

MEMPHIS AREA TRANSIT AUTHORITY

Midtown

Alternatives Analysis

TECHNICAL MEMORANDUM: 6
Preliminary Funding Analysis



March 2016

TABLE OF CONTENTS

Section 1 Introduction	1
Conceptual Capital and Operating Cost Estimates.....	1
Conceptual Financial Strategies.....	2
Remainder of the Memorandum.....	4
Section 2 Financial Strategy Examples: High Capacity Transit Projects	5
Federal Funding Participation: BRT Projects.....	5
Federal Funding Participation: Streetcar Projects.....	7
Matching Funds	9
Section 3 Capital Funding Programs	10
FTA Capital Investment Grant Program.....	10
Other Federal Programs	10
State and Local Funding	12
Private Participation Examples	12
Assessment Districts:	13
Detroit M1 Rail Private Participation	14
Section 4 Potential Operating Funds	17
Section 5 Conceptual Capital Financial Strategies	19
Scenario 1: Maximum Small Starts Funding.....	19
Scenario 2: Combine Small Starts and Other Federal Programs.....	20
Scenario 3: TIGER Grant.....	21
Scenario 4: Combine TIGER Grant and Other Federal Programs.....	21
Section 6 Next Steps	23
Appendix A	1
Introduction	2
Small Starts Financial Planning Process and Requirements	2
Financial Planning Process	3
Project Information Required for Each Project Development Step	4
Overview of “Typical” Small Starts Financial Plan	6
Financial Plan Overview.....	6
Local Financial Commitment Evaluation Criteria and Measures	8

LIST OF TABLES

Table 1: Conceptual Capital and Operating Costs (2016 dollars in millions)	2
Table 2: Conceptual Financial Strategies (2016 dollars in millions)	3
Table 3: Recent BRT Projects (Federal Funding Participation) - Costs in millions.....	6
Table 4: Recent Streetcar Projects (Federal Funding Participation) – Costs in millions.....	8
Table 5: M1 Rail Donations.....	15
Table 6: Daily Ridership Estimates and Conceptual Annual Fare Revenue and Operating Subsidy (2016 dollars in millions).....	17
Table 7: Scenario 1 – Maximum Small Starts Funding	20
Table 8: Combined Small Starts and Other Federal Programs	20
Table 9: TIGER Grant	21
Table 10: Combine TIGER Grant and Other Federal Programs	22

LIST OF FIGURES

Figure 1: Recent BRT Projects (Federal Funding Participation).....	7
Figure 2: Recent Streetcar Projects (Federal Funding Participation)	9
Figure A-1: Small Starts Project Evaluation and Rating	3
Figure A-2: Small Starts Project Development Process.....	4
Table A-1: Financial Plan Overview	7
Table A-2: Local Financial Commitment Measures, Evaluation Criteria & Rating Weights	10
Table A-3: Local Financial Commitment Evaluation Criteria and Rating Requirements.....	11

Section 1 |

Introduction

The purpose of this technical memorandum is to provide a preliminary funding analysis to support the Memphis Area Transit Authority (MATA) as part of the evaluation of High Capacity Transit alternatives (Bus Rapid Transit (BRT) or modern streetcar) being considered in the Midtown Alternatives Analysis (Midtown AA). This technical memorandum represents the first step in the financial planning process for major transit capital improvement projects proceeding through the Federal Transit Administration (FTA) implementation process. The focus of this memorandum is to provide:

- An overview of how similar High Capacity Transit (BRT and Streetcar) projects have recently been funded throughout the United States;
- A brief description of potential funding sources;
- A description of conceptual financial strategies; and
- A summary of the next steps in the financial planning process.

Conceptual Capital and Operating Cost Estimates

To support the Midtown AA evaluation process, conceptual capital and operating cost estimates have been developed for the six remaining BRT corridors and one remaining streetcar corridor. As shown in **Table 1**, conceptual capital costs for the BRT alternatives range from \$35.2 million (Alternative 8: University of Memphis via Poplar, Cooper, & Union) to \$43.7 million (Alternative 6: Airport via Poplar & Airways), and the remaining streetcar alternative (Alternative 9: Extension of Madison Avenue Streetcar to Overton) has a capital cost estimate of \$65.0 million.

Additionally, annual operating cost estimates for the BRT alternatives range from \$4.1 million (Alternative 7: Germantown via Poplar) to \$5.5 million (Alternative 6: Airport via Poplar & Airways), and the remaining streetcar alternative would cost approximately \$3.4 million per year. Compared to MATA's fiscal year (FY) 2016 operating budget, implementation of any of the alternatives represent a between a 5.8 percent and 9.4 percent increase in the Authority's annual operating budget.

Table 1: Conceptual Capital and Operating Costs
(2016 dollars in millions)

Alternative	Corridor Description	Corridor Length (Miles)	Mode of Travel	Capital Cost	Annual Operating Cost	% Share of FY 2016 Operating Budget
6	Airport via Poplar & Airways	11.75	BRT	\$43.7	\$5.5	9.4%
7	Germantown via Poplar	7.81	BRT	\$37.0	\$4.1	6.9%
8	University of Memphis (U of M) via Poplar, Cooper, & Union	8.49	BRT	\$35.2	\$4.5	7.7%
9	Extension of Madison Ave Streetcar to Overton	2.82	Streetcar	\$65.0	\$3.4	5.8%
11	U of M via Union & Poplar	8.63	BRT	\$25.7	\$3.9	6.7%
23	Elvis Presley, Cleveland, Watkins Crosstown	11.04	BRT	\$40.0	\$5.3	9.0%
26	U of M via Union & Central	9.1	BRT	\$38.4	\$4.6	7.9%

Note: Alternative 9 is the Streetcar Extension. Total length of Streetcar is 7.20 miles (extension line is 2.82 miles)

Conceptual Financial Strategies

Table 2 summarizes the results of three conceptual capital financial strategies for the High Capacity Transit alternatives. These strategies reflect the review of financial approaches used to implement similar high capacity projects around the country (summarized in Section 2) and the potential capital funding sources used (described in Section 3).

- Scenario 1 - Maximize Small Starts Funds:** Under this scenario, MATA would pursue a Federal Transit Administration (FTA) Small Starts Construction Grant equivalent to 80 percent of the estimated capital costs. Reflecting current federal transportation legislation, 80 percent of total funding from federal sources is the maximum level allowed. The non-federal matching funds under this scenario reflect an assumption that MATA would continue the historic funding partnership with the State of Tennessee and City of Memphis. Historically, the State and City have equally shared the non-federal matching funds requirement, which for this scenario is 10 percent each.
- Scenario 2 - Combine Small Starts and Other Federal Funds:** Under this scenario, MATA would again pursue federal funds to cover 80 percent of the total capital costs, but the federal funds would be provided through multiple programs. Specifically, MATA would pursue a FTA Small Starts Construction Grant equivalent to 50 percent of the estimated capital costs, and the remaining 30 percent would be provided by one or more of the Other Federal Programs described in Section 3. Similar to Scenario 1, the State and City would each provide 10 percent of the funding to address the non-federal funding requirements.
- Scenario 3 – TIGER Grant:** Under this scenario, MATA would pursue a United States Department of Transportation (USDOT) Transportation Investment Generating Economic Recovery (TIGER) Grant for the entire high capacity project. As shown in **Table 2**, this scenario assumes MATA would receive a \$20 million TIGER Grant, which reflects the “typical” largest award individual projects have received in the

last several years. The remaining funds would be provided by the State and City. As shown in the table, the State and City funding share under this scenario is 2.5 to 4 times larger than the other two scenarios.

- Scenario 4 – Combine TIGER Grant and Other Federal Funds:** Under this scenario, MATA would pursue a \$20 million TIGER Grant for specific elements of the high capacity alternatives that can address independent utility requirements. Independent utility is the ability to demonstrate that these specific elements would be usable and be a reasonable expenditure, even if no additional transportation improvements in the area were made. Additionally, MATA would pursue funding from Other Federal Programs to achieve a total of 80 percent federal funding. Similar to Scenarios 1 and 2, the State and City would each provide 10 percent of the funding to address the non-federal funding requirements.

Table 2: Conceptual Financial Strategies
(2016 dollars in millions)

Alternative	6	7	8	9	11	23	26
Corridor Description	Airport via Poplar & Airways	Germantown via Poplar	U of M via Poplar, Cooper & Union	Extension of Madison Ave Streetcar to Overton	U of M via Union & Poplar	Elvis Presley, Cleveland, Watkins Crosstown	U of M via Union & Central
Mode of Travel	BRT	BRT	BRT	Streetcar	BRT	BRT	BRT
Capital Cost	\$43.7	\$37.0	\$35.2	\$65.0	\$25.7	\$43.8	\$38.4
Scenario #1: Maximum Small Starts Funding							
Small Starts (80%)	\$35.0	\$29.6	\$28.2	\$52.0	\$20.6	\$35.0	\$30.7
State (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
City (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
Total	\$43.7	\$37.0	\$35.2	\$65.0	\$25.7	\$43.8	\$38.4
Scenario #2: Combined Small Starts and Other Federal Programs							
Small Starts (50%)	\$21.9	\$18.5	\$17.6	\$32.5	\$12.9	\$21.9	\$19.2
Other Federal Funds (30%)	\$13.1	\$11.1	\$10.6	\$19.5	\$7.7	\$13.1	\$11.5
State (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
City (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
Total	\$43.7	\$37.0	\$35.2	\$65.0	\$25.7	\$43.8	\$38.4
Scenario #3: TIGER Grant							
TIGER Grant	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0
State	\$11.9	\$8.5	\$7.6	\$22.5	\$2.9	\$11.9	\$9.2
City	\$11.9	\$8.5	\$7.6	\$22.5	\$2.9	\$11.9	\$9.2
Total	\$43.7	\$37.0	\$35.2	\$65.0	\$25.7	\$43.8	\$38.4
Scenario #4: Combined TIGER Grant and Other Federal Programs							
TIGER Grant	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0
Other Federal Funds	\$15.0	\$9.6	\$8.2	\$32.0	\$0.6	\$15.0	\$10.7
State (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
City (10%)	\$4.4	\$3.7	\$3.5	\$6.5	\$2.6	\$4.4	\$3.8
Total	\$43.7	\$37.0	\$35.2	\$65.0	\$25.7	\$43.8	\$38.4

As discussed in Section 4, at the alternatives analysis phase of the project development process, potential operating funding sources are typically less defined compared to capital revenue sources. As a result, a conceptual operating funding strategy is not provided at this time. However, for the potential funding sources described in Section 4, it is critical to initiate discussions among potential funding partners that would benefit from the proposed high capacity services to identify which sources have the most political support to carry forward for further evaluation.

