THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

December 17, 2008

The Honorable James L. Oberstar
Chairman
Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

I am pleased to transmit the Federal Transit Administration's "Contractor Performance Assessment Report," which analyzes the consistency and competency of cost estimates and ridership forecasts made by contractors to public transportation agencies for developing new fixed guideway (New Starts) capital projects. This report is submitted in response to the requirements of 49 U.S.C. 5309(l)(2), as amended by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

An identical letter has been sent to the Ranking Member of the House Committee on Transportation and Infrastructure and the Chairmen and Ranking Members of the House Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, Committee on Appropriations; the Senate Committee on Banking, Housing, and Urban Affairs; and, the Senate Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, Committee on Appropriations.

Sincerely yours,

/x/ original signed

Mary E. Peters

Enclosure

Contractor Performance Assessment Report

December 2008

Prepared by:
Federal Transit Administration
Office of Planning and Environment
U.S. Department of Transportation

http://www.fta.dot.gov

Contents

Alphabetical List of Acronyms

AcronymName

AA	Alternatives Analysis
ADA	Americans with Disabilities Act
ARC	Access to the Region's Core
BRT	Bus Rapid Transit
CATS	Charlotte Area Transit System
CBD	Central Business District
CFCRT	Central Florida Commuter Rail Transit
CMAQ	Congestion Mitigation and Air Quality
CPAR	Contractor Performance Assessment Report
CSXT	CSX Transportation, Inc.
DEIS	Draft Environmental Impact Statement
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EmX	Pioneer Parkway Emerald Express
FDOT	Florida Department of Transportation
FFGA	Full Funding Grant Agreement
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
FY	Fiscal Year
HCRRA	Hennepin County Regional Rail Authorities
IOS	Initial Operating Segment
LPA	Locally-Preferred Alternative
LRT	Light Rail Transit
LTD	Lane Transit District
MBTA	Massachusetts Bay Transportation Authority
MJLRT	Mid Jordan Light Rail Transit
MOS	Minimum Operable Segment
NEPA	National Environmental Policy Act
NJTC	New Jersey Transit Corporation

NYPS	New York Penn Station
PCGA	Project Construction Grant Agreement
PE	Preliminary Engineering
PMOC	Project Management Oversight Contract
RCRRA	Ramsey County Regional Rail Authorities
ROW	Right-of-Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
SEIS	Supplemental Environmental Impact Statement
SFCTA	San Francisco County Transportation Authority
SFMTA	San Francisco Municipal Transportation Agency
UNCC	University of North Carolina-Charlotte
USC	United States Code
UTA	Utah Transit Authority
YOE	Year of Expenditure

1. Introduction

Section 5309 of Title 49 of the United States Code (U.S.C.), as amended by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), emphasizes the need to improve the quality of the estimates of ridership and costs used to support funding decisions for major transit investments. To help fulfill this goal, the Federal Transit Administration (FTA) is required to submit an annual report to Congress that documents and analyzes the performance of contractors that develop cost and ridership estimates to support decision-making for New Starts and Small Starts projects. The SAFETEA-LU Conference Report indicates that the Contractor Performance Assessment Report (CPAR) "will provide public transportation agencies with an informational tool, allowing them to better identify contractors able to perform accurate estimates of cost and ridership figures. Additionally, consulting the CPAR as a condition of Federal assistance will help ensure the reliability of estimates used in awarding Full Funding Grant Agreements (FFGA)."

The contractor performance report is required in 49 U.S.C. 5309(l)(2), as amended by SAFETEA-LU. The relevant text in the law is as follows:

> *(2) CONTRACTOR PERFORMANCE ASSESSMENT REPORT.*
> *(A) IN GENERAL. Not later than 180 days after the enactment of the Federal Public Transportation Act of 2005, and each year thereafter, the Secretary shall submit to the committees referred to in subsection (k)(1) a report analyzing the consistency and accuracy of cost and ridership estimates made by each contractor to public transportation agencies developing new fixed guideway capital projects.*
> *(B) CONTENTS. The report submitted under subparagraph (A) shall compare the cost and ridership estimates made at the time projects are approved for entrance into preliminary engineering with*
> *(i) estimates made at the time projects are approved for entrance into final design;*
> *(ii) costs and ridership when the project commences revenue operation; and*
> *(iii) costs and ridership when the project has been in operation for 2 years.*
> *(C) CONSIDERATIONS. In making comparisons under subparagraph (B), the Secretary shall consider factors having an impact on costs and ridership not under the control of the contractor. The Secretary shall also consider the role taken by each contractor in the development of the project.*

