

# Annual Report on Funding Recommendations

Fiscal Year 2010

New Starts, Small Starts, and Paul S. Sarbanes  
Transit in Parks Program

Report of the Secretary of Transportation  
to the United States Congress  
Pursuant to 49 U.S.C. 5309(k)(1)

**2009**

Prepared by:  
Federal Transit Administration

Available from:  
Federal Transit Administration  
Office of Planning and Environment  
1200 New Jersey Avenue SE  
Washington, DC 20590

<http://www.fta.dot.gov>



## Table of Contents

<b>Executive Summary</b> .....	1
<b>Introduction</b> .....	3
<b>General Commitment Guidelines for New and Small Starts Projects</b> .....	4
<b>FY 2010 Funding Recommendations</b> .....	5
Existing Full Funding Grant Agreements (FFGA) .....	5
Existing Project Construction Grant Agreements (PCGA) .....	5
Pending Project Construction Grant Agreements .....	5
New Full Funding Grant Agreement Recommendations .....	6
Small Starts Funding Recommendations .....	8
Other Projects That May Meet Requirements for an FFGA or PCGA .....	14
Table 1 FY 2010 Funding for New Starts and Small Starts Projects .....	15
<b>Principles for New Starts Evaluation and Rating</b> .....	16
Table 2A Summary of FY 2010 Project Ratings .....	17
Table 2B Summary of FY 2010 Project Ratings .....	18
<b>Paul S. Sarbanes Transit in Parks Program</b> .....	21
Appendix A: New Starts Project Profiles .....	A-1
Appendix B: FY 2010 Evaluation and Rating Process .....	B-1
Appendix C: Alternative Transportation in Parks and Public Lands Program .....	C-1

## **Alphabetical List of Acronyms**

<b>Acronym</b>	<b>Name</b>
AA	Alternatives Analysis
ANPRM	Advance Notice of Proposed Rulemaking
ATPPL	Alternative Transportation in Parks and Public Lands
BRT	Bus Rapid Transit
CBD	Central Business District
CMAQ	Congestion Mitigation and Air Quality
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESWA	Early Systems Work Agreement
FONSI	Finding of No Significant Impact
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
FY	Fiscal Year
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
LONP	Letter of No Prejudice
LPA	Locally-Preferred Alternative
LRT	Light Rail Transit
MIS	Major Investment Study
MOS	Minimum Operable Segment
NEPA	National Environmental Policy Act
NPRM	Notice of Proposed Rulemaking
PE	Preliminary Engineering
PCGA	Project Construction Grant Agreement
ROD	Record of Decision
ROW	Right-of-Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century (1998)
STP	Surface Transportation Program
USC	United States Code
YOE	Year of Expenditure

## **Executive Summary**

This *Annual Report on Funding Recommendations*, issued by the Secretary of Transportation to help inform the appropriations cycle for the upcoming fiscal year, provides information on projects included in the Federal Transit Administration's (FTA) discretionary New Starts and Small Starts programs. These programs are part of the Major Capital Investment Grant Program provisions of 49 USC 5309, most recently reauthorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in August 2005.<sup>1</sup> New Starts projects are those requesting \$75 million or more in New Starts funds, or anticipating a total capital cost of \$250 million or more (49 USC 5309(d)). Small Starts projects are those requesting less than \$75 million in Small Starts funds and anticipating a total capital cost of less than \$250 million (49 USC 5309(e)).

FTA's discretionary Major Capital Investment Grant program is the Federal government's primary financial resource for supporting locally planned, implemented, and operated major transit capital projects. The program has helped to make possible dozens of new or extended transit fixed guideway systems across the country—heavy rail, light rail, commuter rail, bus rapid transit systems, and ferries. These public transportation investments, in turn, have improved the mobility of millions of Americans, provided alternatives to congested roadways, and fostered the development of more viable, safe, and livable communities.

This report provides vital funding and project information to Congress about the New and Small Starts programs. It also serves as guidance to project sponsors so that improvements in project development can be made.

This report also includes information about the Paul S. Sarbanes Transit in Parks Program, codified at 49 USC 5320, and formerly known as the Alternative Transportation in Parks and Public Lands Program. Section 5320 requires the Secretary of Transportation, in consultation with the Secretary of the Interior, to prepare an annual report on the allocation of amounts available to projects under the transit in parks program. The law further directs that the annual report on the transit in parks program be included in this *Annual Report*.

The information in this report is arranged in three appendices:

- **APPENDIX A: NEW AND SMALL STARTS PROJECT PROFILES** provides the status of 19 New Starts projects awarded Full-Funding Grant Agreements (FFGA); one Small Starts project awarded a Project Construction Grant Agreement (PCGA); detailed results of FTA's evaluation and rating of the project justification and local financial commitment criteria for 14 proposed major capital investments in preliminary engineering or final design; results of FTA's streamlined evaluation and rating of eight Small Starts and 13 Very Small Starts projects in project development (simple, low-risk projects that qualify for a highly simplified project evaluation and rating process by FTA); and brief

---

<sup>1</sup> The mandate for the *Annual Report* is a continuation of detailed provisions first established by the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) in 1998, and reauthorized by SAFETEA-LU, signed into law on August 10, 2005. SAFETEA-LU made changes to the New Starts program, including the creation of the Small Starts program.

summaries of the status of five projects in preliminary engineering or final design which are requesting less than \$25 million in New Starts funding and are, therefore, exempt from the New Starts evaluation and rating process until such time as a formal rulemaking implementing the provisions of SAFETEA-LU is completed. Most project profiles in this report reflect information as of November 2008 or earlier, since the end of November is the normal "cut-off" date for the *Annual Report* that is normally released with the President's Budget in early February of the following year. Because of the deferred release of the FY 2010 President's Budget until May 2009, several proposed New Starts and Small projects have advanced to an FFGA or PCGA or into a new milestone stage (preliminary engineering, final design or project development) between November 2008 and April 2009. The profiles for these projects reflect information as of April 2009.

- **APPENDIX B: FY 2010 EVALUATION AND RATING PROCESS** describes FTA's process for evaluating and rating New Starts projects currently in preliminary engineering and final design, including the measures and rating breakpoints used. Also covered here is the evaluation and rating process for Small Starts and Very Small Starts projects in project development.
- **APPENDIX C: PAUL S. SARBANES TRANSIT IN PARKS PROGRAM** describes the allocation of funds under this program as required by SAFETEA-LU under 40 USC 5320. SAFETEA-LU Section 3021, which amended Section 5320 of Title 49 USC, established a new program to fund transit projects in national parks and public lands. The program is implemented by the U.S. Department of Transportation in consultation with the U.S. Department of the Interior and other Federal land management agencies. Section 3021(m) of SAFETEA-LU stipulates that the annual report on the allocation of this program's funds be included in this *Annual Report*.

## Introduction

FTA and local sponsors of New Starts and Small Starts projects typically enter into a multi-year contractual agreement that formally establishes the maximum level of Federal Section 5309 New and Small Starts financial assistance and outlines the terms and conditions of Federal financial participation. For projects requiring \$75 million or more in New Starts funding, or with a total project cost of \$250 million or more, the requisite agreement is the Full Funding Grant Agreement (FFGA). For projects requiring less than \$75 million in Small Starts funding, with a total project cost of less than \$250 million, the requisite agreement is the Project Construction Grant Agreement (PCGA).

The FFGA or PCGA defines the project, including cost, scope, and schedule; commits to a maximum level of New Starts or Small Starts financial assistance (subject to appropriation); establishes the terms and conditions of Federal financial participation; defines the period of time for completion of the project; and helps FTA and the project sponsor manage the project in accordance with Federal law. (Note that FTA may administer Small Starts funding as a capital grant for projects whose total Small Starts funding request is less than \$25 million, and whose request can be met with a single year appropriation or with existing appropriations.)

The FFGA or PCGA assures the grantee of predictable Federal financial support for the project (subject to Congressional appropriations), while placing a limitation on the amount of this support. Thus, an FFGA or PCGA limits the exposure of the Federal government to cost increases that may result, for example, if project design, engineering, and/or project management is not adequately performed at the local level. While FTA is responsible for ensuring that planning projections are based on realistic assumptions and that design and construction follow acceptable industry practices, it is the responsibility of project sponsors to properly manage, design, engineer and construct projects. FTA is not directly involved in the design and construction of New Starts or Small Starts projects, but uses its Project Management Oversight Program to obtain independent feedback on project status and progress, including the establishment of scope, budget, and schedule, as well as to provide guidance on management, construction, and quality assurance practices.<sup>2</sup>

For projects under an FFGA or PCGA, this report includes a summary profile of the project scope, expected ridership, and implementation status. In a few cases, profiles for projects already in revenue operation are included in this report because additional funds are needed in FY 2010 to fulfill the FFGA.

The report also includes detailed information, evaluations, and ratings for all New and Small Starts projects that FTA has approved for, and are actively engaged in, preliminary engineering, final design, and Small Starts project development. Per FTA's June 2007 *Guidance on New Starts/Small Starts Policies and Procedures*, FTA no longer requires New Starts and Small Starts project sponsors to submit information for evaluation in the *Annual Report* if their project is not a candidate for funding, unless significant issues were raised in prior year evaluations that

---

<sup>2</sup> Additional information and guidance on developing FFGAs is contained in FTA Circular 5200.1A, Full Funding Grant Agreements Guidance (Dec. 5, 2002); and the FTA Rule on Project Management Oversight (49 CFR Part 633).

warranted a re-rating. Instead, the *Annual Report* conveys the most recent ratings of such projects, notes their progress, and discusses any significant issues since that evaluation.

Projects can be expected to continue to change as they progress through the development process. Hence, the ratings for projects that are not yet recommended for FFGAs or PCGAs should not be construed as statements about the ultimate ratings of those projects. Rather, the ratings provide assessments of the projects' strengths and weaknesses at the time they were rated.

## **General Commitment Guidelines for New and Small Starts Projects**

- Any project recommended for an FFGA or PCGA should meet the project justification, local financial commitment, and process criteria established by Sections 5309(d) and 5309(e) and be consistent with Executive Order 12893, *Principles for Federal Infrastructure Investments*, issued January 26, 1994.
- Existing FFGA and PCGA commitments should be honored before any new funding recommendations are made, to the extent that funds can be obligated for these projects in the coming fiscal year.
- The FFGA and PCGA define the terms of the Federal commitment to a specific project, including funding. Upon completion of an FFGA or PCGA, the Federal funding commitment has been fulfilled. Additional project funding will not be recommended. Any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee, although FTA works closely with grantees to identify and implement strategies for containing capital costs at the level included in the FFGA or PCGA at the time it was executed.
- Funding for initial planning efforts such as alternatives analysis is no longer eligible for Section 5309 funding under SAFETEA-LU, but may be provided through grants under the Section 5303 Metropolitan Planning program, the Section 5307 Urbanized Area Formula program, the Section 5339 Alternatives Analysis program or Title 23 "flexible funding".
- Firm funding commitments, embodied in FFGAs or PCGAs, will not be made until projects demonstrate that they are ready for such an agreement, i.e., the project's development and design has progressed to the point where its scope, costs, benefits, and impacts are considered firm and final.
- Funding should be provided to the most qualified investments to allow them to proceed through the process on a reasonable schedule, to the extent that funds can be obligated to such projects in the upcoming fiscal year. Funding decisions will be based on the results of the project evaluation process and resulting project justification, local financial commitment, and overall project ratings, and considerations such as project readiness and the availability of funds.
- Small Starts projects that request less than \$25 million in total Small Starts funding and whose request can be met with a single year appropriation or with existing appropriations are generally proposed to be funded under a one-year capital grant rather than a PCGA.
- FTA encourages overmatch of New Starts/Small Starts funding as a means of funding more projects and leveraging state, local, and other Federal financial resources.

FTA emphasizes that project evaluation and rating is an ongoing process. As proposed projects proceed through the project development process, information concerning costs, benefits, and impacts is refined and the ratings may be reassessed to reflect new information.

## **FY 2010 Funding Allocations and Recommendations**

A total of \$1,553.03 is recommended for allocation to existing or proposed New Starts FFGAs or Early Systems Work Agreements. An additional \$81.79 million in unallocated funding is proposed for recommendations for New Starts projects that may attain the FFGA milestone in the budget year but have not sufficiently progressed in project development for FTA to recommend them in the Budget request. A total of \$174.25 million is recommended for allocation for proposed Small Starts PCGAs. Of the \$81.79 million in unallocated funding, not to exceed \$25.6 million may be recommended for other Small projects that may attain the PCGA milestone in the budget year but have not sufficiently progressed in project development for FTA to recommend them in the Budget request. The Budget proposal also includes a one percent set-aside for management and oversight of \$18.27 million.

### ***Existing Full Funding Grant Agreements***

A detailed schedule of the multi-year funding commitment negotiated by FTA and the project sponsor to finance the federal New Starts share is included as Attachment 6 of each FFGA. Eighteen projects have existing FFGAs that commit FTA to request from Congress a specified level of major capital investment funding in a given fiscal year, based on the budget and schedule for the project. Table 1 presents FY 2010 commitments previously negotiated by FTA and reflected in Attachment 6 for these existing FFGAs. FTA has reviewed the progress of each of these 19 projects and is requesting \$1,123.03 million, which is the aggregate of the amounts reflected in the Attachment 6 for these projects for FY 2010. Descriptions of each of these projects can be found in Appendix A.

### ***Existing Project Construction Grant Agreement***

One project, the Pioneer Parkway EmX BRT in Springfield, Oregon, has an existing PCGA that commits FTA to request from Congress a specified level of major capital investment funding in a given fiscal year, based on the budget and schedule for the project. FTA is not requesting any funding in FY 2010 for this project. Appropriations received through FY 2009, combined with an allocation of American Reinvestment and Recovery Act Major Capital Investment funding will complete the Federal commitment to the project. A description of the project can be found in Appendix A.

### ***Pending Project Construction Grant Agreement***

The *Annual Report on Funding Recommendations* for FY 2009 for New Starts and Small Starts recommended the Portland Streetcar Loop project for funding but noted that it did not achieve a *Medium* rating for cost effectiveness. As the project meets all the statutory criteria, FTA is advancing the project for funding. The project has a *High* land use rating due to the Portland area's continuing commitment to transit supportive land use. The project's local financial commitment receives an automatic *Medium* under the streamlined Small Starts evaluation process. In addition, the project offers economic development and environmental benefits. As a result, the overall project rating is *Medium*.

FTA is currently negotiating a PCGA for the project. Through FY 2009, the project has received \$44.55 million in appropriations. The remainder of the Small Starts share of the project is expected to be provided through reallocated Section 5309 Major Capital Investment funding remaining from previous fiscal years. A description of the project can be found in Appendix A.

### ***New FFGA Recommendations***

Five projects are likely to be ready for an FFGA or Early Systems Work Agreement in FY 2010. These projects are in Final Design or expected to be approved into Final Design before summer 2009, the environmental process has been completed, and any needed railroad agreements have been negotiated and are at or near completion. For these projects, FTA recommends a total of \$430.00 million in New Starts funding in FY 2010. Appendix A provides detailed descriptions of the projects, including their most recent New Starts evaluation and rating. A brief description of each is provided below, along with a discussion of the recommended funding for each.

#### ***California: Sacramento South Corridor Phase 2***

The Sacramento Regional Transit District (RT) is proposing to implement an extension of its existing South Corridor light rail transit (LRT) line from its current terminus at Meadowview Road south and east to Cosumnes River College (CRC), near the intersection of State Highway 99 and Calvine Road. The four-station, 4.3-mile project would operate in an exclusive, primarily at-grade right-of-way requiring six street crossings along the alignment. The proposed extension will use existing RT vehicles and operate on 10-minute peak-period frequencies. Approximately 2,700 park-and-ride spaces would be constructed at three of the four proposed stations as part of the project.

The capital cost for the project is \$270.00 million, with a proposed New Starts share of \$135.00 million, or 50 percent. Congress has appropriated \$11.34 million for the project through FY 2009. FTA recommends \$40.00 million of New Starts funding for the project in FY 2010.

#### ***Florida: Orlando Central Florida Commuter Rail Transit Initial Operating Segment***

The Florida Department of Transportation (FDOT) is proposing to construct a new commuter rail system along the existing CSX "A" line Corridor from Volusia County through Lake County and Seminole County, to Orange County and downtown Orlando. The project would operate entirely at-grade, sharing track with existing freight and Amtrak services. The project includes the purchase of 10 vehicles and construction of 12 stations and approximately 2,100 parking spaces. In the opening year, service would operate every 30 minutes in the peak period and every 120 minutes during the off-peak, with no weekend service. By the forecast year of 2030, service would operate every 15 minutes in the peak period and every 30 minutes during the off-peak, with service every 60 minutes in the evenings and weekends.

The capital cost for the project is \$357.22 million, with a proposed New Starts share of \$178.61 million, or 50 percent. Congress has appropriated \$26.62 million for the project through FY 2009. FTA recommends \$40.00 million of New Starts funding for the project in FY 2010.

#### ***New Jersey: Northern New Jersey Access to the Region's Core***

The New Jersey Transit Corporation (NJT) is proposing to construct a new 9.0-mile commuter rail line adjacent to the existing Northeast (Rail) Corridor (NEC) between Secaucus, New Jersey and Manhattan. The Trans Hudson Express Tunnel, also known as Access to the Region's Core (ARC), includes the construction of two new tunnels under the Hudson River; new rail tracks between Secaucus Junction and New York Penn Station (PSNY); a new rail station underneath

34<sup>th</sup> Street in midtown Manhattan (with pedestrian linkages to PSNY); a storage yard in Kearny, New Jersey; and the purchase of specialized dual-powered rail locomotives (electric and diesel) and bi-level coaches. The purpose of the ARC project is to double rail capacity between New Jersey and New York City, thereby relieving congestion and transit delays, while providing for more direct, one-seat service to midtown Manhattan.

The capital cost for the project is \$8,699.98 million, with a proposed New Starts share of \$3,000 million, or 35 percent. Congress has appropriated \$80.39 million for the project through FY 2009. FTA recommends \$200.00 million of New Starts funding for the project in FY 2010.

***Texas: Houston North Corridor Light Rail Transit***

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 5.2-mile, eight station, double-track light rail transit (LRT) line from the existing University of Houston-Downtown station in the Houston central business district (CBD) to the Northline Mall Transit Center. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (4.2 miles), while the remaining 0.86 miles would be elevated to avoid two freight railroads (the Southern Pacific Railroad and the Burlington-Northern Santa Fe Railway). The project also includes the purchase of 24 light rail vehicles. Service would operate every six minutes during peak and off peak periods, including weekends, and would interline with the current METRO Rail Red Line in the CBD. No parking spaces would be built as part of the project.

The project profile contained in Appendix A of this report reflects conditions as of March 2008, when the North Corridor LRT project was approved into preliminary engineering. METRO plans to use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. As of April 2008 when this report was finalized, FTA was still conducting a review of METRO's Facility Provider contracts and financial plan, and an updated evaluation and rating was not possible.

The capital cost for the project has increased to approximately \$896.7 million, although this has not been finalized. As described in the paragraph above, the New Starts share is still being negotiated. Congress has appropriated \$17.23 million for the project through FY 2009. FTA recommends \$75.00 million of New Starts funding for the project in FY 2010.

***Texas: Houston Southeast Corridor Light Rail Transit***

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 6.2-mile, light rail transit (LRT) line from the Houston central business district (CBD) to the Palm Center in the vicinity of Martin Luther King, Jr. Boulevard/Griggs Road. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (6.12 miles), while the remaining 0.14 miles would be elevated to avoid a natural habitat (Brays Bayou). The project includes the purchase of 29 light rail vehicles and construction of 13 stations and a maintenance facility. Service would operate every six minutes during peak and off peak periods, including weekends, and would provide a transfer to the current METRO Rail Red Line via the existing Main Street Square station in the

CBD. No parking spaces would be built as part of the project. The proposed LRT line's Palm Center terminus would be adjacent to METRO's current Southeast Transit Center that includes a 1,100-space park-n-ride lot.

The project profile contained in Appendix A of this report reflects conditions as of March 2008, when the Southeast Corridor LRT project was approved into preliminary engineering. METRO plans to use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. As of April 2008 when this report was finalized, FTA was still conducting a review of METRO's Facility Provider contracts and financial plan, and an updated evaluation and rating was not possible.

The capital cost for the project has increased to approximately \$911.2 million, although this has not been finalized. As described in the paragraph above, the proposed New Starts share is still being negotiated. Congress has appropriated \$17.23 million for the project through FY 2009. FTA recommends \$75.00 million of New Starts funding for the project in FY 2010.

### ***Small Starts Funding Recommendations***

The President's Budget for FY 2010 requests \$174.27 million for 16 projects that qualify under the Small Starts program, which is defined in SAFETEA-LU as transit capital investment projects with a total capital cost of less than \$250 million and a Section 5309 Small Starts share of less than \$75 million. In July 2007, FTA issued *Updated Interim Guidance and Instructions for Small Starts*, which documents procedures for evaluating and advancing projects into Small Starts project development for the FY 2010 evaluation cycle. The *Interim Guidance* further establishes the eligibility parameters for "Very Small Starts" projects, a subset of the lowest-cost Small Starts that may follow an even more simplified project development and evaluation process.

Demand for the Small Starts program continues to increase. FTA has approved six projects into Small Starts project development since last year; each of these projects achieved at least a *Medium* rating against the Small Starts criteria identified in SAFETEA-LU and implemented through the Small Starts *Interim Guidance*.

Of the eight Small Starts projects and 13 Very Small Starts projects profiled in this report, 16 proposed projects demonstrated sufficient readiness to be considered for funding in the FY 2010 President's Budget. Most of these projects are proposed to be funded under a multi-year Project Construction Grant Agreement. However, if a project requests less than \$25 million in Small Starts funding or has received its full appropriations, FTA will award funds in a single-year capital grant rather than a PCGA.

Appendix A provides a detailed description of each of the Small Starts and Very Small Starts projects, including their most recent evaluations and ratings. Brief summaries of the FY 2010 Small Starts and Very Small Starts funding recommendations are below.

***Arizona – Mountain Links Bus Rapid Transit***

The Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) is proposing to construct and operate a 5.8-mile bus rapid transit (BRT) line serving the campus of Northern Arizona University (NAU), nearby shopping centers, and downtown Flagstaff. The proposed line will combine two existing local bus routes as well as an on-campus shuttle system and would feature 1.3 miles of dedicated guideway. The project includes 24 new stations, signal prioritization, and the purchase of eight electric-hybrid vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project is a Very Small Start.

The capital cost for the project is \$10.41 million, with a proposed Small Starts share of \$6.24 million, or 60 percent. Congress has appropriated \$5.56 million for the project through FY 2009. FTA recommends \$681,942 of Small Starts funding for the project in FY 2010.

***California – Livermore-Amador Route 10 Bus Rapid Transit***

The Livermore Amador Valley Transit Authority (LAVTA) is proposing to construct and operate a 17.3-mile arterial and highway-running bus rapid transit (BRT) line serving the communities of Livermore and Dublin. The project includes 49 new stations, signal prioritization, roadway improvements, and branding. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project is a Very Small Start.

The capital cost for the project is \$21.66 million, with a proposed Small Starts share of \$10.93 million, or 79 percent. Congress has appropriated \$10.85 million for the project through FY 2009. FTA recommends \$79,900 of Small Starts funding for the project in FY 2010.

***California – Los Angeles Metro Rapid Bus System Gap Closure***

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is proposing to construct and operate eight street-running bus rapid transit (BRT) lines that would connect existing Metro Rapid Bus routes, effectively completing a regional arterial BRT network. The proposed lines have been identified for their potential to reduce end-to-end travel times throughout the existing Metro Rapid Bus system. In total, the project includes 247 new stations spread over 120 miles. The proposed service would operate with existing buses at 10 minute headways during the peak period, and an average of 15 minute headways during off-peak hours. The project is a Very Small Start.

The capital cost for the project is \$34.55 million, with a proposed Small Starts share of \$16.68 million, or 48 percent. Congress has appropriated \$16.68 million for the project through FY 2009. FTA recommends \$23,326 of Small Starts funding for the project in FY 2010.

***California – Los Angeles Wilshire Boulevard Bus Only Lane***

The Los Angeles County Metropolitan Transportation Authority (LACMTA), in coordination with the Los Angeles Department of Transportation (LADOT), is proposing to implement a dedicated bus lane along portions of a 12.5-mile stretch of Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica. The project features 9.6 miles of curb lanes converted into an exclusive facility during peak-period operations. The lanes will be differentiated in their appearance with pavement markings and line delineators, and will be

enforced by the Los Angeles Police Department for moving violations. The project is a Very Small Start.

The capital cost for the project is \$31.51 million, with a proposed Small Starts share of \$23.32 million, or 74 percent. Congress has appropriated \$9.76 million for the project through FY 2009. FTA recommends \$13.56 million of Small Starts funding for the project in FY 2010.

***California – Monterey Bay Rapid Transit***

Monterey Salinas Transit (MST) is planning the Monterey Bay Rapid Transit, a 6.7-mile Bus Rapid Transit line from the Edgewater Transit Exchange in Salinas, through Monterey and the Transit Plaza, to the Canary Row and the Monterey Bay Aquarium. Twenty-one new stations would be constructed and 15 buses from the existing fleet would operate on the alignment. When completed, the project would provide a continuous bus rapid transit system connecting the heavily transit-dependent communities of Seaside to the employment and tourist activity centers in Monterey. The project is a Very Small Start.

The capital cost for the project is \$3.54 million, with a proposed Small Starts share of \$2.83 million, or 80 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$2.83 million of Small Starts funding for the project in FY 2010.

***California – Riverside Perris Valley Line***

The Riverside County Transportation Commission (RCTC), in conjunction with the Southern California Regional Rail Authority, is proposing to construct a 24.35-mile extension to the Metrolink regional commuter rail system. The project is an extension of the existing Route 91 commuter rail line between Los Angeles and downtown Riverside southeast in an alignment parallel to the Ramona Expressway (I-215), serving the communities of Alessandro, Moreno Valley, and Perris, terminating at South Perris. The project includes five new stations and park-and-ride lots to accommodate 1,810 vehicles, as well as the acquisition of three bi-level coaches. The project would operate with 30-minute headways during the morning and evening peak periods, as well as a single mid-day train, in the anticipated opening year of 2011. The project is a Small Start.

The capital cost estimate for the project is \$168.88 million, with a proposed Small Starts share of \$75.00 million, or 45 percent. However, in summer 2008, there was a major collision between a Metrolink Commuter Train and a Union Pacific Train in Chatsworth, California, that has resulted in a major review of safety procedures throughout the entire Metrolink system, including the proposed Perris Valley Line. Additions to the project scope are expected to address safety concerns, which will require additional environmental review and likely increase the project cost. The project schedule still shows receipt of a PCGA during FY 2010. The project has received \$46.51 million in appropriations through FY 2009 that could be used to fund the initial year of a PCGA if awarded. Thus, the project is not recommended to receive any additional funding in FY 2010.

***California – San Bernadino E Street Corridor sbX Bus Rapid Transit***

Omnitrans and the City of San Bernardino are proposing to construct a 16.5-mile bus rapid transit (BRT) project along E Street in San Bernardino. The project would provide a dedicated bus travel lane through the majority of the corridor from north of California State University at San Bernardino, generally following Kendall Drive south to E Street, through downtown San Bernardino, the City of Loma Linda, and through the Loma Linda University Medical Center to

the VA Hospital, where the project would terminate. The project includes 17 new stations, improvements to E Street to accommodate exclusive BRT operations, and 14 new low-floor buses. Service would operate at 10-minute headways during weekday peak periods and 15 minute off-peak headways. The project is a Small Start.

The capital cost for the project is \$163.39 million, with a proposed Small Starts share of \$75.00 million, or 46 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$32.37 million of Small Starts funding for the project in FY 2010.

***California – San Diego Mid-City Rapid***

The San Diego Association of Governments (SANDAG), in conjunction with the San Diego Metropolitan Transit System (MTS), is proposing a nearly 10-mile bus rapid transit (BRT) line connecting downtown San Diego and San Diego State University (SDSU). The BRT alignment would run primarily along three of the region’s densest urban travel corridors: Broadway in downtown; Park Boulevard through North Park and Hillcrest; and El Cajon Boulevard, running east-west through several of San Diego’s older and densely populated “Mid-City” neighborhoods. The project includes 11 enhanced bus shelters in each travel direction with real-time passenger information systems; traffic signal priority throughout the corridor; and 15 low-floor advanced technology buses, which will provide a unique identity differing it from local bus service in the corridor. Service is proposed to operate at ten-minute peak period frequencies. The project is a Very Small Start.

The capital cost for the project is \$43.30 million, with a proposed Small Starts share of \$21.65 million, or 50 percent. Congress has appropriated \$19.29 million for the project through FY 2009. FTA recommends \$2.36 million of Small Starts funding for the project in FY 2010.

***California – San Joaquin Metro Express-Airport Way Corridor Bus Rapid Transit***

The San Joaquin Regional Transit District (RTD) is planning the Metro Express- Airport Way Bus Rapid Transit (BRT), a 7.2 -mile BRT line from Downtown Stockton to the Stockton Metropolitan Airport. Fourteen new stations would be constructed and five buses would be purchased to augment the existing fleet. The Airport-Way BRT will connect to the existing North South BRT line and provide rapid bus service through the center of the Stockton’s primary population and employment centers. The project is a Very Small Start.

The capital cost for the project is \$9.74 million, with a proposed Small Starts share of \$2.81 million, or 29 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$2.81 million of Small Starts funding for the project in FY 2010.

***Colorado – Fort Collins Mason Corridor Bus Rapid Transit***

The City of Fort Collins, Colorado, is proposing a 5.0-mile bus rapid transit (BRT) system within its Mason Transportation Corridor (MTC) which extends from Maple Street in downtown Fort Collins to Harmony Road. The project would operate at-grade in mixed traffic from the existing North Transit Center 1.2 miles to the northern edge of Colorado State University and continue in a 3.8-mile exclusive ROW to the proposed South Transit Center. Service would operate at ten-minute peak frequencies. The project includes construction of the South Transit Center, traffic signal priority in general purpose lanes, a bus guideway facility, eight transit stations, four enhanced bus stops, modifications to the existing Downtown Transit Center, 250 park-and-ride spaces, unique project branding, and five new low-floor vehicles. The project is a Small Start.

The capital cost for the project is \$81.97 million, with a proposed Small Starts share of \$65.58 million, or 80 percent. Congress has appropriated \$11.07 million for the project through FY 2009. FTA recommends \$54.51 million of Small Starts funding for the project in FY 2010.

***Colorado – Roaring Fork Valley Bus Rapid Transit Project***

The Roaring Fork Transportation Authority (RFTA) is planning a 38.8-mile Bus Rapid Transit (BRT) line from Aspen to Glenwood Springs. When completed, the project is expected to provide faster transit service connecting the communities of Aspen, Snowmass, Woody Creek, Basalt, El Jebel, Carbondale and Glenwood Springs. Nine new stations and 300 park and ride spaces would be constructed as part of the project, and fifteen low-floor buses would be purchased to augment the existing fleet. The project will use existing high occupancy vehicle lanes and traffic signal priority to provide faster, more reliable transit service, and will include branded stations and vehicles. The project is a Very Small Start.

The capital cost for the project is \$46.40 million, with a proposed Small Starts share of \$25.99 million, or 56 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$810,000 of Small Starts funding for the project in FY 2010.

***Massachusetts – Fitchburg Commuter Rail Improvements***

The Montachusett Regional Transit Authority (MART) in conjunction with the Massachusetts Bay Transportation Authority (MBTA), has proposed to modernize an existing commuter rail line to provide improved service and reliability for riders at 18 urban and suburban stations over a 50-mile corridor extending from Fitchburg to Boston's North Station. Owned by the MBTA and operated under contract by the Massachusetts Bay Commuter Rail (MBCR) Company, improvements to the Fitchburg Line will include installation of approximately 8.5-miles of double track from Ayer to South Acton, and through Waltham Station, resulting in double track operations throughout the entirety of the line; upgrade of horizontal and vertical track alignment to achieve a maximum 80 mph operation compared with the current 60 mph maximum speed; construction of three stations with high-level platforms to replace three mini-high platforms displaced by double tracking; replacement of an outdated wayside signal control system with in-cab signal control; improvement of four highway grade crossings; installation of fiber-optic cable along the route; installation of additional storage track at the Willows Freight Rail Yard, and other improvements. The project is a Small Start.

The capital cost for the project is \$149.98 million, with a proposed Small Starts share of \$74.99 million, or 50 percent. Congress has appropriated \$37.54 million for the project through FY 2009. FTA recommends \$37.45 million of Small Starts funding for the project in FY 2010.

***Kansas – Kansas City Troost Corridor Bus Rapid Transit***

The Kansas City Area Transportation Authority (KCATA) is proposing to construct and operate an approximately nine-mile long street-running bus rapid transit (BRT) line along Troost Avenue, terminating in downtown Kansas City, Missouri. The proposed line runs roughly one mile west and parallel to the existing six-mile "MAX" BRT route that opened for service in July 2005. The Troost Corridor BRT project includes 25 new stations with a real-time passenger information system, signal prioritization, and the purchase of 15 low-floor, branded vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project is a Very Small Start.

The capital cost for the project is \$30.73 million, with a proposed Small Starts share of \$24.58 million, or 80 percent. Congress has appropriated \$24.57 million for the project through FY 2009. FTA recommends \$6,022 of Small Starts funding for the project in FY 2010.

***Texas – Austin MetroRapid Bus Rapid Transit***

The Capital Metropolitan Transportation Authority proposes to construct a 37.5-mile street-running bus rapid transit (BRT) system along two interconnected corridors: the 21-mile North Lamar/South Congress Corridor and the 16.5-mile Burnet/South Lamar Corridor. The North Lamar/South Congress Corridor extends from the North Interstate Highway 35 park-n-ride lot at Tech Ridge to the planned South IH-35 Transit Center. The Burnet-South Lamar Corridor extends from St. David's North Austin Medical Center to 38<sup>th</sup> Street at West Avenue near the Medical Center. The BRT lines would share a 3-mile segment in central Austin between 38<sup>th</sup> Street, north of the University of Texas-Austin, and Cesar Chavez Street at the southern end of downtown Austin. The project includes 18 paired stations in the North Lamar/South Congress Corridor and 17 paired stations in the Burnet/South Lamar Corridor, with a real-time passenger information system, traffic signal priority, and the purchase of 40 low-floor, multi-door, branded vehicles. The service would operate with ten-minute headways during peak periods and 15-minute headways during off-peak periods. The project is a Very Small Start.

The capital cost for the project is \$47.03 million, with a proposed Small Starts share of \$37.62 million, or 80 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$17.39 million of Small Starts funding for the project in FY 2010.

***Washington – Bellevue-Redmond Bus Rapid Transit***

The King County Department of Transportation, Metro Transit Division (King County Metro) is proposing to construct and operate a 9.25-mile long street-running bus rapid transit (BRT) line connecting downtown Bellevue, Crossroads Mall, the Overlake urban center, and downtown Redmond. The scope includes 12 new stations, real-time bus arrival information, signal prioritization, and 18 low-floor hybrid vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project is a Very Small Start.

The capital cost for the project is \$26.95 million, with a proposed Small Starts share of \$20.21 million, or 75 percent. Congress has appropriated \$10.84 million for the project through FY 2009. FTA recommends \$9.37 million of Small Starts funding for the project in FY 2010.

***Washington – Seattle Pacific Highway South Bus Rapid Transit***

The King County Department of Transportation, Metro Transit Division (King County Metro) proposes to construct and operate a 10.9-mile bus rapid transit route extending from the City of Tukwila to the City of Federal Way, south of Seattle. The project includes 14 new stations, traffic signal priority, and the purchase of up to 16 low-floor, branded, diesel-hybrid vehicles. The proposed service would operate at grade with ten minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project is a Very Small Start. The project is a Very Small Start.

The capital cost for the project is \$25.07 million, with a proposed Small Starts share of \$14.08 million, or 56 percent. Congress has appropriated \$14.07 million for the project through FY 2009. FTA recommends \$6,815 of Small Starts funding for the project in FY 2010, which will complete the Federal Small Starts share.

***Other Projects that May Meet the Requirements for an FFGA/PCGA in FY 2010***

The President's Budget for FY 2010 includes \$81.79 million for other projects that may meet the requirements for an FFGA or PCGA in FY 2010. It would be premature for FTA to identify by name in this report those projects that do not yet fully meet the threshold for a funding recommendation, but are likely to qualify for such a recommendation before the end of FY 2010. By reserving funding for additional, but unspecified, FFGAs or PCGAs in FY 2010, FTA recognizes that a project's advancement does not necessarily coincide with the Federal budget process. Project sponsors can expedite project development as they overcome project uncertainties, address local funding issues, and utilize innovative procurement and delivery practices. Reservation of these funds allows FTA to be poised to recommend the funding of additional qualified projects as soon as they are ready.

Table 1 - FY 2010 Funding for New Starts and Small Starts Projects

Project	Overall Project Rating	FY 2008 and Previous Funding	FY 2009 Omnibus Appropriations Act	FY 2009 American Recovery and Reinvestment Act	FY 2010 President's Budget	Remaining FFGA NS Funding	Total FFGA NS Funding
<b>Totals by Phase</b>							
Existing New Starts Full Funding Grant Agreements		\$5,247,730,047	\$1,273,243,053	\$739,560,000	\$1,123,028,374		
Recommended Full Funding Grant Agreements and Early System Work Agreements		70,628,756	82,170,000	0	430,000,000		
Project Construction Grant Agreements		0	293,040	2,940,000	0		
Pending Project Construction Grant Agreements		30,450,000	44,550,000	0	0		
Small Starts Project Development		67,331,890	139,411,768	0	174,251,117		
Other New Starts/Small Starts Projects		0	0	0	81,790,079		
Oversight Activities		46,230,000	18,092,500	7,500,000	18,273,430		
Ferry Capital Projects (AK or HI)		54,910,000	14,850,000	0	0		
Denali Commission		14,900,000	4,950,000	0	0		
<b>GRAND TOTAL</b>		<b>\$5,532,180,693</b>	<b>\$1,577,560,361</b>	<b>\$750,000,000</b>	<b>\$1,827,343,000</b>		
<b>Existing New Starts Full Funding Grant Agreements</b>							
AZ Phoenix, Central Phoenix/East Valley Light Rail	FFGA	\$399,068,097	\$90,882,000	\$36,000,000	\$61,249,903	\$0	\$587,200,000
CA Los Angeles, Metro Gold Line Eastside Extension	FFGA	333,593,449 (1)	80,784,000	66,740,000	9,582,551	0	490,700,000
CO Denver, Southeast Corridor LRT	FFGA	523,968,790	1,020,898		10,312	0	525,000,000
CO Denver, West Corridor LRT	FFGA	79,101,000	59,400,000	40,000,000	100,000,000	30,179,000	308,680,000
DC Washington DC Metropolitan Area, Largo Metrorail Extension	FFGA	329,300,000 (2)	34,353,000		347,000	0	364,000,000
IL Chicago, Ravenswood Line Extension	FFGA	215,045,596	30,169,660		304,744	0	245,520,000
MN Minneapolis-Big Lake, Northstar Corridor Rail	FFGA	85,643,940	70,454,399		711,661	0	156,810,000
NJ Northern New Jersey, Hudson-Bergen MOS-2	FFGA	498,896,140	1,092,821		11,039	0	500,000,000
NY New York, Long Island Rail Road East Side Access	FFGA	1,098,466,826	207,527,659	195,410,000	215,000,000	915,709,515	2,632,114,000
NY New York, Second Avenue Subway Phase I	FFGA	201,228,349	274,920,030	78,870,000	197,182,000	547,799,621	1,300,000,000
OR Portland, South Corridor I-205/Portland Mall LRT	FFGA	158,400,000	80,784,000	32,000,000	74,229,000	0	345,413,000
PA Pittsburgh, North Shore LRT Connector	FFGA	235,029,671 (3)	664,176		6,153	0	235,700,000
TX Dallas, Northwest/Southeast LRT MOS	FFGA	185,716,000	87,094,969	78,390,000	86,249,717	262,549,314	700,000,000
UT Salt Lake City, Mid Jordan LRT	FFGA	20,090,050	19,800,000	90,890,000	100,000,000	197,519,950	428,300,000
UT Salt Lake City, Weber County to Salt Lake City Commuter Rail	FFGA	180,014,510	80,784,000		80,000,000	148,547,490	489,346,000
VA Northern Virginia, Dulles Corridor Metrorail Project Extension to Wiehle Ave.	FFGA	213,414,364	28,809,000	77,260,000	85,000,000	495,516,636	900,000,000
WA Seattle, Central Link Initial Segment	FFGA	471,153,265	25,702,441		3,144,294	0	500,000,000
WA Seattle, University Link LRT Extension	FFGA	19,600,000	99,000,000	44,000,000	110,000,000	540,400,000	813,000,000
<b>Total Existing New Starts Full Funding Grant Agreements</b>		<b>\$5,247,730,047</b>	<b>\$1,273,243,053</b>	<b>\$739,560,000</b>	<b>\$1,123,028,374</b>		<b>\$11,521,783,000</b>
<b>Recommended Full Funding Grant Agreements and Early System Work Agreements</b>							
CA Sacramento, South Corridor Phase 2 (FFGA)	Medium	\$4,410,000	\$6,930,000		\$40,000,000		
FL Orlando, Central Florida Commuter Rail Transit -- Init. Oper. Seg. (FFGA)	Medium	13,753,030	12,870,000		40,000,000		
NJ Northern New Jersey, Access to the Region's Core (ESWA)	Medium-High	32,865,726	47,520,000		200,000,000		
TX Houston, North Corridor LRT (FFGA)	Medium	9,800,000	7,425,000 (4)		75,000,000		
TX Houston, Southeast Corridor LRT (FFGA)	Medium	9,800,000	7,425,000 (4)		75,000,000		
<b>Total Recommended Full Funding Grant Agreements and Early System Work Agreements</b>		<b>\$70,628,756</b>	<b>\$82,170,000</b>	<b>\$0</b>	<b>\$430,000,000</b>		
<b>Project Construction Grant Agreements</b>							
OR Springfield, Pioneer Parkway EmX BRT	PCGA		\$293,040	\$2,940,000			
<b>Total Project Construction Grant Agreements</b>		<b>\$0</b>	<b>\$293,040</b>	<b>\$2,940,000</b>	<b>\$0</b>		
<b>Pending Project Construction Grant Agreements</b>							
OR Portland, Streetcar Loop	Medium	\$30,450,000 (5)	\$44,550,000				
<b>Total Project Construction Grant Agreements</b>		<b>\$30,450,000</b>	<b>\$44,550,000</b>	<b>\$0</b>	<b>\$0</b>		
<b>Small Starts Projects</b>							
AZ Flagstaff, Mountain Links BRT	Medium		\$5,558,058		\$681,942		
CA Livermore, Livermore-Amador Route 10 BRT	Medium	2,940,000	7,910,100		79,900		
CA Los Angeles, Metro Rapid Bus System Gap Closure	Medium-High	16,347,380	329,294		23,326		
CA Los Angeles, Wilshire Boulevard Bus-Only Lane	Medium		9,758,526		13,558,474		
CA Monterey, Monterey Bay Rapid Transit	Medium		0		2,830,042		
CA Riverside, Perris Valley Line	Medium-High	1,960,000	44,550,000 (6)		0		
CA San Bernardino, E Street Corridor sbX BRT	Medium		0		32,370,000		
CA San Diego, Mid-City Rapid	Medium-High		19,290,150		2,359,850		
CA San Joaquin, Metro Express - Airport Way Corridor BRT Project	Medium-High		0		2,808,825		
CO Fort Collins, Mason Corridor BRT	Medium		11,070,180		54,505,728		
CO Roaring Fork Valley, BRT Project	Medium-High		0		810,000		
MA Fitchburg, Commuter Rail Improvements	Medium-High	7,840,000	29,700,000		37,452,000		
MO Kansas City, Troost Corridor BRT	Medium	24,450,030	123,948		6,022		
TX Austin, MetroRapid BRT	Medium		0		17,390,000		
WA King County, Bellevue - Redmond BRT	Medium		10,842,807		9,368,193		
WA King County, Pacific Highway South BRT	Medium	13,794,480	278,705		6,815		
<b>Total Small Starts Projects</b>		<b>\$67,331,890</b>	<b>\$139,411,768</b>	<b>\$0</b>	<b>\$174,251,117</b>		
<b>Other New Starts/Small Starts Projects</b>							
<b>Total Other New Starts/Small Starts Projects</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$81,790,079</b>		

(1) Does not include \$3,873,958 in prior year funds not included in FFGA.

(2) Project completed original FFGA funding in FY 2005. The FFGA was amended on June 22, 2006 to include a total of \$104,000,000 over FYs 2007 through 2009.

(3) Does not include \$1,710,057 in prior year funds received for FEIS.

(4) FY 2009 allocation for Houston Metropolitan Transit Authority Advanced Transit Program/METRO Solutions-Phase 2 is shown evenly split between Houston North and Southeast Corridor projects.

(5) FY 2007 unallocated funds in the amount of \$30,450,000 will be allocated to the project.

(6) PCGA recommended, however, FY 2010 funding not needed.

## **Principles for New Starts Evaluation and Rating**

The projects profiled in this report are the culmination of an extensive evaluation and rating process (see Appendix B for details). SAFETEA-LU established a ratings scale for candidate New Starts and Small Starts projects: *High, Medium-High, Medium, Medium-Low, and Low*. Only those projects rated *Medium* or higher may be advanced through the New Starts and Small Starts project development process. As they progress through project development, projects that continue to be rated *Medium* or higher will be eligible for consideration for multi-year funding recommendations in the President's budget if funding is available, the proposed project scope, cost estimate, and budget are considered firm and reliable, and local funding commitments are in place or expected to be in place at the time of a grant agreement.

Tables 2A and 2B present the ratings for all projects currently advancing through the New Starts and Small Starts development process. Projects are rated against a number of measures which reflect the project justification and local financial commitment criteria established by statute. The FY 2010 project evaluation process for New and Small Starts is similar to the process used in the evaluation of projects included in the FY 2004-2009 *Annual Reports*, and is consistent with FTA's *Final Rule on Major Capital Investment Projects* issued on December 7, 2000, the 2006 through 2008 *Guidance on New Starts/Small Starts Policies and Procedures* documents, and the 2007 *Updated Interim Guidance and Instructions for Small Starts*.

In the past year, four New Starts projects have moved from final design to Full Funding Grant Agreements (FFGAs):

- Mid-Jordan LRT in Salt Lake City, Utah;
- West Corridor LRT in Denver, Colorado;
- University Corridor LRT in Seattle, Washington; and
- Dulles Corridor Metrorail–Extension to Wiehle Avenue in Northern Virginia.

In addition, since publication of the FY 2009 report, several projects have been approved into New Starts Preliminary Engineering or Small Starts Project Development and are included in Appendix A of this report for the first time. These include:

### Approved into New Starts Preliminary Engineering

- Tucson, AZ - Modern Streetcar (“exempt” project)
- Denver, CO - East Corridor
- Denver, CO - Gold Line
- Boston, MA - Assembly Square (“exempt” project)
- Portland, OR - Milwaukie LRT
- Houston, TX - North Corridor LRT
- Houston, TX - Southeast Corridor LRT

### Approved into Small Starts Project Development

- Monterey, CA - Bay Rapid Transit
- Oakland, CA - East Bay BRT
- San Joaquin, CA - Metro Express - Airport Way Corridor BRT Project
- Roaring Fork Valley, CO - BRT Project
- New York City, NY - Nostrand Ave BRT
- Austin, TX - MetroRapid BRT

Table 2A -- Summary of FY 2010 New Starts Ratings

Phase State, City, Project	Capital Cost (millions)	Financing Costs (millions)	Total Capital Cost (millions)	Total New or Small Starts Funding Requested (millions)	New or Small Starts Funds Share of Capital Costs	Overall Project Rating	Local Financial Commitment Rating	Project Justification Rating
<b>Final Design</b>								
CT Hartford, New Britain - Hartford Busway	\$553.8	\$15.5	\$569.3	\$275.3	48%	Medium	Medium	Medium
CT Stamford, Urban Transitway Phase II *	\$48.3	\$0.0	\$48.3	\$24.7	51%	Exempt	Exempt	Exempt
DE Wilmington, Wilmington to Newark Commuter Rail Improvements *	\$78.4	\$0.0	\$78.4	\$25.0	32%	Exempt	Exempt	Exempt
FL Orlando, Central Florida Commuter Rail Transit - Initial Operating Segment	\$356.3	\$0.9	\$357.2	\$178.6	50%	Medium	Medium	Medium
NJ Northern New Jersey, Access to the Region's Core	\$8,700.0	\$0.0	\$8,700.0	\$3,000.0	34%	Medium-High	Medium	Medium-High
RI Providence, South County Commuter Rail *	\$49.2	\$0.0	\$49.2	\$24.9	51%	Exempt	Exempt	Exempt
<b>Preliminary Engineering</b>								
AZ Tucson, Modern Streetcar *	\$150.1	\$0.0	\$150.1	\$25.0	17%	Exempt	Exempt	Exempt
CA Sacramento, South Corridor Phase 2	\$270.0	\$0.0	\$270.0	\$135.0	50%	Medium	Medium	Medium
CA San Francisco, Central Subway LRT	\$1,298.0	\$0.0	\$1,298.0	\$762.2	59%	Medium-High	Medium	Medium-High
CO Denver, East Corridor	\$2,007.1	\$36.6	\$2,043.8	\$788.7	39%	Medium	Medium	Medium
CO Denver, Gold Line	\$840.3	\$19.2	\$859.5	\$241.8	28%	Medium	Medium	Medium
FL Miami, Orange Line Phase 2: North Corridor Metrorail Extension	\$1,340.9	\$163.8	\$1,504.7	\$700.0	47%	Medium-Low	Medium-Low	Medium
MA Boston, Assembly Square Station *	\$47.7	\$0.0	\$47.7	\$25.0	52%	Exempt	Exempt	Exempt
MA Boston, Silver Line Phase III	\$1,696.1	\$410.5	\$2,106.5	\$1,261.8	60%	Medium-Low	Medium-Low	Medium-High
MN St. Paul-Minneapolis, Central Corridor LRT	\$908.9	\$6.0	\$914.9	\$452.9	50%	Medium-High	Medium	Medium-High
NC Charlotte, Northeast Corridor Light Rail Project	\$749.0	\$0.0	\$749.0	\$374.5	50%	Medium-High	Medium-High	Medium
OR Portland, Milwaukie LRT	\$1,214.6	\$257.1	\$1,471.7	\$735.9	50%	Medium-High	Medium	Medium-High
TX Houston, North Corridor LRT	\$677.0	\$0.0	\$677.0	\$331.7	49%	Medium	Medium	Medium
TX Houston, Southeast Corridor LRT	\$680.6	\$0.0	\$680.6	\$333.5	49%	Medium	Medium	Medium
<b>Small Starts Project Development</b>								
AZ Flagstaff, Mountain Links BRT	\$9.9	\$0.5	\$10.4	\$6.2	60%	Medium	Medium	Medium
CA Livermore, Livermore-Amador Route 10 BRT	\$21.7	\$0.0	\$21.7	\$10.9	50%	Medium	Medium	Medium
CA Los Angeles, Metro Rapid Bus System Gap Closure	\$34.5	\$0.0	\$34.5	\$16.7	48%	Medium-High	High	Medium
CA Los Angeles, Wilshire Boulevard Bus-Only Lane	\$31.5	\$0.0	\$31.5	\$23.3	74%	Medium	Medium	Medium
CA Monterey, Monterey Bay Rapid Transit	\$3.5	\$0.0	\$3.5	\$2.8	80%	Medium	Medium	Medium
CA Oakland, East Bay BRT	\$234.6	\$0.0	\$234.6	\$75.0	32%	High	High	Medium-High
CA Riverside, Perris Valley Line	\$168.9	\$0.0	\$168.9	\$75.0	44%	Medium-High	High	Medium
CA San Bernardino, E Street Corridor sbX BRT	\$163.4	\$0.0	\$163.4	\$75.0	46%	Medium	Medium	Medium
CA San Diego, Mid-City Rapid	\$43.3	\$0.0	\$43.3	\$21.7	50%	Medium-High	High	Medium
CA San Francisco, Van Ness Avenue BRT	\$109.2	\$9.0	\$118.2	\$75.0	63%	Medium-High	Medium	High
CA San Joaquin, Metro Express - Airport Way Corridor BRT Project	\$9.7	\$0.0	\$9.7	\$2.8	29%	Medium-High	High	Medium
CO Fort Collins, Mason Corridor BRT	\$82.0	\$0.0	\$82.0	\$65.6	80%	Medium	Medium	Medium
CO Roaring Fork Valley, BRT Project	\$46.4	\$0.0	\$46.4	\$26.0	56%	Medium-High	Medium-High	Medium
MA Fitchburg, Commuter Rail Improvements	\$150.0	\$0.0	\$150.0	\$75.0	50%	Medium-High	High	Medium
MI Grand Rapids, Division Avenue BRT	\$35.6	\$1.1	\$36.7	\$29.3	80%	Medium	Medium	Medium
MO Kansas City, Troost Corridor BRT	\$30.7	\$0.0	\$30.7	\$24.6	80%	Medium	Medium	Medium
NY New York City, Nostrand Ave BRT	\$84.2	\$4.1	\$88.3	\$18.4	21%	High	High	Medium-High
OR Portland, Streetcar Loop	\$121.9	\$5.0	\$126.9	\$75.0	59%	Medium	Medium	Medium
TX Austin, MetroRapid BRT	\$47.0	\$0.0	\$47.0	\$37.6	80%	Medium	Medium	Medium
WA King County, Bellevue-Redmond BRT	\$27.0	\$0.0	\$27.0	\$20.2	75%	Medium	Medium	Medium
WA King County, Pacific Highway South BRT	\$25.1	\$0.0	\$25.1	\$14.1	56%	Medium	Medium	Medium

\* This project has not been rated; under §5309(e)(8)(A), proposed New Starts projects requiring less than \$25.00 million in §5309 New Starts funding are exempt from the project evaluation and rating process.

Table 2B -- Detailed Summary of FY 2010 New Starts Ratings

Phase State, City, Project	Overall Project Rating	Local Financial Commitment Rating	Local Financial Commitment Rating			Project Justification Rating	Project Justification			
			New Starts Share Rating	Capital Plan Rating	Operating Plan Rating		Environmental Benefits Rating	Mobility Improvement Rating	Cost Effectiveness Rating	Land Use Rating
<b>Final Design</b>										
CT Hartford, New Britain - Hartford Busway	Medium	Medium	Medium-High	Medium	Medium	Medium	High	Medium	Medium	Medium
CT Stamford, Urban Transitway Phase II *	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
DE Wilmington, Wilmington to Newark Commuter Rail Improvements *	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
FL Orlando, Central Florida Commuter Rail Transit - Initial Operating Segment	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium-Low	Medium-Low	Medium
NJ Northern New Jersey, Access to the Region's Core	Medium-High	Medium	High	Medium	Medium	Medium-High	High	Medium-High	Medium	High
RI Providence, South County Commuter Rail *	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
<b>Preliminary Engineering</b>										
AZ Tucson, Modern Streetcar *	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
CA Sacramento, South Corridor Phase 2	Medium	Medium	Medium	Medium	Medium	Medium	High	Medium-Low †	Medium	Medium-Low
CA San Francisco, Central Subway LRT	Medium-High	Medium	Medium	Medium	Medium	Medium-High	High	Medium-High	Medium	High
CO Denver, East Corridor	Medium	Medium	Medium-High	Medium	Medium-High	Medium	High	Medium-Low	Medium	Medium
CO Denver, Gold Line	Medium	Medium	High	Medium	Medium-High	Medium	High	Medium-Low	Medium	Medium
FL Miami, Orange Line Phase 2: North Corridor Metrorail Extension	Medium-Low	Medium-Low	Medium-High	Medium	Medium-Low	Medium	Medium	Medium	Medium	Medium
MA Boston, Assembly Square Station *	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt
MA Boston, Silver Line Phase III	Medium-Low	Medium-Low	Medium	Medium-Low	Medium-Low	Medium-High	High	Medium-High	Medium	High
MN St. Paul-Minneapolis, Central Corridor LRT	Medium-High	Medium	Medium	Medium	Medium-High	Medium-High	Medium	Medium	Medium	Medium-High
NC Charlotte, Northeast Corridor Light Rail Project	Medium-High	Medium-High	Medium	Medium-High	Medium-High	Medium	High	Medium	Medium-Low	Medium
OR Portland, Milwaukie LRT	Medium-High	Medium	Medium	Medium	Medium	Medium-High	Medium	Medium-High	Medium	Medium-High
TX Houston, North Corridor LRT	Medium	Medium	Medium-High	Medium	Medium-High	Medium	High	Medium-High	Medium-High	Medium-Low
TX Houston, Southeast Corridor LRT	Medium	Medium	Medium-High	Medium	Medium-High	Medium	High	Medium	Medium	Medium-Low
<b>Small Starts Project Development</b>										
AZ Flagstaff, Mountain Links BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
CA Livermore, Livermore-Amador Route 10 BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
CA Los Angeles, Metro Rapid Bus System Gap Closure	Medium-High	High	---	---	---	Medium	N/A	N/A	Medium	Medium
CA Los Angeles, Wilshire Boulevard Bus-Only Lane	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
CA Monterey, Monterey Bay Rapid Transit	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
CA Oakland, East Bay BRT	High	High	---	---	---	Medium-High	N/A	N/A	High	Medium
CA Riverside, Perris Valley Line	Medium-High	High	---	---	---	Medium	N/A	N/A	Medium	Medium-Low
CA San Bernardino, E Street Corridor sbX BRT	Medium	Medium	Medium-High	Medium	Medium-High	Medium	N/A	N/A	Medium-High	Medium-Low
CA San Diego, Mid-City Rapid	Medium-High	High	---	---	---	Medium	N/A	N/A	Medium	Medium
CA San Francisco, Van Ness Avenue BRT	Medium-High	Medium	---	---	---	High	N/A	N/A	High	High
CA San Joaquin, Metro Express - Airport Way Corridor BRT Project	Medium-High	High	---	---	---	Medium	N/A	N/A	Medium	Medium
CO Fort Collins, Mason Corridor BRT	Medium	Medium	Low	Medium-High	Medium	Medium	N/A	N/A	Medium	Medium
CO Roaring Fork Valley, BRT Project	Medium-High	Medium-High	Medium	Medium-High	Medium-High	Medium	N/A	N/A	Medium	Medium
MA Fitchburg, Commuter Rail Improvements	Medium-High	High	---	---	---	Medium	N/A	N/A	Medium	Medium
MI Grand Rapids, Division Avenue BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
MO Kansas City, Troost Corridor BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
NY New York City, Nostrand Ave BRT	High	High	---	---	---	Medium-High	N/A	N/A	Medium-High	Medium-High
OR Portland, Streetcar Loop	Medium	Medium	---	---	---	Medium	N/A	N/A	Low	High
TX Austin, MetroRapid BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
WA King County, Bellevue-Redmond BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium
WA King County, Pacific Highway South BRT	Medium	Medium	---	---	---	Medium	N/A	N/A	Medium	Medium

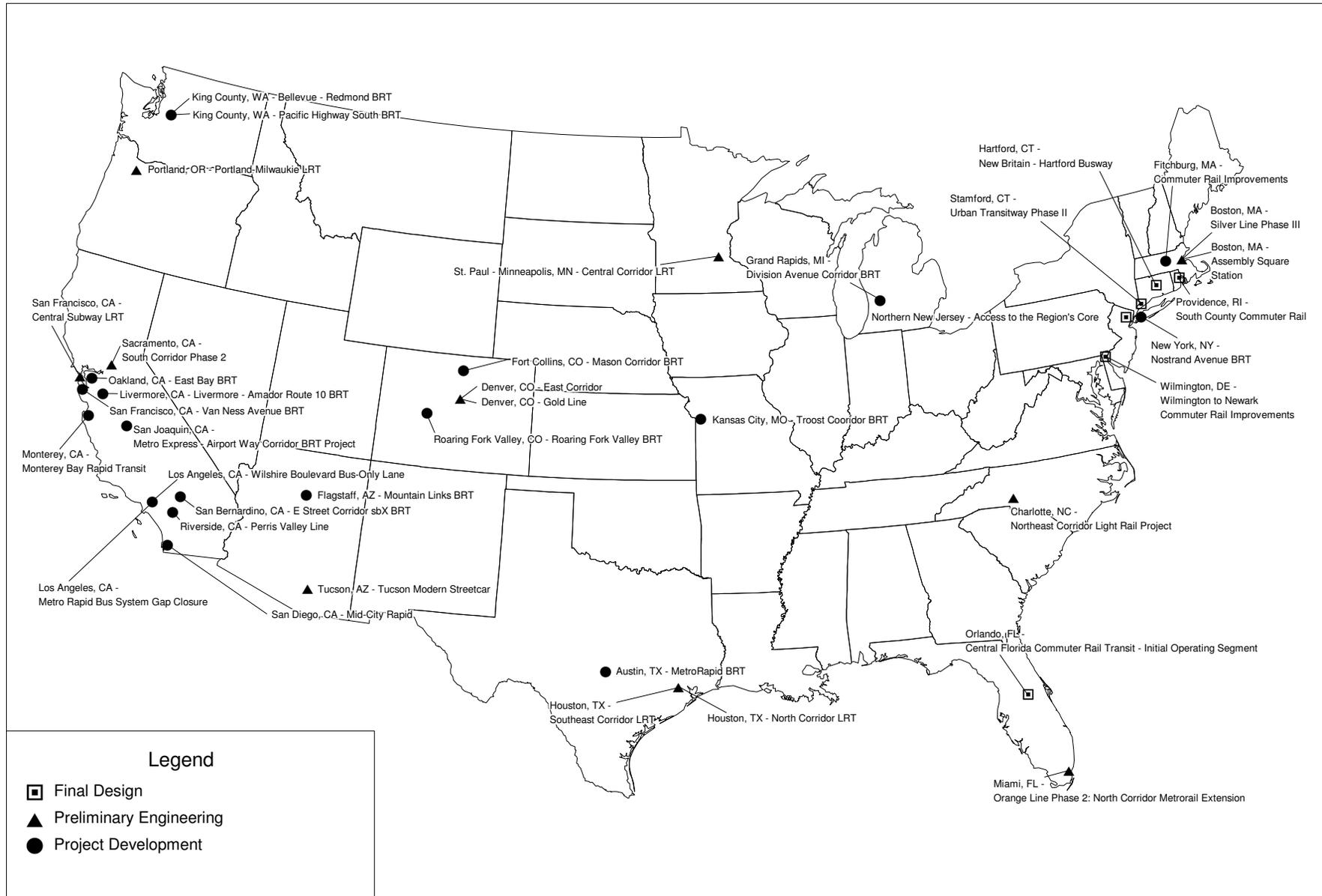
\* This project has not been rated; under §5309(c)(8)(A), proposed New Starts projects requiring less than \$25.00 million in §5309 New Starts funding are exempt from the project evaluation and rating process.

† The FY 2009 Annual Report contained a calculation error; mobility improvement ratings for projects with the same data as last year may change as a result of correcting the error.

# Full Funding Grant Agreements and Project Construction Grant Agreements FY 2010



# Project Development, Preliminary Engineering & Final Design FY 2010



***Paul S. Sarbanes Transit in Parks Program***

In FY 2008, Congress appropriated \$25 million for the Paul S. Sarbanes Transit in Parks Program, which was consistent with funding levels authorized in SAFETEA-LU. In 2008, FTA and the Department of the Interior selected 52 capital and planning projects for funding under the program. Appendix C describes FTA's overall progress in developing the program, details the 52 transportation projects funded in FY 2008, and describes the technical assistance activities sponsored to date.



# **Appendix A**

## **New Starts and Small Starts Project Profiles**



# Alphabetical List of Projects by Development Phase and State

## Full Funding Grant Agreements

AZ, Phoenix, Central Phoenix/East Valley Light Rail .....	A-11
CA, Los Angeles, Metro Gold Line Eastside Extension .....	A-15
CO, Denver, Southeast Corridor LRT .....	A-19
CO, Denver, West Corridor LRT .....	A-23
DC, Washington DC Metropolitan Area, Largo Metrorail Extension.....	A-27
IL, Chicago, Ravenswood Line Extension .....	A-31
MN, Minneapolis-Big Lake, Northstar Corridor Rail .....	A-35
NJ, Northern New Jersey, Hudson-Bergen MOS-2 .....	A-39
NY, New York, Long Island Rail Road East Side Access .....	A-43
NY, New York, Second Avenue Subway Phase I .....	A-47
OR, Portland, South Corridor I-205 / Portland Mall LRT.....	A-51
PA, Pittsburgh, North Shore LRT Connector .....	A-55
TX, Dallas, Northwest/Southeast LRT MOS .....	A-59
UT, Salt Lake City, Mid-Jordan LRT .....	A-63
UT, Salt Lake City, Weber County to Salt Lake City Commuter Rail .....	A-67
VA, Norfolk, Norfolk LRT .....	A-71
VA, Northern Virginia, Dulles Corridor Metrorail Project – Extension to Wiehle Avenue .....	A-75
WA, Seattle, Central Link Initial Segment.....	A-79
WA, Seattle, University Link LRT Extension .....	A-83

## Project Construction Grant Agreement

OR, Springfield, Pioneer Parkway EmX BRT .....	A-89
--	------

## Pending Project Construction Grant Agreement

OR, Portland, Streetcar Loop .....	A-95
------------------------------------	------

## Final Design

CT, Hartford, New Britain – Hartford Busway .....	A-101
CT, Stamford, Urban Transitway Phase II .....	A-107
DE, Wilmington, Wilmington to Newark Commuter Rail Improvements.....	A-111
FL, Orlando, Central Florida Commuter Rail Transit – Initial Operating Segment.....	A-115
NJ, Northern New Jersey, Access to the Region’s Core .....	A-121
RI, Providence, South County Commuter Rail .....	A-127

## Preliminary Engineering

AZ, Tucson, Modern Streetcar Project.....	A-133
CA, Sacramento, South Corridor Phase 2 .....	A-137
CA, San Francisco, Central Subway LRT .....	A-143
CO, Denver, East Corridor .....	A-149
CO, Denver, Gold Line .....	A-155
FL, Miami, Orange Line Phase 2: North Corridor Metrorail Extension .....	A-161
MA, Boston, Assembly Square Station.....	A-167
MA, Boston, Silver Line Phase III .....	A-171
MN, St. Paul-Minneapolis, Central Corridor LRT .....	A-177
NC, Charlotte, Northeast Corridor Light Rail Project.....	A-183
OR, Portland, Portland-Milwaukie LRT .....	A-189

---

TX, Houston, North Corridor LRT.....	A-195
TX, Houston, Southeast Corridor LRT .....	A-201
<b>Project Development</b>	
AZ, Flagstaff, Mountain Links BRT .....	A-209
CA, Livermore, Livermore-Amador Route 10 BRT .....	A-213
CA, Los Angeles, Metro Rapid Bus System Gap Closure .....	A-217
CA, Los Angeles, Wilshire Boulevard Bus-Only Lane .....	A-221
CA, Monterey, Monterey Bay Rapid Transit .....	A-225
CA, Oakland, East Bay BRT.....	A-229
CA, Riverside, Perris Valley Line .....	A-233
CA, San Bernardino, E Street Corridor sbX BRT.....	A-237
CA, San Diego, Mid-City Rapid .....	A-243
CA, San Francisco, Van Ness Avenue BRT .....	A-247
CA, San Joaquin, Metro Express- Airport Way Corridor BRT Project .....	A-251
CO, Fort Collins, Mason Corridor BRT.....	A-255
CO, Roaring Fork Valley, BRT Project .....	A-261
MA, Fitchburg, Commuter Rail Improvements .....	A-265
MI, Grand Rapids, Division Avenue BRT .....	A-269
MO, Kansas City, Troost Corridor BRT .....	A-273
NY, New York, Nostrand Avenue BRT .....	A-277
TX, Austin, MetroRapid BRT .....	A-281
WA, King County, Bellevue-Redmond BRT.....	A-285
WA, King County, Pacific Highway South BRT .....	A-289

# Alphabetical List of Projects by State and City

## Arizona

AZ, Flagstaff, Mountain Links BRT .....	A-209
AZ, Phoenix, Central Phoenix / East Valley Light Rail.....	A-11
AZ, Tucson, Modern Streetcar Project.....	A-133

## California

CA, Livermore, Livermore-Amador Route 10 BRT .....	A-213
CA, Los Angeles, Metro Gold Line Eastside Extension .....	A-15
CA, Los Angeles, Metro Rapid Bus System Gap Closure .....	A-217
CA, Los Angeles, Wilshire Boulevard Bus-Only Lane .....	A-221
CA, Monterey, Monterey Bay Rapid Transit .....	A-225
CA, Oakland, East Bay BRT.....	A-229
CA, Riverside, Perris Valley Line .....	A-233
CA, Sacramento, South Corridor Phase 2 .....	A-137
CA, San Bernardino, E Street Corridor sbX BRT.....	A-237
CA, San Diego, Mid-City Rapid .....	A-243
CA, San Francisco, Central Subway LRT.....	A-143
CA, San Francisco, Van Ness Avenue BRT .....	A-247
CA, San Joaquin, Metro Express- Airport Way Corridor BRT Project .....	A-251

## Colorado

CO, Denver, East Corridor .....	A-149
CO, Denver, Gold Line .....	A-155
CO, Denver, Southeast Corridor LRT.....	A-19
CO, Denver, West Corridor LRT .....	A-23
CO, Fort Collins, Mason Corridor BRT.....	A-255
CO, Roaring Fork Valley, BRT Project .....	A-261

## Connecticut

CT, Hartford, New Britain – Hartford Busway.....	A-101
CT, Stamford, Urban Transitway Phase II.....	A-107

## Delaware

DE, Wilmington, Wilmington to Newark Commuter Rail Improvements.....	A-111
--	-------

## District of Columbia

DC, Washington DC Metropolitan Area, Largo Metrorail Extension .....	A-27
--	------

## Florida

FL, Miami, Orange Line Phase 2: North Corridor Metrorail Extension .....	A-161
FL, Orlando, Central Florida Commuter Rail Transit – Initial Operating Segment.....	A-115

## Illinois

IL, Chicago, Ravenswood Line Extension.....	A-31
---	------

## Massachusetts

MA, Boston, Assembly Square Station .....	A-167
MA, Boston, Silver Line Phase III.....	A-171
MA, Fitchburg, Commuter Rail Improvements .....	A-265

## Michigan

MI, Grand Rapids, Division Avenue BRT .....	A-269
---	-------

---

<b>Minnesota</b>	
MN, Minneapolis-Big Lake, Northstar Corridor Rail .....	A-35
MN, St. Paul-Minneapolis, Central Corridor LRT .....	A-177
<b>Missouri</b>	
MO, Kansas City, Troost Corridor BRT .....	A-273
<b>New Jersey</b>	
NJ, Northern New Jersey, Access to the Region’s Core .....	A-121
NJ, Northern New Jersey, Hudson-Bergen MOS-2 .....	A-39
<b>New York</b>	
NY, New York, Long Island Rail Road East Side Access .....	A-43
NY, New York, Second Avenue Subway Phase I .....	A-47
NY, New York, Nostrand Avenue BRT .....	A-277
<b>North Carolina</b>	
NC, Charlotte, Northeast Corridor Light Rail Project.....	A-183
<b>Oregon</b>	
OR, Portland, Portland-Milwaukie LRT .....	A-189
OR, Portland, South Corridor I-205 / Portland Mall LRT .....	A-51
OR, Portland, Streetcar Loop .....	A-95
OR, Springfield, Pioneer Parkway EmX BRT .....	A-89
<b>Pennsylvania</b>	
PA, Pittsburgh, North Shore LRT Connector.....	A-55
<b>Rhode Island</b>	
RI, Providence, South County Commuter Rail .....	A-127
<b>Texas</b>	
TX, Austin, MetroRapid BRT .....	A-281
TX, Dallas, Northwest/Southeast LRT MOS .....	A-59
TX, Houston, North Corridor LRT.....	A-195
TX, Houston, Southeast Corridor LRT .....	A-201
<b>Utah</b>	
UT, Salt Lake City, Mid-Jordan LRT .....	A-63
UT, Salt Lake City, Weber County to Salt Lake City Commuter Rail .....	A-67
<b>Virginia</b>	
VA, Norfolk, Norfolk LRT .....	A-71
VA, Northern Virginia, Dulles Corridor Metrorail Project – Extension to Wiehle Avenue ....	A-75
<b>Washington</b>	
WA, Seattle, Central Link Initial Segment.....	A-79
WA, Seattle, University Link LRT Extension .....	A-83
WA, King County, Bellevue-Redmond BRT.....	A-285
WA, King County, Pacific Highway South BRT .....	A-289

## **New Starts and Small Starts Projects and Ratings Contained in This Report**

Under 49 USC 5309(d), major capital investment grants for the construction of a new fixed guideway system or the extension of an existing system seeking \$75 million or greater in Federal New Starts funds may be made only if the Secretary determines that the proposed project is:

- (A) based on the results of an alternatives analysis and preliminary engineering;
- (B) justified based on a comprehensive review of its mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies, economic development effects and public transportation supportive land use policies and future patterns; and
- (C) supported by an acceptable degree of local financial commitment (including evidence of stable and dependable funding sources) to construct, maintain, and operate the system or extension, and maintain and operate the entire public transportation system without requiring a reduction in existing public transportation services or level of service to operate the proposed project.

49 USC 5309(e) establishes requirements for “Small Starts” projects seeking less than \$75 million in Small New Starts funding with a total project cost of not greater than \$250 million. Grants for such projects can only be made if the Secretary finds that the project is:

- (A) based on the results of an alternatives analysis and preliminary engineering;
- (B) justified based on a review of its cost effectiveness, public transportation supportive land use policies, and effect on economic development; and
- (C) supported by an acceptable degree of local financial commitment.

Profiles for projects that are under construction—or, in a few cases, in revenue operation—are included in this report if additional funds are needed in FY 2010 to fulfill the New or Small Starts funding commitment.

This section includes profiles for each project under an FFGA or PCGA, as well as proposed projects undergoing final design, preliminary engineering, or Small Starts project development. In addition to providing information to Congress, the document serves as guidance to project sponsors so that improvements in project development can be made. Since projects can be expected to continue to change as they progress through the development process, the ratings for projects that are not yet recommended for FFGAs or PCGAs should not be construed as a statement about the ultimate merit of the project. Rather, the ratings provide an assessment of the project’s strengths and weaknesses at the time it was rated.

In general, the profiles for projects in final design, preliminary engineering, and Small Starts project development include the following sections:

- (1) **Description:** This section briefly describes a project's physical characteristics (scope) and peak period operating plan. This section also summarizes the transportation problem or problems the proposed project is intended to address. Projects’ overall ratings of *High*, *Medium-High*, *Medium*, *Medium-Low*, or *Low* are presented in this section, as are areas of

concern or action items which the project sponsor must address prior to subsequent evaluations.

- (2) **Project Development History and Current Status:** This section identifies where the project is in the development process. It indicates, for example, when the project was approved into preliminary engineering (and final design, if appropriate), as well as when it completed – or is anticipating to complete – Federal environmental review requirements.
- (3) **Significant Changes Since the Last Evaluation:** This section describes significant changes in the project scope, capital cost, travel demand forecasts, or financial plan since the previous evaluation, which contribute to an understanding of why the information reported in the FY 2010 *Annual Report* may be different from last year's data.
- (4) **Project Justification:** This section presents an evaluation of each project's merit based on the criteria cited in 49 USC 5309(d) and (e); FTA's *Final Rule* on New Starts project evaluation and rating, which became effective April 6, 2001; FTA's 2006 through 2008 *Guidance on New Starts Policies and Procedures* documents, issued in 2006, 2007, and 2008; and FTA's *Updated Interim Guidance and Instructions for Small Starts*, issued July 20, 2007. Information on transit supportive land use and project cost effectiveness is summarized in this section. A summary of the *Making the Case* document is also included in each profile. However, FTA has decided not to rate the *Making the Case* documents as part of the overall project justification rating in this report due to the inconsistent quality of the submitted documents. FTA intends to work closely with project sponsors in the upcoming year to improve the *Making the Case* documents. For New Starts projects, ratings and data are also reported in this section for the other project justification criteria, including mobility improvements, environmental benefits, and other factors (where appropriate).
- (5) **Local Financial Commitment:** This section presents the evaluation of each project's financial plan and local financial commitment for the New Starts or Small Starts share, capital financial plan, and operating financial plan.

Profiles of projects that are “exempt” from evaluation under the New Starts criteria include only the description and status sections. Additionally, profiles for projects covered by existing FFGAs and PCGAs include only the information contained under the description and status sections because projects are not re-evaluated once a funding agreement is in place.

# **Existing Full Funding Grant Agreements**

---



# Central Phoenix/East Valley Light Rail

## Phoenix, Arizona

(November 2008)

The City of Phoenix and Valley Metro Rail, Inc. (VMR), a nonprofit corporation and the sub-recipient of Federal funds awarded under this FFGA, are constructing a 19.6-mile light rail system, with track alignment located mostly in the street median from 19<sup>th</sup> Avenue and Bethany Home Road in north central Phoenix, through the City of Tempe, to Main Street and Longmore in the City of Mesa. The project includes 27 stations, seven new surface parking lots, a bridge over Town Lake in Tempe, and a bridge at 48<sup>th</sup> Street in Phoenix. The project scope will also include 36 light rail vehicles and a maintenance and storage facility. In 2020, the project is expected to serve 49,900 daily riders.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$1,412.12 million. The Section 5309 New Starts funding share is \$587.20 million.

### Status

After completing a major investment study in February 1997, the Maricopa Association of Governments adopted light rail transit (LRT) for the Central Phoenix/East Valley corridor into its financially constrained long range plan. FTA granted Valley Metro Rail permission to enter preliminary engineering (PE) on a 13-mile segment of the corridor in September 1998. FTA subsequently approved PE on 20.3 miles of the proposed system the following year. On March 14, 2000, City of Phoenix voters passed a sales tax referendum that increased the local sales tax rate by 0.4 percent, all of which is dedicated to transit development. VMR completed the NEPA process and received a Record of Decision on the Central Phoenix/East Valley Light Rail project in February 2003. The project was approved for entry into final design in July 2003, and recommended for funding in the President's FY 2005 Budget. FTA and the City of Phoenix entered into an FFGA in January 2005, with revenue operations scheduled for December 2008. Construction started in January 2005, and is projected to be completed within budget and on schedule. In May 2006, VMR advised FTA of its intent to construct an additional station and acquire 14 additional vehicles outside of the FFGA project scope, to be paid for with 100 percent local funds. After review and evaluation of the VMR request, it was concluded that these two additions will have no impact on the FFGA budget, scope or schedule. FTA sent the 30-day Notification Letter to Congress advising of its concurrence in August 2007.

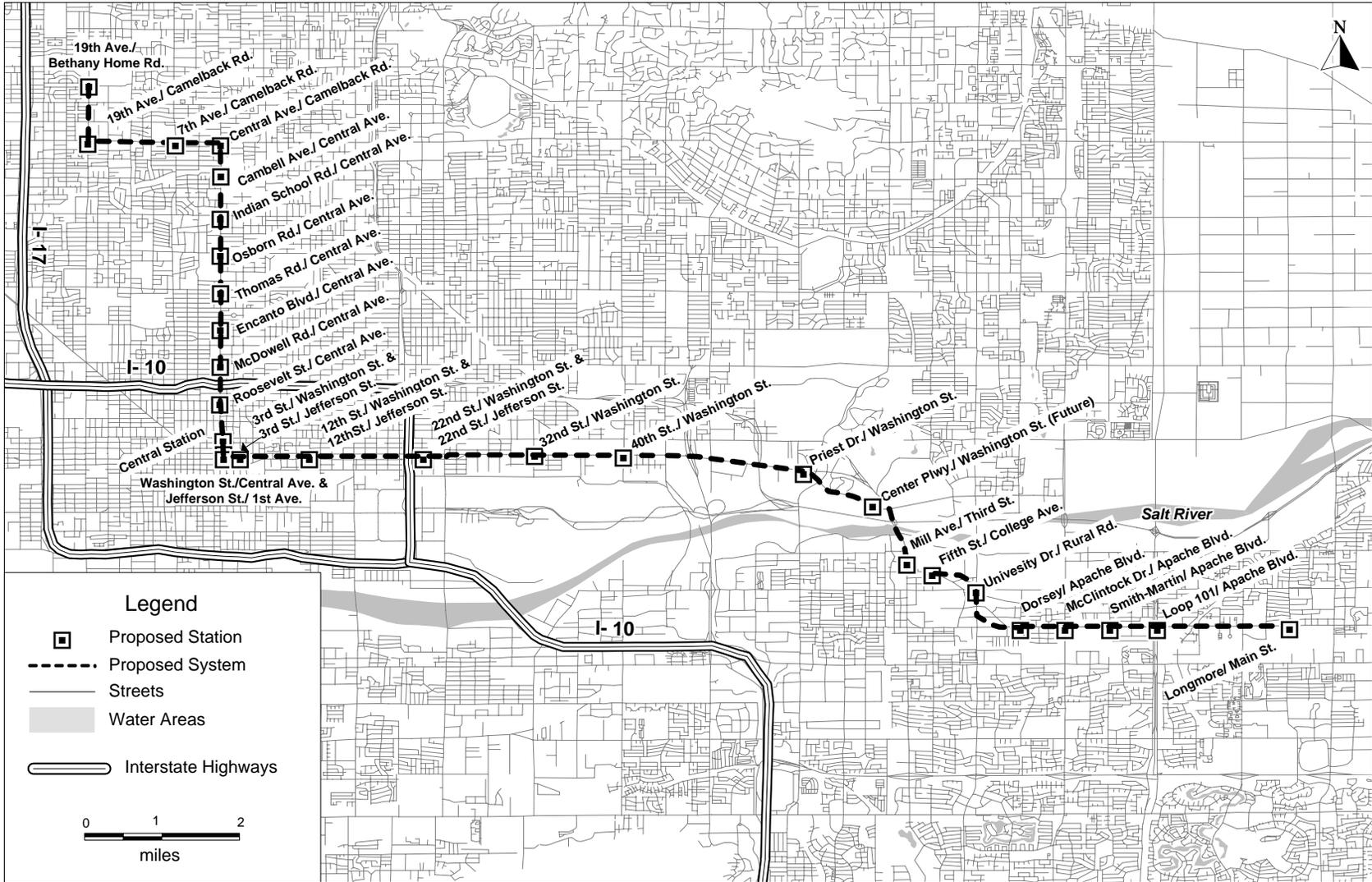
SAFETEA-LU Section 3043(a)(19) authorized the Central Phoenix/East Valley LRT for final design and construction. Through FY 2009, Congress has appropriated \$489.95 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment Flexible Funds (CMAQ)	\$587.20 \$59.75	\$489.95 million appropriated through FY 2009
<b>Local:</b> Cities of Phoenix, Tempe, and Mesa	\$765.17	
<b>TOTAL</b>	<b>\$1,412.12</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Central Phoenix / East Valley Light Rail

## Phoenix, Arizona





# **Metro Gold Line Eastside Extension**

## **Los Angeles, California**

(November 2008)

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is constructing a 5.9-mile, dual-track light rail system with eight new stations and one station modification in the Eastside Corridor, connecting downtown Los Angeles with low- to moderate-income communities in East Los Angeles. The alignment is primarily at-grade, with a 1.7-mile mid-section tunnel. The Metro Gold Line Eastside Extension originates at Union Station in downtown Los Angeles, where it serves as an extension to the Metro Gold Line to Pasadena. It continues generally eastward along Alameda Street, 1<sup>st</sup> Street, and 3<sup>rd</sup> Street through Little Tokyo, Pico Aliso, Boyle Heights, and East Los Angeles communities of unincorporated Los Angeles County including Belvedere, and terminates just before the intersection of Pomona and Atlantic Boulevards.

The Eastside Corridor has among the highest residential densities and largest transit-dependent populations in Los Angeles. Over 60 bus routes currently serve the corridor, many of which are at capacity during peak travel times and suffer delays due to traffic congestion. The Metro Gold Line Eastside Extension will improve public transportation services and provide travel-time savings for the Eastside communities and their residents accessing jobs in downtown Los Angeles and other employment destinations along LACMTA's rail and rapid bus network. Average daily ridership in 2020 is estimated to be 23,000 riders.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$898.81 million. The Section 5309 New Starts funding share is \$490.70 million.

### **Status**

In 1998, LACMTA undertook an alternatives analysis to evaluate feasible alternatives for the Eastside and Mid-City corridors. FTA approved the project into preliminary engineering in August 2000. LACMTA completed the NEPA process and received a Record of Decision in June 2002. FTA approved the project's entry into final design in October 2002. FTA and LACMTA entered into a FFGA in June 2004, with revenue operations scheduled for December 2009. Construction started in July 2004, and is projected to be completed within budget and on schedule.

