

# Supplemental Report on New Starts

## Fiscal Year 2002

Report Number FTA-TBP10-01-02

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

**2001**

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## Foreword

This report is prepared annually for submission to the United States Congress by the Secretary of Transportation. Title 49, United States Code, Section 5309(o)(2) requires the Secretary of Transportation to submit to the Committee on Transportation and Infrastructure of the House of Representatives, and the Committee on Banking, Housing and Urban Affairs of the Senate, a "supplemental report on new starts" that describes the Secretary's evaluation and rating of each proposed new starts project that has completed alternatives analysis or preliminary engineering since the date of the last *Annual Report on New Starts*. In addition to those committees, this report is also formally submitted to the Appropriations Committees of both the House and Senate. It is also provided to transit operators, metropolitan planning organizations (MPOs), State departments of transportation, and made generally available to the public at large.

This report is an update of project-specific information; it is **not** a budgetary document. Nothing in this report in any way alters any recommendations for the allocation of discretionary new starts funding that have been made by the Administration.

Upon request, this report will be made available in alternative formats. It is also available via the Internet at the [FTA site](#) on the World Wide Web.

# Alphabetical Index of Project Profiles

## Bridgeport, CT/Intermodal Transportation Center B-5

(August 2001)

### Description

The City of Bridgeport is proposing to undertake 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 magnet 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 the 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. **Since the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and thus is not subject to FTA's evaluation and rating (49 USC Section 5309 (e)(8)(A)).**

### Summary Description

<b>Proposed Project:</b>	Bridgeport Intermodal Transportation Center – Phase II & III
<b>Total Capital Cost (\$YOE):</b>	\$62.4 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.9 million

### Status

The City of Bridgeport, in cooperation with the Connecticut Department of Transportation and Greater Bridgeport Regional Planning Agency, has studied the feasibility of the Intermodal Center Project. June 2000, Greater Bridgeport MPO selected the Bridgeport Intermodal Transportation project as the locally preferred alternative and has included it in their long-range

transportation plan. FTA approved this project to initiate in Preliminary Engineering in April 2001.

The Bridgeport Intermodal Center Project was authorized in TEA-21 in Section 3030(c)(1)(A) (vi). To date, the City has not received any Section 5309 New Starts appropriations. However, the project received a \$5 million dollar Section 5309 Bus appropriation in FY 2001.

**Locally Proposed Financing Plan (Reported in \$YOE)**

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	\$24.9	<b>(\$0 million appropriated through FY 2001)</b>
Section 5309 Bus	\$5.0	
<b>Local:</b>		
Match – State Funding – Department of Communities and Development	\$7.5	
Additional Participation - City of Bridgeport	\$25.0	
<b>TOTAL</b>	<b>\$62.4</b>	

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

# Chicago/Metra Union-Pacific West Line A-5

## Union-Pacific West Line Extension, Chicago, Illinois

(August 2001)

### Description

Metra, the commuter rail division of the Regional Transportation Authority (RTA) of northeastern Illinois, is proposing an 8.5-mile extension to the existing 3536-mile Union-Pacific West (UPW) Line – also known as the Central Kane Corridor project. Metra's UPW commuter rail line currently provides service between downtown Chicago west to Geneva. The proposed project would extend trackage further west to Elburn, Illinois. The proposed project also includes multiple track and signal improvements, construction of two additional stations and parking facilities, construction of a new train storage yard, and the purchase of two one diesel locomotives and eight bi-level passenger cars. The proposed extension will utilize an existing railroad track and right-of-way currently used by both Metra and the Union-Pacific freight railroad. The total estimated capital cost for the UPW Line extension and improvements is \$134.6142.1 million (escalated dollars). Metra estimates 3,900 average weekday boardings on the entire UPW line in the year 2020.

### Summary Description

<b>Proposed Project:</b>	Commuter Rail Line (extension and multiple improvements); 8.5 miles, 2 new stations
<b>Total Capital Cost (\$YOE):</b>	\$134.6142.1 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$80.7687.44 million
<b>Annual Operating Cost (\$YOE):</b>	\$6.73 million
<b>Ridership Forecast (2020):</b>	3,900 average weekday boardings 2,700 daily new riders
<b>FY 2002 Financial Rating:</b>	Medium-High
<b>FY 2002 Project Justification Rating:</b>	Medium
<b>FY 2002 Overall Project Rating:</b>	Recommended

The overall project rating of *Recommended* is based on the strength of the project's financial plan and the strong mobility improvements and environmental benefits that are anticipated for the UPW Line Extension. The overall project rating applies to this *Supplemental New Starts Report* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined.

## Status

In April 1997, Metra initiated a Major Investment Study (MIS) for the Central Kane Corridor. The purpose of the MIS was to analyze the ability and cost effectiveness of various alternative investment strategies to serve the growing need for travel from the Central Kane Corridor to the Chicago CBD. The MIS was completed in August 1998. Based on the results of the MIS, Metra selected Rail Alternative R1 as the Locally Preferred Alternative (LPA). This project would provide for the extension of commuter rail service from Geneva to Elburn, Illinois on the UPW Line. The LPA was included in the Chicago Area Transportation Study's (local Metropolitan Planning Organization) 2020 financially constrained Long-Range Transportation Plan and Transportation Improvement Program in November 1997.

In December 1998, FTA approved Metra's request to initiate preliminary engineering (PE) and the environmental review process of project development on the UPW Line Extension. Metra completed an Environmental Assessment (EA) for the UPW Line Extension in June 2000. FTA issued a Finding of No Significant Impact on the EA in August 2000. In January 2001, FTA approved this project to initiate final design.

Section 3030(a)(13) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "West Line Extension" for final design and construction. Through FY 2001, Congress has appropriated \$16.44 million in Section 5309 New Starts funds for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that information for a specific criterion was not available. FTA has evaluated this project as being in preliminary engineering.

## Justification

The *Medium* rating reflects the UPW Line's strong mobility improvements and environmental benefits, while acknowledging the relatively low ratings for cost-effectiveness and transit-supportive land use.

## Mobility Improvements Rating: Medium-High

Metra estimates 3,900 average weekday boardings and 2,700 daily new riders on the UPW Line Extension in the year 2020. Metra estimates the following annual travel time savings for the project:

Mobility Improvements Table That Compares New Start Versus No-Build and New Start Versus TSM

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
Annual Travel Time Savings (Hours)	0.3 million	0.8 million

Based on 1990 census data, there is one (1) reported low-income household within a ½-mile radius of the two proposed stations, representing 2 percent of the total number of households within a ½-mile of the proposed stations.

**Environmental Benefits**  
**Rating: High**

Northeastern Illinois is classified as being in "severe" nonattainment for ozone and is in attainment for carbon monoxide (CO) and particulate matter (PM<sub>10</sub>). Metra estimates a slight increase in Volatile Organic Compounds (VOC) for the New Start versus the TSM. Metra estimates that in the year 2020, the proposed project would result in the following emissions reductions:

Environmental Benefits Table That Compares New Start Versus No-Build and New Start Versus TSM

Criteria Pollutant	New Start vs. No-Build	New Start vs. TSM
Carbon Monoxide (CO)	215	154
Nitrogen Oxide (NO <sub>x</sub> )	36	26
Volatile Organic Compounds (VOC)	3	[5]
Particulate Matter (PM <sub>10</sub> )	0	0
Carbon Dioxide (CO <sub>2</sub> )	14,390	10,624

*Values reflect annual tons of emissions reductions. Values in [ ] represent an increase in emissions.*

Metra estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs):

Annual Energy Savings Table That Compares New Start Versus No-Build and New Start Versus TSM

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	<b>188,315</b>	<b>138,867</b>

*Values reflect annual BTU reductions.*

**Operating Efficiencies**  
**Rating: Medium**

Metra estimates the following systemwide operating cost per passenger mile in the year 2020 for the New Start, No-Build, and TSM alternatives.

Operating Efficiencies Table That Compares New Start Versus No-Build and New Start Versus TSM

<b>System Operating Cost</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>Operating Cost per Passenger Mile (2020)</b>	\$0.23	\$0.23	\$0.22

*Values reflect 2020 ridership forecast and 1997 dollars.*

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

Metra estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternative:

Cost Effectiveness Table That Compares New Start Versus No-Build and New Start Versus TSM

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$17.20	\$21.50

*Values reflect 2020 ridership forecast and 1997 dollars.*

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

The *Low-Medium* land use rating reflects the marginally transit-supportive and low-density development that currently exists in the UPW Line Corridor, but acknowledges the proactive efforts being undertaken by Metra, the Regional Transportation Authority (RTA) of Northeastern Illinois, and Kane County municipalities in coordinating station area development.



**Existing Conditions:** The existing Union Pacific West Line (Central Kane Corridor) connects rapidly developing communities west of Chicago with a major employment center in Chicago's central business district (CBD). Development in the existing station areas along the line varies from rural towns to high-density residential and commercial uses. Downtown Chicago, which is a major destination for riders, contains high density, pedestrian and transit-friendly development. Land use in proposed station areas on the western end of the corridor is relatively low in density, or agricultural/rural in character. Major trip generators along the western part of the corridor include the Kane County Government Center, Judicial Center, Delnor Hospital, Charlestown Mall, Dupage County Airport (third busiest airport in Illinois), Fermi National Accelerator Laboratory in Batavia and Waubensee Community College in Sugar Grove. Low or medium-density single-family housing characterizes the majority of development in Kane County, although a significant amount of undeveloped land exists within the proposed and existing station areas.

**Future Plans and Policies:** At the regional, corridor and municipal level, population and job growth trends suggest continued rapid development throughout the study area. The outer suburbs in Kane County are expected to grow the most rapidly. The *Elburn Land Use Plan* seeks to avoid isolated pockets of development, while promoting the preservation of open space by accommodating compact development and higher densities, encouraging infill development within walking distance of the Elburn CBD, and limiting strip-commercial development. Within the plan, land has been set aside for a potential station. As part of Geneva's *Future Land Use and Development Policies*, the municipality will encourage residential development and redevelopment that will provide diversity in housing types, including higher densities in the downtown area. The RTA has been very active in developing and sharing information about transit-oriented development through production of studies, workshops and reports, and has a grant program for supporting TOD initiatives. Growth management policies are discussed in several regional and county-level planning documents. However, these documents provide general non-binding recommendations for managing growth. With some exceptions, zoning regulations in corridor municipalities are generally designed to preserve the suburban and rural character of the communities.

Elburn has taken a proactive approach to parking policies within its CBD. The existing zoning ordinance allows joint or shared parking. Developments that can show that a parking facility is located within close proximity will be allowed a reduction in the required number of spaces. In addition to existing transit parking facilities, Geneva also has a remote parking lot that is connected to the station via a shuttle bus. The remote lot has a shared-parking agreement with a local church located approximately one mile from the station. Parking is free and the shuttle service is \$0.50 per trip. Outside of Elburn and the City of Chicago, communities do not have existing policies in effect to limit parking supplies.

## **Local Financial Commitment**

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

The project financial plan proposes to use \$80.7687.44 million (60.62 percent of total project costs) in Section 5309 New Starts funds, \$12.9 million (10 percent of total project costs) in Section 5309 Fixed Guideway Modernization funds, \$22.521 million (17.15 percent) of Strategic Capital Improvement Program (SCIP) bonds backed by the State of Illinois, \$17.6

million (1323 percent) in Metra contributions, and \$1.1 million from RTA and local governments.

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

The *Medium-High* rating reflects the soundness of Metra's financial condition and the strength of the agency's dedicated revenue sources. The rating also acknowledges the commitment of the majority of non-Section 5309 New Starts funds to the UPW Line Extension.

**Agency Capital Financial Condition:** Metra's financial condition is strong. Metra has two revenue sources that are available for funding capital projects: a five percent fare increase, introduced in 1989 and dedicated to capital improvements, currently generates \$9 million annually. In addition, Metra's portion of the RTA sales tax revenues (collected in the six-county region) that exceeds Metra's operating expenses is applied to capital improvements. In 1999, Metra's share of the sales tax revenue totaled \$208 million. Excess sales tax revenue, along with revenue generated from the five percent fare increase, provided a total of \$39 million. Metra also plans to contribute approximately \$17.2632.5 million from the agency's funding sources, including rolling stock contributions and capital fund contributions, to the construction of the UPW Line Extension. The remainder of the local share (\$23.622.11 million) will be funded via State Bonds, the RTA Strategic Capital Improvement Program (SCIP) and local government contributions.

**Capital Cost Estimates and Contingencies:** Total capital cost estimates increased over the last year to reflect more definitive engineering analyses. Contingencies are now considered adequate given the project's size and scope.

**Existing and Committed Funding:** Funds for the Union-Pacific West Line Extension are programmed in Metra's five-year (FY00-FY04) capital program. The RTA has legislatively authorized the funds from the SCIP bond program.

**New and Proposed Sources:** No new funding sources are proposed for the UPW Line Extension.

### **Stability and Reliability of Operating Finance Plan** **Rating: High**

The *High* rating reflects the strong operating condition of Metra. The rating also acknowledges the agency's full commitment of the required operating and maintenance funding for the UPW Line Extension.

**Agency Operating Condition:** Metra is projecting system-wide operating budgets through the year 2001 that represent a 55 percent revenue recovery ratio for the agency. The agency's 1999 Financial Report indicated that Metra had an operating loss, before depreciation, of \$173.2 million (a 6.5 percent increase over the prior year's operating loss). Metra received \$215.1 million in tax revenue, which covered the operating deficit. Tax revenue grew at a slightly faster rate than the operating loss (6.6 percent over the previous year). Total operating revenues for the agency increased from \$122.2 million to \$128.1 million (a 4.9 percent increase).

**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs are estimated at \$6.73 million in the opening year.

**Existing and Committed Funding:** Operating funds (sales tax revenues) for the UPW Line Extension are existing and committed. A statutory mandate requires Metra to fund operations with tax proceeds before funding capital improvements. The sales tax is considered a reliable funding source since it responds to growth in the economy and price level inflation.

**New and Proposed Sources:** No new operating revenues are proposed for the UPW Line Extension.

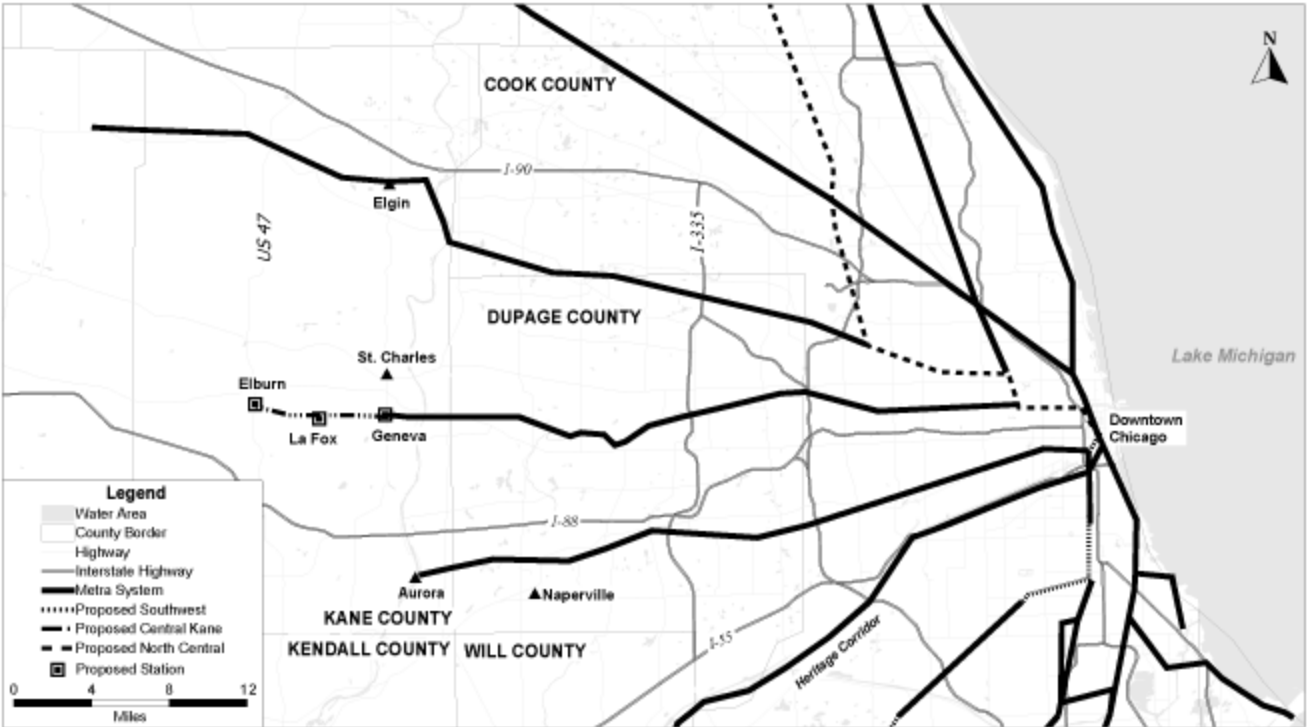
Locally Proposed Financing Plan (Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	80.8	(\$16.44 million appropriated through FY 2001)
Section 5309 Fixed Guideway Modernization	12.9	
<b>State:</b>		
Bonds	22.5	
<b>Local:</b>		
Metra	17.3	
RTA	0.5	
Local Governments	0.6	
<b>TOTAL</b>	<b>134.6</b>	

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

# Union-Pacific West Line Extension

Chicago, IL



Federal Transit Administration, 2002

# Dallas/Northwest-Southeast Light Rail MOS B-7

Dallas, Texas  
(August 2001)

## Description

The Dallas Area Rapid Transit (DART) proposes to construct a minimum operable segment (MOS) of the light rail transit (LRT) extensions along the combined Northwest and Southeast corridors, known as the Northwest/Southeast Light Rail MOS (NW/SE LRT MOS). The northwest component of the NW/SE LRT MOS is a truncated version of DART's Northwest Corridor LRT line; the southeast component of the project is the entire Southeast Corridor LRT line. The NW/SE LRT MOS represents the most cost-effective blending of the two LRT corridors into a single project. DART intends to construct the northernmost segment of the Northwest Corridor LRT, from Farmers Branch to Carrollton, with local funds.

The NW/SE LRT MOS is a new 22-mile LRT line linked by DART's existing CBD Transitway Mall. The Northwest component of the project extends southward from the City of Farmers Branch, through Northwest Dallas to the Dallas central business district (CBD), with an alignment generally following the Union Pacific Railroad (UPRR) and Harry Hines Boulevard rights-of-way until joining the CBD Transitway Mall. The NW/SE LRT MOS shares four stations with the existing CBD Transitway Mall. The Southeast component of the project is located entirely within the City of Dallas, and extends from the CBD Transitway Mall to Buckner Boulevard generally aligned along the median of the Good-Latimer Expressway and the UPRR and Southern Pacific Railroad rights-of-way.

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 capital cost estimate for the NW/SE LRT MOS is \$894 million (current dollars) and \$1.1 billion (escalated dollars). Ridership is forecast at nearly 41,600 average weekday boardings in 2025, and approximately 9,500 daily new riders.

Summary Description	
<b>Proposed Project:</b>	Light rail line extension; 22 miles, 16 stations
<b>Total Capital Cost (\$YOE):</b>	\$ 1,123.61 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$ 500 million
<b>Annual Operating Cost (\$YOE):</b>	\$ 36.8 million

<b>Ridership Forecast (2025):</b>	41,600 avg. weekday boardings 9,500 daily new riders
<b>FY 2002 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The **Recommended** 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 *Supplemental Report on New Starts* **and reflects conditions as of August 2001**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

### **Status**

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 MPO for the Dallas-Fort Worth Metropolitan Area, endorsed the LPIS and adopted it into the long-range plan in January 2000. In July 2001, FTA approved this project into preliminary engineering. DART is currently preparing a Draft Environmental Impact Statement for each of the two corridors. DART has combined the two extensions into a single MOS for consideration as the federal new starts project. DART intends to locally fund the segment of the Northwest Corridor between Farmers Branch and Carrollton.

The "Dallas – DART LRT Extensions" are authorized by Section 3030(b)(15) of TEA-21. Through FY 2001, 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 *Technical Guidance on Section 5309 New Starts Criteria*. Criteria have been reported and evaluated on the NW/SE LRT MOS and a New Starts baseline alternative, instead of the TSM and No Build alternatives. FTA has evaluated this project as being in preliminary engineering.

### **Justification**

The *Medium* project justification rating reflects the good mobility improvements, the positive environmental benefits of the project, and regional efforts to encourage transit supportive land use at station areas.

## Mobility Improvements

### Rating: Medium - High

DART estimates that the project will serve 41,570 average weekday boardings and attract 9,500 daily new riders by 2025, and would result in the following annual travel time savings.

Mobility Improvements Table That Compares New Start Versus New Starts Baseline Alternative

Mobility Improvements	New Start vs. New Starts Baseline Alternative
Annual Travel Time Savings (Hours)	1.7 million

Based on 1990 Census data, there are an estimated 3,063 low-income households within a ½ mile radius of the 16 stations along the NW/SE LRT MOS.

## Environmental Benefits

### Rating: High

The Dallas-Fort Worth region is designated as a serious non-attainment area for ozone. DART estimates that in 2025, the MOS project would result in the following annual emissions reductions.

Environmental Benefits Table That Compares New Start Versus New Starts Baseline Alternative

Criteria Pollutant	New Start vs. New Starts Baseline Alternative
Carbon Monoxide (CO)	45
Nitrogen Oxide (NO <sub>x</sub> )	1
Volatile Organic Compounds (VOC)	4
Particulate Matter (PM <sub>10</sub> )	[12]
Carbon Dioxide (CO <sub>2</sub> )	30,014

*Values reflect annual tons of emissions reductions. [ ] indicate an increase in emissions.*

In 2025, the project is estimated to result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

Values reflect annual BTU reductions.

Annual Energy Savings	New Start vs. New Starts Baseline Alternative
BTU (million)	356,522

**Operating Efficiencies**

**Rating: Low**

DART estimates the following costs per passenger mile for the project.

Operating Efficiencies Table That Compares New Start Versus New Starts Baseline Alternative

Operating Efficiencies	New Start Baseline Alternative	New Start
System Operating Cost per Passenger Mile (2025)	\$0.62	\$0.65

**Cost Effectiveness**

**Rating: Low-Medium**

DART estimates the following cost effectiveness index for the project.

Cost Effectiveness Table That Compares New Start Versus New Starts Baseline Alternative

Measure	New Start vs. New Starts Baseline Alternative
Incremental Cost per Incremental Passenger	\$13.14

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

**Rating: Medium**

The *Medium* land use rating reflects the region’s success at incorporating mixed uses and infill development in a transit supportive environment.

**Existing Conditions:**

The project corridor contains a dynamic mix of land uses. The northern segment contains several residential communities and activity centers, and also includes some high trip generators. The southern segment contains several high activity, employment centers, and transit dependent areas located primarily in proximity to the four northernmost stations near the Dallas CBD, and large expanses of low density single family housing in the station areas farther south of the CBD.



A number of plans and studies have been developed to address transit supportive land uses within station areas. Some zoning changes have been adopted to encourage transit supportive development within the corridor. Growth management policies are included in the comprehensive plans of both corridor cities. Both the City and region have adopted or recommended policies that address development and density issues in station areas, as well as land use objectives along LRT corridors.

### **Future Plans and Policies:**

The impact of the NW/SE LRT MOS stations will be further enhanced as the City of Dallas moves forward with adoption of a proposed, new zoning designation, Urban Corridors, that applies both to areas around light rail stations as well as along major arterials served by buses. Various projects and redevelopment plans are being prepared in anticipation of the LRT extension. Station area development and higher corridor densities are being promoted based on an economic study prepared by the University of North Texas, which indicated higher property values around stations as compared to similar properties without rail. As DART initiates its 2025 Transit System Plan, one of the elements to be incorporated for the first time is Land Use/Economic Development, including guidelines for member cities on how to plan for transit supportive land use.

The sustainable development policy in the metropolitan transportation plan supports diversifying land use and development by providing diverse housing types, reducing segregation of land uses in appropriate areas, supporting increased residential and employment densities near transit stations and establishing mixed-use zones around stations. The Master Interlocal Agreement between the City of Dallas and DART provides guidelines on the development of station area plans around the proposed stations. The strong public involvement realized during the alternatives analysis phase is expected to continue during project development, facilitating development of additional transit-supportive policies within the project corridors.

### **Local Financial Commitment**

#### **Proposed Local Share of Total Project Costs: 55 %**

The financial plan for the NW/SE MOS proposes to use \$500 million (45 percent of total project costs) in Section 5309 New Starts funds, \$30.44 million (2.7 percent) in Section 5307 formula funds, \$4.44 million (0.3 percent) in CMAQ funds, and \$588.73 million (52 percent) in local funds.

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

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

The *Medium-High* capital finance plan rating reflects the sound financial condition of DART and the solid local financial support to undertake the proposed project, as evidenced by the August 2000 public referendum allowing DART to issue up to \$2.9 billion in long-term bonds to expedite construction of the light rail build-out and fund other capital projects.

**Agency Capital Financial Condition:** DART has a longstanding and stable dedicated revenue stream from which total sources of funds are projected to exceed total uses over the 20 year cash flow projection. DART has demonstrated that the agency has the fiscal capability and sufficient funding to construct the project.

**Capital Cost Estimates and Contingencies:** Capital cost estimates are reasonable and sound for a project at this stage of development, and include acceptable contingencies.

**Existing and Committed Funding:** The one percent state sales and use tax is the source of DART’s capital and operating revenues. All non-Section 5309 New Starts funds are committed and available to fund and operate the NW/SE LRT MOS project as well as other planned expansions, and to meet its capital maintenance needs.

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

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium - High**

The *Medium-High* operating finance plan rating reflects DART’s secure operating revenue stream and its allocation to the project.

**Agency Operating Financial Condition:** The state sales tax provides DART with a secure operating revenue stream and the financial capacity to operate its planned expansions and fleet maintenance requirements.

**Operating Cost Estimates and Contingencies:** Agency operating and maintenance costs are projected to increase incrementally with the addition of new services and facilities at the forecasted inflation rate, which is a reasonable approach. Existing transit vehicles and facilities are well maintained and replaced through continuing reinvestment in the system. The average annual operating cost of the proposed NW/SE LRT MOS is estimated at \$36.8 million (escalated dollars).

**Existing and Committed Funding:** A portion of the state sales tax is dedicated to fund DART operations, providing 80 percent of total operating revenues.

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

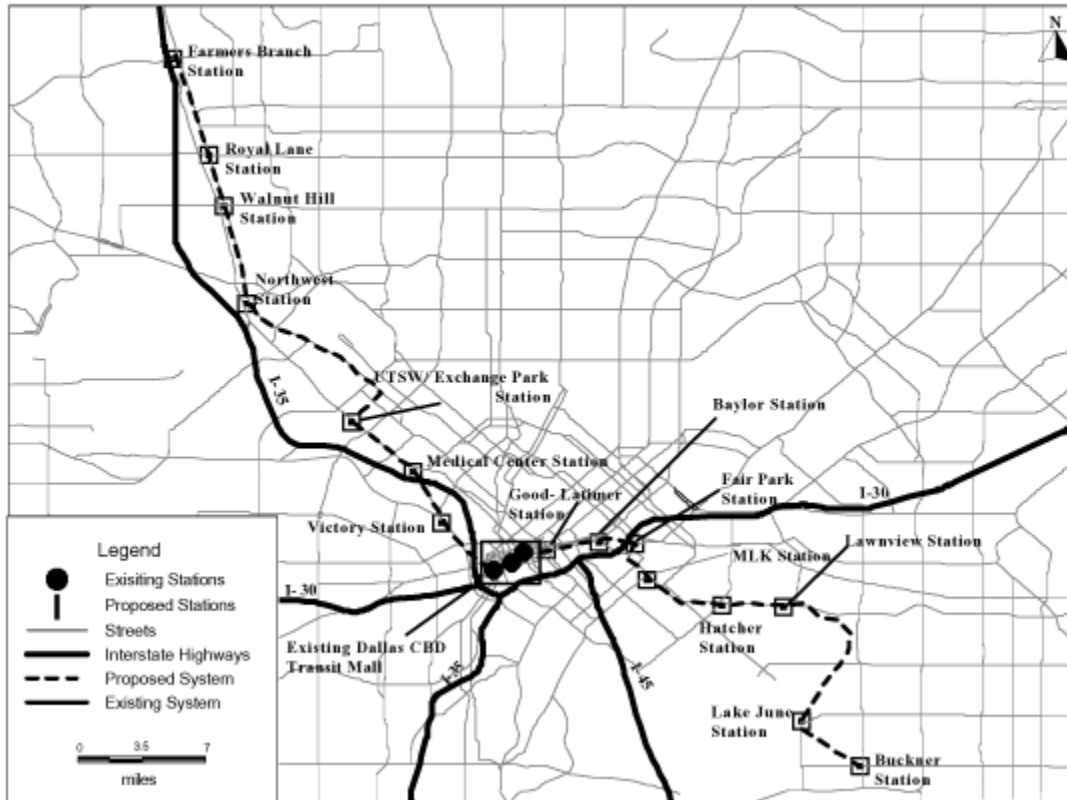
Locally Proposed Financing Plan (Reported in \$YOE)

Proposed Source of Funds	Total Funding	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$500.00	(\$1 million appropriated through FY 2001)
Section 5307 Formula	30.44	
CMAQ	4.44	
<b>Local:</b>		
Sales Tax	588.73	
<b>TOTAL</b>	<b>1,123.61</b>	

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

## Northwest/ Southeast Light Rail MOS

Dallas, Texas



Federal Transit Administration, 2001

# Denver/West Corridor LRT B-15

(August 2001)

## Description

The Regional Transportation District (RTD) is proposing the West Corridor project, an 11.0-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 double track system is proposed to operate on an exclusive, grade-separated right-of-way and connect 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 (LODO).

The capital cost estimate of the fixed-guideway element is \$624.3 million (in escalated dollars), including right-of-way acquisition, final design, construction, and acquisition of rolling stock. Annual operating costs in 2020 are estimated at \$29.1 million. Ridership is estimated at 23,900 average weekday boardings, including 11,800 daily new riders.

## Summary Description

<b>Proposed Project:</b>	Light rail line 11.0 miles, 14 stations
<b>Total Capital Cost (\$YOE):</b>	\$624.3 million
<b>Section 5309 Share (\$YOE):</b>	\$366.3 million
<b>Annual Operating Cost (\$YOE):</b>	\$29.1 million
<b>Ridership Forecast (2020):</b>	23,900 avg. weekday boardings 11,800 daily new riders
<b>FY 2001 Financial Rating:</b>	<b>Medium</b>
<b>FY 2001 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2001 Overall Project Rating:</b>	<b>Recommended</b>

The Recommended rating is based on the project's adequate justification criteria and capital and operating plan. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

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 multimodal package of light rail transit (LRT) and roadway transportation management (TM) improvements. The DRCOG Board has included the LRT locally preferred alternative in the 2020 Long Range Regional Transportation Plan. In March 2001, FTA approved this project to initiate preliminary engineering. A Draft Environmental Impact Statement is expected to be completed in August 2002, with the Final Environmental Impact Statement and Record of Decision expected in the first half of 2003. A combination of Federal Highway Administration (FHWA) and State funds are being utilized to fund Preliminary Engineering (PE).

TEA-21 Section 3030 (a)(25) authorizes the project for preliminary engineering. Through FY 2001, 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 *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that data are not available for this specific measure.

FTA has evaluated this project as entering into preliminary engineering. The project will be re-evaluated and for next year's *Annual Report on New Starts*.

## Justification

The *Medium* justification rating reflects the project's generally adequate project justification criteria, although it acknowledges relatively weak project cost-effectiveness.

## Mobility Improvements

### Rating: Medium

The 11.0-mile project is expected to serve 23,900 average weekday boardings and 11,800 daily new riders in 2020. RTD estimates the following annual travel time savings for the West Corridor LRT line.

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
Annual Travel Time Savings (Hours)	3.6 million	2.6 million

Based on estimated 1996 data, there are 1,182 low-income households within ½ mile of the 11 proposed stations, representing 8 percent of total households served within ½ mile of the stations.