The CPAR requirement is representative of a major theme in SAFETEA-LU: that the reliability of planning information is critical for decision making. In addition to the CPAR provision, this theme is reiterated in several places in SAFETEA-LU, including: 1) the incorporation of Before and After Study requirements into law (49 U.S.C. 5309(g)(2)(C)); 2) the addition of forecast accuracy and reliability as a specific New Starts evaluation criterion (49 U.S.C. 5309(d)(3)(B) and 5309(d)(4)(B)(i)); and 3) the introduction of incentive provisions for producing accurate ridership and cost estimates (e.g., 49 U.S.C. 5309 (l)(3)).

FTA has long been concerned about the reliability of the cost and ridership information used in the planning and project development process. The Department of Transportation's 1990 report

on this subject[1], several studies by Bent Flyvbjerg[2], and analyses by FTA have documented that the majority of transit major capital investment projects have significantly underestimated their construction costs and overestimated the actual ridership at the time those projects were chosen as locally preferred alternatives (LPAs), compared to the actual cost and ridership observed after the projects were constructed. While FTA's 2003[3] and 2007[4] analyses of the predicted and actual ridership and cost information for recent New Starts projects show improvements versus those documented in the Department's 1990 report, there remains considerable room for improvement. This CPAR and subsequent annual reports will support improved forecasts by providing valuable information to project sponsors about the quality of the information provided by contractors that prepare cost and ridership estimates for prospective New Starts and Small Starts projects.

[1] Pickrell, D.H., 1990. *Urban Rail Transit Projects: Forecast versus Actual Ridership and Cost*. US Department of Transportation, Washington, DC.

[2] "How (In)accurate Are Demand Forecasts in Public Works Projects? The Case of Transportation." Principal author: Bent Flyvbjerg; co-authors: Mette Skamris Holm and Søren L. Buhl. *Journal of the American Planning Association*, vol. 71, no. 2, Spring 2005, pp. 131-146.
"How Common and How Large Are Cost Overruns in Transport Infrastructure Projects?" Principal author: Bent Flyvbjerg; co-authors: Mette K. Skamris Holm and Søren L. Buhl. *Transport Reviews*, vol. 23, no. 1, January-March 2003, pp. 71-88.

[3] See Appendix to the *Contractor Performance Assessment Report, August 2007*, Federal Transit Administration, US Department of Transportation, 2007.

[4] *Predicted vs. Actual Impacts of New Starts Projects – 2007*, Federal Transit Administration, US Department of Transportation, 2008.

2. Approach to the Contractor Performance Assessments

Since the Contractor Performance Assessment is based on much of the information that is also included in the "Before and After Study Report" and coincides with the same key decision points, FTA will track the information for these two efforts together. The CPAR extends the Before and After Study information to include the identification of each party responsible for the cost and ridership information. During the New Starts/Small Starts project development process project sponsors report cost estimates and ridership forecasting information to support the data collection and analysis requirements of the Before and After Studies. FTA will use this information to attribute, if possible, the causes and responsibility for changes to cost estimates and ridership forecasts when preparing future CPARs.

FTA's approach to this requirement is forward looking. Projects that were already in preliminary engineering (PE), final design, or project development as of May 2006 – when FTA published policy guidance establishing this requirement – are not subject to these contractor performance reporting requirements.

The requirement to publish an assessment of contractor performance is likely to change the manner in which contractors and project sponsors relate to each other during planning and project development. Responsibilities for the inputs needed to develop cost estimates and ridership forecasts will likely become more clearly delineated since contractors will strongly desire to make certain that they are not found responsible for errors that are the fault of outside parties.

FTA is cognizant of the fact that contractors only play one part in the development of cost estimates and ridership forecasts. Contractors generally make extensive use of information and other forecasts and estimates provided by project sponsors, metropolitan planning organizations, and other local agencies. Therefore, FTA will not focus entirely on contractor performance but on the reliability of the estimates and forecasts from whatever source they originate.