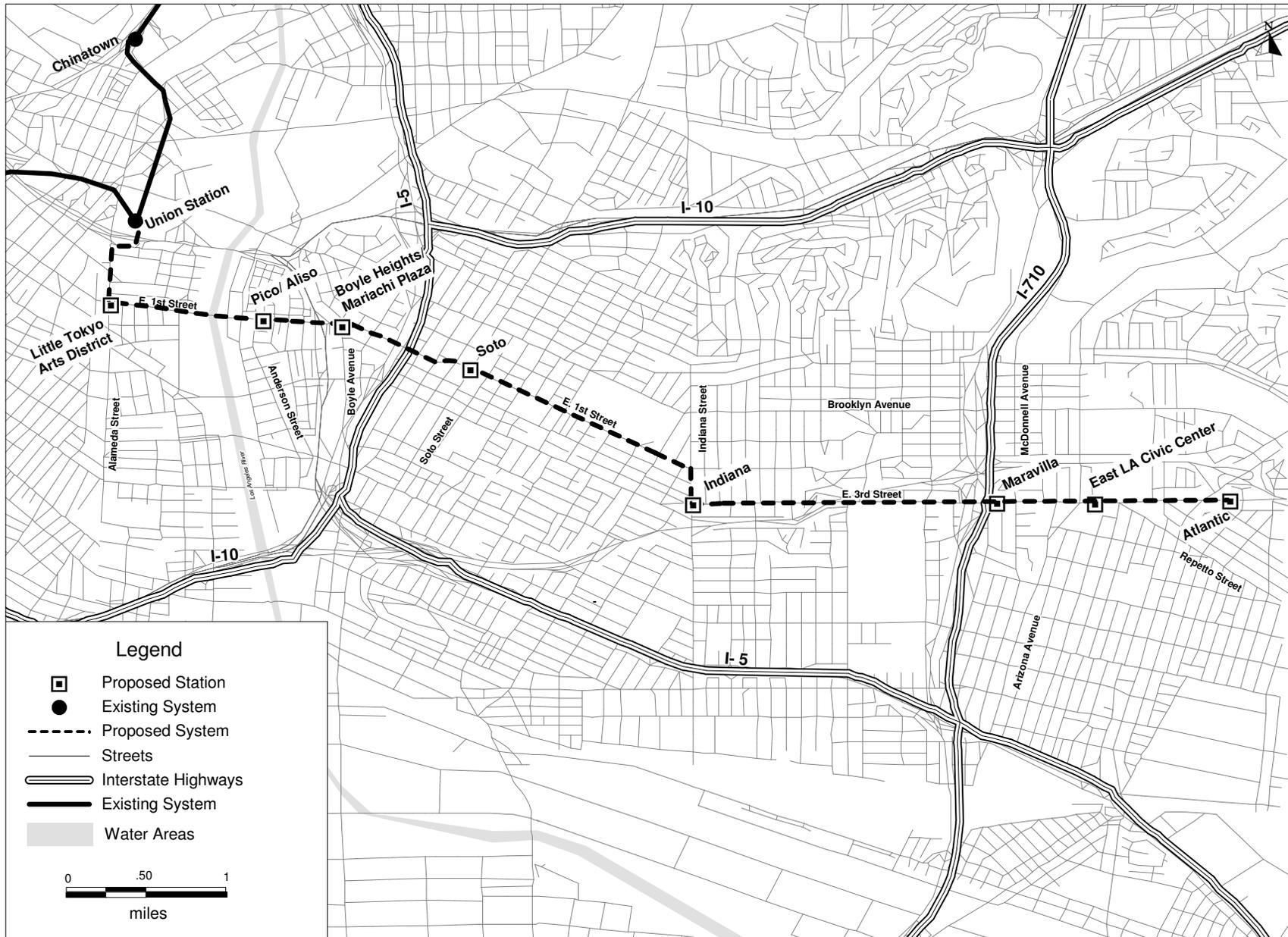
SAFETEA-LU Section 3043(a)(9) authorized the Los Angeles Metro Gold Line Eastside Extension for final design and construction. Through FY 2009, Congress has appropriated \$414.38 million for the Metro Gold Line Eastside Extension project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b>		
Section 5309 New Starts FFGA Commitment	\$490.70	\$414.38 million appropriated through FY 2009
Section 5309 Fixed Guideway Modernization	\$23.10	
Flexible Funds (STP and CMAQ)	\$189.88	
<b>Local:</b>		
Sales Tax Revenue	\$195.13	
<b>TOTAL</b>	<b>\$898.81</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Metro Gold Line Eastside Extension

## Los Angeles, California





# **Southeast Corridor LRT**

## **Denver, Colorado**

(November 2008)

The Denver Regional Transportation District (RTD) and the Colorado Department of Transportation (CDOT) are constructing the Southeast Corridor project (known locally as T-REX). T-REX is a 19.1-mile, double-track light rail transit (LRT) system extending from the existing LRT station at Interstate 25 (I-25) and Broadway in Denver, along I-25 to Lincoln Avenue and I-25 in Douglas County, with an LRT spur line along Interstate 225 to Parker Road (Nine Mile Station) in Arapahoe County. The project includes 13 new stations, 34 light rail vehicles, 12 park-and-ride lots, a maintenance facility and system upgrades. The double-track system will operate in an exclusive, grade-separated right-of-way and connect with the existing 5.3-mile Central Corridor LRT in downtown Denver at the existing Broadway station. At I-25 and Broadway, the Southeast Corridor LRT will also connect with RTD's 8.7-mile Southwest Corridor LRT. Ridership is estimated to be 38,100 average weekday boardings by 2020.

The total project cost under the Full Funding Grant Agreement (FFGA) for this project is \$879.27 million. The Section 5309 New Starts funding share is \$525.00 million.

### **Status**

CDOT, in cooperation with the Denver Regional Council of Governments and RTD, completed a major investment study on the Southeast Corridor in July 1997. In February 1998, FTA approved the project into preliminary engineering. FTA and the Federal Highway Administration issued a Final Environmental Impact Statement for the project in December 1999 and a Record of Decision in March 2000. In May 2000, FTA approved the project into final design. RTD and FTA entered into an FFGA in November 2000, with revenue operations scheduled for June 2008. RTD constructed T-REX through a design-build contract that was awarded in June 2001. Construction started in September 2001. Revenue operations started in November 2006, 22 months ahead of schedule.

SAFETEA-LU Section 3043(a)(7) authorized the Denver Southeast Corridor LRT for final design and construction. Through FY 2009, Congress has appropriated \$524.99 million in Section 5309 New Starts funds for the project.

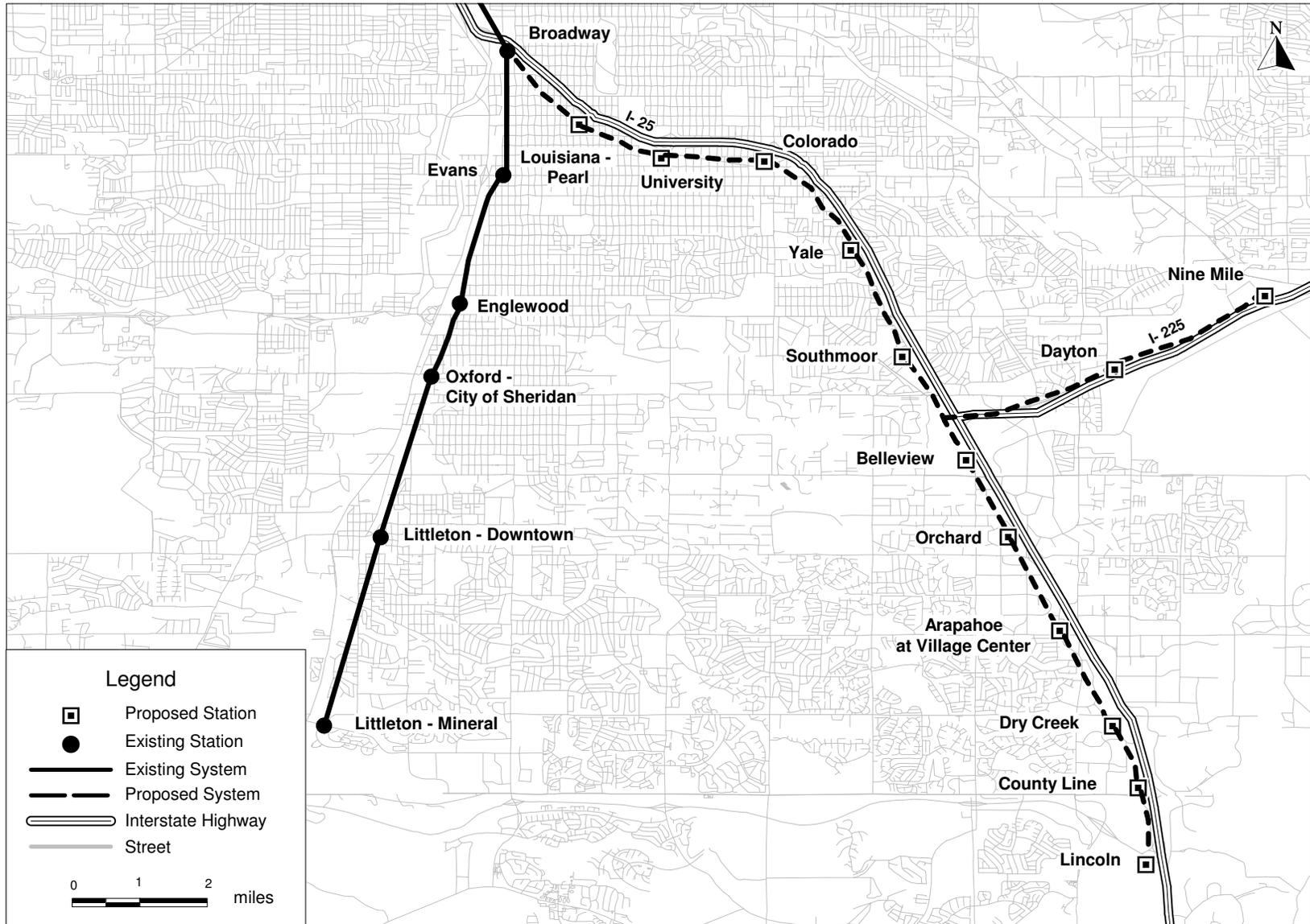
### Reported in Year of Expenditure Dollars

<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$525.00	\$524.99 million appropriated through FY 2009
<b>Local:</b> Sales Tax Revenue-Based Bond Proceeds	\$354.27	
<b>TOTAL</b>	<b>\$879.27</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Southeast Corridor LRT

## Denver, Colorado





# West Corridor LRT

## Denver, Colorado

(November 2008)

The Denver Regional Transportation District (RTD) is constructing a 12-station, 12.1-mile light rail transit (LRT) line extending from RTD's existing LRT system near Colfax Avenue and Interstate 25 (I-25), and following the former Associated Rail right-of-way and US 6, to US 6/US 40 in Jefferson County, Colorado. The proposed project connects with the Central Platte Valley light rail extension and the Central Corridor LRT line at the existing Auraria station adjacent to downtown Denver where it interlines to Denver Union Station (DUS). The project scope includes 32 light rail vehicles. Service would operate at five-minute peak-period headways between DUS and the Federal Center station in Lakewood and 15-minute peak-period headways between Federal Center and Jefferson County Government Center during weekday peak periods. The project is expected to serve 29,700 average weekday boardings in 2030.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$709.83 million. The Section 5309 New Starts funding share is \$308.68 million.

### Status

The West Corridor has been the focus of study for over 30 years. Recognizing its strategic importance to the region, RTD purchased the rail right-of-way in 1988. RTD, in cooperation with the Denver Regional Council of Governments (DRCOG) and the Colorado Department of Transportation (CDOT), completed a major investment study on the corridor in July 1997, which resulted in the selection of a locally preferred alternative that included both LRT and roadway transportation management improvements. The selection of LRT was partially based on the inability to widen West 6<sup>th</sup> Avenue to respond to ongoing population and employment growth within the corridor. FTA approved RTD's request to enter preliminary engineering on the West Corridor LRT project in March 2001. A Final Environmental Impact Statement was completed in October 2003, and a NEPA Record of Decision was issued in April 2004. In November 2004, Denver area voters passed RTD's FasTracks funding plan, which increased RTD's sales tax revenues to support the construction of over 100 miles of new rail transit (including the West Corridor LRT project) and a 24 percent increase in local bus service. FTA approved the project into final design in August 2005. During final design, RTD implemented a series of value engineering and cost containment measures to control cost growth. An Environmental Assessment was completed in August 2007. FTA issued a Finding of No Significant Impact in November 2007. RTD and FTA entered into an FFGA in January 2009, with revenue operations scheduled for May 2013.

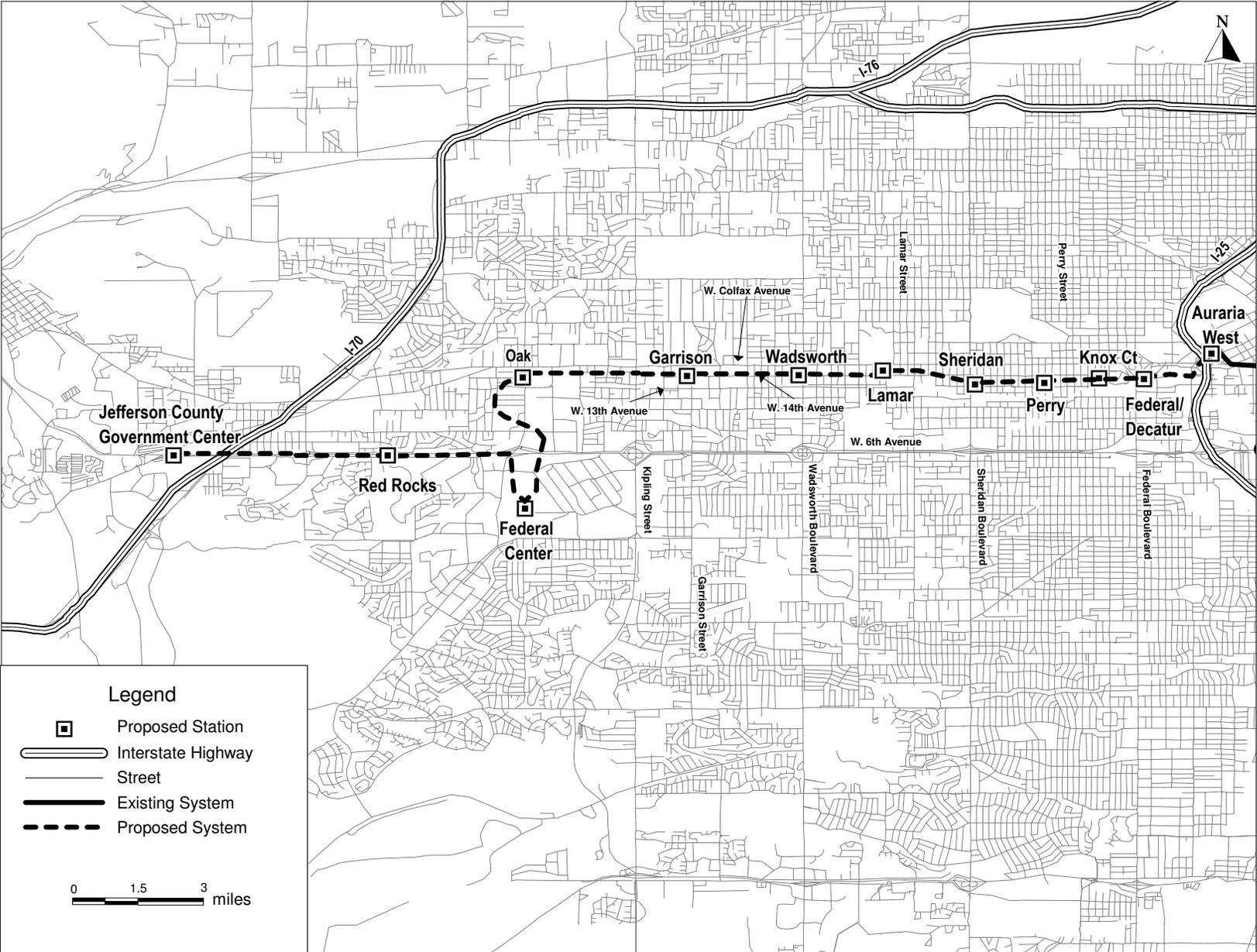
SAFETEA-LU Section 3043(b)(7) authorized the Denver West Light Rail Transit project for final design and construction. Through FY 2009, Congress has appropriated \$138.50 million for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment Section 5307 CMAQ	\$308.68 \$9.50	\$138.50 million appropriated through FY 2009
<b>Local:</b> Sales Tax Revenues and Local government contributions	\$391.65	
<b>TOTAL</b>	<b>\$709.83</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

# West Corridor LRT

Denver, Colorado





# **Largo Metrorail Extension**

## **Washington, DC Metropolitan Area**

(November 2008)

The Maryland Mass Transit Administration (MTA) and the Washington Metropolitan Area Transit Authority (WMATA) are joint lead agencies in the construction of a 3.1-mile heavy rail extension of WMATA Metro's Blue Line. The project extends the Blue Line from its previous terminus at the Addison Road-Seat Pleasant Station to Largo Town Center, located just beyond the Capital Beltway in Prince George's County, Maryland. The 3.1-mile alignment includes tunnel and surface segments. The project includes two new stations at Morgan Boulevard and Largo Town Center and the purchase of 14 heavy rail vehicles. The stations provide 2,700 park-and-ride spaces, as well as "kiss-and-ride" spaces and bus bays. The project provides direct walk access to a new Boulevard Cap Center retail development, and walk access and shuttle bus service to the sports complex at FedEx Field. Average weekday boardings are estimated at 20,040, including 15,310 daily new riders by 2020. A July 31, 2006, amendment to the Largo Metrorail Extension Full Funding Grant Agreement (FFGA) provided an additional 52 rail cars and upgrades to traction power equipment on the Orange and Blue Lines to support the operation of eight-car trains.

The total amended capital cost of the project is \$607.20 million. The Section 5309 New Starts funding share is \$364.30 million.

### **Status**

Preliminary engineering for the Largo Metrorail Extension was initiated in July 1997, and completed in April 2000. A Draft Environmental Impact Statement (EIS) was completed in October 1996. A Final EIS was completed in December 1999. FTA issued a Record of Decision for the Largo Metrorail Extension in February 2000, and approved the project into final design in July 2000. WMATA and FTA entered into an FFGA in December 2000. The non-Federal share for the original FFGA project was provided by the State of Maryland through a funding agreement with WMATA executed on May 26, 2000.

WMATA used a design-build contracting method with construction starting in March 2001. The third and final contract was initiated in October 2002 for the stations and parking facilities. In September 2002, Prince George's County and the Maryland Department of Transportation authorized an additional \$13.60 million for the project to add a parking structure at the Largo Station and a day care center at the Morgan Boulevard Station. The WMATA Board approved \$9.00 million from its Transit Infrastructure Investment Fund (TIIF) to be applied to this project on September 19, 2002. Revenue operations started in December 2004.

In July 2006, the FFGA was amended to add \$173.30 million (including \$104.00 million in Section 5309 New Starts funds) of congressionally directed funding for additional rail cars and traction power upgrades to support eight-car train operations on the Blue and Orange lines. Local funding for the amended FFGA comes from WMATA Compact jurisdictions.

TEA-21 Section 3030(a)(93) authorized the Washington, DC – Largo Extension for final design and construction. Through FY 2009, Congress has appropriated \$363.65 million in Section 5309 New Starts funds for the project, not including \$5.65 million that is not included in the FFGA, which was awarded to the Maryland Transit Administration.

SAFETEA-LU Section 3043(a)(31) and 3043(j) directed FTA to amend its FFGA with WMATA for the Largo Metrorail Extension to add 52 rapid rail cars and "project scope changes."

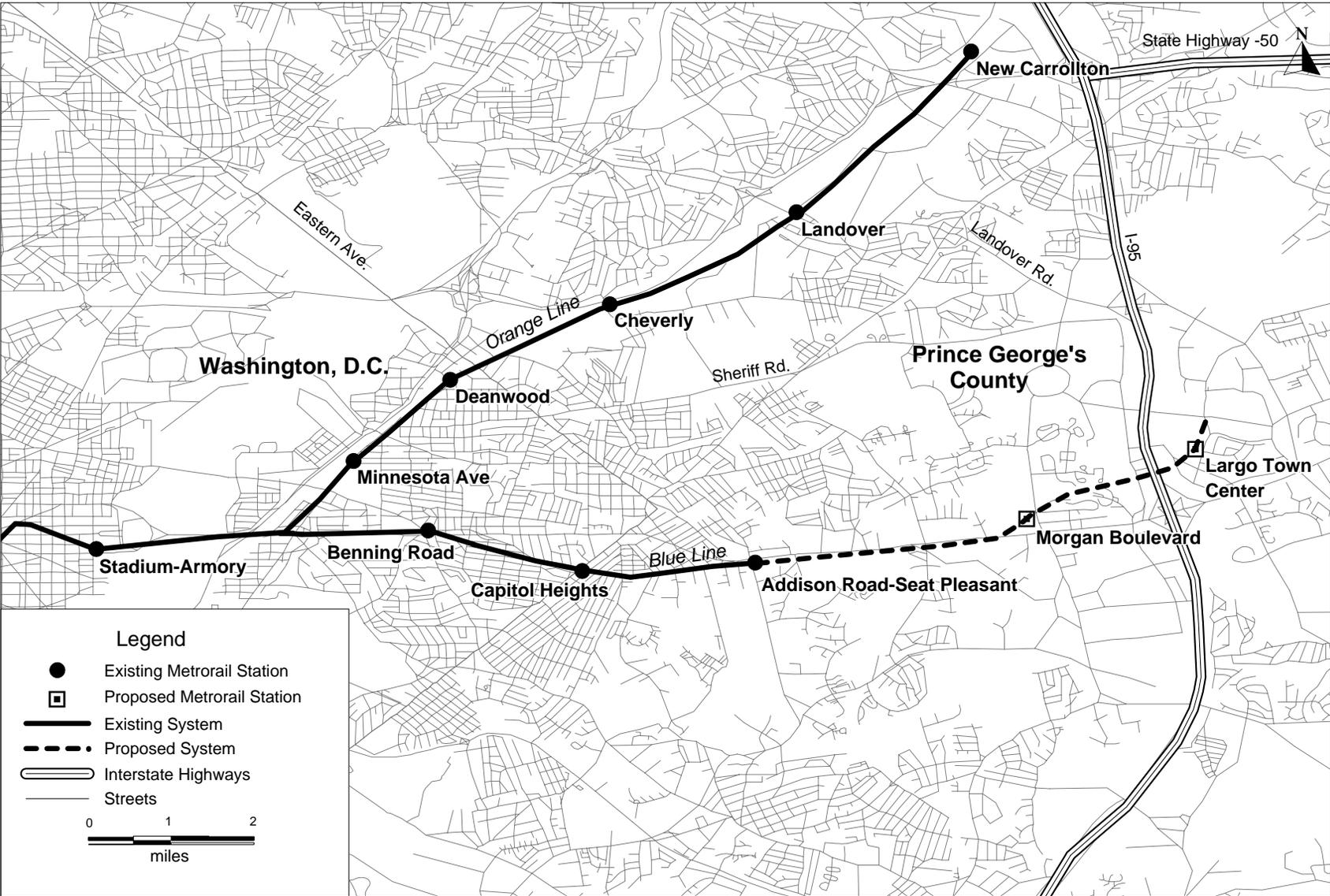
<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$364.30	\$363.65 million appropriated through FY 2009 <sup>1</sup>
<b>Local:</b> WMATA Compact Jurisdictions	\$69.30	
<b>State:</b> Maryland Transportation Trust Fund	\$173.60	
<b>TOTAL</b>	<b>\$607.20</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

<sup>1</sup> Total does not include \$5.65 million awarded to Maryland MTA that is not included in the FFGA.

# Largo Metrorail Extension

Washington, DC Metropolitan Area





# **Ravenswood Line Extension**

## **Chicago, Illinois**

### **(November 2008)**

The Chicago Transit Authority (CTA) is proposing to reconstruct existing platforms and stations on the existing Ravenswood (Brown) Line to accommodate eight-car trains, along with other related capital improvements. The Ravenswood Line extends approximately 9.1 miles from the Kimball Terminal on the north side of Chicago through the "Loop Elevated" in downtown Chicago, and includes 19 stations. The majority of the line operates on an elevated structure (8.0 miles), except for a portion near the northern end of the line that operates at-grade (1.1 miles).

The proposed project includes the modernization of stations and other rail infrastructure improvements, including compliance with the Americans with Disabilities Act regulations for improved station accessibility, resulting in an enhancement of passenger safety and convenience. CTA is also upgrading several highway grade crossings to reduce inconvenience to vehicular traffic and improve pedestrian safety along the line. CTA also expects the modernization of the Brown Line's signal/communication controls to improve train performance and reliability. It will optimize operations along the line via a reduction or elimination of current "slow zones" of, in some areas, less than 15 miles per hour due to the line's deteriorated condition. CTA estimates that average daily ridership in 2020 will total 68,000 passengers.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$529.91 million. The Section 5309 New Starts funding share is \$245.52 million.

## **Status**

In November 1997, the Chicago Area Transportation Study (the local metropolitan planning organization) included the Ravenswood Expansion Project in the region's financially-constrained long-range transportation plan. CTA completed preliminary engineering in early 2000. In February 2002, CTA completed an Environmental Assessment. FTA issued a Finding of No Significant Impact on the project in July 2002, and approved the project into final design in August 2002. CTA and FTA entered into an FFGA in January 2004, with revenue operations scheduled for December 2009.

CTA successfully repackaged the bid packages to address earlier construction bids that came in above the engineer's estimate. This resulted in all of the construction contracts being awarded, with the project maintaining the original budget and schedule. Construction started in late 2004, and is projected to be completed within budget and schedule.

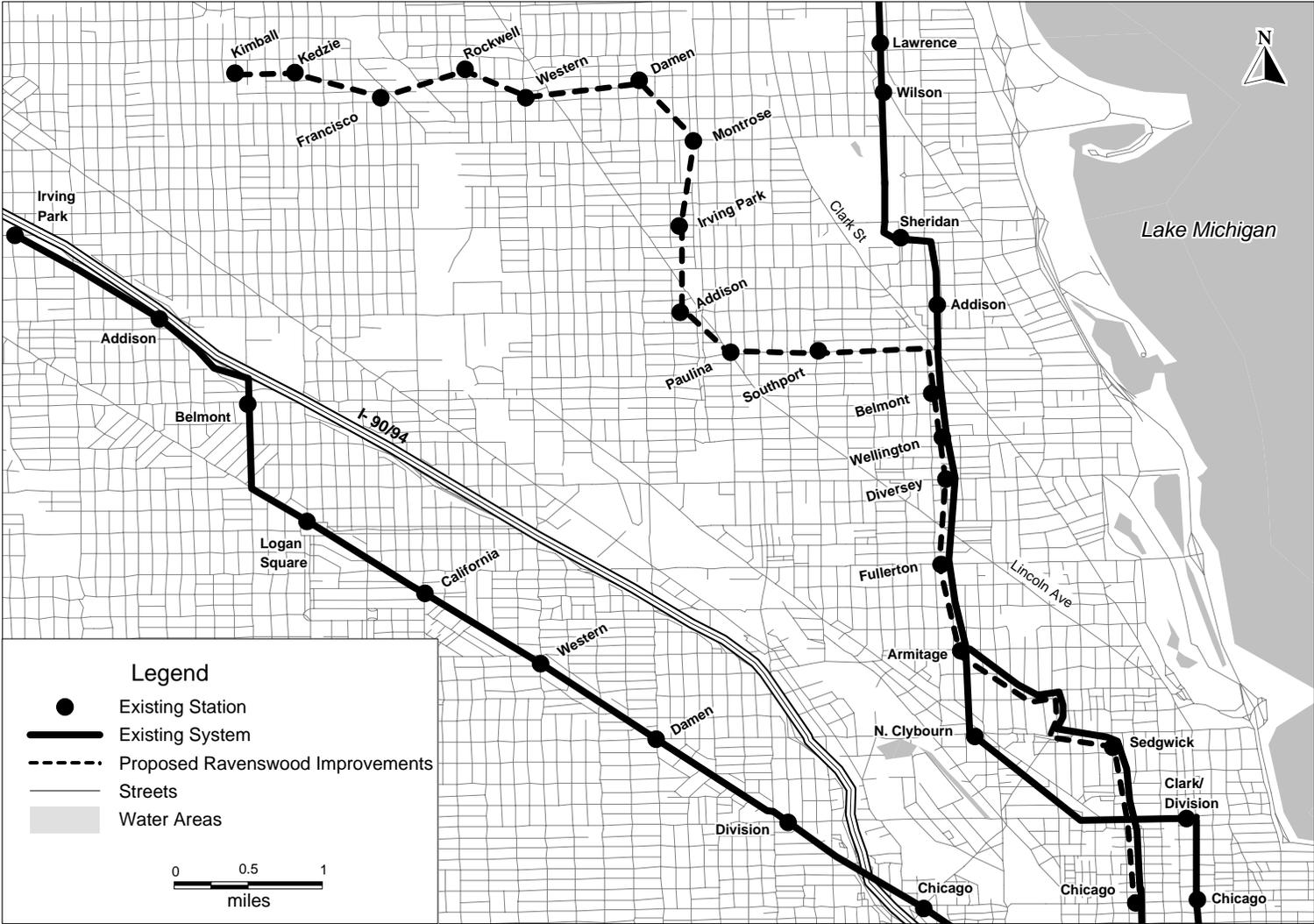
SAFETEA-LU Section 3043(a)(5) authorized the Ravenswood Line Extension for final design and construction. Through FY 2009, Congress has appropriated \$245.22 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$245.52	\$245.22 million appropriated through FY 2009
Section 5307 Urbanized Area Formula	\$35.51	
Section 5309 Fixed Guideway Modernization	\$142.05	
<b>Local:</b> Illinois Department of Transportation	\$49.72	
Regional Transit Authority/Chicago Transit Authority	\$57.10	
<b>TOTAL</b>	<b>\$529.91</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Ravenswood Line Extension

## Chicago, Illinois





# **Northstar Corridor Rail**

## **Minneapolis-Big Lake, Minnesota**

(November 2008)

The Minnesota Department of Transportation (MnDOT), in cooperation with the Northstar Corridor Development Authority (NCDA), is constructing a 40.1-mile commuter rail line that will connect the Minneapolis central business district (CBD) with the town of Big Lake. The commuter rail line operates on Burlington Northern Santa Fe (BNSF) Railway's Chicago-to-Seattle transcontinental mainline and includes a vehicle maintenance facility, layover facility, and requisite track and signal upgrades. The project includes a four-block (0.4-mile) extension of the existing Hiawatha light rail transit line from its current terminus at 1<sup>st</sup> Avenue North (Warehouse District) in the CBD to a multimodal station at 5<sup>th</sup> Avenue North, where the commuter rail line terminates. The commuter rail line will operate 12 weekday trips with 30-minute headways during peak periods. Four of the proposed five stations include park-and-ride lots providing over 1,800 parking spaces. Five locomotives, five bi-level cab cars, 12 bi-level passenger coaches, and two light rail vehicles are being procured as part of the project scope. The project is considered the first phase of a larger proposal to construct an 82-mile commuter rail line from Minneapolis to Rice, Minnesota. MnDOT estimates that average weekday ridership in 2030 will total 5,900 passengers.

The Northstar Corridor is one of the fastest growing areas in the Twin Cities metropolitan region. It includes the fully developed urban core and several rapidly growing suburban areas. Major highway routes into the CBD are at capacity during peak periods for commuters from the north and northwest. By 2025, travel along the corridor's main arterials is projected to increase significantly, with the number of trips in the corridor expected to grow by over 30 percent and the number of inbound trips to the Minneapolis CBD estimated to increase by almost 75 percent. This growth in travel is anticipated to result in longer automobile travel times in the corridor. Increasing roadway capacity to meet growing travel demand is constrained by geography and existing development; the Mississippi River limits the number of access points to the CBD from the north. By avoiding roadway congestion surrounding downtown Minneapolis, the project is expected to provide improved mobility for peak period commuters.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$317.38 million. The Section 5309 New Starts funding share is \$156.81 million.

### **Status**

MnDOT and NCDA completed a major investment study in December 1999. FTA approved an 82-mile commuter rail project between Minneapolis and Rice, Minnesota, into preliminary engineering in June 2000. Subsequent Federal environmental work on the 82-mile alignment concluded with a Record of Decision in December 2002. In an effort to reduce costs and improve cost effectiveness, MnDOT developed a 40.5-mile first phase of the full project in 2004. An Environmental Assessment on the 40.5-mile project was completed in December 2005. FTA issued a Finding of No Significant Impact in March 2006. FTA approved the project into final design in September 2006. Under a Letter of No Prejudice (LONP), NCDA began construction in early 2007. MnDOT and FTA executed an FFGA in December 2007, with revenue operations scheduled for January 2010.

SAFETEA-LU Section 3043(b)(15) authorized the Northstar project for final design and construction. Through FY 2009, Congress has appropriated \$156.10 million in Section 5309 New Starts funds for the project.

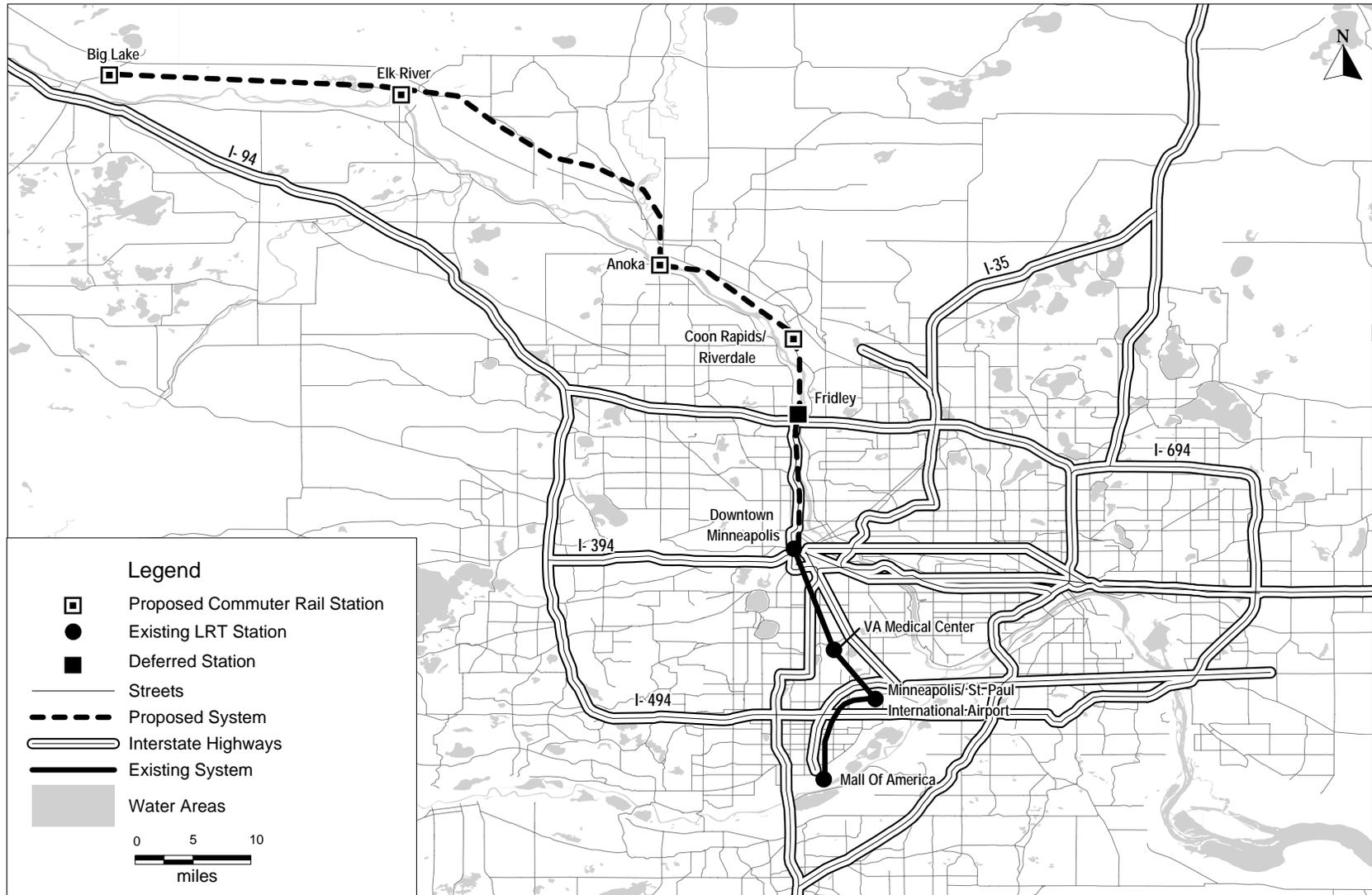
### Reported in Year of Expenditure Dollars

<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts	\$156.81	\$156.10 million appropriated through FY 2009
Flexible Funds (CMAQ and STP)	\$5.18	
<b>State:</b> General Obligation Bonds	\$98.56	
<b>Local:</b> NCDA Capital Partners	\$50.98	
Metropolitan Council	\$5.85	
<b>TOTAL</b>	<b>\$317.38</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Northstar Corridor Rail

## Minneapolis-Big Lake, Minnesota





## **Hudson-Bergen MOS-2**

### **Northern New Jersey**

(November 2008)

The New Jersey Transit Corporation (NJT) constructed a second minimum operable segment (MOS-2) for the Hudson-Bergen Waterfront Light Rail Transit System. The MOS-2 project included a 5.1-mile, six station extension from Hoboken Terminal to the Tonnelle Avenue park-and-ride lot in North Bergen and a one-mile, one-station extension south from 34th Street to 22nd Street in Bayonne. The project was expected to serve 34,900 average weekday boardings in 2010.

The total cost of MOS-2 under the Full Funding Grant Agreement (FFGA) is \$1,215.40 million. The Section 5309 New Starts funding share for the project is \$500.00 million.

### **Status**

The Final Environmental Impact Statement for the full Hudson-Bergen Waterfront Light Rail Transit project was issued in August 1996. An Environmental Assessment was completed on a re-alignment and submitted to FTA in August 1998. FTA issued a Finding of No Significant Impact in June 1999.

FTA and NJT entered into an FFGA in November 2000, with revenue operations scheduled for 2005. MOS-2, like the completed initial minimum operable segment (MOS-1), was a design/build/operate/maintain project. Construction on MOS-2 began in September 2000 under a Letter of No Prejudice and is substantially complete and slightly under budget and on schedule. Revenue service began in November 2003 for the segment from 34<sup>th</sup> Street to 22<sup>nd</sup> Street in Bayonne. In September 2004, revenue service began at three stations between Hoboken Terminal and Weehawken. The final segment from Lincoln Harbor to Tonnelle Avenue opened for revenue service in February 2006. Weekday ridership is approximately 38,200 passengers.

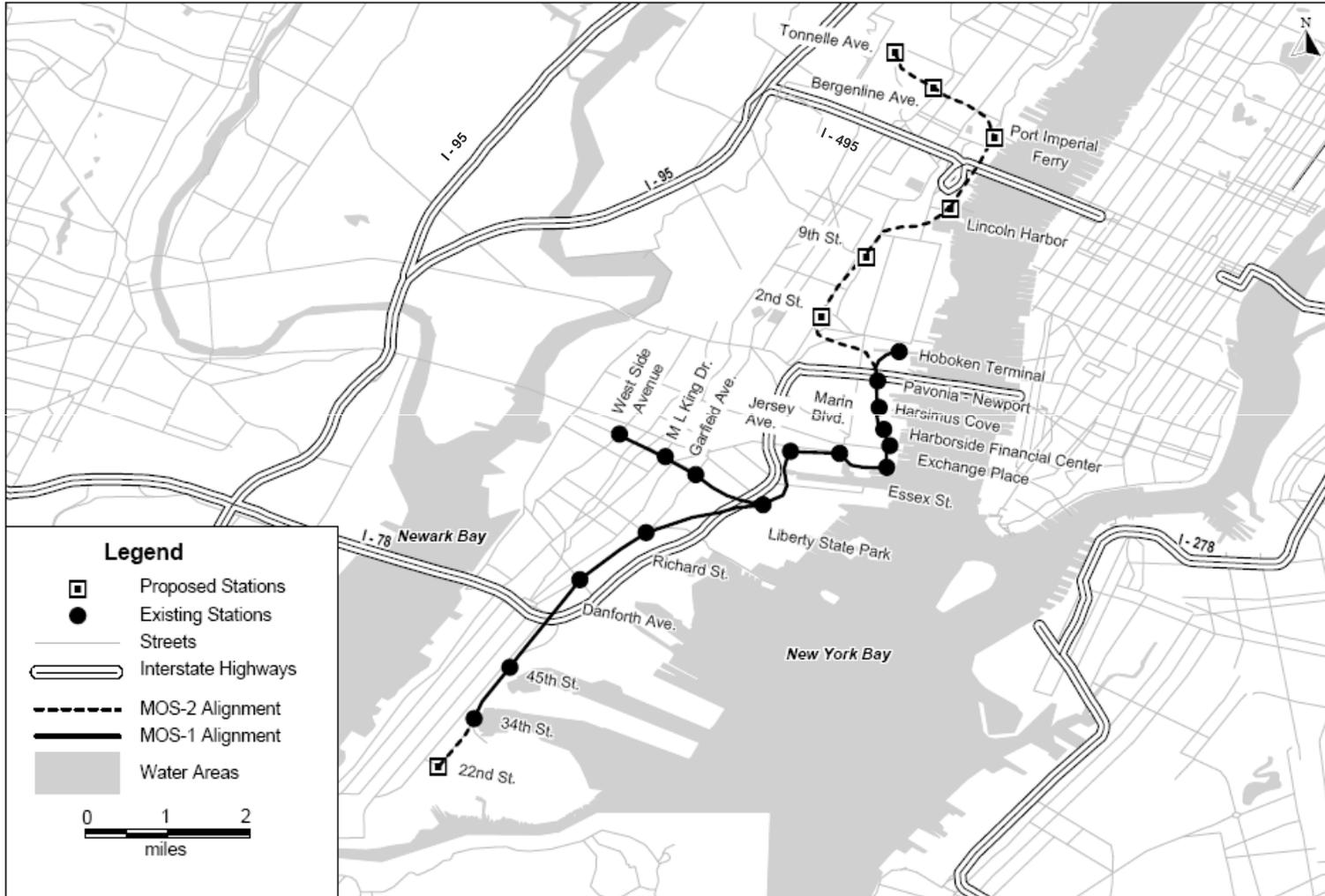
SAFETEA-LU Section 3043(a)(16) authorized the Hudson-Bergen MOS-2 for final design and construction. Through FY 2009, Congress has appropriated \$499.99 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$500.00	\$499.99 million appropriated through FY 2009
Section 5307 Urbanized Area Formula Funds	\$153.70	
<b>State:</b> New Jersey Transportation Trust Fund	\$530.40	
Port Authority of NY & NJ and Utility Reimbursements	\$31.30	
<b>TOTAL</b>	<b>\$1,215.40</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Hudson-Bergen MOS-2

## Northern New Jersey





# Long Island Rail Road East Side Access

New York, New York

(November 2008)

The Metropolitan Transportation Authority's (MTA) Long Island Rail Road (LIRR) is constructing a new, direct 3.5-mile commuter rail extension from LIRR's Main and Port Washington Branch Lines in Long Island and Queens, to Grand Central Terminal (GCT) on Manhattan's East Side. The project includes the construction of new tunnels beneath Sunnyside Yard connecting to the currently unused lower level of the 63<sup>rd</sup> Street Tunnel beneath the East River. In Manhattan, the project will continue west beneath 63<sup>rd</sup> Street toward Park Avenue under the Lexington Avenue subway, turning south beneath the existing MTA-Metro North Railroad tracks under Park Avenue to a new LIRR passenger concourse in the lower level of GCT. At GCT, the project will provide new tracks, and a passenger concourse including platforms, entrances, waiting areas, ticket windows, and other services.

The current highway system and East River crossings (bridges and tunnels) to Manhattan from Nassau/Suffolk (and parts of eastern Queens) are at capacity and subject to severe congestion and long delays. Expansion of the highway network is not feasible due to lack of available rights-of-way, high costs, and potentially adverse environmental impacts in a severe non-attainment area for ozone. The LIRR operates at capacity in this area with peak service of 37 trains per hour into its only Manhattan terminal, Penn Station. Nearly half of LIRR's 106,000 existing daily riders have destinations on Manhattan's East Side, and currently spend approximately 20 minutes "doubling back" from Penn Station on the island's West Side. Without the project, future LIRR trains to Penn Station will be severely congested, and are projected to operate at 27 percent over their passenger-carrying capacity. This level of crowding and discomfort would discourage or prevent new riders from using the LIRR to reach Manhattan. By redirecting trains to GCT, this congestion would be relieved and added capacity for Amtrak and New Jersey Transit service would be created at Penn Station.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$7,386.00 million. The Section 5309 New Starts funding share is \$2,632.11 million.

## Status

MTA completed a major investment study for the project corridor in April 1998. FTA approved MTA's request to advance the project into preliminary engineering in September 1998. A Draft Environmental Impact Statement (EIS) was completed in May 2000; a Final EIS was completed in March 2001; and an environmental Record of Decision was issued by FTA in May 2001. Under a Letter of No Prejudice (LONP), MTA began construction in late 2001. The LONP granted authority to expend up to \$1,080.04 million while maintaining eligibility of the expenses for later reimbursement, and was liquidated upon FFGA execution. FTA approved the project into final design in February 2002. Due to the redesign of a vent facility at 50<sup>th</sup> Street, FTA issued a supplemental environmental Finding of No Significant Impact in July 2006. Major tunneling construction has made significant progress in Manhattan. MTA and FTA entered into an FFGA in December 2006, with revenue operations scheduled for December 2013. There are some emerging issues that are currently being reviewed that may increase the project cost.

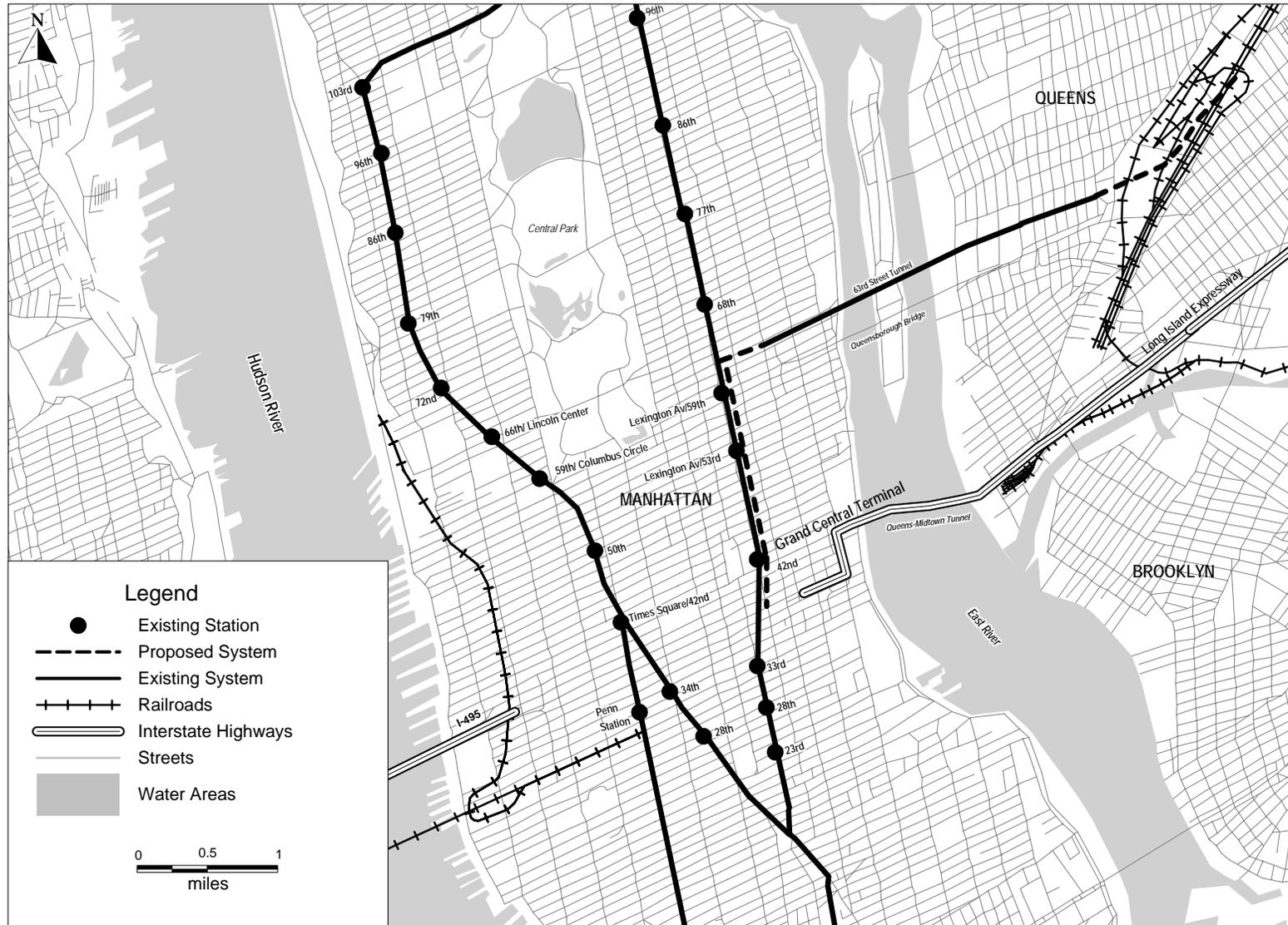
SAFETEA-LU Section 3043(b)(20) authorized the LIRR East Side Access project for final design and construction. Through FY 2009, Congress has appropriated \$1,305.99 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment Flexible Funds (CMAQ) Section 5309 Fixed Guideway Modernization Funds Section 5307 Urbanized Area Formula Funds	\$2,632.11  \$11.20 \$22.98  \$16.26	\$1,305.99 million appropriated through FY 2009
<b>State:</b> State Transportation Bond Act of 2005	\$450.00	
<b>Local:</b> MTA Dedicated Sources (bonds, surplus toll revenues, etc.) MTA Operating Budget	\$3,217.35 \$1,036.10	
<b>TOTAL</b>	<b>\$7,386.00</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Long Island Rail Road East Side Access

New York, New York





# **Second Avenue Subway Phase I**

**New York, New York**

**(November 2008)**

The Metropolitan Transportation Authority and New York City Transit (MTA/NYCT) are constructing 2.3 miles of new subway on Manhattan's East Side from 96<sup>th</sup> Street to 63<sup>rd</sup> Street, connecting with the existing Broadway Line at the 63<sup>rd</sup> Street Station. The Second Avenue Subway Phase I project includes: construction of three new stations at 96<sup>th</sup>, 86<sup>th</sup>, and 72<sup>nd</sup> Streets; modification of the existing 63<sup>rd</sup> Street station; new tunnels from 92<sup>nd</sup> to 63<sup>rd</sup> Streets; station/ancillary facilities; track, signal and power systems; and the procurement of 68 rail cars. The Phase I project is a minimum operable segment (MOS) of a planned 8.5-mile subway line extending the length of Manhattan's East Side from 125<sup>th</sup> Street in East Harlem to Hanover Square in the Financial District.

The project will relieve overcrowded conditions and improve service reliability on the Lexington Avenue Line (LAL), and improve current mobility and meet future demand for commuters throughout New York City and the metropolitan area. The LAL is currently the only full north-south passenger rail line serving Manhattan's east side and is the busiest transit line in North America. This heavy passenger load (approximately 3,000 passengers at one station during a 15-minute period of the morning peak hour) causes significant delays in service due to the excessive overcrowding along station platforms and queuing on stairways.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$4,866.61 million. The Section 5309 New Starts funding share is \$1,300.00 million.

## **Status**

MTA/NYCT completed a major investment study/Draft Environmental Impact Statement (MIS/Draft EIS) on the Manhattan East Side Corridor in September 1999. The MIS/Draft EIS covered the northern portion of the corridor from 63<sup>rd</sup> Street to East 125<sup>th</sup> Street. The full 8.5-mile Second Avenue Subway was selected as the locally preferred alternative (LPA) in May 2001. FTA approved the LPA into preliminary engineering in December 2001. Anticipating the financial difficulties in implementing the entire project at once, MTA/NYCT contemplated the development of minimum operable segments within the corridor. A Final EIS covering the full alignment, but including a strategy for the implementation of four distinct operable segments within the corridor, was completed in April 2004. In July 2004, FTA issued an environmental Record of Decision for the full-length project. FTA included the Phase I MOS in the "other projects" category in the FY 2007 President's Budget. FTA approved entry into final design for the Second Avenue Subway Phase I project in April 2006. FTA executed an Early Systems Work Agreement (ESWA) in January 2007, to enable MTA to advance critical elements of the project. The tunneling contract has been awarded. MTA and FTA entered into an FFGA in November 2007, with revenue operations scheduled for June 2014. There are some emerging issues that are currently being reviewed that may increase the project cost.

SAFETEA-LU Section 3043(b)(21) authorized the MTA Second Avenue Subway project for final design and construction. Through FY 2009, Congress has appropriated \$476.15 million in Section 5309 New Starts funds for the project.

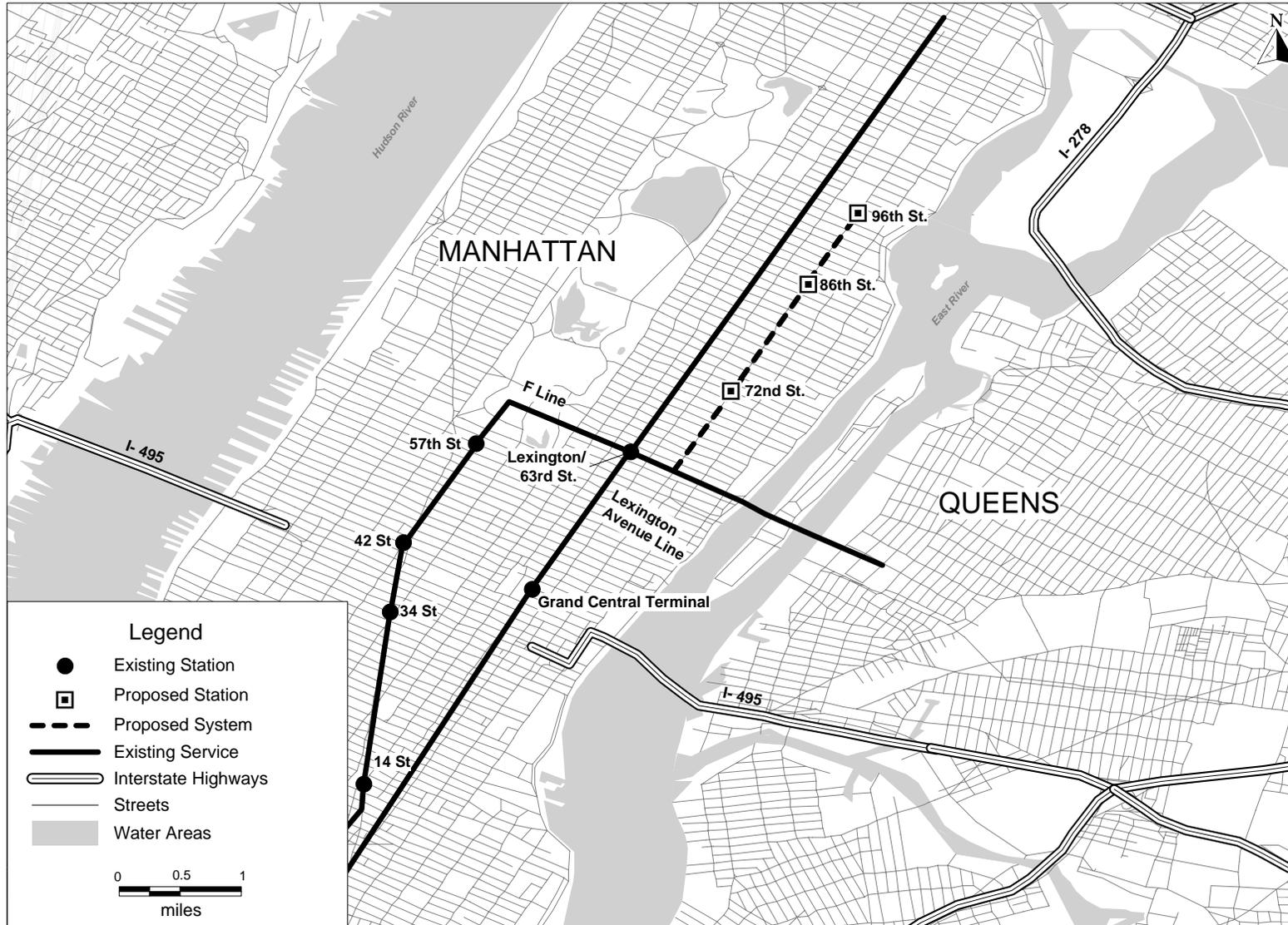
### Reported in Year of Expenditure Dollars

<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b>		
Section 5309 New Starts	\$1,300.00	\$476.15 million appropriated through FY 2009
Section 5307 Other	\$2.46	
Flexible Funds (CMAQ)	\$48.23	
<b>State:</b>		
State Transportation Bond Act of 2005	\$450.00	
<b>Local:</b>		
MTA Dedicated Sources (bonds, surplus toll revenues, etc.)	\$2,249.31	
MTA Operating Budget (finance costs)	\$816.61	
<b>TOTAL</b>	<b>\$4,866.61</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Second Avenue Subway Phase I

## New York, New York





# **South Corridor I-205 / Portland Mall LRT**

## **Portland, Oregon**

(November 2008)

The Tri-County Metropolitan Transportation District (TriMet) and Portland Metro, the region's metropolitan planning organization, are constructing 8.3 miles of new light rail transit (LRT) consisting of two segments connecting to the existing "MAX" LRT system along Interstate 84 (I-84). The South Corridor Light Rail Extension Project or South Corridor Extension will provide a new rail line, "the Green Line," from Clackamas Town Center to Portland State University (PSU). A portion of the Green Line will merge with and share 6.2 miles of the existing Blue Line. The Interstate-205 (I-205) portion will extend within the interstate right-of-way, from Gateway Transit Center to a new rail transit center at the Clackamas Town Center. The Portland Mall portion will extend from Union Station to PSU along the North-South Transit Mall. The I-205 alignment is 6.5 miles double-tracked and at-grade with several grade-separated roadway crossings. This section will include approximately 2,100 park-and-ride spaces. The project includes eight bi-directional stations for the I-205 segment and 14 unidirectional stations along the downtown Portland Mall alignment, with seven on each leg of the one-way loop. TriMet will buy 24 light rail vehicles to operate the project. The project is expected to serve 46,500 average weekday boardings by 2025.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$575.70 million. The Section 5309 New Starts funding share is \$345.40 million.

### **Status**

The South/North Major Investment Study covering the travel shed that connects the cities of Oregon City and Milwaukie, the Clackamas Regional Center area, downtown, north, and southeast Portland, and the city of Vancouver, Washington, was initiated in 1993 and completed in 1995. In 1998, Metro issued a Draft Environmental Impact Statement (EIS) and adopted LRT as the locally preferred alternative (LPA). Additional elements of the South/North project included: the completed Interstate MAX alignment between downtown Portland and Expo Center to the north; a Supplemental EIS underway for the Milwaukie LRT alignment between Milwaukie and downtown Portland to the south; and the Columbia River Crossing EIS between Expo Center in Portland, Oregon and Vancouver, Washington. The failure of a November 1998 ballot measure that would have provided local funding for the LPA triggered the need to re-evaluate the potential improvements, including a separate analysis of the I-205 corridor within the southern portion of the study area. A Supplemental Draft EIS that focused on transportation alternatives in the I-205 corridor was completed in December 2002. In October 2003, TriMet completed an amendment to the Supplemental Draft EIS that examined the potential impacts of a downtown LRT alignment, an improvement that had not been included in the previous environmental work. A revised LPA that included the downtown alignment was approved by FTA into preliminary engineering in March 2004. The Final EIS for the combined project was signed by FTA on November 10, 2004 and was published and distributed in December 2004. FTA issued the NEPA Record of Decision on February 22, 2005. Entry into final design was approved by FTA in October 2005. Civil construction work started on the Mall alignment in March 2007, and on the I-205 alignment in April 2007. FTA and TriMet entered into an FFGA in June 2007, with revenue operations scheduled for September 2009.

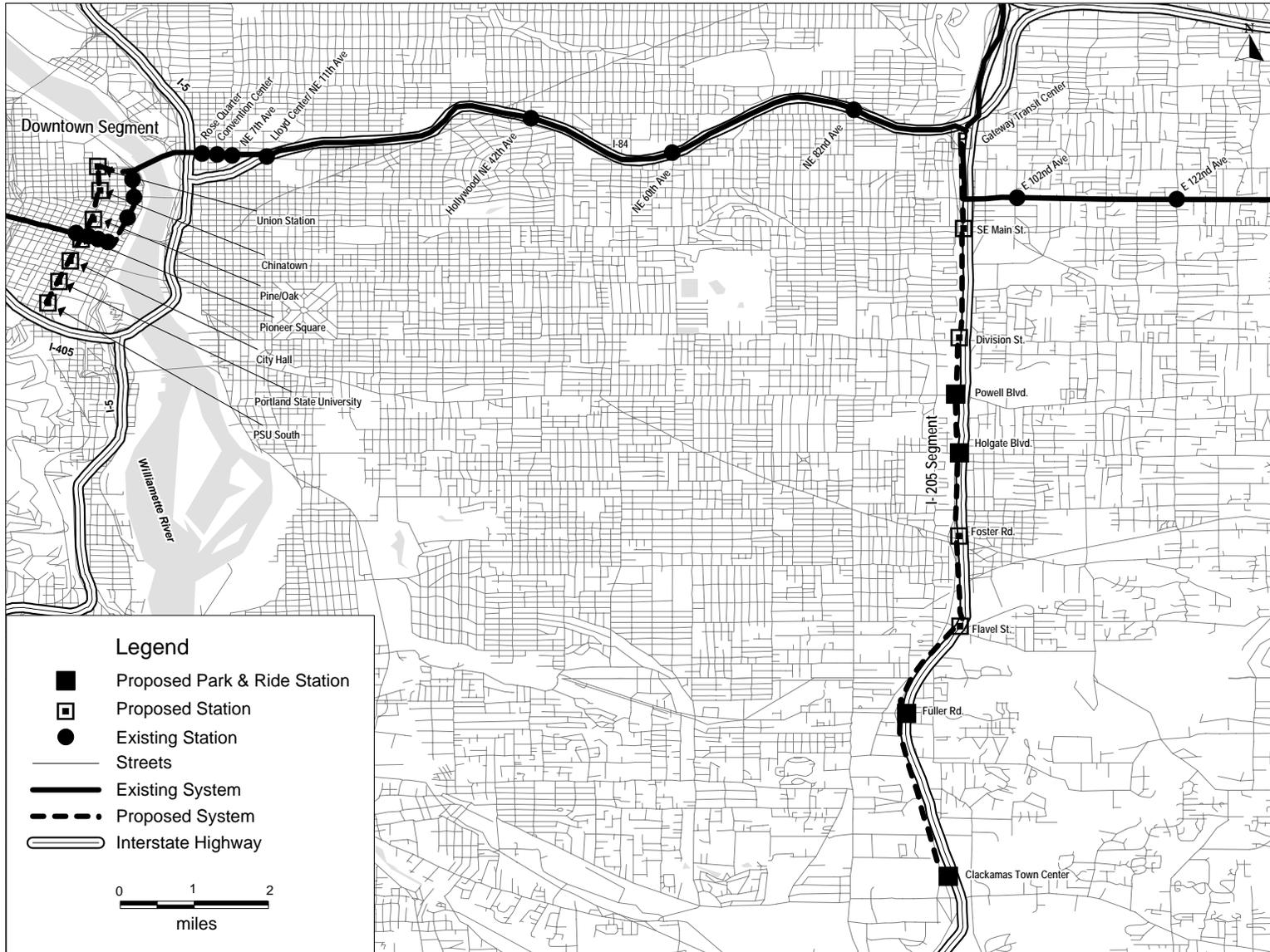
SAFETEA-LU Section 3043(b)(27) authorized the South Corridor I-205/Portland Mall LRT for final design and construction. Through FY 2009, Congress has appropriated \$239.18 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b>		
Section 5309 New Starts FFGA Commitment	\$345.40	\$239.18 million appropriated through FY 2009
GARVEE Bonds	\$64.79	
Section 5309 Bus Funds	\$2.92	
Flexible Funds (CMAQ/STP)	\$23.23	
<b>Local:</b>		
TriMet	\$27.91	
Clackamas County Development Agency	\$39.31	
Portland Development Commission	\$22.31	
City of Portland	\$27.71	
Portland Local Improvement District	\$19.01	
Property Donation	\$3.10	
<b>TOTAL</b>	<b>\$575.70</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# South Corridor I-205 / Portland Mall LRT

Portland, Oregon





# **North Shore LRT Connector**

## **Pittsburgh, Pennsylvania**

(November 2008)

The Port Authority of Allegheny County (Port Authority) is constructing a 1.2-mile double-tracked light rail transit (LRT) extension to its existing 25-mile system connecting the Golden Triangle area of downtown Pittsburgh across the Allegheny River to the rapidly developing North Shore area. The project includes two bored tunnels below the Allegheny River. Three stations will be constructed as part of the project. A new Gateway Station will be constructed adjacent to the current Gateway Station to facilitate the tie-in to the existing system. Two new stations will be constructed on the North Shore. The North Side Station will be located underground in the vicinity of PNC Park, with the aerial Allegheny Station located above Allegheny Avenue. Port Authority expects the North Shore LRT Connector to serve 14,300 average weekday boardings by 2025.

The total project cost under the Full Funding Grant Agreement (FFGA) for the North Shore LRT Connector is \$435.00 million. The Section 5309 New Starts funding share is \$235.70 million.

### **Status**

In 1997, the City of Pittsburgh and the Southwestern Pennsylvania Commission (local metropolitan planning organization) conducted a major investment study to evaluate transportation linkages within the North Shore central business district. The Draft Environmental Impact Statement was completed in 2000. FTA approved the North Shore LRT Connector project for preliminary engineering in January 2001. The project was approved for entry into final design in April 2003. In 2005, the project scope was changed to remove the Convention Center line and four vehicles. Port Authority completed the supplemental NEPA process and received an amended Record of Decision in June 2006. FTA and Port Authority entered into an FFGA in September 2006, with revenue operations scheduled for June 2011. Issues that have caused cost increases are currently being reviewed.

SAFETEA-LU Sections 3043(a)(20) and (b)(26) authorized the North Shore LRT Connector for final design and construction. Through FY 2009, Congress has appropriated \$235.69 million in Section 5309 New Starts funds for the project.

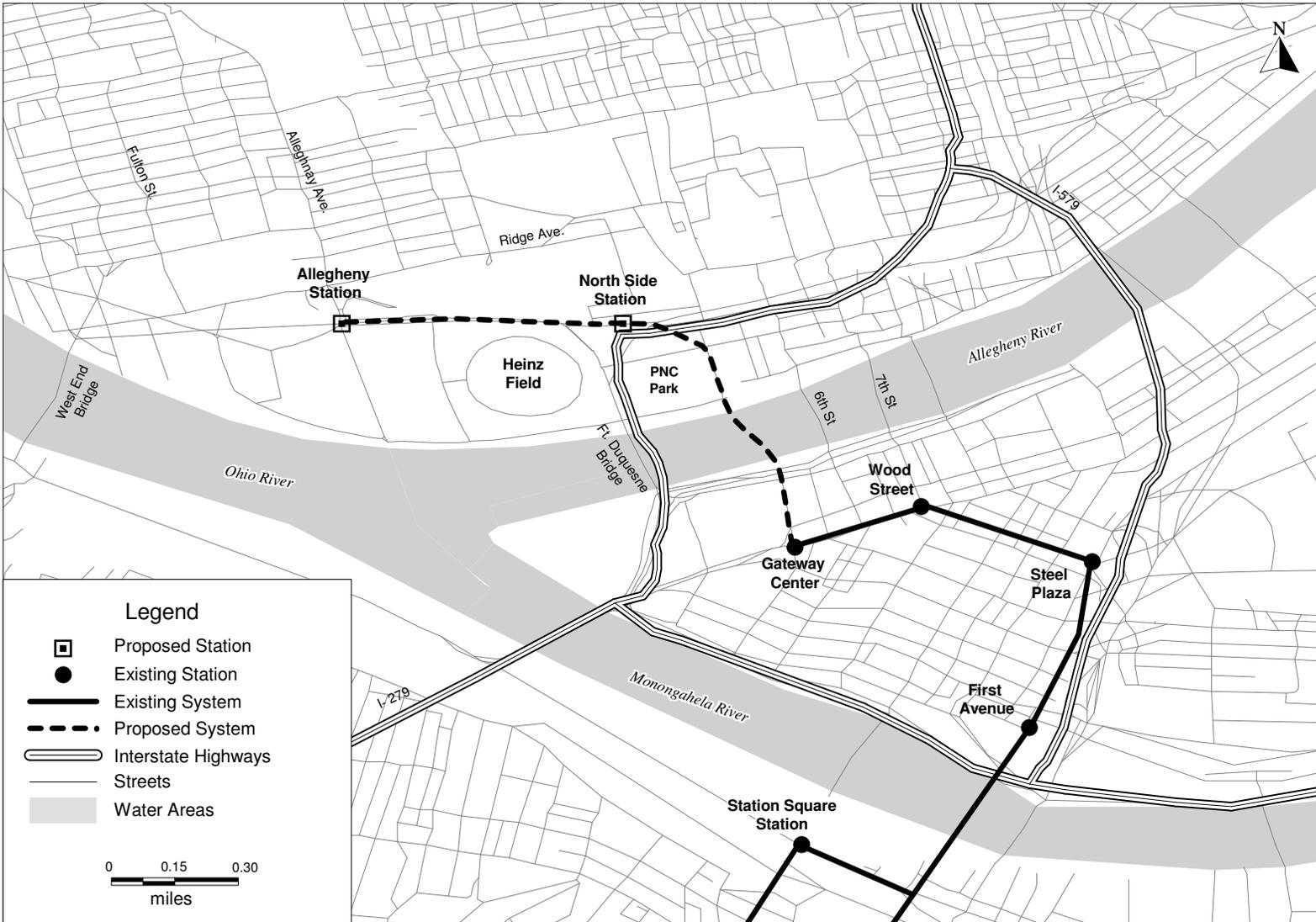
<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (Smillion)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$235.70	\$235.69 million appropriated through FY 2009 <sup>1</sup>
Section 5309 Fixed Guideway Modernization	\$25.50	
Flexible Funds (STP/CMAQ)	\$86.80	
<b>State:</b> State Bonds	\$72.50	
<b>Local:</b> Allegheny County – Capital Improvement Bonds	\$14.50	
<b>TOTAL</b>	<b>\$435.00</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

<sup>1</sup> The total reported does not include \$1.71 million in prior year Section 5309 New Starts funds that is not included in the FFGA.

# North Shore LRT Connector

## Pittsburgh, Pennsylvania





# **Northwest / Southeast LRT MOS**

## **Dallas, Texas**

(November 2008)

Dallas Area Rapid Transit (DART) is constructing a 21-mile, two-segment extension of its light rail transit (LRT) system. The Southeast (SE) segment extends 10.1 miles from the Dallas central business district (CBD) to Buckner Boulevard. The Northwest (NW) segment extends 10.9 miles from the existing Victory Station to the City of Farmers Branch. A locally funded extension of the NW line from Farmers Branch to Frankford Road in Carrollton is also being advanced by DART. The NW and SE LRT alignments would be connected through the existing four-station CBD Transitway Mall. Each segment would operate in an exclusive right-of-way, with no mixed traffic operations. The project includes construction of 16 stations, approximately 2,700 parking spaces, 18 super light rail vehicles (LRV), approximately 38 “C” car retrofits, and a rail operating facility. The project is expected to serve 45,900 average weekday boardings in 2025.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$1,406.22 million. The Section 5309 New Starts funding share is \$700.00 million.

### **Status**

DART completed major investment studies on the SE and NW Corridors in January 2000 and February 2000, respectively. FTA approved the combined NW/SE LRT minimum operable segment (MOS) into preliminary engineering in July 2001. DART completed separate Final Environmental Impact Statements for each project in October 2003 (including the locally funded NW segment extension). FTA issued Records of Decisions completing the environmental review process for both corridors in February 2004. FTA approved the NW/SE LRT MOS project into final design in June 2005. FTA and DART entered into an FFGA in July 2006, with a revenue operations date of June 2011.

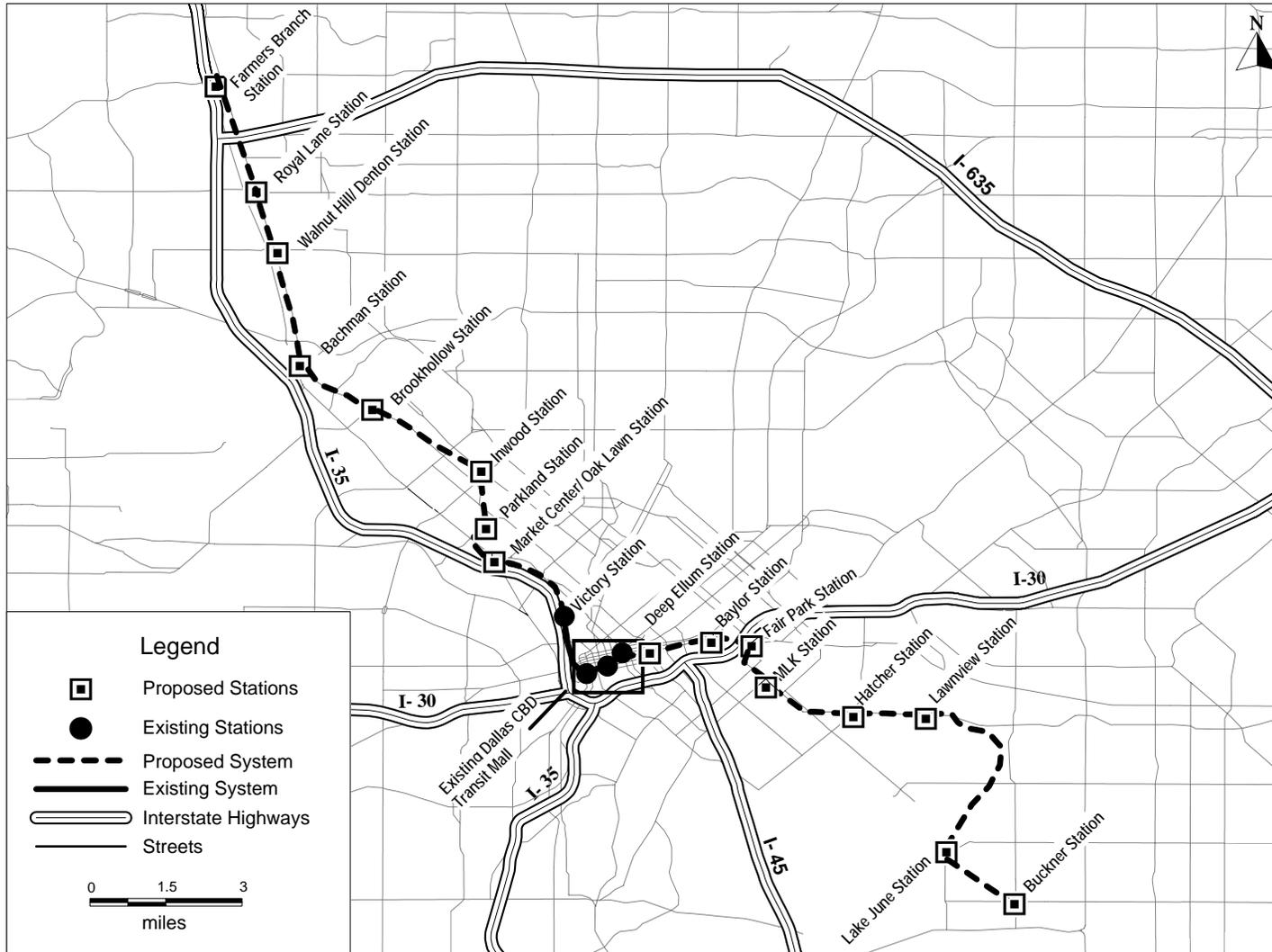
SAFETEA-LU Section 3043(b)(5) authorized the Northwest-Southeast LRT for final design and construction. Through FY 2009, Congress has appropriated \$272.81 million in Section 5309 funds for this project.

<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$700.00	\$272.81 million appropriated through FY 2009
<b>Local:</b> Sales Tax Revenue	\$706.22	
<b>TOTAL</b>	<b>\$1,406.22</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Northwest / Southeast LRT MOS

## Dallas, Texas





# **Mid-Jordan LRT**

## **Salt Lake City, Utah**

(November 2008)

The Mid-Jordan LRT is a 10.6-mile southwestern extension of the Utah Transit Authority's (UTA) TRAX light rail transit (LRT) system. The project will operate largely on existing Bingham Branch Line rail right-of-way (ROW) purchased from the Union Pacific Railroad in September 2002. The Mid-Jordan LRT alignment would serve the growing suburban communities of Midvale and West Jordan, as well as the planned Kennecott Daybreak Development near the project terminus at South Jordan. The project scope includes nine new stations, 3,035 park-and-ride spaces, and 28 low-floor light rail vehicles. Service would operate daily between 5:00 a.m. and 12:00 a.m. with 15-minute headways during both peak and off-peak periods, and one additional train will be deployed during the peak hour. Mid-Jordan LRT service would interline with UTA's existing Sandy/Salt Lake TRAX Line at the existing Fashion Place West station, providing a direct connection to the Salt Lake City central business district and the University of Utah. The project is expected to serve 9,500 average weekday boardings in 2030.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$535.37 million. The Section 5309 New Starts funding share is \$428.29 million.

### **Status**

The proposed project is consistent with previous studies and plans prepared by the Wasatch Front Regional Council, the region's metropolitan planning organization, and UTA. The Mid-Jordan Corridor was identified in the December 2000 South Salt Lake County Transit Corridors Analysis as a prime candidate for improved transit service. A Draft Environmental Impact Statement (EIS) was completed in July 2005. FTA approved the Mid-Jordan LRT project into preliminary engineering in May 2007. The Final EIS was signed in July 2007, and the environmental Record of Decision was issued in September 2007. The project was approved into final design in April 2008. Under a Letter of No Prejudice (LONP), UTA began construction in August 2008. A second LONP was provided in October 2008. The two LONPs granted authority to expend up to \$35.89 million while maintaining eligibility of the expenses for later reimbursement, and were liquidated upon FFGA execution. UTA and FTA entered into an FFGA in January 2009, with revenue operations scheduled for December 2011.

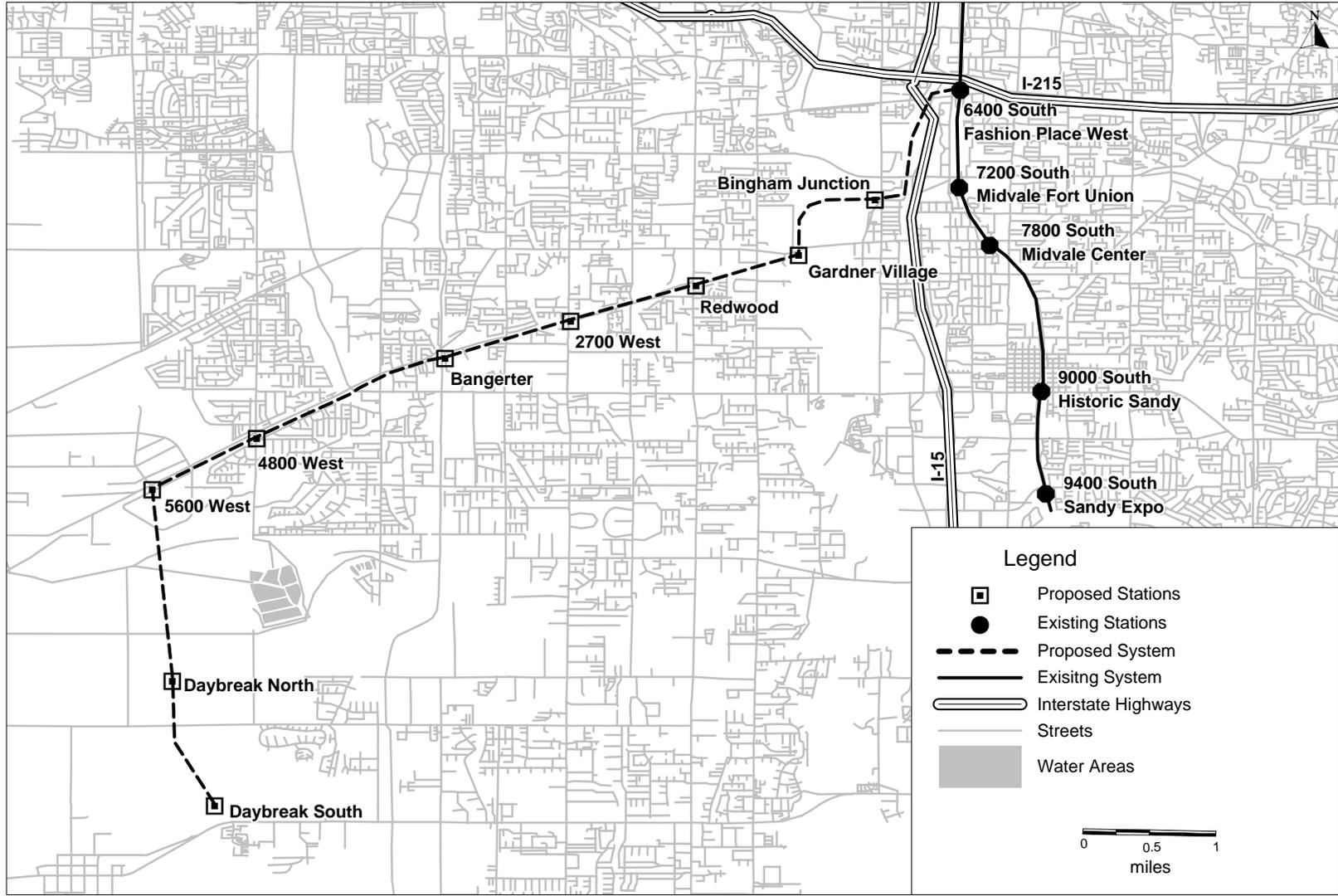
SAFETEA-LU Section 3043(c)(214) authorized the West Jordan LRT Extension (now known as Mid-Jordan LRT Extension) for final design and construction. Through FY 2009, Congress has appropriated \$39.89 million for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$428.29	\$39.89 million appropriated through FY 2009
<b>Local:</b> Sales Tax Revenues Right-of-Way purchased by UTA	\$80.10 \$26.98	
<b>TOTAL</b>	<b>\$535.37</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

# Mid - Jordan LRT

## Salt Lake City, Utah





# **Weber County to Salt Lake City Commuter Rail**

## **Salt Lake City, Utah**

(November 2008)

The Utah Transit Authority (UTA) is constructing a 44-mile Weber County to Salt Lake City Commuter Rail project. The project includes eight stations to serve the areas of Pleasant View, Ogden, Roy, Clearfield, Layton, Farmington, Woods Cross and downtown Salt Lake City. The commuter rail line will operate within an existing railroad corridor parallel to Interstate 15 (I-15), utilizing right-of-way previously acquired by UTA under a rail corridor preservation plan with certain facilities already in place. Approximately 6,300 park-and-ride spaces will be built at project stations to expand the transit catchment area beyond the immediate corridor. Bus and light rail transit connections are intended to provide further service to other travel markets, including Weber State University, Hill Air Force Base, Freeport Center, the University of Utah, the Medical Center, and to the areas of Sandy and Draper in the southern part of Salt Lake City. The commuter rail project will operate at 20-minute headways during peak periods. The Weber County to Salt Lake City Commuter Rail project is the northern segment of a planned commuter rail system extending south of Salt Lake City to Provo. The project is expected to serve 11,800 average weekday boardings in 2025.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$611.68 million. The Section 5309 New Starts funding share is \$489.35 million.

### **Status**

The commuter rail project is a part of a local multimodal transportation “shared solution” strategy proposed in several studies developed since the 1980s to meet projected travel demand in the I-15 corridor. Completed in January 2002, the *Inter-Regional Corridor Alternatives Analysis* considered a number of transit alternatives for the project corridor, and identified commuter rail as the locally preferred alternative. The project was approved for entry into preliminary engineering in December 2003. A Draft EIS was completed in April 2004. A Final EIS was published in February 2005, and a NEPA Record of Decision was issued in April 2005. The project was approved into final design in June 2005. On June 16, 2006, FTA and UTA entered into an FFGA, with revenue operations scheduled for September 2008. The project began revenue operations between Salt Lake City and Ogden on April 26, 2008, and full revenue operation to Pleasant View in September 26, 2008.

SAFETEA-LU Section 3043(b)(30) authorized the Weber County to Salt Lake City Commuter Rail for final design and construction. Through FY 2009, Congress has appropriated \$260.80 million for the project.

### Reported in Year of Expenditure Dollars

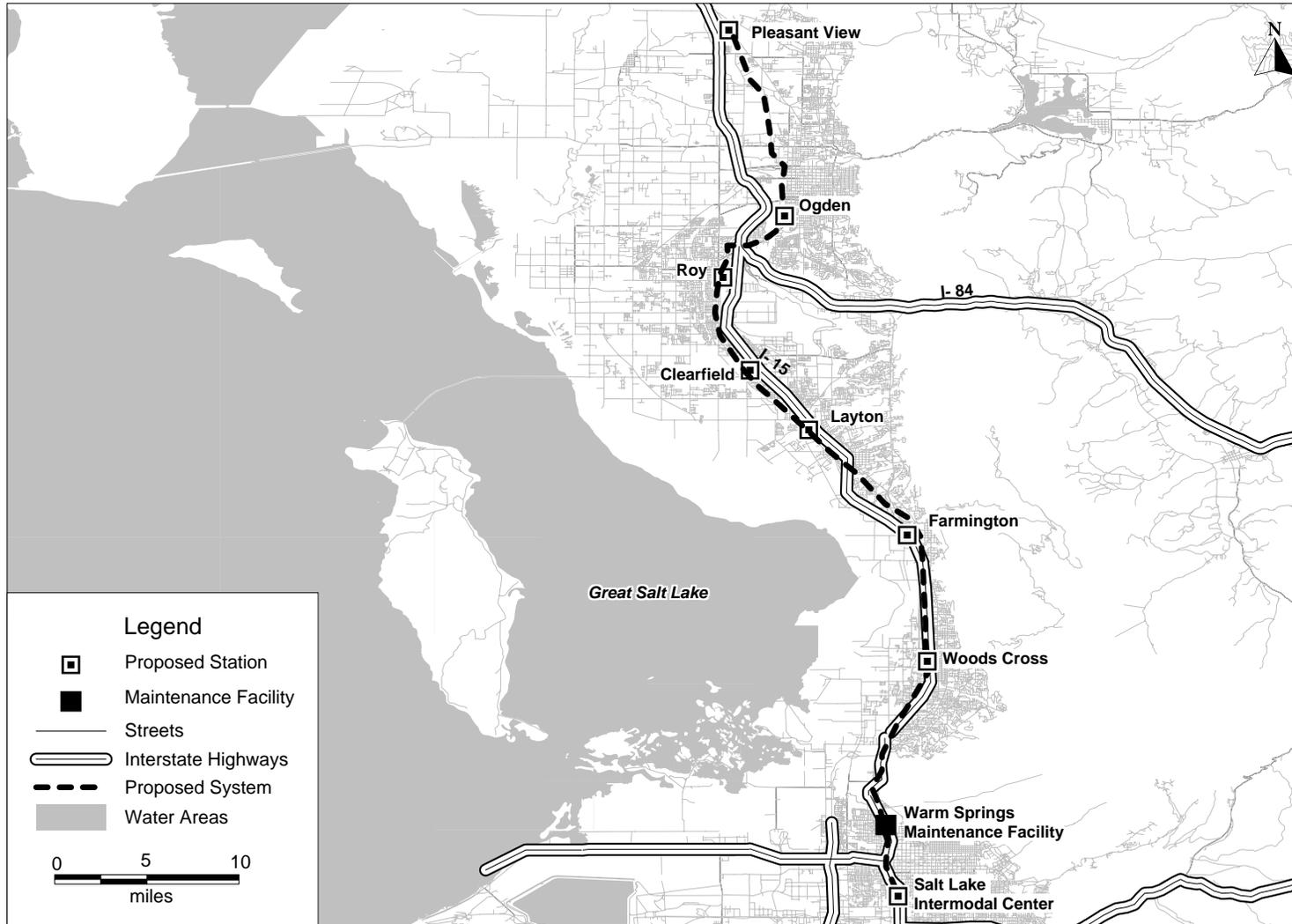
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$489.35	\$260.80 million appropriated through FY 2009
<b>Local:</b> Sales Tax Revenues Right-of-Way	\$82.33 \$40.00	
<b>TOTAL</b>	<b>\$611.68</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

Division H of the Consolidated Appropriations Act, 2005, permits UTA to count completed and future highway and transit expenditures to meet the local financial share requirements for the Weber County to Salt Lake City Commuter Rail project. UTA's latest financial plan does not fully utilize the provisions contained in the Act, proposing instead an 80 percent share of New Starts funding matched by the value of project ROW and local revenues.