## Environmental Benefits

### Rating: High

Denver is currently classified a "transitional" non-attainment area for ozone, a "serious" non-attainment area for carbon monoxide, and a "moderate" non-attainment area for PM-10. Denver

is in attainment for NO<sub>x</sub>. RTD estimates the following emissions reductions in pollutant emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	217	106
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	22	15
<b>Volatile Organic Compounds (VOC)</b>	31	16
<b>Particulate Matter (PM<sub>10</sub>)</b>	1	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	8,367	2,867

*Values reflect annual tons of emissions reductions.*

RTD estimates the following savings in regional energy consumption (measured in British Thermal Units–BTU) will occur.

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	96,740	23,680

*Values reflect annual BTU reductions.*

### **Operating Efficiencies**

**Rating: Low**

RTD estimates the following operating costs per passenger mile.

	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1998)</b>	\$0.39	\$0.40	\$0.42

*Values reflect 2020 ridership forecast and 1998 dollars.*

### **Cost Effectiveness**

**Rating: Low-Medium**

RTD estimates the following cost effectiveness indices:

	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$16.65	\$22.83

*Values reflect 2020 ridership forecast and 1998 dollars.*

### **Transit-Supportive Existing Land Use 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 the corridor. Existing and relatively dense land uses and strong transit supportive policies occur within Denver *and* generally less dense development and weaker policies exist outside of the City.

**Existing Conditions:** The corridor generally parallels Colfax Avenue (US 40) 8 of its 11 miles west. It then parallels US 6 west from there, its last three miles. For a rail corridor, densities and total employment and population levels are relatively low within corridor station areas. The population density is 5.8 persons per acre and employment equals 4.5 employees per acre. High density commercial and office space constitute the central business district. Small-lot, low-to-medium density residential and commercial space characterize most of the corridor, with some moderate density office development. Downtown Denver, to which this corridor connects, contains a dense concentration of over 102,000 jobs. A total of 34,000 jobs are scattered throughout the remainder of the corridor, with 8,800 of them concentrated in consecutive stations at Cold Spring (Denver Federal Center) and Lakewood Industrial Park.

The proposed corridor would connect downtown to the Denver Federal Center, mid-corridor, and the Jefferson County Government Center at the end of the line. Much of the current development draws on automobiles as parking appears plentiful. Zoning in the corridor is moderately supportive of transit, with the more supportive policies existing in Denver and less supportive outside of the City. Modest growth management policies exist in the region. The City of Denver has modified zoning along previously developed LRT corridors. The Denver Regional Council of Governments is developing an urban development boundary.

**Future Plans and Policies:** Denver’s Comprehensive Plan suggests that regional centers should be developed as transit destinations. It includes policy statements that support regional planning and the provision of incentives for higher density transit-oriented development. The City’s Comprehensive Plan’s Action Agenda endorses the improvement of pedestrian-oriented streets. Denver is preparing a Transit-Oriented Development (TOD) Zoning District to explicitly encourage transit-oriented and mixed-use developments. The Denver Regional Council of Governments (DRCOG) is working to establish an Urban Growth Boundary. DRCOG’s Metro Vision 2020 Plan supports implementation of light rail in the west corridor. Some jurisdictions, such as the Cities of Lakewood and Golden, state or suggest urban design standards. The Jefferson County Strategic Plan suggests the development of land-planning criteria that promote transit use and protect options for future transit development.

Although some existing corridor plans and policies support transit-oriented development, others are weak or are still in the developmental stage. While most cities in the corridor contain some provisions promoting a concentration of development around transit, statements do not specify how such general goals will be implemented or tied to certain development policies. Policies to manage and concentrate growth around transit are still being prepared and not yet fully articulated.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 41%**

RTD proposes that \$366.3 million (59 percent) in Section 5309 New Start funds, \$2.0 million (less than 1 percent) in CMAQ funds, and \$258.0 million (41 percent) in local funds be applied to the project.

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

#### **Rating: Medium**

The *Medium* rating reflects the strong financial condition of RTD based on its dedicated sales tax revenues to support its capital program, although full coverage of debt service is undetermined. The sales tax generated an estimated \$204 million in year 2000. Sales tax revenues may be used for capital and operating costs at the discretion of the RTD. The first call on sales tax revenues go to debt service as specified in the bond covenants of the sales tax revenue bonds issued by the RTD.

**Agency Capital Financing Condition:** The RTD is in solid financial condition, largely based on its dedicated sales tax revenue to support its capital needs. RTD has a capital market rating of AA- by Standard and Poor's and A1 by Moody's. RTD has recently undertaken several major transit investments (Southwest Corridor, Central Platte Valley and Southeast Corridor LRTs) for a total of \$1,100.8 million in capital costs.

**Capital Cost Estimates and Contingencies:** The estimated capital cost is reasonable for a project at this early stage of project development, i.e., initiation of preliminary engineering.

**Existing and Committed Funding:** The direct sales tax revenues are dedicated to the RTD program, though none have been committed to this project. Less than one percent of total project cost has been committed to the proposed new starts project.

**New and Proposed Sources:** The RTD is proposing that as-yet-undetermined local and developer contributions will account for \$21 million in estimated project costs. In addition, the proposed bond proceeds will require voter approval.

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

#### **Rating: Medium**

The *Medium* rating reflects the RTD's strong dedicated operating revenue stream. RTD, however, is operating two lines and plans to open the Southeast Corridor in 2007.

**Agency Operating Condition:** RTD's operating financial condition is good, largely based on stable and reliable dedicated sales tax revenues. RTD estimates total transit system operating costs of \$655.8 million (\$ YOE) by year 2020. Sales tax revenues are forecast at \$655.5 million (\$YOE) and farebox and other revenue are forecast at \$148.2 million. This implies that the RTD will have approximately \$148 million available to meet capital and debt service requirements.



**Operating Cost Estimates and Contingencies:** Annual operating costs are estimated at \$29.3 million (\$ YOE), reflecting a 4.5 percent increase over projected operating costs upon completion of the Southeast Corridor LRT project.

**Existing and Committed Funding:** RTD proposes funding operations through a combination of the system-generated revenue and regional sales tax revenues.

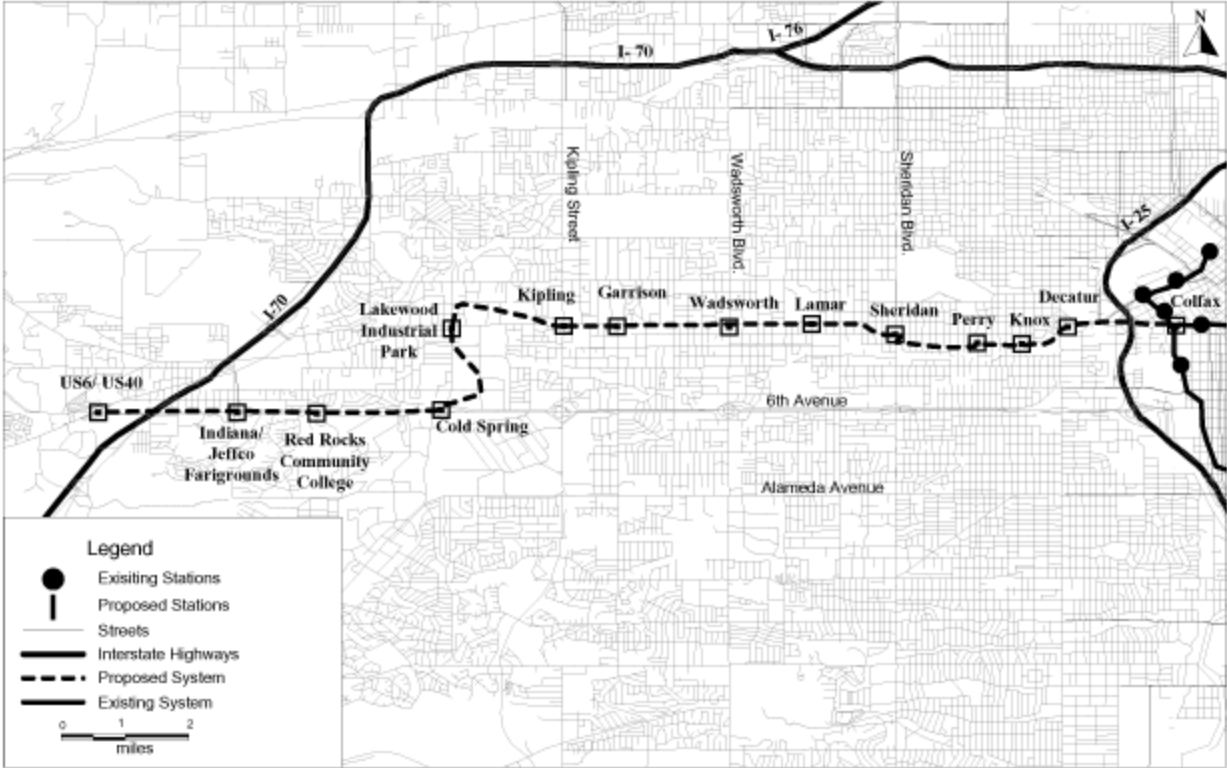
**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
§5309 New Starts	366.3	(\$0.00 has been appropriated through FY 2001)
CMAQ	2.0	
<b>Local:</b>		
Sales Tax Revenue-Based Bond Proceeds	223.3	
Sales Tax (Direct)	11.7	
Local/Private Contributions	21.0	
<b>Total</b>	<b>\$624.3</b>	

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

# West Corridor

## Denver, Colorado



Federal Transit Administration, 2001

# Girdwood, AK/Commuter Rail Project A-13

Alaska Railroad Commuter Rail Project  
Girdwood, Alaska  
(August 2001)

## Description

The Alaska Railroad Corporation (ARRC) is proposing to improvements to a segment of railroad between Anchorage and Girdwood, Alaska. The project involves construction of a five-mile section of new main line south of Anchorage toward Girdwood. The double-tracking will increase speeds and facilitate operations in an industrial area of Anchorage where many ARRC freight customers are located. ARRC operates both freight and passenger service over the section of trackage to be improved. Passenger service is primarily geared toward serving tourists between the months of May and September. Due to harsh winter conditions of frozen ground, ice and snow storms, the construction season is limited to late March through November.

The capital cost of the project is estimated to be \$7,027,300 in current dollars. The FTA Section 5309 share is expected to be \$5,621,840. **Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating** (49 U.S.C. Section 5309(e)(8)(A)).

## Summary Description

<b>Proposed Project:</b>	Commuter Rail (5-miles)
<b>Total Capital Cost (\$YOE):</b>	\$7.0 million
<b>Section 5309 Share:</b>	\$5.6 million
<b>Annual Operating Cost:</b>	Not Reported
<b>Ridership Forecast:</b>	Not Reported

## Status

In 1999 the ARRC undertook a study of its system titled Woodside Study, which assessed the overall condition of the railroad and the ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way.

FTA approved a categorical exclusion to meet NEPA requirements in July 2000. In June 2000, the Federal Transit Administration (FTA) approved entry into preliminary engineering (PE) for the Alaska Railroad Curve Straightening and Double Tracking Project. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO)

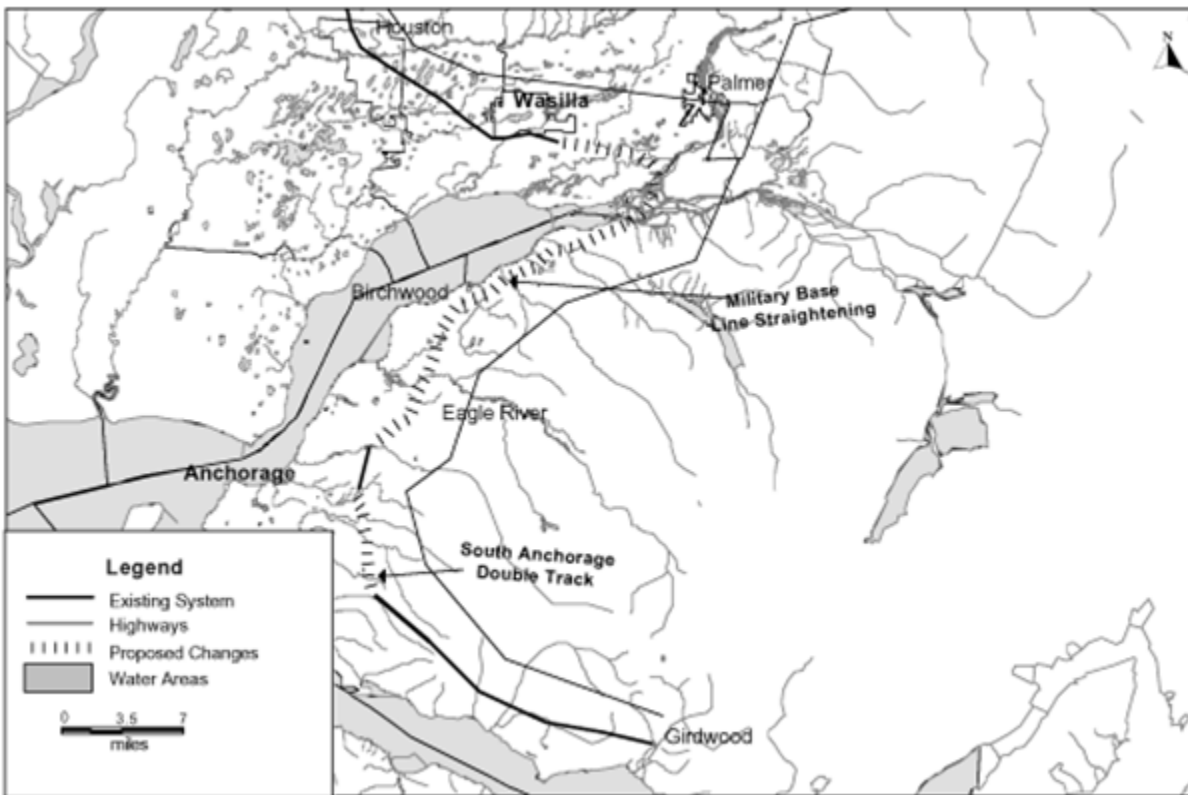
Long Range Transportation Plan 2001 Update on April 25, 2001. In June 2001, FTA approved this project to initiate final design.

**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	5.6	(\$9.9 million appropriated through FY00 for entire 71-mile project)
Local:	1.4	
<b>TOTAL</b>	<b>\$7.0</b>	

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

**Map of Alaska Railroad Commuter Rail, Girdwood, Alaska**



Federal Transit Administration, 2001

# Girdwood, AK/Knick River to Wasilla Track Improvements A- 17

Alaska Railroad Commuter Rail Project  
Knick River to Wasilla Track Improvements  
Girdwood, Alaska  
(2001)

## **Description**

The Alaska Railroad Corporation (ARRC) is proposing to improvements to a segment of railroad between Anchorage and Girdwood, Alaska. The project will realign sharp curves and rehabilitate two bridges between the Knick River and Wasilla. The track realignment will increase speeds and facilitate operations and improve safety for ARRC customers and staff. ARRC operates both freight and passenger service over the section of trackage scheduled for improvement.

The capital cost of the project is estimated to be \$11,305,180 in current (2000) dollars. The FTA Section 5309 share is expected to be \$9,044,144. **Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating (49 U.S.C. Section 5309(e)(8)(A)).**

## **Summary Description**

<b>Proposed Project:</b>	Commuter Rail
<b>Total Capital Cost (\$YOE):</b>	\$11.3 million
<b>Section 5309 Share:</b>	\$9.0 million
<b>Annual Operating Cost:</b>	Not Reported
<b>Ridership Forecast:</b>	Not Reported

## **Status**

In 1999 the ARRC undertook a study of its system titled Woodside Study, which assessed the overall condition of the railroad and the ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way.

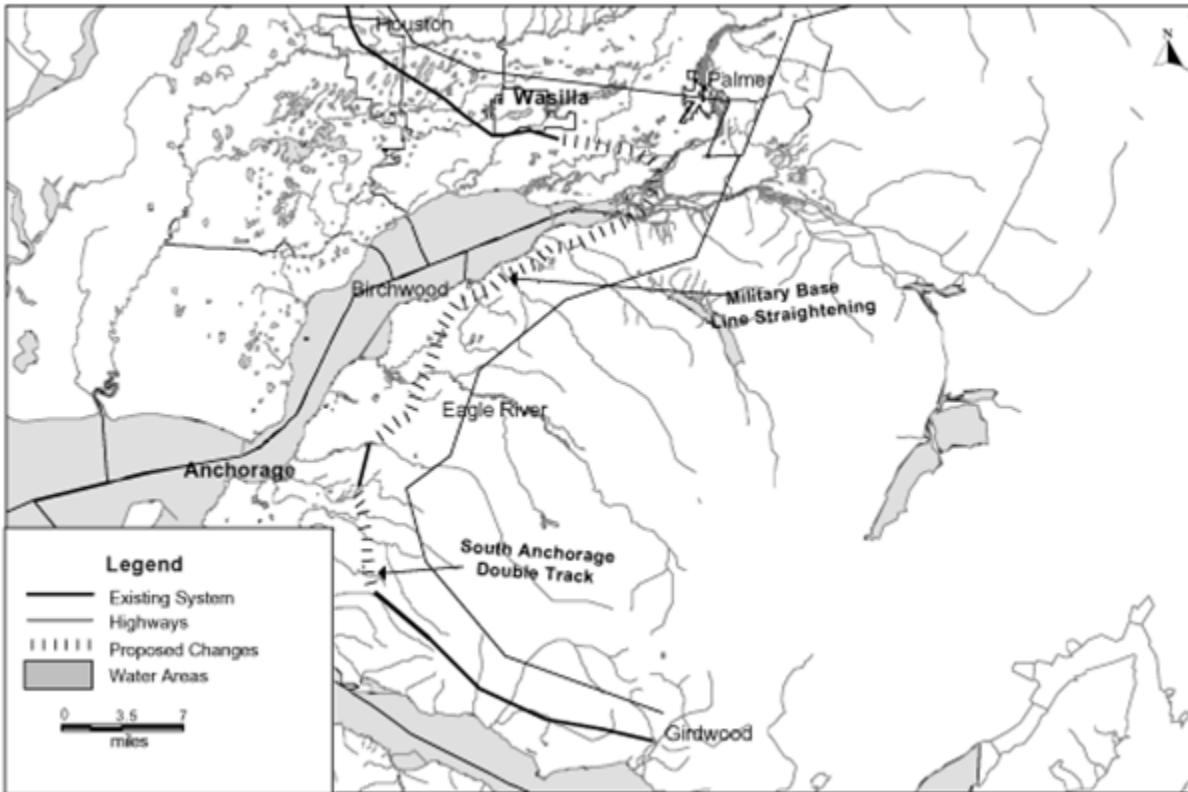
FTA approved a categorical exclusion to meet NEPA requirements in July 2000. In June 2000, the Federal Transit Administration (FTA) approved entry into preliminary engineering (PE) for the Alaska Railroad Curve Straightening and Double Tracking Project. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO) Long Range Transportation Plan 2001 Update in April 2001. In July 2001, FTA approved this project to initiate final design.

**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	9.0	(\$9.9 million appropriated through FY00 for entire 71-mile project)
Local:	2.3	
<b>TOTAL</b>	<b>\$11.3</b>	

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

**Map of Alaska Railroad Commuter Rail, Girdwood, Alaska**



Federal Transit Administration, 2001

# Honolulu/Primary Corridor Transportation B-23

Primary Corridor Transportation Project  
Honolulu, Hawaii  
(August 2001)

## Description

The City and County of Honolulu Department of Transportation Services (DTS) is proposing to implement a 32.2 mile Bus Rapid Transit (BRT) system in the City and County of Honolulu, connecting Downtown Honolulu with the University of Hawaii, Waikiki Beach, Pearl City, Pearl Harbor, Waipahu, and Kapolei. The proposed system would include 31 stations and will include 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 exclusive bus lanes along H-1 and use street right-of way within the urban areas of Honolulu and connect a series of park and ride lots located at Kapolei, Kunia, Pearl City/Aiea, Middle Street, Dillingham/Kapalama, Iwilei, and Aloha Stadium. The DTS proposes to use a fleet of 768 vehicles including conventional diesel buses, hybrid diesel/electric buses, articulated buses, and mini-buses in the various operating environments 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 help resolve severe transportation congestion problems. The system is forecast to have 71,000 average weekday boardings on the proposed line in 2025, including 46,300 daily new riders. The project is estimated to cost \$648.0 million in escalated dollars, with a Section 5309 New Starts share of \$182.1 million.

## Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit Line 32.2 miles, 31 stations
<b>Total Capital Cost (\$YOE):</b>	\$648.0 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$182.1 million
<b>Annual Operating Cost (\$2025):</b>	\$13.8 million
<b>Ridership Forecast (2025):</b>	71,000 avg. weekday boardings 46,300 daily new riders
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating of *Recommended* is based on the existing densities in the corridor and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Supplemental Report on New Starts* **and reflects conditions as of August 2001**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

Initial planning efforts for the Primary Corridor Transportation Project began in 1998, with a series of public involvement efforts known as Oahu Trans 2K. The input received resulted in the development of an Island-wide Mobility Concept Plan. This plan contained the general framework and concepts for the development of the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) undertaken in 1999 and 2000. In June of 1999, the proposed Honolulu Bus Rapid Transit System (BRT) project was selected to participate within FTA’s BRT Demonstration program. In the fall of 2000, the MIS/DEIS was issued for public and agency review, and 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.

Section 3030(b)(73) of TEA-21 authorizes the "Honolulu Bus Rapid Transit Project." Through FY 2001, Congress has appropriated \$2.47 million in Section 5309 New Starts funds for the project.

**Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. The project will be reevaluated when it is ready to advance to final design and for next year’s *Annual Report on New Starts*.

**Justification**

The *Medium-High* project justification rating reflects the high densities and transit supportive land uses in the corridor and the project’s strong cost-effectiveness.

**Mobility Improvements — Rating: Low-Medium**

The Primary Corridor Project would serve approximately 71,900 average weekday boardings and carry 46,000 daily new riders. The DTS estimates that the project would result in the following annual travel time savings.

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
Annual Travel Time Savings (Hours)	1.1 million	1.1 million

Based on 1990 census data, there are an estimated 8,613 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.



**Environmental Benefits — Rating: Medium**

The Honolulu region is classified as an attainment area. The DTS estimates that in 2025, the Primary Corridor Transportation Project would result in the following reductions in emissions.

Criteria Pollutant	New Start vs. No-Build	New Start vs. TSM
Carbon Monoxide (CO)	2,634	1,584
Nitrogen Oxide (NO <sub>x</sub> )	32	10
Volatile Organic Compounds (VOC)	240	143
Particulate Matter (PM <sub>10</sub> )	3	2
Carbon Dioxide (CO <sub>2</sub> )	16,535	12,924

*Values reflect annual tons of emissions reductions.*

DTS estimates that in 2025, the proposed Primary Corridor Transportation Project would result in the following reduction in regional energy consumption (measured in British Thermal Units - BTU).

Annual Energy Savings	New Start vs. No-Build	New Start vs. TSM
BTU (million)	227,550	177,550

**Operating Efficiencies — Rating: Medium**

The DTS estimates that systemwide-operating costs per passenger mile would remain relatively constant when comparing the Primary Corridor Transportation Project with the no-build and TSM alternatives.

Item	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2025)	\$0.26	\$0.26	\$0.25

*Values reflect 2025 ridership forecast and 2001 dollars.*

**Cost Effectiveness — Rating: Medium-High**

The DTS estimates the following cost effectiveness index for the Primary Corridor Transportation Project.

Item	New Start vs. No-Build	New Start vs. TSM
Incremental Cost per Incremental Passenger	\$8.30	\$7.70

*Values reflect 2025 ridership forecast and 2001 dollars.*

### **Transit-Supportive Existing Land Use 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 the Oahu’s population and over 80 percent of employment is concentrated within the corridor, which comprises the City and County of Honolulu. The proposed build alternative 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 which is bounded by the Pacific Ocean on one side and a mountain range on the other, thus, much of the development is concentrated to this study area corridor, which bisects the urbanized area. Thus, existing land use densities are among the highest in the United States.

#### **Future Plans and Policies**

The City and County of Honolulu exercises jurisdiction over regional land use and development patterns in 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 to existing planning regions. 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 uses 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 not require high levels of parking as a condition for residential development approval. Thus, 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. Thus, 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**

## **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 72%**

The current financial plan for the Primary Corridor Transportation Project proposes \$182.1 million in Section 5309 New Starts funding (28%); \$41.24 million (6.4 %) in Section 5309 Rail Modernization, \$161.5 million (25%) in FHWA flexible funds; \$40 million (6 %) in State Highway funds, \$215.5 million (33%) in City bond funds, and \$7.3 million (1%) in City Highway funds.

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

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

### **Agency Capital Financial Condition**

The capital financial condition of the Honolulu Department of Transportation is good. The agency currently has a strong general obligation bond rating (Aa3 from Moody's and AA- from Standard and Poors). The average age of the bus fleet is 8 years old, which indicates that the bus fleet is receiving capital funding commensurate with needs.

### **Capital Cost Estimates and Contingencies**

The capital-cost estimate is adequate for this stage of project development. However, there are outstanding issues regarding the impact of the proposed busway on emergency lane shoulder width for a portion of the alignment on the I-5 freeway, where the proposed busway may require a narrow emergency lane. If the I-5 emergency lane has to be widened to meet standard interstate highway emergency land width, there may be a significant change to the capital-cost estimates of the project resulting from the increased cost of additional right-of-way, environmental mitigation and freeway reconstruction. This will be resolved during the preliminary engineering phase of project development.

### **Existing and Committed Funding**

The Primary Corridor Transportation Project is included in the Regions Financially constrained long-range plan. The Honolulu City Council passed a resolution in November of 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. Thus, approximately \$222.9 million, (48 percent), of the proposed non-Section 5309 funds are budgeted for the project and \$41.2 million (9 percent) are committed to the project.

### **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 twenty-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. Recently, the DTS raised fares for transit services, with little opposition, that will increase the operating revenues for the agency.

### **Operating Cost Estimates and Contingencies**

The DTS provided an operating plan that identified likely sources of funding and historical cost assumptions. The proposed BRT system would use new vehicle technologies including an embedded plate electric power contact system and hybrid electric/diesel propulsion systems, which do not have historical operating costs estimates. The operating costs for these systems will be refined during preliminary engineering.

**Existed and Committed Funding**

Approximately 30 percent of the project’s operating funds have been committed and 70 percent are planned, which is good for a project in this early stage of project development.

**New and Proposed Sources**

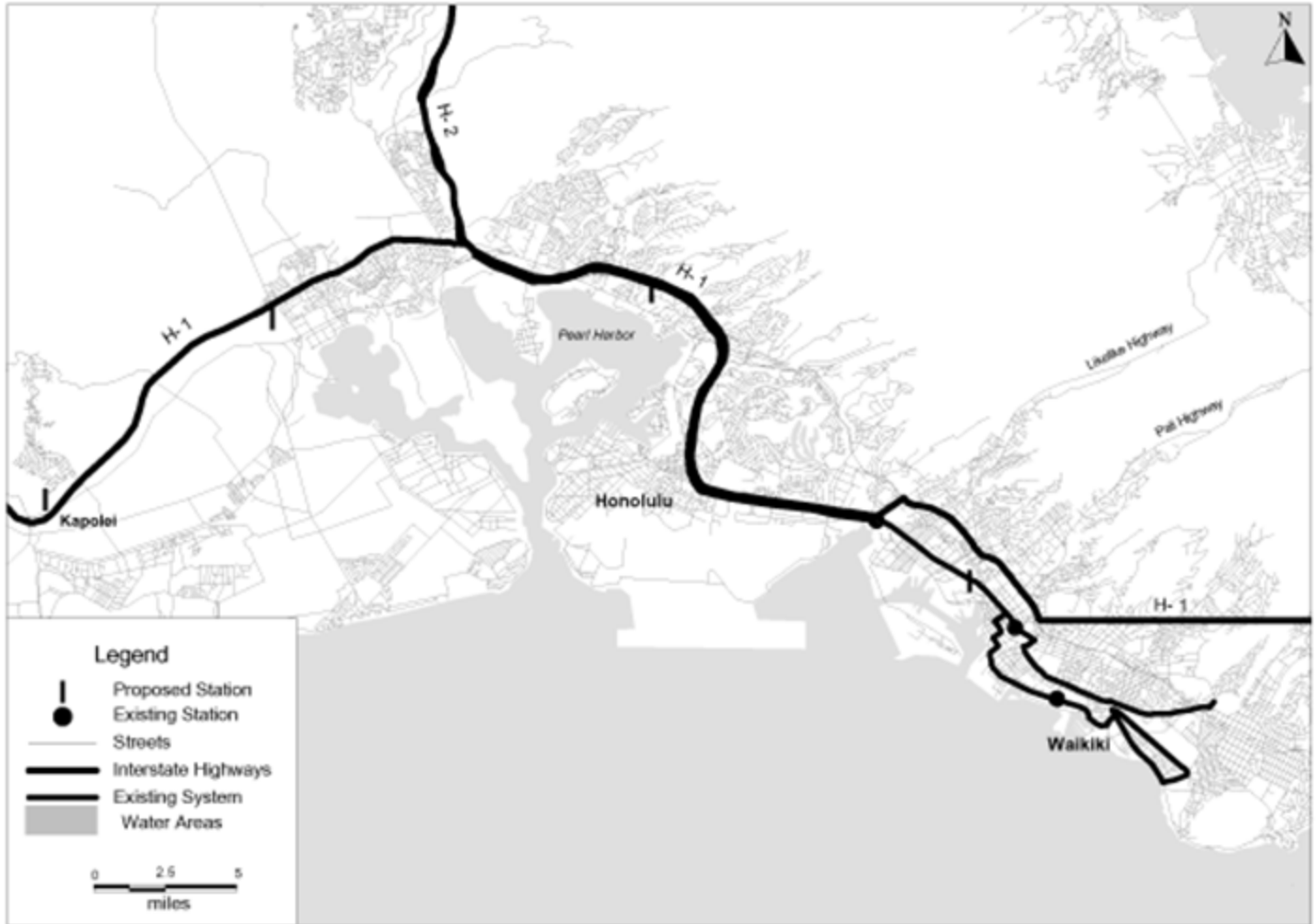
No new sources of operating funding are being proposed by DTS.

**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$182.1	(\$2.47 million appropriated for the Primary Corridor Transportation Project through FY 2001)
Section 5307	41.2	
FHWA Flexible funds	161.5	
<b>State:</b>		
State Highway Fund	40.4	
<b>Local:</b>		
City Highway Fund	7.3	
City General Obligation Bond	215.5	
<b>TOTAL</b>	<b>\$648.0</b>	

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

**Map of Primary Corridor Transportation Project, Honolulu, Hawaii**



Federal Transit Administration, 2001

# Louisville/Transportation Tomorrow South Corridor LRT B-31

Transportation Tomorrow South Corridor LRT  
 Louisville, Kentucky  
 (August 2001)

## 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 proposed 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 also includes the construction of 18 stations, purchase of up to eighteen light rail vehicles and the construction of a light rail vehicle maintenance and storage facility. Total capital costs for the Transportation Tomorrow South Corridor project are estimated at \$671.2 million (escalated dollars)

The South Corridor light rail project is expected to serve 15,950 average weekday boardings by 2020, including 11,000 daily new riders.

### Summary Description

<b>Proposed Project:</b>	Light Rail Transit Line 15 miles, 18 stations
<b>Total Capital Cost (\$YOE):</b>	\$671.2 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$380.2 million
<b>Annual Operating Cost (\$YOE):</b>	\$28.03 million
<b>Ridership Forecast (2020):</b>	15,950 avg. weekday boardings 11,000 daily new riders
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The Recommended rating is based upon the project’s adequate cost-effectiveness and transit-supportive land use as well as the strength of the project’s capital and operating financing plans for this early stage of project development. The overall project rating applies to this

*Supplemental Report on New Starts and reflects conditions as of August 2001.* Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

**Status**

In 1996, the 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 regions financially constrained long range plan in March of 1999. FTA approved the South 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 2001, Congress has not appropriated Section 5309 New Starts funds for this project.

**Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. The project will be re-evaluated when it is ready to advance into final design and for next year's *Annual Report on New Starts*. N/A indicates that data are not available for a specific measure.

