

KANSAS CITY STREETCAR MAIN STREET EXTENSION

Financial Plan



Submitted by the KC Streetcar Partnership

City of Kansas City, Missouri

Kansas City Streetcar Authority

Kansas City Area Transportation Authority

August 23, 2019

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1.0 Introduction

The purpose of this Financial Plan is to document the financial capacity of the City of Kansas City (KCMO or the City), along with its project partners the Kansas City Streetcar Authority (KCSA) and the Kansas City Area Transportation Authority (KCATA), to construct, operate and maintain the Main Street Streetcar Extension Project (Streetcar Extension Project or the Project) under the Federal Transit Administration's (FTA) Section 5309 Capital Investment Grant (CIG) Program. Specifically, this Financial Plan supports the request for the Streetcar Extension Project to be included in the FTA's fiscal year (FY) 2021 CIG Program's *Annual Report on Funding Recommendations* under the New Starts category.

This plan is an updated version of the Financial Plan submitted to the FTA in September 2018 and incorporates several important changes that are described in Section 1.1. The Financial Plan includes the following:

- A description of funding and implementation partners;
- An overview of the financial analysis methodology;
- Assumptions and analysis of capital and operating sources and uses of funds;
- A financial strategy for the Project;
- An agency-wide 20-year forecast of operating and capital cash flows; and
- Local Financial Commitment Checklist, Finance Template, and supporting documentation.

All dollar figures in this Financial Plan are presented in year-of-expenditure dollars (YOE\$), unless stated otherwise. Additionally, unless stated otherwise, all figures are presented on the basis of the City's fiscal year (FY), which runs from May 1st through April 30th. Finally, the Streetcar Extension Project Financial Plan is based on engineering completed as of August 2019 and reflects 30 percent design.

1.1 Updates since September 2018

The following summarizes Financial Plan information that has been updated since the September 2018 submittal.

- **Project Capital Plan:** The capital cost estimate for the Project increased from \$316.9 million (YOE\$) to \$351.64 million, which reflects \$329.9 million for capital costs and \$21.8 million for finance costs. The capital cost increase of \$13.0 million reflects completion of 30 percent design and the results of the risk analysis workshop. Additionally, last year's submittal did not include finance costs in the total cost estimate. As stated previously, this Financial Plan includes \$21.8 million in finance costs based on

the City's current financial strategy. To account for the increased total project cost estimate, the funding plan reflects FTA CIG funds increasing from \$151.6 million to \$174.1 million and local funding increasing from \$164.9 million to \$177.6 million.

- City Council Actions: Committee Substitute for Ordinance No. 190510 was passed by the City Council on July 11, 2019, and authorized the issuance of up to \$185 million in bonds and notes to finance the acquisition, construction, renovation, rehabilitation, equipping and improvement of the Main Street Extension Project. The Ordinance appropriated the initial \$9.1 million of the \$185 million to the Streetcar Expansion Account for fiscal year 2020.

It is important to note that while there is a condition precedent requirement that must be met before the Main Street TDD revenues start flowing, per the approved Ordinance, the City intends to issue special obligation bonds and not revenue bonds for the Project. By using special obligation bonds, the TDD revenues will not be the primary source of security for the debt so the condition precedent will not delay issuing bonds or negatively impact debt service payment.

Finally, with the exception of the \$9.1 million that was appropriated with the approval of the Ordinance, future bond issues will require City Council approval at the time the funds are needed. This is the typical approval and appropriation process the City uses for bond issues, to issue the appropriate level of debt at the appropriate time in the construction schedule

- Implementation Schedule: The start of revenue service date has shifted from November 2023 to August 2024.
- State of Good Repair and Operating Plan Forecast: With the exception of the revised date of start of revenue service, there are no major changes to the assumptions in the state of good repair and operating plan cost estimates.
- Ability to cover a potential 10 percent capital cost increase: Based on the current cost estimate, the Project capital costs, without finance costs, is \$329.9 million (YOE \$). A potential 10 percent cost increase or equivalent delay in funding would be \$32.9 million. As stated above, the City Council has provided authorization to issue bonds in the amount of up to \$185 million. The current funding plan assumes \$161.7 million in debt will be issued, which results in approximately \$23.3 million in debt capacity approved by the City Council. The remaining \$9.6 million could be funded through existing and planned reserves. As shown in Table 22, the projected cumulative available balance is forecasted to be \$17.5 million in 2022, \$21.9 million in 2023, and \$26.1 million in 2024.

Finally, in response to a comment provided in the Spring 2019 Local Financial Commitment Assessment Report, this Financial Plan does not include any cost or revenue assumptions

related to the proposed Riverfront Streetcar Project. At this time, there is no adopted implementation schedule for this project and the sources of capital and operating funding would be different than the existing and planned sources for the existing streetcar line and the Streetcar Extension Project.

1.2 Project Partners

KCMO is the project sponsor and will partner with the Downtown Transportation Development District, KCATA, and KCSA. These three agencies have been jointly conducting Project Development efforts. The roles and responsibilities of project partners are as follows:

- 1) **City of Kansas City, Missouri:** KCMO will serve as the Project Sponsor and grantee, and will oversee design and construction for the Streetcar Extension Project. KCMO was project sponsor and led design and construction efforts for the Downtown Streetcar starter line. The City is also the owner of the existing streetcar system and will be the owner of the extension. KCMO's staff has significant experience addressing the FTA project management and financial oversight requirements through successful completion of the Downtown Streetcar starter line. KCMO provides an annual financial contribution to the debt service and operations and maintenance costs of the Starter Line in the amount of \$2.039 million per year through the City's Public Mass Transportation Fund. The City provides, subject to annual appropriation, supplemental financial support for the costs of the initial streetcar line and/or extension thereof. Together with this annual contribution, the City uses revenue available from the Downtown Streetcar Transportation Development District (TDD) to maintain reserve funds and pay debt service related to streetcar capital reinvestment, as well as for operations and maintenance.
- 2) **Kansas City Area Transportation Authority:** KCATA is a bi-state agency created by a compact between the States of Missouri and Kansas, and approved by the United States Congress. The compact gives the KCATA responsibility for planning, construction, owning and operating passenger transportation systems and facilities within the seven-county Kansas City metropolitan area. KCATA operates RideKC bus service, the MAX Bus Rapid Transit service, Flex demand-response routes, RideKC Freedom paratransit service for the elderly and persons with disabilities, and RideKC Van vanpool service.

As the regional transit authority, and an FTA grantee, KCATA will provide valuable financial, technical and operations support. KCATA will provide extensive operational knowledge of existing and historical transit services in the proposed corridor, and will continue to guide the development of regional service integration and coordination activities. KCATA also has experience dealing with FTA CIG requirements on two successful Bus Rapid Transit (BRT) projects, and on the current Prospect MAX BRT

project. While KCATA provided funding to support preliminary planning, the agency is providing no funding to support construction or long-term operations of the Streetcar Extension Project, as those activities will be funded through the Downtown Streetcar TDD as explained below.

- 3) **Kansas City Streetcar Authority:** The KCSA is a not-for-profit organization that was formed for the purpose of overseeing and administering the management and operations of the existing service, and will do so for the extension as well. The KCSA is led by an executive director along with staff that manage communications, marketing, media relations, and streetcar budgetary issues; with oversight from a Board of Directors. As primary stakeholder and partner in the extension project, KCSA will provide valuable financial, technical and operations support in the Project Development process. KCSA will assume the same operational role when the Project is complete and revenue operations are set to begin.

KCSA generates revenue from certain activities such as on-vehicle advertising for costs of operations and maintenance, as well as other miscellaneous costs, of the existing line. KCSA intends to provide such revenue to the extension as well.

- 4) **Downtown Streetcar Transportation Development District ("Downtown Streetcar TDD"):** The TDD is the local funding source for the project.
 - **Background:** In 2011 and 2012, KCMO pursued the formation of a Missouri TDD known as the Kansas City Downtown Streetcar TDD (then the Starter Line TDD) to provide the local match funding for the construction and operation of an approximately 4.5-mile (round-trip) modern streetcar line running predominantly along an approximately 2.2-mile stretch of Main Street between the River Market area and Union Station (the Starter Line). A TDD is a special purpose political subdivision with the power to impose certain revenue sources within (and only within) its boundary. In 2012, voters residing within the Starter Line TDD approved a one percent sales tax for 30 years within (and only within) the Starter Line TDD (the Starter Line TDD Sales Tax) and certain annual special assessments on all of the real estate within the Starter Line TDD (the Starter Line TDD Special Assessments, and together with the Starter Line TDD Sales Tax, the Starter Line TDD Revenue). The Starter Line TDD Revenue is used to pay debt service on the bond financing for the local match of design and construction costs of the Starter Line and a maintenance facility, the costs of vehicle acquisition, and operations and maintenance costs of the Starter Line.

Seeking to build on the momentum and extraordinary success of the Starter Line, a second TDD was proposed in late 2016 known as the Kansas City Main Street Rail TDD (then the Main Street TDD) to provide the local match funding for the construction of

an approximately 7-mile (round-trip) extension of the Starter Line that would continue along Main Street south from the terminus of the Starter Line at Union Station through Midtown, into the mixed-use area known as Country Club Plaza and terminating in the vicinity of the Volker Campus of the University of Missouri-Kansas City (the Extension Line). The Main Street TDD encompasses approximately 10 square miles, and includes the land area comprising the Starter Line District. The intention is for the Main Street TDD to replace the Starter Line TDD.

5) **Main Street Rail TDD (“Extension TDD”, then the Main Street TDD):**

In August 2017, voters residing within the Extension TDD approved the formation of the extended district. The Extension TDD is governed by a Board of Directors whose members are elected at large by the voters residing within the Extension TDD for fixed terms.¹ The initial Directors were elected in October 2017. In June 2018, the voters approved the imposition of a one-percent sales tax for 30 years within (and only within) the Extension TDD (the Extension TDD Sales Tax) and certain special assessments on some, but not all, of the real estate within the Starter Line TDD as further explained below.

The Extension TDD derives revenue and assessments for Extension TDD revenue under the following conditions. The Extension TDD Revenue cannot be collected until (a) the Downtown Streetcar TDD is abolished, terminated or dissolved, or merged with or into the Extension TDD, or its revenue sources reduced to zero by action of the Board of Directors of the Downtown Streetcar TDD or otherwise, in accordance with the applicable law, and (b) the Board of Directors of the Extension TDD determines that there are sufficient funds to be derived from sources other than revenue of the Extension TDD in order to make the construction of a substantial portion of the Streetcar Extension Project financially viable when aggregated with revenue of the Extension TDD.

Furthermore, the imposition of the Downtown Streetcar TDD Sales Tax would cease on the day immediately preceding the day on which the Extension TDD Sales Tax is first imposed, and that the levy of the Downtown Streetcar TDD Special Assessments would cease in the calendar year immediately preceding the calendar year in which the Extension TDD Special Assessments are first levied, all such that there is neither a gap, nor an overlap, in time between the respective periods of imposition of (a) the Downtown Streetcar TDD Sales Tax and the Extension TDD Sales Tax, and (b) the

¹ The initially elected Directors have staggered terms of one, two and three years, and therefore there will need to be an election of some Directors every year.

Downtown Streetcar TDD Special Assessments and the Extension TDD Special Assessments.

Once collection of the Extension TDD revenue begins, it will pay for debt service on financing for the local match of the design and construction costs of the Streetcar Extension Project, acquisition of additional vehicles, debt service on the bonds issued for the Starter Line (unless refinanced with the financing for the Streetcar Extension Project) and operations and maintenance costs of the entire combined Starter Line and Streetcar Extension Project (approximately 12 miles round-trip).

- **Boundary:** **Figure 1** shows the overall boundary of the Extension TDD. The Extension TDD Sales Tax extends throughout the entire Extension TDD. **Figure 2** shows the boundary of the Extension TDD, but also contains two colored areas to distinguish between the original Starter Line TDD boundary (green) and the new land area added as part of the Extension TDD (yellow).
- **Assessment Rates:** The Extension TDD Special Assessments in the yellow area are to be paid for 25 years from the year first assessed. The Extension TDD Special Assessments in the green area are to be paid for 25 years from the year the Starter Line TDD Special Assessments were first assessed, and therefore will end earlier than the Extension TDD Special Assessments in the yellow area.

The Extension TDD Special Assessments are imposed at the following rates:²

- Real Estate Special Assessments (Extension TDD Real Estate Assessments) at the rate of (1) 48¢ for each \$100 of assessable value for commercial property, and (2) 70¢ for each \$100 of assessable value for residential property.³
- Surface Pay Parking Lot Assessments (Extension TDD Pay Parking Lot Assessments) at the rate of \$54.75 multiplied by the number of Pay Parking Spaces in commercial surface parking lots (not garages and not free employee or visitor spaces in a surface parking lot).

