5 Implementation

This section considers implementation of the project including phasing, order of magnitude cost estimate, and a cost and revenue model. A summary section is also provided to highlight major assumptions and findings.

5.1 Implementation Summary

5.1.1 Related Projects

The SITF is one of several major projects planned for the Railyards. The cost estimate and financial model presented in this document includes projects that are necessary for the implementation of the SITF as currently planned. A number of related projects and potential costs have not been included in the cost estimate and funding plan, because they are not assumed to be required to implement the SITF or because they are assumed to be funded separately from the SITF project and are listed in Table 5.1.1, Section A. In addition, there is a distinct set of projects whose costs are proposed to be borne by benefiting parties, but have been included in the SITF cost estimate for budgetary purposes, and are listed in Table 5.1.1, Section B.

For both of these categories of related projects the City will be proposing that implementation or the funding of these items be shared among benefiting parties. Table 5.1.1 summarizes these projects and how they have been addressed in the subsequent financial analysis. While detailed cost estimates have not be completed for all of these projects, it is critical to note that there will be significant additional costs associated with the related projects that have not been included in the cost estimates and funding plan for the SITF.
## Table 5.1.1, Section A - Related Projects with Costs not included in SITF Project Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Assumption for SITF Cost and Revenue Model</th>
<th>Potential Responsible Parties</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Acquisition</td>
<td>Acquisition of the approximately 19.7 acres required for the SITF, as well as streets and other public needs</td>
<td>No cost assigned to SITF project. Assumed to be dedicated.</td>
<td>Railyards Land Owners (UP and/or Millennia)</td>
<td>Land owner will benefit from the proximity to the SITF and public investments in the area. New street connections will provide access to development parcels.</td>
</tr>
<tr>
<td>Freight and Passenger Track Relocation</td>
<td>Construction of new heavy rail tracks along the northern edge of the SITF site</td>
<td>Cost for construction of new tracks not included in SITF project costs. Construction of platforms, canopies and pedestrian tunnel included in SITF costs.</td>
<td>UP</td>
<td>UP freight operations benefit significantly from new alignment. Realignment permits development of Railyards including a required roadway infrastructure. UP retains control of design and construction of their tracks. Track relocation could be completed most expeditiously as a private project.</td>
</tr>
<tr>
<td>Removal of Existing Tracks</td>
<td>Removal of existing heavy rail freight and passenger tracks and, platforms, remediation of contaminated soil under tracks</td>
<td>Not included in SITF project costs.</td>
<td>UP</td>
<td>UP is the current land owner and its activities were responsible for the contamination. UP currently completing environmental clean-up of the Railyards.</td>
</tr>
<tr>
<td>Second Pedestrian/Bicycle Tunnel</td>
<td>An additional tunnel under the heavy rail tracks, located to the north of the California State Railroad Museum.</td>
<td>Cost of substructure is included in the SITF project costs. Costs for finishes are not included in the SITF project costs.</td>
<td>City of Sacramento, California State Railroad Museum</td>
<td>Costs are assumed to be shared. Provides a direct pedestrian connection among the multiple areas of the California State Railroad Museum. Also provides an improved, grade-separated pedestrian and bicycle connection across the tracks with connections to Downtown, Old Town and the Sacramento River Trail.</td>
</tr>
<tr>
<td>7th Street Underpass Expansion</td>
<td>Widening of the existing 7th Street underpass below the heavy rail tracks. Widening will accommodate LRT and additional roadway capacity.</td>
<td>Not included in SITF project costs.</td>
<td>Millennia, RT</td>
<td>Necessary to provide adequate roadway infrastructure for Railyards development, and to accommodate future LRT DNA extension. Not integral to the SITF.</td>
</tr>
<tr>
<td>5th and 6th Street Extensions and Over Crossings</td>
<td>Extension of 5th and 6th Streets north from H Street, including over crossing of the heavy rail tracks.</td>
<td>Not included in SITF project costs.</td>
<td>Millennia</td>
<td>Necessary for Railyards development. Not integral to the SITF.</td>
</tr>
<tr>
<td>Light Rail Transit-DNA</td>
<td>LRT DNA extension, with the exception of relocation of the Amtrak extension. Includes double track on H Street, 2nd platform track and 2nd platform at the SITF, LRT on the transit way and 7th Street, and bypass track on 7th Street.</td>
<td>SITF project costs include replacement and removal of equivalent facilities to the Amtrak extension (one platform track, one platform, two storage tracks). Other components of the DNA extension not included in SITF project costs.</td>
<td>RT</td>
<td>New LRT infrastructure required for the DNA extension proposed by RT.</td>
</tr>
<tr>
<td>Interstate 5 Ramp Reconstruction</td>
<td>Reconfiguration of the I Street ramps to Interstate 5, including the extension of 3rd Street north to H Street and the connection of the H Street extension to the I Street Bridge.</td>
<td>Not included in SITF project costs.</td>
<td>City of Sacramento, as a separate federally-funded project.</td>
<td>Provides numerous benefits to the larger area around the SITF and Railyards, including better pedestrian, bicycle, transit and traffic circulation, improved access to Old Sacramento, creation of additional development parcels, and increased separation between the ramps and the Federal Building. However, with modifications to adjacent joint development and transit parking structure, SITF could be implemented without reconstruction of ramps.</td>
</tr>
<tr>
<td>Interim Greyhound Relocation</td>
<td>Provide terminal for use until permanent is constructed as part of the SITF.</td>
<td>Not included in SITF project costs.</td>
<td>Greyhound, City of Sacramento - as a separate project.</td>
<td>Provides improved operations and redevelopment potential on K Street Mall.</td>
</tr>
</tbody>
</table>
### Table 5.1.1, Section B - Related Projects with Costs included in SITF Project Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Assumption for SITF Cost and Revenue Model</th>
<th>Potential Responsible Parties</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscaping/Plaza South of H Street</td>
<td>Creation of a public plaza south of the SITF across H Street.</td>
<td>Included in SITF project costs.</td>
<td>City of Sacramento, Parcel Developers</td>
<td>Required as a condition for development of parcels created by I-5 ramp relocation. Provides a direct benefit to the adjacent development in addition to creation of new public space.</td>
</tr>
<tr>
<td>Plaza Adjacent to Federal Building</td>
<td>Creation of a public plaza south of the REA building and west of Federal Building at the corner of 5th and I Streets.</td>
<td>Included in SITF project costs.</td>
<td>City of Sacramento, Federal Government</td>
<td>Provides increased setback for Federal Building, compliments existing ground level plaza at the Federal Building.</td>
</tr>
<tr>
<td>Secure Connection between the Federal Building and the Sacramento County Jail</td>
<td>Construction of a new, secure grade separated connection between the two buildings to transport defendants without using the public streets.</td>
<td>Included in SITF project costs.</td>
<td>Federal Government</td>
<td>Provides security and operational benefits for operation of the Federal Building.</td>
</tr>
</tbody>
</table>
5.1.2  Phasing and Cost Estimate Summary
The order of magnitude estimate for the SITF project cost is $226.2 Million. The SITF project is the public centerpiece of the new Railyards development, and successful SITF completion requires a successful Railyards redevelopment effort as well as regional and local support, and additional financial contributions from public and private partners for certain projects or actions not included in the SITF project costs. Funding sources will need to be identified to successfully realize then in conjunction with the SITF. As identified in the previous section, projects not included in the SITF project cost include:

- SITF Site Acquisition
- Freight and passenger track relocation and remediation work
- I-5 freeway on-ramp reconfiguration
- Completion of the second pedestrian tunnel
- Roadway work on 5th, 6th, and 7th street
- Expansion of the LRT DNA line

A construction phasing plan is presented that will allow implementation of the proposed SITF project while maintaining continuous operation of the facility. Assuming funding is place and approvals are obtained, construction is assumed to begin in early 2010, with SITF completed in mid 2017 and adjacent joint development and public open space completed in early 2019.