**Justification**

The *Medium* project justification rating reflects the strong cost-effectiveness and moderate transit-supportive land uses in place to support the proposed light rail project.

**Mobility Improvements**

**Rating: Low-Medium**

TARC estimates that the South Corridor light rail will result in the following annual travel time savings:

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
<b>Annual Travel Time Savings (Hours)</b>	1.4 million	1.3 million

Based on 1990 census data, there are an estimated 3,066 low-income households within a ½ mile radius of the proposed 18 stations. This represents approximately 38 percent of the total number of households within ½ mile radius of the proposed stations.

**Environmental Benefits****Rating: High**

The Louisville area is currently classified as a "non-attainment" area for ozone. TARC estimates that in the year 2020, the project would result in the following annual changes in emissions.

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	0	0
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	56	38
<b>Hydrocarbons (HC)</b>	55	36
<b>Particulate Matter (PM<sub>10</sub>)</b>	0	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	665	2,981

Values reflect annual emissions reductions.

TARC estimates that in the year 2020, the project would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	8,478	35,608

Values reflect annual BTU reductions.

**Operating Efficiencies****Rating: Medium**

TARC estimates the following costs per passenger mile for the LRT extension.

<b>Description</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1999)</b>	\$0.56	\$0.56	\$0.57

Values reflect 2020 ridership forecast and 2000 dollars.

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



TARC estimates the following cost-effectiveness indices:

Description	New Start vs. No-Build	New Start vs. TSM
<b>Incremental Cost per Incremental Passenger</b>	\$10.20	\$12.60

Values reflect 2020 ridership forecast and 2000 dollars.

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

**Rating: Medium**

The *Medium* land use rating reflects the number of high-trip generators along the proposed corridor and efforts made by TARC and the Louisville-Jefferson County Division of Planning and Development Services to develop transit supportive policies in the corridor at this early stage in the planning process.

**Existing Land Use:** There are a number of significant trip generators and major activity centers in the corridor including the Central Business District (60,000 employees), 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. Most of these activity centers are within walking distance of the proposed transit system. There is also good pedestrian access within the CBD, the Medical Center Area, and the University of Louisville. Neighborhoods served by the proposed system include Smoketown-Shelby Park and Beechmont-Southside. However, there are no parking policies in place and parking in the CBD is inexpensive and plentiful.

**Proposed Plans and Policies:** The Louisville-Jefferson County adopted the Cornerstone 2020 Comprehensive Plan in June of 2000. Within the Cornerstone 2020 Comprehensive Plan there are a number of transit supportive policies that promote increased densities, improved pedestrian accessibility, support in-fill development, encourage mixed-use developments, and call for the development of regional transit centers. In February 2001, the Louisville-Jefferson County Division of Planning and Development services circulated a draft "Planned Transit Development" ordinance that would create a zoning overlay district around planned transit stations. This is a draft policy that is under review, and because the exact station locations have not been identified, the area affected by the proposed ordinance is unknown. Specific station area plans will be developed during the preliminary engineering stage of project development. Additionally, TARC is developing a Transit-and-Pedestrian Friendly Mobility Design Manual that details design characteristics desirable of new developments within the TARC service area.

**Local Financial Commitment**

**Proposed Non-Section 5309 Share of Total Project Costs: 43**

The financial strategy for the proposed Transportation Tomorrow South Corridor LRT assumes \$380.2 million (57 percent) of Section 5309 New Starts funds, \$17.9 million (1.6 percent) in

FHWA STP funds, \$19.5 million (3 percent) in FHWA CMAQ funds, \$12.4 million (2 percent) in FTA Section 5309 bus funds, \$141.6 million (21 percent) in State funds, \$69 million (10 percent) in local funds, and \$30 million (5 percent) in private sector contributions.

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

#### **Rating: Medium**

The *Medium* reflects the financial condition of the Transit Authority of River City (TARC) and the completeness of the financial plan at this early stage of project development.

**Agency Financial Condition:** The Louisville TARC is in good financial condition. TARC has received funding since 1974 from the Mass Transit Trust Fund (MTTF); a dedicated source of funding that obtains revenues from a .20 percent occupational license fee. This source provides approximately 70 percent of the operating funds for TARC annually, with the remainder from the City of Louisville, farebox recovery, and the State of Kentucky.

**Cost Estimates and Contingencies:** The capital cost estimates for the Transportation Tomorrow project include capital cost contingencies that are appropriate for this early stage in project development.

**Existing and Committed Funding:** None of the funds proposed for the project are committed at this time. Three critical items will need to be approved by the Kentucky legislature, which will convene in January of 2002; 1) TARC will need permission to issue general obligation bonds to cover \$140 million in capital costs, 2) TARC must obtain approval to place a proposed increase in the occupational license fee from .20 to .25 percent before the Jefferson County voters in a referendum, and 3) TARC will request the legislature to establish a tax-increment financing district in Louisville for the project.

**New and Proposed Sources:** With the exception of the proposed federal funding sources, all of the proposed funding for the project is from new funding sources or increases in existing funding sources. New sources include the proposed general obligation bonds, tax-increment financing, and the proposed increase in TARC's Mass Transit Trust Funds revenue source.

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

#### **Rating: Medium**

The *Medium* rating reflects the financial condition of the Transit Authority of River City (TARC) and the completeness of the financial plan at this early stage of project development.

**Operating Costs and Contingencies:** Operating cost estimates appear reasonable for this early stage of development. Project sponsors estimate an annual operating and maintenance costs at \$28 million (escalated dollars) for the Transportation Tomorrow South Corridor project.

**Existing and Committed Funding:** None of the funds proposed for the project are committed at this time. Three critical items will need to be approved by the Kentucky legislature, which will convene in January of 2002; 1) TARC will need permission to issue general obligation bonds to cover \$140 million in capital costs, 2) TARC must obtain approval to place a proposed increase in the occupational license fee from .20 to .25 percent before the Jefferson County voters in a referendum, and 3) TARC will request the legislature to establish a tax-increment financing district in Louisville for the project. The increase in the occupational license fee is necessary to provide on-going operations and maintenance funds for the project.

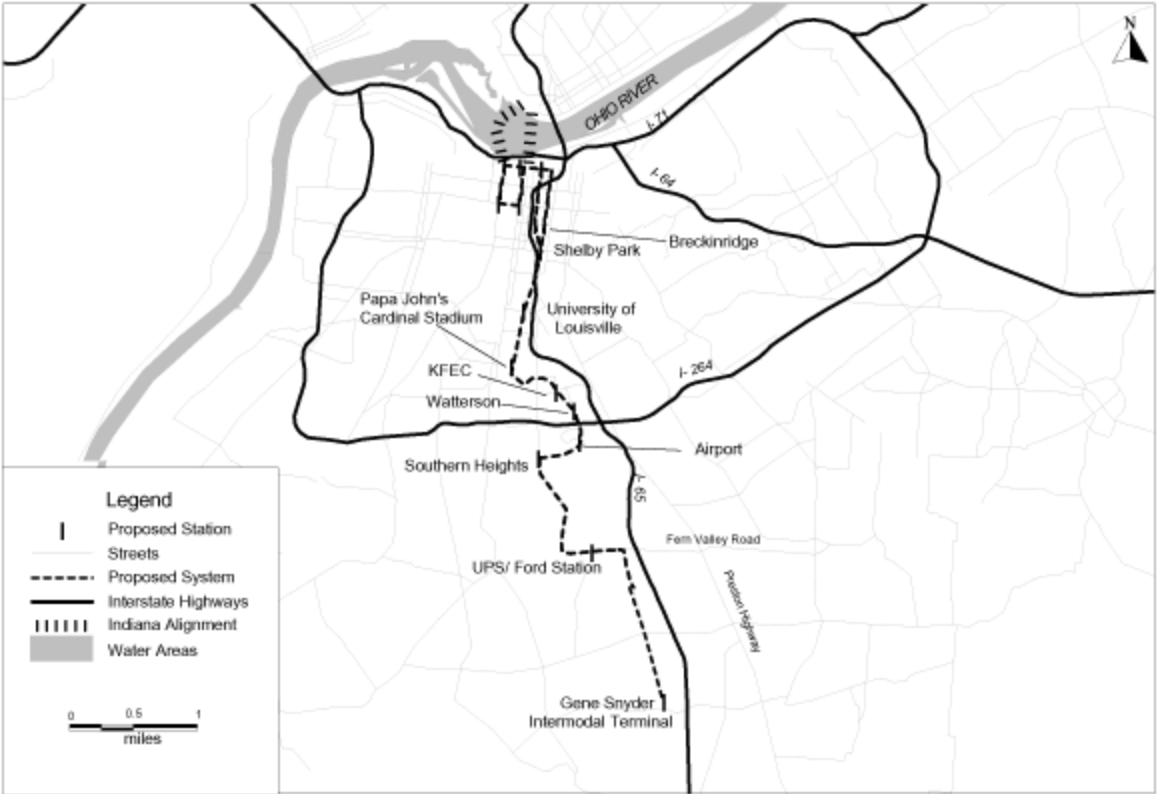
**New and Proposed Sources:** With the exception of the proposed federal funding sources, all of the proposed funding for the project is from new funding sources or increases in existing funding sources. New sources include the proposed general obligation bonds, tax-increment financing, and the proposed increase in TARC's Mass Transit Trust Funds revenue source.

Locally Proposed Financing Plan  
(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$380.2	(\$0 million appropriated through FY 2001)
FHWA-STP	\$17.9	
FHWA-CMAQ	\$19.5	
FTA 5309 Bus	\$12.4	
<b>State:</b>		
State Bonds	\$140.0	
State	\$1.6	
<b>Local:</b>		
Tax Increment Financing	\$30.0	
MTTF	\$30.9	
City/County Revenues	\$8.4	
Private Sector	\$30.2	
<b>Total</b>	<b>\$671.2</b>	

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

**South Central Corridor, Louisville, Kentucky**



# Nashville/East Corridor Commuter Rail A-21

East Corridor Commuter Rail  
Nashville, Tennessee  
(August 2001)

## Description

The Metropolitan Transit Authority (MTA) and the Regional Transportation Authority (RTA) of Nashville, Tennessee are proposing the implementation of a 31.1-mile, 5 station commuter rail line between downtown Nashville and the City of Lebanon in Wilson County. The East Corridor commuter rail project is proposed to operate on an existing rail line owned by the Nashville and Eastern Railroad Authority (N&E), a governmental entity comprised of the Tennessee Department of Transportation (TDOT), Wilson County, Lebanon, Mt. Juliet, and the Metropolitan Government of Nashville and Davidson County. Rolling stock and maintenance facilities will be leased from the N&E.

The MTA and RTA estimate 1,400 average weekday boardings on the proposed project in 2006, including 700 daily new riders. The project is estimated to cost \$34.9 million in escalated dollars, with a proposed Section 5309 New Starts share of \$24.0 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 Section 5309(e)(8)(A)).

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail (31.1 miles, 5 stations)
<b>Total Capital Cost (\$YOE):</b>	\$34.9 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.0 million
<b>Annual Operating Cost (\$YOE):</b>	\$2.0 million
<b>Ridership Forecast (2006):</b>	1,400 avg. weekday boardings 700 daily new riders

## Status

In 1996, the MTA and RTA initiated a study to explore the potential of commuter rail in the Nashville region. From this study, six corridors were considered for further evaluation. A 1998 study analyzed the capital costs for the three most promising corridors. As the result of these

studies and efforts of the Nashville area Commuter Rail Task Force --- which includes the Nashville Chamber of Commerce, area business leaders, the MPO, MTA, RTA, the Tennessee Department of Transportation (TDOT), CSX Railroad and the Nashville and Eastern Rail Authority, and the Nashville Congressional delegation --- the East Corridor was selected as the first corridor to be implemented in the Nashville Area Commuter Rail System.

The Nashville MPO included the East Corridor commuter rail project in its fiscally constrained long range transportation plan in September 1999. The FTA approved the project to advance into preliminary engineering in November 1999. The RTA completed an Environmental Assessment and received a FONSI for the project in May 2000. In June 2001, FTA approved the project to advance into Final Design.

TEA-21 Section 3030(a)(50) authorizes the "Nashville Commuter Rail" project for final design and construction. Through FY 2001, Congress has appropriated \$7.9 million for the project.

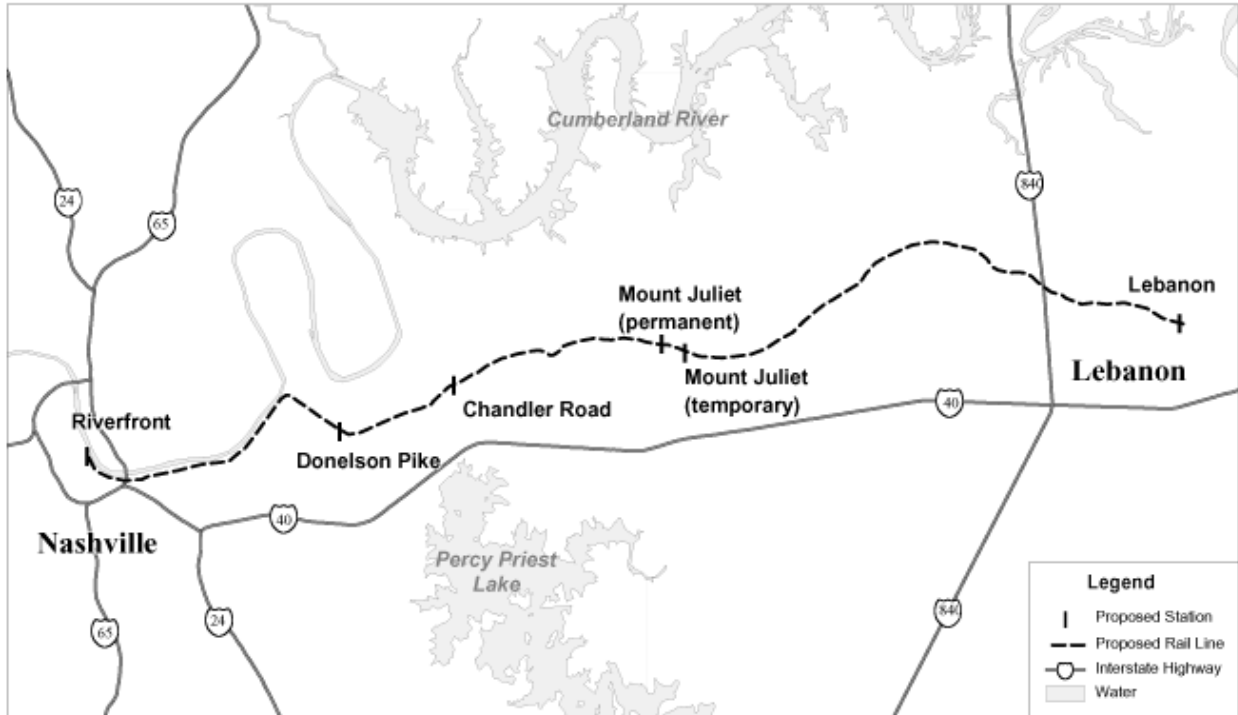
**Locally Proposed Financing Plan  
(Reported in \$2001)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal:		
Section 5309 New Starts	24.0	<b>(\$7.9 million appropriated through FY 2001)</b>
FHWA Intermodal	3.9	
Local:		
Tennessee DOT	3.5	
Local government funding	3.5	
<b>TOTAL</b>	<b><u>\$34.9</u></b>	

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

# East Corridor Commuter Rail

## Nashville, Tennessee



Federal Transit Administration, 2001

# Pawtucket, RI/Commuter Rail Layover Facility A-25

Rhode Island Commuter Rail Improvement Program

Pawtucket Layover Facility

Pawtucket, Rhode Island

(August 2001)

## Description

The Pawtucket Layover Facility Project is a joint Rhode Island Department of Transportation (RIDOT)/Massachusetts Bay Transportation Authority (MBTA) venture, consisting of the design and construction of a six-track commuter rail yard for the purpose of overnight layover/storage of commuter rail equipment, to serve both the existing Providence-Boston service and Rhode Island's future South County commuter rail service. The proposed site is located in the northwest quadrant of the I-95 & Smithfield Avenue Interchange on the Pawtucket/Providence city line. The twelve-acre parcel is situated adjacent to and east of the Amtrak Main Line.

The facility will provide for future commuter rail growth both at Providence and South County, RI. Currently, commuter rail carries approximately 825 riders per day at Providence with eight round trips. Ridership is expected to grow to 1,050 riders per day in 2005 with eleven round trips. Ridership studies conducted to date for the proposed South County Commuter Rail Service show an expected 2,550 riders per day would use the service to Providence.

The total capital cost for this project is \$18.5 million, with a proposed Section 5309 New Starts share of \$10 million. **Since the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and thus is not subject to FTA's evaluation and rating (49 USC Section 5309 (e)(8)(A)).**

Summary Description	
Proposed Project:	Pawtucket Layover Facility
Total Capital Cost (\$YOE):	\$18.5 million
Section 5309 New Starts Share (\$YOE):	\$10 million
Annual Operating Cost (\$2003):	\$1.0 million

## Status



The Pawtucket Layover Facility was authorized in TEA-21 in Section 3030 (c)(1)(A)(xlili). Through FY 2001, RIDOT has received \$0.5 million in Section 5309 New Starts appropriations.

The RIDOT, in conjunction with the MBTA, has proposed the development of a commuter rail layover yard in Pawtucket, Rhode Island since the original Pilgrim Partnership Agreement was signed in 1988. The project is included in Rhode Island’s Long Range Ground Transportation Plan, and has been adopted by the State MPO in the Transportation Improvement Program (TIP).

Based on the environmental documentation submitted by the RIDOT, the FTA found that the specific conditions or criteria for a Categorical Exclusion under 23 CFR 771.117(d)(11) were satisfied and that significant environmental impacts would not result. FTA issued an environmental determination on December 3, 1999.

Preliminary engineering and final design have been completed. This project was approved for final design in April 2001. Construction is expected to begin in the Fall 2001 and be completed in late 2002. The layover yard would begin operations in late 2002/early 2003.

The MBTA, as the responsible agency for final design and construction, has developed a recent construction cost estimate of \$18.5 million (escalated dollars) for this project. RIDOT and MBTA propose completing the project with Section 5309 New Starts funds, Section 5309 Fixed Guideway Modernization funds, and MBTA funds.

<b>Locally Proposed Financing Plan (Reported in \$YOE)</b>		
<u>Proposed Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
Federal:		
<b><u>Section 5309 New Starts</u></b>	\$10.0	(\$0.5 million appropriated through FY 2001)
Section 5309 Fixed Guideway	\$4.7	\$1.45 million FY 2000
Modernization		\$2.36 million FY 2001

		<b>\$0.96 million FY 2002</b>
Local:		
MBTA		\$3.8
Bonds		
<b>TOTAL</b>		<b><u>\$18.5</u></b>
<p><b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.</p>		

# Phoenix/Central East Valley Corridor B-39

Central Phoenix/East Valley Corridor

Phoenix, Arizona

(August 2001)

## Description

The Regional Public Transportation Authority (RPTA) is proposing to implement a 25-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. As a first step, the RPTA is undertaking preliminary engineering on a 20.3 mile segment from the Chris-Town Mall area, through downtown Phoenix and downtown Tempe, to Mesa. The proposed project would have 28 stations and serve major activity centers including downtown Phoenix, the Sky Harbor Airport, Papago Park Center and downtown Tempe. It will be the centerpiece of redevelopment along Apache Boulevard in Mesa. The proposed 20.3 mile LRT system is estimated to cost approximately \$1,241.4 million (escalated), of which the RPTA intends to seek \$620.7 million in New Starts funding.

Summary Description	
<b>Proposed Project:</b>	Light rail transit 20.3 miles, 27 stations
<b>Total Capital Cost (\$YOE):</b> <b>Section 5309 Share (\$YOE):</b>	\$1,241.4 million \$620.7 million
<b>Annual Operating Cost (\$YOE):</b>	\$39 million
<b>Ridership Forecast (2020):</b>	43,700 avg. weekday riders 28,950 daily new riders
<b>FY 2002 Finance Rating:</b> <b>FY 2002 Project Justification Rating:</b> <b>FY 2002 Overall Project Rating:</b>	<b>Medium-High</b> <b>Medium</b> <b>Recommended</b>

The Central Phoenix/East Valley Corridor is rated *Recommended* based upon the project's cost effectiveness, good transit supportive land use, and the high level of local financial commitment of capital and operating funds for the project. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The RPTA completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the spring of 1998. In September 1998, FTA granted permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase on a 13-mile segment of the corridor. FTA subsequently approved preliminary engineering on 20.3 miles of the proposed system. The Maricopa Association of Governments (MAG) (local metropolitan planning organization) adopted the CP/EV Corridor as a fixed-guideway corridor and included the CP/EV LRT project in the Long Range Transportation Plan and the current Regional Transportation Improvement Plan (TIP). Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for final design and construction. Through FY 2001, Congress has appropriated \$23.74 million for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. This project was Not Rated in the *Annual Report on New Starts for FY2002* because the project sponsor was updating the regional travel demand model, at FTA direction. The necessary revisions to the travel demand model have been completed to allow for reporting of the project justification criteria for this *Supplemental Report on New Starts*. The project will be reevaluated when it is ready to advance to final design and for next year's *Annual Report on New Starts*.

## Justification

The *Medium* project justification rating reflects the projects strong mobility improvements, good cost-effectiveness, and efforts to encourage transit-supportive development in the proposed corridor.

## Mobility Improvements

### Rating: Medium-High

The CP/EV LRT Project would serve approximately 43,700 average weekday boardings and carry 28,950 daily new riders. The RPTA estimates that the project would result in the following annual travel time savings

-	New Start vs. <u>No-Build</u>	New Start vs. <u>TSM</u>
<b>Annual Travel Time Savings (Hours)</b>	12.5 million	11.3 million

Based on 1990 census data, there are an estimated 4,366 low-income households within a ½ mile radius of the MOS corridor, representing 15 percent of all households located within ½ mile of the corridor.

**Environmental Benefits**

**Rating: High**

The Phoenix Metropolitan region is a serious non-attainment area for ozone, carbon monoxide, and particulates (PM<sub>10</sub>). The RPTA estimates that in 2025, the CP/EV LRT Project would result in the following reductions in emissions.

-	New Start vs.	New Start vs.
<u>Criteria Pollutant</u>	<u>No-Build</u>	<u>TSM</u>
Carbon Monoxide (CO)	97	100
Nitrogen Oxide (NO <sub>x</sub> )	794	791
Hydrocarbons (HC)	134	150
Particulate Matter (PM <sub>10</sub> )	2	2
Carbon Dioxide (CO <sub>2</sub> )	54,155	59,172

Values reflect annual tons of emissions reductions.

The RPTA estimates that in 2025, the proposed CP/EV LRT project would result in the following reduction in regional energy consumption (measured in British Thermal Units - BTU).

-	New Start vs.	New Start vs.
<u>Annual Energy Savings</u>	<u>No-Build</u>	<u>TSM</u>
BTU (million)	603,455	679,497

**Operating Efficiencies**

**Rating: High**

The RPTA estimates that systemwide-operating costs per passenger mile would decrease when comparing the CP/EV LRT project with the no-build and TSM alternatives.

	<u>No-Build</u>	<u>TSM</u>	<u>New Start</u>
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<b>System Operating Cost per Passenger Mile</b>	\$0.54	\$0.54	\$0.49
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**Cost Effectiveness**

**Rating: Medium**

The RPTA estimates the following cost effectiveness index for the CP/EV LRT Project.

-	<b>New Start vs. <u>No-Build</u></b>	<b>New Start vs. <u>TSM</u></b>
<b>Incremental Cost per Incremental Passenger</b>	\$10.77	\$11.58

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

**Rating: Medium**

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

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

**Future Plans and Policies:** Local jurisdictions and agencies have made some progress in examining and implementing transit supportive plans and policies in the corridor. The Maricopa Association of Governments has produced Pedestrian Area Policies and Design Guidelines to guide member city planning and design efforts. Several small area plans have been revised to accommodate higher intensity, mixed use development. RPTA is working with transit and planning departments of affected cities to develop a TOD model ordinance. Several significant new developments are being planned along the corridor, including the 7 million square foot Rio Salado development. While there is progress with new housing development in downtown

Phoenix, plans to support higher intensities of housing in other portions of the alignment are limited.

## **Local Financial Commitment**

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

The financial plan for the 20.5 mile Central Phoenix/East Valley LRT MOS includes \$620.7 million (YOE) (50 percent) in Section 5309 New Start funds, \$17.4 million (1 percent) in FHWA flexible funding, and \$399 million (32 percent) in funds from the City of Phoenix, \$170 million (14 percent) from the City of Tempe, and \$34.4 million (3 percent) from the City of Mesa.

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

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

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

**Agency Capital Financial Condition:** The RPTA is in good financial condition. On March 14<sup>th</sup>, 2000, the Proposition 2000 was approved by the voters of the City of Phoenix, thus providing an increase to the local sales tax of 0.4 percent dedicated to transit development. Additionally, the RPTA currently receives annual funding from the State's Local Transportation Assistance Fund (LTAF)/Public Transit Fund (PTF) which is used for the capital and operating needs of the existing bus system.

**Capital Cost Estimates and Contingencies:** Capital cost estimates for the proposed project have doubled since 1998, reflecting refinements in project engineering, an increase in the length of the project, an increase in the number of vehicles required, and the addition of higher contingency factors. The revised cost estimate is reasonable at this stage of development.

**Existing and Committed Funding:** The Cities of Phoenix, Tempe, and Mesa each have committed funds for the local match for the project from existing, dedicated sources of funding. The City of Phoenix receives funding from the 0.4 percent sales tax. The City of Tempe receives funding from a 0.5 percent dedicated sales tax, and the City of Mesa has committed funding from its general fund.

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

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

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

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

**Agency Operating Condition:** The RPTA is in good financial condition. The RPTA has an annual operating and maintenance budget of \$103 million and a farebox recovery ratio of 31 percent for its current bus system. The RPTA currently receives annual funding from the State’s Local Transportation Assistance Fund (LTAF)/Public Transit Fund (PTF). On March 14<sup>th</sup>, 2000, the Proposition 2000 was approved by the voters of the City of Phoenix, providing an increase of 0.4 percent in the local sales tax dedicated to transit development and operations.

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

**Existing and Committed Funding:** The Cities of Phoenix, Tempe, and Mesa each have committing funds for the local match for the project from existing, dedicated sources of funding. The City of Phoenix receives funding from the 0.4 percent sales tax. The City of Tempe receives funding from a 0.5 percent dedicated sales tax, and the City of Mesa has committed funding from its general fund.

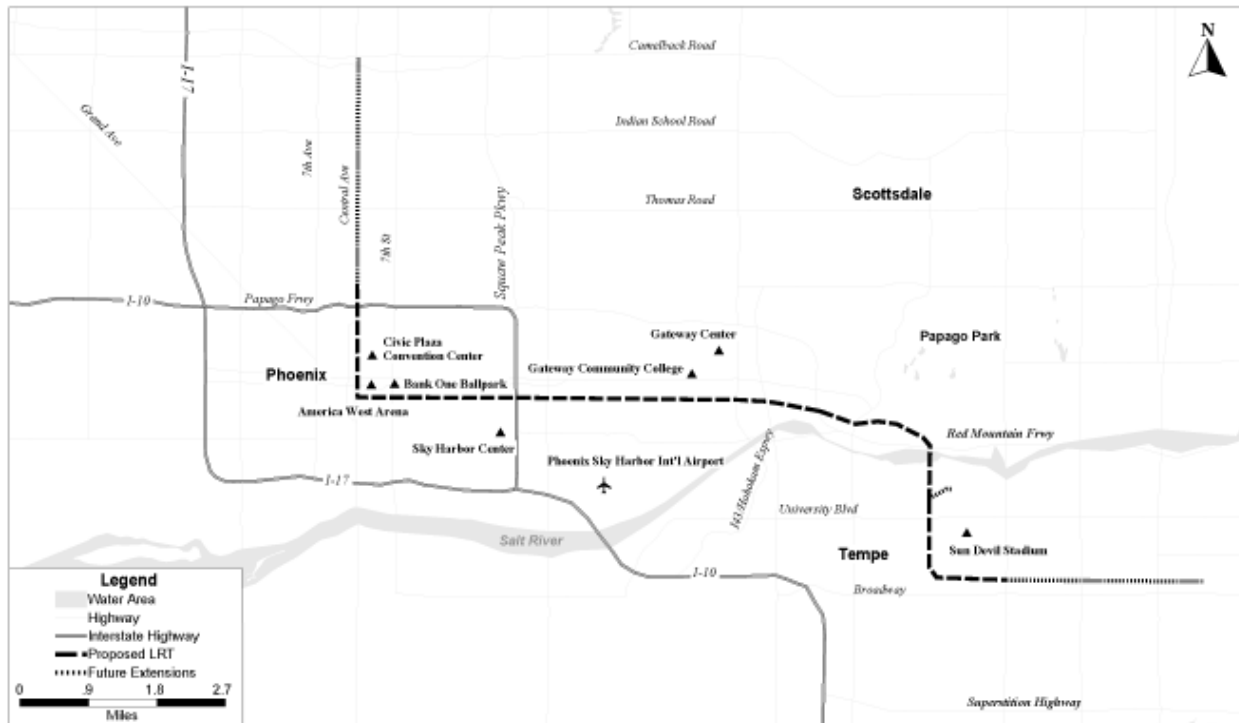
**New and Proposed Sources:** No New sources of funding are proposed.

<b>Locally Proposed Financing Plan</b> (Reported in \$YOE)		
-	<b>Total Funding (\$million)</b>	-
<b><u>Proposed Source of Funds</u></b>		<b><u>Appropriations to Date</u></b>
Federal:		
Section 5309 New Starts	\$620.7	<b>(\$23.74 million appropriated through FY 2001)</b>
FHWA Flexible Funds	\$17.4	
Local:		
City of Phoenix	\$399.0	
City of Tempe	\$170.0	
City of Mesa	\$34.1	
<b>TOTAL</b>	<b><u>\$1,241.4</u></b>	
<b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.		



# Central Phoenix / East Valley Corridor

Phoenix, Arizona



Federal Transit Administration, 2001

# Wilmington, DE/Transit Connector B-47

## Wilmington Transit Connector

Wilmington, Delaware

(August 2001)

### Description

The Delaware Transit Corporation (DTC) proposes to construct the Wilmington Transit Connector, a 2.1-mile electric rail trolley system, originating at 12th and Market Streets, operating through the Wilmington central business district and terminating at the Christina Riverfront area. Vintage replica rail vehicles would be utilized to preserve the historical character of the service area. The project is undertaken as a public-private partnership initiative between the City of Wilmington and the Wilmington Renaissance Corporation, a private-sector nonprofit organization supporting downtown development and economic opportunities. The project will connect the heart of the downtown Wilmington banking center to the revitalized Christina Riverfront mixed-use development area, with an intermediate stop at the Amtrak intermodal station. The proposed route encompasses the major business, commercial and cultural activity centers of the city. Twenty-three stations/stops are planned from Rodney Square to the riverfront area. The estimated capital cost of the project developed during the early planning stage is \$41.7 million (escalated dollars).

### Wilmington Transit Connector Summary Description

<b>Proposed Project</b>	Electric rail trolley; 2.1 miles, 23 stations/stops
<b>Total Capital Cost (\$YOE)</b>	\$41.7 million
<b>Section 5309 Share (\$YOE)</b>	\$29.2 million
<b>Annual Operating Cost (\$YOE)</b>	\$2.3 million
<b>Ridership Forecast (2006)</b>	3,400 average weekday boardings
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The *Recommended* rating is based on the project's compliance with statutory requirements and justification criteria at this early stage of preliminary engineering. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. The project includes a proposed Federal share of 70 percent from 5309 new starts funding that meets the statutory maximum of 80 percent but is above a Congressional desire to fund projects

at 60 percent in FY 2003 and the Administration's target of 50 percent in FY 2004. Project evaluation is an ongoing process, and FTA is continuing to encourage project sponsors to lower the requested Federal share of new starts funding as projects move through the development process. Financial plans should include a maximum Federal share of 50 percent by FY 2004 to remain competitive with other projects in the New Starts pipeline and to meet lower Federal share requirements proposed for the reauthorization of TEA-21. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## **Status**

The Delaware Department of Transportation, Delaware Transit Corporation, and the City of Wilmington completed an Alternatives Analysis in December 2000 to address transportation needs within downtown Wilmington. The project was adopted by the Wilmington Area Planning Council and is included in its long-range transportation plan and FY 2000 Transportation Improvement Program. FTA approved this project's entry into preliminary engineering in August 2001. DTC is currently undertaking an environmental analysis for the project.