- 6) **Federal Transit Administration:** This Financial Plan assumes federal funding assistance from the FTA for the capital costs of the Streetcar Extension Project. Based on the

² These rates are the same as the rates imposed by the Starter Line TDD.

³ For commercial property, the assessable value is 32% of the market value as determined by the County, and for residential property, the assessable value is 19% of the market value as determined by the County. Special assessments are payable by all non-governmental properties, even non-governmental properties that have been granted tax abatement from regular property tax by KCMO, and properties that are exempt from regular property tax because of charitable use, such as churches and nonprofits.

current capital cost estimate, the Financial Plan assumes \$174.1 million (YOE \$) in FTA Section 5309 New Starts funding.

Figure 1. Extension TDD

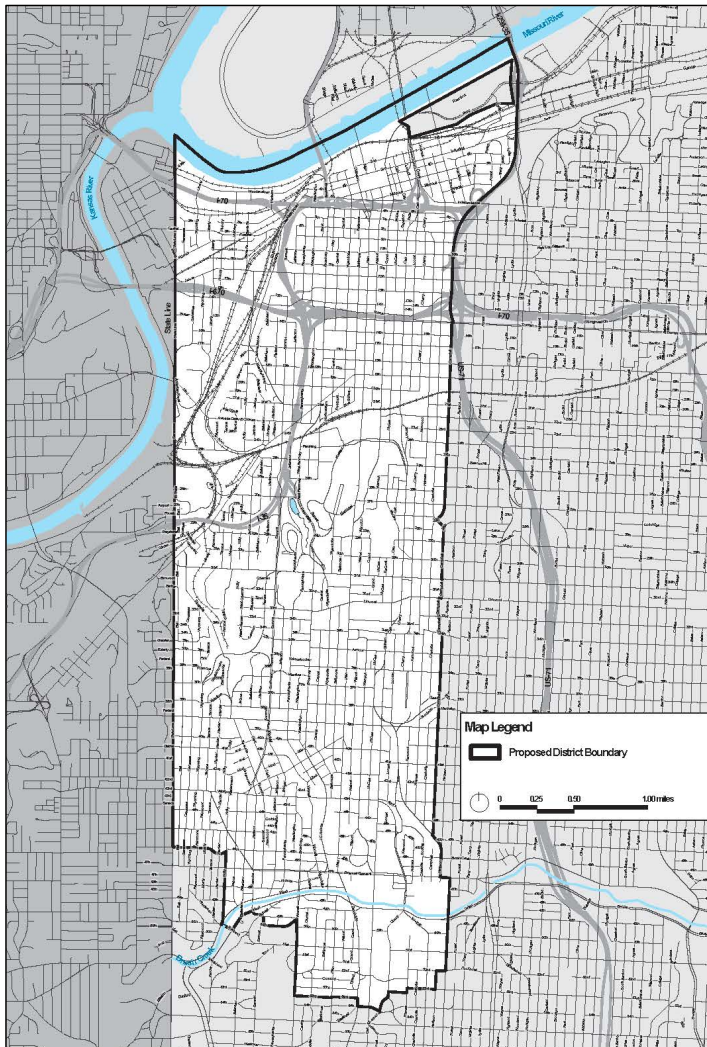
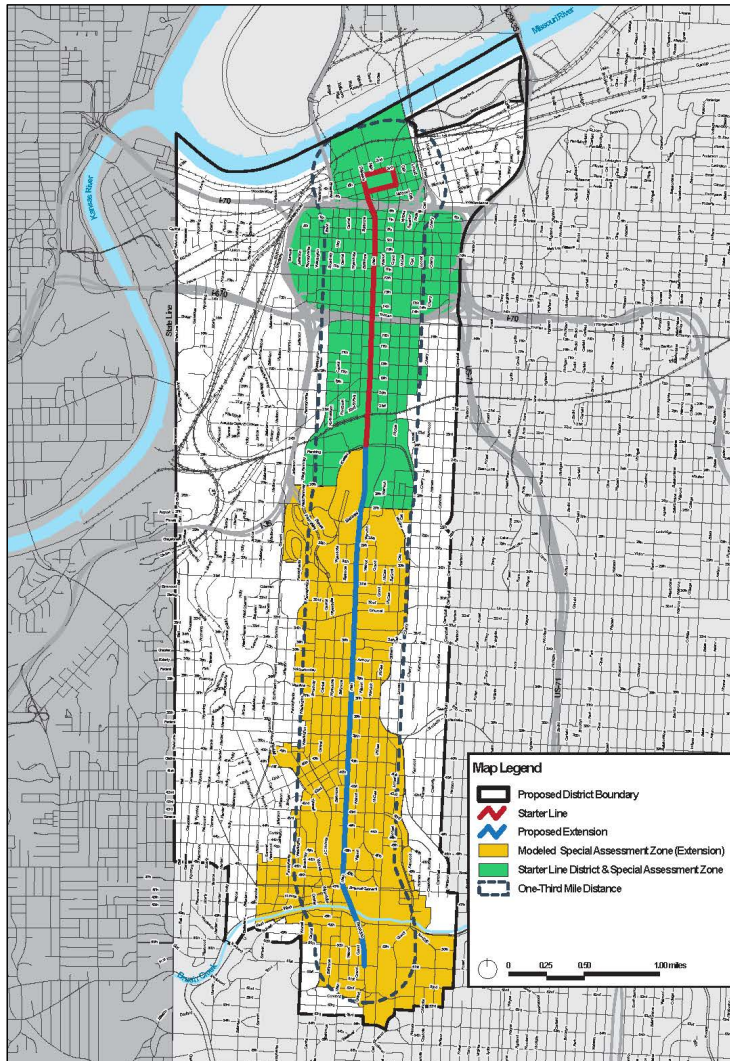


Figure 2. Special Assessment areas of the Extension TDD



1.3 Project Description

In 2012 and 2013, KCMO, in coordination with KCATA, the Mid-America Regional Council (MARC), and Jackson County, initiated a \$1.9 million planning study called NextRail KC to evaluate the potential impacts, feasibility, and cost of streetcar expansions in eight designated corridors. Through a phased process that included public/stakeholder engagement, systems overview, route screening, and detailed route analysis, the Streetcar Extension Project, along with two others, was selected by the City Council for endorsement. Additionally, the Project has been included in the region's adopted long-range transportation plan, Transportation Outlook 2040.

As shown in **Figure 3**, the Streetcar Extension Project is in Midtown, an urban, energetic area located directly south of downtown that boasts historic neighborhoods, a diverse population, the presence of significant institutions, a number of vibrant commercial areas, and over 30,000 jobs. The proposed project is approximately 3.5 miles long, from the current streetcar terminus at Union Station to the vicinity of the Plaza/UMKC campus. It would extend the Downtown Streetcar starter line south along Main Street, largely running in mixed traffic, as it currently does along the Starter Line, with potential for semi-exclusive operations in portions of the corridor.

Figure 3. Main Street Extension Project



1.3.1 Current Transit Conditions

Existing Streetcar Service

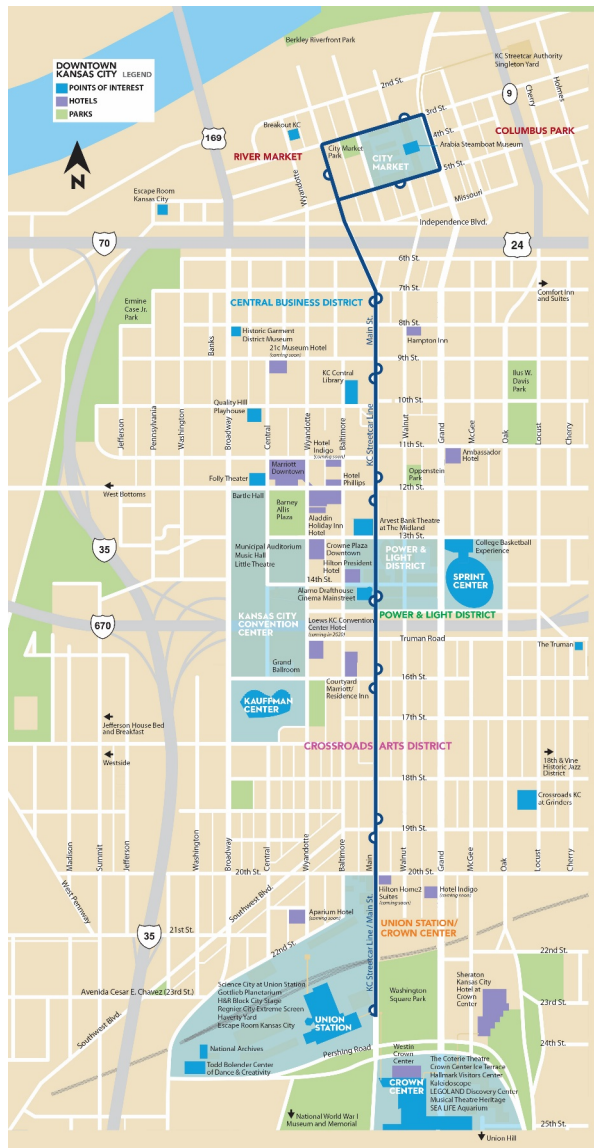
As shown in **Figure 4**, the existing 2.2 mile route along Main Street provides free service from River Market to the historic Union Station, traveling mostly along Main Street. Areas serviced include the Central Business/Convention District, the Power & Light District and Crown Center—and several businesses, restaurants, art galleries and residential areas. Destinations and stops include:

- Union Station (Pershing & Main)
- Crossroads (19th & Main)
- Kauffman Center (16th & Main)
- Power & Light (14th & Main)
- Metro Center (12th & Main)
- Library (9th & Main)
- North Loop (7th & Main)
- City Market (5th & Walnut)
- River Market North (3rd & Grand)
- River Market West (4th & Delaware)

Service is provided seven days per week with 10- to 15-minute headways. Hours of operation are:

- Monday-Thursday: 6AM – 12AM
- Friday: 6AM - 2AM
- Saturday: 7AM - 2AM
- Sunday: 7AM - 10PM

Figure 4. Existing Downtown Streetcar Project



1.3.2 Purpose and Need for Project

The purpose of the proposed Streetcar Extension Project along Main Street is to continue to positively enhance the mobility and economics of the Main Street corridor by improving transit service; connecting existing activity centers; and supporting development/redevelopment in the urban core. Building on the downtown starter line, the purpose of the Streetcar Extension Project is to:

- Expand mobility choices for the metropolitan area and provide greater options for future connections to regional transit.
- Provide improved accessibility for all users.
- Provide efficient, reliable and safe transit service.
- Enhance the region's transit system by creating a significant central spine around which to organize and integrate regional service.
- Provide better transit service to UMKC's urban campus and to the Plaza – the two largest employment and activity centers in the region – with strong connections throughout the region.
- Develop underutilized and vacant property, while supporting existing residential and commercial activity.
- Enhance the desirability of the corridor for employment and residential growth.

This project is needed to continue the City's initial four streetcar themes: connect, develop, thrive, and sustain. The need for the Streetcar Extension Project is to continue efforts to provide mobility and connectivity, economic development and growth, community amenities and improved livability, and sustainability. In short, the Streetcar Extension Project seeks to build upon downtown's success, connecting neighborhoods in the urban core.

1.4 Project Schedule

The current implementation schedule for the Streetcar Extension Project is presented in **Table 1**.

Table 1. Project Implementation Schedule (as of August 2019)

Implementation Phase	Duration
Project Development	September 2017 – February 2020
Engineering	February 2020 – February 2021
Submit request to award Full Funding Grant Agreement	February 2021
Major Construction	September 2021 – February 2024
Testing	January 2024 to August 2024
Start of Revenue Operations	August 2024

1.5 Project Funding Summary

The capital investment of the Project is estimated to be \$351.6 million (YOE\$), including finance costs. It is anticipated that the revenues collected from the aforementioned entities will generate sufficient funds to support repayment of new financing anticipated to be issued by the City, which currently is planned to be bond financing. It should be noted that the City continues to consider pursuing financing under the federal Transportation Infrastructure Finance and Innovation Act (TIFIA), or a combination of bonds and a TIFIA loan.

Committee Substitute for Ordinance No. 190510 authorized total proceeds of bonds and notes in an aggregate principal amount is not to exceed \$185 million. The principal account was determined after taking into account costs of issuance and bond proceeds funded by reserve funds, reimbursement of approximately \$5 million of already advanced costs for planning of the Project, payment of debt service on the existing financing (or on any or all of it that may be refinanced through the extension financing should the City chooses to do so), payment of the projected costs of operations and maintenance of the extended Line, as well as the associated capital repairs and replacements.

