

Technical Memorandum

BUSINESS PLAN

FINANCING & IMPLEMENTATION OF THE PHASE I PROJECT

Table of Contents

- 1. Introduction..... 3
- 2. Proposed Phase 1 Project and Its Characteristics ..... 3
  - Recommended Starter Line..... 3
- 3. Funding the Phase 1 Starter Line ..... 6
  - Local Funding Tools That Might Apply a District-Based Funding Approach.....7**
    - Tax Increment Financing ..... 7
    - Public improvement Districts ..... 9
    - Parking Zones ..... 9
    - Hotel/Motel Tax..... 10
  - Other Funding Tools That Might Apply a Benefits-Based Funding Approach.....10**
    - Farebox ..... 10
    - Reallocation of Transit Funds..... 10
    - Bulk User Agreements..... 11
    - Events Surcharge ..... 11
    - Advertising and Sponsorships..... 11
    - Property Sales and Lease Proceeds..... 11
- 4. Available Local Tools – Revenue Potential Evaluation ..... 12
  - Tax Increment Financing ..... 12
  - Public Improvement Districts ..... 13

5. Funding of Capital and Operating Costs ..... 14

    Funding Capital Costs..... 14

    Funding Operating Costs ..... 15

6. Implementation Issues and Recommendations..... 16

    Organizational Structure ..... 16

    Recap of Project Financial Structure ..... 16

    FTA Grantee ..... 17

    Construction..... 17

    Ownership..... 20

    Operations..... 21

    Staffing and Project Oversight..... 21

    Procurement Options and recommendation..... 22

    Implementation Plan and Overall Schedule..... 24

Appendix 1: Illustrative Cash Flow: Streetcar Development Phase

## 1. Introduction

This Technical Memorandum outlines issues, opportunities and recommendations for financing, delivering and operating the proposed Phase I Fort Worth Modern Streetcar project. The discussion proceeds in the following sequence:

- Summary of the proposed initial project alignment and its key characteristics;
- Analysis and recommendations for funding of capital and operating costs;
- Project delivery options;
- Recommendations as to organizational and legal/institutional options for developing owning and operating the project; and
- Next steps and timeline for implementing the project.

## 2. Proposed Phase 1 Project and Its Characteristics

The initial phase of the streetcar project must serve as a powerful catalyst to the City's redevelopment plans, have a strong ridership forecast, be well-integrated with the larger transit system, and be practicable, in terms of its cost and potential funding. It should also have the potential to be easily expandable along the six alignments reviewed and analyzed in earlier phases of this study since all of those alignments were found to be potentially viable corridors.

Each of these potential alignments was reviewed in terms of:

- Capital and operating cost estimates
- Ridership estimates
- Economic impact analyses
- Funding options for the local share of capital costs

### Recommended Starter Line

The recommended Phase 1 project is based on the data collected and developed through this process and the many discussions held with City staff, as well as stakeholders along the potential alignments. The resulting project comprises a combination of parts of two of the earlier studied alignments (Figure 1). It comprises a north-south line through the heart of downtown Fort Worth, with extensions northwards across the Trinity River into the Trinity Uptown and southwards down Jennings and South Main to the JPS Hospital, thereby bridging the gap between the Southside / Medical district and downtown.

**Figure 1: Recommended Phase 1 Project**



From a transit viewpoint, this route has the advantages of forming a full circulator in the downtown area, connecting all of the major hotels; downtown employment, business and visitor/entertainment/recreation uses, while tying in existing and emergent residential areas. It also opens up access from activities downtown and along the line to the JPS Hospital and Magnolia Avenue areas in the south, and the recreational features in the Trinity River Vision area (including the riverbanks/trails and LaGrave Field). Importantly, the line connects with the Trinity Railway Express (TRE), the future SW2NE commuter rail and bus line transfers at the Intermodal Transportation Center (ITC) and the T&P Station. This starter line also forms an excellent central spine off of which future extensions can be developed over time to any length along any of the six corridors that were previously studied and found to be generally viable.

From an economic development viewpoint, the proposed starter line concurrently supports three goals key to the further revitalization and growth of central Fort Worth and the entire region. First, it provides an important focal point and critical backbone to the transformative, high-density development in the Trinity River Vision area. Rail transit is critical to the success of this massive development initiative, particularly in the way that it will be able to conveniently and efficiently deliver the expected concentrations of residents from immediately north of the river to jobs, and entertainment centers in the downtown and hospital areas to the south. Secondly, downtown businesses can be expected to thrive and expand due to the greater connectivity to their visitor and residential bases, and the improved access between offices, businesses and government facilities. Third, the ongoing infill development activities in the Southside / Medical district can be expected to

significantly accelerate due to the improved access the starter line gives this area to the downtown employment and activity base, as well as its role in underpinning the creation of medium to higher density “walkable” urban neighborhoods in the Southside / Medical district.

**Table 1: Key Characteristics**

SUMMARY CHARACTERISTICS OF THE RECOMMENDED STARTER LINE						
<b>Length</b>			<b>Operations</b>			
Route Miles		3.0	Vehicles			3
Track Miles		5.7	Days/Yr. Operating			365
			Frequency			15 minutes
			Average Hours per Day			14 hours
			Annual Operating Costs			\$1.6 million
<b>Ridership</b>			<b>Capital Cost:</b>			
	<b>2015</b>	<b>2035</b>	<b>TOTAL</b>	<b>Range</b>		
Daily	2050 - 2250	2950 - 5800		<b>\$ 83 to \$88 million</b>		
Annual	740,000	1,070,000		Share paid for with City portion of TIF Dollars		
	to 830,000	to 2,110,000		<b>\$34 million</b>		
<b>Incremental Economic* Development Due to Streetcar (Uninflated Dollars)</b>						<b>Inflated</b>
	<b>Residential</b>		<b>Commercial</b>		<b>Streetcar Premium</b>	<b>TOTAL</b>
	<b>Units</b>	<b>Value</b>	<b>Sq. Ft</b>	<b>Value</b>	<b>Value</b>	<b>Value</b>
In 15 Years	1860	\$223,200,000	402,000	\$ 60,300,000	\$ 105,410,000	\$ 389,000,000
In 40 Years	4960	\$595,200,000	1,072,000	\$ 160,800,000	\$ 172,760,000	\$ 929,000,000
<b>Economic Development per Total Public \$ Invested (Grant plus TIF)</b>						
<i>(assumes \$85.5 million total cost)</i>						\$85,500,000
In 15 Years						\$ 4.5
In 40 Years						\$ 10.9
<b>Economic Development per Local TIF \$ Invested</b>						
<i>(based on Return on City's Prorata Share of TIF Dollars Invested)</i>						\$34,000,000
In 15 Years						\$ 11.4
In 40 Years						\$ 27.3
* Note: "Economic Development" means estimate of increase in real value of property in streetcar influence zone due to presence of streetcar and added development caused by streetcar over and above "baseline" growth. Not to be confused with tax revenues. See below for tax return.						
<b>Increase in Annual City Property Taxes Due to Streetcar**</b>						<b>Uninflated</b>
In 15 Years: Annual "delta" in City property taxes due to streetcar						\$ 3,300,000
In 40 Years: Annual "delta" in City property taxes due to streetcar						\$ 7,900,000
<b>Cumulative Increase in City Property Taxes Due to Streetcar**</b>						<b>Inflated</b>
In 15 Years: Cumulative "delta" collected by that date						\$ 29,300,000
In 40 Years: Cumulative "delta" collected by that date						\$ 172,000,000
<b>City Property Tax Return per City TIF Dollar Invested</b>						
In 15 Years						\$ 0.9
In 40 Years						\$ 5.1
						\$ 1.0
						\$ 8.5
** Note: This is the increased amount of City property taxes received in total over the given period due to the presence of streetcar. Initially they flow into the various TIF districts. Once the various Districts expire they flow directly to general fund. These projections DO NOT INCLUDE possible incremental sales taxes and business and professional license taxes that may accrue to City due to streetcar.						