TEA-21 Section 3030(b)(72) authorizes the "Wilmington Downtown Transit Corridor." Through FY 2001, Congress has appropriated \$5.93 million in Section 5309 New Starts funds to the project.

## **Evaluation**

The following criteria have been estimated in conformance with FTA's Technical Guidance on Section 5309 New Starts Criteria. Criteria have been reported and evaluated on the Wilmington Transit Connector. Use of the regional network planning model was deemed inappropriate by the project sponsor given the scope and scale of the proposed project. During PE, FTA will work with the Delaware Transit Corporation to improve ridership forecasting capabilities and to ensure updated cost estimates. N/A indicates that data are not available for a specific measure.

FTA has evaluated this project as being in early preliminary engineering.

## **Justification**

The *Medium* project justification rating reflects the relatively high densities and transit supportive land uses in the corridor and the project's strong cost-effectiveness.

## **Mobility Improvements**

### **Rating: Not Rated**

DTC did not apply a regional network planning model that would generate travel time savings. Based on 1990 Census data, there are an estimated 3,126 low-income households within a ½-mile radius of the project corridor.

## Environmental Benefits

### Rating: Not Rated

DTC did not apply a regional network planning model that would generate environmental benefits. EPA has designated the Philadelphia-Wilmington-Trenton area as a severe nonattainment area for ozone.

## Operating Efficiencies

### Rating: Low-Medium

DTC estimates the following costs per passenger mile for the project.

Operating Efficiencies	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2006)	\$0.86	\$0.86	\$0.89

Values reflect ridership based on a locally developed model and 1998 dollars.

## Cost Effectiveness

### Rating: Medium-High

DTC estimates the following cost effectiveness index for the project.

Measure	New Start vs. <i>No-Build</i>	New Start vs. <i>TSM</i>
Incremental Cost per Incremental Passenger	\$6.84	\$11.04

Values reflect ridership based on a locally developed model and 1998 dollars.

## Transit-Supportive Existing Land Use and Future Patterns

### Rating: Medium-High

The *Medium-High* land use rating reflects the project location in the high-density Wilmington CBD.

**Existing Conditions:** The project corridor lies within the relatively high-density Wilmington central business district, which includes high-rise office buildings, three to five story commercial buildings with ground floor retail and hotels, enclaves of two to three story row houses, and a riverfront area redeveloping from industrial to retail and recreational uses. The entire corridor is laid out on a street grid pattern that is relatively pedestrian friendly. Total CBD employment is 45,000. Population densities are relatively high, averaging 18,600 persons per square mile in the CBD. Several high trip generators are located in the corridor, including seven colleges, a

hospital, historic commercial core, stadium, arts center, rail/bus station, and riverfront and tourist destinations.

Several initiatives at the state, regional and city level are designed to contain sprawl in the Wilmington area and municipal development plans are all transit-supportive. Regional and county plans call for directing growth to the region's centers, and the county has downzoned rural areas. The city's comprehensive plan and urban renewal plans encourage mixed use development and direct growth to the CBD and the waterfront area. Strategies to maintain the attractiveness of the CBD include improved transit service, streetscaping, zoning changes and housing incentives.

**Future Plans and Policies:** Nearly all development proposed or underway in the City of Wilmington is located within the Wilmington Transit Connector corridor. This new development includes corporate offices, downtown housing above stores, riverfront housing, and retail and entertainment centers. The Transit Connector is part of the broader "Wilmington Initiatives" which support the redevelopment of Wilmington's downtown and focuses on transit and pedestrian improvements. The City and MPO have undertaken educational efforts regarding the importance of land use to successful provision of transit. The City, in partnership with the private sector, is implementing an aggressive strategy based on financial incentives to reinvigorate the Wilmington economy by attracting jobs and residents. Public outreach is a significant part of the project.

## **Local Financial Commitment**

### **Proposed Local Share of Total Project Costs: 30%**

The current project financial plan proposes to use \$29.2 million (70 percent of total project costs) in Section 5309 New Starts funds, and \$12.6 million (30 percent) provided equally from three local sources: State of Delaware Transportation Trust Fund, City of Wilmington, and the Wilmington Renaissance Corporation, a private-sector nonprofit organization.

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

#### **Rating: Medium**

The *Medium* capital finance plan rating reflects the reliable state funding source and the City of Wilmington's strong capital market standing.

**Agency Capital Financial Condition:** The Delaware Transportation Trust Fund is a stable and secure source of funding, deriving revenues from fuel taxes, vehicle registration fees and tolls. Bond ratings for the City of Wilmington are in the medium-high range. Delaware Transit Corporation has an average bus fleet age of 5.9 years.

**Capital Cost Estimates and Contingencies:** The capital cost estimate was developed in early planning studies and will need to be refined during PE.

**Existing and Committed Funding:** State Transportation Trust Funds have been committed in the Delaware DOT 2001-2006 Capital Improvement Program. City funds will be appropriated annually to the project.

**New and Proposed Sources:** A Transportation Business Improvement District (BID) will be established in the project corridor or increasing tax rates in the existing downtown BID. DTC is also investigating additional revenue sources including a hotel occupancy levy, an amusement levy on Riverfront area attractions, and a downtown parking surcharge.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium**

The *Medium* operating finance plan rating reflects the stable state operating funding source.

**Agency Operating Financial Condition:** The Delaware Transportation Trust Fund is a stable and secure source of operating funds for the project, with a demonstrated track record. Project fare revenue assumptions are considered conservative.

**Operating Cost Estimates and Contingencies:** Operating cost estimates are acceptable at this time and reflect a reasonable rate of inflation. More detailed operating plans and cost estimates will need to be developed during PE.

**Existing and Committed Funding:** Delaware Transportation Trust Fund is the primary operating revenue source subsidizing the project.

**New and Proposed Sources:** The Wilmington Renaissance Corporation will provide approximately 8 percent of operating funds.

**Locally Proposed Financing Plan**

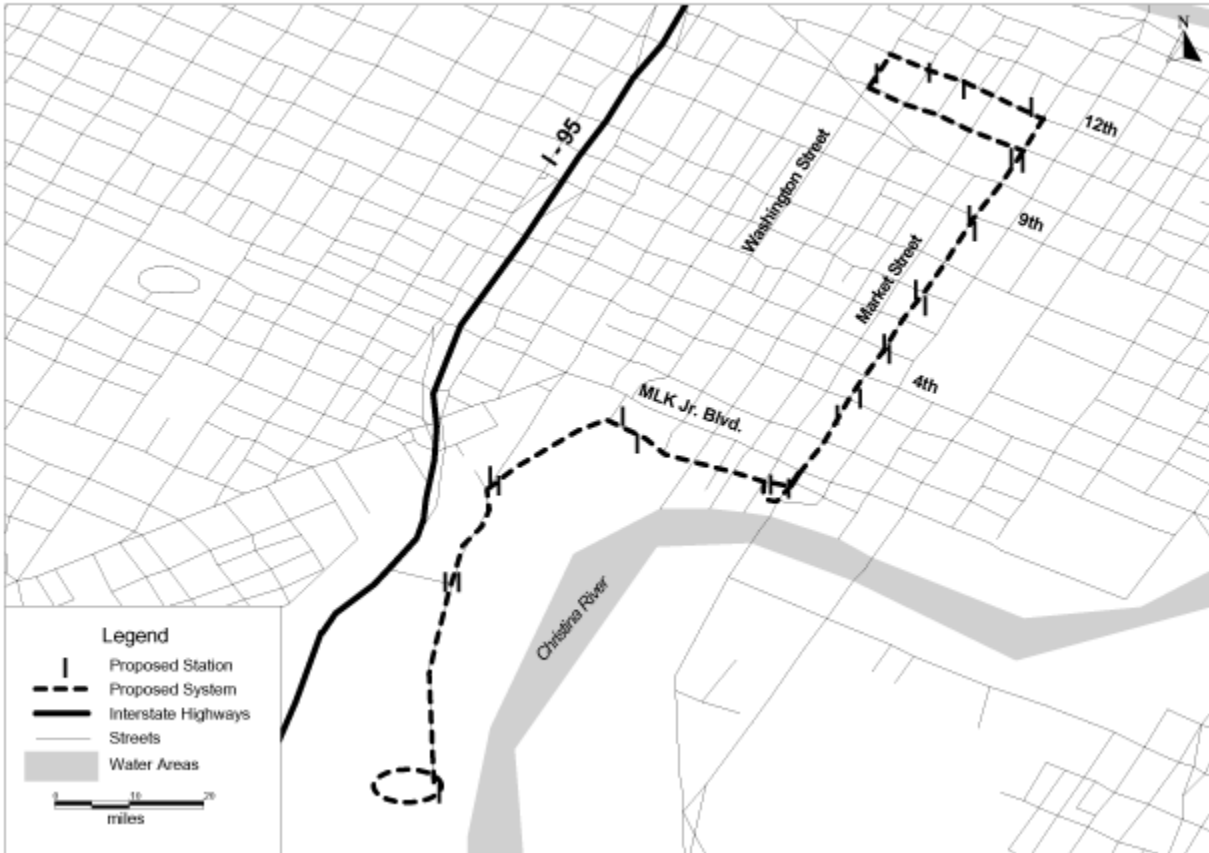
(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal</b>		
Section 5309 New Starts	\$29.2	\$5.93 million appropriated through fiscal year 2001
<b>State</b>		
State Appropriations	\$4.2	
<b>Local</b>		
City of Wilmington	\$4.2	
Wilmington Renaissance	\$4.2	

Corp.		
<b>Total</b>	\$41.7	

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

## Wilmington Transit Connector Wilmington, Delaware



## Introduction

This report provides an update on the status of proposed major transit investment projects ("new starts") that have recently completed the alternatives analysis or preliminary engineering stage of development. Under 49 U.S.C. §5309(o)(2), the U.S. Department of Transportation is required to prepare in August of each year a "Supplemental Report on New Starts" to Congress that describes the evaluation and rating for each proposed new starts project that has completed alternatives analysis or preliminary engineering since the date of the last *Annual Report on New Starts* (as required under 49 U.S.C. §5309(o)(1)). Twelve proposed projects meet this requirement and are included in this report; five have completed preliminary engineering and seven have completed alternatives analysis. In addition, this report also includes project evaluation and rating information for one project with prior preliminary engineering approval, for which this information was unavailable for inclusion in the *Annual Report*.

The purpose of the *Supplemental Report on New Starts* is to update project-specific information for a select number of proposed new starts projects, as required by statute. It does *not* include updated information for all proposed projects. Unlike the *Annual Report*, this Report is *not* a budgetary document. It is meant to be a constructive element in the administration of the Federal transit assistance program, enriching the information exchange between the Executive and Legislative branches.

## The New Starts Project Evaluation Regulation

On December 7, 2000, FTA issued its Final Rule on new starts project evaluation and rating, published in the *Federal Register* at 65 FR 76864. This regulation is required by Section 3009 of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), and governs how FTA will evaluate and rate new fixed-guideway transit systems and extensions that are proposed for §5309 new starts funding. It replaces the procedures set forth in the December 19, 1996 policy statement [61 FR 67093], as amended on November 12, 1997 [62 FR 60756]. The regulation became effective on April 6, 2001.<sup>1</sup>

FTA has been working to develop guidance for project sponsors regarding the implementation of the new starts project evaluation regulation, and has held numerous outreach sessions and workshops for transit operators and State and local government entities involved in new starts project development. For that reason, and because this *Supplemental Report on New Starts* is intended as an update of project evaluation information contained in the *Annual Report on New Starts* for those proposed projects that have advanced in the development stages, the information contained in this Report retains the same evaluation criteria and measures. Proposed projects will be evaluated under the procedures set forth in the FTA regulation for the FY 2003 budget recommendations, and reported in the 2002 edition of both the *Annual* and *Supplemental* reports.

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<sup>1</sup> In accordance with the memorandum of January 20, 2001 from the Assistant to the President and Chief of Staff entitled "Regulatory Review Plan," published in the *Federal Register* on



January 24, 2001, FTA delayed the effective date of this Rule until April 6, 2001. A Notice to this effect was published in the Federal Register on February 9, 2001, at 66 FR 9677. The original effective date was February 5, 2001.

## Planning and Project Development Process

To be eligible for FTA capital investment funds for a new starts project, the proposed project must emerge from the metropolitan and/or Statewide planning process. Local officials must perform a corridor-level analysis of mode and alignment alternatives. This **alternatives analysis** will provide information on the benefits, costs and impacts of alternative strategies, leading to the selection of a locally-preferred solution to the community's mobility needs. (The FTA/FHWA planning and environmental regulations (23 CFR Parts 450 and 771), which required a Major Investment Study (MIS) that fulfilled the requirement for alternatives analysis, are being revised in accordance with TEA-21.)

When the sponsoring agency for a new starts project wishes to initiate the **preliminary engineering** phase of project development, it must submit a request to the appropriate FTA regional office. The request must provide information on the metropolitan and/or Statewide plan that identifies the project, including the adoption of the project into the metropolitan transportation plan and the programming of the preliminary engineering activity in the Transportation Improvement Plan (TIP). The request must also address the project justification and local financial commitment criteria outlined below. (This information is normally developed as part of an alternatives analysis.) FTA will then evaluate the proposed project as required by 49 USC §5309(e)(6) and determine whether or not to advance the project into preliminary engineering. FTA approval to initiate preliminary engineering is not a commitment to fund preliminary engineering, final design or construction.

During the preliminary engineering phase, local project sponsors refine the design of the proposal, taking into consideration all reasonable design alternatives. The process results in estimates of project costs, benefits and impacts in which there is a higher degree of confidence. In addition, requirements under the National Environmental Policy Act (NEPA) are completed (for new starts, this will normally entail the completion of an environmental impact statement), project management concepts are finalized, and any required local funding sources are put in place. Information on project justification and the degree of local financial commitment will be continually updated and reported as appropriate. As part of their preliminary engineering activities, localities are encouraged to consider policies and actions designed to enhance the benefits of the project and its financial feasibility.

**Final design** is the last phase of project development and may include right-of-way acquisition, utility relocation, and the preparation of final construction plans (including construction management plans), detailed specifications, construction cost estimates, and bid documents. The final design stage cannot be initiated until environmental requirements have been satisfied, as evidenced by a Record of Decision (ROD) or a Finding of No Significant Impact (FONSI). Consistent with 49 USC §5309(e)(6), FTA will approve entry into final design based on the results of the project evaluation process.

# Evaluation and Rating Process

As proposed new starts projects proceed through the stages of the planning and project development process, they are evaluated against the full range of criteria for project justification and local financial commitment contained in §5309(e). In both cases, FTA relies on a multiple-measure approach to assign ratings; these ratings are updated throughout the preliminary engineering and final design processes, as information concerning costs, benefits, and impacts is refined. The results of these evaluations are used to make the required approvals for entry into preliminary engineering and final design, to execute a Full Funding Grant Agreement (FFGA) and to make annual funding recommendations to Congress.

## The Criteria

The criteria for new starts project evaluation are described in 49 USC §5309(e). To be eligible for funding under the new starts program, proposed projects must be based on the results of an alternatives analysis and preliminary engineering, justified based on a comprehensive review of a variety of factors, and supported by an acceptable degree of local financial commitment. Sections 5309 (e)(2)-(4) further describe the factors to be considered when making these determinations.

The criteria for evaluating project justification are as follows:

- Mobility improvements
- Environmental benefits
- Operating efficiencies
- Cost effectiveness
- Transit-supportive existing land use policies and future patterns<sup>1</sup>

Consistent with §5309(e)(3)(H), FTA also includes a variety of "**other factors**" when evaluating project justification, including:

- the degree to which the policies and programs (local transportation planning, programming and parking policies, etc.) are in place as assumed in the forecasts,
- project management capability, and
- additional factors relevant to local and national priorities and relevant to the success of the project.

Section 5309(e)(1)(C) requires that proposed projects also be supported by an acceptable degree of local financial commitment, including evidence of stable and dependable financing sources to construct, maintain and operate the system or extension. The criteria for evaluation of the local financial commitment to a proposed project are:

- The proposed share of total project costs from sources other than §5309, including Federal formula and flexible funds, the local match required by Federal law, and any additional capital funding ("overmatch");

- The strength of the proposed capital financing plan; and
- The ability of the sponsoring agency to fund operation and maintenance of the entire system as planned, including existing service, once the guideway project is built.

## The Evaluations

As noted above, FTA evaluates proposed new starts projects against the full range of criteria for both project justification and local financial commitment, using a multiple-measure method.

**Project evaluation is an ongoing process;** as proposed new starts proceed through the project development process, information concerning costs, benefits and impacts is refined, and the ratings are updated to reflect new information.

For each of the project justification criteria, the proposed new starts project is evaluated against both a no-build and a Transportation System Management (TSM) alternative (a package of low to moderate cost improvements designed to make more efficient use of an existing transportation system)<sup>2</sup>. For each proposed project, FTA assigns one of five descriptive ratings ("high," "medium-high," "medium," "low-medium," or "low") for each of the five criteria, with "other factors" considered as appropriate. The same is true for the three factors used to evaluate local financial commitment.

Consistent with §5309(e)(6), summary ratings of "highly recommended," "recommended," or "not recommended" are assigned to each proposed project, based on the results of the review and evaluation of each of the criteria for project justification and local financial commitment. To assign these summary ratings, the individual ratings for each of the financial rating factors and project justification criteria are combined into overall "finance" and "justification" ratings, which in turn are combined to produce the summary ratings.

In evaluating the project justification criteria, FTA gives primary consideration to the measures for transit-supportive land use, cost effectiveness and mobility improvements to arrive at the combined "justification" rating. For local financial commitment, the measures for the proposed local share of capital costs and the strength of the capital and operating financing plans are the primary factors in determining the combined "finance" rating.

For a proposed project to be rated as "recommended," it must be rated at least "medium" in terms of both finance and justification. To be "highly recommended," a proposed project must be rated higher than "medium" for both finance and justification. Proposed projects not rated at least "medium" in both finance and justification will be rated as "not recommended."

These ratings are used both to approve entry into preliminary engineering and final design, as required under §5309(e)(6), and to recommend proposed projects for Federal funding commitments. A proposed project must receive a rating of at least "recommended" in order to be approved for any of these purposes.

The permanent approach FTA will use to assign these summary ratings is detailed in the regulation on project evaluation required by 49 USC §5309(e)(5). Due to the fact that FTA is still conducting outreach on the requirements of the Final Rule and developing guidance for

project sponsors, and the fact that this report is intended by statute as an update of information contained in the *Annual Report on New Starts*, the project ratings contained in this report reflect an application of FTA's *existing* project evaluation process, as published in the **Federal Register** on December 19, 1996 and amended on November 12, 1997 (61 FR 67093-106 & 62 FR 60756-58). The only significant change is that, due to the TEA-21 provision, the *value* of travel time savings is no longer reported for mobility improvements; instead, travel time savings is reported in terms of hours.

The results of the project evaluation process for the 12 projects included in this Report are shown in Table 1.

Appendix A provides a more detailed profile for each project which has completed the preliminary engineering stage of development, including a description, status, list of funding sources, map, and a presentation of the project evaluation criteria and ratings. Each of these profiles includes a summary description which highlights the overall project ratings and presents key descriptive, cost and ridership data for each proposed new starts project compared to the no-build alternative. Detailed profiles for those proposed projects that have completed alternatives analysis are included in Appendix B.

It is important to note that a *rating* of "recommended" does not translate directly into a *funding* recommendation in any given fiscal year. Rather, the overall project ratings are intended to reflect overall project merit. It is also important to note that the purpose of this Report is to update the status and ratings of those proposed projects that have recently completed alternatives analysis or preliminary engineering; this is *not* a budgetary document and does not alter the funding recommendations contained in the President's budget proposal to Congress.

<sup>1</sup>While not specified as a criterion in §5309(e)(1)(B), the clear emphasis placed on land use issues by both TEA-21 and the earlier Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) has led to the establishment of project justification criteria for transit-supportive existing land use policies and future patterns.

<sup>2</sup>TSM alternatives typically include elements such as traffic engineering and signalization, transit operational changes, and modest capital improvements.

## Projects that have Completed Preliminary Engineering

Since the last edition of the *Annual Report on New Starts* was issued, a total of five proposed new starts projects have completed the preliminary engineering stage of development. All of these projects have been approved for entry into final design. One of these projects has been rated as "recommended" or higher; the remaining four are seeking less than \$25 million in §5309 new starts funding, and are therefore exempt from the project rating and evaluation process by §5309(e)(8)(A). Approvals for exempt projects to advance to the next stage of development are based on their having met basic grant eligibility requirements for the new starts program, though sponsors of such projects are strongly encouraged to submit information to FTA for evaluation and rating purposes, in order to provide a sound basis for decisionmaking and recommendations concerning their project.

**Table 1: Summary of New Starts Project Ratings**

**Table 1-A  
Summary of FY 2002 New Starts Ratings**

<b>Phase and City (Project)</b>	<b>Total Capital Cost (millions)</b>	<b>Total Sect. 5309 Funding Requested (millions)</b>	<b>Section 5309 Funds Share of Capital Costs</b>	<b>Overall Project Rating</b>	<b>Financial Rating</b>	<b>Project Justification Rating</b>
<b>Completed Preliminary Engineering</b>						
<b>Chicago (Union-Pacific West Line Extension)</b>	\$134.6 YOE	\$80.8	60%	Recommended	Medium-High	Medium
<b>Girdwood, Alaska Railroad Commuter Rail*</b>	\$7.0 YOE	\$5.6	80%	Exempt	Exempt	Exempt
<b>Girdwood, Alaska Railroad Commuter Rail (Knik River to Wasilla)*</b>	\$11.3 YOE	\$9.0	80%	Exempt	Exempt	Exempt
<b>Nashville (East Corridor Commuter Rail Project)*</b>	\$34.9 YOE	\$24.0	69%	Exempt	Exempt	Exempt
<b>Pawtucket, RI (Commuter Rail</b>	\$18.5 YOE	\$10.0	54%	Exempt	Exempt	Exempt

<b>Layover Facility)*</b>						
<b>Completed Alternatives Analysis</b>						
<b>Bridgeport, CT (Intermodal Transportation Center)*</b>	\$62.4 YOE	\$24.9	40%	Exempt	Exempt	Exempt
<b>Dallas (Northwest-Southeast Corridor LRT)-MOS</b>	\$1,123.6 YOE	\$500.0	45%	Recommended	Medium-High	Medium
<b>Denver (West Corridor LRT)</b>	\$624.3 YOE	\$366.3	59%	Recommended	Medium	Medium
<b>Honolulu (Primary Corridor Transportation)</b>	\$648.0 YOE	\$182.1	28%	Recommended	Medium	Medium-High
<b>Louisville, KY (Transportation Tomorrow South Corridor LRT)</b>	\$671.2 YOE	\$380.2	57%	Recommended	Medium	Medium
<b>Phoenix, AZ (Central Phoenix/East Valley Corridor)</b>	\$1,241.4 YOE	\$620.7	50%	Recommended	Medium-High	Medium
<b>Wilmington, DE (Transit Connector)</b>	\$41.7 YOE	\$29.2	70%	Recommended	Medium	Medium

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

"N/A" = Not Available

**Table 1-B  
Summary of FY 2002 New Starts Ratings**

Phase and City (Project)	Overall Project Rating	Financial Rating	Financial Rating Criteria		Project Justification Rating	Project Justification Criteria				
			Capital	Operating		Mobility Improve	Environment	Operating	Cost Effectiv	Land Use

			Finance Rating	Finance Rating		ment Rating	Benefits Rating	Efficiency Rating	ness Rating	Rating
<b>Final Design</b>										
<b>Chicago (Union-Pacific West Line Extension)</b>	Recommended	Medium-High	Medium-High	High	Medium	Medium-High	High	Medium	Low-Medium	Low-Medium
<b>Girdwood, Alaska Railroad Commuter Rail*</b>	Exempt	Exempt	N/A	N/A	Exempt	N/A	N/A	N/A	N/A	N/A
<b>Girdwood, Alaska Railroad Commuter Rail (Knik River to Wasilla)*</b>	Exempt	Exempt	N/A	N/A	Exempt	N/A	N/A	N/A	N/A	N/A
<b>Nashville (East Corridor Commuter Rail Project)*</b>	Exempt	Exempt	N/A	N/A	Exempt	N/A	N/A	N/A	N/A	N/A
<b>Pawtucket, RI (Commuter Rail Layover Facility)*</b>	Exempt	Exempt	N/A	N/A	Exempt	N/A	N/A	N/A	N/A	N/A
<b>Preliminary Engineering</b>										
<b>Bridgeport, CT (Intermodal Transportation Center)*</b>	Exempt	Exempt	N/A	N/A	Exempt	N/A	N/A	N/A	N/A	N/A



<b>Dallas (Northwest-Southeast Corridor LRT)-MOS</b>	Recommended	Medium-High	Medium-High	Medium-High	Medium	Medium-High	High	Low	Low-Medium	Medium
<b>Denver (West Corridor LRT)</b>	Recommended	Medium	Medium	Medium	Medium	Medium	High	Low	Low-Medium	Medium
<b>Honolulu (Primary Corridor Transportation)</b>	Recommended	Medium	Medium	Medium	Medium-High	Low-Medium	Medium	Medium	Medium-High	High
<b>Louisville, KY (Transportation Tomorrow South Corridor LRT)</b>	Recommended	Medium	Medium	Medium	Medium	Low-Medium	High	Medium	Medium	Medium
<b>Phoenix, AZ (Central Phoenix/East Valley Corridor)</b>	Recommended	Medium-High	Medium-High	Medium-High	Medium	Medium-High	High	High	Medium	Medium
<b>Wilmington, DE (Transit Connector)</b>	Recommended	Medium	Medium	Medium	Medium	Not Rated	Not Rated	Low-Medium	Medium-High	Medium-High

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

"N/A" = Not Available

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**Table 1-C  
Summary of FY 2002 New Starts Ratings**

Phase and City (Project)	Financial Rating	Finance Rating Criteria		
		Section 5309 Funds as Share of Capital Costs	Capital Finance Rating	Operating Finance Rating
<b>Final Design</b>				
<b>Chicago (Union-Pacific West Line Extension)</b>	Medium-High	60%	Medium-High	High
<b>Girdwood, Alaska Railroad Commuter Rail*</b>	Exempt	80%	N/A	N/A
<b>Girdwood, Alaska Railroad Commuter Rail (Knik River to Wasilla)*</b>	Exempt	80%	N/A	N/A
<b>Nashville (East Corridor Commuter Rail Project)*</b>	Exempt	69%	N/A	N/A
<b>Pawtucket, RI (Commuter Rail Layover Facility)*</b>	Exempt	54%	N/A	N/A
<b>Preliminary Engineering</b>				
<b>Bridgeport, CT (Intermodal Transportation Center)*</b>	Exempt	40%	N/A	N/A
<b>Dallas (Northwest-Southeast Corridor LRT)-MOS</b>	Medium-High	45%	Medium-High	Medium-High
<b>Denver (West Corridor LRT)</b>	Medium	59%	Medium	Medium
<b>Honolulu (Primary Corridor Transportation)</b>	Medium	28%	Medium	Medium
<b>Louisville, KY (Transportation Tomorrow South Corridor LRT)</b>	Medium	57%	Medium	Medium
<b>Phoenix, AZ (Central Phoenix/East Valley Corridor)</b>	Medium-High	50%	Medium-High	Medium-High
<b>Wilmington, DE (Transit Connector)</b>	Medium	70%	Medium	Medium

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

"N/A" = Not Available



<b>Wasilla)*</b>													
<b>Nashville (East Corridor Commuter Rail Project)*</b>	Exempt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Pawtucket, RI (Commuter Rail Layover Facility)*</b>	Exempt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Preliminary Engineering</b>													
<b>Bridgeport, CT (Intermodal Transportation Center)*</b>	Exempt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Dallas (Northwest-Southeast Corridor LRT)-MOS</b>	Medium	Medium-High	N/A	1.7**	3,063	High	N/A	30,014**	N/A	356,522**	serious non-attainment	N/A	
<b>Denver (West Corridor LRT)</b>	Medium	Medium	3.6	2.6	1,182	High	8,367	2,867	96,740	23,680	transitional non-attainment	serious non-attainment	
<b>Honolulu (Primary Corridor Transportation)</b>	Medium-High	Low-Medium	1.1	1.1	8,613	Medium	16,535	12,924	227,550	177,550	attainment	attainment	
<b>Louisville, KY (Transportation Tomorrow South</b>	Medium	Low-Medium	1.4	1.3	3,066	High	665	2,981	8,478	35,608	non-attainment	attainment	



<b>Corridor Commuter Rail Project)*</b>								
<b>Pawtucket, RI (Commuter Rail Layover Facility)*</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Preliminary Engineering</b>								
<b>Bridgeport, CT (Intermodal Transportation Center)*</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Dallas (Northwest- Southeast Corridor LRT)- MOS</b>	Low	N/A	\$0.62**	\$0.65	Low- Medium	N/A	\$13.14**	Medium
<b>Denver (West Corridor LRT)</b>	Low	\$0.39	\$0.40	\$0.42	Low- Medium	\$16.65	\$22.83	Medium
<b>Honolulu (Primary Corridor Transportation)</b>	Medium	\$0.26	\$0.26	\$0.25	Medium- High	\$8.30	\$7.70	High
<b>Louisville, KY (Transportation Tomorrow South Corridor LRT)</b>	Medium	\$0.56	\$0.56	\$0.57	Medium	\$10.20	\$12.60	Medium
<b>Phoenix, AZ (Central Phoenix/East Valley Corridor)</b>	High	\$0.54	\$0.54	\$0.49	Medium	\$10.77	\$11.58	Medium
<b>Wilmington, DE (Transit Connector)</b>	Low- Medium	\$0.86	\$0.86	\$0.89	Medium- High	\$6.84	\$11.04	Medium- High

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

\*\* Baseline Alternative

"N/A" = Not Available

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**Chicago/Metra Union-Pacific West Line**

Chicago's Metra commuter rail division is planning additional extensions and improvements on its Union Pacific West Commuter Rail line. The Union Pacific West project, also known as the Central Kane Corridor, is an extension of the existing 35-mile Union Pacific West line which currently provides service between Geneva and downtown Chicago. This project would extend the line 8.5 miles west to Elburn, with two new stations serving Elburn and La Fox. The extension itself will use existing railroad track and right-of-way currently used by both Metra and the Union Pacific freight railroad. The scope of the project includes multiple track and signal improvements, construction of the two new stations and associated parking facilities, a new train yard, and the purchase of two diesel locomotives and eight bi-level passenger cars. This project will link the rapidly developing communities to the west of Chicago with the major employment center in the Chicago CBD. The total capital cost of the Union Pacific West extension and improvements project is estimated at \$134.60 million, of which Metra is expected to seek \$80.76 million in Federal new starts funding. Metra estimates that this project will serve 3,900 average weekday boardings by 2020, and 2,700 new riders.

Section 3030(a)(13) of TEA-21 authorizes this project as the Chicago "West Line Expansion" for final design and construction. FTA approved Metra's request to enter preliminary engineering for this project in December 1998. Metra completed an Environmental Assessment in June 2000, and FTA issued a Finding of No Significant Impact in August 2000. This project has been rated "medium" for project justification and "medium-high" for finance, based on FTA's evaluation under §5309(e). This results in an overall project rating of "recommended."

Based on this rating, FTA approved this project for final design in January 2001.

### **Girdwood, AK/Girdwood Commuter Rail**

The Alaska Railroad Corporation (ARRC) is proposing improvements to a segment of railroad between Anchorage and Girdwood, Alaska. This project involves the construction of a second track along a 5-mile segment of the main line. The double-tracking of this section will increase speeds and facilitate operations in an industrial area of Anchorage where many ARRC freight customers are located. ARRC operates both freight and passenger service over this section of the line. Passenger service is primarily geared toward serving tourists between the months of May and September. Due to harsh winter conditions of frozen ground, ice and snow storms, the construction season is limited to late March through November.

