City of Sacramento

Sacramento Intermodal Transportation Facility

TR #6
Final Conceptual Transit and Joint Development Programs

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City of Sacramento

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1 Executive Summary

This document addresses space programming for the Sacramento Intermodal Transportation Facility (SITF) in order to identify the specific components that should be considered in the design of the facility and the amount of physical space they will require. A planning horizon of year 2025 was assumed, and the expected life of the facility would be at least 50 years.

This report includes the final SITF transit and joint development programs as achieved in the SITF design shown in Technical Report #11, as well as the complete draft conceptual program studies first presented in Working Paper #5. The draft program and other background information is presented here for stakeholder and policy-maker information, and was used to set the stage for the alternatives development process.

This program document has several objectives:

1. To document the final achieved SITF program as designed and illustrated in Technical Report #11.
2. To inform project stakeholders about critical policy decisions that must be made in order to proceed with the Intermodal Transit Facility planning efforts.
3. To inform project stakeholders and decision-makers about space requirements for transit facilities and joint development opportunity for the SITF.
4. To identify physical space requirements for the program components being considered for inclusion in the SITF.
5. To present various potential visions for the SITF in relationship to the program components to be accommodated.

The intent of the background information included here is to document the technical data and qualitative discussion of different potential visions for the SITF. To do this, the Transit and Joint Development Program is first presented as a series of individual components, or modules. For the transportation components of the terminal, modules have been developed for each mode and operator (e.g. Amtrak Thruway Intercity Bus, Region Transit Local Bus). Within each module, options are presented which take into account efficiencies between operations or alternative operating scenarios. The individual modules are generally not interrelated, and can be combined in multiple scenarios to create the final program for the SITF. The inclusion or exclusion of specific modules, as well as the selection of specific space program options, will be policy decisions for the City of Sacramento, to be made with the input of major stakeholders. These decisions must be made based on a collective vision for the Facility.

Secondly, within this framework, the key program components for the SITF are described and include:

1. **Transit Infrastructure**—Rail tracks, rail platforms, bus bays, support facilities, and vehicle circulation.
2. **Terminal Facility**—Passenger areas, circulation, and transit support areas.
3. **Joint Development**—Terminal-supported uses, adjacent uses, and parking.

Third, these programmatic components are brought together into three possible visions for the SITF, each with a unique combination of purpose, scale, and range of transit providers included in the facility.

The potential visions include:

1. **A Regional Transportation Hub with Park and Ride Facilities** that incorporates as many services as possible, caters to both intercity and commuter passengers, and includes a major parking component. This concept seeks to maximize transit service and patronage, but would also have the highest cost and physical space program.
2. **A Downtown Transit Terminal** whose primary purpose is to serve commuters traveling to jobs in downtown Sacramento. Connections between the regional transit network and the downtown pedestrian and transit systems are paramount. This concept provides limited parking at the facility. This concept would generally require less physical program than a Downtown Transit Terminal.

3. **A Transit District with an Improved Rail Station** that represents incremental improvements to the existing station and its surroundings to create a general transit district. This concept does not necessarily seek to create a regional or downtown transportation hub, but rather to better accommodate existing services. Costs and space requirements are generally minimized.

Fourth, this program document identifies three major factors that affect the vision of the SITF: Cost, Land Take, and Connectivity. Each of these factors must be carefully considered along with the advantages and disadvantages specific to Sacramento to determine which of the potential visions is the appropriate program mix for the facility. Ultimately, the question of vision for the SITF is one of balance—between multiple and often competing needs and impacts, benefits and costs, opportunities and challenges—taken together, these issues inform the decision about what is the best SITF for Sacramento.

This background information and discussion lead to a series of policy questions, the answers to which formed the basis for the selection of the SITF vision and enabled the establishment of the final achieved program. These policy questions included:

1. What model or combination most closely resembles Sacramento’s vision for the SITF as a transportation facility?
   a. Regional Transportation Hub
   b. Downtown Transit Terminal
   c. Transit District with Improved Rail Station

2. Are any of the identified transit modes incompatible with the agreed vision for the SITF?

3. What is the appropriate mix and scale of joint development uses that should be considered in or adjacent to the SITF?
   a. Joint development that maximizes transit ridership through major increases in park and ride capacity
   b. Joint development that maximizes transit ridership by increasing the density of people living and working within walking distance of the facility
   c. Joint development that creates a destination that will draw transit riders from the greater Sacramento region

4. What are the priorities to be considered when determining the number of parking spaces to be included in the SITF?
   a. Creating a Regional Transportation Hub that maximizes park and ride opportunities and intercity transit ridership
   b. Creating a Downtown Transit Terminal with a mix of transit-compatible joint development uses on adjacent land and less impact on the adjacent street system

5. Are the major factors noted as affecting the SITF vision, cost, land take and connectivity, to be considered constraints? If so, how and to what degree?
The final achieved program and the conceptual design of the SITF reflect a common vision of a Regional Transportation Hub with a significant transit parking component. The vision includes all identified transit modes, including freight rail, Amtrak long distance, Capitol Corridor and commuter rail, Greyhound and Amtrak Thruway intercity bus, local transit bus, light rail transit, private vehicle, taxi, and shuttle service pick-up and drop-off, and parking. Pedestrians and bicycles are not identified as a specific program module, however their requirements are identified in the project goals and objectives, and are accommodated in the proposed design. The SITF program does not include specific provisions for high speed rail operations; however the design of the SITF anticipates the eventual inclusion of high-speed rail service in the location of the heavy rail alignment and platform arrangements, and in the layout of the Terminal Building. The Terminal Building program includes public passenger areas, passenger amenities, ticketing, baggage, administrative, and support spaces, and transit-serving joint development. Additional joint development is illustrated in the SITF plans but is not quantified in this report.
2 Introduction

2.1 Purpose

This document addresses space programming for the Sacramento Intermodal Transportation Facility (SITF) in order to identify the specific items that may be included in the facility and the amount of physical space they will require. A planning horizon of year 2025 was assumed.

This document has several objectives:

1. To inform project stakeholders about the critical policy decisions that must be made in order to proceed with the Intermodal Transit Facility planning efforts.
2. To inform project stakeholders and decision-makers about space requirements for transit facilities and joint development opportunity for the SITF.
3. To identify physical space requirements for the program components being considered for inclusion in the SITF.
4. To present various potential visions for the SITF in relationship to the program components to be accommodated.

2.2 Modular Program Concept

The physical program for the SITF is presented in this document as a series of individual components, or modules. For the transportation components of the terminal, modules have been developed for each mode and operator. Within each module, options are presented that take into account efficiencies between operations or alternative operating scenarios. The individual modules are generally not interrelated. The inclusion or exclusion of specific modules, as well as the selection of specific space program options, will be policy decisions for the City of Sacramento, to be made with the input of major stakeholders. These decisions must be made based on a collective vision for the facility. The intent of this document is to inform these decisions with background technical data and qualitative discussion of different potential visions for the SITF.

2.3 Contents

Sections in this report include:

1. Executive Summary
2. Introduction
3. What is an Intermodal Facility?
4. Modal Balance Assessment
5. Transit Program Components
6. Joint Development Issues and Opportunities
7. Joint Development Program
8. Evaluation Criteria
9. Possible Visions for the Sacramento Intermodal Transportation Facility.
10. Final SITF Conceptual Program for Transit and Joint Development
3 What is an Intermodal Facility?

There are multiple ideas about what constitutes an “Intermodal Transportation Facility”. Across all, there is an overarching objective to create a “state of the art” transportation center, but that goal is complicated by physical space limitations, financial constraints, roadway capacity constraints, joint development issues and questions about which specific operators need to be accommodated and with what infrastructure. This section provides background on urban passenger terminals, with the intention of informing project participants and providing context for decision-making about what the SITF should become.

3.1 Intermodal Facility

An intermodal facility can be defined as a place where interface occurs between transportation systems. In a passenger terminal, people enter the facility by one mode of access (e.g. on foot, riding a bicycle, by car, by bus or train, etc.) and leave by another. The term “multimodal terminal” is generally applied to a terminal that serves multiple transit operators and/or modes, such as combined bus and rail stations. The term “intermodal” implies not only multiple transit modes but also a high degree of connectivity and interchange between modes.

The American Public Transit Association does not differentiate between “Intermodal” and “Multimodal”:

*Intermodal (multimodal) are those issues or activities, which involve or affect more than one mode of transportation, including transportation connections, choices, cooperation and coordination of various modes.*

The Center for Transportation Excellence offers the following definition for “Intermodal Passenger Terminal”:

*An existing railroad passenger terminal which has been or may be modified as necessary to accommodate several modes of transportation, including intercity rail service and some or all of the following: intercity bus, commuter rail, intra-city rail transit and bus transportation, airport limousine service, airline ticket offices, rent-a-car facilities, taxicabs, private parking and other transportation services.*

In previous and current planning efforts in Sacramento, the terms “multi-modal” and “intermodal” have been used interchangeably. Both terms can accurately describe the existing station facility, despite the fact that the number of “intermodal” transfers is actually low. Passengers transfer between heavy rail and bus services, and utilize other “access” modes (walk, bicycle, private automobile, etc.) to connect to and from the facility.

However, it is important to note that a passenger terminal does not necessarily need to have a large volume of transfers between transit modes to be considered successful. Indeed, many of the most acclaimed downtown transit terminals do not have large volumes of transfers. As described in the following section, facilitating transfer between transit modes is only one of several benefits provided by a multi-modal terminal.
3.2 Benefits of Intermodal Facilities

Successful intermodal, or multi-modal, passenger facilities can provide numerous benefits in their communities:

3.2.1 Supporting and Enhancing Transit Usage
An intermodal transportation facility can improve the passenger experience in a number of ways. It can provide convenient access to multiple transit services and create opportunities for synergistic passenger amenities and an attractive environment. Generally, improving the passenger experience will help encourage ridership on the transit services operating in the terminal.

3.2.2 Facilitating Transfer Between Transit Modes
A well-designed terminal facility will facilitate transfers and create a more "seamless" transit network. Transfers are optimized by minimizing distances between boarding and alighting points, providing clearly marked routes for transfers and information. Although it is difficult to predict exactly how much intermodal transfers will increase by collocating transit functions, evidence suggests that transfers and ridership will increase if the system is easy to use.

3.2.3 Clarifying the Regional Transit Network
The regional transit network is comprised of numerous operators and modes. The resulting network can be confusing and inconvenient for existing and potential passengers. A successful intermodal facility helps to make the overall transit network more understandable by providing a clearly identifiable point of access to multiple transit operators. This centralization of transit services can, in turn, increase ridership by creating a single, identifiable (and often iconic) point of transit access.

3.2.4 Increasing Transportation Options
An intermodal facility consolidates multiple operators and routes into one location. This creates more possible combinations of trip segments, and therefore increases the number of travel options for passengers.

3.2.5 Taking Advantage of Efficiencies
Consolidating transit services typically allows for economy in infrastructure. This includes shared access routes, boarding and alighting areas, lobby amenities and/or automobile parking. The consolidation of facilities also provides a higher degree of flexibility to accommodate unusual events and unforeseen future changes in service or demand patterns.

3.2.6 Creating a Destination and Gateway
A multi-modal transportation facility, particularly one offering regional and intercity services, can become a major gateway to the local area. It makes a first impression of the community to arriving passengers. Historically, major transportation centers have been signature civic buildings and public spaces that celebrate arrival, the city, and mobility.

3.2.7 Supporting Economic and Urban Development
Intermodal facilities can help support economic and development objectives by providing a concentration of transportation capacity, creating opportunities for joint development, and in some cases serving as a catalyst for redevelopment. A transit hub also creates the opportunity to create transit-oriented development. This issue is particularly important for Sacramento, given the potential for redevelopment of the Railyards site and the proximity of the SITF to the central business district.
3.3 Challenges of Intermodal Facilities

Despite the numerous benefits of intermodal facilities, they also regularly face several challenges:

3.3.1 Institutional Issues
Terminals that serve multiple operators face inherent institutional challenges. In some cases different operators may offer competing services. Generally there is competition for space or other resources within the terminal. There may also be concerns by some operators about the mixing of passengers, related to security, ease of use and the quality of the passenger experience.

3.3.2 Physical Engineering Challenges
Providing the physical infrastructure necessary to serve multiple modes, vehicle types and operational requirements can present a significant engineering challenge. This is particularly true with the SITF, given the need to accommodate freight rail, different configurations of heavy passenger rail, intercity bus and local bus services within a fixed area. Access modes and parking must also be accommodated.

3.3.3 Traffic Impacts
Increased activity associated with an improved intermodal transportation facility may result in additional traffic on the adjacent roadway network. Depending on the access arrangements, parking provision and demand characteristics of the facility, the local network may need to accommodate additional transit and/or private vehicle access. For the SITF, future roadway capacity constraints have been identified for circulation across the heavy railroad tracks and along the I Street corridor. The future operation of light rail vehicles on surface streets in the vicinity further complicates traffic operation.

3.3.4 Cost
Cost is always a serious challenge for any major infrastructure project and a principal concern when developing the program. The creation of a funding strategy is complicated by multiple operators, although this may also create additional funding opportunities.

3.4 Types of Intermodal/Multi-Modal Facilities

Intermodal facilities can take several forms depending on their location, types of transit services offered and passenger characteristics. General descriptions of different terminal facility models are presented below. In most cases any specific facility will not fall neatly into one category, but rather will have characteristics of two or more types.

3.4.1 Intercity Terminal
An Intercity Terminal serves passengers traveling relatively long distances. Transit services tend to be less frequent than those tailored to commuters, and peak periods of demand during the day are less concentrated. Passengers are typically occasional or infrequent users who spend more time in the facility than commuters and need information. They also require connections (by transit or private transportation) throughout the region. These facilities may have a large degree of transfer between modes, in the form of connections to local public transit, regional feeder services or, in the case of a major hub, transfer between intercity services. Significant amounts of parking may be provided at Intercity Terminals, similar to airport terminals. Examples of facilities that are principally Intercity Terminals include the Sacramento Greyhound Terminal and Union Station in Washington, DC.

3.4.2 Downtown Commuter Transit Center
A Downtown Commuter Transit Center primarily serves commuters traveling between suburban residential areas and employment centers. It is strategically located within a central business district. Transit operations generally consist of frequent peak period service connecting the central business
district to locations within a reasonable commuting distance. A large share of passengers typically travels between the terminal facility and places of employment by walking. Transfer between modes is generally limited to connections on local public transportation. Passengers tend to be regular users who place a high value on convenience and access to the local area. Minimal parking is provided at these facilities. Examples of terminals that are principally Downtown Commuter Transit Centers include the Transbay Terminal in San Francisco and Grand Central Station in New York City.

3.4.3 Interchange
An interchange is a specialized intermodal facility that principally serves as a place for passengers to transfer between transit services. These facilities predominately serve commuters. They are located where two or more major services meet, where feeder services link to a trunk line, or the terminus of a major service. Transit service is frequent and passengers’ primary concern is the ease of transfer. Most passengers typically both enter and leave an Interchange on transit. The need for parking and local access is generally limited, although in some cases a major interchange may also include a significant Park & Ride component. Examples of major Interchange facilities include the Millbrae BART Station and the New Jersey Transit, PATH and Ferry Terminal in Hoboken, New Jersey.

3.4.4 Park and Ride
Park and Ride facilities provide parking at transit stations for commuters. They are typically located in lower density suburban areas where passengers rely on their private vehicles to travel between their homes and the station. Land for parking facilities is also more readily available. Large concentrations of parking are provided at Park and Ride facilities. Regular commuters are the predominate users, valuing the convenience of access to the roadway network, and proximity of parking to the transit boarding areas. Sacramento has several Park and Ride facilities serving the Regional Transit Light Rail Transit system. Locations?

3.4.5 On-Street Transit Facilities / Transit Mall
Intermodal facilities can also be located on surface streets in the form of transit malls or districts. These are typically located in downtown areas where numerous bus and/or light rail lines meet. Passengers include both commuters and general local public transit users. In some cases, private vehicle access may be restricted. These facilities provide access to local areas, create transit priority, concentrate transit activity and create opportunities for convenient transfers between routes. Examples of On-Street Transit Facilities include the 7th, 8th, J, K and L Streets in Sacramento and the Downtown Transit Mall in Portland, Oregon.
4 Modal Balance Assessment

Planning a high quality intermodal facility requires an understanding of the connections between transit and access modes. The objective is to identify the relative passenger flows between station components to determine major passenger flow paths. The terminal can then be designed to optimize the passenger experience, with priority given to the major flows. This might be achieved by locating the components in close proximity, minimizing grade changes, and providing a high degree of visibility between the components. An understanding of the flow patterns for the terminal can also be used to help identify which potential operators or station components are most critical to the operation of the terminal.

This section discusses potential future patterns of passenger flow through the SITF and implications for planning and design of the facility. Future transfer patterns are difficult to predict accurately in the long term for several reasons:

1. **Transfers and passenger mode choice are dependent on numerous variables.** These variables include the mix of operators in the facility, the specific transit services available, ridership levels, the relative attractiveness of different modes, and the provision of parking at or near the facility.

2. **Limited information is available.** Data on existing mode share is limited to customer surveys for Capitol Corridor and Greyhound only. Future transit service and ridership forecasts provided by the operators are to varying degrees of sophistication and are not based on consistent assumptions.

3. **Several major initiatives are underway that will influence mode choice.** Several possible projects are currently being considered that could have major impacts on mode choice at the SITF, including Regional Commuter Rail, the Swanston Depot, the Downtown/Natomas/Airport (DNA) project, development of the Railyards, and the possibility of a sports and entertainment district. In general, these projects would tend to decrease the mode share for the private automobile. The potential High Speed Rail service, however, would likely have a relatively high private automobile mode share.

4. **Mode share is highly site-and-situation-specific.** The application of rules of thumb or experience from other stations is limited by the fact that mode share is highly dependent on local conditions and available transit service.

Considering these challenges, a reasonable approach is to extrapolate the existing mode share based on future ridership forecasts, while recognizing, but not quantifying, possible future trends. Utilizing this approach, a series of diagrams have been produced illustrating projected passenger interconnectivity at the SITF. The subsequent figures illustrate daily passenger flow and connecting modes for each transit service based on the ridership forecasts in the planning year of 2025. It was necessary to apply the mode share data for Capitol Corridor to the other rail services, adjusted where supplemental data was available.

Because of uncertainty in passenger forecasts and future mode choices, the values presented in the diagrams should be used to compare relative flows between station components rather than absolute numbers.
4.1 **Capitol Corridor**

The Capitol Corridor has the largest patronage of all operators at the SITF now and projected for the future. The Capitol Corridor Joint Powers Authority (CCJPA) projects major increases in both service and ridership. Existing mode choice, as obtained from the Capitol Corridor Customer Satisfaction Survey, was extrapolated to the projected ridership growth. The resulting projected year 2025 passenger connections are illustrated in Figure 4-1. Nearly one half of existing riders who board or alight in Sacramento rely on private automobiles (including Parking, Pick-Up/Drop-Off, Carpool or Rental Car). Relatively few Capitol Corridor passengers transfer to other transit services, including 5.5% who connect to Amtrak Thruway Bus and 9.2% who utilize Regional Transit.

It is likely that reliance on the private vehicle will decrease somewhat in the future, with a share of passengers shifting to Regional Transit, other transit services or non-motorized modes. Regional Transit expects to increase service to SITF, including the addition of Light Rail Transit. Further, street capacity in the area of the facility is expected to be constrained in the future. The introduction of a Swanston depot or other stops with parking will attract passengers that would otherwise drive into downtown Sacramento. Development of the Railyards will also place more jobs and residences within a short distance of the facility. It should be noted, however, that CCJPA views the provision of parking as a requirement to serve ridership growth and that the private automobile will likely continue to be utilized by a large share of passengers.

The connection to Amtrak Thruway service will remain important, with the purpose of providing continuity for passengers traveling on the Amtrak system. The long-term future of service connecting to the Capitol Corridor, however, is uncertain as CCJPA plans to eventually run mostly through trains in Sacramento which would relocate Thruway connections to other stations.
Figure 4-1. Projected 2025 Daily Passenger Connections, Capitol Corridor Rail

Key

- 0
- 1 - 100
- 101 - 200
- 201 - 300
- 301 - 500
- 501 - 1000
- 1001 - 2000
- 2001 - 2800
4.2 Regional Commuter Rail

Figure 4-2 illustrates projected passenger connections for a Regional Commuter Rail service. Passenger forecasts for Commuter Rail service are preliminary and carry a high degree of uncertainty. In lieu of more specific planning data, and considering that Commuter Rail is expected to be similar to the existing Capitol Corridor service, Figure 4-2 was based on the existing mode share data for the Capitol Corridor. However, if the Commuter Rail service is designed to serve commuters traveling to jobs located in Downtown Sacramento, then it can be expected that these passengers would be more likely to walk or use local Regional Transit services to access the facility. These passengers would be less likely than current heavy rail passengers to use private vehicles to access the station and would have lower demand for parking. With the exception of Regional Transit and Amtrak Thruway Bus, passenger transfer to other transit services is expected to be minimal.
Figure 4-2. Projected 2025 Daily Passenger Connections, Commuter Rail
4.3 Amtrak Rail

The Amtrak San Joaquin and long distance services are projected to have relatively low volumes of passengers. The mode splits for San Joaquin passengers (Figure 4-3) are expected to be similar to the Capitol Corridor, but with a slightly higher share of passengers transferring to Amtrak Thruway Bus service. Amtrak Long Distance (Figure 4-4) services are expected to be predominately auto-dependent, with minimal transit connections. As with Capitol Corridor, private automobile use may decrease over time. However, the implications of such a shift on the planning and design of the facility will be limited, given the patronage of these services is relatively low.
Figure 4-3. Projected 2025 Daily Passenger Connections, Amtrak San Joaquin Rail

Key

0
1 - 100
101 - 200
201 - 300
301 - 500
501 - 1000
1001 - 2000
2001 - 2800
Figure 4-4. Projected 2025 Daily Passenger Connections, Amtrak Long Distance Rail

Key

- 0
- 1 - 100
- 101 - 200
- 201 - 300
- 301 - 500
- 501 - 1000
- 1001 - 2000
- 2001 - 2800
4.4 Amtrak Thruway Bus

Figure 4-5 illustrates projected passenger connections for the Amtrak Thruway bus service, as determined by extrapolating existing mode share for the heavy rail services. Nearly all of Amtrak Thruway bus passengers transfer to or from rail services. Ridership on the Amtrak Thruway Bus is expected to be limited in comparison to the total potential patronage of Capitol Corridor and Commuter Rail.

As described previously, there are no specific future service plans for Thruway service. It is likely that the service will continue to provide connections to trains in Sacramento for terminating and originating trains. However, any additional San Joaquin trains will replace existing bus bridge service to Stockton and more through Capitol Corridor trains may relocate Thruway connections to other stations. For those Thruway routes that do operate at the SITF, convenient connection to the heavy rail passenger platforms is highly desirable.
Figure 4-5. Projected 2025 Daily Passenger Connections, Amtrak Thruway Bus
4.5 Regional Transit Light Rail

Forecasts for passenger volumes connecting between Regional Transit Bus and Regional Transit Light Rail Transit (LRT), as well as for walk-up passengers, were provided by DKS Associates (Memorandum to Arup dated August 26, 2003). Ridership for passengers transferring from the heavy rail services and Greyhound were estimated based on the existing rates of connection between Regional Transit and future heavy rail. Figure 4-6 summarizes projected connections to Regional Transit LRT at the SITF.

However, given that the Amtrak/Folsom and DNA projects would result in a new and attractive means of connecting between the SITF, downtown and beyond, it is likely that a higher rate of transfer would occur with heavy rail. The future mode share for LRT is dependent on numerous factors, including future transit service by all operators at the terminal and the characteristics of both heavy rail riders and Greyhound passengers in future. It is possible that the connections between Regional Transit LRT and both Capitol Corridor and Commuter Rail could be significantly greater than those illustrated in Figure 4-6.
Figure 4-6. Projected 2025 Daily Passenger Connections, Regional Transit Light Rail
4.6 Regional Transit Bus

Forecasts for passenger volumes connecting between Regional Transit Bus and Regional Transit Light Rail Transit (LRT), as well as for walk-up passengers, were provided by DKS Associates (Memorandum to Arup dated August 26, 2003). Ridership for passengers transferring from the heavy rail services and Greyhound were estimated based on the existing rates of connection between Regional Transit and future heavy rail. Figure 4-7 summarizes projected connections to Regional Transit Bus at the SITF. As with LRT, it is possible that Regional Transit Bus may capture a higher share of passengers in the future.
Figure 4-7. Projected 2025 Daily Passenger Connections, RT Local Transit Bus
4.7 Greyhound

Existing mode choice, as obtained from a Greyhound passenger survey, was extrapolated and applied to projected ridership growth. The resulting projected year 2025 passenger connections are illustrated in Figure 4-8.

The Sacramento terminal functions as a hub on the Greyhound network, with a large share of passengers transferring between Greyhound routes. Further, many routes use Sacramento for a meal/service break stop, wherein passengers disembark for a short time while the bus is serviced. A large share (58%) of Greyhound passengers originating or terminating in Sacramento report using private automobiles to access the terminal.

Public transit service is used by a significant amount (25%) of Greyhound passengers, made possible in part due to the terminal’s current location near a high concentration of Region Transit service (including 7th Street and 8th Street).

Major future shifts in mode choice by Greyhound passengers have not been identified. The connection to public transit is likely to continue in the future even if Greyhound is relocated to the SITF with enhanced Regional Transit service to the site.
Figure 4-8. Projected 2025 Daily Passenger Connections, Greyhound
4.8 Access Modes

Figures 4-9 through 4-12 illustrate passenger connections for the access (other than public transit) modes for the terminal. These figures were produced by consolidating the results presented in the previous figures for each transit mode.
Figure 4-9. Projected 2025 Daily Passenger Connections, Drive/Park Access to Terminal

Key:
- 0
- 1 - 100
- 101 - 200
- 201 - 300
- 301 - 500
- 501 - 1000
- 1001 - 2000
- 2001 - 2800
Figure 4-10. Projected 2025 Daily Passenger Connections, Pick-up/Drop-off Access to Terminal
Figure 4-11. Projected 2025 Daily Passenger Connections, Taxi/Limousine Access to Terminal
Figure 4-12. Projected 2025 Daily Passenger Connections, Walking Access to Terminal

Key

0
1 - 100
101 - 200
201 - 300
301 - 500
501 - 1000
1001 - 2000
2001 - 2800
Figure 4-13. Projected 2025 Daily Passenger Connections, Bicycle Access to Terminal
4.9 General Conclusions

4.9.1 There is potential for major growth in service and patronage at the SITF. Aggressive forecasts have been provided for existing services, and new services could potentially serve the SITF. In addition to growth in the number of passengers using the facility, new opportunities for transfer will be created.

4.9.2 There is a high degree of uncertainty associated with future patronage and mode choice. Long-term forecasts are speculative, interdependent and subject to a large number of variables. The forecasts provided by the individual operators were produced with varying levels of technical rigor, and in some cases, planning efforts are currently in progress. This necessitates a preferred alternative for the SITF that is flexible and phasable.

4.9.3 Reliance on the private automobile to access the SITF will likely decrease over time. Higher intensity transit service, increased density near the site, the addition of commuter rail targeted at passengers commuting into Downtown Sacramento, and capacity constraints on the adjacent roadway network will all tend to reduce the private automobile mode share. However, it is expected that the auto remain a major access mode and experience net growth, particularly for the longer distance transit services.

4.9.4 Transfers between transit modes, while expected to increase, will continue to represent a relatively small share of passengers using the terminal. The demand for transfers is limited considering the existing mode choice and the types of services that could be offered in the facility. Although it may be possible for some operators to be excluded from the SITF without compromising major passenger flow, this would factor negatively on the overall transit connectivity in the facility.

4.9.5 Regional Transit will be increasingly important for intermodal interchange at the facility. Although the total number of passengers using Regional Transit at the SITF is currently modest, it has the potential for major growth. Regional Transit provides critical connections in the downtown area for the heavy rail services that are forecasting rapid growth. Additional bus and light rail services are planned to serve the facility. This implies that Regional Transit should be strategically located and accessible to the other transit services as well as the adjacent pedestrian network.
5 Transit Program
5.1 Introduction

This section presents program options for transportation components at the Sacramento Intermodal Transportation Facility (SITF). The discussion of program in this report is limited to physical space requirements only and does not take layout options into consideration. While space requirements can be impacted by the ultimate design of the facility, it is not possible to consider these until design alternatives are developed in subsequent tasks.

The Transit Program was developed as a series of components, or modules, for each mode (Heavy Passenger Rail, Intercity Bus, Local Transit Bus etc.) and operators. Within each module, options are presented which take in account efficiencies between operations or alternative operating scenarios. Option 1 consists of the operator requested program. Subsequent options consist of scaled-down scenarios.

A summary of the total Operator Requested Program is provided at the end of this section. The inclusion or exclusion of specific services, as well as the selection of specific space program options, will be policy decisions for the City of Sacramento to be made with the input of major stakeholders.

In order to demonstrate the relative sizes of the program components and options, each component has been illustrated in this document to a consistent scale of 1"=300’. Figure 5-1 is an aerial photograph of the project site at the reference scale of 1"=300’. The site, as illustrated in Figure 5-1, consists of approximately 44 acres (1.9M sq ft).

High Speed Rail (HSR) has not been considered as a specific program item but is not precluded. Limited information is available on program requirements and HSR implementation. The future implementation of HSR is uncertain, and would require major additional infrastructure. It is assumed that while the alternative layouts for the SITF should consider the potential future addition of High Speed Rail infrastructure (in an elevated arrangement), its program requirements will not be added to the planning program for the SITF.
Figure 5-1. Reference Aerial Photograph

Scale: 1"=300'
5.1.1 **Operator Requested Program**
Individual service providers were asked for their future service plans and space requirements. The service plans were reported in “Working Paper 3: Transit Operational Requirements”. Program requests have been translated into space requirements in this working paper.

5.1.2 **Alternatives Development**
As the individual operator’s requested facilities were developed in isolation, these need to be reviewed as part of a combined facility. There are several reasons for ensuring that program is not oversized:

- Preventing an over-designed terminal facility
- Minimizing travel distances and times
- Minimizing construction and land acquisition costs
- Minimizing land take required for terminal and maximizing space available for other uses
- Providing maximum flexibility in the design of the terminal
- Producing a cost-effective, implementable, and phasable terminal plan
- Ensuring that all required terminal functions can be accommodated within the available area

It must also be noted that it is equally important not to undersize the facility for the following reasons:

- Ensuring adequate land is reserved to accommodate future transit services
- Providing flexibility to accommodate unanticipated future growth or operating scenarios
- Avoiding the need for costly expansion in the future

The alternatives developed take into account possible program changes arising from efficiencies from using shared space or facilities, experience at other stations, and alternative operating scenarios.

5.1.3 **2025 Design Year**
A design year of 2025 was assumed. While the facility would be constructed with a life expectancy of 50 years or greater, it is not practical to plan facilities based on a longer horizon. Patronage and service forecasts for 2025 are highly speculative and longer-term forecasts are not considered to be reliable. The 2025 forecasts are generally aggressive and may not be achieved by 2025. Additional capacity could also be achieved by utilizing the facility in a more efficient manner than currently anticipated. Further, the principal heavy passenger rail services are characterized by relatively infrequent operations (a minimum headway of 30 minutes per direction in 2025). Additional ridership capacity might be achieved by increasing frequency, which would not necessarily require proportional increases in physical program in the facility. In any event, actual conditions and forecasts need to be reviewed periodically throughout the life of the facility.

The patronage forecasts provided by the operators are aggressive in general, projecting major increases in ridership. Furthermore, these are speculative long-range forecasts and, in most cases, are not based on detailed, robust demand modeling efforts. Given the uncertainty associated with the forecasts, the program requirements presented in this report should be considered build-out for the 2025 horizon. The cumulative result of combining the needs for all service providers is a significantly larger facility than exists today. Therefore, phased implementation is advised where possible. Phasing will be considered in greater detail in subsequent tasks on this project.
5.2 Railroad: Freight Track

The freight track program corresponds to the freight capacity and operational requirements of the Union Pacific Railroad (UP), as expressed in meetings held with UP's operations, engineering, and land company staff. Union Pacific's criteria require that freight mainlines be completely separated from passenger tracks in this location. Three freight-only tracks are to be provided for, spaced on 15-foot track centers. Twenty-five feet is required between centers of freight tracks and passenger tracks, or as side clearance from the centerline of freight tracks, to accommodate a parallel service road and fencing.

Union Pacific is evaluating track layout alternatives presented by the Capitol Corridor Joint Powers Authority (CCJPA) staff; however, the UP's currently preferred alignment calls for three tangent freight-only tracks running generally along the northern site boundary in a direct line between the east approach to the I Street Bridge, and the new Seventh Street vehicular underpass. While specific rail alignments will be considered in subsequent tasks in this project, for purposes of space calculation, the length of the freight track alignment through the site is about 2,800 feet.

The California State Railroad Museum will require rail access to the mainline freight lines from its facilities located both north and south of the SITF site. A specific space program component has not been documented for these connections, as the space required is highly variable depending on the ultimate track arrangement. The Museum's requirements will be taken into account during subsequent phases of this project, when track alignments will be developed and evaluated.

Although all three freight tracks may not be constructed initially, UP requires that the planning in this area provide for the accommodation of this track arrangement as if they were to be. If there are to be any vehicular, light rail, or pedestrian underpasses constructed in the SITF area between the I Street Bridge and Seventh Street (for example, at Sixth Street), all of the footings and other structures needed to carry such a facility under the three freight mainlines must be constructed prior to relocating the freight tracks.
Option 1: Operator Requested Program

**Description:**
An 80' wide corridor would be provided through the site for the UP freight mainlines. This would accommodate up to three freight tracks spaced at 15' on center with 25' edge clearance from the centerlines of the outside tracks. The clearance space would accommodate parallel service roads and a protective fence. The freight lines would be separated from passenger platforms.

It is conceivable, although less desirable for UP, that the three freight lines would not be contiguous. However, the impact on total space program for this arrangement would be limited and another program option has not been documented in this report. Different arrangements for the freight tracks will be considered in the design phase of this project.

**Space:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP</td>
<td>Complete separation of freight and passenger tracks</td>
</tr>
<tr>
<td>3 freight lines (15' on center) at 30' x 2,800'</td>
<td>Provide three freight lines</td>
</tr>
<tr>
<td>= 84,000</td>
<td>15' on center spacing between racks 1, 2 &amp; 3</td>
</tr>
<tr>
<td>2 edge clearances at 25' x 2,800'</td>
<td>Provide 25' side clearance from centerline of tracks 1 &amp; 3</td>
</tr>
<tr>
<td>= 140,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong> 224,000 sq ft (5.14 acres)</td>
<td></td>
</tr>
</tbody>
</table>

A reduced program is not considered, because planning for a potential third freight line is consistent with UP practice elsewhere on the corridor and would help ensure adequate mainline capacity for both passenger and freight service.
5.3 Railroad: Passenger Tracks and Platforms

Passenger service at the terminal currently consists of the Capitol Corridor, Amtrak San Joaquin, Amtrak long distance routes (the Coast Starlight and California Zephyr) and charter trains. Amtrak operates all services, although Capitol Corridor is managed by the Capitol Corridor Joint Powers Authority (CCJPA) and the San Joaquin service is overseen by Caltrans. It is projected that by the 2025 planning horizon, expanded Capitol Corridor and San Joaquin service will be operating along with new Commuter Rail service on the I-80 corridor. Current planning for the Commuter Rail suggests that this service would essentially consist of additional through Capitol Corridor trains during peak commute periods. Passenger platforms are required as well as space for train storage, unless off-site layover facilities are provided (see Option 3 below).

<table>
<thead>
<tr>
<th>Option 1: Operator Requested Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td>The passenger track requirement presented by Amtrak and the Capitol Corridor staff is presented below. Under this scenario, the SITF would have four identical tracks. For programming purposes, it is assumed that these are served by two 30-foot-wide by 1,400-feet-long island platforms. Overnight layover for as many as six 7-car train-sets could be provided by parking two train sets end to end along three of the four-passenger platform faces. The remaining track would remain open and available for passage of a through train, which might occur during the layover of the six train sets. Space taken up by the track fan (link to main line) is excluded in the estimate because it depends on the ultimate arrangement of the tracks. This arrangement offers the greatest flexibility and can accommodate the long distance and winter ski trains at any of the four platform faces.</td>
</tr>
<tr>
<td><strong>Space:</strong></td>
</tr>
<tr>
<td>2 center platforms at 30’ x 1,400’ = 84,000</td>
</tr>
<tr>
<td>4 tracks at 12.5’ x 1,400’ = 70,000</td>
</tr>
<tr>
<td>Total: 154,000 sq ft (3.54 acres)</td>
</tr>
<tr>
<td><strong>Assumptions:</strong></td>
</tr>
<tr>
<td>• Accommodates Amtrak long distance trains on any track</td>
</tr>
<tr>
<td>• Accommodates simultaneous station activity by four passenger trains</td>
</tr>
<tr>
<td>• Accommodates layover of up to six 7-car Capitol Corridor/San Joaquin train sets with one free platform</td>
</tr>
</tbody>
</table>

scale: 1”=300’
### Option 2: Short CCPJA/San Joaquin Tracks Alternative

**Description:**

Option 2 would provide the same layover capacity as Option 1, but would have two different platform lengths. Capitol Corridor and San Joaquin train sets would have two designated 655 feet-long island platforms, each accommodating one seven car train. Each of these two platforms would have two tracks (four total) with a longer third platform provided to accommodate long distance trains, perhaps as long as 1400 feet. A slightly shorter platform may be considered, with locomotives and express cars extending beyond the end of the platform. This option is investigated as it gives a larger range of potential straight platform locations, but with the tradeoff that the long distance trains, (the “California Zephyr”, and the “Coast Starlight”) would normally be restricted to only two of the six potential terminal tracks. It should be noted that although the overall platform length is shorter, the space for the track fan could be larger because of the six-track configuration. As in Option 1, the track fan is excluded in the space estimate.

In advance of conceptual design work, it is not possible to realistically quantify the advantages of this approach, if any. But in general, allowing the design team some leeway in laying out station tracks and platforms might make it possible to more efficiently fit the space required for passenger operations to the shape of the site, meet the operating objectives and possibly use the available space more efficiently. The main trade-off would be some sacrifice of operational flexibility, as longer trains (Amtrak long distance and charter services) might be restricted to only two tracks.

### Space:

<table>
<thead>
<tr>
<th>Amtrak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 center platform at 30’ x 1,400’</td>
<td>42,000</td>
</tr>
<tr>
<td>2 center platforms 30’ x 655’</td>
<td>39,300</td>
</tr>
<tr>
<td>2 tracks at 12.5’ x 1,400’</td>
<td>35,000</td>
</tr>
<tr>
<td>4 tracks at 12.5’ x 655’</td>
<td>32,750</td>
</tr>
<tr>
<td><strong>Total:</strong> 149,050 sq ft</td>
<td>(3.42 acres)</td>
</tr>
</tbody>
</table>

### Assumptions:

- Same layover capacity as Option 1
- Provide one platform for long distance trains (1,400’)
- Provide two short platforms for Capitol Corridor and San Joaquin services (655’)

---

Scale: 1:300
Option 3: With Off-Site Layover

Description:
Option 3 is the proposed passenger rail program if a Swanston Layover Facility is constructed. Under this scenario, all or most layover requirements would be accommodated at Swanston. The track and platform configuration would therefore correspond to only the service requirement, with overnight layover limited to what might be accommodated by available platform space, probably on an emergency basis. The shorter Capitol Corridor and San Joaquin trains could serve shorter or longer platforms; long-distance trains would have to stop only at the longer island platform. As in the above options, the track fan is excluded in the space estimate.

Planning to date has presumed the continued overnight layover and servicing of Capitol Corridor and San Joaquin corridor train sets at a passenger platform in the facility. As service increases, and more trains terminate in Sacramento in the evening, and originate in Sacramento in the morning, this could mean a greater and greater requirement for track space for purposes other than handling passengers. A Swanston facility moves that function elsewhere, thus freeing space at the Terminal for other uses, which is an advantage in a situation where the programmatic space requirements exceed actual space availability at the site. The tradeoff for this benefit is potentially more train miles between the facility and Swanston, which may or may not imply a need for yet more track capacity on the route (which includes a bridge over the American River), as well as some modest operating expense; additional patronage generated at a Swanston Station, however, could mitigate that impact.

Space:

<table>
<thead>
<tr>
<th>Amtrak</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 center platform at 30’ x 1,400’ = 42,000</td>
<td>• Layover facility at Swanston Depot</td>
</tr>
<tr>
<td>1 center platform 30’ x 655’ = 19,650</td>
<td>• Provide one platform for long distance trains (1,400’)</td>
</tr>
<tr>
<td>2 tracks at 12.5’ x 1,400’ = 35,000</td>
<td>• Provide one short platform (655’)</td>
</tr>
<tr>
<td>2 tracks at 12.5’ x 655’ = 16,375</td>
<td></td>
</tr>
</tbody>
</table>

Total: 113,025 sq ft (2.59 acres)

scale: 1”=300’
5.4 Intercity Bus

The intercity bus program will accommodate Amtrak Thruway and Greyhound coach services. Neither operator has a long-term (2025) service plan. Facility requests are based on current operation plus a nominal allowance for service expansion. Because of the similarity of the two operators’ vehicle and operating characteristics, locating the facilities in close proximity would maximize flexibility. The intercity bus services prefer a 45-degree parking arrangement, which requires buses to back out of boarding bays but make efficient use of space.

It should be noted that in the case of the Amtrak Thruway operation, the number of bus bays required in all of the program options is relatively high with regard to the passenger volume served. This is a result of the highly concentrated service, where a large number of buses simultaneously converge to meet one or more trains. As the Thruway bus service is designed specifically as a feeder to Amtrak rail services, it is likely that this concentrated service pattern will continue. Although no major service changes are currently planned for Thruway, additional through Capitol Corridor trains and San Joaquin service (as indicated in the rail service plans) may replace the demand for bus service at Sacramento. Without more specific planning assumptions on the future of Thruway service, however, it is not possible to justify a significant reduction in the requested program.

### Option 1: Operator Requested Program

**Description:**
Amtrak requests parking for up to 12 buses during peak times. The peak-hour arrivals and departures, based on the current schedule, total 11 buses (five arrivals, six departures) from 9:30 to 10:30 a.m. on weekdays. It is also understood that additional buses are sometimes called in to meet heavily loaded trains. Greyhound has provided updated program requirements for this study. Fourteen bays are requested to serve the projected peak frequency of 22 bus trips per hour. This option quantifies the program for separate or adjacent facilities with no shared space.

While the figure below shows Amtrak Thruway and Greyhound in an adjacent arrangement, it would be possible to separate the two operators with this option.

<table>
<thead>
<tr>
<th>Space:</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amtrak Thruway</strong></td>
<td>• Includes adjacent circulation lane and 10’ wide</td>
</tr>
<tr>
<td>12 bays at 60’ x 22’</td>
<td>pedestrian platform.</td>
</tr>
<tr>
<td></td>
<td>• Geometry based on Greyhound standard plans</td>
</tr>
<tr>
<td></td>
<td>• Driveway not included</td>
</tr>
<tr>
<td></td>
<td>• 45’ buses in 45° bays</td>
</tr>
<tr>
<td><strong>Greyhound</strong></td>
<td></td>
</tr>
<tr>
<td>14 bays at 60’ x 22’</td>
<td></td>
</tr>
<tr>
<td>Total: 34,320 sq ft</td>
<td></td>
</tr>
<tr>
<td>(0.79 acres)</td>
<td></td>
</tr>
</tbody>
</table>

scale: 1”=300’
### Option 2: Shared Bays

**Description:**
Option 2 assumes the two bus services would be located adjacent to each other and would share a small number of bays. Under this scenario, the majority of each service’s bus bays would be reserved for exclusive use, with four bays able to swing between the two services to accommodate peaks in demand. This is deemed feasible as the peak demand for the services do not coincide. The regular demand for Thruway buses is greatest during weekdays, as it serves significant commuter traffic, while Greyhound’s is during weekends. This option reduces the total number of bays from 26 to 22.

The principal advantage of this option is that it would reduce the bus station footprint by about 5,000 sq ft. Disadvantages include the need to have an operating agreement between Amtrak and Greyhound, flexible signage at bus slips and adjacency of the two services.

**Space:**

<table>
<thead>
<tr>
<th>Service</th>
<th>Bays</th>
<th>Length (ft)</th>
<th>Width (ft)</th>
<th>Total Area (sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amtrak Thruway</td>
<td>8</td>
<td>60</td>
<td>22</td>
<td>10,560</td>
</tr>
<tr>
<td>Greyhound</td>
<td>10</td>
<td>60</td>
<td>22</td>
<td>13,200</td>
</tr>
<tr>
<td>Shared bays</td>
<td>4</td>
<td>60</td>
<td>22</td>
<td>5,280</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
<td><strong>10,560</strong></td>
<td><strong>13,200</strong></td>
<td><strong>29,040</strong></td>
</tr>
</tbody>
</table>

**Assumptions:**
- Designate four shared bays
- 45’ buses in 45° bays

---

![Scale Diagram](scale: 1”=300')
5.5 Local Transit Bus (Not Including Bus Rapid Transit)

Regional Transit’s (RT) long-term (2025) service projection anticipates 12 local bus routes servicing the SITF. The plan is to reroute downtown services to terminate and originate at the SITF. Buses would complete a short (5-10 minute) layover at the SITF, allowing for a driver break and schedule adjustment. The RT local bus requirement is the same for either the Downtown/Natomas/Airport (DNA) project Truxel LRT or BRT scenario. None of the other regional transit operators contacted to date have indicated any specific plans to serve the SITF. However, we anticipate that a number of them would follow RT’s lead and reroute services via the terminal, particularly for services coming from the west and north of Sacramento. Local bus transit services prefer a sawtooth bay arrangement, where buses park diagonally and enter and leave bays without backing.

Option 1: Operator Requested Program

Description:
This option assumes that one sawtooth bus bay would be provided for each of the 12 routes that RT expects to serve the SITF in 2025. In addition, two additional bays would be provided to accommodate other regional operators.

This option would provide the maximum operational flexibility and an easy to understand arrangement with one route per bay. However, it also uses the greatest area, creates relatively long walking distances and results in underutilized space with headways as long as 30 minutes between buses at some bays.

<table>
<thead>
<tr>
<th>Space: Loading Bays</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Transit</strong></td>
<td>• All bays are ‘sawtooth’ configuration</td>
</tr>
<tr>
<td>10 bays at 43’ x 73’</td>
<td>• No sharing of bays</td>
</tr>
<tr>
<td>2 bays at 34’ x 88’</td>
<td>• 43’ width includes 33’ bus bay and adjacent circulation and 10’ wide pedestrian platform</td>
</tr>
<tr>
<td>= 31,390</td>
<td>• Geometry based on Regional Transit (RT) standard plans</td>
</tr>
<tr>
<td><strong>Other Bus Transit</strong></td>
<td>• Provide 12 RT bays, one for each route projected to serve the terminal</td>
</tr>
<tr>
<td>2 bays at 43’ x 73’</td>
<td>• Two RT bays accommodate articulated buses</td>
</tr>
<tr>
<td>= 6,278</td>
<td>• Provide two bays for other operators (Yolobus, Yolo-Sutter Transit, Roseville Transit, El Dorado Transit, San Joaquin, SuperShuttle)</td>
</tr>
<tr>
<td><strong>Storage/Layover</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>= 0</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong> 45,236 sq ft</td>
<td>(1.04 acres)</td>
</tr>
</tbody>
</table>
Option 2: Shared Bays

**Description:**

Option 2 would reduce the total number of bays required for RT, assigning relatively infrequent routes to shared bays. Specifically, it has been assumed that a single bay could be shared by up to two RT routes that are projected to operate with 30-minute headways. Based on the 2025 service assumptions from the DNA study, 4 of the 12 are projected to operate with 30-minute headways and could be accommodated on two bays. Any sharing arrangement, however, requires offsetting the schedules to avoid simultaneous arrivals or departures.

This option would reduce the bus station’s footprint by about 6,000 sq ft relative to Option 1. The more compact arrangement could also reduce walking distances. This arrangement could limit service options by not accommodating pulsed bus scheduling and would provide slightly less area for waiting passengers.

<table>
<thead>
<tr>
<th>Space:</th>
<th>Assumptions:</th>
</tr>
</thead>
</table>
| **Regional Transit** | • All bays are ‘sawtooth’ configuration  
  10 bays at 43’ x 73’  
  2 bays at 34’ x 88’  
  = 25,112  
  = 7,568 | • Provide shared bay for two-30-minute headway services  
  43’ width includes 33’ bus bay and adjacent circulation and 10’ wide pedestrian platform  
  Geometry based on Regional Transit (RT) standard plans  
  Two RT bays accommodate articulated buses  
  Provide 2 bays for other operators |
| **Other bus** | 2 bays at 43’ x 73’  
  = 6,278 | |
| **Total:** 38,958 sq ft (0.89 acres) | |

**Scale:** 1”=300’
### Option 3: Layover Area, Shared Bays with Separate Drop-off

**Description:**
Under Option 3 a designated drop-off/layover space would be provided for RT buses. This would reduce dwell time at the boarding platforms and the number of bays required. Buses terminating at the terminal would discharge passengers at one of two bays designated for drop-off, and then proceed to the layover area. When ready to initiate a new run, buses would proceed to the boarding bays. It is assumed that the 12 RT routes could share 6 loading bays. Two additional bays would also be provided for other regional bus services, for a total of 10 bays.

This option would reduce the bus station’s footprint by about 13,000 sq ft relative to Option 1. It may be advantageous to provide a separate drop-off area in a location that is more convenient for alighting passengers connecting to other transit services. It is also generally beneficial to circulation to isolate boarding and alighting flows. However, this arrangement could limit service options by not accommodating pulsed bus scheduling and would provide slightly less area for waiting passengers. It would also necessitate the provision of a separate layover parking area, and could potentially be confusing to passengers accessing buses from the local area.

<table>
<thead>
<tr>
<th>Space:</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Transit</td>
<td>• Six bays to serve 12 RT routes.</td>
</tr>
<tr>
<td>4 bays at 43' x 73'</td>
<td>• Provide separate drop-off bays for two buses</td>
</tr>
<tr>
<td>2 bays at 34' x 88'</td>
<td>• 43’ width includes 33’ bus bay and adjacent circulation and 10’ wide pedestrian platform. Geometry based on Regional Transit (RT) standard plans.</td>
</tr>
<tr>
<td>Other bus</td>
<td>• Two RT bays accommodate articulated buses</td>
</tr>
<tr>
<td>2 bays at 43’ x 73’</td>
<td>• All bays are ‘sawtooth’ configuration</td>
</tr>
<tr>
<td>Drop-off</td>
<td></td>
</tr>
<tr>
<td>2 bays at 43’ x 73’</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong> 32,680 sq ft</td>
<td></td>
</tr>
<tr>
<td>(0.75 acres)</td>
<td></td>
</tr>
</tbody>
</table>

scale: 1”=300’
5.6 Light Rail and Downtown/Natomas/Airport Project

Regional Transit Light Rail Transit (LRT) will initially be extended to the SITF as part of the Amtrak/Folsom Extension Project projected by 2005. The location of the Amtrak/Folsom LRT is considered to be interim and can be relocated pending the SITF design. Regional Transit is also completing the Transit Alternatives Analysis/Draft Environmental Impact Statement and Report for a potential extension from downtown Sacramento to the Sacramento International Airport. This project is known as the Downtown/Natomas/Airport (DNA) line. Several potential LRT alignments are being considered, as well as Bus Rapid Transit (BRT) alternatives. If LRT is selected, one light rail station would ultimately serve both the Amtrak/Folsom and DNA lines.

This section considers one option with DNA LRT and one option with DNA BRT. Option 1 presents the LRT requirement with and without the DNA LRT, which are identical to each other. Option 2 presents the LRT and DNA BRT option requirements.

Option 1: Operator Requested Program with or without DNA LRT

Description:

Light Rail and DNA requirements are based on information provided by RT and its consultants for the DNA Study. A DNA LRT scenario would consist of two tracks and platforms at the terminal site. A through track arrangement and side platforms are preferred. The length of track required for circulation to and from the platforms is dependent on the specific site configuration and has not been included in this space program. Regional Transit also requires additional offline storage capacity for two 4-car train sets. The storage space would be used to accommodate layover, a terminating route at the SITF and/or breaking trains for return trips. The LRT program is the same with or without the DNA Project.

The principal advantage of this option is that it requires less space than Option 2 (with BRT).

<table>
<thead>
<tr>
<th>Space:</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRT</td>
<td>• 4-car trains, 90’ cars</td>
</tr>
<tr>
<td>2 tracks at 12’ x 360’ = 8,640</td>
<td>• 4 through trains/hour throughout the day</td>
</tr>
<tr>
<td>2 side platforms at 10’ x 360’ = 7,200</td>
<td>• Additional 2 trains/hour inbound (AM) and outbound (PM), during peak that layover at SITF</td>
</tr>
<tr>
<td>2 layover tracks at 12’ x 360’ = 8,640</td>
<td>• 2 side platforms</td>
</tr>
<tr>
<td>Total: 24,480 sq ft (0.56 acres)</td>
<td>• 2 platform tracks</td>
</tr>
<tr>
<td></td>
<td>• Does not include circulation track</td>
</tr>
<tr>
<td></td>
<td>• 2 layover tracks</td>
</tr>
</tbody>
</table>

scale: 1”=300’
**Option 2: Operator Requested Program: LRT With DNA BRT**

**Description:**

Option 2 presents the program requirement if BRT is chosen for the DNA project. The LRT program would remain the same as Option 1 but a new BRT terminus would be required. The conceptual service plan would introduce six new BRT routes to the SITF, in addition to the 12 regular routes discussed in the previous section. All of these BRT routes would continue through the SITF, with four interlining with local routes. Schedules for the BRT routes would be staggered to achieve peak headways as low as 3.5 minutes on the BRT trunk line north of the site. The BRT scenario would require two articulated bus bays in addition to the local transit bus bays described in the previous section. The other four routes will use the bays for the interlining local services.

This option would accommodate BRT but would also increase the size of the RT bus center by over 7,000 sq ft.

**Space:**

<table>
<thead>
<tr>
<th></th>
<th>LRT</th>
<th>DNA BRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tracks at 12’ x 360’</td>
<td>2 articulated bus bays at 43’ x 88’</td>
<td></td>
</tr>
<tr>
<td>2 side platforms at 10’ x 360’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 layover tracks at 12’ x 360’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total: 32,048 sq ft (0.74 acres)

**Assumptions:**

- Same as Option 1 except all trains terminate at SITF
- Two articulated bus bays required to serve BRT

---

**Diagram:**

- LRT platform
- DNA BRT
- LRT layover track

Scale: 1"=300’
5.7 Private Vehicle and Taxi Pick-up and Drop-off

Private vehicle and taxi facilities pick-up and drop-off requirements are based on information provided by Amtrak and Greyhound. These are relatively minor program elements in terms of space requirements. Access and circulation roads are not included in the space requirements.

Option 1: Operator Requested Program

**Description:**

The operator requested program consists of 11 private vehicle pick-up and drop-off spaces and 7 taxi bays. This program is only for the transit related requirements (including Greyhound Parcel Express).

The curbs could be contiguous if the rail and Greyhound services are located in a common facility. Otherwise, separate curbs should be provided that are convenient to each service.

**Space:**

**Private Vehicle Pick-up/Drop-off Curb**
- Amtrak: 6 spaces at 32’ x 25’ = 4,800
- Greyhound: 5 spaces at 32’ x 25’ = 4,000

**Taxi Curb**
- Amtrak: 6 spaces at 32’ x 25’ = 4,800
- Greyhound: 1 space at 32’ x 25’ = 800

**Total:** 14,400 sq ft (0.33 acres)

**Assumptions:**
- Include adjacent circulation lane and 10’ sidewalk
- Provide 6 pick-up/drop-off spaces for Amtrak and 5 for Greyhound
- Provide 7 taxi bays (6 Amtrak and 1 Greyhound)
- Exclude driveway

No scenarios are evident to reduce the program requirement for this component.
5.8 Parking

This section presents the parking requirements for all transit related uses including park and ride, meeter/greeters and transit employees. The amount of parking provided at the station will be in large part a policy decision by the City of Sacramento that relates to the community’s vision for the facility as discussed in Section 9 of this report. Given the rapid growth in patronage forecasted for the heavy passenger rail services, accommodating parking to serve a rate of private auto usage similar to today would necessitate a major increase in parking spaces at the SITF. While a major park and ride component at the station may help support these growth assumptions, it would conflict with other planning objectives for the site. For example, more parking would reduce the amount of space available for other uses and add traffic to the adjacent roadway network. A fundamental question related to parking is: does the City wish to provide spaces at the facility for all of those who would wish to park (unconstrained supply) or does the City seek to encourage the use of alternative modes by limiting parking supply.

It is reasonable to assume that overall parking demand will increase with expected increases in ridership on the existing services and the addition of new services at the terminal. However, it is also reasonable to assume that the proportion of riders driving and parking at the terminal will decrease over time due to several factors:

- Increased density of development immediately adjacent to the site, facilitating the use of alternative access modes
- Increased transit service to the terminal
- Passengers on the proposed commuter rail service are more likely to be traveling to Sacramento by train to reach workplaces downtown
- Limited roadway capacity adjacent to the site

Off-site park and ride facilities could also help reduce parking requirements at the SITF. New facilities and stations are being considered for Capitol Corridor and Commuter Rail services at Swanston and West Sacramento. It is appropriate to reduce the park and ride function of the facility, given its downtown location. The potential downside of limiting parking at the SITF, however, could be a constraint for ridership growth for the transit services if other provisions are not made. This is of particular concern to the Capitol Corridor Joint Powers Authority.

The parking program could also be influenced by the adjoining developments, particularly if a shared parking strategy is adopted.

Considering the uncertainty associated with future ridership and access mode choice at the SITF, it would be appropriate to consider the parking area as a footprint that could be a surface lot expanded with a parking structure if justified by demand and financial feasibility. At this point in the planning process, however, only gross area for parking has been considered.

Two options are presented below: the operator requested parking program and a reduced program that constrains parking supply. The reduced program is based on some broad assumptions regarding changes in mode share at the SITF, which could be achieved as a result of the factors described above, possibly in combination with constraining the supply.
Option 1: Operator Requested Program

Description:
This option presents the operator requested parking provision. A total of 1,000 spaces were requested by Amtrak with no specific breakdown between employees or riders. This would accommodate a drive alone mode share of approximately 25% for the Capitol Corridor and San Joaquin services (currently 26% of Capitol Corridor passengers indicate they drive alone to the Sacramento facility). Approximately 100 spaces would be shared among other Amtrak service riders and employees. Greyhound requests only 27 spaces (i.e., 5 for short term customer, 15 employee, 5 parcel express, and 2 disabled).

<table>
<thead>
<tr>
<th>Space:</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amtrak</td>
<td>• Include employee parking</td>
</tr>
<tr>
<td>1,000 spaces at 350 sq ft/space = 350,000</td>
<td>• Area includes internal circulation</td>
</tr>
<tr>
<td>Greyhound</td>
<td></td>
</tr>
<tr>
<td>27 spaces at 350 sq ft/space = 9,450</td>
<td></td>
</tr>
<tr>
<td>Total: 359,450 sq ft (8.25 acres)</td>
<td></td>
</tr>
</tbody>
</table>

![scale: 1"=300']
**Option 2: Reduced Parking Provision**

**Description:**
Option 2 assumes that a smaller parking program is provided. If no shared parking is provided with other uses near the site, this would require a reduction in the share of Capitol Corridor passengers traveling to and from the station by about half from the existing 26% to approximately 13%. Several factors could contribute to the change in mode share, including additional transit connections, increased density near the site, a Swanston park and ride facility, and constrained roadway capacity.

**Space:**
- Total 600 spaces at 350 sq ft/space = 210,000
- **Total: 210,000 sq ft**
  - (4.82 acres)

**Assumptions:**
- Significantly reduced drive alone mode share for heavy rail passengers
- Include employee parking
- Area includes internal circulation

[Scale: 1"=300']
5.9 Terminal Building

The terminal building would be the hub of all passenger and operator activity. It would accommodate all passenger and staff facilities for Amtrak and Greyhound. Limited accommodation would be provided for RT and other operators. This stage of the analysis only looks at the general space requirement.

There is limited opportunity for reducing the terminal program requirement, as the operators require exclusive facilities for ticketing, baggage, administration and employee functions. This program, which provides for waiting areas and passenger amenities, will be reviewed as concepts are further developed through the design process.

---

Option 1: Operator Requested Program

**Description:** The Terminal building program is based on information provided by Amtrak and Greyhound. The spaces quoted correspond to the building footprint and exclude external circulation areas. A nominal area is allotted for Regional Transit to accommodate a customer service counter and driver rest area. This option does not assume sharing of facilities between operators. The unit space requirements used by the operators to develop this program generally conform to industry standard space planning assumptions.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amtrak</th>
<th>Greyhound</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ticketing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,780 sq ft</td>
<td>880 sq ft</td>
<td>2,660 sq ft</td>
</tr>
<tr>
<td>Includes ticket counters and queuing only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baggage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,360 sq ft</td>
<td>890 sq ft</td>
<td>6,250 sq ft</td>
</tr>
<tr>
<td>Includes baggage and package service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Waiting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amtrak</td>
<td>550 pax x 20 sq ft/pax (seating) =11,000 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>300 pax x 8 sq ft/pax (standing) =2,400 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greyhound</td>
<td>4,720 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: 18,120 sq ft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes seating and immediate circulation area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Passenger Amenities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amtrak</td>
<td>4,620 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greyhound</td>
<td>5,970 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Transit</td>
<td>100 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: 10,690 sq ft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes restrooms, information, telephones, passenger-oriented retail, foodservice, rental car counters, ATMs, vending, telephones, custodial, and allowance for circulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer service counter only for RT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administration and Employee</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amtrak</td>
<td>12,550 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greyhound</td>
<td>3,800 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional Transit</td>
<td>500 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: 16,850 sq ft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Includes offices, crew base, cash rooms, break rooms, storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Terminal Building:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: 54,570 sq ft</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.10 Total Operator Requested Transit Program

The total operator requested transit program requirements are summarized in this section. The combined program is illustrated in comparison to the site.

The Operator Requested Program includes program modules for all of the potential services within the facility. This program represents build-out of the facility for the 2025 planning horizon. Implementation should be completed in phases where possible, particularly for parking and bus facilities.

### Total Operator Requested Program

**Description:** This is a total transit program based on the unconstrained preliminary operator requests, or Option 1 total. An additional 25% is shown to account for circulation and landscaping.

<table>
<thead>
<tr>
<th>Track and Vehicle</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Freight Tracks</td>
<td>224,000</td>
</tr>
<tr>
<td>Railroad Passenger</td>
<td>154,000</td>
</tr>
<tr>
<td>Intercity Bus</td>
<td>34,320</td>
</tr>
<tr>
<td>Transit Bus</td>
<td>45,326</td>
</tr>
<tr>
<td>Light Rail</td>
<td>24,480</td>
</tr>
<tr>
<td>Private Vehicle &amp; Taxi</td>
<td>14,400</td>
</tr>
<tr>
<td>Parking</td>
<td>359,450</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>855,976</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminal Building</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal</strong></td>
<td>910,546</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circulation and Landscape</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total:</strong></td>
<td>1,138,183 sq ft (26.12 acres)</td>
</tr>
</tbody>
</table>

**Assumptions:**
- Adopt Option 1 for all transit elements.
- Additional 25% for circulation and landscape
Figure 5-2. Total Operator Requested Program

scale: 1"=300'
6 Joint Development Issues and Opportunities

6.1 Introduction

This section discusses the concept of Joint Development, and explores the opportunities that exist for incorporating Joint Development in the design and implementation of the Sacramento Intermodal Transit Facility (SITF). This section has been prepared by Jones Lang LaSalle, drawing on their experience in developing urban mixed-use real estate projects, including the renovation of Union Station in Washington, D.C. and Grand Central Terminal in New York. Both of these projects were developed utilizing the concepts of joint development that are described in this section.

The examination of Joint Development alternatives for the Sacramento Intermodal Transit Facility must take into account key opportunities and constraints including:

- Consistency with the land use designations adopted for the larger Railyards site
- Integration with the existing Central Business District
- Unique opportunities for public/private partnerships resulting from concurrent negotiations between Union Pacific and potential buyers of the Railyards site
- Risks related to the timing and nature of development of the Railyards site require examination of alternatives for the transit facility Joint Development site that are modest in scale and feasible independent of the ultimate Railyards program

It is the conclusion of this paper that the Sacramento Intermodal Transit Facility has great potential as a joint development project. At the small end of the spectrum, the existing facilities offer an attractive redevelopment opportunity with transit related demands that fully utilize most of the available space, and supplemental transit related occupancy could support additional development on the site.

However, the real opportunity comes from the synergies generated by combining the SITF with the Railyards development opportunities. While there is substantial market and timing risk associated with a development of this scale, careful planning and phasing could result in a significant new asset for Sacramento, and form the basis for redevelopment of a new community oriented to revitalized intermodal transit functions.

6.2 What is Joint Development?

Joint development is but one aspect of “transit oriented development”, an urban planning concept that includes both suburban “transit villages” and urban mixed use development associated with transit stations.\footnote{1} Transit Oriented Development (TOD) is defined on the Caltrans website as:

"Moderate to higher density development, located within an easy walk of a major transit stop, generally with a mix of residential, employment and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use."

The benefits of transit oriented development in both urban and suburban contexts are many, and include enhanced mobility, environmental quality, pedestrian friendliness, alternative living and working environments, neighborhood revitalization, public safety and public celebration.\footnote{2}

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\footnote{2} Ibid, pp. 6-11.
The Urban Land Institute, in its 1979 report on joint development, defined Joint Development as:

“real estate development that is closely linked to public transportation services and station facilities and relies to a considerable extent on the market and locational advantages provided by the transit facilities.” 3

The California TOD website (http://transitorienteddevelopment.dot.ca.gov/) defines Joint Development Projects more specifically as follows:

“The use of publicly owned property in the development of real estate that is either ‘physically or functionally related’ to a transit investment.”

For the purposes of this document, we classify the Joint Development components into the following subcategories:

- Passenger Facility (portion of the larger transit program)
- Public Spaces
- Parking
- Corollary Joint Development (private development components)
  - Office
  - Retail
  - Residential
  - Hotel

Whereas transit oriented development may involve simply planning and zoning for a mix of uses adjacent to a transit node, joint development typically involves the development of these uses in conjunction with the development (or renovation) of the transit station itself. This type of transit-oriented development has been most aggressively pursued by the Washington Area Metropolitan Transit Authority (WMATA), which has entered into over 22 joint development ventures (mostly involving land leases) at WMATA stations.4 Joint development has also been utilized extensively by the Los Angeles Metropolitan Transit Authority (MTA) which commissioned station area concept plans for 12 of the rail stations to open in the 1990’s.5 The City of San Diego integrated joint development into the planning and construction of the San Diego Trolley Network by entering into joint development agreements with the developers of two commercial towers, America Plaza and the MTDB headquarters, both of which have trolley stops built directly into their structures.6

In the Bay Area, BART has been aggressively pursuing joint development concepts at a number of its existing and proposed stations, including Pleasant Hill, El Cerrito del Norte, MacArthur, Richmond, Hayward, Millbrae and Pleasanton-West Dublin.7 The best example completed to date is the Fruitvale BART station where joint development improvements include a childcare facility, a health care clinic, a public library, senior citizen housing, and a police station. Transit villages and joint development concepts have also been incorporated into (or added to) stations for CalTrain (Mountain View station) and the Santa Clara light rail system (Almaden station).8 Typically, these concepts have involved replacing surface parking serving the transit station with structured parking, multi-family housing, and limited convenience retail.

3 Urban Land Institute, Joint Development: Making the Real Estate – Transit Connection (U.S. Department of Transportation, July 1979), Executive Summary, p1.
7 Ibid, pp. 187-212.
8 Ibid, pp. 204-205.
In an urban context, joint development typically combines the development or renovation of the publicly owned transit station with the development of a privately owned mixed-use project. The private components of the development, referred to in this document as "Corollary Joint Development", may include one or more of the following uses:

- Office
- Residential (apartments or condominiums)
- Hotel
- Retail
- Entertainment.

The public component of a joint development project may also include non-transit components such as:

- government or non-profit offices, medical clinics or educational facilities
- public open space or recreational facilities
- cultural facilities (public or non-profit), such as museums, theaters or exhibit spaces.

In a joint development project, the non-transit components of the project may be developed integrally with the transit operations (such as convenience retail located in boarding or waiting areas), or may be developed on discreet levels above or below the transit operations. Joint development may also include the development of air rights above the transit station, or the development of land adjacent but connected to the transit facility by common circulation elements. Often, joint development includes shared parking facilities which serve both transit and non-transit visitors.

Joint development may be executed in a number of ways, depending on the type of project and the policies of the sponsoring transit agency. For example, in a project where the commercial development is merely incidental to the transit operations, the transit agency may wish to hire the developer to execute the project as the agent of the transit agency, with the agency retaining full ownership of the facility and the developer being compensated on a fee for service basis. Under this arrangement, all commercial and other non-transit revenues are payable to the agency and can be utilized to amortize station capital and operating costs.

At the other extreme, the agency may authorize the developer to develop a privately owned project on land owned by the agency and leased to the developer, provided that the developer includes transit components (such as bus platforms and associated parking), which will be dedicated to public use upon completion. Under this arrangement, the developer finances the project and all non-transit revenues accrue to the developer to amortize its capital investment. More often, however, joint development is executed as a public-private partnership between the agency and the developer, with each partner contributing a portion of the land, capital, financing, and supervision for the project, and with ownership and non-transit revenues either shared via a jointly owned entity, or divided and governed by ground lease or air rights agreements.

### 6.3 Advantages of Joint Development

Transit villages and joint development can provide a number of advantages to both public and private partners in a transit oriented development project. These advantages can be summarized as follows:

**Public Benefits:**

Ridership: Including joint development in the development of a transit station can enhance the transit ridership for the system serving the station.\(^9\) The additional density of office, retail, residential, hotel and

\(^9\) Ibid, Chapters 4, 5.
other uses can increase the total number of trips to and from the station, and often stimulates a strong reverse commute demand which tends to balance peak hour ridership.\textsuperscript{10} More importantly, it has the potential of increasing the non-peak trips substantially, since the mix of uses will most likely increase demand for transit during non-commute hours, including midday, late evenings and weekends.\textsuperscript{11}

Revenues: The non-transit uses in a joint development project provide sources of revenue to support the development and operation of the project. Rents from commercial and residential tenants will help amortize the overall cost of the development. Sale or lease of air rights above transit operations (or transit related parking) permits the agency to recapture the value of land that would otherwise be dedicated solely to transit use. If the location and configuration of the private elements within the transit project can command rents substantially above the rents required to amortize the cost of building the non-transit space in the project, these rents will also serve to subsidize the capital cost of the transit portions of the project. Even if the rents cover only the cost of building the commercial components, the tenants can help defray the operating costs of the overall project, thus lowering the cost that must be borne by the transit operations.

Community Support: Transit facilities benefit directly only those who use the transit facilities, and thus community support for a transit project may be weak among those sectors of the community that do not use the transit system. Similarly, while the community at large may support the idea of transit in general, local neighbors may have a “not in my back yard” attitude toward the development of transit infrastructure adjacent to their property. Lack of support from the broader community may make it difficult to pass sales tax, bond or bridge toll initiatives that are necessary to provide financing for the transit improvements.

Joint development can address these issues by enhancing support among the non-transit sectors of the community. The mix of non-transit uses to be incorporated in a joint development project may appeal to a broad base in the community, and thus community support for the project may be greatly expanded. A well conceived and designed joint development project can also change local perception of a transit project from negative to positive, particularly if the joint development aspects serve local needs and aesthetically integrate the transit facility into the surrounding community by providing a non-transit buffer or façade to the neighborhood.

Private Benefits:

The commercial and retail elements included in a joint development project can benefit directly from the transit elements of the project. The daily flow of commuters and other transit users provides low cost identity and advertising, and greatly enhances sales for the tenants in a joint development project. This translates into higher potential rents and profits for the developer.

Residential and office tenants can have immediate and safe access to transit, thus shortening commute (or reverse commute) times. This often reduces commute costs or eliminates the need for a second automobile, thus resulting in substantial household savings.

Neighboring property owners benefit from having an attractive mixed-use project adjacent to their property. Neighborhood serving retail and entertainment tenants in the joint development project can enhance property values in the entire neighborhood. Convenient and attractive transit access also benefits neighboring owners.

Challenges for Joint Development

\textsuperscript{10} Ibid
\textsuperscript{11} Ibid.
While the above advantages are substantial, Joint Development does create challenges that must be recognized in developing strategies including:

- Mitigation of noise and traffic associated with transit activities to make joint development products attractive
- Management of security, access and privacy issues resulting from close proximity of diverse program elements
- Complexity in negotiation of ownership structures and approvals which create uncertainty for timing of developments
- Integration of program elements requiring subsidies or funding from diverse sources, contributing to the uncertainty noted above

### 6.4 Requirements for Success

In order for a joint development project to be successful, it must meet certain basic standards of economic feasibility. These standards include aspects of location, design, cost, tenant mix and other factors which determine the success or failure of any real estate development project. The minimum required standards can be summarized as follows:

#### 6.4.1 Location

It is an axiom of real estate that location is the most important factor influencing the success of a development project. To a very large extent, a project’s location determines the appeal that the project will have to prospective residential and office tenants, and to the customers of the commercial tenants that will occupy the project. Thus, the better the location, the higher the rents the project will command in the marketplace, and thus the greater the economic value.

The quality of a location is determined by a number of factors, such as adjacency to other commercial and residential developments, identity and visibility, availability of views, convenience to services, transportation and other amenities, ease of ingress and egress, and the perceived prestige and safety of the neighborhood. These locational factors vary somewhat, depending on the type of use being considered, whether residential, retail, office or hotel.

**Retail Locations:** Successful retail requires a high density of pedestrian traffic. In a mall context this is generated by "anchoring" the mall with destination retail, such as major department stores or entertainment facilities. In an urban context, pedestrian traffic is much more a function of location, with the preferred locations being those where pedestrians pass regularly and in large volumes to reach places of work, residence, entertainment or other retail. In locations which don’t have either anchor tenants or high volumes of ambient traffic, retail must be concentrated in a critical mass of 150,000 to 200,000 square feet in order to generate its own flow of pedestrian traffic.

**Office/Hotel Locations:** For hotel guests and office tenants, proximity to transportation, restaurants and retail are prime locational factors. Also important is proximity to other concentrations of office space, particularly in dense urban environments where walking is the prime means of transportation when calling on clients or serving customers. Finally, for Class A hotels and office space, the quality of views and the perceived prestige of the local neighborhood is important in determining rental rates and occupancy levels.

**Residential Locations:** Residential tenants typically prefer quiet but safe neighborhoods. For urban, high density residential, convenience to public transit and to centers of employment and retail is also important, and may at times conflict with the need for quiet surroundings. Again, the availability of views and the prestige of the location have significant impacts on rental rates and occupancy levels.
6.4.2 Design Factors

Next to location, the most important factor influencing a project’s joint development value is its design. To be successful as joint development, the project must establish good identity, visibility and appeal from the exterior, and must provide convenient circulation on the interior. To be marketable, the project must be compatible with the neighborhood, and must be appealing to the tenants from an aesthetic standpoint.

The challenge in a joint development project is to avoid having the transportation elements of the project dominate the design. If building facades and entrances are obstructed by transit operations, they will not be acceptable to residential, office or hotel tenants of the project. The tenants and customers of the project must be drawn in by its aesthetic appeal and convenience, and not intimidated by conflicts between transit and other activities taking place within or around the project.

Retail Design: Good retail design requires that tenants be visible to their potential customers. Prime retail space is that which is located at street level with good visibility from passing cars and pedestrians. Interior retail is less valuable, but can be enhanced with high ceilings and clear sight lines between circulation areas and retail areas. Conversely, if retail spaces are separated from pedestrian circulation, hidden from view or buried in dark areas with low ceilings, they will not be commercially successful.

Entertainment retail and destination restaurants tend to create their own traffic, and can therefore be segregated to upper or lower levels better than convenience or comparison retail. Properly selected and placed within a project, these tenants can create the necessary traffic to support other types of retail. However, entertainment retail has special requirements, such as high ceilings and column free space, which create design challenges to any mixed-use project.

Retail tenants must be carefully selected and arranged within the space to achieve the proper mix of restaurants, entertainment, convenience and destination retail so as to create a synergy, which is a strong draw to the surrounding neighborhood, and which will also draw customers from outside the neighborhood. The availability of parking is generally critical to the success of any retail project, and can only be compromised when the location has very high transit flows or other pedestrian traffic that can be easily drawn into the project.

Office/Hotel Design: Next to central location, the most important factor determining the value of hotel and office space is the views. Since good views are generally only available from the upper floors in an urban environment, building height generally enhances building value. Even when distant views are not possible, adequate separation from other buildings is important to preserve access to light and air. Class A office tenants generally do not want to share elevators and lobbies with residential, retail or hotel tenants, so careful attention must be given to the pedestrian circulation within a mixed-use project.

Residential Design: As with office and hotel, the availability of views is an important factor in determining the value of residential space. Also important is convenient access to parking, as well as to transportation, convenience retail and neighborhood amenities. Perhaps most important is the perceived safety of pedestrians during late evening hours and on weekends. Entrances, elevators and parking for residential tenants are typically segregated from office, hotel and retail tenants.

6.5 Opportunities for Joint Development

The Sacramento CBD market continues to be dominated by the activity in the government sector. Government consolidation and potential downsizing suggest a flat commercial market in the near term with modest growth in 2004 and beyond. The residential market will absorb quality housing close to the CBD, but will demand a critical mass of development, supported by appropriate retail development, to achieve the goals of a healthy joint development program.
6.5.1 **Office Development**

Opportunities for office product in the Joint Development program are driven primarily by the market conditions in the CBD. These have been addressed in several past studies, most notably the following:

- “Regional Retail Market Demand and Attraction to Downtown Sacramento, California” study performed by Economics Research Associates revised March 20, 2000.
- “Sacramento Intermodal Transportation Center Economic Analysis” by the City of Sacramento Economic Development Department, Downtown Development Group dated March 14, 2001

These studies provide a consistent view that the CBD market is dominated by Government activities with a general oversupply of Class A space and limited market absorption ranging from 120,000 to 200,000 sf annually.

A recent Semi-Annual Market Report by Jones Lang LaSalle, attached in Appendix B, confirms that, while the general market absorption is expected to ramp up from 300,000 sf in 2004 to 850,000 sf in 2006, much of this absorption will occur in the suburban markets. Further, there are projects already in the pipeline that will provide supply to meet or exceed this demand.

In the CBD market, continuing consolidation of State facilities will provide downward pressure on CBD rents and limit absorption. In particular, this consolidation is resulting in increased vacancies in class B and C product. The following are specific comments related to the CBD extracted from the Jones Lang LaSalle Market Report:

**CBD Market Indicators (Downtown)**

- Direct vacancy is 7.9 percent (8.84 percent including sublease), up slightly from year-end 2002.
- Government consolidation was the leading factor for the CBD rise in vacancy to 8.84 percent.
- Year to date net absorption for 2003 is negative 39,095 square feet.

**Downtown**

- Meridian Plaza, a 230,000 square foot Class A office tower, is nearing completion. When finished, it will be the first major private sector Class A office building to be constructed since 1999.
- State agencies continue to relocate to the East End Project, which was completed in late 2002 and early 2003 (added some space to CBD)
- Vacancy rates rose slightly from 7.54 percent to 7.89 percent, once again showing the strength of the downtown market. Rates will increase moderately over the next six to twelve months due to the completion of Meridian Plaza and the continued relocation of state tenants to the East End project.
- Once the Meridian Plaza is completed, no new construction is expected until at least 2005.
- Only one new building, 300,000 sq ft at 601 Capital Mall, Lot A, is in the detailed planning stages, and it is not anticipated to move forward without significant preleasing
- Leasing activity has been slow due in part to the national economy and part to the lack of quality available space in the market.
- Downtown 2003 year-to-date net absorption was negative 39,095 square feet.
- The average Class A rental rate decreased slightly compared to year-end 2002. Class A rental rates ranged between $28.80 and $34.80 per square foot; Class B rents ranged between $22.80 and $28.20, while Class C rents ranged between $18.00 and $22.20.
• Leasing will remain flat over the next twelve to eighteen months due to the national economy and the State of California’s budget problems.

• The national economy continues to serve as the primary factor behind overall market strength. The current “delicate recovery” is yet to equate into the sort of job expansion that stimulates commercial real estate demand.

Office Development Summary

In summary, joint development of commercial space will require careful identification of niche markets to compete effectively. Location will be critical, and the ability to benefit from the adjacency to a transit facility must be the primary factor that would make office development viable in an otherwise difficult market. Specific strategies will be explored in subsequent sections.

6.5.2 Residential Development

Residential development in the Sacramento market continues to be focused in the suburban markets with the tendency for continued expansion into more remote locations. The commute times associated with this sprawl are becoming more of an issue, which is supporting the continued dispersion of commercial development into the suburbs.

The ERA report referenced in paragraph 4.5.1 indicated that, due to competitive pressures of suburban projects, “larger scale, higher density market rate privately financed housing developments in the Downtown Sacramento area will be relatively unlikely. New housing units in the Downtown will continue to come forward from adaptive use opportunities, infill opportunities, and smaller-scale new developments which may also feature live/work features”. The “Sacramento Intermodal Transportation Center Economic Analysis” referenced above supported this observation, suggesting that market rents and construction costs require subsidies for market based development, and that the market for luxury residential units in downtown Sacramento is limited. As a result, development of residential uses for initial phases of the Joint Development was not recommended.

The suggestion that the residential market will be primarily oriented to adaptive reuse and small-scale infill opportunities has been validated by recent activity in the market. There have been a number of successful developments of this nature, including the current project at 16th and J streets incorporating 18 residential lofts in a mixed-use project. This project is subsidized for nearly 25% of the cost, but a second phase is planned without subsidies. A similar project with 91 apartments and condominiums is being planned at 16th and O. These projects demonstrate the opportunities for quality residential development within walking distance or modest commutes to government facilities and CBD work environments. Much of this luxury demand is centered east of the SITF site, focused around proximity to the government activities.

Another strategy suggested in the “Sacramento Intermodal Transportation Center Economic Analysis” was to develop “a minimum critical mass of between 600 and 800 residential units” which would support development of appropriate neighborhood amenities. This is a viable strategy, but requires more space than would be available for Joint Development at the Intermodal Transit Facility. Opportunities to create this critical mass are appropriate considerations for the associated Railyards site.

Residential opportunities in the Joint Development scenario will need to be strategically located within acceptable walking distance of existing or new employment, and should be planned to take advantage of the additional amenity of convenient access to public transportation. Close proximity to existing retail in the Downtown Plaza will be another advantage to residential development at this site. A mixed-use product integrating specialty or neighborhood retail at grade is likely to be most attractive financially. Specific strategy for residential joint development must consider public policy objectives concerning the
diversity of Downtown housing product as well as the unique opportunities presented by location and proximity to the transit facilities.

6.5.3 Retail Development
The ERA study referenced above examined the downtown retail market in detail, with existing inventory summarized in the “Sacramento Intermodal Transportation Center (SITC) Economic Analysis” as follows:

- Downtown Plaza 1,193,000 square feet
- K Street Mall 438,181 square feet
- Old Sacramento 310,090 square feet
- TOTAL 1,941,271 square feet

These concentrated districts are in addition to an estimated 500,000 to 750,000 square feet of additional scattered retail uses throughout the greater downtown area. The ERA study examined development plans to create significant additional downtown retail by Mills Corporation and Westfield/Taylor. While the Mills proposal has since been abandoned, the potential for expansion of the K Street Mall with an additional 378,000 square feet continues to represent a significant increase in retail space. Expansion in the K Street corridor is consistent with the concentration of employment in that general area as a result of the State’s consolidation into the East End facilities.

As summarized in the SITC Economic Analysis, the market conditions suggest a joint development strategy for retail that complements existing retail versus competing with it. Close proximity to the Downtown Plaza satisfies demand for Mall retail functions. The synergies generated by joint development suggest destination dining and retail to support the Railroad Museum, convenience dining and retail associated with the transit functions, and neighborhood retail to support residential and office development. All of the retail components would likely be integrated with other functions in an urban mixed-use product.

As an additional note, the Sports and Entertainment District Study, due to be made public in fall 2003, is anticipated to include a major retail/entertainment component, which should be considered in finalizing retail program.

6.5.4 Hotel Development
The hotel market in the greater Sacramento area is generally well supplied and room rates are modest, partially as a function of the state’s hotel per diem, which appears to be in the range of $80- $85, before taxes. There is some seasonality in the occupancy levels, but occupancy is primarily driven by business travel related to state activities.
The most recent market results as published by Pannell Kerr Forster (PKF) for both the greater Sacramento market and the Full Service Downtown Market are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Greater Sacramento Market</th>
<th>Full Service Downtown Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Occupancy</td>
<td>Rates</td>
</tr>
<tr>
<td>1998</td>
<td>74.5%</td>
<td>$94.52</td>
</tr>
<tr>
<td>1999</td>
<td>64.2%</td>
<td>$82.58</td>
</tr>
<tr>
<td>2000</td>
<td>69.9%</td>
<td>$86.46</td>
</tr>
<tr>
<td>2001</td>
<td>69.1%</td>
<td>$86.14</td>
</tr>
<tr>
<td>2002</td>
<td>72.8%</td>
<td>$88.17</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific to the downtown market, Sacramento recently subsidized the building of the Sheraton Grand hotel. Total cost was $100 million or $199K per guest room (503 rooms). It is understood that the project required incentives of approximately 17% from the city to make the development economically attractive to investors.

PKF also provided to the City an analysis titled “Proposed Hotel at the Historic Rail Depot” dated March 15, 2002. In this analysis, they identified occupancy levels in the downtown market in the 75% range and projected room rates at $120 in 2002 dollars for this submarket, the hotel was evaluated as a 274-room full service four-star product positioning it between the Hyatt Regency and the Sheraton Grand in quality and performance. The evaluation established an expected market value of $41.7 million “as completed”. Assuming development costs in the vicinity of those incurred for the Sheraton Grand, and validated against other cost benchmarks, this value would suggest a required subsidy in the 15% to 20% range.

The location in the joint development creates market opportunities to capitalize on a diverse clientele including commercial, group, leisure and contract visitors. However, while there appears to be demand in the market for additional product, the rates continue to limit development based solely on private funding.

### 6.6 Lessons Learned

In managing joint development projects involving mixed use development of office, retail and/or hotel uses, Jones Lang LaSalle has drawn the following conclusions:

#### 6.6.1 Mixed Use Development is Difficult to Execute Successfully

Whenever more than one use is combined within a single project, conflicts inevitably arise. These conflicts occur in the design and configuration of building systems such as elevators, mechanical equipment and waste systems, which often cannot be shared between uses for various technical and legal reasons. Conflicts also arise in the configuration of parking, lobbies, entrances and views since each use has its own unique requirements and preferences, which must somehow be reconciled. When public uses (such as transit) are combined with more private uses (such as offices and residential), special challenges arise in matters of cleanliness, ventilation, security, noise and congestion. For successful mixed-use development, these conflicts must be identified early in the planning process with alternative solutions carefully examined through preliminary design processes.

#### 6.6.2 Unanchored Retail Presents Special Challenges

Traditionally, retail was only successful when configured as “strip” retail along heavily traveled boulevards, or “anchored” by a department store or major supermarket in a mall or shopping center
environment. Without exposure to high volumes of passing pedestrian/automobile traffic or adjacency to anchor tenants, multi-tenant retail has difficulty achieving required sales volumes unless it is very carefully planned and designed. Such retail can be successful, however, if the right mix of tenants are assembled, and the project includes a high concentration of “destination” tenants such as restaurants and entertainment venues.

In transit related joint development, the pedestrian traffic provided by the transit operations can support substantial quantities of retail, provided that the pedestrian volumes are high enough and the retail is configured properly. Pedestrian traffic must be enhanced by high concentrations of neighborhood serving restaurants and entertainment venues that substitute for “anchor” tenants. Care must also be taken to ensure that all retail tenants have good exposure and visibility to the traffic that is generated.

6.6.3 The Location Must be Special
In both GCT and Union Station, the marketing of the project was greatly enhanced by the fact that the terminals themselves represent examples of great historic architecture. Once renovated, the beauty of the buildings and the drama of the public spaces created a draw independent from the transit or the retail. In both cases, the terminals are popular venues for special events such as formal dinners, cultural exhibitions and entertainment events. While it may not be possible to duplicate at the Sacramento Intermodal Transit Facility the opulence of a century old public landmark, it is nevertheless important that the terminal be a unique and inviting place if joint development is to be successful.

6.6.4 Role of the Public Sector
Public-private development projects present special challenges due to the multiplicity of goals that must be reconciled and the complexity of the public sector decision process. Public agencies must invariably respond to a variety of constituencies, but successful public-private development is only possible when those constituencies can delegate the decision authority to a single body, such as a board of directors representing all interested parties. The governing board must in turn appoint a chief executive to represent their interests, and vest in that executive sufficient authority to resolve inter-departmental issues.

This is the approach that was taken at both Union Station and GCT. At Union Station, a non-profit corporation, Union Station Redevelopment Corporation (USRC), was formed to manage the redevelopment of the station. The board of directors of USRC includes Secretary of the Department of Transportation, the President of Amtrak, the Mayor of the District of Columbia, the President of the federal City Council and the Federal Railroad Administrator, Department of transportation. Authority to select the private sector developer was delegated by this board to the Secretary of Transportation. In the case of GCT, the station is operated by Metro-North, a subordinate agency of MTA, and a public benefit corporation chartered by the state of New York. The MTA’s board of directors includes the Governor of New York, the Mayor of New York, and the executives of the suburban counties served by the MTA. The board also has two non-voting members, a representative of labor and a member designated by a Citizens Advisory Committee.

In both projects, the joint development aspects of the project were delegated to LaSalle Partners as developer, leasing agent and manager. LaSalle was given the responsibility and the authority to plan and execute all non-transit aspects of the project, including the merchandising plan, tenant selection and lease negotiations. In both cases, a well-conceived public-private partnership was able to resolve myriad issues to produce a successful landmark project. For the SITF, it will be critical to define an effective management and governance structure, within the unique requirements of this specific project, to achieve similar efficiencies.
7 Joint Development Program

7.1 Overview

The Sacramento Intermodal Transit Facility presents unique opportunities (and challenges) due to the combination of four distinct development zones:

- Intermodal Facility and immediately adjacent parcels, including the Historic Depot and REA building
- Museum zone created by the existing Railroad Museum and its expansion into the Historic Southern Pacific Sacramento Shops with the Railroad Technology Museum
- Railyards Area, with negotiations under way between Union Pacific and potential buyers for private development
- Downtown Sports and Entertainment District (Study due to be made public in fall 2003, is anticipated to include a major retail/entertainment component, which should be considered in finalizing the Joint Development Program)

All of these sites fall under the broad definition of Transit Oriented Development (TOD) as they represent opportunities for "Moderate to higher density development, located within an easy walk of a major transit stop…" The Joint Development program we will examine here meets the more limited definition from paragraph 4.2 of "The use of publicly owned property in the development of real estate that is either physically or functionally related to a transit investment. The City of Sacramento’s Transit for Livable Communities (TLC) Report focuses on land use planning within ¼ mile of light rail stations.

In the context of these definitions, we classify the sites as follows:

- Transit Oriented Development
  - Museum site – Historic SP Shops area
  - Railyards Area site
  - Downtown Sports and Entertainment site
- Joint Development
  - Intermodal Transit Facility site, 43.7 acres including the adjacent areas per Figure 7.1

Of the four, the Museum site has the clearest current vision for its long-term development. For the purposes of our evaluations, we presume the document titled “The Railroad Technology Museum at the Historic Southern Pacific Sacramento Shops – Fact Sheet” articulates the expansion strategy for this facility. In discussions with the Museum staff, the development of this facility is anticipated over a 5 to 10 year period with Museum attendance projected to increase from the current 550,000 visits per year to 780,000 visits by 2007. The character, visitor traffic and functions incorporated into this facility will be important contextual considerations in evaluating alternatives for the Joint Development program for the Intermodal site. In a similar fashion, the impact of potential development of a Downtown Sports and Entertainment Facility must be considered for their impact, though the proximity of that facility will have less direct impact on the Joint Development opportunities.

Finally, the vision adopted for the SITF will shape the character and feasibility of some of the Joint Development opportunities. For this reason, we have established ranges of potential program elements in this initial analysis, with the expectation that the policy decision and vision adopted for the facility will guide the finalization of a more specific joint development program.
Our examination of the Joint Development Program is specific to the 43.7 acre Intermodal site, but we develop two scenarios as follows:

- **Stand-Alone SITF** – program alternatives in the absence of development of the Railyards site within the foreseeable future

- **Combined SITF/Railyards Development** – Joint Development program opportunities assuming development of the Railyards in general accordance with the Railyards Specific Plan within the Central City Community Plan developed by the City of Sacramento Planning Division

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**Figure 7-1. Reference Image of Joint Development Area**

![Diagram](attachment:image.png)
7.2 Stand-Alone SITF

The Intermodal Facility site is defined as the 43.7 acre tract illustrated in Fig. 7.1. Track alignment considerations will have an overriding impact on the viability of alternative development scenarios for this site, but those considerations will be deferred until the design stage. For the moment, we will focus on the programmatic opportunities for the site, independent of track alignment. The Joint Development program elements will be classified as follows:

- Transit Program
- Public Space
- Parking
- Corollary Joint Development
  - Office
  - Retail
  - Residential
  - Hotel

7.2.1 Development Opportunities and Constraints

Development opportunities in the Intermodal site as defined above are in close proximity to the courts facilities and benefit from adjacency to the perimeter of the CBD development, Old Sacramento and the Railroad Museum site. Adjacency to existing historic structures provides unique character and distinct identity to any development. These opportunities will be balanced against constraints of challenging circulation obstacles including major streets and rail facilities, and the noise generated by both. Infrastructure requirements to support the development program will be examined in the subsequent design phase.

As an isolated development without the synergies of a vital Railyards development program, any joint development in this area will need to be planned to derive benefits of location and character, and will particularly need to optimize the value of adjacency to transit facilities. These drivers suggest limited office and retail development focused on capturing niche market opportunities unique to this location.

7.2.2 Transit Program and Passenger Facility

The transit program outlined in Section 2 of this Working Paper results in an operator requested site program of 26.09 acres, consuming over 60% of the available site. Of this program, 360,000 sq ft is for parking. Critical evaluation of shared use and reduced programs could yield some additional space (the Consultant Recommended Program is roughly 20 acres), but vertical development in terms of structured parking will be required to achieve any substantive joint development. The ranges of Joint Development opportunities identified in subsequent paragraphs considers, in part, the differences in available site depending on whether the Transit Program uses the requested 26 acres or a reduced transit program based on optional transit program modules. An alternative could be development of air rights over transit programs, but that alternative is more costly and likely to not prove feasible in this scenario.

In addition, the operator requested program generates a 54,570 sq ft Passenger Facility program. This compares with a current space inventory within existing structures as follows:

- Historic Terminal Building,
  - Floor 1: 29,446 sq ft net
  - Floor 2: 19,326
- Total Existing: 48,772
- Program Deficit: -5,798 sq ft
When adjacencies and program functionality are taken into account, the terminal building is likely to require a minimum of 37,720 sq ft of first floor program area. This leads to a first floor program deficit of 8,274 sq ft when compared to the existing available 1st floor area available in the historic depot.

If the REA building is used for transit functions, the space inventory and program differential is as follows:

- Historic Terminal Building: 48,772 sq ft net
- REA Building: 24,614
- Total Existing Inventory: 73,386
- Program surplus: 18,798 sq ft

However, a direct comparison of space demand with supply in the existing buildings is potentially misleading. The layout, location and design constraints of the existing buildings may render them unsuitable to accommodate the transit program. For that reason, the transit program square footage will be summarized along with all other program elements listed below, and questions of where the program elements are accommodated will be addressed in the design phase.

### 7.2.3 Public Space Opportunities

The Historic Station creates unique opportunities to accommodate public functions. For an economically viable program, these uses need to be carefully considered in terms of their ability to generate revenue to avoid becoming an economic drain on the entire development. However, their integration will be important to preserving the character and public value of the facilities. Economic impacts will be evaluated in subsequent studies.

Potential public space uses that would complement the transit program and be consistent with the general character of the surrounding facilities could include:

- Chamber of Commerce facilities
- Cultural museum celebrating unique regional attributes
- Tourism facilities
- Kiosk or small scale displays promoting Old Sacramento and the Railroad Museum
- Government offices
- Non-profit offices

While these uses could generate wide ranges of program demand, the limitations of the existing facilities will provide practical constraints resulting in the following ranges, with specific footages somewhat transferable between different program elements:

<table>
<thead>
<tr>
<th>Element</th>
<th>Minimum sf</th>
<th>Maximum sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamber of Commerce</td>
<td>2,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Cultural Museum</td>
<td>1,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Tourism Facilities</td>
<td>1,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Kiosk &amp; Displays</td>
<td>0</td>
<td>800</td>
</tr>
<tr>
<td>Government</td>
<td>5,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Non-profit</td>
<td>1,000</td>
<td>25,000</td>
</tr>
<tr>
<td><strong>TOTAL PROGRAM</strong></td>
<td><strong>10,000</strong></td>
<td><strong>73,300</strong></td>
</tr>
</tbody>
</table>
In aggregate, it is anticipated that the public space demands could range from 10,000 sq ft to a maximum that could utilize all existing space at 73,300 sq ft.

### 7.2.4 Parking

Parking requirements are driven primarily by the transit facility development plus parking to support other joint development facilities. The transit facility parking, programmed at 1027 spaces for Amtrak and Greyhound patrons, will be subject to significant pricing pressure. Current rates are approximately $6.25 per day and will likely not support the amortization of structured parking costs.

However, structured parking will likely be required if additional joint development opportunities are to be generated from the existing site. In essence, the cost of structured parking will need to be justified by the value of the land made available by structuring parking. The total parking program, as a function of joint development opportunities, is summarized in the following table:

<table>
<thead>
<tr>
<th>Program Element</th>
<th>Parking Ratio</th>
<th>Minimum Spaces</th>
<th>Maximum Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Program</td>
<td>600</td>
<td>1,027</td>
<td></td>
</tr>
<tr>
<td>Public Space</td>
<td>4/1000 sf</td>
<td>40</td>
<td>293</td>
</tr>
<tr>
<td>Office</td>
<td>3/1000 sf</td>
<td>720</td>
<td>1200</td>
</tr>
<tr>
<td>Retail</td>
<td>4/1000 sf</td>
<td>80</td>
<td>128</td>
</tr>
<tr>
<td>Residential</td>
<td>2/du</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Hotel</td>
<td>1/key</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total Spaces</strong></td>
<td></td>
<td><strong>2090</strong></td>
<td><strong>3,548</strong></td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td>350 sf/space average</td>
<td>731,500</td>
<td>1,241,800</td>
</tr>
</tbody>
</table>

### 7.2.5 Corollary Joint Development

Considering the opportunities and constraints of the Stand-Alone SITF site and the market conditions associated with the CBD over the foreseeable future, we believe the primary joint development opportunities would be limited to niche office, multifamily residential and retail development. Secondary opportunities exist for limited high-rise residential or hotel development, but both are challenged by proximity to the rail facilities and the economics of developing a congested site.

**Office**

The office opportunity falls into two categories:

- Special use offices in existing buildings
- New office facilities in proximity to the courts and transit facilities

In addition to the transit and public space demands addressed above, there are current discussions with Regional Transit to relocate their office functions to this area to provide an additional 100,000 sq ft of demand.
Unique proximity to the court’s facilities suggests the potential to develop offices focused on the legal profession. These facilities would be competing with existing inventory in the CBD for initial tenancy, and would see significant pressure on lease rates as a result. However, the superior location could justify modest development of additional office product.

The unique character of the Historic Station and REA buildings will create a strong marketing position for small professional offices. The challenge with these will be the ability to create compatible access for employees and visitors while accommodating the critical circulation functions for the transit development. The potential square footage resulting from this attraction has already been accounted for in the Public Space program addressed above, but the economics of converting the space to private versus public functions can be examined in later phases.

Finally, in discussions with local brokers, they suggest the most viable office scenario capitalizes on the proximity to the transit facilities and the ability to create large floorplates. While the ERA study referenced in Paragraph 4.5.1 suggested these characteristics would appeal to large corporate users, it is more likely they would be attractive for further government consolidation. The ability to achieve the large floorplates with adjacency to the SITF would be very attractive to departments still seeking consolidation. While the East End and planned West End projects by the state have achieved consolidation of many departments, they have by no means exhausted the possibilities. The recent consolidation of the State of California Department of General Services into the Zigurat in West Sacramento is an example of the market capturing these remaining opportunities. The challenge with this scenario will be pricing pressure, with the space needing to compete with the excess of Class B and C space on the market. These competitive pressures will likely limit density to midrise product.

Taken together, we see an aggregate demand for office facilities from 240,000 sq ft to 400,000 sq ft, in addition to the transit and public space programs. However, this space would need to be developed by structuring parking, imposing a cost premium on the office development costs.

**Retail**

In the Stand-Alone SITF option, retail opportunities are very limited. The limited new space development will not create significant traffic, so the retail opportunities will be limited to those supported by the transit facility traffic, limited neighborhood service retail to serve office and residential development plus limited destination retail, likely a full service restaurant.

The transit focused retail will be required to be located in conjunction with the transit facilities with informal dining and convenience retail the most viable candidates. With transit volumes in the vicinity of 29,000 riders per day the retail demand is likely to be limited to 5,000 sq ft maximum within the transit facilities.

In addition, the unique character of the Historic Station and REA building create an opportunity for a destination restaurant location, likely in the first floor of the REA building as currently contemplated. This location has the benefit of some isolation from activities in the station, whether it is used for the transit function or converted to more commercial activities. The REA location also creates opportunities for convenient parking adjacent to the restaurant facility. This function could consume 10,000 to 12,000 sq ft of the existing facility. The ability in the planning process to segregate this destination restaurant from some of the incompatible functions of the transit facility will be critical to the success of a facility of this nature.

Finally, the office and residential programs will support limited convenience retail focused on the needs of employees and residents. These functions are likely to be limited in scope and would be constructed as first floor functions in either the residential or office developments. For the scope of development in those categories, we would expect the convenience retail program to be in the range of 5,000 to 15,000 sq ft.
Combined, these retail components establish a range of 20 to 32,000 sq ft.

**Residential**

While high-rise residential development in this area could be attractive for its proximity to the courts facilities and the CBD in general, the site would demand that housing be very close to the rail facilities. The noise of rail operations combined with security challenges of a relatively isolated location would create significant marketing obstacles for upscale housing. In addition, the locations to the east closer to the activities around the capital have been more attractive for the upscale developments.

The attraction of Sacramento tends to be the low cost single-family development, and high-density housing linked to a reverse commute, even by rail, is not likely to be a strong market driver. However, adjacency to transit facilities would create some attraction, but long range commuting by rail would not be a strong draw for the facility. The combination of proximity to transit, additional commercial development (likely for governmental functions) and the periphery of the CBD should make the site attractive for limited multi-family residential development at market prices. The challenge will be to create adequate critical mass while controlling costs to minimize the need for subsidies. This housing will likely be 3 to 4 story product focused to middle income households. Based on other site usage, we would expect approximately 8 to 10 acres to be available for this function at densities of 25 dwelling units/acre for a total of 200 to 300 units.

**Hotel**

The PKF analysis referenced in Paragraph 4.5.4 indicated market demand adequate to support development of a four star full service hotel ranging from 250 to 300 keys with appropriate meeting space. While the economics may be marginal and could require some subsidy, the proximity to the transit facility, Old Sacramento and the northwest corner of the CBD make this an attractive location for a hotel. Like the residential development, the planning for the hotel will need to carefully consider segregation of incompatible activities as well as mitigation of noise and pollutants associated with the transit facilities. Like the destination restaurant referenced under retail development, it will be critical to create an atmosphere of sophistication in close proximity to transit activities for a hotel facility to be successful as part of this joint development.

### 7.2.6 Summary

Reviewing the development opportunities in the Stand-Alone SITF scenario, we believe the likely range of supportable development opportunities to be as follows:

<table>
<thead>
<tr>
<th>Program Element</th>
<th>Minimum Program (x 1000 sq ft)</th>
<th>Maximum Program (x 1000 sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Facility</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Public Space</td>
<td>10</td>
<td>73</td>
</tr>
<tr>
<td>Office</td>
<td>240</td>
<td>400</td>
</tr>
<tr>
<td>Retail</td>
<td>20</td>
<td>32</td>
</tr>
<tr>
<td>Residential</td>
<td>200 units</td>
<td>300 units</td>
</tr>
<tr>
<td>Hotel</td>
<td>250 rooms</td>
<td>300 rooms</td>
</tr>
<tr>
<td>Parking – Transit</td>
<td>210</td>
<td>360</td>
</tr>
<tr>
<td>Parking – Joint Dev</td>
<td>522</td>
<td>882</td>
</tr>
</tbody>
</table>
However, as noted above, it is likely the parking, residential and hotel components of this program could require subsidies. Economic feasibility of each program element will be examined in detail in subsequent phases.

### 7.3 Combined SITF/Railyards Development

This program addresses the development opportunities of the same 43.7 acres identified in Figure 5.1, but it assumes the development of a mixed-use residential, commercial and retail program on the remaining Railyards site and the synergies that creates for support of enhanced retail and commercial activities.

#### 7.3.1 Development Opportunities and Constraints

The expansion of the program to integrate the Railyards development dramatically enhances the long-term viability of the Joint Development opportunity. While the expanded program carries significant market risk in bringing substantially more product to market, it has the critical mass necessary to ensure success. The increased site size creates appropriate zones for each type of development while retaining synergies that enhance the market attractiveness of each product offering.

The challenge in this scenario will be to create and fund infrastructure development while phasing the development of new product in a manner consistent with market absorption. In addition, pursuit of an aggressive program of this nature carries the potential of getting bogged down in entitlement conflicts that delay the initiation of the project to the point that it will become unattractive to investors. While preliminary zoning and Land Use plans have been adopted for this area, specific approvals and negotiations around infrastructure issues, environmental remediation, traffic issues and phasing remain areas of uncertainty within the public realm, and the perception of this becoming an extended process could discourage private investment if the process does not move forward rapidly.

#### 7.3.2 Transit Program and Passenger Facility

The transit program summarized in section 5.2.2 of this Working Paper remains substantially as discussed in the Stand-Alone SITF scenario. However, this scenario allows flexibility for more favorable accommodation of the Transit Program in general and the Passenger Facility in particular. This alternative more opportunity for synergies that could enhance both the transit and joint development facilities. For example, proximity to a larger variety of retail supported by the adjacent residential development means transit riders would have access to a wider variety of options than those in the previous scenario which were required to be supported primarily by the transit traffic.

#### 7.3.3 Public Space Opportunities

As with the transit program, the public space program oriented to the existing facilities is probably not significantly impacted by this scenario, but would benefit from increased traffic and synergy with an activat environment. The difference in this scenario is the ability to create additional new public facilities oriented to the significant residential development in the Railyards, such as parks and community recreation facilities. The critical mass of housing development would also justify increased investment in public safety and education facilities if required to support the increased population.

The integration of the remaining shops facilities creates opportunities to reuse those facilities to accommodate some of the community functions that benefit from long spans and high bays. The mix of public and private commercial or retail use of these facilities can create a sense of community while preserving a significant historical asset.
The challenge in creating these facilities is economic. To the extent that development fees or tax increments are allocated to the creation of these facilities, they are unavailable to support other functions such as the intermodal facilities themselves or critical infrastructure development.

For the purposes of evaluating the development opportunities for the SITF site, we will assume that public facilities required to support the Railyards development will be accommodated within the Railyards site area, and will not affect the Public Space demands anticipated in the Stand-Alone SITF scenario.

### 7.3.4 Parking

As in the previous scenario, parking requirements are driven primarily by the transit program plus parking to support other joint development facilities. In this case, however, adequate site area is available to allow for decisions about structured versus surface parking based on derived land values. This logic can be taken further with a phasing strategy that develops surface parking in the early stages of development with a master plan designed to convert surface parking to structured parking with increased densities of commercial or residential development as the market absorption increases land values over time.

The total parking program, as a function of joint development opportunities, is summarized in the following table:

<table>
<thead>
<tr>
<th>Program Element</th>
<th>Parking Ratio</th>
<th>Minimum Spaces</th>
<th>Maximum Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Program</td>
<td>600</td>
<td>1,027</td>
<td></td>
</tr>
<tr>
<td>Public Space</td>
<td>4/1000 sf</td>
<td>40</td>
<td>293</td>
</tr>
<tr>
<td>Office</td>
<td>3/1000 sf</td>
<td>1200</td>
<td>3000</td>
</tr>
<tr>
<td>Retail</td>
<td>4/1000 sf</td>
<td>80</td>
<td>200</td>
</tr>
<tr>
<td>Residential</td>
<td>2/du</td>
<td>600</td>
<td>800</td>
</tr>
<tr>
<td>Hotel</td>
<td>1/key</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total Spaces</strong></td>
<td><strong>2770</strong></td>
<td><strong>5,620</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td><strong>350 sf/space average</strong></td>
<td><strong>969,500</strong></td>
<td><strong>1,967,000</strong></td>
</tr>
</tbody>
</table>

### 7.3.5 Corollary Joint Development

With the expanded opportunities of the full development program, the residential program of the Railyards development becomes a key driver for all other elements, and allows the Intermodal Facility and the redeveloped shop facilities to function as a hub of neighborhood redevelopment.

**Office**

The office opportunity in this scenario remains in the categories identified in the Stand-Alone SITF scenario, but with greatly expanded potential:

- Special use offices in existing buildings as well as the redeveloped shops facilities
- New office facilities in proximity to the courts and transit facilities, with more critical mass of activity justifying higher density development responding to the commercial market long term in lieu of being limited to governmental occupancies

This scenario has all the opportunities of the previous discussions, but with the ability to expand the available sites, increase densities and orient new office development to interface with the Railyards.
residential development as well. The expansion of office program within the SITF site as well as in the
Railyards area is consistent with the Railyards Specific Plan and the City’s policy objectives to locate
employment intensive uses in this portion of the Railyards site.

While market absorption will be a major concern in an expanded scenario, the plan could integrate
planning for office development with a relatively low cost of carry on existing sites, allowing for patience
and opportunistic pursuit of tenancy as the office market recovers long term. Under this scenario, an
aggregate demand for office facilities from 400,000 sq ft to 1,000,000 sq ft could be justified long term.
Near term absorption of 120 to 200,000 sq ft per year plus other product in the market suggests this level
of development would probably occur over a 10 to 15 year span. While these densities remain well below
the levels anticipated in the Railyards Specific Plan developed by the City of Sacramento Planning
Division, they appear to be supportable in the marketplace and would result in Floor Area Ratios in the
range of 4 to 5 for the portions of the site allocated to office development, midway in the range adopted
by the Planning Division in their Land Use plan.

Retail

In addition to the program identified for the Stand-Alone SITF, this scenario allows for the development of
significant neighborhood and specialty retail, using the redeveloped shops buildings to create unique
character. This use also establishes optimum location to appeal to both the residential market and the
transit facility riders.

With the larger market and increased site, it is possible to create the critical mass of retailing with high-
end anchor stores as well as boutique shops and a variety of restaurants. As noted in the study by ERA,
this development would compete directly with existing downtown retail facilities, creating competitive
pressures. It will require careful planning to minimize competitive impacts, and instead create synergies
that potentially enhance the viability of both new and existing retail. Under this scenario, a 240 to
500,000 sq ft retail program in the Railyards area, consistent with the City’s community plan objectives, is
very reasonable, and would likely function as a complement to the specialty retail identified in the Stand-
Alone SITF scenario. However, it is unlikely that the retail component of the Joint Development would be
expanded significantly, as the critical mass of the retail development would be centered in the Railyards
area. At the low end, the program could remain unchanged at 20,000 sq ft and at the high end; additional
destination restaurant or neighborhood retail could be added to increase the total in the SITF site to
50,000 sq ft.

Residential

The Railyards plan targets approximately 3000 units of residential development in a variety of densities.
These seem to be reasonable projections for the Railyards site, and create opportunities for appropriate
buffers from rail and freeway noise generators. With this critical mass of housing development
revitalizing the area, we would see some opportunity to incorporate additional housing in the Joint
Development site, but would not expect the density to increase dramatically. The likely range would
change to 300 to 400 dwelling units, still in a mixed-use mid-rise product. Under this scenario, it would
be critical to work closely with the adjacent development to complement phasing and market absorption
considerations with development of the residential product on the Railyards site.

Hotel

The combination of increased general levels of activity, increased office and retail density, and enhanced
synergies with the Museum and Intermodal Facilities under this scenario significantly enhances the
feasibility of hotel development. This scenario also offers more siting opportunities to avoid conflicts with
noise generators and potentially more economical courtyard style hotels to meet competitive market
rates. While the economics may still be weak in early stages of the Joint Development program, a site
should be identified for development of a hotel in later stages of the program when the activity in the area should clearly support hotel development. We would still anticipate a facility of 250 to 300 rooms as described in the Stand-Alone SITF scenario, oriented to a combination of business and tourist markets. The activity generated by the Railyards development could eventually justify another hotel within that development, as anticipated in the Railyards Plan.

### 7.3.6 Summary

The Combined SITF/Railyards Development scenario produces a likely range of supportable Joint Development opportunities within the SITF site as follows:

<table>
<thead>
<tr>
<th>Program Element</th>
<th>Minimum Program (x 1000 sq ft)</th>
<th>Maximum Program (x 1000 sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Facility</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Public Space</td>
<td>10</td>
<td>73</td>
</tr>
<tr>
<td>Office</td>
<td>400</td>
<td>1,000</td>
</tr>
<tr>
<td>Retail</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Residential</td>
<td>300 units</td>
<td>400 units</td>
</tr>
<tr>
<td>Hotel</td>
<td>250 rooms</td>
<td>300 rooms</td>
</tr>
<tr>
<td>Parking – Transit</td>
<td>210</td>
<td>360</td>
</tr>
<tr>
<td>Parking – Joint Dev</td>
<td>760</td>
<td>1,608</td>
</tr>
</tbody>
</table>

Under this scenario, subsidies for the parking, residential and hotel components should be reduced, however the timing for the development horizon could be extended as the market is asked to absorb a much larger program including the significantly larger program planned for the Railyards site.
8 Evaluation Criteria and Policy Framework

This section outlines a set of evaluation criteria developed by the City and the consultant team to provide stakeholders and policy-makers with essential information for the analysis of program, site, and design alternatives, and to assist in decision-making in subsequent project stages. Specifically, the evaluation criteria are intended to guide decision-makers in selecting a vision for the Intermodal Facility, and for the design team to evaluate design alternatives in later stages of the planning process. In addition, the evaluation criteria are intended to assist decision-makers in determining whether the adopted plans and policies need to be revised to reflect the vision adopted through this planning effort.

Similarly, the Policy Evaluation Criteria establish the overall set of federal, state, regional, and local policies relevant to the Intermodal project. The policy evaluation criteria will allow each vision and design criterion to be evaluated for compliance with existing public policies to further ground the decision-making process.
## 8.1 Transportation Evaluation Criteria

### 8.1.1 Physical Capacity

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 1. Transportation Program | A. Meets current and projected demand for transit, paratransit, and freight operations.  
|                           | B. Meets current and projected demand for transit vehicle loading, layover, storage and servicing.  
|                           | C. Meets projected space needs for passengers.  |
| 2. Expandability          | A. Accommodates expansion of the facility over time to meet growth in demand beyond the planning horizon  
|                           | B. Limits the amount of disruption and demolition required for subsequent expansion. Allows operations to continue while under construction.  
|                           | C. Provides flexibility to add new transit services or connections at the facility.  |

### 8.1.2 Operations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| 1. Transit Operations     | A. Meets the distinct operational requirements of the operators.  
|                           | B. Provides efficient circulation (minimizes distance and time) for transit vehicles within the facility and on the adjacent roadway network.  
|                           | C. Establishes flexible space for circulation, parking, and support services that can be shared where appropriate and adapted over time.  |
| 2. Pedestrian Access      | A. Provides safe, accessible, and convenient pedestrian circulation within the facility.  
|                           | B. Provides safe, accessible, and convenient pedestrian connections between the facility and surrounding areas.  |
| 3. Bicycle Access         | A. Provides safe and convenient bicycle connections between the facility and surrounding areas.  
|                           | B. Provides adequate bicycle parking facilities.  |
| 4. Automobile Access      | A. Provides adequate curb length to accommodate pick-up and drop-off activity by private vehicles and taxis.  
|                           | B. Provides adequate parking to support the transit functions of the Facility.  
|                           | C. Provides efficient circulation (minimizes distance and time) for automobiles within the facility and on the adjacent roadway network.  |
| 5. Intermodal Connectivity| A. Optimizes intermodal connections by providing convenient and attractive access between modes, including minimizing travel distances, vertical level changes and roadway or track crossings, and providing visual connections and wayfinding signage.  
|                           | B. Improves connections between existing operators and adds new connections to other modes not directly provided at the facility.  |
### 8.2 Joint Development Evaluation Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Transit Program Compatibility</strong></td>
<td>A. Does not unreasonably constrain opportunities for a functionally optimized transit facility</td>
</tr>
<tr>
<td></td>
<td>B. Compatible with current and planned freight operations and Railroad Museum operations</td>
</tr>
<tr>
<td></td>
<td>C. Increases peak and off-peak transit ridership by incorporating transit oriented development</td>
</tr>
<tr>
<td></td>
<td>D. Increases opportunities for off-peak and backhaul ridership</td>
</tr>
<tr>
<td><strong>2. Phasing Impacts</strong></td>
<td>A. Allows phased/incremental development of commercial areas</td>
</tr>
<tr>
<td></td>
<td>B. Facility can be continuously operational during construction</td>
</tr>
<tr>
<td></td>
<td>C. Does not conflict with phased implementation of transit components</td>
</tr>
<tr>
<td></td>
<td>D. Is flexible to allow for market changes</td>
</tr>
<tr>
<td><strong>3. Funding Potentials &amp; Fiscal Impacts</strong></td>
<td>A. Is fundable using identifiable funding sources</td>
</tr>
<tr>
<td></td>
<td>B. Produces revenues that reduce the public cost of facility rehabilitation/construction</td>
</tr>
<tr>
<td></td>
<td>C. Reduces public cost of facility operations</td>
</tr>
<tr>
<td></td>
<td>D. Does not increase net operating cost of facility</td>
</tr>
<tr>
<td><strong>4. Site Impacts</strong></td>
<td>A. Improves site circulation and access</td>
</tr>
<tr>
<td></td>
<td>B. Improves connectivity over planned rail lines</td>
</tr>
<tr>
<td></td>
<td>C. Improves connectivity between existing and new site development</td>
</tr>
<tr>
<td></td>
<td>D. Allows the segregation of transit intensive areas from commercial areas</td>
</tr>
<tr>
<td></td>
<td>E. Maximizes potentials for shared support facilities, including parking and vertical circulation</td>
</tr>
<tr>
<td><strong>5. Urban Context Impacts</strong></td>
<td>A. Improves pedestrian and bicycle safety and access to the SITF</td>
</tr>
<tr>
<td></td>
<td>B. Increases number of people accessing the facility via all modes</td>
</tr>
<tr>
<td></td>
<td>C. Is integrated in every direction with the surrounding neighborhoods and destinations including the Railyards development, the Railroad Museum, the riverfront, Old Sacramento, the Federal Courthouse, and other major nearby destinations.</td>
</tr>
<tr>
<td></td>
<td>D. Facility Joint Development and Railyards development should not produce disproportionate negative impacts on surrounding neighborhoods</td>
</tr>
<tr>
<td></td>
<td>E. Minimizes negative impacts of grade-separated crossings</td>
</tr>
<tr>
<td></td>
<td>F. Maximizes north-south and east-west urban connectivity</td>
</tr>
</tbody>
</table>
6. Urban Design Potential

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Creates an architecturally significant place/address for the SITF</td>
</tr>
<tr>
<td>B.</td>
<td>Is compatible with the scale, massing, materials, and architectural and landscape elements of the surrounding development</td>
</tr>
<tr>
<td>C.</td>
<td>Allows mixed pedestrian access</td>
</tr>
</tbody>
</table>

7. Historic Facilities opportunities and constraints

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Meets the criteria of the “Principles of Agreement Related to the Sacramento Intermodal Station, May 17, 2001” for use of the Historic Depot and REA buildings</td>
</tr>
<tr>
<td>B.</td>
<td>Uses the unique historic architectural and cultural features of the Depot and REA building to maximize transit-serving joint development opportunities (see Section 8 for more information)</td>
</tr>
<tr>
<td>C.</td>
<td>Meets the Secretary of the Interior’s Standards for renovation and/or adaptive re-use.</td>
</tr>
<tr>
<td>D.</td>
<td>Meets the requirements of the City of Sacramento’s Historic Preservation Ordinance</td>
</tr>
<tr>
<td>E.</td>
<td>Gains approval of the State Historic Preservation Office</td>
</tr>
</tbody>
</table>

8. Incremental Traffic and Site Circulation Impacts

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Meets the traffic and transit circulation goals and objectives of the city at each development phase.</td>
</tr>
</tbody>
</table>
### 8.3 Policy Framework

<table>
<thead>
<tr>
<th>Agency</th>
<th>Policy or Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Federal Transit Administration/ Federal Highway Administration | A. Work with local legislators for an earmark under Reauthorized TEA 21, referred to as Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003 (SAFETEA)  
B. Collaborate with Private Sector to be well positioned for federal discretionary grants (TCSP - Transportation Community and System Preservation, TLC - Transportation for Livable Communities, TEA Enhancements, etc)  
C. Structure and package project to maximize opportunities for all discretionary federal and state grant opportunities  
D. ADA – Americans’ with Disabilities Act  
E. Secretary of the Interior’s Standards for Rehabilitation of Historic Resources |
| **State** | |
| Caltrans | Streets and Highways Code Section 72 |
| High-Speed Rail Commission | A. California High-Speed Rail Alignment Study  
B. California High-Speed Train Program Environmental Report/Environmental Impact Statement |
| California State Parks | A. California State Railroad Museum Expansion Plans |
| **Regional** | |
| Cities of Sacramento and West Sacramento | A. Sacramento Riverfront Master Plan |
| SACOG | A. Metropolitan Transportation Plan for 2025  
B. 2003-5 Metropolitan Transportation Improvement Program  
C. Regional Priority Projects 2003 |
| Sacramento Regional Transit District | A. DNA Extension Project  
B. Folsom Corridor Extension Project  
C. South Sacramento Corridor Project  
D. RT SRTP –Short-Range Transit Plan 2002-2008  
E. RT CIP Capital Improvement Plan |
| CCJPA | A. CCJPA Capital Improvement Plan |
| **Local** | |
| City of Sacramento | A. Principles of Agreement, May 17, 2001  
B. General Plan –TOD Guidelines  
C. Railyards Specific Plan  
D. Central City Community Plan  
E. Sacramento Valley Station Interim Improvements Plan  
F. Sacramento Historic Preservation Ordinance  
G. Transit for Livable Communities Report |
9 Possible Visions for the Sacramento Intermodal Transportation Facility

9.1 The Importance of a Common Vision

To ensure the success of the Sacramento Intermodal Transportation Facility project, it is critical that there is consensus on a common vision for the new facility. At the program stage of the design process, this common vision entails agreement as to the purpose, scale, and range of transit providers included in the facility. Ultimately, the question of vision for the SITF is one of balance—between multiple and often competing needs and impacts, benefits and costs, opportunities and challenges. Taken together, these issues define the decision about what makes the best SITF for Sacramento.

To assist the decision-makers and the public in reaching this critical agreement, the consultants have drawn on previous studies, relevant city plans and policies, stakeholder interviews, regular staff and partnership meetings, the team’s technical expertise, and available background information to develop three possible visions for the Sacramento Intermodal Transportation Facility. These visions are presented in the following sections after a discussion of three major factors which have significant bearing on the visions.

9.2 Major Factors Affecting the Intermodal Vision

9.2.1 Cost

Economic and budgetary considerations, both for capital outlay and operating expenses, are always a driving factor behind every construction project. While it may be desirable to build a truly comprehensive transit facility, one that includes capacity for every possible transit mode and ideal transit and urban connectivity, cost and implementation must also be considered when deciding on the vision for the Intermodal. In very basic terms, increasing the scope of the facility will increase costs, due to the increased land take, the additional infrastructure that will need to be constructed for the facility itself, and for enhancements required to the surrounding infrastructure to mitigate the impacts of the facility. A large facility will also incur higher operational and maintenance costs, and reduce the amount of land available for potential revenue-generating uses that could help offset capital and operational costs of the facility.

9.2.2 Land Take

The scope, number and types of transit modes serving the facility will have a direct impact on the amount of land required for the SITF. While the arrangement of the individual components will affect the land take, particularly in terms of the final rail alignment, it is the gross scope and numbers of operators that have the most direct impact. Considering land take is important for several reasons:

- Land costs money. While it is theoretically possible to reduce the footprint of a large facility through vertical stacking of transit programs, the construction costs and site constraints of the Railyards area lead the consultant team to conclude that vertical stacking to reduce the transit footprint is unlikely in most instances. Structured parking is the most likely candidate for reducing land take through vertical development.
• Land used for transit will likely not be useful for other purposes. While the design team will consider vertical joint development over the transit functions in the design of the Intermodal, the additional development costs are unlikely to be economically feasible in the Sacramento area. In other words, land used for transit is unlikely to be available for joint-development uses such as office development or housing, uses that can have a synergistic relationship with the transit facility.

• A large transit facility may be optimal for transit but may create additional challenges for creating a welcoming urban place. Typically, in large urbanized cities, major portions of transit facilities can be located above or below grade, thereby eliminating barriers to movement and allowing revenue and rider-producing uses to be built as close as possible to the passenger facility. However, as outlined above, the economics and site conditions of Sacramento make these types of facilities difficult if not impossible to achieve. This is not to say that a large transit facility is a bad thing per se; rather, special care will need to be taken to ensure that the facility is seamlessly integrated with the surrounding fabric and promotes connectivity and an active urban life.

9.2.3 Connectivity Among Transit Modes

The desired degree of connectivity between transit modes available in Sacramento is a key factor in the design of the Intermodal Facility. Increasing connectivity between transit modes can increase ridership and make the overall network easier to use. Nonetheless, the City must take a close look at the degree of connectivity that is desirable and practical given the number of riders that are likely to use the facility, thus balancing the ideal connectivity scenario against other competing interests. The individual transit program modules presented in Section 5 illustrate the ‘price’ of increasing connectivity, by indicating the land take required for each operator and mode. However, as outlined previously in section 3.2, the benefit of any facility is not only to maximize intermodal connectivity; intermodal facilities are also intended to support and enhance transit usage, clarify the regional transit network, increase transit options, take advantage of shared efficiencies, create a destination and gateway, and support urban and economic development.

9.3 Types of Intermodal Facilities for Sacramento

Three models for the SITF are contrasted below. These are not intended to be exclusive scenarios, rather they are ideal models, which illustrate the transportation options that could be combined in the ultimate preferred SITF alternative.

9.3.1 Regional Transportation Hub with Park and Ride Facilities

Broadly defined, a Regional Transportation Hub will seek to maximize the transportation function of the facility. It will be a facility that is focused on three major user groups: local transit riders traveling within Sacramento, commuters traveling to and from downtown Sacramento, and intercity travelers arriving or departing from the Sacramento area. In comparison to the other types of facilities, this option would include the most transit services, require the greatest transportation space program, and have the highest cost. Such a facility will be defined by the following characteristics:

• The facility will maximize the transportation options available to Sacramento. It will include a full spectrum of transit modes, including high-speed rail, intercity rail and bus service, regional rail and bus service, and local transit services. Park and ride facilities will encourage commuters from the surrounding area to drive to the facility, thereby maximizing the potential ridership pool while at the same time having potential impacts on the surrounding infrastructure and neighborhoods. In addition, it is important to note that some of these transit
options are only in the very early planning stages, making it difficult to accurately forecast their operational requirements and potential ridership.

- The facility will maximize connectivity between transit modes. By incorporating all available modes into one facility, transit connectivity is improved across all modes, thereby maximizing the available transit options and increasing the number of overall users.

- The facility will be a gateway and destination for Sacramento and the region. By concentrating all available transit operations into a single facility, it will become a major icon in the urban fabric due both to the scale of the facility and the number of users, and a destination in itself by virtue of its location at the center of the regional network.

- This facility will require the largest number of parking spaces of any alternative. With the exception of Greyhound, the intercity operators (Amtrak, Capitol Corridor and High Speed Rail) have relatively high proportions of passengers driving to or from the terminal. While this share will likely decrease somewhat in the future, a major increase in parking spaces will still be necessary to serve ridership growth. This will increase the land take and costs for the facility, although paid parking may produce some revenue. There are potentials for shared parking, particularly if the Railyards development proceeds and incorporates uses such as retail and entertainment that complement transit parking use patterns.

- A Regional Transportation Hub is most compatible with High Speed Rail and other intercity services. Feeder transit services will support the intercity transit options, and a large long-term parking component will draw users not arriving by transit. The various intercity services have passengers with similar profiles and service needs, and provide more opportunities for shared facilities for passenger waiting, amenities, and parking.

- Pros:
  - Creates a regional destination, gateway, and landmark
  - Maximizes transit options and intermodal connectivity
  - Accommodates all operators
  - Maximizes operational flexibility
  - Maximizes opportunities for shared facilities and synergies
  - Maximizes transit ridership at the SITF
  - Meets goals and objectives of the Railyards Plan and the Principles of Agreement
  - Increases likelihood of meeting a 50-year facility design lifespan

- Cons:
  - Maximizes land take, facility, and infrastructure costs
  - Minimizes land available for joint development
  - Maximizes impact on surrounding infrastructure and neighborhoods
  - Maximizes number of auto and transit vehicle trips to and from the station
  - Potential phasing impacts
  - Potential challenges to the creation of a dense, pedestrian-oriented downtown environment
  - Limited conformance with existing patterns of ridership, given that relatively few passengers transfer between transit services
  - Potential to overbuild the facility, particularly in the short term, considering the existing levels of ridership and transfer are low in comparison to long range forecasts

- Example:
  - Los Angeles Union Station
9.3.2 Downtown Transit Terminal

This option places a greater emphasis on passengers arriving or departing from downtown destinations, or who are connecting to other forms of mass transit that serve the metropolitan area. This option seeks to maximize efficiency of the facility in terms of both physical space and operational efficiency. Amtrak long distance and Greyhound are less compatible with this option than the Regional Transit Hub, although accommodating them in or near the facility would be advantageous in terms of intermodal connectivity. Connections between heavy rail services, Regional Transit bus and light rail will be critical. However, it will be advantageous to minimize the number of bus bays to limit walking distances and land take. This option would provide less parking than the Regional Transportation Hub. A Downtown Transit Terminal will have the following characteristics:

- The focus is on inbound commuters working in the downtown core, or transit riders transferring to commuter services.
- A high level of connectivity between modes and with downtown employment centers is critical if transit ridership is to be maximized.
- Outbound park and ride commuter functions will generally be located outside the downtown core. In order for this option to function and still meet objectives for Capitol Corridor, park and ride activity would need to be accommodated at other locations, possibly at Swanston and West Sacramento.
- Some elements of the heavy rail program requirements, such as train layover and servicing, can be relocated to the satellite facilities, reducing the land take for rail components, and offering potential design flexibilities such as shorter platform lengths.
- Can accommodate long-haul intercity and High Speed Rail requirements and associated parking, although they are less compatible with this option.
- Less impact on parking and traffic demands in the downtown core than Regional Transportation Hub.
- Conforms with existing pattern of ridership with relatively few transfers between transit modes.
- Land take, infrastructure requirements, and traffic impacts are reduced for passenger rail and for autos, allowing the creation of a smaller facility that is tightly knit into a more pedestrian and transit-oriented urban fabric.

Pros:
- Creates a metropolitan destination, gateway, and landmark
- Offers more opportunities for pedestrian and transit-oriented connectivity to the downtown core
- Reduces land take for railroad operations and autos
- Reduces infrastructure requirements for railroad operations and autos in the downtown core
- Reduces impact of railroad operations and autos on the downtown core
- Maintains opportunities for shared facilities and synergies
- Increases ridership at the SITF
- Meets goals and objectives of the Railyards Plan and the Principles of Agreement
- Maximizes land available for joint development
- Minimizes number of auto trips to and from the station
- Minimizes potential phasing impacts by reducing the number of program components that need to be accommodated

Cons:
- Construction of satellite commuter stations are not fully planned or approved
• Does not accommodate the full operator requested program
• Requires better connections to the downtown core than currently exist
• Significant transit-serving development would need to be built within a 1/4-mile radius for the station to maximize its transit potential
• All transit services may not be accommodated in the facility
• May be more likely to limit the ability to add modes in the future
• Affects expansion possibilities

Examples:
• Baltimore Union Station, San Francisco Transbay Terminal, Grand Central Terminal

9.3.3 Transit District with Improved Rail Station
This option is based on a vision for the existing Depot that is similar in scope and scale to the near-term improvements currently planned. The facility would continue to include Heavy Passenger Rail, a limited number of parking spaces, and perhaps Regional Transit. A Transit District concept vision could be considered where different operators are located within close proximity to one another, but not within a single facility. Regional Transit might be located adjacent to the facility, not within the facility. Greyhound would not necessarily be relocated into the facility, but could be located in an adjacent location. The Transit District with an improved Rail Station option would have the following characteristics:

• Not intended to be a major regional transportation hub
• Smallest in scope, cost, and scale of the three options
• Conforms with existing pattern of ridership with relatively few transfers between transit modes.
• Presumes incremental improvements to the existing station, with no additional transit providers other than the Amtrak/Folsom LRT connection currently being planned
• Pros:
  • Builds on existing urban destination, gateway, and landmark
  • Minimizes land take
  • Minimizes infrastructure investment and facility operating costs
  • Minimizes impacts on the surrounding infrastructure and neighborhoods
  • Easiest to phase and construct
  • Current transit riders are accommodated in an improved facility
  • Offers opportunities to strengthen connections to the downtown commercial core and to the Railyards development.
• Cons:
  • Does not meet the goals and objectives of the Railyards Plan or the Principles of Agreement
  • Does not meet operator requested program requirements, may not provide adequate capacity to serve projected demand
  • Does not maximize the transit potential of the facility
  • Does not provide multiple transit amenities that may catalyze development of the Railyards development or draw new people to the area
  • Necessary improvements to existing transit infrastructure are amortized over fewer passengers
  • May be more likely to limit the ability to add modes in the future
  • May be more likely to limit expansion possibilities
• Example:
  • Union Station area in Portland, Oregon (includes Amtrak Station, Greyhound Terminal, and Transit Mall)
10  Final Conceptual Program for Transit and Joint Development

10.1  Terminal Transportation Program

10.1.1  Introduction
Two transportation program options are presented in Section 5 of this report. The transit program was divided into modules for different transportation modes and operators. The program for each module requested by the operators was presented, as well as options for scaled-down scenarios. Modules include:

- Freight Rail
- Heavy Passenger Rail and Platforms
- Intercity Bus
- Local Transit Bus
- Light Rail Transit / DNA Project (LRT)
- Private Vehicle, Taxi, and Shuttle Service Pick-Up and Drop-Off
- Parking
- Terminal Building (Transit Program)

Pedestrians and bicycles are not identified as a specific program module; however their requirements are identified in the project goals and objectives, and are accommodated in the proposed design. The SITF program does not include specific provisions for high speed rail operations; however the design of the SITF anticipates the eventual inclusion of high-speed rail service in the location of the heavy rail alignment and platform arrangements, and in the layout of the Terminal Building.

10.1.2  Summary
During the study of alternatives and the design of the proposed project, the transit and joint development programs were tested for site fit, optimal arrangement of transit components, and project requirements including site circulation, passenger flow, intermodal connectivity, and other requirements. The proposed project accommodates the operator requested program for all modules, with the exception of heavy rail platforms. As noted in Technical Report #9, p. 36, and in discussions with the rail operators, it has been determined that the provision of heavy rail platforms approximately 1,200 feet long will likely be acceptable if specific issues can be resolved in detailed design. These include the provision of track segments that extend beyond the platforms by sufficient length to accommodate longer passenger trains (such as Amtrak long-distance trains) without impacting signals on adjacent tracks. It is therefore assumed that the proposed project presented here provides adequate heavy rail platforms capacity. More detailed design of the rail layout is beyond the scope of this project.
Table 4.1.1 Achieved Transportation Program

<table>
<thead>
<tr>
<th>Program Module</th>
<th>Achieved Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Track</td>
<td>Up to 3 Tracks</td>
</tr>
<tr>
<td>Passenger Tracks and Platforms</td>
<td>1 x 1,175 ft Center Platform</td>
</tr>
<tr>
<td></td>
<td>1 x 1,280 ft Center Platform</td>
</tr>
<tr>
<td>Intercity Bus</td>
<td>10 Amtrak Bus Bays</td>
</tr>
<tr>
<td></td>
<td>10 Greyhound Bus Bays</td>
</tr>
<tr>
<td></td>
<td>4 Shared Bays</td>
</tr>
<tr>
<td></td>
<td><strong>24 Total Bus Bays</strong></td>
</tr>
<tr>
<td>Local Transit Bus</td>
<td>12 Local Transit Bus Bays</td>
</tr>
<tr>
<td>Light Rail / DNA Project</td>
<td>2 LRT Tracks with Platforms</td>
</tr>
<tr>
<td></td>
<td>2 LRT Layover Tracks</td>
</tr>
<tr>
<td>Pick-Up and Drop-Off</td>
<td>18 Total Pick-Up/Drop-Off and Taxi Spaces</td>
</tr>
<tr>
<td>Transit Parking</td>
<td>350 spaces in Transit Garage and up to 650 shared spaces in Millennia Joint Development</td>
</tr>
<tr>
<td></td>
<td><strong>Total : Up to 1,000 Parking Spaces</strong></td>
</tr>
<tr>
<td>Terminal Building (Transit Program)</td>
<td>60,632 SF (net transit program space)**</td>
</tr>
</tbody>
</table>

Notes:  
1. Assumes off-site layover is not provided  
2. See 4.2 Terminal Building Program section for more information

10.2 Terminal Building Program

10.2.1 Introduction

The desired operator-requested transportation program for the SITF was presented in Working Paper #5 and is shown in Table 4.2.1 The Terminal Building Program is based on information provided by Amtrak and Greyhound. Square footages are for interior conditioned spaces and exclude exterior public areas and circulation spaces. The unit space requirements used by the operators to develop this program generally conform to industry standard space planning assumptions. As noted previously in this report, the Terminal Building Program will be reviewed as the proposed project is developed in the design process to reflect site constraints and opportunities, phasing requirements, and other design considerations, such as changes in security requirements, transportation technology, and operations.

This document outlines a range of joint development programs within the SITF Terminal Building of 10,000 to 73,000 sq. ft. for public space and special use offices, as well as an additional 17,000 SF of transit-serving retail space and a destination restaurant. Potential public program and office elements include public space uses (Chamber of Commerce facilities, cultural museum, tourism facilities, government offices) and special use offices.

10.2.2 Summary

In the proposed project, the Terminal Building is comprised of the relocated Historic Depot and the new Terminal Extension. Joint Development is located in the Terminal Building and the Transit Garage facing 4th Street. The proposed project exceeds the operator-requested Terminal Building Program for passenger waiting, meets the requested program for ticketing, and is within 92% of the requested allotments for baggage, passenger amenities, and administration and employee space. Further refinements to the current design can bring program allocations for baggage, passenger amenities, and administration and employee space closer to the program target if necessary. Reductions to the passenger waiting area are also possible, but may require a reduction in the building footprint or changes...
to operational layouts to meet the program target. The need to work within the restrictions of the existing Historic Depot space layout creates a challenge in meeting exact program requirements in some areas.

<table>
<thead>
<tr>
<th>Program Module</th>
<th>Achieved Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ticketing</strong></td>
<td></td>
</tr>
<tr>
<td>Includes ticket counters and queuing only</td>
<td>Amtrak 1,780 SF</td>
</tr>
<tr>
<td></td>
<td>Greyhound 880 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,660 SF</td>
</tr>
<tr>
<td><strong>Baggage</strong></td>
<td></td>
</tr>
<tr>
<td>Includes baggage and package service</td>
<td>Amtrak 4,894 SF</td>
</tr>
<tr>
<td></td>
<td>Greyhound 864 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,758 SF</td>
</tr>
<tr>
<td><strong>Waiting</strong></td>
<td></td>
</tr>
<tr>
<td>Includes seating and immediate circulation area</td>
<td>Amtrak (seating) 11,000 SF</td>
</tr>
<tr>
<td></td>
<td>Amtrak (standing) 7,295 SF</td>
</tr>
<tr>
<td></td>
<td>Greyhound 6,851 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25,146 SF</td>
</tr>
<tr>
<td><strong>Passenger Amenities</strong></td>
<td></td>
</tr>
<tr>
<td>Includes restrooms, information, telephones, passenger-oriented retail, operator-run food service, rental car counters, ATMs, vending, telephones, custodial, and allowance for circulation. Customer service counter only for RT</td>
<td>Amtrak 4,919 SF</td>
</tr>
<tr>
<td></td>
<td>Greyhound 5,534 SF</td>
</tr>
<tr>
<td></td>
<td>Regional Transit 100 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,553 SF</td>
</tr>
<tr>
<td><strong>Administration and Employee</strong></td>
<td></td>
</tr>
<tr>
<td>Includes offices, crew base, cash rooms, break room, storage</td>
<td>Amtrak 12,304 SF</td>
</tr>
<tr>
<td></td>
<td>Greyhound 3,716 SF</td>
</tr>
<tr>
<td></td>
<td>Regional Transit 495 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16,515 SF</td>
</tr>
<tr>
<td><strong>Total Terminal Building Transit Program</strong></td>
<td>60,632 SF</td>
</tr>
<tr>
<td><strong>Joint Development</strong></td>
<td>Terminal Building 22,762 SF</td>
</tr>
<tr>
<td></td>
<td>Transit Parking Garage 13,373 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>36,135 SF</td>
</tr>
<tr>
<td><strong>Terminal Utilization</strong></td>
<td>Assignable Area 83,394 SF</td>
</tr>
<tr>
<td>Does not include Transit Parking Garage</td>
<td>Gross Building Area 126,537 SF</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>66%</td>
</tr>
</tbody>
</table>
Appendix A

City Policies and Objectives
A1 Appendix A - City Policies & Objectives

A1.1 PRINCIPALS OF AGREEMENT RELATED TO THE SACRAMENTO INTERMODAL STATION May 17th, 2001

1. City Council directs staff to proceed with an environmental analysis with Alignment Option C as the preferred alignment for purposes of the project description. The environment analysis shall include alternative track alignments.

2. The Historic Depot should be retained as the grand pedestrian gateway and core facility for the Intermodal Station.

3. Immediate attention should be given to complete the general clean up, required structural improvements and restoration work on the Depot and the Railway Express Agency (REA) Building.

4. Immediate attention should be given to improvements to the existing Depot site circulation, parking and related amenities (e.g., signage) to accommodate proper pedestrian, automobile and bus ingress and egress.

5. The City should explore public ownership of the Depot, REA Building and adjacent parking lot.

6. The Depot and REA Building should be a transportation hub and regional destination with various activities for Sacramentans as well as travelers.

7. The Intermodal Station should optimize access for those with special mobility needs.

8. Plan should include efficient and convenient access to, and interconnection with, all modes of transportation, including intercity bus services. The City encourages that the location of the future high-speed rail service connection be at the Intermodal Station.

9. Pedestrian connections from the Intermodal Station to the North, South, East and West (including Old Sacramento, Central Shops/Future Railroad Technology Museum, Downtown, Alkali Flat and Chinatown) should be safe and aesthetically pleasing.

10. When developing the 37 acres, transportation should be the paramount consideration. This development should embrace urban land uses including high density, mixed use (including residential and commercial) with a relationship to Downtown and the northern 200 acres.

11. The 7th Street Extension to Richards Boulevard should remain a priority.

12. All parties agree to continue to work collaboratively on land use planning for the 37-acre UP site. The city will commit adequate resources to promote community input.

13. UP agrees to utilize the Principles of Agreement (dated May 17, 2001) and features embodied in the draft Preliminary Concept (dated May 11, 2001) to develop their development application.
Policy 12 – Smart Growth

City Council adopted the following Smart Growth Principles into the General Plan (Resolution 2001-805):

It is the policy of the City to promote sustainable and balanced development that makes efficient and effective use of land resources and existing infrastructure by using the following Smart Growth Principles.

- Mix land uses and support vibrant city centers by giving preference to the redevelopment of city centers and transit oriented development within existing transportation corridors with vertically or horizontally integrated mixed uses to create vibrant urban places.
- Take advantage of existing community assets by emphasizing joint use of existing facilities operated by cities, schools, counties and the state as well as take advantage of opportunities to form partnerships with private businesses and non-profits to maximize the community benefit from public and private facilities.
- Create a range of housing opportunities and choices with a diversity of affordable housing near employment centers.
- Foster walkable, close-knit neighborhoods through a system of fully connected activity centers, streets, pedestrian paths and bike routes.
- Promote distinctive, attractive communities with a strong sense of place, including the rehabilitation and use of historic buildings.
- Preserve open space, farmland, natural beauty, and critical environmental areas within the urban environment and on the urban edge.
- Concentrate new development and target infrastructure investments within the urban core of the region to allow for efficient use of existing facilities, infill and reuse areas.
- Provide a variety of transportation choices for people to bike, walk, and take transit or drive.
- Make development decisions predictable, fair, and cost-effective by streamlining the development approval process.
- Encourage citizen and stakeholder participation in development decisions by fostering an open and inclusive dialogue that promotes alliances and partnerships to meet community needs.
- Promote resource conservation and energy efficiency through water conservation and water quality practices, recycling, green building technology, cool community design features and use of solar and energy renewable technologies.
- Create a Smart Growth Regional Vision and Plan with neighboring cities, counties and other governmental entities so that regional strategies and policies can be implemented to discourage urban sprawl and address transportation, air quality, housing, land use, loss of agricultural lands and open space and other regional issues.
- Policies adopted by regional decision-making bodies should discourage urban sprawl, promote infill development and the concentration of development in the urban core of the region, and promote the equitable distribution of affordable housing and social services.
- Support high quality education and school facilities that are accessible to neighborhoods and critical in making desirable and livable communities.
- Support land use, transportation management, infrastructure and environmental planning programs that reduce vehicle emissions and improve air quality.
A1.3  FACILITY ELEMENT OF RAILYARDS PLAN AND RICHARDS BOULVARD AREA PLAN

PREPARED FOR THE CITY OF SACRAMENTO BY ROMA DESIGN GROUP, APRIL 1997

CIRCULATION

Transit
Objective 1: Reinforce downtown Sacramento as the regional transportation hub with improved light rail, intercity rail, commuter rail, intercity and local bus service.

Freeway Improvements
Objective 2: Provide for freeway improvements that will relieve existing congestion points and improve regional access to the downtown and planning areas.

Arterial Roadway System
Objective 3: Complete the Central City arterial street system in a manner that relieves existing congestion and serves future land use needs.

Collector Roadway System
Objective 4: Create a system of collector roads that provides for the efficient distribution of traffic within the planning areas.

Roadway Design and Pedestrian Circulation
Objective 5: Create a street system, which extends the unique qualities of downtown neighborhood streets, gives structure and orientation to the downtown experience, and enhances the pedestrian environment.

Bicycle Circulation
Objective 6: Extend and improve the existing system of bicycle circulation in downtown Sacramento.

Transportation Systems Management
Objective 7: Develop Transportation Systems Management (TSM) programs for the planning areas.

UTILITIES

Storm Drainage
Objective 1: Provide a storm drainage system that achieves water quality objectives for the Sacramento and American Rivers, and that relieves pressure on the existing combined system in the downtown area.

Sanitary Sewer
Objective 2: Provide for the sanitary sewage needs of the project while complying with standards established by the Regional Water Quality Control Board.

Water Supply
Objective 3: Provide adequate water facilities to serve the needs of new development, and apply water conservation techniques that will reduce overall demand.

Energy
Objective 4: Provide adequate electrical and gas service to support future development, and provide a program of energy conservation.
IMPLEMENTATION

Objectives and Policies

Objective 1: Provide for the orderly phasing of development to correspond with the financing and construction of infrastructure.

Objective 2: Obtain the land required to implement the necessary public facilities and infrastructure.

Objective 3: Provide for the timely and cost-efficient design and construction of public facilities.

Objective 4: Establish institutional arrangements and administrative procedures necessary for the implementation and ongoing management and maintenance of public facilities required by new development set forth in the Railyards and Richards Boulevard plans.

Objective 5: Provide for the funding of all infrastructure improvements.

Implementation Policies

Objective 6: Establish appropriate programs for implementing infrastructure development plans.

A1.4 CENTRAL CITY COMMUNITY PLAN

SECTION IX, RICHARDS BOULEVARD AREA AND SOUTHERN PACIFIC RAILYARDS (p. 55)

RAILYARDS - GOALS

a. Reinforce the Central City as the region's principal transportation hub through the creation of a "state-of-the-art" intermodal terminal.

b. Reinforce the downtown and Central City as the major employment center of the region.

c. Create opportunities for a new in-town residential neighborhood that can reinforce the Downtown and Central City as a place to live.

d. Preserve the historic and cultural resources of the area.

e. Provide adequate community facilities and open space to support and enhance the proposed land uses.

f. Complete the Central City's circulation system and, in so doing, improve accessibility to and within the downtown area.

g. Ensure that the Railyards site is remediated to the extent necessary to protect the public health and safety of all possible site users and users of adjacent properties, consistent with applicable laws and regulations.
A1.5 SACRAMENTO RIVERFRONT MASTER PLAN GOALS AND OBJECTIVES

- Establish the riverfront as an active, vibrant urban district
- Emphasize the river as the focus of riverfront area
- Provide alternate circulation modes with emphasis on non-vehicular
- Provide pedestrian and bicycle linkages along river and into adjacent areas
- Provide a balance of visitor-serving and community-serving uses and amenities
- Provide for uses and amenities that respond to Sacramento’s history and unique character
- Provide for uses and amenities that respond to Sacramento’s history and unique character
- Provide uses and amenities which complement those in the area
- Provide for mixed-use / integrated land uses
- Provide for land uses that are flexible and can respond to market conditions and finance opportunities
- Minimize traffic and parking impacts
- Balance resource conservation with development
- Provide for a safe environment day and night, seven days a week

A1.6 CITY OF SACRAMENTO TRANSIT FOR LIVABLE COMMUNITIES (TLC) FINAL REPORT

General Principles For Developing Implementation Recommendations For Land Use Plans

- Strike the right balance between ensuring transit supportive development and recognizing the practical realities of current market trends and economics.
- Strike the right balance between specifying precisely what land use is required on a parcel and providing flexibility
- Strike the right balance between requiring that minimum standards be met and providing flexibility and incentives for exceeding those standards
- Strike the right balance between providing developers with certainty in the entitlement process and citizens with access to comment on and influence the entitlement decision-making process
- Strike the right balance between protecting existing uses that are not transit supportive and ensuring that future development is transit supportive
- Strike the right balance between allowing / requiring parking standards that acknowledge that the right kinds of land uses around transit stations convert some automobile trips into train, walking and bicycle trips and recognizing that adequate parking still is needed to accommodate automobile trips.