### 3. Funding the Phase 1 Starter Line

An important factor in selecting this recommended alignment, in addition to ridership, operational, cost and economic development aspects, is the availability of financing. Some of the streetcar corridors under consideration, while reasonably competitive in terms of a range of performance characteristics, have limited access to local funding sources. Since the City would not be expected to use General Fund or other citywide revenue sources (e.g. gas well royalties). Instead, the emphasis is on resources that can be expected to increase and benefit significantly from the nearby presence of the streetcar project. These are mainly resources based on properties, businesses and activity centers lying directly along a chosen route and within walking distance of the line. The following section looks at these local funding tools considered and their potential application to the starter line.

The sources examined were drawn from HDR's experience and research of streetcar systems throughout the United States and from in-depth discussions with finance and management staff at the City, the T, NCTCOG, and Tax Increment Financing (TIF) districts, and others potentially affected by the project. The potential funding tools described are limited to those based on revenues derived from economic activity occurring within either:

- Approximately one-quarter mile of the proposed Phase 1 alignment (i.e. the streetcar's "benefit zone"); or
- Sub-area taxing districts (e.g. TIF districts, public improvement districts) through which the Phase 1 project passes.

The underlying concept is that in a local funding strategy, a significant portion of the streetcar costs should be carried by those who benefit most from its presence. People living, working and visiting within walking distance of the project or those that own businesses or property within that distance will clearly be the principal users and/or direct beneficiaries of the project and collectively receive the bulk, but not all, of the immediate benefits of the line. The "benefit zone" is defined as the area within a quarter-mile of the alignment.

However, in an area as generally compact but diversified and complex as Fort Worth's traditional downtown and the Southside / Medical / Medical District area, it is also appropriate to consider that some of the benefits will likely spill over to neighboring blocks. This can be particularly noticed where increased connectivity and convenience of access between transit modes (streetcar, commuter rail and bus lines) as well as parking facilities, spreads out the area of impact to other nearby attractions. This is also true of the Trinity River Vision area, where the island nature of the project, its high proposed densities and its residential counterpoint to the Downtown job base all serve to create a mutually symbiotic relationship between these two larger areas that will benefit by a streetcar link.

Traditionally, it is sound economic practice and supportable public policy to design a funding plan where those who use and benefit the most from an economic good, contribute the most towards the cost of producing it. Direct benefits derive from either improved

connectivity to downtown destinations for passengers riding the line as well as from property owners' financial gains through increased business activity and/or property values. Other geographically confined transactions, such as paid admissions or parking within proximity to the streetcar, can also be used as indicators of who will most directly use and benefit from the streetcar.

On the other hand, revenue sources such as general sales taxes or property taxes which are applicable citywide, are not considered at this time as a primary source of funding for the project. These would fall equally on taxpayers over a wide area and therefore involve categories of taxpayers who, because of their distance from the core, may rarely see much benefit from the streetcar project. It may be appropriate that some small portion of the total cost be carried by this larger category of citywide or even regional sources, since there are some benefits that spill out region-wide. For example, a healthy downtown can increase the region's overall ability to attract or retain creative talent and accelerate the overall level of income and rate of economic growth. Following an analysis and evaluation of the funding potential of the more localized "user benefit" oriented funding tools it is appropriate to consider turning to these broader revenue sources, along with State and/or Federal funds, to fill any remaining funding gaps. Appropriate use of these broader funding sources (particularly the recently awarded \$25 million Federal Urban Circulator grant, and the T's commitments towards a portion of the operating costs) is built into the funding plan.