Reflecting the “Medium-High” rating received from the FTA following the Fall 2018 New Starts Grant submittal, and prior to the FTA allocating appropriated funds for the Project, it is anticipated that the Project will incur an additional \$9 million of interim capital costs for essential activities to be undertaken through early 2021. However, currently there is no Extension TDD Revenue that could be used to pay such costs nor debt service on financing thereof. The City intends to issue financing on debt service of the interim costs (“2020 Special

Obligation Bonds”) using surplus from the special revenue fund that the City designated as the “Streetcar Fund” (and which is the same special revenue fund of the City defined and referred to in the Initial Phase Cooperative Agreement as the “Initial Phase Fund”). Specifically, payment of the scheduled debt service on the 2020 special obligation bonds will be made over a successive five-year period with its primary source of revenues being those collected by the Downtown TDD.

Table 2 summarizes the Streetcar Extension Project’s capital cost estimate and planned revenue sources and levels. Additional details on the capital cost estimate and financial strategy are provided in **Section 2.1**. Local funds supplied and approved by KCSA and the City will be used to complete project development activities. In addition, the Extension TDD has been formed to levy a sales tax and special assessments within its boundary to fund a portion of the capital costs and all of the operations and maintenance costs of the project. Additional details on the Extension TDD are provided in **Section 3.3.1**.

Table 2. Streetcar Extension Project Capital Cost and Revenues
(YOE\$, in millions)

Costs	
Main Street Extension Costs	\$329.9
Finance Costs	\$21.8
Total Project Costs	\$351.6
Revenues	
Federal	\$174.1
New Starts	\$174.1
Local	\$177.6
TDD: Cash (Pre-Construction Costs)	\$4.3
TDD: Bond Proceeds (2020 Series)	\$9.0
TDD: Bond Proceeds (2021 Series)	\$152.7
TDD: Cash (Finance Costs)	\$11.5
Total	\$351.6

Note: ¹ Total may not sum due to rounding.

1.6 Key Assumptions

The following is a list of key assumptions applied in developing the financial plan.

Table 3. Key Cost and Revenue Assumptions

	Annual Growth Rate Assumption
Costs	
District Administrative Costs	1.50%
O&M Costs	2.50%
Capital Costs (SGR Program Vehicle Overhaul)	Following manufacturing recommended expense schedule until 2026- 3% cost growth thereafter
Capital Costs (SGR Program Track and Facility)	3% annually under warranty and then 5% thereafter
Capital Costs (SGR Program TPSS)	3%
Revenues	
Sales Tax	1.50%
Property Assessment (Biannual)	2.00%
Surface Parking Assessments	Reduced 5% annually through 2025, then fixed thereafter
City Contribution	\$2.04 M
Advertising	2.5%

1.7 Agency-Wide Plan Sources and Uses Summary

Table 4 summarizes the sources and uses of funds for the agency-wide capital and operating plan over the calendar year (CY) 2020 to CY 2040 period. The table presents the total capital costs and revenues, debt service costs, as well as total operating costs and revenues in YOE dollars.

As shown in the table and throughout the Financial Plan, the agency-wide operating and capital costs and revenues reflect the following:

- Capital Costs
 - Of the total agency-wide capital costs (\$545.2 million), the Streetcar Extension Project accounts for 98 percent, while KCSA's state of good repair program comprises the remaining 2 percent.
- Capital Revenues
 - Of the total agency-wide capital revenues, including the Streetcar Extension Project (\$553.6 million), federal sources provide 31.4 percent. FTA Section 5309 CIG is the only federal capital revenue source.
 - Local TDD revenues provide the remaining 68.6 percent of total capital revenue through pay as you go cash and bond issued against the TDD revenue.
 - Based on the revenue and cost growth assumptions over the 2020 to 2040 period, capital revenues are projected to exceed capital costs by \$8.3 million.
- O&M Costs
 - Of the total agency-wide operating uses (\$580.1 million), annual streetcar operating costs (Starter Line and Streetcar Extension Project) account for 48.6 percent, District Administrative Costs account for 0.5 percent, repayment for the \$5 million in preliminary advanced costs account for 0.9 percent, and existing and planned debt service accounts for the remaining 50.0 percent.
- O&M Revenues
 - Of the total agency-wide operations and maintenance revenues (\$657.4 million), revenues generated by the TDD comprise 92.9 percent.
 - The City's Annual Contribution provides 6.5 percent and Advertising revenue provides 0.6 percent.
 - KCSA does not charge a fare to ride the existing Starter Line and will similarly not charge a fare on the Streetcar Extension Project.

Table 4: Sources and Uses Summary: 2020 to 2040 (\$ in millions)

	Total: 2020-2040	Percent Share
Capital Program		
<i>Capital Uses: New Starts Project</i>		
Main Street Extension	\$325.52	59.70%
Debt Service	\$210.09	38.53%
<i>Capital Uses: SGR Program</i>		
Vehicle Overhaul	\$4.45	0.82%
TPPS/Sub	\$0.36	0.07%
Track/ROW	\$3.61	0.66%
Facility	\$1.18	0.22%
Total Capital Uses	\$545.21	100.00%
<i>Capital Sources: New Starts Project</i>		
FTA New Starts	\$174.06	31.44%
TDD Funding	\$361.56	65.31%
<i>Capital Sources: SGR Program</i>		
TDD Funding (SGR Capital Allocation)	\$17.94	3.24%
Total Capital Sources	\$553.56	100.00%
Operating Program		
<i>Operating Uses</i>		
O&M Costs	\$282.37	48.61%
District Administrative Costs	\$2.98	0.51%
Repayment of Preliminary Advanced Cost	\$5.00	0.86%
Debt Service	\$290.54	50.02%
<i>Starter Line Bond Debt Service</i>	\$75.56	13.01%
<i>Streetcar Lease</i>	\$4.88	0.84%
<i>Main Street Ext Debt Service</i>	\$210.09	36.17%
Total Operating Uses	\$580.88	100.00%
<i>Operating Sources</i>		
Sales Tax	\$452.59	68.85%
Starter Line Property Assessment	\$87.15	13.26%
Main Ext Property Assessment	\$68.75	10.46%
Parking Assessment	\$1.88	0.29%
City Contribution	\$42.82	6.51%
Advertisement	\$4.18	0.64%
Total Operating Sources	\$657.37	100.00%

Note: Totals may not sum due to rounding.

¹ This table summarizes costs between 2020 and 2040. As such, costs incurred and funded for the Project prior to 2020 are not included in this table.

2.0 Capital Plan

The \$545.2 million (2020-2040) agency-wide capital plan includes the Streetcar Extension Project, KCSA's state of good repair (SGR) plan and KCSA's existing and planned debt service. As shown in **Figure 5** and **Table 5**, implementation of the Streetcar Extension Project represents 98.2 percent of the total capital program. The other major cost categories include: ongoing SGR investments for the Starter Line (0.8 percent), and planned SGR investments for the Streetcar Extension Project (1.0 percent).

Figure 5. Projected Capital Expenditures: 2020 to 2040
(YOE \$, in millions)

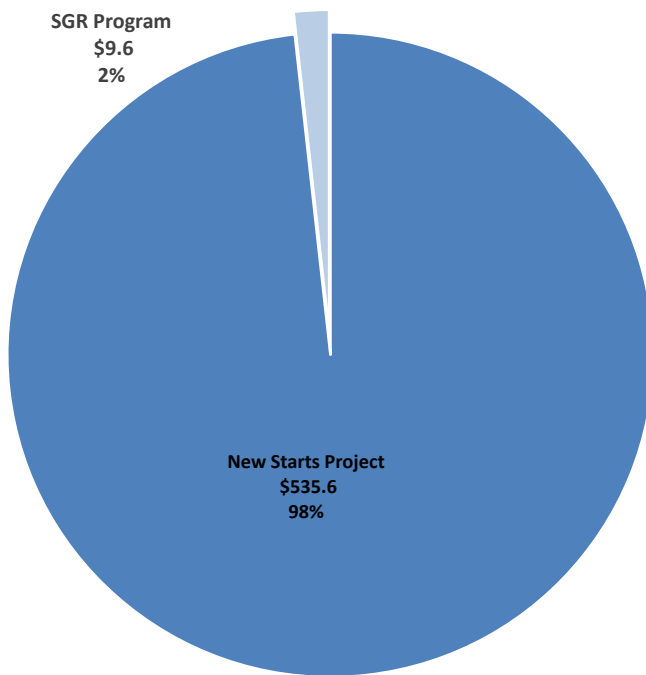


Table 5. Projected Capital Sources and Uses of Funds: CY 2020 to CY 2040
(YOE\$, in millions)

Cash Flow Category	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital Sources											
Streetcar Extension Project	\$8.70	\$100.73	\$151.01	\$87.34	\$23.91	\$9.24	\$9.35	\$9.33	\$9.73	\$9.98	\$10.08
New Starts Funding	\$0.00	\$87.03	\$87.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD: Pre-Construction (Cash)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD - 2020 Series Bond Proceeds	\$8.70	\$0.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD - 2021 Series Bond Proceeds	\$0.00	\$12.26	\$54.05	\$76.62	\$9.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD: Debt Service (Cash)	\$0.00	\$1.14	\$9.93	\$10.72	\$14.15	\$9.24	\$9.35	\$9.33	\$9.73	\$9.98	\$10.08
SGR Program	\$0.25	\$0.26	\$0.26	\$0.28	\$0.28	\$0.86	\$0.88	\$0.90	\$0.92	\$0.95	\$0.97
Starter Line SGR Capital Allocation	\$0.25	\$0.26	\$0.26	\$0.28	\$0.28	\$0.29	\$0.30	\$0.30	\$0.31	\$0.32	\$0.33
Streetcar Extension SGR Capital Allocation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.57	\$0.58	\$0.60	\$0.61	\$0.63	\$0.64
Total Capital Sources	\$8.95	\$100.99	\$151.28	\$87.62	\$24.20	\$10.10	\$10.22	\$10.23	\$10.65	\$10.93	\$11.05
Capital Uses											
Streetcar Extension Capital Costs	-\$8.70	-\$100.73	-\$151.01	-\$87.34	-\$23.91	-\$9.24	-\$9.35	-\$9.33	-\$9.73	-\$9.98	-\$10.08
Capital Costs	-\$8.70	-\$96.46	-\$137.19	-\$73.41	-\$9.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Debt Service	\$0.00	-\$4.27	-\$13.82	-\$13.93	-\$14.15	-\$9.24	-\$9.35	-\$9.33	-\$9.73	-\$9.98	-\$10.08
Starter Line SGR Program Costs	-\$0.11	-\$0.13	-\$0.11	-\$0.12	-\$0.37	-\$0.12	-\$0.13	-\$0.16	-\$0.14	-\$0.39	-\$0.15
Vehicle Overhaul	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.28	-\$0.06	-\$0.06	-\$0.06	-\$0.06	-\$0.31	-\$0.06
TPPS/Sub	\$0.00	-\$0.02	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00	\$0.00
Track/ROW	-\$0.04	-\$0.04	-\$0.04	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.06	-\$0.06	-\$0.06
Facility	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02
Streetcar Extension SGR Program Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-\$0.18	-\$0.18	-\$0.23	-\$0.20	-\$0.79	-\$0.22
Vehicle Overhaul	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-\$0.06	-\$0.06	-\$0.06	-\$0.06	-\$0.64	-\$0.06
TPPS/Sub	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-\$0.04	\$0.00	\$0.00	\$0.00
Track/ROW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-\$0.10	-\$0.10	-\$0.11	-\$0.11	-\$0.12	-\$0.12
Facility	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03
Total Capital Costs	-\$8.80	-\$100.87	-\$151.13	-\$87.46	-\$24.28	-\$9.54	-\$9.66	-\$9.72	-\$10.06	-\$11.17	-\$10.45
Ending Balance	\$0.14	\$0.12	\$0.15	\$0.16	-\$0.08	\$0.56	\$0.57	\$0.51	\$0.58	-\$0.23	\$0.60
Cumulative Ending Balance	\$0.14	\$0.26	\$0.41	\$0.57	\$0.49	\$1.04	\$1.61	\$2.12	\$2.71	\$2.47	\$3.07

Table 5. Projected Capital Sources and Uses of Funds: CY 2020 to CY 2040 – cont'd.
(YOE\$, in millions)