Table 5.1.2 and Figure 5.1.1 summarize the proposed construction phases, schedule and costs. The Order of Magnitude Costs shown in Table 5.1.2 and Figure 5.1.1 are escalated to the appropriate mid-point of construction. Additional detail on the phasing plan and the cost estimate are provided in Sections 5.2 and 5.3, respectively.
### Table 5.1.2. Construction Phases, Schedule and Cost

<table>
<thead>
<tr>
<th>Phase</th>
<th>Estimated Duration (months)</th>
<th>Begin Quarter</th>
<th>Begin Year</th>
<th>End Quarter</th>
<th>End Year</th>
<th>Estimated Order of Magnitude Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Development. Complete programmatic environmental process, funding procurement, property acquisition, preliminary engineering, coordination with UPRR, PUC and utilities</td>
<td>60</td>
<td>First</td>
<td>2005</td>
<td>First</td>
<td>2010</td>
<td>$ 8,400,000</td>
</tr>
<tr>
<td>Phase 1. Construct heavy rail realignment (by others), platforms, canopies, pedestrian tunnel, Terminal Extension, intercity bus boarding area, temporary passenger vehicle and RT bus pick-up/drop-off area</td>
<td>24</td>
<td>First</td>
<td>2010</td>
<td>First</td>
<td>2012</td>
<td>$ 81,000,000</td>
</tr>
<tr>
<td>Phase 2. Remove existing heavy rail tracks and complete soil remediation (by others), temporary transit way</td>
<td>6</td>
<td>First</td>
<td>2012</td>
<td>Third</td>
<td>2012</td>
<td>$ 600,000</td>
</tr>
<tr>
<td>Phase 3. Construct single LRT platform and platform with two storage tracks, construct foundation for new Depot location, seismic retrofit Depot, construct parking spaces in Millennia structure</td>
<td>12</td>
<td>Third</td>
<td>2012</td>
<td>Third</td>
<td>2013</td>
<td>$ 65,600,000</td>
</tr>
<tr>
<td>Phase 4. Remove disused LRT Amtrak extension, move and finish Depot</td>
<td>18</td>
<td>Third</td>
<td>2013</td>
<td>First</td>
<td>2015</td>
<td>$ 23,900,000</td>
</tr>
<tr>
<td>Phase 5. Construct H Street extension, passenger pick-up/drop-off area, RT on-street bus bays, landscaping and temporary parking south of H Street</td>
<td>3</td>
<td>First</td>
<td>2015</td>
<td>Second</td>
<td>2015</td>
<td>$ 10,800,000</td>
</tr>
<tr>
<td>Phase 6. Reconfigure I-5 Ramps (related project by others-costs not included in SITF project costs)</td>
<td>24</td>
<td>Second</td>
<td>2015</td>
<td>Second</td>
<td>2017</td>
<td>$ -</td>
</tr>
<tr>
<td>Phase 7. Complete local bus facility, REA/Federal Building Plaza</td>
<td>6</td>
<td>Fourth</td>
<td>2016</td>
<td>Second</td>
<td>2017</td>
<td>$ 9,000,000</td>
</tr>
<tr>
<td>Phase 8. Construct parking structure, joint development (by others), 4th Street segment and public plaza south of H Street</td>
<td>24</td>
<td>Second</td>
<td>2017</td>
<td>Second</td>
<td>2019</td>
<td>$ 26,900,000</td>
</tr>
<tr>
<td><strong>Total Project Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>$226,200,000</strong></td>
</tr>
</tbody>
</table>
SITF Project and Cost Schedule

Legend:
- Pre Construction Activity
- Construction Activity

Phase 1:
Complete programmatic environmental process, funding procurement, property acquisition, preliminary engineering, coordination with UPRR, PUC and utilities

Phase 2:
Construct heavy rail realignment (by others), platforms, canopies, pedestrian tunnel, Terminal Extension, intercity bus boarding area, temporary passenger vehicle and RT bus pick-up/drop-off area

Phase 3:
Remove existing heavy rail tracks and complete soil remediation (by others), temporary transit way

Phase 4:
Construct single LRT track and platform with two storage tracks, construct foundation for new Depot location, seismic retrofit Depot, construct parking spaces in Millennia structure

Phase 5:
Complete LRT Amtrak extension, move and finish Depot

Phase 6:
Construct H Street extension, passenger pick-up/drop-off area, RT on-street bus bays, landscaping and temporary parking south of H Street

Phase 7:
Complete local bus facility, REA / Federal Building Plaza

Phase 8:
Construct parking structure, Joint Development (by others), 4th Street segment, and public plaza south of H Street

SITF Project Funding Sources and Schedule

Legend:
- Other Subsidies
- Debt
- Federal / State Grants
- Countrywide Impact Fees
- Measure A Funds
- Tax Increment
- Transportation Impact Fees

Annual Project Cost ($ millions)

Cost $9.4m
Cost $12.5m
Cost $6.6m
Cost $19.0m
Cost $49.0m
Cost $10.1m
Cost $3.7m
Cost $38.1m
Cost $18.0m
Cost $18.3m
Cost $11.8m
Cost $30.2m
Cost $17.7m
Cost $9.1m
Cost $1.4m
Cost $7.6m
Cost $4.1m
Cost $22.8m

8 October 2004
5.1.3 Economic Model Summary

An economic model for the project is included in this report evaluating financial needs of both the development and operating phases of the facility. Project costs (design and construction) will be funded through a combination of Federal and State grants, Measure A funds, Countywide Impact fees, Tax Increment (TI), Transportation Impact Fees (TIF), and debt (including TFIA loans and bonds).

The key outputs of the economic model are captured in the following tables and charts.

Table 5.1.3 Summary of Development Costs and Funding Sources

<table>
<thead>
<tr>
<th>Item</th>
<th>$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Cost</td>
<td>226.2</td>
</tr>
<tr>
<td>Funding Sources</td>
<td></td>
</tr>
<tr>
<td>Grants (Transportation &amp; Security funds)</td>
<td>84.1</td>
</tr>
<tr>
<td>Measure A</td>
<td>53.3</td>
</tr>
<tr>
<td>Countywide Impact Fee</td>
<td>10.0</td>
</tr>
<tr>
<td>TI &amp; TIF Direct Expenditures</td>
<td>10.7</td>
</tr>
<tr>
<td>Debt</td>
<td>67.1</td>
</tr>
<tr>
<td>Other Subsidies</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The following chart illustrates anticipated funding sources for each year of pre-project and project activities. The chart illustrates a shortfall in funding in the years 2006 and 2007 totaling approximately $1 million, identified as “Other Subsidies.” This shortfall exists as initial funding is intended to come from grants already secured, and the amount available from those grants is inadequate to cover the cash demands of the initial project design and environmental activities.

Table 5.1.4 SITF Project Funding Sources
During the operating phase of this facility, operating income will be generated by joint development leases, transit leases, and parking revenue. This income will be used to first pay operating costs for the facility, producing a “Net Operating Income” (NOI) available to pay debt service on the debt accrued during the development phase. The NOI will be supplemented by ongoing TIF and TI revenues plus limited Measure A funds to fully fund the debt service requirements. However, even with these additional sources, the economic model forecasts shortfalls in the early operating years of 2015 through 2018. After 2019, increasing NOI and additional available TI and TIF funds are adequate to cover debt service requirements for the remainder of the term of indebtedness. The identified shortfall is a total of nearly $10 million over the four early operating years, indicated as “Other Subsidies” in the following chart:

**Table 5.1.5  SITF Funding for Debt Service**

This shortfall can be addressed by a combination of:

- Cost reductions in the 5 to 10% range through value engineering
- Exploration of additional grant or local funding
- Increased revenue opportunities from transit partners or fees
- Structuring debt to defer partial payments in the early years until adequate cash flows can be established

Beyond solving the identified funding shortfalls, the primary risks to the financial feasibility of this project are:

- Securing land and track relocations without incurring direct costs to the project
- Reconfiguring the I-5 interchange from other funding sources to enable joint development along I Street
- Development of a viable Railyards program to establish a critical mass of economic activity and to produce the TI and TIF funds anticipated in this model
- Capturing market rents from all tenants
- Securing anticipated levels of grants and local funding
- Achieving passage of Measure A, Countywide Impact Fees and amendments to secure extension of redevelopment Tax Increments for an additional 10 years
- Managing project scope and cost growth
- Obtaining debt financing on favorable terms

These issues should be tested rigorously to identify and mitigate risks while continuing to pursue other potential sources of funding and financial support. Each of these items is critical to the financial viability of the project. Financial success relies on strong public and agency support and the ability of the development team to secure expected performance in each of these critical areas.
5.2 Phasing Plan

5.2.1 Introduction
A conceptual phasing strategy was developed for construction of the proposed SITF. This document presents one phasing scheme, however alternative phasing schemes are possible. The phasing strategy presented in this document assumes a linear sequence on the critical path without overlap of controlling items. With the major work components separated, a construction duration of eight years is estimated for this phasing strategy.