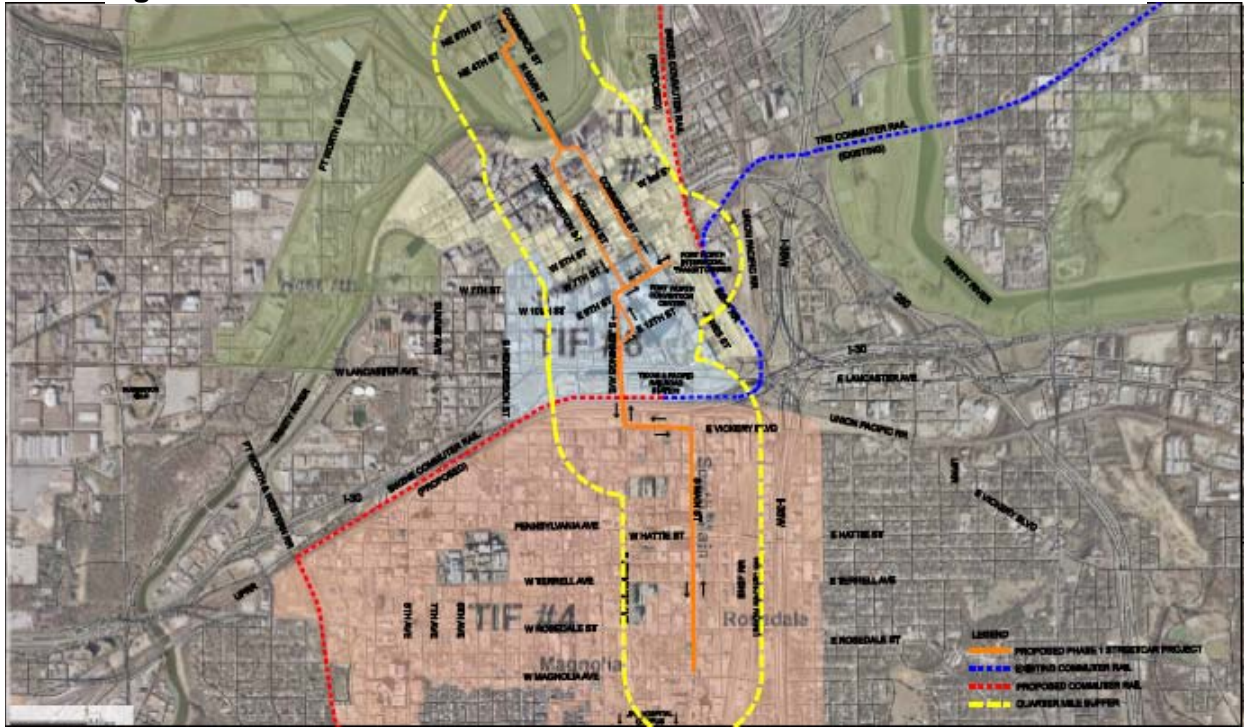
### ***Local Funding Tools That Might Apply a District-Based Funding Approach***

Texas law enables use of a number of geographically based special-purpose funding tools applicable on the small district level; that is, areas with boundaries different from and less than those of the entire City of Fort Worth. The principal ones identified that might support streetcar funding are described in the following sections.

#### **Tax Increment Financing**

Tax increment financing (TIF) is a tool authorized by Chapter 311 of the Texas Tax Code by which local governments may publicly finance needed structural improvements and enhanced infrastructure projects within a defined area called a "reinvestment zone". TIF funds can be used for both the development and certain aspects of the on-going operation of the infrastructure facilities created. Presently, the entire area within a quarter-mile mile of the proposed Starter Line falls within one of the four tax increment districts (excluding the special-purpose Radio Shack TIF) (See Figure 2).

Figure 2: Streetcar Benefit Zone and TIF Districts



Collectively the four tax increment districts encompassing the line produce approximately \$14.4 million/year in increment (Table 2).

Table 2: Tax Increment Districts Served by the Phase 1 Alignment

District #	Name	Current Annual TIF Flow	Likely Expiration Date*
3	Downtown	\$5.0 million	2019
4	Southside / Medical	\$4.5 million	2017
8	Lancaster	\$3.0 million	2024
9	Trinity River	\$1.9 million	2044
<b>TOTAL</b>		<b>\$14.4 million</b>	
* Based on current commitments			

Each TIF district has its own Project Plan and Financing Plan with a designated list of projects and funding commitments.

Development of the streetcar is expected to strongly augment the growth of assessed value in the areas near the new line, both through increasing the value of existing land and buildings (the streetcar “premium”) and through attracting new development at a faster pace. Thus the amount of money captured through the tax increment tool could grow significantly due to the presence of a streetcar over any projection of what would occur

without it. A decision could be made by some or all of these TIF districts positively impacted by a streetcar line to allocate a portion of their tax increment to be used towards financing that line.

## Public improvement Districts

Chapter 372 of the Texas Local Government Code allows for the creation of Public Improvement Districts (PIDs). Communities are able to designate areas in need of public improvements (including infrastructure, landscaping, security, street cleaning, etc.) and levy an assessment on only those benefiting from the public improvements without having to tap into the existing tax base of the entire community. Transit improvements and operations, such as the streetcar, appear to be qualifying projects for either capital and/or operating costs.

Formation of such a district requires petition by owners of taxable real property representing more than 50 percent of the assessed value within the proposed PID, and:

- Either more than 50 percent of the property owners; or
- Owners representing more than 50 percent of the land area within the proposed PID.

Cost of improvements or service may be assessed on properties by any of the following approaches as stated in Section A 372.015 (b):

“(1) Equally per front foot or square foot;

“(2) According to the value of the property as determined by the governing body, with or without regard to improvements on the property; or

“(3) In any other manner that results in imposing equal shares of the cost on property similarly benefitted.”

As implied in the prior paragraph, a wide variety of assessment methods can be considered and different types can be used in different subzones of a larger district. Also, it is possible to exclude individual categories of property.

Downtown Fort Worth is generally bounded by the Trinity River, Interstate 30, and Interstate 35. The area is included in PID 1 (Downtown) which expires September 30, 2029. The Downtown PID has a current assessment rate of \$.10 per \$100 in assessed value. This PID currently has an annual budget of \$ 1.5 million.

## Parking Zones

Other cities are already applying, or considering applying, district-based parking revenue sources toward streetcar funding. These mechanisms have included increased meter and/or public parking rates in a given zone and/or surcharges on private commercial

parking revenues. Other options being used include increasing the number of parking meters on streets, hours of operation and levels of fines for parking violations. Changing the collection mechanism from meters to pay kiosks also typically produces a revenue increase; some of this increase could, after supporting the capital cost of the kiosks, be allocated to the streetcar project.

In some cities, the amounts raised from these sources can be quite large due to both the large number of parking spaces and the often high cost of parking in downtown garages.

This does not appear to be a practical source of funding in Fort Worth in the foreseeable future.

### **Hotel/Motel Tax**

Some jurisdictions in other states that have very large concentrations of hotel rooms along their proposed alignments are considering either levying an additional surcharge on hotel rooms/services or diverting a portion of existing receipts to help finance streetcars. In some instance, this surcharge is assessed in connection with free ridership rights to guests of the hotels that are subject to such charges. Since only about 2,000 hotel rooms are within walking distance of the proposed initial project, the maximum amount likely to be raised from such a source, assuming a mechanism could be found to levy such a tax, is likely to be relatively modest relative to the entire cost of the line. It may be better to consider a more directly negotiated approach with hotel owners, where they might obtain free passes for all of their guests in return for a set annual contribution in support of the line's operating costs e.g. a "bulk user" agreement as later described.

### ***Other Funding Tools That Might Apply a Benefits-Based Funding Approach***

The following list of tools use a benefits-based approach to raising revenue. They are not defined by any particular district as in the case of PIDs or TIFs, but nevertheless target the collection of revenues in a direct manner from beneficiaries who stand to obtain some clearly identified direct benefit from either using or being near the streetcar line.