# Weber County to Salt Lake City Commuter Rail

## Salt Lake City, Utah





# **Norfolk LRT**

## **Norfolk, Virginia**

(November 2008)

Hampton Roads Transit (HRT) is constructing the Norfolk Light Rail Transit (LRT) Project. The Norfolk LRT project is a 7.4-mile double-track LRT line within the city of Norfolk that will serve as the initial segment of a regional rapid transit system. The project alignment begins at the Eastern Virginia Medical Center, moves eastward as a dedicated in-street guideway through downtown Norfolk to Norfolk State University, and continues along an abandoned Norfolk Southern Railroad right-of-way parallel to Interstate 264 (I-264) to the eastern terminus at the Norfolk/Virginia Beach city line at Newtown Road. The project includes 11 new stations, nine light rail vehicles, three park-and-ride lots and a light rail maintenance facility. The project is expected to serve 7,100 average weekday boardings by 2030.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$232.10 million. The Section 5309 New Starts funding share is \$127.98 million.

### **Status**

In 1997, FTA approved into preliminary engineering (PE) an 18-mile LRT system extending between the cities of Norfolk and Virginia Beach. The Draft Environmental Impact Statement (EIS) for the project was completed in April 1999. In November 1999, Virginia Beach voters failed to approve a local funding measure for the project, resulting in the truncation of the project at Kempsville Road within the city limits of Norfolk. FTA approved the abridged project into PE in October 2002. A Supplemental Draft EIS was completed in January 2003. HRT undertook subsequent scope and cost reductions resulting in the current 7.4-mile alignment. In October 2005, the city of Norfolk passed an ordinance intended to limit the availability of parking downtown, which was a key assumption in HRT's travel forecasts for the project. FTA issued a Record of Decision for the project in April 2006. The Norfolk LRT project was approved into final design in September 2006. HRT and FTA entered into an FFGA in October 2007, with revenue operations scheduled for January 2010.

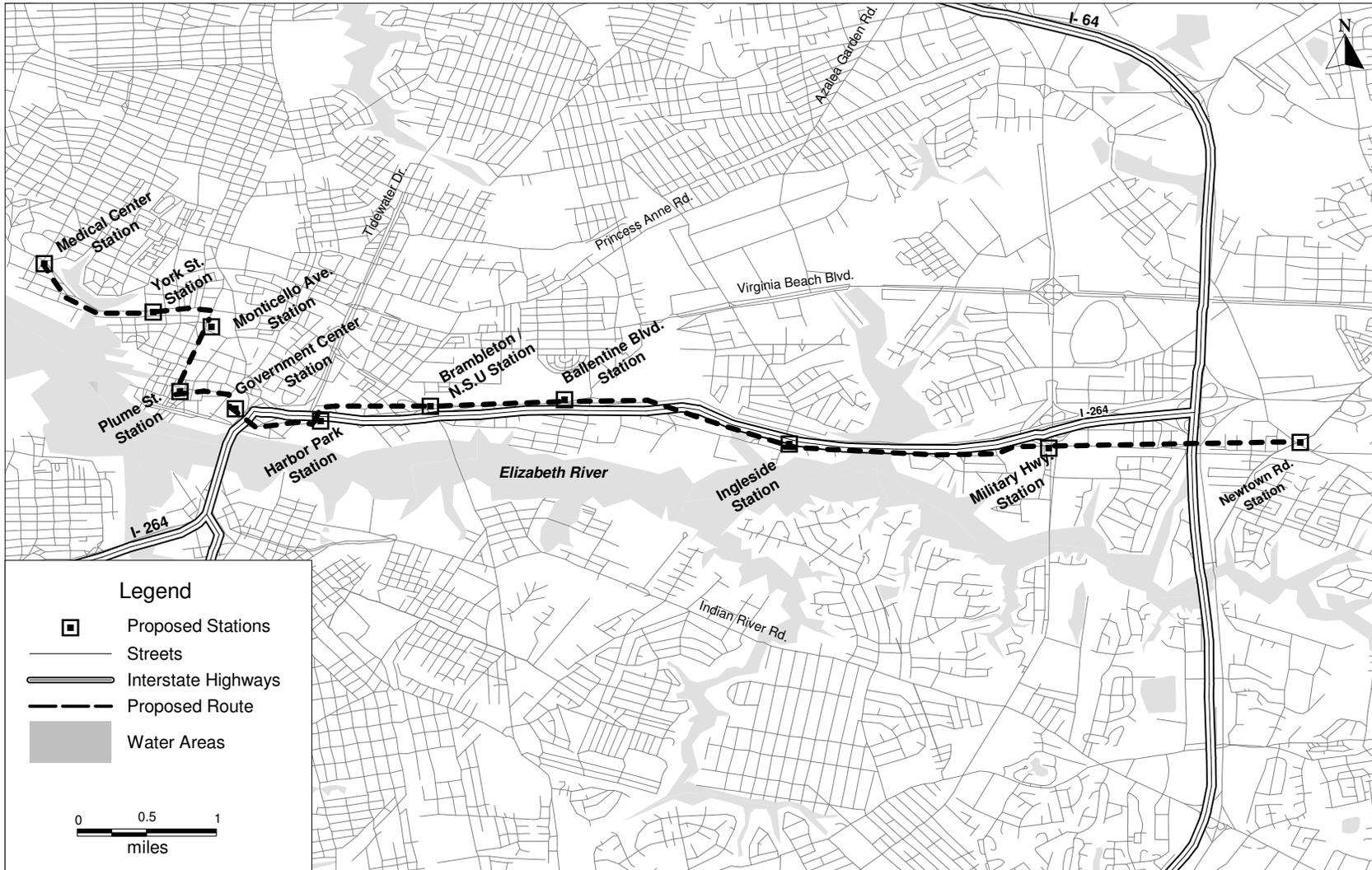
SAFETEA-LU Section 3043(b)(22) authorized the Norfolk LRT Project for final design and construction. Through FY 2008, Congress has appropriated \$75.74 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$127.98	\$75.74 million appropriated through FY 2008
Section 5307 STP	\$38.20	
Section 5307 Other	\$1.00	
<b>State:</b> Commonwealth of Virginia	\$31.88	
<b>Local:</b> City of Norfolk	\$33.03	
<b>TOTAL</b>	<b>\$232.10</b>	

NOTE: The sum of the figures may differ from the total as listed due to rounding.

# Norfolk LRT

## Norfolk, Virginia





# **Dulles Corridor Metrorail Project – Extension to Wiehle Avenue**

## **Northern Virginia**

(April 2009)

The Metropolitan Washington Airports Authority (MWAA), in cooperation with the Washington Metropolitan Area Transit Authority (WMATA), is proposing to construct an 11.7-mile extension of the region's Metrorail system from west of the existing East Falls Church Metrorail station through the large Tysons Corner employment and retail center to Wiehle Avenue in the Reston area of Fairfax County. The project will be operated as a separate Metrorail line under a new service configuration that terminates in Washington, DC at the existing Stadium-Armory Metrorail station. The proposed project scope includes construction of five new stations, a major park-and-ride lot at Wiehle Avenue, and expanded storage capacity at WMATA's West Falls Church rail yard. The project also includes the purchase of 64 heavy rail vehicles. The extension would be operated by WMATA, with trains operating at seven minute peak frequencies from the Wiehle Avenue station through East Falls Church, continuing along the existing Metrorail Orange Line track east through Arlington County, downtown Washington, DC, Capitol Hill, and terminating at Stadium-Armory. The 11.7-mile extension is the first phase of a proposed 23.1-mile extension of Metrorail west to Dulles International Airport and Loudoun County.

The Tysons Corner area contains over 25 million square feet of office space and 110,000 employees. Redevelopment and expansion of major retail and office development is underway. The Reston area contains significant mixed-use development, with a substantial employment base and large residential population, many of whom commute to employment sites in Washington, DC. The primary transportation arteries that serve this rapidly-growing area are the Dulles Toll Road and Route 7, both of which experience significant congestion during peak hours. The proposed Metrorail extension would expand transportation capacity to and from Reston and the Tysons Corner regional activity centers (including reverse commute trips), while providing a direct rail link for commuters from northwest Fairfax and Loudoun Counties to employment opportunities in Tysons Corner, the Rosslyn-Ballston corridor, downtown Washington, DC, and other locations adjacent to stations along the 106-mile Metrorail system. Ridership is projected to be approximately 85,700 daily riders by 2030, including an estimated 10,000 new transit riders.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$3,142.47 million. The Section 5309 New Starts funding share is \$900.00 million.

## **Status**

Following years of study, a phased bus/rail system in the Dulles corridor was adopted into the region's long range plan in October 1999. In March 2000, FTA approved initiation of preliminary engineering (PE) for the Dulles Corridor Bus Rapid Transit Project. Upon completion of a Draft Environmental Impact Statement (EIS) in November 2002, a 23.1-mile Metrorail extension to Route 772 in Loudoun County replaced BRT as the locally preferred alternative (LPA). Due to funding concerns, the Virginia Department of Rail and Public Transportation (DRPT), the project's original sponsor, and WMATA identified a project terminating at Wiehle Avenue as the first phase of implementation of the LPA. FTA approved a Supplemental Draft EIS in October 2003 reflecting this terminus. FTA approved DRPT's request to initiate PE for the Extension to Wiehle Avenue project in June 2004. DRPT received a Record of Decision (ROD) on the Final EIS for both this project and the full LPA in March 2005. The environmental documents covered the entire LPA west through Dulles International Airport to Loudoun County. Thus, the Federal Aviation Administration issued its own Record of Decision in July 2005. In March 2006, the Commonwealth of Virginia accepted the MWAA proposal to assume control of the Dulles Toll Road and responsibility for construction of the project. Such authority is intended to enable

MWAA to accelerate implementation of not only the Metrorail Extension to Wiehle Avenue but the full LPA using Dulles Toll Road revenues. In February 2006, Fairfax County requested that the Metrorail alignment along Route 7 be shifted from the south side to the median, so that a boulevard-type roadway could be constructed. An Environmental Assessment addressing this proposed change was published in February 2006. After a public hearing in March 2006, FTA issued an amended ROD in November 2006. The Project was formally transferred from DRPT to MWAA in July 2007. FTA approved the Project into final design in May 2008. The Dulles Toll Road was transferred from the Virginia Department of Transportation (VDOT) to MWAA in November 2008. MWAA and FTA executed an FFGA in March 2009, with revenue operations scheduled for December 2014.

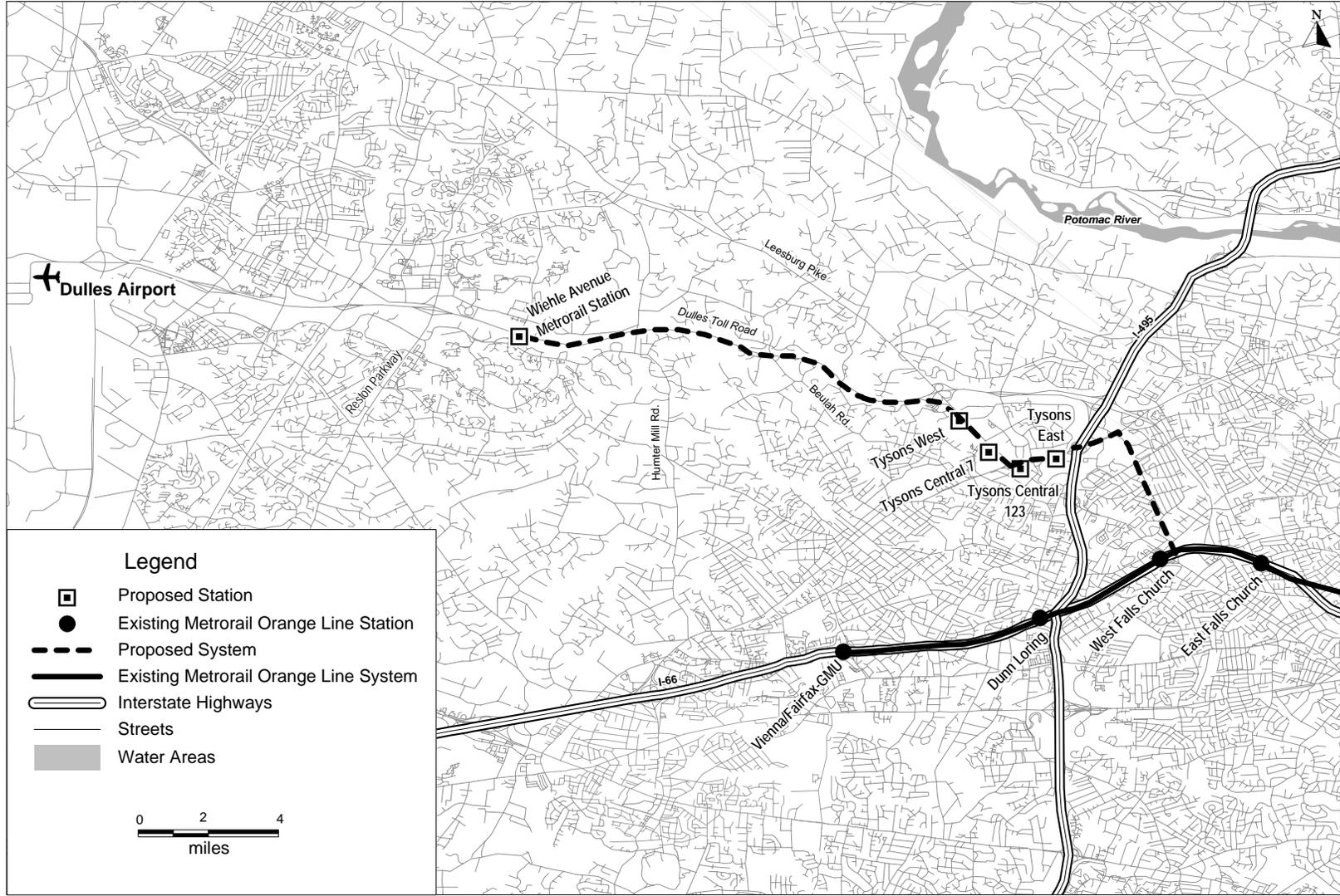
SAFETEA-LU Section 3043(b)(23) authorized the Dulles Corridor Metrorail Project for final design and construction. Through FY 2009, Congress has appropriated \$242.22 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<b>Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment FHWA Flexible Funds (STP)	\$900.00 \$75.00	\$242.22 million appropriated through FY 2009
<b>State:</b> Virginia Transportation Act 2000 Commonwealth Transportation Board Bonds	\$51.70 \$125.00	
<b>Local:</b> Dulles Toll Road Revenues and Bond Proceeds Fairfax County Transportation Improvement District	\$1,467.02 \$523.75	
<b>TOTAL</b>	<b>\$3,142.47</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

# Dulles Corridor Metrorail Project - Extension to Wiehle Avenue

## Northern Virginia





# Central Link Initial Segment

## Seattle, Washington

(November 2008)

Central Puget Sound Regional Transit Authority (Sound Transit) is implementing a 13.9-mile double-track light rail for the Initial Segment of the Central Link Light Rail transit project. The Initial Segment runs from Westlake Center through downtown Seattle to South 154<sup>th</sup> Street in the City of Tukwila. The system will use the existing 1.3-mile Downtown Seattle Transit Tunnel (DSTT), a new one-mile long Beacon Hill tunnel, and a new 0.1-mile tunnel (the Pine Street stub tunnel) in the vicinity of the Convention Place station. The stub tunnel will be used for crossover and turnback operations. The scope of work includes seven new stations, renovation of four stations in the DSTT, a maintenance and operations facility, and a park-and-ride lot at the southern terminus at South 154<sup>th</sup> Street. A fleet of approximately 31 low-floor, articulated, 90- to 95-foot vehicles will be procured for the Initial Segment. The project is expected to serve 42,500 average weekday boardings in 2020.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$2,436.90 million. The Section 5309 New Starts funding share is \$500.00 million.

## Status

FTA approved the initiation of preliminary engineering for the Central Link LRT project (Northgate to South 200<sup>th</sup> Street) in July 1997. A Draft EIS on the Central Link was published in December 1998. In February 1999, Sound Transit identified a 20-mile light rail system from Northeast 45<sup>th</sup> Street at the University of Washington to South 200<sup>th</sup> Street in the City of SeaTac as the locally preferred alternative (LPA).

The Final EIS was completed in November 1999, and FTA issued a Record of Decision in January 2000 for the entire proposed system. The Sound Transit Board formally adopted a 7.2-mile initial minimum operable segment (MOS-1) in November 1999. This original MOS-1 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 MOS was new tunnel under Capitol Hill, Portage Bay, and the University of Washington. FTA approved the project's advancement into final design in February 2000.

Based on increased costs for tunneling, right-of-way, mitigation, and other factors, Sound Transit increased the total project cost for MOS-1 and rescheduled the revenue operations date. After review and evaluation of the revised information, FTA executed an FFGA for MOS-1 in January 2001.

In April 2001, the Secretary of Transportation put the project on hold until significant concerns raised by the Office of the Inspector General were resolved. The Sound Transit Board then re-examined the entire project 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 meet budget limitations.

In November 2001, the Sound Transit Board formally adopted the current Initial Segment from Convention Place to the South 154<sup>th</sup> Street Station as the revised MOS. An additional environmental review assessed the impacts of project changes, including the new termini and joint bus-rail operations in the DSTT and a new alignment through the City of Tukwila. A Supplemental Final EIS on the Tukwila segment was published in November 2001. The Federal environmental review of the Central Link Initial Segment was completed in May 2002, with issuance of an amended Record of Decision. FTA approved the project's entry into final design in August 2002, and issued an FFGA in October 2003. At the same

time, FTA rescinded the FFGA executed in January 2001. Construction started in November 2003, and is projected to be completed within budget and on schedule.

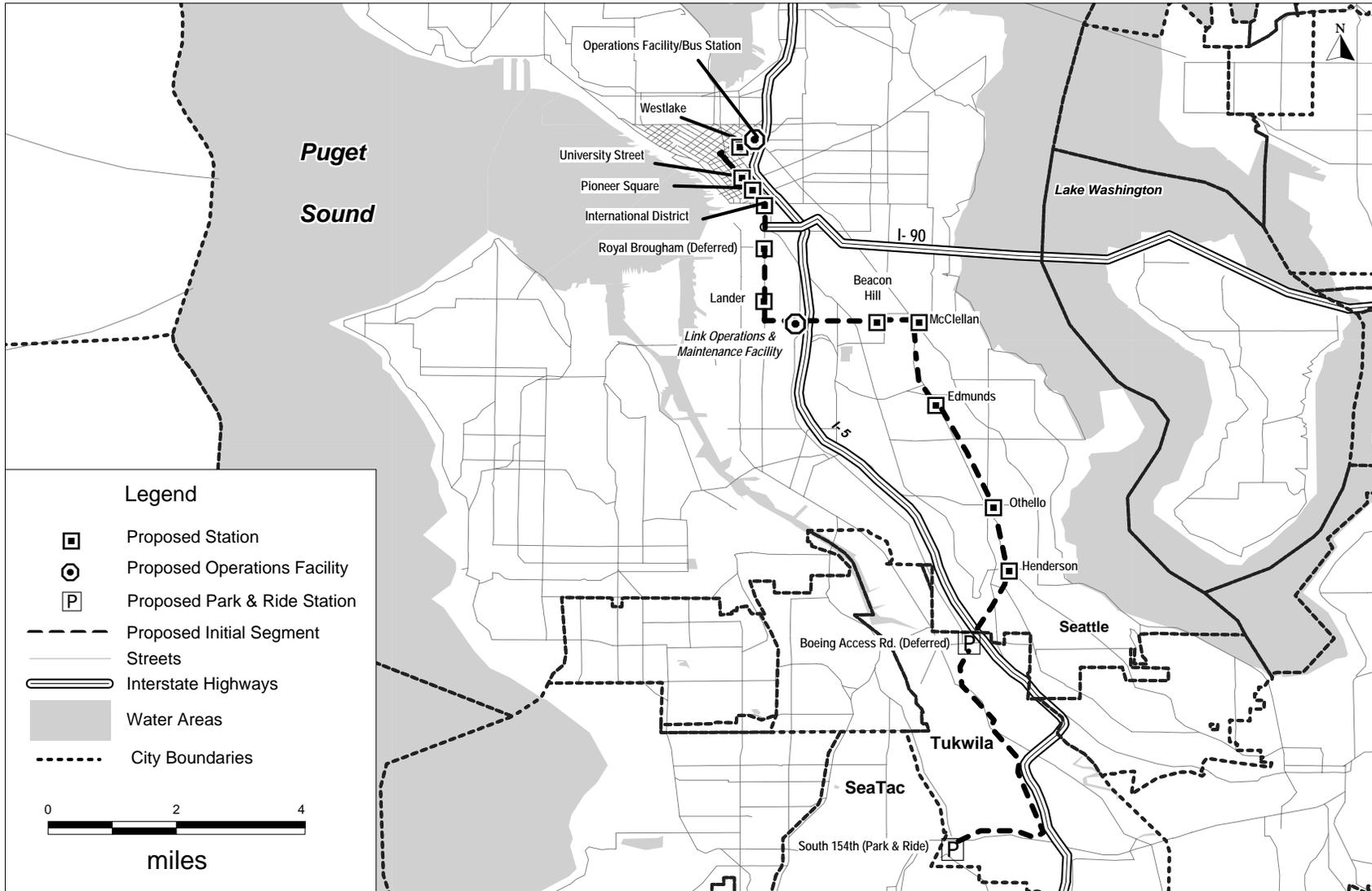
SAFETEA-LU Section 3043(a)(30) authorized the Seattle—Central Link Initial Segment LRT Project for final design and construction. Through FY 2009, Congress has appropriated \$496.86 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$500.00	\$496.86 million appropriated through FY 2009
<b>Local:</b> Retail Sales and Vehicle Excise Taxes	\$779.20	
Long-Term Bonds	\$1,157.70	
<b>TOTAL</b>	<b>\$2,436.90</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

# Central Link Initial Segment

## Seattle, Washington





# University Link LRT Extension

## Seattle, Washington

(November 2008)

The Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to implement an extension of the Central Link light rail transit (LRT) Initial Segment currently under construction from the Segment's northern terminus at Westlake Station in downtown Seattle to the University of Washington, 3.1 miles to the northeast. The all-tunnel alignment includes a station at Capitol Hill. Twenty-seven vehicles would be procured as part of the project, which would permit five-minute peak-period operations throughout the entire Central Link line. University Link is the first phase of Sound Transit's planned North Link LRT extension to the Northgate Transit Center in North Seattle.

The University Link corridor is the most densely developed residential and employment area in Seattle and the state of Washington. The three largest urban centers in the state – downtown Seattle, Capitol Hill/First Hill, and the University District – are located along the alignment. Travel by private vehicle and bus between these areas is extremely congested due to high traffic volumes and the corridor's geography. First Hill and Capitol Hill rise sharply northeast of downtown Seattle, and Interstate 5 (I-5) – the region's primary north-south freeway corridor – runs along the base of these hills, separating them from downtown. Farther to the north, the University District is separated from Capitol Hill and downtown by Portage Bay and the Lake Washington Ship Canal; only three crossings (two of them drawbridges) connect the University with the southern portion of the corridor.

Reversible express lanes on I-5 north of downtown result in a disparity between northbound and southbound transit travel times during peak periods. The University Link LRT Extension is intended to provide more reliable and faster bi-directional transit service to and between downtown Seattle, Capitol Hill/First Hill, and the University District, while supporting local land use goals and contributing to the maintenance of 1990 traffic levels at the University of Washington. The project is expected to serve approximately 40,200 average weekday boardings in 2030.

The total project cost under the Full Funding Grant Agreement (FFGA) is \$1,947.68 million. The Section 5309 New Starts funding share is \$813.00 million.

## Status

The University Link LRT Extension is part of the Central Link LRT system that has been in planning for more than two decades. In 1999, Sound Transit published an Environmental Impact Statement (EIS) for a Central Link alignment extending from South 200<sup>th</sup> Street in the City of SeaTac to North 103<sup>rd</sup> Street in the City of Seattle. Due to financial constraints, Sound Transit identified three operable segments for implementation, the first of which extended from just south of downtown Seattle to the University of Washington. FTA awarded an FFGA for this project in January 2001, which was suspended later that year due to cost increases.

Sound Transit redefined the project as an "Initial Segment" from Westlake Station in the Downtown Seattle Transit Tunnel south to Tukwila, which is currently being constructed under an FFGA executed by FTA in October 2003. Sound Transit completed a Supplemental Draft EIS for the North Link segment in December 2003, and the Sound Transit Board selected the 3.1-mile University Link Extension as the first phase in August 2005. FTA issued a limited-scope Supplemental Draft EIS in October 2005 to address changes in the preferred alternative, including an alternative route through the University of Washington. FTA approved the project into preliminary engineering in December 2005. FTA issued a Final EIS in April 2006, and Record of Decision in June 2006. FTA approved the project into final design in

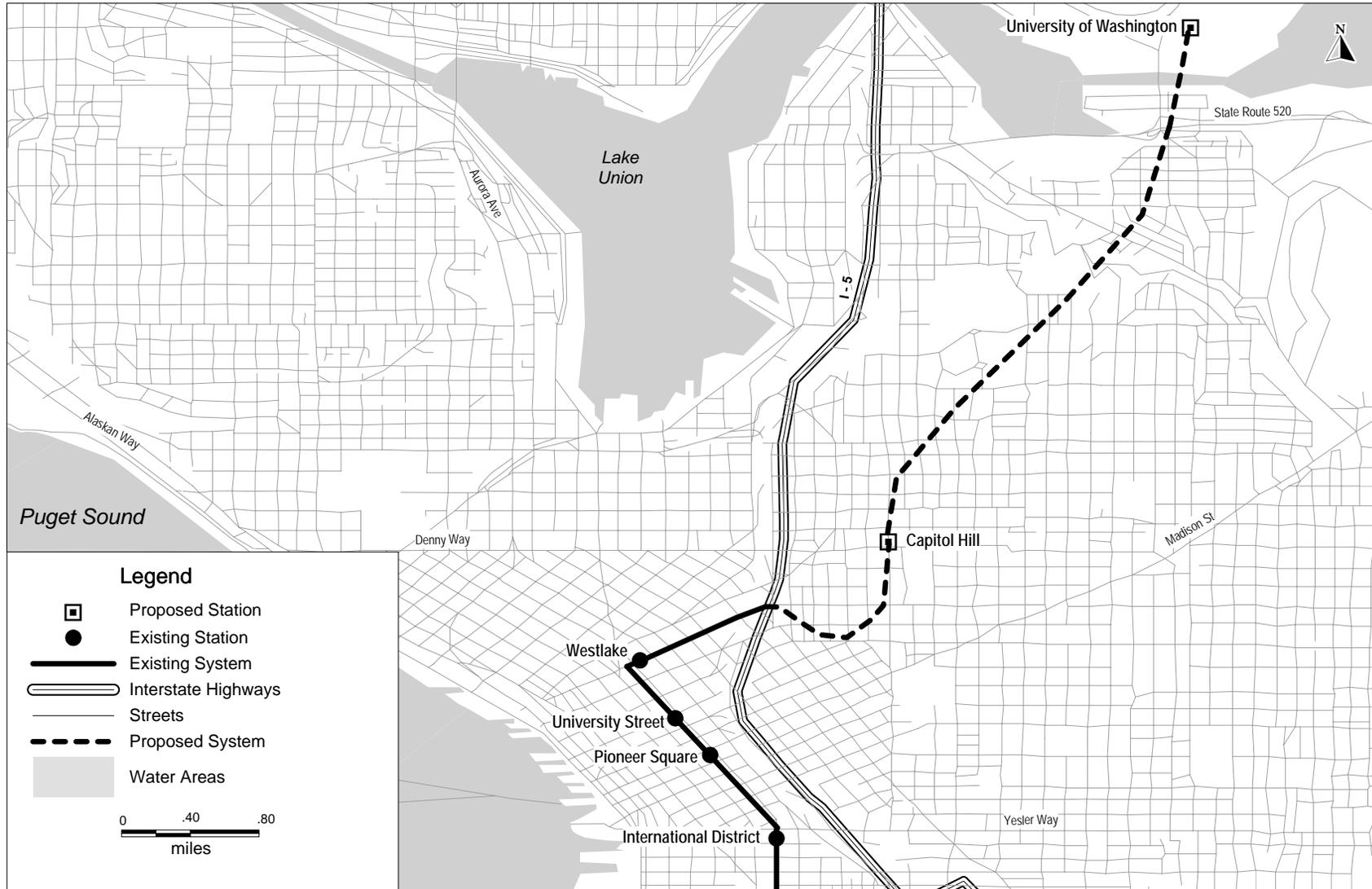
December 2006. Sound Transit and FTA executed an FFGA in January 2009, with revenue operations scheduled for April 2017.

SAFETEA-LU Section 3043(c)(231) authorized the University Link LRT Extension for final design and construction. Through FY 2009, Congress has appropriated \$118.60 million in Section 5309 New Starts funds for the project.

<b>Reported in Year of Expenditure Dollars</b>		
<b>Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b> Section 5309 New Starts FFGA Commitment	\$813.00	\$118.60 million appropriated through FY 2009
FHWA Flexible Funds (CMAQ)	\$9.00	
Section 5309 Fixed Guideway Modernization	\$3.00	
<b>Local:</b> Bond Proceeds, Local Option Tax Revenues, Sales of Excess ROW	\$1,122.68	
<b>TOTAL</b>	<b>\$1,947.68</b>	

**NOTES:** The sum of the figures may differ from the total as listed due to rounding.

# University Link LRT Extension Seattle, Washington





# **Existing Project Construction Grant Agreements**

---



# Pioneer Parkway EmX BRT

## Springfield, Oregon

(November 2008)

The Lane Transit District (LTD) is constructing and will operate a 7.8-mile extension of the Franklin corridor “EmX” “Green Line” Bus Rapid Transit (BRT) currently under construction in Springfield, Oregon. The Pioneer Parkway EmX BRT project extends service from the eastern terminus of the Franklin corridor route north along the Pioneer Parkway to existing and new residential and employment areas in Springfield. The project includes 14 new stations, traffic signal priority, and the purchase of five low-floor, branded, hybrid-electric vehicles. The proposed service would operate at-grade, with 10-minute headways during weekday peak- and off-peak periods.

The primary employment center in the Eugene-Springfield region is downtown Eugene, with employment of approximately 15,000. While downtown Eugene is not part of the Pioneer Parkway corridor, it will be served with a direct connection to transit service via the Franklin corridor BRT. The Franklin BRT line will also serve the 295-acre campus of the University of Oregon and its total enrollment of just over 20,000 students. Major employment centers along the Pioneer Parkway BRT route include Symantec, Royal Caribbean, PeaceHealth, and the North Gateway Mall. Total employment within one-half mile of the BRT route is expected to be 15,500 jobs by 2010, over 10 percent of the metropolitan area’s total forecasted employment. The project is expected to serve approximately 3,700 average weekday boardings by 2010.

The total project cost under the Project Construction Grant Agreement (PCGA) is \$41.29 million. The Section 5309 Small Starts funding share is \$32.54 million.

### Status

A study of the feasibility of urban rail in the Eugene-Springfield area conducted in 1995 concluded that projected ridership in the region over a 20-year period was too low to be competitive for New Starts funding. Instead, the study identified BRT as a less capital-intensive way to provide efficient transit service for the region. In 2001, BRT was identified as a strategy to combat congestion in the adopted *Eugene-Springfield Regional Transportation Plan*. In this plan, the initial Franklin Boulevard BRT route was identified as the first phase of a potential 61-mile regional BRT system. BRT service in the Franklin corridor commenced in January 2007.

LTD completed an environmental assessment on the Pioneer Parkway EmX BRT project in November 2006. A Finding of No Significant Impact was issued in December 2006. FTA approved the project into project development in December 2006. LTD and FTA entered into a PCGA in December 2008, with revenue operations scheduled for December 2010.

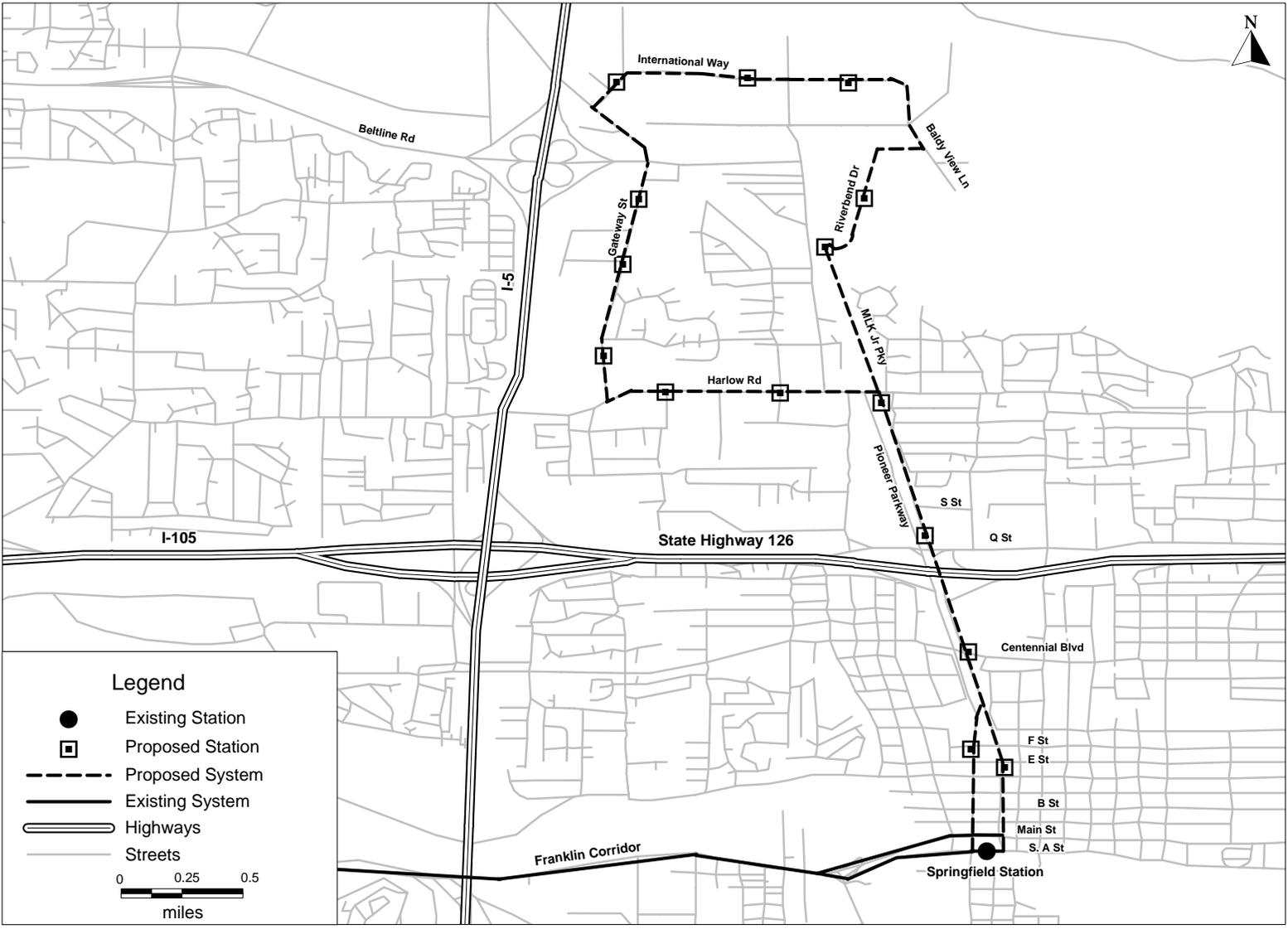
SAFETEA-LU Section 3043(d)(17) authorized the Pioneer Parkway EmX BRT. Through FY 2008, Congress has appropriated \$29.30 million for the Pioneer Parkway EmX BRT project.

<b>Reported in Year of Expenditure Dollars</b>		
<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
<b>Federal:</b> Section 5309 Small Starts PCGA Commitment	\$32.54	\$29.30 million appropriated through FY 2008
Flexible Funds (STP)	\$0.49	
<b>State:</b> ConnectOregon – Lottery Bond	\$5.40	
<b>Local:</b> LTD Capital Fund	\$2.86	
<b>TOTAL</b>	<b>\$41.29</b>	

**NOTE:** The sum of the figures may differ from the total as listed due to rounding.

# Pioneer Parkway EmX BRT

Springfield, Oregon





# **Pending Project Construction Grant Agreements**

---



# Streetcar Loop

## Portland, Oregon

(April 2009)

The City of Portland, Oregon, in conjunction with the Tri-County Metropolitan Transportation District (TriMet), is proposing to construct a 3.3-mile extension to its existing “Westside” streetcar line. The project would result in a new streetcar line originating at the existing streetcar station at 10<sup>th</sup> Street and Lovejoy in the Pearl District northwest of downtown Portland, running east across the Willamette River to the City’s Lloyd District, and then south along Martin Luther King (MLK) Jr. Boulevard and Grand Avenue, terminating near the Oregon Museum of Science and Industry (OMSI). This “Eastside” alignment includes 18 new stations and significant capital improvements to the Broadway Bridge to accommodate streetcar operations. The project would require seven new vehicles, all of which are being procured outside of the scope of the proposed Small Start. Service would operate at 12-minute headways during weekday peak periods in the opening year of 2011; future streetcar operations would result in “through” service (i.e. not requiring a transfer) between the Westside and Eastside alignments. In addition, later phases of rail project development in the region are proposed to include a new crossing over the Willamette River to the south and west of OMSI, resulting in a direct connection to the southern end of the Westside streetcar alignment to create a continuous central city “streetcar loop.”

### Summary Description

<b>Proposed Project:</b>	Modern Streetcar 3.3 Miles 18 Stations
<b>Total Capital Cost (\$YOE):</b>	\$126.92 Million (Includes \$5 million in finance charges)
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$75.00 Million (59.1%)
<b>Annual Operating Cost (\$YOE):</b>	\$3.70 Million
<b>Opening Year Ridership Forecast (2011):</b>	8,700 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

The City of Portland formed an Eastside Corridor Steering Committee in 2003 to explore opportunities for extending the existing Westside Portland Streetcar to the Lloyd District and Central Eastside area. Based upon this work, Metro, the metropolitan planning organization for the Portland region, initiated an alternatives analysis study in July 2005, evaluating the costs and benefits of various streetcar alignments and bus service in the Eastside corridor. In July 2006, local stakeholders selected a streetcar alignment running north-south along MLK Boulevard and Grand Avenue terminating at OMSI as the initial construction segment. TriMet submitted a complete request for entry into Small Starts project development for this alignment in March 2007; the request was approved by FTA the following month. TriMet completed an Environmental Assessment for the project on January 29, 2008. FTA issued a Finding of No Significant Impact on July 2, 2008.

The team assembled to implement the project has significant experience in the design and construction of modern streetcar systems. TriMet has a strong track record for constructing major transit capital investments on time and within budget.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Low* rating for cost effectiveness and a *High* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The Portland Streetcar Loop project would extend the current system to the east side of the Portland Central City area. The project’s purpose is to address the transportation needs of travelers in the area and achieve additional economic development. Problems of increased traffic and congestion are cited as well as a need to support local land use and development goals with faster, more reliable transit service. The “case” should be strengthened by showing how much congestion will increase versus today and discussing the travel markets affected by the congestion. Similarly, the “case” should discuss the travel markets that would be served by the Streetcar. Based upon experience along the “Westside” streetcar alignment, TriMet estimates that the Streetcar Loop will result in an additional 3,400 residential units and 2.4 million square feet of additional development along the project corridor in 2025 than without the streetcar investment.

***Cost Effectiveness Rating: Low***

The *Low* rating is based on the level of travel-time benefits relative to the project’s annualized costs. The project’s travel forecast carries some risk, as it may not reliably capture the travel patterns of short-distance urban circulation trips.

<b>Cost Effectiveness</b>	
Cost per Hour of Transportation System User Benefit	<b><u>New Start vs. Baseline</u></b> greater than \$34.00

***Transit-Supportive Land Use Rating: High***

The *High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating. The rating reflects conditions as of April 2007.

**Existing Land Use: High**

- Portland’s central business district, which includes most of the Streetcar Loop Corridor, has a total employment of about 173,000. Total population in proposed station areas as of 2005 is 29,600 at an average density of 7,600 persons per square mile. Total station area employment is 84,900. Total employment served in existing and proposed station areas is just over 200,000.
- Development patterns in the corridor are urban in character, with minimal to moderate amounts of surface parking, buildings fronting the streets, and a number of multi-story buildings. The northern section of the corridor consists largely of major office, retail, and entertainment uses, while the southern section consists largely of lower-rent office and industrial uses. Street and pedestrian connectivity are good throughout the corridor.

**Transit-Supportive Plans and Policies: High**

- Policies and planning requirements at the state and regional levels support transit-oriented development and growth management. Portland’s Central City Plan (1988) includes urban design goals that aim to create an enjoyable pedestrian environment and place high density development in potential and existing transit corridors. The plan anticipates transit service along the proposed streetcar alignment by zoning blocks in the Lloyd District as well as along a north-south spine in the Central Eastside District for the highest densities and establishing policies to support mixed-use development. Design review is required for all major developments in a Design Review Overlay Zone which encompasses the proposed streetcar corridor.

- Two Urban Renewal Districts cover the area served by the proposed streetcar extension. These districts have financed redevelopment projects and infrastructure improvements, with other projects in the planning stages to support the streetcar investment.
- The Central City Plan District restricts the maximum size of retail uses and provides various requirements, such as minimal setbacks and active uses on the ground floor, to promote pedestrian friendliness. Some provisions apply specifically to streetcar corridors.
- State, regional, and local agency programs and guidelines, such as Metro’s Transit Oriented Development (TOD) and Centers Program, promote pedestrian and transit-friendly development and design. For decades, the City of Portland’s comprehensive planning and zoning process has anticipated transit service in the Eastside corridor. A number of regulatory and financial incentives for development exist and have been applied by the city and other agencies.

**Performance and Impacts of Policies: Medium-High**

- The successful application of land use and TOD policies in the Portland region has been demonstrated through numerous housing developments in light rail station areas, commercial development in downtown and the Lloyd District, and most recently a boom in high-density residential construction in the existing Westside streetcar corridor.
- Redevelopment activity in Eastside areas has not been as successful to date. However, a major mixed-use catalyst project is underway and other projects are in the planning stages.
- There is a considerable amount of underutilized or vacant property in the corridor that could be available for redevelopment, especially comparing existing Floor Area Ratios (FAR) to allowable FARs of 4:1 or greater. A local economic impact study projected that the streetcar extension could catalyze 5.3 million square feet of building development by 2025, a 65 percent increase over 2004 development. The market in the Eastside corridor appears to be strengthening, but the timeframe over which development would ultimately be realized is not yet clear.

**Local Financial Commitment Rating: Medium**

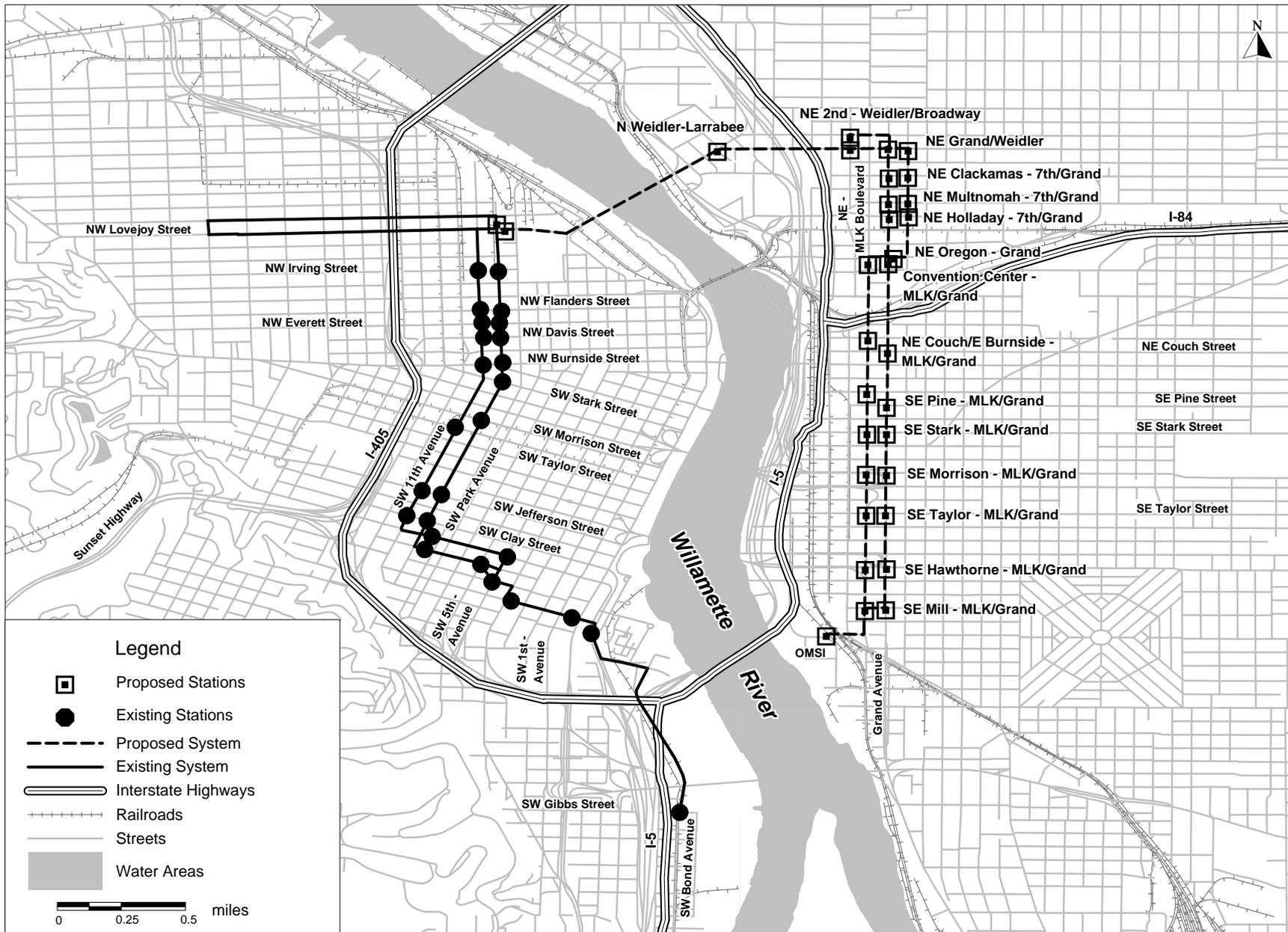
The project is rated *Medium* for local financial commitment, based upon TriMet’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$75.00	59.1%
FHWA Flexible Funds (CMAQ)	\$3.62	2.9%
<b>Local:</b>		
Local Improvement District	\$15.00	11.8%
City of Portland Tax Increment Financing	\$27.18	21.4%
City of Portland Development Charges	\$6.00	4.7%
City of Portland General Transportation Revenues	\$0.11	0.1%
<b>Total:</b>	<b>\$126.92</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Streetcar Loop

## Portland, Oregon



# Projects in Final Design

---



# New Britain – Hartford Busway

## Hartford, Connecticut

(November 2008)

The Connecticut Department of Transportation (ConnDOT) proposes to construct the New Britain-Hartford Busway, an 11-station, 9.4-mile exclusive bus rapid transit (BRT) system operating primarily in existing and abandoned railroad right-of-way between downtown New Britain and Hartford's Union Station. The busway would run parallel to Interstate 84 (I-84), the primary transportation link between New Britain, West Hartford, and downtown Hartford. The project's operating plan calls for a number of bus routes to operate on the busway, including services that enter and exit the facility to reach destinations well outside of the immediate corridor without the need for a transfer. The project scope includes the procurement of 30 new buses and construction of six park-and-ride lots along the alignment.

I-84 is currently, and is forecast to remain, the region's most congested highway. In addition, the combined population of New Britain and Hartford accounts for slightly less than 50 percent of the metropolitan area's zero-car households. The proposed busway is intended to provide faster transit travel time between major activity centers throughout the corridor, improve mobility and accessibility for the corridor's relatively large transit-dependent population, and promote redevelopment opportunities in older urban centers along the project alignment.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit
	9.4 Miles
	11 Stations
<b>Total Capital Cost (\$YOE):</b>	\$569.31 Million (Includes \$15.52 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$275.30 Million (48.4%)
<b>Annual Forecast Year Operating Cost:</b>	\$18.43 Million
<b>Ridership Forecast (2030):</b>	15,100 Average Weekday Boardings 4,300 Daily New Riders
<b>Opening Year Ridership Forecast (2013):</b>	13,600 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium

ConnDOT's schedule anticipates submitting a request for a Full Funding Grant Agreement (FFGA) for the New Britain-Hartford Busway project in mid to late 2009. However, a number of issues need to be addressed before ConnDOT will be ready to submit a complete FFGA application. First, the current financial plan is insufficient for FFGA consideration because it includes increasing deficits in the State Transportation Fund. The financial plan must be revised to address actions that would be taken to cover the projected deficits and substantiate the reasonableness of such actions in an historical context. Additionally, ConnDOT must submit a finalized agreement addressing the cost of the permanent easement for Amtrak right of way; executed construction and protective services agreements with Amtrak and a Force Account plan for construction; and a detailed utility relocation plan.

The New Britain-Hartford Busway has been in the New Starts pipeline since January 2000, and has encountered significant schedule delays and cost increases over that period. ConnDOT must address all issues noted above and maintain a sufficient New Starts rating before an FFGA will be considered.

**Project Development History and Current Status**

The 1994 regional transportation plan prepared by the Capitol Region Council of Governments identified the I-84 corridor west of Hartford as one of the metropolitan area’s high priority corridors. A major investment study in the corridor was completed in 1999, which resulted in the selection of a BRT system between New Britain and Hartford as the locally preferred alternative. FTA approved the New Britain - Hartford Busway into preliminary engineering (PE) in January 2000. The project received a Federal environmental Record of Decision (ROD) in March 2002. In order to address changes in project scope since issuance of the ROD, ConnDOT twice conducted reevaluations of the Final Environmental Impact Statement for the project, the first of which FTA concurred with in June 2006, and the second of which FTA concurred with in September 2008. FTA approved final design for the project in October 2006.

**Significant Changes Since FY 2008 Evaluation (November 2006)**

The project was approved into final design in October 2006, with a cost estimate of \$458.78 million. Since that time, ConnDOT experienced cost growth bringing the current project cost to \$569.31 million. This revised cost estimate includes approximately \$100 million in cost containment strategies that required a re-evaluation of the Final Environmental Impact Statement for the project. In September 2008, FTA issued its concurrence in this re-evaluation, which concluded that the project changes represent a reduction in scope and a reduction in the resulting environmental impacts of the project.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY2010.

***Making The Case***

Existing transit service between New Britain and Hartford is slow and limited. Interstate 84 connects the two cities, and is the most congested corridor in the region. Traffic in the corridor is expected to grow approximately 20 percent over the next 25 years with no planned capacity improvements. The trip between New Britain and Hartford can be made at present by transfers between local routes, or by travel on a single express route which is circuitous and slow. Both Hartford and New Britain have large populations of transit dependents—approximately one-third and 16 percent, respectively. The project will provide more direct, faster and more reliable transit service by re-routing much of the transit service in the corridor onto the busway. The two largest travel markets to benefit from the project are suburban residents commuting to jobs in Hartford and transit dependents living in Hartford and New Britain.

***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (3,800 hours each weekday) relative to the project’s annualized costs.

<b>Cost Effectiveness Rating: Medium</b>	
	<b><u>New Start vs. Baseline</u></b>
<b>Cost per Hour of Transportation System User Benefit</b>	\$24.05*
<b>Incremental Cost per Incremental Trip</b>	\$23.86

\*Indicates that measure is a component of Cost Effectiveness rating

**Transit-Supportive Land Use Rating: Medium**

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- Population density within ½-mile of the station areas is approximately 5,774 people per square mile and employment in project station areas is approximately 65,000 jobs.
- The project serves four jurisdictions between the downtown areas of Hartford and New Britain. Intermediate stations serve residential neighborhoods of varying urban and suburban character, with low to medium densities, as well as a mix of auto-oriented commercial and industrial development and undeveloped land. The busway is in a transportation corridor and the stations are adjacent to I-84, additional major roadways, Amtrak right-of-way, and large, formerly industrial buildings.
- Parking rates are in the medium range in downtown Hartford and New Britain, while parking is free and generally available at other stations.

**Transit-Supportive Plans and Policies: Medium**

- The State of Connecticut has passed a series of laws and enacted policies and programs supporting growth management, including most recently the provision of funding for a pilot transit-oriented development (TOD) program, to which the Cities of Hartford and New Britain are applying for grants. This program was created in support of state legislation passed previously requiring designation of areas for compact, transit accessible, pedestrian-oriented mixed use development. A rigorous land use planning effort, the *New Britain-Hartford Station Planning Project*, was conducted for the busway and has produced conceptual transit-oriented station area plans, although implementation is largely still pending. The City of Hartford is implementing significant infrastructure improvements to enhance the pedestrian environment.
- Progress in implementing plans is most evident in recent zoning changes designed to promote TOD. The Town of West Hartford has adopted a Special Development District Designation, which provides bonus floor area for buildings close to transit terminals, and the City of Hartford has implemented an Industrial Residential Overlay District, allowing the conversion of industrial space to residential and mixed uses. New Britain is in the process of rezoning its downtown to allow increased densities and development with transit-supportive characteristics, including reducing parking requirements.

**Performance and Impacts of Policies: Medium**

- Significant redevelopment is under way in downtown Hartford, reflecting recovery from a long period of economic decline. Major components have been completed of the 30-acre Adriaen's Landing site project, which includes a new Connecticut Convention Center, Downtown Marriott Hotel, an entertainment district, residential development, and the Connecticut Center for Science and Exploration.
- Multiple development projects are either recently completed or under construction in downtown Hartford station areas and the rehabilitation of industrial buildings in the Parkville Station area is proceeding.
- A substantial increase in employment and more modest but solid population growth are projected in station areas and the rating for total employment served by the system will increase from low to medium-low by 2030, as a result of projected growth.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 4.0
<b>Number of Transit Dependents Using the Project</b>	5,300
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	3.5
<b>Environmental Benefits Rating: High</b>	
<u><b>Criteria Pollutant Status</b></u> 8-Hour Ozone (O <sub>3</sub> ) Carbon Monoxide (CO)	<u><b>EPA Designation</b></u> Moderate Non-attainment Area

\*Indicates that measure is a component of Cost Effectiveness rating

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on a *Medium-High* rating for the New Starts share of project costs and *Medium* ratings for the capital and operating finance plans.

**Section 5309 New Starts Share of Total Project Costs: 48.4%**

**Rating: Medium-High**

ConnDOT is requesting a 48 percent New Starts share of total project costs, which results in a *Medium-High* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$275.30	48.4%
Section 5307 Urbanized Area Formula Funds	\$18.20	3.2%
Section 5309 Fixed Guideway Modernization Funds	\$20.26	3.6%
Section 5309 Bus Discretionary	\$25.92	4.5%
FHWA Flexible Funds (CMAQ and STP)	\$109.76	19.3%
FHWA NHS Funds	\$6.0	1.0%
<b>State:</b>		
State Transportation Fund (STF)	\$113.86	20.0%
<b>Total:</b>	<b>\$569.31</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium*, based upon the weighted average of the ratings assigned to each of the subfactors below. The agency capital condition is weighted 25 percent, the commitment of capital

funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of ConnDOT’s Statewide bus fleet is 6.5 years, while the average age of the Hartford Division’s bus fleet is 5.6 years, which is in line with the industry average.
- ConnDOT’s Special Tax Obligation bond ratings, issued in October 2007, are as follows: Moody’s Investors Service A1, Standard & Poor’s AA, and Fitch AA-.

**Commitment of Capital Funds: Medium**

- Approximately 52 percent of non-New Starts funding is committed or budgeted. Federal funding sources include Section 5307 Formula funds, Section 5309 Fixed Guideway Modernization funds, Section 5309 Bus Discretionary funds, flexible funds including CMAQ and STP, and FHWA National Highway System funds. State funding sources include revenues from the State Transportation Fund and funds committed in Public Act 06-136.

**Capital Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- While assumptions regarding federal funding are reasonable, growth in state funding sources assumed in the plan are more optimistic than history.
- The project’s financial plan shows annual deficits in the State Transportation Fund beginning in 2010, and a negative fund balance beginning in 2013. Although the Legislature is compelled to maintain a minimum positive fund balance for a rolling five-year horizon, the financial plan does not describe any means by which these deficits would be eliminated.
- The capital cost estimate of the project is considered current and reliable, but risks must be closely monitored as the project continues in final design including railroad agreements, right-of-way acquisition, and utility relocation.

***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- The current ratio of assets to liabilities as reported for the Special Transportation Fund in its most recent audited financial statement is 6.5. ConnDOT has a history of being able to draw funds as required from the State Transportation Fund.
- ConnDOT has increased service in recent years

**Commitment of Operating Funds: Medium**

- Less than 50 percent of operating funding is committed. Most of the “planned” sources of funds derive from the State Transportation Fund, which cannot be committed more than a year in advance.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Low**

- The operating plan is based on optimistic assumptions regarding growth in operating subsidies and passenger revenues.
- The project’s financial plan shows annual deficits in the State Transportation Fund beginning in 2010, and a negative fund balance beginning in 2013. Although the Legislature is compelled to maintain a minimum positive fund balance for a rolling five-year horizon, the financial plan does not describe any means by which these deficits would be eliminated.



# Urban Transitway Phase II

## Stamford, Connecticut

(November 2008)

The City of Stamford, Connecticut is proposing to extend Phase I of its Urban Transitway, currently under construction, for 0.6 miles along Myrtle Avenue to US Route 1. The facility will accommodate new dedicated bus-priority/High Occupancy Vehicle (HOV) lanes in both directions, bike pathways, sidewalks, and landscaping. Signal priority treatments at intersections will provide for local and commuter bus priority, reducing total average trip times and improving reliability for passengers. High amenity bus stops in the corridor will include real-time passenger displays. The dedicated lanes will be for the exclusive use of buses and other HOV vehicles seven days-per-week/twenty-four hours-per-day. The new facility will also accommodate direct access to Connecticut Transit's (CTTransit) bus maintenance facility from Myrtle Avenue, thereby reducing deadhead miles and improving overall system operating efficiency.

The City of Stamford has identified the need to improve bus and HOV access between the Stamford Intermodal Transportation Center (SITC), at the eastern end of the Phase I Transitway, and US Route 1. The Phase II Urban Transitway will extend the benefits of Phase I from its current Elm Street terminus to US Route 1, relieving congestion on local streets and providing fast, direct bus rapid transit-like levels of service between the SITC and the Myrtle Avenue Corridor, as well as the Glenbrook, Cove, and Shippan neighborhoods of Stamford. As with the Phase I Transitway, the city and CTTransit are committed to providing regular service along the full Transitway at peak hour headways of 10 minutes or less, stopping at high-amenity bus stops at locations to be identified following broad community consultation.

The total capital cost for the Stamford Urban Transitway Phase II project is estimated at \$48.3 million, with a proposed Section 5309 New Starts share of \$24.7 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)(1)(B)).*

Summary Description	
<b>Proposed Project:</b>	Busway/HOV Extension 3,000 Feet
<b>Total Capital Cost (\$YOE):</b>	\$48.31 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.72 Million (51.2%)
<b>Ridership Forecast:</b>	Not Available

### Project Development History and Current Status

The need for direct access between the SITC and residential and commercial areas in the eastern and northeastern sections of Stamford emerged out of the city's 2002 Master Plan, as well as the South Western Regional Planning Agency's (Stamford's metropolitan planning organization) long range transportation plan (2004-2030). The City of Stamford and CTTransit have developed a Stamford Urban Transitway Operations Plan to identify agency commitments and responsibilities agreed to during the design phase of the Phase I Transitway. Phase I is currently under construction and is anticipated to open in December 2009. The two parties will update the document to reflect operating responsibilities associated with opening of the Phase II Transitway, which is anticipated in summer 2012.

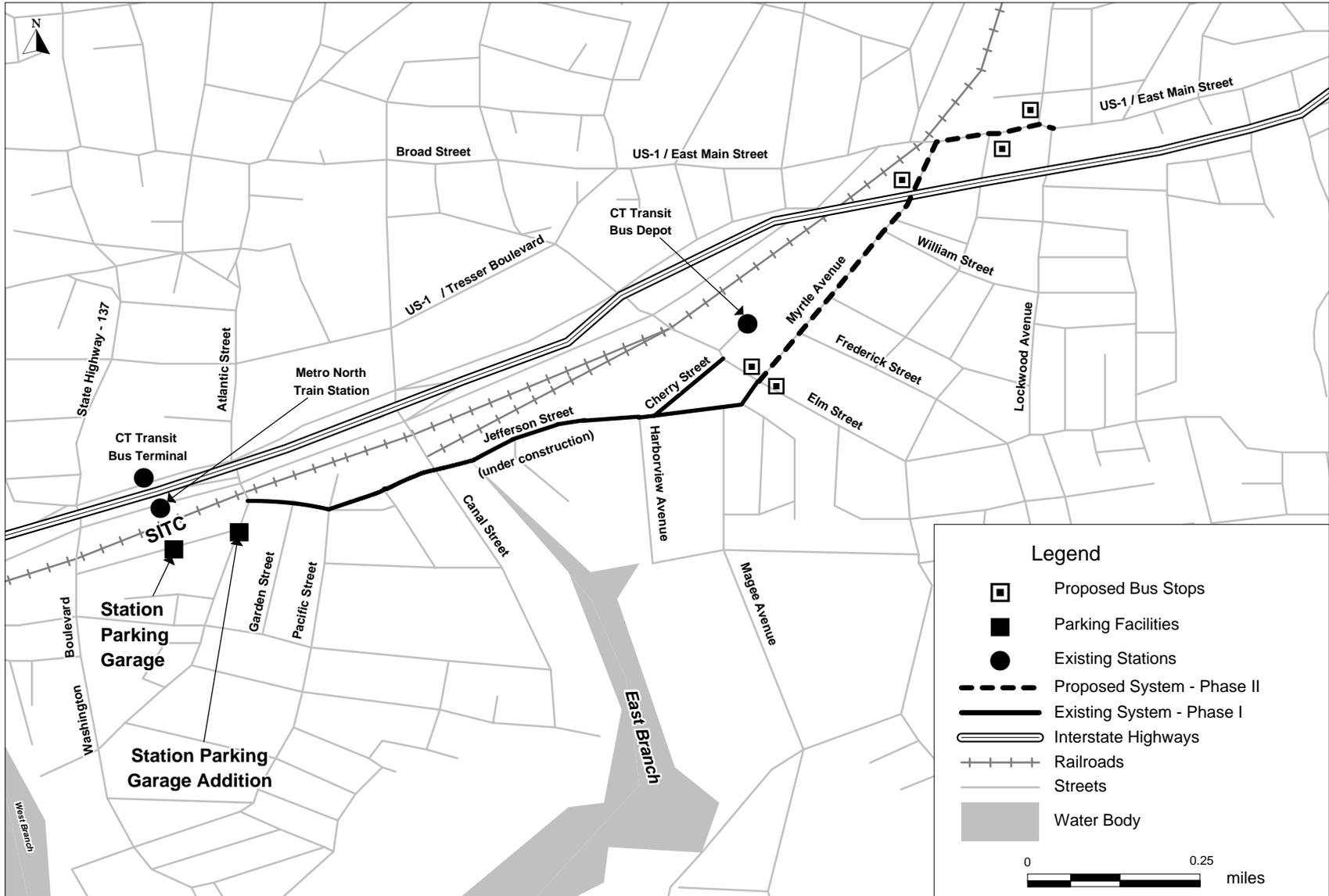
FTA approved the project into preliminary engineering in May 2006, and issued a Finding of No Significant Impact based on the project's Environmental Assessment in September 2006. FTA approved the project into final design in November 2007.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$24.72	51.2%
Section 5309 Bus	\$8.80	18.2%
FHWA ITS Earmark	\$0.93	1.9%
EPA Brownfields	\$0.16	0.3%
<b>Local:</b>		
City of Stamford General Fund	\$13.70	28.4%
<b>Total:</b>	<b>\$48.31</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# Urban Transitway Phase II

Stamford, Connecticut





# Wilmington to Newark Commuter Rail Improvements

## Wilmington, Delaware

(November 2008)

The Delaware Transit Corporation (DTC) proposes to implement several commuter rail improvements in the segment of the Northeast Corridor between Wilmington and Newark. The proposed Wilmington to Newark Commuter Rail Improvements project consists of three improvements intended to significantly enhance existing Southeastern Pennsylvania Transportation Authority (SEPTA) commuter rail service along the Northeast Corridor in Delaware. The proposed improvements include: (1) construction of a third track along a 1.5-mile segment of Amtrak's Northeast Corridor, south of Wilmington, to increase track capacity for intercity, commuter and freight operations and allow additional commuter trains to service the Newark, DE, SEPTA Station; (2) relocation of the Newark rail station to a location one mile closer to Philadelphia, to eliminate commuter train conflicts with freight operations and provide a two track station which will allow more flexibility for trains that enter and exit the station; and (3) the purchase of two 2-car train sets, providing additional train capacity between the Wilmington and Newark stations and allowing for increased frequency and shorter headways. The changes are expected to increase ridership, improve schedule reliability, and reduce travel time.

The current estimated capital cost of the project is \$78.42 million, which includes \$24.99 million in Section 5309 New Starts funds. *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)(1)(B)).*

### Summary Description

<b>Proposed Project:</b>	Commuter Rail Improvements 1.5 Miles, 1 Station Relocation, two 2-car trains
<b>Total Capital Cost (\$YOE):</b>	\$78.42 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.99 Million (31.9 %)
<b>Ridership Forecast (2020):</b>	5,000 Average Weekday Boardings

### Project Development History and Current Status

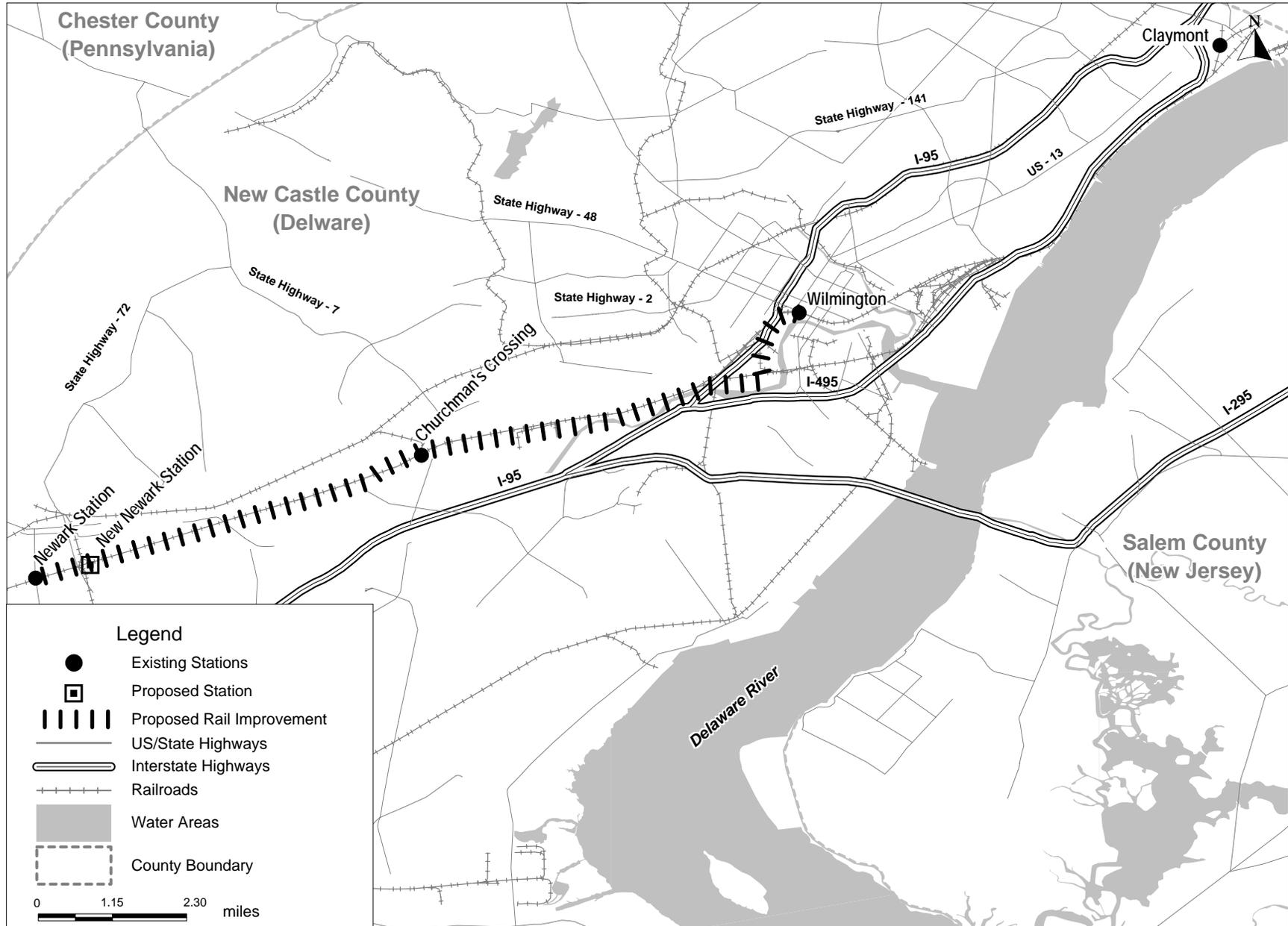
FTA approved DTC's request to enter preliminary engineering for the Wilmington to Newark Commuter Rail Improvements project in April 2004. Environmental review for the project was completed in September 2006. FTA approved entry into final design in February 2007. Start-up of the enhanced service provided for by the project is anticipated in 2010.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$24.99	31.9 %
FHWA Sec. 117	\$4.92	6.3%
FHWA Sec. 1702	\$5.00	6.4%
Section 5309 Fixed Guideway Modernization	\$3.98	5.1%
<b>State:</b>		
Delaware State Transportation Trust Fund	\$39.53	50.4%
<b>Total:</b>	<b>\$78.42</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# Wilmington to Newark Commuter Rail Improvements

## Wilmington, Delaware





# Central Florida Commuter Rail Transit – Initial Operating Segment

## Orlando, Florida

(November 2008)

The Florida Department of Transportation (FDOT) is proposing to construct a new commuter rail system along the existing CSX “A” line Corridor from Volusia County through Lake County and Seminole County, to Orange County and downtown Orlando. The Central Florida Commuter Rail Transit (CFCRT) project would operate entirely at-grade, sharing track with existing freight and Amtrak services. The project includes the purchase of 10 vehicles and construction of 12 stations and approximately 2,100 parking spaces. In the opening year, service would operate every 30 minutes in the peak period and every 120 minutes during the off-peak, with no weekend service. By the forecast year of 2030, service would operate every 15 minutes in the peak period and every 30 minutes during the off-peak, with service every 60 minutes in the evenings and weekends.

The CFCRT runs parallel to Interstate 4 (I-4) and US 17-92, the region’s primary north-south travel routes and the location of much of the region’s population and employment. I-4 is scheduled for reconstruction, and the proposed project is intended to serve as a congestion mitigation measure, as well as more broadly provide a high capacity transit alternative to north-south travel in the corridor.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail 32 Miles 12 Stations
<b>Total Capital Cost (\$YOE):</b>	\$357.22 Million (includes \$900,000 in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$178.61 Million (50.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$55.31 Million
<b>Ridership Forecast (2030):</b>	7,400 Average Weekday Boardings 3,700 Daily New Riders
<b>Opening Year Ridership Forecast (2012):</b>	4,300 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

The project ratings are based on information submitted in August 2008, when the project was rated for entry into final design. It has since been determined that low-floor, FRA-compliant, Diesel Multiple Unit vehicles are not currently available and cannot be procured for the project. FDOT now plans to procure traditional push-pull commuter rail vehicles. As the details of the push-pull procurement are finalized during final design, FDOT will need to revise the project scope, cost, design and operating plan as necessary and provide FTA with updated information to ensure that Americans with Disabilities Act (ADA) and National Environmental Policy Act (NEPA) requirements continue to be addressed appropriately. FDOT expects to pursue a Full Funding Grant Agreement (FFGA) for the CFCRT project in mid to late-2009. FDOT must demonstrate compliance with ADA requirements, provide documentation of fully executed and completed railroad and other third party agreements, and maintain a sufficient New Starts rating before FTA will consider an FFGA for the CFCRT project.

**Project Development History and Current Status**

FDOT completed an alternatives analysis on a 61-mile corridor in May 2004. An Environmental Assessment (EA) was prepared for the entire 61-mile corridor in May 2006, with a Finding of No Significant Impact (FONSI) signed by FTA in April 2007. A 54-mile, 15-station project Locally Preferred Alternative was approved into Preliminary Engineering (PE) in March 2007. A Supplemental EA was prepared to assess the potential impacts of several project scope changes and to include a general analysis of the environmental impacts of moving freight from the CSX “A” Line to the “S” Line. FTA approved and signed the Supplemental EA in May 2008, and an addendum to the FONSI was issued by FTA in July 2008. During PE, FDOT decided to pursue entry into final design for only the current 32-mile, 12 station project, which was approved into final design in August 2008. At this stage of project development, the project scope and cost are considered reasonable.

**Significant Changes Since FY 2009 Evaluation (November 2007)**

The project cost decreased by approximately \$60 million due to 14 vehicles being removed from the FFGA project scope that are not needed for opening year service. The revenue operations date was changed from 2010 to 2012 as a result of FTA’s risk assessment.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium-Low* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The CFRCT project would result in a new rail transit line running north-south parallel to I-4 and through downtown Orlando. The “case” for the project does not discuss travel patterns within this corridor. While travel time comparisons between rail, bus, and private vehicle are presented for three origin-destination pairs, there was no explanation of why these pairs are highlighted. I-4 is described as congested and getting worse, but the “case” for the project provides no justification that it will effectively serve I-4 travel markets. Further, information is needed to better explain why a significant investment in rail operating at 15-minute peak frequencies is necessary in the corridor in which existing bus transit service is described as “limited.”

***Cost Effectiveness Rating: Medium-Low***

The *Medium-Low* cost effectiveness rating reflects the level of travel-time benefits (5,100 hours each weekday) relative to the project’s annualized costs. Due to the unique nature of the project, its travel forecast carries significant uncertainty.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$29.88*
Incremental Cost per Incremental Trip	\$35.74

\* Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- Population density within ½-mile of the station areas is approximately 2,130 persons per square mile. The project has approximately 78,700 jobs within ½-mile of the proposed stations. The

- project provides direct service to the central business district (CBD), which contains approximately 729,700 jobs.
- The stations in the City of Orlando and Winter Park can be considered destination stations, with significant levels of development within walking distance and a pedestrian-friendly character. Development levels within walking distance of the remaining suburban stations are low and land use is highly auto-oriented.
  - Parking supplies in the corridor are high, even at stations within the City of Orlando, although parking rates at garages in downtown are high.

**Transit-Supportive Plans and Policies: Medium**

- The State of Florida Growth Management Act (SB 360) establishes growth management laws to ensure critical transportation infrastructure and services are in place to accommodate future urban growth and redevelopment. The act promotes regional planning through an incentive program and provides funding for transportation investments that support growth management.
- The City of Orlando’s downtown redevelopment plan coordinates transportation and other public infrastructure improvements with private development, embodies “new urbanism” as a guiding principle, and emphasizes mixed land use, pedestrian connectivity, strong neighborhoods, and transit. The only other community along the corridor that has a specific development plan for the station area is Lake Mary, where a master plan has been developed for a small suburban town center. The comprehensive plans for several other corridor communities identify sections of the station areas for development at higher densities, with a varying degree of transit-supportive characteristics.
- Zoning in the downtown Orlando and Winter Park station areas requires higher development densities and transit-supportive character, including mixed uses and pedestrian-friendly design. Several other municipalities in the corridor have zoning provisions allowing reduced parking in activity centers or areas with high levels of transit service.
- Many efforts have been made to reach out to stakeholders. The project sponsor has coordinated station planning and design with major property and facility owners in station areas, including hospitals and utility companies.

**Performance and Impacts of Policies: Medium**

- Major redevelopment is occurring in downtown Orlando. Although they are subject to the policies incorporated in the downtown revitalization plan, many of the projects and proposals include substantial new parking supplies and thus are not strongly transit-supportive.
- Transit-supportive development at stations beyond Orlando and Winter Park has been minimal.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-Low</b>	
<b>Transportation System User Benefits Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 3.5
<b>Number of Transit Dependents Using the Project</b>	1,400
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	2.9
<b>Environmental Benefits Rating: Medium</b>	
<u><b>Criteria Pollutant Status</b></u>	<u><b>EPA Designation</b></u> Maintenance or Attainment for all Pollutants

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium* ratings for the capital and operating finance plans and for the New Starts share of project costs.

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

**Rating: Medium**

FDOT is requesting a 50 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u><b>Source of Funds</b></u>	<u><b>Total Funds (\$million)</b></u>	<u><b>Percent of Total</b></u>
<b>Federal:</b> Section 5309 New Starts	\$178.61	50.0%
<b>State:</b> Florida New Starts Transit Program	\$89.31	25.0%
<b>Local:</b> Volusia County	\$6.60	1.8%
Seminole County	\$45.56	12.8%
City of Orlando	\$13.47	3.8%
Orange County	\$23.68	6.6%
<b>Total:</b>	<b>\$357.22</b>	100.0%

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- FDOT does not have a bus fleet.
- FDOT's General Obligation bonds are rated as follows: Standard & Poor's Corporation A+, Moody's Investor Service Aa, and Fitch AA-.

**Commitment of Capital Funds: High**

- All of the non-New Starts funding is committed or budgeted. The non-New Starts share will be covered by state transportation trust funds and funds from Volusia, Seminole, and Orange counties and the City of Orlando.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions in the capital plan are reasonable.
- The current project cost estimate is considered reasonable at this stage of development.
- There is no plan for cost increases greater than five percent of project cost.

**Operating Finance Plan Rating: Medium**

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- The current ratio of assets to liabilities as reported for the State Government Transportation Fund in its most recent audited financial statement is 2.7.

**Commitment of Operating Funds: Medium-High**

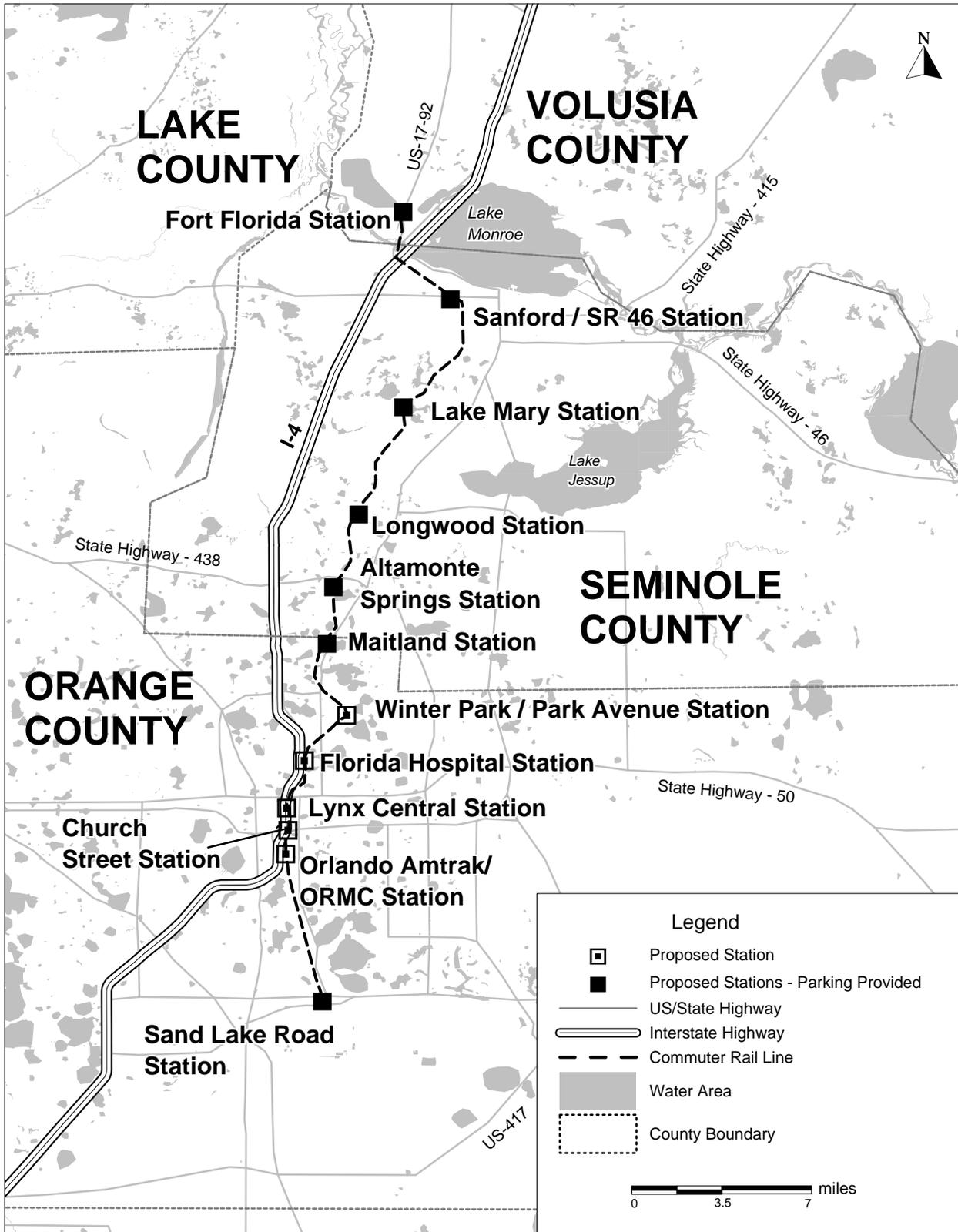
- The majority of operating funding is committed. For the initial seven years of operation, FDOT will fund all operating subsidies through its Strategic Intermodal System program using revenues from the State Transportation Trust Fund. Thereafter, operating subsidies will be provided by Volusia, Seminole, and Orange counties and the City of Orlando.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Operating and maintenance costs have been lowered from those assumed last year and appear optimistic compared to other commuter rail systems around the country.
- Inflation assumptions are reasonable compared to historic trends.
- The financial plan shows a balanced budget throughout the 20-year plan.

# Central Florida Commuter Rail Transit - Initial Operating Segment

Orlando, Florida



# Access to the Region's Core

## Northern New Jersey

(April 2009)

The New Jersey Transit Corporation (NJT) is proposing to construct a new 9.0-mile commuter rail line adjacent to the existing Northeast (Rail) Corridor (NEC) between Secaucus, New Jersey, and Manhattan. The Trans Hudson Express Tunnel, also known as Access to the Region's Core (ARC), includes the construction of two new tunnels under the Hudson River; new rail tracks between Secaucus Junction and New York Penn Station (PSNY); a new rail station underneath 34<sup>th</sup> Street in midtown Manhattan (with pedestrian linkages to PSNY); a storage yard in Kearny, New Jersey; and the purchase of specialized dual-powered rail locomotives (electric and diesel) and bi-level coaches.

The NEC is the only Hudson River commuter rail crossing into midtown Manhattan. Already near capacity, the NEC currently experiences significant travel-time delays whenever there is a train malfunction incident; one train disruption of 15 minutes, for example, can delay as many as 15 other NJT and Amtrak trains. As passenger demand increases, congestion and service reliability are expected to worsen. In addition, commuter rail passengers on NJT's Bergen County, Main, Pascack Valley, Port Jervis, and Raritan Valley commuter rail lines today must transfer at either Secaucus Junction or in Hoboken to reach New York City. The purpose of the ARC project is to double rail capacity between New Jersey and New York City, thereby relieving congestion and transit delays, while providing for more direct, one-seat service to midtown Manhattan.

### Summary Description

<b>Proposed Project:</b>	Commuter Rail 9.0 Miles 1 Station
<b>Total Capital Cost (\$YOE):</b>	\$8,699.98 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$3,000.00 Million (34.5 %)
<b>Annual Forecast Year Operating Cost:</b>	\$197.00 Million
<b>Ridership Forecast (2030):</b>	254,200 Average Weekday Boardings 24,800 Daily New Riders
<b>Opening Year Ridership Forecast (2017):</b>	203,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

The project ratings are based on information submitted in January 2009, when the project was rated for entry into final design. The proposed New Starts share of \$3 billion would be the largest commitment for a single project in the history of the New Starts Program. FTA is not able to award a Full Funding Grant Agreement (FFGA) for the ARC project until additional commitment authority is granted by Congress since the \$3 billion New Starts share exceeds FTA's remaining commitment authority. Prior to FTA's consideration of the ARC project for an FFGA, financial issues regarding the long term availability of the local funding provided by the Port Authority of New York and New Jersey and the New Jersey Transportation Trust Fund will need to be satisfactorily addressed. In addition, a funding plan for the Portal Bridge project over the Hackensack River will need to be provided since the ARC project's operating plan is dependent on improvements to the Portal Bridge. Other issues that require NJT actions during final design include finalizing railroad agreements with Amtrak and engineering/project management considerations.

**Project Development History and Current Status**

NJT completed a major investment study on the ARC corridor in 2003. A new Hudson River rail tunnel and expanded Penn Station capacity alternative was selected as the locally preferred alternative (LPA) in early 2006. FTA approved the LPA into preliminary engineering (PE) in August 2006. A Draft Environmental Impact Statement (EIS) was published in February 2007. Because of changes to the project alignment made in response to the comments received on the Draft EIS and from the PE effort, a Supplemental EIS was prepared and published in March 2008. The Final EIS was published in November 2008, with a Record of Decision issued in January 2009.

NJT has put together an experienced design team and performed a thorough analysis of project requirements. The project scope is complex, and some uncertainties remain. However, at this stage of project development, scope and cost are considered reasonable.

