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Transportation**

**Federal Transit  
Administration**

# **GUIDANCE FOR TRANSIT FINANCIAL PLANS**

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16. Abstract  <p>This guidance document was developed by FTA to establish a framework for financial plans. It is intended to assist state and local transit agencies, receiving FTA funds, in developing a sound financial plan. The report defines the content and scope of a financial plan that support legislative requirements. It provides a model format and detailed examples of the elements of a complete and concise financial plan. Each element is introduced step-by-step. The document also describes good practice in financial planning applicable to all transit agencies. The Financial Plan Outline provided for transit agencies consists of the following elements: 1) Introduction, 2) Capital Plan, 3) Operating Plan, 4) Cash Flow Analysis, and 5) Appendix (reference supporting documentation). Each element is stretched-out descriptively and separately to clarify its importance to the soundness and completeness of the plan. Transit agencies are encouraged to adapt the elements and practices within this framework to their individual settings and requirements.</p>					
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# 1. INTRODUCTION

Sound financial planning helps to ensure the financial health of transit agencies and the quality of service that they are able to provide. A continually updated financial plan is the centerpiece of sound capital investment planning for any transit agency. The financial plan documents the recent financial history of the transit agency, describes its current financial health, documents projected costs and revenues, and demonstrates the reasonableness of key assumptions underlying these projections.

Recognizing the importance of sound financial planning to the successful implementation of transit capital investments, Section 3(a)(2)(a) of the Federal Transit Act states that “No grant or loan shall be provided under this section unless the Secretary determines that the applicant has or will have the legal, financial, and technical capacity to carry out the proposed project.” Consequently, the Federal Transit Administration (FTA) has specific responsibilities to promote careful financial planning by state and local transportation agencies that receive FTA funds.

This document defines the content and scope of a financial plan that accomplishes the objectives of the legislative mandate placed upon FTA. It provides a model format and detailed examples of the elements of a complete and concise financial plan. The document also describes good practice in financial planning that is applicable to all transit agencies. FTA encourages all transportation agencies receiving FTA funds to employ financial planning practices consistent with good practice and to prepare financial plans consistent with the content, scope, and format of this guidance. FTA anticipates that financial plans consistent with this guidance will support communications with grantees on the use of FTA capital funds. For some portions of the federal transit program, FTA has adopted these practices and documentation as specific requirements for receiving FTA capital funds. These requirements are described in guidance associated with those individual FTA programs.

The practices described here are intended as integral components of the planning and development of transit projects. The approach to financial planning recognizes two key principals. First, the general content of the financial plan remains the same throughout the planning and project development process. The financial health of an organization and the financial feasibility of specific projects are established by information on costs, revenues, funding sources, and financing mechanisms. Second, the details of the financial information will change as projects advance through planning and development. Project cost estimates become more reliable as the project scope is defined in detail and funding strategies become more certain as funds are committed to the proposed project.

The purpose of this guidance is to establish a framework for financial plans. Plans produced within this framework describe the overall financial condition of a transit agency, include realistic financial projections, and incorporate the increasingly detailed financial information available to projects in later stages of development. Transit agencies are encouraged to adapt the elements and practices within this framework to their individual settings and requirements.





## 2. CONTENTS OF THE FINANCIAL PLAN

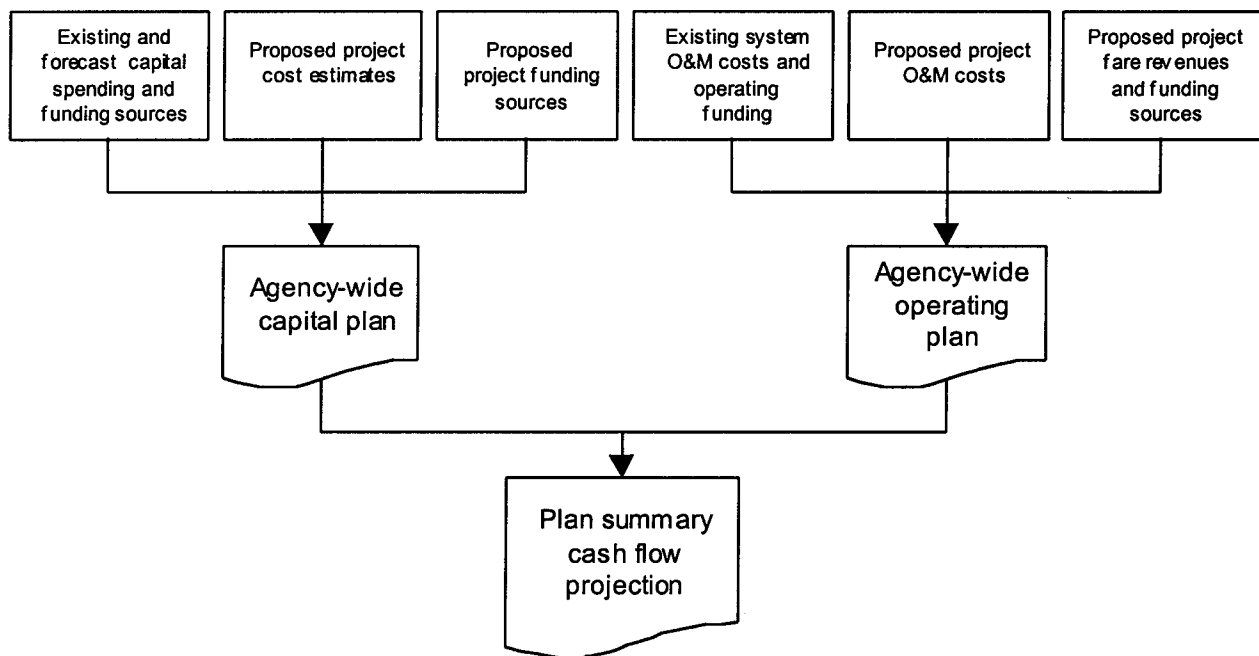
The central element of a financial plan is an agency-wide 20-year cash flow projection that includes the capital and operating plans for the agency as a whole and for the proposed project. The 20-year cash flow begins with the current year. The remaining content of a financial plan is the information to back up all the assumptions and inputs that contribute to the cash flow projection.

The 20-year cash flow projection is the summary of several elements of a financial plan that includes:

- Funding sources and revenue forecasts;
- Proposed project capital budget;
- Other planned capital projects; and
- Annual operating and maintenance (O&M) expenses for the proposed project and the existing system.

The plan is constructed by bringing several plan elements together into an integrated financial model. Figure 1 summarizes the relationships among the plan components.

*Figure 1: Components of a Financial Plan*



The tables and schedules that constitute the financial plan demonstrate how financial and economic assumptions and project cost estimates have been derived, how the resulting forecasts of capital and operating costs of the proposed project fit into the agency-wide capital and

operating plans, whether funds have been committed to the project, how the revenue forecasts are developed, and finally, how capital and operating plans impact projected agency cash flow.

## 2.1 Outline of the Financial Plan

FTA's assessment of financial plans requires consistent and comparable financial plans from project sponsors. To help project sponsors provide a complete and well-organized financial submission, project sponsors are required to produce financial submissions that adhere to the outline in Figure 2. The documentation provided by project sponsors to support their financial plans should be developed as part of the planning and project development process (systems planning, alternatives analysis, PE, Environmental Impact Statement, final design and construction). Each element of the financial plan is described in the following sections.

*Figure 2: Financial Plan Outline for Transit Agencies*

<b>FINANCIAL PLAN OUTLINE</b>	
1)	Introduction
a)	Description of the Project Sponsor and Funding Partners
b)	Description of the Project
c)	Summary of the Financial Plan
2)	Capital Plan
a)	Proposed Project Capital Plan
b)	Agency-Wide Capital Plan
3)	Operating Plan
a)	Operating Revenues
b)	Operating and Maintenance Costs
c)	Agency-Wide Operating Plan
4)	Cash Flow Analysis
a)	Twenty-Year Cash Flow Projection
b)	Financial Evaluation
Appendix (Reference Supporting Documentation)	
A.	Summary of Regional Economic Forecasts
B.	Summary of Financial Condition of Project Sponsor
C.	Summary of Bus and Rail Fleet Management Plans

## 2.2 Introduction to the Financial Plan

The financial plan begins with a description of the project sponsor and major funding partners. The introduction describes the current transit system and discusses the project sponsor's and partners capability to fund the construction and operation of the proposed project. The introduction then describes the proposed project. This description explains the purpose and need for the project and how this project fulfills the project sponsor's objectives. The introduction then describes the strategy to provide the local share of project funding. The introduction concludes with a summary of the projected financial position of the project sponsor and the

ability of the sponsor to fund planned capital improvements and continue to operate and maintain the existing transit system.

## **2.3 The Capital Plan**

The first component of the financial plan is the capital plan, which documents the transit agency's capital spending plans and funding sources and describes in detail the strategy to fund the construction of the proposed project. The capital plan is composed of two elements: (1) the capital plan for the proposed project and, (2) the agency's 20-year capital plan. The project sponsor first develops the capital plan for the project, then inserts the project into the agency-wide capital plan. The capital plan documentation confirms the stability, reliability, and availability of all capital funding sources and describes the transit agency's capital spending plans 20 years into the future.

### *2.3.1 Proposed Project Capital Plan*

The project plan provides a high level of detail regarding the agency's plan to fund the construction of the proposed project. The project plan includes the cost estimate and schedule for the proposed project, describes the amount and commitment of non-federal funding sources, describes contingencies for cost increases and federal appropriations shortfalls, and details the debt burden on the project sponsor at a level of detail appropriate to the phase of project development.

The components of the project capital plan change considerably as the project moves from alternatives analysis to signing a FFGA and construction. As the project moves from PE to final design, capital costs become increasingly detailed as the project scope and precise alignment are finalized, non-federal funding sources are committed, environmental mitigation activities and other cost escalation risk areas are more accurately specified and changes to the original design and cost estimates become apparent. By the time a FFGA is signed, all local funds are committed to the project and cost estimates and schedule are known with a high level of certainty.

#### Capital Costs and Schedule

A cost estimate and schedule is required at each phase of project development, but the format of the cost estimate changes. In alternatives analysis and PE, project cost estimates and schedules are presented as increasingly detailed unit cost breakdowns of the proposed project. When a project is admitted to final design and seeks to receive a FFGA, the cost estimates are broken into individual contract units that specify the escalated annual cost and schedule for each contract. These cost estimates are updated periodically and tracked as the project is constructed.

Capital cost submissions describe the cost estimation process and segment costs by major cost category (e.g., guideway, facilities, systems, and vehicles). Cost estimates include soft-costs such as PE, final design and construction management as well as set-asides for contingencies. The cost estimate and schedule provide detail to back up the proposed project cost items in the agency-wide capital plan.