### **Farebox**

Some streetcar systems charge a fare to riders. Typical fares charged range from \$.50 to \$1.50 per ride. In the case of Fort Worth, this may need to be tested against the existence of the free fare zone established by the T in the downtown core. This option should be examined relative to the existing fare structure on other T transit modes (i.e. bus or Molly the Trolley).

### **Reallocation of Transit Funds**

Some jurisdictions and transit agencies have reallocated transit funds previously used for other modes. Generally, this approach has been used when it could be shown that the

streetcar system would replace the service provided by the other modes in use and could save on operating cost for those other lines. Given the short length of the proposed starter line, it is unlikely that existing transit service would be substantially reduced, with the likely exception of one of the Molly the Trolley routes, the “Downtown Get-Around” loop.

## **Bulk User Agreements**

In the case where a large organization or activity center is located along a route, that entity may be approached to provide funding for the large number of users it generates. In most cases, these passengers then have the right to use the streetcar for free or a reduced fare by showing a pass, validation coupon or event ticket stub. Entities such as the Convention Center, the Courts, Tarrant County Community College, JPS Hospital, and hotels along the line may all be prime candidates for this type of agreement. This approach is most viable in instances where the system charges a fare for use of the streetcar, or buses to the destinations of most interest to these particular users.

## **Events Surcharge**

A separate fee or surcharge placed on top of existing ticket fees can be used for funding. Such fees are generally charged to entertainment or sporting venue ticket sales. It may be more feasible to attempt to negotiate a bulk user agreement with the Convention Authority and any other large event generators than to seek a new form of tax on events.

## **Advertising and Sponsorships**

Advertising and sponsorships are used to provide revenues towards some streetcar systems. Schemes include advertising on the interior and exterior of streetcars as well as at streetcar stops. Some schemes collect a fee for system-wide sponsorship or sponsorship of individual cars or stops. Sponsorships can include local corporations or foundations, or national entities with a large local presence. Major corporate entities with a large local presence and a high profile in the community could be considered for this approach.

## **Property Sales and Lease Proceeds**

Streetcar presence should increase the marketability and value of City-owned land along the line. Funds from the sale or leasing of land or other real property owned by the local government can be used to pay for streetcar improvements and operations. The City of Fort Worth and related agencies own surplus land and buildings along parts of the proposed starter line. Some of the proceeds from elevated price levels or accelerated rates of sales could be applied towards the streetcar funding plan. It may even be possible to consider a public-private partnership where a developer or other business partner could obtain a significant interest in some of the City parcels along the route in return for a specific amount of up-front funding of the capital costs for the portion of the streetcar line affecting the properties included in the partnership agreement.

For example, this approach was used successfully in funding the Airport light rail line in Portland. The public-private partnership that implemented the project included an arrangement by which adjacent properties were assigned by a long-term lease on favorable terms to the private partner (Bechtel Group) in exchange for a \$35 million capital contribution to the project.

#### **4. Available Local Tools – Revenue Potential Evaluation**

A sub-set of the above sources was selected based on their availability to the project under consideration and their likelihood for significant revenue productivity. As stated earlier, two principal tools emerged for further consideration as financing capital costs and/or operating costs: tax increment financing (TIFs) and public improvement districts (PIDs). The discussion below provides a rough estimate of the maximum revenue potential possible for each of the selected sources.

##### **Tax Increment Financing**

The four existing Tax Increment Financing districts along the proposed Phase 1 alignment currently generate approximately \$14.4 million in tax increment. It is clearly feasible that some or all of these districts could decide to allocate some of their existing, or future, annual tax increment flows to support the streetcar.

Presently, TIF 9 (Trinity River Vision) and TIF 4 (Southside / Medical) have agreed through resolutions to amend their Project and Financing Plans to add the streetcar project as an eligible cost. The Downtown and Lancaster TIF districts have not presently completed any specific projections of unused funding capacity to apply towards the streetcar project, although both have some amount of unobligated capacity.

The presence of streetcar may increase assessed values in the first 15 years along the proposed Phase 1 alignment by \$390 million over and above the baseline projection of growth in that area without streetcar. This equates to a total 15 year “bonus” increase of \$510 million in taxable value when factoring in inflation at two percent per year. At the City’s current tax rate of \$.855 per \$100 taxable value, this equates to an additional \$4.4 million per year of City property tax receipts distributed into the four TIF districts.<sup>1</sup> Due to the effect of the streetcar project, the added cumulative City tax increment collected in the first 15 years might total \$ 35 million from the City share and \$ 62 million from all of the TIF district partners, with the exception of the school district. By Year 40 the streetcar is projected to have added \$ 930 million in assessed value over and above the baseline projection (\$2.0 billion factoring in inflation at two percent, equating to an increase in annual City tax revenues alone of \$17.2 million/year). By that time, all of the TIF districts will have expired and the indicated revenues would be flowing directly into the City’s General Fund and to the

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<sup>1</sup> This amount rises to \$7.7 million/year if one counts 100 percent of the increased TIF flows attributable to all of the 5 jurisdictional taxing partners (except the school district) .

other taxing entities. Over those 40 years, due to the effect of the project, the additional cumulative City tax revenues, excluding any TIF flows attributable to the other TIF district taxing jurisdictional partners, flowing either into the tax increment districts or directly into the General Fund, could total \$290 million. This amount alone far exceeds the cumulative capital and operating costs of the project over that time period and represents a 8.5 times return on the City’s share of the TIF funds invested at the beginning of the project.

In conclusion, it would appear that a highly logical and appropriate investment case can be made to use a portion of tax increment funds generated in some or all of the four affected TIF districts to finance a considerable portion of the capital and operating costs of the starter line. Over time, the amount of cumulative increment invested would be significantly less than the additional increment generated due to the streetcar, yielding a strong positive return on the tax increment invested.

**Public Improvement Districts**

With the support of affected property owners, the City could collect special assessments to be applied towards either the capital costs or the operating costs of the streetcar. A single “streetcar corridor PID” following the boundaries of the Phase 1 Project’s quarter-mile influence zone could be established. While it could generate significant resources, it has the drawbacks of requiring at least 50 percent property owner approval, which may be a high threshold to meet along the full length of the proposed starter line. This proposed streetcar corridor PID also overlies the existing Downtown PID district.