For both the CPAR, and the "Before and After Study Report", FTA intends to evaluate cost[5] estimates and ridership forecasts at the key decision-making points and compare these estimates to actual results after the project has been completed. The reporting times for cost estimates and ridership forecasts and for identifying the parties responsible for the inputs and assumptions will be:

- Entry into PE for New Starts or project development for Small Starts.
- Entry into final design (for New Starts).
- Signing of Full Funding Grant Agreement (FFGA) for New Starts or Project Construction Grant Agreement (PCGA) for Small Starts.

These three milestones correspond to key decision points for FTA and the project sponsors. FTA will then assess the contractors' performance by comparing the forecasts of ridership and costs

[5] FTA will not include financing charges in either the cost estimates reported here or the actual project cost used to assess the quality of the cost estimates. Finance charges depend on the funding strategy developed and finalized during preliminary engineering and final design and are not directly related to the project cost estimation activities performed by the engineering contractors which are the subject of this report.

prepared at these decision points to the actual ridership and costs 2 years after opening for revenue service.

3. Contractor Performance Assessment Information

3.1. New Starts Projects

One New Starts project, the Charlotte, NC Northeast Corridor Light Rail Project, has entered PE since the publication of the 2007 Contractor Performance Assessment Report. Of the four projects in last year's report, the Salt Lake City Mid-Jordan Light Rail Transit (LRT) extension has advanced from PE to final design. The other three projects -- New Jersey Transit Access to the Regions Core, the Minneapolis/St. Paul Central Corridor LRT, and the Orlando Central Florida Commuter Rail Transit project -- remain in PE.

3.1.1. Northeast Corridor Light Rail, Charlotte, NC

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

CATS initiated a Draft Environmental Impact Statement (DEIS) on the corridor in 2005, resulting in the selection of LRT as the LPA in June 2006. After continued environmental, engineering, and other technical work, as well as reconfirmation by voters of CATS' dedicated sales tax revenue source to expand its system, the project was approved by FTA into PE in November 2007. This project has an estimated revenue operations date of 2013.

Reporting Item	**Information at Entry to Preliminary Engineering**
Project Length Number of Stations First Year of Construction	10.7 miles 14 2011
Opening Year Ridership (2012) Forecast Year Ridership (2030)	8,100 average weekday boardings 10,500 average weekday boardings
Responsible Party for Ridership Forecasts	AECOM Consult 3101 Wilson Blvd, 4th floor Arlington, VA 22201
Capital Cost Estimates	$619.78 million (2007 $) $748.96 million (YOE $)
Responsible Party for Capital Cost Estimates	Parsons Corporation (Parsons Transportation Group) 4701 Hedgemore Drive Charlotte, NC 28209

The original project cost estimate was prepared by Parsons Transportation Group as part of the alternatives analysis (AA) study. Parsons Transportation Group is no longer an engineering consultant for this project. The original estimate developed by Parsons Transportation Group in 2006 dollars was escalated to 2007 dollars and Year of Expenditure dollars (YOE $) by CATS staff using assumed inflation rates. At the time the project entered PE, the project team lacked an engineering contractor, engineering technical support, and project controls personnel.

The FTA Project Management Oversight Contractor (PMOC) review, completed on December 4, 2007 for the Charlotte Northeast LRT project, states that the original cost estimate was based on the Parsons Transportation Group rail cost book and from bid costs received on the prior Charlotte South Corridor LRT project. The PMOC stated that the cost estimates are likely to be low for two reasons. First, the majority of bids on the South Corridor LRT project exceeded the engineers' estimates which were also based on Parsons Transportation Group's cost book. Second, the South Corridor project experienced a number of cost-overruns where the unit cost to complete exceeded the original unit cost bid by a significant amount. Parsons Transportation Group was removed as the engineering contractor for the South Corridor before that project was completed. The PMOC review found that the construction cost of the Northeast Corridor project could be $800 million (YOE $).