The project sponsor documents the current engineering cost estimate for the proposed project, describing each major cost component. A simple project cost estimate is developed in alternatives analysis. This cost estimate, typically including high contingencies to reflect

uncertainties in scope and alignment, is used for the financial plan before a project enters PE. During PE, the scope and exact alignment of the project is determined and additional detail added to the cost estimate. As the project moves toward implementation, confidence in the capital cost estimates and schedules increase while cost contingencies decrease. Table 1 provides an example cost estimate for a project in PE.

Table 1: Detailed Project Cost Estimate in PE, Constant 1999 Dollars (Millions)

Description	Quantity	Cost (Millions of 1999\$)
<b>Construction Costs</b>		
<i>Site Preparation and Restoration</i>		
Utility relocation - meters	3675	\$ 13.2
Street restoration - meters	3675	\$ 1.9
Traffic signals - #	7	\$ 0.6
Structure mod. and underpinnings - #	2	\$ 2.9
Environmental mitigations - #	2	\$ 0.8
<i>Maintenance facility and yard</i>	1	\$ 25.6
<i>Trackway - meters</i>		
At grade - 2 track	690	\$ 0.4
<i>Subway - meters</i>		
Cut/cover - 1 track	593	\$ 16.7
Cut/cover - 2 track	1230	\$ 79.1
Mined tunnel - 1 track	413	\$ 16.5
Mined tunnel - 2 track	749	\$ 42.5
Ventilation (cut/cover + mined tunnel)	2985	\$ 5.5
<i>Stations - number</i>		
At grade	1	\$ 2.6
Underground	4	\$ 79.5
<i>Trackwork</i>		
Ballasted - meters	690	\$ 0.4
Direct fixation - meters	4964	\$ 2.8
Special - turnouts, turnback...etc. - #	1	\$ 0.6
<i>Traction power supply - meters</i>	5654	\$ 4.6
<i>Signaling and train control - meters</i>	5654	\$ 7.2
<i>Communications/fire/safety - meters</i>	5654	\$ 2.5
<b>Subtotal Construction Costs</b>		<b>\$ 305.8</b>
<b>Non-Construction Costs</b>		
<i>Right-of-way</i>		
Right-of-way - stations - #	5	\$ 4.8
Right-of-way - Maintenance facility - #	1	\$ 2.2
<i>New Vehicles - #</i>	8	\$ 20.1
<i>Preliminary Engineering</i>		\$ 10.0
<i>Final engineering/management</i>		\$ 39.8
<b>Subtotal Non-Construction Costs</b>		<b>\$ 76.9</b>
<b>Contingency</b>		<b>\$ 45.9</b>
<b>Total</b>		<b>\$ 428.6</b>

The capital cost estimates are initially produced in constant dollars and escalated to the year-of-expenditure. Costs are typically escalated based on distinct inflation forecasts for, at a minimum, construction costs, right-of-way acquisition, labor cost, and general price inflation to account for the wide variability in the inflation characteristics of certain cost components. Costs in constant dollars are budgeted according to the estimated construction schedule. These costs are then escalated to the year-of-expenditure.<sup>1</sup> Table 2 is an example of a cost estimate and schedule for a project in PE.

Table 2: Cost Estimate and Schedule, Year-of-Expenditure Dollars (Millions)

* Cost Category	Millions of 1999\$	1999	2000	2001	2002	2003	2004	2005	2006	Total Year-of-Expenditure (\$Millions)
1 Inflation (CPI-U)		na	2.34%	2.17%	2.52%	2.63%	2.67%	2.60%	2.48%	
2 Labor Cost Inflation		na	2.53%	2.20%	1.90%	2.03%	2.07%	1.95%	2.15%	
3 Const. Cost Inflation		na	3.55%	2.99%	3.67%	2.22%	1.85%	4.34%	4.77%	
4 Real Estate Inflation		na	2.93%	2.13%	2.96%	1.10%	1.67%	4.27%	4.81%	
2 Preliminary Engineering	\$ 10.0	\$ 1.0	\$ 5.1	\$ 4.2						\$ 10.3
3 Construction	\$ 305.8					\$ 83.5	\$ 99.6	\$ 110.5	\$ 67.2	\$ 360.8
4 Right-of-Way	\$ 7.0				\$ 5.1	\$ 2.5				\$ 7.6
2 Final Engineering/Mgmt	\$ 39.8			\$ 6.9	\$ 5.6	\$ 9.5	\$ 9.6	\$ 8.2	\$ 3.9	\$ 43.7
1 Vehicles	\$ 20.1						\$ 6.1	\$ 11.6	\$ 5.6	\$ 23.3
NA Contingency	\$ 45.9					\$ 12.5	\$ 14.9	\$ 16.6	\$ 10.1	\$ 54.1
<b>Total</b>	<b>\$ 428.6</b>	<b>\$ 1.0</b>	<b>\$ 5.1</b>	<b>\$ 11.1</b>	<b>\$ 10.7</b>	<b>\$ 108.0</b>	<b>\$ 130.2</b>	<b>\$ 146.9</b>	<b>\$ 86.8</b>	<b>\$ 499.8</b>

\* These numbers reference the inflation category used to escalate the associated cost category. Inflation assumptions are documented in regional economic forecasts. The source of these inflation assumptions is Standard and Poors DRI, *The US Economy - Winter 2000*.

Cost estimates for projects in final design that are ready to sign a FFGA are broken into contract units. Each of the contract units is a separate contract with a distinct schedule and cost estimate. Each contract is awarded and tracked by the grantee throughout the construction phase. The contracts may contain the project contingency individually or a separate project reserve may be set aside to account for unexpected costs. The initial escalated cost estimate divided into contract units is called the Baseline Project Budget and is developed by the grantee before a FFGA is signed. This estimate may be derived from estimated contract costs escalated to year-of-expenditure or mid-point of construction. An example is provided in Table 3.

<sup>1</sup> Year of expenditure cost estimates are derived by multiplying the constant dollar cost estimate for a particular year by the inflation factor calculated for that year. The inflation factor for an expenditure in year t is derived by :

$$i_t = \prod_{n=1}^t (1 + i_n)$$

where *i* is the inflation rate in percent for year n.

Table 3: Example Baseline Cost Estimate, Escalated Dollars (Millions)

<b>Contract</b>		<b>Cost (\$Millions)</b>
<b>No.</b>	<b>Description</b>	<b>Escalated*</b>
	Preliminary engineering	\$ 10.3
	Final engineering and project management	\$ 43.8
	Real estate	\$ 7.6
	Vehicles	\$ 23.3
<b>Construction Contracts</b>		
1	Maintenance facility and yard	\$ 34.7
2	Subway cut/cover	\$ 144.1
3	Subway mined tunnel	\$ 90.3
4	Trackwork installation	\$ 5.1
5	Construct stations	\$ 121.2
6	Install traction power system	\$ 6.3
7	Signalling system	\$ 9.8
8	Communications system	\$ 3.4
<b>Total</b>		<b>\$ 499.8</b>

\* May be escalated to either year-of-expenditure or mid-point of construction

The cost estimate changes as bids for each of the contracts come in higher or lower than the baseline and changes to project scope lead to contract amendments. These changes in project costs are tracked on a separate schedule that provides the current budget forecast for the project. Table 4 is an example of the project cost-tracking schedule. As the current budget forecast changes, the project sponsor revises the capital plan to ensure that the grantee maintains a sound financial position. Grantees are subject to financial spot reviews by FTA to ensure they have the capacity to complete the project according to the terms of the FFGA as well as operate and maintain the existing transit system and service levels.

### Funding Sources

The project capital plan identifies the proposed sources of funds for constructing the proposed project and details the non-federal share of project costs. The information submitted regarding funding sources provides documentation for FTA to determine the degree of commitment of each funding source and helps ensure that local match requirements are met. As the project advances in the development and implementation process, the level of commitment of non-federal funds increases. To enter PE, a financial plan must identify a “realistic” funding strategy for providing the local share. During PE, the project sponsor is expected to secure committed funds so that the majority of non-federal funds are committed before the project may advance to final design. All non-federal funds must be formally approved and programmed to fund the non-federal share of the proposed project before FTA will recommend or approve a project for a FFGA.

Table 4: Project Cost Tracking Schedule, Escalated Dollars (Millions)

No.	Description	Baseline Budget	Contract Award	Approved Changes	Current Contract	Forecasted Changes	Contract to be Awarded	Current Budget Forecast	Expenditures To-Date	
	Preliminary engineering	\$ 10.3	\$ 10.3	\$ -	\$ 10.3		\$ -	\$ 10.3	\$ 10.3	
	Final eng. and mgmnt	\$ 43.8	\$ 42.5	\$ -	\$ 42.5		\$ -	\$ 42.5	\$ 5.5	
	Real estate	\$ 7.6	\$ 7.8	\$ 0.4	\$ 8.2		\$ -	\$ 8.2	\$ 4.9	
	Vehicles	\$ 23.3	\$ 22.5	\$ -	\$ 22.5		\$ -	\$ 22.5	\$ -	
	<i>Construction Contracts</i>									
1	Maintenance facility	\$ 34.7	\$ 32.4	\$ (0.5)	\$ 31.9		\$ -	\$ 31.9	\$ -	
2	Subway cut/cover	\$ 144.1	\$ 148.8	\$ -	\$ 148.8		\$ -	\$ 148.8	\$ 5.2	
3	Subway mined tunnel	\$ 90.3	\$ 94.2	\$ -	\$ 94.2		\$ -	\$ 94.2	\$ 1.5	
4	Trackwork installation	\$ 5.1		\$ -	\$ -		\$ 5.1	\$ 5.1	\$ -	
5	Construct stations	\$ 121.2		\$ -	\$ -	\$ (2.5)	\$ 121.2	\$ 118.7	\$ -	
6	Traction power system	\$ 6.3		\$ -	\$ -		\$ 6.3	\$ 6.3	\$ -	
7	Signalling system	\$ 9.8		\$ -	\$ -		\$ 9.8	\$ 9.8	\$ -	
8	Communications system	\$ 3.4		\$ -	\$ -	\$ (0.2)	\$ 3.4	\$ 3.2	\$ -	
	<b>Total</b>	<b>\$ 499.8</b>	<b>\$ 358.5</b>	<b>\$ (0.1)</b>	<b>\$ 358.4</b>	<b>\$ (2.7)</b>	<b>\$ 145.7</b>	<b>\$ 501.4</b>	<b>\$ 27.4</b>	



The capital plan summarizes the non-federal and federal shares of project costs and references evidence of funding commitment. Evidence of commitment may include legislative documentation, resolutions approving funding, account balances, a bonding prospectus and agency debt covenants, signed joint development agreements or legally binding agreements with state/local agencies committing funds. Table 5 presents an example of this type of schedule. In the example, the project sponsor would attach legislation or signed local agreements authorizing the dedicated sales tax, MPO commitments for use of Congestion Mitigation Air Quality (CMAQ) funds, the bonding prospectus and evidence of authority to issue debt in the amount planned.