Cash Flow Category	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Capital Sources										
Streetcar Extension Project	\$10.05	\$10.15	\$10.11	\$10.20	\$10.15	\$10.24	\$10.16	\$14.55	\$10.30	\$10.30
New Starts Funding	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD: Pre-Construction (Cash)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD - 2020 Series Bond Proceeds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD - 2021 Series Bond Proceeds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TDD: Debt Service (Cash)	\$10.05	\$10.15	\$10.11	\$10.20	\$10.15	\$10.24	\$10.16	\$14.55	\$10.30	\$10.30
SGR Program	\$0.99	\$1.02	\$1.04	\$1.07	\$1.10	\$1.12	\$1.15	\$1.18	\$1.21	\$1.24
Starter Line SGR Capital Allocation	\$0.34	\$0.34	\$0.35	\$0.36	\$0.37	\$0.38	\$0.39	\$0.40	\$0.41	\$0.42
Streetcar Extension SGR Capital Allocation	\$0.66	\$0.67	\$0.69	\$0.71	\$0.73	\$0.74	\$0.76	\$0.78	\$0.80	\$0.82
Total Capital Sources	\$11.05	\$11.17	\$11.15	\$11.27	\$11.25	\$11.36	\$11.31	\$15.73	\$11.51	\$11.54
Capital Uses										
Streetcar Extension Capital Costs	-\$10.05	-\$10.15	-\$10.11	-\$10.20	-\$10.15	-\$10.24	-\$10.16	-\$14.55	-\$10.30	-\$10.30
Capital Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Debt Service	-\$10.05	-\$10.15	-\$10.11	-\$10.20	-\$10.15	-\$10.24	-\$10.16	-\$14.55	-\$10.30	-\$10.30
Starter Line SGR Program Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Vehicle Overhaul	-\$10.05	-\$10.15	-\$10.11	-\$10.20	-\$10.15	-\$10.24	-\$10.16	-\$14.55	-\$10.30	-\$10.30
TPPS/Sub	-\$0.19	-\$0.16	-\$0.17	-\$0.18	-\$0.22	-\$0.47	-\$0.20	-\$0.21	-\$0.25	-\$0.23
Track/ROW	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.36	-\$0.08	-\$0.08	-\$0.08	-\$0.09
Facility	-\$0.03	\$0.00	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00	\$0.00	-\$0.04	\$0.00
Streetcar Extension SGR Program Costs	-\$0.06	-\$0.07	-\$0.07	-\$0.07	-\$0.08	-\$0.08	-\$0.09	-\$0.09	-\$0.09	-\$0.10
Vehicle Overhaul	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.04	-\$0.04	-\$0.04
TPPS/Sub	-\$0.27	-\$0.24	-\$0.25	-\$0.26	-\$0.32	-\$0.97	-\$0.29	-\$0.31	-\$0.37	-\$0.33
Track/ROW	-\$0.06	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.76	-\$0.07	-\$0.08	-\$0.08	-\$0.08
Facility	-\$0.04	\$0.00	\$0.00	\$0.00	-\$0.05	\$0.00	\$0.00	\$0.00	-\$0.05	\$0.00
Total Capital Costs	-\$10.12	-\$10.22	-\$10.18	-\$10.28	-\$10.23	-\$10.32	-\$10.24	-\$14.64	-\$10.40	-\$10.40
Ending Balance	\$0.93	\$0.95	\$0.97	\$1.00	\$1.02	\$1.04	\$1.07	\$1.09	\$1.12	\$1.14
Cumulative Ending Balance	\$4.00	\$4.96	\$5.93	\$6.93	\$7.95	\$8.99	\$10.06	\$11.15	\$12.26	\$13.41

Note: Totals may not sum due to rounding.

2.1 Main Street Streetcar Extension Project

This section provides an overview of the capital costs and revenue estimates for the Streetcar Extension Project. The capital plan reflects the estimated cost and implementation schedule for the Project, summarizes the anticipated timing and level of FTA New Starts funds, and summarizes the timing, amount, and commitment of the local matching funds.

2.1.1 Capital Cost Methodology

A detailed description of the capital cost methodology can be found in the August 2019 Basis of Capital Cost Report. To summarize, the 30 percent Opinion of Probable Capital Cost (OPCC) estimate is based on design and quantities as provided by designers for the Project and reflects the following activities, which are described in this section: establish project segmentation; identify project elements and measure quantities; develop a cost library; and compile cost estimate.

Establish Project Segmentation

The overall Project was divided into nine distinct segments to provide flexibility in reporting costs. These segments are tied generally to geographic locations that make up the Project, and most construction costs and associated non-construction costs can be summarized by these geographic segments:

- Zone 1: Downtown Alignment to 27th Street;
- Zone 2: 27th Street to 31st Street;
- Zone 3: 31st Street to Armour Boulevard;
- Zone 4: Armour Boulevard to 39th Street;
- Zone 5: 39th Street to 43rd Street;
- Zone 6: 43rd Street to 45th Street;
- Zone 7: 45th Street to Ward Parkway;
- Zone 8: Ward Parkway to 51st Street; and
- Zone 9: Vehicle Maintenance Facility Location.

Identify Project Elements and Measure Quantities

A list of Project elements was developed to adequately define all aspects of Project construction while reflecting the level of design development and quantities that could be readily measured from existing plan sets. These elements were developed in large part through quantity takeoffs of construction items shown on the preliminary design plan sets.

Develop Cost Library

The cost library is a compilation of all construction and non-construction items contained within the cost estimate, with the items presented in CY 2019 dollars. The items are characterized by unit cost, lump sum cost, and allowance.

- **Unit Costs:** Unit costs represent basic construction elements such as roadway excavation, import borrow, curb and gutter, etc. that are typically bid by a contractor on a given project. Unit pricing for these items are either built up with a production-based methodology or utilize unit prices provided by reputable industry contractors, or recently bid prices from a similar project. Developed unit pricing is considered to be a direct cost – including all activities and materials associated with completing the actual work, but excluding all indirect supervision, mobilization, overhead and profit.
- **Lump Sum Costs:** Lump sum costs are included in the estimate to provide for negotiated and budgeted fees for administrative and project management activities. For example, the program cost estimate carries many assumed costs for engineering, program management or other services as lump sum costs.
- **Allowances and Percentage-Based Costs:** Allowances and percentage-based costs are intended to capture elements known to be a part of this type of project, but not known and/or defined at the time the estimate was prepared (for example, mobilization, traffic control, contractor indirect costs, etc.). These costs are based on historical sources or prevailing experience. As the design progresses and these elements are defined, these costs will be converted to other cost types.

Compile Cost Estimate

The project costs described above were transferred to a spreadsheet workbook that was developed for the capital cost estimate. In general, individual tables were created to hold specific information such as the cost library, segmentation, quantity takeoff, work categorization, Standard Cost Category (SCC) coding, schedule association, etc. These tables are compiled in the Base Cost Estimate worksheet via lookup or other formulaic methodology. This approach provides consistency for elements that are distributed in a variety of locations throughout the estimate. In addition, it provides a single database from which various summaries can be easily generated to provide responses to a wide variety of potential information requests. This data is then input into the main FTA worksheet.

Estimate Exclusions

- Market Adjustment Factor. The Market Adjustment Factor is above and beyond the typical contractor mark-ups and current but normal escalation factors. It covers the potential influence of an abnormal bidding environment such as a lack of competition among contractors (contractors being busy or selectively bidding jobs), competition for construction personnel that requires contractors to pay wage premiums to retain key workers and management staff, and abnormal increases or decreases in fuel and material costs.
- All other costs not specifically called out in this report or in the estimate.

Assumptions

Finally, the following major assumptions were made when developing the cost estimate:

- Sales tax, if any, is assumed to be part of the purchase price of permanent materials.
- Imported construction materials, such as aggregate, fill and concrete, are available in sufficient quantities from local suppliers, and waste material can be disposed of within a reasonable haul distance from the Project location.
- All material will be new and there will be “Buy America” requirements.
- Assumes escalation factor of 3.5 percent compounded annually.
- Assumes CMAR delivery approach.
- Assumed limited work can occur during winter months. Structural work can occur in winter as long as temperatures do not dip below 20 degrees Fahrenheit. Concrete can be poured above that temperature. Also, during winter months, as long as subgrade has been prepared, activities such as laying ties and rail can occur, but the closure weld cannot be made (tracks could be built but not cut in).
- Assumes local unions will be contracted to complete the work.
- Assumes labor force is available and no consideration for work stoppage due to labor strikes or other negotiations affects the completion of the project.

2.2 Capital Cost Estimate by FTA Standard Cost Category

Based on the previously described methodology, the current implementation schedule summarized in **Table 1**, and annual escalation for construction costs, the detailed cost estimate for the Streetcar Extension Project is shown in **Table 6**. As shown in the table, the total capital cost of the Project, is \$318.4 million (2019\$) or \$351.6 million (YOE\$).

Table 6. Streetcar Extension Project Capital Cost Estimate
(2019 \$ and YOE \$, in million)

FTA Standard Cost Category	2018	2019	2020	2021	2022	2023	2024	Total
2019 \$ Estimates								
10—Guideways and Track Elements	\$0.0	\$0.0	\$0.0	\$13.8	\$20.2	\$6.0	\$0.0	\$40.0
20—Stations, Stops, Terminals, Intermodal	\$0.0	\$0.0	\$0.0	\$2.4	\$4.0	\$1.6	\$0.0	\$8.1
30—Support Facilities: Yards, Shops, Admin. Buildings.	\$0.0	\$0.0	\$0.0	\$3.9	\$15.5	\$0.0	\$0.0	\$19.4
40—Sitework and Special Conditions	\$0.0	\$0.0	\$0.0	\$21.2	\$14.8	\$8.0	\$0.0	\$44.1
50—Systems	\$0.0	\$0.0	\$0.0	\$6.4	\$33.6	\$14.4	\$0.0	\$54.3
60—ROW, Land, Existing Improvements	\$0.0	\$0.0	\$0.0	\$3.3	\$0.0	\$0.0	\$0.0	\$3.3
70—Vehicles	\$0.0	\$0.0	\$0.2	\$15.4	\$14.0	\$20.5	\$5.2	\$55.3
80—Professional Services	\$1.8	\$2.5	\$8.0	\$16.8	\$12.1	\$8.7	\$2.4	\$52.4
90—Unallocated Contingency	\$0.0	\$0.0	\$0.2	\$6.7	\$9.4	\$4.8	\$0.6	\$21.7
100—Finance Costs	\$0.0	\$0.0	\$2.8	\$3.2	\$7.1	\$6.6	\$0.0	\$19.7
Total (2019 \$)	\$1.8	\$2.5	\$11.2	\$93.3	\$130.8	\$70.6	\$8.2	\$318.4
Escalation Rates	1.00	1.00	1.04	1.07	1.11	1.15	1.19	
Total (YOE \$)	\$1.8	\$2.5	\$11.6	\$99.9	\$145.1	\$81.0	\$9.8	\$351.6

Totals may not sum due to rounding.

Contingencies

As described in the Capital Cost Methodology summary, the capital cost estimate includes a total contingency of \$69.8 million (2019\$) for both allocated and unallocated contingencies. This is equivalent to 30.5 percent of the base year dollars for all categories (cost categories 10 through 80) and 50.4 percent of the construction categories (cost categories 10 through 50).

- **Allocated Contingencies:** Table 7 summarizes the allocated contingencies included by SCC category to address the level of design, scope, and quantity definition at this phase of the Project. The amount of allocated contingency depends on the complexity of any particular item as well as the stage of engineering completion. As shown in Table 4, at this point of the Project Development process, the allocated contingencies for all cost categories and the total level of allocated contingency included in the capital cost estimate is 21.01 percent of total base year costs (2019\$). As part of FTA's risk assessment process, which will occur later in the Project Development process, individual contingencies will be evaluated and appropriate allocations based on the determined level of risk will be applied to the cost estimate.
- **Unallocated Contingency:** The unallocated contingency is included to address bid risk and construction risk in addition to the aforementioned allocated contingencies. Unallocated contingency is intended to address "unknown unknowns," to cover unanticipated events, including political events, labor strife, weather, differing site conditions, commodity pricing fluctuations, unfavorable market conditions, bid risk, etc.

A 9.48 percent unallocated contingency was applied to the total base year dollars (2019 \$) for cost categories 10 through 80.

Table 7. Allocated Contingency Assumptions

	SCC Category and Description	Allocated Contingency Percentage
10 GUIDEWAY & TRACK ELEMENTS (route miles)		21%
10.10	Track: Embedded	20%
10.12	Track: Special (switches, turnouts)	20%
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)		40%
20.01	At-grade station, stop, shelter, mall, terminal, platform	40%
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		30%
30.02	Light Maintenance Facility	30%
30.05	Yard and Yard Track	30%
40 SITEWORK & SPECIAL CONDITIONS		21%
40.01	Demolition, Clearing, Earthwork	36%
40.02	Site Utilities, Utility Relocation	15%
40.05	Site structures including retaining walls, sound walls	25%
40.06	Pedestrian / bike access and accommodation, landscaping	31%
40.07	Automobile, bus, van accessways including roads, parking lots	22%
40.08	Temporary Facilities and other indirect costs during construction	22%
50 SYSTEMS		22%
50.01	Train control and signals	20%
50.02	Traffic signals and crossing protection	25%
50.03	Traction power supply: substations	20%
50.04	Traction power distribution: catenary and third rail	20%
50.05	Communications	20%
50.07	Central Control	20%
Construction Subtotal (10 - 50)		23%
60 ROW, LAND, EXISTING IMPROVEMENTS		25%
70 VEHICLES (number)		39%
70.01	Light Rail	39%
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		28%
80.01	Project Development	0%
80.02	Engineering	40%
80.03	Project Management for Design and Construction	15%
80.04	Construction Administration & Management	15%
80.05	Professional Liability and other Non-Construction Insurance	0%
80.06	Legal; Permits; Review Fees by other agencies, cities, etc.	15%
80.07	Surveys, Testing, Investigation, Inspection	15%
80.08	Start up	15%

Subtotal (10 - 80)	26%
Professional Services	

Costs for professional services include elements such as project management, engineering, construction administration, insurance, inspections, fees/permits, and start-up costs (covering project initiation work such as training, site access, and protection work performed by agency staff and outside contractors). In some instances, these have been represented as a percentage of the construction cost, and in other cases as an assessment of commitments in place at the time and any anticipated adjustments. **Table 8** summarizes the percentages assumed in each subcategory in relation to the base year construction estimate (cost categories 10 through 50).

Table 8. Professional Services Percentage Assumptions

FTA Category No.	Description	Percent of Construction Costs
80.01	Project Development	2%
80.02	Engineering	22%
80.03	Project Management	5%
80.04	Construction Administration	7%
80.05	Professional Liability Insurance	0%
80.06	Legal/Permits	1%
80.07	Surveys, Testing, Inspection	1%
80.08	Start-Up	1%

2.2.1 Streetcar Extension Project Capital Funding Sources

- FTA Capital Investment Grant Program:** The Streetcar Extension Project is a fixed-guideway project that represents a substantial investment in a critical corridor within the KCMO. As such, the project partners are requesting \$174.1 million in New Starts funding from the Section 5309 CIG Program, representing approximately 49.5 percent of total project costs. **Table 11** reflects a preliminary assumption of the timing and use of New Starts funds, which is \$87.03 million in both 2021 and 2022. The actual level and timing will be negotiated with FTA as part of the New Starts Full Funding Grant Agreement (FFGA).

Local Sources: As stated in **Section 1.1**, the Extension TDD has been approved by voters within the District's boundaries. The Financial Plan assumes the Extension TDD will start generating revenue in 2020 and the first full year of revenue will be collected in 2021. This will follow the chronological milestones to activate the TDD including: (1) positive rating from the New Starts application; (2) approval into Engineering; and (3) recommended for funding by the Administration or Congress. As noted in Section 1.1, while these milestones are a condition precedent requirement that must be met before the Main Street TDD revenues start flowing, per the Committee Substitute for

Ordinance No. 190510 that was passed by the City Council on July 11, 2019, the City intends to issue special obligation bonds and not revenue bonds for the Project. By using special obligation bonds, the TDD revenues will not be the primary source of security for the debt so the condition precedent will not delay issuing bonds or negatively impact debt service payment.

A detailed description of all uses of the TDD revenue is provided in **Section 3**. For the Streetcar Extension Project, the Financial Plan reflects a combination of pay-as-you-go TDD funds and bond proceeds that will cover 50.5 percent of the total Project costs. For the bond proceeds, KCMO will issue a \$9.0 million Project Placement Bond in 2020 and a separate \$152.7 million bond in 2021. **Table 9** summarizes the financing assumptions included in the Financial Plan. **Table 10** outlines the anticipated debt service by year. Finally, as stated previously, the total Project cost includes \$21.8 million in finance costs that are eligible for FTA reimbursement under the CIG Program. The finance costs include both issuance costs and annual interest payments through the end of construction activities. The grey-shaded rows in **Table 9** and grey-shaded columns in **Table 10** highlight the source of the \$21.7 million finance cost estimate.

Table 9. Financing Assumptions ¹

	2020 Appropriation (Placement)	2021 Appropriation (Market Issuance)	Combined Total	Notes
Financing Date	4/1/2020	4/1/2021		
Financing Proceeds	\$9,000,000	\$152,700,000	\$161,700,000	
Estimated Par Size	\$9,115,000	\$152,105,000	\$161,220,000	Placement assumes par issuance without a funded debt service reserve fund. Market issuance sizing assumes generated premium and all costs of issuance, underwriting spread and funded debt service reserve fund.
Final Maturity	9/1/2030	9/1/2050		Debt service reserve fund attributable to final maturity.
Anticipated Rating	AA-/A1 Category	AA-/A1 Category	AA-/A1 Category	City's current annual appropriation rating
Estimated Cost of Issuance ²	\$115,000	\$500,000	\$615,000	Estimated, excludes underwriting fees (if applicable)
Estimated Underwriter's Discount ²	n/a	\$1,216,840		Based on assumed \$8 per bond, subject to change.
Effective Interest Rate	3.58%	4.41%		Based on All-in TIC (AIC)
Est. Annual Debt Service	\$1,102,443	\$9,765,482	\$10,867,925	Placement assumes level annual debt service. Market issuance structured to provide for uniform coverage, debt service not level.

Total Projected Debt Service (Gross)	\$11,024,430	\$287,081,354	\$298,105,784
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¹ Assumptions are preliminary and subject to change.

² Included in SCC 100 – Finance Costs

Table 10. Streetcar Extension Project Debt Service Assumptions

Year	Series 2020 - \$9mm Proceeds			Series 2021 - \$152.7mm Proceeds			Combined - \$161.7 mm Proceeds		
	P	I	DS	P	I	DS	P	I	DS
2020	\$0.67	\$0.43	\$1.10				\$0.67	\$0.43	\$1.10
2021	\$0.82	\$0.28	\$1.10	\$0.00	\$3.17	\$3.17	\$0.82	\$3.45	\$4.27
2022	\$0.85	\$0.26	\$1.10	\$5.12	\$7.61	\$12.72	\$5.96	\$7.86	\$13.82
2023	\$0.88	\$0.23	\$1.10	\$5.48	\$7.35	\$12.83	\$6.36	\$7.58	\$13.93
2024	\$0.91	\$0.20	\$1.10	\$5.98	\$7.08	\$13.05	\$6.88	\$7.27	\$14.15
2025	\$0.94	\$0.17	\$1.10	\$1.36	\$6.78	\$8.14	\$2.30	\$6.94	\$9.24
2026	\$0.97	\$0.14	\$1.10	\$1.54	\$6.71	\$8.24	\$2.50	\$6.84	\$9.34
2027	\$1.00	\$0.10	\$1.10	\$1.60	\$6.63	\$8.23	\$2.60	\$6.74	\$9.33
2028	\$1.04	\$0.07	\$1.11	\$2.07	\$6.55	\$8.62	\$3.11	\$6.62	\$9.73
2029	\$1.07	\$0.04	\$1.10	\$2.43	\$6.45	\$8.88	\$3.50	\$6.48	\$9.98
2030				\$2.66	\$6.33	\$8.98	\$2.66	\$6.33	\$8.98
2031				\$3.86	\$6.19	\$10.05	\$3.86	\$6.19	\$10.05
2032				\$4.15	\$6.00	\$10.15	\$4.15	\$6.00	\$10.15
2033				\$4.32	\$5.79	\$10.11	\$4.32	\$5.79	\$10.11
2034				\$4.63	\$5.58	\$10.20	\$4.63	\$5.58	\$10.20
2035				\$4.81	\$5.35	\$10.15	\$4.81	\$5.35	\$10.15
2036				\$5.13	\$5.11	\$10.24	\$5.13	\$5.11	\$10.24
2037				\$5.31	\$4.85	\$10.16	\$5.31	\$4.85	\$10.16
2038				\$9.96	\$4.59	\$14.55	\$9.96	\$4.59	\$14.55
2039				\$6.22	\$4.09	\$10.30	\$6.22	\$4.09	\$10.30
2040				\$6.53	\$3.78	\$10.30	\$6.53	\$3.78	\$10.30
2041				\$6.78	\$3.45	\$10.23	\$6.78	\$3.45	\$10.23
2042				\$7.11	\$3.11	\$10.22	\$7.11	\$3.11	\$10.22
2043				\$7.39	\$2.76	\$10.14	\$7.39	\$2.76	\$10.14
2044				\$7.74	\$2.39	\$10.12	\$7.74	\$2.39	\$10.12
2045				\$8.10	\$2.00	\$10.09	\$8.10	\$2.00	\$10.09
2046				\$5.13	\$1.59	\$6.72	\$5.13	\$1.59	\$6.72
2047				\$5.29	\$1.34	\$6.62	\$5.29	\$1.34	\$6.62
2048				\$5.44	\$1.07	\$6.51	\$5.44	\$1.07	\$6.51
2049				\$6.07	\$0.80	\$6.87	\$6.07	\$0.80	\$6.87
2050				\$9.98	\$0.50	\$10.48	\$9.98	\$0.50	\$10.48
Total	\$9.12	\$1.91	\$11.02	\$152.11	\$134.98	\$287.08	\$161.22	\$136.89	\$298.11

Note: Tax-exempt eligibility subject to review and determination by bond/tax counsel. Estimated coverage for illustration only; actual coverage level dependent on credit ratings and investor marketability.

2.2.2 Streetcar Extension Project Sources and Uses Summary

The proposed sources of funds, by year, for the Project are summarized in **Table 11**. As the local funding source (TDD Revenues) is considered “Committed,” the Project is fully funded, assuming receipt of \$174.1 million from the FTA Section 5309 New Starts program.

Table 11. Streetcar Extension Project Sources and Uses Summary
(YOE \$, in millions)

Uses	2018	2019	2020	2021	2022	2023	2024	Total
Streetcar Ext Costs	\$1.85	\$2.50	\$8.70	\$96.46	\$137.19	\$73.41	\$9.76	\$329.87
Finance Costs			\$2.88	\$3.45	\$7.86	\$7.58	\$0.00	\$21.77
Total	\$1.85	\$2.50	\$11.57	\$99.91	\$145.05	\$80.99	\$9.76	\$351.63

Sources	2018	2019	2020	2021	2022	2023	2024	Total
Federal	\$0.00	\$0.00	\$0.00	\$87.03	\$87.03	\$0.00	\$0.00	\$174.06
New Starts				\$87.03	\$87.03			\$174.06
Local	\$1.85	\$2.50	\$11.57	\$12.88	\$58.02	\$80.99	\$9.76	\$177.58
TDD: Pre-Construction	\$1.85	\$2.50						\$4.35
TDD: 2020 Series			\$8.70	\$0.30				\$9.00
TDD: 2021 Series				\$12.26	\$54.05	\$76.62	\$9.76	\$152.70
TDD: Finance Costs			\$2.88	\$0.32	\$3.97	\$4.37		\$11.53
Total	\$1.85	\$2.50	\$11.57	\$99.91	\$145.05	\$80.99	\$9.76	\$351.63
Ending Balance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Note: Totals may not sum due to rounding.

2.3 State of Good Repair Program

This section discusses KCSA’s historic and forecasted capital sources and uses of funds. First, a brief overview is provided of the FY 2016 to FY 2019 capital program included in the Financial Plan. The section then presents historical sources of funds, followed by a discussion of the projections for the proposed sources.

2.3.1 Historic Expenses

Because the Starter line opened for service in May 2016, the historical capital costs and revenues that are typical of other transit systems are not available for the KCSA. **Table 12** provides a summary of costs prior to and through the first four years of operations. As shown in the table, capital costs have ranged from \$0.1 million to \$4.8 million. Capital costs in 2016

and 2019 reflect expenses related to periodic (biannual) capital maintenance per manufacturers' specifications. A combination of TDD revenue, the City's contribution, and advertising revenue has been used to pay for capital expenses over this period.