Remainder of the Memorandum

Following this brief introduction, the remainder of the technical memorandum covers the following:

- Section 2 provides an overview of financial strategies used to implement BRT and Streetcar projects;
- Sections 3 and 4 provide a description of potential funding sources typically used to implement, operate, and maintain High Capacity Transit projects;
- Section 5 provides an overview of conceptual capital financial strategies; and
- Section 6 provides a description of the next steps in the financial planning process.

Section 2 |

Financial Strategy Examples: High Capacity Transit Projects

A key conclusion from a review of financial strategies of recently implemented and planned BRT and Streetcar projects is that federal programs are the largest source of funding for most High Capacity Transit Projects. As described in more detail in Section 3, the primary federal funding programs for capital are:

- FTA Capital Investment Grant Program (New Starts / Small Starts);
- FTA Formula Funds;
- Federal Highway Administration (FHWA) Formula Funds; and
- USDOT TIGER Competitive Grants.

Federal Funding Participation: BRT Projects

Table 3 and **Figure 1** summarize the share of federal funding included in the financial strategies for twelve (12) recent BRT projects. Total capital costs for this sample of BRT projects ranged from \$18 million to \$126 million. As shown in the table, for all BRT projects federal funding participation ranged from 75 percent to 80 percent of total costs. Additionally, seven (7) projects utilized 80 percent total federal funding (multiple programs), which is the maximum level of federal participation allowed.

Among the federal programs:

- The Small Starts category of the FTA Capital Investment Grant Program (project costs less than \$300 million) was the largest source and was used to varying degrees by all 12 agencies. Funding levels ranged up to the 80 percent maximum level;
- Two agencies used a portion of their annual FTA formula fund allocation (Section 5307 Urbanized Area Formula Funds) to support implementation of the BRT project;
- Five agencies worked with regional partners through their respective Metropolitan Planning Organizations (MPO) to program annual FHWA formula funds for eligible components of the BRT project; and
- Two agencies were successful in obtaining a TIGER Grant award: Columbus obtained a \$2.1 million Planning Grant, and Reno obtained a \$16.0 million Construction Grant.

Table 3: Recent BRT Projects (Federal Funding Participation) - Costs in millions

City	Total Costs	Small Starts	% Share	Other FTA	% Share	FHWA	% Share	TIGER	% Share	Total Federal Share
Jacksonville, FL	\$18.4	\$14.40	78%							78%
Jacksonville, FL ¹ (Blue Line)	\$23.80	\$19.10	80%							80%
El Paso, TX ² (Dyer Brio)	\$35.90	\$20.40	57%			\$8.30	23%			80%
Grand Rapids, MI ³ (Silver Line)	\$39.9	\$19.00	48%	\$12.90	32%					80%
El Paso, TX ⁴ (Montanna Brio)	\$46.99	\$28.22	60%			\$7.64	16%			76%
Columbus, OH ⁵ (Cleveland Ave.)	\$47.67	\$38.13	80%							80%
Everett, WA ⁶ (Swift II)	\$66.59	\$43.19	65%							65%
Reno, NV ⁷ (4 th Street/Prater Way)	\$52.60	\$6.50	12%			\$17.1	33%	\$16.00	30%	75%
Vancouver, WA ⁸ (The Vine)	\$53.10	\$10.70	20%	\$27.80	52%	\$4.0	8%			80%
Grand Rapids, MI ⁹ (Laker Line)	\$71.01	\$56.81	80%							80%
Indianapolis, IN ¹⁰ (Red Line)	\$96.33	\$74.99	78%					\$2.07	2%	80%
Albuquerque, NM ¹¹ (Central Ave.)	\$126.16	\$69.02	55%	\$4.71	4%	\$26.91	21%			80%

Note: Sample reflects projects that have been implemented or have received approval for Federal funding over the last 3 years.

¹ <https://www.transit.dot.gov/about/news/us-department-transportation-announces-191-million-jacksonville-bus-rapid-transit>

² <http://agenda.sunmetro.net/agenda/09-09-14/Item%205%20attachment%202.pdf> ; <http://www.sunmetrobrío.net/>

³ <https://www.transit.dot.gov/about/news/us-department-transportation-announces-32-million-build-silver-line-bus-rapid-transit>

⁴ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/TX__El_Paso_Montana_Avenue_RTS_FY17_o.pdf

⁵ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/OH__Columbus_Cleveland_Avenue_BRT_Profile_FY16.pdf

⁶ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/WA__Everett_Swift_II_BRT_FY_17_Profile_o.pdf

⁷ [http://www.rtcwashoe.com/StreetsHighways/documents/4thPraterBRTInfoSheet\(1\).pdf](http://www.rtcwashoe.com/StreetsHighways/documents/4thPraterBRTInfoSheet(1).pdf)

http://www.masstransitmag.com/press_release/12290404/fta-announces-39m-for-bus-rapid-transit-project-in-reno-nevada

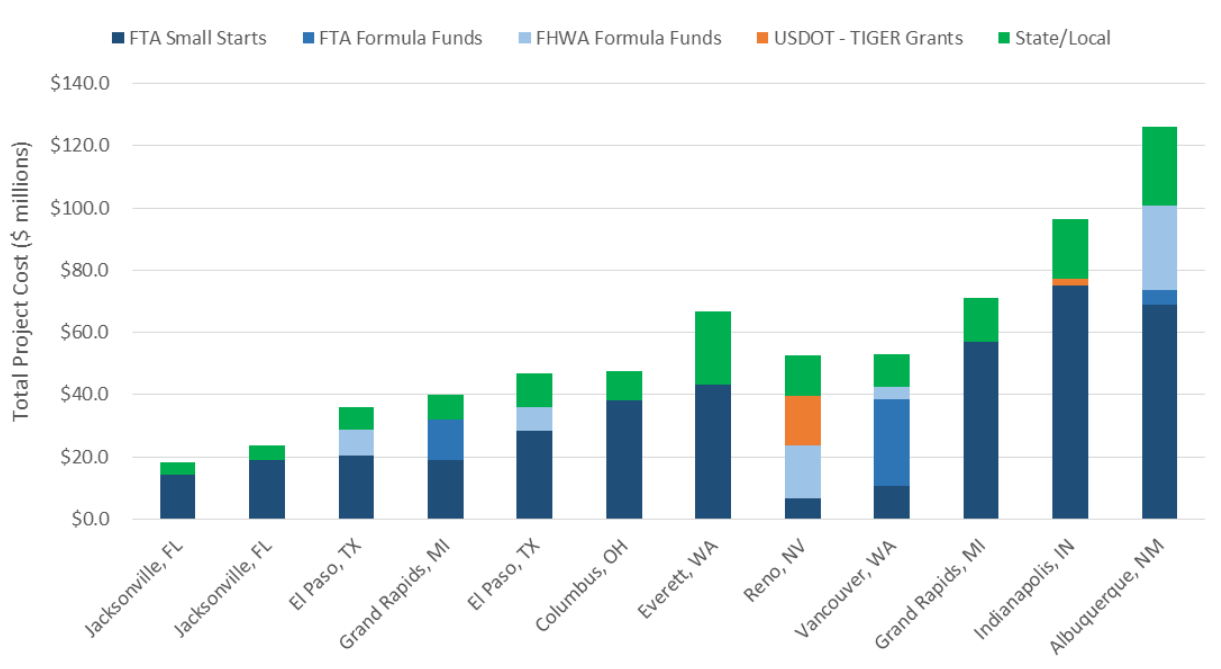
⁸ <https://www.transit.dot.gov/about/news/us-department-transportation-announces-385-million-new-bus-rapid-transit-service-clark>

⁹ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/MI__Grand_Rapids_Laker_Line_BRT_FY_17_Profile_o.pdf

¹⁰ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/IN__Indianapolis_Red_Line_FY_17_Profile_o.pdf

¹¹ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/NM__Albuquerque_Rapid_Transit_Project_FY17_o.pdf

Figure 1: Recent BRT Projects (Federal Funding Participation)



Federal Funding Participation: Streetcar Projects

Table 4 and **Figure 2** summarize the share of federal funding included in the financial strategies for eleven (11) recent Streetcar projects. Total capital costs for this sample of Streetcar projects ranged from \$37 million to \$188 million. As shown in the table, compared to the BRT projects shown previously, federal funding participation was lower for Streetcar projects and the primary sources have been competitive grant programs (TIGER and Urban Circulator). While federal participation ranged from 18 percent to 78 percent, the average federal participation among the 11 projects was 50 percent. Among the federal programs:

- Three agencies obtained Small Starts funding, ranging from 3 percent to 43 percent of total costs;
- Five project sponsors worked with regional partners through their respective MPO to program annual FHWA formula funds for eligible components of the Streetcar project with participation ranging from 2 percent to 25 percent ;
- Seven agencies were successful in obtaining a TIGER Grant award, with one project (Detroit) obtaining awards in two different application cycles. Grant awards in the initial TIGER application cycles (Tucson, Atlanta, Salt Lake City and Dallas) were significantly higher than awards in more recent application cycles; and
- Three agencies were successful in obtaining \$25 million in Urban Circulator Grants from the FTA; The Urban Circulator Grant Program was a one-time competition as part of FTA Livable Communities Initiative in 2009. At this time, there is no indication that FTA will offer future competitive grant opportunities under this program.

Table 4: Recent Streetcar Projects (Federal Funding Participation) – Costs in millions

	Total Costs	Small Starts	% Share	FHWA	% Share	TIGER	% Share	Urban Circulator	% Share	Total Federal Share
Charlotte, NC ¹²	\$37.0							\$25.0	68%	68%
St. Louis, MO ¹³	\$51.0			\$6.0	15%			\$25.0	63%	78%
Salt Lake City, UT ¹⁴	\$55.5					\$26.0	47%			47%
Dallas, TX	\$61.8					\$26.0	42%			42%
Atlanta, GA	\$69.2					\$47.6	69%			69%
Kansas City, MO ¹⁵	\$102.5			\$17.1	17%	\$20.0	20%			36%
Cincinnati, OH ¹⁶	\$148.0			\$4.0	3%	\$16.0	11%	\$25.0	17%	31%
Detroit, MI ¹⁷	\$140.0	\$0.3	0.2%			\$37.2	27%			27%
Tempe, AZ ¹⁸	\$186.0	\$75.0	40%	\$19.0	10%					51%
Ft. Lauderdale, FL ¹⁹	\$195.3	\$61.0	31%	\$3.9	2%	\$18.0	9%			42%
Tucson, AZ ²⁰	\$187.0	\$6.0	3%	\$4.0	2%	\$63.0	34%			39%

Note: Sample reflects projects that have been implemented or have received approval for Federal funding over the last 3 years.

¹² <http://charlottenc.gov/cats/transit-planning/gold-line/Pages/phase-one.aspx>

¹³ http://looptrolley.com/LT_FINAL%20EA_May_26_11.pdf

¹⁴ <http://www.shstreetcar.com/background.htm>;

http://www.shstreetcar.com/files/SHStreetcarEnvironmentalAssessment_sm.pdf?page=Projects-OtherProjects-SugarHouseStreetCar

¹⁵ https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/KC%20Streetcar%20TIGER_2013_FactSheet.pdf; <http://www.kcagacgfm.org/flyer/2017/Streetcar%20Presentation%20to%20AGA%20January%202017.pdf>

¹⁶ <http://www.cincinnati-oh.gov/streetcar/streetcar-funding/>

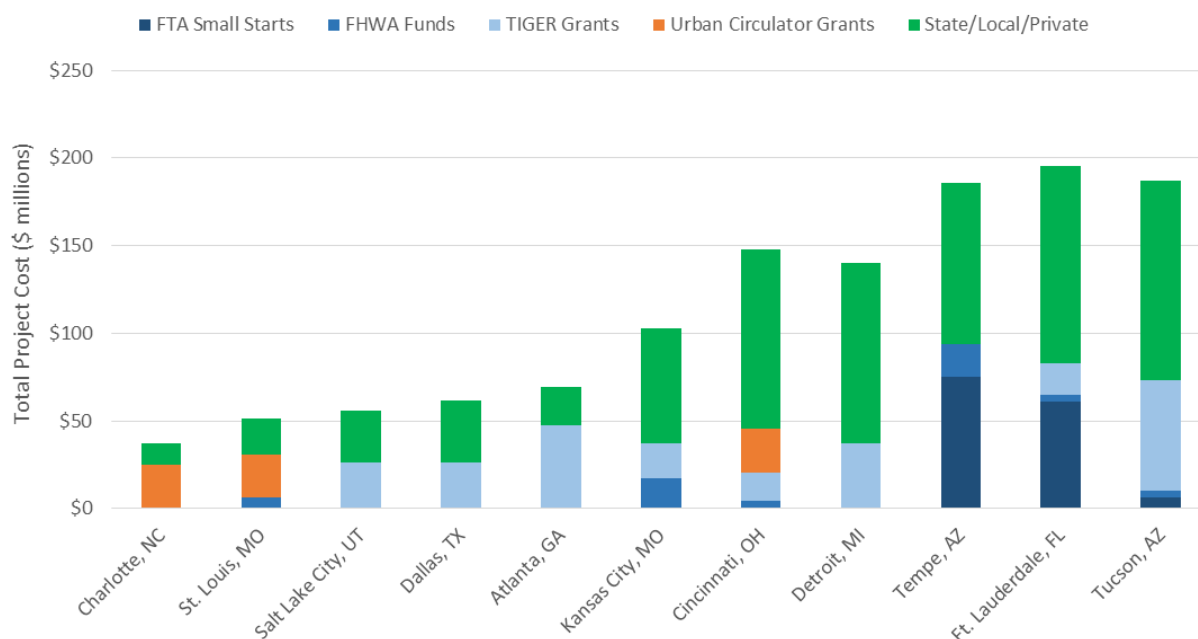
¹⁷ <http://m-1rail.com/faq/>; <http://www.freep.com/story/news/local/michigan/detroit/2016/09/21/qline-car-detroit-m1-rail/90786964/>

¹⁸ Valley Metro, 2016.

¹⁹ <https://wavestreetcar.com/funding-sources/>

²⁰ <http://www.sunlinkstreetcar.com/oversight/finances>

Figure 2: Recent Streetcar Projects (Federal Funding Participation)



Matching Funds

Figures 1 and 2 also indicate the level of non-federal funds utilized for each BRT and Streetcar Project. As shown in the figures, the non-federal portion of the financial strategies was primarily provided from Local and State sources. Local sources were included on 9 of the 12 BRT projects, and 10 of the 11 Streetcar projects. State funding was provided on eight (8) of the BRT projects, but only one (1) of the Streetcar projects. Additionally, there were six (6) Streetcar projects that obtained non-federal matching funds through private participation. The majority of private participation was through the creation of value capture districts (benefit assessment districts or community improvement districts) while one project, Detroit, received \$88 million through donations from private companies and foundations.

Section 3 provides an overview of potential non-federal matching funding sources, including examples of private sector funding participation.

Section 3 |

Capital Funding Programs

This section provides an overview of potential funding sources for the locally preferred High Capacity Transit Project based on the financial strategy examples in Section 2. This section includes potential federal programs, State and Local participation, and examples of private sector participation on similar projects.

The description of federal programs reflects an initial review of the recently passed Fixing America's Surface Transportation (FAST) Act legislation. Signed into law on December 4, 2015, the FAST Act authorizes five years of funding for surface transportation programs. As a result, the descriptions below may be further refined as more detailed analysis of the FAST Act is completed.

FTA Capital Investment Grant Program

This program awards grants on a competitive basis for major capital investments in new and expanded rail, BRT, and ferry projects that are locally planned, implemented, and operated. The Capital Investment Grant program includes two categories for new fixed guideway projects: New Starts and Small Starts. Based on the conceptual capital cost estimate shown in Table 1, if the decision is made to pursue an FTA Capital Investment Grant, MATA would request funding through the Small Starts category.

- **New Starts Category:** projects with capital costs in excess of \$300 million and project sponsors requesting more than \$100 million in Capital Investment Grant funds. New Starts projects are evaluated and rated based on a set of defined justification criteria (mobility improvements, environmental benefits, cost effectiveness, economic development effects, and public transportation supportive land use policies), as well as local financial commitment criteria.
- **Small Starts Category:** projects with capital costs less than \$300 million and project sponsors requesting less than \$100 million in Capital Investment Grant funds. These projects are evaluated and rated on fewer project justification criteria and local financial commitment measures. As shown in Table 2, in recent years there were seven projects with capital costs less than \$100 million that received 72 percent to 80 percent of total funding through a Small Starts Grant Agreement.

Other Federal Programs

- **FTA Formula Funds:** MATA receives annual formula funds through the FTA Section 5307 Urbanized Area Formula Program and Section 5339 Bus and Bus Facilities Formula Grants. An eligible use under each formula program is vehicle acquisition/replacement as part of an agency's state of good repair program. One potential approach for using FTA formula funds to support implementation of the High Capacity Transit Project would be for acquiring new vehicles. This could likely be

accomplished without impacting the agency's existing vehicle replacement plan / state of good repair program. Based on experiences across the country, implementation of High Capacity Transit service in a corridor typically results in the reduction or elimination of existing local bus service within the corridor. As an illustrative example, assume implementation of the High Capacity Transit Project will result in the reduction of 10 buses from the existing local service. The FTA formula funds that would have been used to purchase 10 replacement buses for this local service could be transferred to acquire a portion of the costs for the High Capacity Transit vehicles.

- **FHWA Funds:** This includes FHWA funding sources that are eligible to be “flexed” (transferred) to the FTA to support implementation of transit projects. These funds are programmed by the Memphis Urban Area Metropolitan Planning Organization (MPO), and would require adoption in the Long Range Transportation Plan (LRTP) and Transportation Improvement Plan (TIP) to be used to fund a portion of the High Capacity Transit Project's capital costs. Flexible FHWA funding sources include:
 - Congestion Mitigation and Air Quality (CMAQ) Improvement Program: These funds are available for transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution and congestion. Potential High Capacity Transit Project elements that could be eligible for CMAQ funding include: improved signalization intersection improvements, and implementing turning lanes; ITS improvements including real-time traffic, transit, and multimodal traveler information; and facilities serving electric or natural gas-fueled vehicles.
 - Surface Transportation Program (STP): This program provides funding for projects that preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects. Potential High Capacity Transit Project elements that could be eligible for STP funds include: construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements for highways; capital costs for transit projects; corridor parking facilities; improvements at intersections with high accident rates or levels of congestion; and infrastructure-based ITS capital improvements.
 - Transportation Alternatives Program (TAP): This competitive grant program could provide funding for non-motorized elements of the Potential High Capacity Transit Project. Potential eligible expenses could include: planning, design, and construction of facilities for pedestrians and bicyclists.
- **USDOT TIGER Grants:** The Transportation Investment Generating Economic Recovery (TIGER) program was initially established as part of the American Recovery and Reinvestment Act of 2009, and has continued annually as a competitive grant program to support implementation of “shovel ready” infrastructure projects, including highways, bridges, public transit, passenger and freight

rail, port infrastructure, and intermodal facilities. Grants are made available for transportation projects that contribute to the long-term economic competitiveness of the nation, improve the condition of existing transportation facilities and systems, increase energy efficiency and reduce greenhouse gas emissions, improve the safety of U.S. transportation facilities, and/or enhance the quality of living and working environments of communities through increased transportation choices and connections. Since 2009, the USDOT has issued eight application cycles and in each case, the level of funding requested by applicants far exceeded the available funding. Reflecting TIGER's popularity and high demand, \$500 million for the eighth cycle was included in the Omnibus Appropriations and Tax Extenders bill that was approved in December 2015. Based on a recently issued Notice of Funding Availability (NOFA), applications for the TIGER 2016 grant cycle are due April 29, 2016. At this time, funding for future application cycles is not available; however, given the program's popularity, there is the potential for future funding of the program.

The majority of TIGER grants have been for transit or multimodal projects, with the typical maximum individual grant award each application cycle being approximately \$20 million in the most recent cycles. The limited number of successful street/highway projects incorporated innovative bicycle and pedestrian-friendly design elements in addition to capacity enhancements.

If MATA and its partners were to pursue a future TIGER grant to support implementation of a High Capacity Transit Project, and assuming continuation of the TIGER Program, the application would need to demonstrate specific elements that would meet requirements for independent utility. As examples, the Detroit Streetcar Project and Reno BRT Project received TIGER awards for multimodal roadway improvement that would benefit the respective communities with or without the Streetcar or BRT project.

State and Local Funding

The Tennessee Department of Transportation (TDOT) currently provides a 10 percent match for all FTA formula grants awards. However, for federal discretionary grants, both TDOT and the City of Memphis provide non-federal matching funds on a case by case basis. As the Midtown AA continues, it will be important to initiate discussions with both TDOT and the City regarding potential matching funds. Additionally, once the locally preferred alignment is defined, MATA should coordinate with TDOT and the City to see if either agency has roadway or pedestrian improvement projects planned within the corridor. There may be an opportunity for a public-public partnership where federal discretionary funds for the High Capacity Transit Project could accelerate State or City projects.

Private Participation Examples

As mentioned in Section 2, there were six streetcar projects that have obtained private sector donations and/or funding support as part of their financial strategy. Private sector participation to date on BRT projects has primarily been limited to supporting operations, including revenue derived from naming rights for the Cleveland's HealthLine BRT. Depending on relationships and needs within the

Memphis area, there may be opportunities for private sector support for either streetcar or BRT. The following sections provide an overview of private sector participation through formation of assessment districts and the private sector's participation on the Detroit Streetcar project. In addition to the donations mentioned earlier, the Detroit project also used New Market Tax Credits as part of the financial strategy. This may be an option for MATA and its partners to evaluate in the future, as a portion of Memphis is severely distressed and eligible as a New Markets Tax Credit recipient.

Assessment Districts:

Revenue from an Assessment District is generated from a fee on properties in a specified area with revenues used to pay a portion of the capital improvements made within and specifically benefiting that area. In an assessment district, a connection between benefit received and cost charged is essential, in that assessments charged in these districts must be proportional to, and no greater than, the benefit to the assessed property.

Three examples of recently established assessment districts to support implementation of planned Streetcar lines are in Los Angeles, Kansas City, and Fort Lauderdale. It is important to note that in each case property owners were required to pass a referendum and start collection of the assessment revenue prior to the Streetcar beginning operations.

- **Los Angeles Streetcar:** On December 2, 2012, private property owners along the proposed Los Angeles Streetcar alignment voted in favor of creating a form of a benefit assessment district called a Communities Facility District (CFD). According to Los Angeles Streetcar, Inc., (LASI), the Streetcar CFD will place a special tax on land owned by all Downtown private property owners located within the district, including condominium owners, with tax amounts tiered based on a property's proximity to the proposed route. With assessments sized to support a certain level of bonding at an estimated 5 percent interest rate, a 10,000 square foot parcel will be taxed \$4,490 if located directly on the proposed Streetcar line; \$3,640 if located one to two blocks away from the Streetcar; and \$1,730 if located approximately three blocks away. Condominium units will be charged their unit's proportional share of the underlying land, similar to the structure of most home owner association fees. The majority of condominium units within the Streetcar CFD will be charged \$100 or less per year, with a median cost of \$60 annually. Based on the initial project cost estimate, the CFD is projected to cover half of the Streetcar's capital costs (approximately \$62.5 million). LASI intends to pursue FTA Small Starts funding for the remaining \$62.5 million.
- **Kansas City Streetcar:** On December 12, 2012, property owners in downtown Kansas City approved the creation of a Transportation Development District (TDD) to support implementation of the proposed Streetcar line. The TDD will provide funding through the following:
 - 1 percent sales tax on sales within the TDD boundary; and
 - Special assessment on real estate within the TDD boundary, with the following maximum annual rates :

- \$0.48 for each \$100 of assessed value for commercial property (\$1,536 for each \$1,000,000 of market value)
 - \$0.70 for each \$100 of assessed value for residential property (\$133 for each \$100,000 of market value)
 - \$1.04 for each \$100 of assessed value for property owned by the City (approximately \$810,000 annually)
 - A supplemental special assessment on surface pay parking lots within the TDD boundary (this does not include private lots or lots dedicated to residences and businesses). The rate is \$0.15 per pay parking space.
 - A \$0.40 cost for each \$100 of assessed value for property with non-profit uses. However, because the first \$300,000 of market value is excluded, most non-profits will have no Streetcar costs. There is also no Streetcar assessment on market value greater than \$50,000,000 for non-profit uses.
- **Fort Lauderdale (The Wave) Streetcar:** On June 5, 2013, Broward County Commissioners unanimously approved the proposed boundaries of an assessment zone, and the charges that will be assessed annually for the next 25 years to support implementation of The Wave Streetcar Project. Properties within the assessment zone will pay the following:
 - Residential: Property owners will pay a flat \$99 per year;
 - Commercial: Owners will be billed at 9-cents per square foot; and
 - Vacant: Property owners will pay 3-cents per square foot.

The assessment zone is projected to generate \$20.6 million in support of the Streetcar project.

Detroit M1 Rail Private Participation

M-1 Rail is a 501(c)(3) nonprofit corporation formed by private sector and philanthropic leaders in 2008. From the start, M1-Rail's business plan included an assumption that it could raise significant funding for a Streetcar project through donations from corporation and philanthropic institutions. As shown in **Table 5**, to date M1-Rail has obtained approximately \$88.0 million in donations to support implementation of the Streetcar project.

Table 5: M1 Rail Donations

ORGANIZATION	TOTAL COMMITMENT (dollars in millions)
Kresge Foundation	\$35
Detroit Development Authority (DDA)	\$9
Compuware	\$3
Detroit Medical Center	\$3
Henry Ford Health System	\$3
Ilitch Holdings	\$3
Quicken Loans	\$3
Penske Corporation	\$3
Wayne State University	\$3
Chevrolet	\$3
Ford Foundation	\$3
Kellogg Foundation	\$3
Blue Cross Blue Shield	\$3
Wayne County	\$3
Hudson Webber Foundation	\$1
Kresge Additional Backstop Grant	\$3
Additional Organizations TBD	\$4
Total	\$88

M1- Rail also plans to use a leveraged New Market Tax Credits (NMTC) project financing structure as a supplementary source of funding. According to the April 2012 M1-Rail Streetcar Business Plan, to meet FTA requirements on the uses of TIGER funds, the typical leveraged NMTC structure was adapted in coordination with FTA legal staff to include a master project lease with the TIGER grantee, South East Michigan Council of Governments (SEMCOG). The following provides an overview of the NMTC approach to be used by M1-Rail. Further details can be found on the M1-Rail website (<http://m-1rail.com/about-m-1-rail/history-of-m-1-rail/>).

In exchange for federal NMTCs, a first round of equity investment totaling \$9.3 million from corporations was expected in 2012, followed by an anticipated second round of investment totaling \$6.7 million in 2013. An affiliate of M-1 Rail (a Qualified Low-Income Community Business, or QALICB, referred to as M-2) was created in order to construct and acquire the Project facilities and equipment. M-2 will own all project assets for tax purposes.

Some of the donations received by M-1 Rail (about \$31 million) will be collected and loaned to one or more Investor Limited Liability Entities (Investment Fund), in addition to the equity investments of \$9.3 million in 2012. The funds will then be invested in one or more Community Development Entities

(CDEs), which received an allocation of New Markets Tax Credits totaling approximately \$40 million in 2012.

M-2 will enter into a master project lease with SEMCOG in exchange for an upfront payment of project costs of \$25 million (funded by the TIGER grant described previously), in addition to funding from the NMTC transaction. The agreement will be a capital lease for Financial Accounting Standards Board (FASB) purposes to meet FTA requirements. The agreement will be a “true” lease for tax purposes so that M-2 will be the owner of the project for NMTC purposes. The agreement will provide SEMCOG with a leasable interest in the complete and functional Streetcar project worth more than \$130 million, in exchange for the initial \$25 million support of project costs from the TIGER grant and a series of relatively modest lease payments during the operations period, funded by M-1 Rail’s payment of subrent.

M-2 borrowed approximately \$40 million from the CDEs in 2012. M-2 anticipated borrowing sufficient funds in 2013 to raise \$6.7 million in additional investor equity, subject to Treasury allocation in the next year. These Qualified Low Income Community Investments (QLICI’s) by the CDEs in M-2 will be interest-only for seven years, with payments deferred or paid from reserves during the construction period. As owner of the assets, M-2 will have the right to offer the project assets as collateral to the lenders (CDEs). In the TIGER grant agreement and M-2 lease, FTA and SEMCOG subordinated their claims to the assets, but maintain continuing control through a non-disturbance provision.

M-2 will receive funds from M-1 Rail to cover the remaining construction costs of the project. Total revenues from SEMCOG, the CDEs and M-1 Rail amounts to about \$137 million, which corresponds to the total project cost.

M-1 Rail will enter into a sublease and a service agreement with SEMCOG, under which M-1 Rail will operate the project and make lease payments during the operations period to SEMCOG for the right to use the assets. SEMCOG will pass the lease payments through to M-2, and M-2 will use the lease payments to cover debt service on its loan from the CDEs. The lease and sublease are structured to show a profit motive for SEMCOG and M-2.

The exit from the NMTC transaction will occur after a seven-year compliance period expires. At that time, put/call provisions of the Investment Entity(s) and CDE(s) will trigger their exit, and debts M-1 Rail owes to itself (through M-2) will be eliminated. M-2 will transfer the rail assets to M-1 Rail. The equity investments made in the Investment Entity(s) will not be repaid, except to a nominal amount, and the investors will exit. The NMTC transaction has the effect of reducing construction expenditures made directly by M-1 Rail.

Section 4 |

Potential Operating Funds

As shown earlier in Table 1, the conceptual annual operating and maintenance costs vary by alternative. Similar to MATA's existing operations, long term funding for O&M will likely reflect a combination of multiple sources. At this early stage of the project development process, operating funding sources are typically less defined compared to capital revenue sources. As such, a preliminary operating funding strategy is not provided at this time. However, it is critical to initiate discussions among the public and private partners that would benefit from the proposed service, to identify which potential sources have the most political support to carry forward for further evaluation.

To initiate discussions with potential partners, the following provides a long list of potential operating funding sources, which can be narrowed down as one or more of the alternatives moves through the project implementation process.

- Fare Revenue:** Passenger fares will be one of the key sources of operating revenue for a High Capacity Transit Project. **Table 6** summarizes daily ridership estimates for the horizon year of the planning analysis (2035), which range from 1,200 daily trips to 3,500 daily trips. To estimate conceptual annual fare revenue in current year (2016) dollars, the analysis assumed the alternatives would all achieve MATA existing system-wide fare box recovery ratio, which is approximately 15 to 20 percent. Based on this assumption and the annual operating costs shown in Table 1, annual conceptual fare revenue would range from \$0.51 million (2016 dollars) to \$0.83 million (2016 dollars). The resulting conceptual operating subsidy for the alternatives would range from \$2.9 million (2016 dollars) to \$4.7 million (2016 dollars).

Table 6: Daily Ridership Estimates and Conceptual Annual Fare Revenue and Operating Subsidy (2016 dollars in millions)

Alternative	Corridor Description	Mode of Travel	Daily Ridership (2035)	Conceptual Fare Revenue (2016)	Conceptual Operating Subsidy (2016)
6	Airport via Poplar & Airways	BRT	1,750	\$0.83	\$4.68
7	Germantown via Poplar	BRT	2,150	\$0.61	\$3.45
8	U of M via Poplar, Cooper, & Union	BRT	1,200	\$0.68	\$3.84
9	Extension of Madison Ave Streetcar to Overton	Streetcar	1,3010	\$0.51	\$2.90
11	U of M via Union & Poplar	BRT	3,050	\$0.68	\$3.86
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	3,500	\$0.79	\$4.50
26	U of M via Union & Central	BRT	2,450	\$0.70	\$3.95

- **Other Operating Revenues:** MATA could consider taking advantage of the positive image created by a high capacity project to encourage sale of static and electronic advertising on stations, vehicle exteriors, vehicle interiors, website, and promotional materials.
- **Reallocation of Existing Fixed Route Bus Service Costs within the Corridor:** A key planning component of the project implementation process is the development of an integrated service plan that reflects the incorporation of the proposed alternatives into the existing bus route network. As the project moves forward, an Operations Plan will be developed to integrate the LPA's service plan with existing bus service, which could result in the elimination or reduction of duplicate fixed route bus service. The operating savings from the reduced fixed route service could be reallocated to pay for a portion of the LPA's O&M costs.
- **CMAQ Program:** In addition to supporting implementation of capital projects, CMAQ funding is also eligible to support the first five years of operation of a new transit service. MATA would have to work with the regional partners and the MPO to identify realistic annual levels of CMAQ funding that could provide assistance during the first five years of High Capacity Transit service.
- **Contributions from Private Partners:** For major employers and/or other activity centers served directly by the high capacity alternative, a revenue structure could be established where the employer / activity center purchases a set number of tickets per year or pays an agreed upon share of operating costs relative to the benefits the transit service provides.
- **Assessment Districts / Tax Increment Financing Districts:** In addition to providing a source of revenue for capital costs (Section 3), these Districts could also provide assistance in paying for a share of on-going maintenances costs.
- **Parking Fees:** A parking fee is a tax or surcharge levied on paid parking. The fee could be applied within one or more of the corridors under evaluation or within the City limits for the use of off-street commercial or employer provided parking spaces. If applied within the corridors, there would be some degree of relationship between traffic and parking within the corridor relative to parking requirements and parking tax. If applied City-wide, the relationship between the parking fee and operating costs within the corridors would be less direct. More likely, a City-wide parking fee would be used to fund a variety of improvements, and would not be used solely to fund operating costs for the High Capacity Transit Project.

Section 5 |

Conceptual Capital Financial Strategies

Tables 7 through 10 provide conceptual strategies to initiate the discussion on potential approaches to fund construction of a High Capacity Transit Project. Two strategies reflect scenarios where FTA Small Starts funds would be targeted, and two strategies reflect pursuit of a TIGER Grant. For all four conceptual scenarios, it is assumed the non-federal share would be provided equally by the State of Tennessee and City of Memphis, which reflects historically how MATA's major capital investment projects have been funded.

- Scenario 1: Maximum Small Starts Funding;
- Scenario 2: Combine Small Starts and Other Federal Programs;
- Scenario 3: TIGER Grant; and
- Scenario 4: Combine TIGER Grant and Other Federal Programs

Finally, the cost and funding levels shown in the following tables are conceptual and are intended to support the evaluation of alternatives. As one or more of the High Capacity Transit alternatives move through the project development process, the capital cost estimate will be refined to reflect more detailed planning and engineering. Additionally, the capital cost will be converted to year of expenditure (YOE) dollars to reflect a multi-year construction schedule and the impact of annual inflation on construction costs.

Scenario 1: Maximum Small Starts Funding

Under this scenario, MATA would pursue a Federal Transit Administration (FTA) Small Starts Construction Grant equivalent to 80 percent of the estimated capital costs. Reflecting current federal transportation legislation, 80 percent of total funding from federal sources is the maximum level allowed. As shown in **Table 7**, depending on the High Capacity Transit alternative, the Small Starts Construction Grant would range between \$28 million and \$52 million, and the State and City shares would each range between \$3.5 million and \$6.5 million.

Table 7: Scenario 1 – Maximum Small Starts Funding

Alternative	Corridor Description	Mode of Travel	Capital Cost	Small Starts (80%)	State (10%)	City (10%)
6	Airport via Poplar & Airways	BRT	\$43.7	\$35.0	\$4.4	\$4.4
7	Germantown via Poplar	BRT	\$37.0	\$29.6	\$3.7	\$3.7
8	U of M via Poplar, Cooper & Union	BRT	\$35.2	\$28.2	\$3.5	\$3.5
9	Extension of Madison Ave Streetcar to Overton	Streetcar	\$65.0	\$52.0	\$6.5	\$6.5
11	U of M via Union & Poplar	BRT	\$25.7	\$20.5	\$2.6	\$2.6
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	\$40.0	\$32.0	\$4.0	\$4.0
26	U of M via Union & Central	BRT	\$38.4	\$30.7	\$3.8	\$3.8

Scenario 2: Combine Small Starts and Other Federal Programs

Under this scenario, MATA would again pursue federal funds to cover 80 percent of the total capital costs, but the federal funds would be provided through multiple programs. Specifically, MATA would pursue a FTA Small Starts Construction Grant equivalent to 50 percent of the estimated capital costs, and the remaining 30 percent would be provided by one or more of the Other Federal Programs described in Section 3. Similar to Scenario 1, the State and City would each provide 10 percent of the funding to address the non-federal funding requirements. As summarized in **Table 8**, depending on the alternative, the Small Starts Construction Grant would range between \$18 million and \$33 million; funding from Other Federal Programs would range between \$11.0 million and \$20.0 million; and the State and City shares would each range between \$3.5 million and \$6.5 million.

Table 8: Combined Small Starts and Other Federal Programs

Alternative	Corridor Description	Mode of Travel	Capital Cost	Small Starts (50%)	Other Federal Funds (30%)	State (10%)	City (10%)
6	Airport via Poplar & Airways	BRT	\$43.7	\$21.9	\$13.1	\$4.4	\$4.4
7	Germantown via Poplar	BRT	\$37.0	\$18.5	\$11.1	\$3.7	\$3.7
8	U of M via Poplar, Cooper, & Union	BRT	\$35.2	\$17.6	\$10.6	\$3.5	\$3.5
9	Extension of Madison Ave Streetcar to Overton	Streetcar	\$65.0	\$32.5	\$19.5	\$6.5	\$6.5
11	U of M via Union & Poplar	BRT	\$25.7	\$12.8	\$7.7	\$2.6	\$2.6
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	\$40.0	\$20.0	\$12.0	\$4.0	\$4.0
26	U of M via Union & Central	BRT	\$38.4	\$19.2	\$11.5	\$3.8	\$3.8

Scenario 3: TIGER Grant

Under this scenario, MATA would pursue a \$20 million USDOT TIGER Grant for the entire high capacity project. The \$20 million TIGER Grant assumption reflects the “typical” largest award individual projects have received in the last several years. The remaining funds would be provided by the State and City. As shown in the **Table 9**, the State and City shares under this scenario is 2.2 to 3.5 times greater than the other conceptual scenarios, with funding levels for each ranging between \$7.6 million and \$22.5 million.

Table 9: TIGER Grant

Alternative	Corridor Description	Mode of Travel	Capital Cost	TIGER Grant	State	City
6	Airport via Poplar & Airways	BRT	\$43.7	\$20.0	\$11.9	\$11.9
7	Germantown via Poplar	BRT	\$37.0	\$20.0	\$8.5	\$8.5
8	U of M via Poplar, Cooper & Union	BRT	\$35.2	\$20.0	\$7.6	\$7.6
9	Extension of Madison Ave Streetcar to Overton	Streetcar	\$65.0	\$20.0	\$22.5	\$22.5
11*	U of M via Union & Poplar	BRT	\$37.2	\$20.0	\$8.6	\$8.6
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	\$40.0	\$20.0	\$10.0	\$10.0
26	U of M via Union & Central	BRT	\$38.4	\$20.0	\$9.2	\$9.2

**Capital costs were revised during the submission of the 2016 TIGER Grant. Please refer to the TIGER Grant application for the actual amounts for Federal, State and City amounts.*

Scenario 4: Combine TIGER Grant and Other Federal Programs

Under this scenario, MATA would pursue a \$20 million TIGER Grant for specific elements of a High Capacity Transit Project that can address independent utility requirements. Independent utility is the ability to demonstrate that these specific elements would be usable and be a reasonable expenditure, even if no additional transportation improvements in the area were made. Additionally, MATA would pursue funding from Other Federal Programs to achieve a total of 80 percent federal funding. As shown in **Table 10**, depending on the alternative, funding levels would range between \$8.0 million and \$32.0 million. Similar to Scenarios 1 and 2, the State and City would each provide 10 percent of the funding to address the non-federal funding requirements.

Table 10: Combine TIGER Grant and Other Federal Programs

Alternative	Corridor Description	Mode of Travel	Capital Cost	TIGER Grant	Other Federal Funds	State (10%)	City (10%)
6	Airport via Poplar & Airways	BRT	\$43.7	\$20.0	\$15.0	\$4.4	\$4.4
7	Germantown via Poplar	BRT	\$37.0	\$20.0	\$9.6	\$3.7	\$3.7
8	U of M via Poplar, Cooper, & Union	BRT	\$35.2	\$20.0	\$8.2	\$3.5	\$3.5
9	Extension of Madison Ave Streetcar to Overton	Streetcar	\$65.0	\$20.0	\$32.0	\$6.5	\$6.5
11*	U of M via Union & Poplar	BRT	\$37.2	\$20.0	\$9.8	\$3.7	\$3.7
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	\$40.0	\$20.0	\$12.0	\$4.0	\$4.0
26	U of M via Union & Central	BRT	\$38.4	\$20.0	\$10.7	\$3.8	\$3.8

**Capital costs were revised during the submission of the 2016 TIGER Grant. Please refer to the TIGER Grant application for the actual amounts for Federal, State and City amounts.*

Section 6 |

Next Steps

As one or more of the High Capacity Transit alternatives move beyond the AA phase and through the project implementation process, the potential financial strategies will evolve as the project(s) definition and capital cost estimates are refined and funding sources and levels change. As documented in Section 2, the primary source for similar High Capacity Transit Projects implemented across the country is federal funding. Specifically, federal funds are from the Small Starts category of the FTA Capital Investment Grant program, or a combination of Small Starts funds and Other Federal Programs described in Section 3. Based on recent experiences of similar scale High Capacity Transit Projects (see Table 3), MATA could target up to 80 percent federal funding for one or more of the alternatives.

Appendix A provides a detailed overview of the financial planning requirement for pursuing a Small Starts Construction. As noted in the Appendix, the first step in the Small Starts process is to submit a request to FTA to enter the Project Development Phase. At this time, the non-Small Starts funding does not need to be committed; however, MATA would need to document that the Authority has the funding to fund all activities in the Project Development Phase.

At the same time, and in partnership with the MPO, MATA could evaluate the potential to secure capital funding from Other Federal Programs as well as initiate discussions with the State and City regarding the level and timing of the non-federal match. Finally, annual O&M costs will also be refined as the operating plans for the high capacity project (s), including the integration with the existing transit system, are defined. In addition to estimating potential fare revenue levels, MATA should initiate discussions with potential public and private funding partners that would benefit directly from the project(s).

Appendix A

FTA Capital Investment Grant (Small Starts Category) Financial Planning Requirements

Introduction

The following provides an overview of the Federal Transit Administration (FTA) Section 5309 Capital Investment Grant Program's Local Financial Capacity Assessment planning process and requirements for a standard Small Starts Financial Plan. As stated in the August 2015 Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program, proposed Small Starts projects must be supported by an acceptable degree of local financial commitment, including evidence of stable and dependable sources to construct, maintain, and operate the proposed fixed guideway project, and maintain and operate the entire transit system without requiring a reduction in existing services. As described in more detail in the following sections, the primary requirements for the Local Financial Commitment Assessment are a system-wide financial plan and a 20-year cash flow statement developed in accordance with FTA's Guidance for Transit Financial Plans (<http://www.fta.dot.gov/grants/12866.html>).

Following this introduction, Section 2 provides a summary of the financial planning process required for a fixed guideway project pursuing Small Starts funds. Section 3 provides an overview of the analysis included in each section of a "typical" Small Starts financial plan and the cash flow statement. Additionally, Section 3 provides an overview of FTA's Local Financial Commitment measures, evaluation criteria and ratings. This will include a brief discussion of the key items FTA has historically focused on as part of the Local Financial Commitment Assessment.

Small Starts Financial Planning Process and Requirements

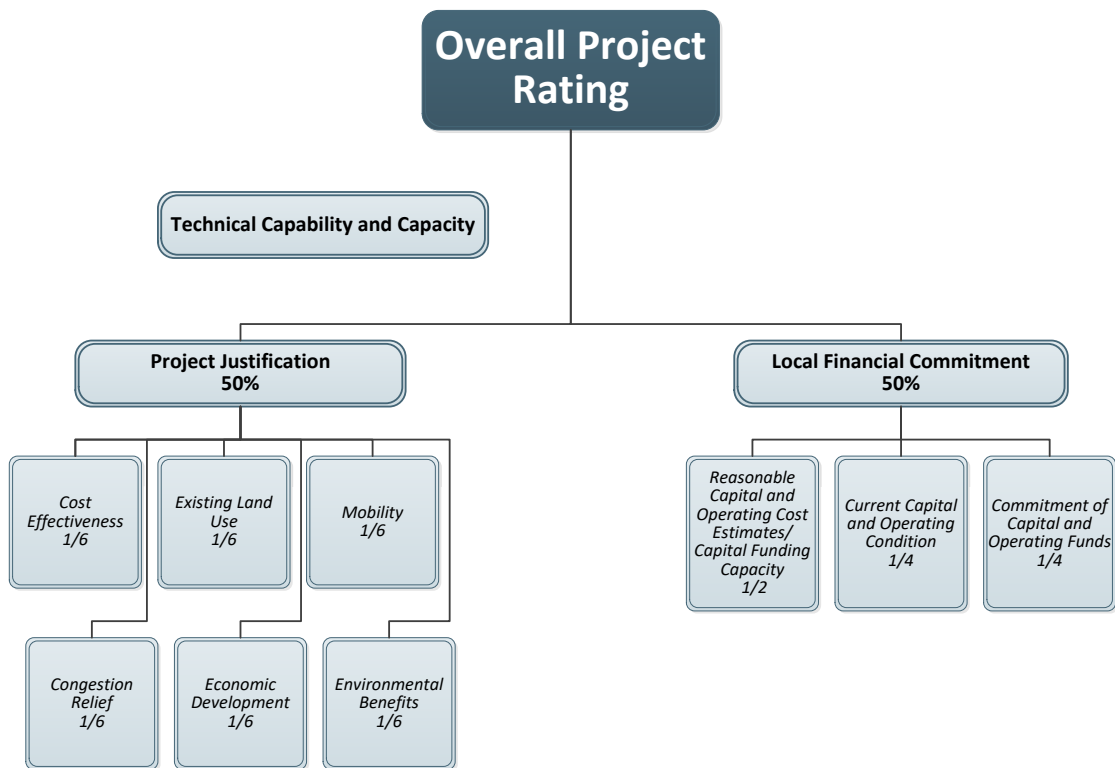
This section provides an overview of the Small Starts financial planning process and a discussion of what level of project-related information is required at each step of the Small Starts Project Development process. Details on the system-wide information required in the financial plan are provided in Section 3.

Financial Planning Process

While the focus of this summary is on the financial planning requirements to obtain a Small Starts Grant Agreement (SSGA), it is important to note the multi-step Project Development Process includes the evaluation of a project's ability to meet and/or exceed both project justification (technical) criteria and financial criteria. **Figure A-1** summarizes FTA's current evaluation criteria categories and weighted ratings for fixed guideway projects pursuing FTA New Starts funds. As shown in the figure, the overall project rating reflects a 50 percent weight to the summary project justification (technical) rating and a 50 percent weight to the summary local financial commitment rating. Additionally, FTA requires that fixed guideway projects receive at least a medium rating for both project justification and local financial commitment in order to continue through the Project Development Process. As shown in **Figure A-2**, project evaluation and rating occurs two times during the Small Starts Project Development process:

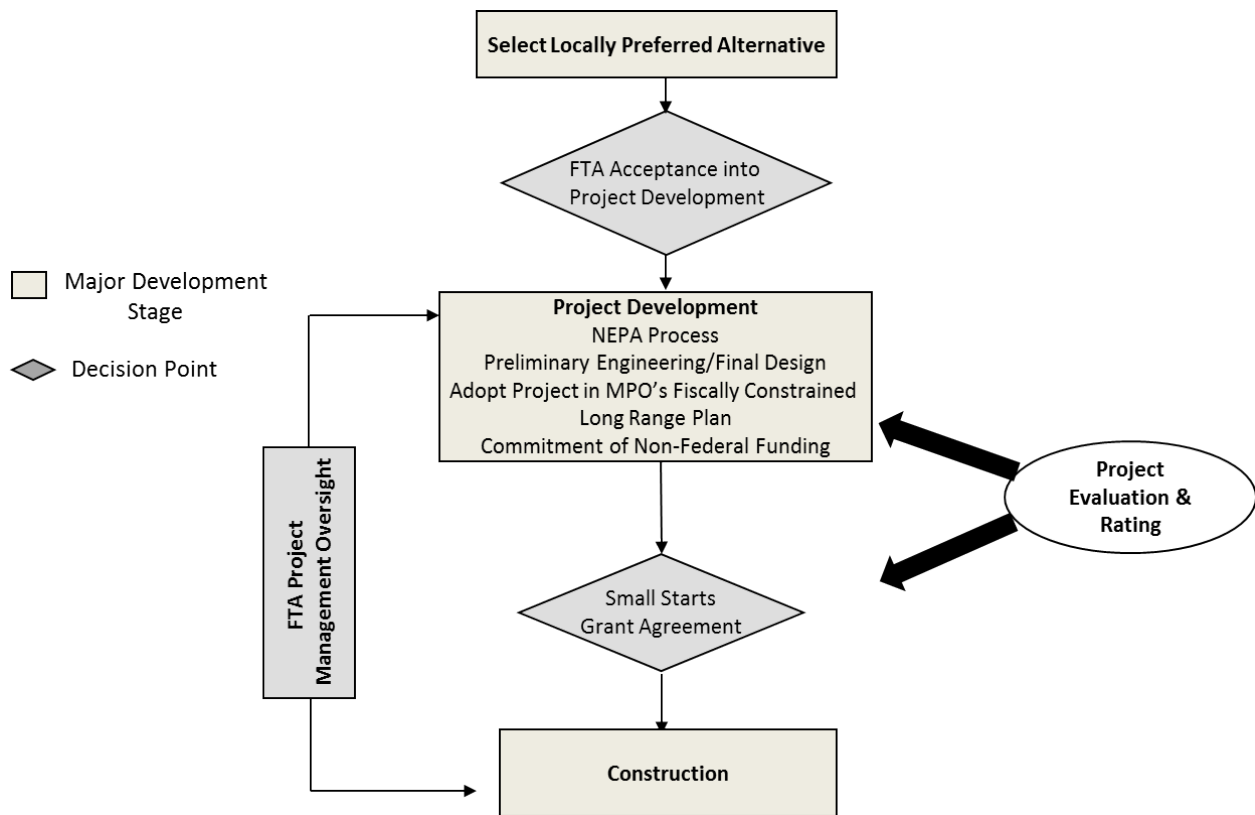
- During Project Development (Request for funding in the President's Budget); and
- Prior to execution of the SSGA.

Figure A-1: Small Starts Project Evaluation and Rating



Note: Project must receive at least a Medium Rating for both Project Justification and Local Financial Commitment.

Figure A-2: Small Starts Project Development Process



Project Information Required for Each Project Development Step

Although Figure A-2 indicates the financial plan will be evaluated two times by the FTA, there are actually three times financial information is submitted. The third time (and first chronologically) is as part of the project sponsor's Request to Enter Project Development. However, there is no Local Financial Commitment Assessment conducted for the Request to Enter Project Development. The following summarizes the project level financial information required for each of the four submittals:

- Request to Enter Project Development:** As part of the Project Sponsor's letter requesting entry into Project Development, documentation must be provided that demonstrated the agency has funding committed to complete all Project Development activities. Depending on the level of financial planning completed to date, the agency can also include a summary paragraph(s) that describes the proposed project's capital funding strategy. The description would include the proposed share of New Starts funds and a "realistic" approach to obtain all non-New Starts funds. Additionally, the agency must document that the proposed New Starts project is in the Metropolitan Planning Organization's fiscally constrained Long Range Transportation Plan.
- During Project Development:** This step marks the initial submittal of a system-wide financial plan and 20-year cash flow statement. Additionally the financial plan will also indicate that the

agency is requesting New Starts funds beginning in the next federal fiscal year as part of the President's budget. Additional, details on the system-wide financial plan requirements are provided in Section 3. For the Small Starts Project, the financial plan must include the following:

- **Project Capital Costs:** Capital cost estimates will reflect completion of Preliminary Engineering and may reflect comments provided by the FTA and the Project Management Oversight Consultant (PMOC) following a Risk Assessment workshop. Annual and total costs are summarized based on the FTA Standard Cost Category (SCC) workbook.
- **Project Capital Revenues:** Description of the funding sources and levels as well as the commitment (planned, budgeted, committed) for the non-Small Starts funds. Additionally FTA requires at least 50 percent of the non-Small Starts funds be committed at this point in the process in order to be eligible for inclusion in the President's Budget.
- **Project Operating and Maintenance (O&M) Costs and Revenues:** Summary of the O&M cost estimate methodology and results. Additionally, includes a description of the project's ridership estimate methodology and results and the project's fare revenue assumptions (opening year and horizon year).
- **Ability to Address Potential Project Cost Increases or Federal Funding Delays:** A component of the Risk Analysis section of the financial plan will be a description of the project sponsor's ability to address potential project capital cost increases of at least 15 percent, or a delay in federal funding of at least 15 percent. Specifically, FTA requires agencies to provide a realistic approach to cover this "what if" sensitivity test scenario. The approach could be access to cash through existing capital reserve funds, issuance of short term debt, or some other funding/financing approach.
- **Execute Small Starts Grant Agreement:** Based on recent experience with other projects pursuing Capital Investment Grants (Small Starts and New Starts), the final system-wide financial submittal will occur approximately six months prior to the execution of the SSGA and will reflect the Project updates below. Additionally, at this time, the agency must document that the proposed Small Starts project is in the Metropolitan Planning Organization's fiscally constrained Transportation Improvement Plan (TIP). This action could also take place in earlier phases of the Project Development Process.
 - **Project Capital Costs:** Final capital cost estimate and implementation schedule reflecting "the total number" agreed to by the FTA, the PMOC, and the agency after addressing all outstanding risk assessments issues.
 - **Project Capital Revenues:** Final funding sources and annual levels. Additionally, documentation must be provided that all non-Small Starts funds are committed (i.e. able for the agency to draw down for construction).
 - **Project Operating and Maintenance (O&M) Costs and Revenues:** Typically, the Project's O&M cost estimate, ridership estimate, and fare revenue estimate do not change between Project Development and Execution of the SSGA. If there are changes, they would be documented.

- **Ability to Address Potential Project Cost Increases and/or Federal Funding Delays:**
The agency must document its approach to address the “what if” cost increase/delayed federal funding sensitivity test scenario. Depending on FTA’s comfort level with the cost risk and/or non-Small Starts funding risk, the agency may be required to take an administrative action to document that the proposed approach is committed.

Overview of “Typical” Smalls Starts Financial Plan

This section provides an overview of the information typically included in a Small Starts financial plan and summarizes the FTA’s Local Financial Commitment Assessment criteria and measures. Also included is a discussion of some of the key evaluation measures FTA has historically placed greater emphasis on as well as a brief summary of feedback received from FTA for other fixed guideway projects.

Financial Plan Overview

Table A-1 provides an overview of a “typical” Small Starts system-wide financial plan outline which would be developed and supported by the development of a 20-year system-wide cash flow statement (model). For each financial plan section, a brief description of the key information / analysis that would be documented is provided, as well as the typical data source for each section. As shown in the table, development of the financial plan will require close coordination between the finance team developing the 20-year cash flow statement and the engineers and planners responsible for developing capital and operating cost estimates, implementation schedules, and ridership estimates. In addition to the information and analysis shown in **Table A-1**, the agency will also be required to provide a volume of supporting materials that are required to be submitted as part of the Local Financial Commitment Checklist, which includes an excel version of the 20-year cash flow statement.

Table A-1: Financial Plan Overview

Section	Description	Typical Data Sources
Introduction		
Purpose	Purpose of the financial plan and an explanation of where the project is in the Project Development Process.	
Changes Since Prior Submittal	For the financial plans to be submitted during Project Development and for the Small Starts Grant Agreement, all changes in costs, revenues, and assumptions would be highlighted in the opening section of the document.	Will reflect information summarized in other sections of document
Project Description / Map	Summary description of the project definition and operational characteristics, including an alignment map.	Information developed for LPA Report and Environmental Document
Project Sponsor	Overview of agency, including range of services provided, organizational chart, and description of the Board of Directors.	Typically agency budgets or annual financial reports
Financial Plan Summary	Provides an overview of the Small Starts Project and system-wide operating and capital costs and revenues, and summarizes key findings directly related to FTA's evaluation criteria and measures.	Will reflect information summarized in other sections of document
Small Starts Project Capital Costs and Revenues		
Capital Costs	Summary of capital cost estimate methodology and results report, including annual capital costs in current year dollars and year of expenditure dollars; and documentation of the annual inflation growth rate source.	FTA Standard Cost Category (SCC) workbook
Capital Revenues	Description of the planned funding sources, including annual levels, percent share of total costs, level of commitment (planned, budgeted, or committed), and/or remaining administrative or legislative actions required to commit the funds.	Agency finance staff / 20-year cash flow statement
Financing	If applicable, a description of the proposed financing mechanism and assumptions.	Agency finance staff / 20-year cash flow statement
Small Starts Project Operating Costs and Revenues		
O&M Costs	Summary of O&M cost estimate methodology and results report, including annual O&M costs in current year dollars and year of expenditure dollars; and documentation of annual inflation growth rate source.	O&M Cost Estimate Methodology and Results Report
O&M Revenues	Description of the planned O&M funding sources. This includes a discussion of the project's ridership estimates and fare revenue projections.	Agency finance staff / 20-year cash flow statement; Ridership Methodology and Results Report
System-wide Capital Costs and Revenues		
Capital Improvement Plan	Summary of the agency's current capital improvement plan, including major projects currently underway, fleet replacement schedules, and other key state of good repair programs/projects.	Adopted Capital Improvement Plan, Fleet Replacement Plan and/or other agency adopted capital planning documents; Agency finance and planning staff / 20-year cash flow statement
Capital Revenues	Description of the planned system-wide federal, state, regional, and local funding sources, including annual levels and annual growth rate assumptions. Will include an analysis of historic trends in capital revenue levels (10 years preferred) to ensure planning projections are consistent with past trends. Finally, if financing is assumed for future capital projects, will summarize key assumptions on timing, term, interest rates, and repayment schedules.	Agency finance staff / 20-year cash flow statement

System-wide Operating Costs and Revenues		
Operating Plan	Summary of the planned service levels by mode and annual costs. Will include an analysis of historic trends in service levels and costs (10 years preferred) to ensure planning projections are consistent with past trends. Additionally, will include a discussion of existing annual debt service payments.	Agency finance and planning staff, existing O&M cost model ; 20-year cash flow statement
Operating Revenues	Description of the planned system-wide federal, state, regional, and local funding sources, including annual levels, annual growth rate assumptions, level of commitment (planned, budgeted, or committed), and/or remaining administrative or legislative actions required to commit the funds. Will include an analysis of the historic trends in operating revenue levels (10 years preferred) to ensure planning projections are consistent with past trends. Fare revenue analysis will include results of system-wide travel demand forecast, assumptions on the timing of future average fare increases, and fare elasticity analysis. Finally, will include a discussion of sources committed to existing debt service payments and the agency's coverage ration guidelines.	Agency finance staff / 20-year cash flow statement; Ridership Methodology and Results Report; and agency fare elasticity evaluation (if available)
Summary of Key Performance Indicators		
Performance Indicators	Work with agency staff to define the key financial plan performance indicators. Typically these include: Adequacy of Annual Funding Available for Capital, Adequacy of Annual Funding Available for Operations and Maintenance, Conformance with Agency Debt Policies, Achieving Board Goals for System-Wide Farebox Recovery	Agency finance staff/ 20-year cash flow statement
Risk Analysis		
Potential Capital and O&M Cost and Revenue Risks	Work with agency staff to define sensitivity test to ensure to FTA and regional leaders that the agency has the capacity or alternative funding and financing strategies to address potential costs increases, revenue shortfalls, schedule delays, or other risks defined as the project proceeds.	Agency finance staff/ 20-year cash flow statement

Local Financial Commitment Evaluation Criteria and Measures

As shown previously in **Figure A-1**, FTA's review of a project's financial plan results in a Summary Local Financial Commitment rating, which is assigned based on the weighted evaluation of three measures:

- Current Capital and Operating Condition (25 percent);
- Commitment of Capital and Operating Funds (25 percent); and
- Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity (50 percent).

Each measure has a series of evaluation criteria for which the project sponsor will receive a rating of either: "High," "Medium-High," "Medium," "Medium-Low," or "Low". **Table A-2** summarizes the evaluation criteria for each measure, and **Table A-3** describes the documentation needed for each criterion in order to achieve the different rating levels. As stated earlier, in order to obtain a SSGA, the fixed guideway project must achieve at least a "Medium" Local Financial Commitment summary rating. However, it is important to note that in an attempt to encourage overmatching of federal funds, FTA

provides an incentive that if the project sponsor's Small Starts funding request is less than 50 percent of the fixed guideway project's total cost, FTA will automatically increase the local financial commitment summary rating by one level. For example, if the project achieved a "Medium" Local Financial Commitment Summary rating, and the Small Starts funding request is 49 percent of the total project costs, FTA will automatically increase the rating to a "Medium-High".

Finally, during the Local Financial Capacity Assessment, FTA will contact Project Sponsors to obtain additional information if there are questions/concerns about the information in the financial plan or 20-year cash flow statements. Additionally, as part of the rating process, FTA will prepare a report (Local Financial Commitment Assessment Report) that summarizes the strengths and weaknesses of the financial plan submittal. The weaknesses in this report should be viewed as guides for making changes to subsequent financial plan submittal, and the actions to address these issues should be highlighted in the "Changes Since Prior Submittal" section of the financial plan. Based on assisting other agencies work through the Local Financial Commitment Assessment process, the list below highlights the key criteria that FTA has historically placed greater emphasis on as part of the evaluation:

- **Average bus fleet age:** FTA considers this to be a measure of an agency's state of good repair program;
- **Recent service cutbacks:** If the cutbacks were part of a coordinated effort to improve service efficiency and effectiveness, FTA has typically not lowered the rating for this measure. However, if the cutbacks were associated with annual cash flow issues, the rating was typically lowered;
- **Commitment of Non-Small Starts funds:** FTA expects an agency will proactively take action during the Project Development process to show funds moving from a status of "Planned" to "Committed";
- **Growth rate of operating funds:** Unless there is a well-documented reason, FTA expects projected operating revenues to be consistent, if not conservative, compared to historic trends. Related to this, and as mentioned earlier, FTA expects to see the impact of fare elasticity due to planned increases in system-wide average fares;
- **Growth rate of operating costs:** Similar to operating revenues, FTA expects projected operating costs to be consistent, if not conservative, compared to historic trends.

Table A-2: Local Financial Commitment Measures, Evaluation Criteria & Rating Weights

Measure	Evaluation Criteria: Rated 1 (Low) to 5 (High)
Current Capital and Operating Condition (25 Percent)	Average bus fleet age
	Bond ratings less than 2 years old
	Historical and actual positive cash flow
	Current ratio (current assets/current liabilities)
	No service cutbacks in recent years
Commitment of Capital and Operating Funds (25 Percent)	Commitment of non-Small Starts funds
	Commitment of system-wide operating funds
Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity (50 Percent)	Cost estimate assumptions
	Ability to address capital cost overruns
	Ability to address system-wide O&M cost overruns

Table A-3: Local Financial Commitment Evaluation Criteria and Rating Requirements

Measures/Criteria	High	Medium-High	Medium	Medium-Low	Low
Current capital and operating condition <i>(25% of Local Financial Commitment Rating)</i>	<ul style="list-style-type: none"> • Average bus fleet age under 6 years. • Bond ratings less than 2 years old (if any) of AAA (Fitch/S&P) or Aaa (Moody's). • Historical and actual positive cash flow. No cash flow shortfalls. • Current ratio exceeding 2.0. • No service cutbacks in recent years. 	<ul style="list-style-type: none"> • Average bus fleet age under 6 years. • Bond ratings less than 2 years old (if any) of A (Fitch/S&P) or A2 (Moody's) or better. • Historical and actual positive cash flow. No cash flow shortfalls. • Current ratio exceeding 1.5 • No service cutbacks in recent years. 	<ul style="list-style-type: none"> • Average bus fleet age under 8 years. • Bond ratings less than 2 years old (if any) of A- (Fitch/S&P) or A3 (Moody's) or better. • Historical and actual positive cash flow. No cash flow shortfalls. • Current ratio exceeding 1.2 • No service cutbacks in recent years. 	<ul style="list-style-type: none"> • Average bus fleet age under 12 years. • Bond ratings less than 2 years old (if any) of BBB+ (Fitch/S&P) or Baa (Moody's) or better. • Historical and actual positive cash flow. No cash flow shortfalls. • Current ratio exceeding 1.0 • Major service cutbacks in recent years. 	<ul style="list-style-type: none"> • Average bus fleet age of 12 years or more. • Bond ratings less than 2 years old (if any) of BBB (Fitch/S&P) or Baa3 (Moody's) or below. • Historical and actual positive cash flow. No cash flow shortfalls. • Current ratio less than 1.0. • Major service cutbacks in recent years.
Commitment of capital and operating funds <i>(25% of Local Financial Commitment Rating)</i>	<ul style="list-style-type: none"> • At least 75% of the Non- Section 5309 capital funds are committed or budgeted. • At least 75% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. 	<ul style="list-style-type: none"> • At least 50% of the Non- Section 5309 capital funds are committed or budgeted. • At least 50% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. 	<ul style="list-style-type: none"> • At least 25% of the Non- Section 5309 capital funds are committed or budgeted. • At least 25% of the funds needed to operate and maintain the proposed transit system are committed or budgeted. 	<ul style="list-style-type: none"> • At least 10% of the Non- Section 5309 capital funds are committed or budgeted. • While no additional operating and maintenance funding has been committed, a reasonable plan to secure funding commitments has been presented. 	<ul style="list-style-type: none"> • Less than 10% of the Non- Section 5309 capital funds are committed or budgeted. • The applicant does not have a reasonable plan to secure operating and maintenance funding.
Reasonableness of capital and operating cost estimates and planning assumptions / capital funding capacity <i>(50% of Local Financial Commitment Rating)</i>	<ul style="list-style-type: none"> • Financial plan contains very conservative planning assumptions and cost estimates when compared with recent historical experience. • The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 50% of estimated project cost and 50% (6 months) of annual system wide operating expenses. 	<ul style="list-style-type: none"> • Financial plan contains conservative planning assumptions and cost estimates when compared with recent historical experience. • The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 25% of estimated project cost and 25% (3 months) of annual system wide operating expenses. 	<ul style="list-style-type: none"> • Financial plan contains planning assumptions and cost estimates that are in line with recent historical experience. • The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 15% of estimated project cost and 12% (1.5 months) of annual system wide operating expenses. 	<ul style="list-style-type: none"> • Financial plan contains optimistic planning assumptions and cost estimates when compared to recent historical experience. • The applicant has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 10% of estimated project cost and 8% (1 month) of annual system wide operating expenses. 	<ul style="list-style-type: none"> • Financial plan contains planning assumptions and cost estimates that are far more optimistic than recent history suggests. • The applicant has a reasonable plan to cover only minor (under 10%) capital cost increases or funding shortfalls. • Projected operating cash balances are insufficient to maintain balanced budgets.