* and the *Transportation Planning Rule* require local jurisdictions to adopt zoning ordinances that provide for transit-supportive densities in light rail station areas and along transit corridors. All

of the jurisdictions in the commuter rail corridor have updated their comprehensive plans and are implementing ordinances in order to comply. Zoning in most station areas is consistent with established targets of 40 to 60 persons per acre. Four of the five commuter rail stations will be located within areas already designated as pedestrian districts in the *Regional Transportation Plan* and/or local plans, and funding has been targeted for pedestrian improvements. Minimum and maximum parking requirements in the station areas are consistent with the *Transportation Planning Rule* and lower than those generally found in suburban areas. The Transit-Oriented Development Program at Metro provides a mechanism to support transit-oriented development activities throughout the region. Oregon has adopted tax abatement legislation that allows local jurisdictions to adopt ordinances that provide tax abatement for transit-supportive developments, and these have been applied in existing LRT station areas. Two major mixed-use redevelopment projects have been proposed in station areas.

## Local Financial Commitment

### **Rating: Medium**

The *Medium* local financial commitment rating was determined by the *Medium* rating for the capital financing plan and the *Medium* rating for the operating financing plan.

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 40%**

### **Rating: Medium**

The project's financial plan includes Section 5309 New Starts funding and local funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$72.0	60.0 %
<b>State:</b> Lottery Revenue Bonds	\$35.0	29.2 %
<b>Local:</b> Washington Co. Gen. Funds	\$13.0	10.8 %
<b>Total:</b>	<b>\$120.0</b>	<b>100.0 %</b>

**NOTE:** Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Total may not add due to rounding.

## Stability and Reliability of Capital Financing Plan

### **Rating: Medium**

The *Medium* capital plan rating reflects the high quality of the local funding commitment (100 percent of funds are committed), and adequacy of all other components of the capital plan.

**Agency Capital Financial Condition:** TriMet demonstrates a solid financial condition regarding its capital base. It has received bond ratings of AA+ by Standard & Poor's and Aa1 by Moody's. The average age of the rail fleet is eight years and the average age of the bus fleet is 8.2 years.

**Capital Cost Estimate and Contingencies:** TriMet has sufficient capital resources to construct the project and continue to carry out other projects in their Capital Improvement Program. The project contingency of 10.5 percent is relatively low for a project that has completed Preliminary Engineering.

**Existing and Committed Funding:** All of the \$48 million in proposed non-Section 5309 funds are existing and committed. This includes \$35 million of lottery-backed revenue bonds and \$13 million of Washington County General Funds.

**New and Proposed Sources:** TriMet does not propose any new funding sources.

## Stability and Reliability of Operating Finance Plan

### **Rating: Medium**

The *Medium* operating rating reflects the detailed historical data and a reasonable level of detail for future bus and light rail operations. Little operating data, however, are provided for the project and no information is provided about the level of service to be operated or the anticipated spare ratio for the rail fleet.

**Agency Operating Financial Condition:** TriMet is in good operating condition. It has steadily expanded its service and at the close of FY2002 (June 2002), its current ratio of capital to debt was 1.4. There have been no service cutbacks.

**Operating Cost Estimates and Contingencies:** The commuter rail project will likely have an insignificant effect on TriMet operations. In its first full year of operation, the project will account for 1.4 percent of system-wide operating costs, and will generate less than one percent of system-wide passenger revenue. The operating cost estimate for the project may be understated, however. TriMet has very limited capacity to fund additional costs – it is projecting a general fund deficit through FY2007. Although the deficit would be funded from existing cash reserves, a slower than anticipated economic recovery could cause TriMet difficulty in funding its share of the project's operating deficit.

**Existing and Committed Funding:** All sources of the \$4.3 million annual operating funds for the project, which include passenger fares, the Washington County General Fund, and the TriMet

payroll tax, are committed. The Washington County General Fund will finance 53.5 percent and TriMet payroll tax revenues will finance 31.1 percent of operating and maintenance costs.

The Washington County contribution to operating and maintenance costs is a component of the June 2002 Memorandum of Agreement between the County and TriMet. These contributions will terminate in FY2011. The following year, TriMet will apply Section 5309 Rail Modernization funds to the project's operating and maintenance costs, and will increase its contribution from payroll tax revenues.

**New and Proposed Funding Sources:** Passenger fares are projected to fund 15.3 percent of the operating and maintenance costs.

# Wilsonville-Beaverton Commuter Rail Project

## Washington County, Oregon