It should be noted that this schedule reflects anticipated minimum construction duration only. Significant lead time has been provided before each phase, including a five year period between 2005 and 2010 prior to initiation of Phase I. However, the schedule does not take into account the potential for additional unforeseen delays associated with funding availability, approvals, regulatory clearances, design, bidding, staffing availability or changing City priorities. Meeting the schedule will require a continuous, coordinated and focused effort to resolve outstanding issues and complete necessary pre-construction activities at each Phase.

Several factors could affect the final phasing strategy and schedule, such as available funding and the schedules of the Millennia development, the LRT Amtrak Extension, the LRT DNA extension, or the reconfiguration of the I-5 ramps. In particular, given the complexity and scale of the I-5 ramp reconstruction project the phasing strategy may need to be modified when more information about the project is available.

Prior to developing this conceptual phasing strategy, various requirements, objectives, and assumptions were identified. The parameters are outlined in this section and are followed by a description of the conceptual phasing strategy.

5.2.2 Requirements
The following requirements have been identified and used while developing the phasing strategy:

- Maintain transit operations at the SITF for heavy rail, LRT, buses, passenger vehicles, pedestrians, and bicyclists
- Maintain staging for Old Sacramento events in City-owned Lot W
- Maintain access to the REA building, Railroad Museum, and I-5 ramps
- Provide parking for SITF and REA building

5.2.3 Objectives
The following objectives have been identified and used while developing the phasing strategy:

- Accommodate incremental expansion of the SITF Terminal
- Minimize the need for temporary facilities
- Move Greyhound onto the site as early as possible, possibly as an interim, independent project to the long term SITF project
- Move the Depot as early as possible
- Maximize flexibility with respect to adjacent projects
- Seek to maintain a minimum of 200 parking spaces for transit uses and a minimum of 60 parking spaces for the REA building

5.2.4 Assumptions
The following assumptions were used while developing the phasing strategy:
Schedule

- LRT Amtrak extension is anticipated to be operational in Third Quarter 2005
- The SITF project is assumed to begin concurrently with the heavy rail realignment in the First Quarter 2010
- Linear sequence to the critical path without overlap of controlling items
- Include Millennia development, I-5 ramp reconfiguration, and Joint Development construction for purposes of tracking and coordination

Funding

- Funding will not be initially available for the entire project and the major work components will typically occur sequentially
- However if funding is available, it may be feasible to combine the major work components in certain phases
- Attempt to facilitate early construction of the joint development parcels to allow this revenue stream to be generated

Land Acquisition

- Land required to build the SITF and associated roadway connections and public open spaces will be either contributed or dedicated as part of a negotiated development agreement with the property owner(s)
- Land acquisition will be complete prior to 2010

Heavy Rail Realignment

- Realigning the existing heavy rail tracks is required to initiate the SITF project as well as the Millennia Development.
- Provide space for three High Speed Rail structures
- The following SITF projects would need to be coordinated with the proposed track realignment:
  - New platforms
  - Pedestrian tunnel to platforms
- The following related projects would need to be coordinated with the proposed track realignment:
  - 5th and 6th Street overpasses
  - 7th Street widening
  - Additional pedestrian/bicycle underpass

Millennia Development

- Requires track relocation prior to construction
- Development will be constructed
- The first phase of the development will be in the Depot District, south of the heavy rail tracks
- Expect application will be submitted in First Quarter 2005
- 18 months for entitlement and environmental process
- 18 months for planning and design of capital improvements, concurrent with entitlement and environmental
Moving the Historic Depot

Refer to Section 4.4 in this document and Working Paper #8 for descriptions of the structure itself and the methodology for moving the structure. The following items would be completed prior to moving the Depot.

- The Terminal Extension (new facility) with temporary access arrangement
- Seismic strengthening work completed with Depot closed and passengers using Terminal Extension
- The new basement and foundation system
- The LRT Amtrak extension and other obstructions would be removed

LRT Amtrak Extension, Short Term Project

- Operational in the Third Quarter of 2005
- Located in the proposed H Street extension
- Requires modifications to pedestrian crossing, parking, and vehicular circulation (currently under study)

LRT DNA Extension, Short Term Project

- Operational in 2013 at the earliest
- Construction concurrent with widening of 7th Street
- First phase is from Depot to Natomas Town Center

Greyhound

- Interim Greyhound facility relocated to west end of Depot prior to initiation of SITF construction (by others)

I-5 I Street Ramps

- Earliest possible completion date 2016
- Phasing and constructability of the ramps not considered as part of this project
- Access to the SITF would be maintained during construction

REA Building

- Property owner completes renovations in Fourth Quarter 2005
- Can use property to access the SITF site from 5th Street in interim phases
- City must obtain access easements prior to giving financial assistance to REA partners

Streets and Circulation Components

- 5th Street converted to two-way operations prior to start of SITF construction

Public Open Space

Consider timing and coordination in construction and access

- Riverfront Park (independent of SITF)
- I Street Plaza (adjacent to the Federal Building and the REA Building)
- Forecourt
- Terminal Square

Additional Assumptions

- The remediation of the ground under the existing tracks can be phased to allow access across the work areas
Upgrades to any of the off-site utility systems not considered.

### 5.2.5 Phasing Strategy

The phasing strategy is comprised of eight phases and a pre-construction starting condition that was considered to be the existing condition prior to the start of construction. Figures 5.2.1 to 5.2.9 present the major items of work and SITF functionality for each phase. The phasing takes advantage of the available space between the existing heavy rail alignment to the south and the proposed heavy rail realignment to the north by constructing new facilities while existing facilities remain in operation, thereby simplifying the coordination of construction and operations. Access to the station and transit operations are maintained throughout all of the construction phases. The overall construction duration is approximately eight years, which includes the heavy rail realignment, the reconfiguration of the I-5 ramps, and the joint development construction. It is optimistic in that it assumes funding, approvals, project resources, etc. are in place and optimally coordinated.

Descriptions of the phases and schedule are as follows:

#### Pre-Construction Starting Condition

This is considered to be the existing condition for development of the subsequent SITF phasing. The duration of this phase is estimated to be 60 months from First Quarter 2005 to First Quarter 2010 and includes the following major components of project development:

- Environmental Approval
- Funding Procurement
- Right-of-way dedication / Right-of-way control
- Final Design for Phase 1
- UPRR and PUC coordination
- Utility coordination

During this phase the Depot, heavy rail, passenger vehicles, pedestrians, and bicyclists operate and access the facility as existing. The LRT operates as the Amtrak Extension along H Street (assumed to be operational in the Third Quarter 2005). Amtrak Thruway and RT buses use their existing bus facility at the Historic Depot. Greyhound is assumed to be relocated from L Street to the existing Depot site prior to SITF Phase 1. Greyhound passenger facilities were assumed to be located in the west end of the Depot, with bus boarding west or north of the building. The bus circulation plan is currently under development by the City of Sacramento, RT and other stakeholders. The phasing plan presented in this document assumed buses circulate in a clockwise manner entering the facility using I and 2nd Streets and exiting the facility using H and 5th Streets.