3.1.2. Mid Jordan Light Rail Transit (MJLRT) Project, Salt Lake City, UT

The MJLRT is proposed to be a 10.6 mile double-track extension of the existing Utah Transit Authority (UTA) LRT Sandy/Salt Lake TRAX Line that will serve nine new stations. The project will include 28 new light rail vehicles and additional storage tracks at the Midvale Maintenance Facility. The MJLRT will operate on the 10.6 mile extension, interline with existing Sandy/Salt Lake TRAX service to downtown Salt Lake City, and terminate at the Intermodal Hub currently under construction.

After this project applied to enter PE, FTA's PMOC found that the cost estimates developed during AA were very likely to be underestimated. Therefore, FTA will track cost estimates for this project from the initial PE submission (April 2006) which were $329.12 million in 2006 dollars and $354.09 million in YOE $. UTA's revised PE submittal increased the cost estimates to $357.1 million in 2006 dollars and $384.4 million in YOE $. The cost increased again after entry into PE partly due to an increase in scope to add 10 more rail vehicles.

UTA's current schedule is to begin revenue operations on the MJLRT project in January 2010. UTA plans to use design/build as their preferred delivery method for this project. A DEIS was signed in July 2005. FTA issued a Record of Decision on the Final Environmental Impact Statement (FEIS) in September 2007. The project was approved to enter Final Design in April 2008.

Reporting Item	Information at Entry to Preliminary Engineering	Information at Entry to Final Design
Project Length Number of Stations	10.6 Miles 9 Stations	10.6 Miles 9 Stations
First Year of Construction	2008	2008
Opening Year Ridership (2010) Forecast Year Ridership (2030)	9,790 Weekday project trips 14,024 Weekday project trips 4,095,008 Annual trips	9,790 Weekday project trips 14,024 Weekday trips 4,095,008 Annual trips
Responsible Party for Ridership Forecasts	Utah Transit Authority (developed internally) 3600 South 700 West P.O. Box 30810 Salt Lake City, UT 84130-0810	Utah Transit Authority (developed internally) 3600 South 700 West P.O. Box 30810 Salt Lake City, UT 84130-0810
Capital Cost Estimates	$329.12 million (2006 $) $354.09 million (YOE $)	$477.64 (2007 $) $535.37 (YOE $)
Responsible Party for Capital Cost Estimates	Parsons Corporation 406 W. South Jordan Parkway South Jordan, UT 84095	Parsons Corporation 406 W. South Jordan Parkway South Jordan, UT 84095

3.1.3. Access to the Region's Core, Northern New Jersey

The New Jersey Transit Corporation (NJTC) is proposing to construct a new commuter rail line along the existing Northeast (Rail) Corridor between Secaucus, New Jersey and Manhattan. The Trans Hudson Express Tunnel project, also known as "Access to the Region's Core (ARC)," includes the construction of two new tunnels under the Hudson River, new rail tracks between Secaucus Junction and New York Penn Station (NYPS), a new six-track rail station under 34th Street in midtown Manhattan (with pedestrian linkages to NYPS), a storage yard in Kearny, New Jersey, and the purchase of 20 rail locomotives and 200 bi-level coaches.

NJTC completed a major investment study on the ARC corridor in 2003. A new Hudson River rail tunnel and expanded Penn Station capacity alternative was selected as the LPA in early 2006. FTA approved the LPA into PE in August 2006. Federal environmental review of the project is underway. A DEIS was published in February 2007. Because of changes to the project alignment made in response to the comments received on the DEIS and from the PE effort, a Supplemental Environmental Impact Statement (SEIS) is required. The FEIS and Record of Decision are expected in 2008.

The PMOC review for the ARC project found that the cost estimate was reasonable and appropriate when the project entered PE. The main areas of uncertainty were found to be real estate and vehicle costs. Several issues relating to other projects proceeding in the Northeast Corridor such as the Portal Bridge, air rights west of Penn Station, and platform extensions at Penn Station, were identified that could have implications for the scope, schedule and eventual costs of the ARC project. The PMOC indicates these areas needed to be resolved during PE.