Another approach may be to consider forming new PIDs only for segments of the line, such as in the Southside / Medical district and the Trinity River Vision segments, where it may be easier to assemble the needed ownership majorities. In addition, the existing Downtown PID could perhaps be persuaded to include, in future annual budgets, a line item contribution for a share of the streetcar’s ongoing operations, particularly if the Downtown PID seeks increased frequency of service and/or additional stops over what could be covered in an initial streetcar operating plan.

**Table 3: Location of Current Taxable Value in the Streetcar Influence Zone**

Name	Current Taxable Value in Streetcar Influence Zone	% of Total
Trinity River Vision	\$ 16,000,000	1%
Downtown	\$ 1,212,000,000	92%
Southside /Medical District	\$ 91,000,000	7%
<b>TOTAL</b>	<b>\$ 1,319,000,000</b>	<b>100%</b>

Based on a maximum overall average levy of 5 cents per \$100 of assessed value within a quarter-mile of the line<sup>2</sup> over its full three mile length, such an assessment could generate approximately \$650,000 per year if applied today. This would derive from the three subareas (Table 3). Downtown, with 92 percent of the existing taxable value would be by far the largest contributor under this approach in the early years of the project, although the other areas might begin to “catch up” as development in their areas accelerates.

By Year 15, it is possible that the assessed value in the identified potential “streetcar corridor PID zone” will have grown by approximately \$1.6 Billion<sup>3</sup>. A disproportionate share of this added value might accrue in the Trinity Uptown area and in the Southside / Medical district. At 5 cents per \$100 of AV, annual yields from a “streetcar corridor PID” could increase by \$800,000 per year.

## 5. Funding of Capital and Operating Costs

### Funding Capital Costs

The capital cost of the Phase 1 Project is estimated at between \$83 and \$88 million assuming construction is completed by 2013 or 2014 (Table 4).

**Table 4: Proposed Long-Term Capital Funding**

Source of Funds	Amount
Federal Urban Circulator Grant	\$25 million
TIF Funds from some or all of the 4 TIF Districts governing the alignment	\$58 to \$63 million
<b>TOTAL</b>	<b>\$83 to \$88 million</b>

The Federal Urban Circulator grant is anticipated to flow on a monthly or quarterly cost reimbursement basis so that interim financing needs for costs covered by the grant share should be minimal and could probably be accommodated through either the City’s or the T’s revolving fund balances.

<sup>2</sup> The effective assessment rate might be varied [perhaps in three tiers] depending upon the distance of a property from the line and whether or not it had frontage along it – the 5 cent maximum average could allow for a variation in rates from perhaps 1 cent 1 ½ blocks away to a level perhaps 3 to 5 times that for direct frontage on the line. A 5 cent levy equals \$6.25 per month on a \$150,000 condo or 1000-1500 sf retail space, or \$1.50 per month per office employee.

<sup>3</sup> Assuming inflation at 2% per year and projected levels of new development.

The remaining \$58 to \$63 million is proposed to be derived from the TIF districts. The Trinity River Vision TIF and the Southside / Medical district TIF have both considered taking on a portion of the cost given their recognition of the benefits the project would bring their areas. These TIFs recognize that while it would be appropriate for the four TIF districts to more equitably share both capital and operating costs of the starter line, some tradeoffs can be made between the TIF districts in order to get the project underway at the earliest time. In this sense, the Trinity River Vision TIF and the Southside / Medical district TIF have the highest immediate financial capacity, which they are willing to consider applying to the benefit of the project, possibly in return for help on the ongoing streetcar operating costs from the other districts. **The final allocation of TIF District commitments to the project should be re-evaluated in the completion of the final detailed Finance Plan** to be completed early in 2011, as shown in the overall Project Schedule (Table 7).

Essentially, the only remaining costs on the capital side unaccounted might be fees, costs and interest charges involved in obtaining financing to cover the short-term gap created by the lack of cash in the Southside / Medical district TIF's account when needed for project development costs. A reserve of \$1 to 3 million<sup>4</sup> might be needed to cover "bridge" financing costs to cover possible cash flow gaps during the 3-7 year interim term. An "allowance" of \$2 million as already been built into the capital cost numbers of \$83 to \$88 million .

### Funding Operating Costs

Annual operating costs for the Phase 1 project are estimated at \$1.6 million per year for seven days per week, 14-hour daily service at 15 minute intervals. The T staff has considered recommending that the T fund 100 percent (up to \$1.6 million) of the initial operating costs for up to five years. The T has made no commitments as to a formula beyond the initial five year operating period.

Nonetheless, as the grantee under the \$25 million Federal Urban Circulator program, the T will be required to commit to operating the line for at least 20 years. It does not have to demonstrate a specific plan or source of funds for such out-year operations provided they are less than five percent of its total annual budget, which is certain to be the case. **The project partners will need to further delineate out-year operations financing in order to both put the project on a sound long-term basis and to satisfy the Federal Transit Administration as a grantor.**

A plausible long term scenario, following the 3-5 year transition phase from opening day, might be as follows:

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<sup>4</sup> If these funds needs to be borrowed from third party private sources then, the financing costs might rise up to the \$5 million range due to legal and documentation costs, fees and higher interest charges

- The T agrees to provide annual funding equivalent to what it would cost to operate high quality bus service for the same route, on the same frequency, hours and days of operation, and using/maintaining and amortizing comparable size, quality and capacity of vehicles. These total operating costs might typically range to 60-65 percent of the comparable annual costs for streetcar, or in this case, possibly \$1 to \$1.1 million per year. As offsets against these costs the T would receive any fare revenues, Federal formula operating monies, and fees from bulk users and advertisers.
- The project would collect the remaining 35 to 40 percent of cost or perhaps \$500,000 to \$600,000 per year from beneficiaries along the line. This could be done by formally allocating a portion of Tax Increment from one or more of the four existing TIF districts to be crossed by the line. Initially, while the districts are still collecting their share of TIF funds, it would appear as a line item in their Finance Plans and annual budgets. Over time, an increasing portion of the operating costs can be borne by PIDs as one or more of them are implemented along the alignment.

## 6. Implementation Issues and Recommendations

### Organizational Structure

There are a number of questions that need to be answered regarding the organizational structure for the development and operation of the Fort Worth Streetcar. The potential options will be identified and where appropriate, recommendations will be made for the development and operations of the streetcar project.

Some of the questions that will be addressed include:

- Who is the grantee for the Federal Transit Administration grant?
- Who will build the project?
- Who will operate it?
- Who will oversee the project?
- Who will own it?
- What management structure is needed during development?
- What management structure is needed for the operations?
- What steps need to be followed for implementation?