#### Phase 1

During this phase most of the new SITF facilities are constructed in the available area between the existing heavy rail tracks and the realigned heavy rail tracks. The duration of this phase is estimated to be 24 months from First Quarter 2010 to First Quarter 2012 and includes the following major components:

- Heavy rail realignment (related project by others)
- Passenger platforms and canopy
- Terminal Extension (new facility) and pedestrian tunnel
- Additional pedestrian/bicycle tunnel structure at the west end of the site
- Intercity bus boarding area
- Temporary passenger vehicle and RT bus pick up/drop off area
• Landscape and hardscape adjacent to Terminal Extension (10% of final landscaping north of H Street)
• Temporary landscaping
During this phase the transit operations continue to function as the Pre-Construction Starting Condition. At the end of this phase, when the new facilities and the heavy rail realignment are complete, transit operations would be transferred to the combination of the temporary and permanent facilities and the heavy rail traffic would be switched to the new alignment.

Phase 2
The duration of this phase is estimated to be six months from First Quarter 2012 to Third Quarter 2012 and the items of work are:
• Existing heavy rail removal and soil remediation (related project by others)
• Connections for bus access and the transit way to F and 7th Streets
During this phase the heavy rail operates on its new alignment, transit operations use the new Terminal Extension, and the existing Depot is closed. Buses enter/exit the facility as Phase 1 with the addition of a temporary road across the removed heavy rail to access the new boarding areas. Amtrak Thruway and Greyhound buses use the new intercity boarding area, and RT buses use a temporary boarding area. LRT, passenger vehicles, pedestrians, and bicyclists operate as Phase 1, but use temporary roads and pathways to cross the heavy rail removal/remediation and access the transit facilities.

Phase 3
After transit operations are transferred to the temporary and permanent facilities and the existing heavy rail is removed and remediated, the LRT Amtrak Extension be relocated to its ultimate location on the east side of the SITF. Concurrently, the Depot and new foundation will be prepared for the move. The duration of this phase is estimated to be 12 months from Third Quarter 2012 to Third Quarter 2013 and includes the following major components:
• Relocate LRT Amtrak extension to east side of SITF consisting of single track on grade, single platform, two tail storage tracks (a related project by RT would upgrade the LRT station and tracks to meet DNA line requirements, i.e. double track)
• Foundation for new location of Depot
• Depot seismic retrofit and preparation for move
• 650 parking spaces in Millennia structure
• 7th Street underpass widening (related project by others; timing is dependent upon Millennia development and LRT DNA Line and could be constructed in Phase 1 if needed)
During this phase all transit operations function as Phase 2. At the end of this phase LRT operations on the Amtrak extension would be transferred to the new facilities on the east side of the Terminal Extension.

Phase 4
Once the SITF portion of the LRT DNA extension is completed and operational, the LRT Amtrak extension can be removed in advance of moving the Depot. The duration of this phase is estimated to be 18 months from Third Quarter 2013 to First Quarter 2015 and includes the following major components:
• Remove LRT Amtrak extension
• Move Depot
• Finish Depot
During this phase all transit operations function as Phase 2 except for the LRT, which operates as the DNA extension.

**Phase 5**

After the Depot is moved, the passenger drop off area, which fronts the Depot, can be constructed. Also, the H Street extension can be constructed east of the I-5 ramps. The duration of this phase is estimated to be three months from First Quarter 2015 to Second Quarter 2015 and includes the following major components:

- Continue H Street extension
- Temporary surface parking south of H Street
- Passenger/taxi drop off area
- RT on-street bus bays
- Landscape and hardscape in front of Depot (90% of final landscaping north of H Street)
- Reconfigure Historic Depot site for surface parking

During this phase the Depot operates as its ultimate configuration except for RT buses and passenger cars, which continue to use temporary boarding areas.

**Phase 6**

This phase consists of reconstruction of the I-5 I Street Ramps and completion of the H Street extension. The duration of this phase is estimated to be 24 months from Second Quarter 2015 to Second Quarter 2017 and includes the following major components:

- I-5 ramps reconfiguration (a separate federally-funded project)
- Complete H Street and 3rd Street extensions (as part of the I-5 ramp reconfiguration project)

During this phase the Depot operates as its ultimate configuration except for RT buses, which continue to use the temporary boarding area with the addition of H Street bus bays.

**Phase 7**

This phase completes the remaining components of the ultimate SITF including the local bus facility. The duration of this phase is estimated to be six months from Fourth Quarter 2016 to Second Quarter 2017 and includes the following major components:

- Ultimate RT local bus facility
- REA / Federal building plaza
- Remove temporary drop off area

During this phase the Depot operates as its ultimate configuration with the exception of RT buses. Buses continue to operate on H Street as in Phase 6, but the temporary facility would be removed during construction of the permanent local bus facility.

**Phase 8**

This phase begins the joint development and final improvements to the now vacated site of the existing station. The duration of this phase is estimated to be 24 months from Second Quarter 2017 to Second Quarter 2019 and includes the following major components:

- Joint development construction and development of Terminal Square (related projects by others)
- Parking structure south of H Street
- 4th Street link to H and I Streets
- Landscaping south of H Street

At this phase all transit operations use their ultimate configuration.
Notes:
This phase includes the following Project Development / components:
- Environmental approval
- Funding procurement
- Right-of-way dedication / right-of-way control
- Final design
- UPRR and PUC coordination
- Utility coordination

Functionality
Depot operates as existing except:
- Heavy Rail operates as existing
- LRT operates as Amtrak extension along H Street
- Buses operate in a clockwise manner entering the facility using I Street and exiting the facility using H and 5th Streets (Note: Bus circulation patterns currently under discussion)
- Amtrak Thruway and RT buses use their existing bus facility
- Greyhound relocated to an interim facility on the west side of the site (By others)
- Passenger vehicles operate as existing
- Pedestrian and bicyclists operate as existing

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area

Bus / auto circulation
Temporary Bus Access
Possible pedestrian access
Notes
A.) Heavy track, platforms, pedestrian tunnels (by others)
B.) Intercity bus boarding area
C.) Construct new terminal extension
D.) Temporary passenger car and RT bus pick up / drop off
E.) Millennia Development (by others) - Possible to begin construction

Functionality
- Depot operates as existing
  - Heavy Rail operates as existing
  - LRT operates as Amtrak extension along H Street
  - Buses operate in a clockwise manner entering the facility using 2nd Street and exiting the facility using H and 5th Streets similar to existing
  - Amtrak Thruway and RT buses located north of depot.
  - Greyhound operates from an interim facility on the west side of the site
  - Passenger vehicles access as existing, with reconfigured parking lot
  - Pedestrian and bicyclists operate as existing

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus / auto circulation
- Temporary Bus Access
- Possible pedestrian access

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus / auto circulation
- Temporary Bus Access
- Possible pedestrian access

Construction Phase 1 - 1st Quarter 2010 to 1st Quarter 2012

Figure 5.2.2

8 October 2004
Notes:
A.) Remove heavy rail tracks and remediate soil (by others)
B.) Construct temporary road access across out of service heavy rail tracks and transit way to 7th Street
C.) Millennia Development (by others) - Possible to begin construction

Functionality:
- Station functions in new Terminal Extension
- Heavy Rail operates on new alignment
- LRT operates as in Pre Construction Phase
- Buses enter the facility as Pre Construction Phase with the addition of a temporary road across the out of service heavy rail to access the temporary boarding areas
- Possible secondary bus access to F Street and 7th Street through Millennia construction
- Amtrak Thruway and Greyhound buses use the new intercity bus boarding area
- RT buses use a temporary bus boarding area
- Passenger vehicles enter the facility as in Pre Construction Phase and use temporary pathways across the out of service heavy rail to access the transit facilities
- Additional passenger vehicle access via 2nd Street
- Pedestrian and bicyclists enter the facility as in Pre Construction Phase and use temporary pathways across the out of service heavy rail to access the transit facilities