Reporting Item	Information at Entry to Preliminary Engineering
Project Length Number of Stations First Year of Construction	9.3 Miles 1 2008
Opening Year Ridership (2015) Forecast Year Ridership (2030)	230,290 Average weekday boardings 67,705,260 Annual boardings 268,423 Average weekday boardings 78,916,362 Annual boardings
Responsible Party for Ridership Forecasts	New Jersey Transit One Penn Plaza East Newark, NJ 07105
Ridership Forecasting Consulting Support	AECOM Consulting 3101 Wilson Blvd, 4th floor Arlington, VA 22031
Capital Cost Estimates	$6.1095 billion (2005 $) $7.176 billion (YOE)
Responsible Party for Capital Cost Estimates	Transit Link Consultants (Joint Venture of Parsons Brinckerhoff and SYSTRA Consulting, Inc.) 2 Gateway Center #18 Newark, NJ 07102

3.1.4. Central Corridor LRT, St. Paul-Minneapolis, MN

The Metropolitan Council/Metro Transit (Met Council), in cooperation with the Ramsey and Hennepin Counties Regional Rail Authorities (RCRRA and HCRRA), is proposing an 11-mile, double-tracked LRT line that would connect the downtowns of St. Paul and Minneapolis, while serving a number of other significant activity centers such as the University of Minnesota, the State Capitol, and major event venues. The LRT line would share 1.2 miles of existing track with the Hiawatha LRT line before turning east in its own right-of-way, cross the Mississippi River on the existing Washington Avenue Bridge to St. Paul, and generally follow University Avenue to the State Capitol area and terminate at the Union Depot in downtown St. Paul. Metro Transit also plans to procure 31 light rail vehicles and operate at 7.5 minute peak period headways in the forecast year.

The RCRRA, in cooperation with the Met Council, completed an AA/DEIS in the Central Corridor in April 2006. LRT was selected as the LPA. FTA approved the project into PE in December 2006. Since the project's approval into PE, the Met Council has initiated an analysis to examine potential scope changes to reduce the project's budget and improve its cost-effectiveness. The Met Council has identified up to $335 million in potential cost saving strategies that are currently under evaluation while a SDEIS on associated scope changes is ongoing. A FEIS and Record of Decision are scheduled for completion in late 2008.

The PMOC, in their pre-PE cost review for the Central Corridor LRT project, found that the cost estimates for the project were likely to be too low because they were escalated from a previous 2002 cost estimate using inflation rates that were less than the actual inflation that occurred

during this period. In addition, the cost estimates for this project were based on very early project design documents and were found to be highly uncertain. The PMOC estimated that this project could cost anywhere between $652 and $1.49 billion in YOE $.

Reporting Item	Information at Entry to Preliminary Engineering
Project Length Number of Stations First Year of Construction	11 Miles 16 Stations 2010
Opening Year Ridership (2014) Forecast Year Ridership (2030)	34,300 Average weekday boardings 43,300 Average weekday boardings
Responsible Party for Ridership Forecasts	AECOM Consulting 3101 Wilson Blvd 4th floor Arlington, VA 22031
Capital Cost Estimates	$817.7 million (2006 $) $932.2 million (YOE $)
Responsible Party for Capital Cost Estimates	URS Corporation Thresher House 700 Third Street South Minneapolis, Minnesota, USA 55415-1199

3.1.5. Central Florida Commuter Rail Transit (CFCRT) Project, Orlando, FL

At the end of alternatives analysis, the Florida Department of Transportation (FDOT) selected a 60.8-mile commuter rail system, serving 16 stations as their LPA. The CFCRT Project was proposed to operate bi-directional service on the existing CSX Transportation, Inc. (CSXT) A-Line rail corridor from the existing DeLand Amtrak Station in Volusia County, south through downtown Orlando and Kissimmee until its terminus at the Poinciana Industrial Park at the intersection on US 17/92 and the CSXT tracks in Osceola County. The CFCRT included the purchase of 34 Diesel Multiple Unit vehicles, 33-miles of new track, a new railway operations signal system, and a vehicle storage and maintenance facility.

At the time FDOT requested entry into preliminary engineering, the CFCRT Project was proposed to be implemented in three phases. Phase One, also known as the Initial Operating Segment (IOS), was a 31-mile long north corridor consisting of 10 stations between DeBary/Saxon Boulevard Extension Station and Orlando Amtrak/ORMC Station. Phase Two was the south corridor, which would be a 23-mile extension of the IOS from Orlando Amtrak/ORMC Station to Poinciana Industrial Park (five stations total). Phases One and Two combined made up the 54-mile project that was approved into PE. Phase One was proposed to be operational by 2009 and Phase Two by 2013. Phase Three, a seven-mile extension north to the DeLand Amtrak Station, defines the entire 60.8-mile long system.