In 1999 the ARRC undertook a study of its system (the "Woodside Study"), which assessed the overall condition of the railroad and its ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO) Long Range Transportation Plan 2001 Update on April 25, 2001.

The total capital cost of the Girdwood double-tracking project is estimated to be \$7.00 million in current dollars, of which ARRC is expected to seek \$5.60 million in §5309 new starts funding. Under §5309(e)(8)(A), proposed new starts projects requiring less than \$25.00 million in §5309 new starts funding are exempt from the project evaluation and rating process required by

§5309(e). FTA strongly encourages sponsors who believe their projects meet the requirements for exemption to nonetheless submit information for evaluation and rating purposes, in order to provide FTA with a sound basis for decisionmaking and recommendations concerning their project. In those cases when such information is not provided, no rating can be assigned, and FTA must base its approval for advancement on a determination that basic grantmaking eligibility requirements have been met. On this basis, FTA approved the Girdwood project for entry into the final design stage of development in June 2001.

### **Girdwood, AK/Knick River to Wasilla Track Improvements**

The Alaska Railroad Corporation (ARRC) is planning a series of improvements to a segment of railroad between Anchorage and Girdwood, Alaska. As part of this effort, ARRC is proposing a project to realign sharp curves and rehabilitate two bridges between the Knik River and Wasilla. The track realignment will increase speeds, facilitate operations and improve safety for ARRC customers and staff. ARRC operates both freight and passenger service over the section of the line scheduled for improvement.

In 1999 the ARRC undertook a study of its system (the "Woodside Study"), which assessed the overall condition of the railroad and its ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO) Long Range Transportation Plan 2001 Update on April 25, 2001.

The total capital cost of the Knik River to Wasilla Track Improvements project is estimated to be \$11.30 million, of which ARRC is expected to seek \$9.00 million in §5309 new starts funding. Under §5309(e)(8)(A), proposed new starts projects requiring less than \$25.00 million in §5309 new starts funding are exempt from the project evaluation and rating process required by §5309(e). FTA strongly encourages sponsors who believe their projects meet the requirements for exemption to nonetheless submit information for evaluation and rating purposes, in order to provide FTA with a sound basis for decisionmaking and recommendations concerning their project. In those cases when such information is not provided, no rating can be assigned and FTA must base its approval for advancement on a determination that basic grantmaking eligibility requirements have been met. On this basis, FTA approved the Knik River to Wasilla Track Improvements project for entry into the final design stage of development in July 2001.

### **Nashville/East Corridor Commuter Rail**

The Metropolitan Transit Authority (MTA) and the Regional Transportation Authority (RTA) of Nashville, Tennessee are proposing to implement a 31.1-mile, 5-station commuter rail line between downtown Nashville and the City of Lebanon in Wilson County. The East Corridor Commuter Rail project would operate on an existing rail line owned by the Nashville and Eastern Railroad Authority (N&E), a governmental entity comprised of the Tennessee Department of Transportation (TDOT), Wilson County, Lebanon, Mt. Juliet and the Metropolitan Government of Nashville and Davidson County. Rolling stock and maintenance



facilities will be leased from the N&E. The MTA and RTA estimate 1,400 average weekday boardings on the proposed project in 2006, including 700 daily new riders

In 1996, the MTA and RTA initiated a study to explore the potential of commuter rail in the Nashville region. From this study, six corridors were considered for further evaluation. A 1998 study analyzed the capital costs for the three most promising corridors. As a result of these studies and efforts of the Nashville area Commuter Rail Task Force – which includes the Nashville Chamber of Commerce, area business leaders, the MPO, MTA, RTA, the Tennessee Department of Transportation (TDOT), CSX Railroad and the Nashville and Eastern Rail Authority, and the Nashville Congressional delegation – the East Corridor was selected as the first corridor to be implemented in the Nashville Area Commuter Rail System.

The Nashville MPO included the East Corridor commuter rail project in its fiscally constrained long-range transportation plan in September 1999. FTA approved the project to advance into preliminary engineering in November 1999, and RTA completed an Environmental Assessment and received a FONSI for the project in May 2000.

TEA-21 Section 3030(a)(50) authorizes the "Nashville Commuter Rail" project for final design and construction. The total capital cost of this project is estimated at \$34.90 million, of which the MTA and RTA are expected to seek \$24.00 million in §5309 new starts funding. Under §5309(e)(8)(A), proposed new starts projects requiring less than \$25.00 million in §5309 new starts funding are exempt from the project evaluation and rating process required by §5309(e). FTA strongly encourages sponsors who believe their projects meet the requirements for exemption to nonetheless submit information for evaluation and rating purposes, in order to provide FTA with a sound basis for decisionmaking and recommendations concerning their project. In those cases when such information is not provided, no rating can be assigned, and FTA must base its approval for advancement on a determination that basic grantmaking eligibility requirements have been met. On this basis, FTA approved the East Corridor Commuter Rail project to advance into final design in June 2001.

### **Pawtucket, RI/Commuter Rail Layover Facility**

The Rhode Island Department of Transportation (RIDOT) and the Massachusetts Bay Transportation Authority (MBTA) have embarked on a joint venture to design and construct a rail yard that will serve both the existing Providence-Boston service and Rhode Island's future South County commuter rail service. The Pawtucket Layover Facility project is a six-track commuter rail yard that will be used for overnight layover and storage of commuter rail equipment used on both services. The proposed site is a 12-acre parcel located in the northwest quadrant of the I-95 & Smithfield Avenue Interchange on the Pawtucket/Providence city line, adjacent to and east of the Amtrak Main Line.

The facility will provide for future commuter rail growth both at Providence and South County, Rhode Island. Currently, commuter rail carries approximately 825 riders per day at Providence with eight round trips. Ridership is expected to grow to 1,050 riders per day in 2005 with eleven round trips. Ridership studies conducted to date for the proposed South County Commuter Rail Service show an expected 2,550 riders per day would use the service to Providence. Based on the

environmental documentation submitted by the RIDOT, FTA found that the specific conditions or criteria for a Categorical Exclusion under 23 CFR 771.117(d)(11) were satisfied and that significant environmental impacts would not result. FTA issued an environmental determination on December 3, 1999.

The RIDOT and the MBTA have been pursuing the development of a commuter rail layover yard in Pawtucket since the original Pilgrim Partnership Agreement was signed in 1988. The project is included in Rhode Island's Long-Range Ground Transportation Plan, and has been adopted by the State MPO in the Transportation Improvement Program (TIP). The Pawtucket Layover Facility was authorized in TEA-21 Section 3030(c)(1)(A)(xliv).

The total capital cost for this project is estimated at \$18.50 million, of which RIDOT and MBTA are expected to seek \$10.00 million in §5309 new starts funding. Under §5309(e)(8)(A), proposed new starts projects requiring less than \$25.00 million in §5309 new starts funding are exempt from the project evaluation and rating process required by §5309(e). FTA strongly encourages sponsors who believe their projects meet the requirements for exemption to nonetheless submit information for evaluation and rating purposes, in order to provide FTA with a sound basis for decisionmaking and recommendations concerning their project. In those cases when such information is not provided, no rating can be assigned, and FTA must base its approval for advancement on a determination that basic grantmaking eligibility requirements have been met. On this basis, FTA approved the Pawtucket Layover Facility for final design in April 2001.

## Projects that have Completed Alternatives Analysis

Seven proposed new starts projects have completed alternatives analysis since the last edition of the *Annual Report on New Starts* was issued. All of these have been approved to enter the preliminary engineering stage of project development. Six of these proposed projects have been rated as "recommended" or higher; one these, the Central Phoenix East Valley Corridor project, had prior approval to enter preliminary engineering, and is included in this report with full project evaluation and rating information that had been omitted from the *Annual Report*. The seventh project is seeking less than \$25 million in §5309 new starts funding, and is therefore exempt from the project rating and evaluation process by §5309(e)(8)(A). Approvals for exempt projects to advance to the next stage of development are based on their having met basic grant eligibility requirements for the new starts program.

### **Bridgeport, CT/Intermodal Transportation Center**

The City of Bridgeport is proposing to reconstruct an intermodal facility 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 magnet to the downtown and waterfront areas. The existing Bridgeport intermodal center offers more modes of transportation services in one location than any other city in the State of Connecticut. The proposed new intermodal center is expected to improve the connectivity for transit patrons.

The City of Bridgeport, in cooperation with the Connecticut Department of Transportation and Greater Bridgeport Regional Planning Agency, has studied the feasibility of the Intermodal Center Project. In June 2000, the Greater Bridgeport Metropolitan Planning Organization selected the Bridgeport Intermodal Transportation project as the locally preferred alternative and has included it in their long-range transportation plan.

The Bridgeport Intermodal Center Project was authorized in TEA-21 by §3030(c)(1)(A)(vi). To date, no §5309 new starts funding has been appropriated for this project, though the FY 2001 appropriations act provided \$5.00 million in funding from the §5309 bus program.

The total capital cost for the intermodal center project is estimated at \$62.40 million, of which Bridgeport is expected to seek \$24.90 million in §5309 new starts funding. Under §5309(e)(8)(A), proposed new starts projects requiring less than \$25.00 million in §5309 new starts funding are exempt from the project evaluation and rating process required by §5309(e). FTA strongly encourages sponsors who believe their projects meet the requirements for exemption to nonetheless submit information for evaluation and rating purposes, in order to provide FTA with a sound basis for decisionmaking and recommendations concerning their project. In those cases when such information is not provided, no rating can be assigned, and FTA must base its approval for advancement on a determination that basic grantmaking

eligibility requirements have been met. On this basis, FTA approved this project to enter preliminary engineering in April 2001.

## **Dallas/Northwest-Southeast Light Rail MOS**

Dallas Area Rapid Transit (DART) is proposing to combine two proposed light rail extensions, the Northwest Corridor and the Southwest Corridor, into a single project. The northwest component of the combined Northwest/Southeast Light Rail MOS project is a truncated segment of the original Northwest Corridor line, which will extend from the CBD Transitway Mall and follow Harry Hines Boulevard and Union Pacific Railroad right-of-way through northwest Dallas to the City of Farmers Branch. The southeast component of the project extends from the CBD Transitway Mall to Buckner Boulevard along the median of the Good-Latimer Expressway and the Union Pacific and Southern Pacific Railroad rights-of-way. This 22-mile line represents the most cost-effective blending of the two corridors into a single project. DART intends to construct the remaining segment of the Northwest Corridor, from Farmers Branch to Carrollton, using local funds.

The northwest component of this project will link a large sector of DART's service area to the light rail system, and the southern component will connect downtown Dallas with several southern communities. Sixteen stations are proposed, with most serving as intermodal transfer points with park-and-ride facilities. Ridership is forecast at nearly 41,600 average weekday boardings in 2025, with 9,500 daily new riders. The corridor contains a dynamic mix of land uses. The northern segment contains several residential communities and activity centers, and the southern segment contains several high-activity employment centers and transit-dependent areas. Some zoning changes have been adopted to encourage transit-supportive development within the corridor and growth management policies are included in the comprehensive plan.

The DART Board approved the locally-preferred investment strategies for the Northwest and Southeast Corridors in spring 2000. These strategies were based on a major investment study and a comprehensive public involvement process to determine the best mix of transportation modes and services to meet increasing demand in each corridor. The Regional Transportation Council endorsed the locally-preferred investment strategies and adopted them into its long-range plan for the region in January 2000.

The total capital cost of the Northwest-Southeast Light Rail MOS is estimated at \$1,123.61 million, of which DART is expected to seek \$500 million in §5309 new starts funding. Section 3030(b)(15) of TEA-21 authorizes the "DART LRT Extensions" for alternatives analysis and preliminary engineering. This project is rated "medium-high" for finance and "medium" for justification, earning an overall rating of "recommended." FTA approved this project for entry into preliminary engineering in July 2001.

## **Denver/West Corridor LRT**

The Regional Transportation District (RTD) in Denver, Colorado is proposing an 11-mile light rail transit (LRT) system that will connect downtown Denver with the City of Golden. The West

Corridor light rail line would extend from the Auraria station on the existing LRT line in Denver, and follow the former Associated Rail right-of-way and US Route 6 to the intersection of Route 6 and US Route 40 in Jefferson County. The double-track system is proposed to operate on an exclusive, grade-separated right-of-way, and would also connect with the Central Platte Valley (CPV) light rail extension serving Lower Downtown (LODO). Ridership is estimated at 23,900 average weekday boardings in 2020, 11,800 of which are daily new riders.

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 this corridor in July 1997. The MIS resulted in the selection of a multimodal package of light rail and roadway transportation management improvements. The DRCOG Board has included the light rail project in the 2020 Long Range Regional Transportation Plan. A combination of Federal Highway Administration (FHWA) and State funds are being used to fund preliminary engineering activities.

Section 3030(a)(25) of TEA-21 authorizes this project for preliminary engineering. Through FY 2001, Congress has not appropriated any §5309 new starts funds for this project.

The total capital cost of the West Corridor LRT project is estimated at \$624.30 million, including right-of-way acquisition, final design, construction, and acquisition of rolling stock. Of this, the RTD is expected to seek \$366.30 million in §5309 new starts funding. This project has been rated as "medium" for both finance and justification, earning an overall rating of "recommended." Based on these ratings, FTA approved this project for entry into preliminary engineering in March 2001.

## **Honolulu/Primary Corridor Transportation**

The Department of Transportation Services (DTS) of the City and County of Honolulu is proposing a 32.2-mile, 31-station 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 includes several BRT routes that serve markets along Route 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 exclusive bus lanes along Route H-1 and street right-of way within the urban areas of Honolulu and connect a series of park and ride lots located at Kapolei, Kunia, Pearl City/Aiea, Middle Street, Dillingham/Kapalama, Iwilei, and Aloha Stadium. The proposed fleet consists of 768 vehicles, including conventional diesel buses, hybrid diesel/electric buses, articulated buses, and mini-buses in the various operating environments 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 to help resolve severe transportation congestion problems. The system is forecast to have 71,000 average weekday boardings in 2025, including 46,300 daily new riders.

Initial planning efforts for the Primary Corridor Transportation Project began in 1998, with a series of public involvement efforts known as Oahu Trans 2K. The input received led to the development of an Island-wide Mobility Concept Plan. This plan contained the general

framework and concepts for the development of the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) undertaken in 1999 and 2000. In the fall of 2000, the MIS/DEIS was issued for public and agency review, and 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.

The total cost of this project is estimated at \$648.00 million, of which DTS is expected to seek \$182.10 million in §5309 new starts funding. The "Honolulu Bus Rapid Transit Project" is authorized by Section 3030(b)(73) of TEA-21 as a new starts project. This project is rated "medium" for finance and "medium-high" for justification, resulting in an overall rating of "recommended." FTA approved this project to enter preliminary engineering in July 2001.

## **Louisville Transportation Tomorrow South Corridor LRT**

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 proposed project would 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 also includes the construction of 18 stations, purchase of up to eighteen light rail vehicles and the construction of a light rail vehicle maintenance and storage facility. The South Corridor light rail project is expected to serve 15,950 average weekday boardings by 2020, including 11,000 daily new riders.

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.

TARC estimates that this project will save nearly 1.5 million hours of travel time per year, nearly 3,000 tons of carbon dioxide emissions, and more than 35,000 BTUs of energy. Most of the major activity centers in the corridor (Churchill Downs, the Medical Center, etc.) are within walking distance of the proposed stations. The Central Business District employs 60,000 people, and enjoys good pedestrian access. Local officials have developed transit supportive land use policies at an early stage in the development of this project.

Total capital costs for the Transportation Tomorrow South Corridor project are estimated at \$671.2 million, of which TARC is expected to seek \$380.20 million in §5309 new starts funding.

This project is authorized for final design and construction as the "Louisville-Jefferson County Corridor" by Section 3030(a)(40) of TEA-21. This project has been rated "medium" for both finance and project justification, giving it an overall rating of "recommended." FTA approved the South Corridor project into preliminary engineering in August 2001.

## **Phoenix/Central Phoenix East Valley Corridor <sup>[1]</sup>**

The Regional Public Transportation Authority (RPTA) in Phoenix, Arizona is proposing a 25-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. As a first step, the RPTA is undertaking preliminary engineering on a 20.3-mile segment from the Chris-Town Mall area, through downtown Phoenix and downtown Tempe, to Mesa. The proposed project would have 28 stations and serve major activity centers including downtown Phoenix, the Sky Harbor Airport, Papago Park Center and downtown Tempe, and form the centerpiece of redevelopment along Apache Boulevard in Mesa. The total capital cost of the East Valley Corridor is estimated at \$1,241.40 million, of which RPTA is expected to seek \$620.70 million in §5309 new starts funding.

RPTA completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the spring of 1998. In September 1998, FTA granted permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase of development for a 13-mile segment of the corridor. FTA subsequently approved preliminary engineering on 20.3 miles of the proposed system. The Maricopa Association of Governments (MAG) (local metropolitan planning organization) adopted the CP/EV Corridor as a fixed-guideway corridor and included the CP/EV LRT project in the Long Range Transportation Plan and the current Regional Transportation Improvement Plan (TIP).

Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for final design and construction. This project is rated "medium-high" for finance and "medium" for justification, earning an overall rating of "recommended."

## **Wilmington, DE/Transit Connector**

The Delaware Transit Corporation (DTC) is proposing a 2.1-mile electric rail trolley system between downtown Wilmington and the waterfront. The Wilmington Transit Connector would provide service from 12<sup>th</sup> and Market Streets, through the Wilmington central business district, to the revitalized Christina Riverfront mixed-use development area. DTC plans to use vintage replica rail vehicles to preserve the historical character of the service area. This project is being undertaken as a public-private partnership initiative between the City of Wilmington and the Wilmington Renaissance Corporation, a private-sector nonprofit organization supporting downtown development and economic opportunities. The proposed route encompasses the major business, commercial and cultural activity centers of the city. Twenty-three stations and stops are planned from Rodney Square to the riverfront area, including a stop at the Amtrak intermodal station.

The project corridor lies within the relatively high-density Wilmington central business district, which includes high-rise office buildings, three to five story commercial buildings with ground floor retail and hotels, enclaves of two to three story row houses, and a riverfront area redeveloping from industrial to retail and recreational uses. The entire corridor is laid out on a street grid pattern that is relatively pedestrian friendly. Total CBD employment is 45,000. Population densities are relatively high, averaging 18,600 persons per square mile in the corridor. Several high trip generators are located in the corridor, including seven colleges, a hospital, historic commercial core, stadium, arts center, rail/bus station, and riverfront and tourist destinations. Several initiatives at the State, regional and city level are designed to contain sprawl in the Wilmington area and municipal development plans are all transit-supportive. Nearly all development proposed or under way in the City of Wilmington is located within the Wilmington Transit Connector corridor. This new development includes corporate offices, downtown housing above stores, riverfront housing, and retail and entertainment centers. The Transit Connector is part of the broader "Wilmington Initiatives" which support the redevelopment of Wilmington's downtown and focuses on transit and pedestrian improvements.

The Delaware Department of Transportation, Delaware Transit Corporation, and the City of Wilmington completed an Alternatives Analysis in December 2000 to address transportation needs within downtown Wilmington. The project was adopted by the Wilmington Area Planning Council and is included in its long-range transportation plan and FY 2000 Transportation Improvement Program.

TEA-21 Section 3030(b)(72) authorizes the "Wilmington Downtown Transit Corridor" for alternatives analysis and preliminary engineering. The total capital cost of this project is estimated at \$41.70 million, of which DTC is expected to seek \$29.20 million in §5309 new starts funding. Based on FTA's evaluation as required by §5309(e), this project has been rated "medium" for both finance and justification, earning it an overall rating of "recommended." FTA approved this project for preliminary engineering in July 2001.

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[1] The Central Phoenix East Valley Corridor was previously approved for preliminary engineering; however, it was listed as "Not Rated" in the *Annual Report on New Starts*, pending an update of the regional travel demand model at FTA's direction. This data is now available, and is presented in this report.



# Appendix A: Projects that have Completed Preliminary Engineering

## Chicago/Metra Union-Pacific West Line A-5

### Union-Pacific West Line Extension, Chicago, Illinois

(August 2001)

#### Description

Metra, the commuter rail division of the Regional Transportation Authority (RTA) of northeastern Illinois, is proposing an 8.5-mile extension to the existing 3536-mile Union-Pacific West (UPW) Line – also known as the Central Kane Corridor project. Metra's UPW commuter rail line currently provides service between downtown Chicago west to Geneva. The proposed project would extend trackage further west to Elburn, Illinois. The proposed project also includes multiple track and signal improvements, construction of two additional stations and parking facilities, construction of a new train storage yard, and the purchase of two one diesel locomotives and eight bi-level passenger cars. The proposed extension will utilize an existing railroad track and right-of-way currently used by both Metra and the Union-Pacific freight railroad. The total estimated capital cost for the UPW Line extension and improvements is \$134.6142.1 million (escalated dollars). Metra estimates 3,900 average weekday boardings on the entire UPW line in the year 2020.

#### Summary Description

<b>Proposed Project:</b>	Commuter Rail Line (extension and multiple improvements); 8.5 miles, 2 new stations
<b>Total Capital Cost (\$YOE):</b>	\$134.6142.1 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$80.7687.44 million
<b>Annual Operating Cost (\$YOE):</b>	\$6.73 million
<b>Ridership Forecast (2020):</b>	3,900 average weekday boardings 2,700 daily new riders
<b>FY 2002 Financial Rating:</b>	<b>Medium-High</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating of *Recommended* is based on the strength of the project's financial plan and the strong mobility improvements and environmental benefits that are anticipated for the UPW Line Extension. The overall project rating applies to this *Supplemental New Starts Report* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As

new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined.

## **Status**

In April 1997, Metra initiated a Major Investment Study (MIS) for the Central Kane Corridor. The purpose of the MIS was to analyze the ability and cost effectiveness of various alternative investment strategies to serve the growing need for travel from the Central Kane Corridor to the

Chicago CBD. The MIS was completed in August 1998. Based on the results of the MIS, Metra selected Rail Alternative R1 as the Locally Preferred Alternative (LPA). This project would provide for the extension of commuter rail service from Geneva to Elburn, Illinois on the UPW Line. The LPA was included in the Chicago Area Transportation Study's (local Metropolitan Planning Organization) 2020 financially constrained Long-Range Transportation Plan and Transportation Improvement Program in November 1997.

In December 1998, FTA approved Metra's request to initiate preliminary engineering (PE) and the environmental review process of project development on the UPW Line Extension. Metra completed an Environmental Assessment (EA) for the UPW Line Extension in June 2000. FTA issued a Finding of No Significant Impact on the EA in August 2000. In January 2001, FTA approved this project to initiate final design.

Section 3030(a)(13) of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorizes the "West Line Extension" for final design and construction. Through FY 2001, Congress has appropriated \$16.44 million in Section 5309 New Starts funds for the project.

## **Evaluation**

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that information for a specific criterion was not available. FTA has evaluated this project as being in preliminary engineering.

## **Justification**

The *Medium* rating reflects the UPW Line's strong mobility improvements and environmental benefits, while acknowledging the relatively low ratings for cost-effectiveness and transit-supportive land use.

## **Mobility Improvements**

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

Metra estimates 3,900 average weekday boardings and 2,700 daily new riders on the UPW Line Extension in the year 2020. Metra estimates the following annual travel time savings for the project:

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Annual Travel Time Savings (Hours)</b>	0.3 million	0.8 million

Based on 1990 census data, there is one (1) reported low-income household within a ½-mile radius of the two proposed stations, representing 2 percent of the total number of households within a ½-mile of the proposed stations.

### **Environmental Benefits**

**Rating: High**

Northeastern Illinois is classified as being in "severe" nonattainment for ozone and is in attainment for carbon monoxide (CO) and particulate matter (PM<sub>10</sub>). Metra estimates a slight increase in Volatile Organic Compounds (VOC) for the New Start versus the TSM. Metra estimates that in the year 2020, the proposed project would result in the following emissions reductions:

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	215	154
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	36	26
<b>Volatile Organic Compounds (VOC)</b>	3	[5]
<b>Particulate Matter (PM<sub>10</sub>)</b>	0	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	14,390	10,624

*Values reflect annual tons of emissions reductions. Values in [ ] represent an increase in emissions.*

Metra estimates that the proposed project will result in the following decreases in regional energy consumption (measured in British Thermal Units – BTUs):

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	188,315	138,867

*Values reflect annual BTU reductions.*

### **Operating Efficiencies**

**Rating: Medium**

Metra estimates the following systemwide operating cost per passenger mile in the year 2020 for the New Start, No-Build, and TSM alternatives.

	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2020)</b>	\$0.23	\$0.23	\$0.22

*Values reflect 2020 ridership forecast and 1997 dollars.*

**Cost Effectiveness**

**Rating: Low-Medium**

Metra estimates the following cost effectiveness indices, comparing the proposed project to the No-Build and TSM alternative:

	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$17.20	\$21.50

*Values reflect 2020 ridership forecast and 1997 dollars.*

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

**Rating: Low-Medium**

The *Low-Medium* land use rating reflects the marginally transit-supportive and low-density development that currently exists in the UPW Line Corridor, but acknowledges the proactive efforts being undertaken by Metra, the Regional Transportation Authority (RTA) of Northeastern Illinois, and Kane County municipalities in coordinating station area development.

**Existing Conditions:** The existing Union Pacific West Line (Central Kane Corridor) connects rapidly developing communities west of Chicago with a major employment center in Chicago’s central business district (CBD). Development in the existing station areas along the line varies from rural towns to high-density residential and commercial uses. Downtown Chicago, which is a major destination for riders, contains high density, pedestrian and transit-friendly development. Land use in proposed station areas on the western end of the corridor is relatively low in density, or agricultural/rural in character. Major trip generators along the western part of the corridor include the Kane County Government Center, Judicial Center, Delnor Hospital, Charlestown Mall, Dupage County Airport (third busiest airport in Illinois), Fermi National Accelerator Laboratory in Batavia and Waubensee Community College in Sugar Grove. Low or medium-density single-family housing characterizes the majority of development in Kane County, although a significant amount of undeveloped land exists within the proposed and existing station areas.

**Future Plans and Policies:** At the regional, corridor and municipal level, population and job growth trends suggest continued rapid development throughout the study area. The outer suburbs in Kane County are expected to grow the most rapidly. The *Elburn Land Use Plan* seeks to avoid isolated pockets of development, while promoting the preservation of open space by accommodating compact development and higher densities, encouraging infill development within walking distance of the Elburn CBD, and limiting strip-commercial development. Within the plan, land has been set aside for a potential station. As part of Geneva's *Future Land Use and Development Policies*, the municipality will encourage residential development and redevelopment that will provide diversity in housing types, including higher densities in the downtown area. The RTA has been very active in developing and sharing information about transit-oriented development through production of studies, workshops and reports, and has a grant program for supporting TOD initiatives. Growth management policies are discussed in several regional and county-level planning documents. However, these documents provide general non-binding recommendations for managing growth. With some exceptions, zoning regulations in corridor municipalities are generally designed to preserve the suburban and rural character of the communities.

Elburn has taken a proactive approach to parking policies within its CBD. The existing zoning ordinance allows joint or shared parking. Developments that can show that a parking facility is located within close proximity will be allowed a reduction in the required number of spaces. In addition to existing transit parking facilities, Geneva also has a remote parking lot that is connected to the station via a shuttle bus. The remote lot has a shared-parking agreement with a local church located approximately one mile from the station. Parking is free and the shuttle service is \$0.50 per trip. Outside of Elburn and the City of Chicago, communities do not have existing policies in effect to limit parking supplies.

## **Local Financial Commitment**

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

The project financial plan proposes to use \$80.7687.44 million (60.62 percent of total project costs) in Section 5309 New Starts funds, \$12.9 million (10 percent of total project costs) in Section 5309 Fixed Guideway Modernization funds, \$22.521 million (17.15 percent) of Strategic Capital Improvement Program (SCIP) bonds backed by the State of Illinois, \$17.6 million (13.23 percent) in Metra contributions, and \$1.1 million from RTA and local governments.

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

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

The *Medium-High* rating reflects the soundness of Metra's financial condition and the strength of the agency's dedicated revenue sources. The rating also acknowledges the commitment of the majority of non-Section 5309 New Starts funds to the UPW Line Extension.

**Agency Capital Financial Condition:** Metra's financial condition is strong. Metra has two revenue sources that are available for funding capital projects: a five percent fare increase, introduced in 1989 and dedicated to capital improvements, currently generates \$9 million

annually. In addition, Metra's portion of the RTA sales tax revenues (collected in the six-county region) that exceeds Metra's operating expenses is applied to capital improvements. In 1999, Metra's share of the sales tax revenue totaled \$208 million. Excess sales tax revenue, along with revenue generated from the five percent fare increase, provided a total of \$39 million. Metra also plans to contribute approximately \$17.2632.5 million from the agency's funding sources, including rolling stock contributions and capital fund contributions, to the construction of the UPW Line Extension. The remainder of the local share (\$23.622.11 million) will be funded via State Bonds, the RTA Strategic Capital Improvement Program (SCIP) and local government contributions.

**Capital Cost Estimates and Contingencies:** Total capital cost estimates increased over the last year to reflect more definitive engineering analyses. Contingencies are now considered adequate given the project's size and scope.

**Existing and Committed Funding:** Funds for the Union-Pacific West Line Extension are programmed in Metra's five-year (FY00-FY04) capital program. The RTA has legislatively authorized the funds from the SCIP bond program.

**New and Proposed Sources:** No new funding sources are proposed for the UPW Line Extension.

### **Stability and Reliability of Operating Finance Plan Rating: High**

The *High* rating reflects the strong operating condition of Metra. The rating also acknowledges the agency's full commitment of the required operating and maintenance funding for the UPW Line Extension.

**Agency Operating Condition:** Metra is projecting system-wide operating budgets through the year 2001 that represent a 55 percent revenue recovery ratio for the agency. The agency's 1999 Financial Report indicated that Metra had an operating loss, before depreciation, of \$173.2 million (a 6.5 percent increase over the prior year's operating loss). Metra received \$215.1 million in tax revenue, which covered the operating deficit. Tax revenue grew at a slightly faster rate than the operating loss (6.6 percent over the previous year). Total operating revenues for the agency increased from \$122.2 million to \$128.1 million (a 4.9 percent increase).

**Operating Cost Estimates and Contingencies:** Annual operating and maintenance costs are estimated at \$6.73 million in the opening year.

**Existing and Committed Funding:** Operating funds (sales tax revenues) for the UPW Line Extension are existing and committed. A statutory mandate requires Metra to fund operations with tax proceeds before funding capital improvements. The sales tax is considered a reliable funding source since it responds to growth in the economy and price level inflation.