*Table 5: Sources of Capital Funds, Year-of-Expenditure Dollars (Millions)*

Sources of Funds	Funding Level	Funding Share	Evidence of Commitment
Federal Sources			
Section 5309 New Starts	\$ 251.3	50%	NA Attach MPO documents committing use of CMAQ or flexible funding.
CMAQ/STP	\$ 20.0	4%	
Other	\$ -	0%	
<b>Total Federal Funds</b>	<b>\$ 271.3</b>	<b>54%</b>	<b>NA</b>
Non-Federal Sources			
Sales Tax	\$ 148.5	30%	Attach Legislation and Revenue Forecast Attach Debt Coverage Analysis and Rating
Bond Proceeds	\$ 80.0	16%	
Other Sources	\$ -	0%	
<b>Total Non-Federal Funds</b>	<b>\$ 228.5</b>	<b>46%</b>	
<b>Total Project Budget</b>	<b>\$ 499.8</b>	<b>100%</b>	

The accompanying text clearly identifies all local, state, federal and private funding sources, including the name, originating level of government, total dollar amount anticipated, amount currently expended, and the share of total project capital costs in year-of-expenditure dollars. The total dollar amount across funding sources sums to the project's total capital cost.

#### Funding Source Forecasts

For each funding source, the plan clearly indicates whether the source is an existing source, such as an active local tax from which revenues are currently collected, or a new source requiring legislative approval, referendum, or other governmental action. For existing sources, the plan outlines the conditions of the funding agreement (e.g., funding formula, percent share of total revenues, etc.) and at least five years of historical revenue data including the amount available for transit uses. For major funding sources<sup>2</sup>, the plan includes 10 years of historical revenue data. For new sources, the plan indicates when legislative approval or public referendum is expected and the date the source would become effective. For all sources, the plan contains a

<sup>2</sup> Defined as sources that contribute more than 25% of agency-wide or New Starts capital or operating funds. The purpose of evaluating ten years of revenue data is to ensure that the forecasts account for a full range of economic conditions.

20-year revenue forecast, documentation of any sunset clauses, and provisions to cover project funding beyond the sunset date.

For all revenue projections, the financial plan uses conservative rates of growth that do not exceed historical experience for that source. Table 6 presents an example of a forecast for a dedicated local sales tax.

### Borrowing, Debt Levels and Ratings

If the financial plan includes debt, a debt proceeds and service plan is included in the financial plan documentation. This schedule presents outstanding debt levels, the gross amount of each debt issuance, net proceeds from each issuance, bond rating for each issuance, debt service requirements, and interest rates, for the past five years and 20 years into the future. This schedule monitors on a yearly basis the most restrictive debt covenant of the agency, such as debt service ratio requirements, outstanding debt ceiling, or limits on debt expenditures during a specific time period. In addition, the most recent bonding prospectus is included as supporting documentation.

### Contingencies

Cost contingencies provide reserves against any risks of cost increases in the development of the project. These contingencies are separately identified in the project's financial plan and included in the capital cost estimates. The capital cost documentation includes a description of all the cost escalation risks and identify the range of potential project costs. As a project moves through the engineering and design process, the likelihood of cost increases, and consequently, the contingency declines. After a FFGA is signed, the project sponsor is responsible for any cost increases and for fulfilling the terms of the FFGA. Reduced service, delayed construction, or reductions in project scope are not acceptable contingency plans.

### Federal Funding Shortfalls

In some cases, project sponsors may assume 80 percent federal funding in PE, but only receive 60 percent of project costs after the congressional appropriations process. Project sponsors should be prepared to move the full scope of the project forward even if federal funds are less than expected. Evidence of financial capacity to provide additional non-federal funds could be in the form of cash balances, additional debt capacity or commitments of additional funds from new or existing funding sources. Service reductions and deferred maintenance are not acceptable methods of freeing up additional funds.

After a FFGA has established the federal share, federal appropriations may fall short on an annual basis. For instance, the federal commitment to the FFGA funding levels may be satisfied over six years rather than the planned four-year period. The capital plan presents strategies for implementing the project if the annual appropriations are less than planned including short term financing to cover annual funding shortfalls. The capital plan should show adequate cash reserves, construction reserves or debt capacity to complete the full scope of the proposed project if annual appropriations are lower than expected. Service reductions on the existing system, construction delays or reducing the scope or features of the project are not acceptable methods of providing additional funds.

Table 6: Example Funding Source Forecast, Current Dollars (Millions)

<b>Fiscal Year</b>	<b>CPI-U**</b>	<b>Retail Sales</b>	<b>Tax Rate</b>	<b>Sales Tax Revenue*</b>	<b>Annual % Chg.</b>
1990	5.4%	\$11,442.0	0.5%	\$ 57.2	
1991	4.2%	\$11,918.7	0.5%	\$ 59.6	4.2%
1992	3.0%	\$12,441.3	0.5%	\$ 62.2	4.4%
1993	3.0%	\$13,027.5	0.5%	\$ 65.1	4.7%
1994*	2.6%	\$13,500.0	1.0%	\$ 135.0	107.3%
1995	2.8%	\$14,720.0	1.0%	\$ 147.2	9.0%
1996	3.0%	\$15,779.8	1.0%	\$ 157.8	7.2%
1997	2.3%	\$16,663.5	1.0%	\$ 166.6	5.6%
1998	1.6%	\$17,696.6	1.0%	\$ 177.0	6.2%
1999	2.2%	\$18,846.9	1.0%	\$ 188.5	6.5%
2000	2.3%	\$19,789.3	1.0%	\$ 197.9	5.0%
2001	2.2%	\$20,580.8	1.0%	\$ 205.3	3.7%
2002	2.5%	\$21,404.1	1.0%	\$ 212.6	3.6%
2003	2.6%	\$22,260.2	1.0%	\$ 221.0	3.9%
2004	2.7%	\$23,150.7	1.0%	\$ 229.9	4.0%
2005	2.6%	\$24,076.7	1.0%	\$ 239.2	4.1%
2006	2.5%	\$25,039.7	1.0%	\$ 248.8	4.0%
2007	2.6%	\$26,041.3	1.0%	\$ 258.5	3.9%
2008	2.6%	\$27,083.0	1.0%	\$ 268.7	4.0%
2009	2.6%	\$28,166.3	1.0%	\$ 279.5	4.0%
2010	2.7%	\$29,293.0	1.0%	\$ 290.8	4.0%
2011	2.7%	\$30,464.7	1.0%	\$ 302.8	4.1%
2012	2.6%	\$31,683.3	1.0%	\$ 315.3	4.1%
2013	2.6%	\$32,950.6	1.0%	\$ 327.9	4.0%
2014	2.7%	\$34,268.6	1.0%	\$ 341.0	4.0%
2015	2.8%	\$35,639.4	1.0%	\$ 355.0	4.1%
2016	3.0%	\$37,064.9	1.0%	\$ 369.6	4.1%
2017	3.2%	\$38,547.5	1.0%	\$ 384.4	4.0%
2018	3.3%	\$40,089.4	1.0%	\$ 400.0	4.1%
2019	3.6%	\$41,693.0	1.0%	\$ 416.2	4.0%

\* The tax rate increase of 0.5% approximately doubles the revenue from this source.

\*\* Source: Standard and Poors DRI, *The US Economy - Winter 2000*

### *2.3.2 Agency-Wide Capital Plan*

The components of the project capital plan are summarized and incorporated into the agency-wide capital plan. The agency plan presents capital funding and spending for each individual funding source and each individual capital project for the past five years and planned during the next 20 years. Capital plan documentation includes project names and descriptions, total capital costs and schedules, and proposed federal funding contributions for each existing, proposed, or planned project. Projects included in the long-range plan and transportation improvement program for the metropolitan area are identified. The agency-wide capital plan also includes bus and rail fleet acquisitions, replacement, and major rehabilitation consistent with the fleet management plans prepared by the transit agency.

All capital funding and expenditures are combined into an agency-wide capital plan projection. Agencies with large numbers of transit projects and funding sources may present detailed funding sources or capital projects on a separate schedule (as in Table 7) to provide a clearer presentation of the capital funding information. The major funding categories can then be summarized in the agency-wide capital plan projection. Table 8 is an example of a 20-year agency capital plan projection.

Table 7: Schedule of Capital Funding Sources, Year-of-Expenditure Dollars (Millions)

Fiscal Year	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998	Budget 1999	2000	2001	2002	2003	2004	2005	2006
<b>Non-Federal Capital Funds</b>													
Balance from Operations (see Table 11)	\$ (4.6)	\$ (1.4)	\$ 0.6	\$ 5.2	\$ 9.4	\$ 14.2	\$ 11.8	\$ 11.5	\$ 11.2	\$ 10.8	\$ 10.1	\$ 9.5	\$ 12.1
Sales Tax - 50% Capital (see Table 6)	\$ 67.5	\$ 73.6	\$ 78.9	\$ 83.3	\$ 88.5	\$ 94.2	\$ 98.9	\$ 102.6	\$ 106.3	\$ 110.5	\$ 114.9	\$ 119.6	\$ 124.4
Net Bond Proceeds	\$ -	\$ 60.0	\$ 105.0	\$ 90.0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40.0	\$ 20.0	\$ 20.0	\$ -
Investment Income	\$ 24.2	\$ 13.0	\$ 13.4	\$ 13.9	\$ 13.8	\$ 11.0	\$ 11.5	\$ 12.0	\$ 11.9	\$ 12.8	\$ 14.7	\$ 15.7	\$ 15.6
<b>Total Non-Federal Sources</b>	<b>\$ 87.1</b>	<b>\$ 145.2</b>	<b>\$ 197.9</b>	<b>\$ 192.5</b>	<b>\$ 111.7</b>	<b>\$ 119.4</b>	<b>\$ 122.2</b>	<b>\$ 126.1</b>	<b>\$ 129.5</b>	<b>\$ 174.1</b>	<b>\$ 159.8</b>	<b>\$ 164.8</b>	<b>\$ 152.0</b>
<b>Federal Funds</b>													
Section 5307 - Formula Funds	\$ 19.8	\$ 22.1	\$ 24.2	\$ 32.2	\$ 34.4	\$ 36.8	\$ 39.4	\$ 41.8	\$ 44.3	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0
Section 5309 - FFGA Attachment 6	\$ 67.3	\$ 44.0	\$ 51.8	\$ 48.5	\$ 48.5	\$ 32.3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Section 5309 - Bus	\$ 10.4	\$ 9.9	\$ 13.2	\$ 13.5	\$ 14.0	\$ 12.0	\$ 10.5	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0
Section 5309 - Rail Modernization	\$ -	\$ -	\$ -	\$ -	\$ 15.5	\$ 16.2	\$ 17.5	\$ 18.5	\$ 19.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0
<b>Section 5309 - Proposed New Start</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1.0</b>	<b>\$ 2.0</b>	<b>\$ 8.0</b>	<b>\$ 51.0</b>	<b>\$ 66.5</b>	<b>\$ 74.7</b>	<b>\$ 48.1</b>
<b>CMAQ/STP Flexible Funds</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10.0</b>	<b>\$ 10.0</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Federal Funds</b>	<b>\$ 97.5</b>	<b>\$ 76.0</b>	<b>\$ 89.2</b>	<b>\$ 94.2</b>	<b>\$ 112.4</b>	<b>\$ 97.3</b>	<b>\$ 68.4</b>	<b>\$ 71.3</b>	<b>\$ 80.3</b>	<b>\$ 115.0</b>	<b>\$ 130.5</b>	<b>\$ 128.7</b>	<b>\$ 102.1</b>
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Non-Federal Capital Funds</b>													
Balance from Operations (see Table 11)	\$ 6.3	\$ 8.0	\$ 7.4	\$ 6.9	\$ 6.5	\$ 6.0	\$ 5.3	\$ 4.5	\$ 3.8	\$ 3.0	\$ 2.0	\$ 1.1	\$ 0.0
Sales Tax - 50% Capital (see Table 6)	\$ 129.2	\$ 134.4	\$ 139.8	\$ 145.4	\$ 151.4	\$ 157.6	\$ 164.0	\$ 170.5	\$ 177.5	\$ 184.8	\$ 192.2	\$ 200.0	\$ 208.1
Net Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Investment Income	\$ 15.1	\$ 16.3	\$ 17.2	\$ 17.0	\$ 16.8	\$ 16.8	\$ 16.8	\$ 16.6	\$ 16.6	\$ 16.8	\$ 16.9	\$ 16.8	\$ 16.8
<b>Total Non-Federal Sources</b>	<b>\$ 150.6</b>	<b>\$ 158.7</b>	<b>\$ 164.4</b>	<b>\$ 169.4</b>	<b>\$ 174.6</b>	<b>\$ 180.5</b>	<b>\$ 186.0</b>	<b>\$ 191.5</b>	<b>\$ 197.8</b>	<b>\$ 204.7</b>	<b>\$ 211.1</b>	<b>\$ 217.9</b>	<b>\$ 224.9</b>
<b>Federal Funds</b>													
Section 5307 - Formula Funds	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0	\$ 25.0
Section 5309 - FFGA Attachment 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Section 5309 - Bus	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0	\$ 9.0
Section 5309 - Rail Modernization	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0	\$ 20.0
<b>Section 5309 - Proposed New Start</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>CMAQ/STP Flexible Funds</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Federal Funds</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>	<b>\$ 54.0</b>

Table 8: Twenty-Year Capital Plan, Year-of-Expenditure Dollars (Millions)

Fiscal Year	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998	Budget 1999	2000	2001	2002	2003	2004	2005	2006
<b>Capital Expenditures</b>													
1 Rail System Phase B	\$ 140.0	\$ 150.3	\$ 186.5	\$ 156.0	\$ 125.6	\$ 72.7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2 <b>Proposed New Start (see Table 2)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1.0	\$ 5.1	\$ 11.1	\$ 10.7	\$ 108.0	\$ 130.2	\$ 146.9	\$ 86.8
3 Rail System Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ 20.2	\$ 21.1	\$ 26.3	\$ 27.8	\$ 24.7	\$ 26.0	\$ 26.4	\$ 27.0	\$ 27.8
4 Bus Purchases/Overhaul	\$ 8.4	\$ 9.2	\$ 17.4	\$ 38.7	\$ 28.4	\$ 32.3	\$ 68.0	\$ 69.4	\$ 70.7	\$ 46.0	\$ 34.0	\$ 34.7	\$ 35.4
5 Other Capital	\$ -	\$ 12.4	\$ 24.2	\$ 36.5	\$ 32.5	\$ 25.0	\$ 26.5	\$ 32.2	\$ 33.2	\$ 22.2	\$ 22.9	\$ 23.6	\$ 48.6
<b>Total Capital Expenditures</b>	<b>\$ 148.4</b>	<b>\$ 171.9</b>	<b>\$ 228.1</b>	<b>\$ 231.2</b>	<b>\$ 206.7</b>	<b>\$ 152.1</b>	<b>\$ 125.9</b>	<b>\$ 140.4</b>	<b>\$ 139.3</b>	<b>\$ 202.2</b>	<b>\$ 213.5</b>	<b>\$ 232.1</b>	<b>\$ 198.6</b>
<b>Debt Service Costs</b>	<b>\$ 39.8</b>	<b>\$ 44.0</b>	<b>\$ 51.4</b>	<b>\$ 57.7</b>	<b>\$ 57.7</b>	<b>\$ 57.7</b>	<b>\$ 57.7</b>	<b>\$ 57.7</b>	<b>\$ 57.7</b>	<b>\$ 60.5</b>	<b>\$ 61.9</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>
<b>Capital Funding Sources</b>													
Total Non-Federal Sources (see Table 7)	\$ 87.1	\$ 145.2	\$ 197.9	\$ 192.5	\$ 111.7	\$ 119.4	\$ 122.2	\$ 126.1	\$ 129.5	\$ 174.1	\$ 159.8	\$ 164.8	\$ 152.0
Total Federal Funds (see Table 7)	\$ 97.5	\$ 76.0	\$ 89.2	\$ 94.2	\$ 112.4	\$ 97.3	\$ 68.4	\$ 71.3	\$ 80.3	\$ 115.0	\$ 130.5	\$ 128.7	\$ 102.1
<b>Total Capital Revenue</b>	<b>\$ 184.6</b>	<b>\$ 221.2</b>	<b>\$ 287.1</b>	<b>\$ 286.7</b>	<b>\$ 224.1</b>	<b>\$ 216.8</b>	<b>\$ 190.6</b>	<b>\$ 197.4</b>	<b>\$ 209.7</b>	<b>\$ 289.1</b>	<b>\$ 290.3</b>	<b>\$ 293.5</b>	<b>\$ 254.1</b>
Beginning Cash Balance	\$ 189.9	\$ 186.3	\$ 191.6	\$ 199.3	\$ 197.1	\$ 156.9	\$ 164.0	\$ 171.0	\$ 170.4	\$ 183.1	\$ 209.6	\$ 224.5	\$ 222.7
Change to Cash Balance	\$ (3.6)	\$ 5.3	\$ 7.6	\$ (2.2)	\$ (40.2)	\$ 7.1	\$ 7.1	\$ (0.7)	\$ 12.8	\$ 26.4	\$ 14.9	\$ (1.8)	\$ (7.7)
<b>Closing Cash Balance</b>	<b>\$ 186.3</b>	<b>\$ 191.6</b>	<b>\$ 199.3</b>	<b>\$ 197.1</b>	<b>\$ 156.9</b>	<b>\$ 164.0</b>	<b>\$ 171.0</b>	<b>\$ 170.4</b>	<b>\$ 183.1</b>	<b>\$ 209.6</b>	<b>\$ 224.5</b>	<b>\$ 222.7</b>	<b>\$ 215.0</b>
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Capital Expenditures</b>													
1 Rail System Phase B	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2 <b>Proposed New Start</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3 Rail System Rehabilitation	\$ 32.0	\$ 33.9	\$ 36.0	\$ 38.1	\$ 40.4	\$ 42.8	\$ 45.4	\$ 48.1	\$ 51.0	\$ 54.1	\$ 57.3	\$ 60.7	\$ 64.4
4 Bus Purchases/Overhaul	\$ 36.1	\$ 36.8	\$ 52.4	\$ 52.5	\$ 48.0	\$ 49.0	\$ 49.9	\$ 50.9	\$ 52.0	\$ 53.0	\$ 54.1	\$ 55.1	\$ 56.2
5 Other Capital	\$ 55.2	\$ 66.0	\$ 69.3	\$ 72.8	\$ 76.4	\$ 80.2	\$ 84.2	\$ 88.4	\$ 92.9	\$ 97.5	\$ 102.4	\$ 107.5	\$ 112.9
<b>Total Capital Expenditures</b>	<b>\$ 123.3</b>	<b>\$ 136.7</b>	<b>\$ 157.7</b>	<b>\$ 163.4</b>	<b>\$ 164.8</b>	<b>\$ 172.0</b>	<b>\$ 179.6</b>	<b>\$ 187.5</b>	<b>\$ 195.8</b>	<b>\$ 204.6</b>	<b>\$ 213.8</b>	<b>\$ 223.4</b>	<b>\$ 233.5</b>
<b>Debt Service Costs</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 63.3</b>	<b>\$ 58.0</b>	<b>\$ 52.8</b>	<b>\$ 52.8</b>	<b>\$ 52.8</b>	<b>\$ 48.6</b>	<b>\$ 43.5</b>
<b>Capital Funding Sources</b>													
Total Non-Federal Sources (see Table 7)	\$ 150.6	\$ 158.7	\$ 164.4	\$ 169.4	\$ 174.6	\$ 180.5	\$ 186.0	\$ 191.5	\$ 197.8	\$ 204.7	\$ 211.1	\$ 217.9	\$ 224.9
Total Federal Funds (see Table 7)	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0	\$ 54.0
<b>Total Capital Revenue</b>	<b>\$ 204.6</b>	<b>\$ 212.7</b>	<b>\$ 218.4</b>	<b>\$ 223.4</b>	<b>\$ 228.6</b>	<b>\$ 234.5</b>	<b>\$ 240.0</b>	<b>\$ 245.5</b>	<b>\$ 251.8</b>	<b>\$ 258.7</b>	<b>\$ 265.1</b>	<b>\$ 271.9</b>	<b>\$ 278.9</b>
Beginning Cash Balance	\$ 215.0	\$ 233.1	\$ 245.8	\$ 243.3	\$ 240.0	\$ 240.6	\$ 239.8	\$ 237.0	\$ 237.0	\$ 240.3	\$ 241.6	\$ 240.3	\$ 240.3
Change to Cash Balance	\$ 18.1	\$ 12.7	\$ (2.5)	\$ (3.3)	\$ 0.6	\$ (0.8)	\$ (2.8)	\$ 0.0	\$ 3.2	\$ 1.4	\$ (1.4)	\$ (0.0)	\$ 1.9
<b>Closing Cash Balance</b>	<b>\$ 233.1</b>	<b>\$ 245.8</b>	<b>\$ 243.3</b>	<b>\$ 240.0</b>	<b>\$ 240.6</b>	<b>\$ 239.8</b>	<b>\$ 237.0</b>	<b>\$ 237.0</b>	<b>\$ 240.3</b>	<b>\$ 241.6</b>	<b>\$ 240.3</b>	<b>\$ 240.3</b>	<b>\$ 242.2</b>

Notes:

- 1 Funded with FFGA Attachment 6 plus local funds.
- 2 Proposed to be funded with Section 5309 New Starts, federal CMAQ funds, and local funds.
- 3 Funded with Section 5309 Rail Modernization and local funds.
- 4 Funded with Section 5309 Bus and local funds.
- 5 Funded with Section 5307 Formula grants and local funds.

## 2.4 The Operating Plan

The project sponsor supplies an operating plan to document how the agency intends to fund and operate the proposed project and the existing transit system. The operating plan documents five years of historical data and presents 20 years of projected system operating revenues and O&M costs to demonstrate the capability of the agency to operate and maintain the proposed project while providing existing levels of transit service.

Projections of operating costs, ridership, and fares for the proposed project and existing system are often estimated as part of the alternatives analysis and refined in the DEIS/FEIS. The values reported for ridership and service levels are consistent with the forecasts documented in the MPO's constrained long-range plan. The number of rail vehicles and buses in service, vehicle retirements, acquisitions and overhauls and the associated annual costs are documented in the bus and rail fleet management plans. Information unavailable from any of these sources are generated specifically for the financial plan.

### 2.4.1 Operating Revenues

The operating plan demonstrates the ability to rely on non-federal funding sources to operate and maintain the entire transit system after the proposed project is in revenue service. The operation and maintenance of the proposed project is likely to place additional burden on the agency's local funding sources. Transit agencies usually need to develop new funding sources or have existing sources that provide sufficient extra operating revenues to fund the proposed project.

The operating plan incorporates fare revenue forecasts for the proposed project and the existing transit system. Fare revenue forecasts are based on ridership forecasts and assumptions regarding fare levels.<sup>3</sup> For simplicity of presentation, the project sponsor may develop the fare revenue forecasts as a separate schedule as shown in Table 9.

The plan also provides historical revenue figures and forecasts for all other operating revenue sources and the assumptions used to develop the revenue forecasts. Inflation assumptions are critical to revenue forecasts and are explicitly documented in the financial plan. Often, a source such as a local sales tax that is used for local capital funding may also be used for O&M expenses. In the example provided in this guidance, sales tax revenue is divided equally between capital and operations so that the forecast given in Table 6 is adequate to document the revenue forecast. The plan includes documentation proving that the proposed operating funds are committed to their intended purpose.

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<sup>3</sup> The MPO's constrained long range plan contains transit ridership and revenue forecasts. The ridership forecasts used to develop the financial plan need to be consistent with the MPO's forecasts.

Table 9: Fare Revenue Forecasts for Proposed Project and Existing System, Current Dollars (Millions)

	Actual	Actual	Actual	Actual	Actual	Budget							
Fiscal Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Trips - Existing Bus	38.2	39.3	40.3	40.8	41.9	43.1	39.7	39.4	39.8	39.0	39.7	40.9	39.3
Trips - Existing Rail	4.8	5.0	5.2	5.3	5.6	5.7	14.7	16.1	17.0	19.1	19.4	19.2	21.8
Trips - New Start	-	-	-	-	-	-	-	-	-	-	-	-	0.9
<b>Total Ridership</b>	<b>43.0</b>	<b>44.3</b>	<b>45.5</b>	<b>46.1</b>	<b>47.5</b>	<b>48.8</b>	<b>54.4</b>	<b>55.5</b>	<b>56.8</b>	<b>58.1</b>	<b>59.1</b>	<b>60.1</b>	<b>62.0</b>
<b>Annual % Change</b>		<b>3.0%</b>	<b>2.7%</b>	<b>1.3%</b>	<b>3.0%</b>	<b>2.7%</b>	<b>11.5%</b>	<b>2.0%</b>	<b>2.3%</b>	<b>2.3%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>3.2%</b>
Fare Revenues - Existing Bus	\$ 30.7	\$ 31.6	\$ 32.7	\$ 34.6	\$ 36.1	\$ 38.1	\$ 32.8	\$ 33.7	\$ 34.8	\$ 33.1	\$ 35.0	\$ 37.6	\$ 37.6
Fare Revenues - Existing Rail	\$ 4.8	\$ 5.0	\$ 5.2	\$ 5.6	\$ 5.9	\$ 6.0	\$ 16.2	\$ 17.8	\$ 18.7	\$ 22.0	\$ 22.3	\$ 22.1	\$ 25.1
Fare Revenues - New Start	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1.0
<b>Total Fare Revenue</b>	<b>\$ 35.5</b>	<b>\$ 36.6</b>	<b>\$ 37.9</b>	<b>\$ 40.2</b>	<b>\$ 42.0</b>	<b>\$ 44.1</b>	<b>\$ 49.0</b>	<b>\$ 51.4</b>	<b>\$ 53.5</b>	<b>\$ 55.1</b>	<b>\$ 57.3</b>	<b>\$ 59.6</b>	<b>\$ 63.7</b>
<b>Annual % Change</b>		<b>3.2%</b>	<b>3.4%</b>	<b>6.0%</b>	<b>4.6%</b>	<b>5.1%</b>	<b>11.0%</b>	<b>5.0%</b>	<b>4.0%</b>	<b>3.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>6.8%</b>
<b>Average Fare</b>	<b>\$ 0.83</b>	<b>\$ 0.83</b>	<b>\$ 0.83</b>	<b>\$ 0.87</b>	<b>\$ 0.88</b>	<b>\$ 0.90</b>	<b>\$ 0.90</b>	<b>\$ 0.93</b>	<b>\$ 0.94</b>	<b>\$ 0.95</b>	<b>\$ 0.97</b>	<b>\$ 0.99</b>	<b>\$ 1.03</b>
<b>Annual % Change</b>		<b>0.2%</b>	<b>0.7%</b>	<b>4.4%</b>	<b>1.5%</b>	<b>2.2%</b>	<b>0.0%</b>	<b>2.8%</b>	<b>1.6%</b>	<b>0.7%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>3.4%</b>
<b>Fiscal Year</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Trips - Existing Bus	38.9	38.5	38.5	39.2	39.6	40.0	40.5	41.0	41.5	42.1	42.7	43.4	44.0
Trips - Existing Rail	22.8	23.7	25.0	25.7	26.6	27.6	28.5	29.5	30.4	31.4	32.3	33.3	34.2
Trips - New Start	6.3	6.5	6.7	6.9	7.1	7.3	7.5	7.8	8.0	8.2	8.5	8.7	9.0
<b>Total Ridership</b>	<b>68.0</b>	<b>68.7</b>	<b>70.2</b>	<b>71.7</b>	<b>73.3</b>	<b>74.9</b>	<b>76.6</b>	<b>78.3</b>	<b>80.0</b>	<b>81.7</b>	<b>83.5</b>	<b>85.4</b>	<b>87.3</b>
<b>Annual % Change</b>	<b>9.7%</b>	<b>1.0%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>	<b>2.2%</b>
Fare Revenues - Existing Bus	\$ 33.4	\$ 37.1	\$ 38.3	\$ 40.3	\$ 38.7	\$ 40.5	\$ 42.4	\$ 44.4	\$ 42.8	\$ 45.0	\$ 47.4	\$ 47.8	\$ 50.4
Fare Revenues - Existing Rail	\$ 28.5	\$ 29.7	\$ 31.2	\$ 32.1	\$ 35.9	\$ 37.2	\$ 38.5	\$ 39.8	\$ 44.1	\$ 45.5	\$ 46.9	\$ 49.9	\$ 51.4
Fare Revenues - New Start	\$ 7.9	\$ 8.1	\$ 8.4	\$ 8.6	\$ 9.6	\$ 9.9	\$ 10.2	\$ 10.5	\$ 11.6	\$ 11.9	\$ 12.3	\$ 13.1	\$ 13.5
<b>Total Fare Revenue</b>	<b>\$ 69.8</b>	<b>\$ 74.9</b>	<b>\$ 77.9</b>	<b>\$ 81.0</b>	<b>\$ 84.2</b>	<b>\$ 87.6</b>	<b>\$ 91.1</b>	<b>\$ 94.7</b>	<b>\$ 98.5</b>	<b>\$ 102.5</b>	<b>\$ 106.6</b>	<b>\$ 110.8</b>	<b>\$ 115.3</b>
<b>Annual % Change</b>	<b>8.8%</b>	<b>7.2%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.0%</b>
<b>Average Fare</b>	<b>\$ 1.03</b>	<b>\$ 1.09</b>	<b>\$ 1.11</b>	<b>\$ 1.13</b>	<b>\$ 1.15</b>	<b>\$ 1.17</b>	<b>\$ 1.19</b>	<b>\$ 1.21</b>	<b>\$ 1.23</b>	<b>\$ 1.25</b>	<b>\$ 1.28</b>	<b>\$ 1.30</b>	<b>\$ 1.32</b>
<b>Annual % Change</b>	<b>0.0%</b>	<b>5.8%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>



### 2.4.2 Operating Costs

System-wide O&M expenses typically increase after a transit project goes into revenue service requiring additional subsidies to continue operating and maintaining the transit system. FTA needs to determine whether the project sponsor has the financial capacity to fund these additional subsidies without reducing existing service levels. Consequently, the operating plan clearly identifies how existing operations will be affected by the proposed project. Fixed guideway projects often result in significant service realignments. The operating plan details:

- How the project will impact existing operations, revenues and O&M costs;
- How bus routes will be realigned;
- What bus routes will be dropped; and
- What new feeder routes are planned?

The operating plan contains at least five years of historical and 20-year forecasts of O&M expenses for the existing transit system and the proposed project. The O&M expenses are supported by information regarding service characteristics of the transit agency such as projected vehicle revenue miles, vehicles in service, and directional route miles. Table 10 presents an example of a schedule of O&M costs for the proposed project and the existing transit system with supporting service statistics.

The accompanying text documents the O&M cost estimation methodology, preferably resource cost build-up, and describes the service plans for the proposed project and existing transit system. The cost estimation documentation provides detail regarding operating labor, maintenance labor, fuel, supplies, administration and other relevant cost categories used to calculate annual O&M costs.

Changes in O&M costs have three components: (1) inflation for labor and materials, (2) service/operating changes, and (3) changes in productivity. The plan documents the inflation assumptions, the planned system-wide operating and service characteristics, and productivity assumptions to demonstrate that the agency is not paying for the proposed project's O&M costs through reductions in service or deferred maintenance on the existing system.

### 2.4.3 Agency-Wide Operating Plan

The operating revenues and O&M cost estimates are combined in the agency-wide operating plan. The operating plan demonstrates that adequate additional funds are available to operate and maintain the proposed project and the rest of the transit system. The operating plan calculates the additional subsidy required to operate and maintain the proposed project. The operating plan shows the availability of additional operating revenues to cover the additional expenses. Table 11 presents an example of an operating plan. In this example, the transit agency forecasts operating surpluses large enough to easily absorb the subsidy using existing funding sources.

Table 10: Operating and Maintenance Expenses, Year-of-Expenditure Dollars (Millions)

Fiscal Year	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998	Budget 1999	2000	2001	2002	2003	2004	2005	2006
<b>Vehicle Revenue Miles (million)</b>													
Bus	25.2	25.5	26.1	26.0	25.4	25.5	27.7	25.8	26.4	24.3	24.7	25.7	24.0
Existing Rail	2.8	2.9	3.0	3.0	3.0	3.0	5.0	5.5	6.0	6.0	6.0	6.0	6.0
<b>Proposed New Start</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
<b>Directional Route Miles</b>													
Bus	1885.0	1890.0	1880.0	1850.0	1826.0	1838.0	1658.0	1725.0	1720.0	1750.0	1780.0	1850.0	1720.0
Rail	50.4	50.4	50.4	50.4	50.4	50.4	70.1	70.1	70.1	70.1	70.1	70.1	76.0
<b>Vehicles in Maximum Service</b>													
Bus	583.6	585.1	582.0	572.8	565.3	569.0	513.3	534.1	532.5	541.8	551.1	572.8	532.5
Rail	60.0	60.0	62.0	68.0	66.0	68.0	96.0	94.0	99.0	100.0	99.0	102.0	125.0
<b>Operating &amp; Maintenance Expenses</b>													
Existing Bus O&M	\$ 97.9	\$ 102.4	\$ 106.9	\$ 110.8	\$ 115.5	\$ 121.0	\$ 121.7	\$ 124.3	\$ 126.3	\$ 131.6	\$ 137.8	\$ 144.4	\$ 145.9
Existing Rail O&M	\$ 14.0	\$ 14.9	\$ 15.9	\$ 16.4	\$ 16.9	\$ 17.4	\$ 29.9	\$ 34.0	\$ 38.3	\$ 39.6	\$ 40.9	\$ 42.3	\$ 43.8
<b>Proposed New Start O&amp;M</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3.6
<b>Total O&amp;M Expenses</b>	<b>\$ 111.9</b>	<b>\$ 117.3</b>	<b>\$ 122.8</b>	<b>\$ 127.2</b>	<b>\$ 132.4</b>	<b>\$ 138.4</b>	<b>\$ 151.6</b>	<b>\$ 158.3</b>	<b>\$ 164.6</b>	<b>\$ 171.2</b>	<b>\$ 178.8</b>	<b>\$ 186.7</b>	<b>\$ 193.4</b>
<b>Annual % Change</b>		4.9%	4.7%	3.6%	4.1%	4.5%	9.5%	4.4%	4.0%	4.0%	4.4%	4.4%	3.6%
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Vehicle Revenue Miles (million)</b>													
Bus	24.5	25.0	25.5	26.0	26.5	27.1	27.6	28.2	28.7	29.3	29.9	30.5	31.1
Existing Rail	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
<b>Proposed New Start</b>	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<b>Directional Route Miles</b>													
Bus	1,754	1,789	1,825	1,862	1,899	1,937	1,976	2,015	2,056	2,097	2,139	2,181	2,225
Rail	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
<b>Vehicles in Maximum Service</b>													
Bus	543	554	565	576	588	600	612	624	636	649	662	675	689
Rail	125	126	128	130	130	130	130	130	130	130	130	130	130
<b>Operating &amp; Maintenance Expenses</b>													
Existing System - Bus	\$ 123.7	\$ 129.6	\$ 135.8	\$ 142.3	\$ 149.1	\$ 156.2	\$ 163.7	\$ 171.5	\$ 179.6	\$ 188.1	\$ 197.1	\$ 206.4	\$ 216.2
Existing System - Rail	\$ 67.9	\$ 70.2	\$ 72.6	\$ 75.1	\$ 77.6	\$ 80.3	\$ 83.0	\$ 85.8	\$ 88.7	\$ 91.7	\$ 94.9	\$ 98.1	\$ 101.4
<b>Proposed New Start O&amp;M</b>	<b>\$ 18.9</b>	<b>\$ 19.5</b>	<b>\$ 20.2</b>	<b>\$ 20.9</b>	<b>\$ 21.6</b>	<b>\$ 22.3</b>	<b>\$ 23.1</b>	<b>\$ 23.8</b>	<b>\$ 24.6</b>	<b>\$ 25.5</b>	<b>\$ 26.4</b>	<b>\$ 27.2</b>	<b>\$ 28.2</b>
<b>Total O&amp;M Expenses</b>	<b>\$ 210.4</b>	<b>\$ 219.3</b>	<b>\$ 228.6</b>	<b>\$ 238.2</b>	<b>\$ 248.3</b>	<b>\$ 258.8</b>	<b>\$ 269.7</b>	<b>\$ 281.1</b>	<b>\$ 293.0</b>	<b>\$ 305.4</b>	<b>\$ 318.3</b>	<b>\$ 331.7</b>	<b>\$ 345.8</b>
<b>Annual % Change</b>	8.8%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%

Table 11: Operating Plan, Year-of-Expenditure Dollars (Millions)

Fiscal Year	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998	Budget 1999	2000	2001	2002	2003	2004	2005	2006
<b>Operating Revenue</b>													
Existing System Fares (see Table 9)	\$ 35.5	\$ 36.6	\$ 37.9	\$ 40.2	\$ 42.0	\$ 44.1	\$ 49.0	\$ 51.4	\$ 53.5	\$ 55.1	\$ 57.3	\$ 59.6	\$ 62.6
Proposed New Start Fares (see Table 9)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1.0
Other Operating Revenue	\$ 4.3	\$ 5.7	\$ 6.6	\$ 8.9	\$ 11.3	\$ 14.2	\$ 15.4	\$ 15.7	\$ 16.0	\$ 16.3	\$ 16.7	\$ 17.0	\$ 17.3
<b>Total System Revenue</b>	<b>\$ 39.8</b>	<b>\$ 42.3</b>	<b>\$ 44.5</b>	<b>\$ 49.1</b>	<b>\$ 53.3</b>	<b>\$ 58.3</b>	<b>\$ 64.4</b>	<b>\$ 67.2</b>	<b>\$ 69.5</b>	<b>\$ 71.5</b>	<b>\$ 74.0</b>	<b>\$ 76.6</b>	<b>\$ 81.0</b>
Sales Tax - 50% (see Table 6)	\$ 67.5	\$ 73.6	\$ 78.9	\$ 83.3	\$ 88.5	\$ 94.2	\$ 98.9	\$ 102.6	\$ 106.3	\$ 110.5	\$ 114.9	\$ 119.6	\$ 124.4
<b>Total Operating Revenues</b>	<b>\$ 107.3</b>	<b>\$ 115.9</b>	<b>\$ 123.4</b>	<b>\$ 132.4</b>	<b>\$ 141.8</b>	<b>\$ 152.6</b>	<b>\$ 163.3</b>	<b>\$ 169.8</b>	<b>\$ 175.8</b>	<b>\$ 181.9</b>	<b>\$ 188.9</b>	<b>\$ 196.2</b>	<b>\$ 205.4</b>
Annual % Change		8.0%	6.4%	7.3%	7.1%	7.6%	7.1%	4.0%	3.6%	3.5%	3.8%	3.9%	4.7%
<b>Operating &amp; Maintenance Expenses</b>													
Existing System O&M (see Table 10)	\$ 111.9	\$ 117.3	\$ 122.8	\$ 127.2	\$ 132.4	\$ 138.4	\$ 151.6	\$ 158.3	\$ 164.6	\$ 171.2	\$ 178.8	\$ 186.7	\$ 189.7
New Start O&M (see Table 10)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3.6
<b>Total O&amp;M Expenses</b>	<b>\$ 111.9</b>	<b>\$ 117.3</b>	<b>\$ 122.8</b>	<b>\$ 127.2</b>	<b>\$ 132.4</b>	<b>\$ 138.4</b>	<b>\$ 151.6</b>	<b>\$ 158.3</b>	<b>\$ 164.6</b>	<b>\$ 171.2</b>	<b>\$ 178.8</b>	<b>\$ 186.7</b>	<b>\$ 193.4</b>
Balance from Existing Operations	\$ (4.6)	\$ (1.4)	\$ 0.6	\$ 5.2	\$ 9.4	\$ 14.2	\$ 11.8	\$ 11.5	\$ 11.2	\$ 10.8	\$ 10.1	\$ 9.5	\$ 14.7
New Start Subsidy Requirement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2.6
<b>Balance from Operations</b>	<b>\$ (4.6)</b>	<b>\$ (1.4)</b>	<b>\$ 0.6</b>	<b>\$ 5.2</b>	<b>\$ 9.4</b>	<b>\$ 14.2</b>	<b>\$ 11.8</b>	<b>\$ 11.5</b>	<b>\$ 11.2</b>	<b>\$ 10.8</b>	<b>\$ 10.1</b>	<b>\$ 9.5</b>	<b>\$ 12.1</b>
<b>Operating Ratio</b>	<b>35.6%</b>	<b>36.1%</b>	<b>36.2%</b>	<b>38.6%</b>	<b>40.3%</b>	<b>42.2%</b>	<b>42.5%</b>	<b>42.4%</b>	<b>42.2%</b>	<b>41.7%</b>	<b>41.4%</b>	<b>41.0%</b>	<b>41.9%</b>
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Operating Revenue</b>													
Existing System Fares (see Table 9)	\$ 62.0	\$ 66.7	\$ 69.5	\$ 72.4	\$ 74.6	\$ 77.7	\$ 80.9	\$ 84.3	\$ 86.9	\$ 90.5	\$ 94.3	\$ 97.7	\$ 101.8
Proposed New Start Fares (see Table 9)	\$ 7.9	\$ 8.1	\$ 8.4	\$ 8.6	\$ 9.6	\$ 9.9	\$ 10.2	\$ 10.5	\$ 11.6	\$ 11.9	\$ 12.3	\$ 13.1	\$ 13.5
Other Operating Revenue	\$ 17.7	\$ 18.0	\$ 18.4	\$ 18.8	\$ 19.1	\$ 19.5	\$ 19.9	\$ 20.3	\$ 20.7	\$ 21.1	\$ 21.6	\$ 22.0	\$ 22.4
<b>Total System Revenue</b>	<b>\$ 87.5</b>	<b>\$ 92.9</b>	<b>\$ 96.3</b>	<b>\$ 99.7</b>	<b>\$ 103.4</b>	<b>\$ 107.1</b>	<b>\$ 111.0</b>	<b>\$ 115.1</b>	<b>\$ 119.2</b>	<b>\$ 123.6</b>	<b>\$ 128.1</b>	<b>\$ 132.8</b>	<b>\$ 137.7</b>
Sales Tax - 50% (see Table 6)	\$ 129.2	\$ 134.4	\$ 139.8	\$ 145.4	\$ 151.4	\$ 157.6	\$ 164.0	\$ 170.5	\$ 177.5	\$ 184.8	\$ 192.2	\$ 200.0	\$ 208.1
<b>Total Operating Revenues</b>	<b>216.76</b>	<b>227.28</b>	<b>236.03</b>	<b>245.15</b>	<b>254.75</b>	<b>264.75</b>	<b>274.97</b>	<b>285.66</b>	<b>296.73</b>	<b>308.42</b>	<b>320.31</b>	<b>332.83</b>	<b>345.76</b>
Annual % Change	5.5%	4.9%	3.8%	3.9%	3.9%	3.9%	3.9%	3.8%	3.9%	3.9%	3.9%	3.9%	3.9%
<b>Operating &amp; Maintenance Expenses</b>													
Existing System O&M (see Table 10)	\$ 191.6	\$ 199.8	\$ 208.4	\$ 217.4	\$ 226.7	\$ 236.5	\$ 246.7	\$ 257.3	\$ 268.3	\$ 279.9	\$ 291.9	\$ 304.5	\$ 317.6
New Start O&M (see Table 10)	\$ 18.9	\$ 19.5	\$ 20.2	\$ 20.9	\$ 21.6	\$ 22.3	\$ 23.1	\$ 23.8	\$ 24.6	\$ 25.5	\$ 26.4	\$ 27.2	\$ 28.2
<b>Total O&amp;M Expenses</b>	<b>\$ 210.4</b>	<b>\$ 219.3</b>	<b>\$ 228.6</b>	<b>\$ 238.2</b>	<b>\$ 248.3</b>	<b>\$ 258.8</b>	<b>\$ 269.7</b>	<b>\$ 281.1</b>	<b>\$ 293.0</b>	<b>\$ 305.4</b>	<b>\$ 318.3</b>	<b>\$ 331.7</b>	<b>\$ 345.8</b>
Balance from Existing Operations	\$ 17.3	\$ 19.3	\$ 19.2	\$ 19.2	\$ 18.4	\$ 18.4	\$ 18.1	\$ 17.8	\$ 16.8	\$ 16.6	\$ 16.1	\$ 15.2	\$ 14.7
New Start Subsidy Requirement	\$ 11.0	\$ 11.4	\$ 11.8	\$ 12.2	\$ 12.0	\$ 12.4	\$ 12.9	\$ 13.4	\$ 13.1	\$ 13.5	\$ 14.1	\$ 14.1	\$ 14.7
<b>Balance from Operations</b>	<b>\$ 6.3</b>	<b>\$ 8.0</b>	<b>\$ 7.4</b>	<b>\$ 6.9</b>	<b>\$ 6.5</b>	<b>\$ 6.0</b>	<b>\$ 5.3</b>	<b>\$ 4.5</b>	<b>\$ 3.8</b>	<b>\$ 3.0</b>	<b>\$ 2.0</b>	<b>\$ 1.1</b>	<b>\$ 0.0</b>
<b>Operating Ratio</b>	<b>41.6%</b>	<b>42.4%</b>	<b>42.1%</b>	<b>41.9%</b>	<b>41.6%</b>	<b>41.4%</b>	<b>41.2%</b>	<b>40.9%</b>	<b>40.7%</b>	<b>40.5%</b>	<b>40.3%</b>	<b>40.0%</b>	<b>39.8%</b>

## **2.5 The Cash Flow Analysis**

The overall objective of project sponsor financial plans is to demonstrate that the agency has the financial resources to successfully construct the proposed project while adequately operating, maintaining, and recapitalizing the existing and planned transit system. The cash flow statement combines the results of the capital plan and the operating plan to summarize the year-by-year financial condition of the project sponsor throughout the 20-year analysis period.

Cash flow analysis is a valuable tool for project planning. Its application permits project sponsors to develop and test funding strategies, test alternative assumptions, and conduct risk analysis as part of the agency's continuing financial planning activities. The cash flow statement includes at least five prior years of actual costs and revenues to provide a clear picture of the historical financial position of the agency and to substantiate the growth rates assumed in future years. Table 12 is an example of a 20-year cash flow summary.

The example is not meant to mandate how a transit agency accounts for agency cash flow. The agency in the example carries a large cash balance that is available for operating shortfalls as well as capital projects. Operating surpluses are available for capital expenditures. Capital and operating shortfalls can be funded through cash balances. This is not legally possible for some agencies that must maintain separate funds for operations and capital. In the example, the primary non-federal funding source is the sales tax, which is divided equally between operating and capital expenses. Some transit agencies have the freedom to use dedicated funding sources for any transit activity while others are restricted to using them for a particular purpose or to allocate them between purposes based on a formula. The agency's financial plan identifies and reflects all of the restrictions and covenants that determine how funds are allocated and used.

The cash flow projection can be structured in several possible formats. The cash flow statements are structured in a way that reflects the agency's restrictions on operating and capital funds. Many agencies have restrictions on the use of cash balances such as debt retirement, contractual obligations, lease deposits, uninsured losses or reserve accounts for specific projects. If an agency is subject to any of these restrictions, balances in these restricted accounts are identified in the cash flow statement and not included as "available" cash.

### **2.5.1 Financial Evaluation**

The cash flow projection demonstrates that the agency has adequate resources to complete the project as planned and continue to operate the existing transit service. Evidence of this financial capacity could be cash balances or debt service ratios. In general, cash balances should be sufficient to fund at least three months of operations. In the example cash flow projection, the transit agency maintains a working capital fund adequate to fund about one year of operations. The bond market typically requires gross debt service ratios to exceed 150 percent, which means that revenues pledged to cover debt service must exceed 150 percent of annual debt service. Many transit agencies are subject to more stringent debt ratio requirements.

The cash flow projection is often evaluated to determine the sensitivity of an agency's financial health to changes in the assumptions underlying the financial plan. If small changes in the financial planning or economic assumptions, such as economic growth, transit ridership or interest rates, result in financial difficulties for the agency, the financial capacity of the agency may be questionable.

Table 12: Twenty-Year Cash Flow Projection, Year-of-Expenditure Dollars (Millions)

Fiscal Year	Actual 1994	Actual 1995	Actual 1996	Actual 1997	Actual 1998	Budget 1999	2000	2001	2002	2003	2004	2005	2006
<b>Operating</b>													
Operating Revenue (see Table 11)	\$ 107.3	\$ 115.9	\$ 123.4	\$ 132.4	\$ 141.8	\$ 152.6	\$ 163.3	\$ 169.8	\$ 175.8	\$ 181.9	\$ 188.9	\$ 196.2	\$ 205.4
O & M Expenses (see Table 10)	\$ 111.9	\$ 117.3	\$ 122.8	\$ 127.2	\$ 132.4	\$ 138.4	\$ 151.6	\$ 158.3	\$ 164.6	\$ 171.2	\$ 178.8	\$ 186.7	\$ 193.4
<b>Balance from Operations</b>	<b>\$ (4.6)</b>	<b>\$ (1.4)</b>	<b>\$ 0.6</b>	<b>\$ 5.2</b>	<b>\$ 9.4</b>	<b>\$ 14.2</b>	<b>\$ 11.8</b>	<b>\$ 11.5</b>	<b>\$ 11.2</b>	<b>\$ 10.8</b>	<b>\$ 10.1</b>	<b>\$ 9.5</b>	<b>\$ 12.1</b>
<b>Capital</b>													
Capital Revenue (see Table 8)	\$ 189.2	\$ 222.6	\$ 286.5	\$ 281.5	\$ 214.7	\$ 202.6	\$ 178.8	\$ 185.9	\$ 198.5	\$ 278.3	\$ 280.1	\$ 284.0	\$ 242.1
Capital Expenditures (see Table 8)	\$ 148.4	\$ 171.9	\$ 228.1	\$ 231.2	\$ 206.7	\$ 152.1	\$ 125.9	\$ 140.4	\$ 139.3	\$ 202.2	\$ 213.5	\$ 232.1	\$ 198.6
Debt Service Costs (see Table 8)	\$ 39.8	\$ 44.0	\$ 51.4	\$ 57.7	\$ 57.7	\$ 57.7	\$ 57.7	\$ 57.7	\$ 57.7	\$ 60.5	\$ 61.9	\$ 63.3	\$ 63.3
<b>Change in Capital Funds</b>	<b>\$ 1.0</b>	<b>\$ 6.7</b>	<b>\$ 7.1</b>	<b>\$ (7.4)</b>	<b>\$ (49.6)</b>	<b>\$ (7.2)</b>	<b>\$ (4.7)</b>	<b>\$ (12.2)</b>	<b>\$ 1.5</b>	<b>\$ 15.7</b>	<b>\$ 4.7</b>	<b>\$ (11.3)</b>	<b>\$ (19.7)</b>
<b>Cash Balance</b>													
Beginning Cash Balance	\$ 189.9	\$ 186.3	\$ 191.6	\$ 199.3	\$ 197.1	\$ 156.9	\$ 164.0	\$ 171.0	\$ 170.4	\$ 183.1	\$ 209.6	\$ 224.5	\$ 222.7
Change to Cash Balance	\$ (3.6)	\$ 5.3	\$ 7.6	\$ (2.2)	\$ (40.2)	\$ 7.1	\$ 7.1	\$ (0.7)	\$ 12.8	\$ 26.4	\$ 14.9	\$ (1.8)	\$ (7.7)
<b>Closing Cash Balance</b>	<b>\$ 186.3</b>	<b>\$ 191.6</b>	<b>\$ 199.3</b>	<b>\$ 197.1</b>	<b>\$ 156.9</b>	<b>\$ 164.0</b>	<b>\$ 171.0</b>	<b>\$ 170.4</b>	<b>\$ 183.1</b>	<b>\$ 209.6</b>	<b>\$ 224.5</b>	<b>\$ 222.7</b>	<b>\$ 215.0</b>
Fiscal Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Operating</b>													
Operating Revenue (see Table 11)	\$ 216.8	\$ 227.3	\$ 236.0	\$ 245.2	\$ 254.7	\$ 264.8	\$ 275.0	\$ 285.6	\$ 296.7	\$ 308.4	\$ 320.3	\$ 332.8	\$ 345.8
O & M Expenses (see Table 10)	\$ 210.4	\$ 219.3	\$ 228.6	\$ 238.2	\$ 248.3	\$ 258.8	\$ 269.7	\$ 281.1	\$ 293.0	\$ 305.4	\$ 318.3	\$ 331.7	\$ 345.8
<b>Balance from Operations</b>	<b>\$ 6.3</b>	<b>\$ 8.0</b>	<b>\$ 7.4</b>	<b>\$ 6.9</b>	<b>\$ 6.5</b>	<b>\$ 6.0</b>	<b>\$ 5.3</b>	<b>\$ 4.5</b>	<b>\$ 3.8</b>	<b>\$ 3.0</b>	<b>\$ 2.0</b>	<b>\$ 1.1</b>	<b>\$ 0.0</b>
<b>Capital</b>													
Capital Revenue (see Table 8)	\$ 198.3	\$ 204.7	\$ 211.0	\$ 216.4	\$ 222.2	\$ 228.5	\$ 234.7	\$ 241.1	\$ 248.1	\$ 255.6	\$ 263.1	\$ 270.8	\$ 278.9
Capital Expenditures (see Table 8)	\$ 123.3	\$ 136.7	\$ 157.7	\$ 163.4	\$ 164.8	\$ 172.0	\$ 179.6	\$ 187.5	\$ 195.8	\$ 204.6	\$ 213.8	\$ 223.4	\$ 233.5
Debt Service Costs (see Table 8)	\$ 63.3	\$ 63.3	\$ 63.3	\$ 63.3	\$ 63.3	\$ 63.3	\$ 63.3	\$ 58.0	\$ 52.8	\$ 52.8	\$ 52.8	\$ 48.6	\$ 43.5
<b>Change in Capital Funds</b>	<b>\$ 11.8</b>	<b>\$ 4.7</b>	<b>\$ (9.9)</b>	<b>\$ (10.2)</b>	<b>\$ (5.9)</b>	<b>\$ (6.8)</b>	<b>\$ (8.1)</b>	<b>\$ (4.4)</b>	<b>\$ (0.5)</b>	<b>\$ (1.7)</b>	<b>\$ (3.4)</b>	<b>\$ (1.1)</b>	<b>\$ 1.9</b>
<b>Cash Balance</b>													
Beginning Cash Balance	\$ 215.0	\$ 233.1	\$ 245.8	\$ 243.3	\$ 240.0	\$ 240.6	\$ 239.8	\$ 237.0	\$ 237.0	\$ 240.3	\$ 241.6	\$ 240.3	\$ 240.3
Change to Cash Balance	\$ 18.1	\$ 12.7	\$ (2.5)	\$ (3.3)	\$ 0.6	\$ (0.8)	\$ (2.8)	\$ 0.0	\$ 3.2	\$ 1.4	\$ (1.4)	\$ (0.0)	\$ 1.9
<b>Closing Cash Balance</b>	<b>\$ 233.1</b>	<b>\$ 245.8</b>	<b>\$ 243.3</b>	<b>\$ 240.0</b>	<b>\$ 240.6</b>	<b>\$ 239.8</b>	<b>\$ 237.0</b>	<b>\$ 237.0</b>	<b>\$ 240.3</b>	<b>\$ 241.6</b>	<b>\$ 240.3</b>	<b>\$ 240.3</b>	<b>\$ 242.2</b>

## **2.6 The Appendix – Summary of Other Documents**

Many components of the financial plan require additional documentation to support the assumptions and forecasts in the plan. The financial plan summarizes, in an appendix, the results of the critical external analyses that directly support the financial plan. The critical analyses include the regional economic forecasts, the financial condition of the sponsor, and the fleet management plans. Additional supporting documents are provided with the submission of the financial plan. These supporting documents are listed in Section 2.7.

### *2.6.1 Summary of Regional Economic Conditions*

Historical data and forecasts of local economic and demographic changes are developed to substantiate the reasonableness of revenue yield and cost estimates. These forecasts provide a check on growth rate assumptions for ridership, local tax revenues, regional inflation and other key variables. Forecasts from independent institutions, such as universities, state agencies and private forecasting firms, are preferred sources of these data. These forecasts include:

- Population and employment growth estimates;
- Inflation and interest rate forecasts consistent with assumption in cash flow projections;
- Economic and land development projections; and
- The regional demographic or business trends to support 20-year revenue forecasts.

The appendix to the financial plan summarizes the results of the regional economic forecasts including the historical and projected economic condition of the region. It provides tables that summarize, at a minimum, population, employment, personal income and inflation forecasts 20 years into the future. The financial plan is supported by a current regional economic forecast report.

### *2.6.2 Summary of Financial Condition of the Project Sponsor*

Documentation of the financial condition of the sponsoring transit agency and other non-federal financial partners are reported. Documentation of such evidence includes three years of audited financial statements, cash account balances, bond or liquidity test ratios, debt ratings and reports by debt rating agencies, the historical reaction to unexpected financial conditions, the extent of the ongoing capital rehabilitation and replacement program, and the condition of the agency's existing asset base. In addition, evidence of the timely match, obligation, and draw-down of FTA formula resources over the past five to 10 years should be provided.

The appendix provides a short summary of the financial condition of the project sponsor and major funding partners. The summary is substantiated and referenced to other reports and documents related to agency financial condition including at least three years of audited financial statements.

### *2.6.3 Summary of Fleet Management Plans*

FTA requires sponsors of projects in PE and final design to prepare and submit bus and rail fleet management plans apart from the financial plan. The bus fleet management plan is intended to ensure that existing bus service is not degraded during the design, construction, and operation of the proposed investment. This plan is a critical indicator of the project sponsor's financial

capacity to implement a major transit capital investment, and is evaluated as part of the financial assessment of each project. The purpose of the rail fleet management plan is to ensure that the transit operator plans procure and maintain vehicles adequate to provide planned service. These plans document fleet replacement, vehicle age, additional purchases, and plans for fleet rehabilitation and maintenance costs.

The appendix to the financial plan contains a summary of the bus and rail fleet management plans to substantiate the vehicle purchases and rehabilitation expenses referenced in the capital plan and the maintenance costs in the operating plan. The full fleet management plans are referenced and submitted as supporting documentation.

## **2.7 Additional Documentation**

The following documents should be available in support of the financial plan:

1. Past three years' audited financial statements
2. Commitment letters, contracts, agreements, legislative referendums, joint development agreements, or other documents evidencing commitment of funds
3. Latest bonding prospectus
4. Rail vehicle and bus fleet management plans
5. Regional economic forecast documentation
6. Description of innovative financing techniques (e.g., innovative funding sources or financing techniques to be used to support the project or to be implemented as part of a larger system-wide program)
7. Correspondence or other documentation indicating local source's "intent to commit" if no formal commitment or programming of local funding is yet in place
8. Regional Long Range Transportation Plan
9. Regional Transportation Improvement Program (TIP)
10. Major Investment Study (MIS) or Alternatives Analysis (AA) and Environmental Impact Statement (DEIS or FEIS)
11. Project finance plans or project management plans for each major project
12. Latest Project Management Oversight Contractor (PMOC) monthly or spot report
13. Most recent strategic plan or budget





### 3. BIBLIOGRAPHY – OTHER FINANCIAL GUIDANCE

#### FTA Reports and Guidance

- Chapter 7 in *Technical Guidance on Section 5309 New Starts Criteria*, FTA Office of Planning, July 1999.
- *Financial Planning Guide for Transit*, UMTA Technical Assistance and Safety Program, April 1990.

#### Office of Management and Budget Circulars

- OMB Circular A-87, "Cost Principles Applicable to Grants and Contracts with State and Local Governments," dated 1-15-81, and changes to this document published 5/17/95, effective 9/1/95.
- OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations" as revised June 24, 1997.

#### FTA Circulars

- FTA Circular 5700.1, "Requirements and Responsibilities for Indirect Cost Proposals/Cost Allocations Plans for Technical Studies and Capital Grants," dated 5-24-83.
- FTA Circular 8100.1B, "Program Guidance and Application Instructions for Planning and Technical Studies Grants," dated 10-25-96.
- FTA Circular 9030.1C, "Urbanized Area Formula Program: Grant Application Instructions," dated 10-1-98.
- FTA Circular 9300.1A, "Capital Program: Grant Application Instructions." dated 10-1-98.
- FTA Circular 5010.1C, "Grant Management Guidelines." Dated October 1, 1998.
- FTA Circular 7008.1 "Urban Mass Transportation Financial Capacity Policy," dated 3-30-87.
- FTA Circular 5200.1, "Full Funding Grant Agreements Guidance," dated 7-2-93.

#### Federal Register Notices and Legislation

- Federal transit laws, 49 U.S.C. chapter 53.
- Transportation Equity Act for the 21st Century, Pub. L. 105-178, June 9, 1998, 23 U.S.C. 101 note, as amended by the TEA-21 Restoration Act 105-206, 112 Stat. 685, July 22, 1998, 23 U.S.C. 101 note.
- Intermodal Surface Transportation Efficiency Act of 1991, Public Law No. 102-240, 105 Stat. 1914, Dec 18, 1991 (codified as amended by Public Law 103-272, 108 Stat. 745, July 5, 1994, in scattered sections of 49 and 23 US Code).
- FTA regulations, "Project Management Oversight," 49 C.F.R. Part 633.
- 31 CFR Part 205, Ch. II, "Withdrawal of Cash From the Treasury for Advances Under Federal Grant and Other Programs." (Treasury C.1075.)
- U.S. Department of Transportation (DOT) regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments," 49 C.F.R Part 18.
- FTA regulations, "Uniform System of Accounts and Records and Reporting System," 49 C.F.R. Part 630.

- Joint Federal Highway Administration (FHWA)/FTA regulations, "Planning Assistance and Standards," 23 C.F.R. Part 450 and 49 C.F.R. Part 613 (specifically, Subpart B, "Statewide Transportation Planning," and Subpart C, "Metropolitan Transportation Planning and Programming").
- Joint FHWA/FTA regulations, "Management and Monitoring Systems," 23 C.F.R. Part 500 and 49 C.F.R. Part 613 and Part 614 dated 12-19-96.
- FTA Notice "Policy Statements on Local Share Issues," 57 Fed. Reg., 30880 (1992).