### Recap of Project Financial Structure

An understanding of the basic funding plan described above is necessary to determine all of the parties that should be included in the oversight of project and the resolution of these questions of structure, ownership, and governance. The current funding plan for development includes \$25 million from a Federal Transit Administration (FTA) Urban Circulator grant with the remaining capital funding coming from TIF districts. The current funding plan for operations includes \$2 million per year for five years from the the T.

Operations funding beyond the first five years is expected to be supplemented with some combination of TIF funds and revenues from one or more PIDs.

A number of actions will be necessary in order to convert this financial structure from a statement of intent into a financed project, including City Council approval of amended TIF district Plans, commitment by the T to its ongoing operating commitment to the project, and the actual formation of the additional PID districts. Council approval is required for both PID formation and for the districts' budgets. *Note:* While Council approval and the approval of other taxing entities would also be required if the cap on any TIF were to be raised, this project's financial plan does not require such a change, but relies on existing TIF district capacity.

### FTA Grantee

The City of Fort Worth and The T were co-applicants for the Urban Circulator grant. The T, however, has a greater understanding of the FTA's procedures and grant requirements. The FTA is also accustomed to making capital and operating grants to transit agencies. While the City will play a major role in constructing the project and will also likely play a significant role in ongoing operations, there still must be a single grantee agency for purposes of receiving the FTA funds. Given these factors, the determination on this point is straightforward: the T should be the FTA's grantee for this project.

### Construction

The potential entities to build the streetcar include the City of Fort Worth, The T, a Local Government Corporation (LGC), a Municipal Management District (MMD) or the creation of a non-profit entity. The table below describes each of the entities and the pros and cons of each entity leading the development of the streetcar project.

**Table 5: Potential Entities for Development of Streetcar**

Entity	Description	Pros	Cons
City of Fort Worth	The City was incorporated in 1873 and operates under the Council-Manager form of government. The mayor and eight council members serve two-year terms. Services provided by the City include typical municipal services. Some examples include: public events, public safety, municipal courts, housing, planning and development, engineering, street maintenance, traffic control, parks operation and	<ul style="list-style-type: none"> <li>• Experience with procurement and development of large capital projects in City Right-of-Way</li> <li>• City owns the right-of-way where the project will be located</li> </ul>	<ul style="list-style-type: none"> <li>• No experience in development of transit projects</li> <li>• No dedicated staff for development of this project</li> <li>• Cumbersome project development processes</li> </ul>

Entity	Description	Pros	Cons
	maintenance, recreation, library services, water and sewer services, solid waste collection, golf courses, airports, and parking garages.		
<b>The T</b>	A regional transportation authority of the State of Texas providing public transportation to certain cities in Tarrant County, Texas confirmed by a public referendum on November 8, 1983. The Board is comprised of nine members. Eight Board of Directors members are appointed by the City of Fort Worth City Council and one by the Tarrant County Commissioners' Court. In January 1989, the sales tax was increased to one-half of one percent.	<ul style="list-style-type: none"> <li>• Understands the FTA process</li> <li>• Dedicated agency to providing public transit services to the community</li> </ul>	<ul style="list-style-type: none"> <li>• No experience in development of large rail projects</li> <li>• Staff currently focused on the development of the Southwest to Northeast (SW2NE) Commuter rail project</li> <li>• Cumbersome project development processes</li> </ul>
<b>Local Government Corporation</b>	A non-profit corporation created to aid and act on behalf of the local government to accomplish any governmental purpose of the entity. The LGC may issue bonds or any other debt necessary for the implementation of the project. The LGC may own the assets of the project.	<ul style="list-style-type: none"> <li>• New corporation focused solely on the development of this project</li> <li>• Allows all funding parties to be involved in the development</li> <li>• Method used to develop other projects in Fort Worth</li> <li>• Ability to bond</li> </ul>	<ul style="list-style-type: none"> <li>• Need to hire, or borrow from the City or the T, the appropriate technical staff, either as consultants or employees to implement transit project</li> <li>• Development process could be complicated given the number of parties involved in the LGC</li> </ul>
<b>Municipal Management District (MMD)</b>	A MMD is a special district that is self-governed, but must be approved by the host municipality. They have the ability to construct public infrastructure and provide services within the District as approved in a service plan.	<ul style="list-style-type: none"> <li>• Ability to bond without impacting city bonding capacity</li> <li>• New corporation focused solely on the development of this project</li> <li>• Allows all funding</li> </ul>	<ul style="list-style-type: none"> <li>• New project delivery method to the City of Fort Worth</li> <li>• Need to hire the appropriate technical staff, either as consultants or employees to</li> </ul>