The PMOC for this project found that the cost estimates for the 54-mile project were reasonable for a project requesting entry into PE. However, there were a variety of project risks that the PMOC felt could affect the scope and eventual cost of the project including incomplete

agreements with CSXT, Americans with Disabilities Act (ADA) compliance at the stations, an optimistic project development schedule, single-track sections that may need to be double-tracked, sinkholes in the project corridor, and potentially inadequate contingency, among other issues.

Reporting Item	Information at Entry to Preliminary Engineering
Project Length Number of Stations First Year of Construction	54 Miles 16 Stations 2007 (4th Quarter)
Opening Year Ridership (2009) Forecast Year Ridership (2030)	6,580[6] Average weekday boardings 1,908,200 Annual boardings 10,676 Average weekday boardings 3,096,040 Annual boardings
Responsible Party for Ridership Forecasts	AECOM Consulting 3101 Wilson Blvd 4th floor Arlington, VA 22031
Capital Cost Estimates	$541.8 million (2006 $) $601.5 million (YOE $)
Responsible Party for Capital Cost Estimates	Earthtech 30 Keller Road Suite 500 Orlando, FL 32810

3.2. Small Starts Projects

Small Starts projects are a subcategory of New Starts projects with a total capital cost less than $250 million and a Small Starts funding share of $75 million or less. Small Starts have only a single project development phase and will only be required to report their ridership forecasts, cost estimates and the parties responsible for them at three points: entry into project development, when a PCGA is executed, and two years after the start of revenue service. Very Small Starts will not be covered in this report because these projects are justified based on existing ridership rather than forecasts and the costs of these projects include mostly "off-the-shelf" components whose costs are largely known.

[6] The original opening year ridership forecast (3,619) for the Orlando Commuter Rail project was factored down by 55 percent to account for the effect of lower population and employment in the opening year. This external reduction was contrary to FTA policy and the factor was subsequently removed to derive the opening year forecast for the Orlando project.

The following four Small Starts projects initiated project development since the 2007 CPAR:

1. Mason Corridor Bus Rapid Transit (BRT), Fort Collins, CO.
2. Fitchburg Commuter Rail Improvements, Fitchburg, MA.
3. Van Ness Avenue BRT, San Francisco, CA.
4. Perris Valley Commuter Rail, Riverside, CA.

Two other Small Starts projects were included in the previous report but have not yet been awarded a PCGA so their information remains unchanged. These projects are the Pioneer Parkway Emerald Express (EmX) BRT in Eugene/Springfield, Oregon and the Streetcar Loop in Portland, Oregon.

3.2.1. Mason Corridor BRT, Fort Collins, CO

The City of Fort Collins, Colorado, is proposing to construct a 5.0-mile BRT system from downtown Fort Collins to Harmony Road. The "Mason Express" or "MAX" right-of-way is parallel to, and a few hundred feet west of, College Avenue (US 287), the city's primary north-south arterial, and adjacent to Burlington Northern Santa Fe railway tracks, which currently accommodate six to eight freight trains per day. MAX BRT would operate at-grade in mixed traffic from the existing North Transit Center 1.2 miles to the northern edge of Colorado State University and continue in a 3.8-mile exclusive right-of-way to the proposed South Transit Center. Service would operate at 10-minute peak frequencies in the opening year. The project scope includes construction of the South Transit Center, traffic signal priority in general purpose lanes, a bus guideway facility, eight transit stations, eight enhanced bus stops, 250 park-and-ride spaces, unique MAX project branding, and five new low-floor vehicles. FTA approved this project into project development in November 2007.