Table 12. Historical Capital Costs and Revenues (YOY \$, in millions)

	2015	2016	2017	2018	2019
Capital Expenses					
Annual Costs	\$0.102	\$2.296	\$0.500	\$3.134	\$4.785
Capital Revenues					
Annual Revenue	\$0.102	\$2.296	\$0.500	\$3.134	\$4.785

2.3.2 SGR Sources and Uses Forecast

- **Sources:** The Financial Plan reflects an assumption that on an annual basis, a portion of the TDD revenue is directly allocated to support SGR investments. (Note that a separate portion of the TDD revenue would support ongoing operations and maintenance costs, which is described in Section 3.) Specifically, beginning in 2020, the Starter Line would receive \$0.25 million, and this level would grow about 2.5 percent annually. Similarly, beginning in 2025, the Streetcar Extension Project would receive \$0.57 million, which would increase approximately 2.5 percent annually.
- **Uses:** As shown in **Table 13**, the Financial Plan includes allowances for SGR investments related to vehicle overhauls, traction power substation, track / right-of-way (ROW), and facility improvements. Additional details on the SGR allowances are summarized below:
 - Vehicle overhauls will follow the manufacturers' recommended expense schedule through 2026. Beginning in 2027, these costs increase 3 percent annually.
 - Track and Facility costs are assumed to increase 3 percent annually while still under warranty and then 5 percent per year thereafter.
 - Traction Power Substation costs are assumed to increase 3 percent annually.

As shown in **Table 14**, based on the assumptions for TDD Capital Allocation and for the SGR investments, revenues exceed costs on an annual basis and a cumulative ending balance grows to \$9.2 million in 2040.

Table 13. SGR Program Sources and Uses (YOY \$, in millions)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
SGR Program Sources										
Starter Line SGR TDD Capital Allocation	\$0.25	\$0.26	\$0.26	\$0.28	\$0.28	\$0.29	\$0.30	\$0.30	\$0.31	\$0.32
Streetcar Extension SGR TDD Capital Allocation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.57	\$0.58	\$0.60	\$0.61	\$0.63
Total SGR Program Sources	\$0.25	\$0.26	\$0.26	\$0.28	\$0.28	\$0.86	\$0.88	\$0.90	\$0.92	\$0.95
SGR Program Uses										
Starter Line	-\$0.11	-\$0.13	-\$0.11	-\$0.12	-\$0.37	-\$0.12	-\$0.13	-\$0.16	-\$0.14	-\$0.39
Vehicle Overhaul	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.28	-\$0.06	-\$0.06	-\$0.06	-\$0.06	-\$0.31
TPPS/Sub	\$0.00	-\$0.02	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00
Track/ROW	-\$0.04	-\$0.04	-\$0.04	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.06	-\$0.06
Facility	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02	-\$0.02
Streetcar Extension						-\$0.18	-\$0.18	-\$0.23	-\$0.20	-\$0.79
Vehicle Overhaul						-\$0.06	-\$0.06	-\$0.06	-\$0.06	-\$0.64
TPPS/Sub						\$0.00	\$0.00	-\$0.04	\$0.00	\$0.00
Track/ROW						-\$0.10	-\$0.10	-\$0.11	-\$0.11	-\$0.12
Facility						-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03
SGR Costs						-\$0.30	-\$0.31	-\$0.39	-\$0.34	-\$1.18
Ending Balance	\$0.25	\$0.26	\$0.26	\$0.28	\$0.28	\$0.56	\$0.57	\$0.51	\$0.58	(\$0.23)
Cumulative Ending Balance	\$0.25	\$0.51	\$0.77	\$1.04	\$1.33	\$1.89	\$2.45	\$2.96	\$3.55	\$3.31

Table 14. SGR Program Sources and Uses (YOE \$, in millions)

	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
SGR Program											
Starter Line SGR TDD Capital Allocation	\$0.33	\$0.34	\$0.34	\$0.35	\$0.36	\$0.37	\$0.38	\$0.39	\$0.40	\$0.41	\$0.42
Streetcar Extension SGR TDD Capital Allocation	\$0.64	\$0.66	\$0.67	\$0.69	\$0.71	\$0.73	\$0.74	\$0.76	\$0.78	\$0.80	\$0.82
Total SGR Program Sources	\$0.97	\$0.99	\$1.02	\$1.04	\$1.07	\$1.10	\$1.12	\$1.15	\$1.18	\$1.21	\$1.24
SGR Program											
Starter Line	-\$0.15	-\$0.19	-\$0.16	-\$0.17	-\$0.18	-\$0.22	-\$0.47	-\$0.20	-\$0.21	-\$0.25	-\$0.23
Vehicle Overhaul	-\$0.06	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.36	-\$0.08	-\$0.08	-\$0.08	-\$0.09
TPPS/Sub	\$0.00	-\$0.03	\$0.00	\$0.00	\$0.00	-\$0.03	\$0.00	\$0.00	\$0.00	-\$0.04	\$0.00
Track/ROW	-\$0.06	-\$0.06	-\$0.07	-\$0.07	-\$0.07	-\$0.08	-\$0.08	-\$0.09	-\$0.09	-\$0.09	-\$0.10
Facility	-\$0.02	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.04	-\$0.04	-\$0.04
Streetcar Extension	-\$0.22	-\$0.27	-\$0.24	-\$0.25	-\$0.26	-\$0.32	-\$0.97	-\$0.29	-\$0.31	-\$0.37	-\$0.33
Vehicle Overhaul	-\$0.06	-\$0.06	-\$0.07	-\$0.07	-\$0.07	-\$0.07	-\$0.76	-\$0.07	-\$0.08	-\$0.08	-\$0.08
TPPS/Sub	\$0.00	-\$0.04	\$0.00	\$0.00	\$0.00	-\$0.05	\$0.00	\$0.00	\$0.00	-\$0.05	\$0.00
Track/ROW	-\$0.12	-\$0.13	-\$0.13	-\$0.14	-\$0.15	-\$0.16	-\$0.16	-\$0.17	-\$0.18	-\$0.19	-\$0.20
Facility	-\$0.03	-\$0.04	-\$0.04	-\$0.04	-\$0.04	-\$0.04	-\$0.05	-\$0.05	-\$0.05	-\$0.05	-\$0.06
SGR Costs	-\$0.37	-\$0.46	-\$0.40	-\$0.42	-\$0.43	-\$0.53	-\$1.44	-\$0.49	-\$0.51	-\$0.62	-\$0.56
Ending Balance	\$0.60	\$0.54	\$0.62	\$0.63	\$0.64	\$0.56	(\$0.32)	\$0.66	\$0.67	\$0.59	\$0.68
Cumulative Ending Balance	\$3.92	\$4.45	\$5.07	\$5.70	\$6.34	\$6.90	\$6.59	\$7.25	\$7.92	\$8.50	\$9.19

3.0 System-wide Operating Plan

The operating plan reflects KCSA's 2020 Budget, existing service levels and the initial operating plan's start of service on the Streetcar Extension Project.

Table 16 summarizes the annual operating sources and uses over the 2020 to 2040 period. As shown in the table, based on the assumptions described below, annual operating revenues will exceed operating costs in every year, providing net revenues to pay for existing and planned debt service payments. The Financial Plan projects that on an annual basis, the average net revenue available before existing debt service is \$16.6 million. **Table 16** also summarizes the existing and planned debt that will be funded using the net revenue after operations.

In the first full year of the Streetcar Extension Project's service (2025), 100 percent of revenues used for operations are considered budgeted or committed as the revenues will be TDD-generated revenue, the City's annual contribution, and advertising revenue. Further, the cumulative ending balance in 2025 is projected to be \$40.0 million, which would provide KCSA access to cash to cover over a 100-percent increase in agency-wide operating costs. This cumulative ending balance estimate is after accounting for annual debt service payments for KCSA existing bonds and leases, planned bonds to support implementing the Streetcar Extension Project, and the state of good repair investments.

3.1 Historical Costs and Service Levels

Table 15 summarizes annual Starter Line streetcar revenue hours, costs and calculated costs per hour since service started in 2016.

Table 15. Historic Service Levels, Costs and Cost per Hour

	2016	2017	2018	2019
Revenue Hours	17,524	17,524	17,524	20,260
Annual Costs (in millions)	\$1.88	\$3.26	\$3.62	\$4.72
Cost/Hour	\$107.42	\$185.89	\$206.67	\$233.12

Table 16. Projected Operating Sources and Uses: 2020 to 2040 (YOE \$, in millions)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Sources											
Operating Revenues	\$14.40	\$28.86	\$29.30	\$29.59	\$30.03	\$30.33	\$30.80	\$31.11	\$31.59	\$31.91	\$32.40
Sales Tax	\$7.88	\$19.23	\$19.52	\$19.81	\$20.11	\$20.41	\$20.72	\$21.03	\$21.34	\$21.66	\$21.99
Starter Line Property Assessment	\$4.21	\$4.21	\$4.29	\$4.29	\$4.38	\$4.38	\$4.47	\$4.47	\$4.56	\$4.56	\$4.65
Streetcar Ext Property Assessment	\$0.00	\$3.11	\$3.17	\$3.17	\$3.23	\$3.23	\$3.30	\$3.30	\$3.36	\$3.36	\$3.43
Parking Assessment	\$0.12	\$0.12	\$0.11	\$0.11	\$0.10	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09
City Contribution	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04
Advertising	\$0.15	\$0.16	\$0.16	\$0.17	\$0.17	\$0.17	\$0.18	\$0.18	\$0.19	\$0.19	\$0.20
Operating Uses											
Operating Costs	-\$4.96	-\$11.32	-\$6.48	-\$6.64	-\$6.80	-\$13.12	-\$13.45	-\$13.79	-\$14.13	-\$14.48	-\$14.84
O&M Costs	-\$4.84	-\$6.20	-\$6.35	-\$6.51	-\$6.67	-\$12.99	-\$13.32	-\$13.65	-\$13.99	-\$14.34	-\$14.70
District Administrative Costs	-\$0.12	-\$0.12	-\$0.13	-\$0.13	-\$0.13	-\$0.13	-\$0.13	-\$0.14	-\$0.14	-\$0.14	-\$0.14
Repayment of Preliminary Advanced Cost	\$0.00	-\$5.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Revenue Before Debt Service	\$9.44	\$17.54	\$22.82	\$22.95	\$23.23	\$17.21	\$17.35	\$17.33	\$17.46	\$17.43	\$17.56
Debt Service											
Total Existing Debt Service	-\$5.05	-\$3.67	-\$4.80	-\$4.80	-\$4.81	-\$4.81	-\$4.81	-\$4.81	-\$4.52	-\$4.24	-\$4.25
Starter Line Bond Debt Service	-\$4.48	-\$3.10	-\$4.22	-\$4.23	-\$4.23	-\$4.23	-\$4.24	-\$4.24	-\$4.24	-\$4.24	-\$4.25
2015 Lease	-\$0.57	-\$0.57	-\$0.57	-\$0.57	-\$0.57	-\$0.57	-\$0.57	-\$0.57	-\$0.29	\$0.00	\$0.00
Streetcar Extension Debt Service	\$0.00	-\$4.27	-\$13.82	-\$13.93	-\$14.15	-\$9.24	-\$9.35	-\$9.33	-\$9.73	-\$9.98	-\$10.08
Series 2020 (\$9.0 M)	\$0.00	-\$1.10	-\$1.10	-\$1.10	-\$1.10	-\$1.10	-\$1.10	-\$1.10	-\$1.10	-\$1.11	-\$1.10
Series 2021 (\$152.7 M)	\$0.00	-\$3.17	-\$12.72	-\$12.83	-\$13.05	-\$8.14	-\$8.24	-\$8.23	-\$8.62	-\$8.88	-\$8.98
Net Revenue After Debt Service	\$4.38	\$9.60	\$4.20	\$4.22	\$4.27	\$3.16	\$3.19	\$3.18	\$3.21	\$3.20	\$3.23

Table 14. Projected Operating Sources and Uses: 2020 to 2040 (YOE \$, in millions)