Possible secondary bus access to F Street and 7th Street through Millennia construction
Amtrak Thruway and Greyhound buses use the new intercity bus boarding area
RT buses use a temporary bus boarding area
Passenger vehicles enter the facility as in Pre Construction Phase and use temporary pathways across the out of service heavy rail to access the transit facilities
Additional passenger vehicle access via 2nd Street
Pedestrian and bicyclists enter the facility as in Pre Construction Phase and use temporary pathways across the out of service heavy rail to access the transit facilities
Notes
A.) Construct LRT track on grade and platform on DNA alignment
B.) Prepare foundation for new Depot
C.) Retrofit existing Depot and prepare to move
D.) 650 Space Millennia parking structure
E.) 7th Street underpass widening can be constructed in Phase 1 if needed. Timing is controlled by Railyard Development and for LRT DNA Line
F.) Construct secure jail connection between Federal Building and Sacramento County Jail (related project)
G.) Millennia Construction (by others)

Functionality
- Depot operates as in Phase 2
- Heavy Rail operates as in Phase 2
- LRT operates as in Pre Construction Phase
- Buses enter/exit the facility as in Phase 2
- Amtrak Thruway and Greyhound buses operate as in Phase 2
- RT buses operate as in Phase 2
- Passenger vehicles operate as in Phase 2
- Pedestrian and bicyclists as Phase 2

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus/auto circulation
- Temporary Bus Access
- Possible pedestrian access

Area operational
Area under construction
Millennia Construction
Station parking area
Bus/auto circulation
Temporary Bus Access
Possible pedestrian access

Client
City of Sacramento
Consultant Team
SMWM
Arup
Acanthus
CHS Consulting Group
CH2MHill
Hanscomb Faithful & Gould
The Hoyt Company
Jones Lang LaSalle
LTK Engineering Services
Nelson/Nygaard
Simpson Gumpertz & Heger, Inc.
**Figure 5.2.5**

Construction Phase 4 - 3rd Quarter 2013 to 1st Quarter 2015

**Legend**

- **Legend**
  - Area under construction
  - Area operational
  - Shared parking
  - Potential bus and auto egress
  - Potential pedestrian access
  - Millenia Construction
  - Bus / auto circulation
  - Station parking area
  - Possible pedestrian access

**Notes**

A.) Remove LRT extension

B.) Move Depot to new location and finish upgrade

**Functionality**

- Heavy Rail operates as in Phase 2
- Heavy Rail operates on DNA alignment
- Buses operate as in Phase 2
- Amtrak Thruway and Greyhound buses operate as in Phase 2
- RT buses operate as in Phase 2
- Passenger vehicles operate as in Phase 2
- Pedestrian parking to use shared parking in the Millennia development
- Commuter parking to use shared parking in the Millennia development

**Architecture**

**Interiors**

**Planning**

**Graphic Design**

**Client**

City of Sacramento

**Consultant Team**

SMWM/Arup

Acanthus

CHS Consulting Group

CH2M Hill

Hanscomb

Faithful & Gould

The Hoyt Company

Jones Lang Lasalle

LTK Engineering Services

Nelson/Nygaard

Simpson Gumpertz & Heger, Inc.

**SACRAMENTO INTERMODAL TRANSPORTATION FACILITY**

Construction Phase 4 - 3rd Quarter 2013 to 1st Quarter 2015

8 October 2004
Note:
A) Contract 1 - Street Extension
B) Contract 2 - Pedestrian and bike ways
C) Contract 3 - UGF on street
D) Contract 4 - Pedestrian access

Functionality:

1. Rail: The rail operations follow the ultimate design configuration.
2. Heavy rail operations as in Phase 2
3. Light rail operations as in Phase 4
4. Amtrak and Greyhound buses operate as in Phase 2
5. RT buses operate as in Phase 2
6. Passenger vehicles operate as in Phase 2
7. Pedestrian and bicyclists as Phase 2

Legend:

- Area under construction
- Millenia Construction
- Station parking area
- Bus and auto circulation
- Possible pedestrian access

Notes
A.) Remove temporary drop off area and construct ultimate RT local bus facility
B.) Construct REA / Federal Building plaza

Functionality
- Depot operates as Phase 5
- Heavy Rail operates as Phase 2
- LRT operates as Phase 4
- Buses enter/exit the facility as Phase 2
- Amtrak Thruway and Greyhound buses as Phase 2
- RT buses operate on H Street bus bays
- Passenger vehicles as Phase 6
- Pedestrian and Bicyclists as Phase 6

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus / auto circulation
- Temporary Bus Access
- Possible pedestrian access

Notes
A.) Remove temporary drop off area and construct ultimate RT local bus facility
B.) Construct REA / Federal Building plaza

Functionality
- Depot operates as Phase 5
- Heavy Rail operates as Phase 2
- LRT operates as Phase 4
- Buses enter/exit the facility as Phase 2
- Amtrak Thruway and Greyhound buses as Phase 2
- RT buses operate on H Street bus bays
- Passenger vehicles as Phase 6
- Pedestrian and Bicyclists as Phase 6

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus / auto circulation
- Temporary Bus Access
- Possible pedestrian access

Notes
A.) Remove temporary drop off area and construct ultimate RT local bus facility
B.) Construct REA / Federal Building plaza

Functionality
- Depot operates as Phase 5
- Heavy Rail operates as Phase 2
- LRT operates as Phase 4
- Buses enter/exit the facility as Phase 2
- Amtrak Thruway and Greyhound buses as Phase 2
- RT buses operate on H Street bus bays
- Passenger vehicles as Phase 6
- Pedestrian and Bicyclists as Phase 6

Legend
- Area operational
- Area under construction
- Millennia Construction
- Station parking area
- Bus / auto circulation
- Temporary Bus Access
- Possible pedestrian access
Notes
A. Construct 4th Street link between H and I Streets
B. Joint development construction
C. 1. Construct parking structure
   2. Area operational
   3. Station parking area
   4. Temporary Bus Access
   5. Possible pedestrian access

Legend
- Area under construction
- Millenium Construction
- Bus / auto circulation
- Station parking area
- Temporary Bus Access
- Possible pedestrian access

Notes
A.) Construct 4th Street link between H and I Streets
B.) Joint development construction
C.) Construct parking structure

Functionality
All transit operations use ultimate configuration

Area operational

Legend
- Area under construction
- Millenium Construction
- Bus / auto circulation
- Station parking area
- Temporary Bus Access
- Possible pedestrian access
5.2.6 Schedule

For the purposes of this evaluation, the heavy rail realignment (related project by others) and the new Terminal Extension (new facility) are assumed to concurrently begin in the First Quarter 2010. The schedule progresses sequentially along the critical path without overlap of controlling items.

The controlling items are as follows:

- Phase 1: Heavy rail realignment (related project by others) and new Terminal Extension
- Phase 2: Remove and remediate existing heavy rail (related project by others)
- Phase 3: LRT DNA single track with two tail tracks and a single platform within SITF site
- Phase 4: Move and finish Depot
- Phase 5: H Street Extension and drop off area
- Phase 6: I-5 Ramp reconfiguration (related project by others)
- Phase 7: RT local bus facility
- Phase 8: Joint Development

Table 5.2.1 summarizes the overall project schedule. The schedule includes an overall Project Development phase prior to Phase I, as well as pre-construction activities prior to each phase.
<table>
<thead>
<tr>
<th>Phase</th>
<th>Controlling Item</th>
<th>Pre-Construction Activities</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimated Duration (months)</td>
<td>Begin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quarter</td>
</tr>
<tr>
<td></td>
<td>Project Development</td>
<td>60</td>
<td>First</td>
</tr>
<tr>
<td>1</td>
<td>Relocate Heavy Rail (by others) and New Terminal Extension</td>
<td>24</td>
<td>First</td>
</tr>
<tr>
<td>2</td>
<td>Remove and Remediate Existing Heavy Rail Track (by others)</td>
<td>12</td>
<td>First</td>
</tr>
<tr>
<td>3</td>
<td>Construct LRT DNA Tracks and Platform</td>
<td>24</td>
<td>Third</td>
</tr>
<tr>
<td>5</td>
<td>Complete H Street Ext. and Drop Off Area</td>
<td>12</td>
<td>First</td>
</tr>
<tr>
<td>6</td>
<td>Reconfigure I-5 Ramps (by others)</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
5.3 Cost Estimate

5.3.1 Introduction
This section presents the conceptual construction cost estimate for the proposed project of the Sacramento Intermodal Transportation Facility. The costs include the renovation, seismic upgrade, and relocation of the existing Historic Depot, additional terminal facilities with new bus and LRT facilities together with necessary revision to roads, utilities and LRT. Allowance for temporary facilities as identified in the phasing plan is also included, as well as allowances for development of the scope, pre-construction activities (e.g. environmental, studies, design), and construction administration and technical support. It should be noted that these costs do not include financing costs.

5.3.2 Cost Estimate Assumptions

5.3.2.1 General
In calculating the capital costs, the project team used the following assumptions and qualifications:

- Cost escalation is to the mid-point of each construction phase based on a preliminary schedule with the first phase starting on site in January 2010.
- The estimates are based on preliminary drawings for the proposed project, indicating the required permanent and temporary work proposed.
- The cost of the seismic upgrade work to the existing Depot building is based on a previous seismic upgrade study. Base isolation is not included in the cost estimates for relocation or seismic upgrade.
- Joint development parcels will be let as separate projects and are not included. Cost allowances have been included for the shared parking spaces to be provided within the Millennia and other joint development parking structures, as well as for the public plazas south of H Street.
- Streets required for joint development parcels only are not included (e.g. streets within the Millennia development).
- Utility relocations have not been calculated explicitly, however relocation allowances have been made based on historical cost data from similar site development projects.

Figure 5.3.1 Illustrates the extent of the project area included in the conceptual cost estimates.

Items not included in the estimate that could affect the cost model:

- Modifications to the scope of work included in this cost model
- Unforeseen sub-surface conditions including the extent of utility work
- Special phasing requirements
- Restrictive technical specification or excessive contract conditions
- Any specified item of equipment, material, or product that cannot be obtained from at least three different sources
- Any other non-competitive bid situations

5.3.2.2 Inclusions
The following items are included:

Construction costs for:
- Terminal Extension building (new facility) including one pedestrian tunnel to platforms
- City of Sacramento Art in Public Places allowance
- Structure for an optional second pedestrian tunnel
- Bus and passenger car boarding areas
- Streets required by the SITF Terminal including an allowance for typical street utilities
- Relocation of LRT Amtrak extension to the proposed location on the east side of the SITF, including a single platform track and platform, and two tail tracks for storage of LRT vehicles.
- Removal of LRT Amtrak extension
- Renovation, seismic retrofit, and moving of existing Historic Depot including the new foundation for the building
- Allowance for 650 structured parking spaces within the Millennia development
- Allowance for 350 structured parking spaces within the joint development parcel south of H Street.
- Construction and removal of temporary access routes
- Hardscape and landscape revisions for the project, including landscaping for proposed public open space south of the SITF
- Allowance for associated pre-construction and concurrent costs for studies, environmental impact analyses, design, construction administration and technical support during construction. Includes costs for both professional consulting/architectural and engineering services and City staff. Note: It is recommended that particular care be taken to define clearly the scope of services required against each of these items before the allowances are used for budgetary purposes.

### 5.3.2.3 Exclusions

The following related projects have not been costed as part of this study and are not attributed to the SITF Project.

- LRT Amtrak extension
- LRT station expansion for DNA Line, except for relocation of the Amtrak extension as described above
- LRT track DNA components such as double track on H Street, 7th Street bypass track, and further extension to the north
- LRT 7th Street bypass track
- Realignment of existing heavy rail tracks, removal of existing tracks and soil remediation
- I-5 ramps reconfiguration and 3rd Street extension
- 5th and 6th Street overpasses
- Land acquisition and property costs
- Joint development construction
- Seismic base isolation of Historic Depot
- Off-site utilities (upgrades to serve the project)
- On-site storm drainage retention facilities
- Greyhound interim facility at the Historic Depot
- Financing costs
- 7th Street underpass widening related project
5.3.2.4 Escalation
Escalation is included in this cost model based on 3.5% per annum, with each work item escalated to the appropriate mid-point of construction.

5.3.2.5 Contingencies
The unit costs for the items of construction work include a 10% contingency to allow for development of the design, and the overall estimate also includes a scope contingency (20% of construction costs), which is to provide an allowance for possible revisions to scope and changes in the bidding market.

5.3.2.6 Associated Costs (Non-Construction)
Pre-construction costs include such items as design fees, surveys, fees and charges, environmental studies, owner costs during the design phase, and other pre-construction project costs not included in the construction costs (land costs are excluded). Some pre-construction costs apply to the overall project and would be incurred prior to initiation of any work on site. Examples of Project-Level Pre-Construction Costs include program-level environmental impact studies and overall project schematic design work. Project-Level Pre-Construction costs are estimated to be 5% of the construction cost for each phase, and are assumed to be incurred during the Project Development phase (2005-2010).

Other pre-construction costs apply to specific construction phases and would be incurred prior to initiation of the associated phase. Examples of Phase-Specific Pre-Construction costs include specific project-level environmental and detailed design. Phase-Specific Pre-Construction costs are estimated to be 20% of the construction cost for each phase, and are assumed to be incurred prior to the construction phase.

Construction stage associated costs include design team supervision costs, other supervision costs for the owner, change orders, and other project costs during construction not included in the construction bids. Construction stage associated costs are estimated to be 10% of the construction cost for each phase and are assumed to be incurred concurrently with the construction.

Note that these soft cost items in the estimate are allowances, and actual items for soft costs have not been identified by the owner or individually estimated.

5.3.3 Preliminary Order of Magnitude Project Costs
The estimated cost of the proposed development is presented below in Table 5.3.1. It should be noted that Phase 6 consists of the I-5 interchange reconfiguration, which is not included in the cost estimate. Appendix A includes a more detailed tabulation of the costs associated with each phase.
Table 5.3.1. Preliminary Order of Magnitude Project Costs

<table>
<thead>
<tr>
<th>Phase</th>
<th>Order of Magnitude Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Development. Complete programmatic environmental process,</td>
<td>$ 8,400,000</td>
</tr>
<tr>
<td>funding procurement, property acquisition, preliminary engineering,</td>
<td></td>
</tr>
<tr>
<td>coordination with UPRR, PUC and utilities</td>
<td></td>
</tr>
<tr>
<td>Phase 1. Construct heavy rail realignment (by others), platforms,</td>
<td>$ 81,000,000</td>
</tr>
<tr>
<td>canopies, pedestrian tunnel, Terminal Extension, intercity bus</td>
<td></td>
</tr>
<tr>
<td>boarding area, temporary passenger vehicle and RT bus pick-up/drop-</td>
<td></td>
</tr>
<tr>
<td>off area</td>
<td></td>
</tr>
<tr>
<td>Phase 2. Remove existing heavy rail tracks and complete soil</td>
<td>$ 600,000</td>
</tr>
<tr>
<td>remediation (by others), temporary transit way</td>
<td></td>
</tr>
<tr>
<td>Phase 3. Construct single LRT platform and platform with two</td>
<td>$ 65,600,000</td>
</tr>
<tr>
<td>storage tracks, construct foundation for new Depot location, seismic</td>
<td></td>
</tr>
<tr>
<td>retrofit Depot, construct parking spaces in Millennia structure</td>
<td></td>
</tr>
<tr>
<td>Phase 4. Remove disused LRT Amtrak extension, move and finish</td>
<td>$ 23,900,000</td>
</tr>
<tr>
<td>Depot</td>
<td></td>
</tr>
<tr>
<td>Phase 5. Construct H Street extension, passenger pick-up/drop-off</td>
<td>$ 10,800,000</td>
</tr>
<tr>
<td>area, RT on-street bus bays, landscaping and temporary parking</td>
<td></td>
</tr>
<tr>
<td>south of H Street</td>
<td></td>
</tr>
<tr>
<td>Phase 6. Reconfigure I-5 Ramps (related project by others-costs</td>
<td>$ -</td>
</tr>
<tr>
<td>not included in SITF project costs)</td>
<td></td>
</tr>
<tr>
<td>Phase 7. Complete local bus facility, REA/Federal Building Plaza</td>
<td>$ 9,000,000</td>
</tr>
<tr>
<td>Phase 8. Construct parking structure, joint development (by others),</td>
<td>$ 26,900,000</td>
</tr>
<tr>
<td>4th Street segment and public plaza south of H Street</td>
<td></td>
</tr>
<tr>
<td>Total Project Costs</td>
<td>$226,200,000</td>
</tr>
</tbody>
</table>
5.4 Cost and Revenue Model

5.4.1 Operating Summary
In Working Paper #8 “Funding and Revenue Opportunities” the project team outlined potential revenue sources and operating and capital costs for each of the four alternatives. In this paper, the team has refined the spreadsheet cost models introduced in Working Paper #8 to reflect the current configuration of the proposed project.