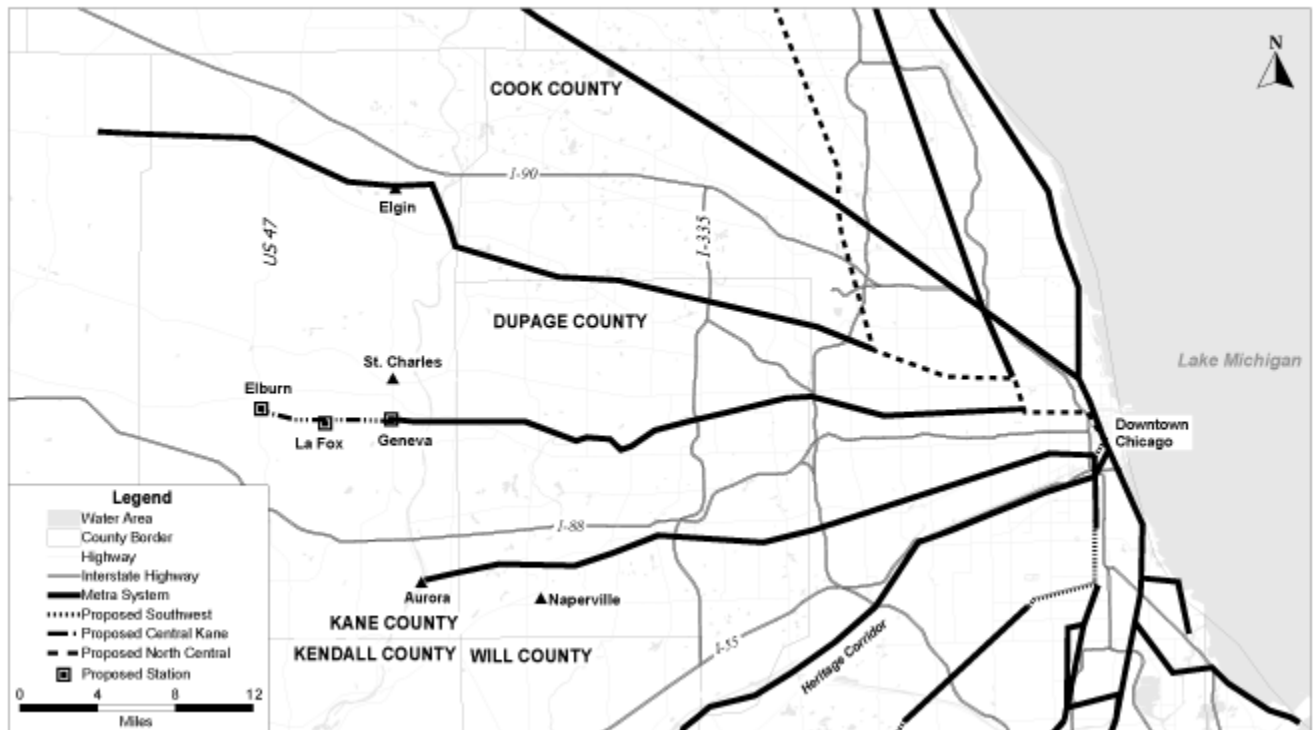
**New and Proposed Sources:** No new operating revenues are proposed for the UPW Line Extension.

**Locally Proposed Financing Plan (Reported in \$YOE)**

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	80.8	<b>(\$16.44 million appropriated through FY 2001)</b>
Section 5309 Fixed Guideway Modernization	12.9	
<b>State:</b>		
Bonds	22.5	
<b>Local:</b>		
Metra	17.3	
RTA	0.5	
Local Governments	0.6	
<b>TOTAL</b>	<b>134.6</b>	

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

**Union-Pacific West Line Extension**  
Chicago, IL



# Girdwood, AK/Commuter Rail Project A-13

Alaska Railroad Commuter Rail Project  
Girdwood, Alaska

(August 2001)

## Description

The Alaska Railroad Corporation (ARRC) is proposing to improvements to a segment of railroad between Anchorage and Girdwood, Alaska. The project involves construction of a five-mile section of new main line south of Anchorage toward Girdwood. The double-tracking will increase speeds and facilitate operations in an industrial area of Anchorage where many ARRC freight customers are located. ARRC operates both freight and passenger service over the section of trackage to be improved. Passenger service is primarily geared toward serving tourists between the months of May and September. Due to harsh winter conditions of frozen ground, ice and snow storms, the construction season is limited to late March through November.

The capital cost of the project is estimated to be \$7,027,300 in current dollars. The FTA Section 5309 share is expected to be \$5,621,840. **Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating** (49 U.S.C. Section 5309(e)(8)(A)).

## Summary Description

<b>Proposed Project:</b>	Commuter Rail (5-miles)
<b>Total Capital Cost (\$YOE):</b>	\$7.0 million
<b>Section 5309 Share:</b>	\$5.6 million
<b>Annual Operating Cost:</b>	Not Reported
<b>Ridership Forecast:</b>	Not Reported

## Status

In 1999 the ARRC undertook a study of its system titled Woodside Study, which assessed the overall condition of the railroad and the ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way.

FTA approved a categorical exclusion to meet NEPA requirements in July 2000. In June 2000, the Federal Transit Administration (FTA) approved entry into preliminary engineering (PE) for the Alaska Railroad Curve Straightening and Double Tracking Project. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO) Long Range



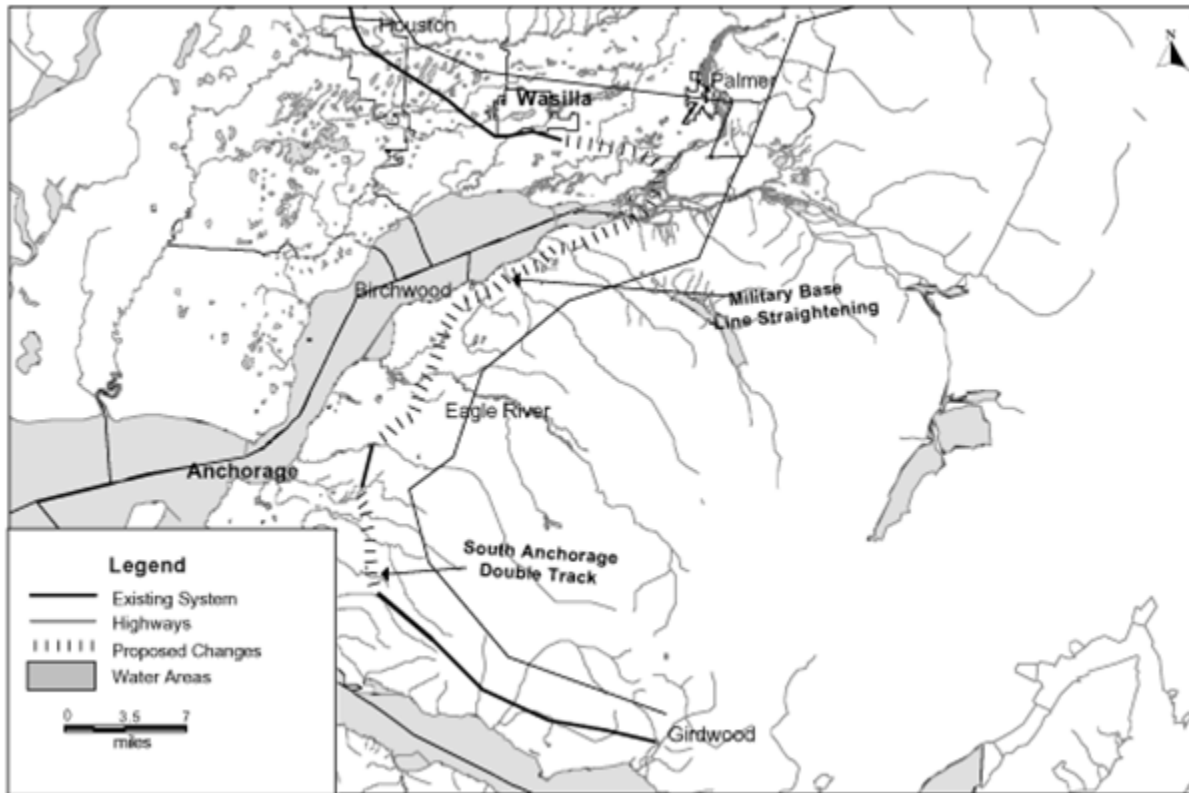
Transportation Plan 2001 Update on April 25, 2001. In June 2001, FTA approved this project to initiate final design.

### Locally Proposed Financing Plan (Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	5.6	(\$9.9 million appropriated through FY00 for entire 71-mile project)
Local:	1.4	
<b>TOTAL</b>	<b>\$7.0</b>	

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

### Map of Alaska Railroad Commuter Rail, Girdwood, Alaska



Federal Transit Administration, 2001

# Girdwood, Alaska, Knik River to Wasila

Alaska Railroad Commuter Rail Project  
Knik River to Wasilla Track Improvements  
Girdwood, Alaska  
(2001)

## Description

The Alaska Railroad Corporation (ARRC) is proposing to improvements to a segment of railroad between Anchorage and Girdwood, Alaska. The project will realign sharp curves and rehabilitate two bridges between the Knik River and Wasilla. The track realignment will increase speeds and facilitate operations and improve safety for ARRC customers and staff. ARRC operates both freight and passenger service over the section of trackage scheduled for improvement.

The capital cost of the project is estimated to be \$11,305,180 in current (2000) dollars. The FTA Section 5309 share is expected to be \$9,044,144. **Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and is thus not subject to FTA's evaluation and rating** (49 U.S.C. Section 5309(e)(8)(A)).

## Summary Description

<b>Proposed Project:</b>	Commuter Rail
<b>Total Capital Cost (\$YOE):</b>	\$11.3 million
<b>Section 5309 Share:</b>	\$9.0 million
<b>Annual Operating Cost:</b>	Not Reported
<b>Ridership Forecast:</b>	Not Reported

## Status

In 1999 the ARRC undertook a study of its system titled Woodside Study, which assessed the overall condition of the railroad and the ability to undertake various types of improvements, including commuter rail. During 2000, the study identified the benefits of incrementally improving the performance of the railroad on its existing right-of-way.

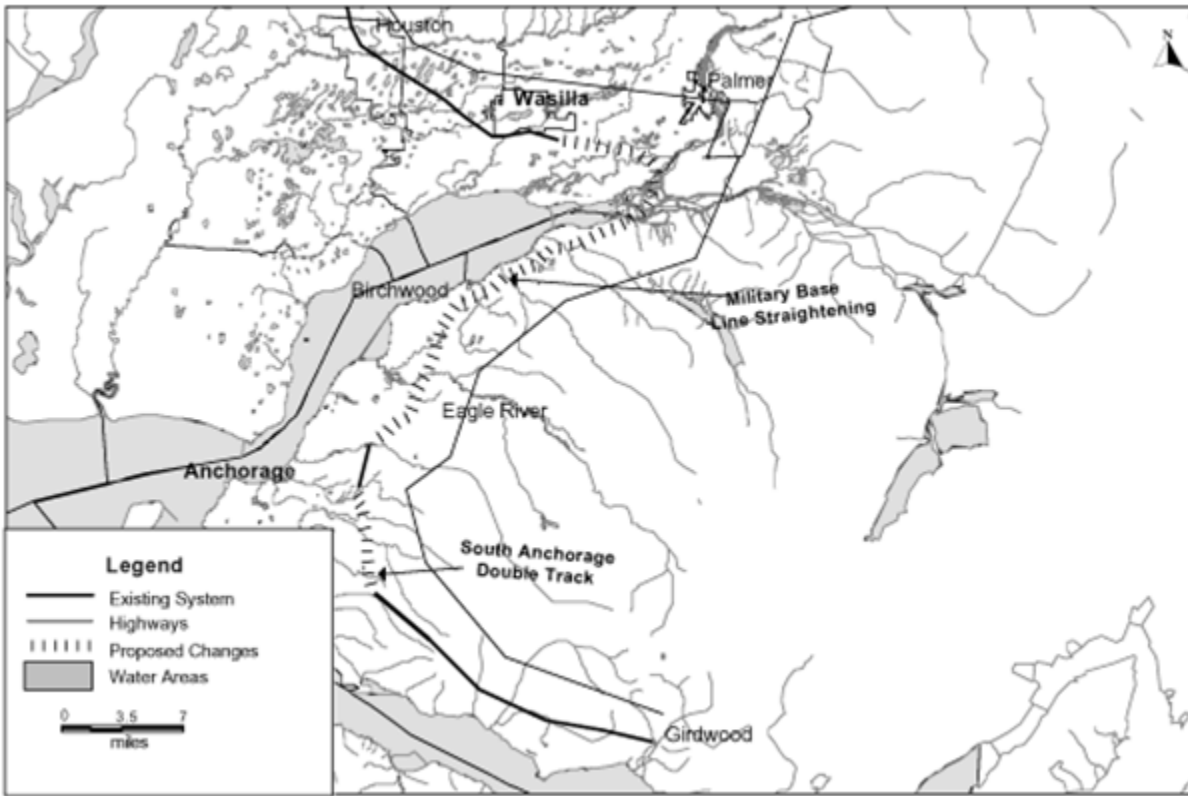
FTA approved a categorical exclusion to meet NEPA requirements in July 2000. In June 2000, the Federal Transit Administration (FTA) approved entry into preliminary engineering (PE) for the Alaska Railroad Curve Straightening and Double Tracking Project. The project was included in the Anchorage Metropolitan Transportation Study's (AMATS/Anchorage MPO) Long Range Transportation Plan 2001 Update in April 2001. In July 2001, FTA approved this project to initiate final design.

**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
Federal: Section 5309 New Starts	9.0	<b>(\$9.9 million appropriated through FY00 for entire 71-mile project)</b>
Local:	2.3	
<b>TOTAL</b>	<b>\$11.3</b>	

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

**Map of Alaska Railroad Commuter Rail, Girdwood, Alaska**



Federal Transit Administration, 2001

# Nashville/East Corridor Commuter Rail A-21

East Corridor Commuter Rail

Nashville, Tennessee

(August 2001)

## Description

The Metropolitan Transit Authority (MTA) and the Regional Transportation Authority (RTA) of Nashville, Tennessee are proposing the implementation of a 31.1-mile, 5 station commuter rail line between downtown Nashville and the City of Lebanon in Wilson County. The East Corridor commuter rail project is proposed to operate on an existing rail line owned by the Nashville and Eastern Railroad Authority (N&E), a governmental entity comprised of the Tennessee Department of Transportation (TDOT), Wilson County, Lebanon, Mt. Juliet, and the Metropolitan Government of Nashville and Davidson County. Rolling stock and maintenance facilities will be leased from the N&E.

The MTA and RTA estimate 1,400 average weekday boardings on the proposed project in 2006, including 700 daily new riders. The project is estimated to cost \$34.9 million in escalated dollars, with a proposed Section 5309 New Starts share of \$24.0 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 Section 5309(e)(8)(A)).

<b>Summary Description</b>	
<b>Proposed Project:</b>	Commuter Rail (31.1 miles, 5 stations)
<b>Total Capital Cost (\$YOE):</b>	\$34.9 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.0 million
<b>Annual Operating Cost (\$YOE):</b>	\$2.0 million
<b>Ridership Forecast (2006):</b>	1,400 avg. weekday boardings 700 daily new riders

## Status

In 1996, the MTA and RTA initiated a study to explore the potential of commuter rail in the Nashville region. From this study, six corridors were considered for further evaluation. A 1998 study analyzed the capital costs for the three most promising corridors. As the result of these studies and efforts of the Nashville area Commuter Rail Task Force --- which includes the Nashville Chamber of Commerce, area business leaders, the MPO, MTA, RTA, the Tennessee Department of Transportation (TDOT), CSX Railroad and the Nashville and Eastern Rail Authority, and the Nashville Congressional delegation --- the East Corridor was selected as the first corridor to be implemented in the Nashville Area Commuter Rail System.

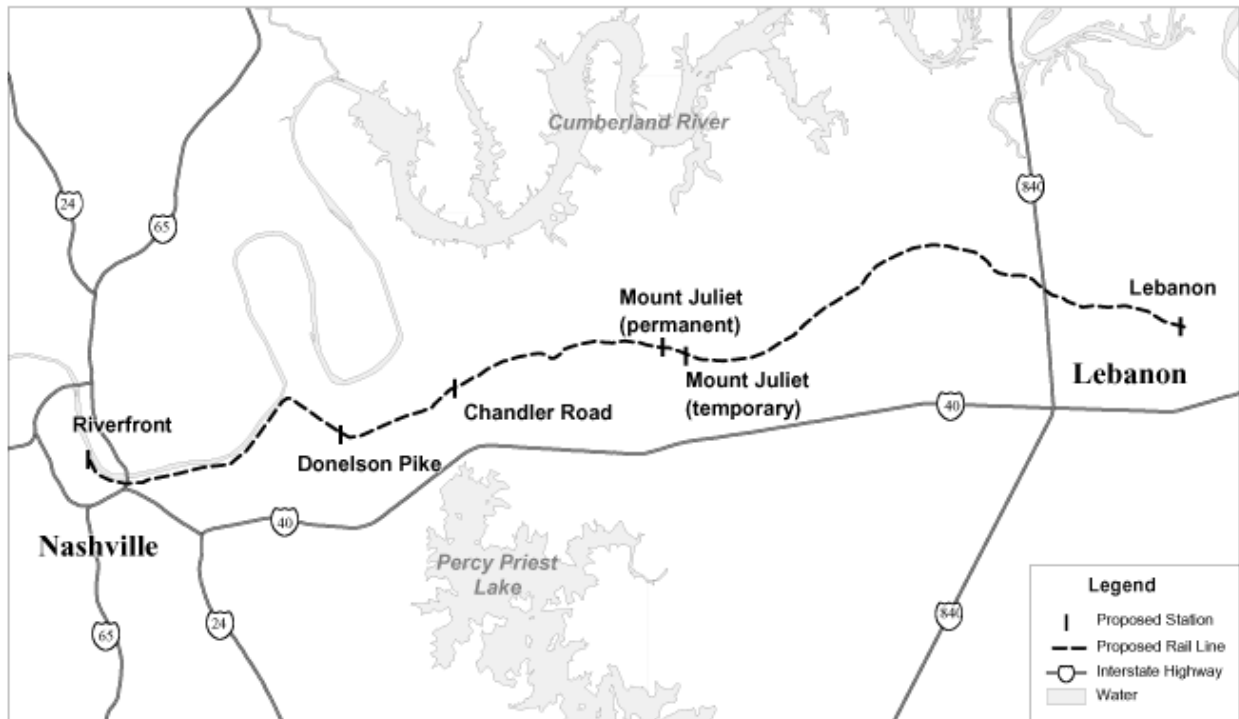
The Nashville MPO included the East Corridor commuter rail project in its fiscally constrained long range transportation plan in September 1999. The FTA approved the project to advance into preliminary engineering in November 1999. The RTA completed an Environmental Assessment and received a FONSI for the project in May 2000. In June 2001, FTA approved the project to advance into Final Design.

TEA-21 Section 3030(a)(50) authorizes the "Nashville Commuter Rail" project for final design and construction. Through FY 2001, Congress has appropriated \$7.9 million for the project.

<b>Locally Proposed Financing Plan (Reported in \$2001)</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
Federal:		
Section 5309 New Starts	24.0	<b>(\$7.9 million appropriated through FY 2001)</b>
FHWA Intermodal	3.9	
Local:		
Tennessee DOT	3.5	
Local government funding	3.5	
<b>TOTAL</b>	<b><u>\$34.9</u></b>	
<p><b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.</p>		

# East Corridor Commuter Rail

## Nashville, Tennessee



Federal Transit Administration, 2001

# Pawtucket, RI/Commuter Rail Layover Facility A-25

Rhode Island Commuter Rail Improvement Program

Pawtucket Layover Facility

Pawtucket, Rhode Island

(August 2001)

## Description

The Pawtucket Layover Facility Project is a joint Rhode Island Department of Transportation (RIDOT)/Massachusetts Bay Transportation Authority (MBTA) venture, consisting of the design and construction of a six-track commuter rail yard for the purpose of overnight layover/storage of commuter rail equipment, to serve both the existing Providence-Boston service and Rhode Island's future South County commuter rail service. The proposed site is located in the northwest quadrant of the I-95 & Smithfield Avenue Interchange on the Pawtucket/Providence city line. The twelve-acre parcel is situated adjacent to and east of the Amtrak Main Line.

The facility will provide for future commuter rail growth both at Providence and South County, RI. Currently, commuter rail carries approximately 825 riders per day at Providence with eight round trips. Ridership is expected to grow to 1,050 riders per day in 2005 with eleven round trips. Ridership studies conducted to date for the proposed South County Commuter Rail Service show an expected 2,550 riders per day would use the service to Providence.

The total capital cost for this project is \$18.5 million, with a proposed Section 5309 New Starts share of \$10 million. **Since the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and thus is not subject to FTA's evaluation and rating (49 USC Section 5309 (e)(8)(A)).**

Summary Description	
Proposed Project:	Pawtucket Layover Facility
Total Capital Cost (\$YOE):	\$18.5 million
Section 5309 New Starts Share (\$YOE):	\$10 million
Annual Operating Cost (\$2003):	\$1.0 million

## Status

The Pawtucket Layover Facility was authorized in TEA-21 in Section 3030 (c)(1)(A)(xliv). Through FY 2001, RIDOT has received \$0.5 million in Section 5309 New Starts appropriations.

The RIDOT, in conjunction with the MBTA, has proposed the development of a commuter rail layover yard in Pawtucket, Rhode Island since the original Pilgrim Partnership Agreement was signed in 1988. The project is included in Rhode Island's Long Range Ground Transportation Plan, and has been adopted by the State MPO in the Transportation Improvement Program (TIP).

Based on the environmental documentation submitted by the RIDOT, the FTA found that the specific conditions or criteria for a Categorical Exclusion under 23 CFR 771.117(d)(11) were satisfied and that significant environmental impacts would not result. FTA issued an environmental determination on December 3, 1999.

Preliminary engineering and final design have been completed. This project was approved for final design in April 2001. Construction is expected to begin in the Fall 2001 and be completed in late 2002. The layover yard would begin operations in late 2002/early 2003.

The MBTA, as the responsible agency for final design and construction, has developed a recent construction cost estimate of \$18.5 million (escalated dollars) for this project. RIDOT and MBTA propose completing the project with Section 5309 New Starts funds, Section 5309 Fixed Guideway Modernization funds, and MBTA funds.

<b>Locally Proposed Financing Plan (Reported in \$YOE)</b>		
<b><u>Proposed Source of Funds</u></b>	<b><u>Total Funding (\$million)</u></b>	<b><u>Appropriations to Date</u></b>
Federal:		
<b><u>Section 5309 New Starts</u></b>	\$10.0	<b>(\$0.5 million appropriated through FY 2001)</b>
Section 5309 Fixed Guideway	\$4.7	<b>\$1.45 million FY 2000</b>
Modernization		<b>\$2.36 million FY 2001</b>
		<b>\$0.96 million FY 2002</b>
Local:		
MBTA	\$3.8	



Bonds		
<b>TOTAL</b>	<b><u>\$18.5</u></b>	
<b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions. Totals may not add due to rounding.		

# Appendix B: Projects that have Completed Alternatives Analysis

## Bridgeport, CT/Intermodal Transportation Center B-5

(August 2001)

### Description

The City of Bridgeport is proposing to undertake 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 magnet 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 the 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. **Since the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria, and thus is not subject to FTA's evaluation and rating (49 USC Section 5309 (e)(8)(A)).**

### Summary Description

<b>Proposed Project:</b>	Bridgeport Intermodal Transportation Center – Phase II & III
<b>Total Capital Cost (\$YOE):</b>	\$62.4 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$24.9 million

### Status

The City of Bridgeport, in cooperation with the Connecticut Department of Transportation and Greater Bridgeport Regional Planning Agency, has studied the feasibility of the Intermodal Center Project. June 2000, Greater Bridgeport MPO selected the Bridgeport Intermodal Transportation project as the locally preferred alternative and has included it in their long-range transportation plan. FTA approved this project to initiate in Preliminary Engineering in April 2001.

The Bridgeport Intermodal Center Project was authorized in TEA-21 in Section 3030(c)(1)(A) (vi). To date, the City has not received any Section 5309 New Starts appropriations. However, the project received a \$5 million dollar Section 5309 Bus appropriation in FY 2001.

**Locally Proposed Financing Plan (Reported in \$YOE)**

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$24.9	(\$0 million appropriated through FY 2001)
Section 5309 Bus	\$5.0	FY 2001 appropriation
<b>Local:</b>		
Match – State Funding – Department of Communities and Development	\$7.5	
Additional Participation - City of Bridgeport	\$25.0	
<b>TOTAL</b>	<b>\$62.4</b>	

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

# Dallas/Northwest-Southeast Light Rail MOS B-7

Dallas, Texas

(August 2001)

## Description

The Dallas Area Rapid Transit (DART) proposes to construct a minimum operable segment (MOS) of the light rail transit (LRT) extensions along the combined Northwest and Southeast corridors, known as the Northwest/Southeast Light Rail MOS (NW/SE LRT MOS). The northwest component of the NW/SE LRT MOS is a truncated version of DART's Northwest Corridor LRT line; the southeast component of the project is the entire Southeast Corridor LRT line. The NW/SE LRT MOS represents the most cost-effective blending of the two LRT corridors into a single project. DART intends to construct the northernmost segment of the Northwest Corridor LRT, from Farmers Branch to Carrollton, with local funds.

The NW/SE LRT MOS is a new 22-mile LRT line linked by DART's existing CBD Transitway Mall. The Northwest component of the project extends southward from the City of Farmers Branch, through Northwest Dallas to the Dallas central business district (CBD), with an alignment generally following the Union Pacific Railroad (UPRR) and Harry Hines Boulevard rights-of-way until joining the CBD Transitway Mall. The NW/SE LRT MOS shares four stations with the existing CBD Transitway Mall. The Southeast component of the project is located entirely within the City of Dallas, and extends from the CBD Transitway Mall to Buckner Boulevard generally aligned along the median of the Good-Latimer Expressway and the UPRR and Southern Pacific Railroad rights-of-way.

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 capital cost estimate for the NW/SE LRT MOS is \$894 million (current dollars) and \$1.1 billion (escalated dollars). Ridership is forecast at nearly 41,600 average weekday boardings in 2025, and approximately 9,500 daily new riders.

## Summary Description

<b>Proposed Project:</b>	Light rail line extension; 22 miles, 16 stations
<b>Total Capital Cost (\$YOE):</b>	\$ 1,123.61 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$ 500 million

<b>Annual Operating Cost (\$YOE):</b>	\$ 36.8 million
<b>Ridership Forecast (2025):</b>	41,600 avg. weekday boardings 9,500 daily new riders
<b>FY 2002 Finance Rating:</b>	<b>Medium-High</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The **Recommended** 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 *Supplemental Report on New Starts* **and reflects conditions as of August 2001**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

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 MPO for the Dallas-Fort Worth Metropolitan Area, endorsed the LPIS and adopted it into the long-range plan in January 2000. In July 2001, FTA approved this project into preliminary engineering. DART is currently preparing a Draft Environmental Impact Statement for each of the two corridors. DART has combined the two extensions into a single MOS for consideration as the federal new starts project. DART intends to locally fund the segment of the Northwest Corridor between Farmers Branch and Carrollton.

The "Dallas – DART LRT Extensions" are authorized by Section 3030(b)(15) of TEA-21. Through FY 2001, 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 *Technical Guidance on Section 5309 New Starts Criteria*. Criteria have been reported and evaluated on the NW/SE LRT MOS and a New Starts baseline alternative, instead of the TSM and No Build alternatives. FTA has evaluated this project as being in preliminary engineering.

## Justification

The *Medium* project justification rating reflects the good mobility improvements, the positive environmental benefits of the project, and regional efforts to encourage transit supportive land use at station areas.

### Mobility Improvements

**Rating: Medium - High**

DART estimates that the project will serve 41,570 average weekday boardings and attract 9,500 daily new riders by 2025, and would result in the following annual travel time savings.

Mobility Improvements	New Start vs. New Starts Baseline Alternative
Annual Travel Time Savings (Hours)	1.7 million

Based on 1990 Census data, there are an estimated 3,063 low-income households within a ½ mile radius of the 16 stations along the NW/SE LRT MOS.

### Environmental Benefits

**Rating: High**

The Dallas-Fort Worth region is designated as a serious non-attainment area for ozone. DART estimates that in 2025, the MOS project would result in the following annual emissions reductions.

Criteria Pollutant	New Start vs. New Starts Baseline Alternative
Carbon Monoxide (CO)	45
Nitrogen Oxide (NO <sub>x</sub> )	1
Volatile Organic Compounds (VOC)	4
Particulate Matter (PM <sub>10</sub> )	[12]
Carbon Dioxide (CO <sub>2</sub> )	30,014

*Values reflect annual tons of emissions reductions. [ ] indicate an increase in emissions.*

In 2025, the project is estimated to result in the following savings in regional energy consumption (measured in British Thermal Units – BTU).

Annual Energy Savings	New Start vs. New Starts Baseline Alternative
BTU (million)	356,522

*Values reflect annual BTU reductions.*

## Operating Efficiencies

**Rating: Low**

DART estimates the following costs per passenger mile for the project.

	<b>New Start Baseline Alternative</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2025)</b>	\$0.62	\$0.65

## Cost Effectiveness

**Rating: Low-Medium**

DART estimates the following cost effectiveness index for the project.

<b>Measure</b>	<b>New Start vs. New Starts Baseline Alternative</b>
<b>Incremental Cost per Incremental Passenger</b>	\$13.14

## Transit-Supportive Existing Land Use and Future Patterns

**Rating: Medium**

The *Medium* land use rating reflects the region's success at incorporating mixed uses and infill development in a transit supportive environment.

### Existing Conditions:

The project corridor contains a dynamic mix of land uses. The northern segment contains several residential communities and activity centers, and also includes some high trip generators. The southern segment contains several high activity, employment centers, and transit dependent areas located primarily in proximity to the four northernmost stations near the Dallas CBD, and large expanses of low density single family housing in the station areas farther south of the CBD.

A number of plans and studies have been developed to address transit supportive land uses within station areas. Some zoning changes have been adopted to encourage transit supportive development within the corridor. Growth management policies are included in the comprehensive plans of both corridor cities. Both the City and region have adopted or recommended policies that address development and density issues in station areas, as well as land use objectives along LRT corridors.

### Future Plans and Policies:

The impact of the NW/SE LRT MOS stations will be further enhanced as the City of Dallas moves forward with adoption of a proposed, new zoning designation, Urban Corridors, that applies both to areas around light rail stations as well as along major arterials served by buses. Various projects and redevelopment plans are being prepared in anticipation of the LRT extension. Station area development and higher corridor densities are being promoted based on an economic study prepared by the University of North Texas, which indicated higher property values around stations as compared to similar properties without rail. As DART initiates its 2025 Transit System Plan, one of the elements to be incorporated for the first time is Land Use/Economic Development, including guidelines for member cities on how to plan for transit supportive land use.

The sustainable development policy in the metropolitan transportation plan supports diversifying land use and development by providing diverse housing types, reducing segregation of land uses in appropriate areas, supporting increased residential and employment densities near transit stations and establishing mixed-use zones around stations. The Master Interlocal Agreement between the City of Dallas and DART provides guidelines on the development of station area plans around the proposed stations. The strong public involvement realized during the alternatives analysis phase is expected to continue during project development, facilitating development of additional transit-supportive policies within the project corridors.

## **Local Financial Commitment**

### **Proposed Local Share of Total Project Costs: 55 %**

The financial plan for the NW/SE MOS proposes to use \$500 million (45 percent of total project costs) in Section 5309 New Starts funds, \$30.44 million (2.7 percent) in Section 5307 formula funds, \$4.44 million (0.3 percent) in CMAQ funds, and \$588.73 million (52 percent) in local funds.

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

The *Medium-High* capital finance plan rating reflects the sound financial condition of DART and the solid local financial support to undertake the proposed project, as evidenced by the August 2000 public referendum allowing DART to issue up to \$2.9 billion in long-term bonds to expedite construction of the light rail build-out and fund other capital projects.

**Agency Capital Financial Condition:** DART has a longstanding and stable dedicated revenue stream from which total sources of funds are projected to exceed total uses over the 20 year cash flow projection. DART has demonstrated that the agency has the fiscal capability and sufficient funding to construct the project.

**Capital Cost Estimates and Contingencies:** Capital cost estimates are reasonable and sound for a project at this stage of development, and include acceptable contingencies.



**Existing and Committed Funding:** The one percent state sales and use tax is the source of DART’s capital and operating revenues. All non-Section 5309 New Starts funds are committed and available to fund and operate the NW/SE LRT MOS project as well as other planned expansions, and to meet its capital maintenance needs.

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

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

The *Medium-High* operating finance plan rating reflects DART’s secure operating revenue stream and its allocation to the project.

**Agency Operating Financial Condition:** The state sales tax provides DART with a secure operating revenue stream and the financial capacity to operate its planned expansions and fleet maintenance requirements.

**Operating Cost Estimates and Contingencies:** Agency operating and maintenance costs are projected to increase incrementally with the addition of new services and facilities at the forecasted inflation rate, which is a reasonable approach. Existing transit vehicles and facilities are well maintained and replaced through continuing reinvestment in the system. The average annual operating cost of the proposed NW/SE LRT MOS is estimated at \$36.8 million (escalated dollars).

**Existing and Committed Funding:** A portion of the state sales tax is dedicated to fund DART operations, providing 80 percent of total operating revenues.