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2031
Operating Sources											
Operating Revenues	\$32.73	\$33.24	\$33.58	\$34.10	\$34.45	\$34.98	\$35.35	\$35.89	\$31.14	\$31.60	\$32.73
Sales Tax	\$22.32	\$22.65	\$22.99	\$23.34	\$23.69	\$24.04	\$24.41	\$24.77	\$25.14	\$25.52	\$22.32
Starter Line Property Assessment	\$4.65	\$4.74	\$4.74	\$4.83	\$4.83	\$4.93	\$4.93	\$5.03	\$0.00	\$0.00	\$4.65
Streetcar Ext Property Assessment	\$3.43	\$3.50	\$3.50	\$3.57	\$3.57	\$3.64	\$3.64	\$3.71	\$3.71	\$3.79	\$3.43
Parking Assessment	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.00	\$0.00	\$0.09
City Contribution	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04	\$2.04
Advertising	\$0.20	\$0.21	\$0.21	\$0.22	\$0.22	\$0.23	\$0.23	\$0.24	\$0.25	\$0.25	\$0.20
Operating Uses											
Operating Costs	-\$15.21	-\$15.59	-\$15.98	-\$16.38	-\$16.78	-\$17.20	-\$17.63	-\$18.07	-\$18.52	-\$18.98	-\$15.21
O&M Costs	-\$15.07	-\$15.44	-\$15.83	-\$16.23	-\$16.63	-\$17.05	-\$17.47	-\$17.91	-\$18.36	-\$18.82	-\$15.07
District Administrative Costs	-\$0.14	-\$0.15	-\$0.15	-\$0.15	-\$0.15	-\$0.15	-\$0.16	-\$0.16	-\$0.16	-\$0.16	-\$0.14
Repayment of Preliminary Advanced Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Revenue Before Debt Service	\$17.52	\$17.65	\$17.60	\$17.72	\$17.67	\$17.78	\$17.72	\$17.82	\$12.62	\$12.62	\$17.52
Debt Service											
Total Existing Debt Service	-\$4.25	-\$4.25	-\$4.26	-\$4.26	-\$4.27	-\$4.27	-\$4.31	\$0.00	\$0.00	\$0.00	-\$4.25
Starter Line Bond Debt Service	-\$4.25	-\$4.25	-\$4.26	-\$4.26	-\$4.27	-\$4.27	-\$4.31	\$0.00	\$0.00	\$0.00	-\$4.25
2015 Lease	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Streetcar Extension Debt Service	-\$10.05	-\$10.15	-\$10.11	-\$10.20	-\$10.15	-\$10.24	-\$10.16	-\$14.55	-\$10.30	-\$10.30	-\$10.05
Series 2020 (\$9.0 M)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Series 2021 (\$152.7 M)	-\$10.05	-\$10.15	-\$10.11	-\$10.20	-\$10.15	-\$10.24	-\$10.16	-\$14.55	-\$10.30	-\$10.30	-\$10.05
Net Revenue After Debt Service	\$3.22	\$3.24	\$3.24	\$3.26	\$3.25	\$3.27	\$3.26	\$3.28	\$2.32	\$2.32	\$3.22

3.2 Operating Cost Estimate Methodology and Results

The Financial Plan includes two categories of expenses in the Operating Plan: administrative costs and ongoing operations and maintenance (O&M). Administrative costs were estimated to be \$120,000 for 2020. This amount includes estimated legal fees, accounting fees, Director and Officer Liability insurance premium, and cost of the annually required election of Directors. Beyond 2020, administrative costs are forecasted to increase 1.5 percent annually.

The following provides an overview of the methodology used to forecast annual O&M costs for the Streetcar Extension Project combined with the existing Starter Line service.

3.2.1 Main Street Extension Operating Plan

The streetcar system (Starter Line plus Streetcar Extension Project) will operate over 17.5 hours per day, seven days per week, for 365 days per year. The service schedule is set to align with existing transit operations (bus and Max services) and the schedule of operation is reported in **Table 17**.

Table 17. Service Schedule Assumptions

Day of Week	Start Time	End Time	Hours per Day
Monday through Thursday	4:00 AM	12:00 AM	20
Friday	4:00 AM	2:00 AM	22
Saturday	5:00 AM	2:00 AM	21
Sunday	5:30 AM	11:00 PM	17.5

The corresponding operating characteristics are provided in **Table 17**. As shown in the table, the service schedule and operating assumptions will result in 43,056 annual revenue hours. The Financial Plan assumes this level of service will be maintained through 2040, as shown in **Table 19**.

Table 18. Project Operating Characteristics

Operating Characteristics	Mon - Thurs	Fri	Sat	Sun
Average Speed	8-15 miles per hour for 7 miles per trip			
Layover	8 minutes			
Headway	10-12 minutes (30 early a.m.)	12-15 minutes (20 early a.m.)	12-18 minutes (30 early a.m.)	
Round Trip Cycle Time	58-63 minutes			
Required Vehicles	7*			
Days per Week	4	1	1	1
Hours per Day	20	22	21	17.5
Annual Hours (52 weeks)	26,000	7,228	5,720	4,108

*The capital cost accounts for 6 new vehicles, bringing the fleet to a total of 12 (8 peak, 4 spare). The system is expected to experience at least 25 "surge" days per year, during which 8 vehicles will be needed to serve demand and meet operating requirements; and the high spare ratio is based on KCSA's operating experience. The operating budget contingency accounts for the extra revenue-hours.

Table 19. Projected Revenue Hours

	Starter Line	Starter Line plus Streetcar Extension Project
2019	20,260	
2020	20,260	
2021	20,260	
2022	20,260	
2023	20,260	
2024	20,260	
2025		43,056
2026		43,056
2027		43,056
2028		43,056
2029		43,056
2030		43,056
2031		43,056
2032		43,056
2033		43,056
2034		43,056
2035		43,056
2036		43,056
2037		43,056
2038		43,056
2039		43,056

	Starter Line	Starter Line plus Streetcar Extension Project
2040		43,056

3.2.2 Incremental Cost Increase Estimate

Historical Starter Line streetcar operating expenses were used to develop the Streetcar Extension Project's operating expenses. Specifically, 2025 Starter Line costs are projected and a percentage markup is applied to estimate the total operating cost with the new extension. Though the extension will run over twice as many operating hours than the existing route, the operating cost will only be about twice as much because of economies of scale.

Beyond 2025, and as shown in **Table 16**, the Financial Plan assumes operating costs will increase approximately 2.5 percent per year.

Table 20. Incremental Cost Assumptions

EXPENSE	Starter Line	Streetcar Extension Incremental	Total
GENERAL MANAGEMENT AND ADMIN	\$1.5	\$0.7	\$2.2
Professional Services	\$0.1	\$0.1	\$0.2
Marketing and Communications	\$0.1	\$0.1	\$0.2
Insurance	\$0.4	\$0.3	\$0.7
Administrative	\$0.1	\$0.1	\$0.2
Payroll Expense	\$0.6	\$0.2	\$0.8
Management/ Admin Contingency	\$0.1	\$0.0	\$0.1
Operations and Maintenance	\$5.1	\$5.2	\$10.3
O&M Contract	\$4.2	\$4.8	\$8.9
Utilities	\$0.2	\$0.2	\$0.4
Supplemental Safety and Security	\$0.3	\$0.2	\$0.6
Operations Support (KCATA)	\$0.1	\$0.1	\$0.2
Operations Contingency	\$0.2	-\$0.1	\$0.2
Capital Program	\$0.4	\$0.2	\$0.5
Total Expense	\$6.9	\$6.1	\$13.0

3.2.3 Ridership Forecast

Based on the results of the FTA Simplified Trips-on-Project Software (STOPS) ridership model, the streetcar system (Starter Line plus Streetcar Extension Project) is projected to have 11,644 daily riders. Based on an annualization factor of 312 days, in the streetcar system is estimated to have 3.6 million annual riders. (See Travel Forecast Report for additional details.) As noted earlier, KCSA does not charge a fare on the streetcar. As such, the Financial Plan assumes no fare revenue for the streetcar system through 2040.

3.3 O&M Revenues

As described below, KCSA's systemwide revenues are provided from Downtown TDD (to be ultimately replaced by the Main Street TDD) and the City's contribution. **Figure 6** summarizes the forecasted \$657.4 million in total O&M revenue sources assumed in the Financial Plan over the FY 2020 to FY 2040 period. As shown in the figure, TDD revenues (sales tax, property assessment, and parking assessment) account for approximately 93 percent of total operating revenues. The remaining funds reflect the City's annual contribution and advertising revenue. All sources are considered budgeted or committed.

Figure 6. Projected Systemwide Operating Revenue (\$ in millions)
FY 2020 to FY 2040

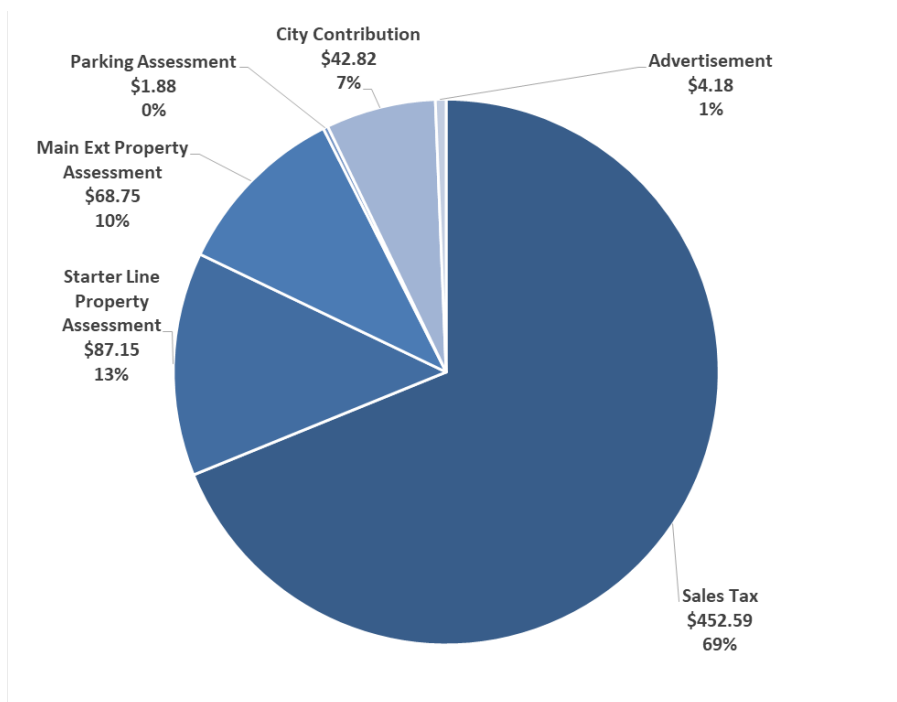


Table 21. Historical Operating Revenues: FY 2016 to FY 2019

	2016	2017	2018	2019
TDD Sales Tax @98%	\$5,458,896	\$5,681,927	\$6,387,300	\$6,509,606
TDD Property Assessment	\$4,195,257	\$5,012,299	\$3,616,877	\$4,186,077
TDD Parking Assessment	\$159,008	\$87,677	\$135,346	\$128,144
City Contribution	\$1,200,000	\$710,565	\$2,039,000	\$2,039,000
Advertising Revenue	-	-	\$194,000	\$260,000
Miscellaneous	\$98,599	\$117,819	\$214,610	\$457,459
Total Revenues	\$11,111,760	\$11,610,287	\$12,587,133	\$13,580,286

3.3.1 TDD Funds

The following provides an overview of the methodology used to forecast the different sources that make up the TDD revenue:

- **Main Street TDD Sales Tax:** First, in order to establish a baseline for the Main Street TDD Sales Tax Projection, sales tax revenue for calendar year 2017 was estimated as if the Main Street TDD had been in effect in 2017. This is comprised of two components, the first being the actual Starter Line TDD Sales Tax Revenue for 2017 (Actual 2017 TDD Sales Tax Revenue - Downtown), and the second component being projected 2017 sales tax revenue from the remainder of the area of Main Street TDD (Projected 2017 TDD Sales Tax Revenue – Expansion Area Only).

In order to determine the Projected 2017 TDD Sales Tax Revenue – Expansion Area Only, KCMO staff reviewed its 2012 general sales tax collection data for the area within the Main Street TDD that is not within the Starter Line TDD (excluding sales that are not subject to a TDD sales tax, such as utility charges) and applied a one percent sales tax against those 2012 TDD-taxable sales. The 2012 amount as so determined was increased through 2017 by 3 percent annually (the same average annual growth rate as City-wide sales tax over the same period). The Actual 2017 TDD Sales Tax Revenue - Downtown and the Projected 2017 TDD Sales Tax Revenue – Expansion Area Only were added together to determine the “Total Projected 2017 Main Street TDD Sales Tax Revenue.” The Total Projected 2017 Main Street TDD Sales Tax Revenue was grown to 2020 using a conservative 1.5 percent annual growth factor. However, because it is anticipated that 2019 will be a transition year between the Starter Line TDD and the Main Street TDD, the projection for 2019 assumes the Total Projected 2017 Main Street TDD Sales Tax Revenue will be derived 75 percent from the Starter Line TDD, and 25 percent from the Main Street TDD. In addition, the otherwise projected 2019 Main Street TDD Sales Tax revenue has been reduced by \$2 million to account for reimbursement of costs advanced prior to the commencement of collection of revenue of the Main Street TDD. Thereafter, commencing from 2020, an annual growth factor of 1.5 percent has been applied for the remainder of the 30-year life of the Main Street TDD Sales Tax.