Reporting Item	**Information at Entry to Project Development**
Project Length Number of Stations First Year of Construction	5.0 Miles 8 Stations (including one transit center) 2008
Opening Year Ridership (2010)	3,882 Average weekday boardings 1,164,600 Annual boardings
Responsible Party for Ridership Forecasts	City of Fort Collins- Transportation Planning (developed internally) 250 N. Mason Street, Fort Collins, CO 80524
Capital Cost Estimates	$69.39 million (2007 $) $74.19 million (YOE $)
Responsible Party for Capital Cost Estimates	Felsburg Holt & Ullevig 6300 South Syracuse Way, Suite 600 Centennial, CO 80111

3.2.2. Fitchburg Commuter Rail Improvements, Fitchburg, MA

The Montachusett Regional Transit Authority of the Fitchburg/Leominster, Massachusetts, metropolitan area, in conjunction with the Massachusetts Bay Transportation Authority (MBTA),

is proposing to modernize an existing commuter rail line to provide improved service and reliability for riders at 18 urban and suburban stations over a 50-mile corridor extending from Fitchburg to Boston's North Station. Owned by the MBTA and operated under contract by the Massachusetts Bay Commuter Rail Company, improvements to the Fitchburg Line will include installation of approximately 8.5-miles of double track from Ayer to South Acton, and through Waltham Station, resulting in double track operations throughout the line; upgrade of horizontal and vertical track alignment to achieve a maximum 80 mile-per-hour operation compared with the current 60 mile-per-hour maximum speed; construction of three stations with high-level platforms to replace three mini-high platforms displaced by double tracking; replacement of an outdated wayside signal control system with cab signal control; improvement of four highway grade crossings; installation of fiber-optic cable along the route; installation of additional storage track at the Willows Freight Rail Yard, and other improvements. FTA approved this project into project development in December 2007.

Reporting Item	**Information at Entry to Project Development**
Project Length Number of Stations First Year of Construction	49.5 miles upgraded 3 stations constructed 2008
Opening Year Ridership (2012)	10,800 Average weekday boardings
Responsible Party for Ridership Forecasts	Central Transportation Planning Staff (based on existing ridership and developed internally) Ten Park Plaza, Suite 2150 Boston, MA 02116
Capital Cost Estimates	$135.07 million (2007 $) $149.98 million (YOE $)
Responsible Party for Capital Cost Estimates	McMahon Associates, Inc. 180 Canal Street, Suite 500 Boston, MA 02114

3.2.3. Van Ness Avenue BRT, San Francisco, CA

The San Francisco County Transportation Authority (SFCTA), is proposing to implement a 2-mile exclusive guideway BRT facility on Van Ness Avenue. The system would be operated by the San Francisco Municipal Transportation Agency (SFMTA). The dedicated transit lane originates at the intersection of Van Ness Avenue and Mission Street and extends north to Union Street near Fort Mason and the Fisherman's Wharf area. In addition to guideway construction, the Van Ness Avenue BRT project includes traffic signal pre-emption, pedestrian crossings, and 11 stations. The project's operating plan requires 35 new vehicles, all of which are being procured outside of the scope of the proposed Small Start. Service would operate at five-minute headways during weekday peak periods in the opening year of 2011. FTA approved this project into project development in December 2007.

Reporting Item	Information at Entry to Project Development
Project Length Number of Stations First Year of Construction	2 miles 11 stations 2010
Opening Year Ridership (2011)	70,500 Average weekday boardings
Responsible Party for Ridership Forecasts	SFCTA 100 Van Ness Avenue, 26th Floor San Francisco, CA 94102 415-522-4816
Capital Cost Estimates	$74 million (2007 $) $87 million (YOE $)
Responsible Party for Capital Cost Estimates	ARUP 901 Market Street Suite 260 San Francisco, CA 94103 415-957-9445

3.2.4. Perris Valley Commuter Rail, Riverside, CA

The Riverside County Transportation Commission, in conjunction with the Southern California Regional Rail Authority, is proposing to construct a 22.7-mile extension to the Metrolink regional commuter rail system. The Perris Valley Line project would result in an extension of the existing Route 91 commuter rail line between Los Angeles and downtown Riverside southeast in an alignment parallel to the Ramona Expressway (I-215), serving the communities of Allessandro, Moreno Valley, and Perris, terminating at South Perris. The project includes six new stations and park-and-ride lots to accommodate 1,430 vehicles, as well as the acquisition of three bi-level coaches. The proposed project would operate with 30-minute headways during the a.m. and p.m. peak period, as well as a single mid-day train, in the anticipated opening year of 2011. FTA approved this project into project development in December 2007.