**Significant Changes Since FY 2009 Evaluation (November 2007)**

The capital cost estimate for the project has increased from \$7,263.47 million to \$8,699.98 million to address risks found during FTA's risk assessment process. The capital cost estimate reflects only the vehicles necessary for the opening year service plan, rather than the full number of vehicles needed for the 2030 forecast year service plan.

**Project Justification Rating: Medium-High**

The project is rated *Medium-High* for project justification based on a *Medium* rating for cost effectiveness and a *High* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

ARC is a 9.0-mile rail connection between Secaucus, New Jersey, and PSNY in midtown Manhattan. The "case" for the project identifies severe capacity constraints in the existing NEC tunnel (shared with Amtrak) into PSNY, the need to improve safety and reliability for existing passengers, and the need to meet expected future demand for transit service into Manhattan. The "case" for the project clearly demonstrates that the existing line is operating at maximum capacity in the peak period and that PSNY is severely constrained in its ability to handle additional trains and passengers. Other Trans-Hudson facilities are similarly at or near capacity with limited ability to absorb additional demand. Continuing employment growth in midtown Manhattan, combined with continued residential growth in Northern New Jersey, result in the need for new Trans-Hudson capacity. ARC would allow NJT to double service into Manhattan, free up capacity for Amtrak in the existing NEC tunnels, reduce travel times, and reduce crowding on trains and at PSNY. The project sponsor makes a particularly compelling "case" for this project, but the case should also discuss the uncertainties in the cost estimates for a project of this magnitude and complexity.

***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (104,000 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$20.94*
Incremental Cost per Incremental Trip	\$42.51

\* Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: High***

The *High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating. The rating reflects conditions as of November 2008.

**Existing Land Use: High**

- The terminus station area (PSNY) had a total population of approximately 44,000 as of the year 2000, and nearly 409,000 workers.
- Employment density is over 340,000 jobs per square mile and population density exceeds 36,000 persons per square mile, levels which are supportive of very high rates of transit usage.
- Development throughout the station area is pedestrian-oriented with multi-story and mixed-use buildings and minimal or no setbacks.
- Numerous commercial uses, both retail and office, are major trip generators within the station area.
- Parking policies discourage parking in the area and parking costs are high, which serve as an effective disincentive to automobile use.

**Transit-Supportive Plans and Policies: High**

- New York City policies and market conditions continue to encourage dense office development, which is among the highest densities in the world. In Manhattan, there have been several recent rezoning actions within the project study area. These rezonings tend to permit higher intensities of residential and commercial development, encouraging transit supportive development density around stations in addition to pedestrian access to and from Penn Station.
- The State of New Jersey has enacted a number of policies and programs since the early 1990s to promote smart growth, reduce suburban sprawl, and promote infill development near transit. The State Development and Redevelopment Plan (SDRP) emphasizes infill development and the preservation of open space in rural and fringe areas. Several communities with NJ Transit stations participate in the Transit Village Initiative, which provides technical and financial assistance to those communities demonstrating that their zoning codes and redevelopment plans support the density necessary for transit service. The State of New Jersey has several initiatives to preserve natural open space and working farms, including the Garden State Preservation Trust, which has protected 294,000 acres of open space and farmland since 2000.
- New Jersey Transit has devoted significant resources to improving pedestrian access to the commuter rail system, rehabilitating aging stations, and building new facilities.

**Performance and Impacts of Policies: Medium-High**

- The intensive development, pedestrian-friendly character, and high rates of transit usage in the corridor reflect the impact of land use policies and the application of such tools as zoning, floor area bonuses, and tax incentives. These measures have worked collectively with market forces to create existing, highly transit-supportive development patterns in the corridor.
- New York City's zoning regulations have achieved improvements to the pedestrian environment in dense areas and resulted in street-level retail, as well as clustered street-level commercial uses near transit stations.
- Recently approved Manhattan rezonings will significantly increase the intensity of land uses surrounding the station. For example, the Hudson Yards rezoning, in the vicinity of Penn Station, is expected to accommodate between 2.0 and 2.5 million square feet of office space and about 2,000 dwelling units.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-High</b>	
<b>Transportation System User Benefits Per Passenger Mile (Minutes)</b>	<b><u>New Start vs. Baseline</u></b> 4.0
<b>Number of Transit Dependents Using the Project</b>	44,500
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	5.3
<b>Environmental Benefits Rating: High</b>	
<b><u>Criteria Pollutant Status</u></b> 8-Hour ozone (O <sub>3</sub> ) Particulate Matter (PM <sub>2.5</sub> )	<b><u>EPA Designation</u></b> Non-attainment Area Non-attainment Area

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium* ratings for the capital and operating finance plans and the *High* rating for the New Starts share of project costs.

**Section 5309 New Starts Share of Total Project Costs: 34.5%**

**Rating: High**

NJT is requesting 34.5 percent New Starts share of total project costs, which results in a *High* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$3,000.00	34.5%
FHWA Flexible Funds (CMAQ/NHS)	\$1,350.00	15.5%
<b>State:</b>		
Port Authority of New York and New Jersey	\$3,000.00	34.5%
New Jersey Turnpike Authority	\$1,250.00	14.4%
Transportation Trust Fund	\$99.98	1.1%
<b>Total:</b>	<b>\$8,699.98</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of NJT's bus fleet is 8.9 years, which is slightly older than the industry average. The average ages of the LRT and commuter rail fleet are 6.2 and 17.4 years, respectively.
- NJT's good bond rating, which was issued in March 2008, is as follows: Fitch A+.

**Commitment of Capital Funds: Medium-High**

- 95.1 percent of non-New Starts funding is committed or budgeted. Funding sources include CMAQ, FTA formula funds, New Jersey Transportation Trust Funds, New Jersey Turnpike Authority toll revenues, and Port Authority of New York and New Jersey funding.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- The future of the New Jersey Transportation Trust Fund (TTF) is uncertain. All TTF revenues are needed to pay debt service, leaving no funding for additional capital investments. A short-term solution will provide \$675 million annually through 2011, but a long term solution is needed.
- Capital revenue and cost assumptions in the financial plan are in line with historical experience.
- The financial plan shows a balanced budget. The plan includes a non-allocated reserve fund, which contains \$1.05 billion during the time period of ARC construction that could be used to help with cost overruns or funding shortfalls.
- The current project cost estimate is considered reliable at this stage of development.

***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium-Low**

- NJT's current ratio of assets to liabilities as reported in its most recent audited financial statement (FY 2007) is 0.5. This is due to Notes Payable and Obligations under Capital Leases being classified as current liabilities, while the funds to pay for them are classified as non-current assets. When calculated correcting for this discrepancy, the current ratio is 1.15. The agency experienced funding shortfalls in each of the past five fiscal years (2003-2007) that were covered with operating reserves.

**Commitment of Operating Funds: Medium-High**

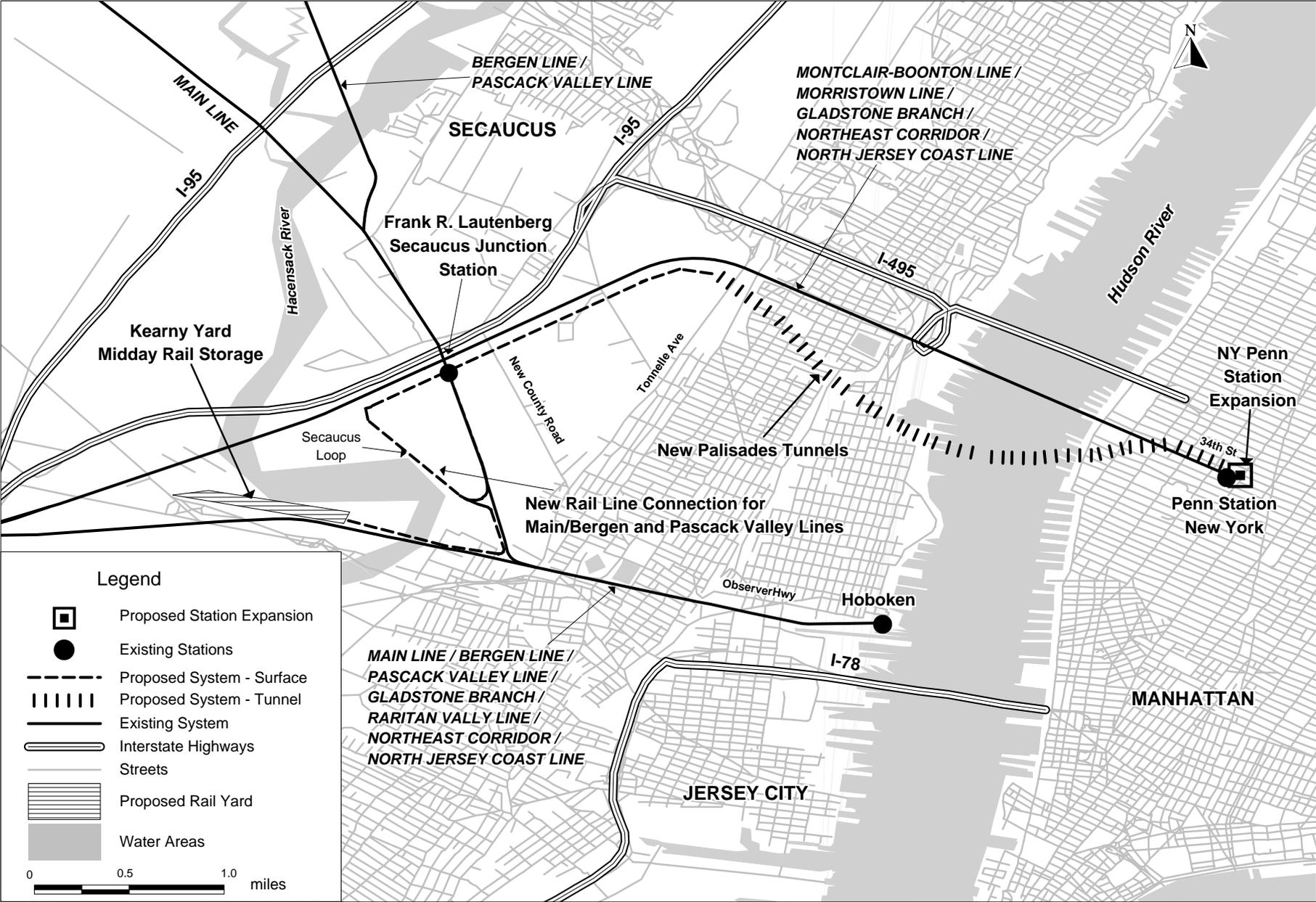
- Over 75 percent of operating funding is committed. Funding sources include fare revenues, capital transfers and project cost reimbursement from state and Federal funds, state operating assistance, and other operating revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- State operating assistance comes from annual appropriations from the state's General Fund. While the assumptions on growth in state operating assistance are reasonable compared to historical experience, there is no legislative mandate that guarantees this additional funding.
- Operating and maintenance costs, inflation, and fare increase assumptions are reasonable compared to historical trends.
- NJT has no cash reserves or projected cash balances built into the operating plan.

# Access to the Region's Core

## Northern New Jersey



# South County Commuter Rail

## Providence, Rhode Island

(November 2008)

The Rhode Island Department of Transportation (RIDOT) is proposing to extend commuter rail service 20 miles along the Northeast Corridor from Providence to Wickford Junction/North Kingston to the South County region of the State. This section of the Northeast Corridor is currently used only for Amtrak and freight operations; therefore, the extension of commuter rail service represents a new passenger service in the corridor.

RIDOT has identified the need to extend commuter rail service to meet demand for travel in the South County area. More specifically, the locally stated goals of the transit improvement are to reduce congestion, improve safety, and provide intermodal connections in the Interstate 95 and Route 1/Route 4 corridors; provide needed intermodal connections to T.F. Green Airport via RIDOT's Warwick Intermodal Station; support RIDOT's ongoing commitment to maintain and improve the existing highway and rail infrastructure rather than invest in additional roadway capacity; and support the State's objectives of using transportation to attain regional economic development goals by providing opportunities to attract new commercial development, including the Warwick Station Redevelopment District at T.F. Green Airport.

The proposed project includes a new station, a new 1,000-car parking garage, and a mainline interlocking at Wickford Junction. The proposed eight round-trip commuter rail trains daily (Monday through Friday) would augment the 15 trains operating between Providence and Boston today. The Massachusetts Bay Transportation Authority (MBTA) has been identified as the service operator for this commuter rail service extension.

The total capital cost for this commuter rail extension project is estimated at \$49.15 million, with a proposed Section 5309 New Starts share of \$24.90 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 U.S.C 5309(e)(1)(B)).*

Summary Description	
<b>Proposed Project:</b>	Commuter Rail Extension 20 Miles, 1 Station
<b>Total Capital Cost (\$YOE):</b>	\$49.15 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.90 Million (50.7%)
<b>Ridership Forecast (2020):</b>	2,300 Average Weekday Boardings

### Project Development History and Current Status

In an effort to increase mobility in southeastern New England, the State of Rhode Island, in cooperation with the Commonwealth of Massachusetts, entered into a cooperative agreement in 1989 known as the Pilgrim Partnership Agreement. The central tenet of the Pilgrim Partnership Agreement is that RIDOT will sub-allocate Federal formula funding to MBTA in exchange for commuter rail service to Providence. The South County Commuter Rail (SCCR) Project is a continuation of a bi-state goal to improve mobility within a shared corridor.

FTA approved the SCCR project into preliminary engineering in March 2004. Since then, five commuter rail coaches with independent utility were taken out of the project scope to support the existing

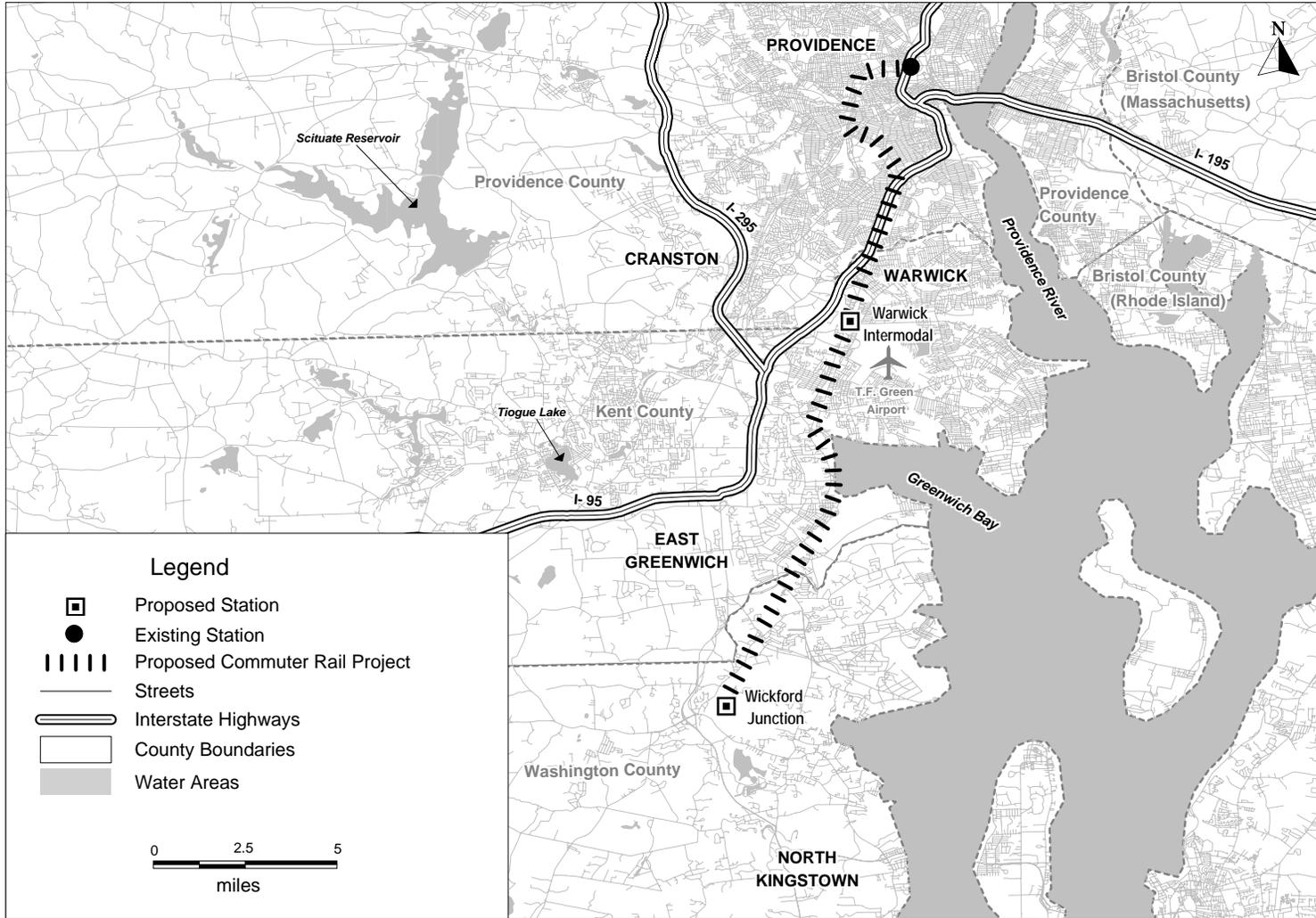
Providence to Boston service. FTA approved the project into final design in August 2007. Revenue operation is anticipated in mid-2010.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$24.90	50.7%
FHWA Flexible Funds (CMAQ)	\$3.00	6.1%
FHWA FY 2006 Approp. for SCRR	\$3.96	8.1%
Section 5309 Fixed Guideway Modernization	\$7.45	15.1%
<b>State:</b>		
Commuter Rail Bonds	\$7.00	14.2%
Highway Bonds to Match CMAQ	\$2.84	5.8%
<b>Total:</b>	<b>\$49.15</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# South County Commuter Rail

Providence, Rhode Island





# Projects in Preliminary Engineering

---



# Modern Streetcar Project

## Tucson, Arizona

(April 2009)

The City of Tucson Department of Transportation (TDOT) proposes to build a Modern Streetcar Project in the downtown Tucson Urban Corridor. The corridor includes many of Tucson's major activity centers including downtown Tucson, the Rio Nuevo master plan development area, the University of Arizona Tucson campus, the 4<sup>th</sup> Avenue and University Main Gate business district, and the Arizona Health Sciences Center. The Tucson Modern Streetcar will serve 19 stations along a 3.9-mile double track route. Streetcars will operate at grade—in most locations on surface streets in mixed traffic with some reserved right-of-way, where available. Track placement will primarily be in the center of shared travel lanes with stations located either in the roadway median or on the outside of roadways. Station platforms will be designed so that they can be used by buses as well as by streetcars, where possible. Streetcars will operate with 10-minute frequency during peak periods and 20-minute frequency during off-peak periods and on weekends. The project will require seven modern streetcar vehicles.

The total capital cost of the Tucson Modern Streetcar Project is estimated to be \$150.06 million, with a proposed Section 5309 New Starts share of \$24.99 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)(1)(B)).*

Summary Description	
<b>Proposed Project:</b>	Modern Streetcar 3.9 Route Miles 19 Stations
<b>Total Capital Cost (\$YOE):</b>	\$150.06 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.99 Million (16.7 %)
<b>Ridership Forecast (2011):</b>	3,600 Average Weekday Boardings

### Project Development History and Current Status

TDOT conducted a Tucson Urban Corridor Alternatives Analysis in August 2004 to identify potential transit alternatives connecting major activity centers in the Tucson central core. A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published in January 2005. Based on the results of the AA, the Tucson mayor and city council adopted the Modern Streetcar Project as the Locally Preferred Alternative (LPA) for the Tucson Urban Corridor in January 2006. The LPA was adopted in the Pima, Arizona Association of Governments' (PAG) 2030 Regional Transportation Plan in June 2006. The LPA was also included in the adopted 2009-2013 PAG Transportation Improvement Program. Local funding for the Tucson Modern Streetcar was a component of the Regional Transportation Authority Plan that was adopted by Pima County voters in May 2006.

Although FTA had issued a NOI to prepare an EIS in 2005, during scoping it was discovered that the project was unlikely to have significant environmental impacts. Accordingly, in March 2007, FTA determined that an Environmental Assessment (EA) would suffice. A draft EA was submitted to FTA in January 2008, and a Final EA was completed in February 2008. FTA issued a Finding of No Significant Impact (FONSI) in January 2009. FTA approved the project into preliminary engineering in December 2008. Approval of the project into final design is expected in 2009.

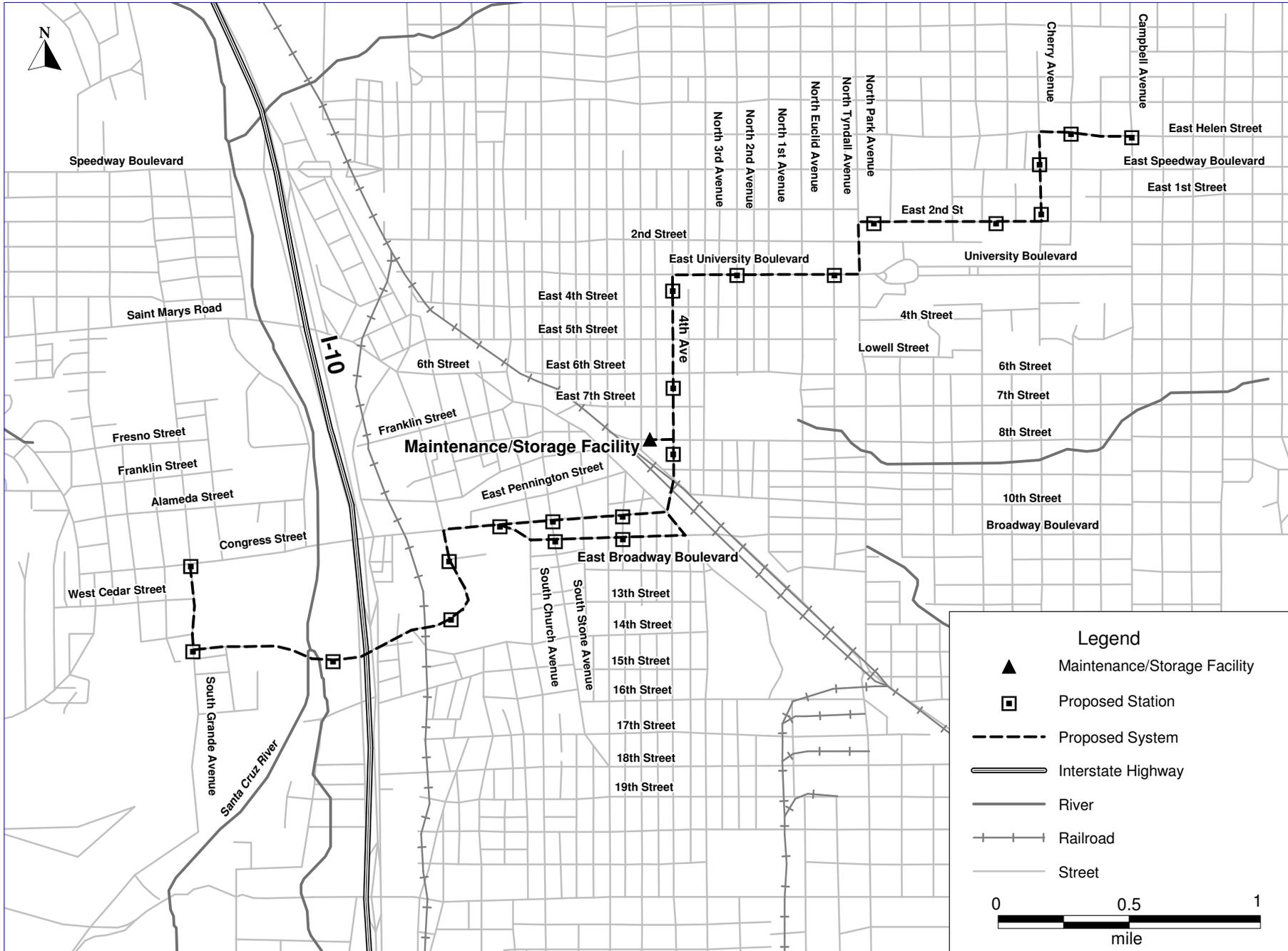
**Locally Proposed Financial Plan**

<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b> Section 5309 New Starts	\$24.99	16.7%
<b>Local:</b> Regional Transportation Authority (Sales Tax)	\$65.66	43.7%
City of Tucson Certificates of Participation	\$59.40	39.6%
<b>Total:</b>	<b>\$150.06</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# Modern Streetcar Project

## Tucson, Arizona





## South Corridor Phase 2

### Sacramento, California

(November 2008)

The Sacramento Regional Transit District (RT) is proposing to implement an extension of its existing South Corridor light rail transit (LRT) line from its current terminus at Meadowview Road south and east to Cosumnes River College (CRC), near the intersection of State Highway 99 and Calvine Road. The four-station, 4.3-mile project would operate in an exclusive, primarily at-grade right-of-way requiring six street crossings along the alignment. The proposed extension will use existing RT vehicles and operate on 10-minute peak-period frequencies. Approximately 2,700 park-and-ride spaces would be constructed at three of the four proposed stations as part of the project.

The South Corridor Phase 2 project is located within one of the fastest growing areas of Sacramento County. Additional development anticipated to the south along Route 99 and Interstate 5, and a high rate of employment growth forecasted for downtown Sacramento, have created the need for additional peak-period transportation capacity between the Sacramento region's southern communities and its central business district (CBD). By extending existing LRT service south and providing new park-and-ride opportunities in the corridor, the South Corridor LRT Extension project is intended to provide an attractive alternative to private automobiles for trips destined for downtown and other areas served by the LRT system.

#### Summary Description

<b>Proposed Project:</b>	Light Rail Transit 4.3 Miles 4 Stations
<b>Total Capital Cost (\$YOE):</b>	\$270.00 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$135.00 Million (50.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$12.21 Million
<b>Ridership Forecast (2030):</b>	10,000 Average Weekday Boardings 2,500 Daily New Riders
<b>Opening Year Ridership Forecast (2012):</b>	7,400 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium

#### Project Development History and Current Status

The South Sacramento Corridor was identified as a candidate for a future extension of LRT as early as 1991. Following completion of a Draft Environmental Impact Statement (EIS) in 1995, the RT Board adopted a locally preferred alternative for LRT improvements in the South Sacramento Corridor. In response to funding constraints, RT decided to implement the South Corridor LRT in two phases. A minimum operable segment from downtown Sacramento to Meadowview was advanced first and opened for service in September 2003. Following further refinements of the project scope south and east of Meadowview, and work with local stakeholders to further identify transit-oriented development opportunities in the corridor, RT submitted a request to enter preliminary engineering for the South Corridor Phase 2 project, which was approved in February 2005.

The Sacramento RT published a Final Environmental Impact Statement in October 2008. A Record of Decision is expected to be issued in February 2009. Entry into final design is anticipated in March 2009.

**Significant Changes Since FY 2009 Evaluation (November 2007)**

FTA completed an assessment of the project risks and adjusted the project cost estimate to account for inflation, environmental mitigation, utility relocation, and increased contingency. All of these changes resulted in a total capital cost increase from \$226.2 million to \$270.0 million.

**Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium-High* rating for cost effectiveness and a *Medium-Low* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The South Corridor Phase 2 project is intended to bring LRT to one of the region’s fastest growing areas. RT’s “case” for the project provides limited analysis of corridor travel markets. Three-quarters of the project’s travel time benefits are attributable to downtown-oriented trips. However, the “case” does not explain why an extension of LRT is better than anything else that can be done to meet mobility needs in the corridor. Downtown express buses are dismissed as adding congestion to downtown streets without quantifying their effect, and of not serving intermediate stations in the existing South LRT line without providing evidence of travel demand to such areas.

***Cost Effectiveness Rating: Medium***

The *Medium* rating reflects the level of travel-time benefits (2,300 hours each weekday) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$19.50*
Incremental Cost per Incremental Trip	\$17.50

\* Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium-Low***

The *Medium-Low* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Low**

- Population density within ½-mile of the station areas is approximately 5,100 people per square mile and the total number of employees within ½-mile of the proposed station areas is approximately 1,800. Employment in the Sacramento CBD, to which the project provides a direct connection, is about 105,000.
- Regional development is centered around downtown Sacramento, where 40 percent of regional employment is located. The northern end of the South Corridor project serves this area.
- The South Corridor LRT Extension would connect Consumnes River College to downtown Sacramento.
- There are significant pockets of vacant land in the station areas. Station areas currently have limited pedestrian connectivity, with circuitous pedestrian routes and large lots between adjacent uses and proposed stations.
- Parking is generally available in the corridor. Institutional and retail developments are on or adjacent to large parking lots.

**Transit-Supportive Plans and Policies: Medium**

- The Sacramento Area Council of Governments (SACOG), the metropolitan planning organization, has led a multiyear public-oriented regional visioning process called “Blueprint” to educate the public about smart growth initiatives. The city of Sacramento is beginning to implement policies to encourage infill development.
- Two stations highlight renewed commitment to focus development around stations. The plan for College Square development near the proposed CRC station has incorporated neighborhood retail and housing linked by pedestrian pathways and plazas. The proposed Morrison Creek station provides a significant development opportunity. Transit-supportive plans and community plans are being initiated. The light rail project would incorporate new pedestrian bridges and paths to link other corridor stations with existing residential neighborhoods.
- The city of Sacramento has adopted transit-oriented overlay zoning, which provides for higher densities near transit stations, a minimum of 0.4 floor area ratio, and 15 dwelling units per acre, that supports transit-oriented uses and design principles.
- RT’s joint development program has demonstrated progress in recent years. Several requests for proposals are being initiated. Studies for additional projects along the existing South Sacramento Corridor LRT line are currently being performed. Reports of the development review process indicate rejection of some non-transit supportive projects near the proposed stations.

**Performance and Impacts of Policies: Medium**

- Some impacts of transit-oriented policies are beginning to be demonstrated. The College Square development has incorporated internal pedestrian paths, neighborhood-oriented retail, and housing, and is under construction at the Consumnes River College Station.
- Growth is occurring in the general vicinity of the corridor. The proposed Morrison Creek station highlights the strongest potential for linking the proposed investment with new development opportunities planned adjacent to the station.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-Low<sup>†</sup></b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 3.8
<b>Number of Transit Dependents Using the Project</b>	1,200
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	3.7
<b>Environmental Benefits Rating: High</b>	
<u><b>Criteria Pollutant Status</b></u> 8-Hour Ozone (O <sub>3</sub> ) Particulate Matter (PM <sub>10</sub> )	<u><b>EPA Designation</b></u> Serious Non-attainment Area Moderate Non-attainment Area

<sup>†</sup> The FY 2009 *Annual Report* contained a calculation error; mobility improvement ratings for projects with the same data as last year may change as a result of correcting the error.

**Local Financial Commitment Rating: Medium**

The *Medium* rating for local financial commitment is based on the *Medium* rating for the New Starts share of project costs and the *Medium* ratings for the capital and operating finance plans.

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

**Rating: Medium**

RT is requesting a 50 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$135.00	50.0%
FHWA Flexible Funds (CMAQ)	\$7.10	2.9%
STIP Funds*	\$4.31	1.6%
<b>State:</b>		
Traffic Congestion Relief Program	\$66.00	24.4%
<b>Local:</b>		
Laguna Community Facilities District (LCFD)	\$0.80	0.3%
Vineyard Public Facilities Financing Plan	\$8.15	3.0%
Measure A Sales Tax Developer Fee	\$48.52	18.0%
<b>Total:</b>	<b>\$270.00</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

\*STIP funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- The average age of RT’s bus fleet is 4.2 years, which is younger than the industry average. The average age of the light rail fleet is 11 years.
- RT’s bond rating, which was issued in February 2008, is as follows: Moody’s Investors Service A2.

**Commitment of Capital Funds: Medium-High**

- Approximately 41 percent of the non-New Starts funding is committed or budgeted, and the remaining sources are planned. Sources of non-New Starts funding include Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, State Transportation Improvement Program (STIP) funds, State Traffic Congestion Relief Program funds, and funds from the Elk Grove/West Vineyard Transit Development Fee, the Laguna Community Facilities District, and the Measure A Developer fee.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- RT's capital plan includes several revenue sources for capital replacement needs that are assumed to be available in far greater annual amounts than has historically been the case.
- The capital cost estimate has been refined following the risk assessment process to increase project contingency and mitigate project risks.

***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium**

- RT's current ratio of assets to liabilities as reported in its most recent financial statement is 1.44.
- RT has recently cut service and increased fares to adapt to increased operating costs from new light rail service and reduced transit funds from the State of California.

**Commitment of Operating Funds: Medium-High**

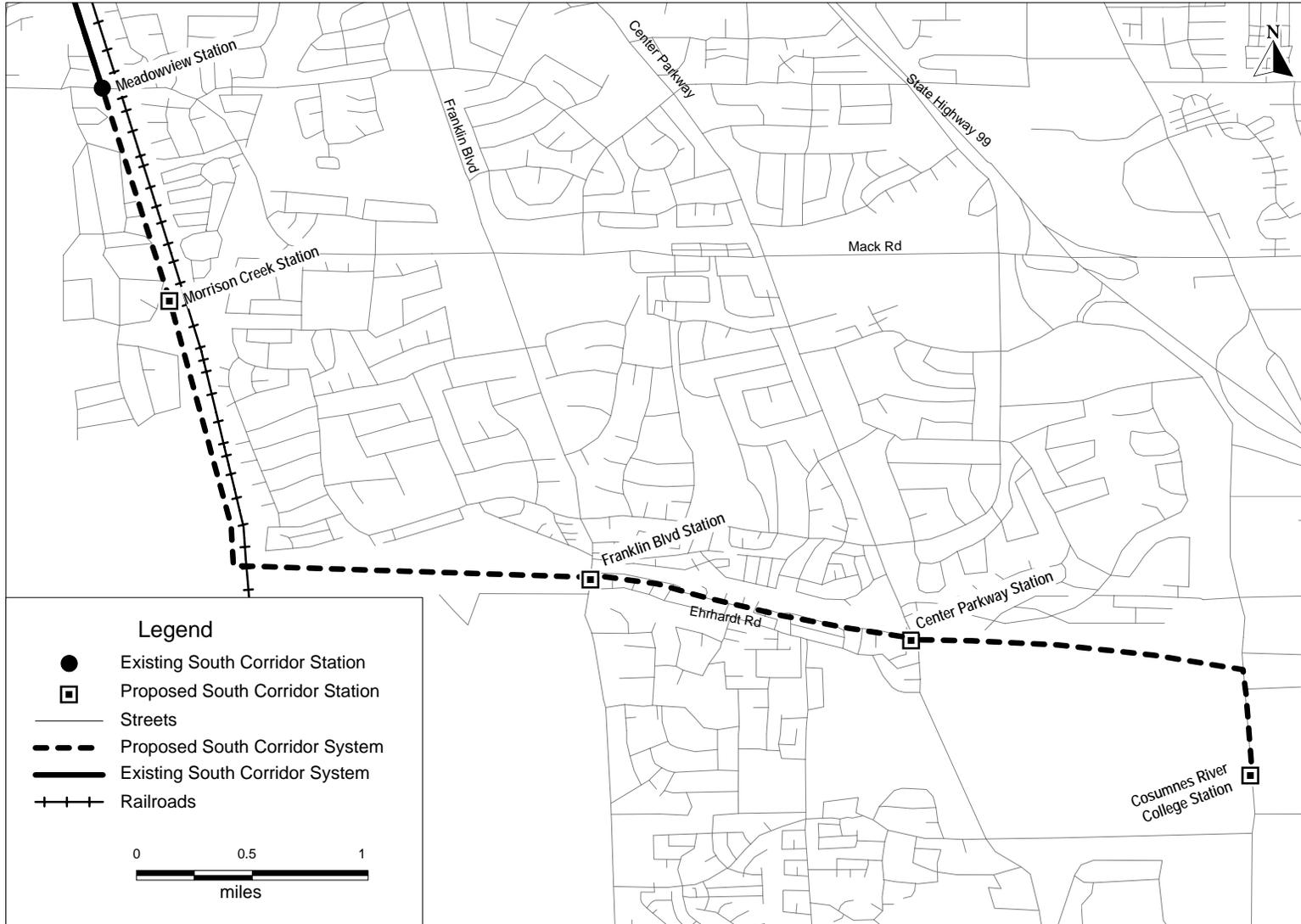
- All funds needed to operate and maintain the proposed transit system are committed or budgeted. Sources of operating funds include Federal Section 5307 Formula Funds, Section 5309 Fixed Guideway Modernization, Section 5316 Job Access and Reverse commute funds, fare revenues, State transit assistance, dedicated sales tax revenues, and advertising and investments.
- The future availability of State transit assistance is uncertain.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- RT's assumptions regarding bus operating costs, sales tax revenues, and State transit assistance are optimistic.
- The project has only a minimal impact on overall system-wide operating costs.

# South Corridor Phase 2

Sacramento, California



# Central Subway LRT

## San Francisco, California

(November 2008)

The San Francisco Municipal Transportation Agency (SFMTA) and the San Francisco County Transportation Authority (SFCTA) are planning the Central Subway project, a 1.7-mile extension of the Third Street light rail transit (LRT) line from its terminus at Fourth and King Streets. From a portal south of Market Street, the project descends below grade and extends northward under Fourth Street and Stockton Street into Chinatown in the San Francisco central business district (CBD). One surface station and three underground stations would be constructed along the project alignment. Four light rail vehicles would be purchased to augment the existing fleet. When completed, the combined Third Street LRT / Central Subway project would provide a continuous seven-mile light rail system connecting the heavily transit-dependent communities of Bayshore in the south with Chinatown in the north.

The Financial District, Union Square, and Chinatown have a very high level of existing transit service. Bus routes that serve the project corridor operate on two-minute headways during peak hours and typically carry passenger loads that are at or above capacity. Currently, commuter rail passengers from the south must board these crowded buses operating on congested roadways or walk over a mile from the CalTrain Station to reach the CBD. LRT passengers from the south may choose to continue on LRT to access downtown, but the alignment along the Embarcadero is circuitous. The Central Subway project is intended to provide a direct rapid transit link between these areas. Implementation of the Central Subway project is further expected to help carry large crowds attending events at convention and professional sports venues in the South of Market area (SOMA).

### Summary Description

<b>Proposed Project:</b>	Light Rail Transit 1.7 Miles 3 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1,297.95 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$762.20 Million (58.7%)
<b>Annual Forecast Year Operating Cost:</b>	\$7.08 Million
<b>Ridership Forecast (2030):</b>	42,200 Average Weekday Boardings 4,800 Daily New Riders
<b>Opening Year Ridership Forecast (2016):</b>	40,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

### Project Development History and Current Status

In October 1996, SFMTA began preparation of a Draft Environmental Impact Statement (EIS) for the Third Street/Central Subway light rail line. Because of their phased implementation, the two segments were considered separate projects, and FTA issued a Record of Decision on the Third Street alignment in 1998. FTA approved the Central Subway project into preliminary engineering in July 2002. Since then, SFMTA modified the project alignment and examined alternative tunneling scenarios. In late 2006, the SFMTA undertook a value engineering study to examine ways to lower the project's total capital cost, which resulted in \$180 million in cost reductions from scope changes. The SFMTA issued a Draft EIS on the Central Subway in September 2007, and a Final EIS in September 2008.

FTA's risk assessment process will be completed in early Spring 2009. Project risks stem from the challenges associated with constructing in a dense urban environment, in particular with the construction methods and sequencing required to minimize impacts to the surrounding area. The reliability of the current project cost and schedule will be evident at the conclusion of the risk assessment. Entry to final design is anticipated in October 2009.

### **Significant Changes Since FY 2009 Evaluation (November 2007)**

SFMTA revised the project's capital cost estimate to reflect the results of the National Environmental Policy Act process, further project design, further analysis of contingencies and cost escalation, and a more comprehensive construction cost estimate. SFMTA further revised the project's operating plan to reflect the anticipated travel demand and better coordinate feeder bus service; updated the travel model to reflect recent survey data; and identified reliable sources of funding to support the project's financial plan. Finally, SFMTA clarified its methodology for estimating system operating and maintenance costs.

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

The project is rated *Medium-High* based on a *Medium* rating for cost effectiveness and a *High* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2010.

### ***Making the Case***

The Central Subway project will result in a new direct rail connection between SOMA, Chinatown, and Union Square. SFMTA's submitted "case" for the project cites service reliability, long transit travel times, high density land use, and anticipated growth as problems in the corridor, but provides limited quantitative data to support these statements. The making the case also provided very little information about the travel markets that would benefit from the project, and only describes aggregate benefits for all forecasted riders, without acknowledgement of specific trip purposes. As a result, it is unclear from SFMTA's "case" why the proposed project is better than the baseline alternative. The case for the project could be improved if it included a summary of the current strong transit markets in the corridor and used quantitative data to describe how the Central Subway project would improve service to those transit markets.

### ***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (11,000 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$21.71*
Incremental Cost per Incremental Trip	\$26.96

\*Indicates that measure is a component of Cost Effectiveness rating.

### ***Transit-Supportive Land Use Rating: High***

The *High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

#### **Existing Land Use: High**

- Population density within ½-mile of the station areas is approximately 53,700 people per square mile in the corridor and total employment in project station areas is approximately 217,600 jobs.
- The San Francisco CBD is the densest and most transit accessible downtown on the west coast. Union Square is the primary retail district in the city with dense pedestrian and transit-oriented

development. Chinatown has extremely dense concentrations of residential units, retail, and some office and small-scale industrial uses.

- Available parking in the corridor is generally on-street, with some off-street parking for commuters and city-owned parking garages for commuters and shoppers. The daily cost to park in city-owned lots in the corridor is high, ranging from \$20 to \$30 per day.

**Transit-Supportive Plans and Policies: Medium-High**

- While the San Francisco Bay region has a number of physical and topographical constraints to growth, it does not have a unified or enforceable growth management policy.
- San Francisco’s General Plan has long encouraged higher-density and transit-oriented development. Additional planning initiatives are underway to focus higher-intensity growth in transit corridors. Zoning changes are being considered that would require residential community-oriented retail development near transit nodes.
- San Francisco’s zoning regulations are intended to maintain a medium to high-density profile and scale, with a mixture of land uses in many areas. There are no minimum parking requirements or off-street parking provisions in the CBD and other employment areas.
- The City of San Francisco Redevelopment Agency employs a number of special tools to help implement land use policies contained in the city’s General Plan such as tax increment financing, special land acquisition rules, and special land assembly abilities.
- San Francisco’s existing land use pattern includes the densest development along its major transportation corridors. The objective of the City Planning Department and directing codes and ordinances is to reinforce this pattern of development along corridors that have high transit capacity such as the Central Subway corridor. Thus, land use planning in the Central Subway corridor is focused more on the corridor and neighborhood level than around individual stations.

**Performance and Impacts of Policies: High**

- The existing high-density development and pedestrian accessibility in the City of San Francisco demonstrates the strength of city policies and market forces at achieving transit-oriented intensities and urban design. The number of jobs in the San Francisco CBD has doubled since the 1970’s with no increase in the volume of traffic entering the area..
- The South of Market area, within the New Central Subway corridor, is expected to experience strong growth over the next two decades, with high density residential, high-tech office, and a variety of retail uses continuing to fill in sites formerly occupied by industrial uses.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-High</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u>New Start vs. Baseline</u> 8.4
<b>Number of Transit Dependents Using the Project</b>	7,100
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	34.6
<b>Environmental Benefits Rating: High</b>	
<u>Criteria Pollutant Status</u> 8-Hour Ozone (O <sub>3</sub> )	<u>EPA Designation</u> Marginal Non-attainment Area

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

The *Medium* local financial commitment rating is based on the *Medium* ratings for the New Starts share of project costs and the capital and operating finance plans.

### ***Section 5309 New Starts Share of Total Project Costs: 59%***

#### ***Rating: Medium***

Division H of the Consolidated Appropriations Act, 2005, permits SFMTA to use non-New Starts funds expended for the Third Street LRT project as match to the Central Subway. While the New Starts share rating reflects the Central Subway project alone, the legislative language lowers the New Starts share to 39.2 percent of the total costs of the combined Third Street/Central Subway project (\$1,946.5 million).

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts STIP	\$762.20	58.7%
Funds*	\$92.20	7.1%
<b>State:</b>		
Proposition 1B	\$240.00	18.5%
Transportation Congestion Relief Program	\$14.00	1.0%
<b>Local:</b>		
Proposition B/K Sales Tax Funds	\$126.00	9.7%
Parking Revenues	\$63.55	4.9%
<b>Total:</b>	<b>\$1,297.95</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

\*State Transportation Improvement Program (STIP) funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

### ***Capital Finance Plan Rating: Medium***

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

#### **Agency Capital Condition: Medium**

- The average age of SFMTA's bus fleet is 6.8 years, which is in line with the industry average.
- The SFMTA's good bond ratings, which were issued in 2006, are as follows: Moody's Investors Service Aa3, Standard & Poor's Corporation AA, and Fitch AA-.

#### **Commitment of Capital Funds: High**

- Over 50 percent of the non-Section 5309 New Starts funds (Muni Third Street Light Rail and New Central Subway) have been committed and budgeted. Sources of funds include State Transportation Improvement Program (STIP) funding, traffic congestion relief funding, proposition B and K sales tax revenues, and parking revenue.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Several revenue assumptions are considered optimistic compared to historical data including Federal Section 5307, Section 5309 fixed guideway modernization, and CMAQ funds.
- The capital cost estimate is considered reasonable. However, significant risks remain including revisions to station construction methods and escalating labor and material prices. A risk assessment of the project's cost and scope will be completed prior to final design.

***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium**

- SFMTA's current ratio of assets to liabilities as reported in its most recent audited financial statement is 1.5.
- SFMTA has experienced some recent budget challenges, requiring service cuts in 2006.

**Commitment of Operating and Maintenance Funding: High**

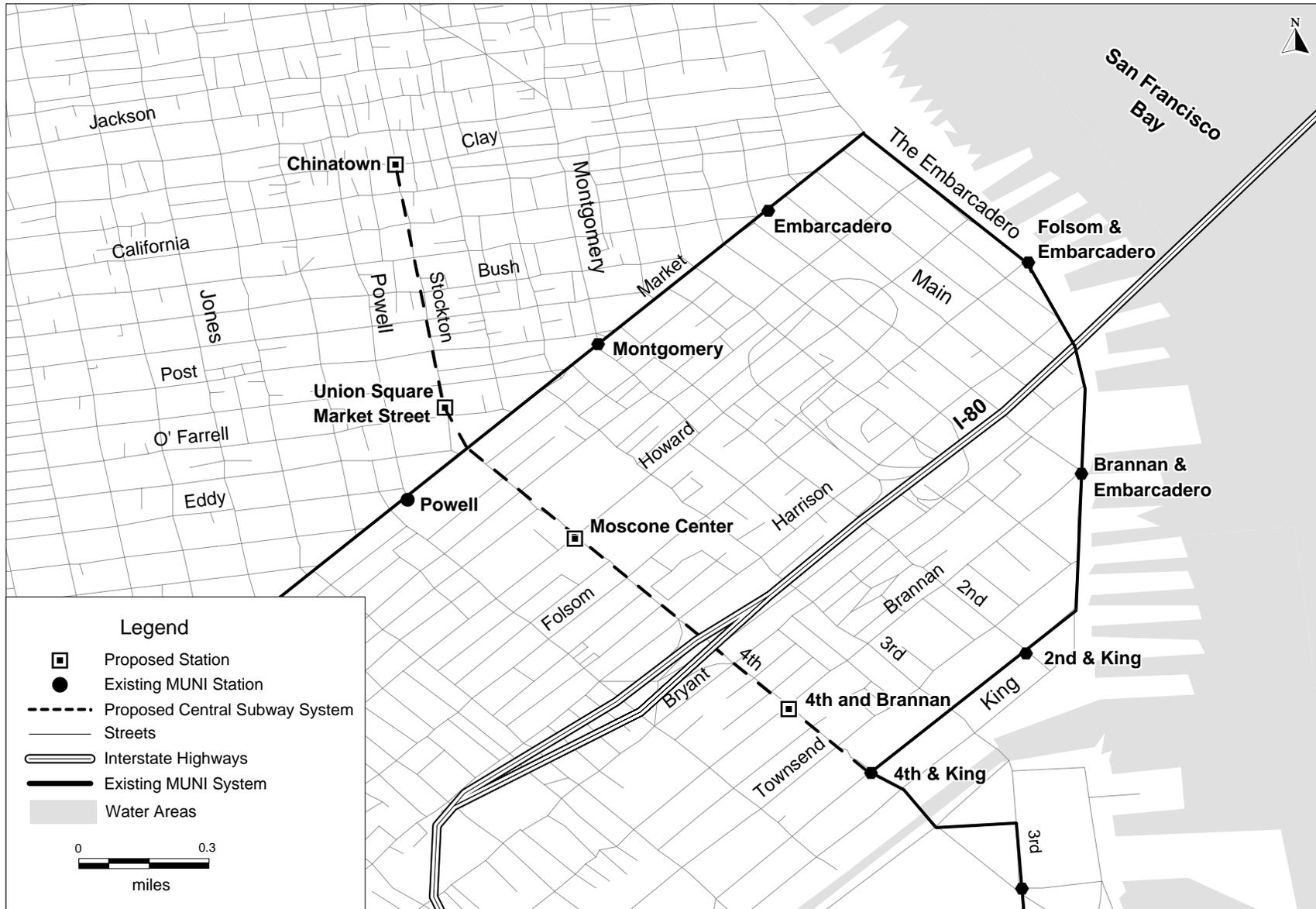
- Over 75 percent of operating funding is committed. The main revenue sources are fares, parking fees, General Fund contributions, and state sales tax and fuel assistance revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumed growth in operating expenses is optimistic compared to historical experience. Operating revenue assumptions are in line with or more conservative than historical experience.
- The project has only a minimal impact on overall system-wide operating costs.

# Central Subway LRT

San Francisco, California



# East Corridor

## Denver, Colorado

(April 2009)

The Denver Regional Transportation District (RTD) is planning a 22.7-mile commuter rail electric multiple unit (EMU) line from downtown Denver through the communities of Denver, Globerville/Swansea/Elyria, North Park Hill, Stapleton, Aurora/Fitzsimons, Montebello, and Gateway to Denver International Airport. Six new stations and approximately 3,500 park and ride spaces would be constructed and 22 light rail vehicles would be purchased. Service would operate at 7.5 minute frequencies during peak periods, and 15 minute frequencies during off peak periods.

The East Corridor contains a limited number of transportation thoroughfares in the east-west direction with Interstate 70 being the primary thoroughfare. Existing arterial streets traveling through the corridor are not continuous, making local grid bus service connecting all consecutive neighborhoods infeasible. The East Corridor project will provide an additional transportation option in the corridor.

The East Corridor is part of RTD's FasTracks expansion program of major transit investments in the Denver region. It will be constructed as part of the larger RTD project known as the East and Gold Line Enterprise (Eagle Project) utilizing a design-build-finance-operate-maintain project delivery method. A Concessionaire Team (CT) composed of engineering, construction, construction management, financial advisors and vehicle firms would design and construct the Eagle Project, help to finance the project, and have an equity stake. The CT, in cooperation with RTD, would operate the East Corridor project, though a 50 year concessionaire agreement. The project is part of FTA's Public Private Partnership Pilot Program.

Summary Description	
<b>Proposed Project:</b>	Commuter Rail EMU 22.7 Miles 6 Stations
<b>Total Capital Cost (\$YOE):</b>	\$2,043.77 Million (includes \$36.6 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$788.69 Million (38.6%)
<b>Annual Forecast Year Operating Cost:</b>	\$36.08 Million
<b>Ridership Forecast (2030):</b>	37,900 Average Weekday Boardings 7,600 Daily New Riders
<b>Opening Year Ridership Forecast (2015):</b>	22,900 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

A Major Investment Study for the East Corridor was initiated in 1997. In 2004, the corridor was adopted into the "FasTracks" plan to expand rail and bus service throughout the RTD service area. In November 2004, voters approved the FasTracks plan and tax increase. A Locally Preferred Alternative was identified in 2007, and adopted into the metropolitan planning organization's fiscally constrained long range transportation plan. RTD issued a Draft Environmental Impact Statement (EIS) on the East

Corridor in January 2009. FTA approved the East Corridor into preliminary engineering in April 2009. A Final EIS is anticipated in July 2009.

The project’s capital cost estimate is considered reliable for this stage of project development. However, significant risks remain, including uncertainty of escalation and contingency costs.

**Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document is not factored into the project justification rating for FY 2010.

***Making the Case***

The East Corridor project will result in a new direct rail connection between Denver Union Station in downtown Denver, Stapleton, and Denver International Airport. The “case” for the project does not well define the travel patterns in the corridor today. The primary east-west travel route in the corridor, Interstate 70, is constrained at present. The document states that with few funds available for major roadway improvements in the regional transportation plan and population and employment expected to increase significantly in the corridor, congestion is expected to worsen. A non-stop bus route between downtown Denver and the airport is expected to have a peak period travel time of 48 minutes in the New Starts baseline alternative, while the commuter rail project is expected to take only 29 minutes including stops for the same trip.

***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (6,600 hours each weekday) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$20.94*
Incremental Cost per Incremental Trip	\$17.01

\*Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- Existing land uses in the new station areas include primarily industrial with some residential and commercial uses. Average population density across new station areas is 1,100 persons per square mile, rating “low” according to FTA guidance. Total employment served is 121,400 (including 102,700 in the Denver CBD), which rates “medium-low” according to FTA guidance. In the CBD, the ratio of parking spaces to employees is 0.44, for a rating of “medium-low” according to FTA benchmarks. Parking costs average \$7 per day in the Denver CBD, and generally parking is free and available in other station areas except Denver International Airport (DIA) where parking costs \$9 to \$27 per day.
- Pedestrian facilities are present in the established neighborhoods in the two station areas closest to the Denver CBD but few sidewalks exist in other station areas. Despite its proximity to the Stapleton Airport traditional neighborhood redevelopment area, a recently-developed shopping center in the Central Park Station area is largely auto-oriented with low-rise buildings and large parking lots.

**Transit-Supportive Plans and Policies: Medium-High**

- Land use in the corridor is controlled by the City and County of Denver and City of Aurora. Area plans exist for half the station areas, and planning is underway for the other proposed stations. The current area and sub-area plans generally encourage increased development and transit-oriented projects. Multiple regional plans support increasing density in urban centers, and Denver Union Station is undergoing development into a mixed-use transportation hub with 1.3 million square feet of new development planned.
- Existing zoning at the two stations closest to the Denver CBD allows low to moderate density of 7 to 15 units per acre. Denver has established several residential and commercial mixed-use zones, as well as a Transit-Mixed Use zone (T-MU-30). An area zoned T-MU-30, permitting FAR of 5.0 and parking reductions of 25 percent, is at the core of the Denver Union Station area, and the Central Park and 40<sup>th</sup>/Airport Station areas include some mixed-use zones. Denver’s zoning code is undergoing a comprehensive update anticipated to support TOD and expected in late 2008. The City of Aurora, which will have jurisdiction over all or part of two stations, has established zoning with a maximum FAR for the core of a city center subarea of 1.4, rating “medium” according to FTA standards, and is providing guidance on transit-oriented character.

**Performance and Impacts of Policies: Medium-High**

- Extensive development has occurred in the past decade near Denver Union Station, and examples of TOD are increasing in other existing station areas in the Denver region. Development opportunities at the 40<sup>th</sup>/40<sup>th</sup> and Colorado Stations are primarily infill or adaptive reuse projects, and several residential and retail projects have been proposed at the 40<sup>th</sup>/40<sup>th</sup> Station.
- Three station areas have significant undeveloped or underutilized land (Central Park, Peoria, and 40<sup>th</sup>/Airport). Large-scale redevelopment plans of more than 4,000 acres each, including residential and commercial development, are planned and underway in the areas that include the Central Park and 40<sup>th</sup>/Airport Stations. The stations also benefit from proximity to freeways which may aid marketability.
- While little or no feasible developable land exists in the proposed DIA station area, the airport is forecast to add significant new employment and to more than double the number of enplanements by 2030.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-Low</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 0.9
<b>Number of Transit Dependents Using the Project</b>	2,300
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	1.0

<b>Environmental Benefits Rating: High</b>	
<u><b>Criteria Pollutant Status</b></u> 8-Hour Ozone (O <sub>3</sub> ) Particulate Matter (PM <sub>10</sub> )	<u><b>EPA Designation</b></u> Non-attainment Area Non-attainment Area

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

The *Medium* local financial commitment rating is based on the *Medium-High* ratings for the New Starts share of project costs and the operating finance plan and the *Medium* rating for the capital finance plan.

### ***Section 5309 New Starts Share of Total Project Costs: 38%***

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

RTD is requesting an approximately 38 percent New Starts share of total project costs, which results in a *Medium-High* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$788.69	38.6%
FHWA Flexible Funds (CMAQ)	\$20.85	1.0%
<b>Local:</b>		
Bond Proceeds	\$70.53	3.5%
Sales & Use Tax	\$73.93	3.6%
Concessionaire Financing – Private Equity and Debt	\$1,033.54	50.6%
Local Government Contributions	\$43.57	2.1%
Special District (DIA) Contribution	\$12.66	0.6%
<b>Total:</b>	<b>\$2,043.77</b>	<b>100.0%</b>

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

### ***Capital Finance Plan Rating: Medium***

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

#### **Agency Capital Condition: Medium-High**

- The average age of RTD's bus fleet is under six years, which is younger than the industry average.
- RTD's good bond ratings, which were issued in 2007, are as follows: Moody's Investors Service Aa3; Standard & Poor's Corporation AA+; and Fitch AA-.

#### **Commitment of Capital Funds: Medium**

- Twelve percent of the non-New Starts funding is committed. The sources of non-Section 5309 New Starts funds for the project are Congestion Mitigation and Air Quality (CMAQ) funds, revenues derived from the local sales and use tax, bond proceeds backed by a 0.4 percent sales and use tax as provided for by FasTracks, concessionaire equity and debt, and local government contributions.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- RTD has stretched the schedule of FasTracks to fit within the combination of substantial cost increases and underperforming sales and use tax revenue.
- Many capital planning assumptions and cost estimates are optimistic.
- The financial plan shows that RTD has the financial capacity to cover only minor cost increases or funding shortfalls equal to 10 percent or less of the estimated project cost.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan would be rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent. However, RTD anticipates delivering its project through a long-term Public Private Partnership in which the private partner would design, build, finance, operate and maintain the project on behalf of RTD. Thus, the summary operating plan rating is increased one level from Medium to Medium-High.

**Agency Operating Financial Condition: Medium**

- Recent economic conditions have put a strain on RTD's base system, necessitating minor service reductions and unscheduled fare increases despite increased ridership.
- RTD's current ratio of assets to liabilities as reported in its most recent audited financial statement is very good at 5.6.

**Commitment of Operating and Maintenance Funds: High**

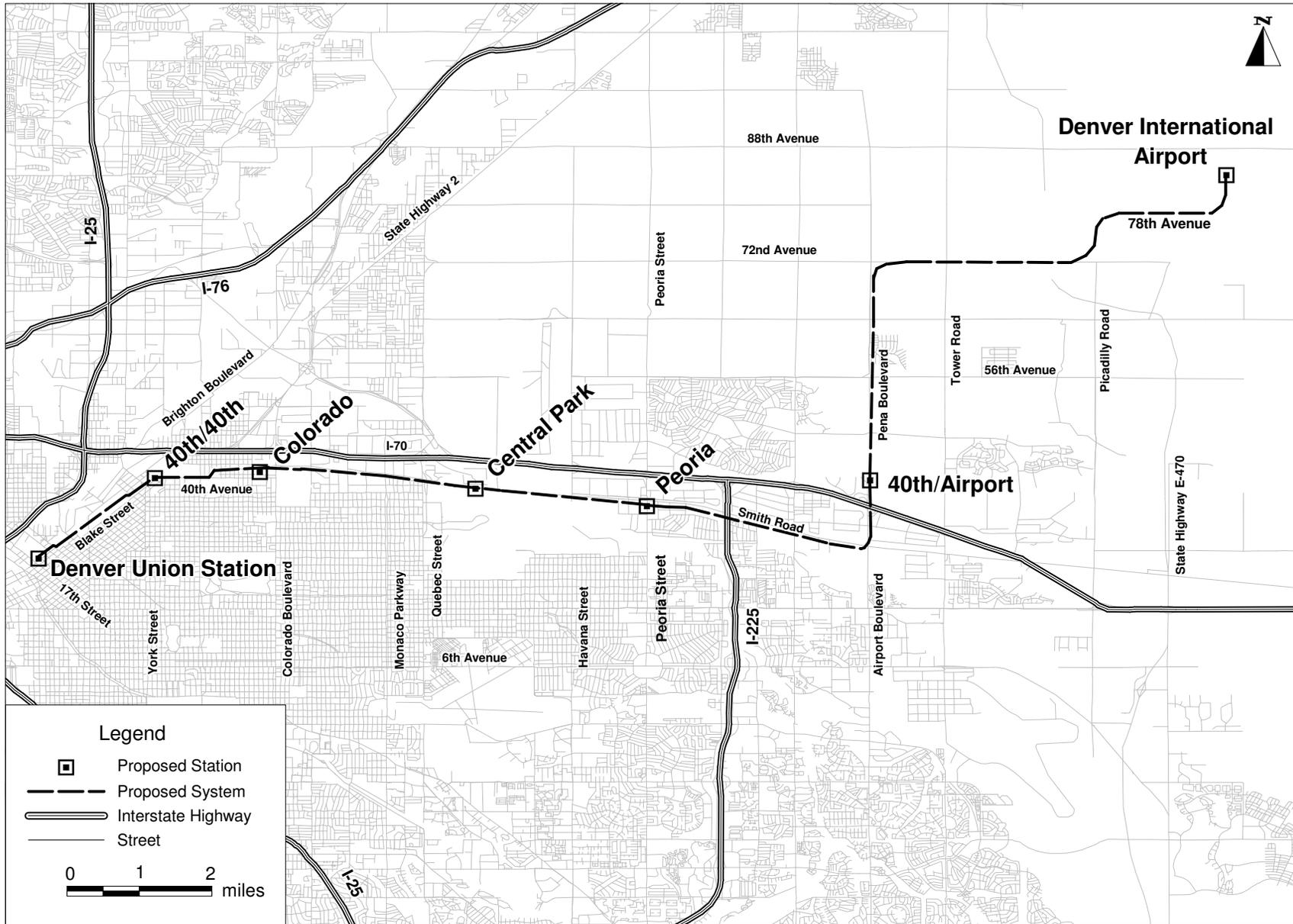
- All operating funding is committed, including fare revenues, increased sales and use tax revenues, and parking revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Several operating cost estimates and revenue forecasts are optimistic relative to historical experience.
- Projected cash balances and reserve accounts are less than eight percent (one month) of annual systemwide operating expenses.

# East Corridor

## Denver, Colorado



# Gold Line

## Denver, Colorado

(April 2009)

The Denver Regional Transportation District (RTD) is planning a 10.8-mile commuter rail line using electric multiple unit vehicles from downtown Denver westward to Ward Road in Wheat Ridge. Seven new stations and 2,250 park and ride spaces would be constructed and 22 vehicles would be purchased. When completed, the Gold Line would provide a continuous commuter rail service, connecting the communities of Wheat Ridge, Arvada and Adams to downtown Denver. Service would operate, at 7.5 minute frequencies during peak period, and 15 minute frequencies during off peak periods.

Currently there is a lack of continuous street connections between the project corridor and downtown Denver, resulting in traffic using north-south arterials and Interstates 70 and 25 to access downtown Denver. Travel time by transit is currently 20 minutes by express bus on I-70 and I-25 from Ward Road to downtown Denver, however, this time can vary by as much as eight minutes due to congestion. All other major east to west arterials do not provide, and are not planned to provide, direct connections into downtown over the next 20 years. The Gold Line is intended to provide direct, fast and frequent service as a convenient alternative to automobile use.

The Gold Line is part of RTD’s FasTracks expansion program of major transit investments in the Denver region. It will be constructed as part of the larger RTD project known as the East and Gold Line Enterprise (Eagle Project) utilizing a design-build-finance-operate-maintain project delivery method. A Concessionaire Team (CT) composed of engineering, construction, construction management, financial advisors and vehicle firms would design and construct the Eagle Project, help to finance the project, and have an equity stake. The CT, in cooperation with RTD, would operate the Gold Line project, though a 50 year concessionaire agreement. The project is part of FTA’s Public Private Partnership Pilot Program.

Summary Description	
<b>Proposed Project:</b>	Commuter Rail EMU 10.8 Miles 7 Stations
<b>Total Capital Cost (\$YOE):</b>	\$859.51 Million (includes \$19.2 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$241.75 Million (28.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$22.45 Million
<b>Ridership Forecast (2030):</b>	16,800 Average Weekday Boardings 2,700 Daily New Riders
<b>Opening Year Ridership Forecast (2015):</b>	13,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

A Major Investment Study for the Gold Line was initiated in 1998. In 2004, the corridor was adopted into the “FasTracks” plan to expand rail and bus service throughout the RTD service area. In November 2004, voters approved the FasTracks plan and tax increase. A Locally Preferred Alternative was identified in 2007, and adopted into the metropolitan planning organization’s fiscally constrained long range transportation plan. RTD issued a Draft Environmental Impact Statement (EIS) on the Gold Line in

July 2008. FTA approved the Gold Line into preliminary engineering in April 2009. A Final EIS is anticipated in March 2009.

The project's capital cost estimate is considered reliable for this stage of project development. However, significant risks remain, including uncertainty of cost escalation and contingencies. The capital cost estimate does not include the entire capital infrastructure investments needed to operate this commuter rail line. RTD is going to rebuild Denver Union Station (DUS) downtown as part of a separate multimodal project to accommodate commuter rail service. In addition, the trackway between DUS and Pecos will be built as part of RTD's locally funded Northwest Rail Corridor Project, which is anticipated to be constructed in advance of the completion of the Gold Line.

### **Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project's *Making the Case* document is not factored into the project justification rating for FY 2010.

### ***Making the Case***

The "case" for the project does not well define the travel patterns in the corridor or describe fully why the chosen commuter rail alternative better serves the corridor than a lower cost option. The "case" for the project states that travel time by transit is currently 20 minutes by express bus on I-70 and I-25 from Ward Road to downtown Denver, however it can vary as much as eight minutes due to congestion. The document states that with few funds available for major roadway improvements in the regional transportation plan and population and employment expected to increase significantly in the corridor, congestion is expected to worsen. The travel time on the commuter rail is projected to be 19 minutes, which is described as 30 percent faster than a trip by bus traveling on congested roadways. However, no data substantiating this assertion is provided.

### ***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (2,500 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$22.83*
Incremental Cost per Incremental Trip	\$19.71

\*Indicates that measure is a component of Cost Effectiveness rating.

### ***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

#### **Existing Land Use: Medium-Low**

- Existing land uses in the new station areas include primarily industrial with some areas of low- to moderate-density, single-family residential and commercial uses. Pedestrian facilities are limited in most station areas, except in the few established residential neighborhoods and the Olde Town Station area with an existing historic town center.
- Average population density across new station areas is 2,400 persons per square mile, rating "low" according to FTA guidance. Total employment served is 114,900 (including 102,700 in the Denver CBD), which rates "medium-low." In the Denver CBD, the ratio of parking spaces to

employees is 0.44, for a rating of “medium-low” according to FTA benchmarks, and generally parking is free and available in other station areas.

**Transit-Supportive Plans and Policies: Medium-High**

- Land use in the corridor is controlled by the City and County of Denver, Adams County, City of Arvada, and City of Wheat Ridge. Neighborhood transit-oriented development (TOD) plans have been completed or are underway for each of the seven station areas, and will serve as the basis for rezoning and other improvements. All current area and sub-area community land use plans contain objectives that explicitly support the transit project and that generally encourage transit-oriented projects, pedestrian orientation, and dense, mixed-use patterns of development.
- Multiple regional plans support increasing density in urban centers, and Denver Union Station is undergoing development into a mixed-use transportation hub with 1.3 million square feet of new development planned. Incentives to promote corridor development under consideration include density bonuses, reduced parking requirements, tax-increment financing (TIF), and urban renewal districts.
- Existing zoning ordinances throughout the corridor permit low to moderate density residential development, ranging from 6 to 20 units per acre. Denver has established a Transit-Mixed Use zone permitting FAR of 5.0 and parking reductions of 25 percent, which is at the core of the Denver Union Station area. In each of the jurisdictions, rezoning efforts have been initiated or are planned for 2009 to support station area planning efforts, which will include higher-density and mixed-use districts and improved transit-oriented character in station areas.

**Performance and Impacts of Policies: Medium-High**

- Extensive development has occurred in the past decade near Denver Union Station, and examples of TOD are increasing in other existing station areas in the Denver region. New residential and retail development and redevelopment has recently been completed in three of the proposed station areas along the Gold Line.
- Significant opportunities for development and redevelopment exist at four station areas with 50 percent or more undeveloped or underutilized land (Pecos, Federal, Arvada Ridge, and Ward). Limitations exist at the Pecos Station area that falls within historical landfill areas so new development would require mitigation. The three other stations in the corridor have more potential for infill development and less vacant land. They also benefit from proximity to freeways which may aid marketability. Improved connections between established residential areas in the Sheridan and 38th Station areas may support transit demand, although the 38<sup>th</sup> Street Station area is bisected by rail yards with only one current pedestrian connection.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-Low</b>	
	<u><b>New Start vs. Baseline</b></u>
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	1.5
<b>Number of Transit Dependents Using the Project</b>	1,500
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	1.3

**Environmental Benefits Rating: High**

<u>Criteria Pollutant Status</u>	<u>EPA Designation</u>
8-Hour Ozone (O <sub>3</sub> )	Non-Attainment
Particulate Matter (PM <sub>10</sub> )	Non-Attainment

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium-High* ratings for the New Starts share of project costs and the operating finance plan and the *Medium* rating for the capital finance plan.

**Section 5309 New Starts Share of Total Project Costs: 28%****Rating: High**

RTD is requesting an approximately 28 percent New Starts share of total project costs, which results in a *High* rating for this measure.

**Locally Proposed Financial Plan**

<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$241.75	28.0%
FHWA Flexible Funds (CMAQ)	\$13.96	1.6%
<b>Local:</b>		
Bond Proceeds	\$27.72	3.2%
Sales & Use Tax	\$52.48	6.1%
Concessionaire Financing – Private	\$507.03	59%
Equity and Debt	\$16.56	1.9%
Local Government Contributions		
<b>Total:</b>	<b>\$859.51</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- The average age of RTD's bus fleet is under six years, which is younger than the industry average.
- RTD's good bond ratings, which were issued in 2007, are as follows: Moody's Investors Service Aa3; Standard & Poor's Corporation AA+; and Fitch AA-.

**Commitment of Capital Funds: Medium**

- Thirteen percent of non-New Starts funding is committed. The sources of non-Section 5309 New Starts funds for the project are Congestion Mitigation and Air Quality (CMAQ) funds, revenues derived from the local sales and use tax, bond proceeds backed by a 0.4 percent sales and use tax, as provided for by FasTracks, concessionaire equity and debt, and local government contributions.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- RTD has stretched the schedule of FasTracks to fit within the combination of substantial cost increases and underperforming sales and use tax revenue.
- Many capital planning assumptions and cost estimates are optimistic.
- The financial plan shows that RTD has the financial capacity to cover only minor cost increases or funding shortfalls equal to 10 percent or less of the estimated project cost.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan would be rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent. However, RTD anticipates delivering a portion of its commuter rail projects through a long-term Public Private Partnership agreement in which a private partner would design, build, finance, operate and maintain the project on behalf of RTD. Thus, the summary operating plan rating is increased one level from Medium to Medium-High.

**Agency Operating Financial Condition: Medium**

- Recent economic conditions have put a strain on RTD's base system, necessitating minor service reductions and unscheduled fare increases despite increased ridership.
- RTD's current ratio of assets to liabilities as reported in its most recent audited financial statement is very good at 5.6.

**Commitment of Operating and Maintenance Funds: High**

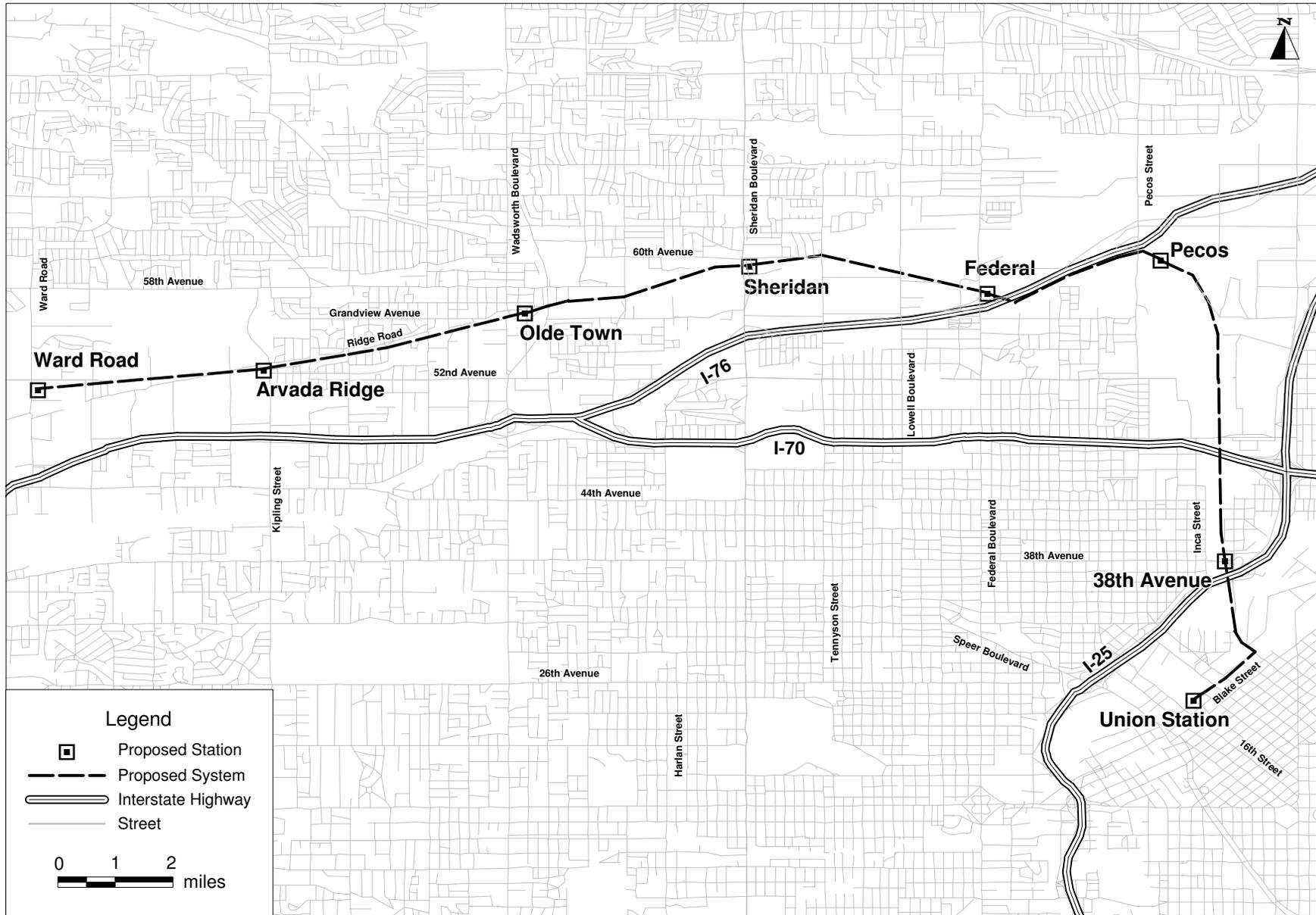
- All operating funding is committed, including fare revenues, increased sales and use tax revenues, and parking revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Several operating cost estimates and revenue forecasts are optimistic relative to historical experience.
- Projected cash balances and reserve accounts are less than eight percent (one month) of annual systemwide operating expenses.

# Gold Line

## Denver, Colorado



# Orange Line Phase 2: North Corridor Metrorail Extension

Miami, Florida

(November 2008)

Miami-Dade Transit (MDT) is proposing the construction of a 9.2-mile Metrorail extension along Northwest 27<sup>th</sup> Avenue between the existing Dr. Martin Luther King Jr. Metrorail station and the Broward County line. The project includes seven stations, seven park-and-ride lots providing a total of 3,900 spaces, and 28 railcars. Peak period Metrorail service along the North Corridor would operate at 6.5-minute frequencies. The North Corridor Metrorail Extension is considered locally as Phase 2 of a regional rail expansion program, which also includes the Miami Intermodal Center (MIC) currently under construction and the proposed East-West Metrorail Extension to Florida International University.

NW 27<sup>th</sup> Avenue is one of the few continuous north-south arteries in Miami-Dade County and serves as an alternative to the severely congested north-south Interstate 95 (I-95) and State Route 826. The proposed project is intended to provide an additional travel alternative in the corridor that will have direct connections with the existing Metrorail system, Tri-Rail (regional commuter rail), the MIC, and Miami International Airport. The project is further intended to provide direct service to the Miami central business district (CBD), Miami-Dade Community College-North Campus, Dolphins Stadium and Calder Race Course.

## Summary Description

<b>Proposed Project:</b>	Heavy Rail 9.2 Miles 7 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1,504.7 Million (includes \$163.8 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$700.00 Million (46.5%)
<b>Annual Forecast Year Operating Cost:</b>	\$70.02 Million
<b>Ridership Forecast (2030):</b>	22,600 Average Weekday Boardings 13,000 Daily New Riders
<b>Opening Year Ridership Forecast (2016):</b>	20,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium-Low
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium-Low

A major investment along Northwest 27<sup>th</sup> Avenue has been in preliminary engineering (PE) for nearly 10 years. MDT's latest financial plan includes \$5.9 billion from revenue sources that do not currently exist. If these funds do not materialize, MDT would not have the financial capacity to operate the existing system or the proposed system expansion. MDT must address these concerns, and improve its rating for local financial commitment prior to advancing the project into final design.

## Project Development History and Current Status

The project has gone through several changes, starting out as a Metrorail (heavy rail) extension when it was approved by FTA into PE in 1998; changing to a lower cost bus rapid transit project when a one-cent sales tax referendum was rejected by voters in 1999; and finally reverting back to a Metrorail extension when a ½-cent sales tax referendum passed in November 2002. The referendum, known as the People's Transportation Plan, included a list of specific projects to be funded with the additional revenues, including the North Corridor Metrorail Extension. MDT issued a Draft Environmental Impact Statement (EIS) for the North Corridor in January 1998. A Supplemental Draft EIS was published in June 2006.

The Final EIS was published in August 2006, and a Record of Decision was issued in April 2007. MDT then elected to pursue additional mitigation efforts with the intent of reducing the overall capital cost of the project. MDT submitted a Draft Supplemental Environmental Assessment (SEA) in June 2008. A Finding of No Significant Impact was issued in November 2008.

### **Significant Changes Since FY 2009 Evaluation (November 2007)**

The cost estimate of the project decreased from \$1,605.4 million to \$1,504.7 million. This is the result of additional engineering and design conducted by MDT, design changes to reduce project cost, and inclusion of only those park-and-ride spaces required for the opening year of the project rather than the amount needed for the 2030 forecast year.

### **Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2010.

### ***Making the Case***

The project will traverse NW 27<sup>th</sup> Avenue, which currently has a level-of-service of "D", and is projected to reach "F" by 2030. This degradation is estimated to result in bus transit travel times of 90 minutes in 2030 from Government Center to the Broward County line. The project is forecast to reduce corridor travel time by 50 percent. Forty percent of the project's travel time benefits are expected to accrue to Broward County residents. While the "case" states that the project will benefit low-income residents in the corridor and those going to Miami-Dade College, no information was provided that identified riders of the project from these markets. The "case" describes opportunities for development around stations, but provides little evidence that there is a market for development.

### ***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (11,700) hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$23.90*
Incremental Cost per Incremental Trip	\$21.53

\* Indicates that measure is a component of Cost Effectiveness rating.

### ***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating. The rating reflects conditions as of November 2006.

#### **Existing Land Use: Medium-Low**

- Population density within ½-mile of the North Corridor station areas is approximately 1,718 persons per square mile. The North Corridor has approximately 9,800 jobs within ½-mile of the proposed stations. The project provides direct service to the Miami CBD, which contains approximately 69,600 jobs.
- The corridor is lined with strip commercial uses. The area immediately east and west of the strip development consists mostly of low- and medium-density residential uses. There is a high volume of pedestrian activity in the corridor despite the lack of existing pedestrian amenities.
- Parking in downtown Miami averages \$10 per day and is relatively constrained in many areas.

**Transit-Supportive Plans and Policies: Medium-High**

- The State of Florida Growth Management Act (SB 360) establishes growth management laws to ensure critical transportation infrastructure and services are in place to accommodate future urban growth and redevelopment. The act promotes regional planning through an incentive program and provides funding for transportation investments that support growth management.
- Miami-Dade County’s Comprehensive Development Master Plan (CDMP) incorporates policies to ensure consistency between land use plans and transportation plans. An Urban Development Boundary constrains the extension of urban services, facilities, and development to a 12-mile wide swath of land. Restoration of the Everglades appears to make the boundary binding.
- The CDMP encourages transit-oriented development and designates each station area as either a Metropolitan Urban Center or a Community Urban Center. The CDMP requires that average floor area ratios (FAR) for Metropolitan Urban Centers should not be less than 3.0 at the core adjacent to transit stations and should taper to not less than 0.75 FAR at the edge. The 199<sup>th</sup> Street Station is designated as a Metropolitan Center.
- The 1978 Transit Development Ordinance established two overlay zones. The Rapid Transit Zone applies incentives for joint development with the private sector for all land owned and controlled by the rapid transit system.
- In an effort to implement the CDMP, the county has engaged in a series of planning efforts that has resulted in new zoning ordinances for transit stations.
- Tools to implement land use policies include Community Development Block Grant neighborhood target areas, Miami-Dade County’s Enterprise Zone, the Miami Smart Commute Initiative, and the Florida Brownfield Redevelopment Program.

**Performance and Impacts of Policies: Medium**

- MDT described seven joint developments that demonstrate the effectiveness of the Transit Development Zone Ordinance and Joint Development Policy.
- More than 1.6 million square feet of development have occurred and over 380 medium- and high-density units have been built adjacent to Metrorail.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium</b>	
	<u><b>New Start vs. Baseline</b></u>
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	1.8
<b>Number of Transit Dependents Using the Project</b>	4,600
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	1.9
<b>Environmental Benefits Rating: Medium</b>	
<u><b>Criteria Pollutant Status</b></u>	<u><b>EPA Designation</b></u>
	Maintenance or Attainment for all Pollutants

**Local Financial Commitment Rating: Medium-Low**

The *Medium-Low* local financial commitment rating is based on a *Medium-High* rating for the New Starts share of project costs, a *Medium* rating for the capital financial plan, and a *Medium-Low* rating for the operating financial plan.

**Section 5309 New Starts Share of Total Project Costs: 47%****Rating: Medium-High**

SAFETEA-LU Section 3011(e) states that FTA, “shall credit funds provided by the Florida Department of Transportation (FDOT) for the extension of the Miami Metrorail System from Earlington Heights to the Miami Intermodal Center to satisfy the matching requirements of section 5309(h)(4) of title 49, United States Code, for the Miami North Corridor and Miami East-West Corridor projects.” MDT has decided to apply \$50 million of FDOT’s \$100 million contribution to the Earlington Heights/MIC project as credit toward the North Corridor Metrorail extension. While the New Starts share rating reflects the North Corridor project alone (\$1,504.71 million), application of the \$50 million credit allowed for in the legislative language lowers the New Starts share to approximately 45 percent. The credit has no impact on the project’s rating.

<b>Locally Proposed Financial Plan</b>		
<b>Source of Funds</b>	<b>Total Funds (\$million)</b>	<b>Percent of Total</b>
<b>Federal:</b> Section 5309 New Starts	\$700.00	46.5%
<b>State:</b> Florida New Starts Transit Program	\$320.95	21.3%
<b>Local:</b> ½-Cent Sales Tax	\$483.76	32.2%
<b>Total:</b>	<b>\$1,504.71</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- The average age of MDT’s bus fleet is 4.6 years, which is younger than the industry average.
- MDT’s good bond ratings are as follows: Moody’s Investors Service A1, Standard & Poor’s Corporation AA, and Fitch A+. However, Fitch placed a negative outlook on the bonds due to concern that Miami-Dade County would continue to pursue the full Orange Line in the event that Federal or state funding were not forthcoming, which would could “pressure the County to leverage the local transit sales tax to a point that coverage may become inconsistent with the rating category.”

**Commitment of Capital Funds: High**

- Approximately 98 percent of non-New Starts funds are committed. More than half of the non-Section 5309 New Starts share comes from a ½-cent sales tax dedicated to transit. The remaining funds are expected to come from FDOT, some of which are committed and some of which are considered planned.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Low**

- Several assumptions in the capital plan are optimistic including the availability of funding for system-wide infrastructure renewal and replacement needs and growth in Section 5307 formula funds.
- The capital cost estimate and schedule are uncertain. Additional contingency and increased provisions for escalation of costs need to be included. The number of new rail vehicles required for the project may be greater than the number included in the capital cost estimate.

**Operating Finance Plan Rating: Medium-Low**

The operating finance plan is rated *Medium-Low* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Low**

- MDT's current ratio of assets to liabilities as reported in its most recent audited financial statement is 0.63.
- MDT's FY 2004, FY 2005, and FY 2006 financial statements indicate operating deficits.

**Commitment of Operating Funds: High**

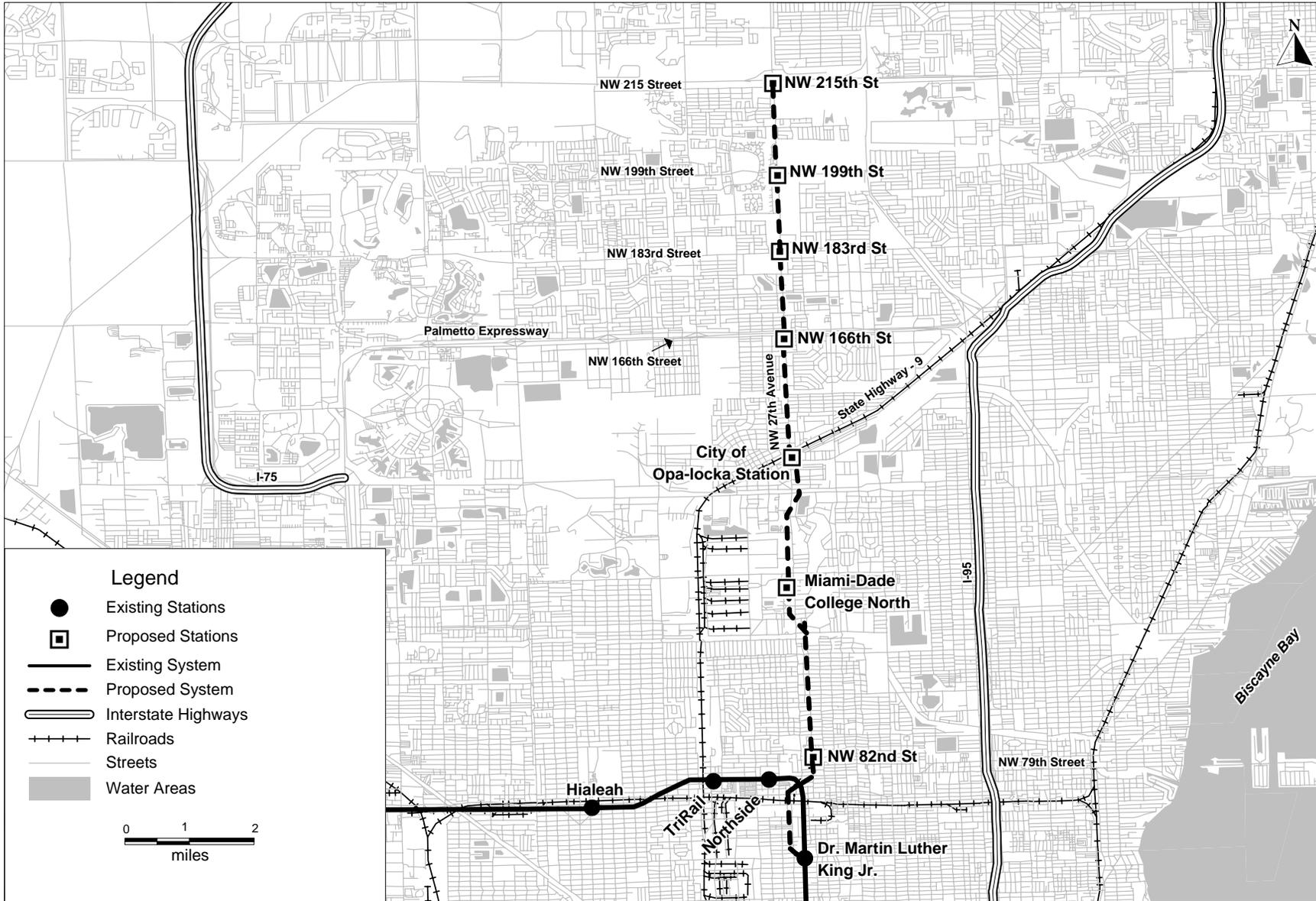
- Approximately 80 percent of operating funding is committed. In addition to fare revenues and other non-fare revenues generated by MDT, the agency levies a ½-cent sales tax, which is dedicated to its capital and operating programs. Other revenue sources include county and State operating assistance, Federal Section 5307 funding, and revenues from a local option gas tax.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Low**

- Revenue assumptions are very optimistic. MDT has assumed approximately \$5.9 billion in new funding from a variety of sources including fare increases, increases in parking fees, an additional local option gas tax, and additional county general fund revenues. These sources would require approval from the County Commissioners and, in some cases, voter approval. Cash balances would be negative in every year of the financial plan if the newly proposed funding sources were removed.
- The financial plan includes near-term reductions in bus service to eliminate poorly performing routes and improve system-wide financial performance. MDT also plans to reduce rail service to contain growth in operating and maintenance costs.

# Orange Line Phase 2 : North Corridor Metrorail Extension

## Miami, Florida



# Assembly Square Station

## Boston, Massachusetts

(November 2008)

The Massachusetts Bay Transportation Authority (MBTA) proposes to build a new Assembly Square Station on the existing MBTA heavy rail Orange Line between the existing Sullivan Square and Wellington stations in the City of Somerville, Massachusetts. Assembly Square Station will serve an adjacent mixed-use transit oriented development consisting of approximately 2,100 housing units, 1.75 million square feet of office space, 1.06 million square feet of retail space, and a 200-room hotel on 145 acres. The Assembly Square redevelopment project is expected to generate approximately 45,000 vehicle trips per day, with the goal of this station project to divert as many of them to transit as possible. No additional MBTA rail cars will be needed in order to provide service to this additional station. The MBTA Orange Line will provide approximately five minute headways during peak periods, eight minute headways during mid-days, and 13 minute headways during evenings and late night service.

The development site is bounded by Interstate 93 and state Route 28 on the south and west, by the Mystic River on the north, and the MBTA Orange Line heavy rail and Haverhill commuter rail routes on the east. Although located close to downtown Boston in a high-volume commuter corridor surrounded by densely populated communities, the Assembly Square site is physically isolated from surrounding communities by highways, rail lines and the adjacent river. The proposed Assembly Square Station will provide improved public access to this currently under-utilized but developable site.

The total capital cost of the Assembly Square Station is estimated to be \$47.69 million with a proposed Section 5309 New Starts share of \$24.99 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)(1)(B)).*

Summary Description	
<b>Proposed Project:</b>	Heavy Rail Transit Station 1 Station
<b>Total Capital Cost (\$YOE):</b>	\$47.69 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.99 Million (52.4%)
<b>Ridership Forecast:</b>	Not Available

### Project Development History and Current Status

MBTA, the Boston Region Metropolitan Planning Organization (MPO), the City of Somerville and the Assembly Square developer have coordinated the proposed development and station project with Massachusetts' "Sustainable Development Principles," and with the City of Somerville's Assembly Square Revitalization Plan and Mixed-Use Development Zoning District requirements. For over two decades, a series of developers sought to gain approvals for major redevelopment of Assembly Square. In 2007, the City of Somerville and principle community groups reached agreement with the private developer who currently controls the site. Assembly Square Station will be funded by a public-private partnership. The private developer will contribute \$15 million (31.5% of total project cost) while the state will contribute \$7.69 million to match the New Starts funding. The Assembly Square Station project was included in the Long Range Transportation Plan of the Boston Region MPO in June 2007. FTA approved the project into preliminary engineering in September 2008. MBTA submitted documentation for obtaining a Categorical Exclusion for the project in September 2008, and a determination is expected in early 2009.

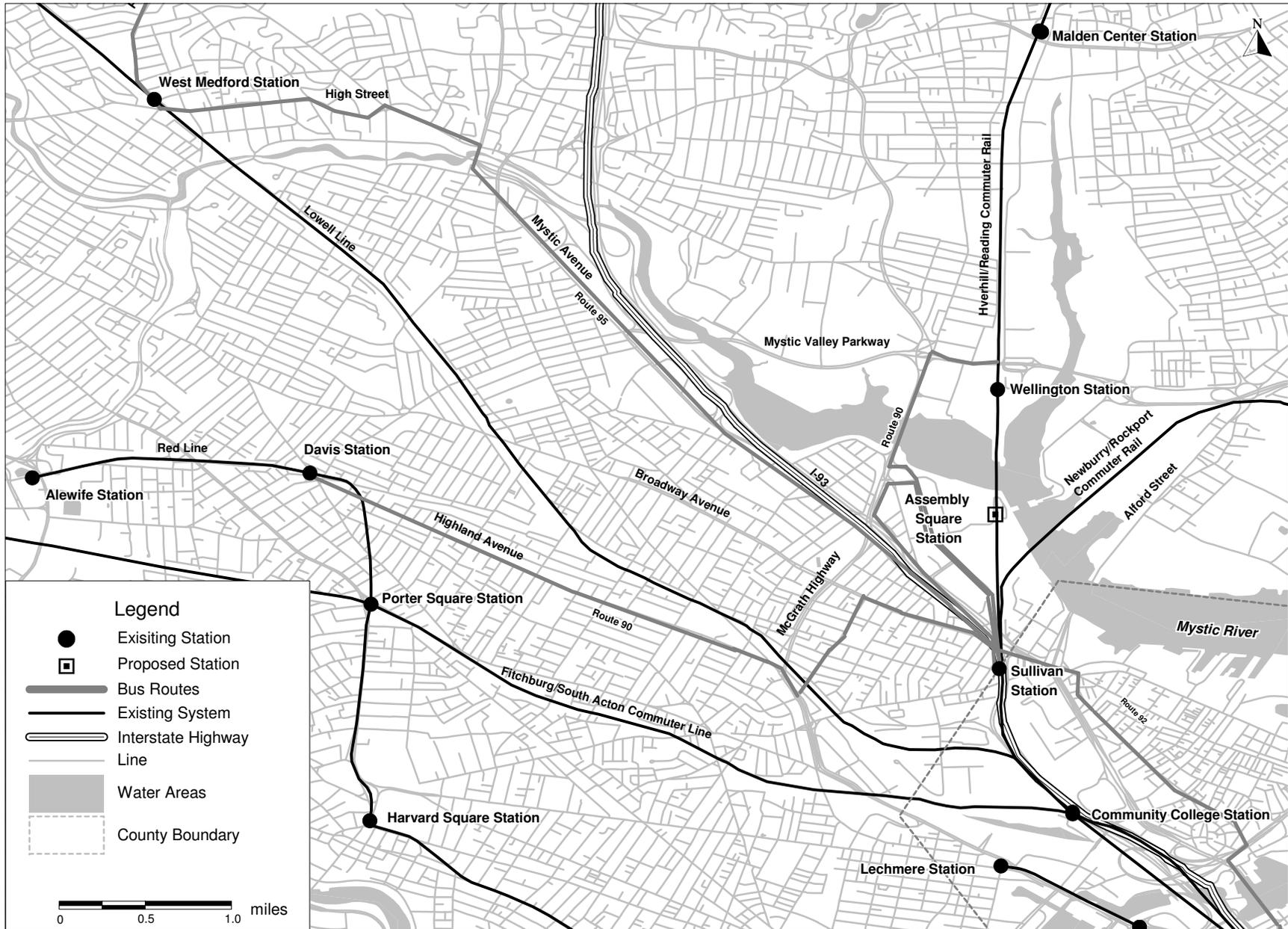
**Locally Proposed Financial Plan**

<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$24.99	52.4%
<b>State:</b> CMAQ or other	\$7.69	16.1%
<b>Local:</b> Private Developer	\$15.00	31.5%
<b>Total:</b>	<b>\$47.69</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# Assembly Square Station

## Boston, Massachusetts





# Silver Line Phase III

## Boston, Massachusetts

(November 2008)

The Massachusetts Bay Transportation Authority (MBTA) proposes to implement Phase III of its Silver Line bus rapid transit (BRT) system in downtown Boston. The Phase III project consists of a tunnel segment, a tunnel portal, contra-flow surface bus lanes and new platforms at two existing underground rapid transit stations. The 0.8-mile core tunnel segment lies between the existing South Station (which connects to the Silver Line Phase II service that opened in December 2004) and Boylston Station, under Essex and Boylston Streets. This core segment includes new passenger platforms to interface with existing subway lines at the Chinatown (Orange Line) and Boylston (Green Line) stations. The 0.4-mile portal segment extends under South Charles Street to a portal at Tremont Street between Jefferson and Church Streets. From Tremont Street, the Phase III project runs east-west on surface bus contra-flow lanes on Marginal Road and Herald Street, parallel to the Massachusetts Turnpike, with a dedicated bus lane on the Tremont Street Bridge. The project links with Silver Line Phase I service on Washington Street. Forty-nine dual-mode BRT buses would also be procured for the project. Once Phase III is implemented, the completed Silver Line would feature seven BRT routes operating at three to ten minute peak-period headways.

Planned development in the Waterfront area adjacent to downtown Boston is expected to result in significant growth in travel. In addition, the opening of the Ted Williams tunnel between the Waterfront and East Boston provides for an alternative crossing from downtown and points south, east, and west to Logan Airport. By connecting the Silver Line Phase I and II projects, the proposed Phase III project would result in a one-seat ride from the South End to these destinations. The project will further provide more direct east-west connections between MBTA's Green, Orange, and Red rapid transit lines (which essentially run north-south through Boston's Financial District), as well as improved mobility for a largely transit-dependent population in the Chinatown area of downtown Boston.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 1.4 Miles 2 Stations (add platforms at existing stations)
<b>Total Capital Cost (\$YOE):</b>	\$2,106.54 Million (Includes \$410.48 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$1,261.82 Million (59.9%)
<b>Annual Forecast Year Operating Cost:</b>	\$33.78 Million
<b>Ridership Forecast (2030):</b>	85,900 Average Weekday Boardings 13,700 Daily New Riders
<b>Opening Year Ridership Forecast (2016):</b>	84,600 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium-Low</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-Low</b>

The Silver Line Phase III project has been in preliminary engineering off and on since 2002. This report contains the project's first new rating since November 2006. The prior rating was for a project with an estimated capital cost of \$1,167.32 million. The project has encountered significant schedule delays and a capital cost increase of approximately 80 percent. The amount of New Starts funding proposed for the project has increased 80 percent as well, and exceeds \$1 billion, which is of concern to FTA. The project's financial plan depends heavily on MBTA borrowing that would result in net debt service

coverage of less than 1.0 and insufficient cash to cover future operating needs let alone capacity to support additional capital bonds. MBTA must address these concerns, and improve its rating for local financial commitment, prior to advancing the project into final design.

### **Project Development History and Current Status**

MBTA completed an alternatives analysis/Draft Environmental Impact Statement (EIS) for the South Boston Piers corridor in 1993, resulting in the selection of a 1.5-mile underground transit tunnel from Boylston Station to the World Trade Center as the locally preferred alternative (LPA). FTA issued a NEPA Record of Decision on the LPA in May 1994, and executed a Full Funding Grant Agreement on a portion of the LPA from South Station to the World Trade Center later that year. The Silver Line Phase III project is the remaining part of the 1994 LPA, combined with a continuation of a tunnel under Tremont Street to connect with Washington Street BRT service near the New England Medical Center. FTA first approved the Phase III project into preliminary engineering (PE) in July 2002. Modification to the underground alignment resulted in a Supplemental Draft EIS, which was completed in May 2005. Continued local concerns over the project alignment prompted MBTA to remove the project from formal PE status in August 2005. After local outreach on, and analysis of, several candidate alignments, MBTA selected the current project alignment and portal location in March 2006. FTA re-approved the modified Silver Line Phase III project into PE in December 2006, and a Supplemental Final EIS is expected in early 2009. MBTA is expected to request entry into final design in mid-2009.

### **Significant Changes Since FY 2008 Evaluation (November 2006)**

The capital cost estimate increased by almost one billion dollars since 2006, as a result of additional engineering and design work, including greater detail of the stacked-tunnel design for the core tunnel segment between South Station and Boylston Station, and greater depth of these tunnels below Essex and Boylston streets to reduce any potential impact to surface construction along the route. In addition, the project's travel forecasts were updated with new population and employment forecasts, a new Logan Airport passenger trip forecast, and a new home-based school travel forecast, all of which increased the estimated transportation system user benefits.

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

The project is rated *Medium-High* based on a *Medium* rating for cost effectiveness and a *High* rating for transit-supportive land use. The rating for the project's Making the Case document was not factored into the project justification rating for FY 2010.

### ***Making the Case***

The Silver Line Phase III project is intended to provide faster connections between a number of major transit lines in downtown Boston including the Red, Orange and Green rail transit routes and Phases I and II of the Silver Line bus rapid transit route. In so doing, it is intended to better serve those destined to downtown Boston, the rapidly redeveloping Boston Waterfront area, and Logan Airport. Impediments to faster connections today cited in the "case" are indirect rail routes requiring one or more transfers to these destinations, circuitous and time-consuming bus routes on congested streets in the heart of downtown, and capacity constraints. Due to these impediments, many travelers currently walk on this segment of their trip rather than travel by slow, indirect transit routes. While significant ridership of 85,900 weekday riders is forecast for 2030, no information is provided for the travel patterns of these riders, the magnitude of their travel time savings, or the reduction in the number of transfers.

**Cost Effectiveness Rating: Medium**

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (14,500 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
<b>Cost per Hour of Transportation System User Benefit</b>	<b><u>New Start vs. Baseline</u></b>
<b>Incremental Cost per Incremental Trip</b>	\$24.37*
	\$25.76

\* Indicates that measure is a component of Cost Effectiveness rating.

**Transit-Supportive Land Use Rating: High**

The *High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: High**

- Stations will be located in downtown Boston, where population density of 21,059 per square mile corresponds to a high rating and total employment served by the project station of 216,539 corresponds to a medium-high rating.
- Land use in project station areas exemplifies transit supportive character to a significant degree, with highly compact, urban-scale development, a vibrant mix of activities, and walkable street networks. Station areas include major concentrations of office development, the city's retail shopping core, urban neighborhoods, a regional hospital complex, a college, many of the city's major hotels, and prominent tourist destinations.
- The supply of parking downtown is limited and parking rates are among the highest in the nation.

**Transit-Supportive Plans and Policies: High**

- The Commonwealth of Massachusetts has adopted significant growth management initiatives in the last several years, including the implementation of policies, incentives, and investments supporting building density in surrounding transit stations and preservation of open space and natural ecosystems.
- The Boston Redevelopment Authority (BRA) encourages greater density in commercial and residential development near public transportation. Boston has created a Downtown Interim Planning Overlay District that includes the Phase III station areas. The Phase III station areas are located largely in one of two renewal and redevelopment areas, both of which are managed closely by the BRA. The BRA conducts a formal review process of all development proposals to ensure consistency with the City's development policies. This process provides the opportunity to require transit-supportive features in proposed development projects.
- Zoning within project station areas supports medium-high to high densities and transit-oriented development characteristics, including mixed use, compact building patterns, and pedestrian-friendly streetscapes. Regional policies guiding infrastructure development have supported urban reinvestment and emphasis on transit rather than construction of new highways. Boston has been hospitable to transit-oriented development and the concentration of development in the urban core.

**Performance and Impacts of Policies: High**

- Numerous transit-supportive development projects have recently been completed or are under construction or review for most feasible development sites with project station areas. All of these projects are subject to transit-oriented zoning provisions, the downtown parking freeze, and BRA review and approval. The projects include low levels of parking or no parking at all.
- The project plays a crucial role in economic development plans for the Boston metropolitan area. Population within station areas is projected to grow by 120 percent by 2030. Large low-income communities served by Phase I will benefit from vastly improved access to employment opportunities in downtown Boston, the rapidly developing South Boston waterfront area, and Logan Airport.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-High</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u>New Start vs. Baseline</u> 3.3
<b>Number of Transit Dependents Using the Project</b>	53,700
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	3.3
<b>Environmental Benefits Rating: High</b>	
<u>Criteria Pollutant Status</u> Carbon Monoxide (CO) 8-Hour Ozone (O <sub>3</sub> )	<u>EPA Designation</u> Maintenance Area Moderate Non-attainment Area

**Local Financial Commitment Rating: Medium-Low**

The *Medium-Low* rating for local financial commitment is based on a *Medium* rating for the New Starts share of project costs and a *Medium-Low* rating for both the capital and operating finance plans.

**Section 5309 New Starts Share of Total Project Costs: 60%**

**Rating: Medium**

MBTA is requesting a 60 percent New Starts share of total project cost, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b> Section 5309 New Starts	\$1,261.82	59.9%
<b>Local:</b> Dedicated Tax Revenues	\$844.72	40.1%
<b>Total:</b>	<b>\$2,106.54</b>	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

**Capital Finance Plan Rating: Medium-Low**

The capital finance plan is rated *Medium-Low* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- The average age of MBTA's bus fleet is six years, which is younger than the industry average.
- MBTA's good bond ratings, which were issued in April 2008, are as follows: Moody's Investors Service Aa2 and Standard & Poor's Corporation AAA.

**Commitment of Capital Funds: Low**

- The project financial plan indicates that all non-Section 5309 New Starts funds will be provided from bond proceeds secured by existing, committed funding sources including a portion of the Massachusetts sales tax and assessments paid by the 175 cities and towns served by MBTA. However, the plan for issuing bonds is infeasible, so in fact the funds cannot be considered committed.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Low**

- The capital financial plan submitted by MBTA is infeasible. The plan artificially presents a funded plan and a minimum annual cash balance of \$100 million, enabled by borrowing to meet debt service requirements. There is insufficient cash to meet operating requirements, let alone capacity to support additional capital bonds.

**Operating Finance Plan Rating: Medium-Low**

The operating finance plan is rated *Medium-Low* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium-Low**

- MBTA's current ratio of assets to liabilities as reported in its most recent audited financial statement is 1.0.
- MBTA incurred operating deficits in 2006 and 2007 that were covered by MBTA's Deficiency Fund. Another deficit is forecast for 2009. The Deficiency Fund will be essentially depleted by the 2009 deficit.

**Commitment of Operating and Maintenance Funding: Medium-High**

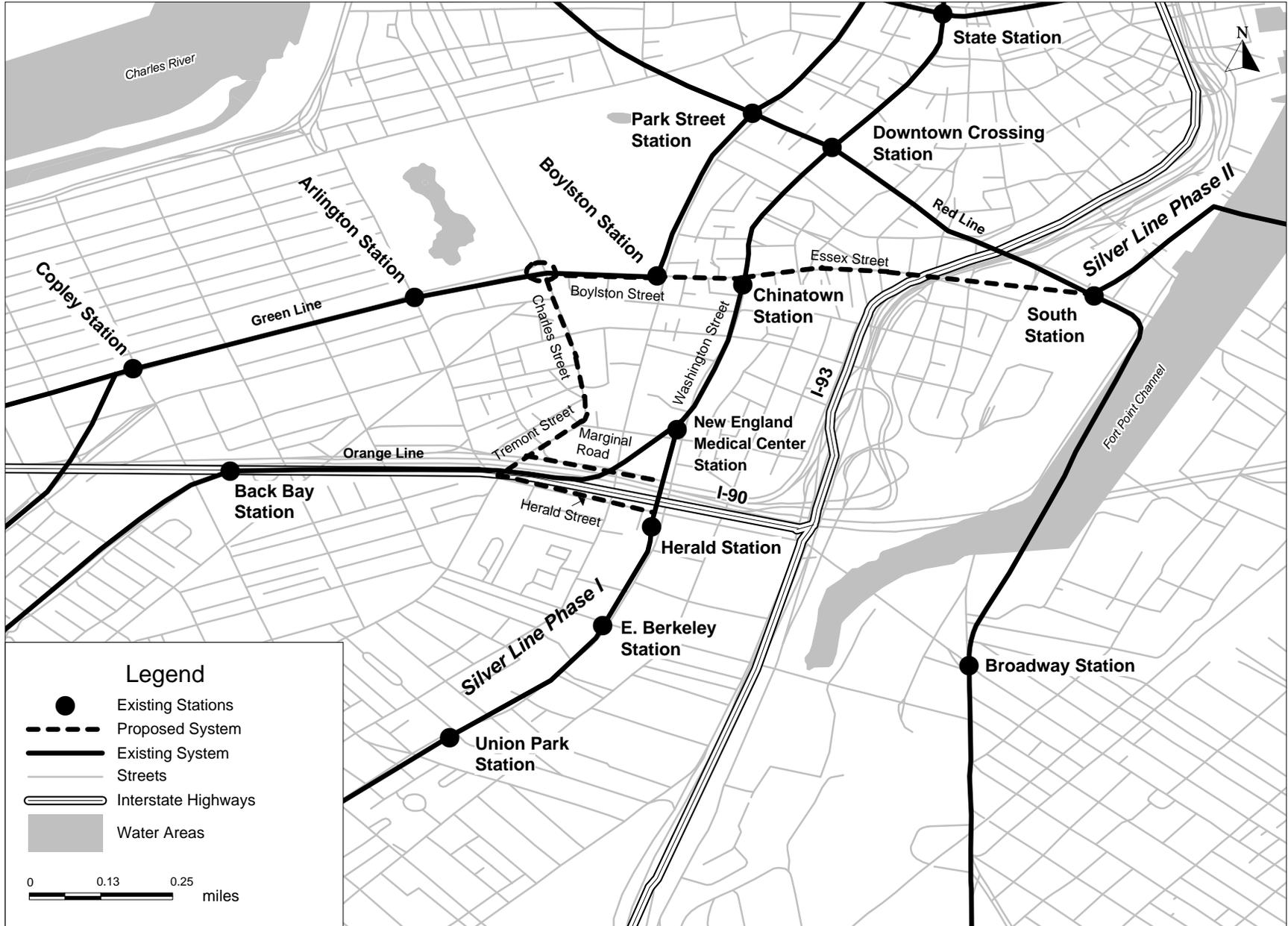
- Approximately 63 percent of annual operating funding is committed. Operating revenues include dedicated sales tax funding, farebox revenues, and other revenues include parking fees, advertising, concessions, rent, interest income, and utility reimbursements

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Low**

- The operating financial plan is infeasible. The plan artificially presents a funded plan and a minimum annual cash balance of \$100 million, enabled by borrowing to meet debt service requirements. There is insufficient cash to meet operating requirements. If the financial plan were presented with adherence to MBTA's debt limits, it would indicate increasingly large negative year-end cash balances.

# Silver Line Phase III

## Boston, Massachusetts



# Central Corridor LRT

## St. Paul-Minneapolis, Minnesota

(November 2008)

The Metropolitan Council (MC), in cooperation with the Ramsey and Hennepin Counties Regional Rail Authorities (RCRRA and HCRRA), proposes to construct a 9.7-mile, double-track light rail transit (LRT) line that would link the downtowns of St. Paul and Minneapolis. The LRT line would also serve a number of major activity centers, including the University of Minnesota-St. Paul, the State Capitol, and major event venues (Target Center, Metrodome). From Minneapolis, the LRT line would share 1.2 miles of existing track with the Hiawatha LRT line before turning east in its own right of way across the Mississippi River on the existing Washington Avenue Bridge to St. Paul, and generally follow University Avenue to the State Capitol area and terminate at the Union Depot in downtown St. Paul. The MC would procure 31 light rail vehicles that would operate at 7.5-minute peak period frequencies. A vehicle maintenance facility would be constructed in St. Paul.

The Central Corridor links two central business districts (CBD). Existing corridor transit service includes express buses operating on Interstate 94 serving both downtowns, limited-stop local buses on University Avenue, and a local bus route with stops every few blocks on a parallel arterial. Current transit service utilizes reverse-flow lanes in downtown Minneapolis, bus-only freeway shoulder lanes and freeway entrance bypass ramps. Ridership on the routes totals nearly 40,600 each weekday, with roughly equal directional travel during peak periods. However, these services are impacted by high traffic volumes at major intersections along University Avenue during peak periods. On-time reliability in 2007 for the local bus services on University Avenue and the parallel arterial was 88 percent. Roadway expansion is not included in the region's long-range transportation plans.

Summary Description	
<b>Proposed Project:</b>	Light Rail Transit 9.7 Miles 15 Stations
<b>Total Capital Cost (\$YOE):</b>	\$914.89 Million (includes \$6 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$452.94 Million (49.5%)
<b>Annual Forecast Year Operating Cost:</b>	\$35.91 Million
<b>Ridership Forecast (2030):</b>	41,700 Average Weekday Boardings 6,300 Daily New Riders
<b>Opening Year Ridership Forecast (2013):</b>	36,600 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

### Project Development History and Current Status

The RCRRA, in cooperation with the MC, completed an alternatives analysis / Draft Environmental Impact Statement (AA/DEIS) in April 2006. LRT was chosen as the locally preferred alternative. FTA approved the Central Corridor LRT project into preliminary engineering in December 2006. During 2008, local officials analyzed several scope changes to reduce the project's budget. A supplemental DEIS that examined the environmental impacts of these scope changes was completed in July 2008. A Final EIS and a Record of Decision are anticipated in spring 2009. Final design approval is anticipated in summer 2009.

The project’s current capital cost estimate is based on optimistic assumptions. During 2008, the project’s budget periodically fluctuated. The project’s scope has not been finalized. Uncertainty remains for major work items including: the Washington Avenue Bridge; traffic mitigations; integration into the existing Hiawatha LRT line; LRT run times; real estate; University of Minnesota Memorandum of Understanding; and the location of the maintenance facility. Significant risks also remain in the areas of escalation and contingency. The location of the maintenance facility is being reassessed as an avoidance alternative to Section 106 and 4(f) issues at the St. Paul Union Depot. It is uncertain when complete information will be available to assess the scope, schedule, and cost impacts from any changes to the maintenance facility location.

**Significant Changes Since FY 2008 Evaluation (November 2006)**

The cost estimate of the project decreased from \$932.3 million to \$914.9 million. This is the result of design changes to reduce project cost. In early 2008, local officials eliminated a tunnel at the University of Minnesota from the project. The proposed LRT line would traverse the University campus at-grade via a planned transit mall. In early 2008, a local decision was made to elevate the LRT line over Interstate 35 West and interline with the existing Hiawatha LRT line south of 11<sup>th</sup> Avenue in downtown Minneapolis.

**Project Justification Rating: Medium-High**

The project is rated *Medium-High* based on a *Medium* rating for cost effectiveness and a *Medium-High* rating for transit-supportive land use. The rating for the project’s Making the Case document was not factored into the project justification rating for FY 2010.

***Making the Case***

The Central Corridor LRT project would enhance access, improve mobility and generate travel time savings with the implementation of LRT service directly connecting St. Paul and Minneapolis. The “case” for the project provides a good discussion of how the LRT line would improve accessibility not only between the two downtowns, but other major activity centers, including the University of Minnesota (80,000 students, staff and faculty) and Midway District areas (retail businesses supported by 50,000 employees). The “case” articulates the corridor’s current conditions and emphasizes how forecasted (2030) travel conditions are anticipated to deteriorate with increased travel times between key destinations as a result of rapid population and job growth throughout the corridor. The “case” shows how the project would generate significantly more user benefits than the baseline alternative (limited stop buses) due to increased transit capacity that would provide a more reliable transit alternative at faster average speeds.

***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (8,200 hours each weekday) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$24.41*
Incremental Cost per Incremental Trip	\$32.01

\*Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium-High***

The *Medium-High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-High**

- Population density is approximately 8,600 people per square mile in the corridor, and total employment in project station areas is approximately 280,100 jobs.
- In 2000, CBD employment in Minneapolis was 146,500 and is expected to increase to 193,600 by 2030. CBD employment in St. Paul was estimated at 47,500 and is anticipated to increase to 77,900 by 2030.
- The corridor serves the largest employment centers in the region (Minneapolis and St. Paul CBDs, Target Center, State Capitol complex, University of Minnesota-St. Paul, among others).
- In both CBDs, virtually all streets are fully equipped with curb cuts and ADA-compliant sidewalks. Most major streets, including those with bridges, include pedestrian accommodations. The majority of major streets also have designated bicycle and pedestrian lanes.

**Transit-Supportive Plans and Policies: Medium-High**

- Throughout the corridor numerous station area, small area, and neighborhood plans have been adopted and contain numerous growth management strategies as a result of the 2030 Regional Development Framework Plan.
- Established regional growth boundaries (known locally as urban service boundaries), including regional investments in programs such as Livable Communities, have helped to encourage investment in higher intensity, mixed-use transit-supportive land development.
- The adopted Regional Development and Transportation Plan, the Regional Transit-Oriented Development (TOD) Handbook, the Metropolitan Council's land use grant program, and the LRT/Land Use Coordination process all support increased corridor and station area development, including pedestrian facilities and transit-friendly character.
- Numerous regulatory and financial incentives also promote transit-supportive development throughout the corridor.

**Performance and Impacts of Policies: Medium-High**

- There are numerous projects planned or under construction in the station areas, including mixed uses and urban villages that include increased housing densities and other transit-supportive elements.
- In 2002 a study was completed that assessed the potential for redevelopment within a ¼-mile of each proposed station area along the corridor. The report detailed redevelopment and infill development opportunities station by station. The findings revealed that the majority of planned station areas have strong TOD potential.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 2.6
<b>Number of Transit Dependents Using the Project</b>	17,700
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	2.6
<b>Environmental Benefits Rating: Medium</b>	
<u><b>Criteria Pollutant Status</b></u> Carbon Monoxide (CO)	<u><b>EPA Designation</b></u> Attainment Area

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium* ratings for the New Starts share of project costs and the capital financial plan and the *Medium-High* rating for the operating financial plan.

**Section 5309 New Starts Share of Total Project Costs: 49.5%**

**Rating: Medium**

MC is requesting a 49.5 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$452.94	49.5%
Congestion Mitigation / Air Quality	\$4.50	0.5%
<b>State:</b>		
General Obligation Bonds	\$91.49	10.0%
<b>Local:</b>		
Counties Transit Improv. Board	\$274.47	30.0%
RCRRA	\$64.04	7.4%
HCRRA	\$27.45	3.2%
<b>Total:</b>	<b>\$914.89</b>	<b>100.0%</b>

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based on the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of

capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium-High**

- The average age of the bus fleet is 6.8 years, which is in line with the industry average.
- The very good bond ratings, which were issued in 2008, are as follows: Moody's Investors Service Aaa and Standard & Poor's Corporation AAA.

**Commitment of Capital Funds: High**

- Nearly all (98 percent) of the non-Section 5309 New Starts funds are committed. Sources of funds include CMAQ funds, General Obligation bond revenues from the State, dedicated sales tax and sales tax bond revenues from the Counties Transit Improvement Board (CTIB), and property tax bond revenues from RCRRA and HCRRA.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Revenue assumptions are in line with historical data, including State General Obligation bonds, and CTIB and property tax bond revenues from the local regional rail authorities.
- The capital cost estimate is considered optimistic. Significant risks remain for major cost drivers, including a planned maintenance facility in St. Paul.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- The MC's current ratio of assets to liabilities as reported in its most recent audited financial statement is 2.30.

**Commitment of Operating and Maintenance Funding: High**

- Over 80 percent of operating funding is committed, while the remainder is budgeted. The main revenue sources are fares, motor vehicle sales tax revenues, State/local operating assistance and other transit-related revenue.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium**

- Assumed growth in operating expenses is optimistic compared to historical experience. Operating revenue assumptions are in line with historical experience.



# Northeast Corridor Light Rail Project

## Charlotte, North Carolina

(November 2007)

The Charlotte Area Transit System (CATS) is proposing the construction of a 10.7-mile light rail transit (LRT) line that would extend from Uptown Charlotte, the region's central business district (CBD), northeast to the US 29 interchange of Interstate 485 (I-485) near the University of North Carolina-Charlotte (UNCC). The inner segment of the proposed line follows active Norfolk Southern and North Carolina Railroad right-of-way while the outer part follows US 29 (North Tryon Street), before leaving US 29 right-of-way to proceed to and through the campus of UNCC. The project would be an extension of the South Corridor LRT, which was the first major rapid transit project constructed in Charlotte. The Northeast Corridor Light Rail Project includes 14 stations and 12 railcars; seven park-and-ride lots would provide a total of 3,800 spaces. Peak period light rail service along the Northeast Corridor would operate at 7.5-minute frequencies.

The purpose of the project is to improve transit travel times in a congested travel corridor that is expected to experience significant growth in the coming years. The project would result in improved transit service to key employment, entertainment, cultural, and retail areas of Charlotte, including Center City Charlotte, professional sports and entertainment facilities, the Charlotte Convention Center, the NASCAR Hall of Fame, and both UNCC and its Uptown campus.

### Summary Description

<b>Proposed Project:</b>	Light Rail 10.7 Miles 14 Stations
<b>Total Capital Cost (\$YOE):</b>	\$748.96 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$374.48 Million (50.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$23.55 Million
<b>Ridership Forecast (2030):</b>	10,500 Average Weekday Boardings 3,500 Daily New Riders
<b>Opening Year Ridership Forecast (2012):</b>	8,100 Average Weekday Boardings
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>Medium-High</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium-High</b>

### Project Development History and Current Status

The Northeast Corridor Light Rail Project is the result of a series of studies focused on transit improvements in the corridor and in the Charlotte-Mecklenburg region as a whole. CATS initiated a Draft Environmental Impact Statement (EIS) in the corridor in 2005, resulting in the selection of LRT as the locally preferred alternative (LPA) in June 2006. After continued environmental, engineering, and other technical work, as well as reconfirmation of CATS' dedicated sales tax revenue source to expand its system, the project was approved by FTA into preliminary engineering in November 2007. CATS' 2030 Transit Corridor System Plan includes the Northeast Corridor Light Rail Project as the Lynx Blue Line Extension.

No significant changes to the scope, cost, or ridership estimates have occurred since the Northeast Corridor project's most recent rating (November 2007). Due to the lack of significant changes and

because the project is not a candidate for FY 2010 funding, FTA is reporting the project's most recent ratings. Over the past year, CATS has refined the project scope, developed design criteria, and began preliminary engineering and right-of-entry discussions with the railroads. Higher-than-expected ridership on the South Corridor project has required CATS and FTA to carefully consider the ridership forecasts for the Northeast Corridor. Data collection efforts needed to support travel model refinements are in progress.

As preliminary engineering work progresses over the next year, the capital cost estimate is expected to increase. Revenue operations are scheduled to begin in late 2015 or early 2016.

### **Project Justification Rating: *Medium***

The project is rated *Medium* for project justification based on a *Medium-Low* rating for cost effectiveness and a *Medium* rating for transit-supportive land use, as evaluated in November 2007. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2009.

### ***Making The Case***

The Northeast Corridor Light Rail Project extends from Uptown Charlotte to UNCC. The "case" for the project cited unreliable existing transit service, increasing travel demand and congested roadways, and the need for various connections to major trip generators such as downtown special events and University-related trips. However, there was little attempt to characterize the number of passengers in key travel markets and the amount of benefits they would derive from the project. For example, the case claims that commuters from the terminal station to the CBD would reduce their travel time by 44 percent, but does not indicate how many passengers are expected to make this trip. It is further claimed that passengers traveling from the corridor to stations on the existing South Corridor line would no longer need to transfer, but again gave no indication of how many passengers would make this trip. The case for the project acknowledges that the Northeast Corridor is low density with automobile-oriented development patterns.

### ***Cost Effectiveness Rating: Medium-Low***

The *Medium-Low* cost effectiveness rating reflects the level of travel-time benefits (4,750 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$25.35*
Incremental Cost per Incremental Trip	\$21.84

\* Indicates that measure is a component of Cost Effectiveness rating.

### ***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating. The information referenced below was submitted for the November 2007 evaluation and rating.

#### **Existing Land Use: Low**

- There are 59,000 employees in the Charlotte CBD, a total of 76,000 jobs served, and average station area population densities of 2,300 persons per square mile. UNCC, with an enrollment of 21,500 students, represents a major trip generator.
- The CBD has a compact, high-density commercial core and a considerable amount of new residential development, as well as vacant land and parking lots awaiting development. Four stations abut industrial areas and rail yards on one side, and older, gridded residential

neighborhoods of moderate densities (primarily single-family) on the other. The remaining stations are generally low-density and suburban in character. Pedestrian accessibility is generally poor as many street frontages lack sidewalks and many intersections lack marked and signalized crossings. Ample surface parking is generally provided.

#### **Transit-Supportive Plans and Policies: Medium-High**

- In the mid-1990s, the City of Charlotte and Mecklenburg County endorsed a regional growth strategy entitled “Centers and Corridors,” which is designed to increase development density in five growth corridors served by fixed guideway transit and target most commercial and multi-family development to these corridors. The city and county have developed more specific development policies to support these plans, including minimum densities and pedestrian-friendly design guidelines for station areas.
- Draft Station Area Concepts have been completed for 12 of the 14 station areas in the Northeast Corridor and will serve as an interim step towards developing more detailed station area plans. With the exception of some existing single-family neighborhoods, these plans will require high density transit-supportive development, including minimum densities consistent with regional policies (15 to 20 dwelling units per acre and 0.5 to 0.75 floor area ratio or FAR).
- Existing zoning varies widely. Mixed-use districts allowing high densities and including pedestrian design requirements encompass most of the CBD. Other zoning includes a mix of single family, multi-family at 17 to 22 units per acre, and commercial development with maximum FARs from 0.5 to 1.0.
- In 2003, the Charlotte City Council adopted three transit oriented development (TOD) districts that allow mixed-use development, require minimum densities, and have reduced minimum setbacks, parking requirements, and pedestrian design requirements. The city has applied these to some properties in the South Corridor.
- The city has allocated \$50 million for South Corridor LRT station area infrastructure improvements and will request a similar program of improvements for the Northeast Corridor Light Rail Project. Other tools to support TOD include funds for acquisition of land and affordable housing, gap financing, project-specific planning assistance, and a streamlined development review process.

#### **Performance and Impacts of Policies: Medium**

- The Charlotte CBD has seen a considerable amount of residential as well as commercial development in recent years. In the South Corridor, the pace of development has been slow but is accelerating with \$300 million in projects completed and over \$1.5 million proposed in station areas outside of Uptown.
- Strong regional growth is forecast (75 percent by 2030) and a market analysis for the Northeast Corridor suggested that just over 5,000 acres (84 percent of station area land) had the potential for redevelopment. Current market conditions in most Northeast Corridor station areas are relatively weak, however, and barriers exist that appear to limit development potential in the near term.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium</b>	
	<u><b>New Start vs. Baseline</b></u>
<b>Transportation System User Benefits Per Passenger Mile (Minutes)</b>	4.8
<b>Number of Transit Dependents Using the Project</b>	2,300
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	5.8
<b>Environmental Benefits Rating: High</b>	
<u><b>Criteria Pollutant Status</b></u> 8-hour Ozone (O <sub>3</sub> )	<u><b>EPA Designation</b></u> Moderate Non-attainment Area

**Local Financial Commitment Rating: Medium-High**

The *Medium-High* local financial commitment rating is based on a *Medium* rating for the New Starts share of project costs, and *Medium-High* ratings for the capital and operating finance plans.

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

***Rating: Medium***

CATS is requesting a 50 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u><b>Source of Funds</b></u>	<u><b>Total Funds (\$million)</b></u>	<u><b>Percent of Total</b></u>
<b>Federal:</b> Section 5309 New Starts	\$374.48	50.0%
<b>State:</b> State Full Funding Grant Agreement	\$187.24	25.0%
<b>Local:</b> ½ Cent Sales Tax	\$187.24	25.0%
<b>Total:</b>	<b>\$748.96</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

***Capital Finance Plan Rating: Medium-High***

The capital finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: High**

- The average age of CATS' fixed route bus fleet is five years, which is younger than the industry average. The average age of CATS' light rail fleet is less than one year.
- The City of Charlotte's excellent bond ratings, which were issued in 2007, are as follows: Standard & Poor's Corporation AAA+, Moody's Investor Service Aaa, and Fitch AAA.

**Commitment of Capital Funds: High**

- Fifty percent of the non-New Starts share of funding for the project will come from the existing and committed ½-cent sales tax dedicated to transit. The remaining non-New Starts funds are expected to come from a North Carolina Department of Transportation (NCDOT) State Full Funding Grant Agreement, which is considered planned.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Sales tax revenue growth rate assumptions are optimistic compared to historical experience.
- The capital cost estimate for the Northeast Corridor project is based on bid prices received by CATS for the South Corridor Light Rail project, rather than on the final cost to complete the work on the South Corridor project which was often higher than the bid prices. Hence, the cost estimate for the Northeast Corridor contains some risk.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- CATS' current ratio of assets to liabilities as reported in a recent audited financial statement is 2.35.
- CATS is in excellent operating condition, demonstrating no historical cash flow shortages and no recent service cutbacks.

**Commitment of Operating and Maintenance Funds: High**

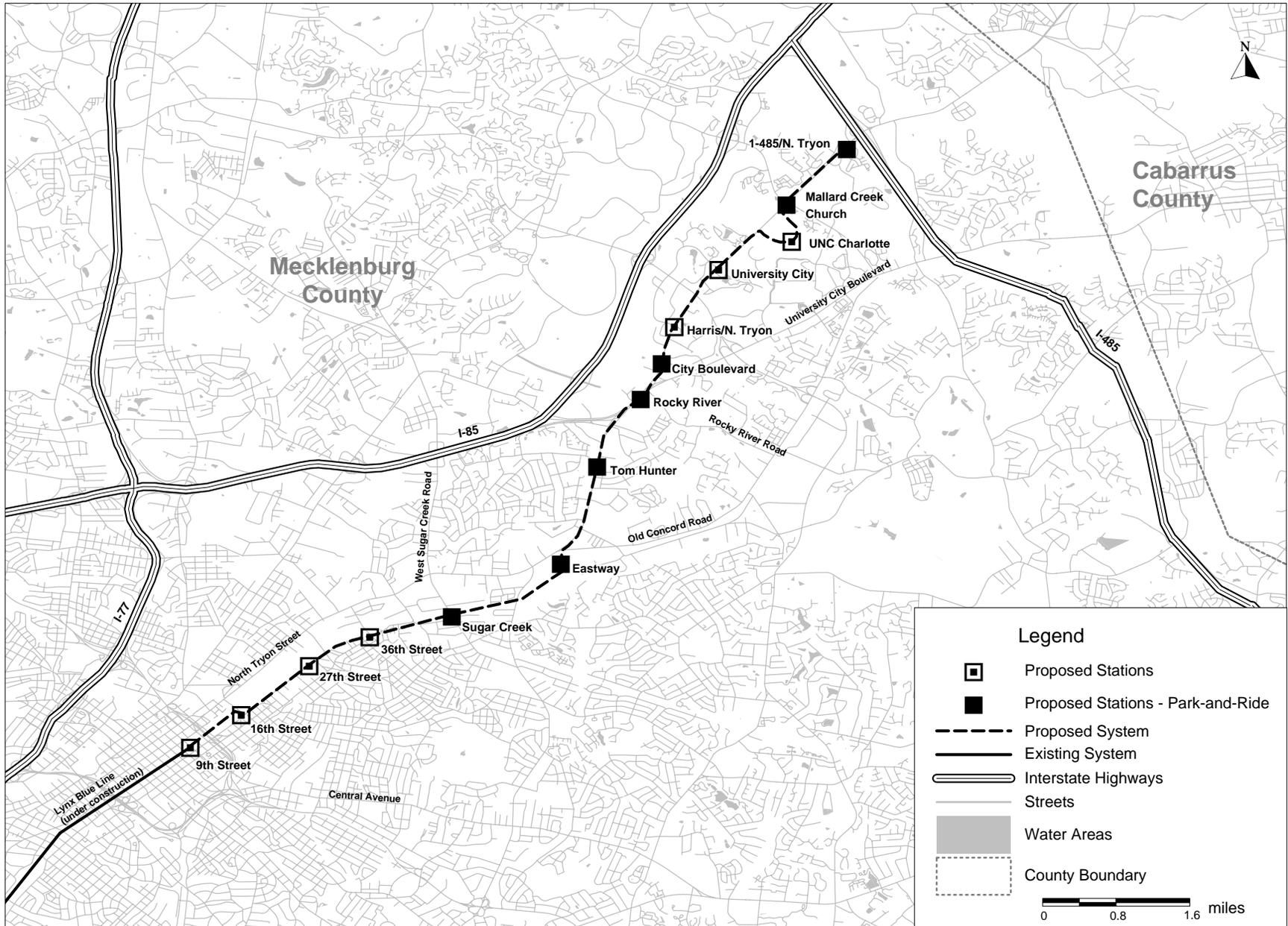
- The funds needed to operate and maintain CATS' systemwide operating costs are 100 percent committed. The systemwide operating plan includes funding from NCDOT, the half-cent sales tax, fare revenue, and other operating revenue.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions about growth in sales tax revenues and operating costs are optimistic compared to historical experience.
- Farebox recovery is assumed to improve significantly over time due to assumed frequent fare increases as approved in a policy adopted by CATS' Board.
- The project's financial plan shows significant ending cash balances exceeding six months of system-wide operating expenses.

# Northeast Corridor Light Rail Project

## Charlotte, North Carolina



# Portland-Milwaukie LRT

## Portland, Oregon

(April 2009)

The Tri-County Metropolitan Transportation District of Oregon (TriMet) proposes to construct a 7.3-mile, double-track light rail transit (LRT) extension of its existing Yellow Line from the downtown Portland transit mall to the City of Milwaukie. The project includes a new multimodal bridge across the Willamette River (a 1.3-mile segment that will include joint operations for buses, light rail vehicles (LRV), and streetcars), ten new LRT stations, two 1,000-space structured park-n-ride facilities, and the acquisition of 21 LRVs. The majority of the LRT extension would be at grade (5.5 miles) with 1.8 miles below grade along an existing Union Pacific Railroad right-of-way.

The LRT line would link downtown Portland with regional educational institutions, dense urban neighborhoods, and emerging growth areas in East Portland and Milwaukie. TriMet plans to procure 21 LRVs that would operate at 7.5-minute peak period frequencies. TriMet would expand an existing LRV maintenance facility to store and maintain the LRVs. The project is Phase II of a major transit investment strategy for the South Corridor. Phase I, known as the South Corridor I-205/Portland Mall LRT, is currently under construction.

The LRT line extends from downtown Portland, across the Willamette River, to southeast Portland, the cities of Milwaukie, Gladstone and Oregon City and the urbanized areas of Clackamas County. The corridor's transportation network is congested and constrained by the Willamette River and dense existing development. The corridor's only radial highway (Highway 99E), which links with downtown Portland via the existing Ross Island, Hawthorne, Morrison, and Burnside bridges, is limited to two through-lanes in each direction for much of the segment between Milwaukie and central Portland and most of that segment is congested. The corridor's transit network is structured around five north/south and three east/west trunk bus lines with approximately 7,600 and 10,600 passenger trips via the Willamette River each weekday, respectively.

### Summary Description

<b>Proposed Project:</b>	Light Rail Transit 7.3 Miles 10 Stations
<b>Total Capital Cost (\$YOE):</b>	\$1,471.76 Million (includes \$257.1 million in finance charges)
<b>Section 5309 New Starts Share (\$YOE):</b>	\$735.86 Million (50.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$10.18 Million
<b>Ridership Forecast (2030):</b>	27,400 Average Weekday Boardings 10,200 Daily New Riders
<b>Opening Year Ridership Forecast (2016):</b>	22,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium
<b>FY 2010 Project Justification Rating:</b>	Medium-High
<b>FY 2010 Overall Project Rating:</b>	Medium-High

### Project Development History and Current Status

TriMet included the Milwaukie LRT line in the North Corridor/South Corridor Draft Environmental Impact Statement (DEIS) that was completed in 1998 and updated as the South Corridor supplemental EIS in December 2002. The South Corridor was selected as the locally preferred alternative (LPA) in 2003. The LPA was reaffirmed in the Metro Council's (local metropolitan planning organization-MPO)

long-range plan in May 2003 and again in July 2008. The LPA was included in the MPO's financially-constrained long-range plan in June 2007.

In April 2003, the Metro Council adopted a two-phased major transit investment strategy for the South Corridor. The Interstate 205 / Portland Mall LRT line was selected as Phase I, followed by the Portland-Milwaukie LRT as Phase II. Phase I is under construction and scheduled to begin revenue operations in September 2009. Phase II would connect with Phase I along the Portland Mall. FTA approved the Portland-Milwaukie LRT project into preliminary engineering in March 2009. TriMet anticipates a Final EIS in February 2010, with a Record of Decision (ROD) expected in July 2010. Final design approval is anticipated in late 2010.

There are several items related to the scope of the planned multimodal bridge across the Willamette River, including bridge location, design, environmental issues, navigational issues, transit operational issues, construction, and costs that must be resolved during preliminary engineering. In addition, the project has several freight railroad interfaces (Union-Pacific Railroad and Oregon Pacific Railroad) where the proposed LRT route crosses or parallels existing railroad facilities. These items could delay the completion of the Final EIS and environmental ROD if not resolved in a timely manner, and could adversely impact the project's overall schedule and budget.

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

The project is rated *Medium-High* based on a *Medium* rating for cost effectiveness and a *Medium-High* rating for transit-supportive land use. The rating for the project's Making the Case document was not factored into the project justification rating for FY 2010.

### ***Making the Case***

The project, which includes a new multimodal bridge across the Willamette River, would provide direct connections linking Southeast Portland residents to downtown Portland. The LRT line would also provide better transit access between the corridor's residential areas and jobs in the Central Eastside and South Waterfront areas. The "case" provides a strong discussion of how bridges play a key role in the South Corridor's transportation infrastructure as the Willamette River separates most of the corridor from downtown Portland and the South Waterfront. All of TriMet's north-south trunk routes operate across the Hawthorne Bridge, which has slow operating speeds, due to congestion, narrow clearances and frequent lift span openings. The corridor's east-west buses all cross the Ross Island Bridge which has approaches that operate at congested levels. The "case" shows how the LRT extension via the new multimodal bridge would generate considerably more user benefits due to better speeds, reliability, and operating efficiencies than the bus baseline alternative due to the baseline alternative's difficulty accessing key markets on the existing roadway network. For example, transit travel times during the p.m. peak from downtown Portland to downtown Milwaukie would be reduced to 30 minutes with the implementation of the project, compared to 31 minutes for automobiles and 33 minutes for buses in the baseline alternative. From downtown Milwaukie to the south Waterfront, transit travel times would be 21 minutes, compared to 29 minutes for automobiles and 35 minutes for buses in the New Starts baseline.

### ***Cost Effectiveness Rating: Medium***

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (9,400 hours each weekday) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$20.78*
Incremental Cost per Incremental Trip	\$16.19

\*Indicates that measure is a component of Cost Effectiveness rating.

**Transit-Supportive Land Use Rating: Medium-High**

The *Medium-High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium**

- Population density in new station areas averages 4,900 persons per square mile. Including LRT segments already completed or under construction, the proposed extension would provide a one-seat ride connecting 60,000 residents and 160,000 jobs.
- The majority of the corridor's downtown section is already built out at high densities and includes a pedestrian-friendly environment, a 200-foot grid street pattern, and wide sidewalks.
- The eastside station areas feature a mix of older medium-density single-family neighborhoods, pedestrian-friendly commercial development along several north-south streets (including some recent infill development), and a number of large industrial areas, some of which are directly adjacent to proposed station areas. Other auto-oriented uses, represented by a mix of industrial, warehouse, and commercial establishments, exists around two stations.

**Transit-Supportive Plans and Policies: High**

- Oregon's comprehensive planning system has been in place for more than 30 years. Land use laws play a major role in determining how cities and regions grow. Metro's Urban Growth Management Functional Plan requires that cities and counties define minimum densities for all residential zones, with typical policy targets of 45 to 60 persons per acre in transit station areas designated as growth centers. All of the jurisdictions within the corridor have adopted minimum densities (typically 80 percent of maximum allowed densities, which are consistent with policy targets).
- A number of area plans, neighborhood plans, and district plans explicitly incorporate the proposed Portland-Milwaukie LRT project as a central component of local areas' overall transportation and land use concepts. The proposed South Waterfront and Milwaukie stations serve designated local or regional centers, where a mix of land uses and transit-oriented development (TOD) are specified.
- Zoning in downtown Milwaukie allows maximum floor area ratios (FAR) of up to 4:1. Higher densities are allowed in the South Waterfront area. In Portland east of the Willamette River, maximum permitted residential densities along the main commercial corridors range from 40 to 125 dwelling units per acre. In the surrounding neighborhoods permitted residential densities range from approximately nine to 17 units per acre. Commercial development is permitted at FARs up to 3:1.
- Oregon has adopted tax abatement legislation that allows local jurisdictions to adopt ordinances that provide tax abatement for transit-supportive developments, and Portland has done this. Three of the proposed stations are in Urban Renewal Areas, entitling developers to additional financing tools such as tax-increment financing.

**Performance and Impacts of Policies: High**

- The region's urban growth boundary has helped protect open space from rapid, low-density development, while new LRT stations combined with supportive land use policies have spurred a variety of infill projects and new TODs. TriMet estimates that LRT in the region has spurred over \$6 billion in investment along transit corridors. The Metro Council's TOD Program has assisted 29 development projects currently under construction or completed.
- Although the project will connect a number of residential areas that are already built out, it will also pass directly through several major redevelopment areas. TriMet estimates that an additional five million square feet of development may occur over a 20-year period following completion of planned new developments. Strong regional growth is also forecast.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-High</b>	
<b>Transportation System User Benefit Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 20.6
<b>Number of Transit Dependents Using the Project</b>	16,200
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	6.4
<b>Environmental Benefits Rating: Medium</b>	
<u><b>Criteria Pollutant Status</b></u> Carbon Monoxide (CO)	<u><b>EPA Designation</b></u> Maintenance Area

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium* ratings for the New Starts share of project costs, the capital financial plan and the operating financial plan.

**Section 5309 New Starts Share of Total Project Costs: 50.0%**

**Rating: Medium**

TriMet is requesting a 50 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 New Starts	\$735.86	50.0%
FHWA Flexible Funds (CMAQ / STP) – GARVEE Bonds	\$72.50	4.9%
<b>Local:</b>		
Oregon DOT/TriMet Bonds	\$280.00	19.0%
Other Local Funds	\$175.40	11.9%
Oregon DOT/TriMet Debt Service	\$170.00	11.6%
In Kind Contributions	\$38.00	2.6%
<b>Total:</b>	<b>\$1,471.76</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based on the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of the bus fleet is 10.6 years, which is older than the industry average.
- TriMet's good bond ratings, which were issued in 2007, are as follows: Moody's Investors Service Aa3 and Standard & Poor's Corporation AAA.

**Commitment of Capital Funds: Medium-High**

- More than 50 percent of non-New Starts funding is committed. The sources of non-Section 5309 New Starts funds for the project are Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ)-backed GARVEE bonds, revenues derived from the local sales and use tax, State and TriMet bond proceeds, in kind contributions, and other (to-be-determined) local funds.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions regarding tax revenue growth and expense growth are optimistic compared to historical experience. In addition, the plan does not adequately address how capital cost overruns or funding shortfalls could be addressed.
- Capital cost estimates were developed using unit costs consistent with historical and current construction costs in the Portland area.

***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium-High**

- TriMet's current ratio of assets to liabilities as reported in its most recent audited financial statement is 3.13.
- TriMet is in excellent financial condition, demonstrating no historical cash flow shortages and no recent service cutbacks.

**Commitment of Operating and Maintenance Funding: High**

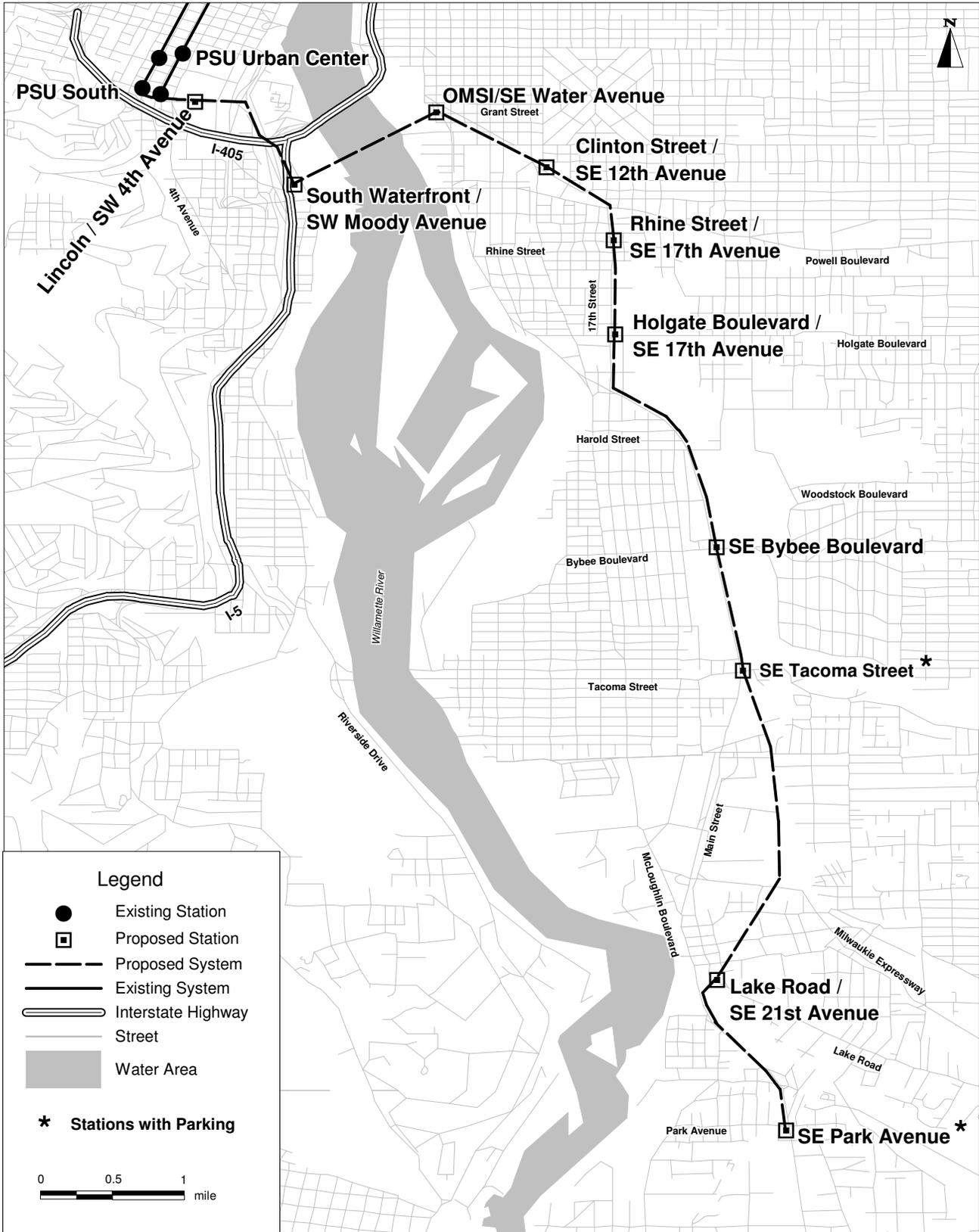
- All operating funding is committed, including fare revenues, increased sales and use tax revenues, and parking revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Several operating cost estimates and revenue forecasts are optimistic relative to historical experience.
- Projected cash balances and reserve accounts are more than 12 percent (1.5 months) of annual systemwide operating expenses.

# Portland-Milwaukie LRT

Portland, Oregon



# North Corridor LRT

## Houston, Texas

(March 2008)

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 5.2-mile, eight station, double-track light rail transit (LRT) line from the existing University of Houston-Downtown station in the Houston central business district (CBD) to the Northline Mall Transit Center. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (4.2 miles), while the remaining 0.86 miles would be elevated to avoid two freight railroads (the Southern Pacific Railroad and the Burlington-Northern Santa Fe Railway). The project also includes the purchase of 24 light rail vehicles. Service would operate every six minutes during peak and off peak periods, including weekends, and would interline with the current METRO Rail Red Line in the CBD. No parking spaces would be built as part of the project. The project would be the first operable segment of an LRT line that METRO plans to eventually extend to Houston's George Bush Intercontinental Airport.

The corridor runs parallel to and immediately east of Interstate 45 (I-45), stretching from the northern part of downtown Houston to the Northline Mall. The corridor links four academic institutions: Houston Community College-Northeast Campus; Houston Community College-Central Campus, University of Houston-Downtown; and Rice University; and Northline Mall, a major retail redevelopment. The two largest job markets in the Houston region – downtown Houston and the Texas Medical Center (TMC) – draw large numbers of North Corridor residents to jobs in the CBD and TMC.

### Summary Description

<b>Proposed Project:</b>	Light Rail Transit 5.28 Miles 8 Stations
<b>Total Capital Cost (\$YOE):</b>	\$677.03 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$331.74 Million (49.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$7.69 Million
<b>Ridership Forecast (2030):</b>	29,000 Average Weekday Boardings 7,500 Daily New Riders
<b>Opening Year Ridership Forecast (2013):</b>	17,400 Average Weekday Boardings
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium</b>

METRO plans to use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO and FTA are working closely to facilitate this unique project implementation approach. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. The project budget increased to approximately \$896.7 million (YOES). As of November 2008, FTA was still conducting a review of METRO's Facility Provider contracts, and an updated evaluation and rating was not possible. Hence, the rating described herein reflects conditions as of March 2008, when the project was approved into preliminary engineering.

**Project Development History and Current Status**

METRO completed an alternatives analysis study on the North Corridor in November 2003. LRT was the locally preferred alternative. The project is included in the Houston-Galveston Area Council’s 2035 *Regional Transportation Plan* and the 2008-2011 Transportation Improvement Program. The project is also included in the 2025 *METRO Solutions Plan* that was passed by voters in November 2003.

In April 2005, FTA approved the North Corridor LRT project into preliminary engineering (PE). In August 2005, METRO notified FTA that it was redirecting the PE effort from LRT to bus rapid transit (BRT). In October 2006, FTA approved the BRT into PE. In October 2007, METRO’s Board voted to implement LRT in the North Corridor. In late November 2007, FTA notified METRO that the LRT project could not retain the PE status that was extended to the BRT project. In January 2007, FTA issued a Final Environmental Impact Statement (FEIS) for BRT. FTA issued an environmental Record of Decision (ROD) for BRT in February 2007. In late November 2007, FTA withdrew the February 2007 ROD since METRO was no longer pursuing BRT. A supplemental FEIS for the LRT was released in May 2008. FTA issued a ROD in July 2008.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium-High* rating for cost effectiveness and a *Medium-Low* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating.

***Making the Case***

The North Corridor LRT line would result in added capacity to accommodate existing and future corridor travel demand resulting from population and employment growth (43 percent and 38 percent, respectively) with limited capacity on existing streets and highways. The LRT line would improve transit service to major activity centers, including the Houston CBD and academic institutions. The “case” for the project discusses the distribution of user benefits to four main zones (Houston CBD, TMC, Northline Mall, and areas within the southwest quadrant of the I-610 – north/northwestern suburbs). The “case” also discusses the project’s benefits to low-income areas. The “case,” however, does not describe how the proposed LRT line would accomplish the reported benefits.

***Cost Effectiveness Rating: Medium-High***

The *Medium-High* cost effectiveness rating reflects the level of travel-time benefits (11,100 hours each weekday, including special events) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$14.44*
Incremental Cost per Incremental Trip	\$16.84

\* Indicates that measure is a component of Cost Effectiveness rating. The reported cost effectiveness values above reflect March 2008 conditions. METRO is revising the project’s budget. This will result in a different cost effectiveness value (and corresponding cost effectiveness rating) than those reported above.

**Transit-Supportive Land Use Rating: Medium-Low**

The *Medium-Low* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- The North Corridor is characterized by low-density commercial, light industrial, and mixed residential development laid out on a grid pattern of streets. Auto-oriented commercial uses generally line the major roadways. Population densities are low to moderate, averaging 6,400 people per square mile.
- There are significant numbers of vacant parcels as well as underutilized properties. Pedestrian access is hindered by drainage ditches, wide streets, a lack of curb cuts, expansive parking lots, and a lack of sidewalks in many residential neighborhoods. A large mall is at the northern terminus while underused industrial buildings and an abandoned rail yard slated for redevelopment are at the southern end of the corridor.
- A total of 12,600 jobs are located in proximity to the proposed stations, while an estimated 130,000 jobs are directly served in the Houston CBD.

**Transit-Supportive Plans and Policies: Medium-Low**

- Limited efforts have been made at regional planning and growth management. In 2005 the Houston-Galveston Area Council (H-GAC) joined with the citizen-led Blueprint Houston to undertake Envision Houston Region, an initiative designed to create a regional “vision” for the future growth of the area. The results informed the long-range transportation plan update, but have not led to further implementation activities to shape regional land use patterns.
- Some station area planning activities have been initiated. METRO is undertaking a Station Area Work Program to address barriers to station area development, tools to leverage development, and policies for the development of each station area. The City of Houston is developing an Urban Corridor Planning Ordinance, which will provide a planning framework for development in high capacity transit corridors and in specific station areas. METRO established a joint development/transit-oriented development (TOD) program that will initiate specific development projects.
- The City of Houston is not zoned. However, private deed restrictions are often used for both residential and commercial land development to ensure that standards for land use are maintained. While covenants will guide the development of future major projects in the North Corridor such as the Hardy/Near Northside reinvestment zone, most neighborhoods in the North Corridor currently lack such covenants. Existing neighborhood plans show some support for TOD, but do not identify implementation mechanisms aside from financing infrastructure improvements.

**Performance and Impacts of Policies: Medium**

- Local officials believe the existing Main Street LRT / Red Line, which opened in January 2004, has been a catalyst for residential and commercial development in the city’s downtown and Midtown areas. However, aside from some scattered townhouse development there is no evidence to date of transit-supportive development in the North Corridor.
- The Hardy Rail Yards redevelopment site just north of downtown is proposed for a major transit-supportive, high-density, mixed-use development. Small and large vacant and underutilized lots throughout the corridor provide additional development potential, if land use policies and market forces can be aligned.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium-High</b>	
<b>Transportation System User Benefits Per Passenger Mile (Minutes)</b>	<b><u>New Start vs. Baseline</u></b> 7.1
<b>Number of Transit Dependents Using the Project</b>	11,600
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	7.1
<b>Environmental Benefits Rating: High</b>	
<b><u>Criteria Pollutant Status</u></b>	<b><u>EPA Designation</u></b> Moderate Non-Attainment for all Pollutants

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium-High* ratings for the operating finance plan and the New Starts share of total project costs and the *Medium* rating for the capital finance plan.

***Section 5309 New Starts Share of Total Project Costs: 49%******Rating: Medium-High***

METRO is requesting a 49 percent New Starts share of total project costs, which results in a *Medium-High* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$331.7	49.0%
<b>Local:</b> METRO Dedicated Sales Tax	\$345.2	51.0%
<b>Total:</b>	<b>\$677.0</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

***Capital Finance Plan Rating: Medium***

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of METRO's bus fleet is eight years, which is slightly older than the industry average.
- METRO has no outstanding debt. Therefore, no bond ratings have been issued.

**Commitment of Capital Funds: High**

- METRO's sales tax revenues, which are existing and committed, will cover the entire non-New Starts share of the first minimum operable segment of the North Corridor LRT project.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions on sales tax growth and Federal funding are optimistic compared to historical experience.
- The inflation rate used to escalate the capital cost estimate is optimistic.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- METRO's current ratio of assets to liabilities, as reported in its most recent audited financial statements, is 2.0.
- METRO's transit services have increased in the last five years.

**Commitment of Operating Funds: High**

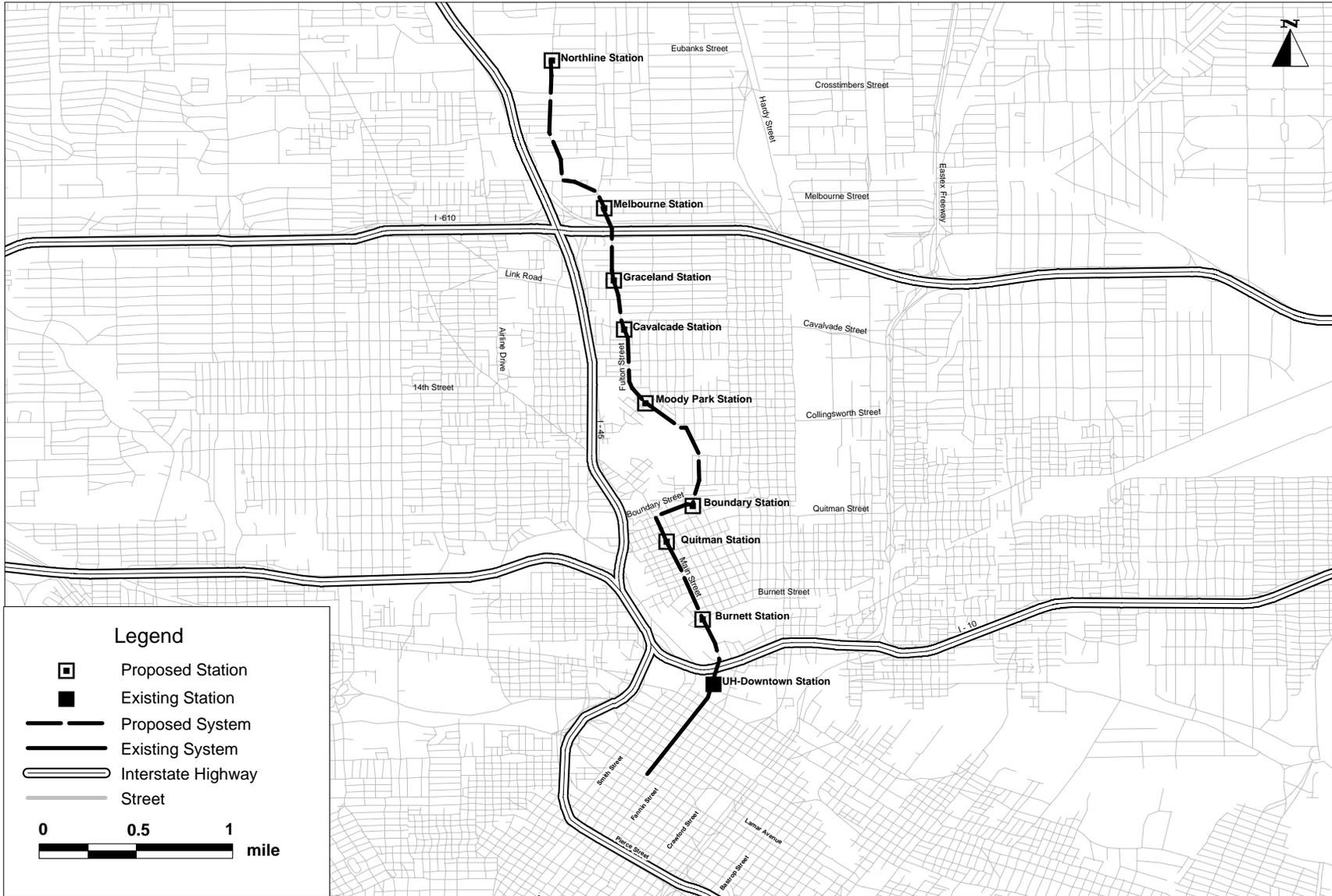
- Over 75 percent of operating funding, including fare revenues, sales tax revenues, operating grants, miscellaneous revenue (advertising and ID card fees), and interest income, is committed.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium**

- The project's financial plan shows projected cash balances exceeding 25 percent of annual operating and maintenance costs.
- Projections of operating and maintenance costs are consistent with history.
- Assumptions of ridership growth and farebox revenues are optimistic compared to historical experience.

# North Corridor LRT

## Houston, Texas



# Southeast Corridor LRT

## Houston, Texas

(March 2008)

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 6.2-mile, light rail transit (LRT) line from the Houston central business district (CBD) to the Palm Center in the vicinity of Martin Luther King, Jr. Boulevard/Griggs Road. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (6.12 miles), while the remaining 0.14 miles would be elevated to avoid a natural habitat (Brays Bayou). The project includes the purchase of 29 light rail vehicles and construction of 13 stations and a maintenance facility. Service would operate every six minutes during peak and off peak periods, including weekends, and would provide a transfer to the current METRO Rail Red Line via the existing Main Street Square station in the CBD. No parking spaces would be built as part of the project. The proposed LRT line's Palm Center terminus would be adjacent to METRO's current Southeast Transit Center that includes a 1,100-space park-n-ride lot. The project would be the first operable segment of an LRT line that METRO plans to eventually extend to Houston's Hobby Airport.

The corridor is bounded by Interstate 45 to the east, one of the most heavily-traveled freeways in the nation, State Highway 288 to the west, and Interstate 610 to the south. The corridor includes a major portion of downtown Houston, including its commercial core and growing residential population. The corridor's street network is discontinuous and does not provide sufficient connectivity to major activity centers. Although the frequency of corridor bus service is high, many of the routes are circuitous with many stops so that transit travel times are not competitive with auto travel. The corridor represents five percent of METRO's service area, but includes 25 percent of METRO's total bus ridership.

### Summary Description

<b>Proposed Project:</b>	Light Rail Transit 6.2 Miles 13 Stations
<b>Total Capital Cost (\$YOE):</b>	\$680.59 Million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$333.49 Million (49.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$12.50 Million
<b>Ridership Forecast (2030):</b>	28,700 Average Weekday Boardings 4,500 Daily New Riders
<b>Opening Year Ridership Forecast (2013):</b>	17,200 Average Weekday Boardings
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium</b>

METRO plans to use an innovative project delivery method. A Facility Provider team of engineering, construction, construction management and vehicle manufacturing firms would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO and FTA are working closely to facilitate this unique project delivery. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. The project budget increased to approximately \$911.2 million (YOE\$). As of November 2008, FTA was still conducting a review of METRO's Facility Provider contracts, and an updated evaluation and rating was not possible. Hence, the rating described herein reflects conditions as of March 2008, when the project was approved into preliminary engineering.

## Project Development History and Current Status

METRO completed an alternatives analysis study on the Southeast-Universities-Hobby Corridor in November 2003. LRT was the locally preferred alternative. The project is included in the Houston-Galveston Area Council's 2035 *Regional Transportation Plan* and the 2008-2011 Transportation Improvement Program. The project is also included in the 2025 *METRO Solutions Plan* that was passed by Houston-area voters in November 2003.

In April 2005, FTA approved the Southeast Corridor LRT project into preliminary engineering (PE). In August 2005, METRO notified FTA that it was redirecting the PE effort from LRT to bus rapid transit (BRT). In October 2006, FTA approved the BRT into PE. In October 2007, METRO's Board voted to implement LRT in the Southeast Corridor. In late November 2007, FTA notified METRO that the LRT project could not retain the PE status that was extended to the BRT project. In January 2007, FTA issued a Final Environmental Impact Statement (FEIS) for BRT. FTA issued an environmental Record of Decision (ROD) for BRT in February 2007. In late November 2007, FTA withdrew the February 2007 environmental ROD since METRO was no longer pursuing BRT. A supplemental FEIS for the LRT was prepared and released in May 2008. FTA issued a ROD in July 2008.

## Project Justification Rating: Medium

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium-Low* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating.

### *Making the Case*

The project would result in added capacity to accommodate existing and future corridor travel demand resulting from population and employment growth (43 percent and 38 percent, respectively) with limited capacity on existing streets and highways. The project is designed to improve transit service to major activity centers, including the Houston CBD and universities areas, particularly for transit-dependent populations. The "case" for the project discusses the distribution of user benefits to three main zones (downtown Houston, universities area, and areas within the corridor, but outside of the CBD – southeastern suburbs). The "case" also discusses the project's benefits to current low-income areas. The narrative, however, does not describe how the proposed LRT line would accomplish the reported benefits.

### *Cost Effectiveness Rating: Medium*

The *Medium* cost effectiveness rating reflects the level of travel-time benefits (7,000 hours each weekday, including special events) relative to the project's annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$21.49*
Incremental Cost per Incremental Trip	\$24.10

\* Indicates that measure is a component of Cost Effectiveness rating. The reported cost effectiveness values above reflect March 2008 conditions. METRO is revising the project's budget. This will result in a different cost effectiveness value (and corresponding cost effectiveness rating) than those reported above.

***Transit-Supportive Land Use Rating: Medium-Low***

The *Medium-Low* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- Outside of the high-density CBD, most of the Southeast Corridor is characterized by low-density commercial, light industrial, and mixed residential development laid out on a grid pattern of streets.
- Pedestrian access is hindered by drainage ditches, wide streets, a lack of curb cuts, expansive parking lots, and in some cases, missing sidewalks. Two universities are present, with many of their athletic facilities, housing and academic buildings within a half mile of the proposed alignment.
- Station area population densities rate “low” by FTA benchmarks, averaging 3,200 persons per square mile. A total of 150,000 jobs are located in proximity to the corridor’s stations, mostly in the Houston CBD, which has a total employment of 130,000.

**Transit-Supportive Plans and Policies: Medium-Low**

- Limited efforts have been made at regional planning and growth management. In 2005 the Houston-Galveston Area Council (local metropolitan planning organization) joined with the citizen-led Blueprint Houston to undertake Envision Houston Region, an initiative designed to create a regional “vision” for the future growth of the area. The results informed the long-range transportation plan update but have not led to further implementation activities to shape regional land use patterns.
- Some station area planning activities have been initiated. METRO is undertaking a Station Area Work Program to address barriers to station area development, tools to leverage development, and policy for the development of each station area. The City of Houston is developing an Urban Corridor Planning Ordinance, which will provide a planning framework for development in high capacity transit corridors and in specific station areas. METRO has established a joint development/transit-oriented development program that will initiate specific development projects.
- The City of Houston is not zoned. Private deed restrictions are often used for both residential and commercial land development to ensure that standards for land use are maintained, but many of the neighborhoods in the Southeast Corridor lack such covenants. Plans for two Tax Increment Reinvestment Zones in the corridor include design guidelines to promote a more densely developed, pedestrian-friendly, walkable environment, but do not identify implementation mechanisms aside from financing infrastructure improvements.

**Performance and Impacts of Policies: Medium**

- Local officials believe the existing Red Line, which opened in January 2004, has been a catalyst for residential and commercial development in the city’s downtown and Midtown areas. However, aside from a significant amount of townhouse development just east of the CBD there is no evidence to date of transit-supportive development in the Southeast Corridor.
- Strong growth is forecast for the corridor and small and large vacant and underutilized lots throughout the corridor provide additional development potential, if land use policies and market forces can be aligned.

**Other Project Justification Criteria**

<b>Mobility Improvements Rating: Medium</b>	
<b>Transportation System User Benefits Per Passenger Mile (Minutes)</b>	<u><b>New Start vs. Baseline</b></u> 3.2
<b>Number of Transit Dependents Using the Project</b>	14,200
<b>Transit Dependent User Benefits per Passenger Mile (Minutes)</b>	3.2
<b>Environmental Benefits Rating: High</b>	
<u><b>Criteria Pollutant Status</b></u>	<u><b>EPA Designation</b></u> Moderate Non-Attainment for all Pollutants

**Local Financial Commitment Rating: Medium**

The *Medium* local financial commitment rating is based on the *Medium-High* ratings for the operating finance plan and the New Starts share of projects and the *Medium* rating for the capital finance plan.

**Section 5309 New Starts Share of Total Project Costs: 49%**

**Rating: Medium-High**

METRO is requesting a 49 percent New Starts share of total project costs, which results in a *Medium-High* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b> Section 5309 New Starts	\$333.49	49.0%
<b>Local:</b> METRO Dedicated Sales Tax	\$347.10	51.0%
<b>Total:</b>	<b>\$680.59</b>	100.0%

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of METRO’s bus fleet is eight years, which is slightly older than the industry average.
- METRO has no outstanding debt. Therefore, no bond ratings have been issued.

**Commitment of Capital Funds: High**

- METRO's sales tax revenues, which are existing and committed, will cover the entire non-New Starts share of the first minimum operable segment of the Southeast Corridor LRT project.

**Capital Cost Estimate, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions on sales tax growth and Federal funding are optimistic compared to historical experience.
- The inflation rate used to escalate the capital cost estimate is optimistic.

***Operating Finance Plan Rating: Medium-High***

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- METRO's current ratio of assets to liabilities, as reported in its most recent audited financial statements, is 2.0.
- METRO's transit services have increased in the last five years.

**Commitment of Operating Funds: High**

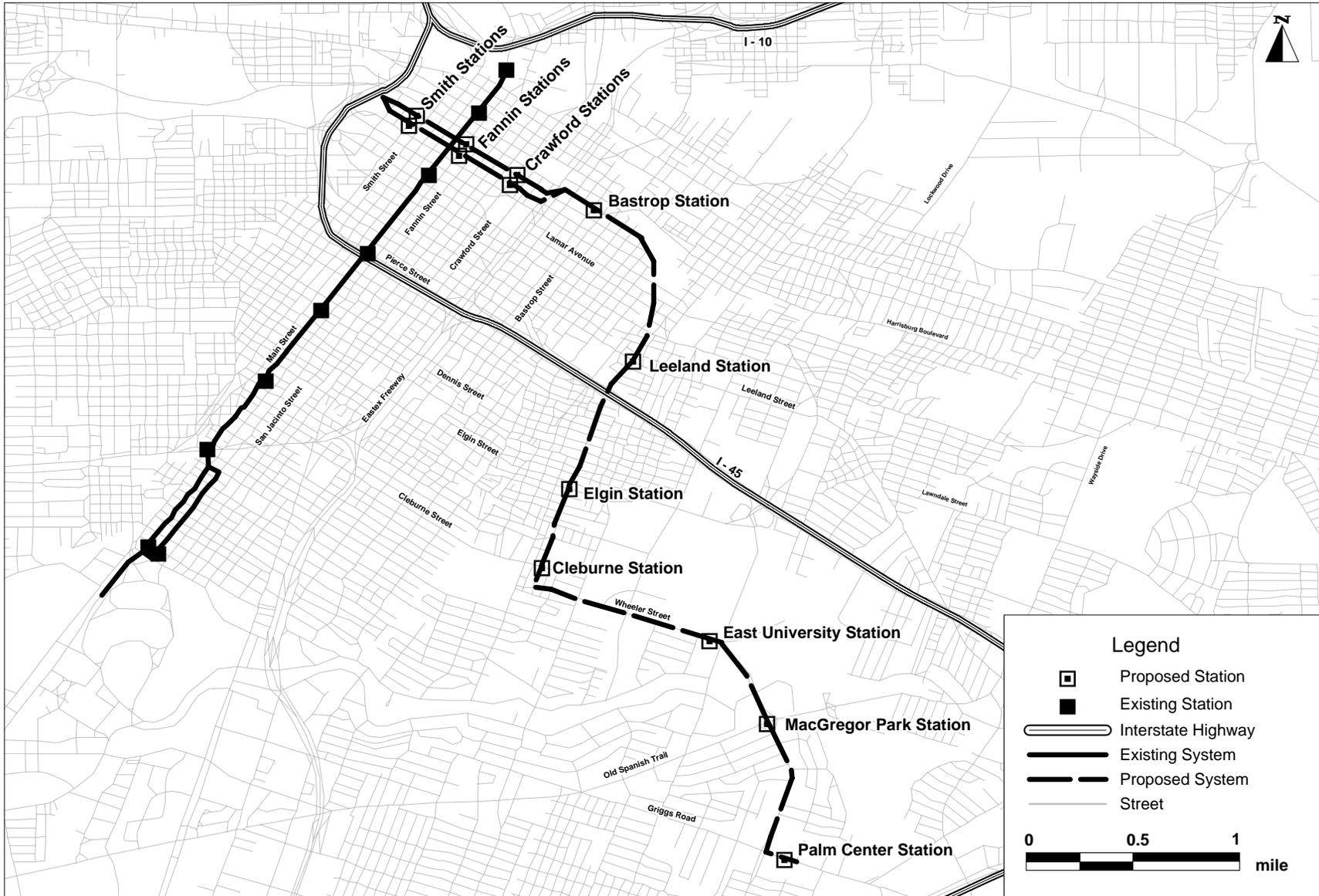
- Over 75 percent of operating funding, including fare revenues, sales tax revenues, operating grants, miscellaneous revenue (advertising and ID card fees), and interest income, is committed.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium**

- The project's financial plan shows projected cash balances exceeding 25 percent of annual operating and maintenance costs.
- Projections of operating and maintenance costs are consistent with history.
- Assumptions of ridership growth and farebox revenues are optimistic compared to historical experience.

# Southeast Corridor LRT

## Houston, Texas



# **Small Starts Projects in Project Development**

---



# Mountain Links BRT

## Flagstaff, Arizona

(November 2007)

The Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) is proposing to construct and operate a 5.8-mile bus rapid transit (BRT) line serving the campus of Northern Arizona University (NAU), nearby shopping centers, and downtown Flagstaff. The proposed line will combine two existing local bus routes as well as an on-campus shuttle system and would feature 1.3 miles of dedicated guideway. In addition, through an intergovernmental service agreement with NAU, the proposed on-campus service will be combined with existing NAIPTA service and operated throughout Flagstaff as “Mountain Links.” The proposed BRT project extends from a local shopping and residential center located southwest of NAU’s campus onto the campus itself, continuing north into downtown Flagstaff. The project includes 24 new stations, signal prioritization, and the purchase of eight electric-hybrid vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit
	5.8 Miles
	24 Stations
<b>Total Capital Cost (\$YOE):</b>	\$10.41 Million (Includes \$0.5 million in financing charges)
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$6.24 Million (59.9%)
<b>Annual Operating Cost (\$YOE):</b>	\$0.79 Million
<b>Opening Year Ridership Forecast (2010):</b>	4,150 Average Weekday Boardings 500 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

The proposed project is the result of an alternatives analysis undertaken for campus transportation as part of the NAU Campus Plan planning effort in 2004. The analysis considered a range of options for improving existing transit service through campus. A “modified spine” option, which is the core of the Mountain Links BRT alignment, was found to offer a major improvement over current conditions and was selected as the locally preferred alternative (LPA) in 2005. The LPA was adopted into the region’s financially constrained long range plan in June of 2006. FTA approved the project into Small Starts project development in December 2007. The project rating included in this profile is based on conditions as of November 2007.

## **Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2009.

### ***Making the Case***

The Mountain Links BRT project is intended to provide more direct and frequent transit service within NAU, as well as between NAU and downtown Flagstaff at a modest cost. While the project is anticipated to result in improved travel times, the "case" for the project did not articulate a significant mobility problem that better service planning and more frequent transit service levels could not address. Rather, the project presents an opportunity to improve coordination between campus- and NAIPTA-provided transit systems. The "case" identified a number of affected travel markets which would be impacted by the project but did not specify in any analytical detail how these markets would benefit.

### ***Cost Effectiveness Rating: Medium***

The Mountain Links BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

### ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

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

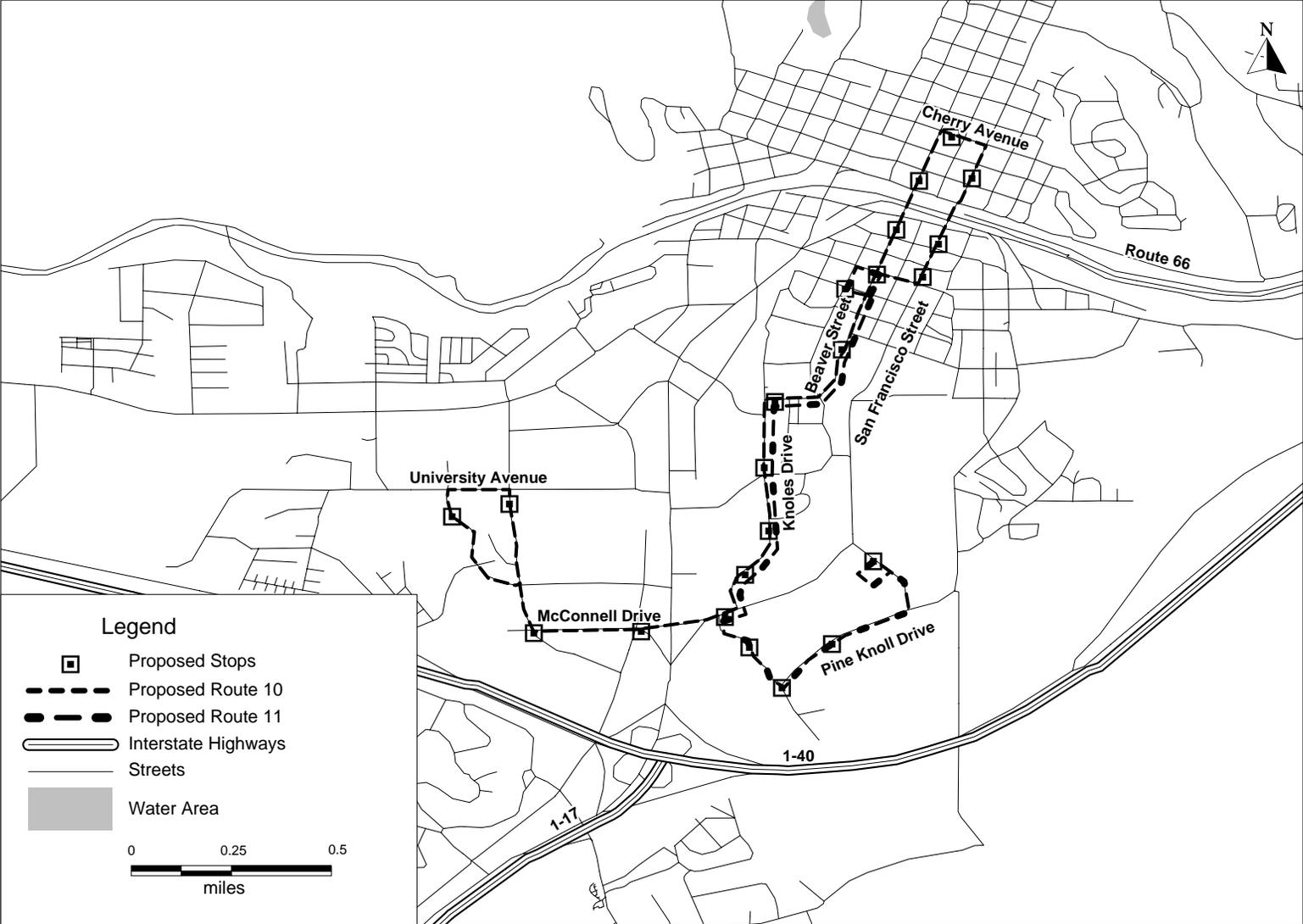
The project is rated *Medium* for local financial commitment. Because project operating costs exceed the five percent of the system-wide operating and maintenance cost threshold for qualifying for a streamlined financial review, FTA required NAIPTA to provide additional documentation to demonstrate the local commitment to meet capital and operating requirements of the proposed system. In October 2007, NAIPTA submitted the required financial plan, as well as a signed funding agreement with NAU. FTA's review of the financial plan determined that all local capital and operating funding is committed and available and there is sufficient local financial commitment to warrant the *Medium* rating.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$6.24	59.9%
Section 5307 Formula Funds	\$1.10	10.6%
Section 5309 Bus Discretionary	\$0.55	5.3%
FHWA Flexible Funds	\$0.25	2.3%
<b>State:</b>		
Local Transportation Assistance Act Fund II	\$0.18	1.7%
<b>Local:</b>		
Dedicated Transit Tax	\$1.05	10.1%
Northern Arizona University	\$1.05	10.1%
<b>Total:</b>	<b>\$10.41</b>	<b>100.0%</b>

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Mountain Links BRT

Flagstaff, Arizona





# Livermore - Amador Route 10 BRT

## Livermore, California

(November 2007)

The Livermore Amador Valley Transit Authority (LAVTA) is proposing to construct and operate a 12-mile arterial and highway-running bus rapid transit (BRT) line serving the communities of Livermore and Dublin. The proposed alignment generally traverses an existing local bus route, but would create limited-stop operations intended to remove traffic impediments and improve travel time. The project includes 34 new stations, signal prioritization, roadway improvements, and branding. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 12.0 Miles 34 Stations
<b>Total Capital Cost (\$YOE):</b>	\$21.66 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$10.93 Million (50.5%)
<b>Annual Operating Cost (\$YOE):</b>	\$1.24 Million
<b>Opening Year Ridership Forecast (2008):</b>	4,500 Average Weekday Boardings 900 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	Medium
<b>FY 2009 Project Justification Rating:</b>	Medium
<b>FY 2009 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

In October 2004, LAVTA and Bay Area Rapid Transit (BART) completed the Interstate 580 (I-580) Corridor Study alternatives analysis. This study evaluated several alternatives to improve transit service between Livermore, Dublin, and Pleasanton, including an extension of BART heavy rail, BRT service on I-580, and BRT service along the existing Route 10 corridor, which has the highest bus ridership in the LAVTA system. In January 2005, the LAVTA Board of Directors selected the Route 10 BRT as the locally preferred alternative (LPA). Since then, LAVTA has been further identifying station locations, working with local stakeholders to refine the project, and developing a financial plan. In May 2007, the LAVTA Board re-confirmed the proposed Livermore-Amador Route 10 BRT project as the LPA. FTA approved the Livermore-Amador Route 10 BRT project into Small Starts project development in December 2007.

Since the FY 2009 Annual Report, LAVTA has changed the project alignment and length to better serve the primary travel markets in the corridor. These changes are a result of public comments received during the Environmental Assessment process. Sufficient information is not yet available on the revised project for FTA to re-rate the project. Hence, the project rating included in this profile is based on conditions as of November 2007.

## **Project Justification Rating: Medium**

The project is rated Medium for project justification based on a Medium rating for cost effectiveness and a Medium rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating.

### ***Making the Case***

LAVTA proposes a Very Small Starts arterial BRT project that would connect major activity centers in Livermore and Pleasanton to ACE Commuter Rail stations and the Dublin/Pleasanton BART Station. LAVTA "case" for the project is that it will address high levels of congestion in the corridor and at parking facilities at the BART station and improve transit connectivity generally. However, the "case" does not provide evidence that this project will be an effective solution for problems in the corridor. The data cited to support the "case" for the project is provided with no context that could help the reader understand the project or its benefits, is often internally inconsistent, and often irrelevant to the project's justification. The "case" for the project does not characterize current service in any detail nor does it provide relevant information about benefiting travel markets (for example, the number of passengers, their travel patterns, and travel times for major trip interchanges, etc.)

### ***Cost Effectiveness Rating: Medium***

The Livermore-Amador Route 10 BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a Medium rating for cost effectiveness.

### ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned these projects a Medium rating for transit-supportive land use plans and policies.

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

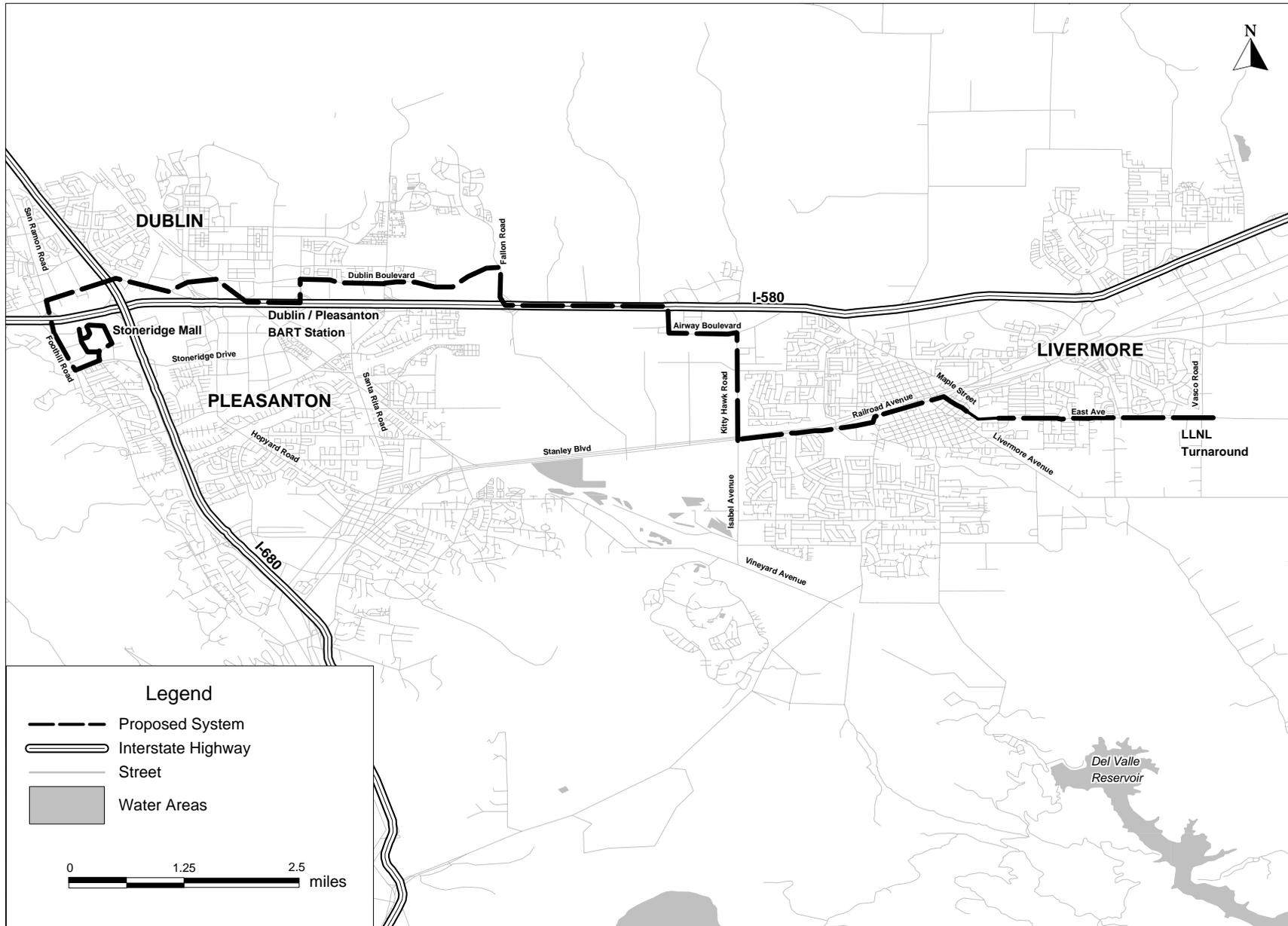
The project is rated *Medium* for local financial commitment, based upon LAVTA's acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the proposed project is less than five percent of the agency's operating budget.

<b>Locally Proposed Financial Plan</b>		
<b>Source of Funds</b>	<b>Total Funds (\$million)</b>	<b>Percent of Total</b>
<b>Federal:</b>		
Section 5309 Small Starts	\$10.93	50.5%
Section 5307	\$6.40	29.5%
<b>State:</b>		
Proposition 1B Bonds	\$2.42	11.2%
<b>Local:</b>		
Transit Development Act	\$1.60	7.4%
Measure B	\$0.31	1.4%
<b>Total:</b>	<b>\$21.66</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Livermore - Amador Route 10 BRT

Livermore, California





# Metro Rapid Bus System Gap Closure

## Los Angeles, California

(November 2008)

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is proposing to construct and operate eight street-running bus rapid transit (BRT) lines that would connect existing Metro Rapid Bus routes, effectively completing a regional arterial BRT network. The proposed lines have been identified for their potential to reduce end-to-end travel times throughout the existing Metro Rapid Bus system. In total, the project includes 247 new stations spread over 120 miles. The proposed service would operate with existing buses at 10 minute headways during the peak period, and an average of 15 minute headways during off-peak hours. Each of the eight corridors meets the eligibility definition of a Very Small Start, but is presented here as a single project (which also meets the definition of a Very Small Start). The following table summarizes the service characteristics and current ridership of each of the proposed eight routes:

<b>Corridor Characteristics</b>			
	Route Length (mi)	Weekday Ridership	Stations/Stops
West Olympic	12.1	32,555	36
Garvey-Chavez	14.7	21,100	32
Manchester	13.5	12,890	27
Atlantic	25.1	16,403	51
San Fernando	13.6	15,600	25
South Sepulveda	12.8	6,890	19
Torrance	16.8	7,812	38
Central Avenue	11.2	13,387	19

Each project corridor contains high population and employment density. Nearly 20 percent of residents within one-half mile of the eight proposed corridors do not have access to an automobile. Current bus service in these corridors make frequent stops to accommodate passenger demand. According to an evaluation performed by the Los Angeles Department of Transportation, nearly 50 percent of all transit delay was associated with buses stopping at traffic signals and bus stops. Service provided under the Metro Rapid Bus System Gap Closure project will achieve reduced delay, supplementing existing local bus service with BRT featuring fewer stops and traffic signal priority. This project is intended to improve transit service and amenities for a large number of existing transit riders, as well as attract new riders. The 14 Metro Rapid Bus lines currently in operation have improved transit travel times by approximately 20 percent as compared to local bus service.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Bus Rapid Transit
	119.8 Miles
	247 Stations
<b>Total Capital Cost (\$YOE):</b>	\$34.55 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$16.68 Million (48.3%)
<b>Annual Operating Cost (\$YOE):</b>	\$39.80 Million
<b>Opening Year Ridership Forecast (2008):</b>	123,100 Average Weekday Boardings
	40,000 Daily New Riders
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

## **Project Development History and Current Status**

In 1999, the LACMTA initiated its Metro Rapid Bus Demonstration Program. This program included the construction and implementation of Rapid Bus routes in two heavily patronized transit corridors: Line 720 on Wilshire and Whittier Boulevards and Line 750 on Ventura Boulevard. Due to the Demonstration Program's success, the LACMTA approved the implementation of 22 additional Metro Rapid Bus lines. Fourteen of the proposed 22 routes have been implemented and are currently operating. The remaining eight Metro Rapid Bus routes are the topic of this proposal. FTA approved the Gap Closure project into project development in December 2006. To date, the LACMTA has begun operations of Rapid Bus Service on six of the eight routes. The project's capital cost has increased to \$34.55 because of the increased cost of the transit stations and signal priority system.

## **Project Justification Rating: Medium**

Each of the Gap Closure corridors are rated *Medium* for project justification based on a *Medium* rating for both cost effectiveness and transit-supportive land use. The project was approved into project development prior to 2007, when FTA implemented the *Making the Case* document.

## ***Cost Effectiveness Rating: Medium***

The Metro Rapid Bus System Closure project – and each of the specific corridor improvements which constitutes the project - qualify as a Very Small Start. Each of the corridors proposed for improvement would include low-cost elements such as service branding, operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost-effective by their very nature, and therefore receive a *Medium* rating for cost effectiveness.

## ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects, which meet the minimum existing ridership threshold of 3,000 daily boardings, to be in corridors with transit-supportive land use appropriate to the proposed level of investment. Each of the eight Metro Rapid Bus corridors that would be implemented as part of the Gap Closure project meets this threshold. Therefore, FTA has assigned the project a *Medium* rating for transit supportive land use plans and policies.

## **Local Financial Commitment Rating: High**

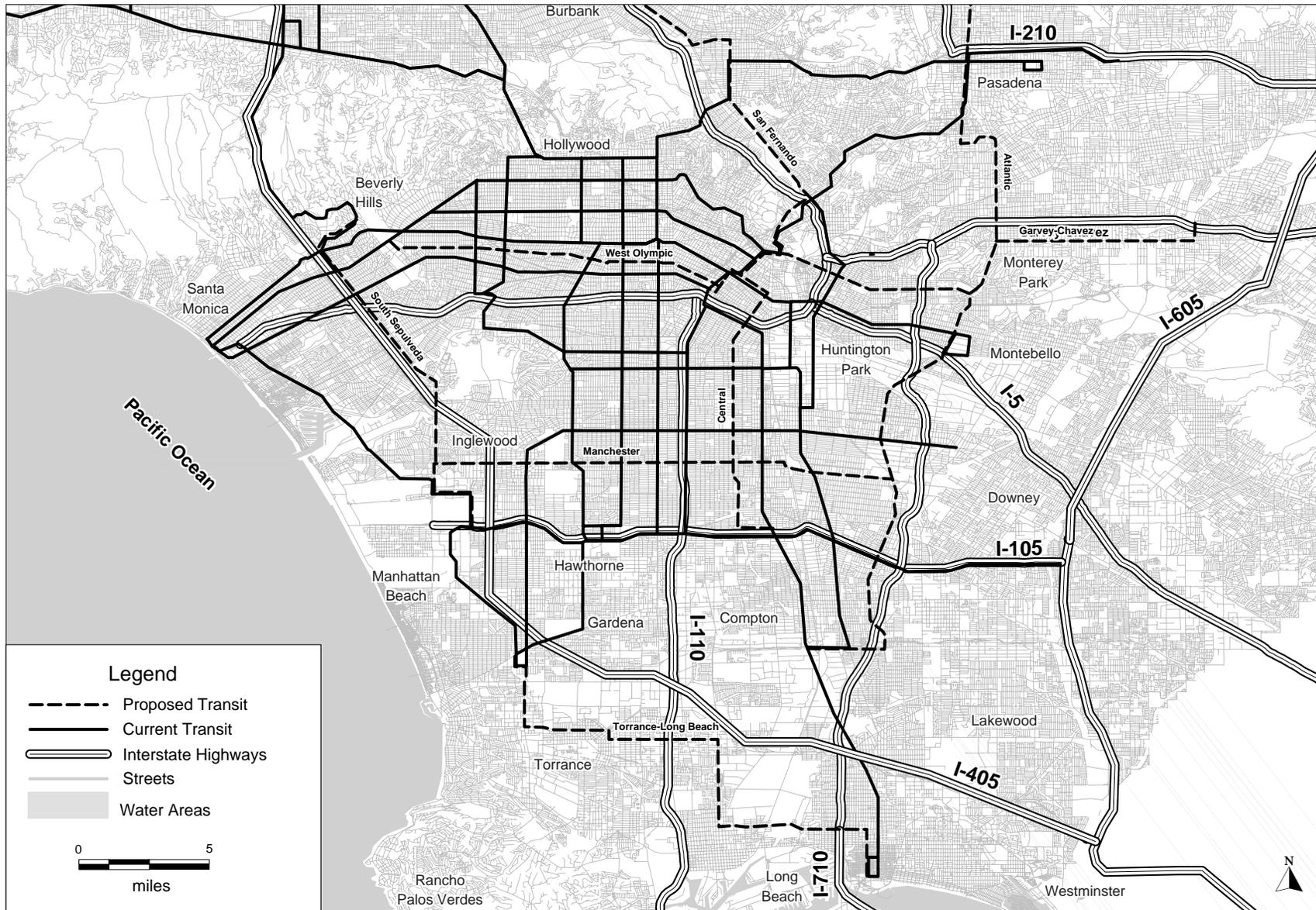
The project is rated *High* for local financial commitment, based upon LACMTA's acceptable financial condition; a reasonable plan for funding for the non-New Starts share of capital costs; and evidence that operations and maintenance costs of the proposed project is less than five percent of the agency's operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$16.68	48.3%
<b>Local:</b> Proposition C Revenues	\$17.87	51.7%
<b>Total:</b>	<b>\$34.55</b>	<b>100.0%</b>

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Metro Rapid Bus System Gap Closure

Los Angeles, California





# Wilshire Boulevard Bus-Only Lane

## Los Angeles, California

(November 2007)

The Los Angeles County Metropolitan Transportation Authority (LACMTA), in coordination with the Los Angeles Department of Transportation (LADOT), is proposing to implement a dedicated bus lane along portions of a 12.5-mile stretch of Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica. Wilshire Boulevard is the site of LACMTA's first Metro Rapid "arterial" bus rapid transit (BRT) line, which opened for service in June 2000. The proposed project features 9.6 miles of curb lanes converted into an exclusive facility during peak-period (7–9 a.m. and 4–7 p.m.) operations. The lanes will be differentiated in their appearance with pavement markings and line delineators, and will be enforced by the Los Angeles Police Department for moving violations.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 12.5 Miles
<b>Total Capital Cost (\$YOE):</b>	\$31.51 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$23.32 Million (74.0%)
<b>Annual Operating Cost (\$YOE):</b>	Not Available
<b>Opening Year Ridership Forecast (2011):</b>	40,000 Average Weekday Boardings
<b>FY 2009 Local Financial Commitment Rating:</b>	Medium
<b>FY 2009 Project Justification Rating:</b>	Medium
<b>FY 2009 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

In November 2006, LACMTA and the LADOT began studying the feasibility of implementing end-to-end bus lanes on Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica. A variety of lane configurations and conversions, coupled with engineering and operational enhancements, were studied. In May 2007, the Los Angeles City Council chose to implement the conversion of curb lanes into peak-period end-to-end bus-only lanes. This option was chosen to meet the corridor objectives of reducing bus congestion, improving transit usage and passenger travel times, and minimizing the removal of parking. The project was approved into project development in December of 2007.

The project's capital cost and scope have not changed since approval to enter project development. Thus, the LACMTA did not provide new information for the FY 2010 *Annual Report*. The project rating included in this profile is based on conditions as of November 2007.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating.

***Making the Case***

The stated purpose of the Wilshire Boulevard Bus-Only Lane is to improve bus travel times in the corridor during peak travel periods. The project will be implemented in the second-highest utilized transit corridor in Los Angeles and will connect passengers from downtown Los Angeles to Santa Monica. Approximately 45,000 boardings currently take place along Wilshire Boulevard within the 12.5-mile project area. LACMTA’s “case” for the project adequately demonstrates the need for a quick and inexpensive guideway improvement in the corridor to improve deteriorating travel times in a highly congested corridor. The “case” should be better organized and exclude extraneous information.

***Cost Effectiveness Rating: Medium***

The Wilshire Boulevard Bus-Only Lane project qualifies as a Very Small Start. The proposed project will provide a dedicated right-of-way for greater than 50 percent of the length of the corridor and would include low-cost elements such as service branding, operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: Medium**

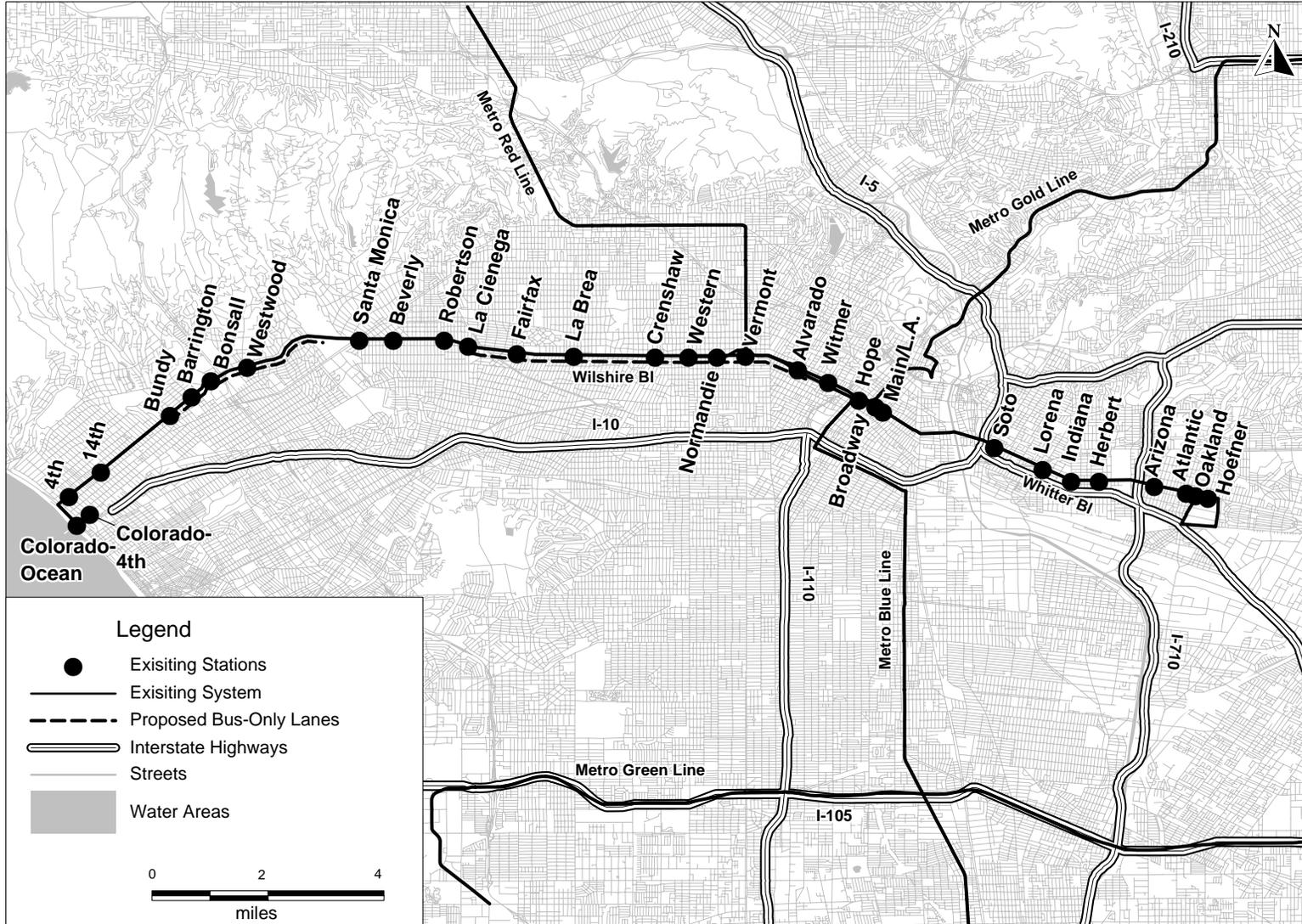
The project is rated *Medium* for local financial commitment, based upon LACMTA’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the proposed project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$23.32	74.0%
<b>Local:</b> City of Los Angeles	\$8.19	26.0%
<b>Total:</b>	<b>\$31.51</b>	100.0%

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Wilshire Boulevard Bus-Only Lane

Los Angeles, California





# Monterey Bay Rapid Transit

## Monterey, California

(November 2008)

Monterey Salinas Transit (MST) is planning the Monterey Bay Rapid Transit, a 6.7-mile Bus Rapid Transit (BRT) line from the Edgewater Transit Exchange in Salinas, through Monterey and the Transit Plaza, to the Canary Row and the Monterey Bay Aquarium. Twenty-one new stations would be constructed and 15 buses from the existing fleet would operate on the alignment. Service would operate at 10 minute peak period frequencies and 15 minute off peak frequencies. When completed, Monterey Bay Rapid Transit would provide a continuous bus rapid transit system connecting the heavily transit-dependent communities of Seaside to the employment and tourist activity centers in Monterey.

MST currently operates very frequent local and express service between the bedroom community of Salinas, to the employment centers and tourist destinations in Monterey. The City of Monterey has significant seasonal increases in population resulting from influx of tourists and migrant farm workers. As a result, existing bus service is frequently delayed by traffic congestion and large numbers of riders boarding and alighting buses during peak hours. The proposed Monterey Bay Rapid Transit will improve transit travel times and bus service frequency for both residents and tourists traveling between Seaside, Monterey, and the Canary Row area.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 6.7 Miles 21 Stations
<b>Total Capital Cost (\$YOE):</b>	\$3.54 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$2.83 Million (80.0%)
<b>Annual Operating Cost (YOE\$):</b>	\$1.66 Million
<b>Opening Year Ridership Forecast (2010):</b>	4,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	Medium
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

In 2006, the City of Monterey began evaluating potential transportation improvements to improve transit mobility and accessibility between Seaside, downtown Monterey, and Fisherman's Wharf, Canary Row and the Monterey Aquarium. This effort cumulated in a series of public workshops held in Spring 2008 to identify the best route and alignment for a BRT system. The locally preferred alternative was selected in September 2008 and approved into the Association of Bay Area Governments Long Range Plan in September 2008. FTA notified Congress of its intent to approve the project into Small Starts project development in November 2008, and expects to take the formal approval action in December 2008.

The project's capital cost estimate is conceptual. The cost estimate will be updated during project development to include contingency, professional services, and inflation, and may increase as further engineering and design is completed.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The Monterey Bay Rapid Transit project will result in a new direct bus rapid transit connection between the Monterey Bay Aquarium, Canary Row, the Fisherman’s Wharf area of Monterey and the residential areas of Seaside and Salinas. Currently, transit riders are required to transfer to make a similar trip, and existing transit service is delayed by traffic congestion and frequent stops. The proposed BRT will offer faster, more reliable service and a one-seat ride between the residential areas of Salinas and Seaside to the employment and tourist destinations of downtown Monterey. The “case” provided very little data about existing transit patterns in the corridor, and how transit riders would benefit from the proposed project.

***Cost Effectiveness Rating: Medium***

The Monterey Bay Rapid Transit qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: Medium**

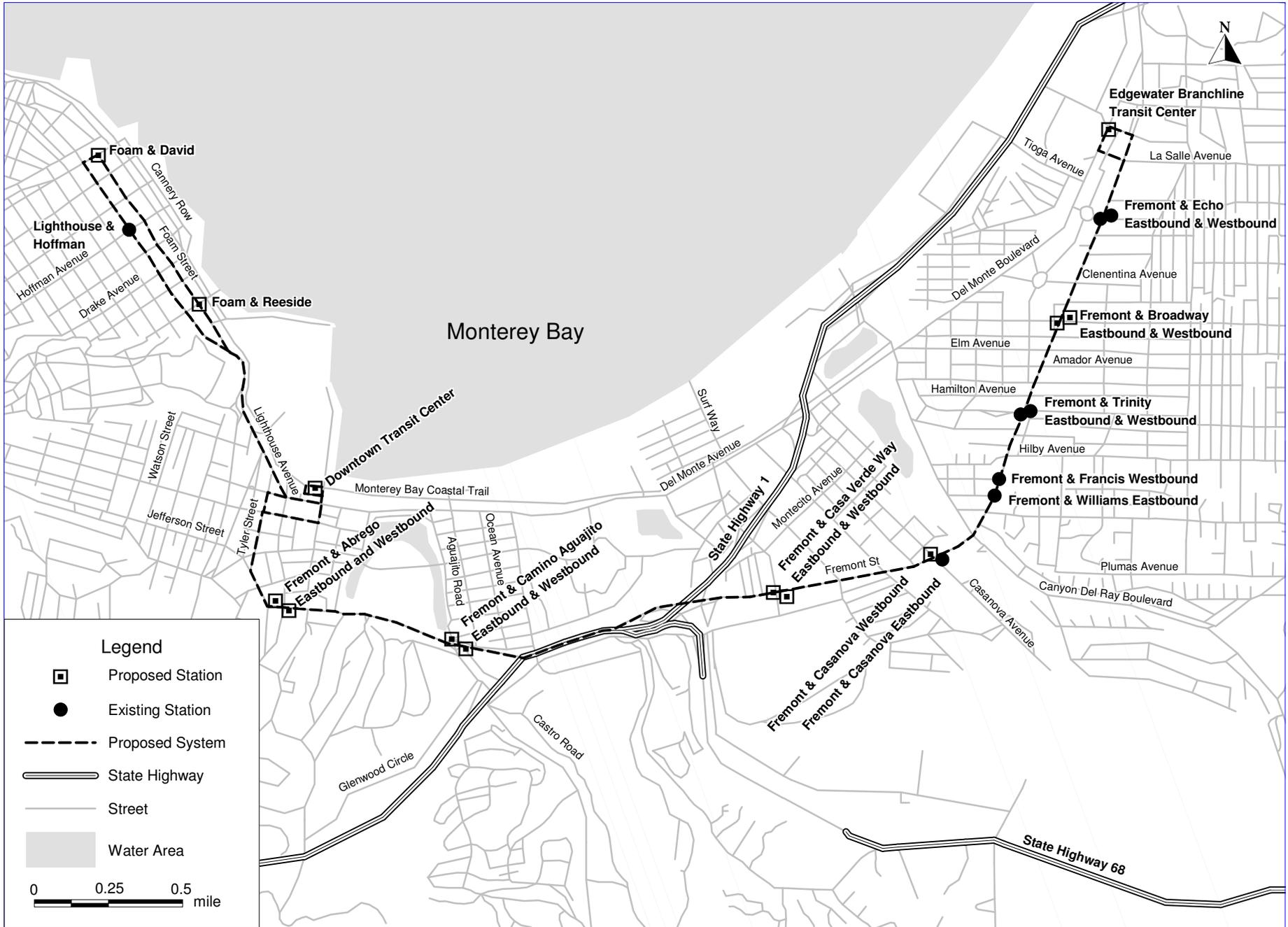
The project is rated *Medium* for local financial commitment, based upon MST’s acceptable financial condition; a reasonable plan for funding for the non-New Starts share of capital costs; and evidence that operations and maintenance costs of the proposed project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 New Starts	\$2.83	80.0%
<b>State:</b> Proposition 1B	\$0.70	20.0%
<b>Total:</b>	<b>\$3.54</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Monterey Bay Rapid Transit

## Monterey, California





# East Bay BRT

## Oakland, California

(November 2008)

The Alameda-Contra Costa Transit District (AC Transit) is planning the East Bay Bus Rapid Transit (BRT) project, a 17-mile BRT line from Downtown Berkeley, through Downtown Oakland, to San Leandro, terminating at the San Leandro Bay Area Rapid Transit (BART) station on the southern end of the alignment. Forty-nine new stations would be constructed along the East Bay BRT and thirty-one buses would be purchased to augment the existing fleet. When completed, the East Bay BRT would provide a continuous 17-mile BRT system connecting the heavily transit-dependent communities of Berkeley, Oakland, and San Leandro.

The East Bay BRT would improve transit service to one of the densest, and most transit dependent, areas in the San Francisco Bay area. The corridor is served by extensive local and express service (Routes 1 and 1R) that operate with very frequent headways, but existing bus services are delayed by traffic congestion and constraints caused by operating in mixed traffic conditions. Additionally, there is a large population of transit dependent people; approximately 46 percent of the corridor residents are below the poverty level and 20 percent do not own a car. The proposed East Bay BRT will improve transit travel times significantly by providing over 14 miles of dedicated right-of-way for rapid bus service to major employment centers in Oakland and Berkeley for residents from Oakland, San Leandro, and other communities along the corridor.

Summary Description	
<b>Proposed Project:</b>	Bus Rapid Transit 16.9 Miles 49 Stations
<b>Total Capital Cost (\$YOE):</b>	\$234.54 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$75.00 Million (32.0%)
<b>Annual Operating Cost (YOE\$):</b>	\$4.90 Million
<b>Opening Year Ridership Forecast (2016):</b>	42,600 Average Weekday Boardings 6,800 Daily New Riders
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>High</b>

### **Project Development History and Current Status**

In 1999, AC Transit began a Major Investment Study to evaluate various alternative transportation solutions to improve mobility in the Broadway, Telegraph, International, and Shattuck Avenue corridors. In August 2001, the AC Transit board adopted BRT as the locally preferred alternative using Broadway and International Avenue alignments. In May 2004, AC Transit began preparation of a Draft Environmental Impact Statement (EIS) to evaluate BRT alternatives along Telegraph Avenue, International Boulevard, and East 14<sup>th</sup> Street through Berkeley, Oakland, and San Leandro. The DEIS was published in May of 2007. FTA notified Congress of its intent to approve the project into Small Starts project development in November 2008, and expects to take the formal approval action in December 2008.

The project’s capital cost estimate appears reliable. The allocated contingency of 54 percent of construction costs should be more than adequate. However, risks associated with utility relocation, the use of allowances for right-of-way acquisition, and escalating labor and material prices will be addressed during project development

**Project Justification Rating: Medium-High**

The project is rated *Medium-High* based on a *High* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The East-Bay BRT project will result in a new direct bus rapid transit connection between Berkeley, Oakland, and San Leandro and improve transit travel times and accessibility for the 21,000 daily riders who currently use bus transit in the corridor. By providing a dedicated right-of-way, reducing the number of stops, and adding traffic signal priority, the project will improve travel time by 14 minutes compared to the baseline alternative and will attract 8,000 new riders. The project corridor has a significant level of low-income, transit dependent people who will benefit from the increased accessibility to employment locations in Oakland and Berkeley provided by the BRT service. Finally, the proposed East-Bay BRT will be the centerpiece of economic development efforts in Oakland and San Leandro.

***Cost Effectiveness Rating: High***

The *High* cost effectiveness rating reflects the level of travel-time benefits (6,800 hours each weekday) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$ 9.74*
Incremental Cost per Incremental Trip	\$ 9.71

\*Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium**

- In 2000, the station area employment was 171,600. The CBD area employment was 65,000. In 2000, the station area population density was 13,900 persons per square mile.
- Existing development is variable in character. Major activity centers have highly urban characteristics including a mix of uses and pedestrian-friendly design. Lower density residential areas exist in the corridor and lack the necessary pedestrian and transit amenities. Daily parking in downtown Oakland is expensive. Parking around the University of California is extremely scarce.

**Transit-Supportive Plans and Policies: Medium-Low**

- The Metropolitan Transportation Commission has adopted a transit-oriented development policy that would be applied to transit expansion projects throughout the Bay Area.
- The FOCUS program provides an opportunity for local governments and regional agencies to work together to create livable, complete communities. The program designates near-term priority development areas as locations where development is encouraged and priority conservation areas as locations which include regionally significant open spaces for which there exists a broad consensus for long-term protection.

- Zoning codes around each of the proposed BRT stations is strongly supportive of transit-oriented development. Permitted residential densities range from 30 units per acre to 300 units per acre although some areas (especially in San Leandro) have zoned densities as low as 20 units per acre.
- High density areas in downtown Oakland have no minimum parking requirements; however all of the other areas along the corridor do have minimum parking requirements.
- Downtown Oakland has a maximum commercial Floor Area Ratio of 20.0.
- The City of Oakland is beginning a citywide review of its zoning along transit corridors in order to make them more transit friendly. However, the zoning codes around the majority of the proposed BRT stations include language that encourages mixed uses, pedestrian-oriented neighborhoods, and high densities.

**Performance and Impacts of Policies: Medium**

- The Fruitvale Transit Village in East Oakland is a four story mixed-use development with housing (including affordable units), office space, community services and a retail plaza.
- Despite its high level of existing development, more than 15,000 households, 40,000 residents, and 35,000 jobs are expected in the corridor by 2025. The growth rate for population and housing units in the corridor is projected to mirror the rate of Alameda County as a whole; however, the estimated employment growth rate is projected to be slower than in the County.
- There are many vacant or underutilized parcels in the corridor available for redevelopment.
- Market support for development in the corridor is strong in Oakland because of the area’s central location, good accessibility, relatively affordable space costs and land prices, relatively affordable housing, accessibility to a well-educated workforce, proximity to a major university, and the availability of space and land for expansion with pre-existing infrastructure.

**Local Financial Commitment Rating: High**

The project is rated *High* for local financial commitment, based upon AC Transit’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget.

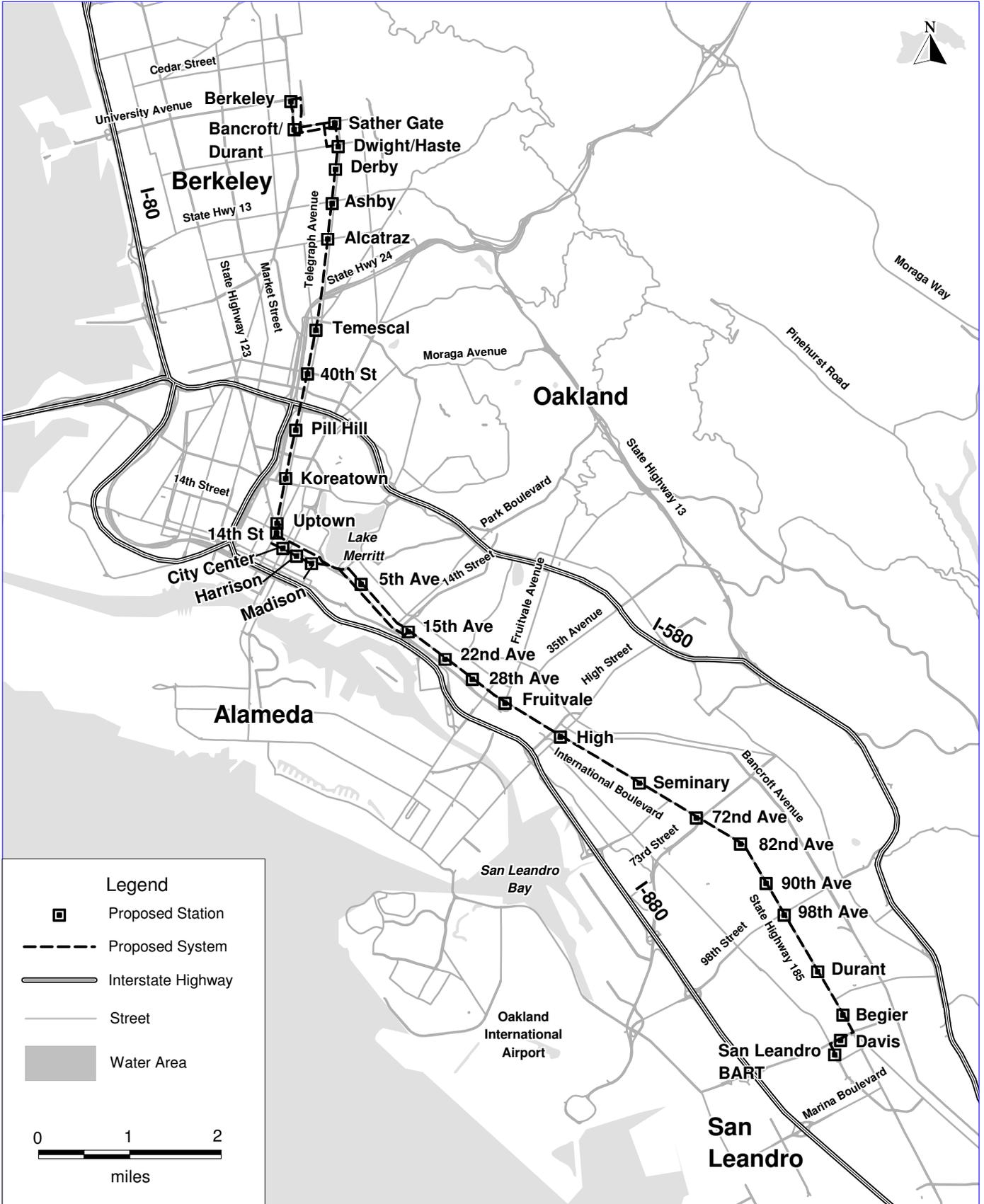
<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$75.00	32.0%
FHWA Flex Funds	\$35.00	14.9%
Section 5309 Bus Discretionary	\$2.10	0.9%
STIP Funds*	\$52.70	22.0%
<b>Local:</b>		
Regional Measure 2	\$48.70	20.8%
Alameda County Measure B	\$21.00	8.9%
AC Transit Capital Funding	\$0.04	0.5%
<b>Total:</b>	<b>\$234.54</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

\*State Transportation Improvement Program (STIP) funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

# East Bay BRT

## Oakland, California



# Perris Valley Line

## Riverside, California

(November 2007)

The Riverside County Transportation Commission (RCTC), in conjunction with the Southern California Regional Rail Authority, is proposing to construct a 24.35-mile extension to the Metrolink regional commuter rail system. The project is an extension of the existing Route 91 commuter rail line between Los Angeles and downtown Riverside southeast in an alignment parallel to the Ramona Expressway (I-215), serving the communities of Alessandro, Moreno Valley, and Perris, terminating at South Perris. The project includes five new stations and park-and-ride lots to accommodate 1,810 vehicles, as well as the acquisition of three bi-level coaches. The proposed project would operate with 30-minute headways during the morning and evening peak periods, as well as a single mid-day train, in the anticipated opening year of 2011.

### Summary Description

<b>Proposed Project:</b>	Commuter Rail 24.35 Miles 5 Stations
<b>Total Capital Cost (\$YOE):</b>	\$168.88 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$75.00 Million (44.6%)
<b>Annual Operating Cost (\$YOE):</b>	\$6.47 Million
<b>Opening Year Ridership Forecast (2011):</b>	3,400 Average Weekday Boardings 800 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium-High</b>

RCTC has made several changes to the project as a result of public comments and agency coordination during the environmental review process. The project alignment has shifted in the northern portion of the alignment and one station has been removed from the project. RCTC also made substantial changes to the project's feeder bus network that resulted in major revisions to the travel forecasts. Because of the timing of these changes, FTA could not determine the benefits of the project by November 2008, thus, the rating reflected herein reflects the project operating plan and transit network in place when the project was approved into project development in November 2007.

### Project Development History and Current Status

In 2002, RCTC initiated an alternatives analysis/Environmental Assessment to evaluate transportation strategies to alleviate congested conditions in a 38 mile corridor along Interstate 215, the major commuter route from Riverside County to San Bernardino and Orange Counties. In June 2003, the RCTC board adopted a 22-mile commuter rail extension as the locally preferred alternative (LPA). The LPA was adopted into the Southern California Association of Governments (SCAG) long-range plan in July 2004. Working with FTA, RCTC updated the SCAG regional travel model to produce reliable forecasts; this work was completed in early 2007. FTA approved the Perris Valley Line into Small Starts project development in December 2007.

The project's current cost estimate reflects a number of uncertainties including undefined scope items, low inflation factors, and an aggressive schedule, but has a high contingency. While there are these

uncertainties, the team assembled to implement the project has significant experience in the design and construction of the regional Metrolink commuter rail system.

**Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium* rating for cost effectiveness and a *Medium-Low* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2009.

**Making the Case**

The Perris Valley Line Commuter Rail project would extend commuter rail service into rapidly growing residential areas southeast of Riverside, California. The “case” for the project rests on the substantially improved accessibility from Perris Valley to existing Metrolink commuter rail connections in Riverside and the relatively modest cost of the project. Accessibility to Riverside will continue to degrade because of increasing demand on the limited number of roadway connections – making both park/ride and feeder bus access less attractive for the growing commuter markets between reasonably priced housing in Perris Valley and employment centers in Los Angeles and Orange counties. Travel time on the 27-mile rail extension would be 40 minutes compared to a projected 67 minutes by car. RCTC’s “case” for the project adequately describes the affected travel markets, the service impacts of the project, and the resulting benefits; however, the documented “case” would benefit from an improved analysis of the uncertainties inherent in forecasts for a future that is substantially different from today in demographics, traffic congestion, and Metrolink service levels.

**Cost Effectiveness Rating: Medium**

The *Medium* rating is based on the level of travel-time benefits (2,600 average weekday hours) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<u><b>New Start vs. Baseline</b></u>
Cost per Hour of Transportation System User Benefit	\$23.90
Incremental Cost per Incremental Trip	\$40.11

**Transit-Supportive Land Use Rating: Medium-Low**

The *Medium-Low* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Low**

- Total employment served in the Perris Valley Line station areas is 10,600. Average population density in station areas is 2,900 persons per square mile.
- The existing Metrolink terminus station in downtown Riverside serves a moderately-sized central business district containing 6,200 jobs and a number of institutional uses. The proposed stations are located in areas that are low-density residential, small scale neighborhood commercial, light industrial and manufacturing, and at the fringe of the University of California Riverside (UCR) campus. Three station areas are largely undeveloped.

**Transit-Supportive Plans and Policies: Medium-Low**

- One existing and one proposed station area are in traditional downtowns, each of which has a downtown specific plan that is supportive of transit, including creation of a pedestrian “promenade” in downtown Perris. In the UCR station area, dense student residential development is planned with restrictions on auto access to the campus.
- Zoning in most areas outside of downtown Riverside is low to medium density. Future land uses in the three largely undeveloped station areas are planned to include commercial and industrial parks and park-and-ride lots.

- The State of California provides funding for transit-oriented development via a competitive grant application process. Visioning efforts have been conducted at the metropolitan (six-county) and county levels, involving multiple stakeholders.
- Some existing state, regional, and local economic and community development programs are available for general use in promoting development, such as tax increment financing, Enterprise Zones, and Assessment Districts; a few examples of their application were noted in downtown Riverside.

#### **Performance and Impacts of Policies: Medium-Low**

- Recent examples of transit-supportive development are found along the University Avenue Corridor in Riverside. Two projects to rehabilitate historic buildings have also been completed in the downtown area.
- Some new developments are proposed or underway, including several on or near the UCR campus, commercial and residential development in downtown Riverside, and commercial development near Spruce Station. However, no evidence was provided suggesting that recent or proposed developments in any of the proposed new station areas are transit-supportive.
- Most station areas include a significant amount of undeveloped land, and high regional and county growth rates support a market for future development (county population is forecast to grow 70 percent between 2000 and 2030).

### **Local Financial Commitment Rating: High**

The project is rated *High* for local financial commitment, based upon the RCTC's acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; evidence that the operations and maintenance cost of the project is less than five percent of the agency's operating budget; and a Small Starts share of less than 50 percent.

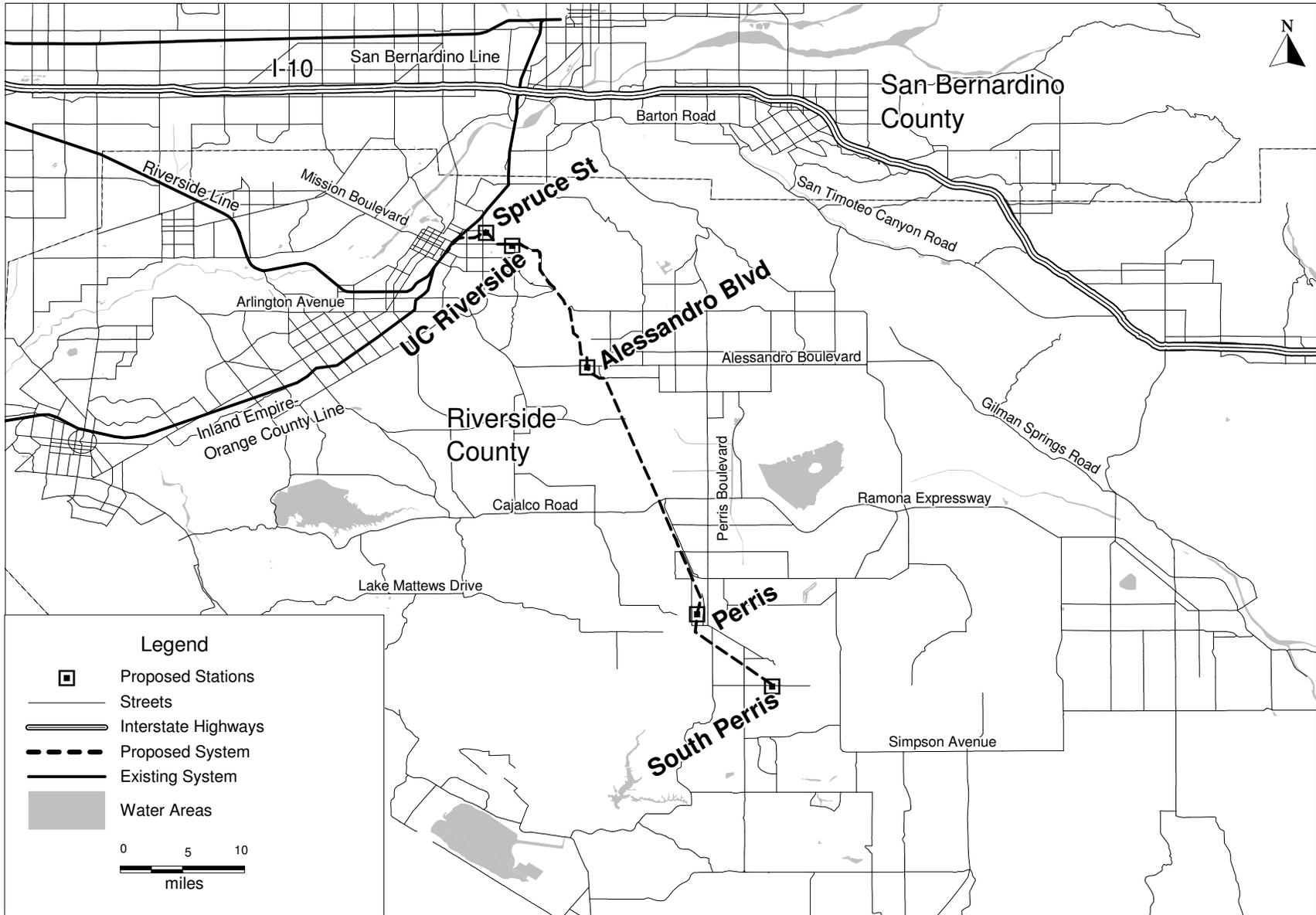
<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$75.00	44.6%
Section 5307	\$18.61	7.1%
Section 5309 Fixed Guideway Modernization	\$3.50	5.9%
FHWA Flexible Funds	\$3.40	2.0%
STIP funds*	\$30.00	17.8%
<b>Local:</b>		
Measure A – Rail Capital Program	\$23.09	11.6%
Property Tax Sale Proceeds	\$15.28	6.5%
<b>Total:</b>	<b>\$168.88</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

\*STIP funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

# Perris Valley Line

## Riverside, California



# E Street Corridor sbX BRT

## San Bernardino, California

(November 2007)

Omnitrans, the transit provider in San Bernardino County and the City of San Bernardino are proposing to construct a 16.5-mile bus rapid transit (BRT) project along E Street in San Bernardino. The proposed BRT project would provide a dedicated bus travel lane through the majority of the corridor from north of California State University at San Bernardino (CSUSB), generally following Kendall Drive south to E Street, through downtown San Bernardino, the City of Loma Linda, and through the Loma Linda University Medical Center to the VA Hospital, where the project would terminate. The project includes 17 new stations, improvements to E Street to accommodate exclusive BRT operations, and 14 new low-floor buses. Service would operate at 10-minute headways during weekday peak periods and 15 minute off-peak headways. The proposed E Street corridor project is the centerpiece for redevelopment plans for downtown San Bernardino and expansion plans for the Loma Linda University and Medical Center.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Bus Rapid Transit 16.5 Miles 17 Stations
<b>Total Capital Cost (\$YOE):</b>	\$163.39 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$75.00 Million (45.9%)
<b>Annual Operating Cost (\$YOE):</b>	\$5.60 Million
<b>Opening Year Ridership Forecast (2011):</b>	8,700 Average Weekday Boardings 800 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium</b>

The project has not been rated since it was approved into project development in December 2007. However, the local financial commitment rating was incorrectly reported last year. Although the project has not been re-rated, the local financial commitment rating has been changed to accurately reflect FTA's rating process.

The capital cost estimate may increase to cover scope uncertainties and omissions as well as inadequate project contingency. The project team needs to be strengthened and augmented to properly advance through project development and implementation.

### Project Development History and Current Status

The City of San Bernardino began an alternatives analysis in early 2004 to evaluate transportation options in a corridor served by Omnitrans Route 2, the highest performing bus route in the Omnitrans system. Omnitrans considered a variety of transit alternatives to serve the corridor from the CSUSB campus, through downtown San Bernardino, and south to Loma Linda. In December 2005, local stakeholders selected an exclusive guideway BRT as the locally preferred alternative (LPA). During 2005 and 2006, Omnitrans worked with local stakeholders to identify funding sources and station locations. FTA approved the project into project development in December 2007. Omnitrans has begun the environmental review process and is considering a revised southern terminus as a result of public input.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium-High* rating for cost effectiveness and a *Medium-Low* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2009.

***Making the Case***

The E Street Corridor sbX BRT project is a 16-mile fixed-guideway connecting the cities of San Bernardino and Loma Linda, California. The “case” for the project cites the following problems in the corridor: traffic congestion, degraded transit service, inadequate parking, and a need for economic revitalization. The project is in a corridor with relatively high transit ridership (24,000 existing daily riders) and high levels of projected growth. The project is intended to reduce end-to-end travel times by about 10 minutes as compared to the baseline alternative. The “case” for the project describes various key travel markets and the estimated travel time savings that are forecast for each market, presenting a compelling case for how the project meets corridor mobility needs.

***Cost Effectiveness Rating: Medium-High***

The *Medium-High* rating is based on the level of travel-time benefits (1,400 average weekday hours) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$ 13.35
Incremental Cost per Incremental Trip	\$ 18.93

***Transit-Supportive Land Use Rating: Medium-Low***

The *Medium-Low* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium-Low**

- Total employment served by all stations along the BRT project is 37,000, including the small downtowns of San Bernardino and Loma Linda which contain approximately 8,500 and 2,300 jobs respectively. The average population density for all station areas is 4,400 persons per square mile. Parking is generally available for free or at low cost.
- The proposed project corridor traverses the most intensively developed portions of the Cities of San Bernardino and Loma Linda and the San Bernardino Valley. Land uses and densities are varied along the corridor, and include two major university and medical campuses, low to medium density residential development, the historic downtown core of San Bernardino, and office complexes surrounded by surface parking. Most of the corridor is pedestrian-accessible, with sidewalks, signalized crossings, and amenities such as street trees and landscaping.

**Transit-Supportive Plans and Policies: Medium-Low**

- During the E Street Corridor planning process, Omnitrans worked closely with the cities and corridor stakeholders to locate the stations at major existing activity centers or in areas with potential for transit-supportive uses. In addition, the LPA report includes transit-supportive land use guidelines as well as conceptual plans for six station areas.
- San Bernardino adopted a new general plan in 2005 which includes transit-supportive principles, including mixed-use development and incentives for pedestrian amenities and shared parking. In general, the highest densities of development are targeted towards the sbX corridor. Loma Linda has drafted a general plan with transit-supportive principles.
- Some commercial zoning categories allow mixing of uses. Both cities in the corridor are developing revised zoning regulations consistent with their general plan updates.

- The City of San Bernardino has incentives in its General Plan, such as density bonuses, to promote transit supportive uses and design. Nearly all of the proposed stations are in areas in which tax increment financing and other development incentives can be utilized. However, no examples were provided of the application of these incentives to leverage transit-supportive development.

### **Performance and Impacts of Policies: Medium-Low**

- While several recent examples of transit-supportive development have occurred in the Southern California region, none were noted within the E Street Corridor. A major mixed-use redevelopment project is planned for the site of an aging mall in downtown San Bernardino and a proposed intermodal transit center will include joint development opportunities.
- A large portion of the proposed station areas (4,000 acres) lies within designated redevelopment areas. Commercial or institutional buildout of these areas could result in close to 30 million square feet and over 45,000 housing units of new development. Portions of Riverside and San Bernardino Counties are expected to add more than one million residents in the next 20 years, seeing the greatest percentage of growth in population for period 2000 to 2025 in the Southern California region. However, to date, there is little evidence that local growth is transit-supportive.

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

The project's operating cost would be greater than five percent of Omnitrans' operating budget, and was therefore subject to an assessment of its local financial commitment. The *Medium* local financial commitment rating is based on the *Medium-High* ratings for the New Starts share of project costs and the capital finance plan and the *Medium* rating for the operating finance plan.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$75.00	45.9%
FHWA Flexible Funds (CMAQ)	\$16.15	9.9%
Section 5307 Bus Discretionary	\$7.35	4.5%
STIP Funds*	\$5.00	3.1%
VA Hospital Land Donation	\$3.00	1.8%
<b>State:</b>		
Proposition 1B Funds	\$8.00	4.9%
Transit Assistance Fund	\$7.94	4.9%
<b>Local:</b>		
San Bernardino County Measure 1	\$5.56	3.4%
City of San Bernardino, Loma Linda University, California State University	\$12.90	7.9%
Local Transportation Fund	\$13.50	8.3%
<b>Private Sector:</b>		
Developer Contributions	\$4.00	2.4%
Street Improvements	\$5.00	3.1%
<b>Total:</b>	<b>\$163.39</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

\*STIP funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

**Section 5309 New Starts Share of Total Project Costs: 45.9%****Rating: Medium-High**

Omnitrans is requesting a 45.9 percent New Starts share of total project cost, which results in a *Medium-High* rating for this measure.

**Capital Finance Plan Rating: Medium**

The capital finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

**Agency Capital Condition: Medium**

- The average age of Omnitrans' bus fleet is seven years, which is in line with the industry average.
- Omnitrans has never issued bonds.

**Commitment of Capital Funds: Medium**

- The majority of capital funding sources is planned. Sources of funds include: Federal Section 5307, 5309 Bus, and CMAQ funds; state transportation improvement program funding, traffic congestion relief funding, state transit assistance, and proposition 1B; and local transportation funds, Measure I sales tax revenues, and in-kind contributions.

**Capital Cost Estimate, Planning Assumptions and Financial Capacity: Medium**

- Assumptions in the capital plan are in line with historical trends. Measure I sales tax revenue assumptions are more conservative than recent historical experience.
- The project's current cost estimate may increase to cover scope uncertainties and omissions as well as an inadequate project contingency.

**Operating Finance Plan Rating: Medium-High**

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: High**

- Omnitrans' current ratio of assets to liabilities as reported in its most recent audited financial statement is 3.69.
- Omnitrans is in good operating condition, with positive cash balances in 2005 and 2006.

**Commitment of Operating Funds: High**

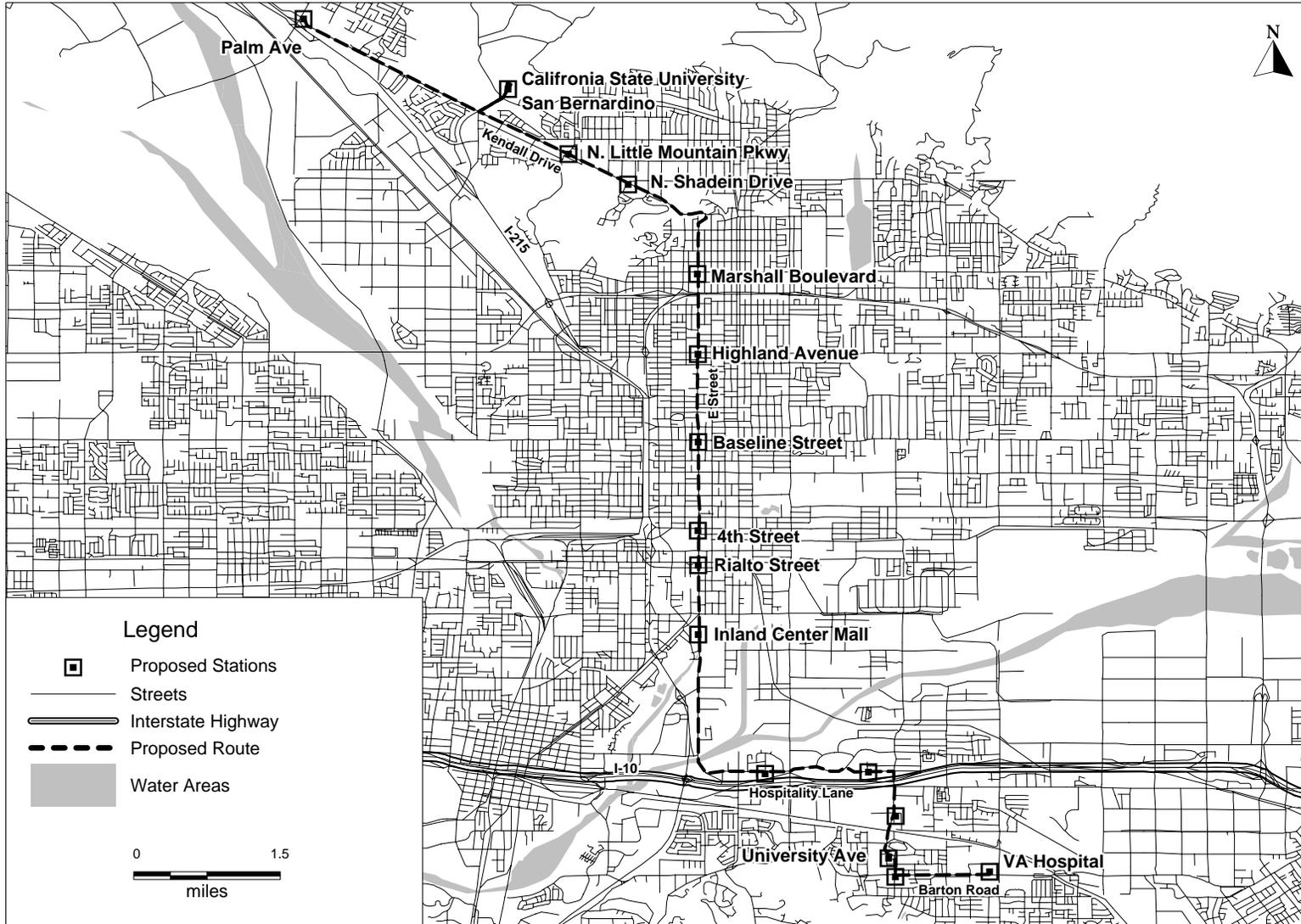
- All operating funds are committed. Sources of funds include local transportation funds, Measure I sales tax revenues, fare revenues, and advertising and investment income.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium**

- Operating cost assumptions are consistent with historical trends. Fare revenue assumptions are optimistic compared to historical experience. Other operating revenue assumptions including state and local subsidies are in line with historical trends.

# E Street Corridor sbX BRT

San Bernardino, California





**Mid-City Rapid**  
**San Diego, California**  
 (November 2007)

The San Diego Association of Governments (SANDAG), in conjunction with the San Diego Metropolitan Transit System (MTS), is proposing the development and implementation of a nearly 10-mile bus rapid transit (BRT) line connecting downtown San Diego and San Diego State University (SDSU). The BRT alignment would run primarily along three of the region’s densest urban travel corridors: Broadway in downtown; Park Boulevard through North Park and Hillcrest; and El Cajon Boulevard, running east-west through several of San Diego’s older and densely populated “Mid-City” neighborhoods. The project includes 11 enhanced bus shelters in each travel direction with real-time passenger information systems; traffic signal priority throughout the corridor; and 15 low-floor advanced technology buses, which will provide a unique identity differing it from local bus service in the corridor. Mid-City Rapid service is proposed to operate at ten-minute peak period frequencies.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Bus Rapid Transit 9.9 Miles 11 Stations
<b>Total Capital Cost (\$YOE):</b>	\$43.30 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$21.65 Million (50.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$6.80 Million
<b>Opening Year Ridership Forecast (2010):</b>	15,000 Average Weekday Boardings
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium-High</b>

**Project Development History and Current Status**

A major capital transit investment has been anticipated in the Mid-City corridor since 2002, when it was first selected as a potential BRT “showcase” project for further study. In 2003, SANDAG adopted a Transit First strategy for the San Diego region which included, among other things, the identification of several BRT corridors, including the proposed Mid-City corridor. In 2005, SANDAG undertook the preparation of the Mid-City Transit Network Plan to define a series of short- and long-term strategies for improving transit throughout the area. The study concluded with the identification of arterial BRT along El Cajon Boulevard as an immediate investment strategy. FTA approved the Mid-City Rapid project into project development in December 2007. Project construction is anticipated to commence in 2009, with revenue operations assumed by July 2010. The project rating included in this profile is based on conditions as of November 2007.

**Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2009.

***Making the Case***

The Mid-City Rapid project is an arterial BRT project that connects SDSU to downtown San Diego. The “case” for the project states that the project’s goals are to reduce travel times, improve transit frequency and reliability, and attract new riders. The “case” cites numerous existing ridership figures ranging from 4,500 daily riders on the existing Route 15 that closely matches the proposed service to 24,000 daily riders that travel some part of the corridor, but does not clearly articulate how many of these riders will benefit from the project in a significant way. However, as travel times are expected to decline by 25 percent, and frequencies will significantly improve, this project is likely to benefit a relatively large number of passengers at relatively low cost.

***Cost Effectiveness Rating: Medium***

The Mid-City Rapid project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: High**

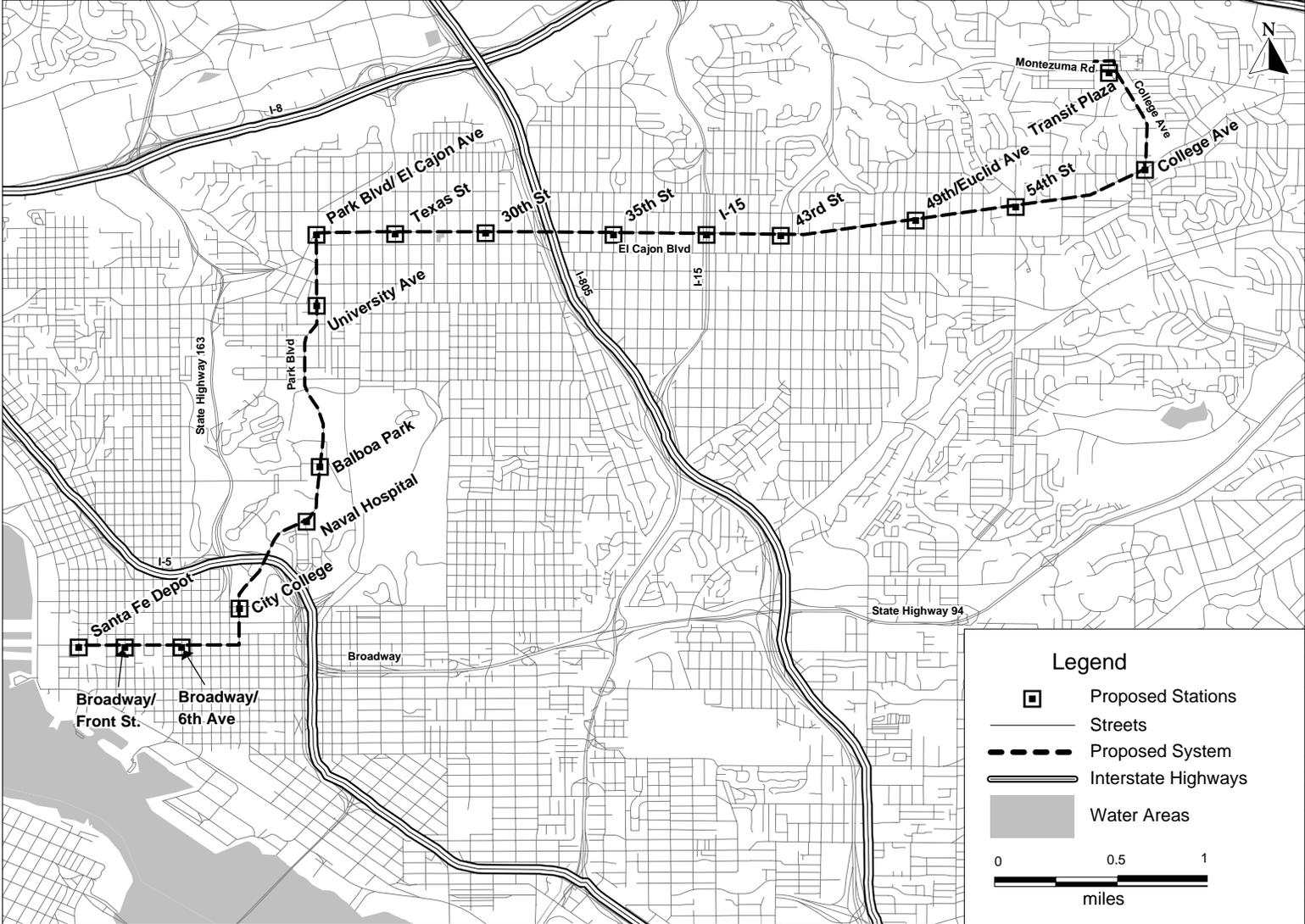
The project is rated *High* for local financial commitment, based upon MTS’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget; and a 50 percent or less share of Small Starts funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$21.65	50.0%
<b>Local:</b> TransNet Sales Tax Revenues	\$21.65	50.0%
<b>Total:</b>	<b>\$43.30</b>	100.0%

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Mid-City Rapid

San Diego, California





# Van Ness Avenue BRT

## San Francisco, California

(November 2008)

The San Francisco County Transportation Authority (SFCTA), is proposing to implement a 2-mile exclusive guideway bus rapid transit (BRT) facility on Van Ness Avenue. The system would be operated by the San Francisco Municipal Transportation Agency (SFMTA). The dedicated transit lane originates at the intersection of Van Ness Avenue and Mission Street and extends north to Union Street near Fort Mason and the Fisherman's Wharf area. In addition to guideway construction, the Van Ness Avenue BRT project includes traffic signal pre-emption, pedestrian crossings, and 11 stations. The project's operating plan requires 35 new vehicles, all of which are being procured outside of the scope of the proposed Small Start. Service would operate at five-minute headways during weekday peak periods in 2011, the opening year of the project.

<b>Summary Description</b>	
<b>Proposed Project:</b>	Bus Rapid Transit 2 Miles 11 Stations
<b>Total Capital Cost (\$YOE):</b>	\$118.24 Million (Includes \$9 million in finance charges)
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$75.00 Million (63.4%)
<b>Annual Operating Cost (\$YOE):</b>	\$27.00 Million
<b>Opening Year Ridership Forecast (2011):</b>	70,500 Average Weekday Boardings 1,600 Daily New Riders
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

### Project Development History and Current Status

In 2005, the SFCTA, in conjunction with the SFMTA, began an alternatives analysis to evaluate transportation capacity strategies along Van Ness Avenue, which is one of the most significant north-south arterials in San Francisco. The study evaluated options for improving SFMTA routes 40 and 49, Golden Gate Transit express service, and other transit in the corridor. In early 2007, the SFCTA selected BRT with a dedicated right-of-way, reduced station spacing, signal pre-emption, and low-floor buses as the locally preferred alternative. FTA approved the project into project development in December 2007. In July 2008, the San Francisco Metropolitan Planning Commission adopted a new long range plan that identified the Van Ness BRT as a Small Starts priority project for the region. SFMTA plans to complete a Draft Environmental Impact Statement in November 2009.

The project's capital cost estimate has increased from \$87 million to \$118 million since approval into project development. This reflects the addition of 46 buses, escalation from last year, and the addition of finance costs. The capital cost will be refined during the subsequent environmental review and project development activities. SFCTA will manage the project through completion of the environmental review process and preliminary engineering, while SFMTA will manage final design, construction, and operation of the proposed BRT service.

**Project Justification Rating: High**

The project is rated *High* for project justification based on a *High* rating for cost effectiveness and a *High* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

**Making the Case**

The Van Ness Avenue BRT project is a proposed Small Start in the northern section of the City of San Francisco. The purpose of the project is to improve the speed and reliability of transit service in this heavily traveled corridor. The “case” for the project clearly demonstrates that existing bus service in the corridor while extensive (3.5-minute peak headways with 10-12 minute off-peak frequencies, carrying approximately 20,000 passengers per day), is slow and unreliable due to significant congestion. The corridor is exceptionally transit-oriented with high densities (93 dwelling units per acre and 45,000 jobs) and has a significant transit dependent population (almost 50 percent zero-car households). The proposed improvement is anticipated to reduce travel times by 30 percent within the corridor while reducing bus cycle times, thus allowing even higher frequencies and improved reliability. SFCTA makes a compelling “case” that a modest investment in guideway transit in the corridor can generate tremendous benefits for a large number of passengers; however, it could be improved by more clearly describing the major travel markets in the corridor and the travel patterns in this part of the city.

**Cost Effectiveness Rating: High**

The *High* rating is based on the level of travel-time benefits (3,700 average weekday hours) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<u><b>New Start vs. Baseline</b></u>
Cost per Hour of Transportation System User Benefit	\$ 10.90*
Incremental Cost per Incremental Trip	\$ 24.80

\* Indicates that measure is a component of Cost Effectiveness rating.

**Transit-Supportive Land Use Rating: High**

The *High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: High**

- Population density is approximately 110,000 people per square mile in the corridor, and total employment in project station areas is approximately 92,000.
- The San Francisco CBD is the densest and most transit accessible downtown on the west coast. The Civic Center area is a major destination area in the city with dense pedestrian and transit-oriented development.

**Transit-Supportive Plans and Policies: Medium-High**

- While the city and entire Bay Area have a number of physical constraints to growth such as topographical limitations, it does not have a unified or enforceable growth management policy.
- San Francisco’s General Plan has long encouraged higher-density and transit-oriented development. The city is undertaking additional planning initiatives to focus higher-intensity growth in transit corridors. The city is considering zoning changes that would require residential community-oriented retail development near transit nodes.
- The city’s zoning regulations are intended to maintain a medium to high-density profile and scale, with a mixture of land uses in many areas. The city’s plan generally supports transit-supportive densities. There are no minimum parking requirements or off-street parking provisions in the CBD and other major employment areas.

- San Francisco’s existing land use pattern includes the densest development along its major transportation corridors. The objective of the City Planning Department and directing codes and ordinances is to reinforce this pattern of development along corridors that have high transit capacity.

**Performance and Impacts of Policies: High**

- The existing high-density development and pedestrian accessibility in the City of San Francisco demonstrates the strength of city policies and market forces at achieving transit-oriented intensities and urban design. The number of jobs in the San Francisco CBD has doubled since the 1970s, with no increase in the volume of traffic entering the area.
- The corridor is very dense and is largely developed, with little room for additional development.

**Local Financial Commitment Rating: Medium**

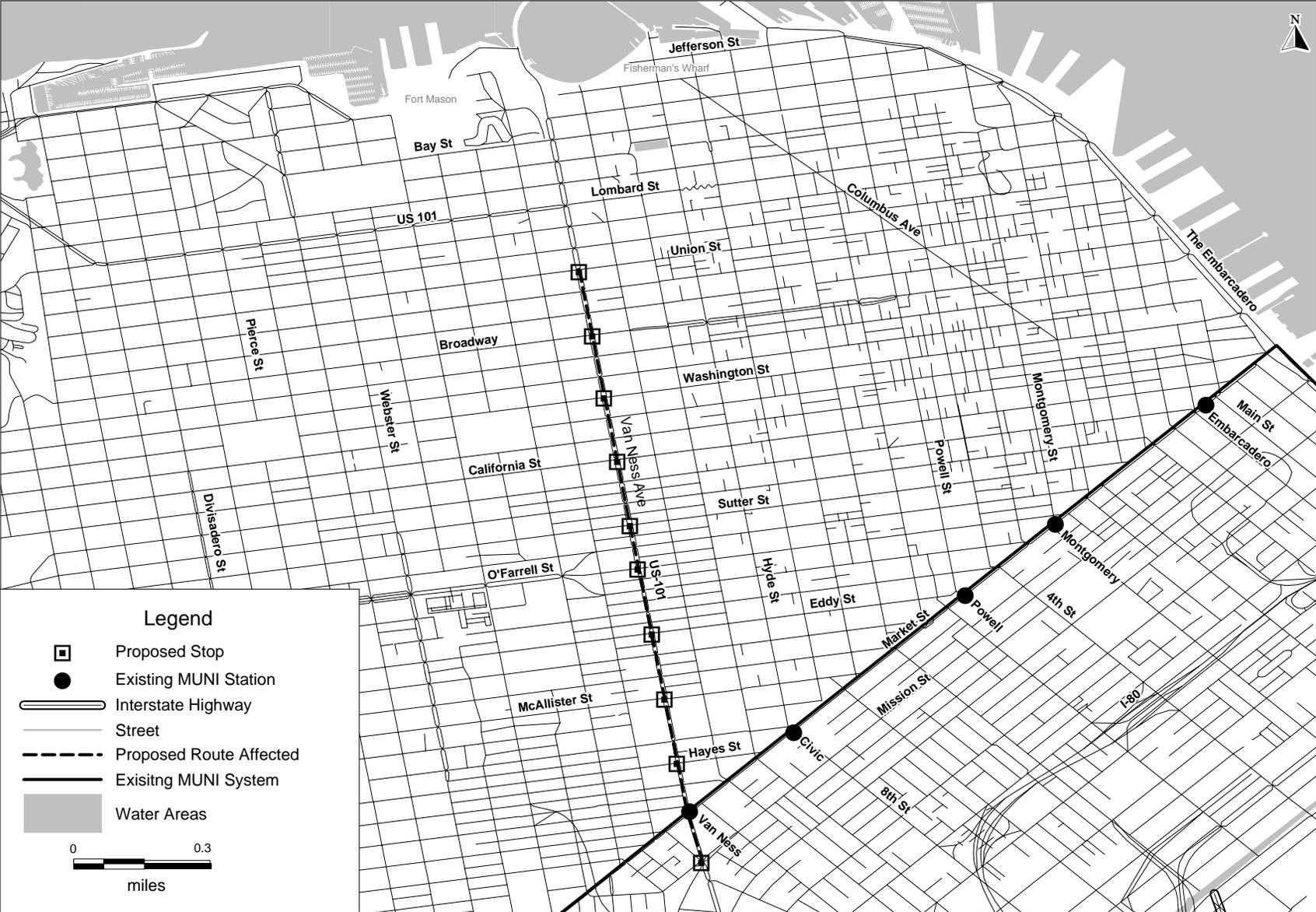
The project is rated *Medium* for local financial commitment, based upon SFMTA’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$75.00	63.4%
<b>Local:</b> Proposition K Sales Tax	\$43.25	36.7%
<b>Total:</b>	<b>\$118.24</b>	100.0%

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Van Ness Avenue BRT

San Francisco, California



# Metro Express - Airport Way Corridor BRT Project

## San Joaquin, California

(November 2008)

The San Joaquin Regional Transit District (RTD) is planning the Metro Express-Airport Way Bus Rapid Transit (BRT), a 7.2 -mile BRT line from the Transit Center in Downtown Stockton to the Stockton Metropolitan Airport. Fourteen new stations would be constructed and five buses would be purchased to augment the existing fleet. When completed, the Airport-Way BRT would provide a continuous 7.2-mile BRT system connecting the heavily transit-dependent communities of downtown Stockton and major employment centers around the Metropolitan Airport.

Currently, transit service from the predominantly low-income area in South Stockton has slow travel times because it operates in mixed traffic conditions and makes frequent stops between the San Joaquin Airport and downtown Stockton. The proposed Airport-Way BRT project will improve transit travel times for the low-income, transit dependent populations in the corridor accessing employment locations in downtown Stockton, mid-Stockton, and the North Stockton areas. The Airport-Way BRT will connect to the existing North South BRT line and provide rapid bus service through the center of Stockton's primary population and employment centers.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 7.2 Miles 14 Stations
<b>Total Capital Cost (\$YOE):</b>	\$9.74 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$2.81 Million (28.8%)
<b>Opening Year Ridership Forecast (2014):</b>	4,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	High
<b>FY 2010 Project Justification Rating:</b>	Medium
<b>FY 2010 Overall Project Rating:</b>	Medium-High

### Project Development History and Current Status

In September 2006, the San Joaquin RTD completed the San Joaquin BRT action plan, which evaluated the potential for BRT implementation in various corridors centered on Stockton, California. The study evaluated BRT alternative configurations and alignments, and identified the priority corridor for BRT implementation. The Airport Way corridor was determined to be the most productive BRT corridor in the region, and was selected as the locally preferred alternative on May 7, 2007. FTA notified Congress of its intent to approve the project into Small Starts project development in November 2008, and expects to take the formal approval action in December 2008.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The project will result in a new direct connection between downtown Stockton, the Stockton Transit Center, the rapidly growing area south of Stockton, and the airport. The project will be an extension of the successful Pacific Avenue North-South Corridor BRT corridor, and will reduce transit travel time from the Stockton Airport to San Joaquin Delta Community College from one hour to 30 minutes. The corridor has a high proportion of low income, transit dependent residents. The "case" does not describe the current transit markets in the corridor, or describe how transit riders would benefit from the proposed project compared to the no-build alternative.

***Cost Effectiveness Rating: Medium***

The Metro Express Airport Way Corridor BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: High**

The project is rated *Medium* for local financial commitment, based upon San Joaquin RTD’s acceptable financial condition; a reasonable plan for funding for the non-New Starts share of capital costs; evidence that operations and maintenance costs of the proposed project is less than five percent of the agency’s operating budget; and a Small Starts share of less than 50 percent.

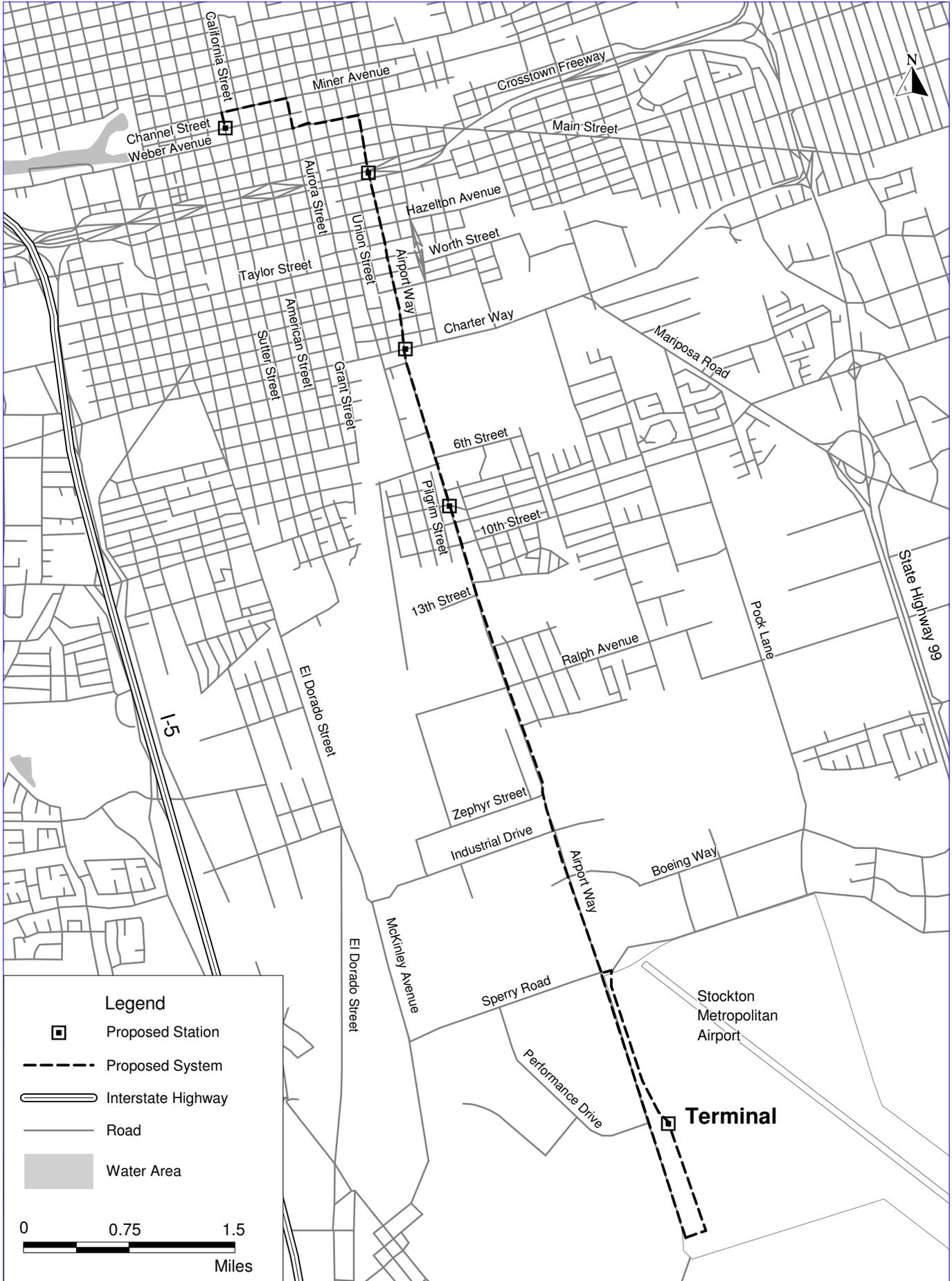
<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 New Starts	\$2.81	28.8%
FHWA Flexible Funds	\$4.99	51.3%
STIP Funds*	\$0.12	1.3%
<b>State:</b>		
Proposition 1B	\$1.0	10.2%
<b>Local:</b>		
City of Stockton	\$0.82	8.4%
<b>Total:</b>	<b>\$9.74</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

\*State Transportation Improvement Program (STIP) funds are state-administered Federal flexible funds augmented by state gas tax and other revenues. These funds are passed from the state to local transportation agencies as STIP funds, but all Federal requirements apply.

# Metro Express - Airport Way Corridor BRT Project

## San Joaquin, California





# Mason Corridor BRT

## Fort Collins, Colorado

(November 2008)

The City of Fort Collins, Colorado, is proposing a 5.0-mile bus rapid transit (BRT) system within its Mason Transportation Corridor (MTC) which extends from Maple Street in downtown Fort Collins to Harmony Road. The “Mason Express” or “MAX” right-of-way (ROW) is parallel to, and a few hundred feet west of, College Avenue (US 287), the city’s primary north-south arterial, and adjacent to Burlington Northern Santa Fe (BNSF) railway tracks, which currently accommodate six to eight freight trains per day.

MAX BRT would operate at-grade in mixed traffic from the existing North Transit Center 1.2 miles to the northern edge of Colorado State University (CSU) and continue in a 3.8-mile exclusive ROW to the proposed South Transit Center. Service would operate at ten-minute peak frequencies. The project includes construction of the South Transit Center, traffic signal priority in general purpose lanes, a bus guideway facility, eight transit stations, four enhanced bus stops, modifications to the existing Downtown Transit Center, 250 park-and-ride spaces, unique MAX project branding, and five new low-floor vehicles.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 5.0 Miles 8 Stations, 4 stops, 1 Transit Center and Station, modifications to Downtown Transit Center
<b>Total Capital Cost (\$YOE):</b>	\$81.97 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$65.58 Million (80.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$1.62 Million
<b>Opening Year Ridership Forecast (2010):</b>	3,900 Average Weekday Boardings 400 Daily New Riders
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

The BRT project is the result of a citizens’ initiative begun in 1996 that produced the Mason Street Transportation Corridor Master Plan in January 1999. BRT was selected as the locally preferred alternative in October 2000. The MTC BRT project was approved into preliminary engineering in 2001, but dropped out in 2005 when a series of local ballot initiatives failed. With the infusion of capital from the Colorado Department of Transportation in 2007, the City of Fort Collins sought to advance the project as a Small Start. FTA approved the project into project development in December 2007. An Environmental Assessment for the project was initiated in August 2002, which resulted in a Finding of No Significant Impact (FONSI) issued in 2008. MAX service is scheduled to begin in 2010.

**Significant Changes Since FY 2009 Evaluation (November 2007)**

The capital cost estimate increased from \$72.56 million to \$81.96 million primarily due to the planned purchase of railroad property rather than leasing of the property as was assumed last year.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The Mason Corridor project would introduce a BRT facility on a largely separate ROW extending five miles south from downtown Fort Collins. The “case” for the project rests on the improved transit travel times in the corridor – five minutes or better end-to-end running times compared to local buses that currently operate in mixed traffic on a parallel arterial, and probably more as traffic congestion increases. More information is discussed regarding how travel markets are served with the BRT project and how the BRT project will resolve rider trade-offs associated with BRT service on a right of way removed from existing access points of major destinations currently served by existing bus services. However, the documented “case” does not fully address uncertainties associated with low ridership of the current bus service today and why building a BRT project will produce significantly higher ridership in the future.

***Cost Effectiveness Rating: Medium***

The *Medium* rating is based upon the level of travel time benefits (600 average weekday hours) relative to the projects annualized costs.

<b>Cost Effectiveness</b>	
	<u>New Start vs. Baseline</u>
Cost per Hour of Transportation System User Benefit	\$23.26*
Incremental Cost per Incremental Trip	\$31.90

\* Indicates that measure is a component of Project Justification rating.

***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating. The evaluation reflects conditions as of November 2004.

**Existing Land Use: Medium-Low**

- Population density within the corridor is approximately 3,100 persons per square mile and employment density within the corridor is approximately 4,800 employees per square mile, both of which reflect poor transit-supportive conditions. Only 25,000 jobs are located within ½ mile of proposed station areas.
- There are provisions for the disabled, such as ramps and curb cuts, throughout the corridor. The city identified missing sidewalks, arterial crossing conflicts and other pedestrian conflicts as part of the update to the Transportation Master Plan completed in 2004, and is working to obtain local, State and Federal grants to complete the projects.

**Transit-Supportive Plans and Policies: Medium-High**

- The Plan for the Area Between Loveland and Fort Collins, a policy document adopted by the City of Fort Collins, the City of Loveland and Larimer County, calls for a community separator area between the two cities that would be kept rural rather than absorb urban development. The city has

agreements with Larimer County that have extended the growth area boundaries beyond the city limits and into the county to govern the development occurring there. Other nearby municipalities are also cooperating with the City of Fort Collins.

- Policies in the City Plan stipulate that higher intensities of development will be located in major transit station areas, such as those in the MTC. The land use code has specific requirements regarding residential, commercial, mixed-use and institutional land use intended to promote transit- and pedestrian-friendly design. The City of Fort Collins has adopted parking-related requirements for both autos and bicycles throughout the city. Maximum parking space requirements have been established for all non-residential land uses, but there are no minimum parking space requirements.
- The zoning code is structured to create communities, not just to manage individual development projects. Station areas comprise one type of community to which appropriate parts of the code are being applied. One ongoing effort of local land use planning is an analysis of current zoning and land use regulations at station areas to determine if any changes are needed to make the areas more conducive to transit-oriented development.
- Members of the development community, the Fort Collins Downtown Development Authority, the Chamber of Commerce, the Fort Collins Economic Development Corporation, and the Visitors Bureau, as well as individual property and business owners, have been involved in creating the city's and MTC's plans from their inception.

#### **Performance and Impacts of Policies: Medium**

- Under the transit-supportive City Plan and implementation-related zoning ordinances, several major city and county buildings have been constructed to create the Downtown Civic Center. Forthcoming projects include a mixed office, retail, and residential medium-high density development on a vacant parcel adjacent to the north end of the MTC. The South Transit Center agreement has been completed and the city now owns the property.
- In 2004, an examination of infrastructure needs provided an assessment of all the properties along the corridor with regard to their potential for redevelopment. The result showed a significant number of properties that had good redevelopment potential under the existing zoning. Even more redevelopment would be expected with future transit-supportive zoning changes.

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

The *Medium* local financial commitment rating is based on the *Medium-High* rating for the capital finance plan, the *Medium* rating for the operating finance plan, and the *Low* rating for the Small Starts share of project costs.

#### ***Section 5309 Small Starts Share of Total Project Costs: 80%***

##### ***Rating: Low***

Fort Collins is requesting an 80 percent Small Starts share of total project costs, which results in a *Low* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$65.58	80.0%
<b>State:</b> Senate Bill 1 State Funding	\$8.56	10.4%
<b>Local:</b> General Fund	\$6.04	7.4%
Existing Land Purchase for South Transit Center	\$1.20	1.5%
<b>Private:</b> Downtown Development Authority	\$0.60	1.0%
<b>Total:</b>	<b>\$81.97</b>	<b>100.0%</b>

**NOTE:** Funding statements reflected in this table have been made by project sponsors and are not DOT or FTA assumptions. The sum of the figures may differ from the total as listed due to rounding.

### ***Capital Finance Plan Rating: Medium-High***

The capital finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

#### **Agency Capital Condition: Medium**

- The average age of Transport's bus fleet is 10.6 years in age, which is older than the industry average.
- The City of Fort Collins' good bond ratings, which were issued in 2007, are as follows: Moody's Investor Service Aa2 and Fitch AA.

#### **Commitment of Capital Funds: High**

- All non-Small Starts funding is committed. Sources of funding include state Senate Bill 1 funding, local general funds, state funds, a land contribution from the City, and funding from the Downtown Development Authority.

#### **Capital Cost Estimate and Planning Assumptions: Medium**

- City General Fund assumptions in the capital plan are in line with historical experience. Other capital revenue sources are assumed to be one time grants.
- The capital cost estimate is considered reasonable for this phase of project development.

### ***Operating Finance Plan Rating: Medium***

The operating finance plan is rated *Medium* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

**Agency Operating Condition: Medium**

- The City transit system's current ratio of assets to liabilities is greater than 2.0.

**Commitment of Operating Funds: High**

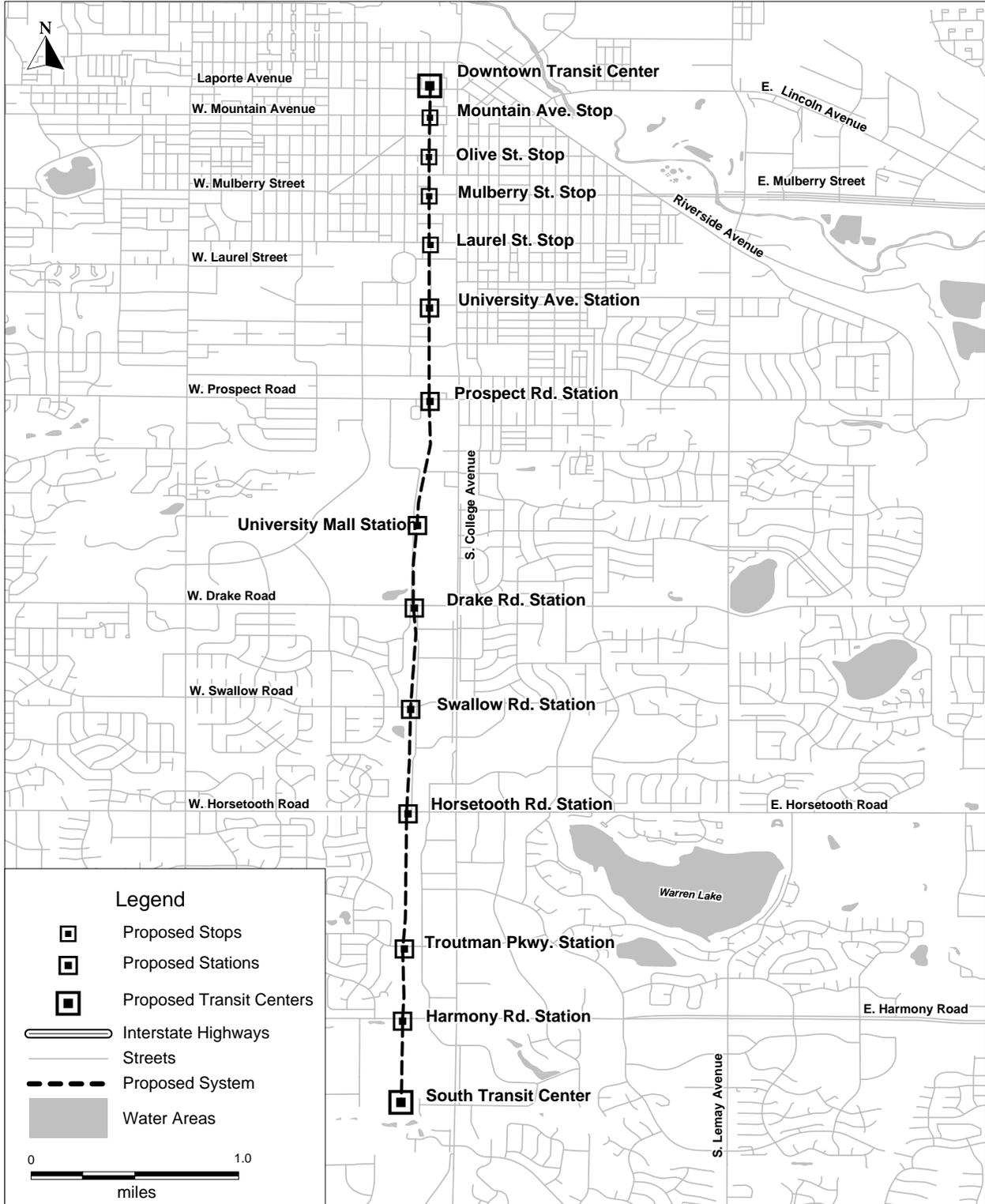
- All operating funding is committed. Funding sources include fare revenues, City General Fund revenues, Section 5307 formula funds, and advertising revenues.

**Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- Assumptions about growth in operating and maintenance costs are optimistic compared to historical experience. Operating revenue assumptions are reasonable compared to historical trends.

# Mason Corridor BRT

## Fort Collins, Colorado



# BRT Project

## Roaring Fork Valley, Colorado

(November 2008)

The Roaring Fork Transportation Authority (RFTA) is planning a 38.8-mile Bus Rapid Transit (BRT) line from Aspen to Glenwood Springs. When completed, the project is expected to provide faster transit service connecting the communities of Aspen, Snowmass, Woody Creek, Basalt, El Jebel, Carbondale and Glenwood Springs. Nine new stations and 300 park and ride spaces would be constructed as part of the project, and fifteen low-floor buses would be purchased to augment the existing fleet.

The Roaring Fork Valley contains several communities connected by a single transportation corridor, State Highway 82 (SH 82). SH 82 is the only continuous roadway serving these communities. Growth in the corridor has increased transit demand between Aspen, Glenwood Springs and all communities in between. Congestion on SH 82 is expected to increase, which would further degrade current transit services. The project will use existing high occupancy vehicle lanes and traffic signal priority to provide faster, more reliable transit service, and will include branded stations and vehicles.

Summary Description	
<b>Proposed Project:</b>	Bus Rapid Transit 38.8 Miles 9 Stations
<b>Total Capital Cost (\$YOE):</b>	\$46.40 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$25.99 Million (56.0%)
<b>Annual Forecast Year Operating Cost:</b>	\$5.97 Million
<b>Opening Year Ridership Forecast (2013):</b>	3,700 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium-High</b>

### Project Development History and Current Status

Previous studies in the corridor include a Corridor Investment Study (CIS) in 2003 and a re-evaluation of the State Highway 82/Entrance to Aspen Final Environmental Impact Statement and Record of Decision in 2007. The locally preferred alternative (LPA) was selected as part of the CIS in 2003. An alternatives analysis to refine the LPA was completed in 2008. The project was adopted as part of the 2030 Statewide Plan in 2008, and is included in the financially constrained State Transportation Improvement Program. A Documented Categorical Exclusion is anticipated before 2010. FTA notified Congress of its intent to approve the project into Small Starts project development in November 2008, and expects to take the formal approval action in December 2008.

## **Project Justification Rating: Medium**

The project is rated *Medium*, based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2010.

### ***Making the Case***

The Roaring Fork Valley BRT project will result in a new direct transit connection between Aspen and Glenwood Springs. The existing travel times on RFTA local buses from Glenwood Springs to downtown Aspen of 113 minutes are forecast to increase to 121 minutes in 2013 if no improvements are implemented. Because delays from congestion are inherently variable, RFTA's travel time reliability is likely to decline over time. Increasing delays will impact the cost of operations as well as transit service quality. The "case" for the project is to make transit service more competitive by improving transit travel times and enhancing travel reliability. This will be achieved by implementing bus priority treatments at proposed congested intersections to improve transit travel time and reliability. The project will result in a travel time savings of 33 percent over local bus service. Moreover, the project will serve nine BRT stations along the entire corridor, thus enhancing access to faster transit service for all communities between Aspen and Glenwood Springs.

### ***Cost Effectiveness Rating: Medium***

The Roaring Fork Valley BRT Project is a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost-effective by their very nature and therefore, the project receives a *Medium* rating for cost effectiveness.

### ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

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

The project's operating cost would be greater than five percent of RFTA's operating budget, and was therefore subject to an assessment of its local financial commitment. The *Medium-High* local financial commitment rating is based on the *Medium-High* ratings for the capital and operating plans and the *Medium* rating for the New Starts share of project costs.

### ***Section 5309 New Starts Share of Total Project Costs: 56%***

#### ***Rating: Medium***

RFTA is requesting a 56 percent New Starts share of total project costs, which results in a *Medium* rating for this measure.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$25.99	56.0%
<b>Local:</b> Sales tax increase	\$20.42	44.0%
<b>Total:</b>	<b>\$46.40</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

### ***Capital Finance Plan Rating: Medium-High***

The capital finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency capital condition is weighted 25 percent, the commitment of capital funds is weighted 25 percent, and the capital cost estimate, planning assumptions and capital funding capacity subfactor is weighted 50 percent.

#### **Agency Capital Condition: Medium-High**

- The average age of RFTA's bus fleet is less than six years, which is in line with the industry average.

#### **Commitment of Capital Funds: High**

- All non-Section 5309 funding sources are committed, including dedicated sales taxes and bond proceeds backed by the sales taxes.

#### **Capital Cost Estimate, Planning Assumptions and Financial Capacity: Medium**

- Sales tax revenue growth assumptions are in line with historical experience.
- and the ability of the ending cash balance to withstand funding shortfalls or cost overruns.
- The capital cost estimate is lacking sufficient detail.

### ***Operating Finance Plan Rating: Medium-High***

The operating finance plan is rated *Medium-High* based upon the weighted average of the ratings assigned to each of the subfactors listed below. The agency operating condition is weighted 25 percent, the commitment of operating funds is weighted 25 percent, and the operating cost estimates, planning assumptions and operating funding capacity subfactor is weighted 50 percent.

#### **Agency Operating Condition: High**

- RFTA's current ratio of assets to liabilities as reported in its most recent audited financial statement is 2.92.
- RFTA is in excellent operating condition, with positive cash balances from 2002 to 2007.

#### **Commitment of Operating Funds: High**

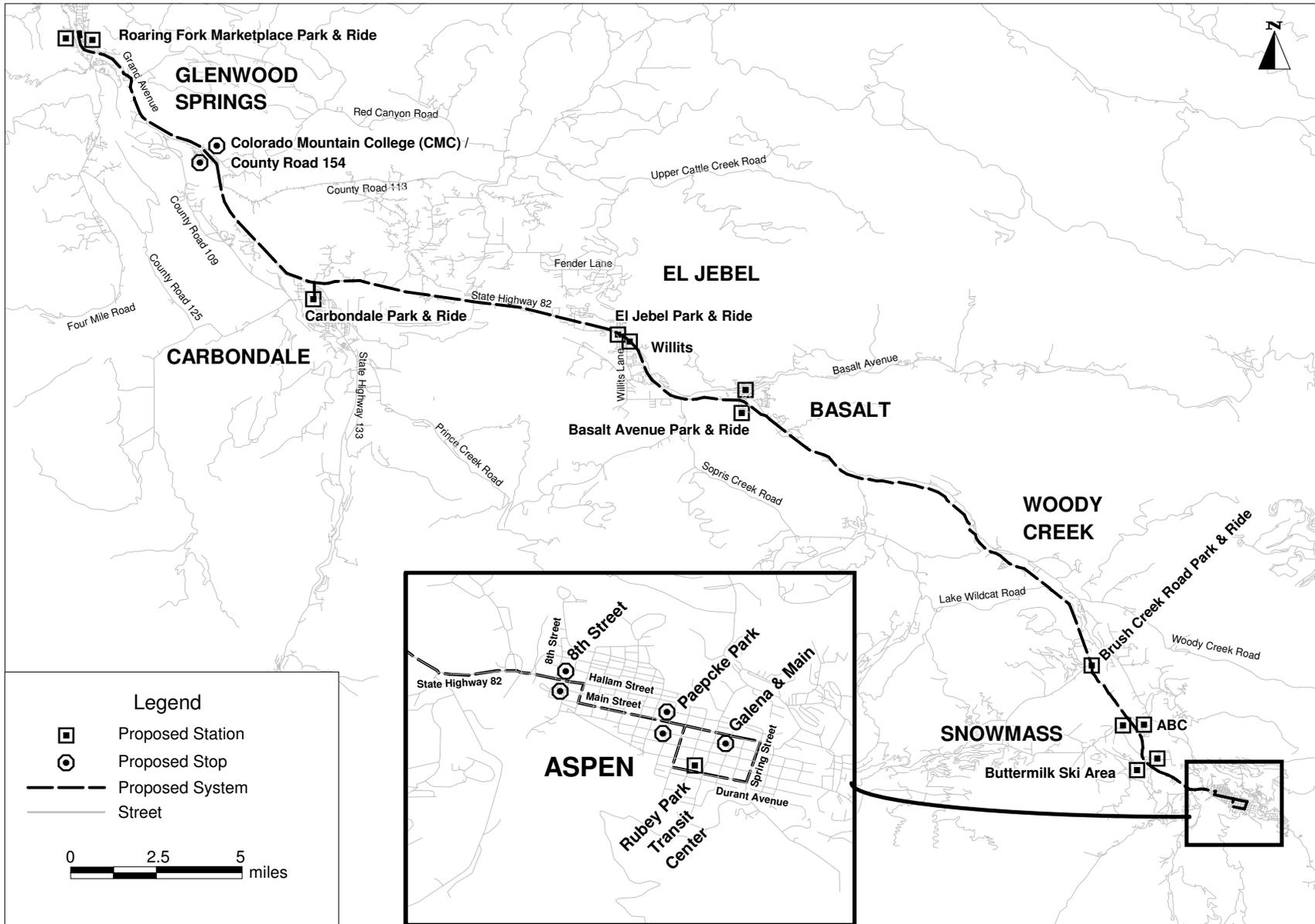
- All operating funds are committed. Sources of funds include local sales tax revenues, Section 5311 funds, fare revenues, service contract income, vehicle registration fees, investment income, and rental income.

#### **Operating Cost Estimates, Planning Assumptions, and Financial Capacity: Medium-Low**

- The operating plan includes optimistic assumptions about growth in ridership and fare revenues compared to historical experience.

# BRT Project

## Roaring Fork Valley, Colorado



# Fitchburg Commuter Rail Improvements

## Fitchburg, Massachusetts

(November 2007)

The Massachusetts Regional Transit Authority (MART) of the Fitchburg/Leominster, Massachusetts, metropolitan area, in conjunction with the Massachusetts Bay Transportation Authority (MBTA), has proposed to modernize an existing commuter rail line to provide improved service and reliability for riders at 18 urban and suburban stations over a 50-mile corridor extending from Fitchburg to Boston's North Station. Owned by the MBTA and operated under contract by the Massachusetts Bay Commuter Rail (MBCR) Company, improvements to the Fitchburg Line will include installation of approximately 8.5-miles of double track from Ayer to South Acton, and through Waltham Station, resulting in double track operations throughout the entirety of the line; upgrade of horizontal and vertical track alignment to achieve a maximum 80 mph operation compared with the current 60 mph maximum speed; construction of three stations with high-level platforms to replace three mini-high platforms displaced by double tracking; replacement of an outdated wayside signal control system with in-cab signal control; improvement of four highway grade crossings; installation of fiber-optic cable along the route; installation of additional storage track at the Willows Freight Rail Yard, and other improvements.

Currently, corridor residents have few options for commuting to and from Boston. Ridership on the Fitchburg Line is constrained by poor service reliability and excessive travel time of up to 90 minutes—the longest running time of MBTA's 13 commuter rail lines. State Route 2 is the only alternative regional route to Boston in this corridor, but is not limited access throughout its length (six signalized intersections and 26 at-grade intersections). The proposed Fitchburg Commuter Rail Improvements will provide a more attractive – and reliable – alternative to travel along Route 2. While the current project scope will not result in increased service, existing rolling stock can be used to provide additional trips, and coaches can be added to run longer train sets, as demand increases.

### Summary Description

<b>Proposed Project:</b>	Commuter Rail Improvements 49.5 Miles 3 Stations
<b>Total Capital Cost (\$YOE):</b>	\$149.98 Million (Includes \$0.2 million in finance charges)
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$74.99 Million (50.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$14,000 Annual Operating Cost Savings
<b>Opening Year Ridership Forecast (2012):</b>	10,800 Average Weekday Boardings 700 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2009 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2009 Overall Project Rating:</b>	<b>Medium-High</b>

MBTA continues to perform project development tasks for the Fitchburg Commuter Rail Improvement project including further development of the project scope, schedule and budget. Therefore, FTA is reporting the project's most recent ratings (November 2007).

### Project Development History and Current Status

MBTA initiated an analysis of potential Fitchburg Line improvements with three public meetings in 2001. The Massachusetts Legislature established a "Fitchburg MBTA Line Corridor Advisory Committee" in 2002 to recommend improvements for the Fitchburg Line. MART, the transit agency responsible for the

Fitchburg/Leominster area northwest of Boston, initiated the Fitchburg Commuter Rail Improvements alternatives analysis in March 2006. The study included the participation of the Massachusetts Executive Office of Transportation and Public Works (EOTPW) and the MBTA. The alternatives analysis examined various packages of low and moderate-cost strategies to improve reliability and travel time in the Fitchburg corridor. MART identified a locally preferred alternative (LPA) in August 2007. An Environmental Assessment on the LPA was initiated shortly thereafter. On November 14, 2007, EOTPW delegated responsibility to MBTA, as owner and operator of the line, to advance the Fitchburg Commuter Rail Improvements project into design and construction. FTA approved the project into Small Starts project development in December 2007.

The current project proposal lacks details regarding the scope and priority of certain project elements and the cost estimate carries low contingencies. The project schedule does not include sufficient information to determine if the time frame for completion is realistic. MBTA plans to request a Project Development Grant Agreement from FTA in mid-2009.

**Project Justification Rating: Medium**

The project is rated *Medium* based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating.

***Making the Case***

The Fitchburg Commuter Rail Improvements project would upgrade tracks, signals, and systems on a commuter rail line to Boston that currently carries 10,600 daily riders in a corridor with long commutes, substantial traffic congestion, and modest rates of population growth. The “case” for the project rests on the resulting improvements in travel times and reliability, and the modest project cost. The project would reduce average travel times for current riders by 10 minutes. These time savings alone are sufficient to demonstrate that the project is reasonably cost-effective. Additional benefits include improvements in on-time reliability from current performance that is the worst in the MBTA commuter rail system. MART’s documented “case” for the project adequately explains the purpose of the project, its impacts on transit service, and the nature and magnitude of benefits of the project.

***Cost Effectiveness Rating: Medium***

The *Medium* rating is based on the level of travel-time benefits (1,480 average weekday hours) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
	<b><u>New Start vs. Baseline</u></b>
Cost per Hour of Transportation System User Benefit	\$23.75*
Incremental Cost per Incremental Trip	\$51.75

\* Indicates that measure is a component of Cost Effectiveness rating.

***Transit-Supportive Land Use Rating: Medium***

The *Medium* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: Medium**

- The Fitchburg corridor includes urban, suburban, and low-density “west end” towns with varying degrees of population, employment, and density. Most of the urban stations are spaced closely to one another and are located in higher density mixed-use neighborhoods.
- Average station area population density is 5,000 persons per square mile. Employment in project station areas is 71,400. Total employment in the entire CBD is more than 389,000 and is expected to increase by 10 percent by opening year (to more than 426,000).

- Many of the station areas have limited parking. Parking costs in the downtown and the Porter Square station area are substantial. Parking is free near some station areas (e.g., Concord, Hastings, and Shirley); at least one privately owned lot in Littleton charges \$50 per month for parking adjacent to the station area. Parking at Leominster (140-vehicle capacity at 100 percent occupancy) and at Fitchburg (400-vehicle capacity at 50 percent occupancy) is available for \$2.00 per day or \$35.00 per month. Total parking on the Fitchburg Line is available for approximately 1,500 cars.

**Transit-Supportive Plans and Policies: Medium**

- Specific conceptual plans for station areas were not provided to FTA. However, significant infill development has occurred and is in progress in several communities served by the Fitchburg Line, including North Station, Ayer, Leominster, Concord, and most notably, Fitchburg. A relevant consideration is that the project consists largely of corridor-wide improvements, rather than development or improvements of station facilities.
- Massachusetts’ Smart Growth Zoning Law encourages the creation of mixed-use zoning districts around transit stations and corridors. The City of Fitchburg is a notable example of the application of these districts. All of the communities situated along the Fitchburg Line qualify under the law’s Smart Growth criteria. Proposed development projects near the stations would all be eligible for Smart Growth funding that is made available by the state to promote this initiative.

**Performance and Impacts of Policies: Medium**

- The City of Fitchburg has actively pursued station area development, notably with the construction of a major intermodal transportation center in downtown.
- Existing transit-oriented development in the North Station area includes pedestrian upgrades (sidewalks and lighting) between North Station and Haymarket Station, improved pedestrian access to activity centers such as Boston’s North End and the TD BankNorth Garden (an entertainment/sporting event venue).
- Mixed-use development and renovation of existing structures has occurred in several of the station areas, including Ayer, Fitchburg, Waltham, and Concord. Other improvements in some station areas include modernized lighting, enhanced crosswalks, public art, and amenities for non-motorized transportation.

**Local Financial Commitment Rating: High**

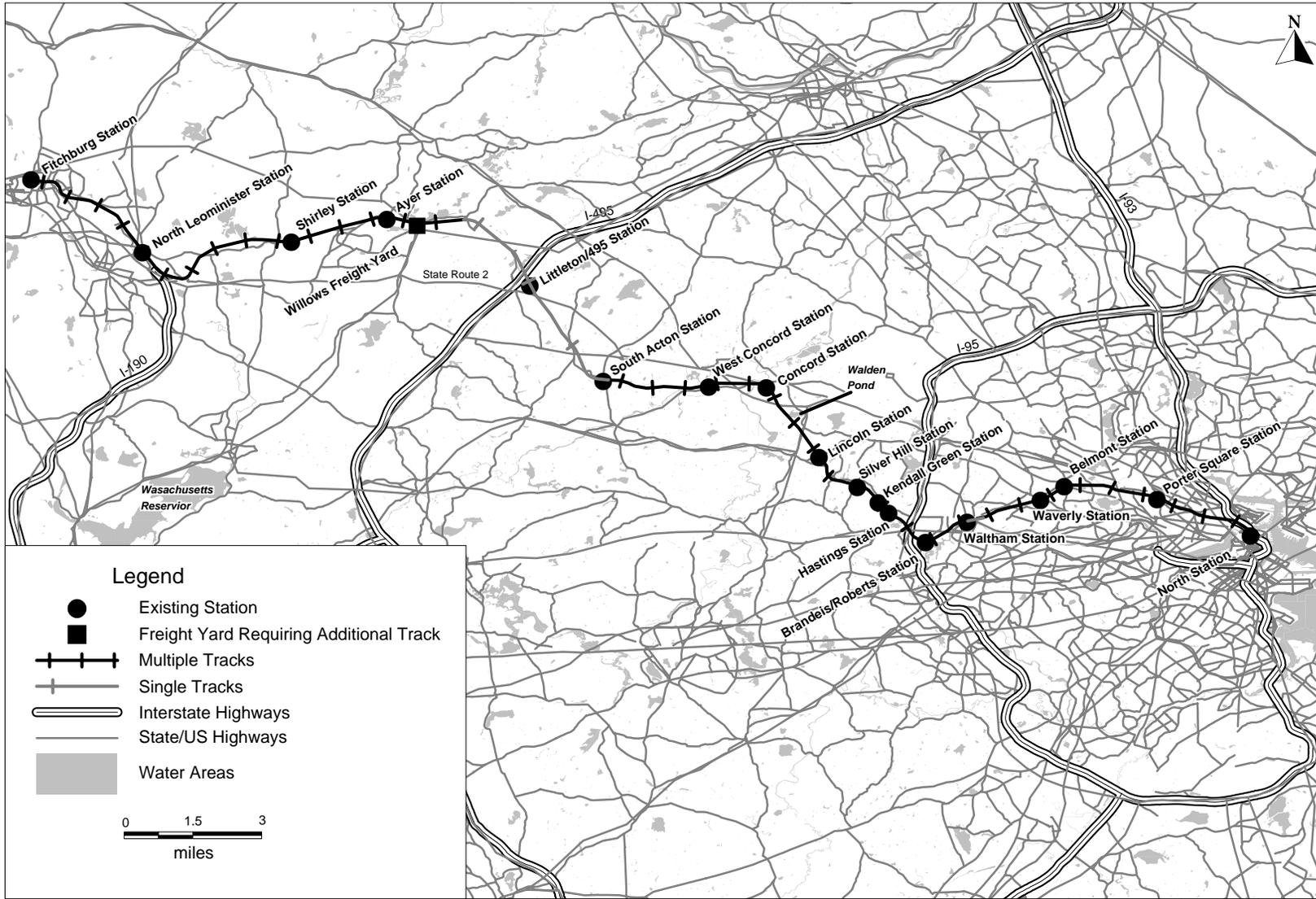
The project is rated *High* for local financial commitment, based upon the excellent bond rating of MBTA and the Commonwealth of Massachusetts; a reasonable plan for funding the non-Small Starts share of capital costs from state transportation bond proceeds; evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget; and a 50 percent or smaller share of Small Starts funding.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$74.99	50.0%
<b>State:</b> Transportation Bond Proceeds	\$74.99	50.0%
<b>Total:</b>	<b>\$149.98</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Fitchburg Commuter Rail Improvements

## Fitchburg, Massachusetts



# Division Avenue BRT

## Grand Rapids, Michigan

(November 2008)

The Interurban Transit Partnership (*The Rapid*) is proposing to implement a 9.8-mile street-running bus rapid transit (BRT) line along Division Avenue from the Grand Rapids central business district (CBD) to 60<sup>th</sup> Street/Division Avenue. The project includes 19 new stations with a real-time passenger information system, signal priority, off-board fare collection and the purchase of ten hybrid-fueled low-floor branded vehicles. An existing bus maintenance facility would also be expanded to accommodate the BRT vehicles. The proposed service would operate with ten-minute headways during peak periods and 15-minute headways during weekday off-peak periods.

Summary Description	
<b>Proposed Project:</b>	Bus Rapid Transit
	9.8 Miles
	19 Stations
<b>Total Capital Cost (\$YOE):</b>	\$36.68 Million (Includes \$1.0 million in finance charges)
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$29.35 Million (80.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$2.40 Million
<b>Opening Year Ridership Forecast (2012):</b>	7,200 Average Weekday Boardings 1,300 Daily New Riders
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

In January 2007 *The Rapid* completed an alternatives analysis study that identified BRT as the locally preferred alternative (LPA) in the South Corridor. The LPA was included in the Grand Valley Metropolitan Council's (local metropolitan planning organization) long-range transportation plan in April 2007. FTA approved the Division Avenue BRT (formerly known as the South Corridor BRT) into project development as a Very Small Start in December 2007. An Environmental Assessment is currently underway. Revenue operations are scheduled for January 2012 to allow sufficient time for project development to progress and secure local funding.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness, a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY 2010.

***Making the Case***

The purpose of the Division Avenue BRT line is to provide reduced travel time and improved reliability for existing and new transit riders from residential areas in the Division Avenue Corridor to major employment and educational centers in the central business district. The existing local route on Division Avenue is the busiest non-university route in *The Rapid’s* system. Forty percent of buses during the peak period have ridership at or above 80 percent of tolerable bus capacity, with seven buses operating at or above 98 percent of tolerable capacity. Even with a combined frequency of 15 minutes throughout the day, many buses are standing room only and, occasionally, passengers must sometimes wait for the next bus. The number of people boarding these routes, combined with on-board fare payment impacts the travel times of these existing routes. The proposed BRT system with multiple boarding doors, low-floor buses, and off-board fare payment would directly address this current condition. Travel times from 54<sup>th</sup> Street to Wealthy Street would be reduced from approximately 25 minutes during peak periods today, to only 20 minutes with implementation of the project.

***Cost Effectiveness Rating: Medium***

The Division Avenue BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at higher frequencies, transit stations with real-time passenger information, off-board fare collection and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: Medium**

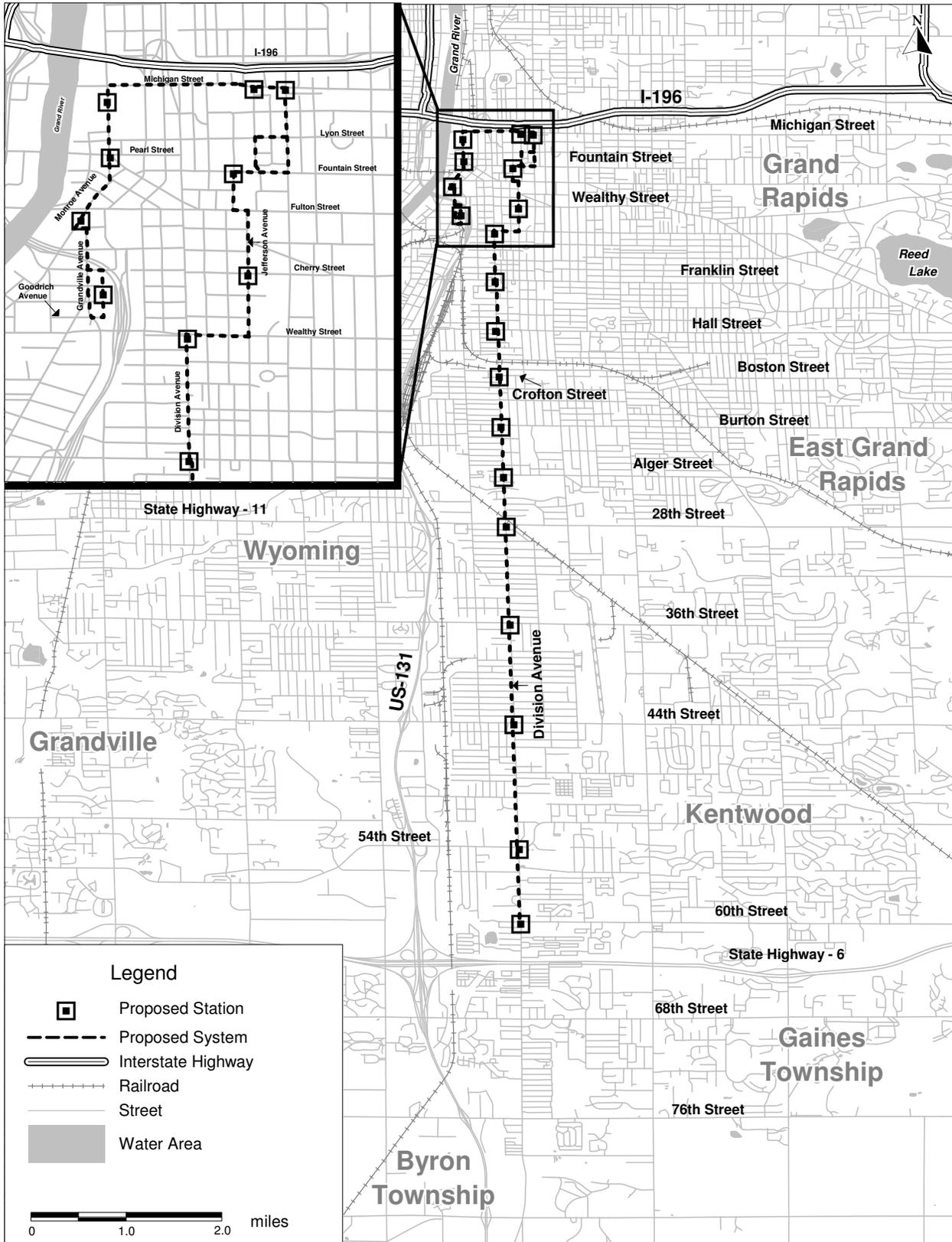
The project is rated *Medium* for local financial commitment based on *The Rapid’s* acceptable financial condition and a reasonable plan for funding the non-Small Starts share of capital costs. The operating cost of the project exceeds the five percent of the systemwide operating and maintenance cost threshold which would qualify the project for a streamlined financial review. Therefore, FTA performed additional reviews to determine the sufficiency of the project’s local financial commitment. While acceptable for the purposes of advancing into project development, *The Rapid* must establish a consistent stream of operating revenues before the project can be considered for a Project Construction Grant Agreement.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$29.35	80.0%
<b>State:</b>		
Comprehensive Transportation Fund Appropriation	\$7.33	20.0%
<b>Total:</b>	<b>\$36.68</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Division Avenue BRT

## Grand Rapids, Michigan





# Troost Corridor BRT

## Kansas City, Missouri

(November 2006)

The Kansas City Area Transportation Authority (KCATA) is proposing to construct and operate an approximately nine-mile long street-running bus rapid transit (BRT) line along Troost Avenue, terminating in downtown Kansas City, Missouri. The proposed line runs roughly one mile west and parallel to the existing six-mile “MAX” BRT route that opened for service in July 2005. The Troost Corridor BRT project includes 25 new stations with a real-time passenger information system, signal prioritization, and the purchase of 15 low-floor, branded vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project qualifies as a Very Small Start.

Existing transit service in the Troost Avenue corridor carries approximately 7,800 passengers each weekday, which is the highest ridership of any corridor in the region. The project corridor contains the greatest population density in the Kansas City region, as well as major employment and entertainment centers such as downtown, the Hospital Hill Medical Complex, Stower’s Medical Institute, the University of Missouri at Kansas City, Rockhurst University, and the Federal/Honeywell complex. Moreover, nearly 20 percent of the population within one mile of Troost Avenue does not have access to an automobile. Current bus service in the corridor makes frequent stops along its routing to accommodate passenger demand. The Troost Corridor BRT project will supplement existing transit service with BRT service that features fewer stops and signal priority.

This project is intended to provide improved transit service and amenities for a large number of existing transit riders, as well as to attract new riders. The existing Main Street MAX BRT project resulted in ridership gains of over 20 percent in the corridor. If BRT service on Troost Avenue results in a comparable ridership gain, as expected, transit ridership in the corridor is expected to exceed 9,000 per day.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit
	9.0 Miles
	25 Stations
<b>Total Capital Cost (\$YOE):</b>	\$30.73 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$24.58 Million (80.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$350,000
<b>Opening Year Ridership Forecast (2010):</b>	9,000 Average Weekday Boardings
	1,200 Daily New Riders
<b>FY 2008 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2008 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2008 Overall Project Rating:</b>	<b>Medium</b>

### Project Development History and Current Status

In 2001, KCATA and the City of Kansas City, Missouri completed the *Central Business Corridor (CBC) Plan* and identified two main corridors in need of transit improvement. The first corridor ran north-south along Main Street, and the second along Troost Avenue. The *CBC Plan* proposed light rail transit (LRT) as a transportation solution for each of these corridors, while identifying BRT as an alternative

improvement strategy should light rail prove to be financially infeasible. LRT was rejected by area voters in 2001 as too costly; subsequently, BRT was selected as the preferred alternative for each corridor.

BRT implementation efforts culminated with the concurrent construction of the Main Street MAX BRT line and the development of the *Smart Moves Regional Transit Plan* in 2004. The *Plan* includes implementation of BRT service on Troost Avenue. FTA approved the Troost Corridor BRT project into project development in December 2006. In August 2007, FTA concurred that the project qualifies as a categorical exclusion. The project rating included in this profile is based on conditions as of November 2006.

### **Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for both cost effectiveness and transit-supportive land use. The project was approved into project development prior to 2007, when FTA implemented the *Making the Case* document.

### ***Cost Effectiveness Rating: Medium***

The Troost Corridor BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

### ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects which meet the minimum existing ridership threshold of 3,000 daily boardings to be in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned these projects a *Medium* rating for transit supportive land use plans and policies.

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

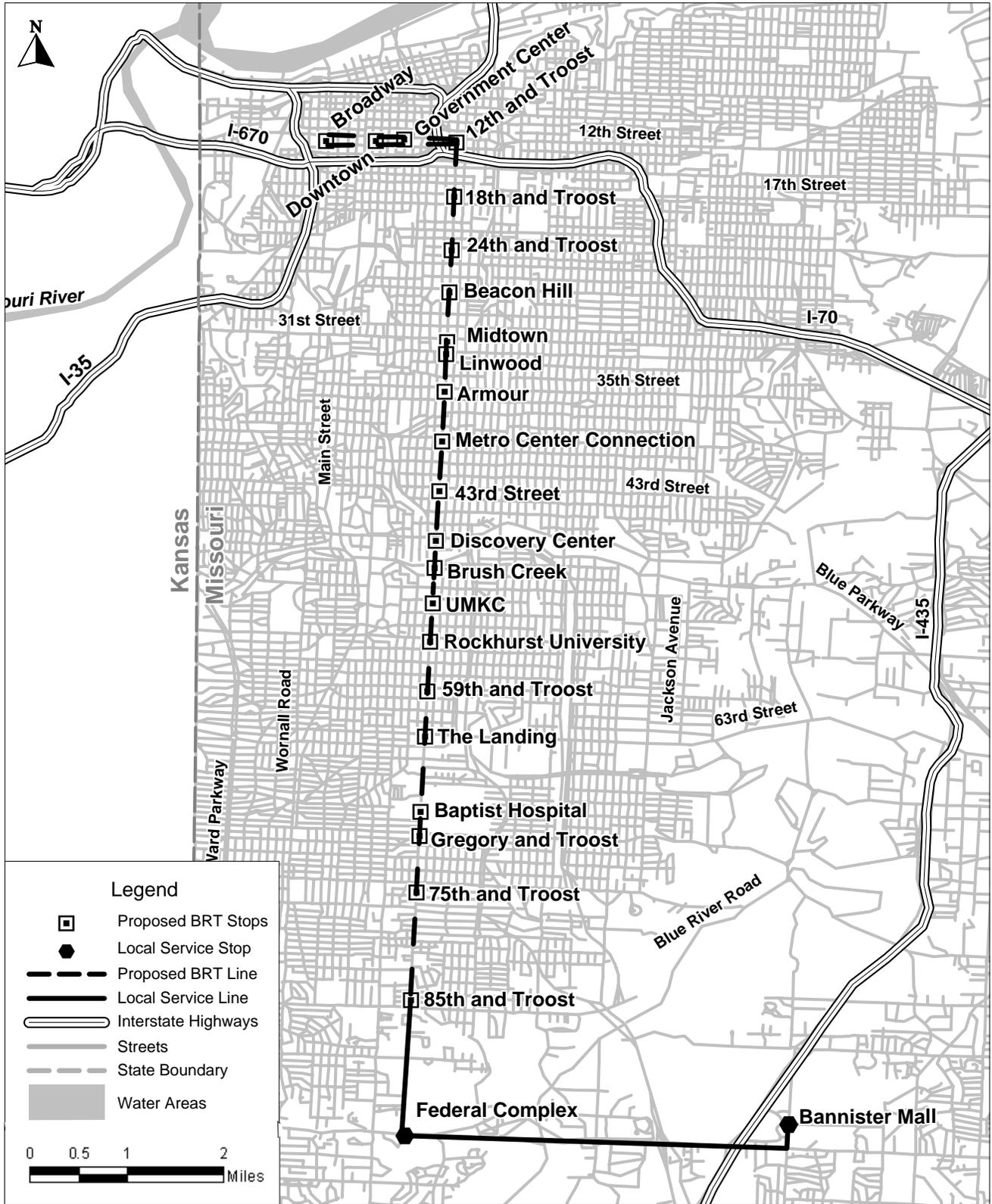
The project is rated *Medium* for local financial commitment, based upon KCATA's acceptable financial condition; a reasonable plan for funding for the non-New Starts share of capital costs; and evidence that operations and maintenance costs of the proposed project is less than five percent of the agency's operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$24.58	80.0%
<b>Local:</b> Existing Local Sales Tax	\$6.15	20.0%
<b>Total:</b>	<b>\$30.73</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Troost Corridor BRT

## Kansas City, Missouri





# Nostrand Avenue BRT

New York, New York

(April 2009)

The New York City Department of Transportation (NYCDOT), in cooperation with the Metropolitan Transportation Authority—New York City Transit (MTA-NYCT), is proposing to construct the Nostrand Avenue Bus Rapid Transit (BRT) Project, a 9.3-mile BRT line from Sheepshead Bay to the Williamsburg Bridge in Brooklyn. The project includes 7 pairs (14 total) of newly-constructed BRT stations and 4.6 miles of exclusive, solid red painted BRT lanes along Nostrand, Rogers, and Bedford Avenues, which are one-way streets. The project includes the purchase of 50 low-floor, low-emission, hybrid-electric, articulated, and specially-branded buses to be operated by MTA-NYCT; transit signal priority; off-vehicle fare collection; and construction of bus lane “bulbs” allowing the stations to extend into the curb lane so buses do not have to pull to the curb. Service would operate from 5:30 AM to 10:00 PM on weekdays, with 3-minute headways during peak periods and 7-minute headways during off-peak periods.

The Nostrand Avenue BRT project will provide fast and reliable bus service along a key north-south route in Brooklyn, connecting densely-populated residential areas with multiple subway lines, bus routes, shopping areas, two colleges, and two major hospitals. Traffic congestion in the corridor, combined with heavy passenger volumes at key stops resulting in long boarding times, leads to slow and unreliable bus service. The project will improve service in the corridor by offering higher frequencies, exclusive BRT lanes along a portion of the alignment, and off-vehicle fare collection, which will reduce travel time and improve schedule reliability. The project will serve the 17,000 daily riders on the existing B44 Limited service and will attract additional riders who currently avoid bus service due to slow speeds and a lack of reliability.

## Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit
	9.3 Miles
	14 Stations
<b>Total Capital Cost (\$YOE):</b>	\$88.28 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$18.38 Million (20.8%)
<b>Annual Operating Cost (YOE\$):</b>	\$5.83 Million
<b>Ridership Forecast (2011):</b>	17,000 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>High</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2010 Overall Project Rating:</b>	<b>High</b>

## Project Development History and Current Status

In October 2006, NYCDOT selected Nostrand Avenue BRT in Brooklyn as one of five New York City “BRT Demonstration Corridors” – one corridor in each borough – for implementation. The project was adopted into the New York Metropolitan Transportation Council’s fiscally-constrained long-range regional transportation plan in December 2008. FTA approved the project into Small Starts Project Development in February 2009.

The project’s capital cost estimate is considered adequate at this stage of the project. The allocated contingency of 15 percent of construction costs appears reasonable for the scale of the project. However,

risks remain, including escalating labor and material prices and potential refinements to station construction.

**Project Justification Rating:**

The project is rated *Medium-High* based on a *Medium-High* rating for cost effectiveness and a *Medium-High* rating for transit-supportive land use. The rating for the project’s *Making the Case* document is not factored into the project justification rating for FY 2010.

**Making the Case**

The project will replace the existing NYCT B44 Limited-Stop bus route, which serves 17,000 customers on an average weekday. Currently, traffic congestion and long boarding times lead to slow and unreliable bus service. Large numbers of passengers enter the bus and pay their fare at a single farebox, which causes buses in the corridor to spend over three minutes in dwell time at some locations. During weekday hours, the B44 Limited has an average trip speed of 7-8 mph, with average speeds in the most congested portion of the corridor as slow as 4-5 mph. The exclusive bus lanes along a portion of the corridor included in the project, higher frequency service, transit signal priority, and off vehicle fare collection are estimated to improve full length travel times in the corridor by more than 25 percent. On average, customers are estimated to save 4.4 minutes per average 2.3 mile trip.

**Cost Effectiveness Rating: Medium-High**

The *Medium-High* cost effectiveness rating is based on the level of travel-time benefits (970 average weekday hours) relative to the project’s annualized costs.

<b>Cost Effectiveness</b>	
Cost per Hour of Transportation System User Benefit	<b><u>New Start vs. Baseline</u></b> \$13.81*

\*Indicates that measure is a component of Cost Effectiveness rating.

**Transit-Supportive Land Use Rating: Medium-High**

The *Medium-High* rating is based upon the average of the ratings assigned to the subfactors below, each of which contribute one-third to the land use rating.

**Existing Land Use: High**

- Total employment served by the BRT project (within a ½ mile radius of stations) is 116,600, but hundreds of thousands of additional jobs can be reached through a subway transfer to the Brooklyn and Manhattan central business districts. Population served is 536,600 at an average density of 49,900 persons per square mile.
- The Nostrand Avenue BRT corridor runs north-south through Brooklyn and consists mostly of mixed-use development including three- to six-story multiple dwellings with retail or other commercial uses located on the ground floor, with greater commercial activity located at a number of key nodes. The corridor also has a number of educational and medical institutions. The corridor is designed to accommodate pedestrians, with sidewalks, pedestrian signals, and other pedestrian amenities located throughout the area. Parking along the corridor is typically on-street, with parking meters located in the densest commercial districts.

**Transit-Supportive Plans and Policies: Medium-High**

- PlaNYC, adopted in April 2007, is a plan for the sustainability of New York City, outlining the 25-year vision for the city and setting priorities for the refurbishment of city infrastructure. One of the main objectives of the plan is to create healthier and more transit-accessible communities by unlocking the potential of unrealized housing capacity, underutilized and unfinished parks, and contaminated land. The plan’s rezoning strategy identifies primary avenues and boulevards near

transportation hubs whose width and access to transit enable them to support additional density. PlaNYC aims to fully restore and enhance the Brooklyn transit network (stations and transit lines) to a state of good repair, including making pedestrian improvements in the vicinity of stations.

- Transit-supportive corridor or station area planning activities have not been explicitly undertaken for the Nostrand Avenue corridor. However, zoning for the corridor is already highly transit-supportive as evidenced by the scale and character of existing development. Parking requirements are extremely low. In addition, there have been three significant recent planning and rezoning efforts affecting neighborhoods in the corridor: These efforts are directed at preserving existing neighborhood scale and character while allowing opportunities for residential and commercial growth as appropriate. Commercial district overlays throughout the corridor allow mixed-use development.
- Some general economic development tools are available through the city but these have seen relatively little application in the corridor given the limited development opportunities. The city assisted with land assembly on a recent shopping center.

**Performance and Impacts of Policies: Medium-High**

- For the most part, land within the corridor was developed decades or even more than a century ago in a strongly transit-supportive manner and there is little opportunity for new construction or redevelopment. However, there are two recent significant developments along the corridor: a 300,000 square foot shopping center adjacent to the planned Flatbush Ave/Brooklyn College BRT Station, in a single three-story building with no surface parking; and a condominium-apartment building (43 apartments in a four-story structure) three blocks from the planned southern terminus of the BRT route.
- Most available land consists of small properties scattered across the corridor, and for this reason land assembly into large parcels is difficult. The greatest concentration of vacant land is near the Flushing Avenue Station in a historically light manufacturing area. While this area is not currently targeted for rezoning, the strong residential real estate market in New York City in recent years has led to the rezoning of some manufacturing areas to allow residential use, and rapid subsequent redevelopment.

**Local Financial Commitment Rating: High**

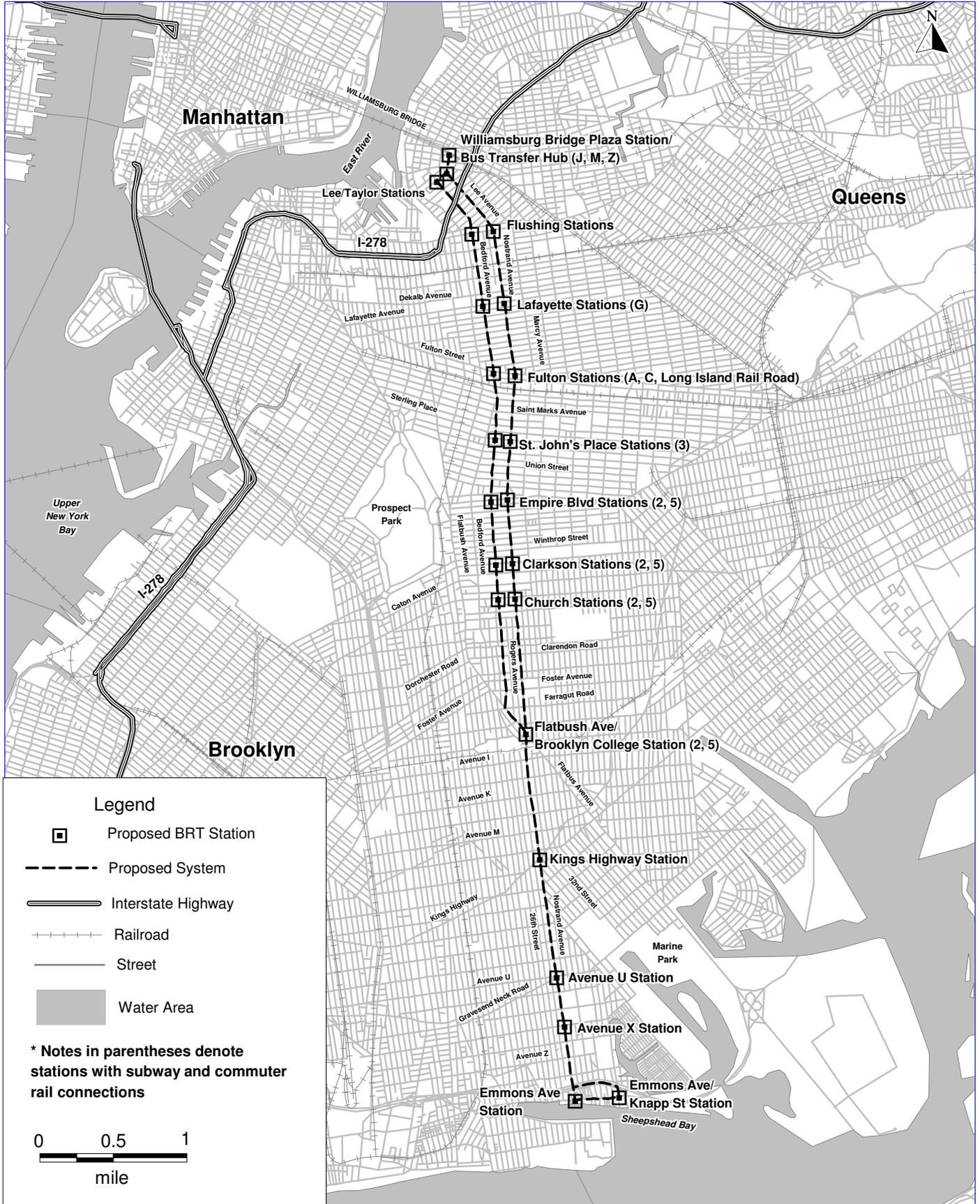
The project is rated *High* for local financial commitment, based upon NYCDOT and MTA-NYCT’s acceptable financial conditions; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
<b>Federal:</b>		
Section 5309 Small Starts	\$18.38	20.8%
Section 5309 Bus Discretionary	\$0.47	0.5%
FHWA Flexible Funds (CMAQ)	\$0.34	0.4%
<b>Local:</b>		
MTA-NYCT Bonds, other cash and capital funds	\$60.22	68.2%
MTA-NYCT Operating Budget	\$3.79	4.3%
NYC Income, Sales and Property Taxes	\$3.47	3.9%
NYC Other Revenues	\$1.60	1.8%
<b>Total:</b>	<b>\$88.28</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

# Nostrand Avenue BRT

## New York, New York



# ***MetroRapid BRT***

## **Austin, Texas**

(April 2009)

The Capital Metropolitan Transportation Authority (CMTA) proposes to construct a 37.5-mile street-running bus rapid transit (BRT) system along two interconnected corridors: the 21-mile North Lamar/South Congress Corridor and the 16.5-mile Burnet/South Lamar Corridor. The North Lamar/South Congress Corridor extends from the North Interstate Highway 35 park-n-ride lot at Tech Ridge to the planned South IH-35 Transit Center. The Burnet-South Lamar Corridor extends from St. David's North Austin Medical Center to 38<sup>th</sup> Street at West Avenue near the Medical Center. The BRT lines would share a 3-mile segment in central Austin between 38<sup>th</sup> Street, north of the University of Texas-Austin, and Cesar Chavez Street at the southern end of downtown Austin. The project is the first phase of CMTA's *All Systems Go (ASG)* ten-corridor long-range transit plan.

The project includes 18 paired stations in the North Lamar/South Congress Corridor and 17 paired stations in the Burnet/South Lamar Corridor, with a real-time passenger information system, traffic signal priority and the purchase of 40 low-floor, multi-door, branded vehicles. Several BRT stations would also link with CMTA's locally-funded commuter rail line (currently under construction). The BRT system would operate via existing arterial streets and would parallel the region's main highways that serve central Austin: I-35 to the east and Loop-1 to the west. The service would operate with ten-minute headways during peak periods and 15-minute headways during off-peak periods. An existing bus maintenance facility would be used to accommodate the BRT vehicles.

### **Summary Description**

<b>Proposed Project:</b>	Bus Rapid Transit
	37.5 Miles
	35 Stations
<b>Total Capital Cost (\$YOE):</b>	\$47.03 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$37.62 Million (80.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$1.45 Million
<b>Opening Year Ridership Forecast (2011):</b>	20,300 Average Weekday Boardings
<b>FY 2010 Local Financial Commitment Rating:</b>	<b>Medium</b>
<b>FY 2010 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2010 Overall Project Rating:</b>	<b>Medium</b>

### **Project Development History and Current Status**

In August 2004, CMTA updated its long-range transit plan (*ASG*). In June 2005, the *ASG* plan was incorporated into the Capital Area Metropolitan Planning Organization's long-range transportation plan (*Mobility 2030*). The long-range plans envision several transit improvements, including commuter rail, BRT, express buses and other transit investments. Initially, CMTA planned to implement the BRT system with local funds; however, after a review of the *ASG* plan in 2008, CMTA chose to pursue Small Starts funds. A simplified alternatives analysis – based on the *ASG* plan – was completed in summer 2008. FTA approved the *MetroRapid* BRT project into project development as a Very Small Start in February 2009. FTA issued a Categorical Exclusion to satisfy federal environmental requirements in March 2009. Revenue operations are scheduled for summer 2011.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness, a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating for FY2010.

***Making the Case***

The purpose of the *MetroRapid* BRT project is to provide a reliable transit mode that offers competitive travel times and has the capacity and flexibility to effectively serve core activity centers, including downtown Austin, the State Capitol complex, the University of Texas-Austin and the city’s famous retail district on South Congress Avenue. Along the shared 3-mile downtown segment where the BRT lines would jointly operate, the BRT system would provide 5-minute peak period frequencies. Currently, there is local and express bus service serving some or all of the two corridors. Compared to current bus service, estimated BRT operating speeds for morning peak hours would be four miles per hour faster for the North Lamar/South Congress Corridor and three miles per hour faster for the Burnet/South Lamar Corridor due to fewer stops. This is estimated to result in a 27 percent reduction in travel times for riders in the North Lamar/South Congress Corridor and a 23 percent reduction in the Burnet/South Lamar Corridor.

***Cost Effectiveness Rating: Medium***

The *MetroRapid* BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations with real-time passenger information, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: Medium**

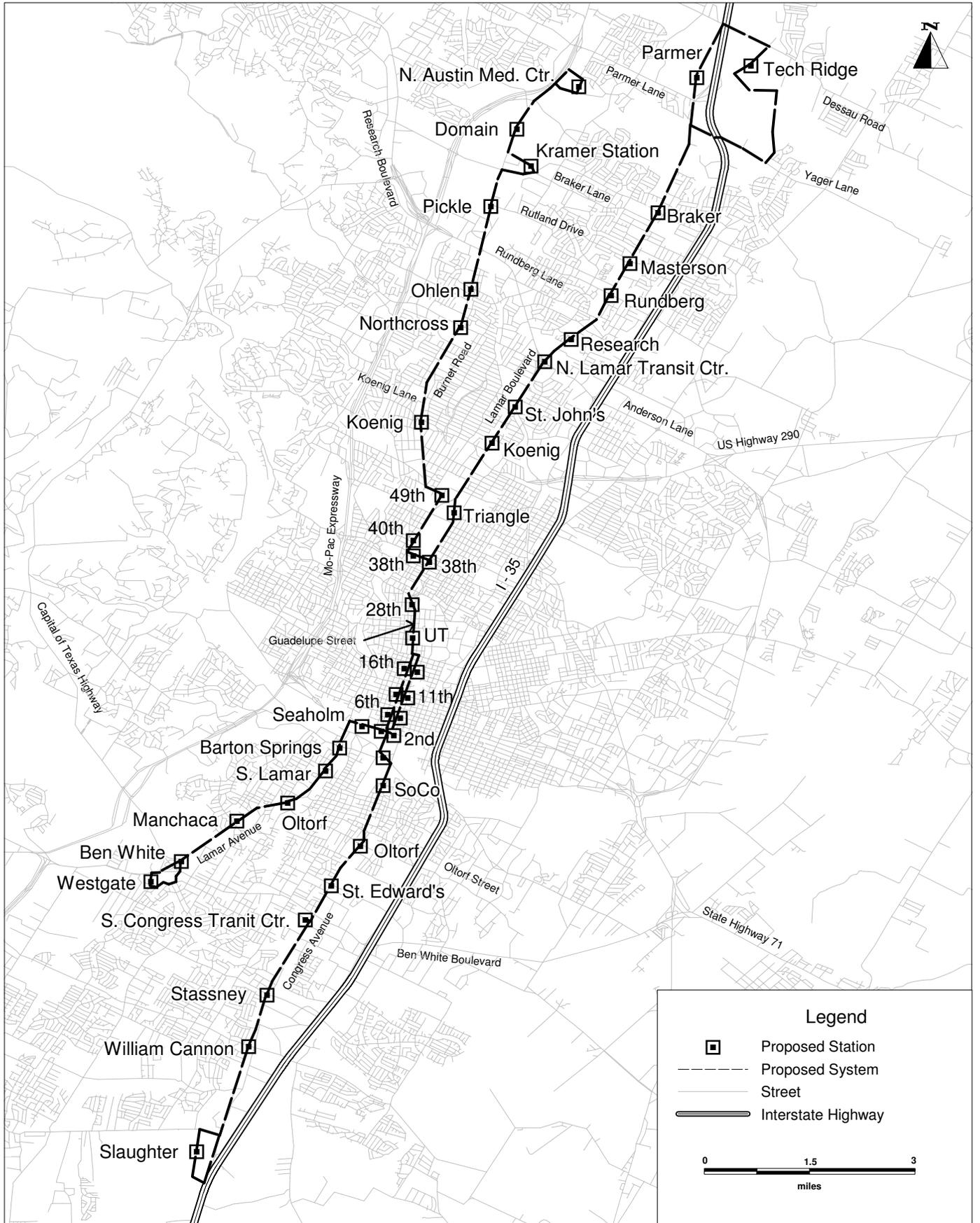
The project is rated *Medium* for local financial commitment, based upon CMTA’s acceptable financial condition; a reasonable plan for funding for the non-New Starts share of capital costs; and evidence that operations and maintenance costs of the proposed project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b>Source of Funds</b>	<b>Total Funds (\$million)</b>	<b>Percent of Total</b>
<b>Federal:</b>		
Section 5309 Small Starts	\$37.62	80.0%
<b>Local:</b>		
Dedicated Sales Tax	\$9.41	20.0%
<b>Total:</b>	<b>\$47.03</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# MetroRapid BRT

Austin, Texas





# Bellevue – Redmond BRT

## King County, Washington

(November 2007)

The King County Department of Transportation, Metro Transit Division (King County Metro) is proposing to construct and operate a 9.25-mile long street-running bus rapid transit (BRT) line connecting downtown Bellevue, Crossroads Mall, the Overlake urban center, and downtown Redmond. This alignment traverses portions of two existing local bus routes which currently operate at combined 15-minute headway. The corridor already features substantial existing transit investment including three regional transit transfer centers, and the Bellevue-Redmond BRT project is intended to complement these facilities. The scope includes 12 new stations, real-time bus arrival information, signal prioritization, and 18 low-floor hybrid vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit
	9.25 Miles
	12 Stations
<b>Total Capital Cost (\$YOE):</b>	\$26.95 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$20.21 Million (75.0%)
<b>Annual Operating Cost (\$YOE):</b>	\$6.60 Million
<b>Opening Year Ridership Forecast (2011):</b>	3,500 Average Weekday Boardings 300 Daily New Riders
<b>FY 2009 Local Financial Commitment Rating:</b>	Medium
<b>FY 2009 Project Justification Rating:</b>	Medium
<b>FY 2009 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

In 2002, King County Metro adopted a Transit Development Plan which identified strategies and projects it would complete over the following six years. This plan included pursuing BRT as an alternative in a number of transportation corridors in King County. The proposed BRT route was developed as part of a larger system that has since been named *RapidRide*. *RapidRide* is proposed as a network of BRT routes that seek to complement the region's fixed-route and high capacity transit service by providing intermediate capacity in transportation corridors.

The Bellevue-Redmond corridor was one of three corridors identified in the King County Transit Development Plan where BRT was the locally preferred alternative. This corridor was the highest priority corridor in eastern King County. In September 2007, FTA concurred that the project qualifies as a categorical exclusion. FTA approved the project for entry into Project Development in December 2007. The project rating included in this profile is based on conditions as of November 2007.

**Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project’s *Making the Case* document was not factored into the project justification rating.

***Making the Case***

The Bellevue-Redmond BRT project is intended to improve transit travel times in a high density corridor. While the “case” for the project presents a transportation corridor linking key employment centers (including the two downtowns anchored by the alignment, the Overlake Urban Center and Crossroads Mall) expecting to undergo significant growth, it does not articulate evidence of a strong transit market between these areas, nor of significant transportation problems in the corridor.

***Cost Effectiveness Rating: Medium***

The Bellevue-Redmond BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

**Local Financial Commitment Rating: Medium**

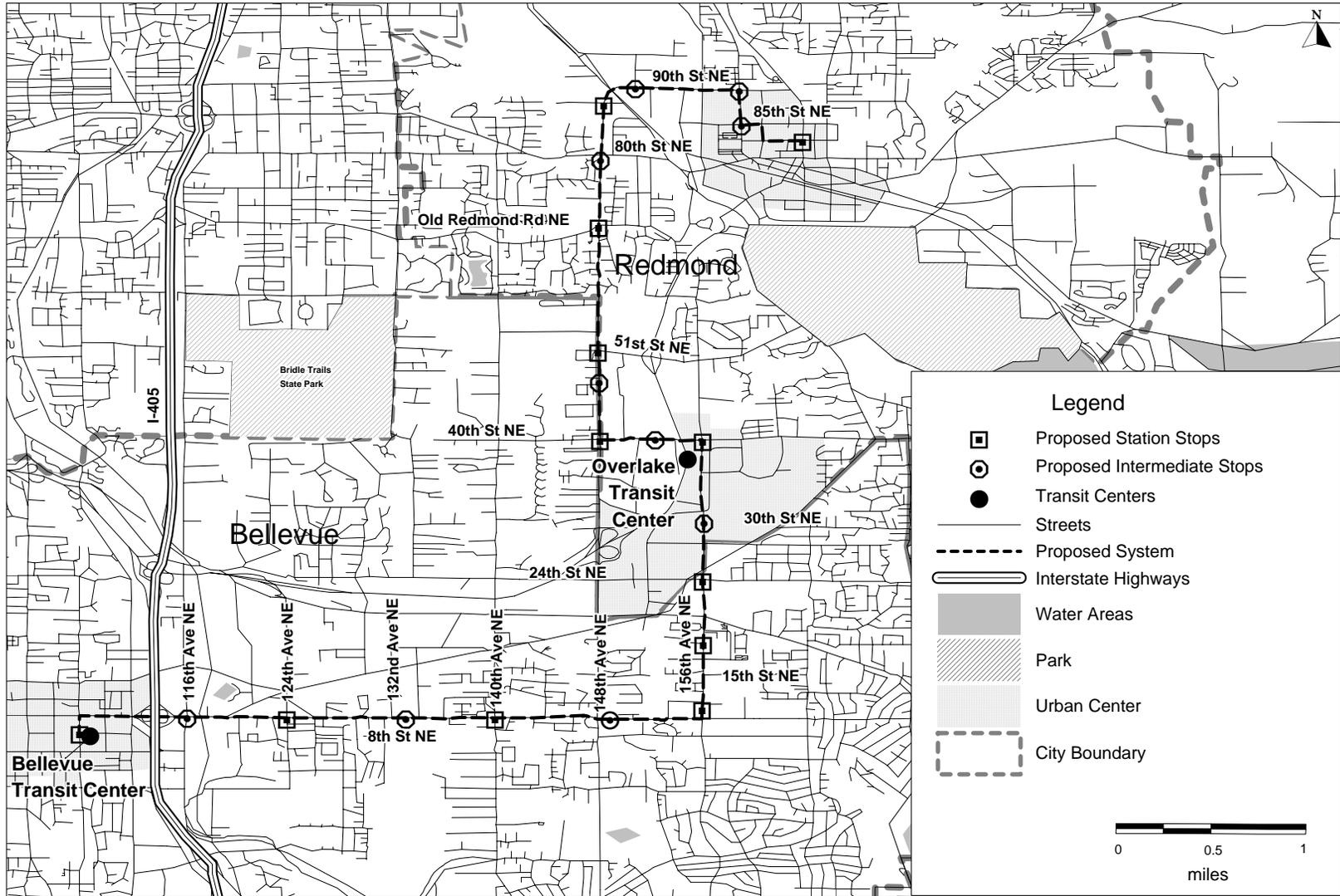
The project is rated *Medium* for local financial commitment, based upon King County Metro’s acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the proposed project is less than five percent of the agency’s operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Small Starts	\$20.21	75.0%
<b>Local:</b> Sales and Use Tax	\$6.74	25.0%
<b>Total:</b>	<b>\$26.95</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Bellevue - Redmond BRT

King County, Washington





# Pacific Highway South BRT

## King County, Washington

(November 2006)

The King County Department of Transportation, Metro Transit Division (King County Metro) proposes to construct and operate a 10.9-mile bus rapid transit (BRT) route extending from the City of Tukwila to the City of Federal Way, south of Seattle. The proposed line runs primarily along International Boulevard, from S 154<sup>th</sup> Street in the City of Tukwila to S 216<sup>th</sup> Street, where International Boulevard becomes Pacific Highway South, onto S 316<sup>th</sup> Street where the line turns east to the Federal Way Transit Center. The project includes 14 new stations, traffic signal priority, and the purchase of up to 16 low-floor, branded, diesel-hybrid vehicles. The proposed service would operate at grade with ten minute headways during the peak-period and 15-minute headways during the weekday off-peak. The project qualifies as a Very Small Start.

Two transit routes comprise the existing service in the corridor. The first, Route 174, provides 24 hour a day local service between Federal Way and Downtown Seattle. The second, Route 191, operates weekday only service during the peak period. Together, these routes carry approximately 5,000 passengers each weekday. The project corridor contains significant employment and residential nodes in the region such as the Duwamish Manufacturing/Industrial Center, as well as major attractions such as the SeaTac International Airport. Current bus service in the corridor makes frequent stops to accommodate passenger demand. This project presents an opportunity to provide improved transit service and amenities for a large number of existing transit riders as well as attract new riders.

### Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit 10.9 Miles 14 Stations
<b>Total Capital Cost (\$YOE):</b>	\$25.07 Million
<b>Section 5309 Small Starts Share (\$YOE):</b>	\$14.08 Million (56.1%)
<b>Annual Operating Cost (\$YOE):</b>	\$6.50 Million
<b>Opening Year Ridership Forecast (2015):</b>	8,200 Average Weekday Boardings
<b>FY 2008 Local Financial Commitment Rating:</b>	Medium
<b>FY 2008 Project Justification Rating:</b>	Medium
<b>FY 2008 Overall Project Rating:</b>	Medium

### Project Development History and Current Status

In 2002, King County Metro identified three potential BRT corridors in its 2002 *Six-Year Transit Development Plan*. One of the three corridors would be chosen for implementation based on the commitment by local jurisdictions to establish the following BRT-related improvements by 2005: 1) provide roadway operational improvements such as bus-only lanes, transit signal priority, or on-street parking restrictions; 2) support and permit the placement of BRT stations on the far side of intersections where possible to support effective transit signal priority; 3) fund elements that will make BRT distinctive from other bus transit service such as security enhancements, art, or marketing programs; and, 4) accept branding of the BRT service and facilities along the entire corridor. The City of Federal Way was the first jurisdiction in the County to make such commitments and the Pacific Highway South project was selected as the first BRT line for implementation. King County voters approved a sales tax increase of one-tenth of one percent to fund a variety of transit improvements, including the Pacific Highway South

BRT project. In August 2006, FTA concurred that the project qualifies as a categorical exclusion. FTA approved the Pacific Highway South BRT project into project development in December 2006. The project rating included in this profile is based on conditions as of November 2006.

### **Project Justification Rating: Medium**

The project is rated *Medium* for project justification based on *Medium* ratings for both cost effectiveness and transit-supportive land use. The project was approved into project development prior to 2007, when FTA implemented the *Making the Case* document.

### ***Cost Effectiveness Rating: Medium***

The Pacific Highway South BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

### ***Transit-Supportive Land Use Rating: Medium***

FTA considers Very Small Starts projects which meet the minimum existing ridership threshold of 3,000 daily boardings to be in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, FTA has assigned the project a *Medium* rating for transit supportive land use plans and policies.

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

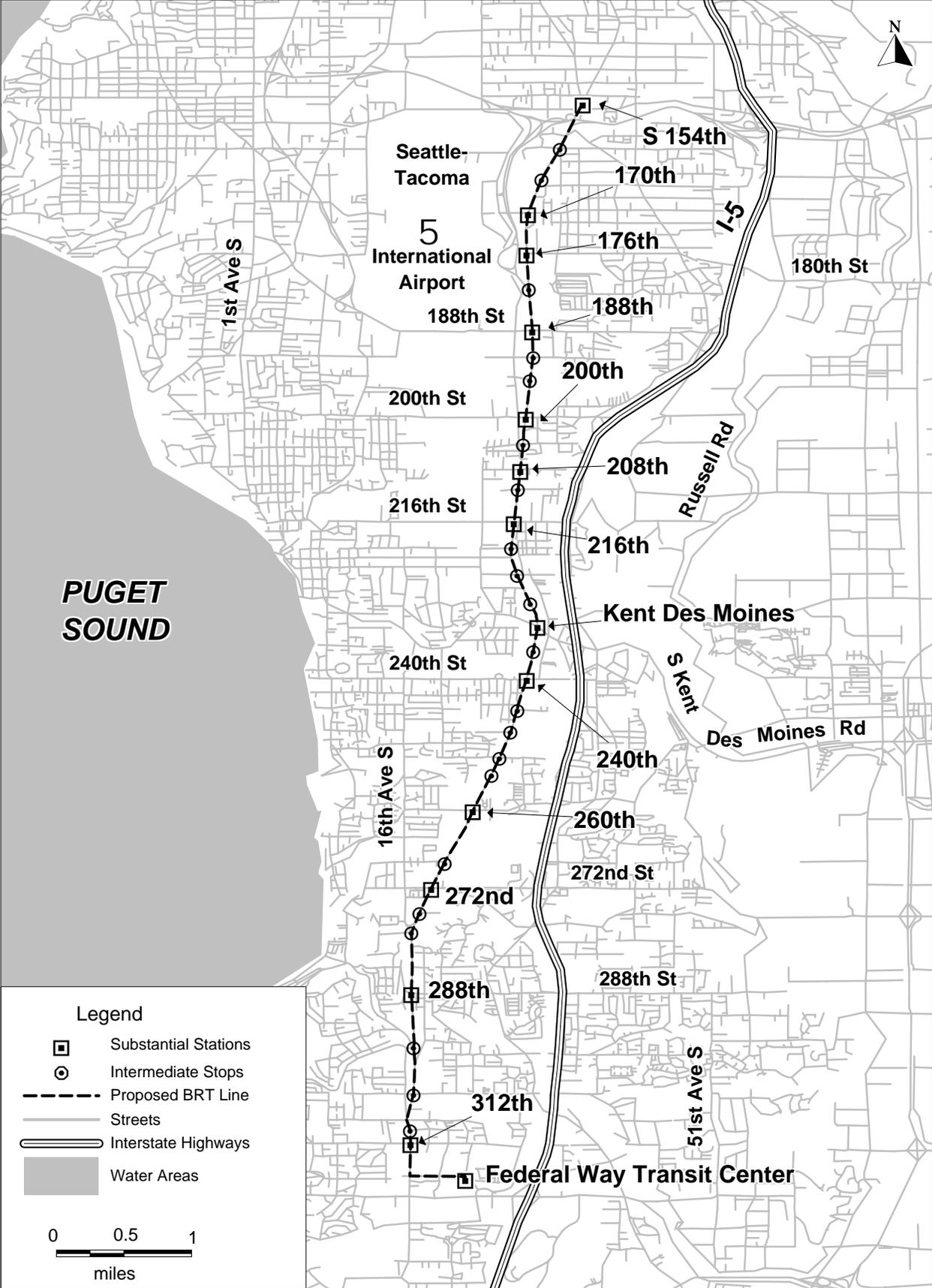
The project is rated *Medium* for local financial commitment, based upon King County's acceptable financial condition; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that operations and maintenance costs of the proposed project are less than five percent of the agency's operating budget.

<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b>		
Section 5309 Small Starts	\$14.08	56.1%
Section 5307 Formula Funds	\$0.80	3.2%
<b>Local:</b>		
Local Sales Tax	\$10.20	40.7%
<b>Total:</b>	<b>\$25.07</b>	<b>100.0%</b>

**NOTE:** The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

# Pacific Highway South BRT

## King County, Washington





# **Appendix B**

## **FY 2010 Evaluation and Rating Process**

---



## **FY 2010 New Starts and Small Starts Evaluation and Rating Process**

Appendix B of the FY 2010 *Annual Report* describes the methodology that the Federal Transit Administration (FTA) uses to evaluate and rate candidate New Starts and Small Starts projects as of August 2008, including FTA's evaluations for the *FY 2010 Annual Report*. This methodology is a modest departure from the process used in the evaluation of projects included in the *Annual Reports* for fiscal years 2004-2009 and remains consistent with FTA's *Final Rule on Major Capital Investment Projects* issued on December 7, 2000. It reflects several provisions found in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and also incorporates: a) changes adopted in the August 2008 *Final Guidance on New Starts and Small Starts Policies and Procedures*; and b) the *Interim Guidance and Instructions for Small Starts* issued in July 2007. Collectively, these changes are intended to reflect as much of the spirit of SAFETEA-LU as can be implemented prior to completion of the statutorily-required rulemaking process as well as FTA-initiated (and industry-requested) efforts to streamline the reporting and evaluation processes. The only change made to the rating and evaluation process since the FY 2009 *Annual Report* is as follows:

- **Adjusted Cost Effectiveness Breakpoints.** As announced in the April 29, 2005 Dear Colleague letter, FTA has adjusted the breakpoints for rating the cost effectiveness of proposed New Starts projects based on the Gross Domestic Product Index (also known as the GDP deflator), which is an alternative to the consumer price index. *Applies to New Starts and Small Starts.*

*Section I* of this document: introduces the legislative background of FTA's project evaluation and rating responsibilities; identifies each of the statutory criteria used by FTA in its evaluation process; and summarizes the overall project evaluation and rating process. *Sections II* and *III* describe the specific project justification and local financial commitment measures and ratings, respectively, including an explanation of the rating ranges and thresholds for each individual measure, and how they are rolled up into aggregate criteria ratings. *Section IV* concludes with a summary of what the overall project rating means.

This document is supplemented by two additional documents. *Guidelines and Standards for Assessing Transit-Supportive Land Use* and *Guidelines and Standards for Assessing Local Financial Commitment* provide additional detail on the process FTA uses to evaluate these two criteria. These materials are posted on FTA's website under *New Starts Project Planning and Development*: [http://www.fta.dot.gov/planning/newstarts/planning\\_environment\\_2620.html](http://www.fta.dot.gov/planning/newstarts/planning_environment_2620.html).

FTA reminds the audience of this document that project evaluation is an on-going process. It is based on an analysis of the documentation submitted to FTA by local agencies to support their proposed project. As New Starts and Small Starts projects proceed through project development, the estimates of costs, benefits, and impacts are refined. The FTA ratings are updated annually, as necessary (i.e. if project information has not changed from the previous year, an evaluation and rating is not required), to reflect new information, changing conditions, and refined financing plans.

## I. LEGISLATIVE BACKGROUND

SAFETEA-LU continues the evaluation process provisions first established by the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) in 1998. SAFETEA-LU requires the U.S. Department of Transportation to submit an annual report to Congress that includes the Secretary's evaluation, ratings, and a proposal on the allocation of funds among applicants for amounts to be made available to finance grants and loans for capital projects for new fixed guideway systems and extensions to existing fixed guideway systems and new Small Starts projects. Due to the transition between Administrations, the President's FY 2010 budget was not issued during the first week of February when the law specifies that this companion report is due to Congress. Instead, this report and its funding recommendations have been deferred to coordinate with the delayed release of the budget of the new Administration.

Like TEA-21, SAFETEA-LU mandates that proposed New Starts projects must receive FTA approval to advance from "alternatives analysis" to "preliminary engineering," and from "preliminary engineering" to "final design." This approval is based, in large part, on an evaluation of the proposed project's New Starts criteria. Specifically, a project must achieve an overall rating of at least *Medium* in order to advance into each stage of development. Likewise, Small Starts projects must receive FTA approval to advance from "alternatives analysis" to "project development," a single development phase that incorporates the features of both preliminary engineering and final design. Small Starts projects must also receive at least a *Medium* rating to advance. FTA also evaluates and rates projects for the purposes of developing its annual funding recommendations.

FTA's evaluation includes a review of the information submitted to support each proposed project and the assignment of a rating to each evaluation criterion. Based on these criteria-specific ratings, FTA assigns candidate New Starts projects summary ratings for project justification and local financial commitment, and develops the overall project rating. FTA also assigns ratings to Small Starts projects on a subset of the New Starts evaluation criteria. *Sections 1.A* and *1.B* below present the criteria used by FTA in its New Starts and Small Starts evaluation process; *Section 1.C* provides an overview of how these criteria fit into the overall evaluation process; and *Section 1.D* summarizes how overall project ratings are derived.

### ***1.A Project Justification Criteria***

Similar to TEA-21, SAFETEA-LU Section 3011(a) (49 USC 5309(d)) requires that projects proposed for New Starts funding be justified based on a comprehensive review of the following criteria:

- Mobility Improvements;
- Environmental Benefits;
- Operating Efficiencies<sup>1</sup>;
- Cost Effectiveness; and
- Transit Supportive Land Use Policies and Future Patterns

---

<sup>1</sup> FTA considers operating efficiencies to be evaluated as part of the cost effectiveness measure and so it does not receive a separate rating.

SAFETEA-LU also continues the TEA-21 requirement of considering “other factors.”

SAFETEA-LU further requires that FTA consider in its review the economic development effects of New Starts projects. FTA desires through the rulemaking process to work with the industry on the development of appropriate factors for measuring the economic development effects of candidate projects, and therefore will not consider economic development explicitly in the FY 2010 evaluation cycle as a specific criteria for evaluation. However, FTA does encourage candidate New Starts project sponsors to submit information which they believe demonstrates the economic development impacts of their proposed transit investments as an “other factor.” FTA will consider this information per the process used for rating other factors as described in *Section II.F* of this document. FTA will also consider under “other factors” the substantive arguments made for the worthiness of the project reflected in the “Case for the Project” document, and if the project is a principle element of a congestion management strategy, in general, and an auto pricing strategy, in particular, as well as other locally-reported factors.

In the interim period before issuance of a final rule governing Small Starts, Small Starts will be evaluated on the basis of the following project justification criteria:

- Cost Effectiveness;
- Transit Supportive Land Use Policies and Future Patterns; and
- Other Factors, including: economic development; if the project is a principle element of a congestion management strategy; the “Case for the Project”; and any other locally-reported factors.

The development of this information is intended to be less complex than required for New Starts. A subset of very simple and low cost transit projects, termed “Very Small Starts” projects, will be evaluated and rated using an even more simplified process. These Very Small Starts have the following features:

- Substantial transit stations,
- Traffic signal priority/pre-emption, to the extent, if any, that there are traffic signals on the corridor,
- Low-floor vehicles or level boarding,
- “Branding” (distinguishing through marketing and physical characteristics) of the proposed service,
- 10 minute peak/15 minute off peak frequencies or better while operating at least 14 hours per weekday (not required for commuter rail or ferries),
- Are in corridors with existing riders who will benefit from the proposed project that exceed 3,000 per average weekday, and
- Have a total capital cost less than \$50 million (including all project elements) and less than \$3 million per mile, exclusive of rolling stock.

Very Small Starts projects that meet these criteria, adequately documented in the Small Starts project submission to FTA, will receive a rating of *Medium* for project justification. FTA finds

that projects which meet these characteristics are by their nature cost effective and have transit supportive land-use appropriate to the proposed level of investment.

*Section III* of this appendix presents the specific measures FTA will use in the FY 2010 evaluation cycle to represent each of the project justification criteria, and how FTA will evaluate them.

### ***I.B Local Financial Commitment***

Similar to TEA-21, SAFETEA-LU Section 3011(a) (49 USC 5309(d)) requires that proposed projects also be supported by an acceptable degree of local financial commitment, including evidence of stable and dependable financing sources to construct, maintain and operate the transit system. Section 5309(d) further allows for an evaluation of the extent to which the project proposes a local financial commitment that exceeds the required non-Federal share of the cost of the project.

The measures to be used for the evaluation of the local financial commitment to a proposed project in the FY 2010 evaluation cycle are:

- The proposed share of total project costs from sources other than the Section 5309 New Starts or Small Starts programs, including Federal formula and flexible funds, the local match required by Federal law, and any additional capital funding;
- The strength of the proposed capital financial plan; and
- The ability of the sponsoring agency to fund operation and maintenance of the entire system as planned once the project is built.

*Section IV* describes how FTA will use these measures in its evaluation of candidate New Starts projects.

Small Starts projects may qualify for a highly simplified financial evaluation if the project sponsor can demonstrate the following:

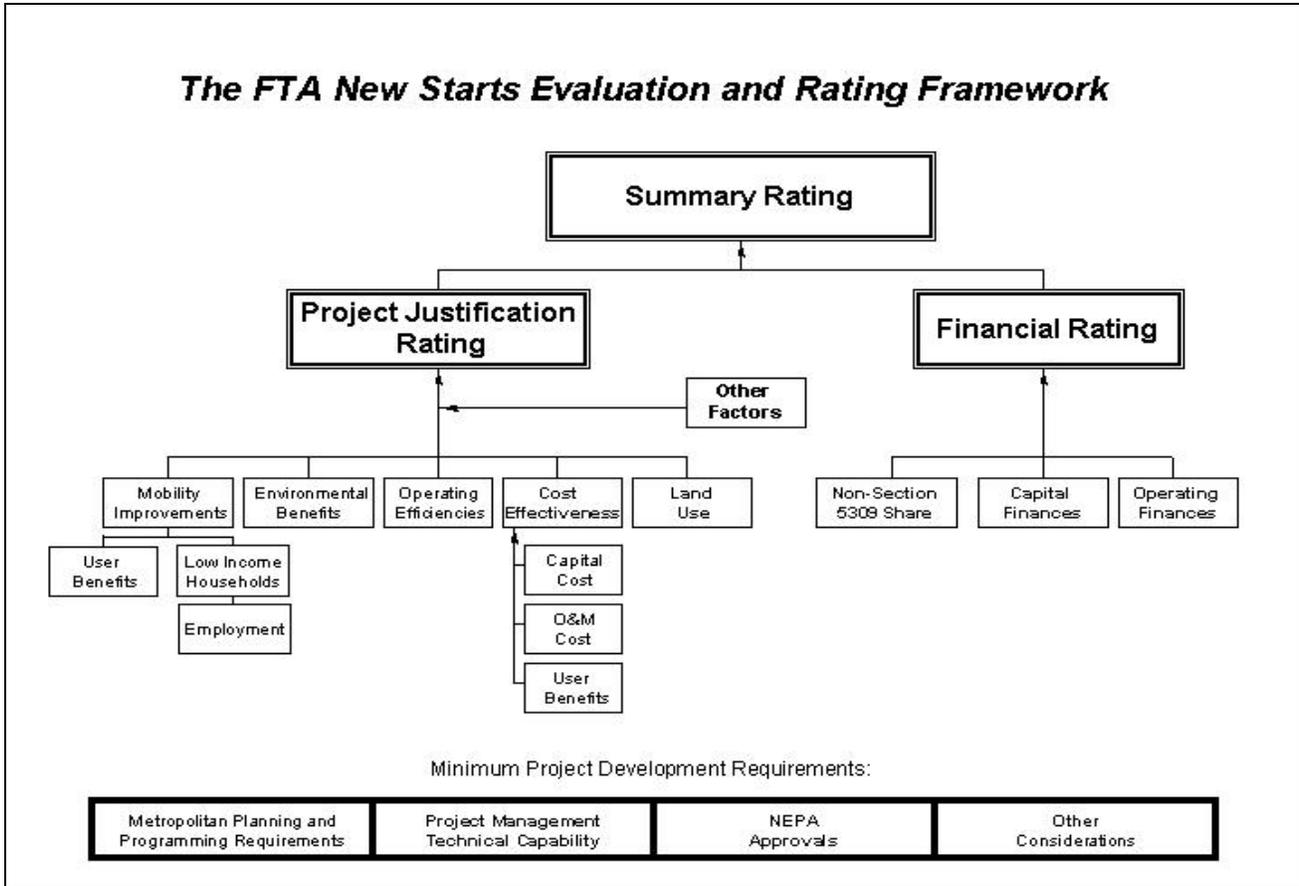
- A reasonable plan to secure funding for the local share of capital costs or sufficient available funds for the local share (all non-Small Starts funding must be committed before receiving a Project Construction Grant Agreement);
- The additional operating and maintenance cost to the agency of the proposed Small Starts project is less than 5 percent of the agency's system-wide operating budget; and
- The agency is in reasonably good financial condition.

Small Starts projects that meet these criteria and request greater than 50 percent Small Starts funding to cover project construction costs will receive a local financial commitment rating of *Medium*. Small Starts projects that meet these criteria and request 50 percent or less in Small Starts funding will receive a *High* rating for local financial commitment. Small Starts projects which cannot qualify for this highly simplified financial evaluation will be evaluated and rated in the same manner as other Small Starts projects.

**I.C The Evaluation Process**

FTA evaluates proposed New Starts projects against the full range of criteria for both project justification and local financial commitment, as described in Figure I-1. Small Starts are evaluated against a subset of these measures including cost effectiveness, land use, other factors (including economic development impacts), and local financial commitment. The specific project justification and local financial commitment measures included in Figure I-1 are described in detail in *Sections II and III* of this document, respectively.

**Figure I-1 New Starts Evaluation Process**



**I.D Overall Project Ratings**

SAFETEA-LU Sections 5309(d) and (e) require that FTA assign overall ratings on a 5-tier scale of *High, Medium-High, Medium, Medium-Low, or Low* to each New Starts or Small Starts project.

The overall project rating is determined by averaging the rating for project justification and local financial commitment. When the average of these ratings is unclear (e.g. project justification rating of *Medium-High* and local financial commitment rating of *Medium*), FTA will round up the overall rating to the higher rating (e.g. project justification rating of *Medium-High* and local financial commitment rating of *Medium* yields an overall rating of *Medium-High*) except in the following circumstances:

- A *Medium* overall rating requires a rating of at least *Medium* for both project justification and local financial commitment.
- A *Medium-Low* overall rating requires a rating of at least *Medium-Low* for both project justification and local financial commitment.

FTA reminds project sponsors that candidate projects cannot receive a designation of **Not Rated** if they receive a *Medium* or higher rating for local financial commitment but are unable to produce acceptable information in support of their project justification criteria. In cases where such information is either not submitted or submitted but deemed to be unreliable, FTA will assign a rating of *Low* to the affected project justification criteria.

### ***I.E Ratings: An On-going Process***

Again, it is important to emphasize that project evaluation is an on-going process. FTA evaluation and rating occurs annually as necessary (if project information has not changed from the previous year, an evaluation and rating is not required) in support of budget recommendations presented in the *Annual Report* and when a project sponsor requests FTA approval to advance their proposed New Starts project into preliminary engineering and final design or Small Starts project into project development. Consequently, as proposed New Starts and Small Starts projects proceed through the project development process, information concerning costs, benefits, and impacts is refined and the ratings are updated to reflect new information.

## **II. SUMMARY PROJECT JUSTIFICATION RATING**

The following summarizes FTA's process for evaluating the project justification criteria of proposed New Starts projects.

### ***II.A Project Justification Rating***

FTA assigns a summary project justification rating of *High*, *Medium-High*, *Medium*, *Medium-Low* or *Low* to each project based on consideration of the ratings applied to the project justification criteria presented in *Section I.A* and each of the specific measures identified in Table II-1:

**Table II-1 New Starts and Small Starts Project Justification Criteria and Supporting Measures and Categories**

Criterion	Measures/Categories
Cost Effectiveness (New Starts and Small Starts)	<ul style="list-style-type: none"> <li>• Incremental Cost per Hour of Transportation System User Benefit</li> </ul>
Transit Supportive Land Use and Future Patterns (New Starts and Small Starts)	<ul style="list-style-type: none"> <li>• Existing Land Use</li> <li>• Transit Supportive Plans and Policies</li> <li>• Performance and Impacts of Policies</li> </ul>
Mobility Improvements (New Starts only)	<ul style="list-style-type: none"> <li>• Number of Transit Trips</li> <li>• User Benefits per Passenger Mile</li> <li>• Number of Transit Dependents Using the Project</li> <li>• Transit Dependent User Benefits per Passenger Mile</li> <li>• Share of User Benefits Received by Transit Dependents Compared to Share of Transit Dependents in the Region</li> </ul>
Environmental Benefits (New Starts only)	<ul style="list-style-type: none"> <li>• EPA Air Quality Designation</li> </ul>

For mobility improvements, projects are aligned for each measure and category in a continuum of values from *Low* to *High* and broken into five groups, with each group assigned a numerative rating of 1 (*Low*) to 5 (*High*). The thresholds that distinguish the five groups are not pure quintiles (that is, 20 percent each of the total number of projects being evaluated for the measure) but rather logical break points in the aligned data that separate one group from another. The mobility improvements ratings process is described in greater detail in *Sections II.D* below.

For the cost effectiveness criterion, specific dollar breakpoints are defined for *High*, *Medium-High*, *Medium*, *Medium-Low* and *Low* ratings (these breakpoints are presented in *Section II.B*). Transit Supportive Land Use factors are presented in *Section II.C*, decision rules for the environmental benefits criterion are described in *Sections II.E*, and consideration of “other factors” is described in *Section II.F*.

FTA assigns a weight of 50 percent each to the cost effectiveness and land use criteria in order to establish a summary project justification rating. For New Starts, when the average of the cost effectiveness and land use rating falls equally between two ratings (say, between a *Medium* and a *Medium-High* rating), the mobility improvements rating is introduced as a “tiebreaker.” Specifically, when mobility improvements are rated *Low*, the summary rating will “round down” to the lower of the two ratings; for all other mobility improvement ratings (and for all Small Starts projects, which are not rated for mobility improvements), the rating is “rounded-up” to establish the summary project justification rating. For example, a New Starts project with a cost

effectiveness rating of *Medium-High*, a land use rating of *Low*, and a mobility improvements rating of *Medium* would receive a summary project justification rating of *Medium*.

Based upon its prior experience in evaluating New Starts projects, FTA has previously determined that locally-generated and reported information in support of the operating efficiencies and environmental benefits criteria does not distinguish, in any meaningful way, differences between competing major transit capital investments. FTA continues to rate the environmental benefits of proposed New Starts projects, as described in *Section II.E* of this document, but does not currently consider this rating in the determination of an overall project justification rating. However, FTA is cognizant of the importance of recognizing this measure, and has convened a panel of experts to explore ways in which environmental benefits of New Starts projects might be considered and weighed in the rating process. A report of that panel's deliberations was released in April 2009. A formal proposal for measuring and evaluating environmental benefits will be advanced by FTA for consideration and industry comment.

Beginning in June 2007, FTA no longer explicitly evaluates the operating efficiencies of proposed New Starts projects because FTA believes the anticipated operating efficiencies of proposed New Starts projects are adequately captured under its measure for evaluating project cost effectiveness.

If well documented, and considered by FTA to be a significant benefit to a proposed project that is not otherwise captured in the other evaluation criteria, "other factors" may increase or decrease a summary project justification rating by no more than one step (for example, from *Medium-Low* to *Medium* or from *Medium-High* to *High*.) Consistent with SAFETEA-LU, FTA will give particular attention to well-documented and justified economic development impacts in its evaluation of "other factors" for candidate New Starts and Small Starts projects. FTA will also consider under "other factors" the substantive arguments made for the worthiness of the project reflected in the "Case for the Project" document, and if the project is a principle element of a congestion management strategy, in general, and an auto pricing strategy, in particular, as well as other locally-reported factors.

Failure to submit acceptable information (for example, reliable travel forecasts to support the cost effectiveness and mobility improvements criteria) will result in a *Low* rating for the affected project justification criteria.

### ***II.B Cost Effectiveness***

In its evaluation of the cost effectiveness of a proposed project, FTA considers the incremental cost per hour of transportation system user benefits in the forecast year. Transportation system user benefits reflect the improvements in regional mobility - as measured by the weighted in- and out-of-vehicle changes in travel-time to users of the regional transit system - caused by the implementation of the proposed New Starts project. The cost effectiveness measure is calculated by (a) estimating the incremental "base-year" annualized capital and operating costs of the project (over a lower cost "baseline" of transit service), and then (b) dividing these costs by the projected user benefits. The result of this calculation is a measure of project cost per hour of projected user (i.e. travel-time) benefits expected to be achieved if the project is added to the regional transit system. Proposed projects with a lower cost per hour of projected travel-time

benefits are evaluated as more cost effective than those with a higher cost per hour of projected travel-time benefits.

FTA believes that the cost per hour of transportation system user benefits is a sound measure for cost effectiveness and preferable to the prior measure of incremental cost per new rider because it: (1) captures the benefits which accrue to *all* transit users (including existing transit riders which the previous measure did not capture), including both direct time savings and other attributes of premium transit services such as service reliability, safety and security, branding, span of service, etc.; (2) better reflects the *cause* of ridership increases – improvements in travel time and other attributes of major transit capital investments such as reliability, security, and permanence – rather than simply the patronage *outcome as did the previous measure*; (3) reflects the nature of the service being provided by the proposed project (for example, the previous measure could not distinguish between a project generating 1,000 new riders all making very short trips versus a project generating 1,000 new riders all making very long trips; and (4) does not penalize those agencies which are already providing a high level of transit service in a corridor for which a major capital investment is proposed.

Table II-2 below presents the thresholds FTA will use in FY 2010 for assigning a *High, Medium-High, Medium, Medium-Low* or *Low* cost effectiveness rating for each proposed project. FTA publishes updates to these breakpoints annually to reflect the impact of inflation.

**Table II-2 Cost Effectiveness Breakpoints**

High	\$11.99 and under
Medium-High	\$12.00 - \$15.99
Medium	\$16.00 - \$24.49
Medium-low	\$24.50 - \$30.49
Low	\$30.50 and over

The breakpoints that FTA uses to assign cost-effectiveness ratings are based, fundamentally, on the value of the project’s benefits (cost per hour of transportation system user benefits with an adjustment to account for congestion benefits and all other unquantifiable benefits). The value of time savings is both well developed and widely used in the economic analysis of transportation projects. U.S. Department of Transportation (USDOT) guidance (*Departmental Guidance for the Valuation of Travel time in Economic Analysis, April 9, 1997*) describes, in detail, the derivation of the standard values of time to be used by all USDOT Administrations in the economic evaluation of proposed projects. Consistent with this departmental guidance, FTA values travel time-savings at 50 percent of Median Household Income published by the Census Bureau, divided by 2,000 hours.

When the cost-effectiveness breakpoints were initially established in Fall 2002 for the FY 2004 *Annual Report*, the most recent data available from the U.S. Census was year 2000. At that time, the median household income reported by the U.S. Census was \$42,148. Using 2000 hours per year as specified in USDOT guidance, the value of time in year 2000 was calculated at \$10.54 per hour. However, FTA acknowledged that the time savings for transit users alone did not capture the full range of benefits of major transit projects. Pending improved reliability of the estimates of highway congestion relief, FTA assumed that congestion relief adds about 20

percent to the travel time savings generated by the project. Hence, each hour of transit time savings would represent a total direct benefit of about \$12.65 per hour in year 2000 dollars to all users of the transportation system. Further, indirect benefits (economic development, safety improvements, pollutant reductions, energy savings, etc.) increased that value. Assuming that indirect benefits are approximately equal to the direct transportation benefits, FTA increased the value of each hour of transit travel time by a factor of two to about \$25 in year 2000 dollars. FTA used this value to establish the breakpoint between a "Low" and "Medium-Low" rating for cost effectiveness. Since that time, the breakpoints have been inflated annually based on the Gross Domestic Product Index (also known as the GDP deflator), which is an alternative to the consumer price index.

Very Small Start projects include low-cost elements such as service branding, low-floor buses operating at improved frequencies, transit stations with real-time passenger information, and traffic signal priority, all of which FTA has determined to be cost effective by their very nature. Therefore, Very Small Starts projects automatically receive a *Medium* rating for cost effectiveness.

### ***II.C Transit-Supportive Existing Land Use and Future Patterns***

In its evaluation of the land use for New Starts projects, FTA explicitly considers the following transit supportive land use categories and factors:

1. **Existing Land Use**
2. **Transit Supportive Plans and Policies**, including the following factors:
  - Growth management;
  - Transit supportive corridor policies;
  - Supportive zoning regulations near transit stations; and
  - Tools to implement land use policies.
3. **Performance and Impacts of Policies**, including the following factors:
  - Performance of land use policies; and
  - Potential impact of transit project on regional land use.

FTA also permits project sponsors to submit information in support of an optional "other land use considerations" category.

The evaluation of transit supportive existing land use and future patterns is similar for Small Starts projects, but eliminates the growth management and "other land use considerations" factors and simplifies the reporting of information supporting the remaining factors. More information on the land use evaluation process for Small Starts projects can be found in Appendix A of the *Interim Guidance and Instructions for Small Starts*.

FTA considers Very Small Starts projects which meet the minimum existing ridership threshold of 3,000 daily boardings to be in corridors with transit-supportive land use appropriate to the proposed level of investment. Therefore, Very Small Starts projects automatically receive a *Medium* rating for transit supportive land use plans and policies.

Based on information submitted to FTA by local agencies, FTA gauges each category by the factors identified above. FTA assigns numerical ratings from one of five (“1” to “5”) for each project for each of the factors. Each factor is weighted equally within its category, averaged, and combined into category-specific ratings. These category ratings are then combined equally (that is, each land use category rating contributes one-third of the value) and converted to a descriptive rating of *High*, *Medium-High*, *Medium*, *Medium-Low* or *Low* to determine the overall land use rating. In rare cases, when based on unusually compelling “other” land use considerations, FTA may increase the land use rating by one level.

Additional detail on FTA’s land use rating process is contained in *Guidelines and Standards for Assessing Transit-Supportive Land Use*. Table II-3 summarizes the ratings applied by FTA in the assessment of each land use category and supporting factor at each stage of project development.

**Table II-3 Ratings Applied in Assessment of Land Use Criterion**

<b>I. EXISTING LAND USE</b>		
<i>Existing Land Use</i>		
Phase of Project Development	Land Use Assessment Ratings	
Preliminary Engineering and Final Design	HIGH (5)	Current levels of population, employment, and other trip generators in station areas are sufficient to support a major transit investment. Most station areas are pedestrian-friendly and fully accessible.
	MEDIUM (3)	Current levels of population, employment, and other trip generators in station areas marginally support a major transit investment. Some station areas are pedestrian-friendly and accessible. Significant growth must be realized.
	LOW (1)	Current levels of population, employment, and other trip generators in station areas are inadequate to support a major transit investment. Station areas are not pedestrian-friendly.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Existing corridor and station area development;</li> <li>• Existing corridor and station area development character;</li> <li>• Existing station area pedestrian facilities, including access for persons with disabilities; and</li> <li>• Existing corridor and station area parking supply.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>II. TRANSIT-SUPPORTIVE PLANS AND POLICIES</b>		
<b><i>Growth Management</i> (DOES NOT APPLY TO SMALL STARTS)</b>		
Phase of Project Development	Land Use Assessment Ratings	
Preliminary Engineering and Final Design	HIGH (5)	Adopted and enforceable growth management and land conservation policies are in place throughout the region. Existing and planned densities, along with market trends in the region and corridor are strongly compatible with transit.
	MEDIUM (3)	Significant progress has been made toward implementing growth management and land conservation policies. Strong policies may be adopted in some jurisdictions but not others, or only moderately enforceable policies (e.g., incentive-based) may be adopted regionwide. Existing and/or planned densities and market trends are moderately compatible with transit.
	LOW (1)	Limited consideration has been given to implementing growth management and land conservation policies; adopted policies may be weak and apply to only a limited area. Existing and/or planned densities and market trends are minimally or not supportive of transit.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Concentration of development around established activity centers and regional transit; and</li> <li>• Land conservation and management.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>II. TRANSIT-SUPPORTIVE PLANS AND POLICIES</b>		
<i>Transit-Supportive Corridor Policies</i>		
Final Design	HIGH (5)	Conceptual plans for the corridor and station areas have been developed. Local jurisdictions have adopted or drafted revisions to comprehensive and/or small area plans in most or all station areas. Land use patterns proposed in conceptual plans and local and institutional plan revisions are strongly supportive of a major transit investment.
	MEDIUM (3)	Conceptual plans for the corridor and station areas have been developed. Local jurisdictions have initiated the process of revising comprehensive and/or small area plans. Land use patterns proposed in conceptual plans and local and institutional plan revisions are at least moderately supportive of a major transit investment.
	LOW (1)	Limited progress, to date, has been made toward developing station area conceptual plans or revising local comprehensive or small area plans. Existing station area land uses identified in local comprehensive plans are marginally or not transit-supportive.
Preliminary Engineering	HIGH (5)	Conceptual plans for the corridor and station areas have been developed. Discussions have been undertaken with local jurisdictions about revising comprehensive plans. Land use patterns proposed in conceptual plans for station areas (or in existing comprehensive plans and institutional master plans throughout the corridor) are strongly supportive of a major transit investment.
	MEDIUM (3)	Conceptual plans for the corridor and station areas are being developed. Discussions have been undertaken with local jurisdictions about revising comprehensive plans. Land use patterns proposed in conceptual plans for station areas (or existing in local comprehensive plans and institutional master plans) are at least moderately supportive of a major transit investment.
	LOW (1)	Limited progress, to date, has been made toward developing station area conceptual plans or working with local jurisdictions to revise comprehensive plans. Existing station area land uses identified in local comprehensive plans are marginally or not transit-supportive.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Plans and policies to increase corridor and station area development;</li> <li>• Plans and policies to enhance transit-friendly character of corridor and station area development;</li> <li>• Plans to improve pedestrian facilities, including facilities for persons with disabilities; and</li> <li>• Parking policies.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>II. TRANSIT-SUPPORTIVE PLANS AND POLICIES</b>		
<i>Supportive Zoning Regulations Near Transit Stations</i>		
Final Design	HIGH (5)	Local jurisdictions have adopted zoning changes that strongly support a major transit investment in most or all transit station areas.
	MEDIUM (3)	Local jurisdictions are in the process of adopting zoning changes that moderately or strongly support a major transit investment in most or all transit station areas. Alternatively: strongly transit-supportive zoning has been adopted in some station areas but not in others.
	LOW (1)	No more than initial efforts have begun to prepare station area plans and related zoning. Existing station area zoning is marginally or not transit-supportive.
Preliminary Engineering	HIGH (5)	A conceptual planning process is underway to recommend zoning changes for station areas. Conceptual plans and policies for station areas are recommending transit-supportive densities and design characteristics. Local jurisdictions have committed to examining and changing zoning regulations where necessary. Alternatively, a “high” rating can be assigned if existing zoning in most or all transit station areas is already strongly transit-supportive.
	MEDIUM (3)	A conceptual planning process is underway to recommend zoning changes for station areas. Local jurisdictions are in the process of committing to examining and changing zoning regulations where necessary. Alternatively, a “medium” rating can be assigned if existing zoning in most or all transit station areas is already moderately transit-supportive.
	LOW (1)	Limited consideration has been given to preparing station area plans and related zoning. Existing station area zoning is marginally or not transit-supportive.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Zoning ordinances that support increased development density in transit station areas;</li> <li>• Zoning ordinances that enhance transit-oriented character of station area development and pedestrian access; and</li> <li>• Zoning allowances for reduced parking and traffic mitigation.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>II. TRANSIT-SUPPORTIVE PLANS AND POLICIES</b>		
<i>Tools to Implement Land Use Policies</i>		
Final Design	HIGH (5)	Transit agencies and/or regional agencies are working proactively with local jurisdictions, developers, and the public to promote transit-supportive land use planning and station area development. The transit agency has established a joint development program and identified development opportunities. Agencies have adopted effective regulatory and financial incentives to promote transit-oriented development. Public and private capital improvements are being programmed in the corridor and station areas which implement the local land use policies and which leverage the Federal investment in the proposed corridor.
	MEDIUM (3)	Transit agencies and/or regional agencies have conducted some outreach to promote transit-supportive land use planning and station area development. Regulatory and financial incentives to promote transit-oriented development are being developed, or have been adopted but are only moderately effective. Capital improvements are being identified that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	LOW (1)	Limited effort has been made to reach out to jurisdictions, developers, or the public to promote transit-supportive land use planning; to identify regulatory and financial incentives to promote development; or to identify capital improvements.
Preliminary Engineering	HIGH (5)	Transit agencies and/or regional agencies are working proactively with local jurisdictions, developers, and the public to promote transit-supportive land use planning and station area development. Local agencies are making recommendations for effective regulatory and financial incentives to promote transit-oriented development. Capital improvement programs are being developed that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	MEDIUM (3)	Transit agencies and/or regional agencies have conducted some outreach to promote transit-supportive land use planning and station area development. Agencies are investigating regulatory and financial incentives to promote transit-oriented development. Capital improvements are being identified that support station area land use plans and leverage the Federal investment in the proposed major transit corridor.
	LOW (1)	Limited effort has been made to reach out to jurisdictions, developers, or the public to promote transit-supportive land use planning; to identify regulatory and financial incentives to promote development; or to identify capital improvements.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Outreach to government agencies and the community in support of land use planning;</li> <li>• Regulatory and financial incentives to promote transit-supportive development; and</li> <li>• Efforts to engage the development community in station area planning and transit-supportive development.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>III. PERFORMANCE AND IMPACTS OF LAND USE POLICIES</b>		
<i>Performance of Land Use Policies</i>		
Final Design	HIGH (5)	A significant number of development proposals are being received for transit-supportive housing and employment in station areas. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM (3)	Some development proposals are being received for transit-supportive housing and employment in station areas. Moderate amounts of transit-supportive development have occurred in other existing transit corridors and station areas in the region.
	LOW (1)	A limited number of proposals for transit-supportive housing and employment development in the corridor are being received. Other existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
Preliminary Engineering	HIGH (5)	Transit-supportive housing and employment development is occurring in the corridor. Significant amounts of transit-supportive development have occurred in other, existing transit corridors and station areas in the region.
	MEDIUM (3)	Station locations have not been established with finality, and therefore, development would not be expected. Moderate amounts of transit-supportive housing and employment development have occurred in other, existing transit corridors and station areas in the region.
	LOW (1)	Other existing transit corridors and station areas in the region lack significant examples of transit-supportive housing and employment development.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Demonstrated cases of development affected by transit-oriented policies; and</li> <li>• Station area development proposals and status.</li> </ul>		

**Table II-3 Ratings Applied in Assessment of Land Use Criterion (cont.)**

<b>III. PERFORMANCE AND IMPACTS OF LAND USE POLICIES</b>		
<i>Potential Impact of Transit Project on Regional Land Use</i>		
Preliminary Engineering and Final Design	HIGH (5)	A significant amount of land in station areas is available for new development or redevelopment at transit-supportive densities. Local plans, policies, and development programs, as well as real estate market conditions, strongly support such development.
	MEDIUM (3)	A moderate amount of land in station areas is available for new development or redevelopment at transit-supportive densities. Local plans, policies, and development programs, as well as real estate market conditions, moderately support such development.
	LOW (1)	Only a modest amount of land in station areas is available for new development or redevelopment. Local plans, policies, and development programs, as well as real estate market conditions, provide marginal support for new development in station areas.
Ratings based on assessment of the following: <ul style="list-style-type: none"> <li>• Adaptability of station area land for development; and</li> <li>• Corridor economic environment.</li> </ul>		

As Table II-3 indicates, FTA takes into consideration the stage of development of a proposed project in its evaluation of land use information. For example, the planning and policy oriented factors (existing land use, containment of sprawl, and corridor policies) are relevant in evaluating projects in all stages of project development, but particularly useful for projects early in project development. On the other hand, the implementation-oriented factors (supportive zoning regulations, implementation tools, and performance of land use policies) are more applicable in evaluating projects more advanced in preliminary engineering or final design.

**II.D Mobility Improvements**

Five measures are applied to estimate mobility improvements: (1) the number of transit trips using the project; (2) their user benefits per passenger mile on the project; (3) the number of trips by transit dependent riders using the project; (4) their user benefits per passenger mile on the project; and (5) the share of user benefits received by transit dependents compared to the share of transit dependents in the region.

**Number of Transit Trips Using the Project**

The number of transit trips on the project indicates whether or not the project provides benefits for a large number of users. All else being equal, projects that benefit more trips are more effective mobility improvements than projects that benefit fewer trips.

**User Benefits per Passenger Mile on the Project**

User benefits quantify traveler mobility benefits for all users of the transit system, expressed in terms of travel time savings. In order to rate projects in comparison to one another, this measure is normalized by the annual passenger miles traveled on the New Starts project in the forecast year. The result is a measure of the intensity of the user benefits.

### **Number of Trips by Transit Dependents Using the Project**

The number of trips by transit dependent riders indicates whether or not the project provides benefits for a large number of transit dependent people. All else being equal, projects that benefit more transit dependent people are more effective mobility improvements for transit dependents than projects that benefit fewer transit dependent people.

### **Transit Dependent User Benefits per Passenger Mile**

This measure indicates whether the New Starts project would result in significant benefits for the average transit dependent passenger. User benefits to transit dependents are quantified as the user benefits for the lowest socio-economic stratum reflected in the local travel forecasting model (usually based on auto-ownership or income).

### **Share of User Benefits Received by Transit Dependents Compared to the Share of Transit Dependents in the Region**

This measure indicates whether or not a project is in a relatively transit dependent corridor for the particular metropolitan area. The numerator is calculated by taking the amount of user benefits received by the lowest socio-economic stratum and dividing by the total amount of user benefits for the project. The denominator is calculated by taking the number of person-trips made regionally by the lowest socio-economic stratum and dividing by the total person-trips made regionally.

After reviewing the ratios submitted for the fifth measure (share of user benefits received by transit dependents compared to the share of transit dependents in the region), FTA did not believe the quality of the data was sufficient to warrant including the metric in the mobility rating calculation. For each of the remaining four measures, projects were aligned in order and categorized into five groups, separated by the logical breakpoints indicated by the submitted data for the measure. Projects in the highest grouping received a “5,” while projects in the lowest grouping received a “1.” To arrive at the mobility improvements rating, FTA assigned the following weights to the four measures: (1) the number of transit trips using the project 37.5%; (2) user benefits per passenger mile on the project 37.5%; (3) the number of trips by transit dependent riders using the project 12.5%; and (4) user benefits per passenger mile on the project 12.5%.

### ***II.E Environmental Benefits***

In its evaluation of environmental benefits that would be realized through the implementation of a proposed project, FTA considers the current air quality designation by EPA. This measure is defined for each of the transportation-related pollutants (ozone, CO, and PM-10) as the current air quality designation by EPA for the metropolitan region in which the proposed project is located, indicating the severity of the metropolitan area’s noncompliance with the health-based EPA standard (NAAQS) for the pollutant, or its compliance with that standard. Specifically, FTA follows the following decision rule when assigning ratings for environmental benefits:

- Projects in non-attainment areas for any transportation-related pollutants receive a *High* rating.
- Projects that are in attainment areas receive a *Medium* rating.

As noted previously, FTA has found that information submitted in support of the environmental benefits criterion does not distinguish with any meaning the merits of competing New Starts projects. While FTA reports the information submitted by project sponsors on environmental benefits to Congress in the *Annual Report*, it does not formally incorporate this measure in its evaluation of New Starts projects.

### ***II.F Other Factors***

Consistent with Section 5309(d) and (e), FTA also includes a variety of other factors when evaluating project justification, including:

- Effect of the project on economic development;
- The nature and extent of the transportation problem or opportunity in the project corridor as described in the “Case for the Project” document;
- If the project is a principle element of a congestion management strategy, in general, and an auto pricing strategy, in particular; and
- Any other factor which the project sponsor believes articulates the benefits of the proposed major transit capital investment but which is not captured within the other project justification criteria.

Consistent with SAFETEA-LU, FTA intends that economic development should be an “other factor” of particular significance for the FY 2010 evaluation cycle. Through its ongoing rulemaking process, FTA hopes to define specific measures for evaluating the economic development impacts of candidate New Starts projects. Until such measures are defined and subject to industry comment, FTA encourages project sponsors to submit information that they feel best justifies the anticipated economic development impacts of the proposed New Starts or Small Starts investment. FTA is particularly interested in quantifiable economic development benefits which can be clearly distinguished from a) the transportation system user benefits that comprise one variable of FTA’s measure for cost effectiveness, and b) land use impacts that are reported and evaluated in support of the transit supportive land use plans and policies criteria. Specifically, FTA desires to avoid both the double-counting of benefits *and* the crediting of benefits to projects which may be more appropriately attributable to other supporting local economic development initiatives, policies, and/or incentives by isolating the specific impacts resulting from the presence of fixed guideway transit in a given corridor. FTA’s objectives for measuring economic development are outlined in Part II of its January 11, 2006 *New Starts Policy Guidance*, and will be further articulated in a formal notice of proposed rulemaking. The rating of economic development can only be positive, as absence of information for economic development has no effect on the project justification rating.

As described in FTA’s June 2007 *Guidance on New Starts/Small Starts Policies and Procedures*, FTA has rated the substantive arguments made for the worthiness of the project reflected in the “Case for the Project” document. The rating is based on the magnitude of substantiated project merits drawn from the analytical results of planning and project development studies. While FTA has rated the “Case for the Project” document for each project under evaluation in the FY 2010 *Annual Report*, FTA has not included the rating due to the inconsistent quality of the submitted documents. To assist project sponsors in preparing these documents in the future,

FTA intends to publish additional guidance on developing the “Case for the Project” as well as additional examples of what constitutes a well rated document. FTA intends to work closely with project sponsors in the upcoming year to improve the “Case for the Project” documents.

FTA will also consider as an “other factor” projects that are a principle element of a congestion management strategy, in general, and an auto pricing strategy, in particular. The rating will be based on the effectiveness of the strategy. Ratings will only positively effect the project justification rating, as absence of a strategy has no effect on the project justification rating.

Consideration will also be given to additional “other factors” that the project sponsor believes important but which are not captured under any of the other project justification criteria. This overall “other factors” rating is introduced *after* the assignment of an initial project justification rating. If the “other factors” rating is higher than the summary project justification rating, FTA may increase this initial project justification rating by a maximum of one step (i.e. from *Medium* to *Medium-High*). In less compelling cases, other factors may be reported alongside other project information in the *Annual Report*, but not formally considered in the project’s evaluation and rating. Where information in support of being considered as an "other factor" is not determined to be worthy of such recognition, it is neither considered in FTA’s evaluation nor reported.

### **III. SUMMARY LOCAL FINANCIAL COMMITMENT RATING**

The following provides a summary of FTA’s process for evaluating the local financial commitment of proposed New Starts and Small Starts projects. Small Starts projects that meet the criteria described in *Section I.B* receive a summary local financial commitment rating of *Medium* or *High*, depending on the Small Starts share. Those Small Starts projects that cannot meet those criteria must be evaluated and rated based on the criteria described in this section.

#### ***III.A Local Financial Commitment Rating***

FTA assigns a summary local financial commitment rating of *High*, *Medium-High*, *Medium*, *Medium-Low* or *Low* to each project following consideration of individual ratings applied to the following measures for local financial commitment:

1. **Share of non-Section 5309 New Starts funding;**
2. Stability and reliability of the proposed project’s **capital finance plan**, including the following factors:
  - Current capital condition;
  - Commitment of capital funds;
  - Reasonable capital planning assumptions and cost estimates and sufficient capital funding capacity.
3. Stability and reliability of the proposed project’s **operating finance plan**, including the following factors:
  - Current operating financial condition;
  - Commitment of operations and maintenance (O&M) funds;
  - Reasonable operations planning assumptions and cost estimates and sufficient O&M funding capacity.

These ratings are based on an analysis of the financial plans and documentation submitted to FTA by local agencies. FTA's evaluation takes into account the stage of project development, particularly when considering the stability and reliability of the capital and operating finance plans. Expectations for firm commitments of non-Federal funding sources become increasingly higher as projects progress further through development (preliminary engineering, followed by final design), and are rated accordingly.

The summary local financial commitment rating considers as one criterion the Section 5309 New Starts funding share of project capital costs. The following ratings are assigned to this criterion:

- >60 percent Section 5309 New Starts funding share = *Low* rating
- 50-60 percent Section 5309 New Starts funding share = *Medium* rating
- 35-49 percent Section 5309 New Starts funding share = *Medium-High* rating
- < 35 percent Section 5309 New Starts funding share = *High* rating

FTA rates the capital and operating finance plans according to the standards defined in Tables III-1 and III-2 on the following pages. Additional detail on FTA's process for rating local financial commitment is contained in its *Guidelines and Standards for Assessing Local Financial Commitment*.

Numerical ratings from 1 to 5 (*Low* to *High*) are assigned to each of the three subfactors under the capital and operating finance plan measures. These subfactors are weighted as follows to arrive at summary ratings for the capital and operating finance plan measures: (1) current capital/operating condition 25%; (2) commitment of capital/operating funds 25%; and (3) cost estimates/planning assumptions/capacity 50%. FTA weighs the proposed non-New Starts share as 20 percent of the summary local financial commitment rating; the strength and reliability of the capital plan counts as 50 percent of the rating; and the strength and reliability of the operating plan as 30 percent of the rating. These ratings are combined and converted by FTA into a summary local financial commitment rating of *High*, *Medium-High*, *Medium*, *Medium-Low* or *Low*.

Small Starts projects which do not qualify for the streamlined financial evaluation process presented in *Section 1.B* of this appendix are subject to the full financial evaluation and must meet the "PE" standards described in Tables III-1 and III-2 before entering project development and the final design criteria before receiving a Project Construction Grant Agreement.

Failure to submit either a capital or operating financial plan for evaluation will result in a *Low* rating for local financial commitment.

**Table III-1 Capital Plan Rating Standards**

	<b>High</b>	<b>Medium-High</b>	<b>Medium</b>	<b>Medium-Low</b>	<b>Low</b>
<b>Current capital condition</b>	- Average bus fleet age under 6 years. - Bond ratings less than 2 years old (if any) of AAA (Fitch/S&P) or Aaa (Moody's) or better	- Average bus fleet age under 6 years. - Bond ratings less than 2 years old (if any) of A (Fitch/S&P) or A2 (Moody's) or better	- Average bus fleet age under 8 years. - Bond ratings less than 2 years old (if any) of A - (Fitch/S&P) or A3 (Moody's) or better	- Average bus fleet age under 12. - Bond ratings less than 2 years old (if any) of BBB+ (Fitch/S&P) or Baa (Moody's) or better	- Average bus fleet age 12 years or more. - Bond ratings less than 2 years old (if any) of BBB (Fitch/S&P) or Baa3 (Moody's) or below
<b>Commitment of capital funds</b>	For final design – 100% of Non-Section 5309 New Starts funds are committed or budgeted.  For PE – Over 50% of Non-Section 5309 New Starts funds are committed or budgeted. The remaining funds are planned.	For final design - Over 75% of Non-Section 5309 New Starts funds are committed or budgeted.  For PE – Over 25% of Non-Section 5309 New Starts funds are committed or budgeted. The remaining funds are planned.	For final design - Over 50% of Non-Section 5309 New Starts funds are committed or budgeted.  For PE - No Non-Section 5309 New Starts funds are committed or budgeted, but the sponsor has a reasonable plan to secure all needed funding.	For final design – Between 25% and 50% of Non-Section 5309 New Starts funds are committed or budgeted.  For PE - No Non-Section 5309 New Starts funds are committed. The sponsor has no reasonable plan to secure the necessary funding.	For final design - Under 25% of Non-Section 5309 New Starts funds are committed or budgeted.  For PE - The sponsor has not identified any reasonable funding sources for the Non-Section 5309 New Starts funding share.
<b>Capital cost estimates and planning assumptions/ Capital funding capacity</b>	Financial plan contains very conservative capital planning assumptions and cost estimates when compared with recent historical experience.  The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 50% of estimated project costs.	Financial plan contains conservative capital planning assumptions and cost estimates when compared with recent historical experience.  The applicant has available cash reserves, debt capacity, or additional funding commitments to cover cost increases or funding shortfalls equal to at least 25% of estimated project costs.	Financial plan contains capital planning assumptions and cost estimates that are in line with historical experience.  For final design - The applicant has available cash reserves, debt capacity, or additional committed funds to cover cost increases or funding shortfalls equal to at least 10% of estimated project costs.  For PE - The applicant has a reasonable plan to cover cost increases or funding shortfalls equal to at least 25% of estimated project costs.	Financial plan contains optimistic capital planning assumptions and cost estimates.  The applicant has a reasonable plan to cover only minor (under 10%) cost increases or funding shortfalls.  For PE –The applicant has a reasonable plan to cover cost increases or funding shortfalls equal to at least 10% of estimated project costs.	Financial plan contains capital planning assumptions and cost estimates that are far more optimistic than recent history suggests.

**Table III-2 Operating Plan Rating Standards**

	<b>High</b>	<b>Medium-High</b>	<b>Medium</b>	<b>Medium-Low</b>	<b>Low</b>
<b>Current Operating Financial Condition</b>	<ul style="list-style-type: none"> <li>- Historical and actual positive cash flow. No cash flow shortfalls.</li> <li>- Current operating ratio exceeding 2.0</li> <li>- No service cutbacks in recent years.</li> </ul>	<ul style="list-style-type: none"> <li>- Historical and actual balanced budgets. Any annual cash flow shortfalls paid from cash reserves or other committed sources.</li> <li>- Current operating ratio is at least 1.5</li> <li>- No service cutbacks in recent years.</li> </ul>	<ul style="list-style-type: none"> <li>- Historical and actual balanced budgets. Any annual cash flow shortfalls paid from cash reserves or annual appropriations.</li> <li>- Current operating ratio is at least 1.2</li> <li>- No service cutbacks or only minor service cutbacks in recent years</li> </ul>	<ul style="list-style-type: none"> <li>- Historical and actual cash flow show several years of revenue shortfalls. Any annual cash flow shortfalls paid from short term borrowing.</li> <li>- Current operating ratio is at least 1.0</li> <li>- Major Service cutbacks in recent years</li> </ul>	<ul style="list-style-type: none"> <li>- Historical and actual cash flow show several years of revenue shortfalls, or historical information not provided.</li> <li>- Current operating ratio is less than 1.0</li> <li>- Major service cutbacks in recent years</li> </ul>
<b>Commitment of O&amp;M Funds</b>	<p>For final design - 100% of the funds needed to operate and maintain the proposed transit system are committed or budgeted.</p> <p>For PE – Over 75% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. The remaining funds are planned.</p>	<p>For final design - Over 75% of the funds needed to operate and maintain the proposed transit system are committed or budgeted.</p> <p>For PE - Over 50% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. The remaining funds are planned.</p>	<p>For final design – Over 50% of the funds needed to operate and maintain the proposed transit system are committed or budgeted.</p> <p>For PE – While no additional O&amp;M funding has been committed, a reasonable plan to secure funding commitments has been presented.</p>	<p>For final design - Sponsor has identified reasonable potential funding sources, but has received less than 50% commitments to fund transit operations and maintenance.</p> <p>For PE - Sponsor does not have a reasonable plan to secure O&amp;M funding. No unspecified sources.</p>	<p>For final design - Sponsor has not yet received any funding commitments to fund transit operations and maintenance and has not identified any reasonable plan for securing funding commitments.</p> <p>For PE - Sponsor has not identified any reasonable funding sources for the operation and maintenance of the proposed transit system.</p>
<b>Operating Cost Estimates and Planning Assumptions/O&amp;M Funding Capacity</b>	<p>The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are very conservative relative to historical experience.</p> <p>Projected cash balances, reserve accounts, or access to a line of credit exceeding 50 percent (6 months) of annual systemwide operating expenses.</p>	<p>The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are conservative relative to historical experience.</p> <p>Projected cash balances, reserve accounts, or access to a line of credit exceeding 25 percent (3 months) of annual systemwide operating expenses.</p>	<p>The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are consistent with historical experience.</p> <p>Projected cash balances, reserve accounts, or access to a line of credit exceeding 12 percent (1.5 months) of annual systemwide operating expenses.</p>	<p>The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are optimistic relative to historical experience.</p> <p>Projected cash balances, reserve accounts, or access to a line of credit are less than 8 percent (1 month) of annual systemwide operating expenses.</p>	<p>The assumptions supporting the operating and maintenance cost estimates and revenue forecasts are far more optimistic than historical experience suggests is reasonable.</p> <p>Projected cash balances are insufficient to maintain balanced budgets.</p>

### **III.B Local Financial Commitment Rating Decision Rules**

In addition to the non-Section 5309 New Starts program share, capital and operating financial rating considerations and weights described above, FTA uses the following decision rules to calculate the overall local financial commitment rating.

- If the Section 5309 New Starts share, which accounts for 20 percent of the local financial commitment rating, brings the overall local financial commitment rating to less than *Medium*, it will be excluded from the calculation. In other words, a New Starts share of less than 80 percent can improve the project's rating but it cannot hurt it. This rule was applied for the first time in FY 2007 in order to respond to direction in SAFETEA-LU that FTA evaluate the percent of the Section 5309 New Starts program share, as required by Section 5309(d)(4)(B)(v), while ensuring that no project is required to provide more than the required 20 percent match as provided in Section 5309(h)(5). If and how this rule is applied in future years will be subject to rulemaking.
- If either of a proposed project's capital or operating finance plan receives a *Medium-Low* or *Low* rating, the summary local financial commitment rating for the project cannot be higher than a *Medium-Low*.
- To receive a summary local financial commitment rating of *Medium-High*, both the capital and operating finance plans must be rated at least *Medium-High*.

## **IV. RATINGS AND FUNDING RECOMMENDATIONS**

The information below contains principles FTA adheres to when making funding recommendations.

Section 5309(d)(1)(B)(ii) directs FTA to consider proposed New Starts projects for Full Funding Grant Agreements (FFGA) and proposed Small Starts for Project Construction Grant Agreements (PCGA), only if they receive a *Medium*, *Medium-High*, or *High* overall project rating. FTA notes, however, that project ratings are intended only to reflect the worthiness of each project, not the readiness of a project for an FFGA or PCGA. A rating of *Medium* or higher does not translate directly into a funding recommendation in any given fiscal year. Proposed projects that are rated *Medium* or higher will be eligible for multi-year funding recommendations in the Administration's proposed budget only if other requirements have been met (i.e., completion of the Federal environmental review process, demonstrated technical capability to construct and operate the project, development of a firm and final cost estimate and financial plan, etc.) and if funding is available. In addition, notwithstanding a project's overall rating, as a general practice FTA will not generally recommend for funding any project which does not achieve a rating of at least *Medium* for cost effectiveness.

When determining annual funding allocations among proposed New Starts and Small Starts, the following general principles are applied:

- Any project recommended for new funding commitments should meet the project justification, local financial commitment, and process criteria established by Sections 5309(d) and 5309(e) and be consistent with Executive Order 12893, *Principles for Federal Infrastructure Investments*, issued January 26, 1994.

- Existing FFGA commitments should be honored before any additional funding recommendations are made, to the extent that funds can be obligated for these projects in the coming fiscal year.
- The FFGA and PCGA define the terms of the Federal commitment to a specific project, including funding. Upon completion of an FFGA or PCGA, the Federal funding commitment has been fulfilled. Additional project funding will not be recommended. Any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee, although FTA works closely with grantees to identify and implement strategies for containing capital costs at the level included in the FFGA or PCGA at the time it was executed.
- Funding for initial planning efforts such as alternatives analysis is no longer eligible for Section 5309 funding under SAFETEA-LU, but may be provided through grants under the Section 5303 Metropolitan Planning program, the Section 5307 Urbanized Area Formula program, the Section 5339 Alternatives Analysis program, or from Title 23 “flexible funding” sources.
- Firm funding commitments, embodied in FFGAs or PCGAs, will not be made until projects demonstrate that they are ready for such an agreement, i.e. the project’s development and design has progressed to the point where its scope, costs, benefits, and impacts are considered firm and final.
- Funding should be provided to the most worthy investments to allow them to proceed through the process on a reasonable schedule, to the extent that funds can be obligated to such projects in the upcoming fiscal year. Funding decisions will be based on the results of the project evaluation process and resulting project justification, local financial commitment, and overall project ratings.

Again, FTA emphasizes that project evaluation and rating is an on-going process. As proposed New Starts and Small Starts projects proceed through the project development process, information concerning costs, benefits, and impacts is refined and the ratings may be updated to reflect new information.



# **Appendix C**

## **Paul S. Sarbanes Transit in Parks Program**

---



## **Paul S. Sarbanes Transit in Parks Program**

### **Background**

Section 5320 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) as amended by the SAFETEA-LU Technical Corrections Act of 2008 (June 6, 2008; 122 Stat. 1572) established the Paul S. Sarbanes Transit in Parks Program (Transit in Parks Program), formally known as the Alternative Transportation in Parks and Public Lands (ATPPL) program. The program is administered by the Federal Transit Administration (FTA) in partnership with the Department of the Interior (DOI) and the U.S. Department of Agriculture's Forest Service. Congress appropriated \$25,000,000 for the program's third year, Fiscal Year 2008.

The Transit in Parks Program funds capital and planning expenses for alternative transportation systems such as shuttle buses in national parks and other federal lands. Federal land management agencies and State, local, and tribal governments are eligible recipients. The goals of the program are to conserve natural, historical, and cultural resources; reduce congestion and pollution; improve visitor mobility and accessibility; enhance visitor experience; and ensure access to all, including persons with disabilities.

Section 5320 stipulates that the Secretary of Transportation annually submit a report on the allocation of Transit in Parks Program funds. The section further stipulates that this report be part of FTA's *Annual Report*. As such, this section of the *Annual Report* describes the project selection process and details the 52 alternative transportation projects funded in the program's third year.

### **Project Evaluation and Funding**

As demand far exceeded available funds, FTA's staff worked closely with federal land management agency representatives to develop a process that would select the most meritorious projects – those that were both strong transportation projects and best met the unique needs of federal lands. A total of 111 proposals were received totaling \$69.6 million, over twice the amount available, indicating high competition for funds. The evaluation criteria used were (1) demonstration of need, (2) visitor mobility and experience benefits, (3) environmental benefits, and (4) operational efficiency and financial sustainability.

Successful applicants were announced in the *Federal Register* on October 10, 2008.

*Planning vs. Capital Projects*

The awards are listed in Table 1. The 52 alternative transportation projects selected for funding represent a diverse set of capital and planning projects across the country. Twenty-seven of the projects (totaling \$18 million) are capital projects and 25 (totaling \$6.4 million) are planning projects.

*Distribution by Federal Land Management Agency*

As predicted by the August 2001 Department of Transportation (DOT) – Department of Interior (DOI) study on alternative transportation needs in public lands, the National Park Service had the highest need for alternative transportation. The National Park Service has the most existing alternative transportation systems and has had an alternative transportation program in place since 1997. Forty-three percent of project funds were allocated towards projects serving National Parks, 25 percent are for projects serving National Forests, 12 percent are for projects serving Fish and Wildlife Refuges, 13 percent are for projects serving Bureau of Land Management areas, and 7 percent are for projects serving other Federal Land Management Agencies.

*Types of Projects*

SAFETEA-LU allows a broad range of projects under this new program. The types of projects selected include purchase of buses for new transit service, replacement of old buses and trams, construction of a bicycle and pedestrian pathway, installation of accessible bus stops, intelligent transportation system components, and planning studies.

*New vs. Existing Systems*

The awards include funding for both existing alternative transportation systems – through projects such as purchasing replacement buses – and funding for brand new systems. This enables the program to support the continued quality of existing alternative transportation systems such as those in Yosemite National Park and Inyo National Forest. It also enables the program to fund brand new systems – such as installation of Intelligent Transportation Systems at Chincoteague National Wildlife Refuge and a non-motorized pathway that will allow visitors to access sites in Arches National Park by bicycle and foot rather than by car.

*Geographic Distribution*

The projects are located in 20 different states. There are projects in all major geographic regions – northeast, south, midwest, and west. The list includes projects in both rural and urban areas. Projects also vary in size from a \$38,000 planning studies to the construction of a three million dollar transit hub.

**Technical Assistance, Research, and Planning**

49 USC 5320 allows DOT, in consultation with DOI, to use up to 10 percent of program funds for technical assistance, research, and planning activities to support the program as a whole. FTA will use five percent of the FY 2008 appropriation to fund on-site technical assistance in transportation planning to federal land management agencies and to fund a technical assistance center. The National Technical Assistance Center for Alternative Transportation in Public Lands will develop and oversee multiple technical assistance products to support land management

agencies, States, and local and tribal governments that are in the process of planning and implementing alternative transportation projects serving federally managed parks and public lands. FTA has developed this program in order to provide comprehensive technical assistance for land management units and transit providers presently and in future fiscal years.

**Table 1: Allocation of Fiscal Year 2008 Transit in Parks Program Funds**

**Capital and Planning Alternative Transportation Projects**

<u>State</u>	<u>Land Unit</u>	<u>Project Name</u>	<u>Agency</u>	<u>Amount</u>
AK	Chugach Nat'l Forest	Eyak Alternative Transportation Planning Grant	Forest Service /National Park Service	\$400,000
AZ	Coconino National Forest	Lake Mary Road Bicycle Facility Project	Forest Service	\$855,685
AZ	Hassayampa Field Office	Wickenburg Community Trails System	Bureau of Land Management	\$96,950
CA	Sequoia and Kings Canyon National Parks	Lease Shuttle Buses for the Giant Forest Shuttle System in Sequoia National Park	National Park Service	\$230,000
CA	USFS - LTBMU	Tahoe City Transit Center	Forest Service	\$3,000,000
CA	Yosemite National Park	Lease Yosemite Area Regional Transportation System (YARTS) Vehicles	National Park Service	\$272,520
CA	Golden Gate National Recreation Area	Implement a Fee Parking System to Fund Shuttle and Transit Access	National Park Service	\$360,000
CA	Inyo National Forest	Second Year of Reds Meadow Transportation Shuttle Reimbursement for Bus Leasing	Forest Service	\$105,000
CA	Sequoia and Kings Canyon National Parks	San Joaquin Valley/Sequoia National Park Gateway Shuttle Link	National Park Service	\$250,000
CA	Muir Woods National Monument of the Golden Gate National Recreation Area	Design Accessible Bus Stops and Multi-Use Link to Transit at Muir Beach	National Park Service	\$155,000
CA	Yosemite National Park	Purchase New Tram Vehicles for Mariposa Grove of Giant Sequoias	National Park Service	\$1,600,000
CA	Golden Gate National Recreation Area	Prepare an EIS	National Park Service	\$490,000
CA	Inyo National Forest and BLM	Feasibility Study for Developing an ATS at Whitney Portal	Forest Service	\$200,000
CA	East Santa Cruz Island and Channel Islands National Park	Conduct Planning and Complete Engineering Study to improve Access to Santa Cruz Island	National Park Service	\$380,000
CA	Inyo National Forest, Devils Postpile National Monument, Yosemite National Park	Comprehensive Transportation Study and Development of a Multi-Agency Master Transportation Plan for Eastern Sierra	Forest Service	\$350,000
CA	Yosemite National Park	Establish Park Transportation Improvement Plan	National Park Service	\$500,000

CA	San Diego Bay Nat'l Refuge	San Diego Bay NWR Salt Ponds Transportation Feasibility Study	Fish and Wildlife Service	\$45,000
CA	Presidio of San Francisco	PresidiGo Shuttle Service Bus Purchase	Presidio Trust	\$840,000
CO	Rocky Mountain National Park	Feasibility and Cost Analysis for the Development of Multi-Use Trails	National Park Service	\$60,000
CO	Rocky Mountain National Park	Rocky Mountain National Park and Primary Access NEPA	National Park Service	\$200,000
FL	Timucuan Preserve	The Timucuan Boat and Kingsley Tram Tour	National Park Service	\$557,520
MA	NPS BLAC, NPS Blackstone River Bikeway National Recreation Trail	NPS Visitor Center and Union Station Bikeway Intermodal Transportation Connector Design	National Park Service	\$290,000
MA	Lowell National Historical Park (LOWE)	Multi-Modal Transportation Infrastructure Improvement Project	National Park Service	\$465,000
MA	Lowell National Historical Park	Alternative Transportation CNG Bus - Lowell Park Transportation System	National Park Service	\$220,000
MA	Cape Cod National Seashore	Study Integrated Bicycle Plan for Cape Cod	National Park Service	\$250,000
MA	Cape Cod National Seashore	Study of Cape Cod ITS	National Park Service	\$250,000
MA	Adams National Historical Park, Squantum Point Park	Plan to develop Adams Landing Transportation Hub	National Park Service	\$250,000
MD	Assateague Island National Seashore	Rehabilitate/Construct Pedestrian/Bike Trails	National Park Service	\$38,200
MD	Assateague Island National Seashore, Chincoteague National Wildlife Refuge	Prepare a Business Plan for Visitor Transit Implementation	National Park Service	\$95,000
ME	Acadia National Park	Replace Three 28 Passenger Propane Powered Transit Buses Equipped with Transit Technology	National Park Service	\$528,900
ME	Acadia National Park	Construct Bus Maintenance Facility and Island Explorer Operation Center	National Park Service	\$1,000,000
MI	Hiawatha National Forest	Enhancement of Grand Island National Recreation Area Alternative Transportation System	Forest Service	\$215,000
NC	Cape Hatteras	Alternative Transportation Implementation Study for Bodie Island in Cape Hatteras National Seashore	National Park Service	\$100,000
NH	White Mountain National Forest	White Mountain Transportation	Forest Service	\$150,000

NM	Bosque del Apache NWR	Alternative Fuel Tour Bus for Bosque del Apache NWR	Fish and Wildlife Service	\$126,000
NM	Valles Caldera National Preserve	Alternative Transportation Planning for Public Access to Valles Caldera National Preserve	Forest Service	\$200,000
NY	Roosevelt-Vanderbilt National Historic Sites	Phased Implementation of ATS	National Park Service	\$630,000
NY	Jamaica Bay unit of Gateway National Recreation Area	Complete Planning for the Rockaway Gateway Connector	National Park Service	\$150,000
NY	National Parks of New York	Traveler Information System	National Park Service	\$250,000
NY	Fort Stanwix National Monument	Alternative Transportation Feasibility Study	National Park Service	\$75,000
OR	Lewis and Clark National Historical Park	Lease Lewis and Clark Explorer Shuttle Buses	National Park Service	\$43,000
PA	Raystown Lake	Seven Points Non-Motorized Alternative Transportation Pathway	US Army Corps of Engineers	\$854,450
PA	Valley Forge National Historic Park	Continuation of Partnership Prototype to Test Feasibility	National Park Service	\$223,000
UT	Arches National Park BLM Moab Field Office	North Moab Recreation Areas Alternative Transportation System	Bureau of Land Management	\$3,000,000
UT	Wasatch-Cache National Forest	Mill Creek Canyon Transportation Feasibility Study	Forest Service	\$220,000
VA	Chincoteague NWR, FWS; Assateague National Seashore, NPS	Provide Intelligent Information Traffic System (IITS)	Fish and Wildlife Service/National Park Service	\$350,000
VA	Chincoteague NWR, FWS; Assateague National Seashore, NPS	Construct Pedestrian/Bike Trail	Fish and Wildlife Service	\$600,000
VT	March-Billing-Rockefeller National Historical Park	March-Billings-Rockefeller National Historical Park and Town of Woodstock Pilot Shuttle Bus Program	National Park Service	\$215,000
WA	Mount Rainier National Park	Lease Paradise Area Shuttle Service Vehicles at Mount Rainier	National Park Service	\$110,900
WA	Shi-Shi Trail and Beach	Planning Grant for Shi-Shi Trail and Beach	Fish and Wildlife Service	\$123,376
WA	Mt. Baker-Snoqualmie National Forest	Mt. Baker Snoqualmie National Forest Alternative Transportation Feasibility Study	Forest Service	\$500,000
WY	National Elk Refuge	North 89 Pathway	Fish and Wildlife Service	\$2,000,000
	<b>52 Projects</b>		<b>Total</b>	<b>\$24,470,501</b>

# **FY 2010 Annual Report Excerpt: New FFGA and ESWA Recommendations**

## **New FFGA Recommendations**

Five projects are likely to be ready for a Full Funding Grant Agreement (FFGA) or Early Systems Work Agreement (ESWA) in FY 2010. These projects are in Final Design or expected to be approved into Final Design before summer 2009, the environmental process has been completed, and any needed railroad agreements have been negotiated and are at or near completion. For these projects, FTA recommends a total of \$430.00 million in New Starts funding in FY 2010. Appendix A provides detailed descriptions of the projects, including their most recent New Starts evaluation and rating. A brief description of each is provided below, along with a discussion of the recommended funding for each.

### **California: Sacramento South Corridor Phase 2**

The Sacramento Regional Transit District (RT) is proposing to implement an extension of its existing South Corridor light rail transit (LRT) line from its current terminus at Meadowview Road south and east to Cosumnes River College (CRC), near the intersection of State Highway 99 and Calvine Road. The four-station, 4.3-mile project would operate in an exclusive, primarily at-grade right-of-way requiring six street crossings along the alignment. The proposed extension will use existing RT vehicles and operate on 10-minute peak-period frequencies. Approximately 2,700 park-and-ride spaces would be constructed at three of the four proposed stations as part of the project.

The capital cost for the project is \$270.00 million, with a proposed New Starts share of \$135.00 million, or 50 percent. Congress has appropriated \$11.34 million for the project through FY 2009. FTA recommends \$40.00 million of New Starts funding for the project in FY 2010.

### **Florida: Orlando Central Florida Commuter Rail Transit Initial Operating Segment**

The Florida Department of Transportation (FDOT) is proposing to construct a new commuter rail system along the existing CSX "A" line Corridor from Volusia County through Lake County and Seminole County, to Orange County and downtown Orlando. The project would operate entirely at-grade, sharing track with existing freight and Amtrak services. The project includes the purchase of 10 vehicles and construction of 12 stations and approximately 2,100 parking spaces. In the opening year, service would operate every 30 minutes in the peak period and every 120 minutes during the off-peak, with no weekend service. By the forecast year of 2030, service would operate every 15 minutes in the peak period and every 30 minutes during the off-peak, with service every 60 minutes in the evenings and weekends.

The capital cost for the project is \$357.22 million, with a proposed New Starts share of \$178.61 million, or 50 percent. Congress has appropriated \$26.62 million for the project through FY 2009. FTA recommends \$40.00 million of New Starts funding for the project in FY 2010.

### **New Jersey: Northern New Jersey Access to the Region's Core**

The New Jersey Transit Corporation (NJT) is proposing to construct a new 9.0-mile commuter rail line adjacent to the existing Northeast (Rail) Corridor (NEC) between Secaucus, New Jersey and Manhattan. The Trans Hudson Express Tunnel, also known as Access to the Region's Core (ARC), includes the construction of two new tunnels under the Hudson River; new rail tracks between Secaucus Junction and New York Penn Station (PSNY); a new rail station underneath 34th Street in midtown Manhattan (with pedestrian linkages to PSNY); a storage yard in Kearny, New Jersey; and the purchase of specialized dual-powered rail locomotives (electric and diesel) and bi-level coaches. The purpose of the ARC project is to double rail capacity between New Jersey and New York City, thereby relieving congestion and transit delays, while providing for more direct, one-seat service to midtown Manhattan.

The capital cost for the project is \$8,699.98 million, with a proposed New Starts share of \$3,000 million, or 35 percent. Congress has appropriated \$80.39 million for the project through FY 2009. FTA recommends \$200.00 million of New Starts funding for the project in FY 2010.

### **Texas: Houston North Corridor Light Rail Transit**

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 5.2 mile, eight station, double-track light rail transit (LRT) line from the existing University of Houston-Downtown station in the Houston central business district (CBD) to the Northline Mall Transit Center. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (4.2 miles), while the remaining 0.86 miles would be elevated to avoid two freight railroads (the Southern Pacific Railroad and the Burlington-Northern Santa Fe Railway). The project also includes the purchase of 24 light rail vehicles. Service would operate every six minutes during peak and off peak periods, including weekends, and would interline with the current METRO Rail Red Line in the CBD. No parking spaces would be built as part of the project.

The project profile contained in Appendix A of this report reflects conditions as of March 2008, when the North Corridor LRT project was approved into preliminary engineering. METRO plans to use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. As of April 2008 when this report was finalized, FTA was still conducting a review of METRO's Facility Provider contracts and financial plan, and an updated evaluation and rating was not possible.

The capital cost for the project has increased to approximately \$896.7 million, although this has not been finalized. As described in the paragraph above, the New Starts share is still being negotiated. Congress has appropriated \$17.23 million for the project through FY 2009. FTA recommends \$75.00 million of New Starts funding for the project in FY 2010.

### **Texas: Houston Southeast Corridor Light Rail Transit**

The Metropolitan Transit Authority of Harris County (METRO) is proposing to construct a 6.2-mile, light rail transit (LRT) line from the Houston central business district (CBD) to the Palm Center in the vicinity of Martin Luther King, Jr. Boulevard/Griggs Road. The proposed LRT line would operate in an exclusive guideway with limited mixed traffic operations. The majority of the LRT line would operate at-grade (6.12 miles), while the remaining 0.14 miles would be elevated to avoid a natural habitat (Brays Bayou). The project includes the purchase of 29 light rail vehicles and construction of 13 stations and a maintenance facility. Service would operate every six minutes during peak and off peak periods, including weekends, and would provide a transfer to the current METRO Rail Red Line via the existing Main Street Square station in the CBD. No parking spaces would be built as part of the project. The proposed LRT line's Palm Center terminus would be adjacent to METRO's current Southeast Transit Center that includes a 1,100-space park-n-ride lot.

The project profile contained in Appendix A of this report reflects conditions as of March 2008, when the Southeast Corridor LRT project was approved into preliminary engineering. METRO plans to use an innovative project delivery method whereby a Facility Provider, comprised of a team of engineering, construction, construction management and vehicle manufacturing firms, would complete design, finalize the construction phasing approach, and expedite construction of several rapid transit improvements throughout Houston. The Facility Provider would also be responsible for operation and maintenance of the proposed LRT line. METRO completed contract negotiations with the Facility Provider and submitted documentation to FTA of the negotiations in October 2008. As of April 2008 when this report was finalized, FTA was still conducting a review of METRO's Facility Provider contracts and financial plan, and an updated evaluation and rating was not possible.

The capital cost for the project has increased to approximately \$911.2 million, although this has not been finalized. As described in the paragraph above, the proposed New Starts share is still being negotiated. Congress has appropriated \$17.23 million for the project through FY 2009. FTA recommends \$75.00 million of New Starts funding for the project in FY 2010.

# **FY 2010 Annual Report Excerpt: Small Starts Projects Recommended for Funding for the First Time in FY 2010**

## **Small Starts Funding Recommendations**

*[Please note: below is a partial list of Small Starts projects recommended for funding in FY 2010. It includes only those projects recommended for the first time by FTA. Projects recommended in FY 2010 that have been recommended previously are not discussed in detail below. Please see the full document for a discussion of all the recommended Small Starts projects.]*

The President's Budget for FY 2010 requests \$174.27 million for 16 projects that qualify under the Small Starts program, which is defined in SAFETEA-LU as transit capital investment projects with a total capital cost of less than \$250 million and a Section 5309 Small Starts share of less than \$75 million. In July 2007, FTA issued Updated Interim Guidance and Instructions for Small Starts, which documents procedures for evaluating and advancing projects into Small Starts project development for the FY 2010 evaluation cycle. The Interim Guidance further establishes the eligibility parameters for "Very Small Starts" projects, a subset of the lowest-cost Small Starts that may follow an even more simplified project development and evaluation process.

Demand for the Small Starts program continues to increase. FTA has approved six projects into Small Starts project development since last year; each of these projects achieved at least a Medium rating against the Small Starts criteria identified in SAFETEA-LU and implemented through the Small Starts Interim Guidance.

Of the eight Small Starts projects and 13 Very Small Starts projects profiled in this report, 16 proposed projects demonstrated sufficient readiness to be considered for funding in the FY 2010 President's Budget. Most of these projects are proposed to be funded under a multi-year Project Construction Grant Agreement. However, if a project requests less than \$25 million in Small Starts funding or has received its full appropriations, FTA will award funds in a single-year capital grant rather than a PCGA.

Appendix A provides a detailed description of each of the Small Starts and Very Small Starts projects, including their most recent evaluations and ratings. Brief summaries of the FY 2010 Small Starts and Very Small Starts funding recommendations are below.

### **California – Monterey Bay Rapid Transit**

Monterey Salinas Transit (MST) is planning the Monterey Bay Rapid Transit, a 6.7-mile Bus Rapid Transit line from the Edgewater Transit Exchange in Salinas, through Monterey and the Transit Plaza, to the Canary Row and the Monterey Bay Aquarium. Twenty-one new stations

would be constructed and 15 buses from the existing fleet would operate on the alignment. When completed, the project would provide a continuous bus rapid transit system connecting the heavily transit-dependent communities of Seaside to the employment and tourist activity centers in Monterey. The project is a Very Small Start.

The capital cost for the project is \$3.54 million, with a proposed Small Starts share of \$2.83 million, or 80 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$2.83 million of Small Starts funding for the project in FY 2010.

### **California – San Bernadino E Street Corridor sbX Bus Rapid Transit**

Omnitrans and the City of San Bernardino are proposing to construct a 16.5-mile bus rapid transit (BRT) project along E Street in San Bernardino. The project would provide a dedicated bus travel lane through the majority of the corridor from north of California State University at San Bernardino, generally following Kendall Drive south to E Street, through downtown San Bernardino, the City of Loma Linda, and through the Loma Linda University Medical Center to the VA Hospital, where the project would terminate. The project includes 17 new stations, improvements to E Street to accommodate exclusive BRT operations, and 14 new low-floor buses. Service would operate at 10-minute headways during weekday peak periods and 15 minute off-peak headways. The project is a Small Start.

The capital cost for the project is \$163.39 million, with a proposed Small Starts share of \$75.00 million, or 46 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$32.37 million of Small Starts funding for the project in FY 2010.

### **California – San Joaquin Metro Express-Airport Way Corridor Bus Rapid Transit**

The San Joaquin Regional Transit District (RTD) is planning the Metro Express- Airport Way Bus Rapid Transit (BRT), a 7.2 -mile BRT line from Downtown Stockton to the Stockton Metropolitan Airport. Fourteen new stations would be constructed and five buses would be purchased to augment the existing fleet. The Airport-Way BRT will connect to the existing North South BRT line and provide rapid bus service through the center of the Stockton's primary population and employment centers. The project is a Very Small Start.

The capital cost for the project is \$9.74 million, with a proposed Small Starts share of \$2.81 million, or 29 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$2.81 million of Small Starts funding for the project in FY 2010.

### **Colorado – Roaring Fork Valley Bus Rapid Transit Project**

The Roaring Fork Transportation Authority (RFTA) is planning a 38.8-mile Bus Rapid Transit (BRT) line from Aspen to Glenwood Springs. When completed, the project is expected to provide faster transit service connecting the communities of Aspen, Snowmass, Woody Creek, Basalt, El Jebel, Carbondale and Glenwood Springs. Nine new stations and 300 park and ride spaces would be constructed as part of the project, and fifteen low-floor buses would be

purchased to augment the existing fleet. The project will use existing high occupancy vehicle lanes and traffic signal priority to provide faster, more reliable transit service, and will include branded stations and vehicles. The project is a Very Small Start.

The capital cost for the project is \$46.40 million, with a proposed Small Starts share of \$25.99 million, or 56 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$810,000 of Small Starts funding for the project in FY 2010.

### **Texas – Austin MetroRapid Bus Rapid Transit**

The Capital Metropolitan Transportation Authority proposes to construct a 37.5-mile street-running bus rapid transit (BRT) system along two interconnected corridors: the 21-mile North Lamar/South Congress Corridor and the 16.5-mile Burnet/South Lamar Corridor. The North Lamar/South Congress Corridor extends from the North Interstate Highway 35 park-n-ride lot at Tech Ridge to the planned South IH-35 Transit Center. The Burnet-South Lamar Corridor extends from St. David's North Austin Medical Center to 38th Street at West Avenue near the Medical Center. The BRT lines would share a 3-mile segment in central Austin between 38th Street, north of the University of Texas-Austin, and Cesar Chavez Street at the southern end of downtown Austin. The project includes 18 paired stations in the North Lamar/South Congress Corridor and 17 paired stations in the Burnet/South Lamar Corridor, with a real-time passenger information system, traffic signal priority, and the purchase of 40 low-floor, multi-door, branded vehicles. The service would operate with ten-minute headways during peak periods and 15 minute headways during off-peak periods. The project is a Very Small Start.

The capital cost for the project is \$47.03 million, with a proposed Small Starts share of \$37.62 million, or 80 percent. Congress has not appropriated funding for the project through FY 2009. FTA recommends \$17.39 million of Small Starts funding for the project in FY 2010.

Table 1 - FY 2010 Funding for New Starts and Small Starts Projects

Project	Overall Project Rating	FY 2008 and Previous Funding	FY 2009 Omnibus Appropriations Act	FY 2009 American Recovery and Reinvestment Act	FY 2010 President's Budget	Remaining FFGA NS Funding	Total FFGA NS Funding
<b>Totals by Phase</b>							
Existing New Starts Full Funding Grant Agreements		\$5,247,730,047	\$1,273,243,053	\$739,560,000	\$1,123,028,374		
Recommended Full Funding Grant Agreements and Early System Work Agreements		70,628,756	82,170,000	0	430,000,000		
Project Construction Grant Agreements		0	293,040	2,940,000	0		
Pending Project Construction Grant Agreements		30,450,000	44,550,000	0	0		
Small Starts Project Development		67,331,890	139,411,768	0	174,251,117		
Other New Starts/Small Starts Projects		0	0	0	81,790,079		
Oversight Activities		46,230,000	18,092,500	7,500,000	18,273,430		
Ferry Capital Projects (AK or HI)		54,910,000	14,850,000	0	0		
Denali Commission		14,900,000	4,950,000	0	0		
<b>GRAND TOTAL</b>		<b>\$5,532,180,693</b>	<b>\$1,577,560,361</b>	<b>\$750,000,000</b>	<b>\$1,827,343,000</b>		
<b>Existing New Starts Full Funding Grant Agreements</b>							
AZ Phoenix, Central Phoenix/East Valley Light Rail	FFGA	\$399,068,097	\$90,882,000	\$36,000,000	\$61,249,903	\$0	\$587,200,000
CA Los Angeles, Metro Gold Line Eastside Extension	FFGA	333,593,449 (1)	80,784,000	66,740,000	9,582,551	0	490,700,000
CO Denver, Southeast Corridor LRT	FFGA	523,968,790	1,020,898		10,312	0	525,000,000
CO Denver, West Corridor LRT	FFGA	79,101,000	59,400,000	40,000,000	100,000,000	30,179,000	308,680,000
DC Washington DC Metropolitan Area, Largo Metrorail Extension	FFGA	329,300,000 (2)	34,353,000		347,000	0	364,000,000
IL Chicago, Ravenswood Line Extension	FFGA	215,045,596	30,169,660		304,744	0	245,520,000
MN Minneapolis-Big Lake, Northstar Corridor Rail	FFGA	85,643,940	70,454,399		711,661	0	156,810,000
NJ Northern New Jersey, Hudson-Bergen MOS-2	FFGA	498,896,140	1,092,821		11,039	0	500,000,000
NY New York, Long Island Rail Road East Side Access	FFGA	1,098,466,826	207,527,659	195,410,000	215,000,000	915,709,515	2,632,114,000
NY New York, Second Avenue Subway Phase I	FFGA	201,228,349	274,920,030	78,870,000	197,182,000	547,799,621	1,300,000,000
OR Portland, South Corridor I-205/Portland Mall LRT	FFGA	158,400,000	80,784,000	32,000,000	74,229,000	0	345,413,000
PA Pittsburgh, North Shore LRT Connector	FFGA	235,029,671 (3)	664,176		6,153	0	235,700,000
TX Dallas, Northwest/Southeast LRT MOS	FFGA	185,716,000	87,094,969	78,390,000	86,249,717	262,549,314	700,000,000
UT Salt Lake City, Mid Jordan LRT	FFGA	20,090,050	19,800,000	90,890,000	100,000,000	197,519,950	428,300,000
UT Salt Lake City, Weber County to Salt Lake City Commuter Rail	FFGA	180,014,510	80,784,000		80,000,000	148,547,490	489,346,000
VA Northern Virginia, Dulles Corridor Metrorail Project Extension to Wiehle Ave.	FFGA	213,414,364	28,809,000	77,260,000	85,000,000	495,516,636	900,000,000
WA Seattle, Central Link Initial Segment	FFGA	471,153,265	25,702,441		3,144,294	0	500,000,000
WA Seattle, University Link LRT Extension	FFGA	19,600,000	99,000,000	44,000,000	110,000,000	540,400,000	813,000,000
<b>Total Existing New Starts Full Funding Grant Agreements</b>		<b>\$5,247,730,047</b>	<b>\$1,273,243,053</b>	<b>\$739,560,000</b>	<b>\$1,123,028,374</b>	<b>\$3,138,221,526</b>	<b>\$11,521,783,000</b>
<b>Recommended Full Funding Grant Agreements and Early System Work Agreements</b>							
CA Sacramento, South Corridor Phase 2 (FFGA)	Medium	\$4,410,000	\$6,930,000		\$40,000,000		
FL Orlando, Central Florida Commuter Rail Transit -- Init. Oper. Seg. (FFGA)	Medium	13,753,030	12,870,000		40,000,000		
NJ Northern New Jersey, Access to the Region's Core (ESWA)	Medium-High	32,865,726	47,520,000		200,000,000		
TX Houston, North Corridor LRT (FFGA)	Medium	\$9,800,000	7,425,000 (4)		75,000,000		
TX Houston, Southeast Corridor LRT (FFGA)	Medium	\$9,800,000	7,425,000 (4)		75,000,000		
<b>Total Recommended Full Funding Grant Agreements and Early System Work Agreements</b>		<b>\$70,628,756</b>	<b>\$82,170,000</b>	<b>\$0</b>	<b>\$430,000,000</b>		
<b>Project Construction Grant Agreements</b>							
OR Springfield, Pioneer Parkway EmX BRT	PCGA		\$293,040	\$2,940,000			
<b>Total Project Construction Grant Agreements</b>		<b>\$0</b>	<b>\$293,040</b>	<b>\$2,940,000</b>	<b>\$0</b>		
<b>Pending Project Construction Grant Agreements</b>							
OR Portland, Streetcar Loop	Medium	\$30,450,000 (5)	\$44,550,000				
<b>Total Project Construction Grant Agreements</b>		<b>\$30,450,000</b>	<b>\$44,550,000</b>	<b>\$0</b>	<b>\$0</b>		
<b>Small Starts Projects</b>							
AZ Flagstaff, Mountain Links BRT	Medium		\$5,558,058		\$681,942		
CA Livermore, Livermore-Amador Route 10 BRT	Medium	2,940,000	7,910,100		79,900		
CA Los Angeles, Metro Rapid Bus System Gap Closure	Medium-High	16,347,380	329,294		23,326		
CA Los Angeles, Wilshire Boulevard Bus-Only Lane	Medium		9,758,526		13,558,474		
CA Monterey, Monterey Bay Rapid Transit	Medium		0		2,830,042		
CA Riverside, Perris Valley Line	Medium-High	1,960,000	44,550,000 (6)		0		
CA San Bernardino, E Street Corridor sbX BRT	Medium		0		32,370,000		
CA San Diego, Mid-City Rapid	Medium-High		19,290,150		2,359,850		
CA San Joaquin, Metro Express - Airport Way Corridor BRT Project	Medium-High		0		2,808,825		
CO Fort Collins, Mason Corridor BRT	Medium		11,070,180		54,505,728		
CO Roaring Fork Valley, BRT Project	Medium-High		0		810,000		
MA Fitchburg, Commuter Rail Improvements	Medium-High	7,840,000	29,700,000		37,452,000		
MO Kansas City, Troost Corridor BRT	Medium	24,450,030	123,948		6,022		
TX Austin, MetroRapid BRT	Medium		0		17,390,000		
WA King County, Bellevue - Redmond BRT	Medium		10,842,807		9,368,193		
WA King County, Pacific Highway South BRT	Medium	13,794,480	278,705		6,815		
<b>Total Small Starts Projects</b>		<b>\$67,331,890</b>	<b>\$139,411,768</b>	<b>\$0</b>	<b>\$174,251,117</b>		
<b>Other New Starts/Small Starts Projects</b>							
<b>Total Other New Starts/Small Starts Projects</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$81,790,079</b>		

(1) Does not include \$3,873,958 in prior year funds not included in FFGA.

(2) Project completed original FFGA funding in FY 2005. The FFGA was amended on June 22, 2006 to include a total of \$104,000,000 over FYs 2007 through 2009.

(3) Does not include \$1,710,057 in prior year funds received for FEIS.

(4) FY 2009 allocation for Houston Metropolitan Transit Authority Advanced Transit Program/METRO Solutions-Phase 2 is shown evenly split between Houston North and Southeast Corridor projects.

(5) FY 2007 unallocated funds in the amount of \$30,450,000 will be allocated to the project.

(6) PCGA recommended, however, FY 2010 funding not needed.