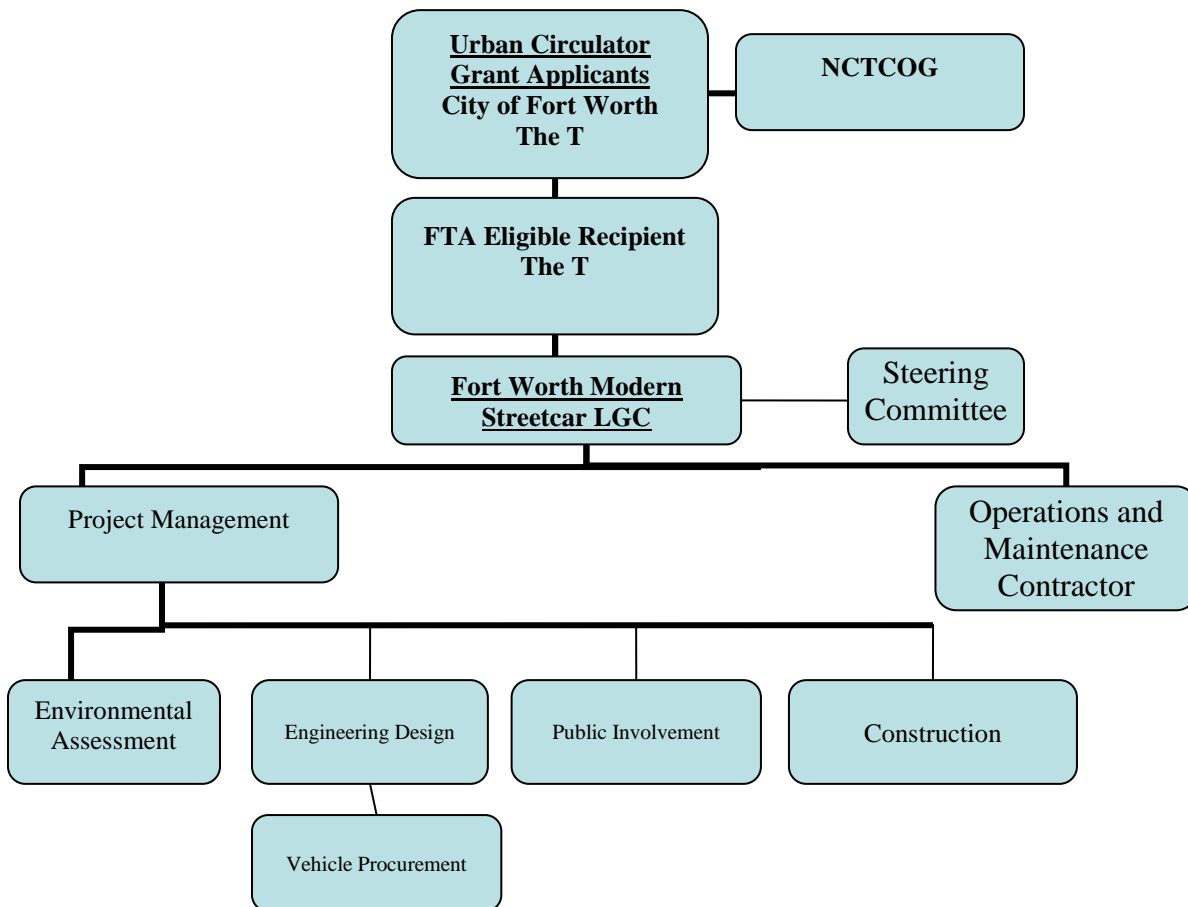
Entity	Description	Pros	Cons
	MMDs may issue tax exempt bonds, which are not a city debt and do not impact city bonding capacity. They may levy taxes, assessments and impact fees in accordance with a service plan. Assessments are collected only by petition of affected property owners and property taxes require approval by majority of eligible voters within the MMD boundaries.	parties to be involved in the development	<ul style="list-style-type: none"> <li>implement transit project</li> <li>Development process could be complicated by all of the parties involved in the MMD</li> </ul>
<b>Non-Profit Corporation</b>	An organization organized and operated exclusively for exempt purposes, set forth in section 501(c)(3). Organizations described in section 501(c)(3) are commonly referred to as <i>charitable organizations</i> . Organizations described in section 501(c)(3), other than testing for public safety organizations, are eligible to receive tax-deductible contributions in accordance with Code section 170.	<ul style="list-style-type: none"> <li>New entity to be created</li> <li>Can receive tax-deductible contributions</li> </ul>	<ul style="list-style-type: none"> <li>No history in Fort Worth of using this type of entity to implement major infrastructure projects</li> <li>Need to hire the appropriate technical staff, either as consultants or employees to implement transit project</li> <li>No bonding authority</li> </ul>

HDR recommends that the City of Fort Worth, the T and the other project partners create a Local Government Corporation to implement the streetcar in Fort Worth. Ultimately, the final decision of how to implement the project rests with the City Council and the Board of Directors of the T, but we believe that the LGC structure is an attractive option. If a Local Government Corporation entity is chosen as the method to develop the streetcar, the City of Fort Worth, the T, the TIF districts served by the project, property owners and the North Central Texas Council of Governments (NCTCOG) should all have representation of the LGC Board. The LGC Board could also appoint a steering committee to oversee the implementation of the project and will provide policy direction. The steering committee could include staff from the entities that are parties to the LGC.

The LGC could own the assets for the project and should consider contracting the operations and maintenance as described in the Ownership and Operations sections below. It should be noted that after the construction of the system is complete the Program

Management role will not be needed, but that the funding, financing, and operations and maintenance functions will continue in perpetuity.

**Figure 3: Overall Structure for the Development of the Streetcar Project**



**Ownership**

The streetcar project will consist of a set of capital assets, some of which will be fixed infrastructure (track, electrical system, maintenance facility, etc.) and others of which will be in the form of equipment (vehicles, spare parts and tools, supplies, etc.) Some of these assets will be constructed in the public right-of-way. Given these complexities, if a LGC is formed to advance the project, having the LGC own all these assets is likely the clearest and most effective resolution of this question. Inter-local Agreements and Community Facility Agreements will be needed to address construction, operation and maintenance of

the project in city streets, as well as for other aspects of the public-public-private partnership enshrined in the structure of the LGC.

### Operations

The potential entities to operate the streetcar include the T, City of Fort Worth, the LGC, a Municipal Management District, or a non-profit entity (Table 5). The most likely entity to provide day-to-day operations of the streetcar would be the T. Given the likelihood that there will be operating support provided over time by some combination of TIF or PID funding, some ongoing role should be assumed for the LGC. That is, the LGC should be configured not to simply construct the project and “hand the keys” to the T, but should continue into the operating phase. One option would be for the LGC to contract with the T to provide the operations and maintenance for the streetcar. The T has agreed to fund the operations of the streetcar at \$2 million per year for five years. The T currently operates the transit service in the City of Fort Worth with a third party contractor and could add this service to the existing contract.

This approach, having the LGC “live on” beyond the construction phase, also has the benefit of providing a ready structure for the implementation of expansion projects, when and if they occur.

### Staffing and Project Oversight

This section summarizes an overall staffing plan for the streetcar project during the Project Construction phase.

The LGC should consider designating a staff position to monitor the project as the Contract Administrator. This person could come from the City, the T or be hired by the LGC to oversee all of the consultants that would be working on the implementation of this project. The Contract Administrator will report to the LGC and the LGC Steering Committee. The Contract Administrator will be responsible for overseeing the contracts with contractors and consultants; preparing reports to FTA; and assuring compliance with all regulations and requirements for the project.

The project could also benefit from the use of a Program Management contractor, hired by the LGC as an extension of the City, the T and other project stakeholders to manage the final design and construction phase of the project. This approach would be most attractive if neither the City nor the T could designate a staff member to focus exclusively on this project. The contracted Project Manager for the Program Management contract would, in this scenario, be responsible for the overall implementation of the project and would report to the LGC. The LGC would remain responsible for construction and the contracting of the operations of the project, but the Program Manager would be responsible for directing, overseeing, and coordinating all of the project’s activities, while maintaining quality standards, keeping the project’s costs contained within a given budget, and completing tasks within the adopted schedule.