Reporting Item	Information at Entry to Project Development
Project Length Number of Stations First Year of Construction	22.7 miles 6 stations 2008
Opening Year Ridership (2010)	3,430 Average weekday riders
Responsible Party for Ridership Forecasts	Parsons Brinckerhoff 303 Second Street, Suite 700N San Francisco, CA 94107
Capital Cost Estimates	$156 million (2007 $) $168 million (YOE $)
Responsible Party for Capital Cost Estimates	STV Incorporated 1055 W Seventh St, Suite 3150 Los Angeles, CA 90017

3.2.5. Pioneer Parkway EmX BRT, Springfield, OR

The Lane Transit District (LTD) is proposing to construct a 7.8-mile extension to the Franklin corridor BRT "Green Line" currently operating in Eugene, Oregon. The proposed Pioneer Parkway EmX BRT project would extend service from the eastern terminus of the Franklin corridor route north along the Pioneer Parkway to existing and new residential and employment areas in Springfield. The project includes 14 new stations, traffic signal priority, and the purchase of four low-floor, branded, hybrid-electric vehicles. The proposed service would operate at-grade with 10-minute headways during weekday peak- and off-peak periods in the opening year.

A study of the feasibility of urban rail in the Eugene/Springfield area conducted in 1995 concluded that projected ridership in the region over a 20-year period was too low to be competitive for New Starts funding. Instead, the study identified BRT as a less capital-intensive way to provide efficient transit service for the region. In 2001, BRT was identified as a strategy to combat congestion in the adopted "Eugene-Springfield Regional Transportation Plan." In this plan, the initial Franklin Boulevard BRT route was identified as the first phase of a potential 60-mile regional BRT system. BRT service in the Franklin corridor has begun.

LTD completed an environmental assessment on the Pioneer Parkway EmX BRT project in November 2006. FTA approved the project into project development in November 2006. The Pioneer Parkway EmX BRT project was recommended for funding in the FY 2008 and FY 2009 budgets. The PCGA is expected to be executed late 2008.

Reporting Item	**Information at Entry to Project Development**
Project Length Number of Stations First Year of Construction	7.8 Miles 14 Stations 2007
Opening Year Ridership (2010)	3,698 Average weekday boardings 2,183,143 Annual boardings
Responsible Party for Ridership Forecasts	Ms. Jennifer John (as private consultant) 7694 SW Barnard Dr Beaverton, OR 97007
Capital Cost Estimates	$33.439 million (2005 $) $36.986 million (YOE $)
Responsible Party for Capital Cost Estimates	Parsons Brinckerhoff 400 SW Sixth Ave. Suite 802 Portland, OR 97204

3.2.6. Streetcar Loop Project, Portland, OR

The Tri-County Metropolitan Transportation District of Oregon (TriMet) proposes to construct the Portland Streetcar Loop Project in Portland, Oregon, a 3.3-mile extension of the existing Portland Streetcar line. The Portland Streetcar Loop Project will extend streetcar tracks, stations and service from the Pearl District in northwest Portland, across the existing Broadway Bridge,

serving the eastern half of the Portland Central City. With nine new streetcars, the project would serve 18 new and 16 existing streetcar stations and station pairs. Later, as a separate project, the Loop would be completed via a new bridge at the south end, allowing continuous connections around the entire loop.

FTA approved the Portland Streetcar Loop Project into project development on April 26, 2007. FTA's approval letter to TriMet indicated the need to improve the project's cost-effectiveness for the project to continue to advance. Any changes proposed during project development may have an impact on the travel forecasts and cost estimates.

Reporting Item	**Information at Entry to Project Development**
Project Length Number of Stations First Year of Construction	3.3 Miles 18 Stations 2008
Opening Year Ridership (2009)	10,593 Average Weekday Boardings 3,463,911 Annual Boardings
Responsible Party for Ridership Forecasts	TriMet 4012 SE 17th Ave. Portland, OR 97202
Capital Cost Estimates	$130.03 million (2006 $) $146.89 million (YOE $)
Responsible Party for Capital Cost Estimates	URS Corporation 111 SW Columbia, Suite 1400 Portland, OR 97201-5814