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

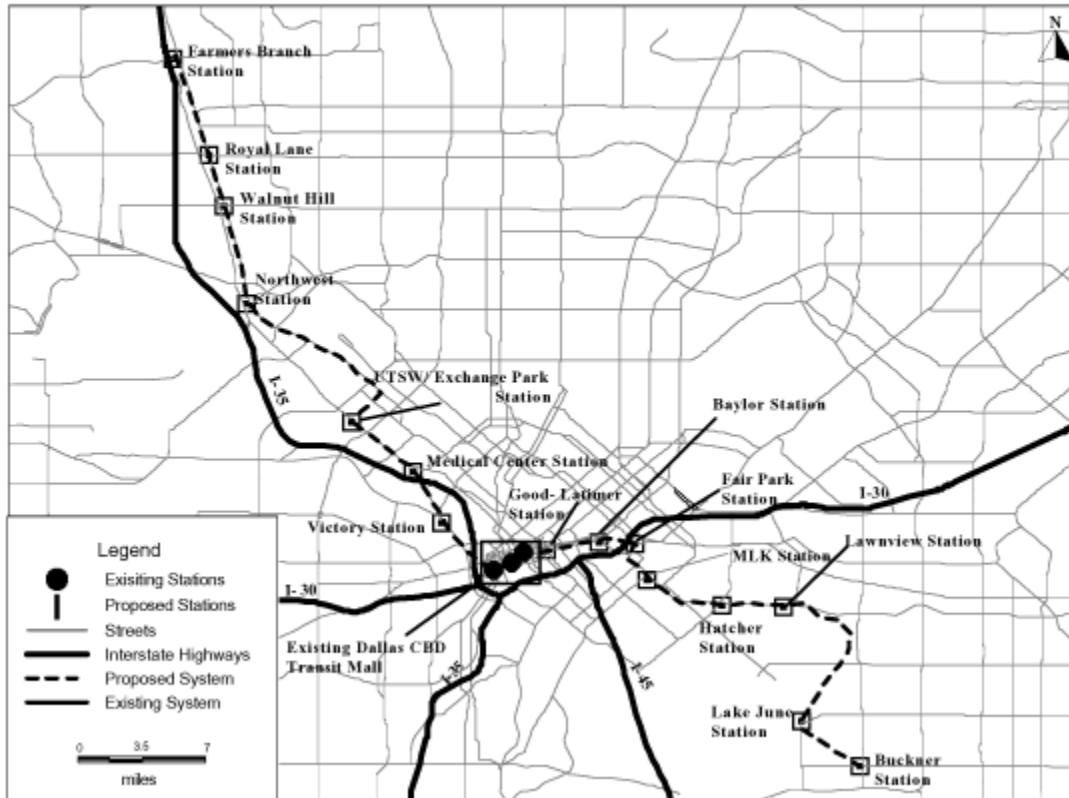
**Locally Proposed Financing Plan  
(Reported in \$YOE)**

Proposed Source of Funds	Total Funding	Appropriations to Date
<b>Federal:</b>		
Section 5309 New Starts	\$500.00	(\$1 million appropriated through FY 2001)
Section 5307 Formula	30.44	
CMAQ	4.44	
<b>State:</b>		
<b>Local:</b>		
Sales Tax	588.73	
<b>TOTAL</b>	<b>1,123.61</b>	

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

## Northwest/ Southeast Light Rail MOS

Dallas, Texas



Federal Transit Administration, 2001

# Denver/West Corridor LRT B-15

Denver, Colorado  
(August 2001)

## Description

The Regional Transportation District (RTD) is proposing the West Corridor project, an 11.0-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 double track system is proposed to operate on an exclusive, grade-separated right-of-way and connect 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 (LODO).

The capital cost estimate of the fixed-guideway element is \$624.3 million (in escalated dollars), including right-of-way acquisition, final design, construction, and acquisition of rolling stock. Annual operating costs in 2020 are estimated at \$29.1 million. Ridership is estimated at 23,900 average weekday boardings, including 11,800 daily new riders.

### Summary Description

<b>Proposed Project:</b>	Light rail line 11.0 miles, 14 stations
<b>Total Capital Cost (\$YOE):</b>	\$624.3 million
<b>Section 5309 Share (\$YOE):</b>	\$366.3 million
<b>Annual Operating Cost (\$YOE):</b>	\$29.1 million
<b>Ridership Forecast (2020):</b>	23,900 avg. weekday boardings 11,800 daily new riders
<b>FY 2001 Financial Rating:</b>	<b>Medium</b>
<b>FY 2001 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2001 Overall Project Rating:</b>	<b>Recommended</b>

The Recommended rating is based on the project's adequate justification criteria and capital and operating plan. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined.

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

## **Status**

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 multimodal package of light rail transit (LRT) and roadway transportation management (TM) improvements. The DRCOG Board has included the LRT locally preferred alternative in the 2020 Long Range Regional Transportation Plan. In March 2001, FTA approved this project to initiate preliminary engineering. A Draft Environmental Impact Statement is expected to be completed in August 2002, with the Final Environmental Impact Statement and Record of Decision expected in the first half of 2003. A combination of Federal Highway Administration (FHWA) and State funds are being utilized to fund Preliminary Engineering (PE).

TEA-21 Section 3030 (a)(25) authorizes the project for preliminary engineering. Through FY 2001, 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 *Technical Guidance on Section 5309 New Starts Criteria*. N/A indicates that data are not available for this specific measure.

FTA has evaluated this project as entering into preliminary engineering. The project will be re-evaluated and for next year's *Annual Report on New Starts*.

## **Justification**

The *Medium* justification rating reflects the project's generally adequate project justification criteria, although it acknowledges relatively weak project cost-effectiveness.

## **Mobility Improvements**

### **Rating: Medium**

The 11.0-mile project is expected to serve 23,900 average weekday boardings and 11,800 daily new riders in 2020. RTD estimates the following annual travel time savings for the West Corridor LRT line.

Mobility Improvements Table that Compares New Start Versus No-Build and New Start Versus TSM

<b>Mobility Improvements</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
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<b>Annual Travel Time Savings (Hours)</b>	3.6 million	2.6 million
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Based on estimated 1996 data, there are 1,182 low-income households within ½ mile of the 11 proposed stations, representing 8 percent of total households served within ½ mile of the stations.

## **Environmental Benefits**

### **Rating: High**

Denver is currently classified a "transitional" non-attainment area for ozone, a "serious" non-attainment area for carbon monoxide, and a "moderate" non-attainment area for PM-10. Denver is in attainment for NO<sub>x</sub>. RTD estimates the following emissions reductions in pollutant emissions.

Environmental Benefits Table that Compares New Start Versus No-Build and New Start Versus TSM

<b>Criteria Pollutant</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Carbon Monoxide (CO)</b>	217	106
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	22	15
<b>Volatile Organic Compounds (VOC)</b>	31	16
<b>Particulate Matter (PM<sub>10</sub>)</b>	1	0
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	8,367	2,867

*Values reflect annual tons of emissions reductions.*

RTD estimates the following savings in regional energy consumption (measured in British Thermal Units–BTU) will occur.

Annual Energy Savings Table that Compares New Start Versus No-Build and New Start Versus TSM

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	96,740	23,680

*Values reflect annual BTU reductions.*

## **Operating Efficiencies**

### **Rating: Low**

RTD estimates the following operating costs per passenger mile.

Operating Efficiencies Table that estimates the following operating costs per passenger mile for:  
No-Build, TSM, New Start.

<b>System Operating Cost</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>Cost per Passenger Mile (1998)</b>	\$0.39	\$0.40	\$0.42

*Values reflect 2020 ridership forecast and 1998 dollars.*

## **Cost Effectiveness**

**Rating: Low-Medium**

RTD estimates the following cost effectiveness indices:

Cost Effectiveness Table that Estimates the cost effectiveness indices for: New Start Versus No-Build and New Start Versus TSM.

<b>Cost Effectiveness</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$16.65	\$22.83

*Values reflect 2020 ridership forecast and 1998 dollars.*

## **Transit-Supportive Existing Land Use 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 the corridor. Existing and relatively dense land uses and strong transit supportive policies occur within Denver *and* generally less dense development and weaker policies exist outside of the City.

**Existing Conditions:** The corridor generally parallels Colfax Avenue (US 40) 8 of its 11 miles west. It then parallels US 6 west from there, its last three miles. For a rail corridor, densities and total employment and population levels are relatively low within corridor station areas. The population density is 5.8 persons per acre and employment equals 4.5 employees per acre. High density commercial and office space constitute the central business district. Small-lot, low-to-medium density residential and commercial space characterize most of the corridor, with some moderate density office development. Downtown Denver, to which this corridor connects, contains a dense concentration of over 102,000 jobs. A total of 34,000 jobs are scattered throughout the remainder of the corridor, with 8,800 of them concentrated in consecutive stations at Cold Spring (Denver Federal Center) and Lakewood Industrial Park.

The proposed corridor would connect downtown to the Denver Federal Center, mid-corridor, and the Jefferson County Government Center at the end of the line. Much of the current development draws on automobiles as parking appears plentiful. Zoning in the corridor is moderately

supportive of transit, with the more supportive policies existing in Denver and less supportive outside of the City. Modest growth management policies exist in the region. The City of Denver has modified zoning along previously developed LRT corridors. The Denver Regional Council of Governments is developing an urban development boundary.

**Future Plans and Policies:** Denver's Comprehensive Plan suggests that regional centers should be developed as transit destinations. It includes policy statements that support regional planning and the provision of incentives for higher density transit-oriented development. The City's Comprehensive Plan's Action Agenda endorses the improvement of pedestrian-oriented streets. Denver is preparing a Transit-Oriented Development (TOD) Zoning District to explicitly encourage transit-oriented and mixed-use developments. The Denver Regional Council of Governments (DRCOG) is working to establish an Urban Growth Boundary. DRCOG's Metro Vision 2020 Plan supports implementation of light rail in the west corridor. Some jurisdictions, such as the Cities of Lakewood and Golden, state or suggest urban design standards. The Jefferson County Strategic Plan suggests the development of land-planning criteria that promote transit use and protect options for future transit development.

Although some existing corridor plans and policies support transit-oriented development, others are weak or are still in the developmental stage. While most cities in the corridor contain some provisions promoting a concentration of development around transit, statements do not specify how such general goals will be implemented or tied to certain development policies. Policies to manage and concentrate growth around transit are still being prepared and not yet fully articulated.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 41%**

RTD proposes that \$366.3 million (59 percent) in Section 5309 New Start funds, \$2.0 million (less than 1 percent) in CMAQ funds, and \$258.0 million (41 percent) in local funds be applied to the project.

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

#### **Rating: Medium**

The *Medium* rating reflects the strong financial condition of RTD based on its dedicated sales tax revenues to support its capital program, although full coverage of debt service is undetermined. The sales tax generated an estimated \$204 million in year 2000. Sales tax revenues may be used for capital and operating costs at the discretion of the RTD. The first call on sales tax revenues go to debt service as specified in the bond covenants of the sales tax revenue bonds issued by the RTD.

**Agency Capital Financing Condition:** The RTD is in solid financial condition, largely based on its dedicated sales tax revenue to support its capital needs. RTD has a capital market rating of AA- by Standard and Poor's and A1 by Moody's. RTD has recently undertaken several major

transit investments (Southwest Corridor, Central Platte Valley and Southeast Corridor LRTs) for a total of \$1,100.8 million in capital costs.

**Capital Cost Estimates and Contingencies:** The estimated capital cost is reasonable for a project at this early stage of project development, i.e., initiation of preliminary engineering.

**Existing and Committed Funding:** The direct sales tax revenues are dedicated to the RTD program, though none have been committed to this project. Less than one percent of total project cost has been committed to the proposed new starts project.

**New and Proposed Sources:** The RTD is proposing that as-yet-undetermined local and developer contributions will account for \$21 million in estimated project costs. In addition, the proposed bond proceeds will require voter approval.

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

The *Medium* rating reflects the RTD’s strong dedicated operating revenue stream. RTD, however, is operating two lines and plans to open the Southeast Corridor in 2007.

**Agency Operating Condition:** RTD’s operating financial condition is good, largely based on stable and reliable dedicated sales tax revenues. RTD estimates total transit system operating costs of \$655.8 million (\$ YOE) by year 2020. Sales tax revenues are forecast at \$655.5 million (\$YOE) and farebox and other revenue are forecast at \$148.2 million. This implies that the RTD will have approximately \$148 million available to meet capital and debt service requirements.

**Operating Cost Estimates and Contingencies:** Annual operating costs are estimated at \$29.3 million (\$ YOE), reflecting a 4.5 percent increase over projected operating costs upon completion of the Southeast Corridor LRT project.

**Existing and Committed Funding:** RTD proposes funding operations through a combination of the system-generated revenue and regional sales tax revenues.

Locally Proposed Financing Plan (Reported in \$YOE)

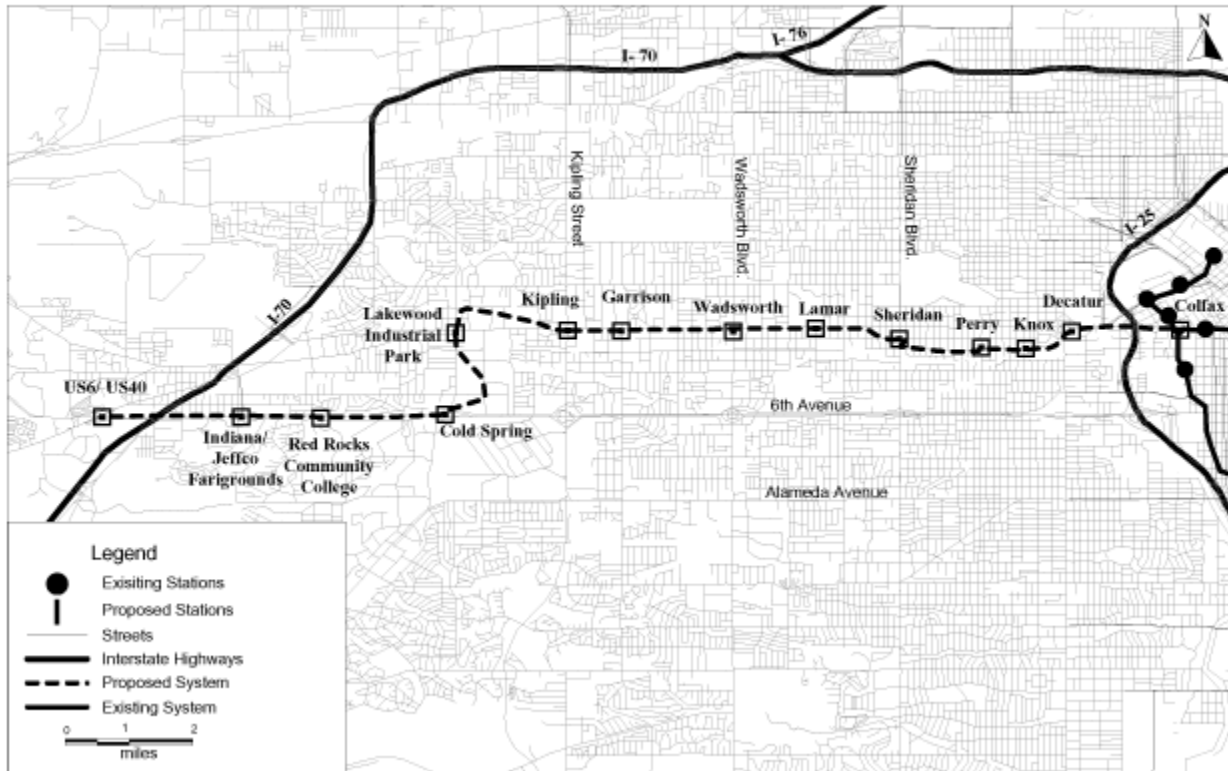
Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
<b>Federal:</b>		
§5309 New Starts	366.3	(\$0.00 has been appropriated through FY 2001)
CMAQ	2.0	
<b>Local:</b>		
Sales Tax Revenue-Based Bond Proceeds	223.3	



Sales Tax (Direct)	11.7	
Local/Private Contributions	21.0	
<b>Total</b>	<b>\$624.3</b>	

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

## West Corridor Denver, Colorado



Federal Transit Administration, 2001

# Honolulu/Primary Corridor Transportation B-23

Primary Corridor Transportation Project  
Honolulu, Hawaii

(August 2001)

## Description

The City and County of Honolulu Department of Transportation Services (DTS) is proposing to implement a 32.2 mile Bus Rapid Transit (BRT) system in the City and County of Honolulu, connecting Downtown Honolulu with the University of Hawaii, Waikiki Beach, Pearl City, Pearl Harbor, Waipahu, and Kapolei. The proposed system would include 31 stations and will include 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 exclusive bus lanes along H-1 and use street right-of way within the urban areas of Honolulu and connect a series of park and ride lots located at Kapolei, Kunia, Pearl City/Aiea, Middle Street, Dillingham/Kapalama, Iwilei, and Aloha Stadium. The DTS proposes to use a fleet of 768 vehicles including conventional diesel buses, hybrid diesel/electric buses, articulated buses, and mini-buses in the various operating environments 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 help resolve severe transportation congestion problems. The system is forecast to have 71,000 average weekday boardings on the proposed line in 2025, including 46,300 daily new riders. The project is estimated to cost \$648.0 million in escalated dollars, with a Section 5309 New Starts share of \$182.1 million.

## Summary Description

<b>Proposed Project:</b>	Bus Rapid Transit Line 32.2 miles, 31 stations
<b>Total Capital Cost (\$YOE):</b>	\$648.0 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$182.1 million
<b>Annual Operating Cost (\$2025):</b>	\$13.8 million
<b>Ridership Forecast (2025):</b>	71,000 avg. weekday boardings

	46,300 daily new riders
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium-High</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The overall project rating of *Recommended* is based on the existing densities in the corridor and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of **August 2001**. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

Initial planning efforts for the Primary Corridor Transportation Project began in 1998, with a series of public involvement efforts known as Oahu Trans 2K. The input received resulted in the development of an Island-wide Mobility Concept Plan. This plan contained the general framework and concepts for the development of the Major Investment Study/Draft Environmental Impact Statement (MIS/DEIS) undertaken in 1999 and 2000. In June of 1999, the proposed Honolulu Bus Rapid Transit System (BRT) project was selected to participate within FTA's BRT Demonstration program. In the fall of 2000, the MIS/DEIS was issued for public and agency review, and 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.

Section 3030(b)(73) of TEA-21 authorizes the "Honolulu Bus Rapid Transit Project." Through FY 2001, Congress has appropriated \$2.47 million in Section 5309 New Starts funds for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. The project will be reevaluated when it is ready to advance to final design and for next year's *Annual Report on New Starts*.

## Justification

The *Medium-High* project justification rating reflects the high densities and transit supportive land uses in the corridor and the project's strong cost-effectiveness.

### Mobility Improvements — Rating: Low-Medium

The Primary Corridor Project would serve approximately 71,900 average weekday boardings and carry 46,000 daily new riders. The DTS estimates that the project would result in the following annual travel time savings.

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
Annual Travel Time Savings (Hours)	1.1 million	1.1 million

Based on 1990 census data, there are an estimated 8,613 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.

### Environmental Benefits — Rating: Medium

The Honolulu region is classified as an attainment area. The DTS estimates that in 2025, the Primary Corridor Transportation Project would result in the following reductions in emissions.

Criteria Pollutant	New Start vs. No-Build	New Start vs. TSM
Carbon Monoxide (CO)	2,634	1,584
Nitrogen Oxide (NO <sub>x</sub> )	32	10
Volatile Organic Compounds (VOC)	240	143
Particulate Matter (PM <sub>10</sub> )	3	2
Carbon Dioxide (CO <sub>2</sub> )	16,535	12,924

*Values reflect annual tons of emissions reductions.*

DTS estimates that in 2025, the proposed Primary Corridor Transportation Project would result in the following reduction in regional energy consumption (measured in British Thermal Units - BTU).

Annual Energy Savings	New Start vs. No-Build	New Start vs. TSM
BTU (million)	227,550	177,550

### Operating Efficiencies — Rating: Medium

The DTS estimates that systemwide-operating costs per passenger mile would remain relatively constant when comparing the Primary Corridor Transportation Project with the no-build and TSM alternatives.

Item	No-Build	TSM	New Start
System Operating Cost per Passenger Mile (2025)	\$0.26	\$0.26	\$0.25

*Values reflect 2025 ridership forecast and 2001 dollars.*

### **Cost Effectiveness — Rating: Medium-High**

The DTS estimates the following cost effectiveness index for the Primary Corridor Transportation Project.

Item	New Start vs. No-Build	New Start vs. TSM
Incremental Cost per Incremental Passenger	\$8.30	\$7.70

*Values reflect 2025 ridership forecast and 2001 dollars.*

### **Transit-Supportive Existing Land Use 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 the Oahu’s population and over 80 percent of employment is concentrated within the corridor, which comprises the City and County of Honolulu. The proposed build alternative 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 which is bounded by the Pacific Ocean on one side and a mountain range on the other, thus, much of the development is concentrated to this study area corridor, which bisects the urbanized area. Thus, existing land use densities are among the highest in the United States.

#### **Future Plans and Policies**

The City and County of Honolulu exercises jurisdiction over regional land use and development patterns in 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 to existing planning regions. 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 uses 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 not require high levels of parking as a condition for residential development approval. Thus, 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. Thus, 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**

### **Proposed Non-Section 5309 New Starts Share of Total Project Costs: 72%**

The current financial plan for the Primary Corridor Transportation Project proposes \$182.1 million in Section 5309 New Starts funding (28%); \$41.24 million (6.4 %) in Section 5309 Rail Modernization, \$161.5 million (25%) in FHWA flexible funds; \$40 million (6 %) in State Highway funds, \$215.5 million (33%) in City bond funds, and \$7.3 million (1%) in City Highway funds.

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

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

### **Agency Capital Financial Condition**

The capital financial condition of the Honolulu Department of Transportation is good. The agency currently has a strong general obligation bond rating (Aa3 from Moody's and AA- from Standard and Poors). The average age of the bus fleet is 8 years old, which indicates that the bus fleet is receiving capital funding commensurate with needs.

### **Capital Cost Estimates and Contingencies**

The capital-cost estimate is adequate for this stage of project development. However, there are outstanding issues regarding the impact of the proposed busway on emergency lane shoulder width for a portion of the alignment on the I-5 freeway, where the proposed busway may require a narrow emergency lane. If the I-5 emergency lane has to be widened to meet standard interstate highway emergency land width, there may be a significant change to the capital-cost estimates of the project resulting from the increased cost of additional right-of-way, environmental mitigation and freeway reconstruction. This will be resolved during the preliminary engineering phase of project development.

## **Existing and Committed Funding**

The Primary Corridor Transportation Project is included in the Regions Financially constrained long-range plan. The Honolulu City Council passed a resolution in November of 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. Thus, approximately \$222.9 million, (48 percent), of the proposed non-Section 5309 funds are budgeted for the project and \$41.2 million (9 percent) are committed to the project.

## **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 twenty-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. Recently, the DTS raised fares for transit services, with little opposition, that will increase the operating revenues for the agency.

## **Operating Cost Estimates and Contingencies**

The DTS provided an operating plan that identified likely sources of funding and historical cost assumptions. The proposed BRT system would use new vehicle technologies including an embedded plate electric power contact system and hybrid electric/diesel propulsion systems, which do not have historical operating costs estimates. The operating costs for these systems will be refined during preliminary engineering.

## **Existed and Committed Funding**

Approximately 30 percent of the project's operating funds have been committed and 70 percent are planned, which is good for a project in this early stage of project development.

## **New and Proposed Sources**

No new sources of operating funding are being proposed by DTS.

## **Locally Proposed Financing Plan (Reported in \$YOE)**

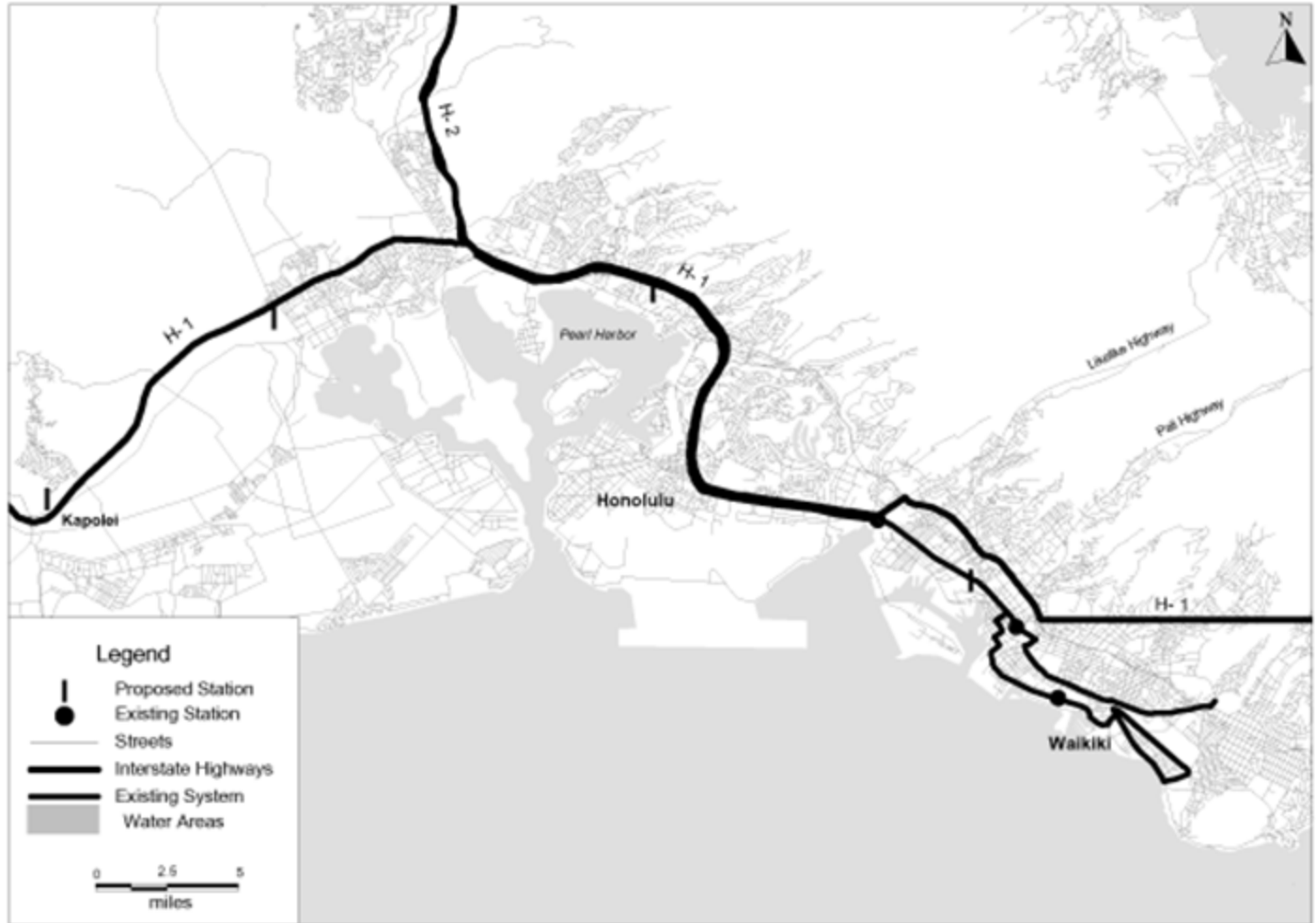
<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
---------------------------------	--------------------------------------	-------------------------------

<b>Federal:</b>		
Section 5309 New Starts	\$182.1	(\$2.47 million appropriated for the Primary Corridor Transportation Project through FY 2001)
Section 5307	41.2	
FHWA Flexible funds	161.5	
<b>State:</b>		
State Highway Fund	40.4	
<b>Local:</b>		
City Highway Fund	7.3	
City General Obligation Bond	215.5	
<b>TOTAL</b>	<b>\$648.0</b>	

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

## **Map of Primary Corridor Transportation Project, Honolulu, Hawaii**





Federal Transit Administration, 2001

## Louisville/Transportation Tomorrow South Corridor LRT B-31

Transportation Tomorrow South Corridor LRT  
Louisville, Kentucky

(August 2001)

### 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 proposed 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 also includes the construction of 18 stations,

purchase of up to eighteen light rail vehicles and the construction of a light rail vehicle maintenance and storage facility. Total capital costs for the Transportation Tomorrow South Corridor project are estimated at \$671.2 million (escalated dollars)

The South Corridor light rail project is expected to serve 15,950 average weekday boardings by 2020, including 11,000 daily new riders.

Summary Description

<b>Proposed Project:</b>	Light Rail Transit Line 15 miles, 18 stations
<b>Total Capital Cost (\$YOE):</b>	\$671.2 million
<b>Section 5309 New Starts Share (\$YOE):</b>	\$380.2 million
<b>Annual Operating Cost (\$YOE):</b>	\$28.03 million
<b>Ridership Forecast (2020):</b>	15,950 avg. weekday boardings 11,000 daily new riders
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The Recommended rating is based upon the project’s adequate cost-effectiveness and transit-supportive land use as well as the strength of the project’s capital and operating financing plans for this early stage of project development. The overall project rating applies to this *Supplemental Report on New Starts* **and reflects conditions as of August 2001**. Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

In 1996, the 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 regions financially constrained long range plan in March of 1999. FTA approved the South 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 2001, Congress has not appropriated Section 5309 New Starts funds for this project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. The project will be re-evaluated when it is ready to advance into final design and for next year's *Annual Report on New Starts*. N/A indicates that data are not available for a specific measure.

## Justification

The *Medium* project justification rating reflects the strong cost-effectiveness and moderate transit-supportive land uses in place to support the proposed light rail project.

### Mobility Improvements

#### Rating: Low-Medium

TARC estimates that the South Corridor light rail will result in the following annual travel time savings:

Mobility Improvements	New Start vs. No-Build	New Start vs. TSM
Annual Travel Time Savings (Hours)	1.4 million	1.3 million

Based on 1990 census data, there are an estimated 3,066 low-income households within a ½ mile radius of the proposed 18 stations. This represents approximately 38 percent of the total number of households within ½ mile radius of the proposed stations.

### Environmental Benefits

#### Rating: High

The Louisville area is currently classified as a "non-attainment" area for ozone. TARC estimates that in the year 2020, the project would result in the following annual changes in emissions.

Criteria Pollutant	New Start vs. No-Build	New Start vs. TSM
Carbon Monoxide (CO)	0	0
Nitrogen Oxide (NO <sub>x</sub> )	56	38
Hydrocarbons (HC)	55	36
Particulate Matter (PM <sub>10</sub> )	0	0
Carbon Dioxide (CO <sub>2</sub> )	665	2,981

Values reflect annual emissions reductions.

TARC estimates that in the year 2020, the project would result in the following savings in regional energy consumption (measured in British Thermal Units - BTU).

<b>Annual Energy Savings</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>BTU (million)</b>	8,478	35,608

Values reflect annual BTU reductions.

### **Operating Efficiencies**

#### **Rating: Medium**

TARC estimates the following costs per passenger mile for the LRT extension.

<b>Description</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (1999)</b>	\$0.56	\$0.56	\$0.57

Values reflect 2020 ridership forecast and 2000 dollars.

### **Cost Effectiveness**

#### **Rating: Medium**

TARC estimates the following cost-effectiveness indices:

<b>Description</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$10.20	\$12.60

Values reflect 2020 ridership forecast and 2000 dollars.

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

#### **Rating: Medium**

The *Medium* land use rating reflects the number of high-trip generators along the proposed corridor and efforts made by TARC and the Louisville-Jefferson County Division of Planning and Development Services to develop transit supportive policies in the corridor at this early stage in the planning process.

**Existing Land Use:** There are a number of significant trip generators and major activity centers in the corridor including the Central Business District (60,000 employees), 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. Most of these activity centers are within walking distance of the proposed transit system. There is also good pedestrian access within the CBD, the Medical Center Area, and the University of Louisville. Neighborhoods served by the proposed system include Smoketown-Shelby Park and Beechmont-Southside. However, there are no parking policies in place and parking in the CBD is inexpensive and plentiful.

**Proposed Plans and Policies:** The Louisville-Jefferson County adopted the Cornerstone 2020 Comprehensive Plan in June of 2000. Within the Cornerstone 2020 Comprehensive Plan there are a number of transit supportive policies that promote increased densities, improved pedestrian accessibility, support in-fill development, encourage mixed-use developments, and call for the development of regional transit centers. In February 2001, the Louisville-Jefferson County Division of Planning and Development services circulated a draft "Planned Transit Development" ordinance that would create a zoning overlay district around planned transit stations. This is a draft policy that is under review, and because the exact station locations have not been identified, the area affected by the proposed ordinance is unknown. Specific station area plans will be developed during the preliminary engineering stage of project development. Additionally, TARC is developing a Transit-and-Pedestrian Friendly Mobility Design Manual that details design characteristics desirable of new developments within the TARC service area.

## **Local Financial Commitment**

### **Proposed Non-Section 5309 Share of Total Project Costs: 43**

The financial strategy for the proposed Transportation Tomorrow South Corridor LRT assumes \$380.2 million (57 percent) of Section 5309 New Starts funds, \$17.9 million (1.6 percent) in FHWA STP funds, \$19.5 million (3 percent) in FHWA CMAQ funds, \$12.4 million (2 percent) in FTA Section 5309 bus funds, \$141.6 million (21 percent) in State funds, \$69 million (10 percent) in local funds, and \$30 million (5 percent) in private sector contributions.

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

#### **Rating: Medium**

The *Medium* reflects the financial condition of the Transit Authority of River City (TARC) and the completeness of the financial plan at this early stage of project development.

**Agency Financial Condition:** The Louisville TARC is in good financial condition. TARC has received funding since 1974 from the Mass Transit Trust Fund (MTTF); a dedicated source of funding that obtains revenues from a .20 percent occupational license fee. This source provides approximately 70 percent of the operating funds for TARC annually, with the remainder from the City of Louisville, farebox recovery, and the State of Kentucky.

**Cost Estimates and Contingencies:** The capital cost estimates for the Transportation Tomorrow project include capital cost contingencies that are appropriate for this early stage in project development.

**Existing and Committed Funding:** None of the funds proposed for the project are committed at this time. Three critical items will need to be approved by the Kentucky legislature, which will convene in January of 2002; 1) TARC will need permission to issue general obligation bonds to cover \$140 million in capital costs, 2) TARC must obtain approval to place a proposed increase in the occupational license fee from .20 to .25 percent before the Jefferson County voters in a referendum, and 3) TARC will request the legislature to establish a tax-increment financing district in Louisville for the project.

**New and Proposed Sources:** With the exception of the proposed federal funding sources, all of the proposed funding for the project is from new funding sources or increases in existing funding sources. New sources include the proposed general obligation bonds, tax-increment financing, and the proposed increase in TARC's Mass Transit Trust Funds revenue source.

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

The *Medium* rating reflects the financial condition of the Transit Authority of River City (TARC) and the completeness of the financial plan at this early stage of project development.

**Operating Costs and Contingencies:** Operating cost estimates appear reasonable for this early stage of development. Project sponsors estimate an annual operating and maintenance costs at \$28 million (escalated dollars) for the Transportation Tomorrow South Corridor project.

**Existing and Committed Funding:** None of the funds proposed for the project are committed at this time. Three critical items will need to be approved by the Kentucky legislature, which will convene in January of 2002; 1) TARC will need permission to issue general obligation bonds to cover \$140 million in capital costs, 2) TARC must obtain approval to place a proposed increase in the occupational license fee from .20 to .25 percent before the Jefferson County voters in a referendum, and 3) TARC will request the legislature to establish a tax-increment financing district in Louisville for the project. The increase in the occupational license fee is necessary to provide on-going operations and maintenance funds for the project.

**New and Proposed Sources:** With the exception of the proposed federal funding sources, all of the proposed funding for the project is from new funding sources or increases in existing funding sources. New sources include the proposed general obligation bonds, tax-increment financing, and the proposed increase in TARC's Mass Transit Trust Funds revenue source.

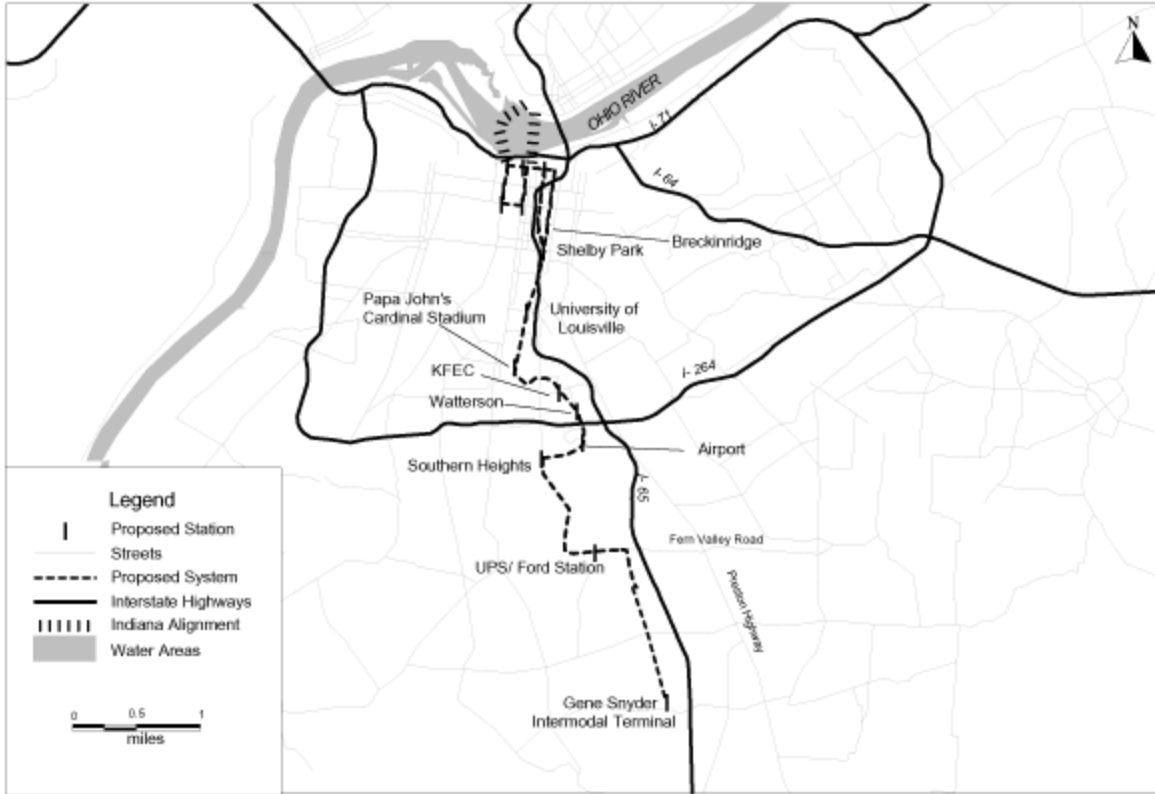
Locally Proposed Financing Plan  
(Reported in \$YOE)

Proposed Source of Funds	Total Funding (\$million)	Appropriations to Date
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<b>Federal:</b>		
Section 5309 New Starts	\$380.2	(\$0 million appropriated through FY 2001)
FHWA-STP	\$17.9	
FHWA-CMAQ	\$19.5	
FTA 5309 Bus	\$12.4	
<b>State:</b>		
State Bonds	\$140.0	
State	\$1.6	
<b>Local:</b>		
Tax Increment Financing	\$30.0	
MTTF	\$30.9	
City/County Revenues	\$8.4	
Private Sector	\$30.2	
<b>Total</b>	<b>\$671.2</b>	

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

## **South Central Corridor, Louisville, Kentucky**





# Phoenix/Central East Valley Corridor B-39

Central Phoenix/East Valley Corridor

Phoenix, Arizona

(August 2001)

## Description

The Regional Public Transportation Authority (RPTA) is proposing to implement a 25-mile at-grade light rail system to connect the cities of Phoenix, Tempe, and Mesa. As a first step, the RPTA is undertaking preliminary engineering on a 20.3 mile segment from the Chris-Town Mall area, through downtown Phoenix and downtown Tempe, to Mesa. The proposed project would have 28 stations and serve major activity centers including downtown Phoenix, the Sky Harbor Airport, Papago Park Center and downtown Tempe. It will be the centerpiece of redevelopment along Apache Boulevard in Mesa. The proposed 20.3 mile LRT system is estimated to cost approximately \$1,241.4 million (escalated), of which the RPTA intends to seek \$620.7 million in New Starts funding.

Summary Description	
<b>Proposed Project:</b>	Light rail transit 20.3 miles, 27 stations
<b>Total Capital Cost (\$YOE):</b> <b>Section 5309 Share (\$YOE):</b>	\$1,241.4 million \$620.7 million
<b>Annual Operating Cost (\$YOE):</b>	\$39 million
<b>Ridership Forecast (2020):</b>	43,700 avg. weekday riders 28,950 daily new riders
<b>FY 2002 Finance Rating:</b> <b>FY 2002 Project Justification Rating:</b> <b>FY 2002 Overall Project Rating:</b>	<b>Medium-High</b> <b>Medium</b> <b>Recommended</b>

The Central Phoenix/East Valley Corridor is rated *Recommended* based upon the project's cost effectiveness, good transit supportive land use, and the high level of local financial commitment of capital and operating funds for the project. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. Project evaluation is an ongoing process. As new starts projects proceed through development, the estimates of costs, benefits, and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## Status

The RPTA completed the Central Phoenix/East Valley (CP/EV) Major Investment Study (MIS) in the spring of 1998. In September 1998, FTA granted permission to enter the Preliminary Engineering/Environmental Impact Statement (PE/EIS) phase on a 13-mile segment of the corridor. FTA subsequently approved preliminary engineering on 20.3 miles of the proposed system. The Maricopa Association of Governments (MAG) (local metropolitan planning organization) adopted the CP/EV Corridor as a fixed-guideway corridor and included the CP/EV LRT project in the Long Range Transportation Plan and the current Regional Transportation Improvement Plan (TIP). Section 3030(a)(62) of TEA-21 authorizes the Phoenix Fixed Guideway project for final design and construction. Through FY 2001, Congress has appropriated \$23.74 million for the project.

## Evaluation

The following criteria have been estimated in conformance with FTA's *Technical Guidance on Section 5309 New Starts Criteria*. FTA has evaluated this project as being in preliminary engineering. This project was Not Rated in the *Annual Report on New Starts for FY2002* because the project sponsor was updating the regional travel demand model, at FTA direction. The necessary revisions to the travel demand model have been completed to allow for reporting of the project justification criteria for this *Supplemental Report on New Starts*. The project will be reevaluated when it is ready to advance to final design and for next year's *Annual Report on New Starts*.

## Justification

The *Medium* project justification rating reflects the projects strong mobility improvements, good cost-effectiveness, and efforts to encourage transit-supportive development in the proposed corridor.

## Mobility Improvements

### Rating: Medium-High

The CP/EV LRT Project would serve approximately 43,700 average weekday boardings and carry 28,950 daily new riders. The RPTA estimates that the project would result in the following annual travel time savings

-	New Start vs.	New Start vs.
<u>Mobility Improvements</u>	<u>No-Build</u>	<u>TSM</u>
<b>Annual Travel Time Savings (Hours)</b>	12.5 million	11.3 million

Based on 1990 census data, there are an estimated 4,366 low-income households within a ½ mile radius of the MOS corridor, representing 15 percent of all households located within ½ mile of the corridor.

## Environmental Benefits

### Rating: High

The Phoenix Metropolitan region is a serious non-attainment area for ozone, carbon monoxide, and particulates (PM<sub>10</sub>). The RPTA estimates that in 2025, the CP/EV LRT Project would result in the following reductions in emissions.

- <u>Criteria Pollutant</u>	<b>New Start vs. <u>No-Build</u></b>	<b>New Start vs. <u>TSM</u></b>
<b>Carbon Monoxide (CO)</b>	97	100
<b>Nitrogen Oxide (NO<sub>x</sub>)</b>	794	791
<b>Hydrocarbons (HC)</b>	134	150
<b>Particulate Matter (PM<sub>10</sub>)</b>	2	2
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	54,155	59,172
Values reflect annual tons of emissions reductions.		

The RPTA estimates that in 2025, the proposed CP/EV LRT project would result in the following reduction in regional energy consumption (measured in British Thermal Units - BTU).

- <u>Annual Energy Savings</u>	<b>New Start vs. <u>No-Build</u></b>	<b>New Start vs. <u>TSM</u></b>
<b>BTU (million)</b>	603,455	679,497

## Operating Efficiencies

### Rating: High

The RPTA estimates that systemwide-operating costs per passenger mile would decrease when comparing the CP/EV LRT project with the no-build and TSM alternatives.

	<u>No-Build</u>	<u>TSM</u>	<u>New Start</u>
<b>System Operating Cost per Passenger Mile</b>	\$0.54	\$0.54	\$0.49

## Cost Effectiveness

### Rating: Medium

The RPTA estimates the following cost effectiveness index for the CP/EV LRT Project.

-	<b>New Start vs.</b> <u>No-Build</u>	<b>New Start vs.</b> <u>TSM</u>
<b>Incremental Cost per Incremental Passenger</b>	\$10.77	\$11.58

## Transit-Supportive Existing Land Use and Future Patterns

### Rating: Medium

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

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

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

new developments are being planned along the corridor, including the 7 million square foot Rio Salado development. While there is progress with new housing development in downtown Phoenix, plans to support higher intensities of housing in other portions of the alignment are limited.

## **Local Financial Commitment**

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

The financial plan for the 20.5 mile Central Phoenix/East Valley LRT MOS includes \$620.7 million (YOE) (50 percent) in Section 5309 New Start funds, \$17.4 million (1 percent) in FHWA flexible funding, and \$399 million (32 percent) in funds from the City of Phoenix, \$170 million (14 percent) from the City of Tempe, and \$34.4 million (3 percent) from the City of Mesa.

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

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

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

**Agency Capital Financial Condition:** The RPTA is in good financial condition. On March 14<sup>th</sup>, 2000, the Proposition 2000 was approved by the voters of the City of Phoenix, thus providing an increase to the local sales tax of 0.4 percent dedicated to transit development. Additionally, the RPTA currently receives annual funding from the State's Local Transportation Assistance Fund (LTAF)/Public Transit Fund (PTF) which is used for the capital and operating needs of the existing bus system.

**Capital Cost Estimates and Contingencies:** Capital cost estimates for the proposed project have doubled since 1998, reflecting refinements in project engineering, an increase in the length of the project, an increase in the number of vehicles required, and the addition of higher contingency factors. The revised cost estimate is reasonable at this stage of development.

**Existing and Committed Funding:** The Cities of Phoenix, Tempe, and Mesa each have committed funds for the local match for the project from existing, dedicated sources of funding. The City of Phoenix receives funding from the 0.4 percent sales tax. The City of Tempe receives funding from a 0.5 percent dedicated sales tax, and the City of Mesa has committed funding from its general fund.

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

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

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

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

**Agency Operating Condition:** The RPTA is in good financial condition. The RPTA has an annual operating and maintenance budget of \$103 million and a farebox recovery ratio of 31 percent for its current bus system. The RPTA currently receives annual funding from the State’s Local Transportation Assistance Fund (LTAF)/Public Transit Fund (PTF). On March 14<sup>th</sup>, 2000, the Proposition 2000 was approved by the voters of the City of Phoenix, providing an increase of 0.4 percent in the local sales tax dedicated to transit development and operations.

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

**Existing and Committed Funding:** The Cities of Phoenix, Tempe, and Mesa each have committing funds for the local match for the project from existing, dedicated sources of funding. The City of Phoenix receives funding from the 0.4 percent sales tax. The City of Tempe receives funding from a 0.5 percent dedicated sales tax, and the City of Mesa has committed funding from its general fund.

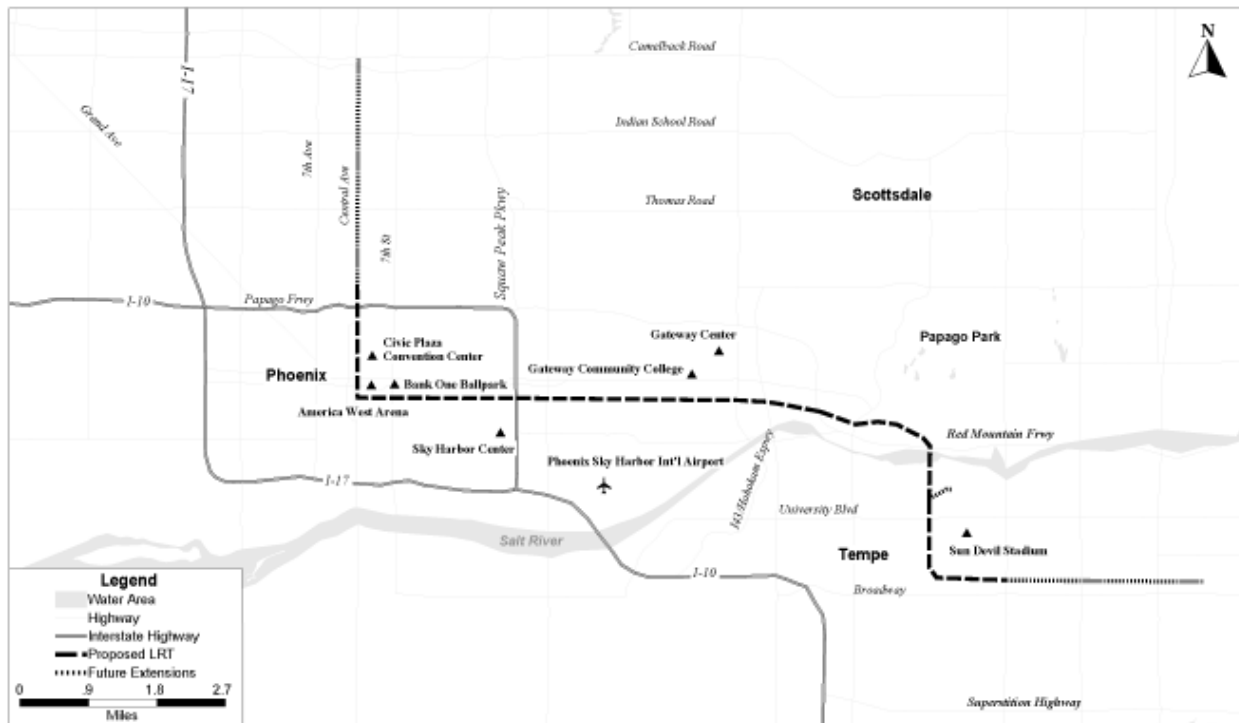
**New and Proposed Sources:** No New sources of funding are proposed.

<b>Locally Proposed Financing Plan</b> (Reported in \$YOE)		
-	<b>Total Funding (\$million)</b>	-
<u>Proposed Source of Funds</u>		<u>Appropriations to Date</u>
Federal:		
Section 5309 New Starts	\$620.7	<b>(\$23.74 million appropriated through FY 2001)</b>
FHWA Flexible Funds	\$17.4	
Local:		
City of Phoenix	\$399.0	
City of Tempe	\$170.0	
City of Mesa	\$34.1	
<b>TOTAL</b>	<b><u>\$1,241.4</u></b>	
<b>NOTE:</b> Funding proposal reflects assumptions made by project sponsors, and are not DOT or FTA assumptions.		

Totals may not add due to rounding.

## Central Phoenix / East Valley Corridor

Phoenix, Arizona



Federal Transit Administration, 2001

# Wilmington, DE/Transit Connector B-47

## Wilmington Transit Connector

Wilmington, Delaware

(August 2001)

### Description

The Delaware Transit Corporation (DTC) proposes to construct the Wilmington Transit Connector, a 2.1-mile electric rail trolley system, originating at 12th and Market Streets, operating through the Wilmington central business district and terminating at the Christina Riverfront area. Vintage replica rail vehicles would be utilized to preserve the historical character of the service area. The project is undertaken as a public-private partnership initiative between the City of Wilmington and the Wilmington Renaissance Corporation, a private-sector nonprofit organization supporting downtown development and economic opportunities. The project will connect the heart of the downtown Wilmington banking center to the revitalized Christina Riverfront mixed-use development area, with an intermediate stop at the Amtrak intermodal station. The proposed route encompasses the major business, commercial and cultural activity centers of the city. Twenty-three stations/stops are planned from Rodney Square to the riverfront area. The estimated capital cost of the project developed during the early planning stage is \$41.7 million (escalated dollars).

### Wilmington Transit Connector Summary Description

<b>Proposed Project</b>	Electric rail trolley; 2.1 miles, 23 stations/stops
<b>Total Capital Cost (\$YOE)</b>	\$41.7 million
<b>Section 5309 Share (\$YOE)</b>	\$29.2 million
<b>Annual Operating Cost (\$YOE)</b>	\$2.3 million
<b>Ridership Forecast (2006)</b>	3,400 average weekday boardings
<b>FY 2002 Financial Rating:</b>	<b>Medium</b>
<b>FY 2002 Project Justification Rating:</b>	<b>Medium</b>
<b>FY 2002 Overall Project Rating:</b>	<b>Recommended</b>

The *Recommended* rating is based on the project's compliance with statutory requirements and justification criteria at this early stage of preliminary engineering. The overall project rating applies to this *Supplemental Report on New Starts* and reflects conditions as of August 2001. The project includes a proposed Federal share of 70 percent from 5309 new starts funding that meets the statutory maximum of 80 percent but is above a Congressional desire to fund projects at 60 percent in FY 2003 and the Administration's target of 50 percent in FY 2004. Project evaluation is an ongoing process, and FTA is continuing to encourage project sponsors to lower



the requested Federal share of new starts funding as projects move through the development process. Financial plans should include a maximum Federal share of 50 percent by FY 2004 to remain competitive with other projects in the New Starts pipeline and to meet lower Federal share requirements proposed for the reauthorization of TEA-21. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.**

## **Status**

The Delaware Department of Transportation, Delaware Transit Corporation, and the City of Wilmington completed an Alternatives Analysis in December 2000 to address transportation needs within downtown Wilmington. The project was adopted by the Wilmington Area Planning Council and is included in its long-range transportation plan and FY 2000 Transportation Improvement Program. FTA approved this project's entry into preliminary engineering in August 2001. DTC is currently undertaking an environmental analysis for the project.

TEA-21 Section 3030(b)(72) authorizes the "Wilmington Downtown Transit Corridor." Through FY 2001, Congress has appropriated \$5.93 million in Section 5309 New Starts funds to the project.

## **Evaluation**

The following criteria have been estimated in conformance with FTA's Technical Guidance on Section 5309 New Starts Criteria. Criteria have been reported and evaluated on the Wilmington Transit Connector. Use of the regional network planning model was deemed inappropriate by the project sponsor given the scope and scale of the proposed project. During PE, FTA will work with the Delaware Transit Corporation to improve ridership forecasting capabilities and to ensure updated cost estimates. N/A indicates that data are not available for a specific measure.

FTA has evaluated this project as being in early preliminary engineering.

## **Justification**

The *Medium* project justification rating reflects the relatively high densities and transit supportive land uses in the corridor and the project's strong cost-effectiveness.

## **Mobility Improvements**

### **Rating: Not Rated**

DTC did not apply a regional network planning model that would generate travel time savings. Based on 1990 Census data, there are an estimated 3,126 low-income households within a ½-mile radius of the project corridor.

## **Environmental Benefits**

**Rating: Not Rated**

DTC did not apply a regional network planning model that would generate environmental benefits. EPA has designated the Philadelphia-Wilmington-Trenton area as a severe nonattainment area for ozone.

**Operating Efficiencies**

**Rating: Low-Medium**

DTC estimates the following costs per passenger mile for the project.

<b>Operating Efficiencies</b>	<b>No-Build</b>	<b>TSM</b>	<b>New Start</b>
<b>System Operating Cost per Passenger Mile (2006)</b>	\$0.86	\$0.86	\$0.89

Values reflect ridership based on a locally developed model and 1998 dollars.

**Cost Effectiveness**

**Rating: Medium-High**

DTC estimates the following cost effectiveness index for the project.

<b>Measure</b>	<b>New Start vs. No-Build</b>	<b>New Start vs. TSM</b>
<b>Incremental Cost per Incremental Passenger</b>	\$6.84	\$11.04

Values reflect ridership based on a locally developed model and 1998 dollars.

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

**Rating: Medium-High**

The *Medium-High* land use rating reflects the project location in the high-density Wilmington CBD.

**Existing Conditions:** The project corridor lies within the relatively high-density Wilmington central business district, which includes high-rise office buildings, three to five story commercial buildings with ground floor retail and hotels, enclaves of two to three story row houses, and a riverfront area redeveloping from industrial to retail and recreational uses. The entire corridor is laid out on a street grid pattern that is relatively pedestrian friendly. Total CBD employment is 45,000. Population densities are relatively high, averaging 18,600 persons per square mile in the CBD. Several high trip generators are located in the corridor, including seven colleges, a hospital, historic commercial core, stadium, arts center, rail/bus station, and riverfront and tourist destinations.

Several initiatives at the state, regional and city level are designed to contain sprawl in the Wilmington area and municipal development plans are all transit-supportive. Regional and county plans call for directing growth to the region's centers, and the county has downzoned rural areas. The city's comprehensive plan and urban renewal plans encourage mixed use development and direct growth to the CBD and the waterfront area. Strategies to maintain the attractiveness of the CBD include improved transit service, streetscaping, zoning changes and housing incentives.

**Future Plans and Policies:** Nearly all development proposed or underway in the City of Wilmington is located within the Wilmington Transit Connector corridor. This new development includes corporate offices, downtown housing above stores, riverfront housing, and retail and entertainment centers. The Transit Connector is part of the broader "Wilmington Initiatives" which support the redevelopment of Wilmington's downtown and focuses on transit and pedestrian improvements. The City and MPO have undertaken educational efforts regarding the importance of land use to successful provision of transit. The City, in partnership with the private sector, is implementing an aggressive strategy based on financial incentives to reinvigorate the Wilmington economy by attracting jobs and residents. Public outreach is a significant part of the project.

## **Local Financial Commitment**

### **Proposed Local Share of Total Project Costs: 30%**

The current project financial plan proposes to use \$29.2 million (70 percent of total project costs) in Section 5309 New Starts funds, and \$12.6 million (30 percent) provided equally from three local sources: State of Delaware Transportation Trust Fund, City of Wilmington, and the Wilmington Renaissance Corporation, a private-sector nonprofit organization.

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

### **Rating: Medium**

The *Medium* capital finance plan rating reflects the reliable state funding source and the City of Wilmington's strong capital market standing.

**Agency Capital Financial Condition:** The Delaware Transportation Trust Fund is a stable and secure source of funding, deriving revenues from fuel taxes, vehicle registration fees and tolls. Bond ratings for the City of Wilmington are in the medium-high range. Delaware Transit Corporation has an average bus fleet age of 5.9 years.

**Capital Cost Estimates and Contingencies:** The capital cost estimate was developed in early planning studies and will need to be refined during PE.

**Existing and Committed Funding:** State Transportation Trust Funds have been committed in the Delaware DOT 2001-2006 Capital Improvement Program. City funds will be appropriated annually to the project.

**New and Proposed Sources:** A Transportation Business Improvement District (BID) will be established in the project corridor or increasing tax rates in the existing downtown BID. DTC is also investigating additional revenue sources including a hotel occupancy levy, an amusement levy on Riverfront area attractions, and a downtown parking surcharge.

**Stability and Reliability of Operating Finance Plan**

**Rating: Medium**

The *Medium* operating finance plan rating reflects the stable state operating funding source.

**Agency Operating Financial Condition:** The Delaware Transportation Trust Fund is a stable and secure source of operating funds for the project, with a demonstrated track record. Project fare revenue assumptions are considered conservative.

**Operating Cost Estimates and Contingencies:** Operating cost estimates are acceptable at this time and reflect a reasonable rate of inflation. More detailed operating plans and cost estimates will need to be developed during PE.

**Existed and Committed Funding:** Delaware Transportation Trust Fund is the primary operating revenue source subsidizing the project.

**New and Proposed Sources:** The Wilmington Renaissance Corporation will provide approximately 8 percent of operating funds.

**Locally Proposed Financing Plan**

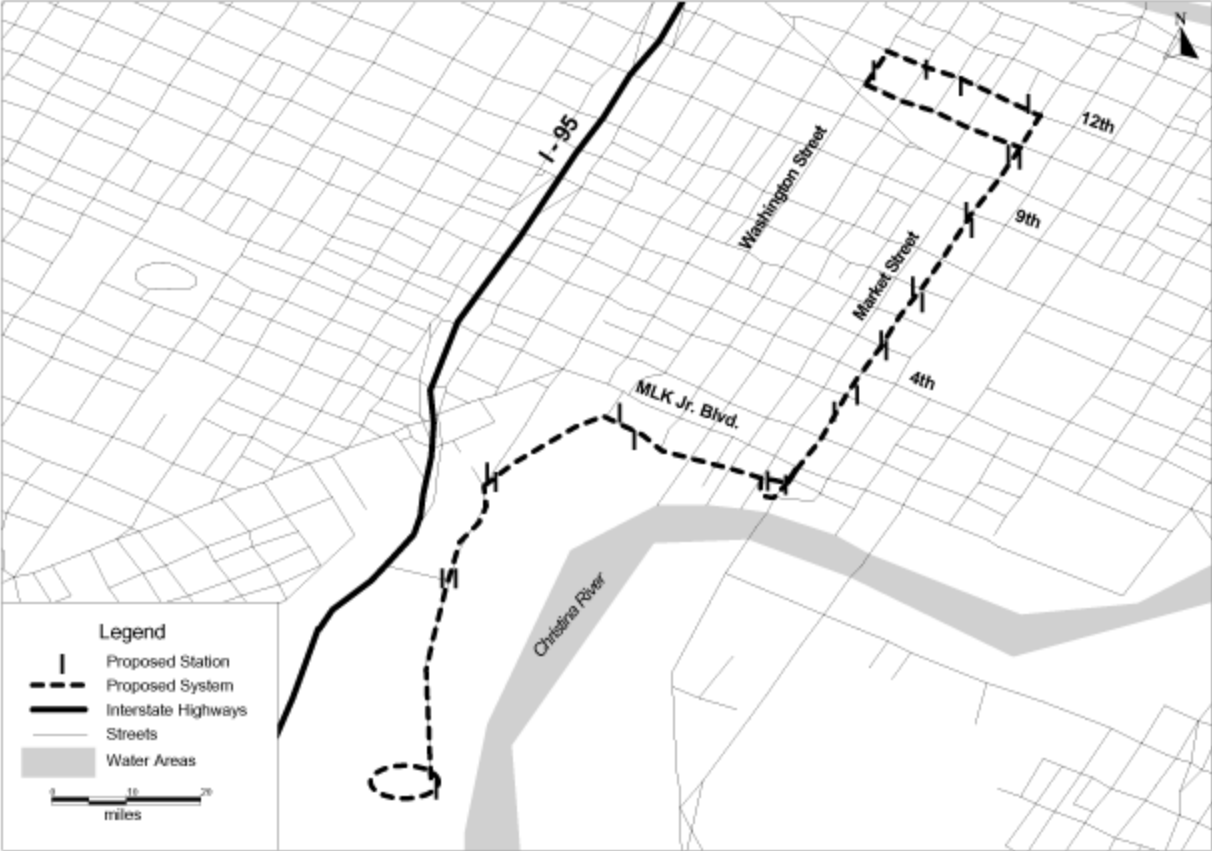
(Reported in \$YOE)

<b>Proposed Source of Funds</b>	<b>Total Funding (\$million)</b>	<b>Appropriations to Date</b>
<b>Federal:</b>		
Section 5309 New Starts	\$29.2	\$5.93 million appropriated through FY 2001
<b>State:</b>		
State Appropriations	\$4.2	
<b>Local:</b>		
City of Wilmington	\$4.2	
Wilmington Renaissance Corp.	\$4.2	
<b>Total:</b>	<b>\$41.7</b>	

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

# Wilmington Transit Connector

Wilmington, Delaware



Federal Transit Administration, 2001