The Main Street TDD Sales Tax Projection does not include any additional growth factor for taxable sales attributable to the anticipated new business development within the Main Street TDD, although such additional growth is anticipated. As an example of why this is likely a conservative assumption, during the period 2013 to 2017 (end of fiscal year), TDD sales tax revenue in the Starter Line TDD grew 10.8 percent per year, as compared to a 5.1 percent sales tax revenue growth rate City-wide.

- **Extension TDD Special Assessments:** In order to establish a baseline for the projection of Main Street TDD Real Estate Assessments, KCMO staff calculated the revenue that would be derived from the Extension TDD Property Assessments if such assessments were imposed in 2018, based on actual assessable value of properties anticipated to be subject to such assessments. It was assumed that the special assessments of the Starter Line TDD imposed in 2018 would be applied toward the combined expanded project, and that the Extension TDD Real Estate Assessments would first be imposed in 2019 (payable in December 2019 and included in 2020 revenue). It was also assumed that the Extension TDD Real Estate Assessments would continue in the yellow area on **Figure 2** for 25 years (i.e., providing revenue through 2044) and in the green area on **Figure 2** for 19 years (i.e., providing revenue through 2038) to account for the 6 years during which property owners in the Starter Line TDD paid such assessments imposed by the Starter Line TDD. Because real property is reassessed by Jackson County, Missouri biannually each odd year, the 2018 assessable value amounts were then grown by two percent biannually starting in 2019 (2020 revenue). The projection of the Extension TDD Real Estate Assessments does not include any additional growth factor attributable to the anticipated additional real estate development within the Extension TDD, although such additional growth is anticipated. The pendency of the Extension Line has already led to development proposals within the yellow area on **Figure 2** that developers are attributing to the potential Extension Line.

Regarding the projection of Extension TDD Pay Parking Lot Assessments, it has been determined that there are no surface pay parking spaces subject to such assessment other than in the portion of the Extension TDD that is within the Starter Line TDD boundary. The actual assessment revenue expected for 2019 based on actual 2018 assessable pay parking spaces has been used for 2019 revenue, and then that amount has been reduced by five percent annually through 2025, at which point it remains level at the 2025 projected amount until 2038, at which time that revenue ceases (to account for the six years during which property owners in the Starter Line TDD paid such assessments imposed by the Starter Line TDD).

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Table 22. Projected TDD Revenues by Source: 2019 to 2045
(YOY \$, in millions)

Year	Sales Tax	PROPERTY ASSESSMENT 1/3 MILE (RECEIVED JANUARY OF YEAR INDICATED)		
		Starter Line TDD	Extension TDD	Surface Parking Assessments
2019	\$6.19	\$4.13	\$0.00	\$0.13
2020	\$7.88	\$4.21	\$0.00	\$0.12
2021	\$19.23	\$4.21	\$3.11	\$0.12
2022	\$19.52	\$4.29	\$3.17	\$0.11
2023	\$19.81	\$4.29	\$3.17	\$0.11
2024	\$20.11	\$4.38	\$3.23	\$0.10
2025	\$20.41	\$4.38	\$3.23	\$0.09
2026	\$20.72	\$4.47	\$3.30	\$0.09
2027	\$21.03	\$4.47	\$3.30	\$0.09
2028	\$21.34	\$4.56	\$3.36	\$0.09
2029	\$21.66	\$4.56	\$3.36	\$0.09
2030	\$21.99	\$4.65	\$3.43	\$0.09
2031	\$22.32	\$4.65	\$3.43	\$0.09
2032	\$22.65	\$4.74	\$3.50	\$0.09
2033	\$22.99	\$4.74	\$3.50	\$0.09
2034	\$23.34	\$4.83	\$3.57	\$0.09
2035	\$23.69	\$4.83	\$3.57	\$0.09
2036	\$24.04	\$4.93	\$3.64	\$0.09
2037	\$24.41	\$4.93	\$3.64	\$0.09
2038	\$24.77	\$5.03	\$3.71	\$0.09
2039	\$25.14		\$3.71	
2040	\$25.52		\$3.79	
2041	\$25.90		\$3.79	
2042	\$26.29		\$3.86	
2043	\$26.69		\$3.86	
2044	\$27.09		\$3.86	
2045	\$27.49		\$3.94	
Total	\$592.24	\$91.27	\$88.07	\$2.01

3.3.2 Other Operating Funds Sources

Other operating funds include annual contributions for KCMO and forecasted revenue levels for advertising.

- **City Contribution:** KCMO provides an annual financial contribution to the debt service and O&M costs of the Starter Line in the amount of \$2.039 million per year (the City Contribution). It is expected that KCMO will continue to provide this same level of annual contribution once the Streetcar Extension Project is constructed and operational. The funds are approved as part of KCMO's annual budget process.
- **Advertising:** As shown in **Table 21**, KCSA began collecting advertising revenue in 2019 (\$0.19 million). The Financial Plan assumes this source will increase 2.5 percent annually.

3.4 Debt Service Coverage Ratio

Table 23 summarizes the debt service schedule for KCSA's existing and planned bonds and leases. The Existing Series 2014A bonds were issued to support construction of the Starter Line and will be repaid in 2037. The Existing Streetcar Lease is debt service on the City's lease purchase financing for one of the two streetcars for the Starter Line. As shown previously in **Table 9**, to support construction of the Streetcar Extension Project, the current financial strategy reflects KCMO issuing \$161.7 million in bonds during 2020 and 2021. Based on the projected net operating revenue available after operating expenses, the combined coverage ratio for existing and planned debt is projected to be approximately 1.23 through 2040 with higher coverage ratios in 2020 and 2021.

Table 23. Debt Service Schedules and Coverage Ratio: 2020 to 2040
(YOY \$, in millions)

Year	Projected Revenues Available for Debt Service	Annual Debt Service				Combined Debt Service	Combined Coverage
		Streetcar Lease	\$9 million Project Placement	Refunding of Series 2014A	Planned Main Street Ext Series 2021		
2020	\$9.44	\$0.57	\$0.00	\$4.48	\$0.00	\$5.05	1.87
2021	\$17.54	\$0.57	\$1.10	\$3.10	\$3.17	\$7.94	2.21
2022	\$22.82	\$0.57	\$1.10	\$4.22	\$12.72	\$18.62	1.23
2023	\$22.95	\$0.57	\$1.10	\$4.23	\$12.83	\$18.73	1.23
2024	\$23.23	\$0.57	\$1.10	\$4.23	\$13.05	\$18.96	1.23
2025	\$17.21	\$0.57	\$1.10	\$4.23	\$8.14	\$14.05	1.23
2026	\$17.35	\$0.57	\$1.10	\$4.24	\$8.24	\$14.16	1.23
2027	\$17.33	\$0.57	\$1.10	\$4.24	\$8.23	\$14.14	1.23
2028	\$17.46	\$0.29	\$1.10	\$4.24	\$8.62	\$14.25	1.23
2029	\$17.43	\$0.00	\$1.11	\$4.24	\$8.88	\$14.23	1.23
2030	\$17.56	\$0.00	\$1.10	\$4.25	\$8.98	\$14.33	1.23
2031	\$17.52	\$0.00	\$0.00	\$4.25	\$10.05	\$14.30	1.23
2032	\$17.65	\$0.00	\$0.00	\$4.25	\$10.15	\$14.40	1.23
2033	\$17.60	\$0.00	\$0.00	\$4.26	\$10.11	\$14.37	1.23
2034	\$17.72	\$0.00	\$0.00	\$4.26	\$10.20	\$14.46	1.23
2035	\$17.67	\$0.00	\$0.00	\$4.27	\$10.15	\$14.42	1.23
2036	\$17.78	\$0.00	\$0.00	\$4.27	\$10.24	\$14.51	1.23
2037	\$17.72	\$0.00	\$0.00	\$4.31	\$10.16	\$14.46	1.23
2038	\$17.82	\$0.00	\$0.00	\$0.00	\$14.55	\$14.55	1.23
2039	\$12.62	\$0.00	\$0.00	\$0.00	\$10.30	\$10.30	1.23
2040	\$12.62	\$0.00	\$0.00	\$0.00	\$10.30	\$10.30	1.22

4.0 Financial Plan Summary

Table 24 provides a summary of the 20-year agency-wide cash flow. As shown in the table, based on the assumptions described in the prior sections, both the operating plan and capital plan are fully funded through annual revenues and transfers from the cumulative available balances.

Table 24. Agency-Wide Cash Flow: 2020 to 2040
(YOE \$, in millions)

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating											
Operating Revenue	\$14.40	\$28.86	\$29.30	\$29.59	\$30.03	\$30.33	\$30.80	\$31.11	\$31.59	\$31.91	\$32.40
Operating Expenses	(\$4.96)	(\$11.32)	(\$6.48)	(\$6.64)	(\$6.80)	(\$13.12)	(\$13.45)	(\$13.79)	(\$14.13)	(\$14.48)	(\$14.84)
Net Revenue Before Debt Service	\$9.44	\$17.54	\$22.82	\$22.95	\$23.23	\$17.21	\$17.35	\$17.33	\$17.46	\$17.43	\$17.56
Debt Service											
Combined Debt Service	(\$5.05)	(\$3.67)	(\$4.80)	(\$4.80)	(\$4.81)	(\$4.81)	(\$4.81)	(\$4.81)	(\$4.52)	(\$4.24)	(\$4.25)
Annual Net Revenue Available for Capital	\$4.38	\$13.87	\$18.02	\$18.15	\$18.42	\$12.40	\$12.54	\$12.51	\$12.93	\$13.19	\$13.31
Capital											
Capital Revenues	\$8.70	\$99.60	\$141.08	\$76.62	\$9.76	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Capital Expenses	(\$8.80)	(\$100.87)	(\$151.13)	(\$87.46)	(\$24.28)	(\$9.54)	(\$9.66)	(\$9.72)	(\$10.06)	(\$11.17)	(\$10.45)
Annual Capital Ending Balance	(\$0.11)	(\$1.27)	(\$10.05)	(\$10.84)	(\$14.52)	(\$9.54)	(\$9.66)	(\$9.72)	(\$10.06)	(\$11.17)	(\$10.45)
Overall Ending Balance											
Annual Balance	\$4.28	\$12.60	\$7.97	\$7.31	\$3.90	\$2.87	\$2.88	\$2.79	\$2.87	\$2.02	\$2.86
Cumulative Balance	\$4.28	\$16.88	\$24.85	\$32.16	\$36.06	\$38.92	\$41.80	\$44.59	\$47.46	\$49.48	\$52.35

Table 24. Agency-Wide Cash Flow: 2020 to 2040
(\$ in millions)

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Total
Operating											
Operating Revenue	\$32.73	\$33.24	\$33.58	\$34.10	\$34.45	\$34.98	\$35.35	\$35.89	\$31.14	\$31.60	\$657.37
Operating Expenses	(\$15.21)	(\$15.59)	(\$15.98)	(\$16.38)	(\$16.78)	(\$17.20)	(\$17.63)	(\$18.07)	(\$18.52)	(\$18.98)	(\$290.35)
Net Revenue Before Debt Service	\$17.52	\$17.65	\$17.60	\$17.72	\$17.67	\$17.78	\$17.72	\$17.82	\$12.62	\$12.62	\$367.02
Debt Service											
Combined Debt Service	(\$4.25)	(\$4.25)	(\$4.26)	(\$4.26)	(\$4.27)	(\$4.27)	(\$4.31)	\$0.00	\$0.00	\$0.00	(\$80.44)
Annual Net Revenue Available for Capital	\$13.27	\$13.39	\$13.35	\$13.46	\$13.40	\$13.50	\$13.41	\$17.82	\$12.62	\$12.62	
Capital											
Capital Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$335.75
Capital Expenses	(\$10.51)	(\$10.55)	(\$10.53)	(\$10.64)	(\$10.69)	(\$11.68)	(\$10.65)	(\$15.06)	(\$10.93)	(\$10.86)	(\$545.21)
Annual Capital Ending Balance	(\$10.51)	(\$10.55)	(\$10.53)	(\$10.64)	(\$10.69)	(\$11.68)	(\$10.65)	(\$15.06)	(\$10.93)	(\$10.86)	
Overall Ending Balance											
Annual Balance	\$2.76	\$2.84	\$2.82	\$2.82	\$2.71	\$1.83	\$2.76	\$2.76	\$1.70	\$1.76	
Cumulative Balance	\$55.11	\$57.95	\$60.77	\$63.60	\$66.31	\$68.14	\$70.90	\$73.66	\$75.36	\$77.12	