The Spreadsheet Cost Model (Appendix B) contains the following sections:

- **Operating Summary.** The Operating Summary spreadsheet reflects a year-by-year summary cash flow report for the completed facility detailing the anticipated revenues, operating costs and debt service requirements to support the ongoing operations of the terminal facility. The Operating Summary is a roll-up of the following spreadsheets.

- **Operating Assumptions.** The Operating Assumptions spreadsheet reflects a year-by-year cash flow with detailed operating revenue projections from joint development leases, transit agency leases, parking and advertising and detailed expense projections for the facility. The Operating Assumptions take into account the proposed project phasing plan. It should be noted that large public transit facilities have high operating budgets due to the public use of the space and extended operating hours. The impact of these high operating costs is addressed in the “Assumptions” discussion below.

- **Loan and Bond Funding.** The Loan and Bond Funding spreadsheets reflect the debt required to meet the cash requirements during the development of the project, with a TFIA loan and Bond financing modeled to fund construction to the extent the costs are not covered by grants and other direct funding sources. Other sources of debt will be investigated as the project approaches implementation to secure the optimal form of debt financing.

- **Capital Assumptions – Sources of Funds.** The Capital Assumptions spreadsheet details the utilization of a variety of sources to fund development costs. The spreadsheet projects funding requirements based on project phasing with the debt sized to fill deficits between funding sources and project cash demands.

- **Tax Increments (TI) and Transportation Impact Fees (TIF).** The TI and TIF spreadsheet projects revenue from TI and TIF sources from the Railyards redevelopment area, with these funds initially used directly for development costs and later for debt service payments. It is important to note this model assumes adoption of an amendment to extend the current redevelopment Tax Increment for an additional ten years, and that unused Tax Increments can be carried forward to future years in which those funds may be required.

- **Grants.** The Grant Funding Sources spreadsheet projects local, state and federal grants and funding sources in addition to the TI and TIF sources, which the project team believes could be available to fund portions of the development costs. These sources include Transportation and Security sources at both the Federal and State level. In addition, Measure A and Countywide Impact Fees are summarized in this spreadsheet. The Measure A and Countywide Impact Fees assume voter and public agency support.

- **Program Summary.** The Program Summary spreadsheet allocates the terminal space by program element by phase. The program summary serves as the basis for allocating revenue and operating costs to transit functions and joint development partners.

- **Use of Capital Funds.** The Use of Capital Funds spreadsheet is a detailed cost estimate by phase with the expenditures distributed over the life of the development project, including all predevelopment expenditures.

5.4.2 Model Outcome
The Spreadsheet Model reflects both revenue and expenses as they are projected to occur and take into account the phasing of construction and timing of the various revenue sources. The model considers revenue sources required during both the Development, Construction and Operating phases of the Facility. The result is an economic model indicating a need for funds beyond those currently identified, for both the Development,
Construction and Operating phases, summarized as “Other Subsidy Required”. The Development and Construction phase shortfall is approximately $1 million and the Operating phase shortfall is nearly $10 million based on the current assumptions and information. These shortfalls and key risks are further discussed in the following sections.

The key outputs of the economic model as it relates to funding during the Development phase are captured in the following tables and charts.

**Table 5.4.1 Summary of Project Costs and Funding Sources**

<table>
<thead>
<tr>
<th>Item</th>
<th>$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Cost</td>
<td>226.2</td>
</tr>
<tr>
<td>Funding Sources</td>
<td></td>
</tr>
<tr>
<td>Grants (Transportation &amp; Security Funds)</td>
<td>84.1</td>
</tr>
<tr>
<td>Measure A</td>
<td>53.3</td>
</tr>
<tr>
<td>Countywide Impact Fees</td>
<td>10.0</td>
</tr>
<tr>
<td>TI &amp; TIF Direct Expenditures</td>
<td>10.7</td>
</tr>
<tr>
<td>Debt</td>
<td>67.1</td>
</tr>
<tr>
<td>Other Subsidies</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The following chart illustrates the use of the above funding sources across the years of predevelopment and development activities:
The funding shortfalls in years 2006 and 2007 of $1 million result from the expectation that predevelopment costs will be funded from grants already secured, which yield approximately $1 million per year. That amount will be inadequate to fund preliminary design and environmental activities in years 2006 and 2007, and additional sources of funding will be required to support those activities. Risks associated with other Development phase funding will be discussed in paragraph 5.4.4.

Upon completion of the facility, debt service payments will extend over 30 years commencing upon initial terminal occupancy in 2015. During the Operating phase, the model projects that adequate revenues will be produced from leases and parking to cover operating expenses and produce an increasing stream of Net Operating Income (NOI) to help pay debt service for indebtedness incurred during the Development phase. However, the NOI will need to be supplemented throughout the 30 year repayment period to fully cover the debt service requirements. The sources used to make debt service and required reserve payments over this period are as follows:

**Table 5.4.3 Funding Sources for Debt Service and Required Reserve Payments**

<table>
<thead>
<tr>
<th>Item</th>
<th>$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Debt Service and Reserve Requirement</td>
<td>342.1</td>
</tr>
<tr>
<td>Funding Sources (total for the 30 period of the debt)</td>
<td></td>
</tr>
<tr>
<td>Operating Income</td>
<td>189.6</td>
</tr>
<tr>
<td>Reserves Carried Forward from Prior Year</td>
<td>61.9</td>
</tr>
<tr>
<td>Transportation Impact Fees</td>
<td>29.6</td>
</tr>
<tr>
<td>Measure A Funds</td>
<td>4.7</td>
</tr>
<tr>
<td>Tax Increment</td>
<td>46.5</td>
</tr>
<tr>
<td>Other Subsidies</td>
<td>9.8</td>
</tr>
</tbody>
</table>

The annual contributions of these various funding sources in addressing debt service requirements are summarized in the following chart:
Table 5.4.4 SITF Funding for Debt Service

As is illustrated in this chart, the net operating income from the facility funds an increasing portion of the total annual demand over time, but remains well short of the annual requirements even at the end of the term of the indebtedness. More important, even with the identified supplemental funding sources, there remain significant unfunded demands in the first four years (2015 through 2018), as illustrated by the component labeled “Other Subsidies.”

One alternative strategy explored in the economic model was to substantially cover this shortfall by shifting Measure A or Countywide Impact Fees during the years 2015 through 2018 from directly funding project costs to instead making debt service payments. However, this shift would directly increase the amount of debt funding for the Development phase activities for each dollar shifted to debt service payments. With the effect of long term interest applied to these amounts, the impact would be to increase the total debt service requirements approximately $5.50 for every dollar shifted, substantially increasing the demands on public funding to support the debt service payments over the life of the indebtedness. As a result, it is assumed we will seek to close this gap by alternative means, such as securing additional near term funding or by structuring the debt to defer some of the early payments until the cash flows from operating income and other sources is adequate to support the debt service demands.

5.4.3 Assumptions

The following major assumptions were made in developing the spreadsheet cost model:

- **Joint Development revenue.** It is assumed that all tenants will pay market rents comprised of a base rent plus operating costs and common area maintenance fee (CAM). For purposes of the model rents are assumed as current year market rents escalated 10% every five years. Lease commencement is scheduled upon completion of construction of each phase. A 3% vacancy and 3% credit loss is included in the model in general with a 25% vacancy anticipated until final completion. Due to the high operating cost of a public transit facility, a reduced portion of the CAM fees (70%) are passed along to the Joint Development tenants to keep effective rents competitive with the market. The remaining portion is allocated to the transit tenants.

- **Transit revenue.** It is assumed that transit operators will pay partially discounted market rents comprised of a base rent, operating costs and common area maintenance fee (CAM). For purposes of the model,
rents are assumed as current year market rents escalated 10% every five years, except that the public portion of the transit space is discounted 50% from current market rates. The net effect of this discount is that the transit operators are subsidized to a degree, and are projected to pay roughly 70% of market rates across their total space allocation. This subsidy is partially offset by the transit tenants assuming a larger portion of the CAM charges as noted above. Lease commencement is scheduled upon completion of construction of each phase. A 3% vacancy and 3% credit loss is included in the model.

- **Parking revenue.** The model assumes that the programmed parking spaces will be leased at market rates for transient occupancy Monday through Friday with occupancy at 85% and no daily turnovers. No revenue is projected for weekend use.

- **Debt Funding.** Funding of construction beyond available grant and local funds will be through a combination of TFIA Loan and Bond financing. This financing will be in place for Phase I construction. The financing assumes a 6.5% rate with a 30 year term with repayment commencing in 2015 after the majority of the facilities are complete.

- **Loan Repayment.** The model assumes that the loan repayment will be made from net operating income and Transportation Impact Fees with Measure A and Tax Increment funds filling gaps in the early years. Shortfalls in funding beyond these sources are identified as "Other Subsidies".

- **Transportation Impact and Tax Increment Fees.** The model assumes that the terminal development will receive 50% of Transportation Impact Fees from the Railyards, Downtown and Richards Boulevard areas and 25% of the Tax Increment revenue generated in the Railyards Redevelopment Area. It is further assumed that an amendment will be secured to extend the redevelopment Tax Increment another ten years beyond its current expiration date in 2025. Further, it is assumed that unused funds in a specific year can be carried forward to future years.

- **Measure A Funding.** The model assumes that the city will receive revenue from Measure A for construction of the terminal. Revenue is anticipated from the renewal measure that is expected to take effect in 2009. Renewal of Measure A is subject to voter approval.

- **Countywide Impact Fees.** The model assumes revenue of $1 million per year over a ten year period from 2010 through 2019 from the Countywide Impact fees.

- **Land Costs.** There are no land costs included in the model. It is assumed that the terminal land will be dedicated to the city for implementation of this plan.

- **I-5 Interchange.** The model assumes that the I-5 ramps for the I-Street interchange will be funded from sources beyond those identified for the SITF project. The reconfiguration of this interchange is required to achieve the development of Joint Development parcels along I Street.

### 5.4.4 Financial Risks

With each assumption there is an underlying level of risk. In most cases, the risk cannot be eliminated until implementation of the project is further developed. Some of the risks that should be considered are as follows:

- **Revenue Uncertainty.** The cost of operating the facility and a substantial portion of the debt repayment requires significant terminal revenue. Most of this revenue is market rate or moderately discounted lease revenue from transit operators and concessionaires. In the event that operators are unwilling to pay the projected rent for conditioned and unconditioned space, the City or a Joint Powers Authority would be required to fund terminal operations and/or debt service from other sources. The transit portion of this risk can be examined early in the process through preliminary lease negotiations with the transit partners. Uncertainty related to the joint development portion of the revenue will remain until construction is well underway and serious pre-leasing activities can begin.

- **Transportation Impact Fees and Tax Increment Revenue.** A portion of the debt service payments are reliant on Transportation Impact Fees, and to a lesser extent Tax Increment Revenue from the Railyards redevelopment area. In the event that this development does not proceed as planned or is delayed, funding for debt repayment would be at risk. To a degree, this risk is mitigated by the fact that it would be unlikely that the development of the intermodal facility would occur at all without simultaneous redevelopment of the Railyards site. The other risk in this area is the assumption of an amendment extending the redevelopment Tax Increment for an additional ten years beyond its current 2025
expiration. This risk will be tested through the strength of public and agency support during the approval process for the overall project.

- **State and Federal Funding.** A significant portion of the funding for the Intermodal facility will be from current State and Federal funding allocations, but a majority of the State and Federal funding relies on allocations that have not been approved. To the extent that grant funds are not realized in the amounts assumed in the model, other revenue sources would have to be identified. This risk will be mitigated or realized over time as applications are made for early phases of grants, but ongoing allocations of funds will remain at some risk even after initial funds are secured. Given the magnitude of the grant funding assumptions, this is a risk that must be carefully examined during the approval process, and will require strong support from political leaders to be appropriately mitigated.

- **Debt Financing.** Assumptions have been made as to the cost/interest rate required for the debt financing. Interest rate fluctuations may increase or decrease the cost of borrowing. The exposure to these rate fluctuations will not be realized until the debt is actually placed, but it can be monitored with realized impacts applied to revised models at each step of the development process. Current assumptions are relatively conservative, and should be achievable unless dramatic changes occur in interest rates over the next five years.

- **Measure A.** Measure A renewal is subject to Sacramento County voter approval. In the event that this measure is not renewed, other revenue sources would be required. In addition, the magnitude of funds available is potentially variable over time. This risk will be substantially mitigated upon voter response to the renewal request, but some uncertainty related to the magnitude of the funding will remain.

- **Countywide Impact Fees.** The project assumes support in the form of Countywide Impact Fees, requiring regional support from the public agencies responsible for those funds.

- **Construction Costs.** Construction costs could escalate higher than projected, and project scope could grow if not managed aggressively. While reasonable contingency is provided in the estimates, in the event of significant escalations in costs, additional debt financing would be required. Additional financing may not be available due to bonding limits or there may not be sufficient cash flows to pay debt service. Risks of cost increases will not be substantially mitigated until each phase is bid, but careful monitoring of pricing against previously defined scope and market pricing at each development milestone will provide early warning of growth that could be offset by design decisions in a well-managed process.

- **Land Costs and Control.** The economic model assumes the land required for the development will be donated to the City or a Joint Powers Authority in a timely manner and that the railroad tracks will be relocated to enable the project to proceed and to serve as a catalyst for the larger land sale and Railyards Development. To the extent agreement cannot be reached on this issue, the financial viability of the project is further diminished. This exposure should be mitigated early through discussions with the development partners.

- **I-5 Interchange Reconfiguration.** The model assumes the reconfiguration of the I-5 interchange at I Street is achieved with funds other than those identified for the SITF project. The risks to these assumptions are the potential of both projects vying for the same funds, as well as timing of the reconfiguration project. The reconfiguration must take place prior to the development of Joint Development parcels along I Street, including the final phase of SITF parking. To the extent the I-5 project is delayed, it delays realization of TI and TIF revenues from these developments, and the critical parking revenue that is reflected starting in 2019. These risks can best be mitigated through early discussions with Caltrans and securing strong political support for both projects. Similar risks and mitigations are attendant to the other related projects, anticipated to be funded from other sources identified elsewhere in this document.

- **Ownership Risk.** There is a risk that partners will not be found to join the City in the formation of an ownership and management entity (such as a Joint Powers Agency), thus putting the City’s General Fund at risk for funding shortfalls in the project. This risk can be mitigated with early negotiations with other candidate agencies, securing agreement on sharing of risk prior to the project being finally approved.

### 5.4.5 Recommendations

As the spreadsheet cost model indicates there are cash flow shortfalls in both the Development phase and in the early years of the Operating phase. Immediate discussions with development partners should be initiated...
to explore opportunities to close these gaps including consideration of other potential sources of funding such as increased rent rates to transit operators, ticket or use fees to transit users, or city general fund subsidies. Beyond these efforts, the collective team will need to further examine further potential economies in the scope of the development to produce a financially feasible project. Finally, alternative strategies for debt financing will be explored to potentially defer early payments and achieve an optimal debt structuring to fit the project needs and available funding sources.

Once that is achieved, the ongoing risks to the financial feasibility of this project are associated with capturing projected rents from all sources and in securing anticipated levels of grants and local funding. These issues should be tested rigorously and continuously, along with the other sources of risk, to ensure the project remains on a responsible fiscal track.