## Procurement Options and recommendation

There are several ways to deliver this project, and each should be further evaluated as the project progresses towards implementation. Those options include Design/Build, Design/Build/Finance, Design/Build/Operate/Maintain, Design/Build/Operate/Maintain/Finance, Construction Manager at Risk, and Traditional Design/Bid/Build. The strengths and weaknesses of each are summarized below.

**Table 6: Delivery Methods**

Delivery Method	Description	Pros	Cons
<b>Design/Build</b>	<ul style="list-style-type: none"> <li>The owner selects a contractor for both design and construction of the project.</li> <li>Selection may be on qualifications and/or price.</li> </ul>	<ul style="list-style-type: none"> <li>Owner dictates selection criteria</li> <li>Shorter design-construction schedule</li> <li>Owner may fix a not-to-exceed price</li> <li>Single point of accountability for design and construction</li> <li>Owner avoids risk of designer-contractor issues</li> </ul>	<ul style="list-style-type: none"> <li>Owner gives up some control of design since designer reports to contractor.</li> <li>Project scope must be defined before procurement</li> <li>Limited stakeholder involvement; any changes after procurement can result in large change orders</li> <li>Complex contract and legal agreements</li> <li>Justification may need to be given for not selecting a traditional low-bid contracting approach</li> </ul>
<b>Design/Build/Finance</b>	<ul style="list-style-type: none"> <li>Similar to design/build, with the addition of a financial partner.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to advantages above, allows owner to reduce reliance on public funding sources by the financial contribution of the contractor.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to the disadvantages above, increased pressure to speed up the construction process to begin the revenue generation of the project.</li> </ul>
<b>Design/Build/Operate/Maintain</b>	<ul style="list-style-type: none"> <li>Similar to design/build, with the addition of an operating and maintenance contractor.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to advantages above, allows owner to enter into a contract for operations and maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to the disadvantages above, owner gives up control of the day-to-day operations and</li> </ul>

		<ul style="list-style-type: none"> <li>The operations and maintenance costs can be fixed by negotiation.</li> </ul>	<p>maintenance practices of the system.</p>
<b>Design/Build/Operate/Maintain/Finance</b>	<ul style="list-style-type: none"> <li>Similar to the approaches above</li> </ul>	<ul style="list-style-type: none"> <li>Combination of all advantages above</li> <li>Incentive for contractor to deliver project as efficiently as possible for long term operations and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Combination of all disadvantages above</li> </ul>
<b>Construction Manager at Risk</b>	<ul style="list-style-type: none"> <li>Final design consultant is selected through a qualifications-based selection.</li> <li>Contractor is selected by criteria of performance and price competition. Actual price is not a selection criterion because design is not completed yet.</li> <li>A Guaranteed Maximum Price (GMP) is negotiated between the contractor and owner prior to construction. Contractor assumes risk of construction management and performance.</li> </ul>	<ul style="list-style-type: none"> <li>Owner directly controls engineering design</li> <li>Owner determines criteria for selecting contractor</li> <li>Early contractor involvement allows for value engineering and constructability reviews of the project, reducing risk.</li> <li>Early contractor involvement in agency and stakeholder issues</li> <li>Collaboration among owner, designer, and contractor prior to construction.</li> <li>Contractor has ability to assure owner about construction impacts during design process.</li> </ul>	<ul style="list-style-type: none"> <li>Less competition for subcontractor work</li> <li>GMP must clearly define construction scope and what is considered out of scope</li> <li>Complex contract and legal agreements</li> </ul>
<b>Traditional Design/Bid/Build</b>	<ul style="list-style-type: none"> <li>Final design consultant is selected through a qualifications-based</li> </ul>	<ul style="list-style-type: none"> <li>Owner directly controls engineering design</li> <li>Competition assures</li> </ul>	<ul style="list-style-type: none"> <li>Contractor has ability to request change orders for conditions not</li> </ul>

<p>selection.</p> <ul style="list-style-type: none"> <li>• Construction contract awarded to lowest bidder. Bidders may or may not be pre-qualified per agency's policy.</li> </ul>	<p>low construction price.</p> <ul style="list-style-type: none"> <li>• Designer and contractor under separate contracts allows for cross-checking of project scope.</li> <li>• Legal obligations well understood by all parties.</li> </ul>	<p>specified in design</p> <ul style="list-style-type: none"> <li>• Longer schedule due to sequential procurement of designer followed by contractor</li> <li>• Lack of opportunity for contractor to participate in design process</li> </ul>
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The Local Government Corporation should be tasked with making a final determination of which of these procurement approaches will best suit the project and best serve the interests of the project's public owners and private stakeholders. From the current vantage point, it appears that the Construction Manager at Risk delivery method will likely be the best option for implementing the project.

### Implementation Plan and Overall Schedule

The project is now at a milestone, where the basic route and characteristics of the Phase 1 project have been determined, and where sources for the necessary capital and operating funds have been identified. In order to advance the project from this point, additional technical work is required, specifically:

- Preparation of the environmental document required by the National Environmental Policy Act (NEPA) for review and ultimate acceptance by the Federal Transit Administration. This is a necessary step prior to receiving federal funds;
- Preparation of Preliminary Engineering Plans sufficient to support the NEPA document and to prepare the project for final design and construction;
- Continuing public involvement and stakeholder outreach for the project, both for the purposes of properly completing the NEPA document and for more direct engagement of property owners who will be benefited and affected by the project; and
- Further development of the finance plan for the project, detailing all sources and uses of funds.

The steps and timeline for implementation are provided in Table 7.

**Table 7: Actions and Timeline for Implementation**

Action items for implementation	Date
Coordination with the FTA	Ongoing, beginning in Fall 2010
NEPA process	December 2010 – November 2011
Preliminary Engineering	December 2010 – November 2011
Create LGC	March 2011
Develop community facility agreements	Spring 2011
Develop Interlocal Agreements with TIF districts	Spring 2011
Determine final finance plan	Spring 2011
Council Approval of amended TIF District plan	Spring 2011
Council and T Board approve finance plan, submit to FTA if required	Summer 2011
Formation of PID(s)	Initial discussions in early 2011
Hire Program Manager (if determined necessary)	Summer 2011
Determine delivery method	Summer 2011
Community Facility Agreements and Contracts	Fall 2011
Final Design	Fall 2011 – Spring 2012
Develop schedules and documents for joint procurements	Fall 2011 – Spring 2012
Procure Vehicles	Fall 2011 – Spring 2013
Construction	Spring 2012 – Summer 2013
Begin Operations	Fall 2013

Detailed as a project development schedule, this sequence appears as follows:

