# Projects in Preliminary Engineering

# Rapid Transit Project MOS

**Austin, Texas**

(November 2002)

## Description

The Austin Capital Metropolitan Transportation Authority (Capital Metro) is proposing to develop a light rail transit (LRT) system with phased implementation. The Locally Preferred Alternative (LPA) of a 20-mile light rail transit (LRT) system is currently proposed to run north-south from McNeil Road to Ben White Boulevard, and east-west from the central business district (CBD) to 5th Street and Pleasant Valley. Capital Metro and local officials are re-examining the Locally Preferred Alternative in terms of alignment, length and transit technologies.

Capital Metro is currently evaluating a 14.6-mile, 16-station minimum operable segment (MOS) of the rapid transit system, extending from McNeil Road in north Austin to the CBD. The MOS is planned to provide direct access to the University of Texas, the State Capitol Complex and the Austin CBD. Service has been proposed to operate at ten-minute frequencies during peak periods, and 20-minute frequencies during the off-peak. Capital Metro and the City of Austin have partnered to reexamine the Rapid Transit Project and redefine the initial MOS to be undertaken.

This project has not been rated because the grantee did not submit project information for the New Starts criteria. Capital Metro is reexamining the project definition and scope, including technology and alignment, on the basis of local considerations.

## Status

In March 1997, Capital Metro and the Capital Area Metropolitan Planning Organization jointly completed a major investment study that recommended a proposed LRT line in the northwest/north central corridor, designated as the Red Line from the CBD to the City of Leander. The southeast corridor, referred to as the Orange Line, was designated as the second highest priority. In October 1997, the Federal Transit Administration authorized Capital Metro to initiate Preliminary Engineering and to prepare an Environmental Impact Statement for the Red Line alignment.

The Capital Metro Board, in conjunction with selection of a new General Manager in October 1998, initiated additional planning efforts to refine the LPA to ensure that the final plan incorporated the area's major destinations and activity centers. The Austin Area in Motion study was a comprehensive market research, public involvement and technical analysis addressing future transportation options. Following extensive public involvement, the Capital Metro Board and the MPO formally adopted the revised plan in fall 1999. In May 2000, Capital Metro initiated the environmental review process for the proposed 20-mile LRT system, focusing Preliminary Engineering on the 14.6-mile MOS. After an unsuccessful November 2000 local referendum on the service area's preferences regarding light rail, the Capital Metro Board

decided to complete the Preliminary Engineering phase and Environmental Impact Statement of the project. The project was renamed the Rapid Transit Project, and planning and environmental review process efforts have been reactivated, in partnership with the City, to reconsider the project scope. Another local referendum is anticipated in November 2004.

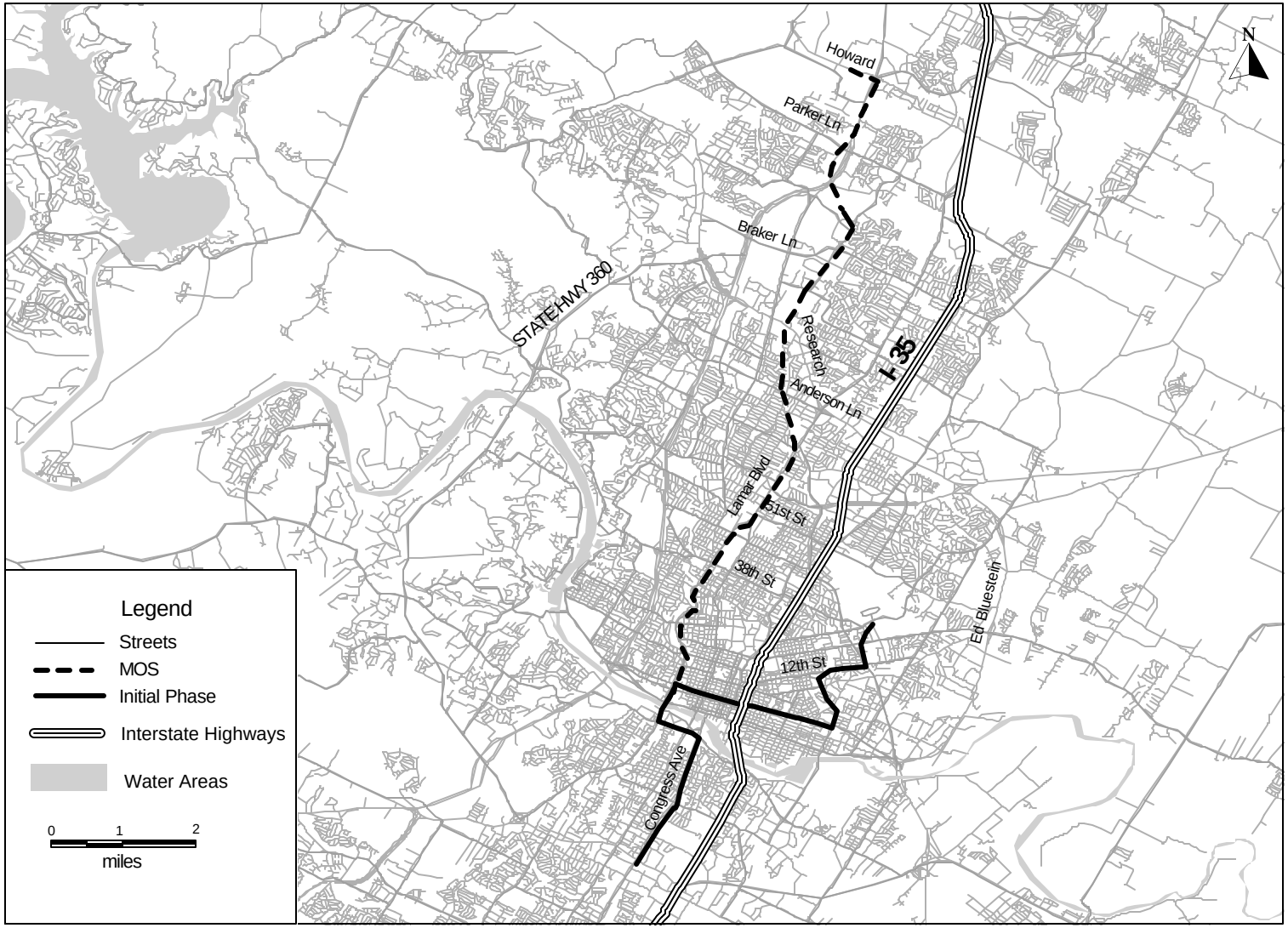
TEA-21 Section 3030(a)(4) authorizes the "Austin -- NW/North Central/SE -- Airport LRT" for Final Design and construction. Through FY 2002, Congress has appropriated $3.96 million in Section 5309 New Starts funds to the project.

## Evaluation

This project has not been rated because the grantee did not submit project information for the New Starts criteria.

# Rapid Transit Project MOS

Austin, Texas




*Federal Transit Administration, 2002*

# Silver Line Phase III

**Boston, Massachusetts**

(November 2002)

## Description

The Massachusetts Bay Transportation Authority (MBTA) is proposing to implement Phase III of the Silver Line BRT system, consisting of a tunnel connection between the existing South Station and New England Medical Center Station in downtown Boston. This tunnel provides the operational link connecting Silver Line Phase I, defined as the Washington Street Replacement Service between Dudley Square in Roxbury and downtown, and the Silver Line Phase II, consisting of the tunnel extending from South station to the World Trade Center in the waterfront area combined with service to and from Logan International Airport.

The Phase III project is comprised of a BRT tunnel following alignments along Essex Street and Tremont Street. The Essex Street alignment follows Essex Street between South Station and Boylston Station. Beginning at the new Silver Line Station at South Station (constructed as part of the Silver Line Phase II effort), two additional Silver Line stations will be constructed as part of the Essex Street alignment at the existing Chinatown (Orange Line/Heavy Rail) and Boylston (Green Line/Light Rail) Stations.

This project will provide substantially faster travel time by transit between the Back Bay business district and the Waterfront area. In addition, low-income people living in the Roxbury and South End neighborhoods will have a direct connection to all MBTA subway lines as well as new development in the Waterfront area, including the new Boston Convention and Exhibition Center, and Logan International Airport.

| Summary Description | |
|---|---|
| **Proposed Project:** | Silver Line Phase III- MBTA<br>1.06 Miles, 3 Stations |
| **Total Capital Cost ($YOE):** | $951.9 Million |
| **Section 5309 New Starts Share ($YOE):** | $571.1 Million (60%) |
| **Annual Operating Cost (2020 $YOE):** | $9.0 Million |
| **Ridership Forecast (2020):** | 32,500 Average Weekday Boardings<br>13,100 Daily New Riders |
| **Opening Year Ridership Forecast:** | N/A |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The overall project rating of *Recommended* is based on the existing high densities in the corridor, the mobility improvements estimated to result from the proposed investment, and the commitment of local funds to construct and operate the project. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002**. Project

evaluation is an ongoing process. As New Starts projects proceed through project development, the estimates of cost, benefits, schedules, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

The project includes a proposed Federal share of 60 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY2004. Future ratings of this project would be affected by that change.

## Status

In February 1993, the MBTA completed an Alternatives Analysis and selected a 1.5-mile underground transit tunnel from Boylston Station to the World Trade Center combined with surface bus operations as the Locally Preferred Alternative (LPA). This alternative, referred to as the Full Build Transitway, was proposed in response to funding availability. The Final Environmental Impact Statement was completed in December 1993. FTA issued a Record of Decision in May 1994 applicable to the Full Build Transitway.

In 1994, FTA signed a Full Funding Grant Agreement for $330.73 million with the MBTA for the South Boston Piers Transitway – Phase I that is part of the Full Build Transitway from South Station to the World Trade Center. It is currently under construction and is scheduled to be in revenue operation by December 2003.

Currently, the Silver Line Phase III is the remaining part of the Full Build Transitway (a tunnel connection between South Station and Boylston Station) combined with a continuation of the tunnel under Tremont Street to connect with Washington Street service at New England Medical Center. MBTA is currently working on an Environmental Assessment for Phase III scheduled for completion in the Summer 2003.

Section 3030(a)(86) of the Transportation Efficiency Act for the 21st Century (TEA-21) authorizes the "South Boston – Piers Transitway" for Final Design and construction. No Section 5309 New Starts funds have been appropriated for Phase III.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: High** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 144,844 | |
| **Average Low Income Households Per Station** | 2,754 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 27.7 | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutants Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 914 | |
| **Nitrogen Oxide ($NO_x$)** | 156 | |
| **Hydrocarbons** | 81 | |
| **Particulate Matter ($PM_{10}$)** | 0.0 | |
| **Carbon Dioxide ($CO_2$)** | 46,288 | |
| **Annual Energy Savings (Million) BTU** | 603,661 | |
| **Cost Effectiveness Rating: Low** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $29.99 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.29 | $0.29 |

[ ] indicate an increase in emissions.

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the corridor's exceptionally strong transit-supportive land use environment supported by recent and ongoing new development, as well as current efforts to create higher densities of activity with new development now taking place in the Waterfront area. With the continued improvement in FTA's project evaluation process, including the introduction of the transportation system user benefit measure, the value of proposed transit projects can be more accurately assessed. Accordingly, FTA intends to put additional emphasis on the cost-effectiveness measure. This year, the project has received a "low" rating for cost-effectiveness, which raises concerns about the merits of the project for Federal funding. FTA strongly encourages the sponsor to improve the cost-effectiveness.

Phase III would serve approximately 32,500 average weekday boardings. Based on the 1990 Census data, there are an estimated 3,602 low-income households within ½-mile radius of the proposed stations, or roughly 44 percent of the total households within ½-mile of the proposed stations. There are an estimated 182,198 jobs located within ½-mile of the proposed stations. The Metropolitan Boston area is designated by the U.S. Environmental Protection Agency (EPA) as a "serious non-attainment area" for ozone. The Silver Line phase III project has an incremental cost per incremental trip value of $18.20.

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

The *High* land use rating reflects strong existing land use and favorable transit-supportive policies in the corridor. Population densities, employment densities, plans and proposed development are transit-supportive with pedestrian-minded designs in place.

**Existing Conditions:** The Silver Line study area connects the Washington Street corridor to the downtown financial district and the South Boston Waterfront. The Silver Line is located in an established urban environment limited to redevelopment and infill opportunities with many of Boston's existing and proposed activity centers located within and adjacent to the Silver Line corridor. Estimates indicate an average population density of 12,047 persons per square mile and 220,373 employees served by the system (base year 1995). Washington Street links multiple distinct neighborhoods with a variety of high-density residential and commercial uses. One in four Boston residents live within five blocks of the corridor. Downtown Boston has major concentrations of office employment, the city's retail shopping core, most of the city's major hotels, tourist destinations, major transportation facilities and residential areas. As a result of employment growth and a strong economic climate within the Urban Core, the vacancy rate is two percent for Class A office space. South Boston Waterfront has an increasing number of mixed uses including office, tourist/recreation and residential. Although over half of the land between Fort Point Channel and the Fish Pier is vacant or underutilized, development is continuing at a rapid pace with rezoning, development and infill as demonstrated by the Seaport Public Realm Plan.

**Future Plans, Policies and Performance:** Development in suburban areas and the urban fringe of Boston is limited in many areas by local land conservation policies and a general lack of developable land. In particular, the Seaport Public Realm Plan provided a master plan for the Seaport District (including the South Boston Waterfront and Fort Point areas) including a greater focus on mixed-use development with hotels located near the new Boston Convention and Exhibition Center. The Fort Point District Plan, the South Boston Transportation Study and the Municipal Harbor Plan structure area development within a pedestrian-oriented layout. In addition, the City of Boston and Logan Airport have instituted freezes on commercial parking spaces in the CBD and airport vicinity. Recently completed developments demonstrating a strong orientation toward transit and pedestrian access include the John Joseph Moakley United States Courthouse, the Millennium Development, an air-rights complex directly over South Station, the renovation of the Liberty Tree site for occupancy by the Massachusetts Registry of Motor Vehicles and the construction of a new Suffolk Law School facility.

## Local Financial Commitment

**Rating: Medium**

The *Medium* local finance commitment rating was determined by the *Medium* rating for the capital finance plan

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

**Rating: Medium**

The financial strategy for the project assumes Section 5309 New Starts funds and local funds.

## Locally Proposed Financial Plan

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** Section 5309 New Starts | $571.1 | 60.0% |
| **Local:** Bond Proceeds | $380.8 | 40.0% |
| **Total:** | **$951.9** | 100.0 % |

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

### Stability and Reliability of Capital Financing Plan

**Rating: Medium**

The *Medium* rating reflects the strong dedicated revenue streams available to MBTA; however there is only a 40 percent non-Section 5309 New Starts share. The rating also reflects MBTA's

obligation of $2 billion of transit improvements via an interagency consent order, and a very conservative 50 percent construction cost contingency.

**Agency Capital Financial Condition:** MBTA's capital financial condition is below average. FTA is concerned with the overall vehicle replacement and rehabilitation requirements. The average age of the bus fleet is 12 years; many of MBTA's buses are older than 12 years. The agency does have a comprehensive capital plan to replace many of its aging vehicles over the next five years; however additional maintenance will be required as the fleet ages. FTA is concerned that the agency's unprogrammed capital funding will not be available in future years to meet its fleet management needs. In addition, the Massachusetts Department of Environmental Protection (DEP) and the Massachusetts Executive Office of Transportation Construction (EOTC) entered into a consent order that obligates MBTA to complete approximately $2 billion in capital projects within specific time frames, including the Silver Line Phase III. Although these projects are included in the MPO's long range plan, the MBTA has not included all projects required under the consent order in its capital plans. The agency has assumed the receipt of significant discretionary Federal funding to complete several of the projects. If all consent order projects were included in MBTA's capital improvement program and/or Federal funding (Section 5309 New Starts funding) was not received at the levels anticipated, MBTA would be forced to re-prioritize its capital program potentially impacting its ability to rehabilitate and maintain its transit systems.

**Capital Cost Estimates and Contingencies:** The capital cost of the project is based on preliminary estimates primarily taken from MBTA's experience with the construction of the Transitway project. The MBTA has provided a very conservative construction contingency of 50 percent since its capital cost estimates have not yet been refined. Specific inflationary assumptions used by MBTA to develop the project's cost have not been provided by MBTA to date.

**Existing and Committed Funding:** All local funding is being provided from already existing sources of funding. The project will need to be included in the MPO's TIP and the entire project budget will need to be included in MBTA's capital investment program. The MBTA has currently programmed $42 million in local funding for the project in its currently approved capital investment program.

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

## Stability and Reliability of Operating Finance Plan

## Rating: Medium

The *Medium* rating reflects MBTA's ability to operate and maintain its system assuming that the agency is able to control its operating costs in the near future. The impact of the Silver Line Phase III on MBTA's overall operations will be minimal. Projected operating costs of the project approximate one percent of MBTA's overall operating costs.

**Agency Operating Financial Condition:** In its first year of operations (fiscal year 2001) under the "forward funding" mechanism, MBTA realized positive operating results. Sales tax revenues collected were in excess of forecasts and MBTA was successful in implementing a fare increase

while simultaneously realizing ridership gains. In fiscal year 2002, due to present economic conditions, sales tax revenues have declined. However, the MBTA's revenue stream was generally unaffected due to the establishment of a minimum "floor" in the Authority's enabling legislation. MBTA's ability to comply with the consent order and operate and rehabilitate its transit systems is heavily dependent on its ability to control its operating costs.

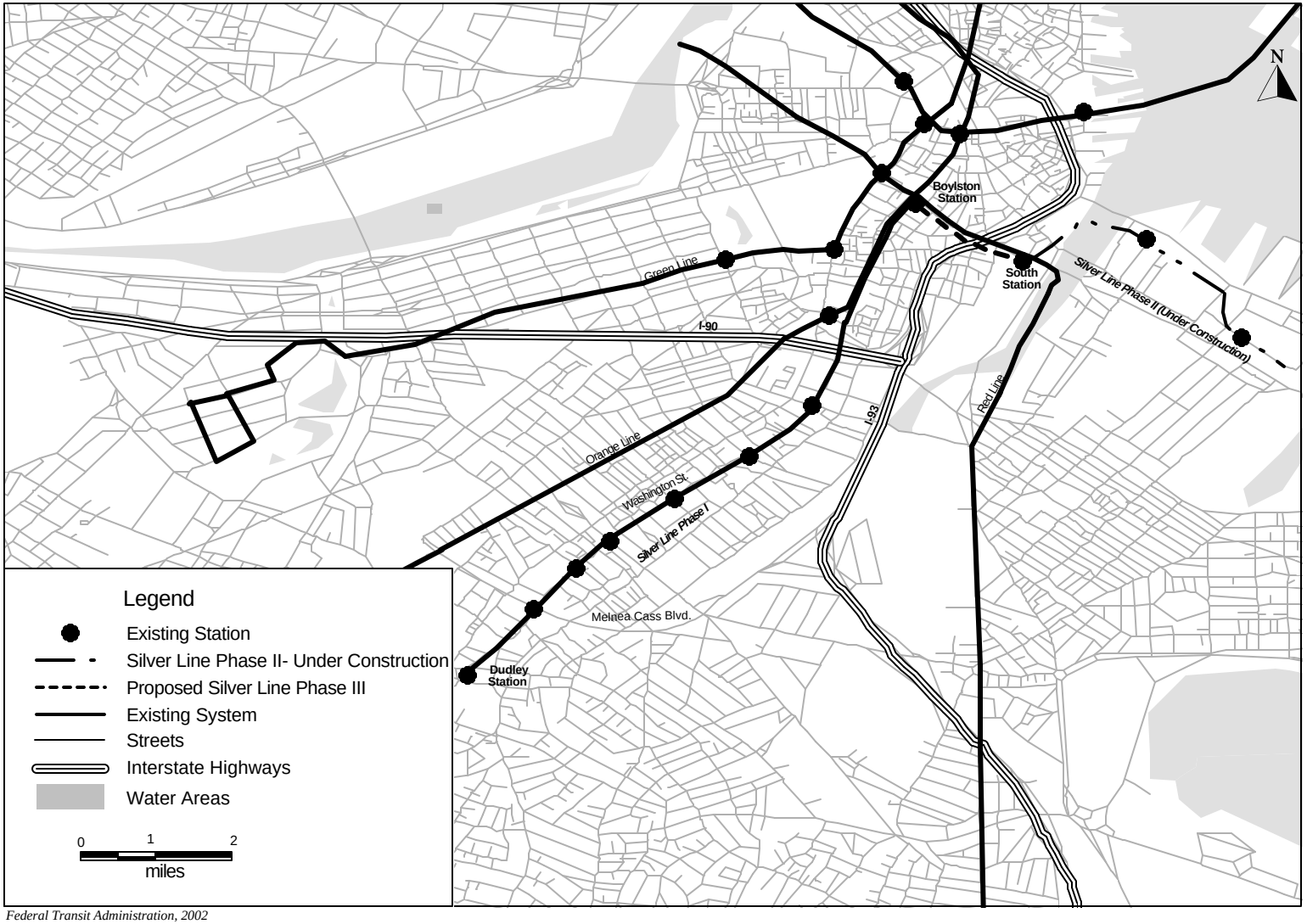
**Operating Cost Estimates and Contingencies:** Annual net operating and maintenance expenses for the proposed project are estimated to be $9.0 million in the project's first year of revenue operations. Little information was provided by MBTA regarding its operating and maintenance cost methodology and the service parameters that drive costs. No explanation of the inflationary assumptions for labor or materials were provided, nor was any description of assumed service levels. Information on average fares and passenger trips for both the project and the entire system was also absent.

**Existing and Committed Funding:** The MBTA's operating and maintenance funding will be drawn from the dedicated revenues that are currently already available to the agency.

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

# Silver Line Phase III

Boston, Massachusetts




*Federal Transit Administration, 2002*

# Bridgeport Intermodal Transportation Center

## Bridgeport, Connecticut

(November 2002)

## Description

The City of Bridgeport is proposing the reconstruction of a multi-phased intermodal facility to be located in the downtown area. This new facility will be designed to physically and functionally integrate a variety of existing and proposed modes of transportation in the heart of the central business district. The combination of commuter and high-speed rail, ferry, intra- and inter-city bus, taxi, limousine, airport shuttle, automobile, and pedestrian modes in a single facility is expected to be an important transportation and economic development attraction to the downtown and waterfront area.

The existing Bridgeport intermodal center offers a diversity of transportation services including Metro North Rail Service, Amtrak Rail Service, local bus service through the Greater Bridgeport Transit Authority, intercity bus services, ferry service, limousine services, and taxi services. The Bridgeport Municipal Airport is a five-minute ride from the intermodal center. The new intermodal center is expected to improve connectivity for transit patrons.

The total capital cost for the intermodal center project is estimated at $62.4 million (escalated dollars), with a proposed Section 5309 New Starts share of $24.9 million. Because the proposed New Starts share is less than $25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

| Summary Description | |
|---|---|
| **Proposed Project:** | Bridgeport Intermodal Transportation Center – Phase II & III |
| **Total Capital Cost ($YOE):** | $62.4 million |
| **Section 5309 New Starts Share ($YOE):** | $24.9 million (40%) |
| **Opening Year Ridership Forecast:** | N/A |

## Status

The City of Bridgeport, in cooperation with the Connecticut Department of Transportation and Greater Bridgeport Regional Planning Agency, has conducted a feasibility study of the Intermodal Transportation Center Project. In June 2000, the Greater Bridgeport Metropolitan Planning Organization (MPO) selected the Bridgeport Intermodal Transportation project as the Locally Preferred Alternative (LPA) and included it in its long range transportation plan. FTA approved this project to initiate Preliminary Engineering in April 2001. The City of Bridgeport is currently undergoing the environmental review phase for the proposed project and will be completed by Spring 2003.

The Bridgeport Intermodal Center Project was authorized in TEA-21 in Section 3030(c)(1)(A)(vi). To date, Congress has not appropriated any Section 5309 New Starts funds for this project. Through FY 2002, the project received $10.2 million in Section 5309 Bus appropriations from Congress.

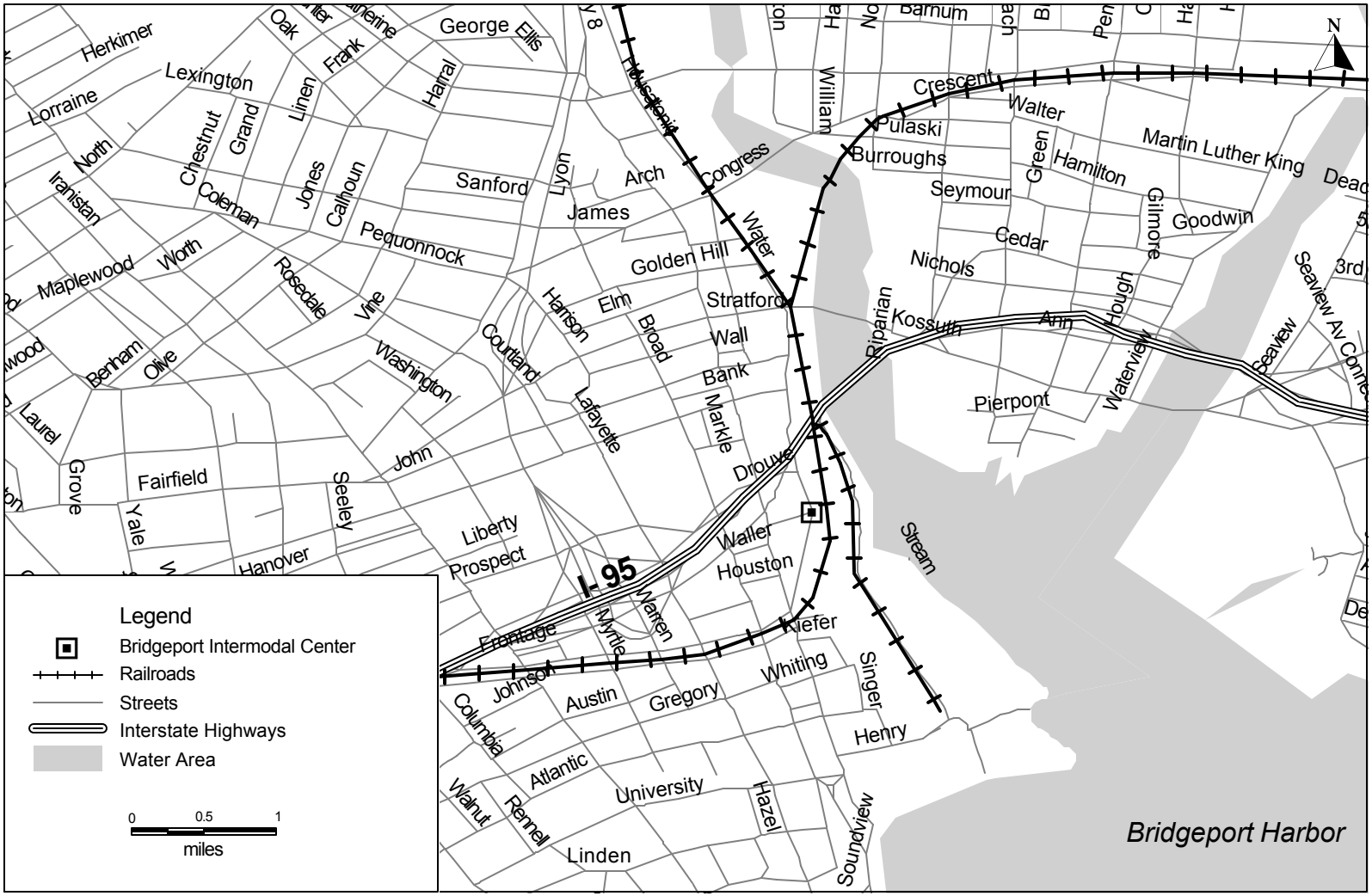
**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($ millions) | Percent of Total |
|---|---|---|
| **Federal:** | | |
| Section 5309 New Starts | $24.9 | 39.9% |
| Section 5309 Bus Discretionary | $5.0 | 8.0% |
| **State:** | | |
| **Local:** | $7.5 | 12.0% |
| Match – State - Funding Department of Communities and Development | | |
| Additional participation –City of Bridgeport | $25.0 | 40.1% |
| **Total:** | **$62.4** | 100.0% |

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

# Intermodal Transportation Center

## Bridgeport, Connecticut




*Federal Transit Administration, 2002*

# Burlington–Essex Commuter Rail Project

**Burlington, Vermont**

(November 2002)

## Description

The Vermont Agency of Transportation (VTrans) is proposing improvements to the existing rail infrastructure to allow for commuter rail service between Burlington and Essex Junction. The proposed project involves construction of track and structure improvements along the approximately eight-mile Winooski Branch of the New England Central Railroad, on the existing alignment and within the right of way in the cities/towns of Burlington, Winooski, Colchester, Essex and the Village of Essex Junction. New stations are proposed at Barlow Street, Winooski, in the vicinity of Fort Ethan Allen/Woodside Drive on the Colchester/Essex line, Pearl Street, Essex Junction, on Park Street at the Essex Junction "Wye", and at the IBM facility. The Chittenden County Transit Authority (CCTA) will provide feeder bus service to each station. The Burlington to Essex commuter rail service will continue the existing Charlotte to Burlington commuter rail service using existing equipment and maintenance facilities.

The total capital cost for the Burlington-Essex Commuter Rail project is estimated at $25.2 million (escalated dollars), with a proposed Section 5309 New Starts share of $19.4 million. Because the proposed New Starts share is less than $25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

| Summary Description | |
|---|---|
| **Proposed Project:** | Burlington-Essex Commuter Rail Project |
| **Total Capital Cost ($YOE):** | $25.2 million |
| **Section 5309 New Starts Share ($YOE):** | $19.4 million (77%) |

The project includes a proposed Federal share of 77 percent in Section 5309 New Starts funding. The Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY2004.

## Status

The Vermont Agency of Transportation, in cooperation with the Chittenden County Metropolitan Planning Agency, conducted a feasibility study of the Burlington-Essex Commuter Rail Project. On March 20, 2002, the Chittenden County Metropolitan Planning Organization (MPO) selected the Burlington-Essex Commuter Rail project as the Locally Preferred Alternative and included it in its long range transportation plan. FTA approved this project to initiate Preliminary Engineering in September 2002. The Vermont Agency of Transportation is currently undertaking the environmental review phase for the proposed project and will be completed by Spring 2003.

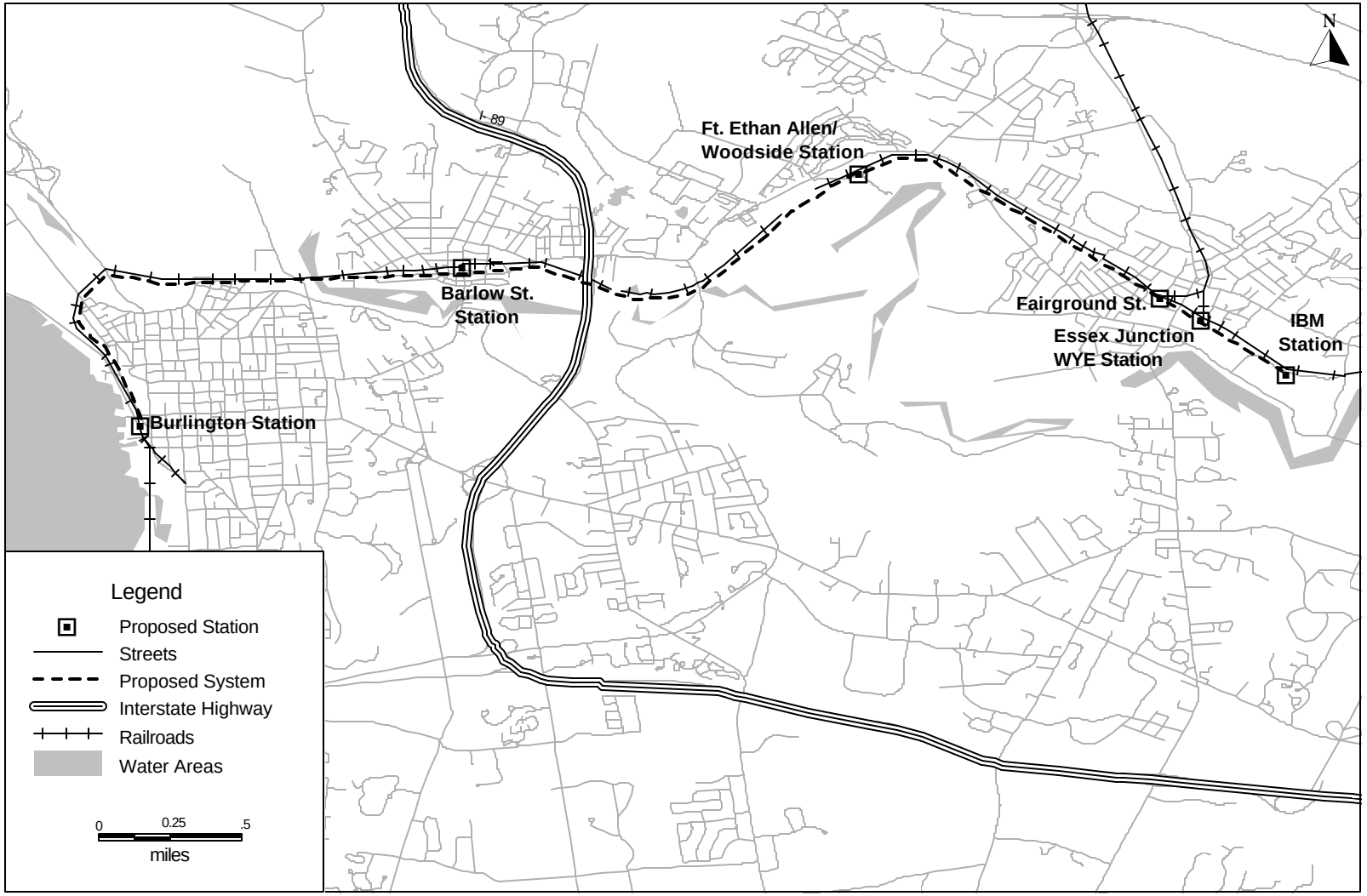
The Burlington-Essex Commuter Rail project was authorized in TEA-21 in Section 3030(c)(1)(A) (vi). Through FY 2002, Congress has appropriated Section 5309 New Starts funds in the amount of $6.9 million for this project.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($ millions)** | **Percent of Total** |
| **Federal:** | | |
| Section 5309 | $19.4 | 77.2% |
| Section 5309 Bus | $0.72 | 2.86% |
| **State:** | | |
| Local: | | |
| Match – State - Funding | $5.0 | 19.9% |
| **Total:** | **$25.1** | 100.0% |

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

# Burlington - Essex Commuter Rail Project

Burlington, Vermont




*Federal Transit Administration, 2002*

# South Corridor LRT

## Charlotte, North Carolina

(November 2002)

## Description

The Charlotte Area Transit System (CATS), in cooperation with the City of Charlotte, is proposing to design and construct a light rail transit (LRT) line extending from Uptown Charlotte (the City's central business district) to I-485 in south Mecklenburg County near the South Carolina state line. The proposed project is currently planned to operate within portions of existing Norfolk-Southern (NS) railroad right-of-way (ROW), including sharing ROW with the city's existing downtown trolley system.

The South Corridor is an area generally paralleling I-77 along NS railroad ROW in the City of Charlotte and Mecklenburg County. A 3.7-mile portion of the proposed system – between Uptown and Scaleybark Road – would operate on abandoned NS ROW owned by the City of Charlotte. The remainder of the planned system (5.9 miles) would operate on separate tracks generally paralleling the NS ROW. Seven proposed stations from I-485 north to Scaleybark Road will include park and ride lots and serve as transfer points for local and express bus service.

The South Corridor LRT project is expected to enhance accessibility and mobility within the corridor by providing an alternative to the automobile. It is estimated to reduce vehicle miles traveled in the region by nearly 40,000 each weekday in forecast year 2025, resulting in a reduction in total automobile emissions.

| Summary Description | |
|---|---|
| **Proposed Project:** | South Corridor LRT<br>9.6 Miles, 15 Stations |
| **Total Capital Cost ($YOE):** | $370.8 Million |
| **Section 5309 New Starts Share ($YOE):** | $185.4 Million (50%) |
| **Annual Operating Cost (2025 $YOE):** | $26.3 Million |
| **Ridership Forecast (2025):** | 25,760 Average Weekday Boardings<br>8,600 Daily New Riders |
| **Opening Year Ridership Forecast (2006):** | 12,880 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Medium-High** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

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

## Status

In 1999, the City of Charlotte completed a Major Investment Study examining transportation and coordinated land use options in the South Corridor between the Charlotte central business district and the Town of Pineville, North Carolina. In February 2000, the Metropolitan Transit Commission (governing board for CATS) selected light rail as the Locally Preferred Alternative (LPA). The LPA was adopted into the Mecklenburg-Union Metropolitan Planning Organization's financially constrained long range transportation plan in March 2000.

In November of 1998, a local referendum was passed authorizing a dedicated local sales tax of one-half percent for funding transit service in the region. FTA approved the South Corridor project into Preliminary Engineering in August 2000. CATS issued a Draft Environmental Impact Statement in October 2002. The current schedule indicates the Final Environmental Impact Statement will be issued in April/May 2003.

TEA-21 Section 3030(a)(8) authorizes the Charlotte North-South Corridor Transitway for Final Design and construction. Through FY 2002, Congress has appropriated $19.78 million in Section 5309 New Starts funds for this project.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Low-Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 4,750 | |
| **Average Low Income Households Per Station** | 90 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 3.5 | |
| **Environmental Benefits Rating: Medium** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 323 | |
| **Nitrogen Oxide ($NO_x$)** | 47 | |
| **Hydrocarbons** | 29 | |
| **Particulate Matter ($PM_{10}$)** | 25 | |
| **Carbon Dioxide ($CO_2$)** | 10,676 | |
| **Annual Energy Savings (million) BTU** | 132,290 | |
| **Cost Effectiveness Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Cost Per Transportation System User Benefit (current year dollars/hour)** | $18.61 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.43 | $0.43 |

**[ ] indicate an increase in emissions.**

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the strong transit-supportive land use policies in place to support the proposed light rail project tempered by the average cost effectiveness and modest mobility improvements. Based on 1990 Census data there are an estimated 1,350 low-income households within a ½-mile radius of the proposed LRT, roughly 15 percent of total households within ½-mile of the proposed stations. There are an estimated 71,257 jobs within ½-mile of the proposed stations. The Charlotte metropolitan area is designated as a "moderate maintenance area" for ozone and a "maintenance area" for carbon monoxide. The South Corridor LRT has an incremental cost per incremental trip value of $15.51.

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

The *Medium* land use rating reflects the strong policies employed by the region to implement transit-supportive land use development in the Charlotte-Mecklenburg metropolitan area tempered with the average existing land use. The rating also acknowledges the region's unified cooperative approach across agencies to realize this goal.

**Existing Conditions:** The predominant land uses along the proposed corridor are commercial, industrial, and multi- and single family housing, along with lower-density office and institutional uses. The northern terminus of the project is the Charlotte central business district (CBD), which contains 14 million square feet of office space with over 55,000 employees. The CBD contains a number of major trip generators including Ericsson Stadium, the Charlotte Convention Center, and the North Tryon arts and entertainment district. Just south of the CBD, in an area called the South End District, development densities have significantly increased over the last four years, as new transit-oriented infill development has occurred. The portions of the corridor that are south of the South End District are predominantly low-density and automobile-oriented. Land uses in the southern portion of the corridor include a mixture of light industrial, commercial, newer multi-family housing, and a large regional retail facility.

**Future Plans, Policies and Performance:** The region has proactively supported and developed land use plans and policies that are considered supportive of transit in the adoption of the *2025 Integrated Land Use/Transit Plan*. The plan is designed to concentrate growth within designated transit corridors (the South Corridor being the first of five such corridors to be have transit development,) and promote urban redevelopment in an older section of the city. Local measures have been approved to support the plan including a pedestrian overlay zone, a draft version of transit oriented development regulations, and a Charlotte City Council measure that encourages infill and redevelopment. Guidelines have been created for extensive pedestrian networks in station areas, and a "Joint Development Policy" outlines the public and private sector partnerships and strategies to be used to implement station area plans.

Redevelopment and infill development are continuing in the Charlotte region, especially high density development along the future light rail corridor. New developments in the South End District demonstrate the incorporation of transit-oriented design concepts such as higher intensities and building heights, shorter setbacks and streetwalls, active uses at ground level, and the location of parking to the rear of development sites. Over the past five years, 20 projects representing over $250 million in private sector development have been built or are in design. Redevelopment of abandoned industrial land will add over 800,000 square feet of office and retail space and over 1,000 new housing units.

# Local Financial Commitment

## Rating: Medium-High

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

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

## Rating: Medium

CATS will use Section 5309 New Starts funds, State funds from the recently created North Carolina Transit Trust Fund, and local funding from the dedicated sales tax to construct the project.

**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** Section 5309 New Starts | $185.4 | 50.0 % |
| **State:** Transportation Trust Fund | $92.7 | 25.0 % |
| **Local:** Dedicated Sales and Use Tax | $92.7 | 25.0% |
| **Total:** | **$370.8** | 100.0 % |

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

## Stability and Reliability of Capital Financing Plan

## Rating: Medium-High

The *Medium-High* rating reflects the strong financial condition of CATS and the percentage (50 percent) of non-Section 5309 New Starts funding committed at the local level to the proposed project.

**Agency Capital Financial Condition:** CATS is a component of the city government. The financial condition of both the city and CATS is strong. The City of Charlotte is one of the select jurisdictions nationwide with an AAA credit rating. The city also has the authority to issue debt or enter into leases to meet long-term financial requirements without the requirement for a referendum. When combined with the region's strong dedicated tax source, this creditworthiness and funding capacity provide CATS with significant financial resources to meet capital needs. The average age of the current bus fleet is between eight and ten years.

**Capital Cost Estimate and Contingencies:** The capital cost estimate of the project has increased from $348.1 million to $370.8 million. Contingency allowances have decreased from 19.7 percent of the total capital cost to 10.5 percent of the revised capital cost, which is considered low for a project at this stage of development.

**Existing and Committed Funding:** At this time, approximately 50 percent of the proposed non-Section 5309 New Starts funds have been committed to the South Corridor LRT project through CATS' dedicated sales tax revenues. The remaining 50 percent of the proposed non-Section 5309 New Starts funding will come from the State and is considered budgeted. The source of funds for the State share is a $120 million Transit Trust Fund created by the North Carolina Legislature in 2001, with revenue transfers from the NCDOT Highway Fund. Trust Funds revenues can be used to match Federal New Start grants provided under a Full Funding Grant Agreement. State legislative action is required to commit the remaining 50 percent.

**New and Proposed Sources:** The South Corridor capital financial plan does not include any new or proposed sources of funding.

## Stability and Reliability of Operating Finance Plan
## Rating: Medium-High

The *Medium-High* rating reflects CATS' (a component of the City of Charlotte) healthy operating condition. Revenues to operate the proposed South Corridor light rail project appear to be strong.

**Agency Operating Financial Condition:** CATS is undergoing a significant expansion of transit services throughout the region and is funding this through dedicated sales tax revenues. While CATS bus expansion and corridor development programs appear very ambitious, the agency's financial capacity to undertake these investments is substantial. CATS has experienced positive operating balances over the past five years.

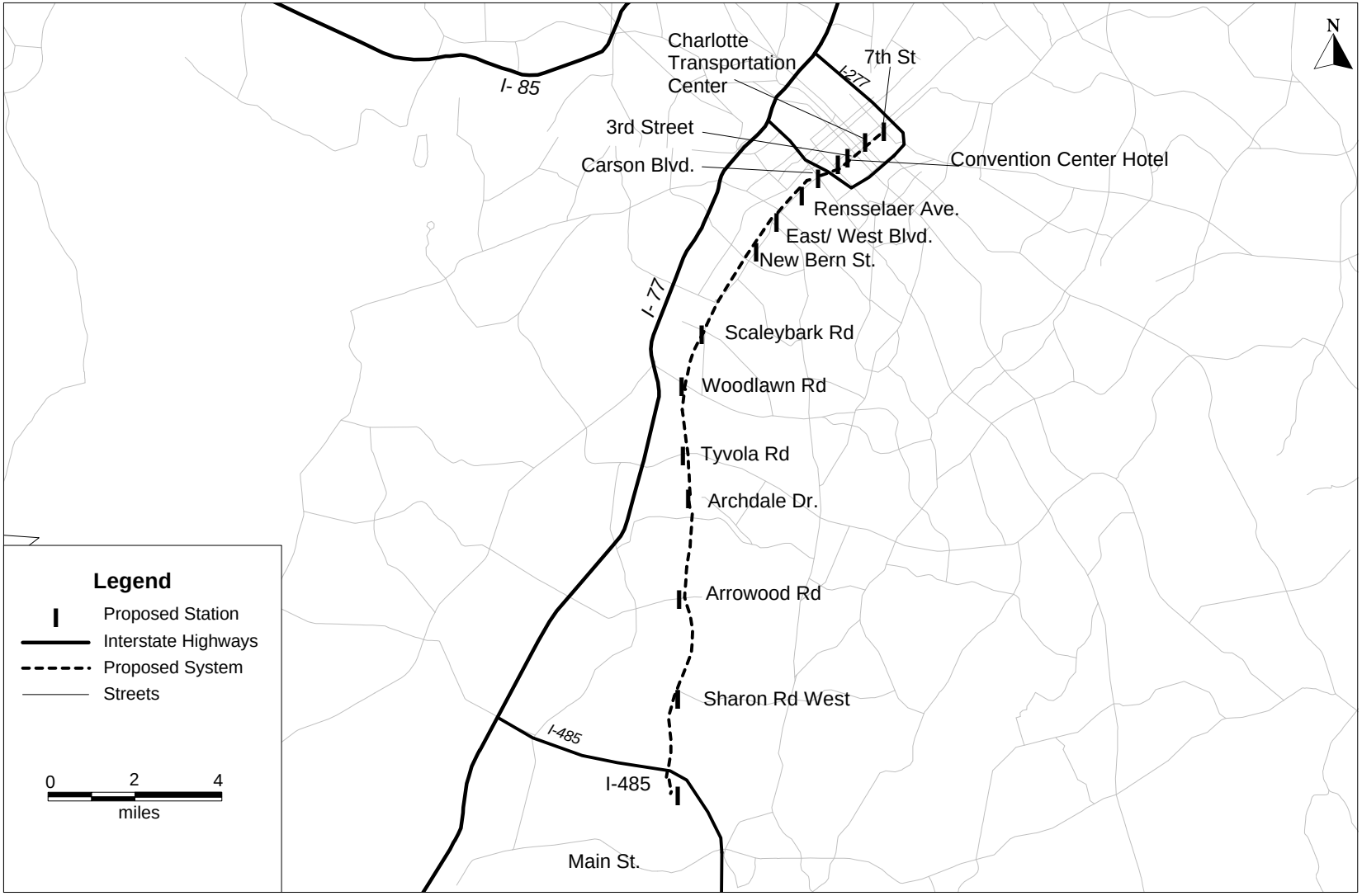
**Operating Cost Estimates and Contingencies:** Operating cost estimates appear reasonable for this stage of project development. In forecast year 2025, annual operating costs for the South Corridor LRT are projected to be $26.3 million. This represents a minor portion (8.5 percent) of the cost of the entire regional transit expansion planned for the region by 2025. The projections assume a farebox recovery ratio of roughly 25 percent for the LRT system and 28 percent for the bus system.

**Existing and Committed Funding:** The proposed sources of operating funds for the South Corridor LRT are existing and committed. Funds to support operating expenses are derived from the Charlotte-Mecklenburg region's retail sales tax, farebox revenues, State general appropriations and other local sources including a regional service reimbursement program and the City's interest income. Only the sales tax revenues are considered committed, but these account for more than 70 percent of total operating funds.

**New and Proposed Funding Sources:** All proposed operating revenues currently exist. No new sources are proposed.

# South Corridor LRT

## Charlotte, North Carolina




*Federal Transit Administration, 2002*

# Interstate 71 Corridor LRT

## Cincinnati, Ohio

(November 2002)

## Description

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) – the local Metropolitan Planning Organization – in cooperation with the Southwest Ohio Regional Transit Authority (SORTA) and the Transit Authority of Northern Kentucky (TANK), are proposing to design and construct an initial 19.5-mile Minimum Operable Segment (MOS) light rail transit (LRT) line in a corridor extending from 12th Street in Covington, Kentucky, north through downtown Cincinnati, terminating at Cornell Park Street in Blue Ash, Ohio. The proposed LRT includes the construction of a tunnel linking the University of Cincinnati and downtown Cincinnati as well as a new bridge over the Ohio River into Northern Kentucky. The proposed alignment would use an existing right-of-way (ROW) along a portion of Interstate 71, as well as an abandoned freight railroad ROW and active freight railroad ROW of the Indiana & Ohio Railroad, owned by SORTA. In the downtown areas of Cincinnati and Covington, the LRT would operate in mixed traffic and exclusive lanes. Eight stations would serve as intermodal transfer points between the LRT and local bus services.

| Summary Description | |
|---|---|
| **Proposed Project:** | Light Rail Transit Line<br>19.5 Miles, 25 Stations |
| **Total Capital Cost ($YOE):** | $899.9 Million |
| **Section 5309 New Starts Share ($YOE):** | $449.9 Million (50%) |
| **Annual Operating Cost (2020 $YOE):** | $24.2 Million |
| **Ridership Forecast (2020):** | 27,900 Average Weekday Boardings<br>21,200 Daily New Riders |
| **Opening Year Ridership Forecast (2008):** | 19,500 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Low-Medium** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Not Recommended** |

The 19.5-mile LRT is part of the region's overall multimodal transportation plan (MetroMoves) that also includes extending the initial MOS of the LRT line north from the Cincinnati/Northern Kentucky International Airport in Covington, Kentucky, to Mason, Ohio – a total distance of 43 miles. OKI estimates that the I-71 Corridor is one of the region's most traveled corridors, serving nearly 25 percent of all vehicle trips within OKI's jurisdiction. OKI estimates that approximately 616,300 transit trips would occur within the I-71 corridor on the proposed LRT in the forecast year (2020). OKI reports that approximately 74 percent (458,000) of these trips would be work-related trips. Project sponsors also report that the implementation of the I-71 LRT could spur, on average, approximately $745 million in aggregate economic development benefits in residential and commercial areas located within one mile of proposed station areas.

The *Not Recommended* rating is primarily based on the inability of project sponsors to obtain a local financial commitment to construct and operate the proposed LRT. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **FTA's ratings and recommendations will be updated annually to reflect new information, changing conditions and refined financing plans.**

## Status

In March 1998, OKI completed a Major Investment Study on the Interstate 71 Corridor with the selection of a Locally Preferred Alternative that recommended the design and construction of a 43-mile LRT line from the Cincinnati/Northern Kentucky International Airport in Covington, Kentucky to the City of Mason, Ohio. The entire 43-mile LRT line, including the initial MOS, is included in OKI's financially constrained long range transportation plan and conforming Transportation Improvement Program. In December 1998, FTA approved OKI's request to initiate Preliminary Engineering and the preparation of a Draft Environmental Impact Statement (DEIS) for the 19.5-mile initial MOS of the LRT. The DEIS is scheduled for completion in Summer 2003. Local officials placed a funding referendum before Hamilton County voters, which includes the Cincinnati metropolitan area, in November 2002. Voters rejected the funding referendum, which would have provided a locally dedicated funding source to construct and operate the proposed project. Project sponsors are in the process of re-examining local funding options for the proposed I-71 Corridor LRT in light of the referendum's failure.

Section 3030(a)(66) of TEA-21 authorized the "Cincinnati-Northern Kentucky Corridor" for Final Design and construction. Through FY 2002, Congress has appropriated $9.76 million in Section 5309 New Starts funds for the project.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Medium-High** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 6,941 | |
| **Average Low Income Households Per Station** | 300 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 4.1 | |
| **Environmental Benefits Rating: Medium-High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 107 | |
| **Nitrogen Oxide ($NO_x$)** | 38 | |
| **Hydrocarbons** | 21 | |
| **Particulate Matter ($PM_{10}$)** | 4 | |
| **Carbon Dioxide ($CO_2$)** | 21,830 | |
| **Annual Energy Savings (million) BTU** | 276,800 | |
| **Cost Effectiveness Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $15.40 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.63 | $0.53 |

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the adequacy of the corridor's transit-supportive land use environment and anticipated mobility improvements. Based on 1990 Census data, OKI estimates that there are approximately 7,513 low-income households within a ½-mile radius of proposed station areas. This represents approximately 25 percent of the total number of households within a ½-mile radius of proposed station areas. OKI also estimates that there are a total of 173,530 jobs located within a ½-mile radius of proposed station areas. The Cincinnati metropolitan area is classified as a "moderate non-attainment area" for ozone and an "attainment area" for carbon monoxide. OKI estimates that the proposed Interstate 71 Corridor LRT has an incremental cost per incremental trip value of $10.01.

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

The *Medium* land use rating reflects the corridor's strong station area development character and pedestrian facilities that enhance the transit-oriented character of the area. However, the rating also acknowledges the corridor's relatively few parking and traffic mitigation efforts and policies as well as the projected decrease in station area population within the corridor.

**Existing Conditions:** Based on 1995 data, population and employment within the corridor were estimated at 213,000 and 263,300, respectively. During the same time, total employment for the Cincinnati central business district (CBD) was estimated at 80,300 jobs. The Interstate 71 Corridor LRT would serve the University of Cincinnati, Pill Hill's six medical institutions, Xavier University, Over-the-Rhine (a densely populated low-income area that also includes an entertainment district, performing arts center and a planned arts/education center), Blue Ash (a major suburban office/industrial park), and numerous other activity centers. Current pedestrian mobility within the Cincinnati CBD is facilitated via streetscape improvements, mid-block crosswalks, street-level retail and good bus coverage. The recent reconstruction of Fort Washington Way (FWW) highway provides pedestrian access between the Cincinnati CBD and the Ohio Riverfront. As part of the FWW's reconstruction, the right-of-way was narrowed and the street grid to the south was restored. Streets located within the Cincinnati CBD also have wide sidewalks and pedestrian amenities.

**Future Plans, Policies and Performance:** Between the 1995-2020 forecast period, total corridor population is projected to decline approximately seven percent from 213,000 to 198,900. During the same period, total corridor employment is forecast to slightly increase approximately nine percent from 263,300 to 282,200. Housing and population densities are forecast to increase only for those station areas located in the upper northern portion of the corridor. Project sponsors recently conducted a station area analysis that concluded that transit-oriented development potential exists for approximately 8.2 million square feet of office space and 41,710 housing units in proposed station areas. In addition, project sponsors indicated that the proposed LRT could add an additional two million square feet of office space and 10,300 housing units within proposed station areas. The City of Cincinnati is currently developing a Comprehensive Plan for the Over-the-Rhine area that, when completed, will coordinate housing, development, social services and transportation in the area. The City of Cincinnati, in cooperation with the Port Authority Bank (financial institution), is planning a two million square foot office development, including 393,000 square feet of retail and entertainment space, 750 residential units, a 52-acre park and a 225-room hotel. Cincinnati's zoning code and the Downtown Development Plan (1990) have been updated to reflect the planned Port Authority Bank project. In addition, the 2020 Vision for the Eastern Corridor is a comprehensive land use plan designed to improve transportation in the Cincinnati metropolitan area. One of the plan's main goals is to effectuate better coordination between land use and transit. The plan also recommends encouraging local governments and transit agencies to increase pedestrian and bicycle safety through paved roadway shoulders, bike lanes and sidewalks.

# Local Financial Commitment
## Rating: Low-Medium

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

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

The financial plan for the Interstate 71 Corridor LRT includes Section 5309 New Starts funds, State (Ohio and Kentucky) appropriations and local funds (Southwest Ohio Regional Transit Authority – SORTA and Transit Authority of Northern Kentucky - TANK).

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:**<br>Section 5309 New Starts | $449.9 | 50.0 % |
| **State:**<br>Ohio Legislative Appropriations | $209.0 | 23.2 % |
| Commonwealth of Kentucky Legislative Appropriations | $16.0 | 1.8 % |
| **Local:**<br>SORTA/Hamilton County Sales Tax | $209.0 | 23.2 % |
| TANK/Kentucky Counties | $16.0 | 1.8 % |
| **Total:** | **$899.9** | 100.0 % |

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

## Stability and Reliability of Capital Financing Plan
## Rating: Low-Medium

The *Low-Medium* rating reflects the lack of committed revenue sources to construct the proposed project, including a strategy to cover any unexpected funding shortfalls or cost increases. The rating also acknowledges the sound capital condition of the local transit agencies (SORTA and TANK).

**Agency Capital Financial Condition:** The financial conditions of SORTA and TANK are sound. Collectively, the average age of SORTA's and TANK's bus fleets is seven years. In addition, SORTA and TANK have agreed, via an interlocal agreement, to jointly fund, construct and operate the proposed LRT system.

**Capital Cost Estimate and Contingencies:** The total capital cost estimate is reasonable based on preliminary studies. However, at this time, project development activities for the proposed LRT have been suspended pending progress in securing non-Federal funding commitments. The current total capital cost estimate includes a contingency of 30 percent for most project components, with the exception of electrical systems (20 percent contingency) and light rail vehicles (10 percent contingency).

**Existing and Committed Funding:** At this time, no non-Section 5309 New Starts funds have been committed to the proposed project. A locally dedicated funding source that would have provided a portion of the capital funding to the proposed project does not exist. In November 2002, a funding referendum in Hamilton County, Ohio was rejected that would have provided slightly less than 25 percent of the non-Section 5309 New Starts share of the project's total estimated capital cost from a proposed regionally dedicated sales tax. The sales tax was also scheduled to fund the Cincinnati region's MetroMoves transit plan that, in addition to the LRT project, included a major expansion of bus services. Project sponsors are in the process of re-examining local funding options in light of the referendum's defeat. The Ohio Legislature, along with the Commonwealth of Kentucky and TANK, would provide the remaining non-Section 5309 New Starts share of the project's total estimated capital cost.

**New and Proposed Sources:** At this time, no non-Section 5309 New Starts funds have been committed to the proposed project. The States' (Ohio and Kentucky) share of the project's total estimated capital cost would be provided by existing sources. At this time, local officials have not determined if the remaining share (approximately two percent) from several Kentucky counties (Kenton, Boone and Campbell) would be provided from an existing payroll tax or a new county sales tax.

## Stability and Reliability of Operating Finance Plan
## Rating: Low-Medium

The *Low-Medium* rating acknowledges the healthy operating condition of the local transit agencies (SORTA and TANK). However, the rating also reflects the rejection of the Hamilton County funding referendum in November 2002, that would have provided the majority of the proposed project's operating revenue.

**Agency Operating Financial Condition:** The current operating conditions of SORTA and TANK are sound. Both agencies maintained positive cash balances in recent years, while implementing modest service increases. However, project sponsors did not provide updated financial documentation to FTA on the agencies' operating condition for 2001. The City of Cincinnati's Income Tax Transit Fund has provided approximately 35 percent of SORTA's operating revenue, while the payroll taxes in Kenton and Campbell counties in Kentucky have provided approximately 70 percent of TANK's operating funds. In addition, combined passenger revenues for SORTA and TANK serve as the source for approximately 29 percent of the agencies' operating budgets.

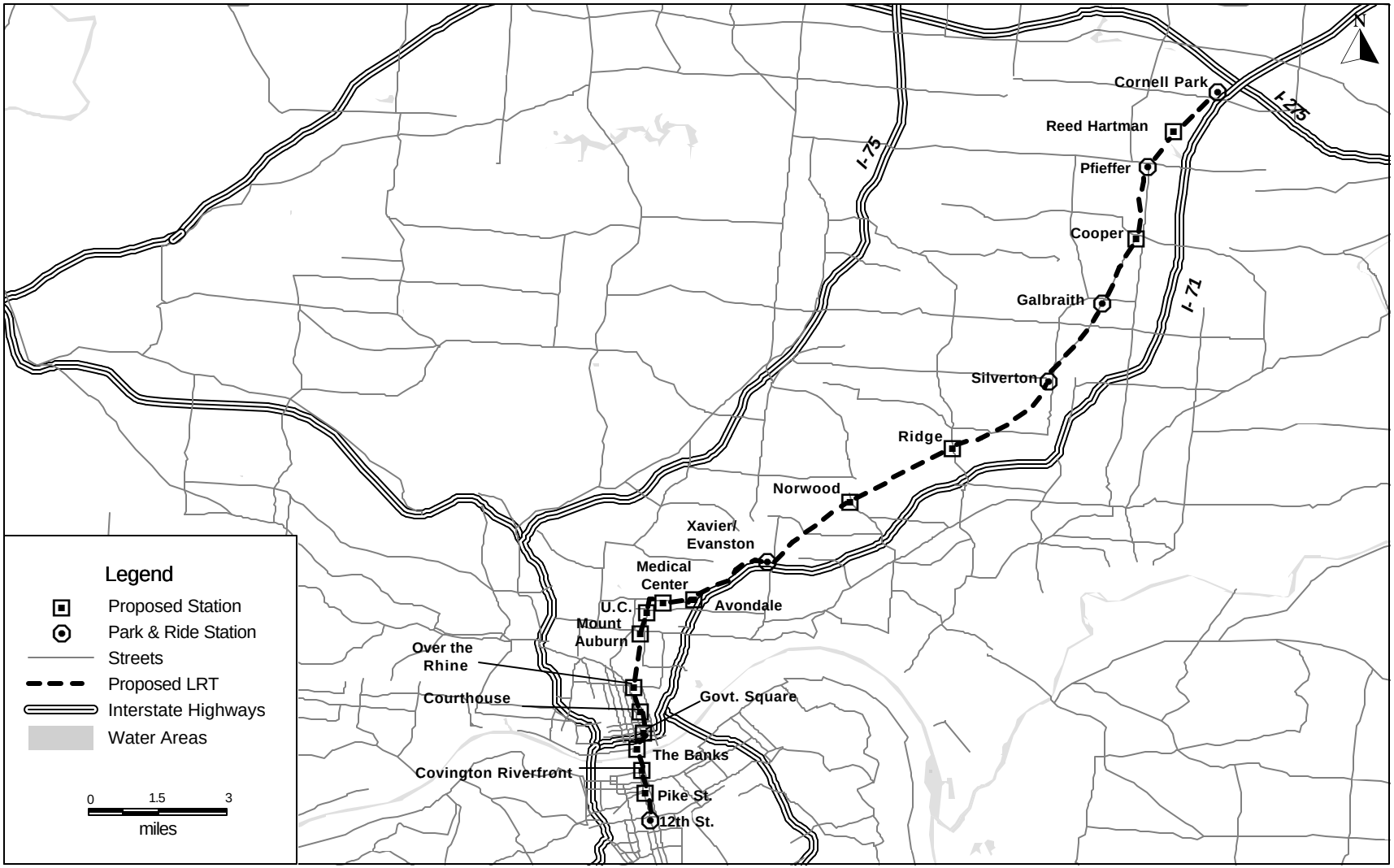
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs for the Interstate 71 Corridor LRT are estimated at $24.2 million (escalated dollars) and are anticipated to increase annually in conjunction with the rate of inflation, according to the agency's 20-year cash flow analysis. These estimates are reasonable. Operating costs were estimated by applying unit costs for vehicle operations and maintenance, facilities' maintenance and general administration. These estimates were included in a locally developed service plan addressing schedule and capacity criteria as defined by project sponsors.

**Existing and Committed Funding:** At this time, no local sources of operating funding have been committed to the proposed project, with the exception of local farebox revenues.

**New and Proposed Funding Sources:** A November 2002 sales tax referendum, rejected by voters in Hamilton County, Ohio, would have served as a primary funding source for the operations of the proposed Interstate 71 Corridor LRT. The remaining funds would be covered with existing sources, including farebox revenues.

# Interstate 71 Corridor LRT

Cincinnati, Ohio




*Federal Transit Administration, 2002*

# North Corridor LRT

**Columbus, Ohio**
(November 2002)

## Description

The Central Ohio Transit Authority (COTA), in cooperation with the Mid-Ohio Regional Planning Commission (MORPC), the local Metropolitan Planning Organization, is proposing to design and construct a 13-mile light rail transit (LRT) line within the North Corridor, connecting the Columbus central business district (CBD) with the City's northern suburban areas. The project would operate at-grade in downtown Columbus, primarily in exclusive lanes, with some portions of the line operating in mixed traffic, and would share existing CSX/Norfolk Southern railroad tracks in the northern portion of the corridor. The North Corridor begins at the southern border of the Columbus CBD and extends north to the Franklin County line, connecting Crosswoods, Morse, Worthington and Polaris (a major activity center), among other suburban communities. The North Corridor is considered the most congested in the Columbus area and includes COTA's busiest bus route (13,000 daily riders) that serves the Ohio State University area, which includes 50,000 students and 12,500 employees.

Increasing traffic congestion has impaired mobility in the corridor, resulting in limited access to major employment areas, including the Columbus CBD, State Capitol, Ohio State University and the Ohio Exposition Center, among other major activity centers. The corridor encompasses 33 percent of the region's jobs. One-third of the region's households do not own an automobile. The North Corridor LRT would support reverse commuting for patrons – including low-income residents – to major employment areas (medical, academic, entertainment) located throughout the corridor. COTA would design the LRT to enhance the economic and neighborhood development opportunities within the corridor by improving access to existing major activity centers and neighborhood commercial districts. The proposed project also includes the procurement of 18 light rail vehicles and the construction of 14 stations. Six of the proposed 14 stations would include park-and-ride facilities.

| Summary Description | |
|---|---|
| **Proposed Project:** | Light Rail Transit Line<br>13 Miles, 14 Stations |
| **Total Capital Cost ($YOE):** | $501.8 Million |
| **Section 5309 New Starts Share ($YOE):** | $250.9 Million (50%) |
| **Annual Operating Cost (2025 $YOE):** | $12.9 Million |
| **Ridership Forecast (2025):** | 17,600 Average Weekday Boardings<br>6,700 Daily New Riders |
| **Opening Year Ridership Forecast (2008):** | 15,800 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Medium-High** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The *Recommended* rating is based on the adequacy of the North Corridor's transit-supportive land use throughout the metropolitan area and the sufficiency of the capital and operating financing plans *at this stage of development*. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA's ratings and recommendations will be updated annually to reflect new information, changing conditions and refined financing plans.**

## Status

In May 2000, MORPC initiated a Multimodal Transportation Corridor Study to examine transportation improvement options in the North Corridor between downtown Columbus and the city's northern suburban areas. Alternatives Analysis was completed in May 2001 with the selection of a Locally Preferred Alternative (LPA). The LPA includes a major expansion of COTA bus service and the construction of an LRT line along Summit Avenue. The LPA was included in MORPC's financially constrained long range transportation plan in June 2001. FTA approved COTA's request to initiate Preliminary Engineering and the preparation of a Draft Environmental Impact Statement in December 2001 (DEIS). The DEIS is scheduled for completion in July 2003. A public referendum that, if approved, would provide a locally dedicated funding source to the LRT, is scheduled to occur in November 2003.

The North Corridor LRT is not authorized in TEA-21. Through FY 2002, Congress has appropriated $0.5 million in Section 5309 New Starts funds for the project.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 8,944 | |
| **Average Low Income Households Per Station** | 507 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 6.5 | |
| **Environmental Benefits Rating: Medium** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 220 | |
| **Nitrogen Oxide ($NO_x$)** | 30 | |
| **Hydrocarbons** | 30 | |
| **Particulate Matter ($PM_{10}$)** | 2 | |
| **Carbon Dioxide ($CO_2$)** | 7,870 | |
| **Annual Energy Savings (million) BTU** | 91,120 | |
| **Cost Effectiveness Rating: Medium-High** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $10.80 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.68 | $0.66 |

# Project Justification

## Rating: Medium-High

The *Medium-High* project justification rating reflects the sufficiency of the corridor's transit supportive land use environment and anticipated mobility improvements, the number of low-income households served, and the corridor's employment market. Based on 1990 Census data, COTA estimates that there are approximately 7,091 low-income households within a ½-mile radius of the proposed 14 stations. This represents approximately 35 percent of the total number of households that are located within a ½-mile radius of proposed station areas. In addition, COTA estimates that the North Corridor LRT would serve approximately 125,200 jobs that are located within a ½-mile radius of proposed station areas. The Columbus metropolitan area is designated as an "attainment area" for ozone, carbon monoxide and particulate matter. COTA

estimates that the North Corridor LRT has an incremental cost per incremental trip value of $19.50.

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

The *Medium* land use rating reflects the presence of several major trip generators within the North Corridor, including several cultural sites, entertainment venues, medical facilities, universities, fairgrounds, residential areas and a major convention center. However, the rating also acknowledges the North Corridor's relatively marginal population and employment densities.

**Existing Conditions:** The North Corridor encompasses a population of approximately 233,300 (15 percent of the Columbus metropolitan area) and approximately 234,600 jobs (28 percent of the Columbus region's employment). Employment within the Columbus central business district was estimated at 95,700 (13.4 percent of the region's employment). The corridor contains several mixed land uses, housing varieties, pedestrian amenities and higher density fringe villages. While these elements are encouraged in the Columbus Comprehensive Plan, demonstration of complementary zoning allowances or traffic mitigation measures that are currently in place to support them was not evident. The City of Columbus recently adopted a Traditional Neighborhood Design Code. The code promotes redevelopment in station areas. The regulations support mixed-density neighborhoods with mixed uses, pedestrian-friendly streets and street-oriented building standards. However, while proposed station areas encompass a host of high trip generators, including the Ohio State Fairgrounds, Ohio State Hospital and the Arena and Theater districts, population densities in the station areas are lower than the corridor as a whole.

**Future Plans, Policies and Performance:** By the year 2025, CBD employment is projected to increase approximately 32 percent to 126,900. Regional population densities are anticipated to increase from 7.2 to 7.7 persons per acre. Similarly, regional employment densities are projected to increase from 7.3 to 8.7 jobs per acre. Population and employment in proposed station areas are forecast to increase approximately 13.5 percent (125,900) and 19.7 percent (205,800), respectively, during the same time period. The City of Columbus has a variety of land use policies within the North Corridor and the region as a whole, including a Federal Empowerment Zone designation, local comprehensive land use plan and an Urban Commercial Overlay District, coupled with a University Overlay District. However, evidence was not shown that the current performance of these efforts has yielded demonstrative results. Accordingly, COTA, in cooperation with the Mid-Ohio Regional Planning Commission is working to improve these policies in the local evaluation of transportation projects. In addition, the region's long range transportation plan and Transportation Improvement Program will be evaluated using these policies. COTA has indicated that these elements will be refined as project development progresses for the North Corridor LRT.

# Other Factors

**Regional Initiatives:** Several major redevelopment efforts are planned for areas located within, or near, the North Corridor. These include: the Arena District, Warehouse District, Brewery District, Italian Village East, City of Columbus, Ohio State University, PenWest District, Broad and High Streets, Market Exchange District, Columbus Auto, Morse Road/Interstate 71, Cleveland Avenue near the proposed State Route 161 station area and the neighborhoods of Polaris and Easton. In addition, a Traffic and Growth Management Policy is being developed for northern Franklin and southern Delaware counties to study and address the way in which growth occurs in greenfield areas and the resultant growth impacts on traffic.

# Local Financial Commitment
## Rating: Medium

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

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

COTA's financial plan for the North Corridor LRT includes Section 5309 New Starts funds, State legislative appropriations, local funds, and less than one percent in cross-border lease proceeds.

**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** Section 5309 New Starts | $250.9 | 50.0 % |
| **State:** Legislative Appropriations | $120.2 | 24.0 % |
| **Local:** COTA Regional Sales Tax | $128.7 | 25.6 % |
| **Other:** Cross-Border Lease | $2.0 | 0.004 % |
| **Total:** | **$501.8** | 100.0 % |

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

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

The *Medium* rating reflects the strong capital condition of COTA and the comprehensiveness of the capital financing plan for the North Corridor LRT – at this stage of development. Local funding for the proposed project is contingent on the passage of a sales tax referendum scheduled for November 2003.

**Agency Capital Financial Condition:** COTA is in sound financial condition. The average age of the agency's bus fleet is approximately 5.3 years. At this time, the agency has no outstanding debt. In addition, while COTA's cash flow analysis indicates that funding shortfalls are anticipated in future years, cash balances from previous years will be sufficient to cover the expected shortfalls. Positive cash balances are projected throughout the agency's funding plan.

**Capital Cost Estimate and Contingencies:** The total capital cost estimate for the North Corridor LRT includes a 25 percent contingency. This estimate is reasonable given the project's size, scope and current stage of development. However, given that the majority of the alignment for the proposed LRT would operate within an existing CSX/Norfolk Southern freight railroad right-of-way, contingencies for railroad force account work, currently budgeted at 17 percent, may not be sufficient to cover any unforeseen variabilities. COTA is planning to undertake a capacity analysis in early 2003 to identify impacts to existing freight railroad operations, infrastructure, right-of-way, etc.

**Existing and Committed Funding:** At this time, approximately 24 percent of the non-Section 5309 New Starts funds exist, but are not committed to the proposed project. These funds consist of annual planned State legislative appropriations. An additional ¼-percent locally dedicated sales tax, that would provide 25.6 percent of the non-Section 5309 New Starts share of the project's total estimated capital cost, is scheduled for a referendum in November 2003. The remaining funds consist of anticipated proceeds from a planned cross-border lease of light rail vehicles that would be procured as part of the North Corridor LRT project.

**New and Proposed Sources:** At this time, approximately 24 percent of the non-Section 5309 New Starts share currently exists. These funds are comprised of planned State legislative appropriations. The remaining 26 percent of the non-Section 5309 New Starts share of the project's total estimated capital cost would be provided by new funding sources (regional sales tax and vehicle cross-border lease proceeds).

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects an adequate operating funding strategy for the proposed North Corridor LRT – at this stage of project development. However, the rating also acknowledges COTA's heavy reliance on a planned sales tax referendum, scheduled for November 2003, that would provide a major source of the proposed project's operating funding.

**Agency Operating Financial Condition:** COTA's current operating condition is sound. The agency's historical operating statistics reflect increasing levels of service for bus and paratransit services over the past seven years.

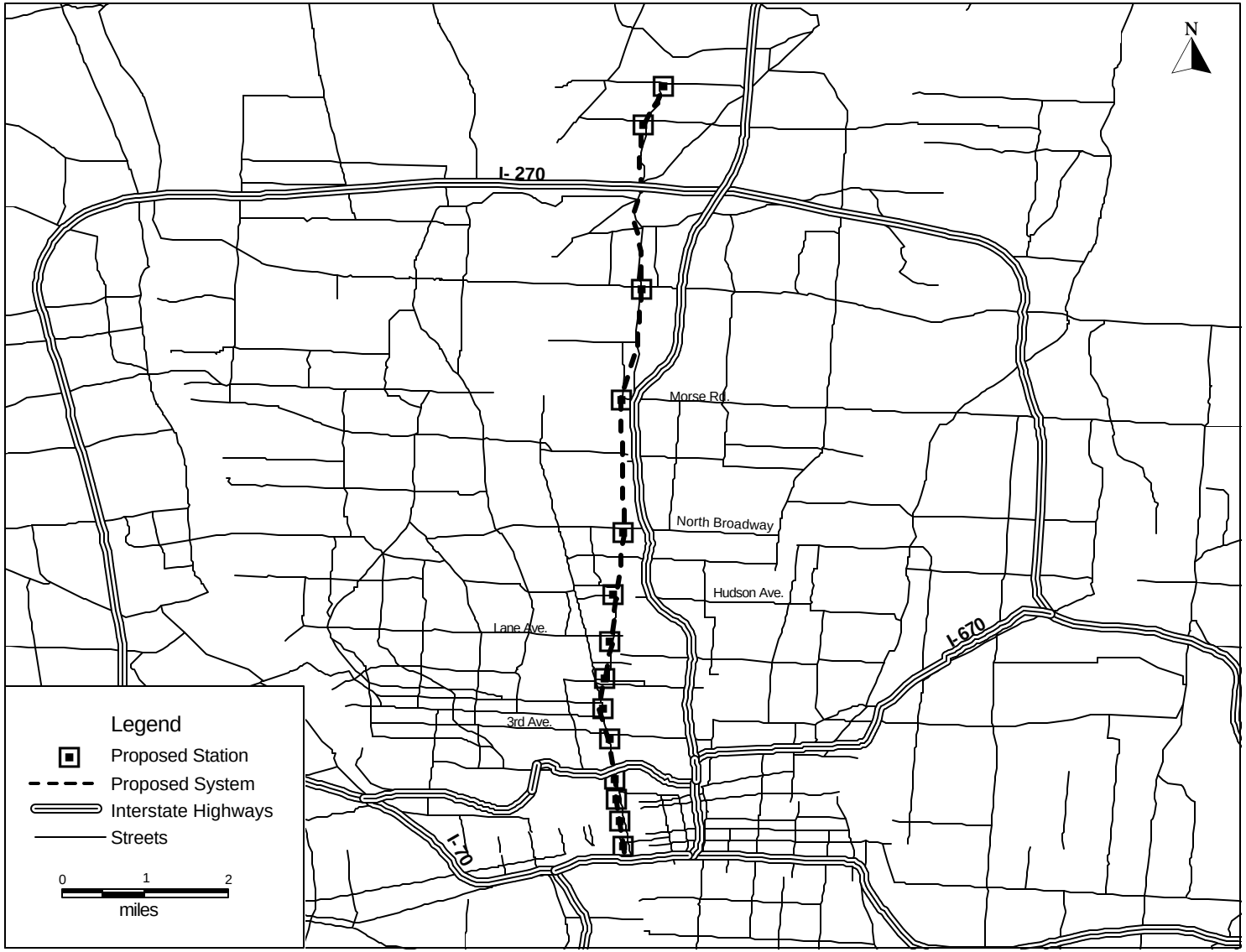
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs for the North Corridor LRT are estimated at $12.9 million (escalated dollars) and are anticipated to increase annually, in conjunction with the rate of inflation, according to the agency's cash flow analysis. These estimates are reasonable. The agency's cash flow analysis indicates a positive cash balance that increases from $15.2 million in 2001 to $63.9 million in 2009, the first full year of proposed LRT operations. If no additional capital projects are built, COTA's cash balance is projected to reach approximately $650 million by the year 2030. The cash flow projection assumes the passage of the planned ¼-percent sales tax referendum, scheduled for November 2003.

**Existing and Committed Funding:** At this time, approximately 84 percent of the North Corridor LRT's operating and maintenance funding exists and is committed to the project. These funds consist of fare revenues, sales tax levies, Section 5307 Preventative Maintenance funds and other transit-related revenues. The remaining 16 percent in operating funds would be covered with the planned November 2003 ¼-percent sales tax referendum.

**New and Proposed Funding Sources:** The majority of the projected operating and maintenance revenues would come from existing sources. The remainder would be provided with the passage of a new locally dedicated funding source – ¼-percent sales tax.

# North Corridor LRT

Columbus, Ohio




*Federal Transit Administration, 2002*

# Northwest/Southeast Light Rail MOS

**Dallas, Texas**

(November 2002)

## Description

Dallas Area Rapid Transit (DART) is planning to expand its Light Rail Transit (LRT) system along two corridors, one extending 18 miles to service areas northwest of the Dallas CBD through Farmers Branch to Carrollton (the Northwest Corridor), and the other 10 miles to service areas southeast of the CBD (the Southeast Corridor) through the city to Buckner Boulevard. A minimum operable segment (MOS) that combines components of the two corridors has been proposed as the New Start, and is labeled the Northwest/Southeast Light Rail MOS (NW/SE LRT MOS). This project reflects the interdependence between operating plans for this phase of the DART LRT system.

The NW/SE LRT MOS comprises a truncated version of the Northwest Corridor LRT line and the entire Southeast Corridor LRT line. The MOS will extend 22 miles southward from the City of Farmers Branch, through northwest Dallas to the CBD, connect to the existing Transitway Mall at the Pearl Street Station, and continue southeastward through the City primarily along railroad right-of-way to Buckner Boulevard in southeast Dallas. The Federal project will share four stations with the Transitway Mall of the existing LRT system. DART intends to construct the northernmost segment of the proposed Northwest Corridor LRT, from Farmers Branch to Carrollton, with local funds.

| Summary Description | |
|---|---|
| **Proposed Project:** | Light Rail Transit<br>22 Miles, 16 Stations |
| **Total Capital Cost ($YOE):** | $1.2 Billion |
| **Section 5309 New Starts Share ($YOE):** | $500 Million (40%) |
| **Annual Operating Cost (2025 $YOE):** | $36.8 Million |
| **Ridership Forecast (2025):** | 41,600 Average Weekday Boardings<br>9,500 Daily New Riders |
| **Opening Year Ridership Forecast (2008):** | N/A |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The northwest component will link a large sector of DART's service area to the LRT system, whereas the southeast component will connect downtown Dallas with several southern communities, including Deep Ellum, Baylor Hospital Center, South Dallas, Fair Park, Buckner Terrace and Pleasant Grove. Sixteen new stations are proposed, with most serving as intermodal facilities and providing park-and-ride facilities. The project will enhance mobility by providing more travel choices for commuters, and additional capacity for heavily traveled radials, while enhancing overall quality and reliability of transit service and promoting economic development in the corridors.

The *Recommended* overall project rating is based on the adequacy of the project's transit-supportive land use as well as the strength of the project's capital and operating financing plans. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The DART Board approved locally preferred investment strategies (LPIS) for both the Northwest and Southeast corridors in Spring 2000. The LPIS decisions were based on a MIS and a comprehensive public and agency involvement program for each corridor to determine the best mix of transportation modes and services to meet increasing travel demand in the study areas. The Regional Transportation Council, the Metropolitan Planning Organization for the Dallas-Fort Worth Metropolitan Area, endorsed the LPIS and adopted it into the long range transportation plan in January 2000. In July 2001, FTA approved this project into Preliminary Engineering. Separate environmental reviews are being undertaken for the two corridors. The Draft Environmental Impact Statements (DEIS) were published in February 2002 and June 2000 for the Southeast and Northwest Corridors, respectively. The Final EIS for each corridor is anticipated by early 2003. DART has combined the two extensions into a single MOS for consideration as the Federal New Starts project. Project start-up is targeted for early 2008.

The "Dallas – DART LRT Extensions" are authorized by Section 3030(b)(15) of TEA-21. Through FY 2002, Congress has appropriated approximately $1 million in Section 5309 New Starts funds to the project.

## Evaluation

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

| Project Justification Qualitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 8,872 | |
| **Average Low Income Households Per Station** | 191 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 2.2 | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 45 | |
| **Nitrogen Oxide ($NO_x$)** | 1 | |
| **Hydrocarbons** | 4 | |
| **Particulate Matter ($PM_{10}$)** | [12] | |
| **Carbon Dioxide ($CO_2$)** | 30,000 | |
| **Annual Energy Savings (million) BTU** | 356,500 | |
| **Cost Effectiveness Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Cost Per Transportation System User Benefit (current year dollars/hour)** | $18.28 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.63 | $0.65 |

[ ] indicate an increase in emissions.

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the combination of the ratings for cost effectiveness and transit-supportive land use. Based on 1990 Census data, there are an estimated 3,060 low income households and 141,960 jobs within a ½-mile radius of DART's NW/SE LRT MOS station areas. EPA has designated the Dallas – Ft. Worth metropolitan area as a "serious non-attainment area" for ozone. The incremental cost per incremental trip is $13.14.

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

The *Medium* land use rating reflects the region's positive policies and plans to enhance the transit-friendly character of station area development within the corridor, the strong performance of land use policies and excellent tools and actions to promote transit oriented development. However, this rating also takes into account that the parking policies within the corridor are weak and employment and housing densities in station areas are not very transit supportive.

**Existing Conditions:** The corridor contains a sports arena, an entertainment district, hospital facilities, cultural and historical sites, museums, and large housing developments. Large amounts of dedicated parkland and/or floodplains are found near station areas. Two station areas contain large amounts of industrial use land, three station areas have a lot of vacant land, and the remaining station areas are mixed use. Transit supportive employment and housing densities are not demonstrated to exist in many of the station areas in outlying areas of the Northwest Corridor. Specific infill and/or redevelopment projects have been completed or are in progress throughout the corridor. Numerous policies found in the Dallas Plan and The Growth Policy Plan support economic and transit- friendly development. The City of Dallas and DART have many programs and policies aimed at promoting transit-oriented development within the corridor. The "Initial Economic Impacts of the DART LRT System Report" discusses hundreds of million of dollars invested in and around stations by developers. Many developers have expressed an interest in the LRT and station areas.

**Future Plans Policies and Performance:** In 1995, employment in the corridor was 3.9 jobs per acre and is expected to increase to 17.67 jobs per acre by 2025. By 2025, employment in the corridor will increase significantly more than in the station areas (44 percent compared to 25 percent). In 1995, corridor population was 3.3 persons per acre and is expected to increase to 3.46 persons per acre by 2025. Regionally, transit oriented development strategies from the Mobility 2025 plan will be applied by DART and member cities in PE/EIS station planning processes. Mobility 2025 supports mixed use and increased densities around stations. The plan includes a Congestion Management System component with a Travel Demand Management program. A new zoning designation, Urban Corridors, hopes to promote transit oriented development, high densities, and mixed use. Many cities are changing their land use plans to incorporate the stations that will be constructed as part of the LRT expansion project. Zoning, land use and urban design concepts that promote transit oriented development and increase economic development will be examined.

## Local Financial Commitment
### Rating: Medium

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

## Proposed Non-Section 5309 New Starts Share of Total Project Costs: 60%
## Rating: Medium-High

The financial plan for the NW/SE LRT MOS includes Section 5309 New Starts funding, other Federal funding, and local funding.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:** | | |
| Section 5309 New Starts | $ 500.0 | 40.4 % |
| Section 5307 Formula | $ 26.6 | 2.1 % |
| CMAQ | $ 4.4 | 0.4 % |
| **Local:** | | |
| Sales Tax | $ 706.5 | 57.1 % |
| **Total:** | **$1,237.5** | 100.0 % |

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

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

The *Medium-High* capital finance plan rating is based on the commitment of local funds to the project. The capital financial plan for the Northwest/Southeast LRT MOS has a large non-Section 5309 New Starts share (59.6 percent), commitment of DART's robust dedicated tax source, and availability of debt issuance options in the event of funding shortfalls or cost overruns. DART relies on the local sales tax as its sole funding source, which has advantages but also poses some risk. This source provides a relative abundance of capital and operating funding, but exposes the agency to vulnerability of the local economic downtowns.

**Agency Capital Financial Condition:** DART is in good financial health, with cash reserves totaling $246 million in FY 2001. This balance represents 21 percent of planned operating, capital, and debt service expenditures in that year. The average age of DART's bus fleet has decreased sharply in recent years from nearly 12 years in 1998 to less than six years in 2001. DART's paratransit, light rail, and commuter rail fleets are also all relatively new. DART's long-term bonds are rated as follows: AA by S&P and Fitch, Aa3 by Moody's.

**Capital Cost Estimates and Contingencies:** The total capital cost for the project is $1.24 billion, and is considered reasonable at this stage of development. The construction cost estimate includes a 20 percent and a 10 percent contingency for design and construction, respectively, as well as other add-ons. DART has utilized a cost estimating methodology for this project similar to that used in its successful completion of the existing LRT lines.

**Existing and Committed Funding:** All of the $737.5 million in proposed non-Section 5309 New Starts funds are from currently existing sources and over 95 percent of these funds are committed to the project. The only funds not committed to the project are the $26.2 million in Section 5307 Urban Area Formula funds and the $4.4 million in CMAQ funds.

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

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating is based on the lack of project specific operations information. DART has provided an agency-wide operating plan, including this project, which clearly demonstrates the agency's ability to fund systemwide operations over the coming 20-year period. The primary limitation to the plan is that it does not clearly delineate the specific operating costs and subsidy requirements for the proposed Northwest/Southeast LRT MOS project from the DART system. DART relies on the local sales tax as its sole funding source, which has advantages but also poses some risk. This source provides a relative abundance of operating and capital funding, but exposes the agency to vulnerability of the local economic downtowns.

**Agency Operating Financial Condition:** National Transit Database data show that DART has run operating surpluses in each of the last five years ranging from $7 million to $52 million on total operating expenses averaging $218 million. Bus ridership increased sharply in recent years, returning almost to levels experienced prior to introduction of the LRT system. LRT ridership has also grown sharply, reaching 11.3 million unlinked trips in 1999. While these growth rates are slightly above the 15-year growth, they are slightly below the more recent experience that included the startup of the initial LRT system.

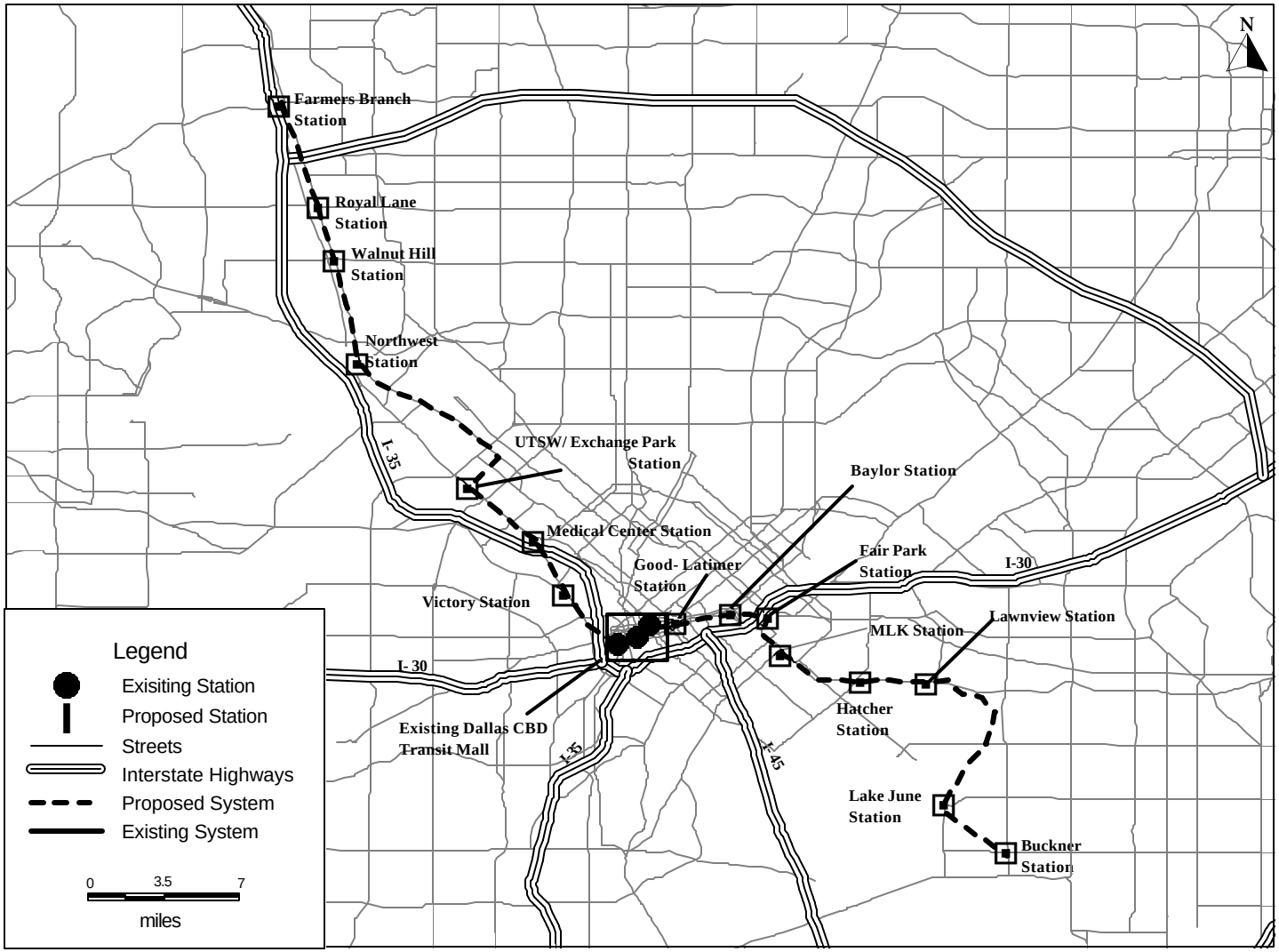
**Operating Cost Estimates and Contingencies:** DART is projecting systemwide operating costs to grow 6.1 percent annually through 2010 and 4.6 percent through 2020, reaching a total of $614 million in 2020. These growth rates are reasonable and consistent with past experience. However, the financial plan does not breakout the specific O&M costs for the proposed Northwest/Southeast LRT system or outline contingencies for this project (although existing reserves and capacity of the dedicated tax source mitigates these concerns). An annual inflation rate of 2.75 percent is assumed for O&M cost increases.

**Existing and Committed Funding:** The dedicated local sales tax represents a reliable, committed funding source to subsidize operating costs for DART's overall LRT expansion program.

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

# Northwest / Southeast Light Rail MOS

Dallas, Texas




*Federal Transit Administration, 2002*

# West Corridor LRT

**Denver, Colorado**

(November 2002)

## Description

The Regional Transportation District (RTD) is proposing the West Corridor project, an 12.1-mile light rail transit (LRT) system extending from the existing LRT line at I-25 and 13th Avenue in Denver along the former Associated Rail right-of-way and US 6 to US 6/US 40 in Jefferson County. The proposed project connects with the existing 5.3-mile Central Corridor light rail line in downtown Denver near the existing Auraria station. At this location, the West Corridor would also connect with the Central Platte Valley (CPV) light rail extension serving Lower Downtown.

The West Corridor has long been recognized as one of the Denver region's highest priority travel corridors. The West Corridor is situated between, and is being proposed to relieve congestion on two parallel roadways with high volumes, as demonstrated by their Average Daily Trips (ADT): US 6 (148,000 ADT) and US 40/West Colfax Avenue (51,900 ADT). Both corridors are constrained by existing development. Roadway widening was eliminated from further consideration during the Major Improvement Study because of severe community impacts and displacements of adjacent residential and business centers. The West Corridor crosses four major north-south arterial roads (35,000+ ADT each), serving as a backbone to connecting trips. The West Corridor will extend one of the region's premier bicycle/pedestrian trails as part of the LRT right-of-way, offering many opportunities for the integration of non-motorized transportation and neighborhood-based trips. Its location will also provide important mobility connections between employment centers such as the Denver Central Business District (CBD) and the Federal Center; Union Square, Colorado Mills and Denver West Office Park, and the Jefferson County Government Center. Direct access to educational centers includes the Auraria Campus (University of Colorado at Denver, Metropolitan State College of Denver, and Community College of Denver), and Red Rocks Community College.

| Summary Description | |
|---|---|
| **Proposed Project:** | Light Rail Transit Line<br>12.1 Miles, 13 Stations |
| **Total Capital Cost ($YOE):** | $686.6 Million |
| **Section 5309 New Starts Share ($YOE):** | $412.0 Million (60%) |
| **Annual Operating Cost (2025 $YOE):** | $26.3 Million |
| **Ridership Forecast (2025):** | 31,100 Average Weekday Boardings<br>4,550 Daily New Riders |
| **Opening Year Ridership Forecast (2014):** | 26,700 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The *Recommended* rating is based on the project's justification criteria and capital and operating plan. The overall project rating applies to FTA's approval of Preliminary Engineering **and reflects conditions as of November 2002**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

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

## Status

The West Corridor has been the focus of study for over 30 years. These studies have consistently identified the need for greater person-carrying capacity in the West Corridor. Recognizing its strategic importance to the region, RTD purchased the rail right-of-way in 1988.

The Regional Transportation District (RTD), in cooperation with the Denver Regional Council of Governments (DRCOG) and the Colorado Department of Transportation (CDOT), completed a Major Investment Study (MIS) on the corridor in July 1997. The MIS resulted in the selection of a multi-modal package of light rail transit (LRT) and roadway transportation management improvements. The DRCOG Board has included the LRT Locally Preferred Alternative in the 2020 Long Range Regional Transportation Plan. FTA approved the request to enter Preliminary Engineering in March 2001. A Draft Environmental Impact Statement is expected to be completed in January 2003, with the Final Environmental Impact Statement and Record of Decision expected later in 2003.

TEA-21 Section 3030 (a)(25) authorizes the project for Preliminary Engineering. Through FY 2002, Congress has not appropriated any Section 5309 New Starts funds for this project.

## Evaluation

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

| | | |
|---|---|---|
| **Mobility Improvements Rating: Low-Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 2,622 | |
| **Average Low Income Households Per Station** | 290 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 2.0 | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 313 | |
| **Nitrogen Oxide ($NO_x$)** | 7 | |
| **Hydrocarbons** | 11 | |
| **Particulate Matter ($PM_{10}$)** | 0 | |
| **Carbon Dioxide ($CO_2$)** | 1,004 | |
| **Annual Energy Savings (million) BTU** | 2,184 | |
| **Cost Effectiveness Rating: Low-Medium** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $23.24 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.53 | $0.54 |

[ ] indicates an increase in emissions.

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the below average cost effectiveness and transit supportive land use policies. Based on 2000 Census data, there are an estimated 3,764 low-income households within a ½-mile radius of the proposed stations, representing 27 percent of all households located within ½-mile of the stations. There are an estimated 34,100 employees within ½-mile of the transit station areas. The Denver region is classified as a "maintenance area" for ozone, and a "serious non-attainment area" for carbon monoxide. The Denver West Corridor Light Rail project has an incremental cost per incremental trip value of $29.28.

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

The *Medium* land use rating reflects supportive growth management policies and tools to implement land use policies balanced by current suburban and auto-oriented development in much of the corridor.

**Existing Conditions:** The West Corridor project will serve the Denver CBD via the existing Central Platte Valley LRT line to Union Station. Densities and total employment and population levels are low to moderate throughout the corridor. The corridor contains an estimated 34,100 jobs and 34,000 residents within a ½-mile radius of stations (not including the CBD), at densities averaging about 4,000 persons and 4,000 jobs per square mile. The corridor includes older industrial areas south and west of downtown, with significant redevelopment potential; established moderate-density residential neighborhoods in the Cities of Denver and Lakewood; and a mix of more suburban industrial, commercial, residential, and undeveloped land near the western end of the corridor. Station areas are generally pedestrian-accessible, but land use patterns are predominantly auto-oriented.

**Future Plans, Policies, and Performance:** The metropolitan area and the corridor are growing rapidly. Metropolitan area population is projected to grow by 50 percent between 2000 and 2025. The Denver Regional Council of Governments is working to establish an Urban Growth Boundary and other growth management policies; a number of jurisdictions in the region have signed a growth management agreement known as the Mile High Compact. The comprehensive plans of Denver and other municipalities in the corridor support transit-oriented development. Several plans, such as The Denver Comprehensive Plan (adopted in 2000), City of Lakewood Comprehensive Plan, Future Jeffco: A Strategic Plan, and City of Golden Comprehensive Plan include policies and identified areas for mixed use and higher densities. Blueprint Denver (adopted in 2000 as an implementation plan for the Denver Comprehensive Plan), identifies several existing and future LRT stations as "Areas of Change" with high transit oriented development potential. The City of Denver's zoning regulations permit relatively high densities and mixed use development in certain areas, and the city is working to adopt overlay districts that can be applied to transit station areas. The Regional Transit District recently created a Transit Oriented group that works with municipalities, landowners, and developers to coordinate and promote transit-oriented development at bus and rail station sites. While Denver's suburbs continue to expand rapidly, examples of high-density, mixed-use development are beginning to be demonstrated on infill sites and in existing LRT station areas in the region. A number of projects currently underway and proposed in both Denver and Lakewood – the jurisdictions covering most of the corridor – are exhibiting strong pedestrian-oriented design features. New development and redevelopment opportunities exist at both ends of the West Corridor.

## Local Financial Commitment
### Rating: Medium

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

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

The project's financial plan includes Section 5309 New Starts funding, local funding (bond proceeds), and local/private contributions.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:**<br>Section 5309 New Starts | $412.0 | 60.0 % |
| **Local:**<br>RTD Bond Proceeds | $257.5 | 37.5 % |
| **Other:**<br>Local/Private Contributions | $17.2 | 2.5 % |
| **Total:** | **$686.6** | 100.0 % |

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

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

The *Medium* rating reflects the solid financial condition of RTD tempered by the optimistic forecast of sales and use tax revenues that will be used to issue bonds to support the project's capital cost.

**Agency Capital Financial Condition:** The agency is in sound capital financial condition. The average age of the bus fleet (seven years) and the rail fleet and facilities (five years) reflect the agency's sound capital condition. RTD has earned an AA- bond rating from Standard and Poor's and an A-1 bond rating from Moody's.

**Capital Cost Estimate and Contingencies:** RTD is working toward the establishment of the final alignment based on needs, impacts, and funding. Capital costs reflect inflation rates of 3.3 percent through 2015, increasing to 3.8 to 4.0 percent from 2016 through 2025. The West Corridor cost estimates include a ten percent contingency. Debt assumptions used by the RTD regarding the financing of capital costs are conservative based on today's credit markets.

RTD currently has a blanket exemption from the rebate provisions of the Taxpayer Bill of Rights (TABOR), which expires at the end of 2005. Under TABOR the government unit receiving tax revenues is allowed to "keep" revenues in an amount equal to the prior year's collections

adjusted for growth factors. Revenues above this amount are subject to rebate to the residents of Colorado. RTD has been exempt from the TABOR rebate provisions for expenses incurred on the Southeast Corridor. In the West Corridor analysis, RTD assumed that this exemption would be extended to West Corridor expenditures.

**Existing and Committed Funding:** Approximately 94 percent of non-Section 5309 funds for the project will come from bonds backed by the sales and use tax revenues. These funds are considered planned. Commitment will depend upon a Board resolution to issue the debt.

**New and Proposed Sources:** The remaining six percent of non-Section 5309 New Starts funds are projected to come from local/private contributions. The sources of this new funding have not been specified.

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects RTD's financial capacity to operate and maintain the proposed project, as well as the existing system relying, however, on optimistic assumptions regarding future sales and use tax revenues.

**Agency Operating Financial Condition:** RTD is in sound operating financial condition, having experienced positive cash balances over the past five years. Fare revenues account for approximately 25 percent of operating and maintenance expenses. The historic growth in sales and use tax revenue has proved sufficient to fund the operations of a growing transit network.

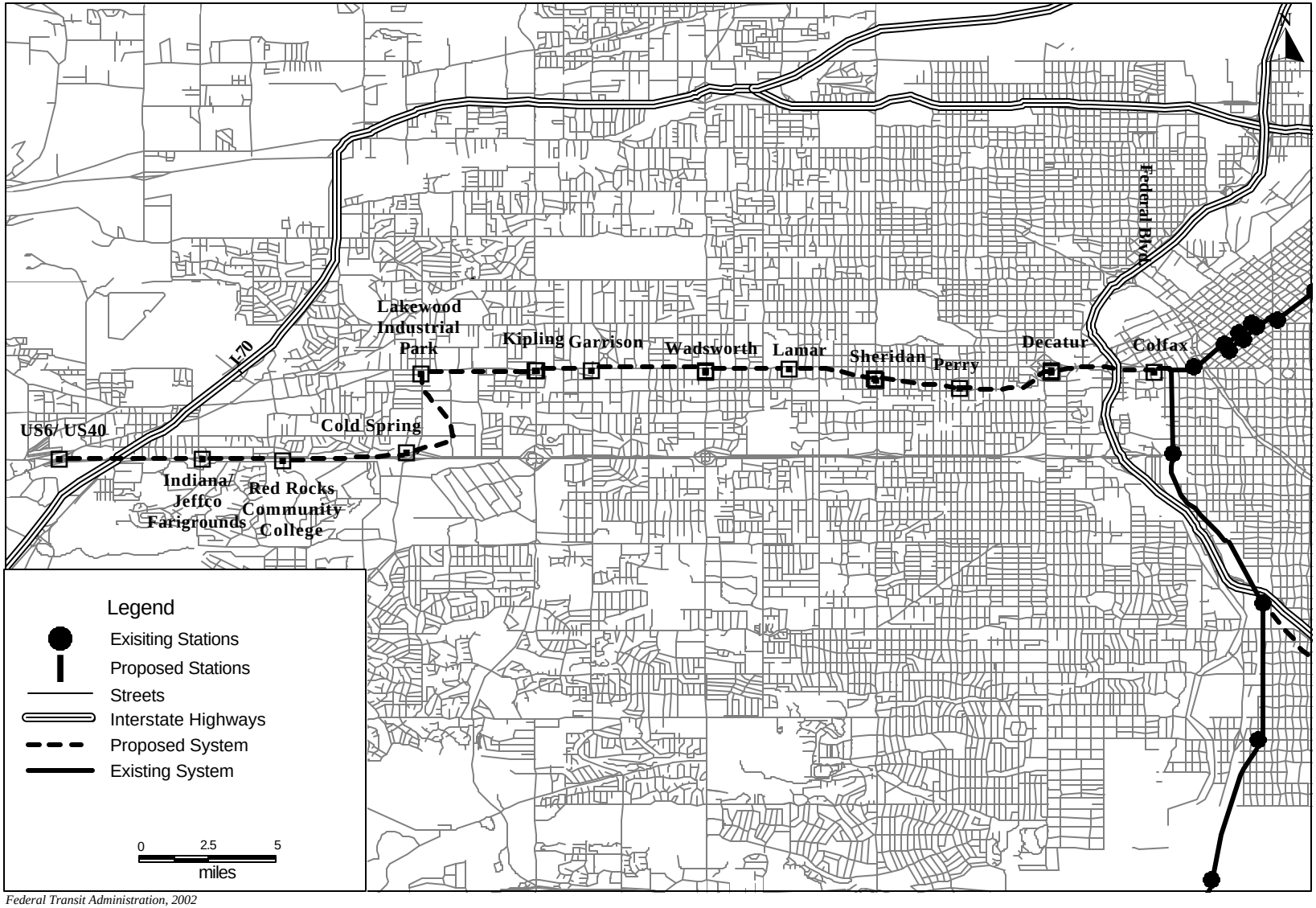
**Operating Cost Estimates and Contingencies:** The West Corridor is projected to have an annual operating cost of $26.3 million in forecast year 2025, based on clearly identified bus and light rail service levels. Fare revenues are assumed to grow with the rate of inflation. Sales and use tax revenues are assumed to have an annual growth rate of seven percent, which is less conservative an assumption than has been used in previous years.

**Existing and Committed Funding:** The major source of Operating and Maintenance revenues is the sales and use tax, which is committed. The other source is farebox revenues, which will constitute nine percent of operating and maintenance funds.

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

# West Corridor LRT

Denver, Colorado




*Federal Transit Administration, 2002*

# Mason Street Transportation Corridor

## Fort Collins, Colorado

(November 2002)

## Description

Transfort, the transit agency for the City of Fort Collins, is proposing a 5.3-mile bus rapid transit (BRT) system within its Mason Street Transportation Corridor, extending from Cherry Street on the north to a proposed transit center south of Harmony Road and parallel to a major road, College Avenue. The project will enhance opportunities for pedestrians, bicyclists, and transit riders along its length. The Mason Street Transportation Corridor will provide a direct north/south route for bicyclists and a faster passenger trip time using BRT rather than having to use automobiles on congested College Avenue. Buses compete with automobiles on College Avenue, bicycles make circuitous trips to travel through the city, and pedestrians encounter unsafe vehicle traffic and walking conditions. BRT would link the downtown Civic Center, Colorado State University, the South College Avenue retail corridor, and south Fort Collins. The project is also intended to encourage development and provide economic opportunities.

In 1997, voters approved a Building Community Choices capital funding ballot proposal that included this BRT project. Based on the ballot proposal, the City dedicated $7.5 million to the project, has spent $1.5 million for the development of the master plan, and has a remaining balance of $5.6 million.

| Summary Description | |
|---|---|
| **Proposed Project:** | Bus Rapid Transit<br>5.3 Miles, 16 Stations |
| **Total Capital Cost ($YOE):** | $66.0 Million |
| **Section 5309 New Starts Share ($YOE):** | $52.3 Million (79.2%) |
| **Annual Operating Cost (2022 $YOE):** | $1.7 Million |
| **Ridership Forecast (2020):** | 5,300 Average Weekday Boardings<br>1,854 Daily New Riders |
| **Opening Year Ridership Forecast:** | N/A |
| **FY 2004 Finance Rating:** | **Low** |
| **FY 2004 Project Justification Rating:** | **Not Rated** |
| **FY 2004 Overall Project Rating:** | **Not Recommended** |

The overall project rating of *Not Recommended* is based upon the *Low* financial rating resulting from a Section 5309 New Starts funding share of 80 percent. This project has received a rating of *Not Recommended* based on the Federal New Starts share requirement in effect during FY 2003. The Conference Report accompanying the FY 2002 Department of Transportation Appropriations Act directs that, as of October 1, 2002, no new Full Funding Grant Agreement may be executed with a Federal New Starts share greater than 60 percent. The project's "low"

financial share rating and summary financial rating reflect this Congressional direction. In addition, the Administration is seeking legislation that would limit the Federal New Starts share to no more than 50 percent beginning in FY 2004. Future ratings of this project would be affected by this change.

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

## Status

The concept of the transportation corridor originated in 1994, when the City's Bicycle Plan identified the need for a north/south facility for pedestrians and bicyclists. The recommendation was carried forward in two documents the following year when the City Plan and the 1996-2002 Transit Development Plan identified the need for a north/south corridor. In response, the City's Transportation Board considered the Mason Street Transportation Corridor as one possible solution to north/south traffic congestion impacting Fort Collins, and to the lack of safe, convenient routes for people choosing different modes of travel. This project was one of several presented to the City Council to include in the Building Community Choices capital funding ballot proposal, which was approved by Fort Collins voters in 1997. The Mason Street Transportation Corridor is part of the adopted fiscally constrained long range transportation plan adopted in October 1998.

FTA approved, with conditions, Transfort's request to enter Preliminary Engineering (PE). In December 2001, FTA granted the approval with the expectation that several tasks be completed or satisfied including refinement of the financial plan to increase the local share to at least 40 percent, re-examination of the definition of the New Starts baseline alternative, and completion of the National Environmental Policy Act process. Transfort initiated an Environmental Assessment in August 2002, and expects to complete the document in July 2003.

The Mason Street Transportation Corridor project is not authorized in TEA-21. Through FY 2002, Congress has not appropriated any Section 5309 funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions on Section 5309 New Starts Criteria*, updated in June 2002. FTA approved Transfort's usage of the No Build alternative as the New Starts baseline for evaluation and rating purposes for approval to initiate PE. However, FTA is working with Transfort during PE to determine if a revised New Starts baseline can be developed that considers additional corridor improvements beyond the no-build. The project will be reevaluated for next year's *Annual Report on New Starts* and when it is ready to advance into Final Design.

| Mobility Improvements Rating: Not Rated | |
|---|---|
| | **New Start vs. Baseline** |
| **Average Employment Per Station** | 2,165 |
| **Average Low Income Households Per Station** | 84 |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | Not Rated |
| **Environmental Benefits Rating: Medium-High** | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** |
| **Carbon Monoxide (CO)** | 129 |
| **Nitrogen Oxide ($NO_x$)** | 6 |
| **Hydrocarbons** | 13 |
| **Particulate Matter ($PM_{10}$)** | 0 |
| **Carbon Dioxide ($CO_2$)** | 1,969 |
| **Annual Energy Savings (million) BTU** | 23,656 |
| **Cost Effectiveness Rating: Not Rated** | |
| | **New Start vs. Baseline** |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | Not Rated |

| Operating Efficiencies Rating: Medium | | |
|---|---|---|
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $1.60 | $0.72 |

[ ] indicates an increase in emissions.

# Project Justification

## Rating: Not Rated

This project has not been rated. The project sponsor calculated the project's cost effectiveness at $1.69 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved.

Based on 1990 Census data, there are an estimated 1,336 low-income households within a ½-mile radius of the proposed stations, representing 19 percent of all households located within ½

mile of the stations. There are an estimated 34,633 employees within a ½-mile radius of the proposed 16 stations. The Fort Collins region is classified as a "moderate non-attainment area" for carbon monoxide. The project has an incremental cost per incremental trip value of $10.65.

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

The *Medium-High* rating reflects the effort being made by the citizens and government of the City of Fort Collins to use BRT as one of several tools to focus development inside an urban growth area boundary and prevent sprawl. At this stage, a detailed assessment is under way to select the set of land-use controls and incentives to deploy in specific areas.

**Existing Conditions:** Fort Collins is a city of 125,000 people located in the North Front Range 65 miles north of Denver. It is the home of Colorado State University (CSU), with its 22,000 students and 6,000 employees. Population and employment densities within the corridor, at 4.6 persons per acre and 7.2 employees per acre, respectively, are low for supporting transit. However, population is growing at a rate of 3.5 percent per year. The resulting growth and prospects for more of it spurred the effort to manage growth and prevent sprawl. One of the major concerns is the amount of traffic on the main north-south artery of the city, College Avenue. It links the CBD with all the other major retail, office, and commercial areas of the city, including CSU beginning one block west of it. It is also the location of U.S. 287, a major artery closely paralleling Interstate 25. Mason Street is just one block west of College Avenue. An active line of the BNSF Railroad is located in the middle of Mason Street and carries eight to ten freight trains a day. It provides a separate half-block wide underused right-of-way just one block away from vehicle-congested College Avenue, extending south about 3.5 miles through the city in its own right-of-way beyond the lower end of Mason Street. Land use at the north end of the corridor is dominated by the CBD and a new complex of city and county government buildings. The floor area ratio in the CBD, exclusive of public rights-of-way, is just 0.63. The entire corridor, although containing many office buildings, retail centers, commercial strips, and a 700,00 square foot shopping mall, has strong possibilities for redevelopment to higher densities.

**Future Plans, Policies and Performance:** The City of Fort Collins is developing a set of actions to induce new, higher density growth in the corridor in accordance with its growth management plan and its new zoning regulations. Opportunities for new development, redevelopment, and in-fill are being identified. Although the scope is essentially citywide, a major part of the current focus is on the station areas of the proposed new BRT project. The new BRT line will share its right-of-way with bicycle and pedestrian paths, as well as the railroad line. CSU is implementing an auto-free campus policy that will support the use of the new BRT service down its eastern boundary. Ongoing construction in the corridor is increasing its transit-supportiveness – County Office Building in Civic Center, CSU Transit Center, 1,500-employee Natural Resources Research Center, and a 220-unit apartment complex abutting project right-of-way. The new buildings and the proposed stations and connections between them are spawning increased pedestrian friendliness and ADA-compliance in the corridor.

## Local Financial Commitment
**Rating: Low**

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

### Proposed Non-Section 5309 New Starts Share of Total Project Costs: 20.8%
**Rating: Low**

Transfort plans to use Section 5309 New Starts funding, Congestion Management Air Quality (CMAQ), local sales tax, tax increment financing, and a property tax to fund project construction.

**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** | | |
| Section 5309 New Starts | $52.3 | 79.2% |
| CMAQ Flexible Funds | $0.5 | 0.8% |
| **Local:** | | |
| Building Community Choices Sales Tax | $5.6 | 8.5 % |
| Sales Tax (1/4 cent-extension) | $3.4 | 5.1% |
| Tax Increment Financing | $3.4 | 5.1% |
| Local CMAQ Match | $0.1 | 0.2% |
| Downtown Development Authority Property Tax | $0.8 | 1.1% |
| **Total:** | **$66.0** | 100.0% |

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

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

The *Medium* rating reflects the high Section 5309 New Starts share (79 percent) along with the well-defined financial plan and close to 50 percent of the proposed funding sources being committed.

**Agency Capital Financial Condition:** Fort Collins enjoys high bond ratings for all of its outstanding issues. Moreover, at 5.5 years, the average age of the city's bus fleet is below the national average of close to seven years.

**Capital Cost Estimate and Contingencies:** Cost for the Mason Street Transportation Corridor is estimated at $12.3 million per mile. These costs are reasonable assuming a modest investment in at-grade busways and in accompanying systems. The annual inflation and escalation factors are reasonable based on recent experience. Finally, the project cost estimate includes a 10 percent contingency, which may be low for a project in the early stages of PE.

**Existing and Committed Funding:** Of the $13.75 million in proposed non-Section 5309 funds, approximately $6.2 million are both existing and fully committed to the project. This includes $0.5 million from flexible CMAQ funds, $5.6 million from the existing Building Community Choices sales tax and $0.1 million from the City of Fort Collins local CMAQ match.

**New and Proposed Sources:** At present, $7.55 million in non-Section 5309 funds are to be obtained from new sources not yet committed to the project. These included $3.4 million from a proposed extension to the Building Community Choices sales tax (a voter ballot item for November 2002), $3.4 million from a proposed tax increment-financing plan, and $0.75 million from a property tax increase. However, voters rejected the proposed Building Community Choices sales tax and it unclear how Fort Collins will attempt to replace this funding source.

## Stability and Reliability of Operating Finance Plan
## Rating: Not Submitted

Fort Collins did not submit an updated financial plan for the FY 2004 financial assessment period. The cost and ridership estimates are significantly higher (nearly double) than that found in the project cash flow as outlined in Fort Collins' FY2003 submission and the revised submission does not outline the assumptions used in generating the new cost and ridership estimates or demonstrate the impact of these changes on the project cash flow (including fare revenues, subsidies or impact on operating balances).

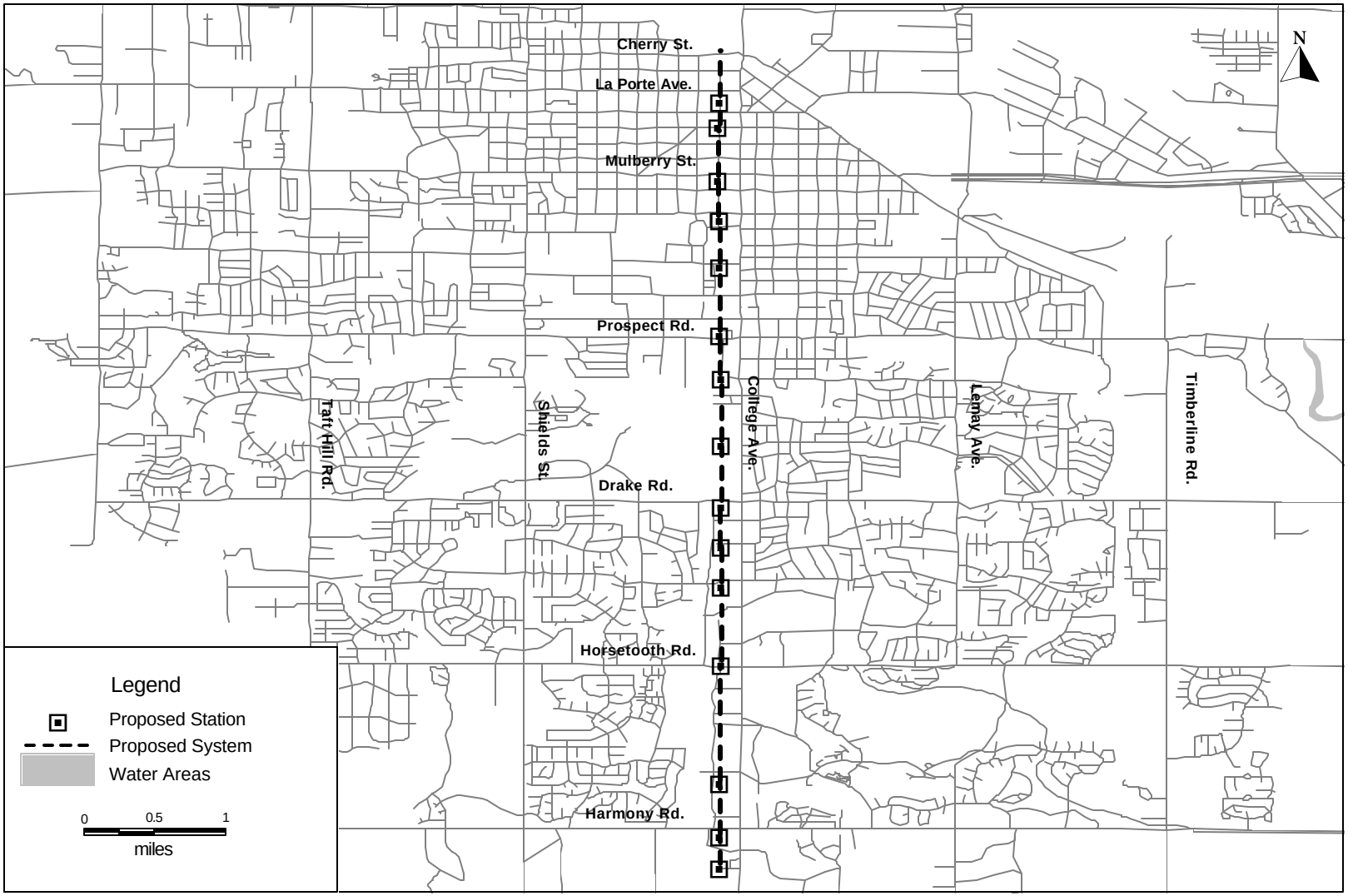
**Agency Operating Financial Condition:** Historical trends provided by Fort Collins, which include bus service only, show that Transfort had operating surpluses for the last five years totaling between $180,000 and $1.3 million on average expenses of $3 million per year.

**Operating Cost Estimates and Contingencies:** Fort Collins did not submit a complete financial plan for the FY2004 assessment period. No update to the project cash flow was received. The FY2003 cash flow cannot be used because other updated information indicates an approximate doubling of operating costs (both for the proposed project and the agency as a whole) and roughly a doubling in systemwide ridership projections. Specifically, project operating and maintenance cost estimates increased from $1.69 million to $3.40 million annually, while annual ridership estimates increased from 3.19 million to 6.77 million.

**Existing and Committed Funding:** No funds have been identified as existing and committed.
**New and Proposed Funding Sources:** Fort Collins is currently projecting a 40 percent farebox recovery ratio. These funds are considered new and committed. The City is proposing to subsidize the remaining operating costs using funds from its General Fund but did not provide evidence of either the commitment or required capacity of these funds.

# Mason Street Transportation Corridor

Fort Collins, Colorado




*Federal Transit Administration, 2002*

# CORRIDOR*one* Rail MOS

**Harrisburg, Pennsylvania**

(November 2002)

## Description

Capital Area Transit (CAT) of Harrisburg, Pennsylvania proposes to develop rail service in central Pennsylvania along the region's priority transportation corridor known as "CORRIDOR*one,"* which currently contains Amtrak and Norfolk Southern railroad lines. The proposed project would establish a 40.5-mile minimum operable segment (MOS) of this system between East Mechanicsburg and Lancaster. The project proposes the re-use of the old Cumberland Valley Railroad Bridge across the Susquehanna River and usage of the Keystone Corridor for the leg between Harrisburg and Lancaster.

Among the major objectives of the project are an increase in capacity across the Susquehanna River to relieve congestion on the existing crossings, the provision of an effective transit link to regional intermodal facilities at the new rail station under construction at Harrisburg International Airport on the Keystone Corridor, and the provision of improved transit service by maximizing usage of the Keystone Corridor which the Pennsylvania Department of Transportation and Amtrak are upgrading with state and Federal funds. In addition to rail service, CORRIDOR*one* Rail MOS includes significant upgrades to CAT and Red Rose Transit (Lancaster, PA) systems to provide supportive feeder bus service.

The project is estimated to cost $75.8 million in escalated dollars, with a proposed Section 5309 New Starts share of $24.9 million. Because the proposed New Starts share is less than $25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

| Summary Description | |
|---|---|
| **Proposed Project:** | Regional/Commuter Rail<br>40.5 Miles, 11 Stations |
| **Total Capital Cost ($YOE):** | $75.8 Million |
| **Section 5309 New Starts Share ($YOE):** | $24.9 Million (33%) |
| **Annual Operating Cost ($YOE):** | N/A |

## Status

Capital Area Transit has completed a Major Investment Study and Transitional Analysis for implementation of rail. The CAT Board adopted regional/commuter rail as the Locally Preferred Alternative in November 1999. The project is included in the long range transportation plan of the Tri-County Regional Planning Commission. As a result of additional analysis to refine the evaluation of potential alternative project segments at FTA's request, a minimum operable segment was identified and adopted by the CAT Board in June 2002. FTA approved project initiation of Preliminary Engineering and the environmental review in August 2002.

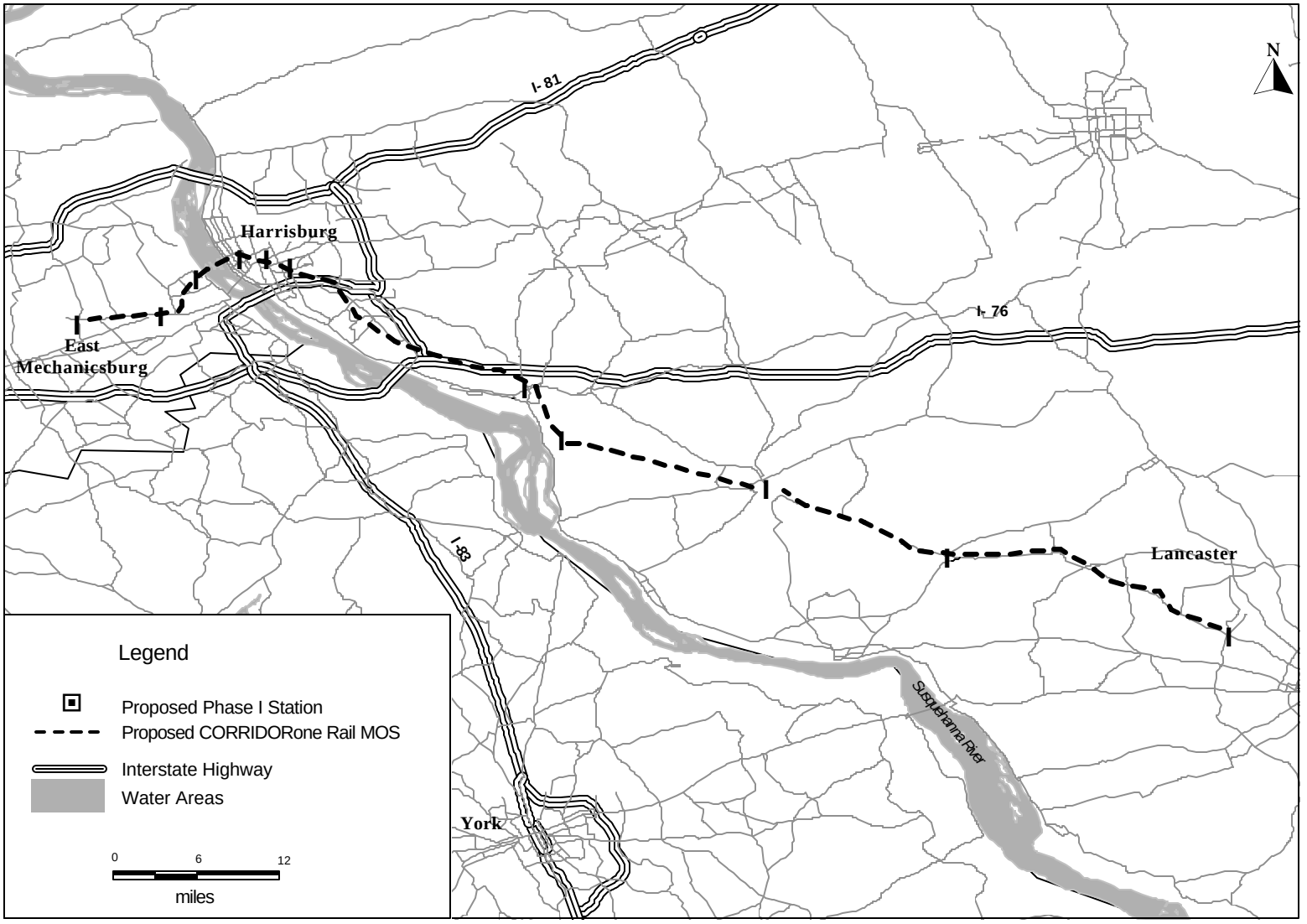
TEA-21 Section 3030(b)(14) authorizes the "Cumberland/Dauphin County Corridor 1 Commuter Rail" project. Through FY 2002, Congress has appropriated $1.97 million in Section 5309 New Starts funds to this project.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding (million)** | **Percent of Total** |
| **Federal:**<br>Section 5309 New Starts | $ 24.9 | 32.8 % |
| **State:**<br>Annual Capital Appropriations | $ 12.6 | 16.6 % |
| **Local:**<br>Regional Asset District | $ 38.3 | 50.5 % |
| **Total:** | **$ 75.8** | 100.0 % |

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

# CORRIDOR*one* Rail MOS

## Harrisburg, Pennslyvania




*Federal Transit Administration, 2002*

# New Britain-Hartford Busway

## Hartford, Connecticut

(November 2002)

## Description

The Connecticut Department of Transportation (ConnDOT) is proposing the New Britain-Hartford Busway, a 9.4-mile, 12-station busway to operate on existing and abandoned railroad right-of-way between downtown New Britain and Union Station in Hartford. The proposed New Britain Hartford Busway is intended to expand interregional transit service. In addition, the busway will improve access to suburban employment and educational opportunities such as the Central Connecticut State University East Street station site for inner city residents.

The transportation benefits the Hartford Busway project will provide are improved bus service in the region by increasing travel speeds and improving reliability over conventional on-street bus or express routes. The project will also provide an alternate transit mode for those who use I-84 and parallel arterials.

## Summary Description

| | |
|---|---|
| **Proposed Project:** | Bus Rapid Transit<br>9.4 miles, 12 Stations |
| **Total Capital Cost ($YOE):** | $160.0 Million |
| **Section 5309 New Starts Share ($YOE):** | $79.4 Million (50%) |
| **Annual Operating Cost (2004 $YOE):** | $12.8 Million |
| **Ridership Forecast (2020):** | 8,800 Average Weekday Boardings<br>3,700 Daily New Riders |
| **Opening Year Ridership Forecast:** | N/A |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Not Rated** |
| **FY 2004 Overall Project Rating:** | **Not Rated** |

This project has not been rated. The project sponsor calculated the project's cost effectiveness at $4.50 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved.

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

## Status

In 1996, ConnDOT, the Capitol Region Council of Governments (CRCOG) and the Central Connecticut Regional Planning Agency (CCRPA) initiated a Major Investment Study (MIS) for the Hartford West corridor. The study was completed in July 1999. In March of 1999, the Locally Preferred Alternative was selected by CRCOG and included in the long range transportation plan.

FTA approved the busway project's entrance into Preliminary Engineering in January 2000. The Final Environmental Impact Statement (FEIS) was completed in March 2002. The busway project is scheduled to request entry into Final Design in Spring 2003. The ConnDOT project anticipates starting construction on the busway project in April 2004.

The New Britain-Hartford Busway is not authorized for Section 5309 New Starts funds in the Transportation Equity Act for the 21st Century (TEA-21). Through FY 2002, Congress has appropriated $1.49 million in Section 5309 New Starts funding for this project. In addition, $8.9 million was appropriated from Section 5309 Bus Discretionary funds in FY 2002.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 0 | |
| **Average Low Income Households Per Station** | 365 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | Not Rated | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 269 | |
| **Nitrogen Oxide ($NO_x$)** | 40 | |
| **Hydrocarbons** | N/A | |
| **Particulate Matter ($PM_{10}$)** | 0 | |
| **Carbon Dioxide ($CO_2$)** | 12,158 | |
| **Annual Energy Savings (million) BTU** | 160,084 | |
| **Cost Effectiveness Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefits (current year dollars/hour)** | Not Rated | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.74 | $0.68 |

[ ] Indicate an increase in emissions.

# Project Justification

## Rating: Not Rated

This project has not been rated. The project sponsor calculated the project's cost effectiveness at $4.50 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interest parties when the issues are resolved. Based on the 1990 Census data, there are an estimated 4,381 low-income households within a ½-mile radius of the proposed 12 stations, or approximately 20 percent of the total households within ½-mile of proposed stations. The Hartford Metropolitan area is designated by the U.S. Environmental Protection Agency (EPA) as an "attainment area" for carbon monoxide and a "serious non-attainment area" for ozone. The Hartford Busway project has an incremental cost per incremental trip value of $4.31.

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

The *Medium* rating reflects the concentrations of development at both ends of the proposed investment in downtown New Britain and downtown Hartford. Policies to encourage transit supportive land use in the corridor are still at a very early form. Full coordination of land use plans among the five communities served by the proposed busway is still limited.

**Existing Conditions:** The proposed corridor will connect the central business districts (CBD) in Hartford and New Britain. With the exception of the two downtown areas, the existing station areas are dominated by low to medium density residential uses. In West Hartford and Newington, development along the busway corridor is low-density residential and industrial, with some suburban "big-box" retail. There are a total of 20,300 households within 1/2 mile of the 12 stations. The number of housing units in 1995 was 21,200 and is expected to rise to 25,300 in 2020. Pedestrian accessibility is good within the two CBDs, but the pedestrian environment declines throughout the middle portion of the busway corridor. Most of the stations are close, if not parallel, to major roads and highways, making access to the stations relatively convenient to auto and pedestrian modes. Parking is generally available in all station areas. While parking is more constrained and transit-oriented in the downtown areas of the corridor, this is appropriate to the dense, urban character of these environments.

**Future Plans, Policies and Performance**: The City of Hartford has adopted an "Economic and Urban Design Action Strategy" to encourage redevelopment within the CBD. Projects such as a sports arena, residential development, a community college and other large developments in downtown Hartford are being proposed. The state has committed $325 million to redevelopment projects in downtown Hartford, while the Parkville neighborhood has received a Transportation Community and System Preservation (TCSP) program grant from the United States Department of Transportation (USDOT). In West Hartford, an overlay district favoring high-density development has been improved, and New Britain is also actively encouraging redevelopment of its downtown area. The City of Hartford recently passed a resolution recommending that all plans for the Charter Oak Terrace area take into account the proposed busway station and transit oriented development (TOD). With the exception of this recent Hartford legislation for the Charter Oak Terrace area, policies for station area development are still being developed. The corridor demonstrates significant development opportunity on the vacant and industrial land in the corridor. Specific development opportunities are now being identified.

## Other Factors

**FTA BRT Demonstration Program**: In August 1999, the New Britain-Hartford Busway was selected as one of FTA's ten Bus Rapid Transit (BRT) Demonstration Projects. FTA's BRT Demonstration Program is intended to foster the development of BRT systems in the United States; address BRT planning, implementation, and operational issues; and evaluate system performance in a wide range of operating environments.

**Transportation Community and System Preservation (TCSP) Program:** In June 1999, the Parkville Community within Hartford was awarded a Transportation Community and System

Preservation (TCSP) Pilot Program Grant to undertake coordinated transportation and land use planning activities.

## Local Financial Commitment

**Rating: Medium**

The *Medium* local finance commitment rating was determined by the *Medium* rating for the capital finance plan

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

**Rating: Medium**

The State of Connecticut DOT will provide funding from its Special Transportation Fund. In addition CMAQ funds, FTA Section 5307 formula funds, Section 5309 bus discretionary funds and Federal Highway Administration (FHWA) - National Highway System (NHS) funds are proposed to cover the remaining project capital needs.

**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** | | |
| Section 5309 New Starts | $79.4 | 49.6% |
| Formula FTA Section 5307 Urbanized Area Formula | $9.8 | 6.1% |
| FTA Section 5309 Bus Discretionary Funds | $13.2 | 8.3% |
| FHWA-NHS | $12.8 | 8.0% |
| FHWA-CMAQ | $12.8 | 8.0% |
| **State:** | | |
| ConnDOT | $32.0 | 20.0 % |
| **Total:** | **$160.0** | 100.0 % |

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

### Stability and Reliability of Capital Financing Plan

**Rating: Medium**

The *Medium* rating reflects the strong financial condition of ConnDOT; however the adequacy of the project's financial plan at this stage of development needs improvement. The capital plan is missing several key components.

**Agency Capital Financial Condition:** ConnDOT funds public transit operations and facilities in Hartford. The average bus fleet age for ConnDOT's Hartford Bus Division was six years. Tax Obligation Bonds issued in 2000 were rated A1 by Moody's and AA by both Standard and Poor's and Fitch. In addition, the agency's Special Transportation Fund was estimated at $858.2 million.

**Cost Estimates and Contingencies:** The current capital cost estimate of $160.0 million is based on the latest project definition from the PE/EIS study phase. Cost estimates and contingencies require attention, especially considering the recent increase in capital costs of nearly 100 percent from the planning estimate of $82 million. The current cost estimate includes 12 stations, right-of-way acquisition and construction, bus procurement, miscellaneous items, design services, and a multi-use trailand. The capital cost estimate also includes a contingency of 20 percent, which is adequate for this phase of development.

**Existing and Committed Funding:** The Non-Section 5309 New Starts funding for the proposed busway project, totaling $80.6 million, is from existing Federal and State sources. ConnDOT's Transportation funds will cover the majority of the Non-Section 5309 funding amount with additional contributions from other Federal sources including NHS funds, CMAQ and formula funds. ConnDOT's contribution towards the project is $32.0 million and these funds appear to be committed, although little documentation was provided. Before approval of Final Design, the project sponsor needs to submit a more detailed finance plan that clarifies key funding components and commitments.

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

## Stability and Reliability of Operating Finance Plan

## Rating: Medium

The *Medium* rating reflects the stable operating condition of ConnDOT. Proposed revenues to operate the busway are considered reliable.

**Agency Operating Financial Condition:** The operating financial plan for the project and system was not recently updated; however the project cash flow includes several years of historical revenues and expenses for the project, demonstrating a long commitment to public transit operations within the ConnDOT budget. The Special Transportation Fund (SPF) identifies many revenue sources, cumulative positive balances and the commitment to funding public transit operations statewide.

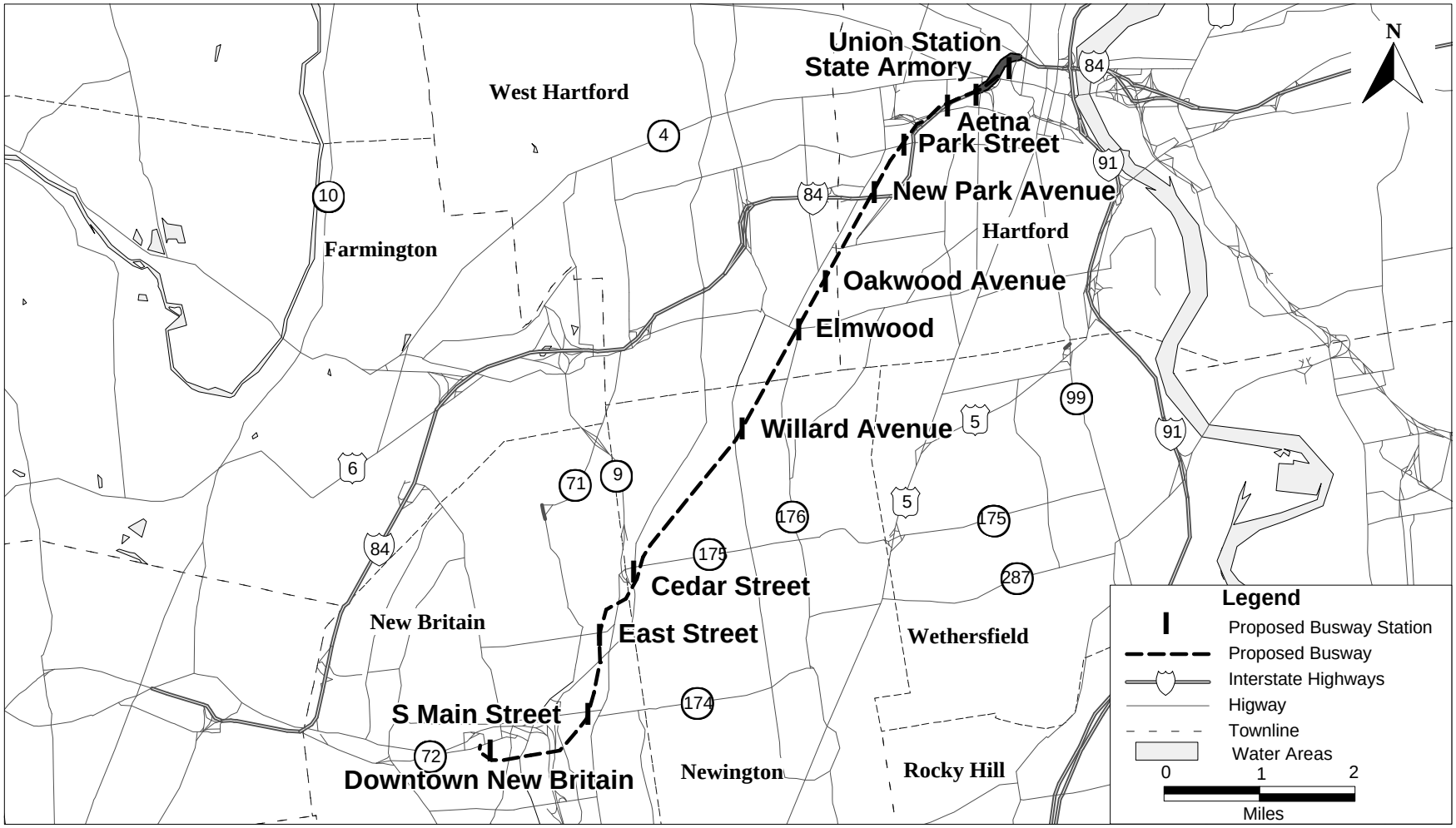
**Operating Cost Estimates and Contingencies:** Annual operating expenses for current bus transit services in the New Britain-Hartford region are about $40 million with a farebox recovery ratio of 33 percent. It is projected that the average annual operating cost for the project will be $7.8 million when the project becomes operational in 2006, thereby increasing the operating costs of the region's transit system to about $48.7 million and reducing the farebox recovery ratio to 28 percent. The data provided is at a summary level only, it generally reflects the project's present stage of development and is in line with current expenditure and subsidy rates. About $5.7 million in annual subsidy will come from the STF, which is well financed and could potentially absorb increases in operating subsidies.

**Existing and Committed Funding**:
ConnDot projects $2.1 million (27 percent) in farebox revenues and $5.7 million (73 percent) in annually appropriated STF funds to cover the annual operating costs for the project. Although the ConnDOT Special Transportation Fund is well financed and has demonstrated a long-term commitment to public transit investments and operating subsidies before approval of Final Design, the project sponsor needs to submit a finance plan that clarifies key funding components.

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

# New-Britain - Hartford Busway

Hartford, Connecticut




*Federal Transit Administration, 2002*

# Primary Corridor Transportation Project

**Honolulu, Hawaii**

(November 2002)

## Description

The City and County of Honolulu Department of Transportation Services (DTS) is proposing the Primary Corridor Transportation Project, a 30.3-mile Bus Rapid Transit (BRT) system, connecting Downtown Honolulu with the University of Hawaii, Waikiki Beach, Pearl City, Pearl Harbor, Waipahu, and Kapolei. The proposed system would include 37 stations and several BRT routes that serve markets along H-1 from Kapolei to the Honolulu CBD, a circulator service within the Honolulu CBD, and extensions to the University of Hawaii and Waikiki Beach. The proposed project would use high occupancy vehicle lanes along H-1 and street right-of way within the urban areas of Honolulu. The project is intended to improve mobility for residents and employees throughout the corridor, where transportation capacity is limited by environmental conditions, and provide an alternative transportation mode other than severely congested roadways. Future land development is restricted by the island's steep and environmentally sensitive topography, thus existing transportation facilities must be able to accommodate increasing densification of land uses in the proposed corridor. The proposed BRT system would increase transportation capacity on existing right-of-way without taking additional scarce land.

| Summary Description | |
|---|---|
| **Proposed Project:** | Bus Rapid Transit Line<br>30.3 Miles, 37 Stations |
| **Total Capital Cost ($YOE):** | $700.5 Million |
| **Section 5309 New Starts Share ($YOE):** | $231.6 Million (33%) |
| **Annual Operating Cost (2025 $YOE):** | $33.6 Million |
| **Ridership Forecast (2025):** | 75,600 Average Weekday Boardings<br>40,200 Daily New Riders |
| **Opening Year Ridership Forecast (2006):** | 63,100 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **High** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The overall project rating of *Recommended* is based on the transit supportive land use, good cost-effectiveness, and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules, and refined financing plans.**

## Status

Recent planning efforts for the Primary Corridor Transportation Project began in 1998, with a series of public involvement efforts known as Oahu Trans 2K. A Major Investment Study/Draft Environmental Impact Statement was undertaken in 1999 and 2000. In June of 1999, the proposed Honolulu BRT project was selected to participate within FTA's BRT Demonstration program. The regional Bus Rapid Transit System was selected as the Locally Preferred Alternative in November of 2000. The Oahu Metropolitan Planning Organization adopted the Locally Preferred Alternative into the Oahu Regional Long Range Transportation Plan in April of 2001. FTA approved the initiation of Preliminary Engineering in July 2001. The FTA circulated a Draft Environmental Impact Statement (EIS) in March of 2002, and the Honolulu Department of Transportation Services plans to complete the Final EIS in the fall of 2002, begin Final Design in the spring of 2003, and be ready for construction by 2004.

Section 3030(b)(73) of TEA-21 authorizes the "Honolulu Bus Rapid Transit Project." Through FY 2002, Congress has appropriated $14.36 million in Section 5309 New Starts funds for the project.

## Evaluation

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

## Project Justification

### Rating: High

The *High* project justification rating reflects the high densities and transit supportive land uses in the corridor and the project's strong cost-effectiveness. Based on 2000 Census data, there are an estimated 8,600 low-income households within a ½-mile radius of the MOS corridor, representing 11 percent of all households located within ½-mile of the corridor. There are an estimated 271,135 jobs within ½-mile of the stations. The Honolulu metropolitan area is designated as an "attainment area" for air quality conformity. The incremental cost per incremental trip of the proposed project is $7.17.

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 7,328 | |
| **Average Low Income Households Per Station** | 232 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 2.2 | |
| **Environmental Benefits Rating: Medium** | | |
| **Criteria Pollutant s Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 1,570 | |
| **Nitrogen Oxide ($NO_x$)** | 4 | |
| **Hydrocarbons** | 140 | |
| **Particulate Matter ($PM_{10}$)** | 2 | |
| **Carbon Dioxide ($CO_2$)** | 6,400 | |
| **Annual Energy Savings (million) BTU** | 73,540 | |
| **Cost Effectiveness Rating: High** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $7.38 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.26 | $0.26 |

[ ] indicate an increase in emissions.

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

The *High* rating reflects the dense urban character of the corridor and the existing transit-supportive corridor policies and zoning.

**Existing Conditions:** The corridor study area is the most urban region in Oahu and within the State of Hawaii. Over 50 percent of Oahu's population and over 80 percent of employment is concentrated within the corridor. The population of the corridor is anticipated to increase from 494,000 to 608,000 and employment in the corridor is anticipated to increase from 396,000 to 515,000 by 2025. The proposed BRT would provide access to the major activity centers and trip generators in the area including Pearl Harbor, Pearlridge Center, Honolulu International Airport, Pearl City, Halawa Valley, Mapunapuna, Kalihi, Iwelei and Kakaako Industrial districts, downtown Honolulu, the Capital district, Ala Moana Center, Waikiki, and the University of

Hawaii. Honolulu is a linear city that is bounded by the Pacific Ocean on one side and a mountain range on the other which concentrates development in the study area corridor, which bisects the urbanized area. As a result, existing land use densities are among the highest in the United States.

**Future Plans Policies and Performance:** The City and County of Honolulu exercise jurisdiction over regional land use and development patterns on most of the island of Oahu. The City and County of Honolulu is committed to directing development activity to areas including the Primary Urban Core (PUC), the Ewa planning region, and certain communities in Central Oahu, while containing urban and suburban development. Thus, new development is focused towards the PUC area and Ewa planning regions, while limiting growth within the remaining areas. The City and County of Honolulu use urban growth boundaries, zoning, and the Hawaii State Land use code to control development activity and to support higher density, mixed use development. Additionally, the City of Honolulu has enacted parking policies to limit the construction of work-based parking and does not require high levels of parking as a condition for residential development approval. Parking costs average over $200 per month in downtown Honolulu.

# Other Factors

The City and County of Honolulu have geographic barriers to expanding existing transportation capacity and the land area available for development. Generally, the development potential extends along narrow valley corridors that are bordered by steep slopes on one side and the Pacific Ocean on the other. The existing land use patterns are serviced by a transportation system that is also constrained by topography and operates at capacity. The project proposed is one of a few remaining measures that can be undertaken to increase transportation capacity in the proposed corridor.

# Local Financial Commitment

## Rating: Medium

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

### Proposed Non-Section 5309 New Starts Share of Total Project Costs: 66%

### Rating: High

The current financial plan for the Primary Corridor Transportation Project proposes Section 5309 New Starts funding, Section 5309 Rail Modernization funding, FHWA flexible funding, City bond funds, and City Highway funds.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:** | | |
| FTA Section 5309 New Starts | $231.6 | 33.1 % |
| FTA Section 5307 | $20.3 | 2.9 % |
| FHWA Flexible Funds | $160.0 | 22.8% |
| **Local:** | | |
| General Obligation Bonds | $286.2 | 40.9 % |
| City Highway Fund | $2.4 | 0.3 % |
| **Total:** | **$700.5** | 100.0 % |

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

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

The *Medium* rating reflects the level of capital funding committed to the proposed project, offset by the uncertainties in the capital costs at this stage of project development.

**Agency Capital Financial Condition:** The average age of the bus fleet is eight years. In addition, the City and County of Honolulu have a strong general obligation bond rating (Aa3 from Moody's and AA- from Standard & Poor's). The 23-year cash flow projects positive cash balances through FY 2025.

**Capital Cost Estimates and Contingencies:** The capital-cost estimate is adequate for this stage of project development. However, the estimate does not clearly state the provision of contingencies to cover potential cost increases. Cash balances are not sufficient to cover potential funding shortfalls or cost increases, but the City of Honolulu's debt capacity is more than sufficient to cover such shortfalls or increases. The bonding capacity (after bonds are issued for any year within the analysis horizon) reaches a minimum of $328.2 million in FY 2007 and a maximum of $1,092 million in FY 2025. The plan has the flexibility to accelerate or delay individual projects, based on funding availability and priorities set by Oahu Metropolitan Planning Organization (OMPO).

**Existing and Committed Funding:** The Primary Corridor Transportation Project is included in the region's financially constrained long range plan. The Honolulu City Council passed a resolution in November 2000 that selected the BRT alternative as the Locally Preferred Alternative and adopted the financial plan for the project. This allows the city to commit general obligation bonds and other city funds as part of the annual budget appropriation process. All proposed funding sources for the Primary Corridor Transportation Project come from existing sources. About 66 percent of the sources are committed, including the City General Obligation Bonds, City Highway fund and Section 5307 formula funds.

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

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects the good operating condition of the DTS and the strength of the 20-year operating plan.

**Agency Operating Condition:** The DTS is in good operating condition. The DTS relies on farebox revenues, annual funding appropriations from the City, and Section 5307 funding. In the previous year the DTS raised fares for transit services, with little opposition, which increased operating revenues.

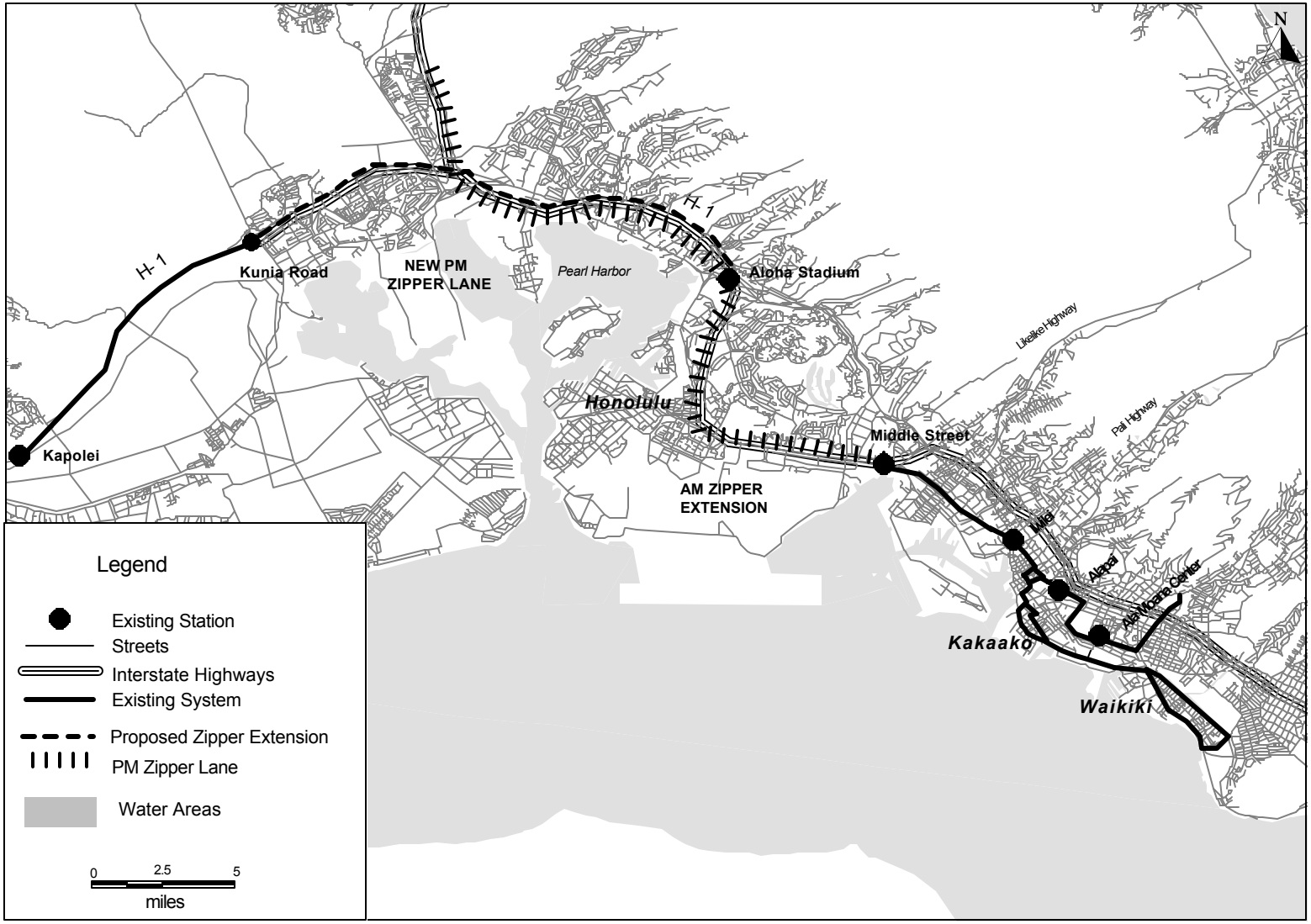
**Operating Cost Estimates and Contingencies:** Operating cost estimates for the Primary Corridor Transportation Project are not explained in the operating plan. Cash balances for the operating plan are projected at zero, assuming that any remaining expenditures not covered by fare and formula funds revenues are paid with General Fund revenues.

**Existing and Committed Funding:** Operating funds are 100 percent committed. The operating sources are existing. The estimated operating cost of $33.6 million is 29 percent of the total transit system operating cost.

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

# Primary Corridor Transportation Project

## Honolulu, Hawaii




*Federal Transit Administration, 2002*

# I-35 Commuter Rail

## Johnson County, Kansas/Kansas City, Missouri

(November 2002)

## Description

Johnson County, Kansas, is proposing to implement a five-station, 23-mile Commuter Rail line extending from downtown Kansas City, Missouri, southwest to Olathe, Kansas, in Johnson County. The proposed commuter rail project would parallel I-35, the major highway connecting Kansas City with Olathe, and would share existing Burlington Northern and Santa Fe (BNSF) railroad track (except for the line's northernmost mile segment, which would require either new track or existing Kansas City Terminal Railway trackage). Park and ride facilities are being planned for each proposed station. The commuter rail line will terminate in Kansas City at its historic Union Station. Ridership estimates for the I-35 commuter rail project range from 1,400 to 3,800 trips per day; these estimates will be refined during subsequent phases of project development**.**

The project is estimated to cost $30.9 million dollars, with a proposed Section 5309 New Starts share of $24.8 million. Sponsors are reviewing the project scope and schedule, which may result in the New Starts share increasing. Because the proposed New Starts share is less than $25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(8)(A)).

| Summary Description | |
|---|---|
| **Proposed Project:** | Commuter Rail<br>23 Miles, 5 Stations |
| **Total Capital Cost ($1997):** | $30.9 Million |
| **Section 5309 New Starts Share ($1997):** | $24.8 Million (80%) |
| **Annual Operating Cost ($1997):** | $4.2 Million |
| **Ridership Forecast:** | 1,400-3,800 Average Weekday Boardings |

## Status

Johnson County initiated a Major Investment Study on the I-35 corridor in early 1996. The MIS resulted in the selection of commuter rail as the Locally Preferred Alternative in August 1998. The LPA was adopted in the financially constrained long range transportation plan in February 1999. FTA approved Johnson County's request to enter into Preliminary Engineering (PE) in July 1999. An Environmental Assessment (EA) for the project will be undertaken as part of the PE effort. The EA is anticipated for completion by the end of 2003. The grantee is negotiating use agreements with the railroads.

TEA-21 Section 3030(a)(32) authorizes the "Kansas City I-35 Commuter Rail" project for Final Design and construction. Through FY 2002, Congress has appropriated $4.45 million in Section 5309 New Starts funds for the project.

# Local Financial Commitment

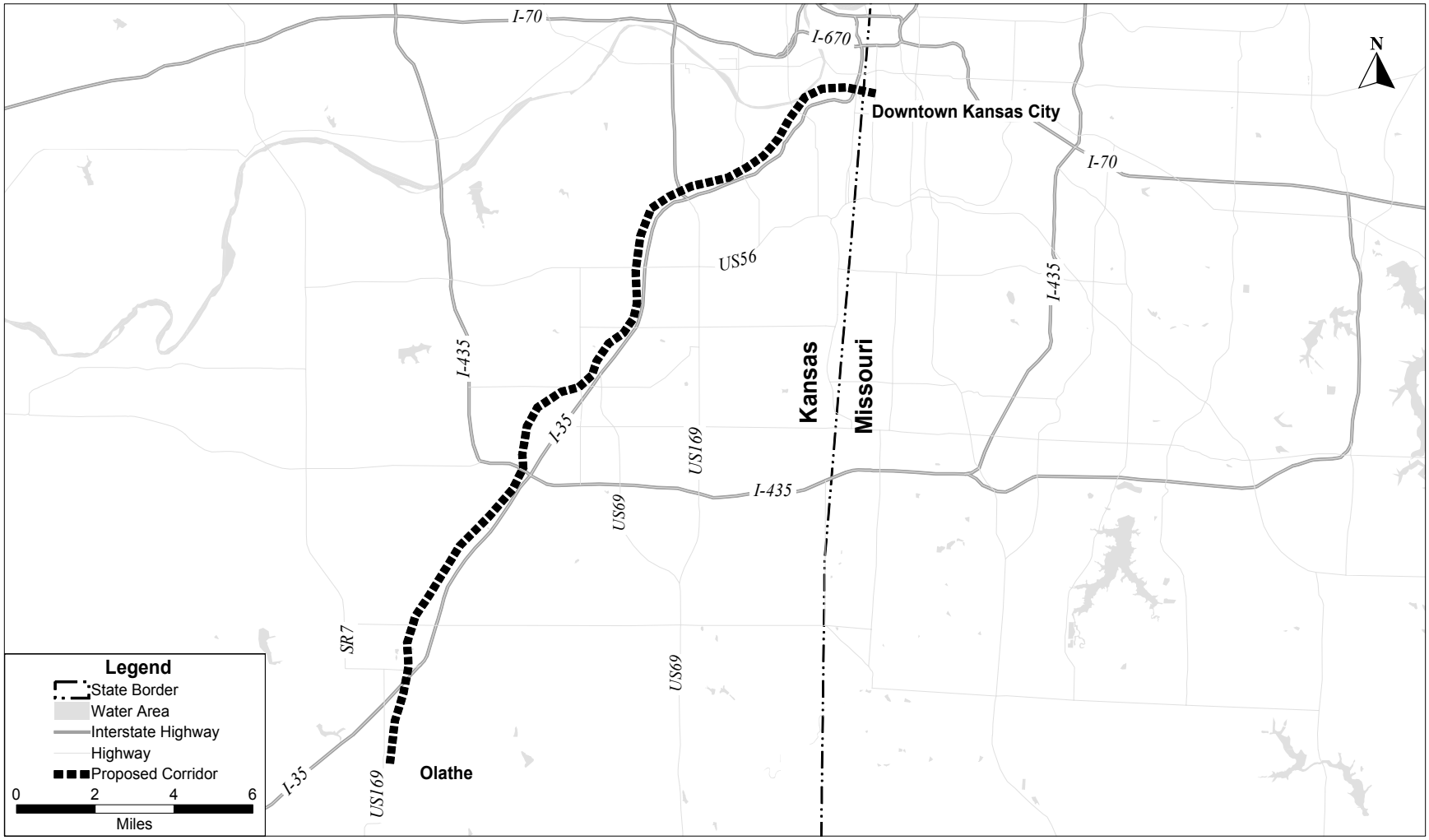
## Proposed Non-Section 5309 Share of Total Project Costs: 20%

| Locally Proposed Financing Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:** Section 5309 | $24.8 | 80.0 % |
| **Local:** | $6.2 | 20.0 % |
| **Total:** | **$30.9** | 100.0 % |

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

# I-35 Commuter Rail

Johnson County, Kansas




*Federal Transit Administration, 2002*

# Resort Corridor Fixed Guideway

**Las Vegas, Nevada**

(November 2002)

## Description

The Regional Transportation Commission (RTC) of Southern Nevada is the lead local agency proposing to extend a monorail system 2.3 miles north from the vicinity of the Sahara Resort along Las Vegas Boulevard, to downtown Las Vegas. This would be an extension of a 3.6-mile monorail system that is under construction by a local public-private partnership. The proposed project will serve the northern portion of the Las Vegas "Strip," and the old Las Vegas central business district, which has over 85,000 employees and 30,000 households, and is the center of regional employment and tourism activity. There are very congested conditions along Las Vegas Boulevard (the strip) and the RTC currently operates a high level of bus service along the congested corridor. The proposed monorail system will offer a faster, more convenient transit service for resort corridor employees and visitors than using existing buses or private taxicabs and shuttle buses, which are constrained by congested conditions on Las Vegas Boulevard.

| Summary Description | |
|---|---|
| **Proposed Project:** | Automated Fixed Guideway<br>2.28 Miles, 4 Stations |
| **Total Capital Cost ($YOE):** | $324.8 Million |
| **Section 5309 New Starts Share ($YOE):** | $159.7 (49%) |
| **Annual Operating Cost (2007 $YOE):** | $19.0 Million |
| **Ridership Forecast (2020):** | 38,800 Average Weekday Boardings<br>22,590 Daily New Riders |
| **Opening Year Ridership Forecast (2006):** | 25,000 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Medium-High** |
| **FY 2004 Overall Project Rating:** | **Recommended** |

The overall project rating of *Recommended* is based on the high employment density in the corridor, strong cost-effectiveness, and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules and refined financing plans.**

## Status

RTC initiated a Major Investment Study for the central employment area of the Las Vegas Valley in July 1994. In January 1997, the RTC and the City of Las Vegas formally adopted the Resort Corridor Transportation Master Plan, which included a 15.6-mile fixed guideway transit

system. FTA approved entrance to Preliminary Engineering on a 4.7-mile MOS in July 1998. A Draft Environmental Impact Statement on a 3.1-mile portion was completed in early 2002, and as a response to public comments, the project length was reduced from 3.1 miles to 2.28 miles. The 0.9-mile segment deleted from the MOS is a spur that will be re-aligned and constructed at a later date. The RTC plans to complete the NEPA process and receive a Record of Decision in early 2003 and begin construction in 2004.

RTC is coordinating project planning activities with the Las Vegas Monorail Corporation, a public/private partnership that is constructing a monorail system of 3.6 miles that will extend as far south as the MGM Hilton near Tropicana Avenue. The Las Vegas Monorail Corporation plans to complete construction in early 2004.

The RTC is a participant in FTA's Bus Rapid Transit (BRT) program, and plans to link a BRT project called "MAX" with the monorail at a downtown intermodal transfer station.

TEA-21 Section 3030(a)(35) authorizes the Las Vegas Corridor for Final Design and construction. Through FY 2002, Congress has appropriated $13.85 million in Section 5309 New Start funds for this project.

## Evaluation

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

## Project Justification
## Rating: Medium-High

The *Medium-High* project justification rating reflects the project's very good cost effectiveness and the existing activity centers along the proposed alignment. Based on 1990 Census data, there are an estimated 1,381 low-income households within a ½-mile radius of the proposed 4 stations of the MOS, which is 23 percent of the households in the corridor. There are 40,132 employees within ½-mile of the station areas, which is 35 percent of the employment in the corridor. The Las Vegas Metropolitan Area is an "attainment area" for ozone and nitrogen oxides; however, it is designated as a "serious non-attainment area" for both carbon monoxide and particulate matter. The incremental cost per incremental trip is $1.99.

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 16,500 | |
| **Average Low Income Households Per Station** | 415 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 0.8 | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutants Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 158 | |
| **Nitrogen Oxide ($NO_x$)** | 35 | |
| **Hydrocarbons** | 49 | |
| **Particulate Matter ($PM_{10}$)** | 44 | |
| **Carbon Dioxide ($CO_2$)** | 12,456 | |
| **Annual Energy Savings (million) BTU** | 107,824 | |
| **Cost Effectiveness Rating: High** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $2.83 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.45 | $0.36 |

[ ] indicate an increase in emissions.

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

The *Medium* rating reflects the lack of formal transit supportive land use and parking policies in the Las Vegas region, but acknowledges that market conditions have created a highly dense, job-rich environment in the corridor.

**Existing Conditions:** The Resort Corridor functions as the region's primary employment center, accommodating nearly 50 percent (235,000) of regional jobs. There are an estimated 40,730 jobs within ½-mile of proposed station areas of the project. Existing zoning supports high-intensity hotel, resort, retail, and some residential uses. Areas adjacent to the major resort activities are pedestrian and transit-friendly, but the pedestrian environment declines outside of these areas. Parking throughout is free and without limitation. While residential uses do not predominate in the corridor, there are an estimated 5,530 residents within ½-mile of proposed

station sites. Due to the predominance of resort-type uses at the southern end of the corridor, visitors also represent a major travel market in the corridor.

**Future Plans, Policies and Performance:** The Las Vegas region is one of the fastest growing areas in the U.S. The urbanized area is surrounded by public land, and its conversion for development must be negotiated; as a result, new development is occurring at some of the highest densities in the U.S. (including a considerable amount of multi-family development in the range of 18 to 24 units per acre). Explicit transit-supportive land use planning has not occurred, however. Market forces are expected to contribute to the continued increase of major trip generators in the Resort Corridor. The MOS is proposed in an area targeted for redevelopment north of the Resort Corridor. Rapid growth in the number of jobs in the Resort Corridor is forecast, with an increase of 40,000 jobs by 2020, an increase of 59 percent, compared to forecast growth of 142 percent regionwide. Strong regional growth conditions are demonstrated by the number of major projects currently planned or under construction, both within the Resort Corridor and elsewhere in the region. In September 1999, the RTC and the City of Las Vegas entered into an interlocal agreement to conduct station area land use planning activities along the corridor. In addition, the city has taken steps to implement its downtown redevelopment plan, including undertaking streetscape and design improvements.

# Local Financial Commitment

## Rating: Medium

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

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

### Rating: Medium

The RTC plans to use Section 5309 New Starts funds, FHWA flexible funds, a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, and State-issued bonds for the non-federal funds.

**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($million) | Percent of Total |
|---|---|---|
| **Federal:** | | |
| Section 5309 New Starts | $159.7 | 49.2 % |
| FHWA STP | $5.0 | 1.5 % |
| FHWA CMAQ | $3.0 | 0.9 % |
| TIFIA Loan | $105.5 | 32.5 % |
| **State:** | | |
| Bonds | $51.6 | 15.9 % |
| **Total:** | **$324.8** | 100.0 % |

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

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

The *Medium* rating reflects the moderate level of local capital funding committed to the proposed project and the level of Federal funds from the TIFIA program and other Federal sources which are not committed.

**Agency Capital Financial Condition:** Based on current financial statements and the historical performance of RTC's locally dedicated sales tax, the agency is in good capital financial condition. The RTC's overall bus fleet average age is 6.5 years. Sales tax revenues serve as a primary source of capital funding, and there are no sunset clauses affecting the collection and allocation of those revenues. RTC maintains a policy whereby net pledged revenues must equal 150 percent of the annual debt service.

**Capital Cost Estimates and Contingencies:** Cost estimates assume a conservative 5 percent rate of cost inflation and reasonable contingencies. The project's cash flow demonstrates an annual average surplus equal to 2.2 percent of systemwide operating and capital revenues, which would be available to absorb unexpected cost overruns or unanticipated funding shortfalls. The cost estimates for the 2.28-mile project are based upon the cost to construct the private sector 3.6-mile monorail.

**Existing and Committed Funding:** Approximately five percent of the proposed non-New Starts funds are committed, which includes $8 million in CMAQ/STP funding. The largest non-Section 5309 funding source is from the TIFIA Loan program. Project sponsors plan to borrow $105.5 million under the TIFIA program, if the application is approved by USDOT for fiscal year 2003. The RTC plans to contract with a Master System Developer to design, build, operate and maintain the proposed monorail service. To provide funding for the Phase II public/private relationship, the RTC will solicit the Nevada Department of Business to issue tax-exempt bonds. The bonds would be reimbursed from farebox recovery surpluses. However, if surpluses do not materialize, RTC's local dedicated ¼-cent sales tax is sufficient to cover bond payments, although the RTC's bus expansion plans would be put at risk (existing bus operations would not be negatively impacted).

**New and Proposed Sources:** A planned $105.5 million TIFIA loan represents the capital plan's largest non-Section 5309 funding source. A highly competitive application process governs the allocation of TIFIA funding. The financial plan reported that the strength of public/private relationships along the Resort Corridor will strengthen the region's TIFIA application. The U.S. Department of Transportation has not received an application for the TIFIA loan.

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects the RTC's strong operating revenues, but recognizes optimistic farebox recovery forecasts to provide operating revenues.

**Agency Operating Financial Condition:** In recent years, RTC's transit system has experienced declining operating surpluses but significant increases in ridership and productivity (in terms of riders per vehicle mile). In FY 2000, the RTC had a farebox recovery ratio of 50 percent. The overall operating condition of the agency is considered sound.

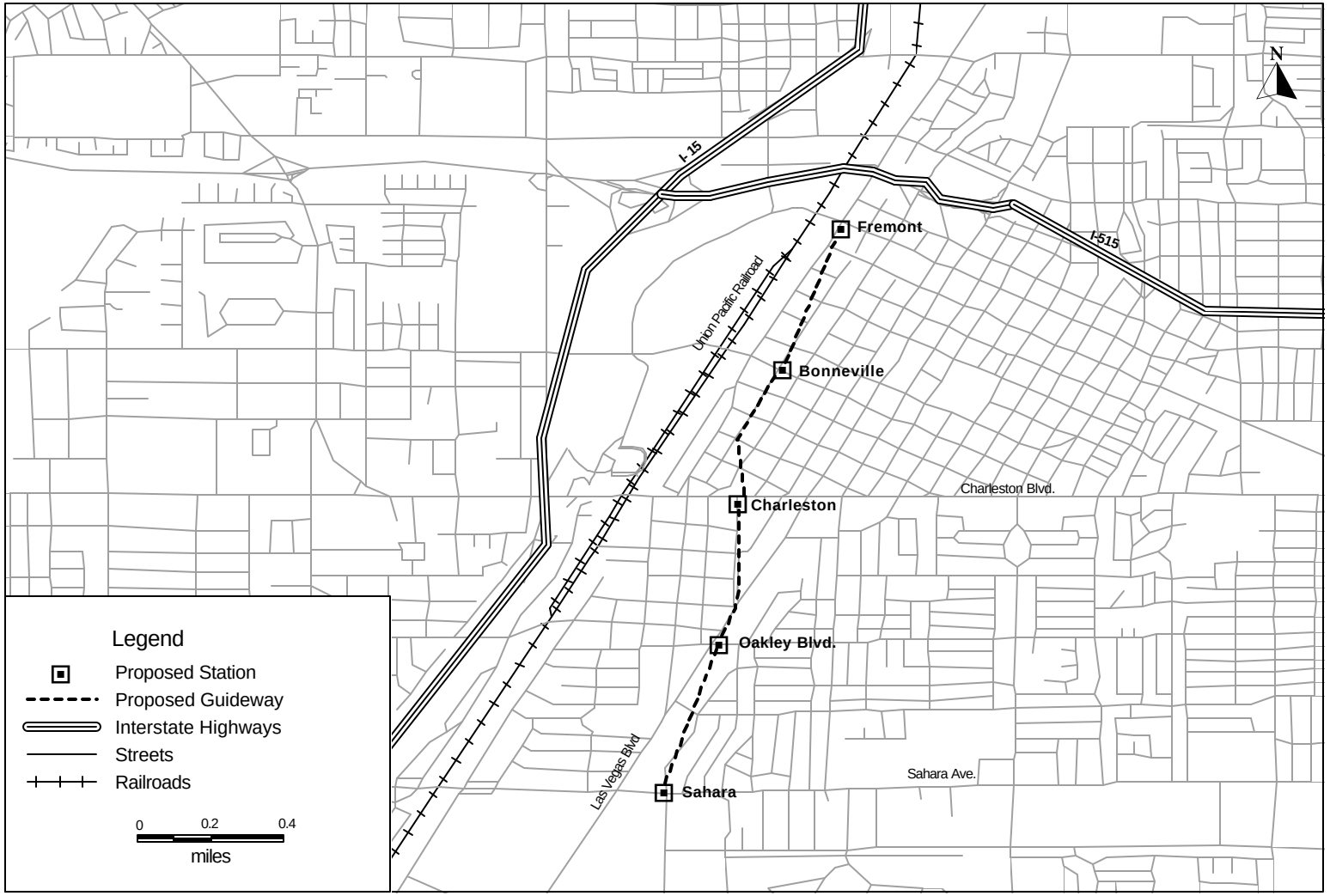
**Operating Cost Estimates and Contingencies:** The RTC has projected that the operating cost of the proposed fixed guideway will increase from $13 million in 2007, the first year of revenue service, to $20 million in 2022. The RTC will fund a 20 percent cash reserve in 2004 that is equal to 2.5 months of operating and maintenance expenses. The cash reserve is dependent upon the ¼-cent sales tax increase.

**Existing and Committed Funding:** Over 90 percent of the RTC's operating and maintenance funding is existing and committed. The RTC's dedicated sales and use tax funds nearly 60 percent of operations. In November of 2002, voters approved a ¼-cent tax increase that will help fund transit operations. Currently, sales tax revenues generate $58 million annually, and are forecast to generate over $90 million. The financial plan states that farebox revenues will fund 100 percent of the fixed guideway operating expenses through 2020. Additionally, the plan assumes the project will produce a 200 percent fare recovery ratio by 2020 and surpluses will be used to cover both operating expenses and the projected debt service on the $260 million in State and TIFIA bonds.

**New and Proposed Funding Sources:** The RTC has recently received voter approval for a ¼-cent sales tax increase to provide additional operating and maintenance funding.

# Resort Corridor Fixed Guideway

## Las Vegas, Nevada




*Federal Transit Administration, 2002*

# Mid-City/Exposition LRT

## Los Angeles, California

(November 2002)

## Description

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is undertaking Preliminary Engineering on a 9.6-mile proposed light rail transit (LRT) project that would run from the Los Angeles Central Business District west along Exposition Boulevard to Culver City. The proposed Mid-City/Exposition LRT project would have seven new and three reconstructed stations and would connect to the existing Blue Line light rail system at the Metro Center station near downtown Los Angeles. The proposed alignment would use an existing railroad corridor purchased by the LACMTA in 1990 for a future transit system expansion. The proposed project would serve four major areas: the Figueroa corridor, Exposition Park, Crenshaw and Culver City. The corridor has several major institutions including the University of Southern California, Los Angeles Memorial Coliseum, Kenneth Hahn State Recreational Area, and the Los Angeles Convention Center. Additionally, Crenshaw and other communities along the alignment have received substantial new economic development and the proposed project would support further development activity.

| Summary Description | |
|---|---|
| **Proposed Project:** | Light Rail Transit<br>9.6 Miles, 10 Stations |
| **Total Capital Cost ($YOE):** | $631.5 Million |
| **Section 5309 New Starts Share ($YOE):** | $315.6 Million (50%) |
| **Annual Operating Cost (2020 $YOE):** | $20 Million |
| **Ridership Forecast (2020):** | 20,500 Average Weekday Boardings<br>6,200 Daily New Riders |
| **Opening Year Ridership Forecast (N/A):** | N/A |
| **FY 2004 Finance Rating:** | **Medium** |
| **FY 2004 Project Justification Rating:** | **Not Rated** |
| **FY 2004 Overall Project Rating:** | **Not Rated** |

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at $12.20 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules and refined financing plans.**

## Status

Initial systems planning efforts for the Mid-City Corridor began in 1989, and an Alternatives Analysis on the corridor commenced in 1990, resulting in the selection of a heavy rail subway line from Union Station to the Mid-City area. A Record of Decision on the corridor was issued in December 1994. The FTA and MTA entered into a Full Funding Grant Agreement (FFGA) on three heavy rail corridors ("MOS-3"), which included the North Hollywood, Mid-City, and Eastside corridors, in May 1993. In January 1997, FTA requested that the MTA submit a Recovery Plan to demonstrate its ability to complete the FFGA while maintaining and operating the existing bus system. Pursuant to the request, in January 1998, the LACMTA Board of Directors voted to suspend and demobilize rail construction activities on the Mid-City and Eastside projects. The MTA subsequently submitted a Recovery Plan to FTA in May 1998, and FTA approved the Plan in July 1998. In 1998, the MTA undertook a Regional Transit Alternatives Analysis (RTAA) to analyze and evaluate feasible alternatives for the Eastside and Mid-City corridors. In June 1999, the MTA initiated a Re-Evaluation/Major Investment Study on the Mid-City Exposition corridor and the Mid-City Wilshire Boulevard corridor as a single study. In March of 2000 the LACMTA initiated a Draft Environmental Impact Statement (DEIS) to analyze transportation alternatives in the Mid-City Exposition corridor, and in April 2001, the DEIS was circulated to the public. In June of 2001, the LACMTA board selected light rail as the Locally Preferred Alternative in the Mid-City Exposition corridor. FTA approved the initiation of Preliminary Engineering in December of 2001. As a result of work undertaken during Preliminary Engineering, capital costs have doubled since November 2002. The LACMTA has initiated the Final Environmental Impact Statement and plans to complete the NEPA process in August 2003.

TEA-21 Section 3030(a)(38) authorized the Los Angeles MOS-3 for Final Design and construction. Through FY 2001, Congress appropriated $76.48 million for the original Mid-City and Eastside subway alignments. Through FY2002, Congress appropriated $21.3 million for the Eastside Corridor and Mid-City projects.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 14,900 | |
| **Average Low Income Households Per Station** | 680 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | Not Rated | |
| **Environmental Benefits Rating: High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 130 | |
| **Nitrogen Oxide ($NO_x$)** | 38 | |
| **Hydrocarbons** | 14 | |
| **Particulate Matter ($PM_{10}$)** | 1 | |
| **Carbon Dioxide ($CO_2$)** | 15,360 | |
| **Annual Energy Savings (million) BTU** | 212,060 | |
| **Cost Effectiveness Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Cost Per Transportation System User Benefit (current year dollars/hours)** | Not Rated | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.35 | $0.35 |

[ ] indicate an increase in emissions.

# Project Justification

## Rating: Not Rated

This project has not been rated. The project sponsor calculated the project's cost-effectiveness at $12.20 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with this project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. Based on 1990 Census data, there are an estimated 7,900 low-income households within a ½-mile radius of the MOS corridor, representing 25 percent of all households located within ½-mile stations. There are an estimated 150,350 employees within ½-mile of the transit station areas. The Los Angeles region is classified as an "extreme non-attainment area" for ozone, a "serious non-attainment area" for carbon monoxide and particulate

matter, and as an "attainment area" for nitrogen oxides. The incremental cost per incremental trip is $24.02.

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

The *Medium* rating reflects the moderate land use densities, however, there are a number of major trip generators and good opportunities for re-development in the corridor.

**Existing Conditions:** The proposed project is located within a rail corridor that was developed into predominantly industrial land uses. However, there are transit supportive population and employment densities throughout the corridor, within a block of the rail alignment in most areas. The corridor contains a high number of trip generators, especially in the eastern end of the corridor, which contains downtown Los Angeles, the Los Angeles Convention Center, Staples Center Arena, the University of Southern California and Exposition Park (including the Memorial Coliseum, Sports Arena, California Science Center, and the California Afro-American Museum). High trip generators in the western end of the corridor include downtown Culver City and the West Angeles Cathedral. The pedestrian accessibility is transit supportive and sidewalk facilities are provided along a dense grid street network. However, parking is generally plentiful around station areas and comprises a significant portion of proposed station area land uses.

**Future Plans, Policies and Performance:** The MTA and City of Los Angeles have jointly adopted a Land Use and Transportation Policy that suggests incentives and prototypes for development around station areas. However, because many of the station sites are not finalized, little station area planning has occurred. A station neighborhood area plan process is expected to commence during 2002, during which more station-specific land use plans and policies will be developed. There are opportunities in the corridor for the expansion of high trip generators, especially the museums around Exposition Park and an entertainment district around Staples Center, which may promote additional redevelopment. Redevelopment zones around the Crenshaw and Vermont stations provide an opportunity to promote economic development around proposed station sites. Additionally, the current industrial land around rail stations may provide further opportunity for new transit oriented development as station sites are refined.

## Local Financial Commitment
### Rating: Medium

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

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:** | | |
| Section 5309 New Starts | $315.6 | 50.0 % |
| FHWA CMAQ | $34.1 | 5.4 % |
| FHWA STP | $39.9 | 6.3 % |
| **State:** | $69.1 | 10.9 % |
| Traffic Congestion Relief | | |
| State Regional Improvement Fund | $112.2 | 17.8% |
| **Local:** | | |
| Proposition C sales Tax | $60.6 | 9.6% |
| **Total:** | **$631.5** | 100.0% |

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

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

The LACMTA plans to use Section 5309 New starts funds, FHWA Flexible Funds, State funding sources, and Proposition C dedicated sales tax funds to construct the proposed project.

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

The *Medium* rating reflects the preliminary nature of the cost estimate, the potential for scope changes, and the limited capacity to fund additional costs or to cover revenue shortfalls.

**Agency Capital Financial Condition:** LACMTA's capital assets are in very good condition. The bus fleet average age is six years, the light rail fleet average age is nine years, and the heavy rail fleet average age is five years. LACMTA is rated as a AA credit by Standard & Poor's, A1 by Moody's, and A+ by Fitch. Debt service coverage is well above minimum coverage requirements.

**Capital Cost Estimate and Contingencies:** The capital cost estimate prepared is based on planning-level unit cost assumptions, and some changes in the scope of the project are possible (e.g., a tunnel segment is to be explored in PE). The cost estimate contains a 23 percent contingency. LACMTA could potentially fund an additional 25 percent of project costs from existing sources, depending on cost variances on other major capital projects — Eastside LRT, San Fernando Valley BRT, and Wilshire Corridor Rapid Bus. As a result of work undertaken during Preliminary Engineering, capital costs have doubled since November of 2002.

**Existing and Committed Funding:** Approximately 65 percent ($203.7 million) of non-New Starts funds are committed and are drawn from existing sources. These include: regional STP funds ($39.9 million) and CMAQ funds ($34.1 million) programmed by LACMTA; State Traffic Congestion Relief Program (TCRP) funds ($69.1 million), committed to the project by state legislation signed into law in July 2000; and Proposition C sales tax revenues ($60.6 million) programmed by LACMTA.

**New and Proposed Sources:** The remaining 35 percent ($112.2 million) of the non-New Starts funds are from the State Regional Improvement Program. This is an existing source, and has been included in prior financial plans submitted by LACMTA, but no funds from this source had previously been allocated to this project.

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects the strength of the operating financial plan and good operating condition of the LACMTA.

**Agency Operating Condition:** LACMTA is in very good operating condition. Operating and maintenance costs per revenue hour have been tightly controlled over the past four years, and have declined about 16 percent in real terms. Small operating surpluses have been generated for the last four fiscal years. Service has expanded by 20 percent since FY1998. Liquidity is very good, with cash and equivalents in the Enterprise Fund equal to about 11 weeks of Operation and Maintenance expense.

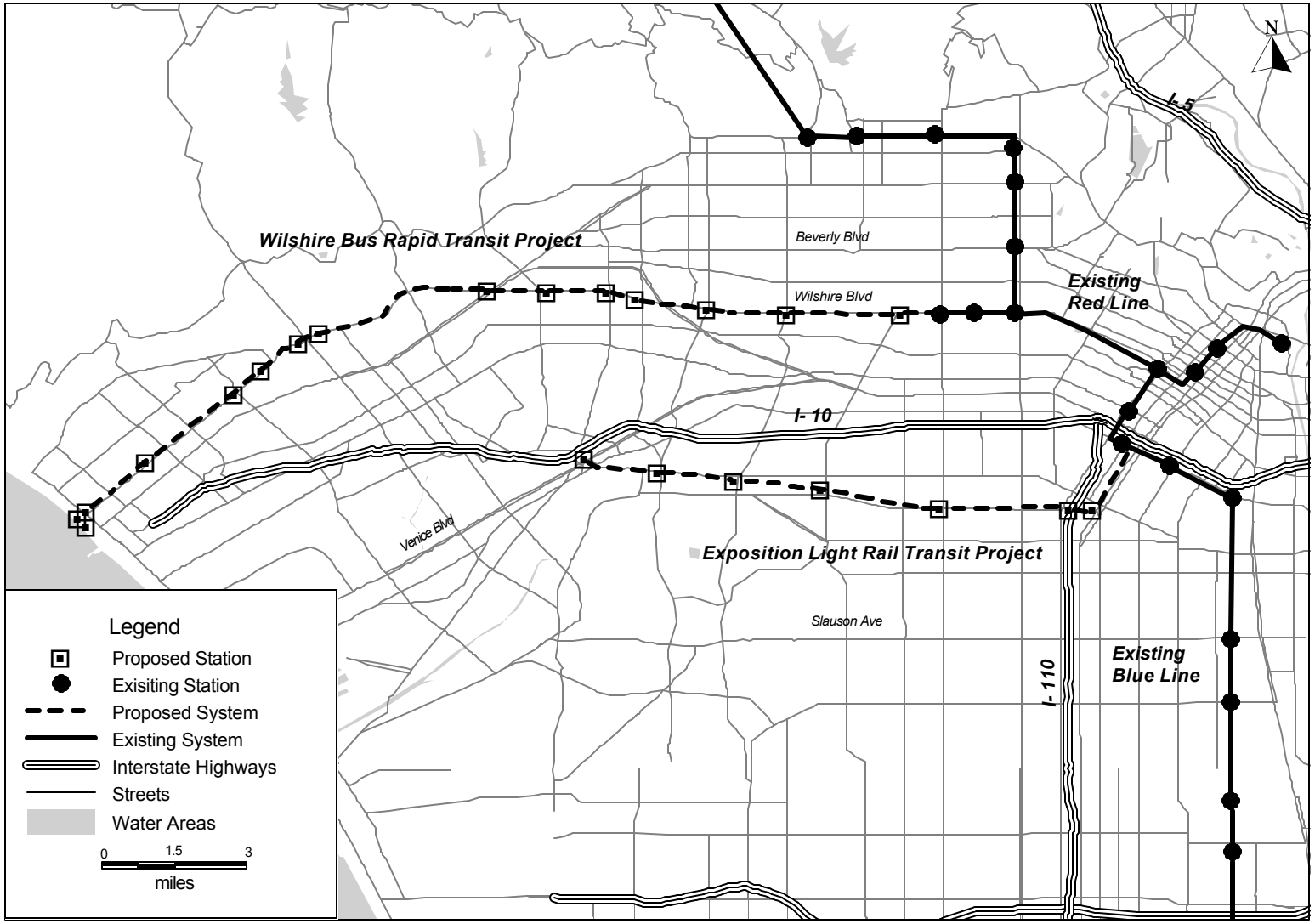
**Operating Cost Estimates and Contingencies:** The project would have a modest impact on LACMTA operations, costing about $26.9 million in FY2011 – the first full year of operation. It would account for about one percent of system-wide operating and maintenance cost and subsidy requirements. The project's cost and passenger revenues appear reasonable in relation to other LRT services operated by LACMTA.

**Existing and Committed Funding:** Existing and committed funds comprise 75.5 percent of the project's operating costs: local sales tax revenues (71.8 percent); and other operating income, such as advertising and interest earnings (3.7 percent).

**New and Proposed Funding Sources:** There are no new or proposed funding sources.

# Mid-City/ Exposition LRT

## Los Angeles, California




*Federal Transit Administration, 2002*

# Transportation Tomorrow South Central Corridor LRT

**Louisville, Kentucky**

(November 2002)

## Description

The Transit Authority of River City (TARC) is proposing to design and construct a 15-mile light rail transit (LRT) line extending from the Louisville Central Business District south to a park-and-ride facility at the Gene Snyder Freeway (I-265). The project is proposed to serve major trip generators including the Central Business District, the Kentucky International Convention Center, the Papa John's Cardinal Stadium, the Louisville Medical Center, the University of Louisville, Churchill Downs, the Kentucky Fair and Exposition Center, Louisville International Airport, the UPS World-Wide Distribution Center, and the Ford Motor Company Louisville Assembly Plant. The proposed project includes the construction of 18 stations, purchase of up to 18 light rail vehicles and the construction of a light rail vehicle maintenance and storage facility.

This project has not been rated because the grantee did not submit project information for the New Starts criteria. TARC is currently recalibrating the mode choice component of the regional travel demand model and developing a New Starts Baseline alternative that is consistent with FTA guidelines. FTA continues to work with the project sponsor to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved.

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

## Status

In 1996, TARC, in conjunction with the Kentuckiana Regional Planning and Development Agency (KIPDA) and the Kentucky Transportation Cabinet, began undertaking a Major Investment Study of potential transportation solutions in the greater Louisville/southern Indiana region. In the fall of 1998, the South Central corridor along I-65 was selected as the primary corridor in the region for the implementation of a rapid-transit project with bus improvements. The Locally Preferred Alternative was adopted by KIPDA into the region's financially constrained long range plan in March of 1999. FTA approved the South Central Corridor project into Preliminary Engineering in August 2001.

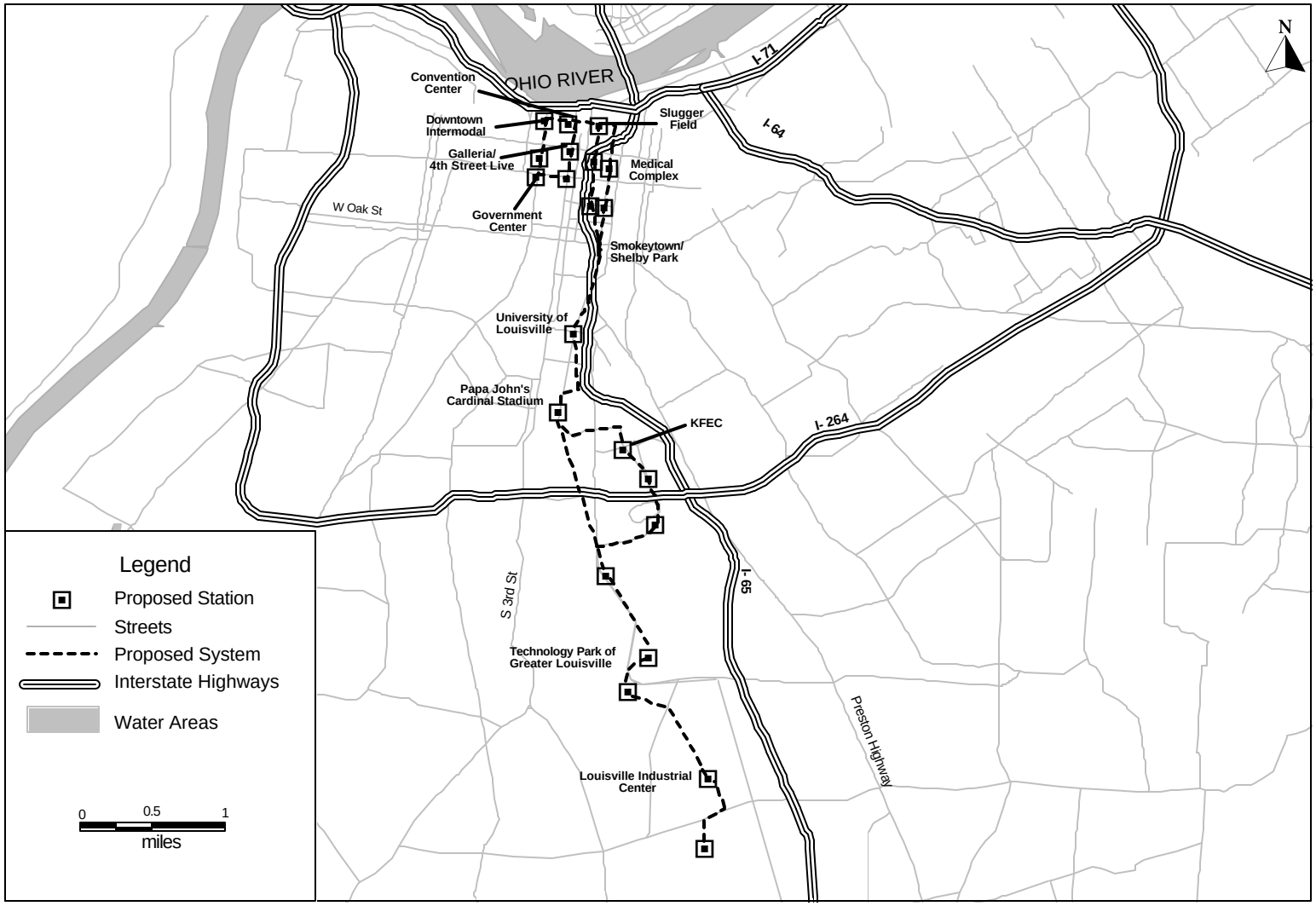
TEA-21 Section 3030(a)(40) authorizes the Louisville-Jefferson County Corridor for Final Design and construction. Through FY 2002, Congress has not appropriated any Section 5309 New Starts funds for this project.

## Evaluation

This project has not been rated because the grantee did not submit project information for the New Starts criteria.

# Transportation Tomorrow South Central Corridor Light Rail

Louisville, Kentucky




*Federal Transit Administration, 2002*

# Lowell-Nashua Commuter Rail Extension

## Lowell, Massachusetts-Nashua, New Hampshire

(November 2002)

## Description

The New Hampshire Department of Transportation (NHDOT) is proposing to design and construct a 12-mile extension of an existing commuter rail line from Lowell, Massachusetts to Nashua, New Hampshire. The proposed project would extend existing commuter rail service provided by the Massachusetts Bay Transportation Authority (MBTA) on an anticipated schedule of six round trips per weekday and three roundtrips on Saturdays. The proposed service extension would provide an alternative to a highly congested highway corridor and would provide traffic mitigation during the planned expansion of Route 3 in Massachusetts. The proposed project also includes the purchase of commuter rail equipment for use by the MBTA, rehabilitation of existing track, the construction of new trackage (where necessary), and a park-and-ride lot with a boarding platform near Everett Turnpike (Exit 2) in Nashua. MBTA anticipates 900 average weekday boardings at the start of service.

The Lowell, MA-Nashua, NH commuter rail extension is located in an area generally paralleling Route 3 in Massachusetts. NHDOT plans to execute an agreement with the MBTA (primary commuter rail operator in New England) to operate the commuter rail extension project. The total capital cost for the commuter rail extension project is estimated at $40.7 million (escalated dollars), with a proposed Section 5309 New Starts share of $18 million**.** Because the proposed New Starts share is less than $25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 USC 5309 (e)(8)(A)).

| Summary Description | |
|---|---|
| **Proposed Project:** | Commuter Rail Extension; 12 miles; one station |
| **Total Capital Cost ($YOE):** | $40.7 million |
| **Section 5309 New Starts Share ($YOE):** | $18 million (44%) |
| **Annual Operating Cost ($1999):** | $1.7 million |
| **Ridership Forecast (2003):** | 900 avg. weekday boardings |
| **Opening Year Ridership Forecast:** | N/A |

## Status

The Nashua Regional Planning Commission, in cooperation with the City of Nashua, NHDOT and other participatory agencies, has studied the feasibility of restoring commuter rail service to southern New Hampshire since the early 1980s. In 1999, NRPC completed a Major Investment Study that analyzed the passenger rail market, required capital investments, operational issues and several alternatives to the commuter rail extension option. In June 1999, NRPC and NHDOT selected the extension of commuter rail service from Nashua to Lowell as the Locally Preferred Alternative (LPA). The LPA was also included in the NRPC's long range transportation plan. FTA approved NHDOT's request to initiate Preliminary Engineering on the project in May 2000. NHDOT is currently undergoing the environmental review phase for the

proposed project and will be completed by Spring 2003. FTA is aware that the total cost for this project is anticipated to escalate beyond $45.0 million dollars and that the NHDOT will be seeking a larger New Start share for the proposed commuter rail extension. Based on the project's anticipated change it will be removed from the New Starts exempt category. NHDOT will submit New Starts criteria and will be rated and evaluated for the FY 2005 reporting year.

Section 3030(a)(49) of TEA-21 authorizes the "Nashua, NH-Lowell, MA Commuter Rail" for Final Design and construction. Through FY 2002, Congress has appropriated $5.93 million in Section 5309 New Starts funds for this project.

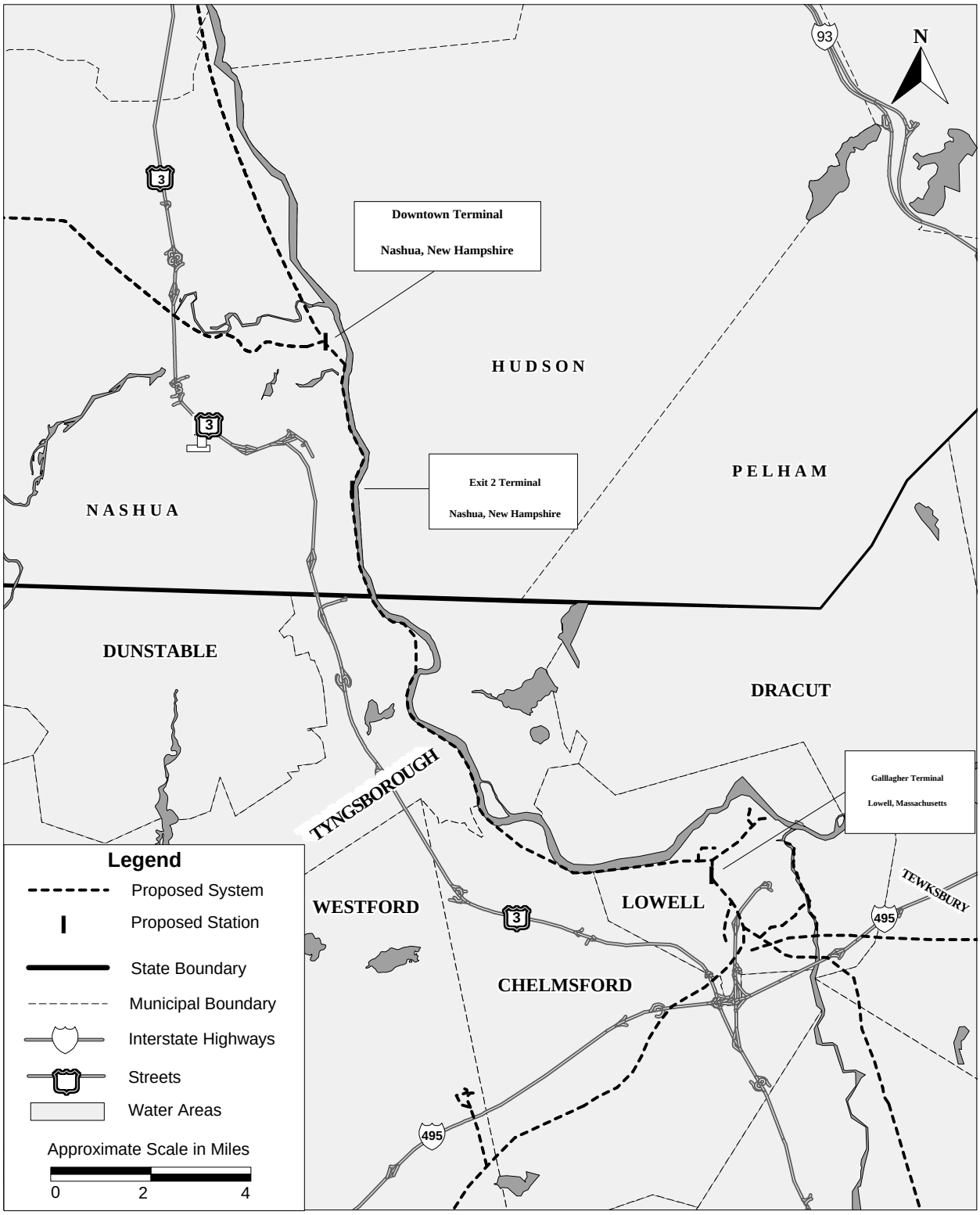
**Locally Proposed Financial Plan**

| Proposed Source of Funds | Total Funding ($ millions) | Percent of Total |
|---|---|---|
| **Federal:** | | |
| Section 5309 | $18.0 | 44.2% |
| CMAQ | $14.5 | 35.6% |
| **Total:** | **$40.7** | 100.0% |

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

# Commuter Rail Extension

## Lowell, Massachusetts - Nashua, New Hampshire




*Federal Transit Administration, 2002*

# North Corridor Metrorail Extension

**Miami, Florida**

(November 2002)

## Description

The Miami-Dade Transit Agency (MDTA) has proposed to construct a Metrorail extension along a 9.5-mile section of NW 27th Avenue between the existing Dr. Martin Luther King Jr. Metrorail station and the Broward County line. The project has gone through several reincarnations, originally starting out as a Metrorail extension when the project entered Preliminary Engineering, then changing to a lower cost Bus Rapid Transit (BRT) project when a one-cent sales tax referendum was rejected by voters in 1999, and reverting back to a Metrorail extension in the most recent submittal due to the passage of a new one-half cent sales tax referendum placed before voters in November 2002. The project includes seven stations and five park-and-ride lots providing a total of 2,650 spaces. No new vehicles will be needed for the project.

NW 27th Avenue is one of the few continuous north-south facilities in Miami-Dade County and serves as an alternative to the severely congested north-south I-95 and State Route 826. The project will help provide an additional travel alternative in the corridor and will have direct connections with the existing Metrorail system, Tri-Rail, the Miami Intermodal Center, and the Airport. The project would provide direct service to the Miami CBD and Medical Center, as well as provide service to Miami Dade Community College-North Campus and the Pro Player Stadium.

| Summary Description | |
|---|---|
| **Proposed Project:** | North Corridor Metrorail Extension<br>9.5 Miles, 7 Stations |
| **Total Capital Cost ($YOE):** | $731.9 Million |
| **Section 5309 New Starts Share ($YOE):** | $365.9 Million (50%) |
| **Annual Operating Cost (2015 $YOE):** | $18.3 Million |
| **Ridership Forecast (2015):** | 14,530 Average Weekday Boardings<br>6,770 Daily New Riders |
| **Opening Year Ridership Forecast (2009):** | 12,150 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Low-Medium** |
| **FY 2004 Project Justification Rating:** | **Medium** |
| **FY 2004 Overall Project Rating:** | **Not Recommended** |

The overall project rating of ***Not Recommended*** is based upon the incomplete financial plan submitted by the project sponsor. The overall project rating applies to this *Annual Report on New Starts* **and reflects the information available as of November 2002**. The implications of increased funding resulting from passage of the November sales tax referendum have not yet been examined and documented in detail in an updated MDTA financial plan. When the project sponsor completes a revised financial plan, FTA will again rate the project and make that new information available to Congress and other interested parties.

## Status

The Miami-Dade Transit Agency completed a Major Investment Study (MIS) for the North Corridor in November 1995. The Metropolitan Planning Organization (MPO) Board selected the NW 27th Avenue alignment as the Locally Preferred Alternative in November 1995, and added the project to its fiscally constrained 2015 Long Range Transportation Plan. An Alternatives Analysis and the Draft Environmental Impact Statement (DEIS), including consideration of two busway alternatives and one heavy rail alternative, were completed with FTA participating as the lead Federal agency. In May 1998, the MPO selected the heavy rail alternative, a Metrorail Extension along NW 27th Avenue, as the Locally Preferred Alternative (LPA). The Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) phase is underway.

In July 1999, voters rejected a one-cent sales tax increase to support proposed MDTA capital and operating needs, including the proposed North Corridor rail project. As a result, Metro-Dade re-evaluated other alternatives to improve transportation mobility in the Corridor. The Locally Preferred Alternative was changed to a lower cost BRT project.

The project has recently switched back to a Metrorail project due to the passage of a new sales tax referendum placed on the ballot for voter approval in November 2002. The referendum passed by a margin of 66 percent to 44 percent.

TEA-21 Section 3030 (a) (45) authorizes the Miami North 27$^{th}$ Avenue project for Final Design and construction. Through FY 2002, Congress has appropriated $11.92 million in Section 5309 New Starts funds for this proposed project.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Low-Medium** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 1,727 | |
| **Average Low Income Households Per Station** | 198 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | 6.4 | |
| **Environmental Benefits Rating: Medium** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 560 | |
| **Nitrogen Oxide ($NO_x$)** | 39 | |
| **Hydrocarbons** | 49 | |
| **Particulate Matter ($PM_{10}$)** | 71 | |
| **Carbon Dioxide ($CO_2$)** | 15,519 | |
| **Annual Energy Savings (million) BTU** | 197,549 | |
| **Cost Effectiveness Rating: Medium** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | $18.53 | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.47 | $0.45 |

[ ] indicate an increase in emissions.

# Project Justification

## Rating: Medium

The *Medium* project justification rating reflects the marginally transit-supportive policies and existing land use along the proposed alignment and the average cost-effectiveness of the project. Based on 2000 Census data, there are an estimated 1,383 low-income households within a ½-mile radius of the proposed project, roughly 26 percent of the total households within a ½-mile of the proposed stations. There are approximately 12,086 jobs within a ½-mile of the proposed stations. The Miami-Fort Lauderdale-West Palm Beach metropolitan area is designated as a "moderate maintenance area" for ozone. The incremental cost per incremental trip for the North Corridor Metrorail Extension is $20.15.

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

The *Low-Medium* rating reflects the lack of demonstrated progress and the only marginally transit-supportive existing land uses along the proposed alignment.

**Existing Conditions:** The predominant land use along the proposed corridor is strip commercial that is bordered on the east and west by low and medium density residential land uses; however, there are several potential high-trip generators in the corridor including the Pro Player Stadium, St. Thomas University, the North Campus of the Miami-Dade Community College, and the Miami-Dade County Health Center. Population in the corridor is forecast to increase at a rate lower than that of the rest of the region, and will consequently represent a declining share of the metropolitan area population. Population and employment densities are currently fairly low and are forecast to remain low. In addition, existing land use patterns provide limited opportunities for pedestrian connections. There is also ample parking throughout the corridor.

**Future Plans, Policies and Performance:** The State of Florida and several regional planning councils have established an Urban Infill Strategy Task Force to encourage infill development and increase densities. State and regional policies promote infill development with implementation dependent on local jurisdictions. Miami-Dade County's Comprehensive Development Master Plan (CDMP) requires localities to accommodate new development around transit stations that incorporate certain physical design elements. The CDMP promotes pedestrian access and the provision of bus stops. Recent changes to Miami-Dade County's CDMP require a minimum density of housing units and employment based on distance from rail stations. Transit overlay zones exist to promote transit-oriented development in station areas and along the corridor. Currently there is no county-wide parking policy for Dade County, although a recent study proposes a schedule for development of a coordinated parking policy.

## Other Factors
Enterprise zone/empowerment communities are located within the corridor.

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

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

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

MDTA plans to use Section 5309 New Starts funds, a State transit block grant, and revenues from a one-half cent proposed sales tax to construct the proposed project.

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:** Section 5309 New Starts | $365.9 | 50.0 % |
| **State:** Public Transit Block Grant | $183.0 | 25.0 % |
| **Local:** One-Half Cent Sales Tax | $183.0 | 25.0 % |
| **Total:** | **$731.9** | 100.0 % |

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

## Stability and Reliability of Capital Financing Plan
## Rating: Low-Medium

The *Low-Medium* rating is due to the incomplete capital plan submitted by MDTA and the uncertainty of the capital cost estimates.

**Agency Capital Financial Condition:** The capital condition of MDTA is fair. The average age of the bus fleet is 6.7 years. For rail vehicles, the average age is 18 and 9.9 years for Metrorail and Metromover vehicles, respectively. No information regarding current bond ratings for the agency was included in the submittal.

**Capital Cost Estimates and Contingencies:** The capital cost estimate submitted by MDTA is based on conceptual engineering performed in 1997, with a 3.5 percent inflation factor per year added to bring the estimate into current year dollars. The estimate includes an 11.3 percent overall contingency allowance, with additional line item "add on" factors of ten percent for conceptual contingency and ten percent for construction contingency.

**Existing and Committed Funding:** MDTA's capital plan proposes two funding sources for the non-New Starts share – a Florida Department of Transportation Transit Block Grant and a new one-half cent sales tax, each providing 25 percent of the total project cost. According to the plan, the Transit Block Grant is an existing funding source, which remains uncommitted.

**New and Proposed Sources:** In November 2002, voters approved a referendum for a new one-half cent sales tax that will be levied for transit investments, including the North Corridor Metrorail Extension project. The tax will take affect January 1, 2003. This funding is considered committed.

## Stability and Reliability of Operating Finance Plan
## Rating: Low-Medium

The *Low-Medium* operating plan rating reflects the submittal of an incomplete plan including the lack of details on the operating and maintenance cost and revenue assumptions for the North Corridor Metrorail Extension project as well as for the existing MDTA system.

**Agency Operating Financial Condition:** The current operating financial condition was not assessed since MDTA did not provide recent historical information on operating and maintenance revenues and expenditures.

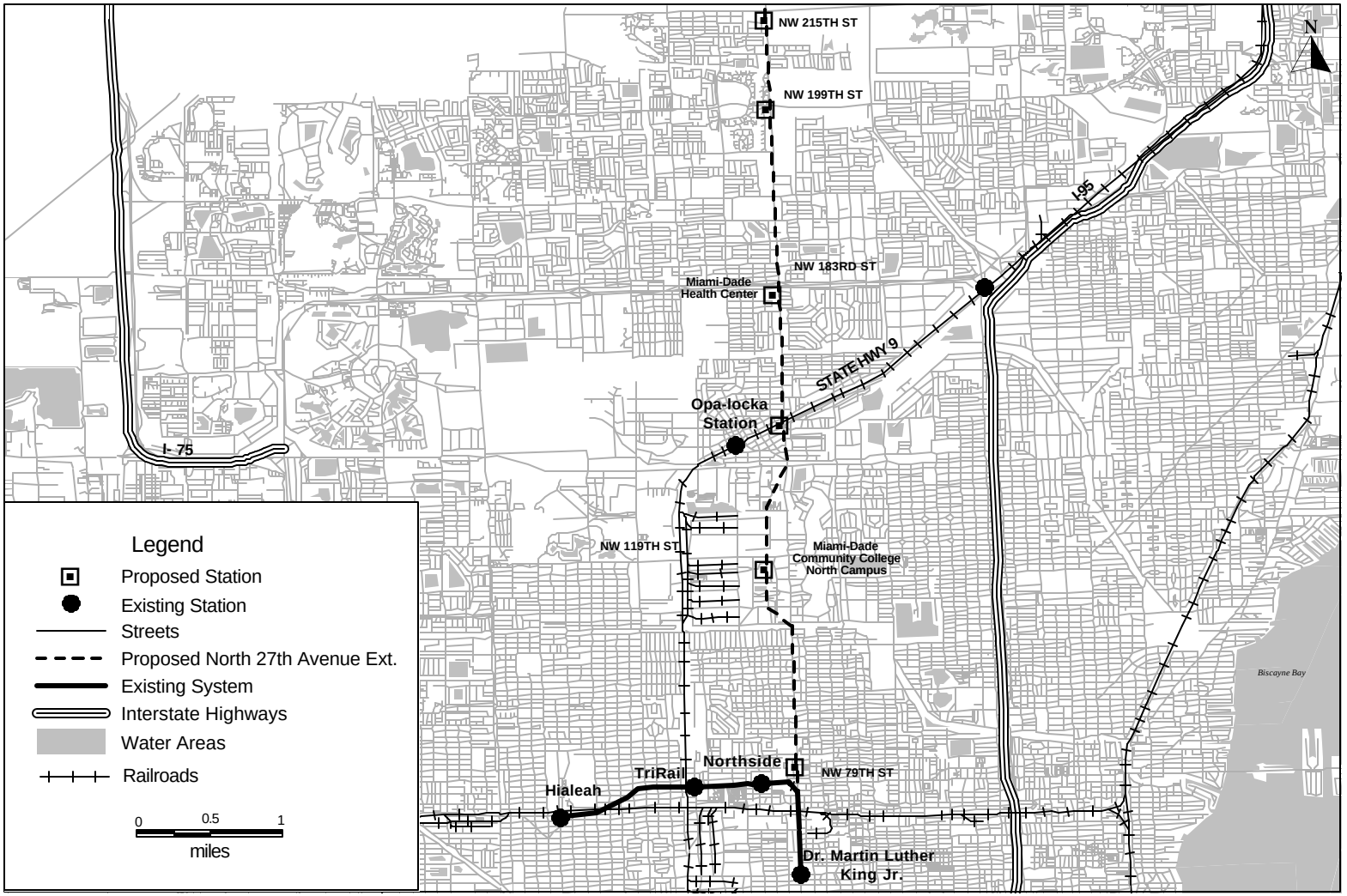
**Operating Cost Estimates and Contingencies:** The operating plan submitted by MDTA did not include details on the operating and maintenance cost assumptions or the cost estimation methodology for the North Corridor Metrorail Extension and the existing system. In addition, no information was provided on the assumptions used to estimate operating revenues.

**Existing and Committed Funding:** Operating revenues for the North Corridor Metrorail project are forecast to come from existing and committed funding sources including: fare revenues (27.1 percent of total operating funds), the General Fund transit subsidy (21.9 percent), gas tax levies (4.0 percent), and municipal reinvestment (1.7 percent) as well as a new funding source mentioned below.

**New and Proposed Funding Sources:** The recently approved one-half cent sales tax is a new operating funding source. It is projected to account for 43 percent of all operating revenues in the first year of revenue operations of the North Corridor Metrorail project.

# North Corridor Metrorail Extension

## Miami, Florida




*Federal Transit Administration, 2002*

# Northstar Corridor Rail Project

**Minneapolis-Rice, Minnesota**
(November 2002)

## Description

The Minnesota Department of Transportation, in cooperation with the Northstar Corridor Development Authority (NCDA), is proposing to design and construct an 82-mile commuter rail line within the Northstar Corridor connecting the Minneapolis-St. Paul metropolitan area and Rice, Minnesota. The corridor also connects the Twin Cities with several northern suburban areas, including Anoka, Sherburne, Benton and Morrison counties. The proposed project also includes a 0.3-mile extension of the Hiawatha Corridor light rail transit (LRT) line (currently under construction) from its current terminus in downtown Minneapolis. The LRT extension would be located between Third Avenue North and a proposed commuter rail intermodal station at Fifth Avenue North in downtown Minneapolis. The multimodal connection would provide a direct link to the 4th Street transit center (pedestrian mall), Mall of America, and the Minneapolis-St. Paul International Airport. The commuter rail line would operate along existing Burlington Northern Santa Fe railroad tracks. The commuter rail line would provide a total of eighteen weekday trips between Rice and downtown Minneapolis with four train sets operating under 30-minute headways during peak (morning and evening) periods.

| Summary Description | |
|---|---|
| **Proposed Project:** | Commuter Rail Line; Light Rail Transit Extension<br>82 Miles, 11 Stations (Commuter Rail)<br>1,750 feet (LRT Extension) |
| **Total Capital Cost ($YOE):** | $277.9 Million (Commuter Rail)<br>$24.0 Million (LRT Extension) |
| **Section 5309 New Starts Share ($YOE):** | $150.9 Million (50%) |
| **Annual Operating Cost (2020 $YOE):** | $23.2 Million |
| **Ridership Forecast (2020):** | 10,800 Average Weekday Boardings<br>5,400 Daily New Riders |
| **Opening Year Ridership Forecast (2006):** | 9,600 Average Weekday Boardings |
| **FY 2004 Finance Rating:** | **Low-Medium** |
| **FY 2004 Project Justification Rating:** | **Not Rated** |
| **FY 2004 Overall Project Rating:** | **Not Recommended** |

The Northstar Corridor Rail Project would address a current lack of alternative transportation options between Minneapolis and Rice, Minnesota. Presently, only limited non-automobile oriented commuter bus (Greyhound) and limited Amtrak service link the two cities. Mobility along Trunk Highway 10/47 (TH-10/47), which generally parallels the corridor between Minneapolis and Rice, is constrained by signalized traffic intersections. Project sponsors anticipate that the commuter rail line would improve travel time for commuters by alleviating TH-10/47 traffic along major Mississippi River crossings and Interstate 94 interchanges.

The *Not Recommended* rating is primarily based on the inability of project sponsors to obtain a local financial commitment to construct and operate the proposed project. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA's ratings and recommendations will be updated annually to reflect new information, changing conditions and refined financing plans.**

## Status

In May 1998, the NCDA initiated a Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) to examine mobility options within the Northstar Corridor. The MIS was completed in December 1999, with the selection of a Locally Preferred Alternative (LPA) that included new crossings across the Mississippi River, Trunk Highway 10 improvements, commuter rail, feeder bus service, pedestrian and bicycle improvements and Intelligent Transportation System initiatives. The LPA is included in the Metropolitan Council's and the St. Cloud Area Planning Organization's (local Metropolitan Planning Organizations) financially constrained long range transportation plans. The proposed project is also included in the State Transportation Improvement Program. FTA approved the NCDA's request to initiate Preliminary Engineering in June 2000. NCDA and the Minnesota DOT completed the DEIS in November 2000. A Final EIS was completed in March 2002. The Minnesota DOT completed a Record of Decision on the environmental review process in December 2002. Following the solidification of the State legislature's financial commitment to the Northstar Corridor Rail Project – anticipated in early 2003 – Minnesota DOT is planning to submit a request to FTA to enter into Final Design.

Section 3030(a)(90) of TEA-21 authorizes the "Twin Cities – Northstar Corridor (Downtown Minneapolis-Anoka County-St. Cloud)" for Final Design and construction. Through FY 2002, Congress has appropriated $14.85 million in Section 5309 New Starts funds for the project.

## Evaluation

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

| Project Justification Quantitative Criteria | | |
|---|---|---|
| **Mobility Improvements Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Average Employment Per Station** | 3,245 | |
| **Average Low Income Households Per Station** | 97 | |
| **Transportation System User Benefit Per Project Passenger Mile (Minutes)** | Not Rated | |
| **Environmental Benefits Rating: Medium-High** | | |
| **Criteria Pollutant Reduced (tons)** | **New Start vs. Baseline** | |
| **Carbon Monoxide (CO)** | 450 | |
| **Nitrogen Oxide ($NO_x$)** | 50 | |
| **Hydrocarbons** | [20] | |
| **Particulate Matter ($PM_{10}$)** | 1 | |
| **Carbon Dioxide ($CO_2$)** | 12,360 | |
| **Annual Energy Savings (million) BTU** | 161,250 | |
| **Cost Effectiveness Rating: Not Rated** | | |
| | **New Start vs. Baseline** | |
| **Cost per Transportation System User Benefit (current year dollars/hour)** | Not Rated | |
| **Operating Efficiencies Rating: Medium** | | |
| | **Baseline** | **New Start** |
| **System Operating Cost per Passenger Mile (current year dollars)** | $0.36 | $0.37 |

[ ] indicate an increase in emissions.

# Project Justification

## Rating: Not Rated

This project has not been rated. Project sponsors calculated the project's cost-effectiveness at $7.30 per hour of transportation system user benefit. However, FTA has serious concerns about the information submitted for this measure; the underlying assumptions used by the project sponsor may have produced an inaccurate representation of the benefits of the project. FTA continues to work with project sponsors to validate the assumptions, information, and projections. A rating for this project will be made available to Congress and other interested parties when the issues are resolved. Based on 1990 Census data, the Minnesota DOT estimates that there are approximately 1,068 low-income households within a ½-mile radius of the proposed 11 stations. This represents approximately 16 percent of the total number of households located within a ½-mile radius of proposed station areas. Minnesota DOT also

estimates that the project would serve approximately 35,700 jobs that are located within a ½-mile radius of proposed station areas. The Twin Cities area is designated as an "attainment area" for ozone and carbon monoxide and a "moderate non-attainment area" for particulate matter. Minnesota DOT estimates that the Northstar Corridor Rail project has an incremental cost per incremental trip value of $15.55.

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

The *Medium* land use rating acknowledges the presence of encouraging urban-scale development at several stations and the initiation of station area planning efforts to stimulate transit-oriented development. Strategies to promote transit-supportive land use patterns, coupled with high projected rates of corridor growth and the region's growth management policies are also reflected in the rating. However, the rating also reflects the relatively low population densities of station areas located outside of the downtown Minneapolis and downtown St. Cloud areas.

**Existing Conditions:** Downtown Minneapolis serves as the dominant job center for the metropolitan area and the upper Midwest with approximately 140,000 employees and 20,000 residents. In the year 2000, total population within the Northstar Corridor was estimated at 430,000. Total corridor employment for the same period was estimated at 223,500. While high-density, pedestrian-friendly development is located within walking distance of the proposed downtown Minneapolis station area, immediate station area surroundings are largely industrial or undeveloped and are not pedestrian-oriented. The proposed Minneapolis-Northeast station, however, is located in a dense urban neighborhood. Development at several mid-corridor station areas is low density and single use. Proposed station areas located near the northern terminus of the commuter rail line that would serve the City of St. Cloud and the University of St. Cloud are in, or near, areas with moderate high densities. The upper northern portion of the commuter rail line (downtown St. Cloud area), located near the City of St. Cloud's central business district, is characterized by high-density residential and mixed-use development usage with strong pedestrian amenities.

**Future Plans, Policies and Performance:** The Northstar Corridor has been identified locally as the growth center of the Twin Cities metropolitan area. Corridor population is projected to increase approximately 29 percent (553,200) through the year 2020. Employment is projected to increase approximately ten percent (247,000) during the same time period. Local officials consider the Twin Cities area as a high growth area. Project sponsors estimate that the region has experienced one of the highest rates of population growth in all of the major metropolitan areas in the Midwest in the last two decades. Land use plans and policies of the region's local Metropolitan Planning Organizations (MPO) – the Metropolitan Council and the St. Cloud Area Planning Organization – in which the proposed commuter rail line would operate, support capturing growth in established urbanized areas, the reduction of sprawl, the constraint of residential growth in rural areas and the preservation of productive agricultural land. In addition, the St. Cloud Area Planning Organization currently has a plan in place to concentrate development in urban centers and limit development in rural and undeveloped areas. Station area planning efforts have also been initiated at other northern suburban areas to capture a portion of projected corridor growth in transit-supportive land use development patterns.

## Other Factors

Downtown Minneapolis currently has approximately 62,000 parking spaces, which project sponsors indicate is equivalent to 0.43 spaces per employee. Moreover, project sponsors indicate that parking spaces in downtown Minneapolis are approaching capacity. The City's parking policy prohibits the creation of parking spaces at transit stations. Currently, there are no existing public parking facilities along the corridor outside of downtown Minneapolis. As part of the Northstar Corridor Rail Project, nine of the 11 proposed commuter rail stations would include the construction of park-and-ride facilities and all stations would include bus pick-up areas.

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

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

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

The financial plan for the proposed Northstar Corridor Rail Project includes Section 5309 New Starts funds, State legislative appropriations, and bond proceeds from the Northstar Corridor Development Authority (NCDA).

| Locally Proposed Financial Plan | | |
|---|---|---|
| **Proposed Source of Funds** | **Total Funding ($million)** | **Percent of Total** |
| **Federal:**<br>Section 5309 New Starts | $150.9 | 50.0 % |
| **State:**<br>Minnesota General Obligation Bonds | $123.2 | 40.8 % |
| **Local:**<br>NCDA Capital Partners | $27.8 | 9.2 % |
| **Total:** | **$301.9** | 100.0 % |

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

## Stability and Reliability of Capital Financing Plan
## Rating: Low-Medium

The *Low-Medium* rating reflects the absence of a commitment from the State legislature to fund its portion (82 percent) of the non-Section 5309 New Starts share of the project's total estimated capital cost and the lack of information on project sponsors' capacity to fund any unexpected funding shortfalls. The rating also acknowledges the commitment of a portion (18 percent) of the non-Section 5309 New Starts share of the project's total estimated capital cost by several NCDA Capital Partners (suburban Minneapolis counties and county regional railroad authorities).

**Agency Capital Financial Condition:** The State of Minnesota does not directly operate public transit service. Operation of the proposed commuter rail line would be contracted out to the Burlington Northern Santa Fe railroad. Metro Transit, a division of the Metropolitan Council, would operate the proposed Hiawatha Corridor light rail extension. Standard and Poor's, and Fitch rate the State of Minnesota's bonds 'Aaa.' Moody's Investor Services rates the State's bonds as 'AAA.'

**Capital Cost Estimate and Contingencies:** The project's total estimated capital cost increased approximately three percent from last year's *Annual Report on New Starts*. The current capital cost estimate is based on Preliminary Engineering of individual components and vehicle fleet and equipment specifications. A contingency factor of 15 percent was applied to most major cost elements, which, at this time, is insufficient to account for variabilities related to right-of-way, track modifications and communication/signal costs.

**Existing and Committed Funding:** At this time, approximately $27.8 million (18 percent) of the total non-Section 5309 New Starts share of the project's total estimated capital cost has been committed via county resolutions and county railroad authority board resolutions – backed by property tax levies. The Minnesota legislature and NCDA Capital Partners are planning to commit the remaining $123.2 million (82 percent) in early 2003. The State's commitment of the non-Section 5309 New Starts share of the project's total estimated capital cost will need to be demonstrated before FTA can allow the project to proceed into Final Design.

**New and Proposed Sources:** No new sources are proposed to fund the capital cost of the Northstar Corridor Rail Project.

## Stability and Reliability of Operating Finance Plan
## Rating: Medium

The *Medium* rating reflects the adequacy of the revenues that are proposed to fund the operations of the Northstar Corridor Rail Project (passenger revenues, operating assistance from the State's General Fund and Section 5307 Preventative Maintenance funds). However, the rating also acknowledges the absence of supportive documentation on proposed operating sources.

**Agency Operating Financial Condition:** The State of Minnesota does not directly operate public transit service. Operating assistance from the State's General Fund is projected to grow at an average annual rate of less than 3.5 percent. General Fund revenues would be drawn from an

individual income tax, sales tax, corporate income tax and motor vehicle sales tax. Farebox revenues are projected to cover approximately 32 percent of operating expenses, with fares projected to increase at the rate of inflation.

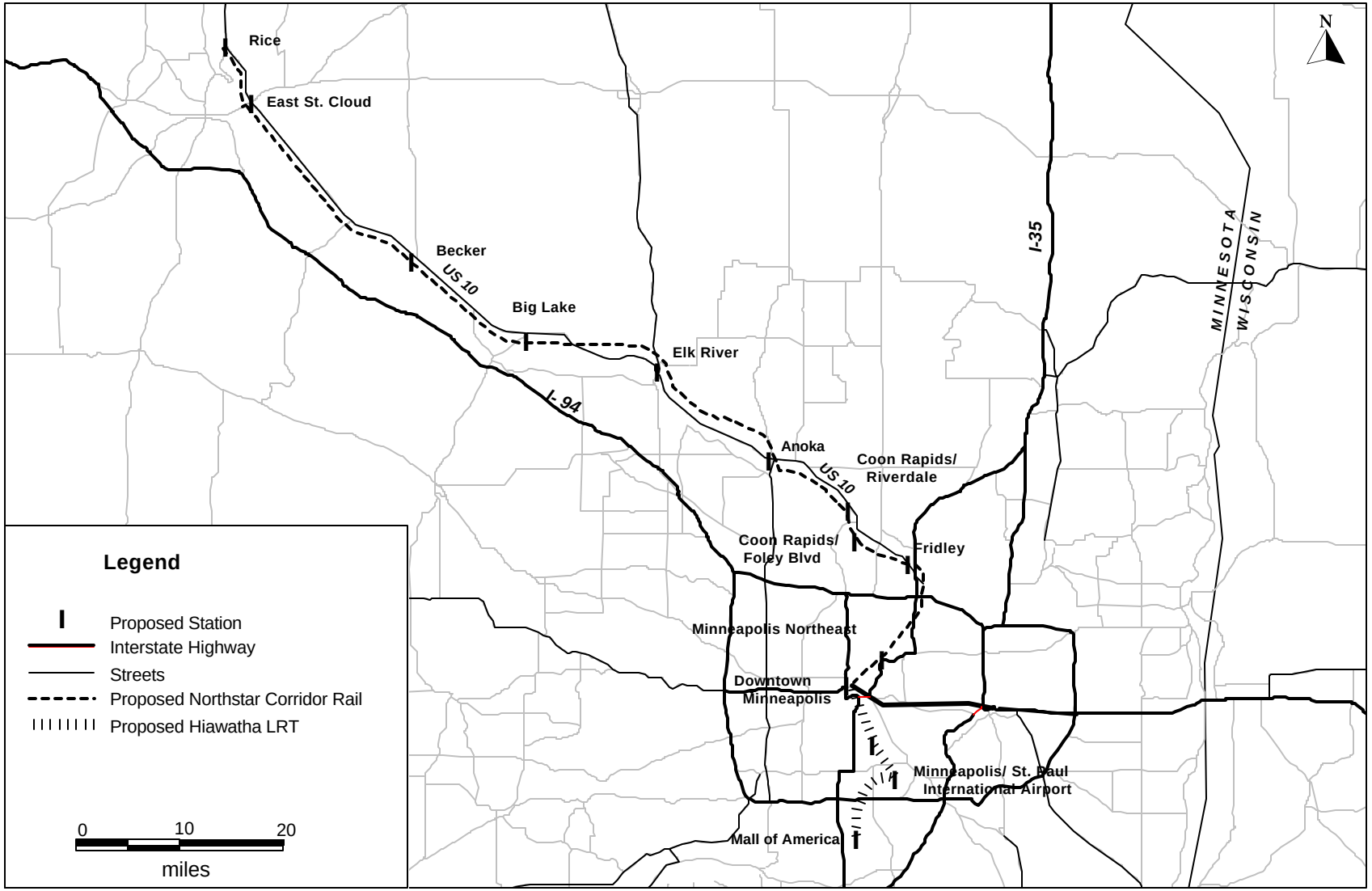
**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs for the Northstar Corridor Rail Project, beginning in the first year of project operations (2007), are estimated at $23.2 million (escalated dollars). Operating costs were estimated using a cost allocation model incorporating principal cost factors (vehicle hours in service, supervision, fuel, vehicle maintenance, facility maintenance, and administration) as determined through an analysis of actual operating experience(s) of new commuter rail systems similar to the proposed Northstar Corridor project. Unit costs derived from this analysis were applied to the commuter rail line's projected levels of service.

**Existing and Committed Funding:** All proposed sources for operating funds exist. Approximately 70 percent of the project's operating funds, Minnesota legislative appropriations, will need to be committed as part of the State's biennial general fund appropriation process. The remaining 30 percent (fare revenues) is considered committed.

**New and Proposed Funding Sources:** No new sources of operating funds are proposed for the Northstar Corridor Rail Project.

# Northstar Corridor Rail Project

Minneapolis, Minnesota




*Federal Transit Administration, 2002*